

# JCB JS330 -Tier II And Tier III Excavators Service Repair Manual



## JCB Dieselmax Tier 3 SE Engine

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## Changing the Oil and Filter

Drain the oil when the engine is warm as contaminants held in suspension will then be drained with the oil.

- 1 Place a container of suitable size beneath the drain plug 2-C.

### CAUTION

Oil will gush from the hole when the drain plug is removed. Hot oil and engine components can burn you. Keep to one side when you remove the plug.

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- 2 Remove drain plug 2-C and its 'O' ring 2-D. Let the oil drain out, then clean and refit the drain plug with a new 'O' ring. Torque tighten the plug to 40 - 60 Nm (30 - 44 lbf ft).
- 3 Loosen and remove filter housing drain plug 2-E. Let the oil fully drain. Refit the plug. Torque tighten the plug to 40 - 60 Nm (30 - 44 lbf ft).
- 4 Unscrew the filter canister 2-F, using a chain wrench if necessary.

- 5 Clean the seal face of the filter head 2-G.
- 6 Smear the seal 2-H on the new filter canister with clean engine oil.
- 7 Screw in the new filter canister - hand tight only.

### CAUTION

It is illegal to pollute drains, sewers or the ground. Clean up all spilt fluids and/or lubricants.

Used fluids and/or lubricants, filters and contaminated materials must be disposed of in accordance with local regulations. Use authorised waste disposal sites.

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- 8 Through one of the the filler points 2-B, fill the engine with the recommended oil to the MAX mark on the dipstick 2-A. Wipe off any spilt oil, refit the filler cap and make sure it is secure.
- 9 Operate the engine until the oil pressure low warning light has extinguished. Check for oil leakage. When the oil has cooled, check the oil level again, and if necessary top up with clean engine oil.

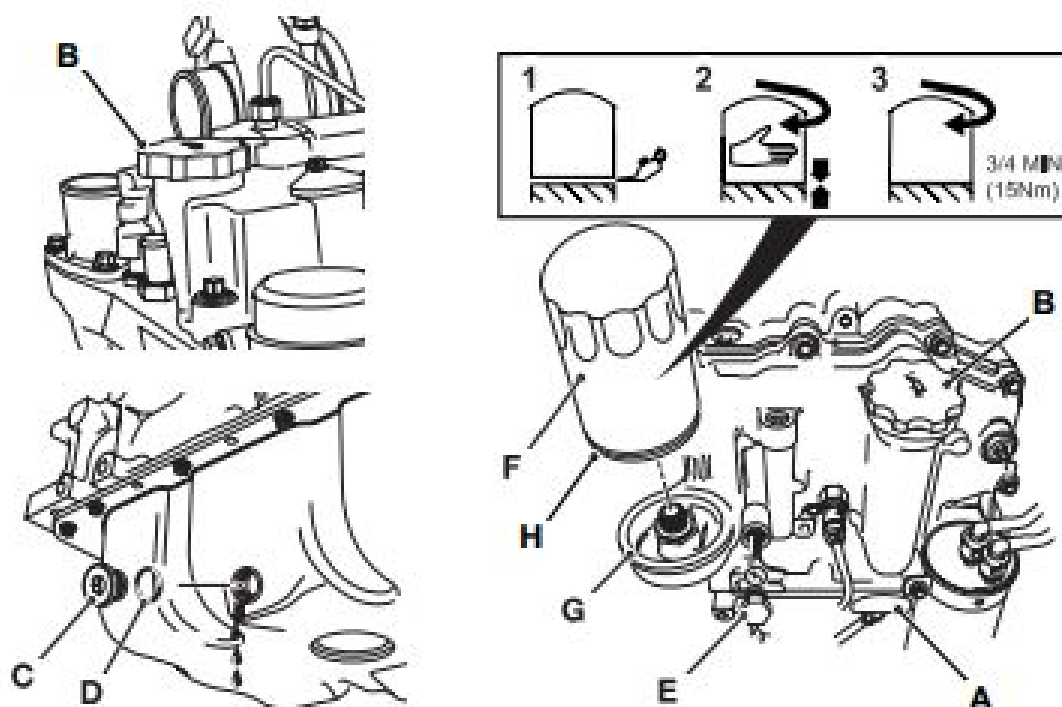


Fig 2.

