Kobelco International (S) Co., Pte. Ltd

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Machine Assessment Report

Ref: KMISR20250206-03

Date: 6 Feb 2025
Machine model: CKS1100
Serial No: GK05-04126
Engine No: Hino J08EVM10315
Hour Meter: 44,555
YOM: 2014
Location: Singapore

Crane Configuration: Standard crane with Auxiliary sheave
Conduct crane inspection finding for following above mention crane model CKS1100, Serial No GK05-04126. The present crane has an equipped with standard crane configuration main boom 30.5m with Aauxiliary sheave, 70t main hook 4-part lines and auxiliary11.0t ball hook.

Base Machine






Operator Cabin






Engine



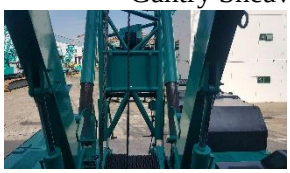



Hydraulic Components






Gantry Sheave & Backstop

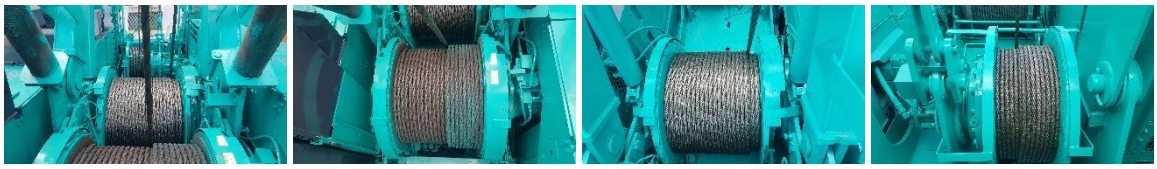





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Winch Drum



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.

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.
- Send fuel injectors to a certified facility for:
  - Servicing, Recalibration, Pressure testing to ensure proper operation under load.

3. Cooling System Maintenance

- Remove the radiator, conduct cooling line cleaning and inspection
- Replaced new Radiator Assy and 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.
- Replaced new 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
Radiator Assy GG05P00018F1 x 1set
Cooling rubber hose x1 VHSZ92034347 x 1
Cooling rubber hose x1 VH87245E0M80 x 1
Cooling rubber hose x1 GG02P01033P1 x 1
Cooling rubber hose x1 GG02P01033P1 x 1

Hydraulic components
Hydraulic gear pump JJ10V00008F2 x 1
Hydraulic valve block Assy GN20V00005F1 x 1set
Pressure sensor LS52S00015P1 x 1
Hydraulic pressure hoses x 4

Hydraulic cylinder refurbishment
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
Wiper Front blade T28 x1
Wiper Upper blade T40 x 1
Side sliding glass lock Assy GG02C01052S005 x 1

Drum attachments
Rear drum wire rope (26.0mm x 235m), 2408R300135 x 1
Drum pawl lock cable Main 2406R206D9 x 1
Drum pawl lock cable Aux 2406R206D2 x 1
Drum pawl lock cable Boom 2406R206D20 x 1

Gantry sheaves, attachments
Replaced gantry sheave sheaves JL06A01224F1 x 8
Upper boom idler sheaves bearing 2425U107D9 x 2
Lower and Upper spreader sheaves bearing 2425U107D7 x 9
Low spreader sheave GN64A01002P2 x 1
Counterweight removal link bar GG61C01101P1 x 1

Lower machine
Replaced crawler propel reduction floating seal GN53D00003S031 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