## TM120, TM130, TM140, TM155, TM175, TM190 REPAIR MANUAL COMPLETE CONTENTS

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## SEPARATING AND REMOVING THE ENGINE

FRONT AXLE AND SUPPORT
Separating Front Axle and Support from Engine

1. Disconnect battery ground lead (1) and then disconnect the positive lead (2).

2. If front weights are fitted to the front of the tractor remove using suitable hoist with adequate safe working load.


3
3. Disconnect air to air intercooler pipes.


4
4. Disconnect transmission oil cooler hoses (1) and drain oil into clean container.

5. Remove clips (1) securing air conditioning condensor tubes to side of radiator.

6. Withdraw condensor from front of radiator and place in a safe place on side of engine.

NOTE: Never disconnect the hoses to the condenser unless the air conditioning system has been evacuated as described in Section 50 of this Repair Manual.


7
7. Drain the cooling system fluid into a clean container and disconnect the radiator hoses. Disconnection of the radiator lower hose provides a suitable drain point. Place a large clean tray under the vehicle to capture the fluid for future use.


Tractors fitted with suspended front axle

1. Depressurize the suspension system by rotating screw on top of the suspension load sense unload valve clockwise. When the tractor has lowered completely onto the front support stops rotate the screw counterclockwise to normal operating position.


9


10
3. Remove suspension pipes and guard.


11
4. Remove the rear pivot block bolts.

5. Position trolley jack beneath front support and raise front of tractor.


13
6. Position a suitable piece of strong timber between oil pan and suspension arm.


14
7. In a controlled manner lower the front of the tractor to the ground. The lowering action will cause the suspension arm pivot block to separate from the transmission casing.


15
8. Disconnect and remove front wheel drive shaft universal joint.

9. Remove engine side rails

10. Disconnect the 2 steering tubes and differential lock tube from the right hand side.

NOTE: If front axle brakes are fitted, disconnect the common brake pipe to the axle.

## Tractors fitted with standard FWD axle

1. Remove engine side rails where fitted.


17

18


19
2. Remove front wheel drive shaft guard, if fitted.

3. Remove drive shaft.

NOTE: The type of driveshaft fitted is dependant on type of axle installed.


21
4. Disconnect power steering hoses (1) and (2) on each side of the tractor.
Disconnect differential lock hose (3).
NOTE: Pipework will vary depending on type of axle installed.

NOTE: If front axle brakes are fitted, disconnect the common brake pipe to the axle.


22
5. Inspect the harness connections between the engine and front support and disconnect where necessary to enable the front support and axle to be separated from the engine.

NOTE: The type and number of connections to be disconnected is dependant on the build option and ancillary equipment fitted to the front of the tractor.


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