

REGULATION OF THE MINISTER OF MANPOWER  
OF THE REPUBLIC OF INDONESIA  
NUMBER 8 OF 2020  
CONCERNING  
OCCUPATIONAL SAFETY AND HEALTH OF LIFTING AND  
CONVEYING EQUIPMENT

BY THE GRACE OF GOD ALMIGHTY

THE MINISTER OF MANPOWER OF THE REPUBLIC OF INDONESIA,

- Considering
- a. that provisions regarding occupational safety and health for lifting and conveying equipment, as an implementation of Law Number 1 of 1970 concerning Occupational Safety, have been regulated under the Minister of Manpower Regulation Number Per-05/MEN/1985 concerning Lifting and Conveying Equipment, and the Minister of Manpower and Transmigration Regulation Number Per-09/MEN/VII/2010 concerning Operators and Personnel of Lifting and Conveying Equipment;
  - b. that the Minister of Manpower Regulation Number Per-05/MEN/1985 concerning Lifting and Conveying Equipment, and the Minister of Manpower and Transmigration Regulation Number Per-09/MEN/VII/2010 concerning Operators and Personnel of Lifting and Conveying Equipment are no longer in accordance with legal developments and the need to fulfill occupational safety and health requirements for lifting and conveying equipment, and therefore need to be replaced;
  - c. that based on the considerations as referred to in letters a and b, it is necessary to establish a Minister of Manpower Regulation concerning Occupational Safety and Health of Lifting and Conveying Equipment;

- Observing : 1. Article 17 paragraph (3) of the 1945 Constitution of the Republic of Indonesia;
2. Law Number 3 of 1951 concerning the Declaration of Applicability of the 1948 Labor Inspection Law Number 23 of the Republic of Indonesia throughout Indonesia (State Gazette of the Republic of Indonesia of 1951 Number 4);
3. Law Number 1 of 1970 concerning Occupational Safety (State Gazette of the Republic of Indonesia of 1970 Number 1, Supplement to the State Gazette of the Republic of Indonesia Number 2918);
4. Law Number 13 of 2003 concerning Manpower (State Gazette of the Republic of Indonesia of 2003 Number 39, Supplement to the State Gazette of the Republic of Indonesia Number 4279);
5. Law Number 39 of 2008 concerning State Ministries (State Gazette of the Republic of Indonesia of 2008 Number 166, Supplement to the State Gazette of the Republic of Indonesia Number 4916);
6. Government Regulation Number 50 of 2012 concerning the Implementation of the Occupational Safety and Health Management System (State Gazette of the Republic of Indonesia of 2012 Number 100, Supplement to the State Gazette of the Republic of Indonesia Number 5309);
7. Presidential Regulation Number 18 of 2015 concerning the Ministry of Manpower (State Gazette of the Republic of Indonesia of 2015 Number 19);
8. Minister of Manpower Regulation Number 8 of 2015 concerning Procedures for Preparing Draft Laws, Draft Government Regulations, and Draft Presidential Regulations as well as the Formation of Draft Ministerial Regulations within the Ministry of Manpower (Official Gazette of the Republic of Indonesia of 2015 Number 411);
9. Minister of Manpower Regulation Number 13 of 2015 concerning the Organization and Work Procedures of the Ministry of Manpower (Official Gazette of the Republic of Indonesia of 2015 Number 622), as amended several times, most recently by Minister of Manpower Regulation Number 12 of 2019 concerning the Second Amendment to Minister of Manpower Regulation Number 13 of 2015 concerning the Organization and Work Procedures of the Ministry of Manpower (Official Gazette of the Republic of

Indonesia of 2019 Number 870);

DECIDES:

To stipulate : REGULATION OF THE MINISTER OF MANPOWER CONCERNING OCCUPATIONAL SAFETY AND HEALTH OF LIFTING AND CONVEYING EQUIPMENT.

## CHAPTER I

### GENERAL PROVISIONS

#### Article 1

In this Ministerial Regulation, the following terms shall have the meanings as set forth below:

1. Occupational Safety and Health, hereinafter referred to as K3, refers to all activities undertaken to ensure and protect the safety and health of workers through efforts to prevent occupational accidents and work-related illnesses.
2. Lifting Equipment refers to equipment or devices that are designed and installed to lift, lower, position, and/or hold workpieces and/or loads.
3. Conveying Equipment refers to equipment or devices designed and constructed to move objects, loads, or persons horizontally, vertically, or diagonally, either with or without steering control, and operated on a track, surface, or rail, or continuously using wheels, chains, or rollers.
4. Labor Inspector, hereinafter referred to as Labor Inspector, refers to a civil servant appointed and assigned to a functional position as a labor inspector in accordance with the provisions of laws and regulations.
5. Specialist Labor Inspector in K3 for Lifting and Conveying Equipment refers to a Labor Inspector with specialized expertise in K3 for Lifting and Conveying Equipment, authorized to conduct training, inspections, and testing in the field of Lifting and Conveying Equipment, as well as overseeing and developing the labor inspection system in accordance with the provisions of laws and regulations.
6. Occupational Safety and Health Expert in the Field of Lifting and Conveying Equipment, hereinafter referred to as K3 Expert in Lifting and Conveying Equipment, refers to a technical personnel with specialized expertise from outside the government agency responsible for manpower affairs, appointed by the Minister to conduct inspections

and testing of Lifting and Conveying Equipment in accordance with the provisions of laws and regulations.

7. Manager refers to a person assigned to directly lead a workplace or an independent part thereof.
8. Employer refers to:
  - a. an individual, partnership, or legal entity operating a business owned by itself;
  - b. an individual, partnership, or legal entity independently operating a business not owned by itself; or
  - c. an individual, partnership, or legal entity residing in Indonesia representing a business as referred to in points (a) and (b) that is based outside the territory of Indonesia.
9. Worker refers to any person capable of performing work to produce goods and/or services, either for personal needs or for society.
10. Workplace refers to any space or field, enclosed or open, mobile or stationary, where Workers perform their work, or which is frequently accessed by Workers for business purposes and contains sources of hazards.
11. Lifting and Conveying Accessories refer to tools used to secure workpieces or loads to Lifting and Conveying Equipment during the lifting, transporting, moving, and unloading process.
12. Safety Device refers to equipment permanently installed on Lifting and/or Conveying Equipment to ensure its safe operation.
13. Protective Device refers to equipment installed on Lifting and Conveying Equipment to protect Workers from accidents caused by the operation of such equipment.
14. Personal Protective Equipment, hereinafter referred to as APD, refers to equipment designed to protect an individual by isolating part or all of their body from potential hazards in the Workplace.
15. Technician refers to a Worker responsible for the installation, maintenance, repair, and/or inspection of Lifting and Conveying Equipment or its components.
16. Operator refers to a Worker with the competence and specialized skills required to operate Lifting and Conveying Equipment.
17. Rigger refers to a Worker with the competence and specialized skills required to secure loads/goods and manage the operation of lifting equipment.

18. Occupational Safety and Health License, hereinafter referred to as K3 License, refers to an official authorization card permitting an individual to carry out duties as a Technician, Operator, or Rigger in the field of Lifting and Conveying Equipment.
19. Indonesian National Work Competency Standards, hereinafter referred to as SKKNI, refers to the formulation of work competencies covering aspects of knowledge, skills, and/or expertise, as well as work attitudes relevant to job execution and position requirements, as determined in accordance with the provisions of laws and regulations.
20. Director General refers to the Director General responsible for labor inspection and K3.
21. Minister refers to the Minister responsible for government affairs in the field of manpower.

#### Article 2

- (1) The Manager and/or Employer shall be obliged to implement K3 requirements for Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories.
- (2) The K3 requirements as referred to in paragraph (1) shall be implemented in accordance with the provisions of this Ministerial Regulation and/or standards in the field of Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories.
- (3) The standards as referred to in paragraph (2) shall include:
  - a. Indonesian National Standards; and/or
  - b. International Standards.

#### Article 3

- (1) The implementation of K3 requirements for Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories, as referred to in Article 2, aims to:
  - a. Protect K3 for Workers and other individuals present in the Workplace from potential hazards associated with Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories;

- b. Ensure and guarantee the security and safety of Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories; and
- c. Create a safe and healthy Workplace to enhance productivity.

#### Article 4

This Ministerial Regulation regulates K3 requirements in:

- a. Planning, manufacturing, installation and/or assembly, use or operation, maintenance and servicing, repair, modification or alteration, as well as inspection and testing of Lifting and Conveying Equipment; and
- b. Planning, manufacturing, use, maintenance and servicing, as well as inspection and testing of Lifting and Conveying Accessories.

### CHAPTER II

## OCCUPATIONAL SAFETY AND HEALTH REQUIREMENTS FOR LIFTING EQUIPMENT, CONVEYING EQUIPMENT, AND LIFTING AND CONVEYING ACCESSORIES

### Part One

#### General Provisions

#### Article 5

- (1) The planning and manufacturing of Lifting Equipment and Conveying Equipment, as referred to in Article 4(a), shall include:
  - a. Preparation of design drawings for construction/installation and operational procedures;
  - b. Development of welding procedure specifications and procedure qualification records if welding is applied to load-bearing main components;
  - c. Structural strength calculations; and
  - d. Selection and determination of materials for load-bearing main components and equipment, in accordance with specified technical requirements and specifications.

- (2) The installation and/or assembly, as referred to in Article 4(a), shall include:
  - a. Preparation of foundation construction drawings;
  - b. Structural strength calculations for the foundation; and
  - c. The use of load-bearing main components and equipment, as specified in paragraph (1)(d).
  
- (3) The use or operation of Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories, as referred to in Article 4, shall include:
  - a. Inspection and testing;
  - b. Provision of operational procedures; and
  - c. Use or operation in accordance with type and capacity.
  
- (3) The maintenance and servicing of Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories, as referred to in Article 4, shall:
  - a. Comply with maintenance and servicing procedures;
  - b. Be conducted periodically;
  - c. Follow the manual issued by the manufacturer and/or applicable standards; and
  - d. Ensure that the load-bearing main components and equipment function safely.
  
- (4) The repair, modification, or alteration of Lifting Equipment and Conveying Equipment, as referred to in Article 4(a), shall include:
  - a. Preparation of design drawings for repair, modification, or alteration;
  - b. Structural strength calculations; and
  - c. Selection and determination of materials for load-bearing main components and equipment, in accordance with specified technical requirements and specifications.

Part Two  
Materials

Article 6

The materials used for Lifting Equipment, Conveying Equipment, and Lifting and Conveying Accessories must comply with statutory provisions and/or technical standards.

Article 7

- (1) The materials as referred to in Article 6, used for load-bearing main components, must be:
  - a. Strong;
  - b. Free from defects; and
  - c. Certified with test results and/or material certificates issued by an authorized institution.
- (2) The load-bearing main components, as referred to in paragraph (1), include but are not limited to: steel wire ropes, chains, girders, hooks, forks, and buckets.

Part Three  
Main Components

Article 8

- (1) The main components of Lifting Equipment and Conveying Equipment shall include:
  - a. Main frame;
  - b. Electrical installation;
  - c. Hydraulic system and/or pneumatic system;
  - d. Driving motor;
  - e. Transmission; and
  - f. Crawler and/or wheels.
- (2) The main components, as referred to in paragraph (1)(a), (1)(c), and (1)(f), must have strong construction in accordance with their function

and capacity.

- (3) The electrical installation, as referred to in paragraph (1)(b), must comply with the statutory provisions and electrical standards.

#### Article 9

- (1) The hydraulic system and/or pneumatic system, as referred to in Article 8(1)(c), must meet the following requirements:
  - a. No leaks;
  - b. Properly maintained;
  - c. Have a minimum safety factor of:
    1. 12 for cast iron;
    2. 8 for cast steel; or
    3. 5 for structural steel or forged steel.
- (2) Hydraulic oil used in the hydraulic system must have a viscosity that complies with applicable standards.
- (3) Pneumatic tanks used in the pneumatic system must comply with the requirements stipulated by statutory regulations and applicable standards.

#### Article 10

- (1) The driving motor, as referred to in Article 8(1)(d), must be positioned in a location that allows easy access for inspection and maintenance.
- (2) The driving motor, as referred to in paragraph (1), consists of:
  - a. Internal combustion engine; or
  - b. Electric motor.
- (3) The internal combustion engine, as referred to in paragraph (2)(a), must:
  - a. Have exhaust gas control;
  - b. Be equipped with insulation on the exhaust;
  - c. Be fitted with an engine mounting to reduce vibration; and
  - d. Be equipped with indicators that match its type, model, and

specifications, which are easily visible, readable, and meet regulatory requirements.

- (4) The electric motor, as referred to in paragraph (2)(b), must comply with statutory regulations and electrical standards.

#### Article 11

- (1) The electric motor, as referred to in Article 10(2)(b), that uses a battery power source, must be equipped with an automatic shut-off system when the load exceeds the safe working load.
- (2) The electric motor, as referred to in paragraph (1), must not be operated during battery charging.
- (3) The battery, as referred to in paragraph (1), must:
  - a. Be charged in a designated charging room;
  - b. Have a power supply indicator; and
  - c. Have a warning signal indicating low battery status.

#### Article 12

- (1) The transmission system, as referred to in Article 8(1)(e), consists of three types:
  - a. Gear-to-gear transmission;
  - b. Belt and pulley transmission; and
  - c. Chain and sprocket transmission.
- (2) The gear-to-gear transmission, as referred to in paragraph (1)(a), must:
  - a. Have a minimum safety factor of 5 for gears;
  - b. Be equipped with mechanisms to prevent displacement of gears or driving wheels;
  - c. Be lubricated and equipped with a lubrication indicator; and
  - d. Be fitted with a protective cover.
- (3) The belt and pulley transmission, as referred to in paragraph (1)(b), must be equipped with:

- a. A belt tension regulator; and
  - b. A protective cover.
- (4) The chain and sprocket transmission, as referred to in paragraph (1)(c), must:
- a. Be lubricated with grease; and
  - b. Be fitted with a protective cover.

#### Article 13

- (1) The crawler, as referred to in Article 8(1)(f), must be made of steel for drive sprockets and idler rollers, with a minimum safety factor of 6.
- (2) The crawler, as referred to in paragraph (1), must not be used if:
- a. The shoe track drive chain is not installed according to the installation procedure; and
  - b. The shoe track is missing, bent, misaligned, or fails to rotate properly within its track.
- (3) The shoe track of the crawler must:
- a. Be able to support the Lifting or Conveying Equipment along with its load;
  - b. Be securely installed; and
  - c. Have a drive chain tensioner to prevent it from detaching from its mount.

#### Article 14

- (1) The wheel, as referred to in Article 8(1)(f), designed for either solid (non-pneumatic) tires or pneumatic tires, must:
- a. Have lug bolts securely installed in all bolt holes on the wheel rim; and
  - b. Have the wheel mounted to the axle using securely fastened nuts and bolts, with equal tightening torque applied to all bolts.
- (2) The wheel, as referred to in paragraph (1), must not be used if it is Worn out, brittle, cracked, punctured, or has dimensional deformities in the

wheel or tire or Expired.

- (3) The wheel, as referred to in Article 8(1)(f), made of alloy steel or cast steel, must:
  - a. Have a minimum safety factor of 6 for alloy steel;
  - b. Have a minimum safety factor of 8 for cast steel; and
  - c. Be installed using a key between the wheel and axle, with a locking pin.
- (4) The wheel, as referred to in paragraph (3), must not be used if it is worn out, cracked, or has dimensional deformities.

#### Article 15

- (1) Fastening bolts used in all main components must:
  - a. Have sufficient thread engagement for secure tightening; and
  - b. Be equipped with nuts, spring washers, or effective locking pins (spi).
- (2) Fastening bolts, as referred to in paragraph (1), may be equipped with lock nuts, if necessary.

#### Part Four Equipment

#### Article 16

The Lifting and Conveying Equipment must be equipped with at least:

- a. A nameplate displaying equipment data;
- b. A label indicating the maximum allowable load capacity;
- c. An emergency stop button or device;
- d. Safety Devices; and
- e. Protective Devices.

#### Article 17

- (1) The nameplate, as referred to in Article 16(a), must at least contain:
  - a. Manufacturer's name;
  - b. Year of manufacture;

- c. Model;
  - d. Serial number; and
  - e. Capacity.
- (2) The maximum allowable load capacity label, as referred to in Article 16(b), must be clearly visible and legible.
- (3) The emergency stop button or device, as referred to in Article 16(c), must be easily visible, accessible, and red.
- (4) The Safety Device, as referred to in Article 16(d), must:
- a. Ensure protection for Lifting and Conveying Equipment;
  - b. Not detach unintentionally—if detached, the Lifting and Conveying Equipment must not be operated;
  - c. Automatically activate when operating beyond the permissible limit; and
  - d. Limit motion force and impact in hazardous conditions.
- (5) The Protective Device, as referred to in Article 16(e), must:
- a. Ensure Worker and personnel safety;
  - b. Be installed on all hazardous moving parts;
  - c. Prevent access to dangerous areas during operation; and
  - d. Not obstruct lifting, lowering, positioning, or load movement operations.
- (6) Safety and Protective Devices, as referred to in paragraphs (4) and (5), must not be removed or altered during operation.

#### Article 18

- (1) Lifting and Conveying Accessories must be equipped with a name label.
- (2) The name label, as referred to in paragraph (1), must at least contain:
- a. The manufacturer's name/brand; and
  - b. The maximum load capacity.

Part Five  
Operation

Article 19

- (1) The operation of Lifting Equipment and Conveying Equipment must:
  - a. Be equipped with effective operational warning signs;
  - b. Be equipped with effective lighting if operated outdoors at night;  
and
  - c. Have sufficient illumination if operated indoors.
- (2) The Operator's field of view, both inside the cabin and in the control area, must not be obstructed and must allow a wide view of the operational path or movement.
- (3) Operation control devices, whether conventional or computer-controlled, must be safely designed and installed in a location easily accessible to the Operator.

Article 20

The operation of Lifting Equipment and Conveying Equipment is prohibited from:

- a. Lifting and transporting loads exceeding the maximum allowable capacity;
- b. Performing sudden movements that may cause shock loads, whether loaded or unloaded; and
- c. Carrying or transporting passengers beyond the available seating capacity.

CHAPTER III  
LIFTING EQUIPMENT

Part One  
General Provisions

Article 21

The Lifting Equipment, as referred to in Article 4(a), includes:

- a. Jacks, including hydraulic jacks, pneumatic jacks, post lift jacks, truck/car lift jacks, winches, and other similar equipment;
- b. Cranes, including overhead cranes, overhead travelling cranes, hoist cranes, chain blocks, monorail cranes, wall/jib cranes, stacker cranes, gantry cranes, semi-gantry cranes, launcher gantry cranes, roller gantry cranes, rail-mounted gantry cranes, rubber tire gantry cranes, ship unloader cranes, gantry luffing cranes, container cranes, portal cranes, ship cranes, barge cranes, derrick ship cranes, dredging cranes, pontoon cranes, floating cranes, floating derrick cranes, floating ship cranes, cargo cranes, crawler cranes, mobile cranes, locomotive cranes/railway cranes, truck cranes, tractor cranes, side boom cranes/crab cranes, derrick cranes, tower cranes, pedestal cranes, hydraulic drilling rigs, piling cranes/piling machines, and other similar equipment;
- c. Workpiece positioning devices, including rotators, robotics, tackle hoists, and other similar equipment; and
- d. Personal platforms, including passenger hoists, gondolas, and other similar equipment.

#### Article 22

- (1) The installation of Lifting Equipment on a foundation or building wall must be structurally strong to withstand loads and meet construction requirements in accordance with statutory regulations and applicable standards.
- (2) The foundation and wall construction, as referred to in paragraph (1), must be structurally designed at the time of construction if integrated with the building foundation.

#### Part Two

#### Jacks

#### Article 23

Jacks, as referred to in Article 21(a), in addition to having main components as specified in Article 8, must also include Lifting cylinders, Arms and Jack driving motors.

#### Article 24

- (1) Lifting cylinders must:
  - a. Be made of metal material;
  - b. Have a minimum safety factor of:
    1. 12 for cast iron;
    2. 8 for cast steel; or
    3. 5 for steel;
  - c. Be securely and firmly installed on the foundation; and
  - d. Be equipped with a device that automatically returns the control lever to the neutral position if the lever on the control cable is released.
- (2) The arm of the jack must be equipped with a workpiece support (saddle) and a locking mechanism.
- (3) The jack driving motor must:
  - a. Be protected from liquid exposure; and
  - b. Be equipped with a locking mechanism and lubrication system.

#### Article 25

- (1) Winches (lier), as referred to in Article 21(a), must be equipped with safety devices to prevent collisions between the winch and the workpiece.
- (2) Manual winches must have a lever weight not exceeding 10 kg (ten kilograms).

#### Article 26

- (1) During the lifting process, Operators or other personnel in the Workplace are prohibited from being under the jack.
- (2) Work performed beneath the jack must use a locking mechanism or support device (jack stand).

### Part Three

#### Cranes

#### Article 27

Cranes, as referred to in Article 21(b), in addition to having main components as specified in Article 8, must also include Columns, pillars, or towers, Girders (load-bearing beams), Boom arms, Drum reels, Pulleys, Steel wire ropes, Fiber ropes, Chains and Hooks.

#### Article 28

The columns, pillars, or towers of cranes must be structurally strong, in accordance with the type and capacity of the crane, and must comply with statutory regulations and applicable standards.

#### Article 29

- (1) Girders (load-bearing beams), which bear the maximum working load at their center, must not deflect beyond:
  - a.  $1/888$  (one-eight hundred eighty-eighth) of the span length for single types; and
  - b.  $1/600$  (one-six hundredth) of the span length for double types.
- (2) Girders must be equipped with an automatic collision prevention device during operation.

#### Article 30

- (1) Boom arms must:
  - a. Be equipped with an angle indicator for maximum load, which is easily visible and readable by the Operator, except for tower cranes;
  - b. Have an automatic stop system when the maximum tilt angle is reached; and
  - c. Be used in accordance with the manufacturer's manual.
- (2) A collision prevention device for boom and load must function automatically during operation.

#### Article 31

- (1) Drum reels must have a minimum diameter of 18 times the diameter of the steel wire rope and/or 300 times the largest diameter of the steel wire rope.

- (2) Drum reels must be equipped with end flanges, extending at least 2.5 times the diameter of the steel wire rope, and/or 62.5 mm measured from the outermost rope wrap.
- (3) The end of the steel wire rope on the drum reel must be securely fastened inside the drum and must have at least two full wraps around the drum when the hook is at its lowest position.

#### Article 32

- (1) Pulleys must be made of metal resistant to shock loads or other materials with equivalent strength.
- (2) Pulleys must have a minimum diameter of 18 times the diameter of the steel wire rope used.
- (3) Pulley axles must be regularly lubricated.
- (4) The shape and groove size of the pulley must correspond to the type and size of the steel wire rope.

#### Article 33

- (1) Steel wire ropes must:
  - a. Have a minimum safety factor of 5 times the maximum load;
  - b. Be lubricated with non-acidic and non-alkaline lubricant; and
  - c. Be inspected at initial installation, before each operation, and once per week.
- (2) Diameter reduction of the steel wire rope must not exceed 5% of its original diameter.
- (3) Steel wire ropes are prohibited from:
  - a. Having joints, knots, or splices;
  - b. Being used if they are bent, tangled, frayed, or peeled;
  - c. Being used if they show wear or rust (deformation) under the following conditions:
    1. 12% wear for 6×7 construction steel wire ropes over a 50 cm length;
    2. For special steel wire ropes:
      - a) 12% wear for seal-type steel wire ropes over a 50 cm

length; and

- b) 15% wear for triangular strand steel wire ropes over a 50 cm length.
- d. Being used if they have broken strands, particularly for steel wire ropes with a strand construction of 6×19 or greater, under the following conditions:
  1. Four (4) or more broken wires within a single strand, and/or twelve (12) or more broken wires distributed across multiple strands for fixed lifting cranes; and
  2. Three (3) or more broken wires within a single strand, and/or six (6) or more broken wires distributed across multiple strands for mobile lifting cranes.

#### Article 34

- (1) Fiber ropes used as lifting accessories must be made from natural or synthetic fibers in accordance with statutory regulations and applicable standards.
- (2) Fiber ropes must be wound onto a drum that has no sharp surfaces and features a groove of at least the same diameter as the rope.

#### Article 35

- (1) Fiber ropes must be inspected before use and during operation.
- (2) Fiber ropes must not be used if they show Frayed fibers, Peeling or fuzzing, Changes in length or cross-section, Fiber damage, Discoloration or Other visible signs of damage.

#### Article 36

- (1) Chains used for lifting must:
  - a. Comply with statutory regulations and applicable standards;
  - b. Have a minimum safety factor of 4 times the maximum load; and
  - c. Be replaced if:
    1. Any chain link lengthens by more than 5% from its original size; or
    2. Wear between chain links exceeds 10% of the original chain

diameter.

- (2) Chains used in chain blocks must meet the following requirements:
  - a. Be made from forged iron or forged steel, in accordance with statutory regulations and applicable standards;
  - b. Have a minimum safety factor of 5; and
  - c. Be compatible in type and size with the sprocket.
- (3) Chains, as referred to in paragraph (1), must be normalized periodically to restore the metal structure, as follows:
  - a. Every 6 months for chains with a diameter of 2.5 mm or less;
  - b. Every 6 months for chains used in molten metal transport; and
  - c. Every 12 months for other chains.
- (4) Chains are prohibited from:
  - a. Being hammered, even for realignment or installation;
  - b. Being crossed, twisted, tangled, or knotted;
  - c. Being pulled when trapped under a load;
  - d. Being dropped from height;
  - e. Being subjected to shock loads; and
  - f. Being used to tie down loads/goods.
- (5) Damaged chains may only be reused after being repaired by a competent professional.

#### Article 37

- (1) Hooks must:
  - a. Be made from heat-treated and compacted steel or other materials of equivalent strength;
  - b. Be equipped with a safety latch; and
  - c. Be designed with a minimum safety factor of 5.
- (2) Hooks must not be used if they exhibit:
  - a. Dimensional reduction exceeding 10% from their original size; or
  - b. An opening increase exceeding 5% from their original dimensions.

#### Article 38

- (1) Electromagnetic hooks must:
  - a. Have an electrical magnetic circuit in good condition, with insulation resistance regularly inspected; and

- b. Be equipped with a magnetic control switch and a safety mechanism to prevent accidental contact with the power-off position.
- (2) Regulations for the use of electromagnetic hooks in crane operation:
- a. When lifting, the pulley and counterweight of the magnetic cable must remain taut;
  - b. Hooks must not be left hanging in the air when not in use—they must be lowered to the ground or a designated resting position; and
  - c. Hooks must be removed if the crane is to be used for non-magnetic lifting operations.

#### Article 39

- (1) Cranes operating on tracks with wheels must have outriggers to maintain strong, level, stable, and standard-compliant stability.
- (2) The track surface must be strong, level, stable, and meet applicable standards.

#### Article 40

- (1) The electric motor housing (stator) in the lifting crane must be made of cast steel with a minimum safety factor of 8, and the electric motor shaft must be made of alloy steel with a minimum safety factor of 5.
- (2) A lifting crane with an electric motor drive, as referred to in paragraph (1), must be equipped with:
  - a. An automatic brake capable of holding the load on the drum of the steel wire rope when the load is stopped;
  - b. A system that automatically returns the lever or operation button to the neutral position when released;
  - c. An automatic load limiter that stops the lifting force if the load exceeds the highest permitted limit or the allowable working load;
  - d. A brake capable of effectively stopping at a minimum of 1.25 times the maximum allowable working load; and

- e. An automatic warning device that provides clear alerts during operation.

#### Article 41

- (1) A lifting crane operated with a remote control or pendant control must:
  - a. Be equipped with a cable movement control device; and
  - b. Have clearly marked directional indicators corresponding to load movement.
- (2) A lifting crane operated from a control room must have a monitoring system that provides operational information.

#### Article 42

- (1) The Operator's Cabin in a lifting crane must:
  - a. Be designed to provide an unobstructed view of the operating area;
  - b. Have windows on all sides that can open upwards and downwards, and a door that opens outward; and
  - c. Be equipped with a protective roof and a seatbelt.
- (2) The Control Room used in a lifting crane must:
  - a. Be positioned with a clear view of the crane;
  - b. Have a front wall made of transparent material; and
  - c. Have ventilation and lighting in accordance with statutory regulations and applicable standards.
- (3) The Operator's Cabin and Control Room, as referred to in paragraphs (1) and (2), must be equipped with a portable fire extinguisher in accordance with statutory regulations and applicable standards.
- (4) Unauthorized personnel are prohibited from entering the Operator's Cabin or Control Room, as referred to in paragraphs (1) and (2).

#### Article 43

A lifting crane with a chain block system must be equipped with:

- a. A movement control device;
- b. A load-holding device that secures the load while suspended; and
- c. Clear up-and-down directional markings.

#### Article 44

- (1) Mobile lifting cranes must be equipped with a fixed access ladder from the ground to the Operator's Cabin.
- (2) A mobile lifting crane with dual girders must be equipped with a crossover walkway, which must:
  - a. Be at least 45 cm wide along both sides of the bridge;
  - b. Be at least 38 cm wide at both ends of the bridge; and
  - c. Have safety railings and toeboards along the open side of the walkway.

#### Article 45

A locomotive crane must:

- a. Be equipped with an automatic coupler at both ends of the transport car and be removable from each end;
- b. Have a separate driver's compartment and/or an integrated cabin, equipped with a ladder with handrails;
- c. Have a clearance of at least 35 cm between the turntable and the transport car (wagon) surface; and
- d. Be grounded (electrically earthed) for electric locomotive cranes.

#### Article 46

- (1) A wall crane (jib crane) installed using a foundation plate with anchor bolts must be securely placed and anchored to the foundation.
- (2) If a wall crane (jib crane) is manually operated with a crank handle, the crank handle must be equipped with:
  - a. A locking pin and threaded lock to secure the load when the crank handle is released; and

- b. A brake system to prevent the load from descending unintentionally.

#### Article 47

- (1) A tower crane must be equipped with:
  - a. A load chart or equivalent device to indicate the balance ratio between the load position and the counterweight position;
  - b. A lightning protection system, with grounding integrated with the tower crane's grounding system; and
  - c. Sufficient lighting along the boom if operated at night.
- (2) The counterweight on a tower crane must be vertically positioned and clearly marked with its weight.

#### Article 48

To prevent collisions and facilitate safe working conditions, indoor lifting cranes must have adequate clearance between The highest point of the crane and the top structure of the building and The crane components and walls, pillars, or other permanent structures.

#### Article 49

- (1) Lifting crane operations must use standardized, easily understood hand signals or other communication devices when obstacles or obstructions block the Operator's view during lifting or lowering operations.
- (2) During crane operations, the Operator must:
  - a. Follow signals from the Rigger;
  - b. Stop crane operations in an emergency;
  - c. Sound a warning and adjust the load if it does not lift properly;
  - d. Avoid lifting loads over or across people;
  - e. Lift loads vertically to prevent swinging;
  - f. Prohibit personnel from standing on the load or sling during operation; and

- g. Stop operations if wind speeds exceed 38 km/h (thirty-eight kilometers per hour).

#### Article 50

- (1) The Rigger must be visible to the Operator during load lifting operations.
- (2) Before signaling the lifting of a load, the Rigger must ensure:
  - a. All lifting and conveying accessories or equipment are properly installed on the load; and
  - b. The load is properly balanced.

#### Article 51

- (1) The Operator must warn Workers to move to a safe location when transporting hazardous loads or lifting loads using a magnet in the work area.
- (2) Hazardous load movement or magnetic lifting operations must be halted if Workers are still present in hazardous areas.
- (3) Hazardous loads, as referred to in paragraph (1), include molten metal and other hazardous materials, as defined by statutory regulations.

#### Article 52

If repairs are being conducted or if the crane's operational area is being used for other work activities, it is prohibited to Suspend loads on the crane; and/or Use the crane's operational area for work.

#### Article 53

If a lifting crane operates without a load:

- a. The Rigger must securely attach the sling to the hook before movement; and
- b. The Operator must raise the hook sufficiently to prevent it from touching people or objects in the area.

#### Article 54

The operating path of a loaded lifting crane must have a clearance width of at least 90 cm (ninety centimeters) on both the left and right sides along its path.

#### Part Four

#### Workpiece Positioning Lifting Equipment

#### Article 55

Workpiece positioning lifting equipment, as referred to in Article 21(c), in addition to having main components as specified in Article 8, must also include Foundation, Mast, Arm; and Grapple (clamping device).

#### Article 56

- (1) The foundation of workpiece positioning lifting equipment must be strong, level, stable, and comply with statutory regulations and applicable standards.
- (2) The mast and arm must be made of steel with a minimum safety factor of:
  - a. 8 for cast steel; or
  - b. 5 for alloy steel.
- (3) The grapple (clamping device) must be appropriate for the shape, size, and type of workpiece.

#### Part Five

#### Personal Platforms

#### Article 57

- (1) Personal platforms, as referred to in Article 21(d), must have main components as specified in Article 8.
- (2) Personal platforms consist of Passenger hoists and Gondolas.

#### Article 58

- (1) A passenger hoist, in addition to having main components as specified in Article 57(1), must also have Rack-and-pinion gears, Gear wheels;

and A cage (basket).

- (2) A gondola, in addition to having main components as specified in Article 57(1), must also have Rails, Masts, Arms or booms, Drum reels, Electric motors; and A cage (basket).

#### Article 59

- (1) The rack-and-pinion gears of a passenger hoist must:
  - a. Be made of cast steel with a safety factor of 5; and
  - b. Be securely installed on the foundation and building walls.
- (2) The cage (basket) of a passenger hoist must:
  - a. Be made of strong materials;
  - b. Have collision prevention devices at the top and bottom of the basket; and
  - c. Have an automatic system that disconnects the power supply when the door is opened.
- (3) The working floor of the passenger hoist cage (basket) must:
  - a. Be made of anti-slip and corrosion-resistant materials; and
  - b. Not be used if it experiences a deflection greater than 3 mm (three millimeters).

#### Article 60

A passenger hoist must be equipped with:

- a. Movement control devices;
- b. Overload prevention devices; and
- c. Lighting of at least 50 lux.

#### Article 61

- (1) The rails, masts, arms, or booms of a gondola must be made of steel with a safety factor of 5.
- (2) The electric motor of a gondola must:
  - a. Be securely installed;
  - b. Be grounded (earthed); and
  - c. Operate with a voltage fluctuation not exceeding 10% of the grid

voltage.

- (3) The cage (basket) of a gondola must:
  - a. Be made of steel with a safety factor of 5 and/or other materials of equivalent strength;
  - b. Have a strong and secure construction;
  - c. Be equipped with collision prevention devices, including rollers and soft bumper layers along the basket bumper; and
  - d. Be equipped with edge protection (toeboard).
  
- (4) The suspension steel wire rope must:
  - a. Be made of steel with a minimum safety factor of 8;
  - b. Have an Independent Wire Rope Core (IWRC);
  - c. Be corrosion-resistant;
  - d. Be flexible and capable of withstanding twisting moments;
  - e. Be inspected during initial installation, before daily operation, and once per week; and
  - f. Be secured with clamps.

#### Article 62

A gondola must be equipped with:

- a. A control device located inside the basket;
- b. A wind direction and speed indicator; and
- c. A safety line (life line) securely attached to the building structure.

#### Article 63

- (1) The installation of a temporary gondola must:
  - a. Be in accordance with its designated use;
  - b. Be supported on the rooftop using counterweights and masts secured with support cables (pendants) attached to anchor points fixed to the building structure; and
  - c. Maintain sufficient clearance between the top wall and the gondola mast to prevent contact.

- (2) The installation of a permanent gondola must:
  - a. Be in accordance with its designated use;
  - b. Be securely mounted on gondola tracks and fitted with locking mechanisms—the track must be firmly installed on supports at the rooftop;
  - c. Maintain sufficient clearance between the top wall and the gondola mast to prevent contact; and
  - d. Have a minimum clearance of 90 cm (ninety centimeters) between the wall and the outer side of the basket, except for the side facing the building.
- (3) A temporary gondola of a certain type equipped with wheels or capable of being fitted with wheels may be installed in accordance with the provisions in paragraph (2)(b).

#### Article 64

The installation of the gondola basket must:

- a. Be securely fastened to the pulling steel wire rope with clamps;
- b. Have clamps with a tensile strength of at least 1.5 times the pulling steel wire rope; and
- c. Have fastening clamps with a minimum safety factor of 5.

