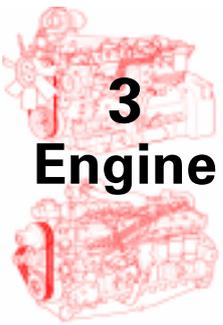


Workshop service manual N° 3378177 M1

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General

This section presents a general disassembly procedure. Due to the diversity of the hydraulic and mechanical the options available on the 8200-Series tractors, mention will only be made of those the pipes or main connections to be disconnected.

For this reason, before and when disassembling the tractor, ensure no connections remain between the fixed assembly and the moving assembly.

The 8200-Series tractors may be equipped with either a Full Powershift gearbox, or a Heavy Duty gearbox. Disassembly remains basically identical for both versions.

Available equipment fits

- **Tractors 8210-8220 and 8240-8250:** Full Powershift gearbox AG150
- **Tractors 8250 to 8280:** Full Powershift gearbox AG250
- **Tractors 8210-8220 and 8240-8250:** Heavy Duty gearbox.

The cab remains attached to the rear axle.

Disassembling the gearbox and the intermediate housing allows working on the Gerotor hydraulic pump (Full Powershift gearbox) or on the output shaft (Heavy Duty gearbox), located respectively on the rear of the stated gearboxes.

A . Preliminary operations

1. Position the rear wheels in wide tread.
2. Remove the side panels. Unlock and hinge open the bonnet and remove (if necessary).

Position of locks:

- *tractors 8210-8220 and 8240 to 8260:* below the front nose assembly,
 - *tractors 8270 and 8280:* below the front nose assembly, on the rear left-hand side of the bonnet.
3. Disconnect the battery terminals.
 4. Remove the battery compartment and the right footstep.
 5. Remove the turbocharger guard.
 6. Disconnect the front differential-locking control pipe at both ends ((if fitted). Blank the pipe.
 7. Remove the guard and the 4 WD transmission shaft (all tractor types).

8. Disconnect the charge hose from the brake-master-cylinder tank.
9. Mark then disconnect the steering hoses from the Orbitrol steering unit.
10. Remove the radiator guards (depending on option).
11. Disconnect the heating hoses under the right floor of the cab or on the engine (depending on option); identify their positions. Blank the hoses and ports to prevent complete drainage the cooling system.
12. Remove the left footstep.
13. Drain the fuel tanks.
14. **Mark then disconnect:**
 - the harness to the side-tank gauge,
 - the gas-oil supply and return hoses.
15. Remove the side tank.
16. Slightly raise the front of the cab and wedge in place per Fig. 2, using suitable axle stands.
17. **Mark positions of following parts then disassemble from the gearbox:**
 - solenoid valves (if necessary, remove the access door in cab floor to access the upper solenoid valves),
 - sensors (intermediate speeds, engine speeds, road speed, gearbox temperature and pressure),
 - connectors to receptacles A, B, C, D, E, F of the TC unit installed on the right-hand side of the gearbox.
18. Drain the intermediate housing.
19. Disconnect the gearbox return hoses (Orbitrol steering unit, power-assisted braking).

20. Disconnect the return hose from the brake-master-cylinder tank on the intermediate housing.
21. Disconnect hose (17 bar) towards the power-assisted braking on the right-hand hydraulic cover.
22. Remove suction pipe (1) (Fig. 1) at the Gerotor pump, and the elbow unions fitted on the intermediate housing and the Full Powershift gearbox.
23. Disconnect:
 - the creeper-speed control on the right-hand side of the intermediate housing (depending on option, all tractor types)
 - the air conditioning intakes at the front left of the cab. Fit blanking plugs (see § E)
 - the main harness connections above and to the left of the engine.
24. Disconnect the throttle control on the injection pump.
25. Block front axle (1), using suitable chocks - "C" (Fig. 1A).
26. Chock the rear wheels.

