



Service Bulletin

**MACHINE: TC23DA, TC26DA, TC30, TC35A, TC35DA, TC40A, TC40DA, TC45A, TC45DA, TC48DA, TZ18DA, TZ22DA, and TZ25DA
Current-Production Compact Tractors; TC29DA and TC33DA
Previous-Production Compact Tractors; MC22, MC28, and MC35
Commercial Front Mowers**

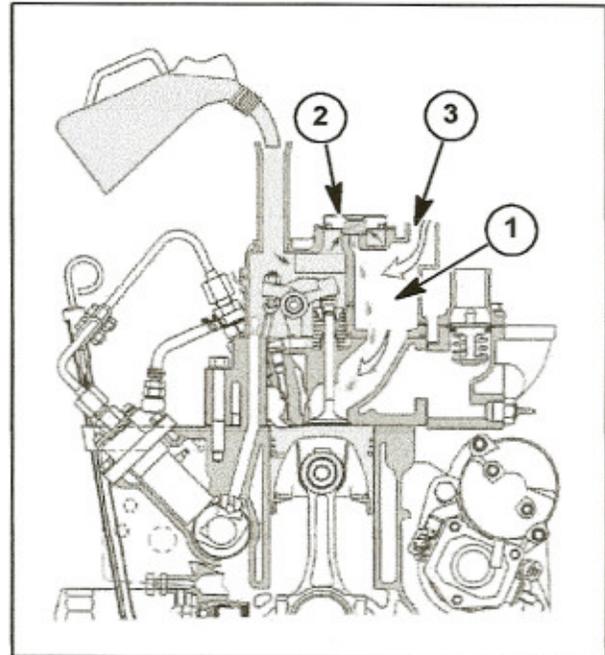
SUBJECT: Engine Oil-Fill Procedure

0606-T3

DESCRIPTION OF CONCERN

With the introduction of an engine breather valve, hydraulic engine lock can occur if the oil-fill procedure described in this bulletin is not followed. Hydraulic engine lock can lead to catastrophic piston and connecting-rod damage.

The engine breather valve was introduced to address the environmental concern of blow-by gasses that vent into the atmosphere. Blow-by gasses now circulate into the intake manifold, 1, from the engine crankcase through the engine breather valve, 2, and mix with air in the intake air manifold, 3, to be burnt in the combustion process, rather than simply vent to the atmosphere. If the oil-fill procedure described in this bulletin is not followed, oil can flow to the intake manifold through the engine breather valve.



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ACTION/CORRECTION**Production:**

The following serial numbers represent machines which were built with breather valves and, therefore, require the special care when filling with oil:

MODEL No.	AFFECTED SERIAL NUMBERS
TZ18DA	HB20001 through HB20438, Z6NXC1001 and after
TZ22DA	All serial numbers
TZ25DA	All serial numbers
TC23DA	All serial numbers
TC26DA	All serial numbers
TC29DA	All serial numbers
TC33DA	All serial numbers
TC35A	All serial numbers
TC35DA	
TC40A	All serial numbers
TC40DA	
TC45A	All serial numbers
TC45DA	
TC48DA	All serial numbers
TC30	HK30001 through HK40439, Z6NGA1001 and after, Z6NGB1001 and after, Z6NGC1001 and after
MC22	TD20001 and after
MC28	TE20001 and after
MC35	TF20001 and after

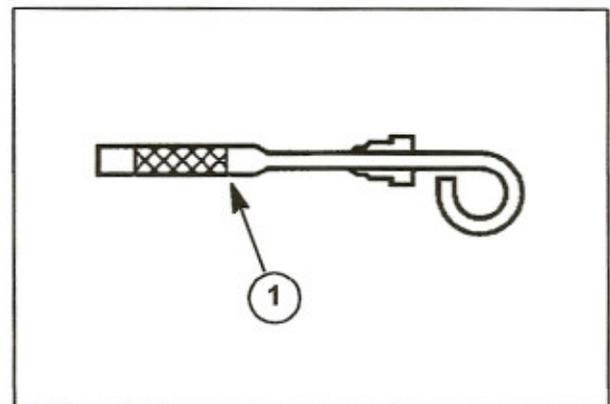
Service:

—————  **CAUTION**  —————

Do not overfill the engine oil above the maximum level mark on the dipstick, 1.

Follow these steps to change or top up the oil in one of these engines:

1. Place the unit on a level surface, and remove the engine oil filler cap and **the dipstick**.
2. Clean the dipstick, but do not replace it yet. **The empty dipstick tube provides necessary crankcase ventilation.**



3. If **changing** the oil, drain the oil and change the filter as outlined in the Owner's Manual. If **topping up** the oil, check the level on the dipstick.
4. Whenever it is necessary to add oil, refer to the Owner's Manual for the correct oil specification and quantity.
5. Fill the engine **slowly** with the recommended type and quantity of oil, as follows:
 - Always add oil with the dipstick removed from its tube to provide ventilation.
 - **Do not allow the rate to exceed two liters (2.11 quarts) per minute.**
 - Ensure that time is allowed for the oil to drain from the valve cover into the engine oil pan.
 - Extra caution is required when engine oil is added with larger containers or automatic supply dispensers.
6. Replace the dipstick.
7. Remove the dipstick and visually inspect it for correct oil level. Add more oil if necessary, with the dipstick removed.
8. Install the filler cap. If **topping up**, you are finished.
9. Operate the engine until it reaches the correct operating temperature. This ensures that the oil filter is filled.
10. Stop the engine.
11. Allow the engine to cool for 15 minutes.
12. Re-check the oil level on the dipstick. Add oil if necessary, with the dipstick removed.

If oil enters the intake manifold, be sure to deal with these concerns:

1. If, at any time during a fill procedure, the oil level appears to be less than it should be, some of the oil charge may have migrated through the breather valve system and be resident in the intake manifold and cylinders.
2. Never start the engine if oil is suspected to be in the intake manifold or cylinders.
3. Remove the intake manifold for verification.
4. If oil has entered the engine through the breather valve system and the intake manifold, remove it from the cylinders as follows:
 - Remove all of the fuel injection nozzles.
 - Crank the engine with the starter motor until all the oil is exhausted.

PARTS AFFECTED

NA.

WARRANTY STATUS

This service bulletin is for informational purposes only and does not constitute warranty authorization to update units without a warrantable failure.

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