1850K - Tier 2
Crawler Dozer

CE

Operators Manual

76093503GB

CASE

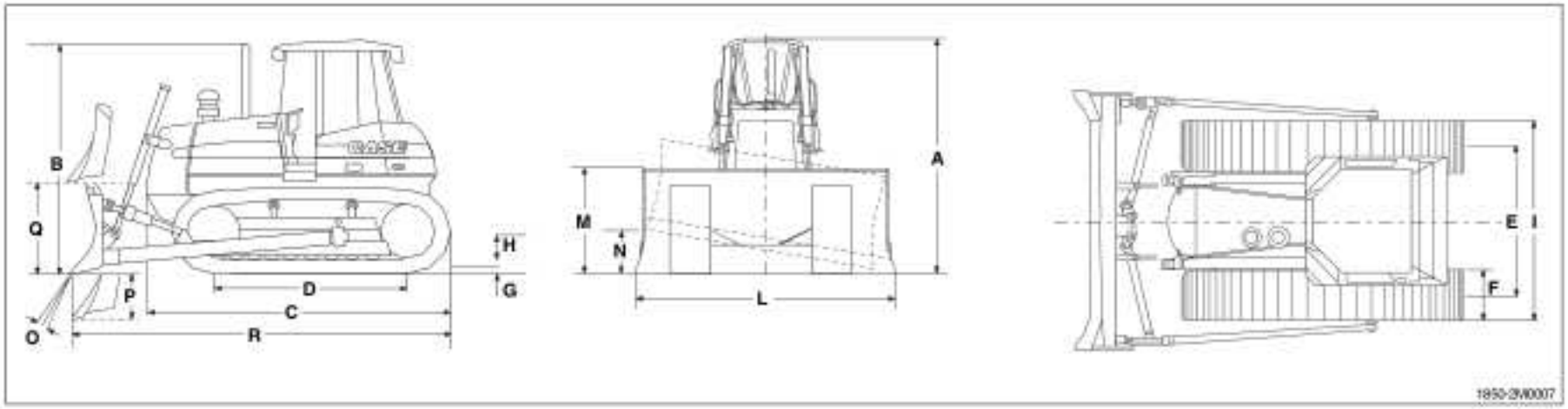
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MAIN DIMENSIONS



TRACTOR DIMENSION		LT	XLT	LGP
A Height over cab	mm	3235 (127.4 in)	3235 (127.4 in)	3235 (127.4 in)
B Height over muffler	mm	3195 (125.8 in)	3195 (125.8 in)	3195 (125.8 in)
C Tractor length	mm	4195 (165.1 in)	4340 (170.9 in)	4340 (170.9 in)
D Length of track on ground	mm	2700 (106.2 in)	3205 (126.2 in)	3205 (126.2 in)
E Gauge	mm	1900 (74.8 in)	1900 (74.8 in)	2082 (82 in)
F Track shoes width	mm	560-610 (22-24 in)	560-610 (22-24 in)	762-915 (30-36 in)
G Shoe grouser height	mm	71,5 (2.8 in)	71,5 (2.8 in)	71,5 (2.8 in)
H Ground clearance	mm	390 (15.3 in)	390 (15.3 in)	390 (15.3 in)
I Overall width with shoes 560 (22 in)	mm	2460 (96.8 in	2460 (96.8 in)	–
Overall width with shoes 610 (24 in)	mm	2510 (98.8 in)	2510 (98.8 in)	–
Overall width with shoes 760 (30 in)	mm	–	–	2844 (111.9 in)
Overall width with shoes 915 (36 in)	mm	–	–	2997 (118 in)
Shipping weight w blade***	kg	17290 (38117.9 lb)	18390 (40543 lb)	19410 (42791.7 lb)

