Kobelco International (S) Co., Pte. Ltd

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Singapore 639336

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Machine Assessment Report

Ref: KMISR20250328-06

Date: 28 Mar 2025
Machine model: CKE1800-1F
Serial No: JC04-02227
Engine No: Hino P11CUN13858
Hour Meter: 54,979
YOM: 2012
Location: Singapore

Crane Configuration: Standard crane with Auxiliary sheave
Conduct crane inspection finding for following above mention crane model CKE1800-1F, Serial No JC04-02227. The present crane has an equipped with standard crane configuration main boom 33.5m with Aauxiliary sheave, 110t main hook 8-part lines and auxiliary 35t hook 2-part line.

Base Machine



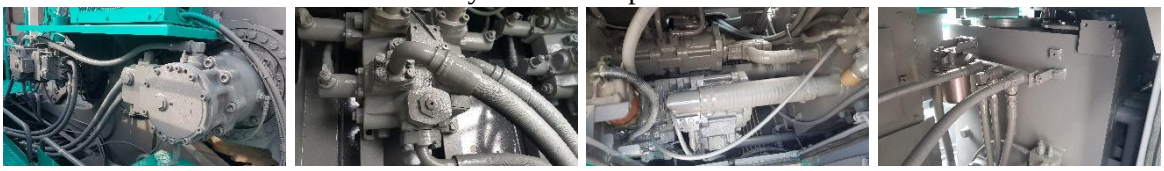
Operator Cabin



Engine



Hydraulic Components



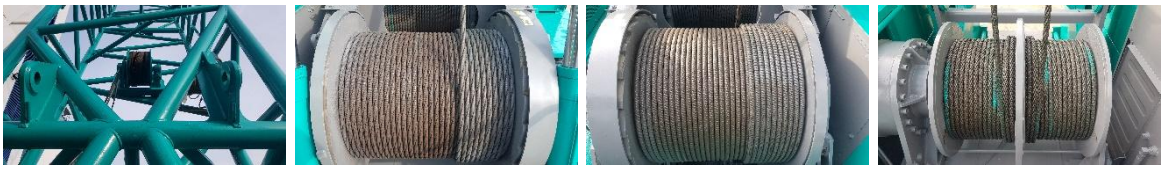
Gantry Sheave & Backstop



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Winch Drum



Lower Frame



Crawler Track



Refurbishment Service Tasks

1. Engine Maintenance

- Carefully remove the engine from the equipment.
- Perform thorough cleaning and inspection of engine components.
- Carry out necessary service and maintenance tasks to ensure optimal performance.
- Change of the Power divider coupling Assy.

2. Fuel System Maintenance

- Service and clean all fuel lines to remove contaminants.
- Flush the fuel lines and fuel tank to eliminate residue and prevent blockages.
- Inspect and service the fuel supply pump for reliable fuel delivery.

3. Cooling System Maintenance

- Remove the radiator for in-depth cleaning and inspection.
- Flush the radiator to clear out any debris or buildup.
- Refurbish Radiator Assy and change rubber hoses.

4. Hydraulic System Refurbishment

- Disassemble and refurbish the hydraulic main pumps to address wear and tear.
- Recalibrate the pumps for precise operation.
- Conduct comprehensive pressure testing to verify performance.
- Replace hydraulic gear pump.

5. Painting and Finishing

- Prepare surfaces by cleaning and removing any old paint or rust.
- Apply a fresh coat of paint to the following components:
  - **Upper machine** – ensuring even and durable coverage.
  - **Lower machine** – protecting against environmental wear.
  - **Base boom** – enhancing aesthetics and structural longevity.

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Replacement parts, Engine
Power divider coupling Assy GG30P01014F1 x 1
Engine crankshaft oil seal Front VHSZ31196004 x 1
Engine crankshaft oil seal Rear VHSZ31101041 x 1
Engine Camshaft oil seal VHS114391030 x 1
Engine fuel supply pump VH2210E0532 x 1
Engine fuel injector VH23670E0400 x 6
Water pump VH16100E0733 x 1
Water thermostat VHS1632E9020 x 1
Water cooling hose VHSZ92034215 x 1
Water cooling hose VHSZ92034370 x 1
Water cooling hose VHSZ2320E0060 x 1
Radiator hose GK05P1008P1 x 1
Radiator hose GK05P1009P1 x 1

Hydraulic components
Hydraulic solenoid valve YN35V00020F1 x 3
Hydraulic gear pump JJ10V00009F2 x 1
Hydraulic tank level gauge EB58S00002F2 x 1
Hydraulic hose 2444R1351D8046 x 2
Hydraulic hose PY30H01003P1 x 1

Hydraulic cylinder refurbishment
Reseal gantry cylinder x 2 set
Reseal central swivel joint x 1 set
Reseal crawler extension cylinder x 2 set
Reseal Counterweight removal cylinder x 2 set

Operator Cabin
Refurbish operator seat cushion
Antenna GG4S00003P1 x 1
AC control panel GB50E00001F1 x 1

Gantry sheaves, attachments
Lower and Upper spreader sheaves bearing 2425U107D7 x 14

Lower machine
Replaced crawler propel reduction floating seal ZD58F42937 x 2

Filters and lubricants
Filters elements, fuel filter, prefilter one set, oil filter 1set, air intake filter 1set, hydraulic filters x 1set.
Engine oil 30 ltr
Coolant x 20 ltr
Hydraulic oil x 540ltr
Gear oil 80/90/W x 100ltr

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Conclusion & Comments
The base machine has been thoroughly inspected, cleaned, and maintained, presenting a clean and tidy appearance. Key observations and assessments are as follows:

1. Operator Controls
- The crane operator control levers exhibit smooth and responsive operation.
- Electrical switches and controls function reliably with no issues detected.

2. Safety Devices
- The moment limiter safety device is in excellent working condition, providing reliable protection.

3. Performance of Components
- The winches, including the front drum, rear drum, and boom operation, perform within the manufacturer's specifications.
- Slewing operations and propel travel are functioning normally.
- All drum wire ropes are properly wound and well-lubricated with grease to ensure durability and performance.

4. Electrical Systems
- The electrical cable reel harness is securely connected.
- All sensor detectors are properly installed and operational.

5. Lubrication and Mechanical Components
- Movable components, including the slewing bearing, foot pin, and spreader sheaves, have been lubricated to ensure smooth operation.
- The crawler tracks are tensioned correctly for optimal performance.

6. Engine and General Condition
- The engine is clean and tidy with no oil leaks observed.
- All major components are in good working order, contributing to the overall cleanliness and functionality of the machine.

7. Operational Performance
- Performance testing under operational conditions indicates the machine is functioning satisfactorily.
- No major damage or defects were identified during the inspection.

Liew Kim Foo

Reported by Liew Kim Foo
Kisco service engineer