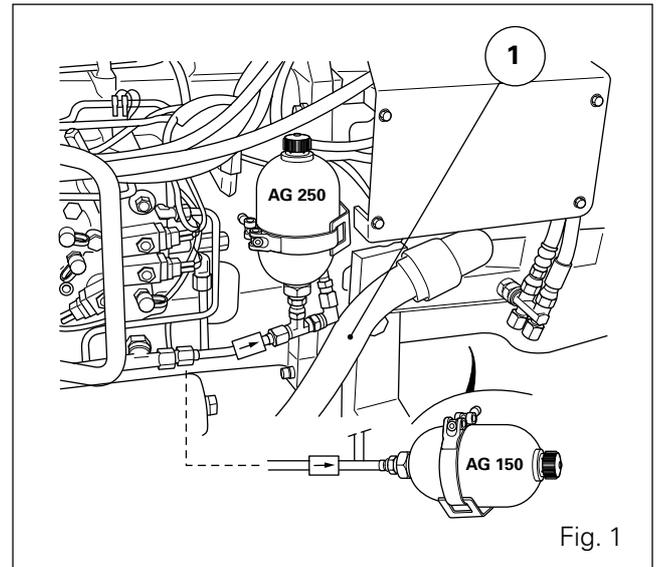


Fig. 1

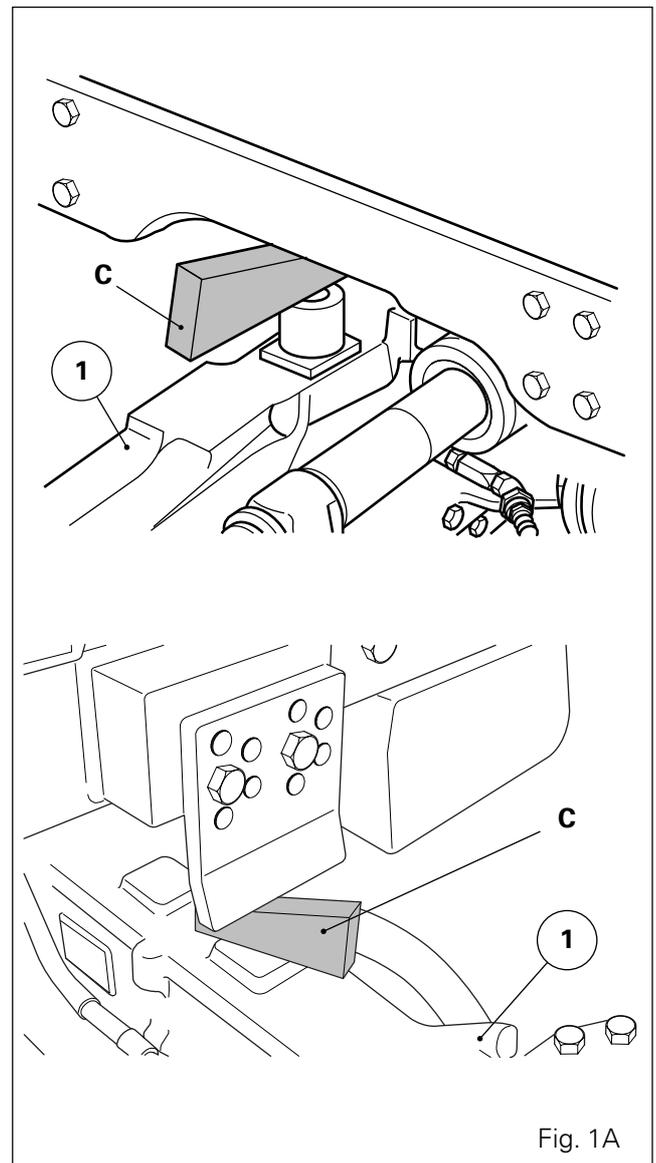
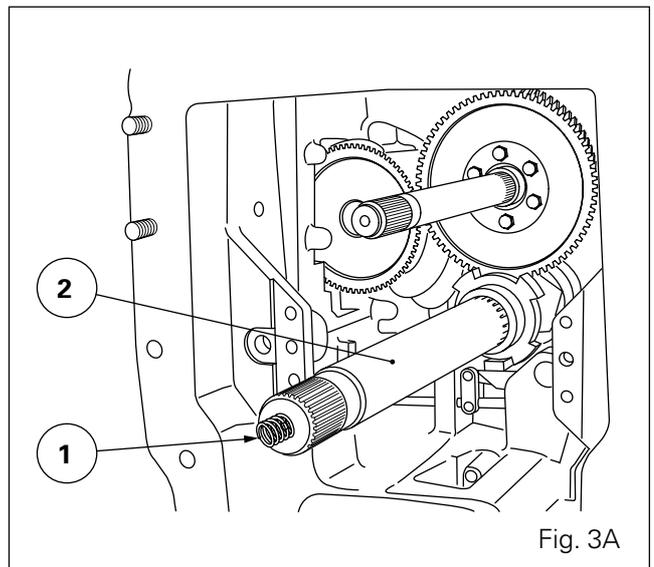
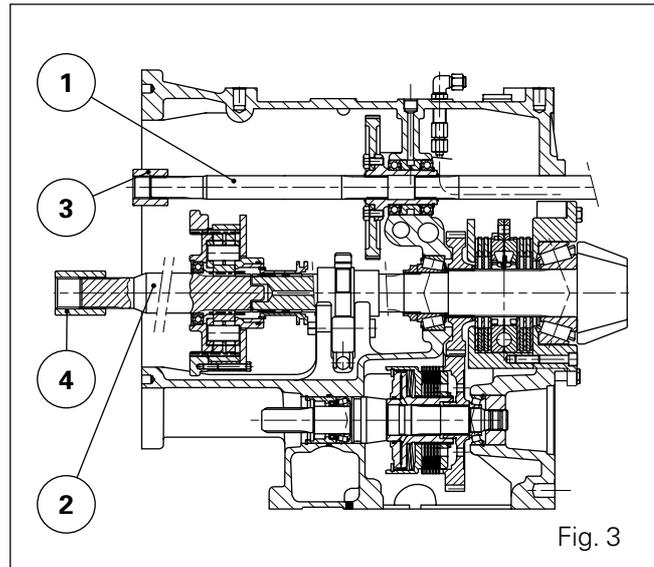


