

FARMALL® 55A
FARMALL® 65A
FARMALL® 75A
Tractor

SERVICE MANUAL

Part number 51489994

1st edition English

October 2018



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SERVICE MANUAL

Engine

**FARMALL 55A
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Engine and crankcase - Disassemble

ENGINE – Removal

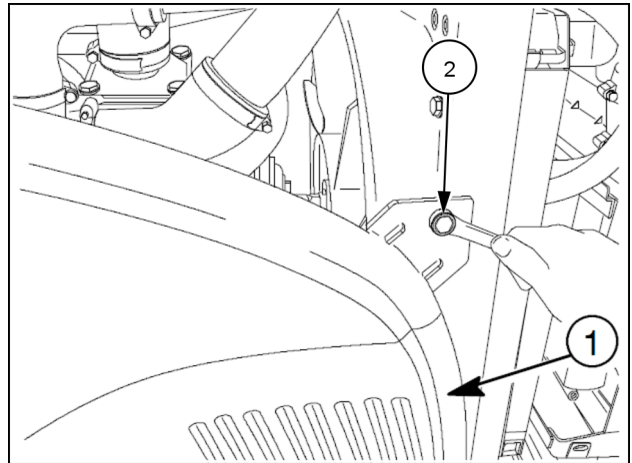
ATTENTION: Use appropriate equipment to hold and lift heavy parts.

Make sure that the body and parts are safely supported safely by ropes and hooks. Make sure that no one is close when you lift heavy loads.

ATTENTION: Use appropriate tools to align holes on parts. NEVER USE YOUR FINGERS OR HANDS

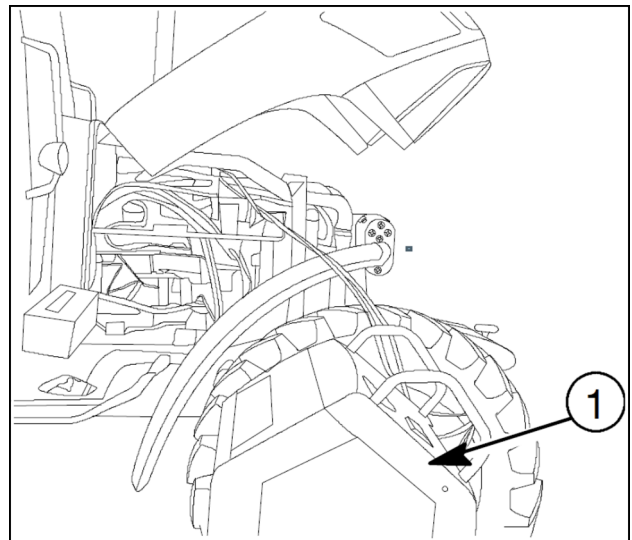
Follow these steps.

1. To access the engine, remove the protective covers (1) on either side. Remove the cover retaining bolts (2) and remove the side covers.



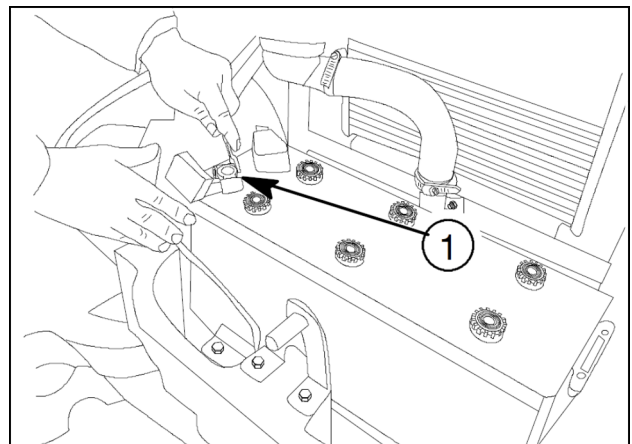
ANIL17TRO0925AA 1

2. Use the A/C device (1) to discharge the gas in the system. For this, use the A/C device pressure hose (red) and connect to the compressor's red bushing. Connect the blue hose to the compressor's blue bushing.