#### Article 65

The operation of a gondola must:

- a. Not exceed the maximum allowable load;
- b. Be conducted by a certified gondola Operator equipped with a body harness attached to the gondola life line;
- c. Be performed with slow and smooth movements to avoid shock loads;
- d. Ensure that the suspension steel wire rope is free from obstacles; and
- e. Not allow the basket to tilt beyond 15° (fifteen degrees).

#### Article 66

All individuals are prohibited from:

- a. Modifying or altering the gondola without prior notification to the labor inspection unit;

- b. Suspending the gondola basket from an improperly installed arm;
- c. Operating the gondola if wind speeds exceed 32 km/h (thirty-two kilometers per hour); and/or
- d. Using the gondola if the basket's working floor frame deflects more than 1/60 (one-sixtieth) of its length.

## CHAPTER IV CONVEYING EQUIPMENT

### Part One General Provisions

#### Article 67

Conveying Equipment, as referred to in Article 4(a), includes:

- a. Heavy equipment, consisting of forklifts, lift trucks, reach stackers, telehandlers, hand lifts/hand pallets, excavators, excavator grapples, backhoes, loaders, dozers, tractors, graders, concrete pavers, asphalt pavers, asphalt sprayers, asphalt finishers, compactor rollers/vibrator rollers, and other similar equipment;
- b. Rail vehicles, consisting of cable cars, merry-go-rounds, roller coasters, swing cars, locomotives with carriages, and other similar equipment;
- c. Personal baskets, consisting of manlifts/boom lifts, scissor lifts, hydraulic stairs, and other similar equipment;
- d. Trucks, consisting of tractors, hazardous material transport trucks, dump trucks, cargo trucks, trailers, side loader trucks, module transporters, axle transporters, car towing vehicles, and other similar equipment; and
- e. Robotic and conveyor systems, consisting of Automated Guided Vehicles, belt conveyors, chain conveyors, and other similar equipment.

#### Article 68

The foundation or track surface for Conveying Equipment must be structurally strong enough to support the load, level, stable, and comply with statutory regulations and applicable standards.

#### Article 69

The placement of Conveying Equipment in the work area must:

- a. Be stable and balanced to prevent tipping, overturning, skidding, or sinking; and
- b. Have sufficient maneuvering space free from obstacles to ensure safety for nearby personnel.

#### Article 70

Conveying Equipment, as referred to in Article 67, in addition to having main components as specified in Article 8(1), must also have the following main components Control devices, An Operator's Cabin or control room and An arm and/or boom.

#### Article 71

- (1) Control devices, including levers, steering wheels, and buttons, must:
  - a. Be uniform in function, movement, and color coding; and
  - b. Be ergonomically designed and safe for the Operator.
- (2) Computerized control devices must be equipped with a monitor that provides operational information.
- (3) Control devices, as referred to in paragraph (2), must:
  - a. Be easy for the Operator to use and understand; and
  - b. Be equipped with symbols or indicators with clear operational descriptions.

#### Article 72

- (1) The Operator's Cabin must:
  - a. Be designed to provide the Operator with an unobstructed view of the operating area;
  - b. Be equipped with a protective roof to shield the Operator from weather changes and falling objects; and
  - c. Be equipped with a seatbelt capable of withstanding shock forces.
- (2) The operating space attached to the Conveying Equipment must:
  - a. Have a panel or dedicated space for operational control devices;
  - b. Be equipped with Protective Devices; and
  - c. Provide comfort and ease of movement for the Operator.

- (3) The control room must:
  - a. Be located near the Conveying Equipment for easy operational monitoring, except for locomotives and conveyors; and
  - b. Have ventilation and lighting that comply with statutory regulations and applicable standards.
- (4) The Operator's Cabin, operating space, or control room must be equipped with:
  - a. A warning sign prohibiting unauthorized entry; and
  - b. A portable fire extinguisher, in accordance with statutory regulations or applicable standards.

#### Article 73

The arm and boom must:

- a. Be used according to the manufacturer's manual;
- b. Have an automatic stop system that activates when the tilt angle reaches its maximum limit; and
- c. Be equipped with an automatic collision prevention device.

#### Article 74

- (1) The operation of Conveying Equipment during loading, transport, and unloading must ensure that no load spillage occurs.
- (2) Hazardous operating areas for Conveying Equipment must be marked with warning signs prohibiting unauthorized entry.
- (3) The operation of Conveying Equipment with an internal combustion engine must be conducted safely at a designated speed.
- (4) The operation of Conveying Equipment with an internal combustion engine is prohibited in fire-prone, explosive areas, and/or enclosed spaces.

#### Part Two

#### Heavy Equipment

#### Article 75

Heavy Equipment, as referred to in Article 67(a), in addition to having main components as specified in Articles 8 and 70, must also include, Mast, Forks, Bucket and Grapple (clamping device).

#### Article 76

The mast on a forklift must:

- a. Be able to support workpieces in accordance with applicable standards;
- b. Be capable of supporting the fork drive chain;
- c. Be equipped with a stopper at the highest lifting point; and
- d. Be fitted with a backrest for load support.

#### Article 77

(1) The forks on a forklift must:

- a. Be manufactured with a minimum safety factor of 3;
- b. Not experience deflection exceeding  $1/33$  (one-thirty-third) of the fork length;
- c. Not be straightened or welded if they are bent or broken;
- d. Not have thinning exceeding 10% (ten percent);
- e. Be equipped with a position adjuster and locking mechanism if using double forks; and
- f. Not have a height difference exceeding 3% (three percent) of the fork length if using double forks.

(2) The installation of fork extensions on a forklift is prohibited.

#### Article 78

(1) The bucket for loaders, excavators, backhoes, and shovels must:

- a. Be used according to its type, shape, dimensions, and capacity;
- b. Be made of medium-carbon steel with a carbon content of 0.3% to 0.6%, and have a minimum safety factor of 6; and
- c. Be equipped with load retention features on the front, sides, and rear.

(2) The installation of the bucket must comply with statutory regulations and applicable standards.

#### Article 79

(1) The use of a bucket is prohibited if it is corroded and/or cracked.

(2) All individuals are prohibited from:

- a. Using a bucket if it is corroded and/or cracked;

- b. Using a bucket on a loader, excavator, backhoe, or shovel if it is not equipped with a locking pin for linkage to the arm.

#### Article 80

- (1) The grapple (clamping device) must:
  - a. Be designed according to its intended use, including shape, dimensions, capacity, and material type;
  - b. Be made of medium-carbon steel with a carbon content of 0.3% to 0.6%, and have a minimum safety factor of 6; and
  - c. Have securely installed bolts in all mounting points.
- (2) The installation of the grapple must comply with statutory regulations and applicable standards.
- (3) The use of a grapple is prohibited if:
  - a. The load dimensions or workpiece dimensions exceed the grapple's capacity; and
  - b. The fastening bolts are incomplete.

#### Article 81

The operating surface for forklifts, lift trucks, reach stackers, and telehandlers must:

- a. Be structurally strong and level;
- b. Be marked with designated travel lanes;
- c. Not have sharp-angled turns; and
- d. Not have steep inclines or declines that could affect balance.

#### Article 82

The use of forklifts, lift trucks, reach stackers, and telehandlers powered by internal combustion engines is prohibited in areas with explosive materials and/or enclosed spaces.

#### Article 83

Before loading and unloading, the brakes of forklifts, reach stackers, telehandlers, and similar equipment must be engaged, and if on an incline, the wheels must be chocked.

#### Article 84

The minimum clearance width for lanes used by forklifts, telehandlers, and similar equipment must be:

- a. 60 cm (sixty centimeters) from the outermost edge of the equipment or its widest load for one-way traffic; and
- b. 90 cm (ninety centimeters) from the outermost edges of two machines or their widest loads for two-way traffic.

#### Article 85

- (1) When a forklift is in motion:
  - a. The fork or the bottom surface of the load must be no higher than 15 cm (fifteen centimeters) above the ground; and
  - b. The forklift must maintain a minimum distance of 10 m (ten meters) from the rear of any vehicle ahead.
- (2) When a forklift is not in use, it must be parked on a level surface without inclination, with the brakes engaged and the lowest part of the fork resting on the ground.
- (3) The use of a forklift for purposes other than lifting, transporting, and placing loads is prohibited.
- (4) Telehandler and reach stacker forklifts are exempt from the provisions in paragraph (1)(a).

#### Article 86

- (1) The operation of loaders, excavators, backhoes, shovels, and similar equipment must:
  - a. Be conducted on sufficiently solid ground to maintain stability;
  - b. Remain stable at the worksite, whether on inclines or declines; and
  - c. Avoid lifting/loading operations over or across the truck cabin being loaded.
- (2) In addition to the provisions in paragraph (1), the operation of excavators must:
  - a. Ensure that the arm and boom positions are adjusted during relocation to prevent instability;

- b. Ensure that the front and rear positions are secured to prevent unintended movement during horizontal relocation; and
  - c. Maintain a minimum clearance of 60 cm (sixty centimeters) between the outermost edge of the bucket and walls/structures.
- (3) In addition to the provisions in paragraph (1), during loader operations, when carrying a load, the bottom edge of the bucket must be between 30 cm (thirty centimeters) and 90 cm (ninety centimeters) above the ground surface.
- (4) When not in use, loaders must be parked on level ground, with the brakes engaged and the outermost edge of the bucket resting on the ground.
- (5) When not in use, excavators must be parked on level ground, with the brakes engaged, the outermost edge of the bucket resting on the ground, and the cabin aligned parallel to both crawlers.

#### Article 87

When a grader is not in use, the blade and scarifier must be positioned perpendicular to the wheels, resting on the ground, and the brakes engaged.

#### Article 88

All individuals are prohibited from operating excavators, dozers, backhoes, and graders in areas where high-pressure pipelines and/or underground high-voltage cables are present.

#### Article 89

- (1) The operation of concrete pavers, asphalt pavers, asphalt sprayers, asphalt finishers, and compactor rollers/vibrator rollers must:
- a. Have barriers and warning signs in the work area; and
  - b. Be equipped with adequate lighting for nighttime operations.
- (2) When not in use, concrete pavers, asphalt pavers, asphalt sprayers, asphalt finishers, and compactor rollers/vibrator rollers must be parked in a designated area that does not obstruct traffic, with the Operator's cabin and brakes engaged.

#### Article 90

The operation or movement of heavy equipment across inclined terrain transversely is prohibited.

#### Part Three

#### Rail Vehicles

#### Article 91

Rail vehicles, as referred to in Article 67(b), in addition to having main components as specified in Articles 8 and 70, must also include Train wheels, Steel wire ropes, Suspension chains, Axles and Rails/tracks.

#### Article 92

- (1) Train wheels must:
  - a. Be made of sufficiently strong cast steel, free of defects, and comply with statutory regulations and applicable standards;
  - b. Have a safety factor of 8; and
  - c. Not contain welded joints.
- (2) The installation of train wheels must use a keyed connection between the wheel and axle, with a locking pin.

#### Article 93

- (1) Tali Suspension steel wire ropes must:
  - a. Be made of steel with a minimum safety factor of 12;
  - b. Have an Independent Wire Rope Core (IWRC);
  - c. Be corrosion-resistant;
  - d. Be flexible and capable of withstanding torsional forces; and
  - e. Be inspected upon initial installation, before daily operation, and once per week.
- (2) The installation of suspension steel wire ropes must use clamps.
- (3) Steel wire ropes are prohibited from:
  - a. Having joints or knots; and
  - b. Being used if deformed or broken.

Article 94

- (1) Suspension chains must:
  - a. Be made of steel with a minimum grade of 80, and have a minimum safety factor of 5;
  - b. Be corrosion-resistant;
  - c. Be capable of withstanding shock loads; and
  - d. Be inspected upon initial installation, before daily operation, and once per week.
- (2) The installation of suspension chains must use shackles or similar locking devices.
- (3) Suspension chains are prohibited from being used if deformed.

Article 95

- (1) Train axles must:
  - a. Be made of steel with a safety factor of 6; and
  - b. Be capable of withstanding bearing stress and torsional moments.
- (2) Train wheel axles must:
  - a. Be made of steel with a safety factor of 6; and
  - b. Be capable of withstanding axial forces, radial forces, bending moments, and torsional moments.

Article 96

- (1) Rails or tracks must:
  - a. Be made of steel with a safety factor of 6;
  - b. Be strong enough to withstand friction forces and bearing stress;
  - c. Be corrosion-resistant;
  - d. Be constructed in accordance with statutory regulations and applicable standards;
  - e. Be inspected periodically; and
  - f. Be equipped with a minimum clearance space on both sides as follows:
    - 1) 2.35 meters on each side of the rail axis for straight tracks;
    - 2) 2.55 meters for curved tracks with a radius of 300 meters

- or less;
- 3) 2.45 meters for curved tracks with a radius greater than 300 meters; and
  - 4) 2.15 meters on each side of the rail axis for bridges and tunnels on both straight and curved tracks.
- (2) A turntable rail must be equipped with a locking mechanism to prevent movement.

#### Article 97

- (1) Rails must be fitted with a safety rail on the inner side within 25 cm of the inner track edge if:
- a. The rail is installed on a bridge of 30 meters or more in length and contains curves;
  - b. The rail has a curve radius exceeding 250 meters with a track width of 1,435 mm or more; and
  - c. The rail has a curve radius exceeding 400 meters with a track width of less than 1,435 mm.
- (2) The rail ends must be fitted with impact-absorbing blocks.

#### Article 98

- (1) Track switching using lever-controlled turnouts and signal wires must be equipped with a Safety Device to prevent track reversal.
- (2) The turnout lever must be structurally designed and securely installed to prevent unintended longitudinal movement along the track.

#### Article 99

- (1) Railways should, as much as possible, not intersect with roads used for vehicular or pedestrian traffic.
- (2) Railways that intersect roads, as referred to in paragraph (1), should use overpasses or tunnels.
- (3) If an overpass or tunnel, as referred to in paragraph (2), is not available, railway crossings at roads must be level with the railway surface.

- (4) Railway crossings at roads, as referred to in paragraph (3), must:
- a. Be equipped with safety devices or barriers clearly marked;
  - b. Be equipped with sirens and warning lights;
  - c. Have warning signs stating "DANGER" or "CROSSING";
  - d. Be monitored by designated personnel; and
  - e. Have illumination or reflective markings on warning signs, barriers, switch signals, and other relevant equipment for nighttime visibility.

#### Article 100

- (1) The clearance space between the outermost part of the train and obstacles must adhere to the following conditions:
- a. A minimum of 75 cm (seventy-five centimeters) between two passing trains or between the train and nearby buildings;
  - b. A minimum vertical clearance of:
    1. 215 cm (two hundred fifteen centimeters) from buildings or other obstructions; and
    2. 430 cm (four hundred thirty centimeters) from electrical power sources.
  - c. Distance markers must be installed on each side of buildings.
- (2) Buildings, obstructions, or electrical sources, as referred to in paragraph (1)(b), must have clearly visible vertical distance markers.

#### Article 101

- (1) The electrical network for electric trains must comply with electrical standards.
- (2) The electrical network, as referred to in paragraph (1), must have clearly visible "DANGER" warning signs at all exposed contact points.

#### Article 102

Cable cars, carousels, roller coasters, and swing trains must:

- a. Be grounded (earthed) in accordance with electrical standards; and

- b. Have clearly marked separate entrances and exits, which are easy to read and equipped with safety and protective devices.

#### Part Four

#### Personal Basket

##### Article 103

A personal basket, as referred to in Article 67(c), in addition to having main components as specified in Articles 8 and 70, must also include A boom (arm) and A basket.

##### Article 104

The boom (arm) must:

- a. Be made of steel with a minimum safety factor of 5; and
- b. Have an automatic stop system that activates when the tilt angle reaches its maximum limit.

##### Article 105

The basket must:

- a. Be made of steel with a safety factor of 5 and/or other materials of equivalent strength;
- b. Have a strong and secure construction;
- c. Be equipped with edge protection (toeboard);
- d. Have a lockable door that can be safely opened and closed; and
- e. Have a minimum railing height of 1.25 m (one point two five meters) from the work floor.

##### Article 106

- (1) Personal basket operations must follow these requirements:
  - a. Do not exceed the maximum allowable load;
  - b. Be operated by a certified personal basket Operator wearing a body harness;
  - c. Be raised or lowered smoothly, without sudden shocks; and
  - d. Remain free from obstacles.

- (2) Operating a personal basket is prohibited:
  - a. On sloped or inclined work areas; and/or
  - b. If wind speeds exceed 32 km/h (thirty-two kilometers per hour).

#### Article 107

All individuals are prohibited from modifying or altering a personal basket without first reporting to the responsible labor inspection authority.

### Part Five

#### Trucks

#### Article 108

A truck, as referred to in Article 67(d), in addition to having main components as specified in Articles 8 and 70, must also include A dump truck bed; and A tow hitch (connecting mechanism).

#### Article 109

- (1) The dump truck bed must:
  - a. Be used according to its designated load type and capacity;
  - b. Be made of medium-carbon steel with a carbon content of 0.3% to 0.6% and a minimum safety factor of 6; and
  - c. Be equipped with load retainers on the front, sides, and rear.
- (2) The dump truck bed is prohibited from being used if:
  - a. It is corroded and/or cracked;
  - b. It lacks a locking pin on the hydraulic cylinder; and
  - c. It does not have a protective canopy to prevent material spillage.
- (3) The installation of a dump truck bed must comply with statutory regulations and applicable standards.

#### Article 110

- (1) The tow hitch (connecting mechanism) must:
  - a. Be designed according to the towing or pushing capacity of the truck, including shape, dimensions, and load capacity; and
  - b. Be made of steel with a minimum safety factor of 5.

- (2) The installation of a hitch ball on the tow hitch or the object being towed/pushed must be positioned at the top and secured with bolts or locking pins.
- (3) The tow hitch is prohibited from being used if it experiences deformation exceeding 5° (five degrees) from its base.
- (4) The hitch ball on the tow hitch is prohibited from being used if its horizontal position deviates by more than 1° (one degree) or 25 mm (twenty-five millimeters) from the tow hitch surface.

#### Article 111

- (1) Truck operations must:
  - a. Be conducted on a level and stable surface during loading and unloading; and
  - b. Ensure that the rear area is clear of personnel before tilting the truck bed (bucket) for unloading.
- (2) The load in the truck bed (bucket) must not exceed the height of the bucket walls.
- (3) The dump truck bed (bucket) must be lowered slowly, taking into account the weight and volume of the load.
- (4) Moving the truck during loading or unloading is strictly prohibited.

#### Part Six

#### Robotic and Conveyor Systems

#### Article 112

- (1) Robotic systems, as referred to in Article 67(e), in addition to having main components as specified in Articles 8 and 70, must also include a magnetic strip/track.
- (2) Conveyor systems, as referred to in Article 67(e), in addition to having main components as specified in Articles 8 and 70, must also include Belts, Chains and Rollers.

#### Article 113

The magnetic strip/track must:

- a. Be clearly readable by sensors on the Automated Guided Vehicle (AGV);  
and
- b. Be free from obstacles that may interfere with the signal transmission between the magnetic strip and the AGV sensor.

#### Article 114

- (1) Automated Guided Vehicles (AGVs) must:
  - a. Be equipped with Safety Devices to ensure they remain on their designated track;
  - b. Be fitted with a location-reading sensor (Global Positioning System - GPS); and
  - c. Be equipped with a laser scanner sensor capable of automatically stopping the vehicle when its path is obstructed by a person or an object.
- (2) The AGV work area must:
  - a. Be monitored using surveillance cameras and a monitoring system covering the entire operational area;
  - b. Be supervised by an Operator via a monitoring system; and
  - c. Be marked with signs and operational pathway indicators.

#### Article 115

- (1) The operation of AGVs must:
  - a. Be inspected by an Operator, particularly its hardware and software, before operation; and
  - b. Be manually controllable in case of an automatic system failure.
- (2) AGVs are prohibited from being used for:
  - a. Transporting hazardous materials; and
  - b. Carrying materials exceeding the designed capacity.
- (3) No person is allowed to obstruct or block an operating AGV.

#### Article 116

- (1) Belts used in conveyor systems must:
  - a. Be dimensionally suitable for the type and capacity of the load;  
and

- b. Be made of strong, tensile-resistant, and deformation-resistant materials.
- (2) For food handling applications, conveyor belts must be made of food-grade materials, in accordance with statutory regulations and applicable standards.
- (3) The installation of belts must be tight and evenly tensioned to prevent slippage.
- (4) Using conveyor belts with longitudinal tears exceeding 10% of the belt's total length and/or transverse tears is strictly prohibited.

#### Article 117

- (1) Chains used in conveyor systems must:
  - a. Be dimensionally suitable for the type and capacity of the load;
  - b. Be made of strong materials capable of withstanding load-bearing stresses; and
  - c. Be fitted with connecting pins and locking mechanisms.
- (2) The installation of chains on the conveyor frame must be tight and evenly tensioned to prevent the links from coming loose.
- (3) Chains with deformation exceeding 10% of their installed length are prohibited from use.

#### Article 118

- (1) Rollers used in conveyor systems must:
  - a. Be dimensionally suitable for the type and capacity of the load; and
  - b. Be made of strong materials capable of withstanding bending stresses and have a smooth surface.
- (2) The installation of rollers on the conveyor frame must be perpendicular to the mounting surface and equipped with bearings.
- (3) Rollers are prohibited from use if:
  - a. Their deformation exceeds 10% of the total installed rollers; and
  - b. The bearings are damaged.

#### Article 119

- (1) The mechanical construction of conveyors must:

- a. Be strong and safe to support the designated load or safe working load; and
  - b. Eliminate hazardous pinch points between moving parts and the workpiece or load, or be equipped with Protective Devices.
- (2) Conveyors must be equipped with:
- a. A braking system capable of securely holding the load in descending, inclined, or vertical positions against gravitational forces;
  - b. A functional and clearly visible overload indicator; and
  - c. An automatic lubrication system.
- (3) For uncovered conveyors that pass through work areas, roads, or bridges, a Protective Device in the form of a safety cover must be installed at least 2.6 m (two point six meters) above the ground.
- (4) If the conveyor extends beyond the visible range of the control station, it must be equipped with a siren or a rotating warning light, which must be activated by the Operator before starting the machine.
- (5) If the conveyor's discharge point is less than 1 m (one meter) above the floor, it must be fitted with a protective barrier.

#### Article 120

- (1) The floor or work platform at the loading and unloading points of the conveyor must be slip-resistant.
- (2) The floor, work platform, and walkway beside the conveyor must be free from debris and other materials.
- (3) Drainage channels must be provided around the conveyor.
- (4) Crossings over conveyors must have bridges that meet the required standards, installed at intervals not exceeding 300 m (three hundred meters).

#### Article 121

- (1) Enclosed conveyors used for transporting combustible or explosive materials must be equipped with a safety release vent that directly discharges into the open air.

- (2) The safety release vent, as referred to in paragraph (1), must not be connected to chimneys, ventilation ducts, or exhaust pipes used for other purposes.
- (3) If an external exhaust system cannot be constructed, the safety release vent must be equipped with a safety cover.

#### Article 122

- (1) Mechanically driven conveyors at loading and unloading points, at the end of their path, at the starting point of material pickup, and at other critical locations, must be equipped with emergency stop devices for the conveyor belt's motor or drive system.
- (2) Conveyors that transport loads on inclined surfaces must be equipped with a mechanical system to prevent the conveyor from reversing and moving loads back to the loading area if power is lost.
- (3) If two or more conveyors operate together, a Safety Device must be installed to ensure that all conveyors stop if any one of them ceases continuous operation.
- (4) Conveyors used to transport cement, fertilizers, wood fibers, sand, or similar materials must be equipped with scrapers or other suitable devices.
- (5) Conveyors that are frequently left unattended or regularly crossed by personnel must have continuous walkways or platforms along their entire length, at least 45 cm (forty-five centimeters) wide, and equipped with standard handrails and/or edge protection barriers.

#### Article 123

- (1) No person is permitted to ride on a conveyor.
- (2) No person is permitted to adjust or repair conveyor equipment without first stopping the power source and locking the lever or button in the "off" position.
- (3) Workers are prohibited from standing on open conveyor support structures while loading, moving materials, or clearing obstructions.

### CHAPTER V

#### LIFTING AND TRANSPORTING AUXILIARY EQUIPMENT

Part One

General

Article 124

Lifting and Transporting Auxiliary Equipment, as referred to in Article 4(b), includes Slings, Spreader bars, Lifting beams, Personal baskets, Nets and Accessories such as shackles, turnbuckles, swivels, eyebolts, eyenuts, eyepads, hooks, rings, master links, clamps, grapples, and magnetic lifters.

Article 125

Lifting and Transporting Auxiliary Equipment must:

- a. Be labeled with the maximum allowable safe working load;
- b. Be equipped with safety locks, particularly for plate clamps and gripping clamps; and
- c. Be manufactured with a minimum safety factor of 5, except for chain slings.

Article 126

(1) The use of Lifting and Transporting Auxiliary Equipment must:

- a. Be inspected by a Rigger before use for securing workpieces or loads;
- b. Match the type and capacity of the load;
- c. Maintain a minimum clearance of 5 m (five meters) from high-voltage power sources for personal baskets and metal equipment; and
- d. Be recorded in a logbook that includes type, quantity, inspection dates, and testing information.

(2) Lifting and Transporting Auxiliary Equipment must:

- a. Be maintained regularly in accordance with the manufacturer's guidelines;
- b. Be stored in a designated area that protects it from heat, liquids, hazardous substances, and ensures proper ventilation; and
- c. Be destroyed following disposal procedures when it exhibits deformation, discoloration, defects, damage, or fails to meet safety standards.

#### Article 127

- (1) Lifting and Transporting Auxiliary Equipment is prohibited from use if:
  - a. It has undergone deformation or discoloration;
  - b. It is defective and/or damaged; and/or
  - c. Wind speed exceeds 38 km/h (thirty-eight kilometers per hour).
- (2) Dragging or pulling Lifting and Transporting Auxiliary Equipment across the ground is strictly prohibited.

#### Article 128

- (1) The securing of Lifting and Transporting Auxiliary Equipment must be strong, safe, and balanced.
- (2) If the securing of Lifting and Transporting Auxiliary Equipment does not meet safety requirements, additional accessories such as shackles, turnbuckles, swivels, eyebolts, eyenuts, eyepads, hooks, rings, clamps, grapples, and magnetic lifters must be used.

#### Part Two

#### Slings

#### Section 1

#### General

#### Article 129

Slings include Wire rope slings, Chain slings, Webbing slings and Fiber rope slings.

#### Article 130

- (1) The use of slings for securing loads must match the type and capacity of the sling.
- (2) When using more than one sling, the slings must be positioned evenly, and the maximum permissible sling leg angle is 120° (one hundred twenty degrees).
- (3) Extensions of slings must be performed using accessories such as turnbuckles, shackles, links, and rings.

- (4) No person is allowed to tie knots in slings when securing loads.

## Section 2

### Wire Rope Slings

#### Article 131

- (1) Wire rope slings must:
- a. Have a minimum safety factor of 5; and
  - b. Have both ends secured by clamping, socket pressing, or splicing.
- (2) The reduction in diameter of wire rope slings must not exceed 5% (five percent) of the original diameter.
- (3) Wire rope slings must not be tied in knots or twisted.
- (4) Wire rope slings must not be used if:
- a. They are bent, tangled, frayed, or stripped;
  - b. They exhibit wear or corrosion (deformation) according to the following criteria:
    1. 12% (twelve percent) wear for wire rope with a 6x7 strand construction over a length of 50 cm (fifty centimeters);
    2. For special wire rope slings:
      - a) 2% (twelve percent) wear for seal-type wire rope over a length of 50 cm (fifty centimeters);
      - b) 15% (fifteen percent) wear for triangular strand wire rope over a length of 50 cm (fifty centimeters).
  - c. They have broken strands in wire ropes with a strand construction greater than or equal to 6x19, with the following conditions: Five (5) or more broken strands within one (1) strand and/or Ten (10) or more broken strands distributed across multiple strands in moving cranes;
  - d. They are exposed to temperatures above 204°C (two hundred four degrees Celsius) or below -40°C (minus forty degrees Celsius).
  - e. The socket or clamps show signs of failure.

Paragraph 3

Chain Sling

Article 132

- (1) Chain slings must:
  - a. Have a minimum safety factor of 4 (four); and
  - b. Be manufactured by welding the chain links to hooks, hookers, rings, or by using pins at both ends.
- (2) The elongation of chain sling links must not exceed 5% (five percent) of their original length.
- (3) The wear on chain links must not exceed 10% (ten percent) of the original chain diameter.
- (4) Chain slings must not be:
  - a. Hammered, even for straightening or fitting purposes;
  - b. Crossed, twisted, tangled, or knotted;
  - c. Pulled while under load compression;
  - d. Dropped from a height;
  - e. Subjected to shock loading; and
  - f. Used at temperatures above 204°C (two hundred four degrees Celsius) or below -40°C (minus forty degrees Celsius).
- (5) Damaged chain slings may be reused only after repair by a competent person specialized in chain repair.

Paragraph 4

Webbing Sling

Article 133

- (1) Webbing slings must:
  - a. Have a minimum safety factor of 5 (five); and
  - b. Be woven or stitched at both ends.
- (2) Webbing slings must not be used if they:
  - a. Experience discoloration, tearing, broken stitching, abrasion, perforation, melting, or other damage;
  - b. Have been burned or exposed to acidic substances; and
  - c. Are used at temperatures above 90°C (ninety degrees Celsius) or

below -40°C (minus forty degrees Celsius).

Paragraph 5  
Synthetic Rope Sling

Article 134

- (1) Synthetic rope slings must:
  - a. Have a minimum safety factor of 5 (five); and
  - b. Be spliced at both ends.
- (2) The reduction in diameter of synthetic rope slings must not exceed 10% (ten percent) of their original diameter.
- (3) Synthetic rope slings must not be used if they:
  - a. Experience discoloration, abrasion, melting, or other damage;
  - b. Have been exposed to sharp metal thimbles or other corroded components; and
  - c. Are used at temperatures above 90°C (ninety degrees Celsius) or below -40°C (minus forty degrees Celsius).

Part Three

Spreader Bar

Article 135

- (1) Spreader bars must:
  - a. Have a minimum safety factor of 6 (six) for steel bars and 4 (four) for chain components; and
  - b. Be equipped with hooks at both the upper and lower sections to attach chain slings.
- (2) Hooks must be positioned at the balancing points of the spreader bar.
- (3) Spreader bars may be made of solid steel, H-beam, and must be designed to withstand the maximum allowable load.
- (4) Spreader bars must not be used if they are cracked, bent, or corroded.
- (5) Chain slings used with spreader bars must comply with the provisions outlined in Article 132.

Part Four  
Lifting Beam

Article 136

- (1) Lifting beams must:
  - a. Have a minimum safety factor of 6 (six) for steel beams and 4 (four) for chains; and
  - b. Be equipped with hooks at both the upper and lower sections to attach crane hooks, chain slings, wire rope slings, grapples, hooks, and magnetic lifters.
- (2) Hooks must be positioned at the balancing points of the lifting beam.
- (3) Lifting beams may be made of solid steel, H-beam, and must be designed to withstand the maximum allowable load.
- (4) Lifting beams must not be used if they are cracked, bent, or corroded.
- (5) Chain slings used with lifting beams must comply with the provisions outlined in Article 132.

Part Five  
Personal Basket

Article 137

- (1) A personal basket made of steel must:
  - a. Have a strong and safe construction that complies with statutory regulations and applicable standards;
  - b. Have a minimum safety factor of 5 (five);
  - c. Be equipped with edge protection (toeboard);
  - d. Have a securely lockable and safe door;
  - e. Be equipped with a protective roof that includes hooks; and
  - f. Be designed with a height of at least 2 m (two meters) from the work floor.
- (2) Workers inside the personal basket must wear a full-body harness.
- (3) No person is allowed to use a steel personal basket that is corroded, rusted, or has cracks in its frame or work floor.

Article 138

- (1) A personal basket made of synthetic rope and used on or above water must:
  - a. Have a minimum safety factor of 5 (five); and
  - b. Be equipped with flotation devices and guide ropes (tag lines).
- (2) Workers inside the personal basket operating on or above water must wear a flotation device.
- (3) No person is allowed to use a personal basket made of synthetic rope if it:
  - a. Exhibits discoloration, abrasion, melting, or other damage; and/or
  - b. Has a rope diameter reduction exceeding 10% (ten percent) of its original size.

Part Six  
Accessories

Article 139

- (1) Accessories such as shackles, turnbuckles, swivels, eyebolts, eyenuts, eyepads, hookers, rings, master links, and clamps must:
  - a. Be used according to their type, capacity, and load shape; and
  - b. Be selected according to the type of Lifting and Transporting Auxiliary Equipment used for securing loads, except for nets.
- (2) No person is allowed to use accessories such as shackles, turnbuckles, swivels, eyebolts, eyenuts, eyepads, hookers, rings, master links, and clamps if they exhibit:
  - a. A dimensional change exceeding 10% (ten percent) of their original size; and
  - b. Deformation, thread damage, cracks, or corrosion.
- (3) Accessories that meet the conditions in paragraph (2) must be destroyed.

Part One

General

Article 140

- (1) Installation and/or assembly, use or operation, maintenance and servicing, repair, modification, as well as inspection and testing must be conducted by personnel with competence and authority in the field of Occupational Safety and Health (OSH) for Lifting and Transporting Equipment.
- (2) Such personnel include:
  - a. Technicians;
  - b. Operators;
  - c. Riggers; and
  - d. OSH Experts in the field of Lifting and Transporting Equipment.
- (3) Personnel competency must be proven with a competency certificate in accordance with statutory regulations.
- (4) The authority of Technicians, Operators, and Riggers must be evidenced by an OSH License.
- (5) The authority of OSH Experts in the field of Lifting and Transporting Equipment must be evidenced by an official appointment letter and an authorization card, as per statutory regulations.

Article 141

- (1) The installation and/or assembly, maintenance and servicing, repairs, and modifications of Lifting Equipment and Transport Equipment must be carried out by Technicians specialized in Lifting Equipment and Transport Equipment.
- (2) The operation of Lifting Equipment and Transport Equipment must be performed by an Operator qualified according to the type and capacity of the Lifting Equipment and Transport Equipment.
- (3) The operation of Lifting Equipment and Transport Equipment, which due to its specificity requires assistance, must be supported by a Rigger.

- (4) The inspection and testing of Lifting Equipment and Transport Equipment must be conducted by OSH Experts in the field of Lifting Equipment and Transport Equipment and Labor Inspectors specializing in OSH for Lifting Equipment and Transport Equipment.

#### Article 142

- (1) Operators as referred to in Article 141(2) consist of:
  - a. Lifting Equipment Operators; and
  - b. Transport Equipment Operators.
- (2) The qualifications of Operators as referred to in paragraph (1) are detailed in the Appendix, which is an integral part of this Ministerial Regulation.

#### Part Two

#### Competency of OSH Personnel

#### Article 143

- (1) The competency of OSH personnel as referred to in Article 140(3) must comply with the Indonesian National Work Competency Standards (SKKNI) established by the Minister.
- (2) If the SKKNI as referred to in paragraph (1) is not yet available, the Minister must establish the SKKNI within a maximum period of 2 (two) years from the enactment of this Ministerial Regulation.

#### Part Three

#### Appointment of Technicians

#### Article 144

Technicians as referred to in Article 141(1) must meet the following requirements:

- a. Have a minimum educational qualification of a vocational high school (SMK) in a technical field or its equivalent;
- b. Have a minimum of 2 (two) years of experience in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 20 (twenty) years old;

- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

#### Part Four

#### Appointment of Lifting Equipment Operators

#### Article 145

Lifting Equipment Operators as referred to in Article 142(1)(a) include Operators of:

- a. Jacks, including winch operators, hydraulic jacks, pneumatic jacks, post lifts, truck/car lifts, and other similar equipment;
- b. Lifting cranes, including overhead cranes, overhead traveling cranes, hoist cranes, chain blocks, monorail cranes, wall/jib cranes, stacker cranes, gantry cranes, semi-gantry cranes, launcher gantry cranes, roller gantry cranes, rail-mounted gantry cranes, rubber tire gantry cranes, ship unloader cranes, gantry luffing cranes, container cranes, portal cranes, ship cranes, barge cranes, derrick ship cranes, dredging cranes, pontoon cranes, floating cranes, floating derrick cranes, floating ship cranes, cargo cranes, crawler cranes, mobile cranes, locomotive cranes and/or railway cranes, truck cranes, tractor cranes, side boom cranes/crab cranes, derrick cranes, tower cranes, pedestal cranes, hydraulic drilling rigs, piling cranes, and other similar equipment;
- c. Workpiece positioning lifting devices, including rotators, robotics, tackles, and other similar equipment; and
- d. Personal platforms, including passenger hoists, gondolas, and other similar equipment.