Fig. 1A

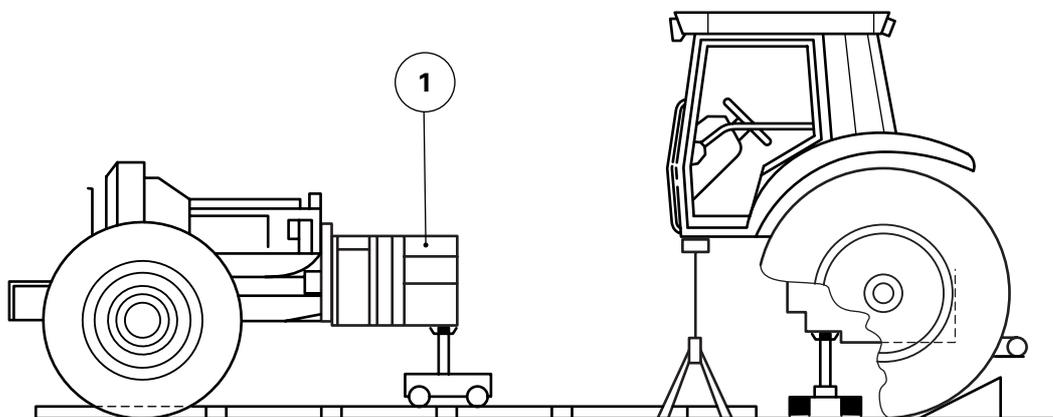
**B . Disassembling (Fig. 2)**

Separating the gearbox from the intermediate housing (Fig. 2)

27. In order to free lower shaft (2) (Fig. 3 - 3A), turn the special screw on the Park lock control unit clockwise until a hard point is felt (see section 6F01, Full Powershift gearbox only).
28. Install the disassembly tooling (see § E).
29. Remove the screw attaching the gearbox to the housing.
30. Assisted by an operator, separate the assemblies, taking care to identify the position of the coupling sleeves on connection shafts (1) and (2) (Fig. 3).



(1) Full Powershift gearbox



Splitting - Gearbox / Intermediate Housing

C . Reassembling

Assembling the gearbox and the intermediate housing

31. Clean the mating surfaces of the gearbox and the housing.
32. Coat the mating face of the housing with sealing product Loctite 510 or equivalent.
33. Check the presence of the locating pins on the housing.
34. Check the presence of connection shafts (1) and (2) and sleeves (3) (4) (Fig. 3).

Note: Position the machined groove on the outside diameter of each sleeve towards the gearbox (optional).

Special point:

- On 8200 series tractors without creeper speeds, fitted with the Full Powershift transmission, spring (1) located at the front of shaft (2) maintains the latter in position (Fig. 3A).

35. Screw two diametrically opposed guide studs into the gearbox.
36. Assemble gearbox (8) onto housing (19).
37. Remove the guide studs. Install screw (1) (Fig. 4) and torque to 240 - 320 Nm.