BLADES DIMENSIONS		Semi-U (HSU)	Straight (HS)	Semi-U (HSU)	Straight (HS)	Straight (HS)
Blade capacity SAE J1265	m^3	5,6 (197.8 ft^3)	–	5,6 (197.8 ft^3)	–	3,7 (130.7 ft^3)
L Width of blade	mm	3460 (136.2 in)	3385 (133.3 in)	3460 (136.2 in)	3385 (133.3 in)	3900 (153.5 in)
M Height of blade	mm	1425 (56.1 in)	1215 (47.8 in)	1425 (56.1 in)	1215 (47.8 in)	1110 (43.7 in)
N Max. tilt	mm	850 (33.5 in)	758 (29.9 in)	850 (33.5 in)	758 (29.9 in)	836 (32.9 in)
O Max. pitch	deg	10°	10°	10°	10°	10°
P Digging depth	mm	472 (18.5 in)	472 (18.5 in)	–	472 (18.5 in)	535 (21 in)
Q Max. lift above ground	mm	1100 (43.3 in)	1100 (43.3 in)	–	1100 (43.3 in)	1160 (45.7 in)
R Overall legth with blade**	mm	5487 (216 in)	5440(214.1 in)	–	5440(214.1 in)	5675 (223.4 in)
Operating weight with blade*	kg	20530 (45260.9 lb)	20300 (44753.8 lb)	21630 (47686 lb)	21400 (47178.9 lb)	22730 (50111 lb)

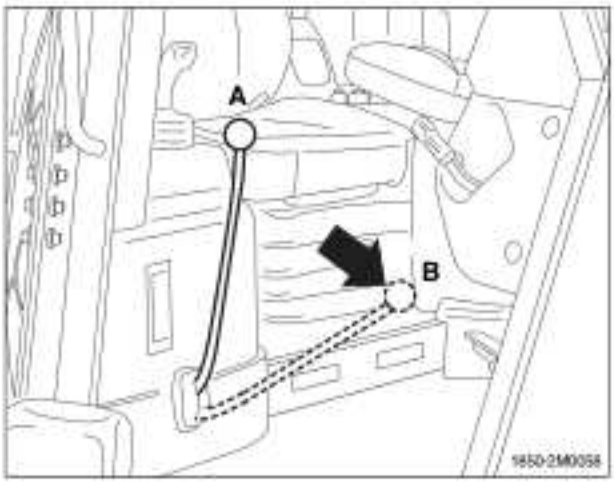
* Includes ROPS Cab, 610 mm (24 in) shoes (915 mm (36 in) for LGP), fuel oil and operator, for unit with ROPS canopy deduct 300 kg (661.4 lb).
** With ripper raised, add 935 mm (36.8 in) to dozer length.
*** Includes ROPS Cab, 610 mm (24 in) shoes (915 mm (36 in) for LGP), 10% fuel, blade lift cylinders, lubricants, coolant.

Carefully read personal and machine SAFETY PRECAUTIONS (at the beginning of this manual)

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1. SAFETY LEVER (Equipment control and gearshifting lever lock)

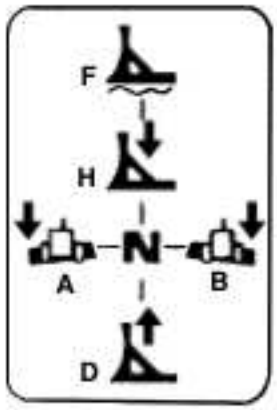
The device, lifted as illustrated in the figure in position **A** (vertically) blocks the EQUIPMENT CONTROL LEVERS AND THE FWD-REV JOYSTICK in neutral position. Allows starting of engine.
This is to avoid unwanted movements of levers (**3-4**) and buttons (**11**) which could cause dangerous manoeuvres. In this position, the parking brake is automatically applied.
Position **B**: it activates the equipment control levers, the joystick switch and disengages the parking brake.