#### Article 146

Operators of jacks and personal platforms as referred to in Article 145(a) and (d) must meet the following requirements:

- a. Have a minimum educational qualification of junior high school (SMP) or its equivalent;
- b. Have a minimum of 1 (one) year of experience assisting in the relevant field;

- c. Be medically fit for work as certified by a doctor;
- d. Be at least 19 (nineteen) years old;
- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

#### Article 147

- (1) Lifting crane operators as referred to in Article 145(b) are classified into the following categories:
  - a. Class III Operator;
  - b. Class II Operator; and
  - c. Class I Operator.
- (2) The classification provisions referred to in paragraph (1) do not apply to hydraulic drilling rig operators and piling crane operators.

#### Article 148

- (1) Class III lifting crane operators as referred to in Article 147(1)(a) and hydraulic drilling rig and piling crane operators as referred to in Article 147(2) must meet the following requirements:
  - a. Have a minimum educational qualification of junior high school (SMP) or its equivalent;
  - b. Have a minimum of 1 (one) year of experience assisting in the relevant field;
  - c. Be medically fit for work as certified by a doctor;
  - d. Be at least 19 (nineteen) years old;
  - e. Possess a competency certificate in the relevant field; and
  - f. Hold an OSH License (Lisensi K3).
- (2) Class II lifting crane operators as referred to in Article 147(1)(b) must meet the following requirements:
  - a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
  - b. Have a minimum of 1 (one) year of experience assisting in the relevant field;
  - c. Be medically fit for work as certified by a doctor;
  - d. Be at least 19 (nineteen) years old;

- e. Possess a competency certificate in the relevant field; and
  - f. Hold an OSH License (Lisensi K3).
- (3) Class I lifting crane operators as referred to in Article 147(1)(c) must meet the following requirements:
- a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
  - b. Have a minimum of 2 (two) years of experience assisting in the relevant field;
  - c. Be medically fit for work as certified by a doctor;
  - d. Be at least 20 (twenty) years old;
  - e. Possess a competency certificate in the relevant field; and
  - f. Hold an OSH License (Lisensi K3).

#### Article 149

A Class III lifting crane operator with a senior high school (SMA) qualification or equivalent may be promoted to Class II lifting crane operator, and a Class II lifting crane operator may be promoted to Class I lifting crane operator, provided that they:

- a. Have at least 2 (two) consecutive years of experience as an operator in their current classification; and
- b. Pass the lifting crane operator examination according to their qualification.

#### Article 150

Operators of workpiece positioning lifting devices as referred to in Article 145(c) must meet the following requirements:

- a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
- b. Have a minimum of 2 (two) years of experience assisting in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 20 (twenty) years old;
- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

Part Five

Appointment of Transport Equipment Operators

Article 151

Transport Equipment Operators as referred to in Article 142(1)(b) include Operators of:

- a. Heavy equipment, including forklift, lift truck, reach stackers, telehandler, hand lift/hand pallet, excavator, excavator grapple, backhoe, loader, dozer, tractor, grader, concrete paver, asphalt paver, asphalt sprayer, asphalt finisher, compactor roller/vibrator roller, and other similar equipment;
- b. Railway vehicles, including operators of cable cars, merry-go-rounds, roller coasters, swing rides, locomotives and their carriages, and other similar equipment;
- c. Personal baskets, including operators of manlift/boom lift, scissor lift, hydraulic stairs, and other similar equipment;
- d. Trucks, including operators of tractors, hazardous material transport trucks, dump trucks, cargo truck lifts, trailers, side loader trucks, module transporters, axle transports, car towing, and other similar equipment; and
- e. Robotics and conveyors, including operators of Automated Guided Vehicles, belt conveyors, chain conveyors, and other similar equipment.

Article 152

- (1) Forklift/lift truck, rack stackers, reach stackers, and telehandler operators, as referred to in Article 151(a), are classified as follows:
  - a. Class II Operators; and
  - b. Class I Operators.
- (2) The provisions in paragraph (1) do not apply to operators of hand lift/hand pallet, excavator, excavator grapple, backhoe, loader, dozer, tractor, grader, concrete paver, asphalt paver, asphalt sprayer, asphalt finisher, and compactor roller/vibrator roller.

### Article 153

- (1) Class II forklift/lift truck, rack stackers, reach stackers, and telehandler operators, as referred to in Article 152(1)(a), must meet the following requirements:
  - a. Have a minimum educational qualification of junior high school (SMP) or its equivalent;
  - b. Have a minimum of 1 (one) year of experience assisting in the relevant field;
  - c. Be medically fit for work as certified by a doctor;
  - d. Be at least 19 (nineteen) years old;
  - e. Possess a competency certificate in the relevant field; and
  - f. Hold an OSH License (Lisensi K3).
  
- (2) Class I forklift/lift truck, rack stackers, reach stackers, and telehandler operators, as referred to in Article 152(1)(b), must meet the following requirements:
  - a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
  - b. Have a minimum of 2 (two) years of experience assisting in the relevant field;
  - c. Be medically fit for work as certified by a doctor;
  - d. Be at least 20 (twenty) years old;
  - e. Possess a competency certificate in the relevant field; and
  - f. Hold an OSH License (Lisensi K3).

### Article 154

Class II forklift/lift truck, rack stackers, reach stackers, and telehandler operators with a senior high school (SMA) qualification or its equivalent may be promoted to Class I with the following requirements:

- a. Have at least 2 (two) consecutive years of experience as an operator in their current classification; and
- b. Pass the forklift and/or lift truck operator examination according to their qualification.

### Article 155

Operators as referred to in Article 151(c), Article 151(d), and Article 152(2) must meet the following requirements:

- a. Have a minimum educational qualification of junior high school (SMP) or its equivalent;
- b. Have a minimum of 1 (one) year of experience assisting in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 19 (nineteen) years old;
- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

#### Article 156

Operators of railway vehicles, as referred to in Article 151(b), and operators of robotics and conveyors, as referred to in Article 151(e), must meet the following requirements:

- a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
- b. Have a minimum of 2 (two) years of experience assisting in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 20 (twenty) years old;
- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

#### Part Six

#### Appointment of Riggers

#### Article 157

Riggers, as referred to in Article 141(4), must meet the following requirements:

- a. Have a minimum educational qualification of senior high school (SMA) or its equivalent;
- b. Have a minimum of 1 (one) year of experience in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 19 (nineteen) years old;
- e. Possess a competency certificate in the relevant field; and
- f. Hold an OSH License (Lisensi K3).

## Part Seven

### Appointment of OSH Experts in Lifting and Transport Equipment

#### Article 158

OSH Experts in Lifting and Transport Equipment, as referred to in Article 141(5), must meet the following requirements:

- a. Have a minimum educational qualification of a diploma (D-III) in engineering or its equivalent;
- b. Have a minimum of 2 (two) years of experience in the relevant field;
- c. Be medically fit for work as certified by a doctor;
- d. Be at least 23 (twenty-three) years old; and
- e. Possess an official appointment decree from the Minister and an authorization card.

## Part Eight

### Procedure for Obtaining an Occupational Safety and Health License

#### Article 159

- (1) To obtain an OSH License for a Technician, Operator, or Rigger, the Employer must submit a written application to the Director-General, enclosing:
  - a. A copy of the applicant's latest educational diploma;
  - b. A letter of work experience in the relevant field issued by the employing company;
  - c. A medical certificate confirming fitness for work;
  - d. A copy of the applicant's identification card;
  - e. A copy of the competency certificate according to the type and qualification; and
  - f. Three (3) color passport-sized photos (2x3 cm) and two (2) color passport-sized photos (4x6 cm).
- (2) The application as referred to in paragraph (1) will undergo document review and evaluation by a designated committee.
- (3) If the requirements in paragraph (1) are deemed complete and meet the qualifications, the Director-General will issue an OSH License.

Part Nine

Procedures for Obtaining an Appointment Decree  
and Authorization Card

Article 160

- (1) To obtain an appointment decree and authorization card as an OSH Expert in Lifting and Transport Equipment, the Employer must submit a written application to the Director-General, enclosing:
  - a. A copy of the applicant's latest educational diploma;
  - b. A letter of work experience for OSH Experts in Lifting and Transport Equipment issued by the company;
  - c. A medical certificate confirming fitness for work (fit to work);
  - d. A copy of the applicant's identification card;
  - e. A copy of the competency certificate;
  - f. A fieldwork practice report covering inspections of 15 (fifteen) types of Lifting and Transport Equipment; and
  - g. Three (3) color passport-sized photos (2x3 cm) and two (2) color passport-sized photos (4x6 cm).
- (2) The application as referred to in paragraph (1) will undergo document review and evaluation by a designated committee.
- (3) If the requirements in paragraph (1) are deemed complete and meet the qualifications, the Director-General will issue an appointment decree and an authorization card.

Article 161

- (1) If the competency certificate referred to in Article 140(3) is not yet available, a statement confirming completion of OSH training, issued by the Director-General, may be used instead.
- (2) The OSH training referred to in paragraph (1) must be conducted in accordance with the guidelines outlined in the Appendix, which is an integral part of this Ministerial Regulation.

Part Ten

Renewal of Appointment Decrees, Authorization Cards,  
and Occupational Safety and Health Licenses

Article 162

- (1) The appointment decree and authorization card for OSH Experts in Lifting and Transport Equipment are valid for 3 (three) years and can be renewed for the same period.
- (2) The OSH License (Lisensi K3) for Technicians, Operators, and Riggers is valid for 5 (five) years and can be renewed for the same period.
- (3) Applications for renewal of the appointment decree and authorization card for OSH Experts in Lifting and Transport Equipment, as referred to in paragraph (1), must be submitted by the Employer to the Director-General with the following documents:
  - a. The original appointment decree for OSH Experts to be renewed;
  - b. The original authorization card to be renewed;
  - c. A medical certificate confirming fitness for work;
  - d. A copy of the applicant's identification card;
  - e. A copy of the competency certificate according to the type and qualification;
  - f. A report on activities during the validity period; and
  - g. Three (3) color passport-sized photos (2x3 cm) and two (2) color passport-sized photos (4x6 cm).
- (4) Applications for renewal of the OSH License (Lisensi K3) for Technicians, Operators, and Riggers, as referred to in paragraph (2), must be submitted by the Employer to the Director-General with the following documents:
  - a. The original OSH License (Lisensi K3) to be renewed;
  - b. A medical certificate confirming fitness for work;
  - c. A copy of the applicant's identification card;
  - d. A copy of the competency certificate according to the type and qualification; and
  - e. Three (3) color passport-sized photos (2x3 cm) and two (2) color passport-sized photos (4x6 cm).

- (5) The renewal application, as referred to in paragraphs (3) and (4), must be submitted at least 30 (thirty) days before the expiration date.

#### Article 163

- (1) The appointment decree, authorization card, and OSH License (Lisensi K3) are only valid while the holder is employed by the company that submitted the application.
- (2) If an Operator, Technician, Rigger, or OSH Expert in Lifting and Transport Equipment transfers to another workplace before the expiration of their appointment decree, authorization card, or OSH License (Lisensi K3), the documents may be updated upon application by the new employing company.

### Part Eleven

#### Duties and Authorities of Technicians

#### Article 164

- (1) Technicians, as referred to in Article 141(1), are Workers responsible for:
  - a. Implementing OSH regulations related to Lifting and Transport Equipment;
  - b. Identifying potential hazards in the installation or assembly, maintenance/servicing, repair, modification, or alteration of Lifting and Transport Equipment;
  - c. Identifying potential hazards in the installation or assembly, maintenance/servicing of Lifting and Transport Equipment Accessories and related components;
  - d. Applying OSH technical standards for Lifting and Transport Equipment in installation, servicing, maintenance, repair, modification, and inspection of equipment and accessories; and
  - e. Being responsible for the results of installation, maintenance, repair, and/or inspection of Lifting and Transport Equipment components.

- (2) Technicians of Lifting and Transport Equipment are authorized to:
- a. Install, repair, or maintain Lifting and Transport Equipment;
  - b. Inspect, adjust, and evaluate the condition of Lifting and Transport Equipment; and
  - c. Assist in the inspection and/or testing of Lifting and Transport Equipment, under the supervision of a Specialist Labor Inspector and/or OSH Expert in Lifting and Transport Equipment.

## Part Twelve

### Duties and Authorities of Operators

#### Article 165

- (1) An Operator, as referred to in Article 141 paragraph (2), is a worker responsible for:
- a. Implementing occupational safety and health (OSH) regulations for Lifting and Transport Equipment;
  - b. Identifying potential hazards in the operation of Lifting and Transport Equipment;
  - c. Applying OSH techniques and requirements in operating Lifting and Transport Equipment;
  - d. Inspecting the condition and working capability of Lifting and Transport Equipment, Safety Devices, and other accessories before operation; and
  - e. Ensuring the safe operation of Lifting and Transport Equipment.
- (2) The Operator, as referred to in Article 141 paragraph (2), has the authority to stop the operation of Lifting and Transport Equipment if the Safety Devices or operational accessories are not functioning properly or are damaged.
- (3) A Class I Crane Operator, in addition to the authority specified in paragraph (2), is also authorized to:

- a. Operate a tower crane without height limitations;
  - b. Operate a lifting crane according to its type with a capacity exceeding 100 tons; and
  - c. Supervise and guide the activities of Class II and/or Class III Operators, if necessary, with the assistance of a Class II and/or Class III Operator.
- (4) A Class II Crane Operator, in addition to the authority specified in paragraph (2), is also authorized to:
- a. Operate a lifting crane according to its type with a capacity of more than 25 tons and up to 100 tons or a tower height of up to 60 meters; and
  - b. Supervise and guide Class III Operators, if necessary, with the assistance of a Class III Operator.
- (5) A Class III Crane Operator, in addition to the authority specified in paragraph (2), is also authorized to operate a lifting crane according to its type with a capacity of up to 25 tons or a tower height of up to 40 meters.
- (6) A Class I Forklift/Lift Truck, Rack Stackers, Reach Stackers, and Telehandler Operator, in addition to the authority specified in paragraph (2), is also authorized to:
- a. Operate forklifts/lift trucks, rack stackers, reach stackers, and telehandlers according to their type with a capacity exceeding 15 tons; and
  - b. Supervise and guide Class II Operators.
- (7) A Class II Forklift/Lift Truck, Rack Stackers, Reach Stackers, and Telehandler Operator, in addition to the authority specified in paragraph (2), is also authorized to operate forklifts/lift trucks, rack stackers, reach stackers, and telehandlers according to their type with a capacity of up to 15 tons.

Article 166

- (1) A Rigger, as referred to in Article 141 paragraph (3), is a worker responsible for:
  - a. Identifying potential hazards in load rigging and the use of Lifting and Transport Equipment Accessories;
  - b. Applying OSH techniques and requirements for safe rigging to prevent workplace accidents;
  - c. Selecting Lifting and Transport Equipment Accessories and additional tools according to their Safe Working Load (SWL) capacity;
  - d. Inspecting the safety conditions of rigging and the accessories used; and
  - e. Conducting maintenance of Lifting and Transport Equipment Accessories.
  
- (2) A Rigger is authorized to:
  - a. Secure loads/materials according to rigging procedures and calculated safety standards;
  - b. Inspect Lifting and Transport Equipment Accessories before use; and
  - c. Give operational hand signals for operating Lifting and Transport Equipment.

Part Fourteen

Duties and Authorities of an OSH Expert in Lifting  
and Transport Equipment

Article 167

- (1) An OSH Expert in Lifting and Transport Equipment, as referred to in Article 141 paragraph (4), is a worker responsible for:
  - a. Assisting in the implementation of OSH regulations for Lifting and Transport Equipment;
  - b. Assisting in the supervision of OSH regulations for Lifting and Transport Equipment;

- c. Identifying, analyzing, assessing, and controlling potential hazards related to Lifting and Transport Equipment;
- d. Inspecting and analyzing the stability of Lifting and Transport Equipment;
- e. Inspecting, analyzing, and testing Lifting Equipment and its components;
- f. Inspecting, analyzing, and testing Transport Equipment and its components;
- g. Inspecting, analyzing, and testing Lifting and Transport Equipment Accessories and additional tools;
- h. Conducting non-destructive testing (NDT); and
- i. Preparing inspection and testing reports and analyses for Lifting and Transport Equipment.

(2) An OSH Expert in Lifting and Transport Equipment is authorized to:

- a. Conduct inspections, measurements, and evaluations of Lifting and Transport Equipment;
- b. Conduct inspections and/or tests on Lifting Equipment;
- c. Conduct inspections and/or tests on Transport Equipment;
- d. Conduct inspections and/or tests on Lifting and Transport Equipment Accessories and additional tools;
- e. Provide recommendations for improvements to Lifting and Transport Equipment based on inspection and testing results; and
- f. Recommend the suspension of Lifting and Transport Equipment operations and the use of Lifting and Transport Equipment Accessories if the inspection and testing results indicate hazardous or unsafe conditions or non-compliance with OSH standards.

## Part Fifteen

### Obligations

#### Article 168

A Technician is obligated to:

- a. Comply with OSH regulations in the Lifting and Transport Equipment sector;

- b. Implement safe work procedures;
- c. Prepare reports on the installation, maintenance, repair, and/or inspection of Lifting and Transport Equipment components;
- d. Maintain a work logbook and submit monthly reports on tasks performed; and
- e. Report to the supervisor if the Lifting and Transport Equipment under their responsibility is unsafe or unfit for use.

#### Article 169

- (1) An Operator of Lifting and Transport Equipment is obligated to:
  - a. Comply with OSH regulations in the Lifting and Transport Equipment sector;
  - b. Implement safe work procedures;
  - c. Not leave the control area of the Lifting and Transport Equipment while it is in operation;
  - d. Coordinate with Class II and Class III Operators, where a Class I Operator supervises Class II Operators, and a Class II Operator supervises Class III Operators;
  - e. Maintain a work logbook and prepare daily reports while operating Lifting and Transport Equipment; and
  - f. Immediately report to the supervisor if Safety Devices or operational accessories of the Lifting and Transport Equipment are not functioning properly or are damaged.
- (2) A Rigger is obligated to:
  - a. Comply with OSH regulations in the Lifting and Transport Equipment sector;
  - b. Implement safe rigging procedures; and
  - c. Maintain a work logbook and submit daily reports on rigging activities performed.

#### Article 170

An OSH Expert in Lifting and Transport Equipment is obligated to:

- a. Comply with OSH regulations in the Lifting and Transport Equipment sector;
- b. Develop work plans for the inspection and testing of Lifting and Transport Equipment;
- c. Analyze the capability and performance of Lifting and Transport Equipment;
- d. Formulate safety measures for Lifting and Transport Equipment; and
- e. Prepare reports on the results of inspections and tests.

#### Article 171

- (1) The Employer and/or Business Owner is prohibited from employing:
  - a. Technicians, Operators, and Riggers who do not possess an OSH License (Lisensi K3); and
  - b. OSH Experts in Lifting and Transport Equipment who do not hold an official appointment decree and an authorization card.
- (2) The Employer and/or Business Owner must provide a work logbook that records all activities.
- (3) The Employer and/or Business Owner must review the work logbooks of Technicians, Operators, and Riggers under their supervision every three months.
- (4) The work logbook, as referred to in paragraph (2), must follow the format outlined in the annex that is an integral part of this Ministerial Regulation.

#### Part Sixteen

#### Revocation

#### Article 172

- (1) The revocation of the appointment decree and the authorization card for an OSH Expert in Lifting and Transport Equipment shall be carried out in accordance with applicable laws and regulations.
- (2) The revocation of an OSH License (Lisensi K3) for Technicians, Operators, and Riggers shall be enforced if the individual is found to have:

- a. Performed duties inconsistently with their designated type and qualification;
- b. Committed mistakes, negligence, or recklessness that led to hazardous conditions or workplace accidents; and/or
- c. Failed to fulfill the required obligations.

## CHAPTER VII INSPECTION AND TESTING

### Article 173

- (1) Every planning, manufacturing, installation, assembly, usage, operation, repair, alteration, or modification of Lifting and Transport Equipment must undergo inspection and testing.
- (2) Every planning, manufacturing, and usage of Lifting and Transport Equipment Accessories must also undergo inspection and testing.
- (3) The inspection and testing, as referred to in paragraphs (1) and (2), must be conducted by:
  - a. OSH Labor Inspector (Pengawas Ketenagakerjaan Spesialis K3) specialized in Lifting and Transport Equipment;
  - b. Certified OSH Tester with expertise in Lifting and Transport Equipment; or
  - c. OSH Expert in Lifting and Transport Equipment.
- (4) The inspection and testing referred to in paragraph (3) must be conducted in accordance with this Ministerial Regulation and/or Lifting and Transport Equipment standards.

### Article 174

The inspection and testing, as referred to in Article 173, consists of:

- a. Initial Inspection and Testing;
- b. Periodic Inspection and Testing;
- c. Special Inspection and Testing; and
- d. Re-Inspection and Re-Testing.

Article 175

- (1) The Initial Inspection and Testing, as referred to in Article 174 paragraph (1) letter a, must be conducted for:
  - a. Manufacturing;
  - b. Installation and/or assembly;
  - c. Repair, modification, or alteration; and
  - d. Lifting and Transport Equipment that Has never been inspected and tested before, Is newly acquired or imported, and/or Is being rented for use.
- (2) The Initial Inspection and Testing, as referred to in paragraph (1), must include:
  - a. Document verification;
  - b. Visual inspection;
  - c. Technical/dimensional measurement;
  - d. Non-destructive testing (NDT) for main components and load-bearing elements;
  - e. Functional testing of the Lifting and Transport Equipment;
  - f. Dynamic load testing, by gradually applying a load up to 100% of the Safe Working Load (SWL); and
  - g. Static load testing, which must be conducted as follows:
    1. At least 110% of the SWL for Lifting and Transport Equipment, except for lifting cranes with girders or without a load chart, which must be tested at a minimum of 125% of the SWL;
    2. At least 150% of the SWL, applied progressively, for jacks;
    3. Between 150% and 200% of the SWL for Lifting and Transport Equipment Accessories and their components.

Article 176

- (1) Periodic Inspection and Testing, as referred to in Article 174 paragraph (1) letter b, for Lifting and Transport Equipment must be conducted no later than two years after the initial inspection and testing, and subsequently every one year.

- (2) Periodic Inspection and Testing, as referred to in Article 174 paragraph (1) letter b, for Lifting and Transport Equipment Accessories and additional components, must be conducted at least once a year.
- (3) The Periodic Inspection and Testing, as referred to in paragraphs (1) and (2), must include:
  - a. Document verification;
  - b. Visual inspection;
  - c. Technical/dimensional measurement;
  - d. Non-destructive testing (NDT) for main components and load-bearing elements;
  - e. Functional testing of the Lifting and Transport Equipment;
  - f. Dynamic load testing, by gradually applying a load up to 100% of the SWL; and
  - g. Static load testing, which must be conducted as follows:
    1. At least 110% of the SWL for Lifting and Transport Equipment, except for lifting cranes with girders or without a load chart, which must be tested at a minimum of 125% of the SWL;
    2. At least 150% of the SWL, applied progressively, for jacks; and
    3. Between 150% and 200% of the SWL for Lifting and Transport Equipment Accessories and their components.

#### Article 177

- (1) Special inspections and testing, as referred to in Article 174, paragraph (1), letter (c), must be conducted after an incident of workplace accidents, fires, or explosions.
- (2) These special inspections and testing must be carried out in accordance with applicable laws and regulations.

#### Article 178

- (1) Re-inspection and re-testing of Lifting and Transport Equipment, as referred to in Article 174, paragraph (1), letter (d), must be conducted if the previous inspection and testing results indicate uncertainty.

- (2) The provisions regarding inspection and testing, as outlined in Articles 175 and 176, shall apply mutatis mutandis to the re-inspection and re-testing process, except for static load testing.

#### Article 179

- (1) Inspection and testing, as referred to in Article 174, must follow the sample form included in the Annex, which is an integral part of this Ministerial Regulation.
- (2) The form, as mentioned in paragraph (1), may be modified or expanded based on the type and capacity of the Lifting and Transport Equipment, including Lifting Accessories and their components.

#### Article 180

- (1) The results of inspections and testing related to the planning, modification, or alteration of Lifting and Transport Equipment, as referred to in Article 173, paragraph (1), must be reported to the head of the unit responsible for OSH compliance monitoring, in accordance with applicable regulations.
- (2) The results of inspections and testing, as referred to in Articles 175 to 178, must be reported to the head of the local labor inspection unit. However, for rental Lifting and Transport Equipment or those used across provinces, the report must be submitted to the head of the unit responsible for OSH compliance monitoring, as per applicable regulations.
- (3) The inspection and testing results, as mentioned in paragraph (1), must be documented in an OSH compliance certificate stating whether the equipment meets or does not meet OSH requirements. This certificate must be issued by the head of the OSH compliance monitoring unit, following the applicable laws and regulations.
- (4) The inspection and testing results, as mentioned in paragraph (2), must also be documented in an OSH compliance certificate and issued by the head of the local labor inspection unit or an appointed official, in line with applicable laws and regulations.

#### Article 181

- (1) Certificates issued must be based on the results of inspection and testing.
- (2) The certificate, as referred to in paragraph (1), shall state whether the equipment meets or does not meet OSH requirements.
- (3) The technical data contained in the certificate, as referred to in paragraph (2), may be expanded to match the type and capacity of the Lifting and Transport Equipment.
- (4) The certificate, as referred to in paragraph (2), shall be issued in three copies, distributed as follows:
  - a. First copy – for the owner;
  - b. Second copy – for the local labor inspection unit; and
  - c. Third copy – for the directorate responsible for OSH compliance monitoring.
- (5) The certificate, as referred to in paragraph (2), must follow the format included in the Annex, which is an integral part of this Ministerial Regulation.

#### Article 182

- (1) Lifting and Transport Equipment that receives an OSH compliance certificate, as referred to in Article 181, paragraph (2), must be affixed with an OSH compliance sticker.
- (2) Lifting and Transport Equipment that fails to meet OSH requirements, as referred to in Article 181, paragraph (2), must be affixed with a non-compliance sticker.
- (3) The OSH compliance and non-compliance stickers, as referred to in paragraphs (1) and (2), must follow the format provided in the Annex, which is an integral part of this Ministerial Regulation.

#### Article 183

The labor inspection unit must submit a quarterly report summarizing the OSH compliance certificates, as referred to in Article 181, to the Directorate General responsible for labor inspection.

Article 184

- (1) The reporting process, as mentioned in Article 180, paragraphs (1) and (2), may be conducted electronically and/or non-electronically.
- (2) The electronic reporting system, as referred to in paragraph (1), shall be implemented gradually.

CHAPTER VIII

SUPERVISION

Article 185

The implementation of this Ministerial Regulation in workplaces shall be monitored by Labor Inspectors, in accordance with applicable laws and regulations.

CHAPTER IX

SANCTIONS

Article 186

Employers and/or business owners who fail to comply with Article 2, paragraph (1) of this Ministerial Regulation shall be subject to sanctions in accordance with Law No. 1 of 1970 on Occupational Safety, and Law No. 13 of 2003 on Labor Regulations.

CHAPTER X

FINAL PROVISIONS

Article 187

Upon the enforcement of this Ministerial Regulation, the following regulations:

- a. Minister of Manpower Regulation No. PER. 05/MEN/1985 on Lifting and Transport Equipment;
- b. Minister of Manpower and Transmigration Regulation No. PER. 09/MEN/VII/2010 on Operators and Personnel for Lifting and Transport Equipment (State Gazette of the Republic of Indonesia, 2010, No. 340);  
and

- c. Ministerial Decree No. 452/M/BW/1996 on the Use of Rental Lifting and Transport Equipment,  
are revoked and declared null and void:.

Article 188

This Ministerial Regulation shall take effect on the date of its promulgation.

To ensure public awareness, it is ordered that this Ministerial Regulation be officially published in the State Gazette of the Republic of Indonesia.

Enacted in Jakarta

on June 8, 2020

MINISTER OF MANPOWER  
OF THE REPUBLIC OF INDONESIA,

signed

IDA FAUZIYAH

Promulgated in Jakarta

on June 12, 2020

DIRECTOR GENERAL  
OF LEGISLATION  
MINISTRY OF LAW AND HUMAN RIGHTS  
REPUBLIC OF INDONESIA,

signed

WIDODO EKATJAHJANA

STATE GAZETTE OF THE REPUBLIC OF INDONESIA, 2020, NO. 609

Acting HEAD OF THE LEGAL BUREAU,

signed

RENI MURSIDAYANTI  
NIP. 19720603 199903 2 001

*Disclaimer*

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ANNEX  
MINISTERIAL REGULATION  
OF THE MINISTRY OF MANPOWER  
OF THE REPUBLIC OF INDONESIA  
NUMBER 8 OF 2020  
ON  
OCCUPATIONAL SAFETY AND HEALTH  
FOR LIFTING AND TRANSPORT EQUIPMENT

ANNEX CONTENTS

1. OPERATOR QUALIFICATIONS
2. GUIDELINES FOR OSH TRAINING ON LIFTING AND TRANSPORT EQUIPMENT
3. WORK LOGBOOK FOR OPERATORS, RIGGERS, AND TECHNICIANS
4. INSPECTION AND TESTING FORM FOR LIFTING AND TRANSPORT EQUIPMENT
5. OSH COMPLIANCE CERTIFICATE AND NON-COMPLIANCE CERTIFICATE
6. OSH COMPLIANCE STICKER AND NON-COMPLIANCE STICKER

MINISTER OF MANPOWER  
OF THE REPUBLIC OF INDONESIA,

signed

IDA FAUZIYAH

Acting HEAD OF THE LEGAL BUREAU,

signed

RENI MURSIDAYANTI  
NIP. 19720603 199903 2 001

1. OPERATOR QUALIFICATIONS

| Number | Type and capacity of lifting and transport equipment  | Qualification   |                |          |          |
|--------|---|---|----------------|----------|----------|
|        |   | Class III   | Class II       | Class I  |          |
| I      | Lifting equipment   |   |                |          |          |
| 1.1    | <p><i>Types of Lifting Equipment: Overhead crane, overhead travelling crane, hoist crane, monorail crane, wall crane, jib crane, stacker crane, gantry crane, semi-gantry crane, launcher gantry crane, roller gantry crane, rail-mounted gantry crane, rubber tire gantry crane, ship unloader crane, gantry luffing crane, container crane</i></p>  | Up to 25 tons   | 1 person       | -        | -        |
|        |   | More than 25 tons and up to 100 tons  | -              | 1 person | -        |
|        |   | More than 100 tons  | -              | -        | 1 person |
|        |   | <p><i>Portal crane, ship crane, barge crane, derrick ship crane, dredging crane, pontoon crane, floating crane, floating derricks crane, floating ship crane, cargo crane, crawler crane, mobile crane, locomotive crane and/or railway crane, truck crane, tractor crane, side boom crane, derrick crane, portal crane, pedestal crane</i></p> |                |          |          |
|        | 1.2   | Up to 25 tons   | 1 person       | -        | -        |
|        |   | More than 25 tons and up to 100 tons  | -              | 1 person | -        |
|        |   | More than 100 tons  | -              | -        | 1 person |
|        | 1.3   | Tower Crane.  | -              | -        | -        |
|        |   | Tower height up to 40 meters  | 1 person       | -        | -        |
|        |   | Tower height up to 60 meters  | -              | 1 person | -        |
|        |   | Tower height without height limitation  | -              | -        | 1 person |
|        | 1.4   | Winch (lier), hydraulic jack, pneumatic jack, post lift, truck/car lift, rotator, robotics, and hoists, passenger hoist, gondola, hydraulic drilling rig, piling crane/piling machine   | non classified |          | 1 person |
| II     | Transport Equipment   |   |                |          |          |
| II.1   | <p><i>Excavator, excavator grapple, backhoe, loader, dozer, tractor, grader, concrete paver, asphalt paver, asphalt sprayer, asphalt finisher, compactor roller/vibrator, roller, cable car, carousel, roller coaster, swing ride, locomotive and its carriages, manlift/boom lift, scissor lift, hydraulic stairs, tractor, hazardous materials transport truck, dump truck, cargo truck lift, trailer, side loader truck, module transporter, axle transport, car towing, Automated Guided Vehicle (AGV), conveyor belt, running belt, chain conveyor</i></p> | non classified  |                | 1 person |          |
| II.2   | II. 2. 1  | Forklift/lift truck, reach stackers, telehandler, hand lift/hand pallet ≤ 15 tons.  | -              | 1 person | -        |
|        | II. 2. 2  | Forklift/lift truck, reach stackers, telehandler, hand lift/hand pallet > 15 tons.  | -              | -        | 1 person |

2. GUIDELINES FOR OCCUPATIONAL SAFETY AND HEALTH (OSH) TRAINING FOR LIFTING AND TRANSPORT EQUIPMENT

TRAINING MATERIALS

TECHNICIAN TRAINING FOR LIFTING AND TRANSPORT EQUIPMENT

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Lifting and Transport Equipment                       |
| 5   | Basic Knowledge of Prime Movers  |
| 6   | Basic Knowledge of Hydraulics  |
| 7   | Electrical Knowledge   |
| 8   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 9   | Steel Wire Ropes and Lifting Accessories                                 |
| 10  | Knowledge of Materials and Corrosion                                     |
| 11  | Maintenance Management   |
| 12  | Construction Review of Lifting and Transport Equipment                   |
| 13  | Inspection of Lifting and Transport Equipment                            |
| 14  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 90 (ninety) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR MECHANICAL JACK AND HOIST OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Mechanical Jacks and Hoists                           |
| 5   | Basic Knowledge of Electric Motors and Electrical Installations          |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Knowledge of Hydraulic and Pneumatic Systems                             |
| 8   | Causes of Accidents and Mitigation Measures                              |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR OPERATORS OF MOBILE CRANES, SHIP UNLOADER CRANES, GANTRY LUFFING CRANES, CONTAINER CRANES, PORTAL CRANES, SHIP CRANES, BARGE CRANES, DERRICK SHIP CRANES, DREDGING CRANES, PONTOON CRANES, FLOATING CRANES, FLOATING DERRICKS CRANES, FLOATING SHIP CRANES, CARGO CRANES, CRAWLER CRANES, MOBILE CRANES, LOCOMOTIVE CRANES AND/OR RAILWAY CRANES, TRUCK CRANES, TRACTOR CRANES, SIDE BOOM CRANES/CRAB CRANES

| No. | Materials  | Class I | Class II | Class III |
|-----|--|---------|----------|-----------|
| 1   | Occupational Safety and Health (OSH) Policy                              | √       | √        | √         |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment | √       | √        | √         |
| 3   | Fundamentals of OSH  | √       | √        | √         |
| 4   | Basic Knowledge of Lifting Cranes  | √       | √        | √         |
| 5   | Basic Knowledge of Prime Movers  | √       | √        |           |
| 6   | Basic Knowledge of Hydraulics  | √       | √        |           |
| 7   | Safety Devices and Personal Protective Equipment (PPE)                   | √       | √        | √         |
| 8   | Steel Wire Ropes   | √       | √        | √         |
| 9   | Lifting Accessories and Rigging  | √       | √        | √         |
| 10  | Causes of Accidents and Their Mitigation                                 | √       | √        | √         |
| 11  | Load Weight Calculation  | √       | √        | √         |
| 12  | Stability  | √       | √        |           |
| 13  | Safe Operation   | √       | √        | √         |
| 14  | Daily Maintenance and Inspection   | √       | √        | √         |
| 11  | Theoretical and Practical Evaluation                                     | √       | √        | √         |

Notes:

- a. The duration of the training is 50 (fifty) Instructional Hours (IH) for Class I (one) or adjusted as needed.
- b. The duration of the training is 40 (forty) Instructional Hours (IH) for Class II (two) or adjusted as needed.
- c. The duration of the training is 30 (thirty) Instructional Hours (IH) for Class III (three) or adjusted as needed

**TRAINING MATERIALS**  
**TRAINING FOR TOWER CRANE OPERATORS**

| No. | Materials  | Class | Class | Class |
|-----|--|-------|-------|-------|
|     |  | I     | II    | III   |
| 1   | Occupational Safety and Health (OSH) Policy                              | √     | √     | √     |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment | √     | √     | √     |
| 3   | Fundamentals of OSH  | √     | √     | √     |
| 4   | Basic Knowledge of Lifting Cranes  | √     | √     | √     |
| 5   | Basic Knowledge of Prime Movers  | √     | √     |       |
| 6   | Basic Knowledge of Electrical Systems                                    | √     | √     |       |
| 7   | Safety Devices and Personal Protective Equipment (PPE)                   | √     | √     | √     |
| 8   | Steel Wire Ropes   | √     | √     | √     |
| 8   | Lifting Accessories and Rigging  | √     | √     | √     |
| 9   | Causes of Accidents and Their Mitigation                                 | √     | √     | √     |
| 10  | Load Weight Calculation  | √     | √     | √     |
| 11  | Stability  | √     |       |       |
| 12  | Safe Operation   | √     | √     | √     |
| 13  | Daily Maintenance and Inspection   | √     | √     | √     |
| 14  | Theoretical and Practical Evaluation                                     | √     | √     | √     |

**Notes:**

- a. The duration of the training is 50 (fifty) Instructional Hours (IH) for Class I (one) or adjusted as needed.
- b. The duration of the training is 40 (forty) Instructional Hours (IH) for Class II (two) or adjusted as needed.
- c. The duration of the training is 30 (thirty) Instructional Hours (IH) for Class III (three) or adjusted as needed.