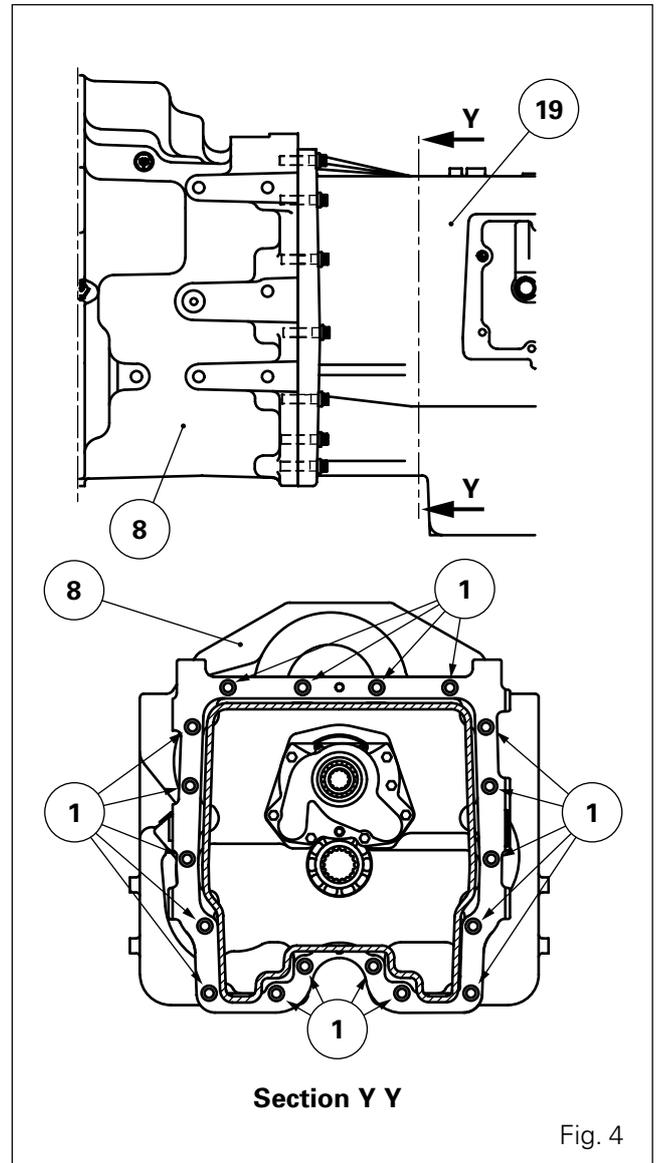


Fig. 4



D . Final operations

38. Remove the chocks from the front axle.
39. Reconnect the throttle control on the injection pump.
40. Reinstall the left-hand radiator guard (if fitted).
41. **Reconnect:**
 - the main harness connections above and to the left of the engine,
 - the air conditioning intakes at the front left of the cab.
42. Reinstall:
 - the creeper control (if fitted). For setting instructions, see section 6H01
 - the Gerotorpump sleeves and suction pipe.
43. Reconnect the power-assisted braking hose (17 bar) on the right-hand hydraulic cover.
44. Reconnect the return hose from the brake master-cylinder tank.
45. Reconnect the return hoses for the Orbitrol steering unit and power-assisted braking on the gearbox.
46. Reconnect following items to gearbox:
 - connectors for receptacles A, B, C, D, E, F of the TC unit,
 - sensors,
 - solenoid valves.
47. Position the cab on its front supports (Fig. 5). Install screws (1) in silent blocks and torque to 200 - 270 Nm.
48. Reinstall the side tank.
49. Reconnect the following items:
 - the gas-oil supply and return hoses,
 - the tank-gauge harness.
50. Reinstall the left footstep.
51. Reconnect the heating hoses.
52. Reinstall the right-hand radiator guard (if fitted).
53. Reconnect the steering hoses on the Orbitrol steering unit.

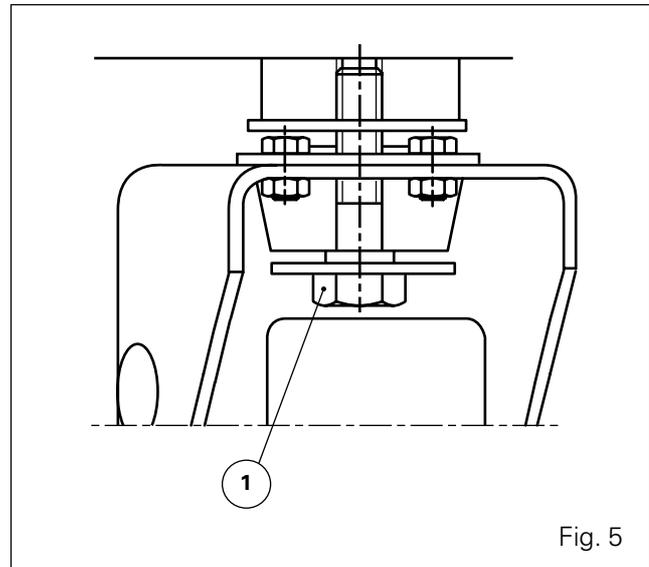


Fig. 5

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