CEAMG65040

Operation & Maintenance Manual

GD530A-2,AW-2
GD650A-2,AW-2
GD670A-2,AW-2

MOTOR GRADERS

SERIAL NUMBERS GD530 -202001
GD650 -202001 and up
GD670 -202001

January 1995

KOMATSU®

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This manual covers instructions for operation, lubrication, adjustments and maintenance for normal daily care. These instructions are divided into five sections to simplify your reference to the information most important to you.

This manual has been prepared to help you operate and maintain your machine with utmost efficiency and safety. Read this manual thoroughly and learn your machine before you attempt to operate it. If this machine is used by an employee or is loaned, rented, or leased, be certain that the operator reviews this manual and is instructed in safe and proper use.

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INTERACTING CONTROLS

This section is provided to point out those controls and functions from preceding "Operational Controls and Instrumentation" sections, which interact with each other to prevent activating, or will stop operation, of functions.

1. To activate engine cranking motor;
   A. Ignition key must be in "ON" position;
   B. transmission gear range lever must be in "NEUTRAL";
   C. and start button must be "DEPRESSED."

2. To release parking brake once engine is running;
   A. Leave transmission gear range lever in "NEUTRAL."
   B. Set engine speed control for low engine speed.
   C. Place foot on brake pedal.
   D. "RELEASE" parking brake.
   E. Shift transmission gear range lever into desired gear.



WARNING! Downhill grades: When encountering a downhill grade, shift transmission into a lower gear. Downshifting will allow engine to provide additional dynamic braking power. The slope of grade and type of terrain must always be taken into consideration.

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TYPICAL PROPERTIES	10W-30	15W-40	ASTM TEST
Trace Sediment, %, max.	0.01	0.01	D-2273
Humidity Corrosion, 100 Hrs	Pass	Pass	HTM BT-9
Calcium, %	*	*	HTM BT-43
Zinc, %	0.10	0.10	HTM BT-43
Nitrogen, %	*	*	D-3228
Magnesium, %	*	*	HTM BT-43
Sulfated Ash, %, max.	1.65	1.65	D-874
Specific Gravity @ 16°C (60°F)	**	**	D-1298
Aniline Point, °C (°F)	**	**	D-611
Total Base Number, mg KOH/g, min	10	10	D-2896

NOTE: * Must be -5% to +10% of qualification value.
** Report for qualification and quality control.

QUALITY

Oils furnished to this specification may contain necessary additives to meet the requirements of the specification and shall be compatible with other approved sources. No re-refined components shall be used. Materials shall be suitable for the intended use.

QUALIFICATION

When requested, the supplier shall furnish samples for approval. Material submitted for qualification shall be accompanied by detailed test information and also, by certification that the material meets all requirements of the specification. Proof of CC/CD/SF or CE/SG and MIL-L-2104D or E and MIL-L46152C or D, EO-K/2 and NTC-400 qualification must be provided.

Material supplied to this specification shall have the same formulation as the qualification sample. No change in composition, method of manufacture, or location of manufacturing shall be permitted without prior approval.

GENERAL, INFORMATION

The SAE 15W-40 meets requirements of TO-2 and C-3. These oils may be used wherever AP, SE or SF is specified. (Most passenger cars.)

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20 HOUR SERVICE

TRANSMISSION AND TORQUE CONVERTER FILTER

Change filter element (Figure 36) after the first 20 Hours on new machine or after rebuild and every 250 Hours thereafter, unless warning indicator light justifies earlier service.

NOTE: *In cold weather operation and/or initial startup (when the transmission oil is cold) the oil will have a higher viscosity which may allow the filter to bypass intermittently. When this happens, the filter bypass indicator light will be activated. If this happens, check the converter out oil temperature. If the temperature is in normal working range, the filter must be changed. If the converter out oil temperature is below the normal working range, stop the machine and warm the oil up to normal working range by stalling the converter, and observing the bypass indicator to be deactivated as the oil warms up. If this disarms the system, work the transmission in a higher gear to keep the converter oil temperature in the normal working range. If this does not disarm the system, change the filter.*

1. Place transmission gear range lever in "NEUTRAL" and engage neutral lock.
2. Place blade in ground and set parking brake.
3. Unscrew filter element from filter base and discard.
4. Install new element. Lightly coat element seal ring with clean transmission fluid to ensure positive seal. Screw on tightly by hand.
5. Start engine and check for proper oil level and leaks.

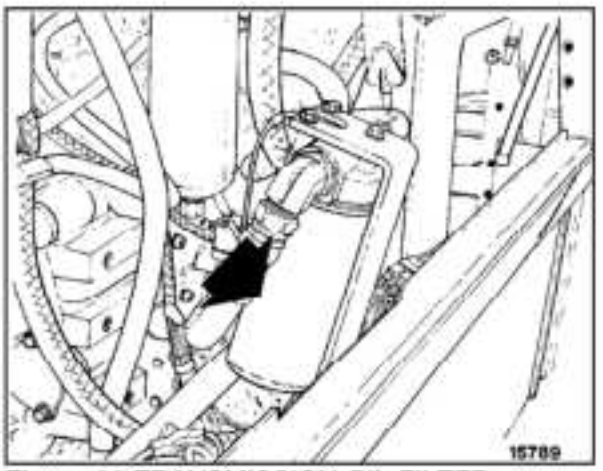


Figure 36 TRANSMISSION OIL FILTER

250 HOUR SERVICE

Change transmission oil filter element as outlined under the 20 Hour Service interval. Continue to change filter element every 250 Hours thereafter, on new machine, unless warning indicator light justifies earlier change. After a rebuild and/or servicing, the transmission warrants service 250 Hour service intervals based on hour reading at time of service.

NOTE: *In cold weather operation and/or initial startup (when the transmission oil is cold) the oil will have a higher viscosity which may allow the filter to bypass intermittently. When this happens, the filter bypass indicator light will be activated. If this happens, check the converter out oil temperature. If the temperature is in normal working range, the filter must be changed. If the converter out oil temperature is below the normal working range, stop the machine and warm the oil up to normal working range by stalling the converter, and observing the bypass indicator to be deactivated as the oil warms up. If this disarms the system, work the transmission in a higher gear to keep the converter oil temperature in the normal working range. If this does not disarm the system, change the filter.*

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