TRAINING MATERIALS

TRAINING FOR OPERATORS OF OVERHEAD CRANES (OVERHEAD CRANE), OVERHEAD TRAVELLING CRANES, HOIST CRANES, CHAIN BLOCKS, MONORAIL CRANES, WALL CRANES/JIB CRANES, STACKER CRANES, GANTRY CRANES, SEMI GANTRY CRANES, LAUNCHER GANTRY CRANES, ROLLER GANTRY CRANES, RAIL MOUNTED GANTRY CRANES, RUBBER TIRE GANTRY CRANES, SHIP UNLOADER CRANES, GANTRY LUFFING CRANES, CONTAINER CRANES

| No. | Materials  | Class I | Class II | Class III |
|-----|--|---------|----------|-----------|
| 1   | Occupational Safety and Health (OSH) Policy                              | √       | √        | √         |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment | √       | √        | √         |
| 3   | Fundamentals of OSH  | √       | √        | √         |
| 4   | Basic Knowledge of Lifting Cranes  | √       | √        | √         |
| 5   | Basic Knowledge of Prime Movers  | √       | √        |           |
| 6   | Basic Knowledge of Electrical Systems                                    | √       | √        |           |
| 7   | Safety Devices and Personal Protective Equipment (PPE)                   | √       | √        | √         |
| 8   | Steel Wire Ropes   | √       | √        | √         |
| 9   | Lifting Accessories and Rigging  | √       | √        | √         |
| 10  | Causes of Accidents and Their Mitigation                                 | √       | √        | √         |
| 11  | Load Weight Calculation  | √       | √        | √         |
| 12  | Stability  | √       |          |           |
| 13  | Safe Operation   | √       | √        | √         |
| 14  | Daily Maintenance and Inspection   | √       | √        | √         |
| 15  | Theoretical and Practical Evaluation                                     | √       | √        | √         |

Notes:

- a. The duration of the training is 50 (fifty) Instructional Hours (IH) for Class I (one) or adjusted as needed.
- b. The duration of the training is 40 (forty) Instructional Hours (IH) for Class II (two) or adjusted as needed.
- c. The duration of the training is 30 (thirty) Instructional Hours (IH) for Class III (three) or adjusted as needed.

TRAINING MATERIALS

TRAINING FOR ROBOTIC OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Control Systems  |
| 5   | Basic Knowledge of Robotics  |
| 6   | Basic Knowledge of Electric Motors and Electrical Installations          |
| 7   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 8   | Causes of Accidents and Mitigation Measures                              |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 40 (forty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR PASSENGER HOIST OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Passenger Hoists                                      |
| 5   | Basic Knowledge of Electric Motors and Electrical Installations          |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Causes of Accidents and Mitigation Measures                              |
| 8   | Safety Equipment   |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS  
TRAINING FOR GONDOLA OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Gondolas  |
| 5   | Basic Knowledge of Electric Motors and Electrical Installations          |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Steel Wire Ropes and Lifting and Transport Accessories                   |
| 8   | Causes of Accidents and Mitigation Measures                              |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR FORKLIFT OPERATORS

| No. | Materials  | Class | Class |
|-----|--|-------|-------|
|     |  | I     | II    |
| 1   | Occupational Safety and Health (OSH) Policy                              | √     | √     |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment | √     | √     |
| 3   | Fundamentals of OSH  | √     | √     |
| 4   | Basic Knowledge of Forklifts   | √     | √     |
| 5   | Knowledge of Power Sources and Hydraulic Systems                         | √     | √     |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   | √     | √     |
| 7   | Causes of Accidents  | √     | √     |
| 8   | Estimating Load Weight   | √     | √     |
| 9   | Stability  | √     |       |
| 10  | Safe Operation   | √     | √     |
| 11  | Daily Maintenance and Inspection   | √     | √     |
| 12  | Theoretical and Practical Evaluation                                     |       |       |

Notes:

- a. The duration of the training is 40 (forty) Instructional Hours (IH) for Class I (one) or adjusted as needed.
- b. The duration of the training is 30 (thirty) Instructional Hours (IH) for Class II (two) or adjusted as needed.

TRAINING MATERIALS

TRAINING FOR MAN LIFT OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Man Lifts   |
| 5   | Basic Knowledge of Electric Motors and Electrical Installations          |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Causes of Accidents and Mitigation Measures                              |
| 8   | Stability  |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR HEAVY EQUIPMENT OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Heavy Equipment                                       |
| 5   | Knowledge of Power Sources and Hydraulic Systems                         |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Causes of Accidents  |
| 8   | Factors Affecting Safe Workloads   |
| 9   | Stability  |
| 10  | Safe Operation   |
| 11  | Daily Maintenance and Inspection   |
| 12  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 40 (forty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR TRAIN OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Rail Transport Equipment                              |
| 5   | Knowledge of Power Sources and Hydraulic Systems                         |
| 6   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 7   | Causes of Accidents  |
| 8   | Introduction to Signaling and Traffic Signs                              |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS

TRAINING FOR CONVEYOR OPERATORS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH  |
| 4   | Basic Knowledge of Conveyors   |
| 5   | Knowledge of Drive Motors  |
| 6   | Transmission Equipment   |
| 7   | Safety Devices and Personal Protective Equipment (PPE)                   |
| 8   | Hazard Sources in Conveyor Systems                                       |
| 9   | Safe Operation   |
| 10  | Daily Maintenance and Inspection   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS  
TRAINING FOR RIGGERS

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy                              |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment |
| 3   | Fundamentals of OSH and Personal Protective Equipment (PPE)              |
| 4   | Knowledge of Steel Wire Ropes  |
| 5   | Knowledge of Lifting and Transport Accessories                           |
| 6   | Knowledge of Rigging Techniques  |
| 7   | Calculating Load Weight and Balance                                      |
| 8   | Hand Signals/Commands for Crane Operation                                |
| 9   | Causes of Accidents and Prevention Measures                              |
| 10  | Maintenance Management   |
| 11  | Theoretical and Practical Evaluation                                     |

Notes:

- The duration of the training is 30 (thirty) Instructional Hours (IH) or adjusted as needed

TRAINING MATERIALS  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

| No. | Materials  |
|-----|--|
| 1   | Occupational Safety and Health (OSH) Policy  |
| 2   | OSH Laws and Regulations in the Field of Lifting and Transport Equipment               |
| 3   | Fundamentals of OSH  |
| 4   | OSH Management System  |
| 5   | Work Accident Investigation  |
| 6   | Types and Work Processes of Lifting and Transport Equipment                            |
| 7   | Lifting and Transport Equipment Safety Devices and Personal Protective Equipment (PPE) |
| 8   | Hydraulic and Pneumatic Systems  |
| 9   | Structural Strength Calculation of Lifting and Transport Equipment                     |
| 10  | Steel Wire Ropes and Lifting and Transport Accessories                                 |
| 11  | Rigging for Load Testing   |
| 12  | Stability and Load Chart   |
| 13  | Preparation of Inspection Test Plan (ITP)  |
| 14  | Welding and Non-Destructive Testing (NDT)  |
| 15  | Inspection and Testing of Lifting and Transport Equipment                              |
| 16  | Applied Engineering Mechanics  |
| 17  | Electrical Systems   |
| 18  | Knowledge of Prime Movers  |
| 19  | Knowledge of Materials   |
| 20  | Knowledge of Corrosion and Its Prevention  |
| 21  | Technical Drawing Interpretation   |
| 22  | Practical Inspection and Testing of Lifting and Transport Equipment                    |
| 23  | Technical Report Writing   |
| 24  | Theoretical Evaluation   |
| 25  | Seminar  |

Notes:

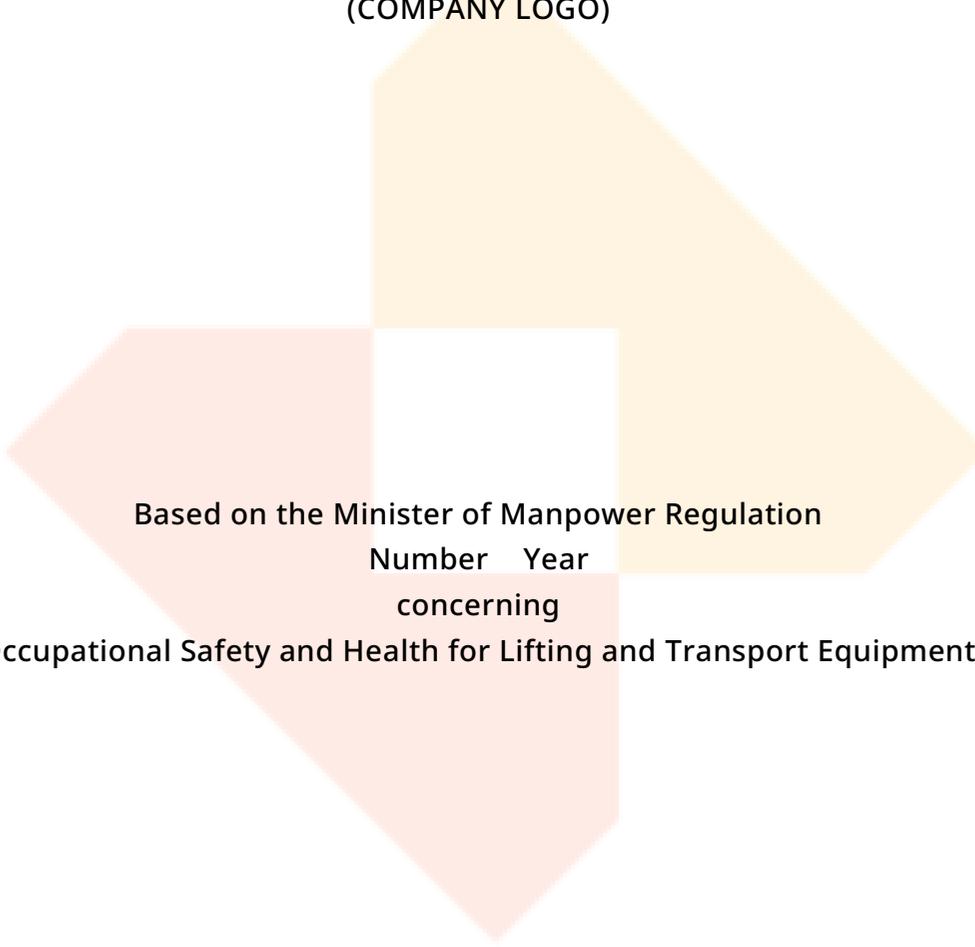
- The duration of the training is 250 (two hundred fifty) Instructional Hours (IH) or adjusted as needed

3. WORKBOOK FORMAT FOR OPERATORS, RIGGERS, AND TECHNICIANS

A. Cover

(COMPANY NAME)  
(COMPANY ADDRESS)

WORKBOOK (TYPE OF WORK)  
(COMPANY LOGO)



Based on the Minister of Manpower Regulation  
Number Year  
concerning  
Occupational Safety and Health for Lifting and Transport Equipment

B. Responsibilities of Lifting and Transport Equipment Operators

- a. Conducting inspections of the equipment, safety devices, and other necessary accessories before operation;
- b. Being responsible for the safe operation of the equipment;
- c. Not leaving the operating area while the machine is running;
- d. Stopping operations and immediately reporting to a supervisor if any safety devices or equipment are malfunctioning or damaged;
- e. Supervising and coordinating Class II and Class III operators for Class I operators, and Class II operators supervising and coordinating Class III operators;
- f. Complying with regulations and implementing the prescribed safety measures during equipment operation; and
- g. Recording in the work logbook and preparing daily reports while operating the equipment.

C. Responsibilities of Riggers

- a. Selecting lifting and transport accessories according to the safe working load capacity;
- b. Inspecting the condition of secure rigging and the lifting accessories used;
- c. Performing maintenance on lifting and transport accessories;
- d. Complying with regulations and implementing the prescribed safety measures;  
and
- e. Recording in the work logbook and preparing daily reports based on the tasks performed.



D. Sample Contents of the Work Logbook for Operators, Riggers, and Technicians

| No. | Date | Type of Equipment/Lifting and Transport Accessories (Specific to Riggers) | Issues | Acknowledged by Company Administrator (Signature) | Notes |
|-----|------|---|--------|---|-------|
| 1   |      |   |        |   |       |
| 2   |      |   |        |   |       |
| 3   |      |   |        |   |       |



4. INSPECTION AND TESTING FORM FOR LIFTING AND TRANSPORT EQUIPMENT

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

| INSPECTION & TESTING REPORT (INITIAL / PERIODIC /<br>SPECIAL / RETEST) **<br><u>LIFTING EQUIPMENT / OVERHEAD TRAVELLING CRANE AND SIMILAR TYPES</u><br>NO : ..... |  |   |
|---|--|---|
| <b>I. GENERAL DATA</b>  |  |   |
| 1   | Owner  | : |
| 2   | Address  | : |
| 3   | User   | : |
| 4   | Administrator / Subcontractor / Responsible Person | : |
| 5   | Unit location                                      | : |
| 6   | Type of lifting equipment                          | : |
| 7   | Manufacture  | : |
| 8   | Brand / type                                       | : |
| 9   | Year of manufacture                                | : |
| 10  | Serial number / unit number                        | : |
| 11  | Lifting capacity                                   | : |
| 12  | Applicable standard                                | : |
| 13  | Usage purpose                                      | : |
| 14  | Technical data / manual                            | : |

| II. TECHNICAL DATA |                      |                       |          |           |          |
|--------------------|----------------------|-----------------------|----------|-----------|----------|
| No                 | COMPONENT            |                       | HOISTING | TRAVELING | HOISTING |
| 1                  | CRANE SPECIFICATIONS | 1. Lifting height     |          |           |          |
|                    |                      | 2. Span length        |          |           |          |
|                    |                      | 3. Speed              |          |           |          |
| 2                  | DRIVE MOTOR          | 1. Capacity           |          |           |          |
|                    |                      | 2. Power (KW)         |          |           |          |
|                    |                      | 3. Type               |          |           |          |
|                    |                      | 4. Rotation           |          |           |          |
|                    |                      | 5. Voltage (V)        |          |           |          |
|                    |                      | 6. Current (A) / Load |          |           |          |
|                    |                      | 7. Frequency          |          |           |          |
| 3                  | STARTING REGISTOR    | 1. Type               |          |           |          |
|                    |                      | 2. Voltage (V)        |          |           |          |
|                    |                      | 3. Current (A)        |          |           |          |
| 4                  | BRAKE                | 1. Type               |          |           |          |
|                    |                      | 2. Material           |          |           |          |
| 5                  | CONTROL BRAKE        | 1. Type               |          |           |          |
|                    |                      | 2. Material           |          |           |          |
| 6                  | HOOK                 | 1. Type               |          |           |          |
|                    |                      | 2. Capacity           |          |           |          |
|                    |                      | 3. Material           |          |           |          |
| 7                  | WIRE ROPE            | 1. Type               |          |           |          |
|                    |                      | 2. Construction       |          |           |          |
|                    |                      | 3. Diameter           |          |           |          |
|                    |                      | 4. Length             |          |           |          |

III. VISUAL INSPECTION

| No | Component name / Component      | Inspection               | Condition          |                            | Notes |
|----|---------------------------------|--------------------------|--------------------|----------------------------|-------|
|    |                                 |                          | Meets requirements | Does not meet requirements |       |
| 1  | Anchor bolt foundation          | Corrosion                |                    |                            |       |
|    |                                 | Cracks                   |                    |                            |       |
|    |                                 | Deformation              |                    |                            |       |
|    |                                 | Tightness                |                    |                            |       |
|    | Structural column on foundation | Corrosion                |                    |                            |       |
|    |                                 | Cracks                   |                    |                            |       |
|    |                                 | Deformation              |                    |                            |       |
| 2  | Stairs                          | Fastening                |                    |                            |       |
|    |                                 | Transverse reinforcement |                    |                            |       |
|    |                                 | Diagonal reinforcement   |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |
| 3  | Work platform                   | Cracks                   |                    |                            |       |
|    |                                 | Deformation              |                    |                            |       |
|    |                                 | Fastening                |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |
| 4  | Rail support beam               | Cracks                   |                    |                            |       |
|    |                                 | Deformation              |                    |                            |       |
|    |                                 | Fastening                |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |
| 5  | Travelling rail                 | Cracks                   |                    |                            |       |
|    |                                 | Rail joints              |                    |                            |       |
|    |                                 | Rail alignment           |                    |                            |       |
|    |                                 | Alignment between rails  |                    |                            |       |
|    |                                 | Rail surface defects     |                    |                            |       |
|    |                                 | Gap between rail joints  |                    |                            |       |
|    |                                 | Rail fastening           |                    |                            |       |
|    |                                 | Rail stopper             |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |
| 6  | Traversing rail                 | Cracks                   |                    |                            |       |
|    |                                 | Rail joints              |                    |                            |       |
|    |                                 | Rail alignment           |                    |                            |       |
|    |                                 | Alignment Between Rails  |                    |                            |       |
|    |                                 | Rail surface defects     |                    |                            |       |
|    |                                 | Gap between rail joints  |                    |                            |       |
|    |                                 | Rail fastening           |                    |                            |       |
|    |                                 | Rail stopper             |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |
| 7  | Girder                          | Cracks                   |                    |                            |       |
|    |                                 | Bulging                  |                    |                            |       |
|    |                                 | Corrosion                |                    |                            |       |

| No          | Component name / Component                            | Inspection            | Condition          |                            | Notes |
|-------------|---|-----------------------|--------------------|----------------------------|-------|
|             |   |                       | Meets requirements | Does not meet requirements |       |
|             |   | Girder Joint          |                    |                            |       |
|             |   | Girder End Joint      |                    |                            |       |
|             |   | Truck Mount on girder |                    |                            |       |
| 8           | Traveling Gear wheel housing (Girder)                 | Corrosion             |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             | Gear Wheel Housing Drive Wheel                        | Lubricating Oil       |                    |                            |       |
|             |   | Seal Oil              |                    |                            |       |
|             |   | Wear and Tear         |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             |   | Deformation           |                    |                            |       |
|             |   | Flange Condition      |                    |                            |       |
|             | Idle wheel  | Chain Condition       |                    |                            |       |
|             |   | Safety                |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             |   | Deformation           |                    |                            |       |
|             | Wheel Connector / Bogie / Axle                        | Flange Condition      |                    |                            |       |
|             |   | Alignment             |                    |                            |       |
|             |   | Cross joint           |                    |                            |       |
|             | Stopper Bumper on Trolley on girder                   | Lubricant             |                    |                            |       |
|             |   | Condition             |                    |                            |       |
|             | Traversing: Gear wheel housing of the Trolley Carrier | Reinforcement         |                    |                            |       |
|             |   | Corrosion             |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             |   | Lubricating Oil       |                    |                            |       |
| 9           | Drive Wheel on Trolley                                | Seal Oil              |                    |                            |       |
|             |   | Wear and Tear         |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             |   | Deformation           |                    |                            |       |
|             |   | Flange Condition      |                    |                            |       |
|             | Idle Wheel on Trolley                                 | Chain Condition       |                    |                            |       |
|             |   | Safety                |                    |                            |       |
|             |   | Cracks                |                    |                            |       |
|             |   | Deformation           |                    |                            |       |
|             | Wheel Connector / Bogie / Axle                        | Flange Condition      |                    |                            |       |
|             |   | Alignment             |                    |                            |       |
|             |   | Cross joint           |                    |                            |       |
|             | Stopper Bumper on Trolley                             | Lubricant             |                    |                            |       |
|             |   | Condition             |                    |                            |       |
|             | 10  | Drum / Spooling Drum  | Reinforcement      |                            |       |
| Groove      |   |                       |                    |                            |       |
| Groove Edge |   |                       |                    |                            |       |
| 11          | Brake   | Flange-to-Flange      |                    |                            |       |
|             |   | Wear and Tear         |                    |                            |       |
| 12          | Hoist Gear Block                                      | Setup                 |                    |                            |       |
|             |   | Lubricant             |                    |                            |       |

| No                   | Component name / Component        | Inspection                    | Condition          |                            | Notes |
|----------------------|-----------------------------------|-------------------------------|--------------------|----------------------------|-------|
|                      |                                   |                               | Meets requirements | Does not meet requirements |       |
|                      |                                   | Seal Oil                      |                    |                            |       |
| 13                   | Main / Additional Pulley (Sheave) | Pulley Groove                 |                    |                            |       |
|                      |                                   | Pulley Groove Edge            |                    |                            |       |
|                      |                                   | Pulley Pin                    |                    |                            |       |
|                      |                                   | Bearing                       |                    |                            |       |
|                      |                                   | Pulley Guard                  |                    |                            |       |
|                      |                                   | Steel Wire Rope Stopper       |                    |                            |       |
| 14                   | Main Hook                         | Wear and Tear                 |                    |                            |       |
|                      |                                   | Hook Mouth Clearance          |                    |                            |       |
|                      |                                   | Nut & Swivel Bearing (Swivel) |                    |                            |       |
|                      |                                   | Trunnion                      |                    |                            |       |
| 15                   | Additional Hook                   | Wear and Tear                 |                    |                            |       |
|                      |                                   | Hook Mouth Clearance          |                    |                            |       |
|                      |                                   | Nut & Swivel Bearing (Swivel) |                    |                            |       |
|                      |                                   | Trunnion                      |                    |                            |       |
| 16                   | Main Steel Wire Rope              | Corrosion                     |                    |                            |       |
|                      |                                   | Wear and Tear                 |                    |                            |       |
|                      |                                   | Breakage                      |                    |                            |       |
|                      |                                   | Deformation                   |                    |                            |       |
| 17                   | Additional Steel Wire Rope        | Corrosion                     |                    |                            |       |
|                      |                                   | Wear and Tear                 |                    |                            |       |
|                      |                                   | Breakage                      |                    |                            |       |
|                      |                                   | Deformation                   |                    |                            |       |
| 18                   | Main Chain                        | Corrosion                     |                    |                            |       |
|                      |                                   | Wear and Tear                 |                    |                            |       |
|                      |                                   | Cracks/ Breakage              |                    |                            |       |
|                      |                                   | Deformation                   |                    |                            |       |
| 19                   | Additional Chain                  | Corrosion                     |                    |                            |       |
|                      |                                   | Wear and Tear                 |                    |                            |       |
|                      |                                   | Cracks/ Breakage              |                    |                            |       |
|                      |                                   | Deformation                   |                    |                            |       |
| 20                   | Limit Switch (LS)                 | LS. Long Travelling           |                    |                            |       |
|                      |                                   | LS. Cross Travelling          |                    |                            |       |
|                      |                                   | LS. Lifting Movement          |                    |                            |       |
| 21                   | Operator Cabin / Pendant Control  | Safety Ladder                 |                    |                            |       |
|                      |                                   | Door                          |                    |                            |       |
|                      |                                   | Window                        |                    |                            |       |
|                      |                                   | Fan/Air Conditioning          |                    |                            |       |
|                      |                                   | Lever/Control Button          |                    |                            |       |
|                      |                                   | Pendant Control               |                    |                            |       |
|                      |                                   | Lighting                      |                    |                            |       |
|                      |                                   | Horn                          |                    |                            |       |
|                      |                                   | Fuse Protection               |                    |                            |       |
| Communication Device |                                   |                               |                    |                            |       |

| No | Component name / Component                                    | Inspection                   | Condition          |                            | Notes |
|----|---|------------------------------|--------------------|----------------------------|-------|
|    |   |                              | Meets requirements | Does not meet requirements |       |
|    |   | Fire Extinguisher (APAR)     |                    |                            |       |
|    |   | Operational Indicators       |                    |                            |       |
|    |   | Ignition Key / Master Switch |                    |                            |       |
| 22 | Electrical<br>Component Voltage:<br>220/380 V / Phase /<br>Hz | Conductor Connector Panel    |                    |                            |       |
|    |   | Conductor Protection         |                    |                            |       |
|    |   | Motor Installation           |                    |                            |       |
|    |   | Safety System                |                    |                            |       |
|    |   | Grounding System             |                    |                            |       |
|    |   | Installation                 |                    |                            |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

III. NON-DESTRUCTIVE TESTING

IV.1. STEEL WIRE ROPE

| NO. | USAGE | DIAMETER |        | CONSTRUCTI<br>ON | TYPE | LENGTH | AGE | DEFECTS |                | NOTES |
|-----|-------|----------|--------|------------------|------|--------|-----|---------|----------------|-------|
|     |       | SPEC     | ACTUAL |                  |      |        |     | PRESENT | NOT<br>PRESENT |       |
| (1) | (2)   | (3)      | (4)    | (5)              | (6)  | (7)    | (8) | (9)     | (10)           | (11)  |
|     |       |          |        |                  |      |        |     |         |                |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH  
 EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.2. CHAIN AND ACCESSORIES

| NO. | USAGE                       | DIAMETER                     |                              | CONSTRUCTION | TYPE | LENGTH | AGE | DEFECTS |             | NOTES |
|-----|-----------------------------|------------------------------|------------------------------|--------------|------|--------|-----|---------|-------------|-------|
|     |                             | SPEC                         | ACTUAL                       |              |      |        |     | PRESENT | NOT PRESENT |       |
| 1   | Certificate Number          |                              |                              |              |      |        |     |         |             |       |
| 2   | Chain Links                 | D1 =<br><br>D2 =<br><br>D3 = | D1 =<br><br>D2 =<br><br>D3 = |              |      |        |     |         |             |       |
| 3   | Sprocket                    |                              |                              |              |      |        |     |         |             |       |
| 4   | Length Per 1 Meter of Chain |                              |                              |              |      |        |     |         |             |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.3. GIRDER

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

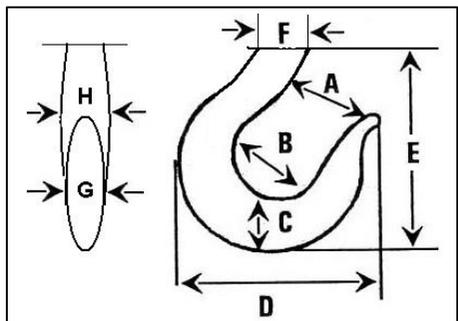
| Location | Surface Defect |                        | Notes |
|----------|----------------|------------------------|-------|
|          | Present        | Not present<br>Present |       |
|          |                |                        |       |

IMAGE :

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.4. MAIN HOOK



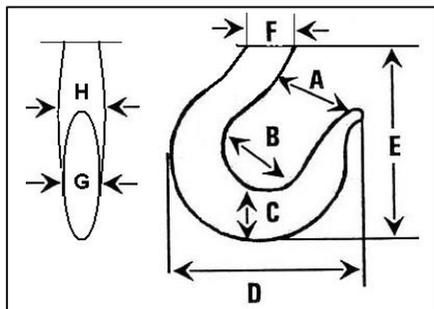
Type : Penetrant /Ultrasonic \*\*  
of .....  
NDT .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.5. ADDITIONAL HOOK



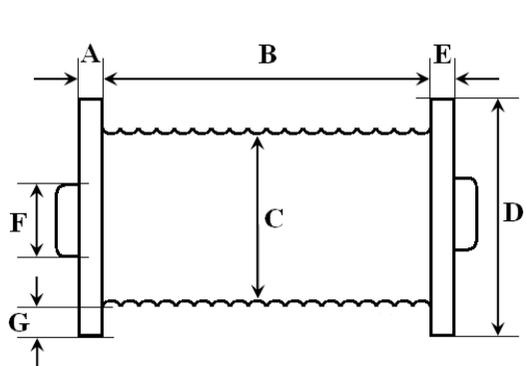
Type of NDT : Penetrant /Ultrasonic \*\*  
 .....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.6. MAIN DRUM



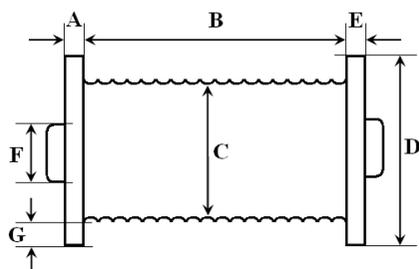
Type : Penetrant /Ultrasonic \*\*  
of .....  
NDT .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.7. ADDITIONAL DRUM



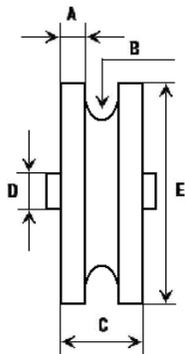
Type : Penetrant /Ultrasonic \*\*  
of .....  
NDT .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.8. MAIN HOOK PULLEY



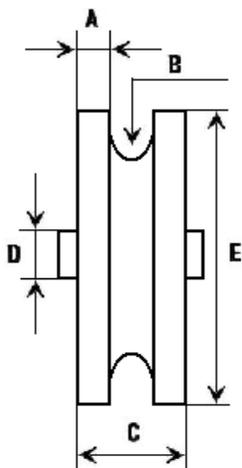
Type : Penetrant /Ultrasonic \*\*  
of .....  
NDT .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.9. ADDITIONAL HOOK PULLEY



Type of NDT : Penetrant /Ultrasonic \*\*  
 .....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |       |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|-------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Notes |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |       |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |       |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

V. TESTING

V.1. DYNAMIC TESTING

A. No load

| SPEED TEST                         | EXPECTED | TESTED/<br>MEASURED | NOTES |
|------------------------------------|----------|---------------------|-------|
| Travelling / Longitudinal Movement |          |                     |       |
| Traversing / Lateral Movement      |          |                     |       |
| Hoisting / Lifting                 |          |                     |       |
| Safety Device                      |          |                     |       |
| Brake Swicth                       |          |                     |       |
| Brake Locking Device               |          |                     |       |
| Electrical Installation            |          |                     |       |

B. Load

| TEST LOAD | HOIST | TRANVERSING | TRAVELLING | BRAKE SYSTEM | NOTES |
|-----------|-------|-------------|------------|--------------|-------|
| NO LOAD   |       |             |            |              |       |
| 25 %      |       |             |            |              |       |
| 50 %      |       |             |            |              |       |
| 75 %      |       |             |            |              |       |
| 100 %     |       |             |            |              |       |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
 IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....



RESULT

Standardd / Benchmark

Based on design : ..... mm

1 / 888 x SPAN ( ..... )

1 / 600 x SPAN ( ..... )

: ..... mm

(Measurement Results) >/< \*\* (Maximum Calculation Result)

MEETS REQUIREMENTS

DOES NOT MEET REQUIREMENTS

NOTES : STANDARD .....

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VI. CONCLUSION

.....  
.....  
.....

VII. RECOMMENDATIONS

.....  
.....  
.....

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR / OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

---

FORMULIR / CHECK LIST INSPECTION & TESTING  
(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)  
TOWER CRANE

NO : .....