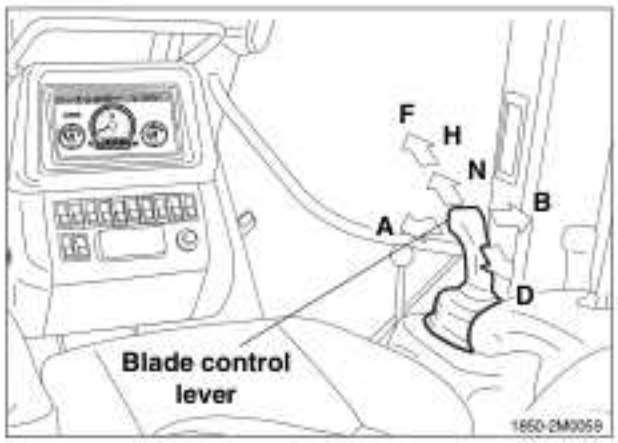


Position **A** = neutral
Position **B** = operation position

2. BLADE CONTROL LEVER

The lever controls the raising, lowering and tilting of the blade.
To raise or to lower the blade, move the lever backward to position **D** or forward to position **H**, respectively.
To stop the blade in the desired position, in both cases, release the lever which is automatically returned to neutral **N**.
To float the blade, meaning bearing on the ground exclusively under its own weight, push the lever to stroke-end forward, into position **F**, where it engages an appropriate detent.
The float condition is terminated when the lever is returned into neutral position **N**.
Moving the lever leftward into position **A** or rightward into position **B**, the tilting of the blade is obtained. The lever must be held until the blade reaches the desired tilting.

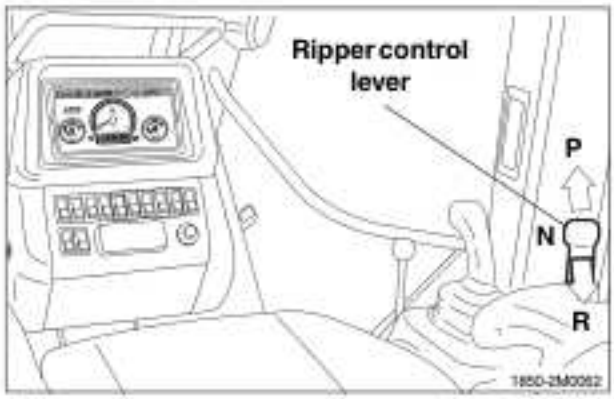




3. RIPPER CONTROL LEVER (upon request)

- With lever forward in **P** = ripper lowering
- With lever backward in **R** = ripper raising
- Lever in **N** = neutral





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EVERY 500 HOURS WORK

ENGINE:

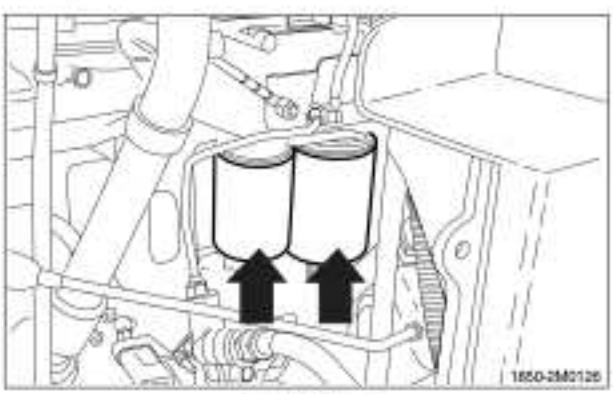
15. FUEL FILTERS - Replace filters

Open the left side panel of the engine compartment.

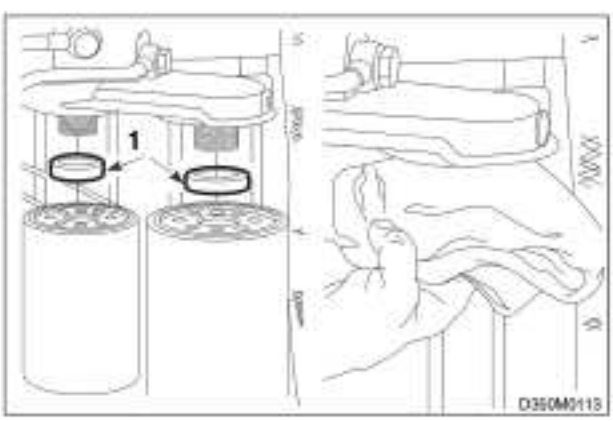
WARNING

Never use gasoline, solvent or other flammable fluid to clean parts. Use exclusively qualified, non-flammable, non-toxic commercial solvents.
When using compressed air for cleaning parts, use safety glasses with side shields or goggles, so as to reduce the danger for personal injuries cause by flying particles. Limit pressure to 2 bar (29 p.s.i.), in accordance with local and national regulations.

Clean the base of the support and the surrounding area.
Loosen the filters indicated in the figure.
Clean with a dry rag the support area contacting the filter gaskets.
Replace gaskets "**1**" fill the new filters with fresh fuel and apply a film of engine oil on the gasket, and tighten them against the support.
Then, turn 1/2 turn further.

