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3000/3100 SERIES TRACTORS



Splitting the tractor - Dynashift

3A03 Splitting the tractor between the engine and the gearbox (3000)

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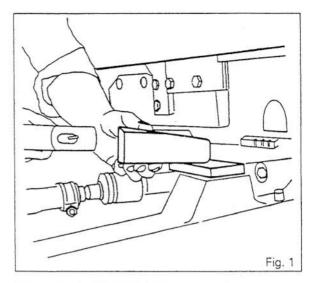
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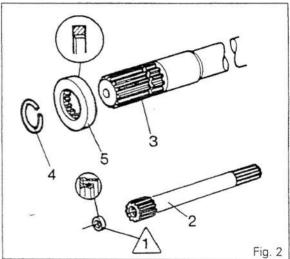
Splitting the tractor - Dynashift

A. Removal

- Disconnect the two front differential lock (4WD) control hoses. Plug the pipe connections.
- 2. Remove the guard and the 4WD transmission shaft.
- 3. Remove the sheet metal panels.
- 4. Disconnect the earth cables only from the batteries.
- 5. Remove the hood rear bracket.
- 6. Disconnect and plug:
 - the two orbitrol steering ram hoses (mark their position)
 - the two air conditioning plugs and the bracket (if fitted).
 - the fuel return hose.
 - the two cooler hoses on the 17 bar valve (mark the positions).
 - the accelerator control on the injection pump.
 - the flowmeter harness (if fitted).
 - the main harness connections above the engine.
 - the heater hoses on the thermostat block to the engine front and to the water pump. Plug the connections to avoid draining the cooling system completely).
 - the 7.5 and 10 amp fuse harness (to release this, slightly slacken the straight rod above the radiator).
 - the fuel supply hose.
- 7. Immobilise the tractor:
 - apply the handbrake.
 - fit wedges between the frame and the front axle (Fig. 1).
- 8. Support the tractor under the gearbox using a suitable
- Support the tractor under the sump using a suitable trolley jack.
- 10. Remove the tool box.
- 11. Remove the bolts attaching the engine to the gearbox.
- 12. Separate the gearbox from the engine.

Note: As a safety measure, remove the front weights.





B. Refitment

- Screw two dowel pins (made locally) into diametrically opposite positions on the gearbox.
- 14. Replace the seal /1\ on the input shaft (2) (Fig.2).
 - a) withdraw the PTO shaft (3).
 - b) extract the seal /1\.
 - c) replace the PTO shaft.
 - d) remove the circlip (4) and the washer (5).
 - e) protect the splined end of the shaft (3).
 - f) fit a new seal /1\ using service tool 3376803 M1 (see 3A04)
 - g) remove the protection from the splines.
 - h) refit the washer (5) and the circlip (4).
- Lightly grease the gearbox input shaft splines with molybdenum disulphide grease.
- 16. Check that the two dowel pins are fitted on the engine.
- Fit the engine to the gearbox by turning the flywheel ring gear with a screwdriver.

- 18. Fit the attaching bolts. Coat the bolts with Loctite 270. Tighten to the torque indicated in section 3A04.
- 19. Carry out procedures 4 to 9 in reverse.
- 20. Carry out procedure 10 in reverse.
- 21. Top up the cooling system.
- 22. Carry out procedures 1 and 2 in reverse (4WD).
- 23. Start the engine.
- 24. Check the accelerator control and fuel cut-off setting.
- 25. Check:
 - the hydraulic circuits for leaks.
 - the operation of the electrical circuits.
- 26. Refit the sheet metal panels.
- 27. Road test the tractor.





Splitting the tractor - Dynashift

3A04.3

B. Refitment

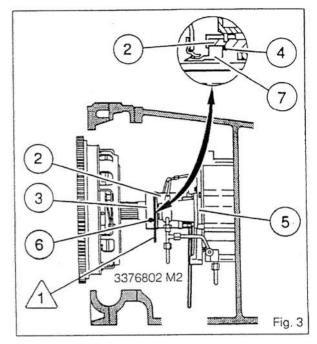
- 15. Fit the spring washer (4) and the release bearing (7) into the carrier (2) (Fig.3).
- 16. Fit the cover (3), the stop bolt (6) (Fig. 3) into the release bearing carrier notch. Press on the spring washer and place pin /1\ its bend pointed downwards (Fig. 1 and 3). Check the free rotation and radial movement of the release bearing.
- 17. Position service tool 3376802 M2 between the end of the release bearing carrier (2) and the seal carrier (5) (Fig. 3).
- 18. Screw two dowel pins into diametrically opposed positions on the gearbox.
- 19. Replace the seal /1\on the input shaft (2) (Fig.4).
 - a) withdraw the PTO shaft (3).
 - b) extract the seal /1\.
 - c) replace the PTO shaft (3).
 - d) remove the circlip (4) and the washer (5).
 - e) protect the splined end of the shaft (3).
 - f) lubricate and fit a new seal /1\ using service tool 3376803 M1.
 - g) remove the protection from the splines.
 - h) refit the washer (5) and the circlip (4).
- 20. Lightly grease the gearbox input shaft splines (using molybdenum disulphide grease).
- 21. Check that the two dowel pins are fitted on the engine.
- 22. Fit the engine to the gearbox by turning the flywheel ring gear with a screwdriver.