I. GENERAL DATA

|     |   |   |  |
|-----|---|---|--|
| 1.  | Owner   | : |  |
| 2.  | Address   | : |  |
| 3.  | User  | : |  |
| 4.  | Main Contractor<br>Administrator /<br>Subcontractor / Person in<br>Charge | : |  |
| 5.  | Unit location   | : |  |
| 6.  | Type of Equipment   | : |  |
| 7.  | Manufacture   | : |  |
| 8.  | Brand/Type  | : |  |
| 9.  | Year of manufacture   | : |  |
| 10. | Serial Number / Unit Number   | : |  |
| 11. | Lifting capacity  | : |  |
| 12. | Applicable Standard   | : |  |
| 13. | Usage purpose   | : |  |
| 14. | Certificate Number  | : |  |
| 15. | OSH Operator License Number<br>/ Valid Until                              | : |  |
| 16. | Equipment History Data  | : |  |

| II. TECHNICAL DATA   |                       |          |               |              |
|----------------------|-----------------------|----------|---------------|--------------|
| CRANE SPECIFICATIONS | 1. Tower Height       |          |               |              |
|                      | 2. Number of Sections |          |               |              |
|                      | 3. Load JIB Length    |          |               |              |
|                      | 4. Counter JIB Length |          |               |              |
|                      | 5. Speed              | Hoisting | Traveling     | Slewing      |
|                      |                       |          |               |              |
| DRIVE MOTOR          | 1. Speed              | Hoisting | Traveling     | Slewing      |
|                      |                       |          |               |              |
|                      | 2. Power (KW)         |          |               |              |
|                      | 3. Type               |          |               |              |
|                      | 4. Rotation           |          |               |              |
|                      | 5. Voltage (V)        |          |               |              |
| BRAKE                | 1. Category           |          |               |              |
|                      | 2. Type               |          |               |              |
|                      | 3. Capacity           |          |               |              |
| HOOK                 | 1. Type               |          |               |              |
|                      | 2. Capacity           |          |               |              |
|                      | 3. Materials          |          |               |              |
| WIRE ROPE            | 1. Type               | Hoisting | Front Pendant | Rear Pendant |
|                      |                       |          |               |              |
|                      | 2. Construction       |          |               |              |
|                      | 3. Diameter           |          |               |              |
|                      | 4. Length             |          |               |              |

| III. VISUAL INSPECTION |                                 |           |     |         |
|------------------------|---------------------------------|-----------|-----|---------|
| No                     | Component                       | Condition |     | Remarks |
|                        |                                 | Good      | Bad |         |
| (1)                    | (2)                             | (3)       | (4) | (5)     |
| 1                      | Fixed Frame (Fixing Angle)      |           |     |         |
| 2                      | Base Connector Frame            |           |     |         |
| 3                      | Leg Frame Structure (Standard)  |           |     |         |
|                        | a. Main Frame                   |           |     |         |
|                        | b. Reinforcement Frame (Brace)  |           |     |         |
| 4                      | Connection (Bolt Connection)    |           |     |         |
| 5                      | Longitudinal Frame (Sleeper)    |           |     |         |
| 6                      | Transverse Frame (Cross)        |           |     |         |
| 7                      | Truss Frame Reinforcement       |           |     |         |
| 8                      | Bogie Frame                     |           |     |         |
| 9                      | Diagonal Frame (Diagonal Brace) |           |     |         |
| 10                     | Tower Climbing Frame (Climb)    |           |     |         |
|                        | a. Main Frame                   |           |     |         |
|                        | b. Reinforcement Frame          |           |     |         |
|                        | c. Cage Lock                    |           |     |         |
|                        | d. Work Platform                |           |     |         |
|                        | e. Guardrail                    |           |     |         |
|                        | f. Tower Climbing Stairs        |           |     |         |
|                        | g. Pegs                         |           |     |         |
|                        | h. Peg Bolts                    |           |     |         |
|                        | i. Climbing Rod                 |           |     |         |

|     | Component  | Condition          |                        | Remarks |
|-----|--|--------------------|------------------------|---------|
|     |  | Meets Requirements | Not Meets Requirements |         |
| (1) | (2)  | (3)                | (4)                    | (5)     |
| 11  | Climbing Lifting Equipment                             |                    |                        |         |
|     | a. Hydraulic Cylinder                                  |                    |                        |         |
|     | b. Reinforcement Frame                                 |                    |                        |         |
|     | c. Steel Wire Rope                                     |                    |                        |         |
|     | d. Spooling Drum                                       |                    |                        |         |
|     | e. Brake   |                    |                        |         |
|     | f. Coupling  |                    |                        |         |
|     | g. Yoke  |                    |                        |         |
| 12  | Tower Sections – Section I                             |                    |                        |         |
|     | a. Main Frame  |                    |                        |         |
|     | b. Reinforcement                                       |                    |                        |         |
|     | c. Locking Mechanism (Fish Plate)                      |                    |                        |         |
|     | d. Bolt, Nut, Pin                                      |                    |                        |         |
| 13  | Tower Vertical Alignment                               |                    |                        |         |
| 14  | Tower Head (Kepala Tower)                              |                    |                        |         |
| 15  | Tower Head Rail Support                                |                    |                        |         |
| 16  | Cat Head (Kepala Kucing)<br>(Stairs, Floor, Rule-Rule) |                    |                        |         |
| 17  | Truss Frame Reinforcement                              |                    |                        |         |
|     | a. Main Frame  |                    |                        |         |
|     | b. Reinforcement Frame                                 |                    |                        |         |
|     | c. Guardrail   |                    |                        |         |
|     | d. Main Frame  |                    |                        |         |
|     | e. Connection (Pin, Bolt, Nut)                         |                    |                        |         |
|     | f. JIB Counterweight Pendant                           |                    |                        |         |
|     | g. JIB Counterweight Leg Pin                           |                    |                        |         |
| 18  | JIB Load   |                    |                        |         |
|     | a. JIB Leg Pin   |                    |                        |         |
|     | b. Main Frame  |                    |                        |         |
|     | c. Reinforcement Frame                                 |                    |                        |         |

|     | Component   | Condition          |                        | Remarks |
|-----|---|--------------------|------------------------|---------|
|     |   | Meets Requirements | Not Meets Requirements |         |
| (1) | (2)   | (3)                | (4)                    | (5)     |
|     | d. Rail and Connectors  |                    |                        |         |
|     | e. JIB Pendant  |                    |                        |         |
|     | f. Floor (Cat Walk)   |                    |                        |         |
|     | JIB II and Beyond   |                    |                        |         |
|     | a. JIB Leg Pin  |                    |                        |         |
|     | b. Main Frame   |                    |                        |         |
|     | c. Reinforcement Frame  |                    |                        |         |
|     | d. Rail and Connectors  |                    |                        |         |
|     | e. JIB Pendant  |                    |                        |         |
|     | f. Floor (Cat Walk)   |                    |                        |         |
|     | JIB Head  |                    |                        |         |
|     | a. Pulley at JIB Head   |                    |                        |         |
|     | b. Main Frame   |                    |                        |         |
|     | c. Reinforcement Frame  |                    |                        |         |
|     | d. Floor (Cat Walk)   |                    |                        |         |
| 19  | Tower Fastening Frame   |                    |                        |         |
|     | a. Reinforcement Frame (Tower)                                    |                    |                        |         |
|     | b. Connecting Frame Between Tower and Structure (Beam)            |                    |                        |         |
|     | c. Fastening Frame to Structure                                   |                    |                        |         |
| 20  | Pulley for Rope Tensioning and Accessories (Wire Rope Deflection) |                    |                        |         |
| 21  | Rotating Table  |                    |                        |         |
|     | a. Roller Bearing   |                    |                        |         |
|     | b. Table Support (Roller Path)                                    |                    |                        |         |
|     | c. Fastening Connection (Welding, Bolt, Nut)                      |                    |                        |         |
| 22  | Counter JIB   |                    |                        |         |
|     | a. Frame and Connections  |                    |                        |         |
|     | b. PIN / Peg  |                    |                        |         |

|     | Component                         | Condition          |                        | Remarks |
|-----|-----------------------------------|--------------------|------------------------|---------|
|     |                                   | Meets Requirements | Not Meets Requirements |         |
| (1) | (2)                               | (3)                | (4)                    | (5)     |
|     | c. Fastening Load Balance         |                    |                        |         |
|     | d. PIN and Counter JIB            |                    |                        |         |
| 23  | Wire Rope                         |                    |                        |         |
|     | a. Corrosion                      |                    |                        |         |
|     | b. Wear and Tear                  |                    |                        |         |
|     | c. Breakage                       |                    |                        |         |
|     | d. Deformation                    |                    |                        |         |
| 24  | Hook                              |                    |                        |         |
|     | a. Wear and Tear                  |                    |                        |         |
|     | b. Hook Mouth Clearance           |                    |                        |         |
|     | c. Cracks                         |                    |                        |         |
|     | d. Hook Lock                      |                    |                        |         |
|     | e. Nut and Swivel Bearing         |                    |                        |         |
|     | f. Trunnion                       |                    |                        |         |
| 25  | Pulley / Sheave (Main, Conductor) |                    |                        |         |
|     | a. Groove Puli                    |                    |                        |         |
|     | b. Pulley Rim                     |                    |                        |         |
|     | c. Pulley Pin                     |                    |                        |         |
|     | d. Bearing                        |                    |                        |         |
|     | e. Pulley Guard                   |                    |                        |         |
| 26  | Drum / Winding Drum               |                    |                        |         |
|     | a. Groove                         |                    |                        |         |
|     | b. Groove Edge                    |                    |                        |         |
|     | c. Flange                         |                    |                        |         |
| 27  | Hoist Gear Box                    |                    |                        |         |
|     | a. Lubricant                      |                    |                        |         |
|     | b. Oil Seal                       |                    |                        |         |
| 28  | Operator Cabin (Main, Conductor)  |                    |                        |         |
|     | a. Stairs / Safety Stairs         |                    |                        |         |

|     | Component   | Condition          |                        | Remarks |
|-----|---|--------------------|------------------------|---------|
|     |   | Meets Requirements | Not Meets Requirements |         |
| (1) | (2)   | (3)                | (4)                    | (5)     |
|     | b. Door   |                    |                        |         |
|     | c. Window   |                    |                        |         |
|     | d. Fan / Air Conditioning                               |                    |                        |         |
|     | e. Button / Control Lever                               |                    |                        |         |
|     | f. Lighting   |                    |                        |         |
|     | g. Fuse Protection                                      |                    |                        |         |
|     | h. Communication Device                                 |                    |                        |         |
|     | i. Fire Extinguisher                                    |                    |                        |         |
|     | j. Operational Indicators                               |                    |                        |         |
|     | k. Horn   |                    |                        |         |
|     | l. Master Key / Switch                                  |                    |                        |         |
| 29  | Safety Devices  |                    |                        |         |
|     | a. Vertical Movement Limiter (Hoist Travel Restriction) |                    |                        |         |
|     | b. Rotational Movement Limiter                          |                    |                        |         |
|     | c. Level Indicator                                      |                    |                        |         |
|     | d. Overload Limiter                                     |                    |                        |         |
|     | e. Moment Limiter                                       |                    |                        |         |
|     | f. Speed Limiter  |                    |                        |         |
|     | g. Anemometer   |                    |                        |         |
|     | h. Counterweight Shield / Wind Shield                   |                    |                        |         |
|     | i. Air Pressure Indicator                               |                    |                        |         |
|     | j. Hydraulic Pressure Indicator                         |                    |                        |         |
|     | k. Safety Valves  |                    |                        |         |
|     | l. Movement Limiter (Forward / Reverse Trolley)         |                    |                        |         |
|     | m. Drum Lock Safety                                     |                    |                        |         |
|     | n. Lightning Protection Groove                          |                    |                        |         |
|     | o. Radius   |                    |                        |         |
|     | p. Load Chart   |                    |                        |         |

|     | Component                                   | Condition          |                        | Remarks |
|-----|---|--------------------|------------------------|---------|
|     |   | Meets Requirements | Not Meets Requirements |         |
| (1) | (2)   | (3)                | (4)                    | (5)     |
| 30  | Electrical Components                       |                    |                        |         |
|     | Voltage : kVA                               |                    |                        |         |
|     | PK :  |                    |                        |         |
|     | Phase :                                     |                    |                        |         |
|     | Frequency : Hz                              |                    |                        |         |
|     | a. Panel Transmission Expansion (Connector) |                    |                        |         |
|     | b. Transmission Protector                   |                    |                        |         |
|     | c. Installation and Motor Safety System     |                    |                        |         |
| 31  | Hydraulics                                  |                    |                        |         |
|     | a. Hydraulic Pump                           |                    |                        |         |
|     | b. Hydraulic Pipe / Groove                  |                    |                        |         |
|     | c. Hydraulic Motor                          |                    |                        |         |
|     | d. Control Valve                            |                    |                        |         |
|     | e. Hydraulic Tank                           |                    |                        |         |
|     | f. Hydraulic Filter                         |                    |                        |         |
|     | g. Accumulator                              |                    |                        |         |
| 32  | Pneumatics                                  |                    |                        |         |
|     | a. Compressor                               |                    |                        |         |
|     | b. Safety Valve and Tank                    |                    |                        |         |
|     | c. Pressurized Air Groove                   |                    |                        |         |
|     | d. Air Filter                               |                    |                        |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. NON-DESTRUCTIVE TESTING

IV.1. STEEL WIRE ROPE

| NO  | USAGE | DIAMETER |        | CONSTRUCTION | CATEGORY | LENGTH | AGE | DEFECTS |             | REMARKS |
|-----|-------|----------|--------|--------------|----------|--------|-----|---------|-------------|---------|
|     |       | SPEK     | ACTUAL |              |          |        |     | PRESENT | NOT PRESENT |         |
| (1) | (2)   | (3)      | (4)    | (5)          | (6)      | (7)    | (8) | (9)     | (10)        | (11)    |
|     |       |          |        |              |          |        |     |         |             |         |

(Type of NDT : Penetrant/Ultrasonic \*\*)

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.2. TOWER

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

| No  | Parts to be Inspected | Location | Defects |             | Remarks |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | Present | Not present |         |
| (1) | (2)                   | (3)      | (4)     | (5)         | (6)     |
|     |                       |          |         |             |         |

IMAGE:

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.3. BOOM / JIB

Type of NDT : Penetrant / Ultrasonic \*\*

.....  
.....

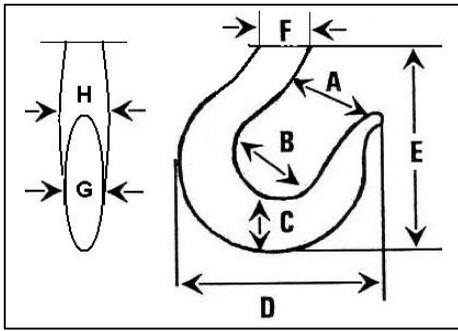
| No  | Parts to be Inspected | Location | Defects |             | Remarks |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | Present | Not present |         |
| (1) | (2)                   | (3)      | (4)     | (5)         | (6)     |
|     |                       |          |         |             |         |

IMAGE:

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.4. ADDITIONAL HOOK



Type of NDT : Penetrant / Ultrasonic \*\*  
 .....  
 .....

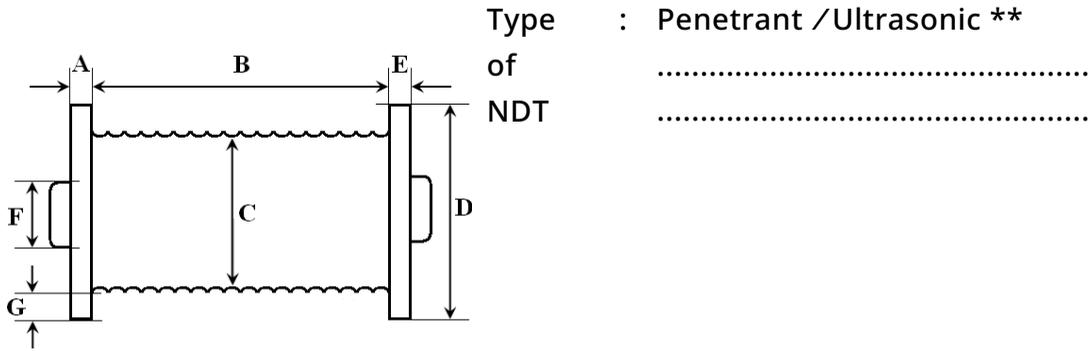
| No  | Parts to be Inspected | Location | Defects |             | Remarks |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | Present | Not present |         |
| (1) | (2)                   | (3)      | (4)     | (5)         | (6)     |
| 1   | SPEC                  |          |         |             |         |
|     | A = ..... mm          |          |         |             |         |
|     | B = ..... mm          |          |         |             |         |
|     | C = ..... mm          |          |         |             |         |
|     | D = ..... mm          |          |         |             |         |
| 2   | ACTUAL                |          |         |             |         |
|     | A = ..... mm          |          |         |             |         |
|     | B = ..... mm          |          |         |             |         |
|     | C = ..... mm          |          |         |             |         |
|     | D = ..... mm          |          |         |             |         |

IMAGE:

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.5. MAIN DRUM



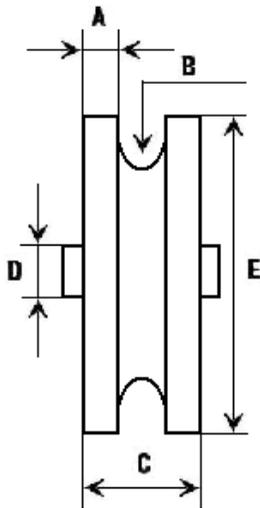
| No  | Parts to be Inspected | Location | Defects |             | Remarks |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | Present | Not present |         |
| (1) | (2)                   | (3)      | (4)     | (5)         | (6)     |
| 1   | SPEC                  |          |         |             |         |
|     | ØD = ..... mm         |          |         |             |         |
|     | ØF = ..... mm         |          |         |             |         |
|     | L = ..... mm          |          |         |             |         |
| 2   | ACTUAL                |          |         |             |         |
|     | ØD = ..... mm         |          |         |             |         |
|     | ØF = ..... mm         |          |         |             |         |
|     | L = ..... mm          |          |         |             |         |

IMAGE:

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.6. MAIN HOOK PULLEY AND TRANSMITTER



Type : Penetrant / Ultrasonic \*\*  
of .....  
NDT .....

| No  | Parts to be Inspected | Location | Defects |             | Remarks |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | Present | Not present |         |
| (1) | (2)                   | (3)      | (4)     | (5)         | (6)     |
| 1   | SPEC                  |          |         |             |         |
|     | ØD = .....mm          |          |         |             |         |
|     | tA = .....mm          |          |         |             |         |
| 2   | ACTUAL                |          |         |             |         |
|     | ØD = .....mm          |          |         |             |         |
|     | tA = .....mm          |          |         |             |         |

IMAGE:

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. TESTING  
 V.1 DYNAMIC TESTING

| NO. | Load (Tons/Kg) | Length JIB<br>Load/Radius | Result | Remarks |
|-----|----------------|---------------------------|--------|---------|
| (1) | (2)            | (3)                       | (4)    | (5)     |
| 1.  | 25% SWL        |                           |        |         |
| 2.  | 50% SWL        |                           |        |         |
| 3.  | 75% SWL        |                           |        |         |
| 4.  | 100% SWL       |                           |        |         |

MAIN BOOM

NOTES

During and after testing, the main components of the crane have been inspected  
 Tower : Occurred / Not Present / Error Occurred \*\*

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

V.2. STATIC TESTING

| No. | Length JIB Load / Radius | Safe Working Load | Test Load | Remarks |
|-----|--------------------------|-------------------|-----------|---------|
| (1) | (2)                      | (3)               | (4)       | (5)     |
|     |                          |                   |           |         |

NOTES

During and after testing the main components of the crane have been inspected.

Tower: Occurred / NotPresent

Damage Occurred \*\*

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VI. CONCLUSION

.....  
.....  
.....

VII. RECOMMENDATIONS

.....  
.....  
.....

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

---

FORMULIR / CHECK LIST INSPECTION & TESTING

(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)

CRAWLER CRANE

NO : .....

| I. GENERAL DATA |  |   |
|-----------------|--|---|
| 1               | Owner  | : |
| 2               | Address  | : |
| 3               | Main Contractor Administrator /<br>Subcontractor / Person in<br>Charge | : |
| 4               | Address User   | : |
| 5               | Unit location  | : |
| 6               | Operator name  | : |
| 7               | Type of Equipment  | : |
| 8               | Manufacture  | : |
| 9               | Brand / Type   | : |
| 10              | Location and Year of<br>Manufacture                                    | : |
| 11              | Date and Year of Installation  | : |
| 12              | Serial number / unit number  | : |
| 13              | Capacity / Working Load  | : |
| 14              | Applicable standardd   | : |
| 15              | Usage purpose  | : |
| 16              | Usage Permit Number  | : |
| 17              | Operator Certificate   | : |
| 18              | Equipment History Data   | : |

| II. TECHNICAL DATA |                             |                      |                 |
|--------------------|-----------------------------|----------------------|-----------------|
| Specification      | Capacity / Working Load     |                      |                 |
|                    | Overall Length              |                      |                 |
|                    | Overall Height              |                      |                 |
|                    | Overall Width               |                      |                 |
|                    | Track Shoe Width            |                      |                 |
|                    | Working Radius              |                      | ... mm          |
|                    | Drilling Diameter           |                      | ... mm          |
|                    | Maximum Drilling Depth      |                      | .....Meters     |
| Engine             | Model                       |                      |                 |
|                    | Type                        |                      |                 |
|                    | Number of Cylinders         |                      |                 |
|                    | Net Power                   |                      |                 |
|                    | Brand / year of manufacture |                      |                 |
|                    | Manufacture                 |                      |                 |
| Attachment         | Rotary head (table)         | Speed (rev.)         | ...up to... rpm |
|                    |                             | <i>Spin-off rate</i> | . ....rpm       |
|                    | Crowd Cylinder              | Compression Power    | . ....KN        |
|                    |                             | Tensile Power        | . ....KN        |
|                    |                             | Stroke               | . ....mm        |
|                    | Main Winch                  | Tensile Strength     | . ....KN        |
|                    |                             | Speed                | ....m/min       |
|                    |                             | Rope Diameter        | . ....mm        |
|                    | Additional Winch            | Tensile Strength     | . ....KN        |
|                    |                             | Speed                | ....m/min       |
|                    |                             | Rope Diameter        | . ....mm        |
|                    | Hydraulic Pump              | Main                 | Type            |
| Pressure           |                             |                      |                 |
| Additional         |                             | Type                 |                 |
|                    |                             | Pressure             |                 |

III. VISUAL INSPECTION & FUNCTION

1. Inspection with Engine Off

| Component & Location              |                        | Inspection Component       | Condition          |                        | Remarks |
|-----------------------------------|------------------------|----------------------------|--------------------|------------------------|---------|
| Location                          | Component              |                            | Meets Requirements | Not Meets Requirements |         |
| Main frame / Chasis and equipment | Frame Reinforcement    | Corrosion                  |                    |                        |         |
|                                   |                        | Cracks                     |                    |                        |         |
|                                   |                        | Deformation                |                    |                        |         |
|                                   | Counter /Weight        | Corrosion                  |                    |                        |         |
|                                   |                        | Condition                  |                    |                        |         |
|                                   | Turn Table             | Frame                      |                    |                        |         |
|                                   |                        | Lubricant                  |                    |                        |         |
|                                   |                        | Corrosion                  |                    |                        |         |
|                                   |                        | Brake                      |                    |                        |         |
|                                   |                        | Cracks                     |                    |                        |         |
|                                   |                        | swing gear Condition       |                    |                        |         |
|                                   |                        | Bearing                    |                    |                        |         |
|                                   | Mast and Equipment     | Supporting leg             |                    |                        |         |
|                                   |                        | Leg base                   |                    |                        |         |
|                                   |                        | Mast 1                     |                    |                        |         |
|                                   |                        | Mast 2                     |                    |                        |         |
|                                   |                        | Mast 3                     |                    |                        |         |
|                                   |                        | Wire rope Pulley           |                    |                        |         |
|                                   |                        | Corrosion                  |                    |                        |         |
|                                   |                        | Cracks                     |                    |                        |         |
|                                   |                        | Deformation                |                    |                        |         |
|                                   |                        | Lubricant                  |                    |                        |         |
|                                   |                        | Pin and Bolt Reinforcement |                    |                        |         |
|                                   | Cat head and component | Main sheave frame          |                    |                        |         |
|                                   |                        | Main sheave                |                    |                        |         |
|                                   |                        | Auxiliary sheave frame     |                    |                        |         |
|                                   |                        | Auxiliary sheave           |                    |                        |         |
|                                   |                        | Rear main sheave           |                    |                        |         |
|                                   |                        | Rear Auxiliary sheave      |                    |                        |         |
|                                   |                        | Corrosion                  |                    |                        |         |
|                                   |                        | Cracks                     |                    |                        |         |
|                                   |                        | Deformation                |                    |                        |         |
|                                   |                        | Lubricant                  |                    |                        |         |

| Component & Location |                      | Inspection Component                      | Condition          |                        | Remarks |
|----------------------|----------------------|---|--------------------|------------------------|---------|
| Location             | Component            |   | Meets Requirements | Not Meets Requirements |         |
|                      |                      | Pin and Bolt Reinforcement                |                    |                        |         |
|                      | Kelly bar            | Corrosion                                 |                    |                        |         |
|                      |                      | Cracks                                    |                    |                        |         |
|                      |                      | Deformation                               |                    |                        |         |
|                      |                      | Lubricant                                 |                    |                        |         |
|                      |                      | Pin and Bolt Reinforcement                |                    |                        |         |
|                      | Swivel               | Corrosion                                 |                    |                        |         |
|                      |                      | Cracks                                    |                    |                        |         |
|                      |                      | Upper connector                           |                    |                        |         |
|                      |                      | Lower connector                           |                    |                        |         |
|                      | Rotary Head          | Rotator                                   |                    |                        |         |
|                      |                      | Side frame                                |                    |                        |         |
|                      |                      | pin Reinforcement                         |                    |                        |         |
|                      |                      | Protection bracket                        |                    |                        |         |
|                      | Parallelogram system | Corrosion                                 |                    |                        |         |
|                      |                      | Deformation                               |                    |                        |         |
|                      |                      | Link Rod                                  |                    |                        |         |
|                      |                      | Pull Rod                                  |                    |                        |         |
|                      |                      | Movable arm                               |                    |                        |         |
|                      |                      | Loss / Looseness, bolts, cracks and other |                    |                        |         |
|                      | Cabine               | Top cover condition                       |                    |                        |         |
|                      |                      | Canopy                                    |                    |                        |         |
|                      |                      | Floor / Deck                              |                    |                        |         |
|                      |                      | Stairs (Step & Holds)                     |                    |                        |         |
|                      |                      | Bolt Fastening                            |                    |                        |         |
|                      |                      | Seat condition                            |                    |                        |         |
|                      |                      | Instrument / Indicator                    |                    |                        |         |
|                      |                      | Mirror condition                          |                    |                        |         |
|                      |                      | Glass, Window Panel                       |                    |                        |         |
|                      |                      | Room Insulation                           |                    |                        |         |
|                      | Control Lever        | Load Chart                                |                    |                        |         |
|                      |                      | Brake                                     |                    |                        |         |
|                      |                      | Throttle                                  |                    |                        |         |

| Component & Location   |                             | Inspection Component               | Condition          |                                | Remarks |  |  |
|------------------------|-----------------------------|------------------------------------|--------------------|--------------------------------|---------|--|--|
| Location               | Component                   |                                    | Meets Requirements | Not Meets Requirements         |         |  |  |
|                        |                             | Clutch                             |                    |                                |         |  |  |
|                        |                             | Gearbox                            |                    |                                |         |  |  |
|                        |                             | Hand Brake                         |                    |                                |         |  |  |
|                        |                             | Hydraulic / Control Lever          |                    |                                |         |  |  |
|                        |                             | Light Switch and Electrical        |                    |                                |         |  |  |
|                        | Wire Rope                   | Main Wire Rope Winches             |                    |                                |         |  |  |
|                        |                             | Clamp and Fastening Main Wire Rope |                    |                                |         |  |  |
|                        |                             | Timble eye                         |                    |                                |         |  |  |
|                        |                             | Main Wire Rope Winches             |                    |                                |         |  |  |
|                        |                             | Clamp and Fastening Main Wire Rope |                    |                                |         |  |  |
|                        |                             | Timble eye                         |                    |                                |         |  |  |
|                        |                             | Main Drive and Component           | Cooling System     | Condition Radiator             |         |  |  |
|                        |                             |                                    |                    | Radiator Water Level Condition |         |  |  |
|                        |                             |                                    |                    | Radiator Fan                   |         |  |  |
| Seal and Cover         |                             |                                    |                    |                                |         |  |  |
| Radiator Hoses         |                             |                                    |                    |                                |         |  |  |
| Fan Belt               |                             |                                    |                    |                                |         |  |  |
| Fuel                   | Fuel Tank Equipment (Hoses) |                                    |                    |                                |         |  |  |
|                        | Fuel Filter                 |                                    |                    |                                |         |  |  |
|                        | Water Separator             |                                    |                    |                                |         |  |  |
|                        | Fuel pump injection         |                                    |                    |                                |         |  |  |
| Air Circulation System | Air Circulation System      | Initial Air Filter Condition       |                    |                                |         |  |  |
|                        |                             | Main Air Filter Condition          |                    |                                |         |  |  |
|                        |                             | Dust Indicator / Air Indicator     |                    |                                |         |  |  |

| Component & Location |                 | Inspection Component             | Condition          |                        | Remarks |
|----------------------|-----------------|----------------------------------|--------------------|------------------------|---------|
| Location             | Component       |                                  | Meets Requirements | Not Meets Requirements |         |
|                      |                 | Turbocharger Equipment           |                    |                        |         |
|                      |                 | Muffler / exhaust gas            |                    |                        |         |
|                      | Steering System | Steering Wheel / Track           |                    |                        |         |
|                      |                 | Steering Shaft / Stick           |                    |                        |         |
|                      |                 | Gearbox Casing / Gear Box        |                    |                        |         |
|                      |                 | Lubricant                        |                    |                        |         |
|                      | Electrical      | Battery / Accu                   |                    |                        |         |
|                      |                 | Dynamo Starting                  |                    |                        |         |
|                      |                 | Alternator                       |                    |                        |         |
|                      |                 | Battery Cable                    |                    |                        |         |
|                      |                 | Installation Cable               |                    |                        |         |
|                      |                 | Lighting Lamp                    |                    |                        |         |
|                      |                 | Safety Lamp / Sign               |                    |                        |         |
|                      |                 | Horn                             |                    |                        |         |
|                      |                 | Windshield Wiper                 |                    |                        |         |
|                      |                 | Safety Fuse                      |                    |                        |         |
|                      | Lubricant       | Oil Level Lubricant              |                    |                        |         |
|                      |                 | Engine and Condition             |                    |                        |         |
|                      |                 | Clutch Oil Level Condition       |                    |                        |         |
|                      |                 | Differential Oil Level Condition |                    |                        |         |
| Hydraulic System     | Tank            | Leakage                          |                    |                        |         |
|                      |                 | Hydraulic Oil Level              |                    |                        |         |
|                      |                 | Condition Hydraulic Oil          |                    |                        |         |
|                      |                 | Condition Suction Groove         |                    |                        |         |
|                      |                 | Condition Return Groove          |                    |                        |         |
|                      |                 | Hydraulic Filter                 |                    |                        |         |
|                      | Pump            | Leakage                          |                    |                        |         |
|                      |                 | Condition Suction Groove         |                    |                        |         |
|                      |                 | Condition Pressure Groove        |                    |                        |         |
|                      | Control Valve   | Leakage                          |                    |                        |         |
|                      |                 | Condition Groove                 |                    |                        |         |

| Component & Location           |                               | Inspection Component        | Condition          |                        | Remarks |
|--------------------------------|-------------------------------|-----------------------------|--------------------|------------------------|---------|
| Location                       | Component                     |                             | Meets Requirements | Not Meets Requirements |         |
|                                | <i>Control Valve</i>          | Function of Relief Valve    |                    |                        |         |
|                                | Aktuator                      | Leakage                     |                    |                        |         |
|                                |                               | Condition S Groove          |                    |                        |         |
|                                | Silinder Hidraulik            | Cylinder arm                |                    |                        |         |
|                                |                               | Cylinder mast               |                    |                        |         |
|                                |                               | Cylinder mast leg           |                    |                        |         |
|                                |                               | Hydraulic Hose              |                    |                        |         |
|                                | Motor Hidraulik               | Motor Swing Gear            |                    |                        |         |
|                                |                               | Motor Travel (Track)        |                    |                        |         |
|                                |                               | Main Winch motor            |                    |                        |         |
|                                |                               | Auxiliary winch motor       |                    |                        |         |
|                                |                               | Rotator motor 1             |                    |                        |         |
|                                |                               | Rotator motor 2             |                    |                        |         |
|                                | Safety Devices                | Pengaman Utama              | Brake              |                        |         |
| Disconnect Key                 |                               |                             |                    |                        |         |
| Disconnect Switch              |                               |                             |                    |                        |         |
| Safety Belt                    |                               |                             |                    |                        |         |
| Lighting Lamp                  |                               |                             |                    |                        |         |
| Back-up Alarm                  |                               |                             |                    |                        |         |
| Cabin Reinforcement Cover ROPS |                               |                             |                    |                        |         |
| Emergency Shutdown             |                               |                             |                    |                        |         |
| Load Indicator                 |                               |                             |                    |                        |         |
| Pengaman Tambahan              |                               | Fire Extinguisher Equipment |                    |                        |         |
|                                | Personal Protective Equipment |                             |                    |                        |         |

2. Inspection with Engine Running

| Component & Location | Inspection Component                                   | Condition          |                        | Remarks |
|----------------------|--|--------------------|------------------------|---------|
|                      |  | Meets Requirements | Not Meets Requirements |         |
| Power drive          | Noisy sound from engine                                |                    |                        |         |
|                      | Noisy sound from turbocharger                          |                    |                        |         |
|                      | Noisy sound from transmission                          |                    |                        |         |
|                      | Clutch operation                                       |                    |                        |         |
|                      | Gear shift operation (forward/reverse)                 |                    |                        |         |
|                      | Condition of exhaust gas                               |                    |                        |         |
|                      | Oil leakage from engine                                |                    |                        |         |
|                      | Oil leakage from transmission                          |                    |                        |         |
| Cooling system       | Oil leakage from differential                          |                    |                        |         |
|                      | Noisy sound from radiator pump                         |                    |                        |         |
|                      | Noisy sound from radiator fan                          |                    |                        |         |
|                      | Coolant leakage from radiator and hoses                |                    |                        |         |
| Hydraulic system     | Engine temperature indicator                           |                    |                        |         |
|                      | Leakage from hydraulic pump                            |                    |                        |         |
|                      | Noisy sound from hydraulic pump                        |                    |                        |         |
|                      | Hydraulic cylinder (arm) operation and leakage         |                    |                        |         |
|                      | Hydraulic cylinder (mast) operation and leakage        |                    |                        |         |
|                      | Hydraulic cylinder (leg support) operation and leakage |                    |                        |         |
|                      | Motor (travel) operation and leakage                   |                    |                        |         |
|                      | Motor (swing) operation and leakage                    |                    |                        |         |
|                      | Motor (rotator) operation and leakage                  |                    |                        |         |
|                      | Main winch motor operation and leakage                 |                    |                        |         |
|                      | Auxiliary winch motor operation and leakage            |                    |                        |         |
|                      | Leakage in hoses                                       |                    |                        |         |
|                      | Leakage from nipple                                    |                    |                        |         |
| Leakage from seal    |  |                    |                        |         |
| Function             | Fuel level indicator                                   |                    |                        |         |

| Component & Location | Inspection Component                   | Condition          |                        | Remarks |
|----------------------|--|--------------------|------------------------|---------|
|                      |  | Meets Requirements | Not Meets Requirements |         |
| Indicator            | Engine oil pressure indicator          |                    |                        |         |
|                      | Hydraulic oil filter indicator         |                    |                        |         |
|                      | Travel speed indicator                 |                    |                        |         |
|                      | Preheater / glow plug                  |                    |                        |         |
|                      | Radiator air temperature indicator     |                    |                        |         |
|                      | Hydraulic oil temperature indicator    |                    |                        |         |
|                      | Alternator indicator                   |                    |                        |         |
|                      | Transmission oil temperature indicator |                    |                        |         |
|                      | Seat belt indicator                    |                    |                        |         |
|                      | Beacon indicator                       |                    |                        |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....



Regarding Construction and Components

Type of NDT : Penetrant/Ultrasonic/Magnetic \*\*

.....  
 .....

| No. | Parts to be Inspected                                    | Location | Defects |             | Remarks |
|-----|--|----------|---------|-------------|---------|
|     |  |          | Present | Not present |         |
|     | Main Winch<br>Auxiliary Winch<br>Parallelogram<br>Sheave |          |         |             |         |

Image (attached):

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

Regarding Construction and Components

Type of NDT : Wire Rope Tester

.....  
.....

| No. | Parts to be Inspected                                | Location | Defects |                        | Remarks |
|-----|--|----------|---------|------------------------|---------|
|     |  |          | Present | Not present<br>Present |         |
| 1   | Main wire rope winch<br>Additional wire rope winches |          |         |                        |         |

Image (attached):

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

TESTING

| No | Function           | (Mm)<br>Movement   | Load /<br>Depth | Result | Remarks |
|----|--------------------|--------------------|-----------------|--------|---------|
| 1  | 2                  | 4                  | 5               | 6      | 7       |
| 1. | Travelling         | Forward<br>Reverse |                 |        |         |
| 2. | Swing              | Right<br>Left      |                 |        |         |
| 3. | Main winches       | Up<br>Down         |                 |        |         |
| 4. | Additional winches | Up<br>Down         |                 |        |         |
| 5. | Drilling           | Down               |                 |        |         |

Remarks:

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. CONCLUSION

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VI. RECOMMENDATIONS

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.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT  
IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

**FORMULIR / CHECK LIST INSPECTION & TESTING**  
**(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)**  
**GONDOLA**

NO : .....

