CEAMC20081

Operation & Maintenance Manual

150A
150FA

CRANE

SERIAL NUMBERS

150A - 09695 and up
150FA - 09695 and up

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KOMATSU®

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21. UNUSUAL OPERATING CONDITIONS

Unusual operating conditions are defined as operating the machine in extreme cold, extreme heat, dusty or sandy areas, rain or high humidity, or salt water areas.

21.1 OPERATING IN EXTREME COLD

Perform the folowing checks to assure the continued normal operation of the machine in extreme cold weather.

1. Check that the freeze point of the antifreeze solution will be adequate for the lowest temperature expected.
2. Keep the batteries fully charged to prevent the electrolyte from freezing. If adding water to the battery, run the engine at least one hour so that the water fully mixes with the battery acid, preveenting the solution from freezing.
3. Maintain the engine's mechanical condition for easy starting and good performance during the cold.
4. Use the proper viscosity engine oil for the expected temperature. Refer to the "Lubrication Specifications" section in this manual.
5. Keep the fuel tank full at all times to prevent condensation in the tank. Drain any condensation that should form from the fuel tank before operation. And drain any condensation from the primary fuel filter.
6. Use a fuel with with a cloud point below the lowest expected temperature. If not, the fuel filter will clog with wax crystals.
7. Start the engine and allow it to reach operating temperature before applying any load.
8. If ice freezes on any moving part of the crane, the ice must first be thawed before attempting to use the crane.
9. Allow the hydraulic oil to reach operating temperature before using any of the hydraulic controls.
10. Check that all crane controls are operating satisfactorily.
11. An extra outer air filter element should be kept in the cab in case the one in service becomes iced and restricts airflow to the engine.
12. If a cold weather starting aid must be used, see "Engine Starting" section in this manual.
13. Clean all mud, snow and ice from the machine to prevent it from freezing to the machine. Store the machine inside or cover it with a tarp, but keep the tarp from freezing to the ground.

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24.15.3 HYDRAULIC TANK FILTER



SERVICE: A double-element oil filter (arrow) at the bottom of the hydraulic oil tank filters all the oil returning to the tank. Replace the filter element after the first 100 hours on a new machine or after a rebuild and every 1,000 hours, thereafter.

⚠ WARNING

Avoid inhaling the vapors and exposure to the skin.

1. Remove the drain plug from the bottom tank cover. About 5 U.S. gallons (19 liters) of the hydraulic oil will drain from the filter compartment. Discard this oil.
2. Remove the two hexnuts and lockwashers that retain the bottom tank cover.
3. Pry the tank cover, moving one side and then the other, from the tank base.
4. Unscrew the filter element cover and bypass valve assembly.
5. Remove the two old filter elements and discard them.
6. Wash the filter element cover and bypass valve assembly in suitable solvent. Replace the seal on the tank cover. Reassemble in reverse order. Hand tighten the filter cover against the new filter elements to prevent crushing them.
7. Start the engine and run it for several minutes. Turn it off and check the hydraulic oil level as outlined in the daily/10 hour service procedure.

24.15.4 DRAIN, FUEL TANK



SERVICE: Remove the plug (arrow) and drain the accumulated water and sediment.

24.15.5 TRANSMISSION OIL COOLER

An air-over-oil cooler is mounted adjacent to the engine radiator. This heat exchanger stabilizes the converter/transmission oil temperature. Clean the external part of the cooler with compressed air, a water hose. Perform this service more often when operating where chaff and vegetation could cause stoppage.

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26.7 OIL CHANGE RECOMMENDATIONS

1. It is imperative that the new specification lubricants not be mixed with the old specifications in any manner.
2. When changing to a new specification, use the following procedure:
3. After the unit has been operated sufficiently, to bring the lubricant to normal operating temperatures, remove the drain plug and completely drain the lubricant.
4. After draining the oil, flushing is desirable. Clean and replace the drain plug and clean the fill plug area. Fill the unit to the correct level with a light flushing oil. Operate the unit for a short period of time (5 to 10 minutes) under extremely light or no load conditions. Drain ALL of the flushing oil from the unit while it is warm. Clean and replace the drain plug.
5. To refill, clean around the fill plug area and fill the unit to the correct level with the new specification lubricant. DO NOT OVERFILL because an excessive amount will serve no useful purpose.
6. Use the same level checks and drain intervals as outlined in the lubrication chart and/or in Operator's Manual for the new lubricant.

NOTE: Mixing of the lubricants could cause damage and **CANNOT BE TOLERATED**. If there is any doubt whether the unit has been filled with the old or new lubricant, the unit should be drained and flushed (as prescribed above).

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