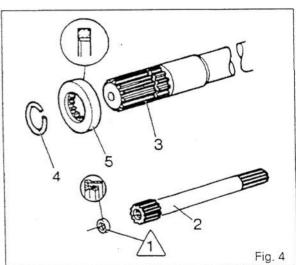
Note: During assembly, the release bearing must be heard to engage in the clutch cover plate. Remove the service tool through the inspection hole (Fig.3).

Check that the clip is correctly positioned on the cover plate.

Remove the two dowel pins.

- 23. Clean the bolts attaching the engine to the gearbox and coat them with Loctite 270 before fitting. See Section C for tightening torques.
- 24. Carry out procedures 6 to 12 in reverse.
- 25. Top up the cooling system.
- 26. Refit the guard and transmission shaft (4WD).
- 27. Reconnect the two front wheel differential lock control hoses (4WD)
- 28. Start the engine.
- 29. Check the accelerator control setting.





- 30. Check:
 - all hoses and pipes for leaks
 - that the electrical circuits are working.
- 31. Refit the inspection plate under the clutch housing.
- 32. Refit the sheet metal panels.
- 33. Road test the tractor:

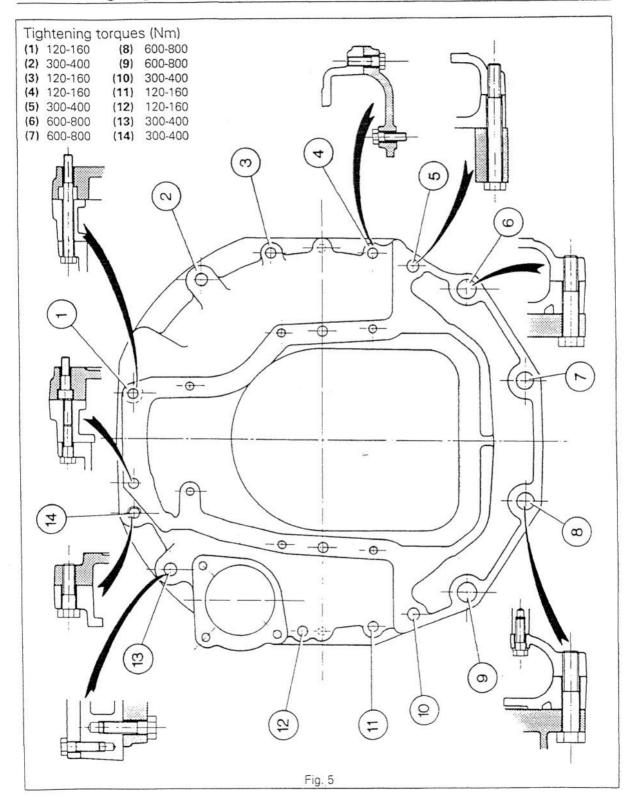




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Splitting the tractor - Dynashift

C. Attaching engine adaptor plate/Gearbox spacer



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3000/3100 SERIES TRACTORS



Splitting the tractor - Dynashift

3 A04 Splitting the tractor between the engine and the gearbox

Pull-type clutch (3100)

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3A04.2

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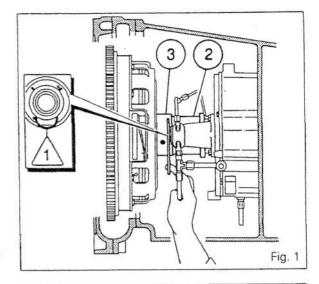
A. Removal

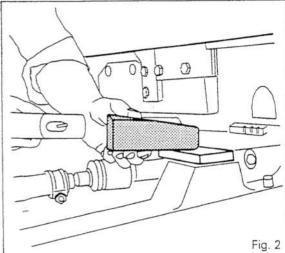
Note: Plug or cover disconnected hydraulic pipe connections to prevent leaks and the ingress of foreign matter.

- Disconnect the two front differential lock (4WD) control hoses.
- 2. Remove the guard and the 4WD transmission shaft
- Remove the inspection plate under the clutch housing.
- 4. Remove the pin /1\ connecting the release bearing carrier (2) and the cover (3) (Fig.1).
- 5. Remove the sheet metal panels.
- 6. Remove the battery cover.
- 7. Disconnect the earth cables only from the batteries.
- 8. Remove the hood rear bracket.
- 9. Disconnect:
- the two Orbitrol steering ram hoses (mark their position).
- the two air conditioning couplers and the bracket (if fitted). Protect both couplers using the plugs kit 3376935 M91.
- the fuel return hose.
- the two cooler hoses on the 17 bar valve (mark the positions).
- the throttle control on the injection pump.
- the flowmeter harness (if fitted).
- the main wiring harness connections above the engine.
- the heater hoses on the thermostat block to the front of the engine and on the water pump. (Plug the connections to avoid draining the cooling system completely).
- the 7.5 and 10 amp fuse harness. To release this, slightly slacken the straight rod above the radiator.
- the fuel supply hose.
- 10. Immobilise the tractor.

Apply the handbrake.

- Fit wedges between the frame and the front axle (Fig.2).
- Support the tractor under the gearbox using a suitable stand.





- Support the tractor under the sump using a suitable trolley jack.
- 13. Slacken the bolts attaching the engine to the gear-
- 14. Separate the gearbox from the engine

Note: As a safety measure, remove the front weights.

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