**I. GENERAL DATA**

|    |  |   |  |
|----|--|---|--|
| 1  | Owner  | : |  |
| 2  | Address  | : |  |
| 3  | User   | : |  |
| 4  | Main Contractor Administrator /<br>Subcontractor / Person in<br>Charge | : |  |
| 5  | Unit location  | : |  |
| 6  | Operator name  | : |  |
| 7  | Type of Equipment  | : |  |
| 8  | Manufacture  | : |  |
| 9  | Brand / type   | : |  |
| 10 | Year of manufacture  | : |  |
| 11 | Serial number / unit number  | : |  |
| 12 | Capacity   | : |  |
| 13 | Applicable Standard  | : |  |
| 14 | Usage purpose  | : |  |
| 15 | Equipment History Data   | : |  |

| II. TECHNICAL DATA    |   |       |  |
|-----------------------|---|-------|--|
| GONDOLA SPECIFICATION | Height of support pole  |       |  |
|                       | Beam  |       |  |
|                       | – Length front beam   |       |  |
|                       | – Length rear beam  |       |  |
|                       | Distance balance weight to beam                                   |       |  |
|                       | Capacity  |       |  |
|                       | Speed   |       |  |
|                       | Platform size   |       |  |
|                       | Wire Rope   |       |  |
| HOIST                 | Model   |       |  |
|                       | Power Lifting   |       |  |
|                       | Electric Motor  | Type  |  |
|                       |   | Power |  |
| Voltage               |   |       |  |
| BRAKE                 | Category  |       |  |
|                       | Type  |       |  |
|                       | Capacity  |       |  |
| SAFETY LOCK TYPE      |   |       |  |
| MECHANICAL SUSPENSION | Height of support pole  |       |  |
|                       | Length front beam   |       |  |
|                       | Materials   |       |  |
| MACHINE WEIGHT        | Total weight platform including hoist, safety lock, panel control |       |  |
|                       | Weight mechanical suspension                                      |       |  |
|                       | Balance weight  |       |  |
|                       | Total machine weight (not present including wire rope and cables) |       |  |

III. VISUAL INSPECTION

| No.              | Inspection Component | Item  | Condition          |                           | Remarks |
|------------------|----------------------|---|--------------------|---------------------------|---------|
|                  |                      |   | Meets requirements | Does not meet requirement |         |
| 1                | Suspension Structure | Front beam                                    |                    |                           |         |
|                  |                      | Middle beam                                   |                    |                           |         |
|                  |                      | Rear beam                                     |                    |                           |         |
|                  |                      | Front support beam                            |                    |                           |         |
|                  |                      | Lower part of front support beam              |                    |                           |         |
|                  |                      | Clamp reinforcement for support beam and beam |                    |                           |         |
|                  |                      | Coupling sleeve                               |                    |                           |         |
|                  |                      | Turn buckle                                   |                    |                           |         |
|                  |                      | Reinforcement rope                            |                    |                           |         |
|                  |                      | Rear support beam                             |                    |                           |         |
|                  |                      | Balance weight / counterweight                |                    |                           |         |
|                  |                      | Support for front support beam                |                    |                           |         |
|                  |                      | Support for rear support beam                 |                    |                           |         |
|                  |                      | Joint support jack                            |                    |                           |         |
| Connecting bolts |                      |   |                    |                           |         |
| 2                | Steel wire rope      | Main TKB                                      |                    |                           |         |
|                  |                      | Safety rope                                   |                    |                           |         |
|                  |                      | Fastening sling                               |                    |                           |         |
| 3                | Electrical system    | Motor Hoist (1-2)                             |                    |                           |         |
|                  |                      | Break release                                 |                    |                           |         |
|                  |                      | Manual release                                |                    |                           |         |
|                  |                      | Power control                                 |                    |                           |         |
|                  |                      | Power cable                                   |                    |                           |         |
|                  |                      | Handle switch                                 |                    |                           |         |
|                  |                      | Upper limit switch                            |                    |                           |         |
|                  |                      | Limit stopper                                 |                    |                           |         |
|                  |                      | Socket/Fitting                                |                    |                           |         |
|                  |                      | Grounding                                     |                    |                           |         |
|                  |                      | Breaker/fuse                                  |                    |                           |         |
| Emergency stop   |                      |   |                    |                           |         |
| 4                | Platform             | Hoist mounting frame                          |                    |                           |         |
|                  |                      | Platform frame                                |                    |                           |         |
|                  |                      | Bottom plate                                  |                    |                           |         |

| No. | Inspection Component | Item                     | Condition          |                           | Remarks |
|-----|----------------------|--------------------------|--------------------|---------------------------|---------|
|     |                      |                          | Meets requirements | Does not meet requirement |         |
|     |                      | Pin and Bolt             |                    |                           |         |
|     |                      | Bracket                  |                    |                           |         |
|     |                      | Toe board                |                    |                           |         |
|     |                      | Roller dan guide pully   |                    |                           |         |
|     |                      | Name plate               |                    |                           |         |
| 5   | Safety Equipment     | Safety lock              |                    |                           |         |
|     |                      | Bumper Karet             |                    |                           |         |
|     |                      | Safety life line         |                    |                           |         |
|     |                      | Load limit switch        |                    |                           |         |
|     |                      | Limit block              |                    |                           |         |
|     |                      | Upper limit switch       |                    |                           |         |
|     |                      | Body harness             |                    |                           |         |
|     |                      | Safety harness anchorage |                    |                           |         |
|     |                      | Handy talkie             |                    |                           |         |
|     |                      | Safety helmet            |                    |                           |         |
|     |                      | Hand rail                |                    |                           |         |
|     |                      | Other PPE                |                    |                           |         |
|     |                      | Coup for glass           |                    |                           |         |

Remarks : Visual inspection is conducted for cracks, wear and tear, corrosion, and deformation

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. NON-DESTRUCTIVE TESTING

IV.1 NON-DESTRUCTIVE INSPECTION OF STEEL WIRE ROPE.

| NO. | USAGE | DIAMETER |        | CONSTRUCTION | CATEGORY | LENGTH | AGE | DEFECTS     |                    | REMARKS |
|-----|-------|----------|--------|--------------|----------|--------|-----|-------------|--------------------|---------|
|     |       | SPEC     | ACTUAL |              |          |        |     | PRES<br>ENT | NOT<br>PRESE<br>NT |         |
|     |       |          |        |              |          |        |     |             |                    |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

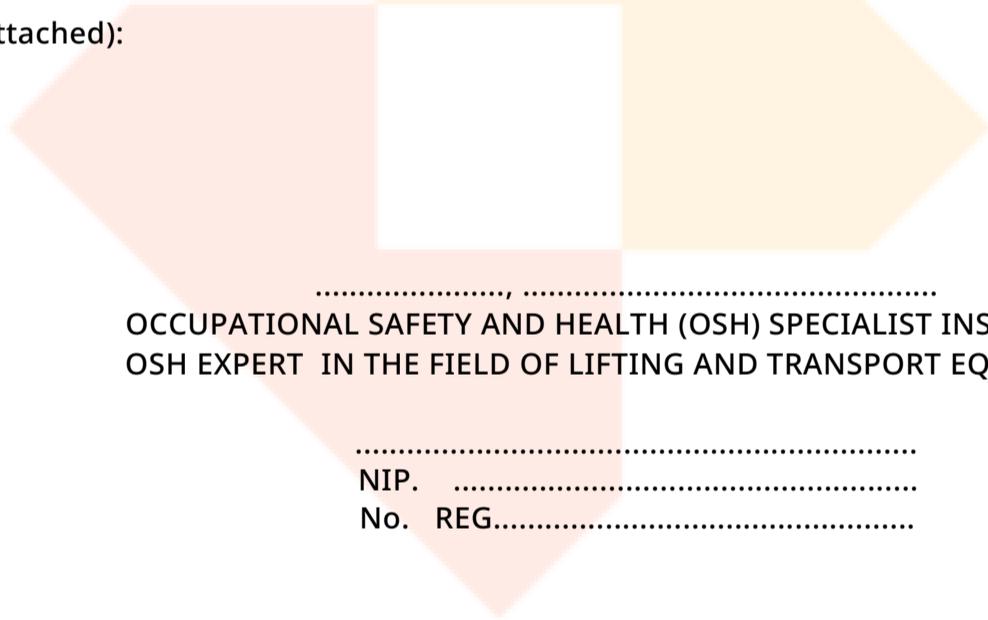
IV.2. SUSPENSION STRUCTURE

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

| No. | PARTS TO BE INSPECTED | LOCATION | DEFECTS |             | REMARKS |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | PRESENT | NOT PRESENT |         |
|     |                       |          |         |             |         |

Image (attached):



.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.3. GONDOLA CAGE

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

| No. | PARTS TO BE INSPECTED | LOCATION | DEFECTS |             | REMARKS |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | PRESENT | NOT PRESENT |         |
|     |                       |          |         |             |         |

Image (attached):

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. TESTING LOAD

V.1. Testing Load Dinamis

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.....

V.2. Testing Load Statis

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NOTES:

During and after testing, the main parts of the Gondola have been inspected:

Occurred / Not present Damage occurred\*\*



VI. CONCLUSION

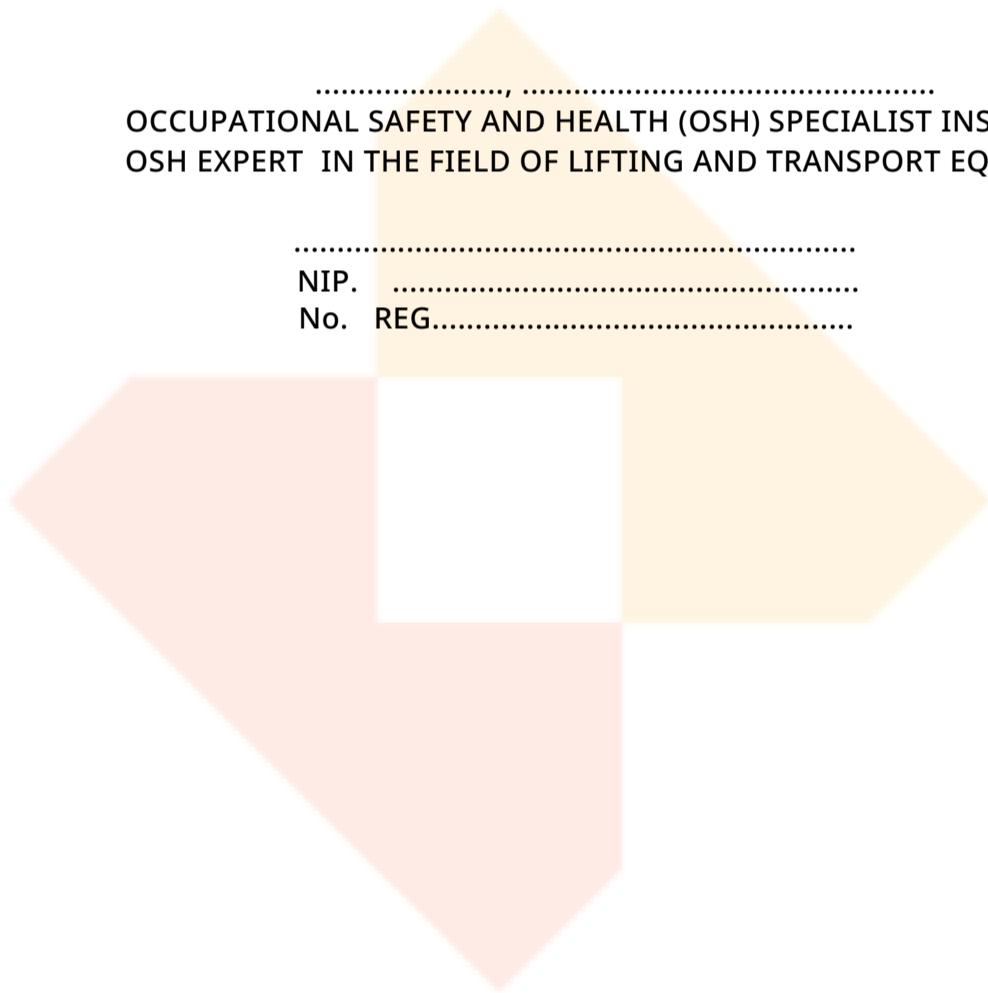
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VII. RECOMMENDATIONS

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.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....



PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

---

FORMULIR / CHECK LIST INSPECTION & TESTING  
(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)  
FORKLIFT

NO : .....

I. GENERAL DATA

|    |  |   |  |
|----|--|---|--|
| 1  | Owner  | : |  |
| 2  | Address  | : |  |
| 3  | User   | : |  |
| 4  | Main Contractor Administrator / Subcontractor / Person in Charge | : |  |
| 5  | Unit location  | : |  |
| 6  | Type of Equipment  | : |  |
| 7  | manufacture  | : |  |
| 8  | Brand / type   | : |  |
| 9  | Year of manufacture  | : |  |
| 10 | Serial number / unit number                                      | : |  |
| 11 | Capacity   | : |  |
| 12 | Applicable Standard  | : |  |
| 13 | Usage purpose  | : |  |
| 14 | Certificate Number   | : |  |
| 15 | No. K3 Operator License / Validity Period Until                  | : |  |
| 16 | Equipment History Data   | : |  |

II. TECHNICAL DATA

|                        |                       |         |  |
|------------------------|-----------------------|---------|--|
| AIRCRAFT SPECIFICATION | Serial Number         |         |  |
|                        | Capacity              |         |  |
|                        | Attachment            |         |  |
|                        | Speed                 | Lifting |  |
| Lowering               |                       |         |  |
| Travelling             |                       |         |  |
| PRIME MOVER            | Rotation / Revolution |         |  |
|                        | Brand / Type          |         |  |
|                        | Serial Number         |         |  |
|                        | Year of manufacture   |         |  |
|                        | Power                 |         |  |
|                        | Number of Cylinders   |         |  |
| DIMENSION              | Length                |         |  |
|                        | Width                 |         |  |
|                        | High                  |         |  |
|                        | Height Lifting Fork   |         |  |
| TIRE PRESSURE          | Drive Wheel           |         |  |
|                        | Steering Wheel        |         |  |
| DRIVER WHEEL           | Size                  |         |  |
|                        | Type                  |         |  |
| STEERING WHEEL         | Size                  |         |  |
|                        | Type                  |         |  |
| TRAVELLING BRAKE       | Size                  |         |  |
|                        | Type                  |         |  |
| HYDRAULIC PUMP         | Pressure              |         |  |
|                        | Type                  |         |  |
|                        | Relief Valve          |         |  |

III. VISUAL INSPECTION AND FUNCTION

| Component & Location          | Inspection Component           | Item                    | Condition          |                            | Remarks |  |
|-------------------------------|--------------------------------|-------------------------|--------------------|----------------------------|---------|--|
|                               |                                |                         | Meets requirements | Does not meet requirements |         |  |
| Main Frame / Chassis          | Frame Reinforcement            | Corrosion               |                    |                            |         |  |
|                               |                                | Cracks                  |                    |                            |         |  |
|                               |                                | Deformation             |                    |                            |         |  |
|                               | Counterweight (C/W)            | Corrosion               |                    |                            |         |  |
|                               |                                | Condition               |                    |                            |         |  |
|                               | Other Equipment                | Floor / Deck            |                    |                            |         |  |
|                               |                                | Stairs / Steps          |                    |                            |         |  |
|                               |                                | Bolts - Fastening       |                    |                            |         |  |
|                               |                                | Operator Seat (Jok)     |                    |                            |         |  |
|                               | Prime Mover                    | System                  | Cooling            |                            |         |  |
| Lubricant                     |                                |                         |                    |                            |         |  |
| Fuel                          |                                |                         |                    |                            |         |  |
| Air Intake                    |                                |                         |                    |                            |         |  |
| Exhaust Gas                   |                                |                         |                    |                            |         |  |
| Starter                       |                                |                         |                    |                            |         |  |
| Electrical                    |                                | Accu / Battery          |                    |                            |         |  |
|                               |                                | Dynamo Starting         |                    |                            |         |  |
|                               |                                | Alternator              |                    |                            |         |  |
|                               |                                | Battery Cable           |                    |                            |         |  |
|                               |                                | Installation Cable      |                    |                            |         |  |
|                               |                                | Lighting Lamp           |                    |                            |         |  |
|                               |                                | Safety Lamp / Sign      |                    |                            |         |  |
|                               |                                | Horn                    |                    |                            |         |  |
| Dash Board                    |                                | Safety Fuse / Breaker   |                    |                            |         |  |
|                               |                                | Temperature Indicator   |                    |                            |         |  |
|                               |                                | Engine Oil              |                    |                            |         |  |
|                               |                                | Hydraulic Oil           |                    |                            |         |  |
|                               |                                | Hour Meter              |                    |                            |         |  |
|                               |                                | Preheater / Glow Plug   |                    |                            |         |  |
|                               |                                | Fuel Indicator          |                    |                            |         |  |
|                               |                                | Indicator Load          |                    |                            |         |  |
|                               |                                | Load Chart / Name Plate |                    |                            |         |  |
| Battery Charging / Ampere     |                                |                         |                    |                            |         |  |
| Lower Component / Power Train |                                | Steering System         | Steering Wheel     |                            |         |  |
|                               |                                |                         | Steering Shaft     |                            |         |  |
|                               |                                |                         | Gearbox / Gear Box |                            |         |  |
|                               | Motion Converter<br>Pitman Arm |                         |                    |                            |         |  |
|                               | Drag Link                      |                         |                    |                            |         |  |
|                               | Tire Rod                       |                         |                    |                            |         |  |

| Component & Location      | Inspection Component          | Item                         | Condition            |                           | Remarks |  |
|---------------------------|-------------------------------|------------------------------|----------------------|---------------------------|---------|--|
|                           |                               |                              | Meets requirements   | Does not meet requirement |         |  |
|                           | Wheel                         | Lubricant                    |                      |                           |         |  |
|                           |                               | Front (Drive Wheel)          |                      |                           |         |  |
|                           |                               | Rear Wheel (Steering Wheel)  |                      |                           |         |  |
|                           |                               | Bolt Fastening               |                      |                           |         |  |
|                           |                               | Drum / Hub                   |                      |                           |         |  |
|                           |                               | Lubricant                    |                      |                           |         |  |
|                           | Clutch                        | Mechanical Equipment         |                      |                           |         |  |
|                           |                               | Clutch Housing               |                      |                           |         |  |
|                           |                               | Condition Clutch             |                      |                           |         |  |
|                           |                               | Lubricant / Transmission Oil |                      |                           |         |  |
|                           |                               | Transmission Leakage         |                      |                           |         |  |
|                           |                               | Connecting Shaft             |                      |                           |         |  |
|                           | Diferential                   | Mechanical Equipment         |                      |                           |         |  |
|                           |                               | Differential Housing         |                      |                           |         |  |
|                           |                               | Condition Differential       |                      |                           |         |  |
|                           |                               | Lubricant / Differential Oil |                      |                           |         |  |
|                           |                               | Differential Leakage         |                      |                           |         |  |
|                           | Lower Component / Power Train | Brake                        | Connecting Shaft     |                           |         |  |
|                           |                               |                              | Condition Brake Main |                           |         |  |
|                           |                               |                              | Condition Brake Hand |                           |         |  |
| Condition Brake Emergency |                               |                              |                      |                           |         |  |
| Leakage                   |                               |                              |                      |                           |         |  |
| Transmision               |                               | Component Mechanical         |                      |                           |         |  |
|                           |                               | Transmission Housing         |                      |                           |         |  |
|                           |                               | Lubricant / Transmission Oil |                      |                           |         |  |
|                           |                               | Transmission Leakage         |                      |                           |         |  |
|                           |                               | Mechanical Equipment         |                      |                           |         |  |
| Attachment                | Mast                          | Wear and Tear                |                      |                           |         |  |
|                           |                               | Cracks                       |                      |                           |         |  |
|                           |                               | Deformation                  |                      |                           |         |  |
|                           |                               | Lubricant                    |                      |                           |         |  |
|                           |                               | Shaft and Bearings           |                      |                           |         |  |
|                           | Lift Chain                    | Chain Condition              |                      |                           |         |  |
|                           |                               | Deformation                  |                      |                           |         |  |
|                           |                               | Chain Lubricant              |                      |                           |         |  |
| Personal Basket           | Work platform                 | Corrosion                    |                      |                           |         |  |
|                           |                               | Cracks                       |                      |                           |         |  |
|                           |                               | Deformation                  |                      |                           |         |  |
|                           |                               | Fastening                    |                      |                           |         |  |
|                           | Frame Personal Basket         | Corrosion                    |                      |                           |         |  |
|                           |                               | Cracks                       |                      |                           |         |  |
|                           |                               | Deformation                  |                      |                           |         |  |
|                           |                               | Transverse reinforcement     |                      |                           |         |  |
|                           | Bolt Fastening                | Diagonal reinforcement       |                      |                           |         |  |
|                           |                               | Corrosion                    |                      |                           |         |  |
|                           |                               | Cracks                       |                      |                           |         |  |

| Component & Location | Inspection Component | Item                               | Condition          |                           | Remarks |
|----------------------|----------------------|------------------------------------|--------------------|---------------------------|---------|
|                      |                      |                                    | Meets requirements | Does not meet requirement |         |
|                      |                      | Deformation                        |                    |                           |         |
|                      |                      | Fastening                          |                    |                           |         |
|                      | Door                 | Corrosion                          |                    |                           |         |
|                      |                      | Cracks                             |                    |                           |         |
|                      |                      | Deformation                        |                    |                           |         |
|                      |                      | Fastening                          |                    |                           |         |
|                      |                      |                                    |                    |                           |         |
|                      | Hand Rail            | Cracks                             |                    |                           |         |
|                      |                      | Wear and Tear                      |                    |                           |         |
|                      |                      | Cracks                             |                    |                           |         |
|                      |                      | Rail alignment                     |                    |                           |         |
|                      |                      | Rail joints                        |                    |                           |         |
|                      |                      | Alignment between rails            |                    |                           |         |
|                      |                      | Distance Between Rail Joints       |                    |                           |         |
|                      |                      | Rail fastening                     |                    |                           |         |
| Rail stopper         |                      |                                    |                    |                           |         |
| Hidraulik Component  | Tank                 | Leakage                            |                    |                           |         |
|                      |                      | Hydraulic Oil Level                |                    |                           |         |
|                      |                      | Hydraulic Oil Condition            |                    |                           |         |
|                      |                      | Suction Line Condition             |                    |                           |         |
|                      |                      | Return Line Condition              |                    |                           |         |
|                      | Pump                 | Leakage                            |                    |                           |         |
|                      |                      | Suction Line Condition             |                    |                           |         |
|                      |                      | Pressure Line Condition            |                    |                           |         |
|                      |                      | Function                           |                    |                           |         |
|                      |                      | Abnormal Sound                     |                    |                           |         |
|                      | Control Valve        | Leakage                            |                    |                           |         |
|                      |                      | Pipeline Condition                 |                    |                           |         |
|                      |                      | Relief Valve Function              |                    |                           |         |
|                      |                      | Abnormal Sound                     |                    |                           |         |
|                      |                      | Cylinder Valve Function - Lifting  |                    |                           |         |
|                      |                      | Cylinder Valve Function - Lever    |                    |                           |         |
|                      |                      | Cylinder Valve Function - Steering |                    |                           |         |
|                      | Aktuator             | Leakage                            |                    |                           |         |
|                      |                      | Pipeline Condition                 |                    |                           |         |
|                      |                      | Abnormal Sound                     |                    |                           |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. INSPECTION WITH ENGINE RUNNING

| Inspection Component  | Condition          |                           | Remarks |
|---|--------------------|---------------------------|---------|
|   | Meets requirements | Does not meet requirement |         |
| Dynamo starter  |                    |                           |         |
| Instrument operation / Indicator                                      |                    |                           |         |
| Electrical equipment operation (spark plug, rotor, etc. present fuel) |                    |                           |         |
| Leaks:  |                    |                           |         |
| - engine oil  |                    |                           |         |
| - fuel  |                    |                           |         |
| - coolant water   |                    |                           |         |
| - hydraulic oil   |                    |                           |         |
| - transmission oil  |                    |                           |         |
| - final drive oil   |                    |                           |         |
| - brake fluid   |                    |                           |         |
| Clutch operation  |                    |                           |         |
| Gear shifting (forward, reverse)                                      |                    |                           |         |
| Hand and foot brake operation   |                    |                           |         |
| Horn, signal, and alarm function                                      |                    |                           |         |
| Light operation (brake, dim, turn signals, etc.)                      |                    |                           |         |
| Hydraulic motor / hydraulic system                                    |                    |                           |         |
| Steering cylinder operation / power steering                          |                    |                           |         |
| Lifting cylinder operation and accessories                            |                    |                           |         |
| Tilting cylinder operation and accessories                            |                    |                           |         |
| Exhaust gas condition   |                    |                           |         |
| Operation of all control levers                                       |                    |                           |         |
| Noise from the engine   |                    |                           |         |
| Noise from the turbocharger   |                    |                           |         |
| Noise from the transmission   |                    |                           |         |
| Noise from the hydraulic pump   |                    |                           |         |
| Noise from protective covers  |                    |                           |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

V. LIFTING CHAIN INSPECTION

| No. | PARTS TO BE INSPECTED | Category and construction | Measurement         |                     |                   |                   | REMARKS |
|-----|-----------------------|---------------------------|---------------------|---------------------|-------------------|-------------------|---------|
|     |                       |                           | Standard pitch (mm) | Measured pitch (mm) | Standard pin (mm) | Measured pin (mm) |         |
| 1   | Right Chain           |                           |                     |                     |                   |                   |         |
| 2   | Left Chain            |                           |                     |                     |                   |                   |         |

Image:

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

VI. NON-DESTRUCTIVE TESTING (NDT)  
Regarding Construction and Components

Type of NDT : Penetrant / Ultrasonic \*\*

.....  
.....

| No. | PARTS TO BE INSPECTED | LOCATION | DEFECTS |             | REMARKS |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | PRESENT | NOT PRESENT |         |
| 1   | Left Fork             | Heel     |         |             |         |
| 2   | Right Fork            | Heel     |         |             |         |

Image (attached)

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VII. TESTING

| No | No.(SWL)<br>FORK<br>LIFTING<br>HEIGHT | TEST<br>LOAD<br>(LOAD<br>CHART) | TRAVELING /<br>SPEED | MOVEMENT (mm)                                   | RESULT | REMARKS |
|----|---------------------------------------|---------------------------------|----------------------|---|--------|---------|
| 1  | 2                                     | 3                               | 4                    | 5   | 6      | 7       |
| 1. | -                                     | WITHOUT<br>LOAD                 |                      | a. Forward<br>reverse<br>b. Turn<br>right/left  |        |         |
| 2. |                                       | 25 %<br>SWL                     |                      | a. Forward<br>reverse<br>b. Turn<br>right/left  |        |         |
| 3. |                                       | 50%<br>SWL                      |                      | a. Forward<br>reverse<br>b. Turn<br>right/left  |        |         |
| 4. |                                       | 75%<br>SWL                      |                      | a. Forward<br>reverse<br>b. Turn right/<br>left |        |         |
| 5. |                                       | 100%<br>SWL                     |                      | a. Forward<br>reverse<br>b. Turn<br>right/left  |        |         |
| 6. |                                       | 110%<br>SWL                     |                      | Hold still for 10<br>minutes                    |        |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

VIII. CONCLUSION

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IX. RECOMMENDATIONS

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.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....



PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

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| FORMULIR / CHECK LIST INSPECTION & TESTING<br>(INITIAL/PERIODIC/SPECIAL/RETEST**)<br><u>CONVEYOR</u><br>NO : ..... |  |   |
|--|--|---|
| <b>I. GENERAL DATA</b>   |  |   |
| 1  | Owner  | : |
| 2  | Address  | : |
| 3  | User   | : |
| 4  | Main Contractor Administrator / Subcontractor / Person in Charge | : |
| 5  | unit location  | : |
| 6.   | Type of Equipment  | : |
| 7.   | Manufacture  | : |
| 8.   | Brand / type   | : |
| 9.   | Location Year of Manufacture                                     | : |
| 10.  | Serial number / unit number                                      | : |
| 11.  | Capacity / Working Load  | : |
| 12.  | Applicable standardd   | : |
| 13.  | Usage purpose  | : |
| 14.  | Certificate Number   | : |
| 15.  | No. K3 Operator License / Valid Until                            | : |
| 16.  | Equipment History Data   | : |

| II. TECHNICAL DATA     |                             |  |
|------------------------|-----------------------------|--|
| Konveyor Specification | Category                    |  |
|                        | Year of manufacture         |  |
|                        | Capacity/ Working Load      |  |
|                        | Overall Length              |  |
|                        | Overall Height              |  |
|                        | Width                       |  |
|                        | Conveyor Belt Material      |  |
| Drive motor (1)        | Drive Category              |  |
|                        | Brand                       |  |
|                        | Country of Manufacture      |  |
|                        | Model                       |  |
|                        | Serial Number               |  |
|                        | Capacity                    |  |
|                        | Power                       |  |
|                        | Brand / year of manufacture |  |
|                        | Manufacture                 |  |

III. VISUAL INSPECTION

| COMPONENT                                  |  | CONDITION          |                                | REMARKS |
|--|--|--------------------|--------------------------------|---------|
|  |  | Meets requirements | Not present Meets requirements |         |
| (1)  | (2)  | (3)                | (4)                            | (5)     |
| <b>1. Inspection Konveyor (Engine Off)</b> |  |                    |                                |         |
| A. Main Components                         | Belt   |                    |                                |         |
|  | Head of Conveyor                                 |                    |                                |         |
|  | Tail of Conveyor                                 |                    |                                |         |
|  | Carrying Idler                                   |                    |                                |         |
|  | Impact Idller                                    |                    |                                |         |
|  | Trought Idller                                   |                    |                                |         |
|  | Return Idller                                    |                    |                                |         |
| B. Drive / Main Power Unit                 | Drive motor                                      |                    |                                |         |
|  | Kabel-Kabel                                      |                    |                                |         |
|  | Panel Control Room                               |                    |                                |         |
| C. Transmission                            | Tail Pulley                                      |                    |                                |         |
|  | Snub Pulley                                      |                    |                                |         |
|  | Bend Pulley                                      |                    |                                |         |
|  | Head of drive Pulley                             |                    |                                |         |
|  | Counter weight                                   |                    |                                |         |
|  | Return Idlers                                    |                    |                                |         |
| D. Accessories                             | Belt Cleaner                                     |                    |                                |         |
|  | Plough Scrapper                                  |                    |                                |         |
|  | Magnetic Separator                               |                    |                                |         |
| E. Safety Equipment                        | Brake System                                     |                    |                                |         |
|  | Emergency Stop                                   |                    |                                |         |
|  | Safety Fence on Left and Right Side<br>Seat Belt |                    |                                |         |
|  | Fire Extinguisher (APAR)                         |                    |                                |         |
|  | Safety Cage Motor                                |                    |                                |         |
| <b>2. Inspection with Engine Running</b>   |  |                    |                                |         |
| Running Engine                             | Vibration Noise                                  |                    |                                |         |
|  | Brake System                                     |                    |                                |         |

| COMPONENT |                             | CONDITION          |                                | REMARKS |
|-----------|-----------------------------|--------------------|--------------------------------|---------|
|           |                             | Meets requirements | Not present Meets requirements |         |
| (1)       | (2)                         | (3)                | (4)                            | (5)     |
|           | Belt Conveyor Operation     |                    |                                |         |
|           | Head Drive Pulley Operation |                    |                                |         |
|           | Tail Pulley Operation       |                    |                                |         |
|           | Return Idler Operation      |                    |                                |         |
|           | Emergency Stop              |                    |                                |         |
|           | All Control Panel Operation |                    |                                |         |
|           | Control Panel Lights        |                    |                                |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. NON-DESTRUCTIVE TESTING (NDT)  
Regarding Construction and Components

VISUALLY:

| No. | Parts to be Inspected | Material | Condition       |                        | Remarks |
|-----|-----------------------|----------|-----------------|------------------------|---------|
|     |                       |          | Crack/<br>Break | Not<br>Crack/<br>Break |         |
| 1.  | Conveyor Belt         |          |                 |                        |         |
| 2.  | Support Trough Idler  |          |                 |                        |         |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. DYNAMIC TESTING

|     | LOAD TEST                            | LOAD | SPEED | RESULT | REMARKS |
|-----|--------------------------------------|------|-------|--------|---------|
| (1) | (2)                                  | (3)  | (4)   | (6)    | (7)     |
| 1.  | Without Load                         |      |       |        |         |
| 2.  | 50 % SWL ,<br>75 % SWL,<br>100 % SWL |      |       |        |         |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VI. STATIC TESTING

|     | LOAD TEST   | LOAD | SPEED | RESULT | REMARKS |
|-----|---|------|-------|--------|---------|
| (1) | (2)   | (3)  | (4)   | (6)    | (7)     |
| 1.  | 50 % SWL ,<br>75 % SWL,<br>100 % SWL<br>110 % SWL<br>125% SWL |      |       |        |         |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....



VII. CONCLUSION

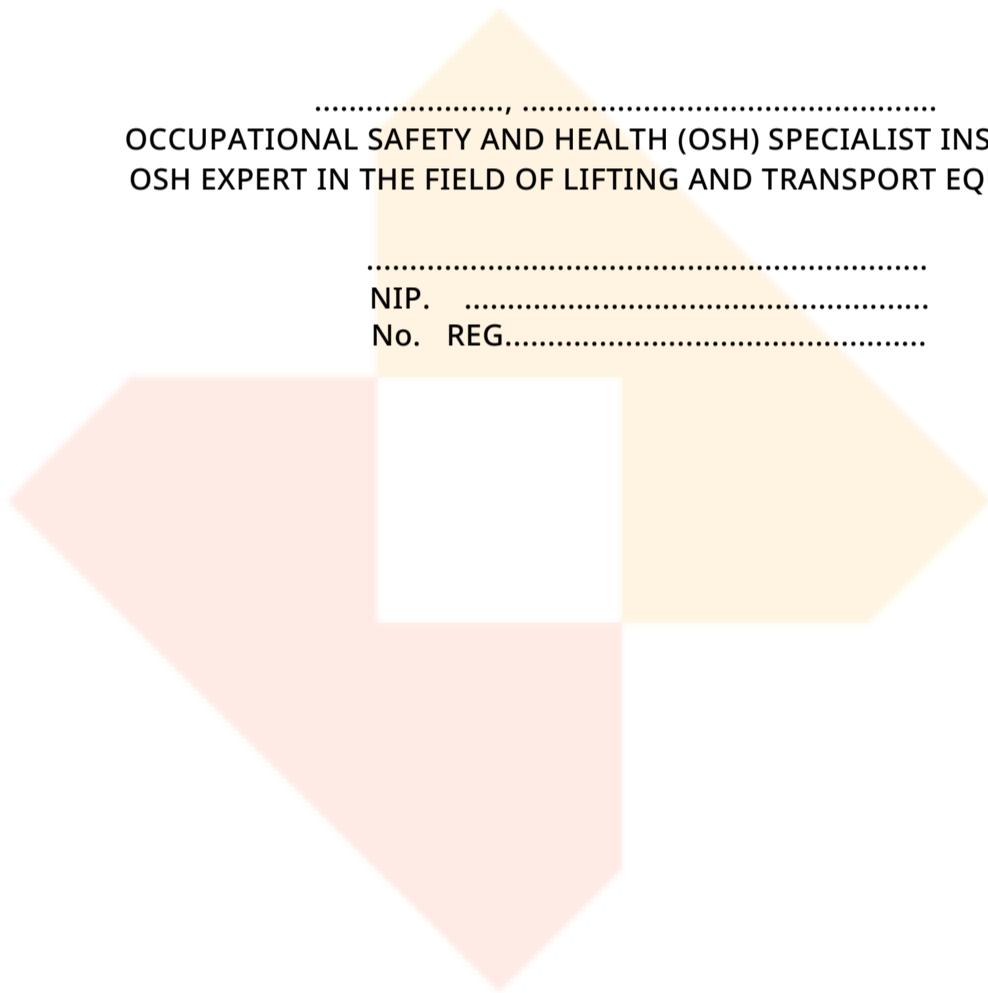
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VIII. RECOMMENDATIONS

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.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....



PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

---

FORMULIR / CHECK LIST INSPECTION & TESTING  
(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)  
EXCAVATOR

NO : .....

