Kobelco International (S) Co., Pte. Ltd

10, Tuas Avenue 5
Singapore 639336

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Machine Assessment Report

Ref: KMISR20250228-04

Date: 28 Feb 2025
Machine model: CKS1100
Serial No: GK05-04129
Engine No: Hino J08EVM10325
Hour Meter: 41,181
YOM: 2014
Location: Singapore

Crane Configuration: Standard crane with Auxiliary sheave
Conduct crane inspection finding for following above mention crane model CKS1100, Serial No GK05-04129. 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.

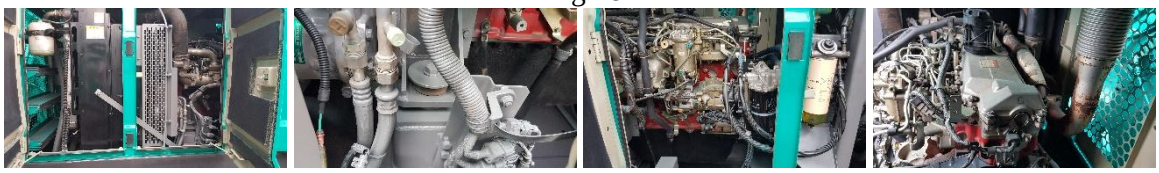
Base Machine



Operator Cabin



Engine



Hydraulic Components



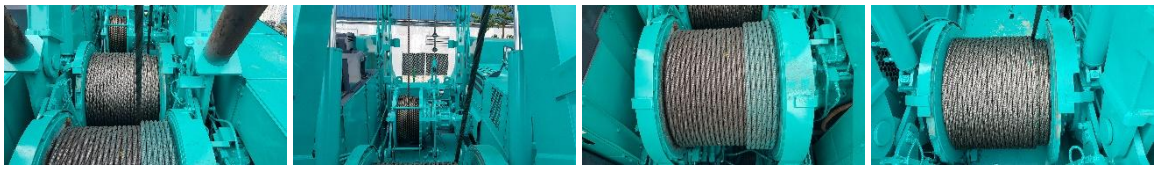
Gantry Sheave & Backstop



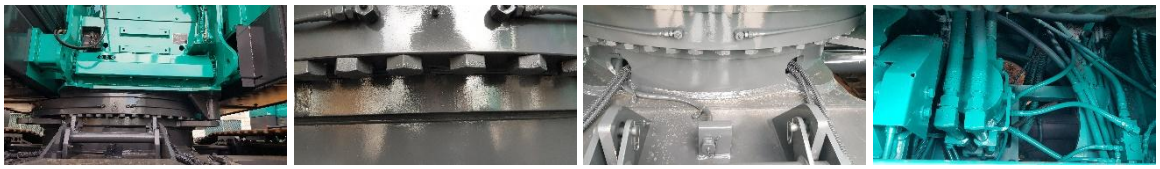
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Winch Drum



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.
- 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, conduct cooling line cleaning and inspection
- 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.
- 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
Power divider coupling Assy GG30P01032P1 x 1
Engine crankshaft oil seal Front VHSZ31101045 x 1
Engine crankshaft oil seal Rear VHSZ31179002 x 1
Engine speed sensor JD52S00002S0001 x 1
Engine fuel supply pump VH2210E0532 x 1
Engine fuel injector VH23670E0400 x 6
Hydraulic components
Hydraulic gear pump JJ10V00008F2 x 1
Hydraulic valve block Assy GN20V00005F1 x 1set
Hydraulic solenoid valve YN35V00018F2 x 1
Hydraulic solenoid valve YN35V00054F1 x 1
Hydraulic hose GG02P01032P1 x 1
Hydraulic hose GG02P01033P1 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
Wiper motor Top GG76S00002F1 x1
Winch Lever switch front drum GG50E00006F6 x1
Lever label front drum GG20T01688P1 x1
Lever label front drum GG20T01992P1 x1
Side sliding glass lock Assy GG02C01052S005 x 1
Strater key switch YN50S00026F1 x1
FM radio YN54S00046F2 x1
Cabin lamp x1
Drum attachments
Rear drum wire rope (26.0mm x 235m) 2408R300135 x1
Boom hoist wire rope (20mm x 155m) 2408R307D155 x1
Gantry sheaves, attachments
Lower and Upper spreader sheaves bearing 2425U107D7 x 9
Low spreader sheave assy GN64A01002P2 x 2
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