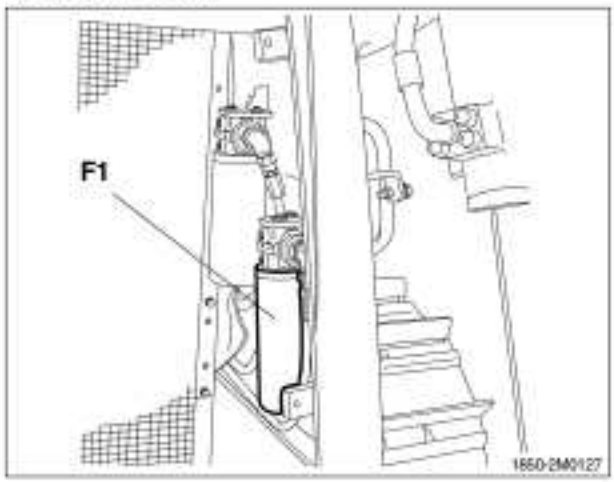


Fuel filters



16. STEERING/BRAKES CIRCUIT DELIVERY OIL FILTERS
Replace cartridge

Remove the front panel and remove filters **F1** from the filter support. Replace them with a new one and tighten it to a torque of 3.5 ÷ 4 daNm (26 ÷ 29.50 lbft).



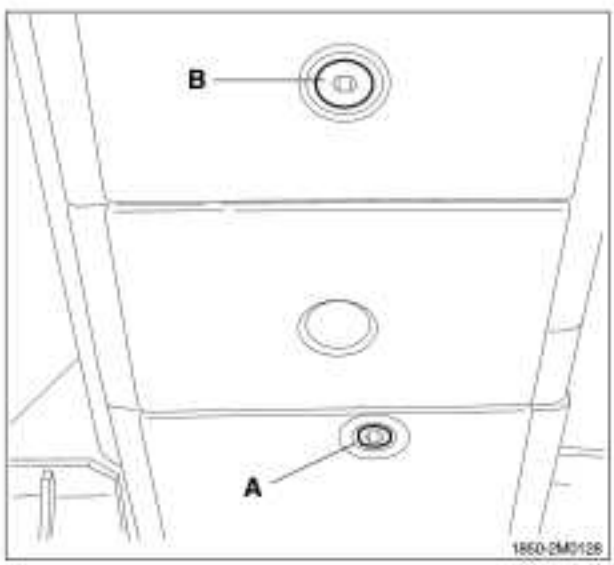
F1. Steering/brakes and transmission oil filters.

Replace at same time as trans/torque couve firtig.