I. GENERAL DATA

|    |  |   |  |
|----|--|---|--|
| 1  | Owner  | : |  |
| 2  | Address  | : |  |
| 3  | Main Contractor Administrator / Subcontractor / Person in Charge | : |  |
| 4  | Address User   | : |  |
| 5  | Unit location  | : |  |
| 6  | Operator name  | : |  |
| 7  | Type of Equipment  | : |  |
| 8  | Manufacture  | : |  |
| 9  | Brand / type   | : |  |
| 10 | Location and Year of manufacture                                 | : |  |
| 11 | Date and Year of Installation                                    | : |  |
| 12 | Serial number / unit number                                      | : |  |
| 13 | Capacity / Working Load  | : |  |
| 14 | Applicable standardd   | : |  |
| 15 | Usage purpose  | : |  |
| 16 | Certificate Number   | : |  |
| 17 | OSH Operator License Number / Valid Until                        | : |  |
| 18 | Equipment History Data   | : |  |

| II. TECHNICAL DATA         |                             |          |  |
|----------------------------|-----------------------------|----------|--|
| Excavator<br>Specification | Capacity/ Working Load      |          |  |
|                            | Overall Length              |          |  |
|                            | Overall Height              |          |  |
|                            | Cabin Height                |          |  |
|                            | Overall Width               |          |  |
|                            | Track Shoe Width            |          |  |
|                            | Length                      | Boom     |  |
|                            |                             | Stick    |  |
|                            | Attachment type             |          |  |
|                            | Bucket Volume / capacity    |          |  |
|                            | Vehicle Weight (Tons)       |          |  |
|                            | Maximum Speed (Travelling)  |          |  |
|                            | Brake                       | Category |  |
|                            |                             | Type     |  |
| Radius Rotation            | Left<br>max/min             |          |  |
|                            | Right<br>max/min            |          |  |
| Engine                     | Model / Type                |          |  |
|                            | Serial Number               |          |  |
|                            | Number of Cylinders         |          |  |
|                            | Net Power                   |          |  |
|                            | Brand / Year of manufacture |          |  |
|                            | Manufacture                 |          |  |
| Hydraulic Pump             | Type                        |          |  |
|                            | Pressure                    |          |  |

III. VISUAL INSPECTION AND FUNCTION

| Component & Location                 |  | Inspection Component       | Condition          |                           | Remarks |
|--------------------------------------|--|----------------------------|--------------------|---------------------------|---------|
| Location                             | Component  |                            | Meets requirements | Does not meet requirement |         |
| <b>1. Inspection with Engine Off</b> |  |                            |                    |                           |         |
| Main Frame / Chassis                 | Frame Reinforcement                                    | Corrosion                  |                    |                           |         |
|                                      |  | Cracks                     |                    |                           |         |
|                                      |  | Deformation                |                    |                           |         |
|                                      | Counterweight (C/W)                                    | Corrosion                  |                    |                           |         |
|                                      |  | Condition                  |                    |                           |         |
|                                      | Turn Table   | Frame                      |                    |                           |         |
|                                      |  | Lubricant                  |                    |                           |         |
|                                      |  | Corrosion                  |                    |                           |         |
|                                      |  | Brake                      |                    |                           |         |
|                                      |  | Cracks                     |                    |                           |         |
|                                      |  | swing gear Condition       |                    |                           |         |
|                                      |  | Boom                       | Corrosion          |                           |         |
|                                      | Cracks   |                            |                    |                           |         |
|                                      | Deformation  |                            |                    |                           |         |
|                                      | Lubricant  |                            |                    |                           |         |
|                                      | Pin and Bolt Reinforcement                             |                            |                    |                           |         |
|                                      | Arm / Stick  | Corrosion                  |                    |                           |         |
|                                      |  | Cracks                     |                    |                           |         |
|                                      |  | Deformation                |                    |                           |         |
|                                      |  | Lubricant                  |                    |                           |         |
|                                      |  | Pin and Bolt Reinforcement |                    |                           |         |
|                                      | Bucket   | Corrosion                  |                    |                           |         |
|                                      |  | Cracks                     |                    |                           |         |
|                                      |  | Deformation                |                    |                           |         |
|                                      |  | Lubricant                  |                    |                           |         |
|                                      |  | Pin and Bolt Reinforcement |                    |                           |         |
|                                      |  | Teeth                      |                    |                           |         |
|                                      |  | Cutting Edge               |                    |                           |         |
|                                      | Bucket Linkages  |                            |                    |                           |         |
|                                      | Track  | Sprocket                   |                    |                           |         |
|                                      |  | Idler                      |                    |                           |         |
|                                      |  | Roller                     |                    |                           |         |
|                                      |  | Track Shoe                 |                    |                           |         |
|                                      |  | Link                       |                    |                           |         |
|                                      |  | Lubricant                  |                    |                           |         |
|                                      |  | Track Surface              |                    |                           |         |
|                                      | Loss / Looseness of Nipples, Bolts, Cracks, and Others |                            |                    |                           |         |

| Component & Location      |                        | Inspection Component                  | Condition          |                           | Remarks |
|---------------------------|------------------------|---------------------------------------|--------------------|---------------------------|---------|
| Location                  | Component              |                                       | Meets requirements | Does not meet requirement |         |
|                           | Cabine                 | Condition of Upper Cover Canopy       |                    |                           |         |
|                           |                        | Floor/Deck                            |                    |                           |         |
|                           |                        | Stairs (Step & Holds)                 |                    |                           |         |
|                           |                        | Bolt Fastening                        |                    |                           |         |
|                           |                        | Condition of Seat                     |                    |                           |         |
|                           |                        | Condition instrument / Indicator      |                    |                           |         |
|                           |                        | Condition of Rearview Mirror          |                    |                           |         |
|                           |                        | Glass, Door Window                    |                    |                           |         |
|                           |                        | Room Cooler                           |                    |                           |         |
|                           |                        | Load Chart                            |                    |                           |         |
|                           | Control Lever          | Brake                                 |                    |                           |         |
|                           |                        | Gas                                   |                    |                           |         |
|                           |                        | Clutch                                |                    |                           |         |
|                           |                        | Gear Shift                            |                    |                           |         |
|                           |                        | Hand Brake                            |                    |                           |         |
|                           |                        | Hydraulic Lever / Control             |                    |                           |         |
|                           |                        | Light Switch and Electrical System    |                    |                           |         |
| Main Drive and Components | Cooling system         | Condition of Radiator                 |                    |                           |         |
|                           |                        | Condition and Level of Radiator Water |                    |                           |         |
|                           |                        | Radiator Fan                          |                    |                           |         |
|                           |                        | Seal and Cover                        |                    |                           |         |
|                           |                        | Radiator Hoses                        |                    |                           |         |
|                           |                        | Fan Belt                              |                    |                           |         |
|                           | Fuel                   | Fuel Tank Equipment (Hoses)           |                    |                           |         |
|                           |                        | Fuel Filter                           |                    |                           |         |
|                           |                        | Water Separator                       |                    |                           |         |
|                           |                        | Fuel pump injection                   |                    |                           |         |
|                           | Air Circulation System | Condition of Initial Air Filter       |                    |                           |         |
|                           |                        | Condition of Main Air Filter          |                    |                           |         |
|                           |                        | Dust Indicator / Air Indicator        |                    |                           |         |
|                           |                        | Turbocharger Equipment                |                    |                           |         |
|                           |                        | Muffler / Exhaust Gas                 |                    |                           |         |

| Component & Location           |                    | Inspection Component                 | Condition          |                           | Remarks |
|--------------------------------|--------------------|--------------------------------------|--------------------|---------------------------|---------|
| Location                       | Component          |                                      | Meets requirements | Does not meet requirement |         |
|                                | Steering System    | Steering Wheel / Track               |                    |                           |         |
|                                |                    | Steering Shaft / Stick               |                    |                           |         |
|                                |                    | Gearbox / Gear Box                   |                    |                           |         |
|                                |                    | Lubricant                            |                    |                           |         |
|                                | Electrical         | Accu / Battery                       |                    |                           |         |
|                                | <i>Accu</i>        | Starting Dynamo                      |                    |                           |         |
|                                |                    | Alternator                           |                    |                           |         |
|                                |                    | Battery Cable                        |                    |                           |         |
|                                |                    | Installation Cable                   |                    |                           |         |
|                                |                    | Lighting Lamp                        |                    |                           |         |
|                                |                    | Safety Lamp / Sign                   |                    |                           |         |
|                                |                    | Horn                                 |                    |                           |         |
|                                |                    | Windshield Wiper                     |                    |                           |         |
|                                | Lubricant          | Fuse / Circuit Breaker               |                    |                           |         |
|                                |                    | Lubricant Oil Level and Condition    |                    |                           |         |
| Clutch Oil Level and Condition |                    |                                      |                    |                           |         |
| Hydraulic system               | Tank               | Differential Oil Level and Condition |                    |                           |         |
|                                |                    | Leakage                              |                    |                           |         |
|                                |                    | Hydraulic Oil Level                  |                    |                           |         |
|                                |                    | Hydraulic Oil Condition              |                    |                           |         |
|                                |                    | Suction Line Condition               |                    |                           |         |
|                                |                    | Return Line Condition                |                    |                           |         |
| Hydraulic system               | Pump               | Hydraulic Filter                     |                    |                           |         |
|                                |                    | Leakage                              |                    |                           |         |
|                                |                    | Suction Line Condition               |                    |                           |         |
|                                | Control Valve      | Pressure Line Condition              |                    |                           |         |
|                                |                    | Leakage                              |                    |                           |         |
|                                |                    | Pipeline Condition                   |                    |                           |         |
|                                | Actuator           | Relief Valve Function                |                    |                           |         |
|                                |                    | Leakage                              |                    |                           |         |
|                                | Hydraulic Cylinder | Pipeline Condition                   |                    |                           |         |
|                                |                    | Bucket Cylinder                      |                    |                           |         |
|                                |                    | Stick/Arm Cylinder                   |                    |                           |         |

| Component & Location |                       | Inspection Component             | Condition          |                           | Remarks |
|----------------------|-----------------------|----------------------------------|--------------------|---------------------------|---------|
| Location             | Component             |                                  | Meets requirements | Does not meet requirement |         |
|                      | Hydraulic Motor       | Boom Cylinder                    |                    |                           |         |
|                      |                       | Hydraulic Hose                   |                    |                           |         |
|                      |                       | Swing Gear Motor                 |                    |                           |         |
|                      |                       | Travel Motor (Track)             |                    |                           |         |
| Safety Devices       | Main Protection       | Brake / Braking System           |                    |                           |         |
|                      |                       | Disconnect Key                   |                    |                           |         |
|                      |                       | Disconnect Switch                |                    |                           |         |
|                      |                       | Safety Belt                      |                    |                           |         |
|                      |                       | Lighting Lamp                    |                    |                           |         |
|                      |                       | Backup Alarm                     |                    |                           |         |
|                      |                       | Cabin Reinforcement Cover / ROPS |                    |                           |         |
|                      |                       | Emergency Shutdown               |                    |                           |         |
|                      | Additional Protection | APAR                             |                    |                           |         |
|                      |                       | PPE                              |                    |                           |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

| Component & Location                     |   | Inspection Component | Condition          |                            | Remarks |
|--|---|----------------------|--------------------|----------------------------|---------|
| Location                                 | Component                                 |                      | Meets requirements | Does not meet requirements |         |
| <b>2. Inspection with Engine Running</b> |   |                      |                    |                            |         |
| Power drive                              | Noise from the engine                     |                      |                    |                            |         |
|  | Noise from the turbocharger               |                      |                    |                            |         |
|  | Noise from the transmission               |                      |                    |                            |         |
|  | Clutch operation                          |                      |                    |                            |         |
|  | Gear shifting operation (forward/reverse) |                      |                    |                            |         |
|  | Exhaust gas condition                     |                      |                    |                            |         |
|  | Engine oil leakage                        |                      |                    |                            |         |
|  | Transmission oil leakage                  |                      |                    |                            |         |
|  | Differential oil leakage                  |                      |                    |                            |         |
| Cooling system                           | Noise from radiator pump                  |                      |                    |                            |         |
|  | Radiator fan noise                        |                      |                    |                            |         |
|  | Radiator water and hose leakage           |                      |                    |                            |         |
|  | Engine temperature indicator              |                      |                    |                            |         |
| Hydraulic system                         | Pump leakage                              |                      |                    |                            |         |
|  | Noise from hydraulic pump                 |                      |                    |                            |         |
|  | Boom cylinder operation and leakage       |                      |                    |                            |         |
|  | Arm cylinder operation and leakage        |                      |                    |                            |         |
|  | Bucket cylinder operation and leakage     |                      |                    |                            |         |
|  | Travel motor operation and leakage        |                      |                    |                            |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. NON-DESTRUCTIVE TESTING (NDT)  
Regarding Construction and Components

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

| No. | PARTS TO BE INSPECTED | LOCATION | DEFECTS |             | REMARKS |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | PRESENT | NOT PRESENT |         |
|     |                       |          |         |             |         |

Image (attached):

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. TESTING

| No | FUNCTION    | SPEED | MOVEMENT<br>(mm)   | LOAD | RESULT | REMARKS |
|----|-------------|-------|--------------------|------|--------|---------|
| 1  | 2           | 3     | 4                  | 5    | 6      | 7       |
| 1  | Travelling  |       | Forward<br>Reverse |      |        |         |
| 2  | Swing       |       | Right<br>Left      |      |        |         |
| 3  | Boom        |       | Up<br>Down         |      |        |         |
| 4  | Arm / Stick |       | Forward<br>Reverse |      |        |         |
| 5  | Bucket      |       | Open<br>Close      |      |        |         |
| 6  | Digging     |       |                    |      |        |         |
| 7  | Loading     |       |                    |      |        |         |

Remarks:

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

VI. CONCLUSION

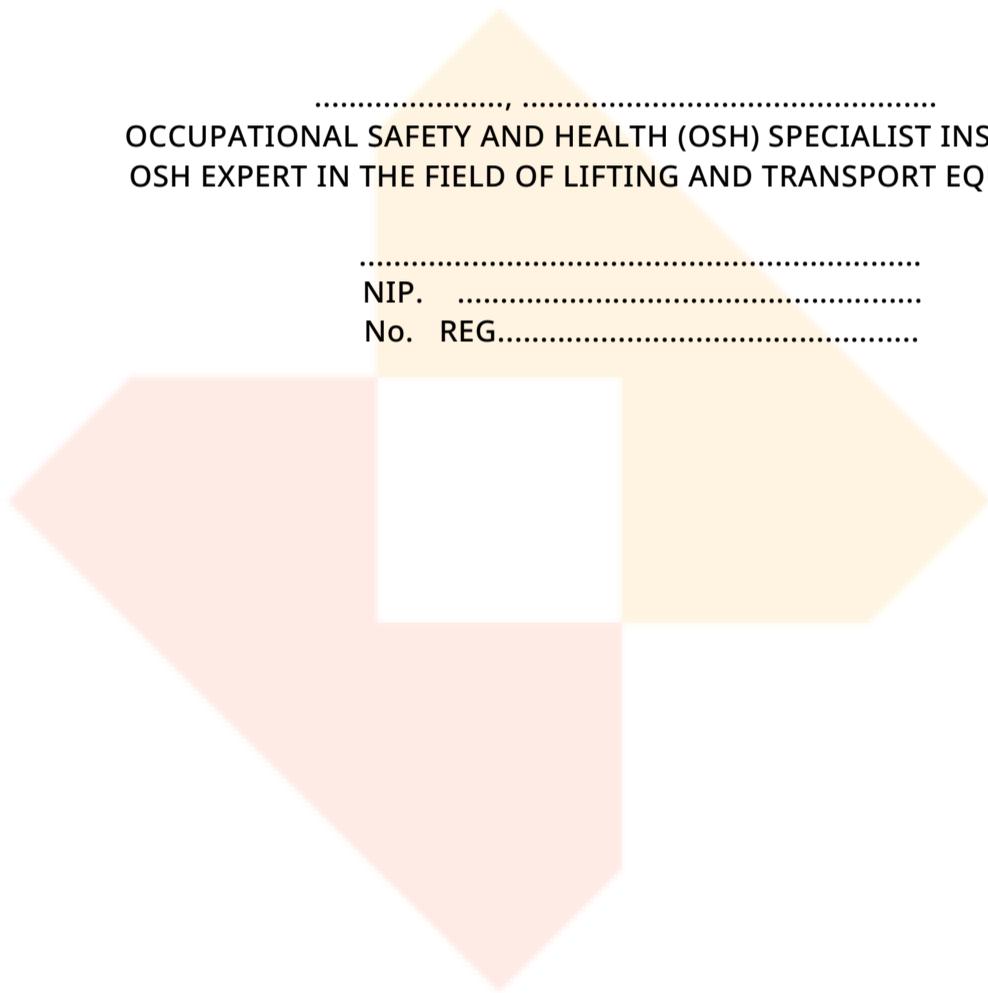
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VII. RECOMMENDATIONS

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OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....



PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

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| FORMULIR / CHECK LIST INSPECTION & TESTING<br>(INITIAL/PERIODIC/SPECIAL/RETEST**)<br>GANTRY CRANE<br>NO : ..... |  |   |  |
|---|--|---|--|
| <b>I. GENERAL DATA</b>  |  |   |  |
| 1   | Owner  | : |  |
| 2   | Address  | : |  |
| 3   | Main Contractor Administrator / Subcontractor / Person in Charge | : |  |
| 4   | Address User   | : |  |
| 5   | Unit location  | : |  |
| 6   | Type of lifting equipment  | : |  |
| 7   | Manufacture  | : |  |
| 8   | Brand / type   | : |  |
| 9   | Year of manufacture  | : |  |
| 10  | Serial number / unit number                                      | : |  |
| 11  | Lifting capacity   | : |  |
| 12  | Lifting height   | : |  |
| 13  | Applicable standard  | : |  |
| 14  | Usage purpose  | : |  |
| 15  | Technical data / manual  | : |  |
| 16  | Certificate Number   | : |  |
| 17  | No. K3 Operator License / Valid Until                            | : |  |
| 18  | History Data   | : |  |

| II. TECHNICAL DATA |                      |                       |          |            |             |
|--------------------|----------------------|-----------------------|----------|------------|-------------|
| No                 | COMPONENT            |                       | HOISTING | TRAVELLING | TRANVERSING |
| 1                  | CRANE SPECIFICATIONS | 1. Height Lifting     |          |            |             |
|                    |                      | 2. Length Span        |          |            |             |
|                    |                      | 3. Speed              |          |            |             |
| 2                  | DRIVE MOTOR          | 1. Serial Number      |          |            |             |
|                    |                      | 2. Power (KW)         |          |            |             |
|                    |                      | 3. Type               |          |            |             |
|                    |                      | 4. Rotation           |          |            |             |
|                    |                      | 5. Voltage (V)        |          |            |             |
|                    |                      | 6. Current (A) / Load |          |            |             |
|                    |                      | 7. Power factor       |          |            |             |
|                    |                      | 8. Frequency          |          |            |             |
| 3                  | STARTING REGISTOR    | 1. Type               |          |            |             |
|                    |                      | 2. Voltage (V)        |          |            |             |
|                    |                      | 3. Current (A)        |          |            |             |
| 4                  | BRAKE                | 1. Category           |          |            |             |
|                    |                      | 2. Type               |          |            |             |
| 5                  | CONTROL BRAKE        | 1. Category           |          |            |             |
|                    |                      | 2. Type               |          |            |             |
| 6                  | HOOK                 | 1. Type               |          |            |             |
|                    |                      | 2. Capacity           |          |            |             |
|                    |                      | 3. Materials          |          |            |             |
| 7.                 | WIRE ROPE            | 1. Type               |          |            |             |
|                    |                      | 2. Construction       |          |            |             |
|                    |                      | 3. Diameter           |          |            |             |
|                    |                      | 4. Length             |          |            |             |

III. VISUAL INSPECTION

| No. | Component name / Component     | Inspection                   | Condition       |                               | Remarks |
|-----|--------------------------------|------------------------------|-----------------|-------------------------------|---------|
|     |                                |                              | Meets requireme | Not present Meets requirement |         |
| 1.  | Support Legs                   | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Deformation                  |                 |                               |         |
|     |                                | Fastening                    |                 |                               |         |
|     |                                | Transverse reinforcement     |                 |                               |         |
| 2.  | Stairs                         | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Deformation                  |                 |                               |         |
|     |                                | Fastening                    |                 |                               |         |
| 3.  | Handrail (on girder)           | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Deformation                  |                 |                               |         |
|     |                                | Fastening                    |                 |                               |         |
| 4.  | Work platform                  | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Deformation                  |                 |                               |         |
|     |                                | Fastening                    |                 |                               |         |
| 5.  | Rail support beam/Transversing | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Deformation                  |                 |                               |         |
|     |                                | Fastening                    |                 |                               |         |
| 6.  | Travelling rail                | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Rail joints                  |                 |                               |         |
|     |                                | Rail alignment               |                 |                               |         |
|     |                                | Alignment Between Rails      |                 |                               |         |
|     |                                | Rail Evenness                |                 |                               |         |
|     |                                | Distance Between Rail Joints |                 |                               |         |
|     |                                | Rail fastening               |                 |                               |         |
|     |                                | Rail stopper                 |                 |                               |         |
| 7.  | Rel transversing               | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Rail joints                  |                 |                               |         |
|     |                                | Rail alignment               |                 |                               |         |
|     |                                | Alignment Between Rails      |                 |                               |         |
|     |                                | Rail surface defects         |                 |                               |         |
|     |                                | Distance Between Rail Joints |                 |                               |         |
|     |                                | Rail fastening               |                 |                               |         |
|     |                                | Rail stopper                 |                 |                               |         |
| 8.  | Girder                         | Corrosion                    |                 |                               |         |
|     |                                | Cracks                       |                 |                               |         |
|     |                                | Bulging                      |                 |                               |         |
|     |                                | Girder Joint                 |                 |                               |         |

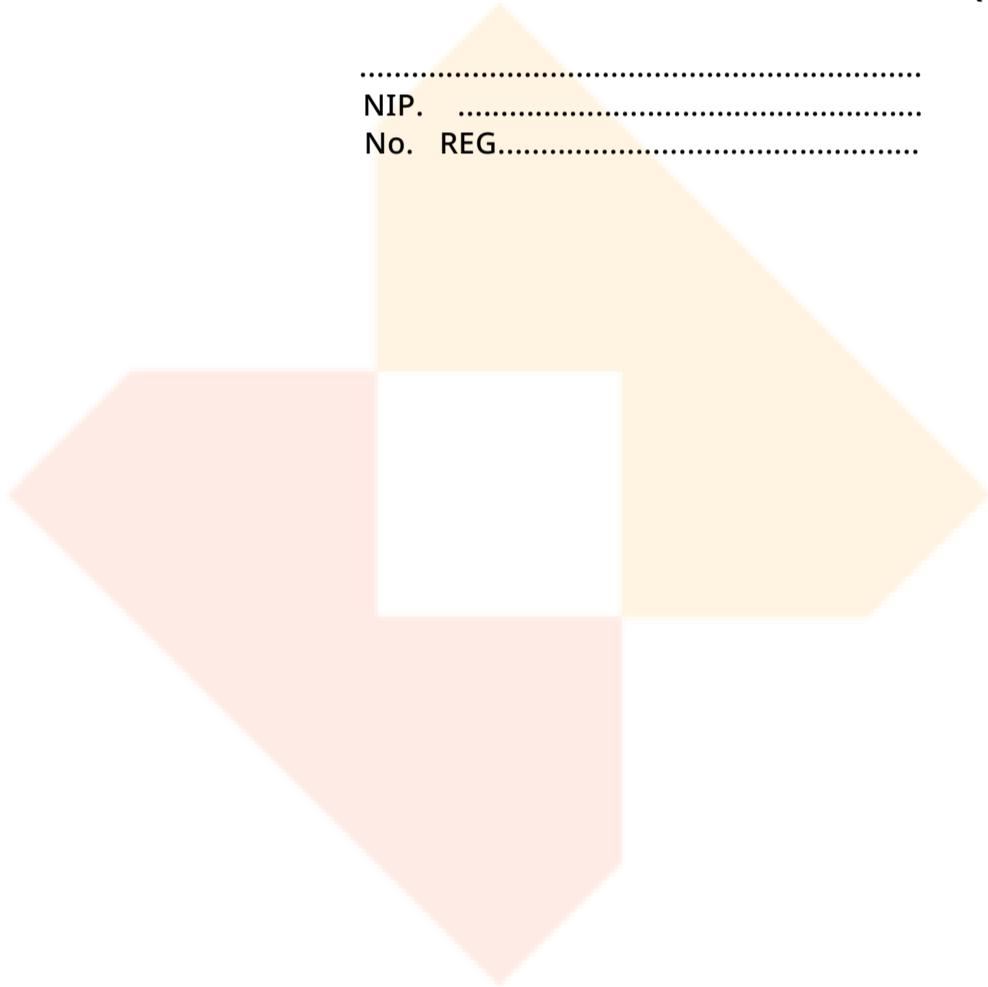
| No.  | Component name / Component            | Inspection             | Condition          |                                | Remarks |
|--|---------------------------------------|------------------------|--------------------|--------------------------------|---------|
|  |                                       |                        | Meets requirements | Not present Meets requirements |         |
|  |                                       | Girder End Joint       |                    |                                |         |
|  |                                       | Truck Mount on girder  |                    |                                |         |
| 9.   | Traveling Gear wheel housing (Girder) | Corrosion              |                    |                                |         |
|  |                                       | Cracks                 |                    |                                |         |
|  | Gear Wheel Housing Drive Wheel        | Lubricating Oil        |                    |                                |         |
|  |                                       | Seal Oil               |                    |                                |         |
|  |                                       | Wear and Tear          |                    |                                |         |
|  |                                       | Cracks                 |                    |                                |         |
|  |                                       | Deformation            |                    |                                |         |
|  |                                       | Condition Flange       |                    |                                |         |
|  | Idle wheel                            | Chain Condition / Belt |                    |                                |         |
|  |                                       | Safety                 |                    |                                |         |
|  |                                       | Cracks                 |                    |                                |         |
|  | Stopper Bumper Present Support Leg    | Deformation            |                    |                                |         |
|  |                                       | Flange Condition       |                    |                                |         |
|  |                                       | Condition              |                    |                                |         |
| Transversing: Gear Wheel Housing Carrier Trolley | Condition                             |                        |                    |                                |         |
|  | Corrosion                             |                        |                    |                                |         |
|  | Cracks                                |                        |                    |                                |         |
|  | Lubricating Oil                       |                        |                    |                                |         |
| 10.  | Drive Wheel on Trolley                | Seal Oil               |                    |                                |         |
|  |                                       | Wear                   |                    |                                |         |
|  |                                       | Cracks                 |                    |                                |         |
|  |                                       | Deformation            |                    |                                |         |
|  |                                       | Flange Condition       |                    |                                |         |
|  | Idle Wheel on Trolley                 | Chain Condition        |                    |                                |         |
|  |                                       | Safety                 |                    |                                |         |
|  |                                       | Cracks                 |                    |                                |         |
|  |                                       | Deformation            |                    |                                |         |
|  | Stopper bumper pada Trolley           | Flange Condition       |                    |                                |         |
| Condition  |                                       |                        |                    |                                |         |
| 11.  | Drum / Spooling Drum                  | Reinforcement          |                    |                                |         |
|  |                                       | Groove                 |                    |                                |         |
|  |                                       | Groove Edge            |                    |                                |         |
| 12.  | Brake                                 | Flange                 |                    |                                |         |
|  |                                       | Wear and Tear          |                    |                                |         |
| 13.  | Stopper Bumper Present Trolley        | Setup                  |                    |                                |         |
|  |                                       | Lubricant              |                    |                                |         |
| 14.  | Main / Auxiliary Pulley               | Seal Oil               |                    |                                |         |
|  |                                       | Pulley Groove          |                    |                                |         |
|  |                                       | Pulley Groove Edge     |                    |                                |         |
|  |                                       | Pulley Pin             |                    |                                |         |
|  |                                       | Bearing                |                    |                                |         |
|  |                                       | Pulley Guard           |                    |                                |         |
|  |                                       | Wire Rope Retainer     |                    |                                |         |

| No. | Component name / Component                           | Inspection                    | Condition          |                                | Remarks |
|-----|--|-------------------------------|--------------------|--------------------------------|---------|
|     |  |                               | Meets requirements | Not present Meets requirements |         |
|     |  | Steel (Anti Toe Block)        |                    |                                |         |
| 15. | Main Hook  | Wear and Tear                 |                    |                                |         |
|     |  | Hook Mouth Clearance          |                    |                                |         |
|     |  | Nut & Swivel Bearing (Swivel) |                    |                                |         |
|     |  | Trunion                       |                    |                                |         |
| 16. | Auxiliary Hook                                       | Wear and Tear                 |                    |                                |         |
|     |  | Hook Mouth Clearance          |                    |                                |         |
|     |  | Nut & Swivel Bearing (Swivel) |                    |                                |         |
|     |  | Trunion                       |                    |                                |         |
| 17. | Main Steel Wire Rope                                 | Corrosion                     |                    |                                |         |
|     |  | Wear and Tear                 |                    |                                |         |
|     |  | Break                         |                    |                                |         |
|     |  | Deformation                   |                    |                                |         |
| 18. | Additional Steel Wire Rope                           | Corrosion                     |                    |                                |         |
|     |  | Wear and Tear                 |                    |                                |         |
|     |  | Break                         |                    |                                |         |
|     |  | Deformation                   |                    |                                |         |
| 19. | Main Chain   | Corrosion                     |                    |                                |         |
|     |  | Wear and Tear                 |                    |                                |         |
|     |  | Cracks/ Break                 |                    |                                |         |
|     |  | Deformation                   |                    |                                |         |
| 20. | Additional Chain                                     | Corrosion                     |                    |                                |         |
|     |  | Wear and Tear                 |                    |                                |         |
|     |  | Cracks/ Break                 |                    |                                |         |
|     |  | Deformation                   |                    |                                |         |
| 21. | Limit Switch (LS)                                    | Travelling                    |                    |                                |         |
|     |  | Transversing                  |                    |                                |         |
|     |  | Hoisting/lowering             |                    |                                |         |
| 22. | Operator Cabin / Pendant                             | Safety Stairs                 |                    |                                |         |
|     |  | Door                          |                    |                                |         |
|     |  | Window                        |                    |                                |         |
|     |  | Fan / AC                      |                    |                                |         |
|     |  | Control Lever / Button        |                    |                                |         |
|     |  | Pendant Control               |                    |                                |         |
|     |  | Lighting                      |                    |                                |         |
|     |  | Horn                          |                    |                                |         |
|     |  | Fuse Protection               |                    |                                |         |
|     |  | Communication Device          |                    |                                |         |
|     |  | Fire Extinguisher (APAR)      |                    |                                |         |
|     |  | Operational Signs             |                    |                                |         |
| 23. | Electrical Component Voltage: 220/380 V / Phase / Hz | Conductor Connector Panel     |                    |                                |         |
|     |  | Conductor Protection          |                    |                                |         |

| No. | Component name / Component | Inspection                       | Condition         |                               | Remarks |
|-----|----------------------------|----------------------------------|-------------------|-------------------------------|---------|
|     |                            |                                  | Meets requirement | Not present Meets requirement |         |
|     |                            | Motor Installation Safety System |                   |                               |         |
|     |                            | Grounding System                 |                   |                               |         |
|     |                            | Installation                     |                   |                               |         |

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OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

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IV. NON-DESTRUCTIVE TESTING  
IV.1. STEEL WIRE ROPE

| NO. | USAGE | DIAMETER |        | CONSTRUCTION | CATEGORY | LENGTH | AGE | DEFECTS |             | REMARKS |
|-----|-------|----------|--------|--------------|----------|--------|-----|---------|-------------|---------|
|     |       | SPEC     | ACTUAL |              |          |        |     | PRESENT | NOT PRESENT |         |
| (1) | (2)   | (3)      | (4)    | (5)          | (6)      | (7)    | (8) | (9)     | (10)        | (11)    |
|     |       |          |        |              |          |        |     |         |             |         |

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.....  
NIP. ....  
No. REG.....

IV.2. CHAIN AND ACCESSORIES

| NO. | USAGE                       | DIAMETER |        | CONSTRUCTION | CATEGORY | LENGTH | AGE | DEFECTS |             | REMARKS |
|-----|-----------------------------|----------|--------|--------------|----------|--------|-----|---------|-------------|---------|
|     |                             | SPEC     | ACTUAL |              |          |        |     | PRESENT | NOT PRESENT |         |
| 1   | Certificate Number          |          |        |              |          |        |     |         |             |         |
| 2   | Chain Link                  | D1 =     | D1 =   |              |          |        |     |         |             |         |
|     |                             | D2 =     | D2 =   |              |          |        |     |         |             |         |
|     |                             | D3 =     | D3 =   |              |          |        |     |         |             |         |
|     |                             | D4 =     | D4 =   |              |          |        |     |         |             |         |
| 3   | Sprocket                    |          |        |              |          |        |     |         |             |         |
| 4   | Length per 1 Meter of Chain |          |        |              |          |        |     |         |             |         |

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 No. REG.....

IV.3. GIRDER

Type of NDT : Penetrant /Ultrasonic \*\*

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.....

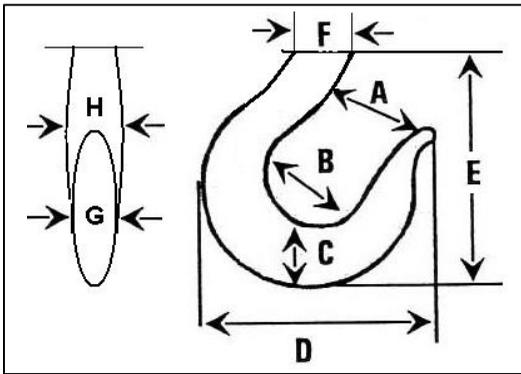
| Location | Surface Defects |             | Remarks |
|----------|-----------------|-------------|---------|
|          | Present         | Not present |         |
|          |                 |             |         |

IMAGE:

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

IV.4. MAIN HOOK

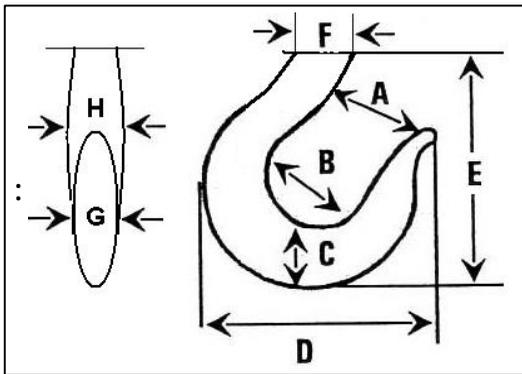


| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |

.....  
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 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV.5. ADDITIONAL HOOK



Category : Penetrant / *Ultrasonic\*\**  
 NDT : .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Results           |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

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 NIP. ....  
 No. REG.....

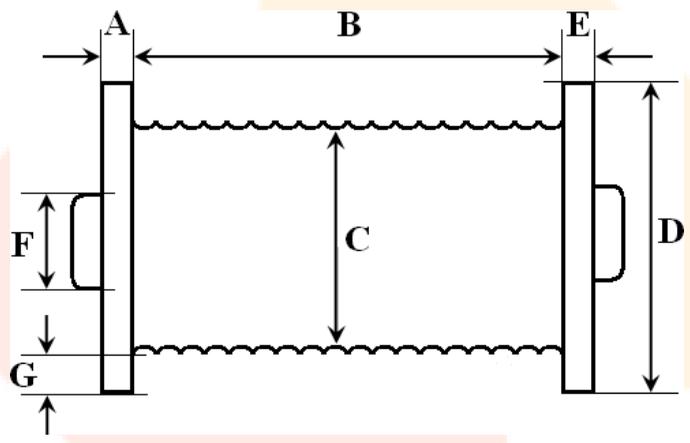
IV.6. MAIN DRUM

Type of NDT : Penetrant / Ultrasonic \*\*

.....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Result            |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |

Main Hoist Drum



.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

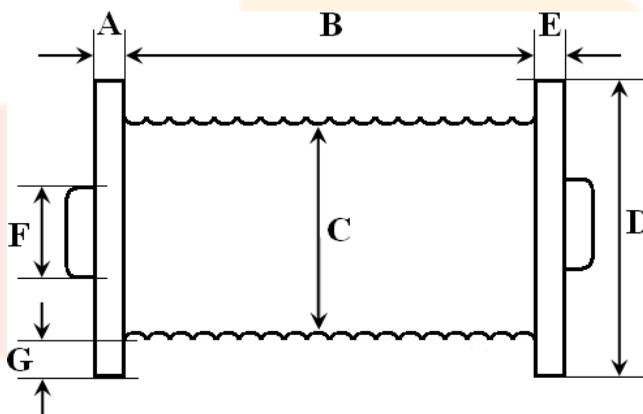
IV.7. ADDITIONAL DRUM

Type of NDT : Penetrant / Ultrasonic \*\*

.....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Result            |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |

Main Hoist Drum



.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

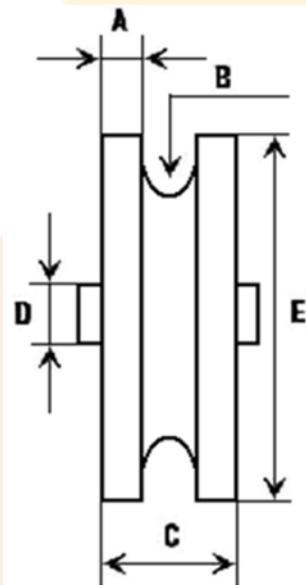
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 NIP. ....  
 No. REG.....

IV.8. MAIN HOOK PULLEY

Type of NDT : Penetrant / Ultrasonic \*\*

.....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Result            |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |



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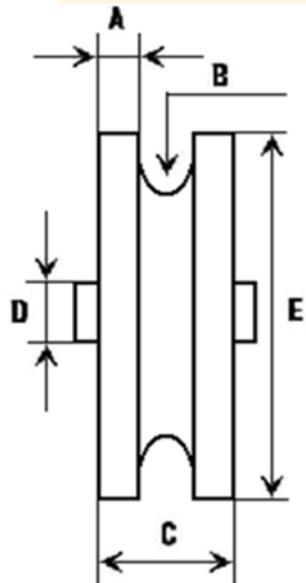
.....  
 NIP. ....  
 No. REG.....

IV.9. AUXILIARY HOOK PULLEY

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
 .....

| Measurement Unit: Millimeters |   |   |   |   |   |   |   |   |   |   |        |    |         |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|--------|----|---------|
| Dimension                     | A | B | C | D | E | F | G | H | I | J | Result |    | Remarks |
|                               |   |   |   |   |   |   |   |   |   |   | B      | TB |         |
| Specification                 |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Measurement Result            |   |   |   |   |   |   |   |   |   |   |        |    |         |
| Tolerance                     |   |   |   |   |   |   |   |   |   |   |        |    |         |



.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

V. TESTING

V.1. DYNAMIC TESTING

A. Without Load

| SPEED TEST                         | SHOULD B | TESTED/MEASURED | REMARKS |
|------------------------------------|----------|-----------------|---------|
| Travelling / Longitudinal Movement |          |                 |         |
| Traversing / Lateral Movement      |          |                 |         |
| Hoisting / Lifting                 |          |                 |         |
| Safety Device                      |          |                 |         |
| Brake Switch                       |          |                 |         |
| Brake Locking Device               |          |                 |         |
| Electrical Installation            |          |                 |         |

B. Load

| LOAD TEST    | HOIST | TRAVERSING | TRAVELLING | BRAKE SYSTEM | REMARKS |
|--------------|-------|------------|------------|--------------|---------|
| WITHOUT LOAD |       |            |            |              |         |
| 25 %         |       |            |            |              |         |
| 50 %         |       |            |            |              |         |
| 75 %         |       |            |            |              |         |
| 100 %        |       |            |            |              |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....