## Front End Accessory Drive (FEAD) Belt

A spring loaded tensioning unit 5-A ensures that the front end accessory drive belt (FEAD) 5-B is kept at the correct tension.

### WARNING

Make sure the engine cannot be started. Disconnect the battery before doing this job.

2-3-3-5

### WARNING

#### Turning the Engine

Do not try to turn the engine by pulling the fan or fan belt. This could cause injury or premature component failure.

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## Front End Accessory Belt (FEAD) Inspection

At the recommended service interval, visually inspect the belt for damage.

- 1 Park and make the machine safe in accordance with the machine handbook instructions. Stop the engine and let it cool down.
- 2 Renew the belt if it has cracks or if it is frayed or has pieces of material missing (as shown at 5-C).

If the belt does need replacing follow the procedures described below:

## Front End Accessory Belt (FEAD) Replacement

- 1 Park and make the machine safe in accordance with the machine handbook instructions. Stop the engine and let it cool down.
- 2 Use a 16mm socket located on the hexagon spigot nut 5-D, carefully rotate the tensioner against spring force in the direction shown. Do not use excessive force or the tensioner will be damaged.
- 3 Keep holding the tensioner against the spring force and lift the belt off the drive tensioner pulley.
- 4 Slowly release the spring force by rotating the tensioner unit in the opposite direction.

- 5 Before fitting the new belt, check that the tensioner roller and the fan pulley rotate smoothly and that there is no play in the bearings.
- 6 Fit the new belt using a reversal of the above procedures.

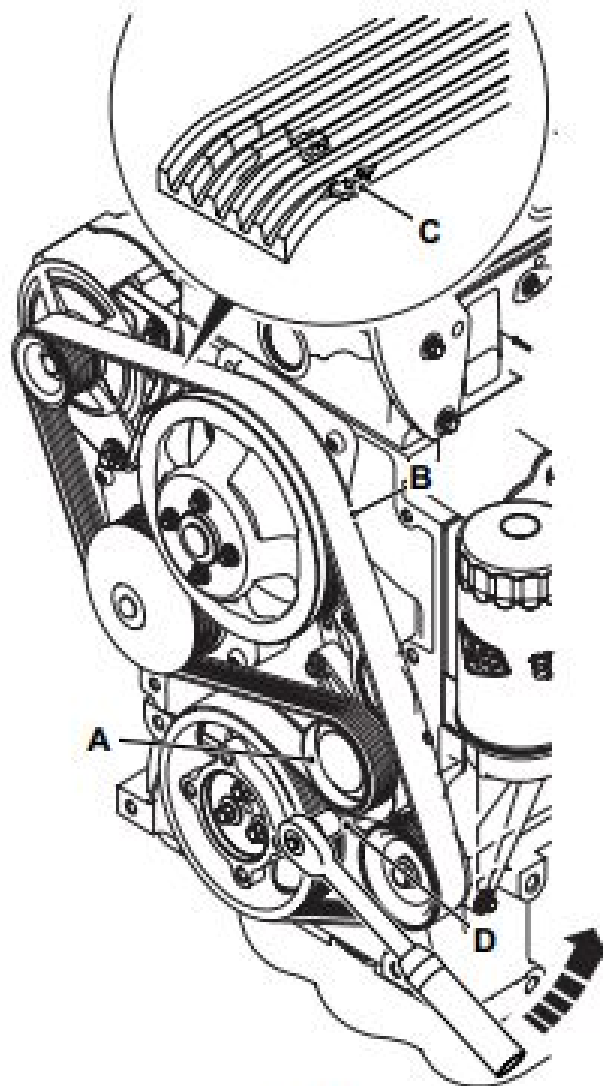


Fig 5.



Thank you very much  
for your reading.  
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