17. TORQUE CONVERTER / TRANSMISSION HYDRAULIC SYSTEM -
Change oil and delivery filter cartridge

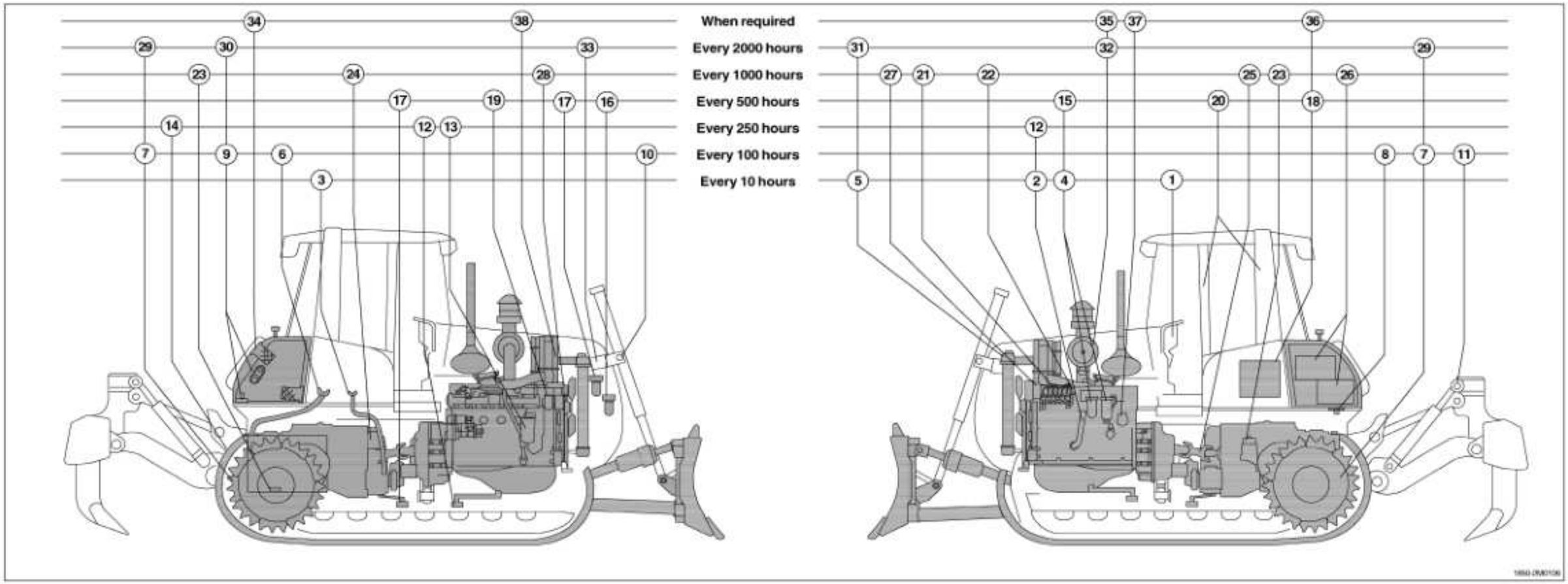
Oil draining

Remove plugs **A** and **B** from the bottom of the machine, with warm transmission oil and let it drain into a container with a 40 liter (10 USG) capacity, at least.



A and **B**. Draining plugs.

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EVERY 10 HOURS WORK
(daily)

1. **Braking system:** indicator light check
2. **Engine oil:** check oil level.
3. **Torque converter/transmission hydraulic system:** check oil level.
4. **Fuel filters:** drain condensation.
5. **Radiator:** check coolant level

EVERY 100 HOURS WORK

6. **Bevel gear, steering and brakes:** check oil level.
7. **Final drives:** check oil level.
8. **Fuel reservoir:** drain condensation.
9. **Equipment hydraulic system:** check oil level.
10. **Blade cylinder linkage pivots:** grease pivots.
11. **Ripper linkage pivots:** grease pivots.

EVERY 250 HOURS WORK

12. **Engine sump:** change oil.
13. **Engine oil filter:** change filtering cartridge.
14. **Undercarriage:** check sag of track chains.

EVERY 500 HOURS WORK

15. **Fuel filters:** replace filters.
16. **Steering and brakes circuit delivery oil filter:** replace cartridge.
17. **Torque converter-transmission hydraulic system:** change oil and delivery filter cartridge.
18. **Cab ventilation air filter:** replace filter.
19. **Engine coolant filter:** replace cartridge.
20. **Doors grease fittings:** grease pivot.

EVERY 1000 HOURS WORK

21. **Fuel injectors:** calibrate setting of injectors.
22. **Valve clearance:** check valve clearance, with cold engine.
23. **Bevel gear, steering and brakes:** change oil and wash suction filter.
24. **Torque converter-transmission circuit:** wash suction filter and magnetic rod.
25. **Torque converter to transmission prop shaft:** grease spiders (two fittings).
26. **Batteries:** check electrolyte level.
27. **Air conditioner compressor:** check condition of belt and adjust sag.
28. **Fan-alternator belt:** check condition and sagging of belt, replace.

EVERY 2000 HOURS WORK

29. **Final drives:** change oil.
30. **Equipment hydraulic circuit:** change oil, clean magnetic rod and suction filter.
31. **Radiator:** change coolant.
32. **Clogged engine air cleaner:** Replace cartridges.
33. **Blade cylinder linkage pivots:** grease pivots.

AS REQUIRED

Operations to be performed when relevant indicators come ON:

34. **Equipment hydraulic system return oil filter:** replace cartridge.
35. **Engine air cleaner:** clean cartridges.

Other operations to be performed according to necessity:

36. **Cab ventilation air filter:** clean filter.
37. **Glass fuel filter:** clean mesh filter.
38. **After cooler radiator:** clean.

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