RESULT

Standardd / Benchmark

1. Based on design :.....mm  
(.....)

RESULT

Standardd / Benchmark

Based on design :.....mm  
1 / 888 x SPAN (.....)  
1 / 600 x SPAN (.....)  
:.....mm

(Measurement Results) >/<\*\* (Maximum Calculation Result)

REMARKS : STANDARD .....

MEETS REQUIREMENTS

DOES NOT MEET REQUIREMENTS

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VI. CONCLUSION

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VII. RECOMMENDATIONS

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OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

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FORMULIR / CHECK LIST INSPECTION & TESTING

(INITIAL/PERIODIC/SPECIAL/RETEST\*\*)

GRADER

NO : .....

I. GENERAL DATA

|    |  |   |  |
|----|--|---|--|
| 1  | Owner  | : |  |
| 2  | Address  | : |  |
| 3  | User   | : |  |
| 4  | Main Contractor Administrator<br>/ Subcontractor / Person in<br>Charge | : |  |
| 5  | Unit location  | : |  |
| 6  | Operator name  | : |  |
| 7  | Type of Equipment  | : |  |
| 8  | Manufacture  | : |  |
| 9  | Brand / type   | : |  |
| 10 | Location Year of Manufacture   | : |  |
| 11 | Serial number / unit number  | : |  |
| 12 | Capacity / Working Load  | : |  |
| 13 | Applicable standardd   | : |  |
| 14 | Usage purpose  | : |  |
| 15 | Certificate Number   | : |  |
| 16 | No. K3 Operator License / Valid<br>Until                               | : |  |
| 17 | Equipment History Data   | : |  |

| II. TECHNICAL DATA          |   |           |  |
|-----------------------------|---|-----------|--|
| Grader Specification        | Vehicle Weight (Tons)                       |           |  |
|                             | Attachment                                  |           |  |
|                             | Blade Width                                 |           |  |
|                             | Digging Depth                               |           |  |
|                             | Overall Length                              |           |  |
|                             | Overall Width :                             |           |  |
|                             | Moldboard                                   | Height    |  |
|                             |   | Thickness |  |
|                             | Distance from Front Axle to Rear Axis Point |           |  |
|                             | Maximum Hydraulic Reach                     |           |  |
|                             | Brake                                       | Category  |  |
|                             |   | Type      |  |
| maksimum Speed (Travelling) | Forward                                     |           |  |
|                             | Reverse                                     |           |  |
| Machine                     | Model / Type                                |           |  |
|                             | Serial Number / Unit                        |           |  |
|                             | Number of Cylinders                         |           |  |
|                             | Power                                       |           |  |
|                             | Brand / year of manufacture                 |           |  |
|                             | Manufacture                                 |           |  |

III. VISUAL INSPECTION AND FUNCTION

| Component & Location                 | Inspection Component | Item                            | Condition          |                           | Remarks |
|--------------------------------------|----------------------|---------------------------------|--------------------|---------------------------|---------|
|                                      |                      |                                 | Meets requirements | Does not meet requirement |         |
| <b>1. Inspection with Engine Off</b> |                      |                                 |                    |                           |         |
| Main Frame                           | Reinforcement Frame  | Corrosion                       |                    |                           |         |
|                                      |                      | Cracks                          |                    |                           |         |
|                                      |                      | Deformation                     |                    |                           |         |
|                                      | Counterweight (C/W)  | Corrosion                       |                    |                           |         |
|                                      |                      | Condition                       |                    |                           |         |
|                                      | Cabine               | Floor/Deck                      |                    |                           |         |
|                                      |                      | Stairs/Steps                    |                    |                           |         |
|                                      |                      | Fastening Bolts                 |                    |                           |         |
|                                      |                      | Operator Seat (Jok)             |                    |                           |         |
|                                      |                      | Temperature Indicator           |                    |                           |         |
|                                      |                      | Engine Oil Level                |                    |                           |         |
|                                      |                      | Hydraulic Oil Level             |                    |                           |         |
|                                      |                      | Hour Meter                      |                    |                           |         |
|                                      |                      | Preheater / Glow Plug           |                    |                           |         |
|                                      |                      | Fuel Indicator                  |                    |                           |         |
|                                      |                      | Name Plate                      |                    |                           |         |
|                                      |                      | Canopy Cover                    |                    |                           |         |
|                                      |                      | Rearview Mirror                 |                    |                           |         |
|                                      |                      | Cabin Glass Cover               |                    |                           |         |
|                                      |                      | Doors                           |                    |                           |         |
|                                      |                      | Cabin Cooling System and Filter |                    |                           |         |
|                                      | Control Levers       | Brake                           |                    |                           |         |
|                                      |                      | Gas Pedal                       |                    |                           |         |
|                                      |                      | Clutch                          |                    |                           |         |
|                                      |                      | Gear Shift                      |                    |                           |         |
|                                      |                      | Hand Brake                      |                    |                           |         |
|                                      |                      | Hydraulic Control Levers        |                    |                           |         |
| Lighting and Electrical Switches     |                      |                                 |                    |                           |         |
| Main Drive/                          | Engine Cooling       | Radiator Condition              |                    |                           |         |
|                                      |                      | Radiator Water Level            |                    |                           |         |

| Component & Location | Inspection Component   | Item   | Condition          |                           | Remarks |
|----------------------|------------------------|--|--------------------|---------------------------|---------|
|                      |                        |  | Meets requirements | Does not meet requirement |         |
| Prime-Mover          |                        | Condition of Radiator Water                        |                    |                           |         |
|                      |                        | Condition of Radiator Fan                          |                    |                           |         |
|                      |                        | Condition of Seal and Radiator Water Filling Cover |                    |                           |         |
|                      |                        | Radiator Hoses                                     |                    |                           |         |
|                      |                        | Condition of Fan Belt                              |                    |                           |         |
|                      |                        | <i>Thermostat Switch</i>                           |                    |                           |         |
|                      | Lubricant              | Engine Lubricant Oil Level and Condition           |                    |                           |         |
|                      |                        | Clutch Oil Level, Condition, and Its Category      |                    |                           |         |
|                      |                        | Differential/Transmission Oil Level                |                    |                           |         |
|                      | Fuel                   | Fuel Tank Equipment (Hoses)                        |                    |                           |         |
|                      |                        | <i>Fuel Filter</i>                                 |                    |                           |         |
|                      |                        | <i>Water Separator</i>                             |                    |                           |         |
|                      |                        | <i>Fuel pump injection</i>                         |                    |                           |         |
|                      | Air Circulation System | Condition of Primary Air Filter                    |                    |                           |         |
|                      |                        | Condition of Main Air Filter                       |                    |                           |         |
|                      | Electrical             | Dust Indicator / Air Indicator                     |                    |                           |         |
|                      |                        | Turbocharger Equipment                             |                    |                           |         |
|                      |                        | Muffler / Exhaust Gas                              |                    |                           |         |
|                      |                        | Battery  |                    |                           |         |
|                      |                        | Condition of Battery Head / Terminal               |                    |                           |         |
|                      |                        | Battery Cable                                      |                    |                           |         |
|                      |                        | Starter Dynamo                                     |                    |                           |         |
|                      | Starter                |  |                    |                           |         |
|                      | Alternator             |  |                    |                           |         |
|                      | Installation Cable     |  |                    |                           |         |
|                      | Lights                 |  |                    |                           |         |

| Component & Location | Inspection Component | Item                    | Condition              |                           | Remarks |  |
|----------------------|----------------------|-------------------------|------------------------|---------------------------|---------|--|
|                      |                      |                         | Meets requirements     | Does not meet requirement |         |  |
|                      |                      | Horn                    |                        |                           |         |  |
|                      |                      | Windshield Wiper        |                        |                           |         |  |
|                      |                      | Fuse / Circuit Breaker  |                        |                           |         |  |
| Hydraulic system     | Tank                 | Leakage                 |                        |                           |         |  |
|                      |                      | Hydraulic Oil Level     |                        |                           |         |  |
|                      |                      | Hydraulic Oil Condition |                        |                           |         |  |
|                      |                      | Intake Line Condition   |                        |                           |         |  |
|                      |                      | Return Line Condition   |                        |                           |         |  |
|                      |                      | Hydraulic Oil Filter    |                        |                           |         |  |
|                      | Pump                 | Leakage                 |                        |                           |         |  |
|                      |                      | Intake Line Condition   |                        |                           |         |  |
|                      |                      | Pressure Line Condition |                        |                           |         |  |
|                      | Control Valve        | Leakage                 |                        |                           |         |  |
|                      |                      | Line Condition          |                        |                           |         |  |
|                      |                      | Relief Valve            |                        |                           |         |  |
|                      | Hydraulic Cylinder   | Tilt Cylinder           |                        |                           |         |  |
|                      |                      | Steering Cylinder       |                        |                           |         |  |
|                      |                      | Ripper Cylinder         |                        |                           |         |  |
|                      |                      | Articulation Cylinder   |                        |                           |         |  |
|                      |                      | Blade Lifting Cylinder  |                        |                           |         |  |
|                      |                      | Blade Shifting Cylinder |                        |                           |         |  |
|                      |                      | Hydraulic Hoses         |                        |                           |         |  |
|                      | Main Component       | Circle drive & Blade    | Draw Bar               |                           |         |  |
|                      |                      |                         | Hydraulic Motor Circle |                           |         |  |
| Circle gear          |                      |                         |                        |                           |         |  |
| Moulboard Bracket    |                      |                         |                        |                           |         |  |
| Blade                |                      |                         |                        |                           |         |  |
| Scarifier shank      |                      |                         |                        |                           |         |  |
| tooth                |                      |                         |                        |                           |         |  |
| Pin and Bolt         |                      |                         |                        |                           |         |  |

| Component & Location                     | Inspection Component  | Item                                      | Condition          |                           | Remarks |
|--|-----------------------|---|--------------------|---------------------------|---------|
|  |                       |   | Meets requirements | Does not meet requirement |         |
|  | Steering System       | Steering Cylinder Pin                     |                    |                           |         |
|  |                       | Drag Link                                 |                    |                           |         |
|  |                       | Tie Rod                                   |                    |                           |         |
|  | Wheels                | Tire                                      |                    |                           |         |
|  |                       | Fastening Bolts                           |                    |                           |         |
|  |                       | Wheel Rim                                 |                    |                           |         |
|  |                       | Axle                                      |                    |                           |         |
|  |                       | Tandem Cover                              |                    |                           |         |
|  |                       | Wheel Torque                              |                    |                           |         |
|  |                       | Lubricant Nipple                          |                    |                           |         |
| Safety Equipment                         | Main Protection       | Seat Belt                                 |                    |                           |         |
|  |                       | Emergency Stop                            |                    |                           |         |
|  |                       | Differential Lock                         |                    |                           |         |
|  |                       | Lift Arm Lock                             |                    |                           |         |
|  |                       | Steering Pin Lock                         |                    |                           |         |
|  | Additional Protection | Fire Extinguisher (APAR)                  |                    |                           |         |
|  |                       | Personal Protective Equipment (PPE / APD) |                    |                           |         |
| <b>2. Inspection with Engine Running</b> |                       |   |                    |                           |         |
| Power drive                              |                       | Noise from the engine                     |                    |                           |         |
|  |                       | Noise from the turbocharger               |                    |                           |         |
|  |                       | Noise from the transmission               |                    |                           |         |
|  |                       | Clutch operation                          |                    |                           |         |
|  |                       | Gear shifting operation (forward/reverse) |                    |                           |         |
|  |                       | Exhaust gas condition                     |                    |                           |         |
|  |                       | Engine oil leakage                        |                    |                           |         |
|  |                       | Transmission oil leakage                  |                    |                           |         |
|  |                       | Differential oil leakage                  |                    |                           |         |
| Cooling system                           |                       | Noise from radiator pump                  |                    |                           |         |
|  |                       | Noise from radiator fan                   |                    |                           |         |
|  |                       | Radiator water and hose leakage           |                    |                           |         |

| Component & Location | Inspection Component | Item                            | Condition          |                           | Remarks |
|----------------------|----------------------|---------------------------------|--------------------|---------------------------|---------|
|                      |                      |                                 | Meets requirements | Does not meet requirement |         |
|                      |                      | Engine Temperature Indicator    |                    |                           |         |
| Hydraulic system     |                      | Pump Leakage Present            |                    |                           |         |
|                      |                      | Noise from Hydraulic Pump       |                    |                           |         |
|                      |                      | Blade Cylinder Operation        |                    |                           |         |
|                      |                      | Steering Cylinder Operation     |                    |                           |         |
|                      |                      | Tilt Cylinder Operation         |                    |                           |         |
|                      |                      | Articulating Cylinder Operation |                    |                           |         |
|                      |                      | Leakage in Hoses                |                    |                           |         |
|                      |                      | Nipple Leakage                  |                    |                           |         |
|                      |                      | Hydraulic Pressure Indicator    |                    |                           |         |
|                      |                      | Seal Leakage                    |                    |                           |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
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 No. REG.....

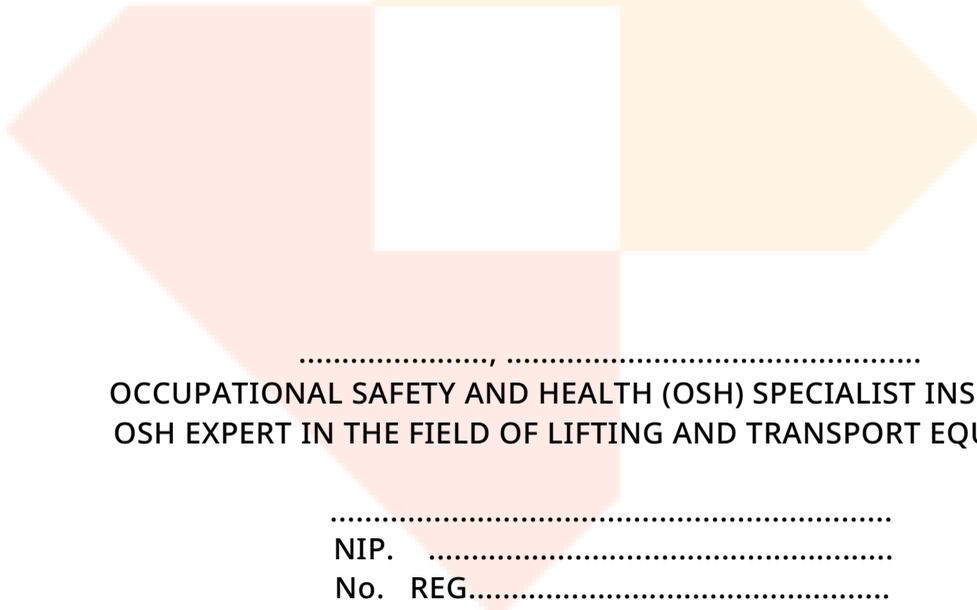
IV. NON-DESTRUCTIVE TESTING (NDT)  
Regarding Construction and Components

Type of NDT : Penetrant /Ultrasonic \*\*

.....  
.....

| No. | PARTS TO BE INSPECTED | LOCATION             | DEFECTS |             | REMARKS |
|-----|-----------------------|----------------------|---------|-------------|---------|
|     |                       |                      | PRESENT | NOT PRESENT |         |
| 1   | Welds                 | Front drawbar        |         |             |         |
| 2   | Welds                 | Articulating drawbar |         |             |         |

Image:



.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

V. TESTING

| No. | FUNCTION | TRAVELING /<br>SPEED | MOVEMENT | RESULT | REMARKS |
|-----|----------|----------------------|----------|--------|---------|
| (1) | (2)      | (3)                  | (4)      | (5)    | (6)     |
| 1   |          |                      |          |        |         |
| 2   |          |                      |          |        |         |
| 3   |          |                      |          |        |         |
| 4   |          |                      |          |        |         |

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

VI. CONCLUSION

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VII. RECOMMENDATIONS

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OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

PROVINCIAL LABOR OFFICE : .....\*

ADDRESS : .....

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| FORMULIR / CHECK LIST INSPECTION & TESTING<br>(INITIAL/PERIODIC/SPECIAL/RETEST**)<br>LOADER<br>NO : ..... |  |   |
|---|--|---|
| <b>I. GENERAL DATA</b>  |  |   |
| 1   | Owner  | : |
| 2   | Address  | : |
| 3   | Main Contractor Administrator / Subcontractor / Person in Charge | : |
| 4   | Address User   | : |
| 5   | Unit location  | : |
| 6   | Operator name  | : |
| 7   | Type of Equipment  | : |
| 8   | Manufacture  | : |
| 9   | Brand / type   | : |
| 10  | Location and Year of manufacture                                 | : |
| 11  | Date and Year of Installation                                    | : |
| 12  | Serial number / unit number                                      | : |
| 13  | Capacity / Working Load  | : |
| 14  | Applicable standardd   | : |
| 15  | Usage purpose  | : |
| 16  | Certificate Number / Stairsl                                     | : |
| 17  | No. K3 Operator License / Validity Period until                  | : |
| 18  | Equipment History Data   | : |

| II. TECHNICAL DATA         |  |          |  |  |
|----------------------------|--|----------|--|--|
| Wheel Loader Specification | Capacity / Working Load                      |          |  |  |
|                            | Overall Length                               |          |  |  |
|                            | Overall Height                               |          |  |  |
|                            | Bucket Capacity                              |          |  |  |
|                            | Overall Width                                |          |  |  |
|                            | Track Distance Between Front and Rear Wheels |          |  |  |
|                            | Tire Width Size                              |          |  |  |
|                            | Maksimum speed ( <i>Travelling</i> )         |          |  |  |
|                            | Speed reverse                                |          |  |  |
|                            | Brake  | Category |  |  |
|                            |  | Type     |  |  |
| Radius Rotation            | Left max/min                                 |          |  |  |
|                            | Right max/min                                |          |  |  |
| Machine                    | Model / Type                                 |          |  |  |
|                            | Serial Number                                |          |  |  |
|                            | Number of Cylinders                          |          |  |  |
|                            | Net Power                                    |          |  |  |
|                            | Brand / year of manufacture                  |          |  |  |
|                            | Manufacture                                  |          |  |  |
| Hydraulic Pump             | Type   |          |  |  |
|                            | Pressure                                     |          |  |  |

III. VISUAL INSPECTION AND FUNCTION

| Component & Location                 |                     | Inspection Component             | Condition          |                           | Remarks |
|--------------------------------------|---------------------|----------------------------------|--------------------|---------------------------|---------|
| Location                             | Component           |                                  | Meets requirements | Does not meet requirement |         |
| <b>1. Inspection with Engine Off</b> |                     |                                  |                    |                           |         |
| Main Frame / Chassis                 | Reinforcement Frame | Corrosion                        |                    |                           |         |
|                                      |                     | Cracks                           |                    |                           |         |
|                                      |                     | Deformation                      |                    |                           |         |
|                                      | Counterweight (C/W) | Corrosion                        |                    |                           |         |
|                                      |                     | Condition                        |                    |                           |         |
|                                      | Central Joint       | Corrosion                        |                    |                           |         |
|                                      |                     | Cracks                           |                    |                           |         |
|                                      |                     | Deformation                      |                    |                           |         |
|                                      |                     | Pin / Dowel                      |                    |                           |         |
|                                      |                     | Locking Mechanism                |                    |                           |         |
|                                      | Wheels              | Front Wheel                      |                    |                           |         |
|                                      |                     | Rear Wheel                       |                    |                           |         |
|                                      |                     | Rim                              |                    |                           |         |
|                                      |                     | Tire Pressure                    |                    |                           |         |
|                                      |                     | Bolts / Fasteners                |                    |                           |         |
|                                      |                     | Lubricant                        |                    |                           |         |
|                                      | Cabine              | Canopy Cover Condition           |                    |                           |         |
|                                      |                     | Floor / Deck                     |                    |                           |         |
|                                      |                     | Stairs (Step & Holds)            |                    |                           |         |
|                                      |                     | Bolt Fastening                   |                    |                           |         |
|                                      |                     | Seat Condition                   |                    |                           |         |
|                                      |                     | Instrument / Indicator Condition |                    |                           |         |
|                                      |                     | Mirror Condition                 |                    |                           |         |
|                                      |                     | Glass, Doors, Windows            |                    |                           |         |
|                                      |                     | Cabin Cooling System             |                    |                           |         |
|                                      |                     | Load Chart                       |                    |                           |         |
|                                      | Tuas Kontrol        | Brake                            |                    |                           |         |
|                                      |                     | Gas                              |                    |                           |         |
|                                      |                     | Clutch                           |                    |                           |         |
|                                      |                     | Transmission                     |                    |                           |         |

| Component & Location      |                | Inspection Component               | Condition          |                           | Remarks |
|---------------------------|----------------|------------------------------------|--------------------|---------------------------|---------|
| Location                  | Component      |                                    | Meets requirements | Does not meet requirement |         |
|                           |                | Hand Brake                         |                    |                           |         |
|                           |                | Hydraulic Lever / Control          |                    |                           |         |
|                           |                | Light Switch and Electrical System |                    |                           |         |
| Lifting System            | Boom           | Corrosion                          |                    |                           |         |
|                           |                | Cracks                             |                    |                           |         |
|                           |                | Deformation                        |                    |                           |         |
|                           |                | Lubricant                          |                    |                           |         |
|                           |                | Pin and Bolt Reinforcement         |                    |                           |         |
|                           | Bell Crank     | Corrosion                          |                    |                           |         |
|                           |                | Cracks                             |                    |                           |         |
|                           |                | Deformation                        |                    |                           |         |
|                           |                | Lubricant                          |                    |                           |         |
|                           |                | Pin and Bolt Reinforcement         |                    |                           |         |
|                           | Bucket Linkage | Corrosion                          |                    |                           |         |
|                           |                | Cracks                             |                    |                           |         |
|                           |                | Deformation                        |                    |                           |         |
|                           |                | Lubricant                          |                    |                           |         |
|                           |                | Pin and Bolt Reinforcement         |                    |                           |         |
|                           | Bucket         | Corrosion                          |                    |                           |         |
|                           |                | Cracks                             |                    |                           |         |
|                           |                | Deformation                        |                    |                           |         |
|                           |                | Lubricant                          |                    |                           |         |
|                           |                | Pin and Bolt Reinforcement         |                    |                           |         |
|                           |                | Teeth                              |                    |                           |         |
| Cutting Edge              |                |                                    |                    |                           |         |
| Main Drive and Components | Cooling system | Condition Radiator                 |                    |                           |         |
|                           |                | Radiator Water Condition and Level |                    |                           |         |
|                           |                | Radiator Fan                       |                    |                           |         |
|                           |                | Seal and Cover                     |                    |                           |         |

| Component & Location |                        | Inspection Component            | Condition          |                           | Remarks |  |
|----------------------|------------------------|---------------------------------|--------------------|---------------------------|---------|--|
| Location             | Component              |                                 | Meets requirements | Does not meet requirement |         |  |
|                      |                        | Radiator Hoses                  |                    |                           |         |  |
|                      |                        | Fan Belt                        |                    |                           |         |  |
|                      | Fuel                   | Fuel Tank Equipment (Hoses)     |                    |                           |         |  |
|                      |                        | Fuel Filter                     |                    |                           |         |  |
|                      |                        | Water Separator                 |                    |                           |         |  |
|                      |                        | Fuel Pump Injection             |                    |                           |         |  |
|                      | Air Circulation System | Condition of Primary Air Filter |                    |                           |         |  |
|                      |                        | Condition of Main Air Filter    |                    |                           |         |  |
|                      |                        | Dust Indicator / Air Indicator  |                    |                           |         |  |
|                      |                        | Turbocharger Equipment          |                    |                           |         |  |
|                      |                        | Muffler / Exhaust Gas           |                    |                           |         |  |
|                      | Steering System        | Steering Wheel                  |                    |                           |         |  |
|                      |                        | Steering Shaft / Stick          |                    |                           |         |  |
|                      |                        | Gearbox / Gear Box              |                    |                           |         |  |
|                      |                        | Tie Rod                         |                    |                           |         |  |
|                      | Differential / Axle    | Differential Housing            |                    |                           |         |  |
|                      |                        | Leakage                         |                    |                           |         |  |
|                      |                        | Connecting Shaft                |                    |                           |         |  |
|                      | Electrical System      | Battery                         |                    |                           |         |  |
|                      |                        | Starting Dynamo                 |                    |                           |         |  |
|                      |                        |                                 | Alternator         |                           |         |  |
|                      |                        |                                 | Battery Cable      |                           |         |  |
| Installation Cable   |                        |                                 |                    |                           |         |  |
| Lighting Lamp        |                        |                                 |                    |                           |         |  |
| Safety Lamp / Sign   |                        |                                 |                    |                           |         |  |
| Horn                 |                        |                                 |                    |                           |         |  |

| Component & Location |                        | Inspection Component                     | Condition          |                           | Remarks |
|----------------------|------------------------|--|--------------------|---------------------------|---------|
| Location             | Component              |  | Meets requirements | Does not meet requirement |         |
|                      | Lubricant              | Wiper                                    |                    |                           |         |
|                      |                        | Sekring                                  |                    |                           |         |
|                      |                        | Engine Lubricant Oil Level and Condition |                    |                           |         |
|                      |                        | Brake Fluid Level                        |                    |                           |         |
|                      |                        | Clutch Oil Level and Condition           |                    |                           |         |
|                      |                        | Differential Oil Level and Condition     |                    |                           |         |
| Hydraulic system     | Tangki ( <i>Tank</i> ) | Leakage                                  |                    |                           |         |
|                      |                        | Hydraulic Oil Level                      |                    |                           |         |
|                      |                        | Hydraulic Oil Condition                  |                    |                           |         |
|                      |                        | Suction Line Condition                   |                    |                           |         |
|                      |                        | Return Line Condition                    |                    |                           |         |
|                      |                        | Hydraulic Filter                         |                    |                           |         |
|                      | Pump                   | Leakage                                  |                    |                           |         |
|                      |                        | Suction Line Condition                   |                    |                           |         |
|                      |                        | Pressure Line Condition                  |                    |                           |         |
|                      | Control Valve          | Leakage                                  |                    |                           |         |
|                      |                        | Pipeline Condition                       |                    |                           |         |
|                      |                        | Relief Valve Function                    |                    |                           |         |
|                      | Actuator               | Leakage                                  |                    |                           |         |
|                      |                        | Pipeline Condition                       |                    |                           |         |
|                      | Hydraulic Cylinder     | Bucket Cylinder                          |                    |                           |         |
|                      |                        | Boom Cylinder                            |                    |                           |         |
|                      |                        | Steering Cylinder                        |                    |                           |         |
|                      |                        | Hydraulic Hoses                          |                    |                           |         |
| Safety Devices       | Main Protection        | Brake / Braking System                   |                    |                           |         |
|                      |                        | Disconnect Key                           |                    |                           |         |
|                      |                        | Disconnect Switch                        |                    |                           |         |
|                      |                        | Safety Belt                              |                    |                           |         |

| Component & Location                     |                       | Inspection Component                      | Condition          |                           | Remarks |
|--|-----------------------|---|--------------------|---------------------------|---------|
| Location                                 | Component             |   | Meets requirements | Does not meet requirement |         |
|  |                       | Lighting Lamp                             |                    |                           |         |
|  |                       | Backup Alarm                              |                    |                           |         |
|  |                       | Cabin Reinforcement Cover / ROPS          |                    |                           |         |
|  |                       | Emergency Shutdown                        |                    |                           |         |
|  | Additional Protection | Fire Extinguisher (APAR)                  |                    |                           |         |
|  |                       | Personal Protective Equipment (PPE / APD) |                    |                           |         |
| <b>2. Inspection with Engine Running</b> |                       |   |                    |                           |         |
| Power drive                              |                       | Noise from Engine                         |                    |                           |         |
|  |                       | Noise from Turbocharger                   |                    |                           |         |
|  |                       | Noise from Transmission                   |                    |                           |         |
|  |                       | Clutch Operation                          |                    |                           |         |
|  |                       | Gear Shifting (Forward / Reverse)         |                    |                           |         |
|  |                       | Exhaust Gas Condition                     |                    |                           |         |
|  |                       | Engine Oil Leakage                        |                    |                           |         |
|  |                       | Transmission Oil Leakage                  |                    |                           |         |
|  |                       | Differential Oil Leakage                  |                    |                           |         |
| Cooling system                           |                       | Noise from Radiator Pump                  |                    |                           |         |
|  |                       | Noise from Radiator Fan                   |                    |                           |         |
|  |                       | Radiator Water and Hose Leakage           |                    |                           |         |
|  |                       | Engine Temperature Indicator              |                    |                           |         |
| Hydraulic system                         |                       | Pump Leakage                              |                    |                           |         |
|  |                       | Noise from Hydraulic Pump                 |                    |                           |         |

| Component & Location |           | Inspection Component                    | Condition          |                           | Remarks |
|----------------------|-----------|---|--------------------|---------------------------|---------|
| Location             | Component |   | Meets requirements | Does not meet requirement |         |
|                      |           | Boom Cylinder Operation and Leakage     |                    |                           |         |
|                      |           | Steering Cylinder Operation and Leakage |                    |                           |         |
|                      |           | Bucket Cylinder Operation and Leakage   |                    |                           |         |
|                      |           | Leakage in Hoses                        |                    |                           |         |
|                      |           | Nipple Leakage                          |                    |                           |         |
|                      |           | Hydraulic Pressure Indicator            |                    |                           |         |
|                      |           | Seal Leakage                            |                    |                           |         |
| Braking System       |           | Brake                                   |                    |                           |         |
| Function Indicator   |           | Temperature Indicator                   |                    |                           |         |
|                      |           | Engine Oil Pressure Indicator           |                    |                           |         |
|                      |           | Hydraulic Pressure Indicator            |                    |                           |         |
|                      |           | Hour Meter                              |                    |                           |         |
|                      |           | Preheater / Glow Plug                   |                    |                           |         |
|                      |           | Fuel Indicator                          |                    |                           |         |
|                      |           | Load Indicator                          |                    |                           |         |

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

IV. NON-DESTRUCTIVE TESTING (NDT)

Regarding Construction and Components

Type of NDT : Penetrant /Ultrasonic \*\*

.....

.....

| No. | PARTS TO BE INSPECTED | LOCATION | DEFECTS |             | REMARKS |
|-----|-----------------------|----------|---------|-------------|---------|
|     |                       |          | PRESENT | NOT PRESENT |         |
| 1.  |                       |          |         |             |         |

Image (attached):

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....

No. REG.....

V. TESTING

| No | FUNCTION         | SPEED | MOVEMENT (mm)      | LOAD | RESULT | REMARKS |
|----|------------------|-------|--------------------|------|--------|---------|
| 1  | 2                | 3     | 4                  | 5    | 6      | 7       |
| 1  | Travelling       |       | Forward<br>Reverse |      |        |         |
| 2  | Turning          |       | Right<br>Left      |      |        |         |
| 3  | Boom Arm         |       | Up<br>Down         |      |        |         |
| 4  | Bucket           |       | Open<br>Close      |      |        |         |
| 5  | Loading Movement |       | Idle<br>travelling |      |        |         |

Remarks :

.....  
 OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
 OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
 NIP. ....  
 No. REG.....

VI. CONCLUSION

.....  
.....  
.....

VII. RECOMMENDATIONS

.....  
.....  
.....

.....  
OCCUPATIONAL SAFETY AND HEALTH (OSH) SPECIALIST INSPECTOR /  
OSH EXPERT IN THE FIELD OF LIFTING AND TRANSPORT EQUIPMENT

.....  
NIP. ....  
No. REG.....

Remarks :

- \* ) If inspection and testing are conducted by a Specialist Labor Inspector for Lifting Equipment and Transport Machinery
- \*\* ) Cross out what is not applicable

5. STATEMENT LETTER MEETS K3 REQUIREMENTS AND STATEMENT LETTER DOES NOT MEET K3 REQUIREMENTS

a. Statement Letter Meets K3 Requirements

LETTERHEAD

STATEMENT LETTER  
Number .....

Based on the inspection and testing report number ... which has been conducted by ... on stairs ... for the Equipment ..., it is stated that:

A. GENERAL DATA

- 1. Company name : .....
- 2. Company Address : .....
- 3. Business Owner/Manager : .....
- 4. Brand/Type : .....
- 5. Manufacturer/Installer : .....
- 6. Serial Number : .....
- 7. Place and Year of Manufacture : ...../ .....
- 8. Unit location : .....
- 9. PJK3 Inspection and Testing\*) : PT ..... / No. Decree.....

B. TECHNICAL DATA\*\*)

- 1. Capacity/Working Load : ..... kg
- 2. Equipment Dimensions : ..... Mm
- 3. Type : .....
- 4. Height : ..... Mm
- 5. Speed ...\*\*\*) : ..... m/s
- 6. Motor Category : (fuel/electric\*\*\*\*)
- 7. Other Relevant Data : .....

COMPLIES WITH  
OCCUPATIONAL SAFETY AND HEALTH REQUIREMENTS

This Statement Letter is issued truthfully so that it can be used as intended and remains valid as long as the tested object is not modified and/or until the next testing is conducted in accordance with the applicable laws and regulations.

Acknowledged by  
Head of Work Unit  
Labor Inspection,

Specialist Labor Inspector  
Lifting Equipment and Transport  
Machinery,

signed

signed

Full Name

Full Name

NIP.....

NIP.....

Remarks:

- \*) If using PJK3
- \*\*\*) Adjusted to the equipment
- \*\*\*\*) Cross out what is not applicable

b. Statement Letter Does Not Meet Occupational Safety and Health (K3) Requirements

LETTERHEAD

STATEMENT LETTER

Number .....

Based on the inspection and testing report number ..... conducted by ..... on stairs ..... regarding the Equipment ....., it is stated that:

A. GENERAL DATA

- 1. Company name : .....
- 2. Company Address : .....
- 3. Business Owner/Manager : .....
- 4. Brand/Type : .....
- 5. Manufacturer/Installer : .....
- 6. Serial Number : .....
- 7. Place and Year of Manufacture : ...../ .....
- 8. Unit location : .....
- 9. PJK3 Inspection and Testing\*) : PT ..... / No.Decision .....

B. TECHNICAL DATA\*\*)

- 1. Capacity/Working Load : ..... kg
- 2. Equipment Dimensions : ..... Mm
- 3. Type : .....
- 4. Height : ..... Mm
- 5. Speed ...\*\*\*) : ..... m/s
- 6. Motor Category : (fuel/electric\*\*\*\*)
- 7. Other Relevant Data : .....

NOT MEETING SAFETY AND HEALTH REQUIREMENTS

This Statement Letter is issued truthfully, and it is strictly prohibited to use/operate the said occupational safety and health (OSH) equipment until it meets the OSH requirements.

Acknowledged by  
Head of Work Unit  
Occupational Safety and Health  
Supervision,

signed

Full Name

NIP.....

Occupational Safety Specialist Inspector  
Lifting Equipment and Transport Machinery,

signed

Full Name

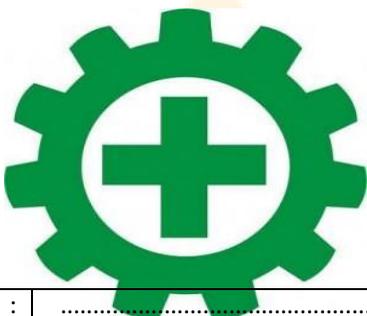
NIP.....

Remarks:

- \*) If using PJK3
- \*\*\*) Adjusted according to the equipment
- \*\*\*\*) Specify speed category
- \*\*\*\*\*) Cross out unnecessary information

6. STICKER MEETS REQUIREMENTS K3 AND STICKER DOES NOT MEET REQUIREMENTS K3

a. Sticker Meets Requirements K3

|  |                 |
|--|-----------------|
| <b>LETTERHEAD</b>  |                 |
| <b>MEETS REQUIREMENTS K3</b>   |                 |
|  |                 |
| EQUIPMENT NAME   | : .....         |
| STATEMENT LETTER NUMBER MEETS REQUIREMENTS K3                                      | : .....         |
| CAPACITY   | : .....         |
| SERIAL NUMBER  | : .....         |
| INSPECTION AND TESTING DATE  | : .....         |
| NEXT INSPECTION AND TESTING DATE   | : DEADLINE..... |
| NAME OF K3 EXPERT / OSH SUPERVISOR SP. PAA   | : .....         |
| K3 EXPERT REGISTRATION NUMBER SP. PAA / OSH SUPERVISOR SKP SP. PAA                 | : .....         |
| SIGNATURE OF K3 EXPERT / OSH SUPERVISOR SP. PAA                                    | :               |



*Disclaimer*

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