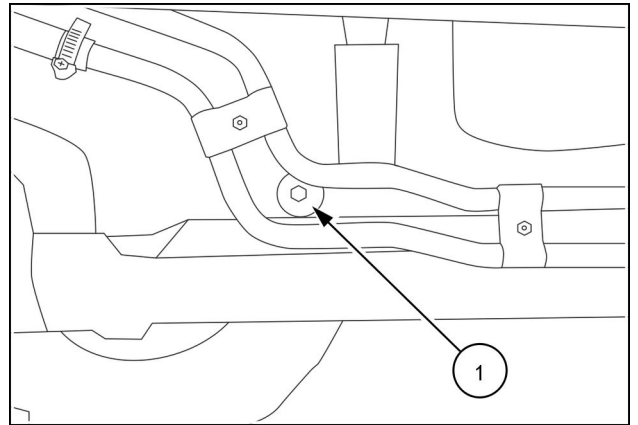
ANIL17TRO0926AA 2

3. Disconnect the battery terminals (1).

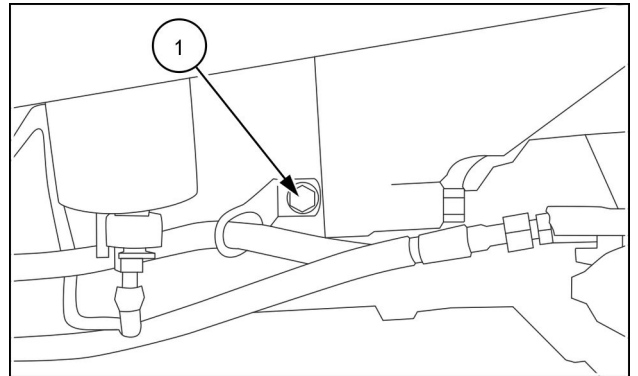


ANIL17TRO0927AA 3

4. Engage the handbrake. Remove the engine oil drain plug (1) on both side.

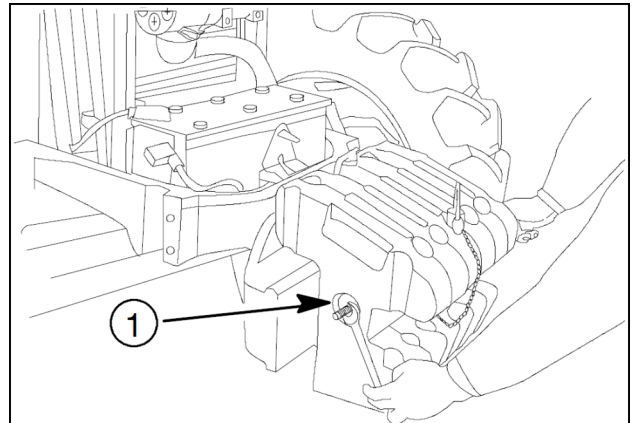


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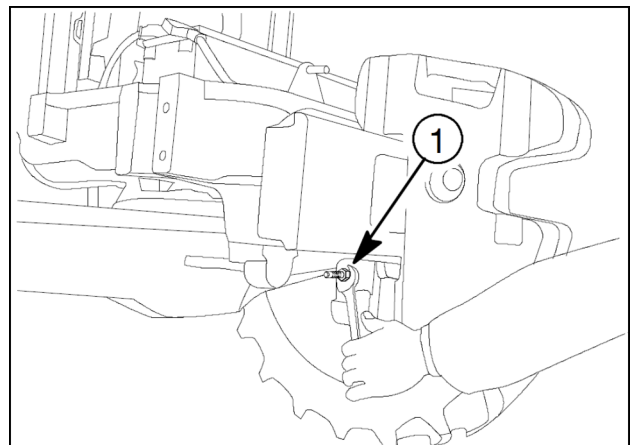
ANIL18TRO1092AA 5

5. Remove the front weight connection rod (1).



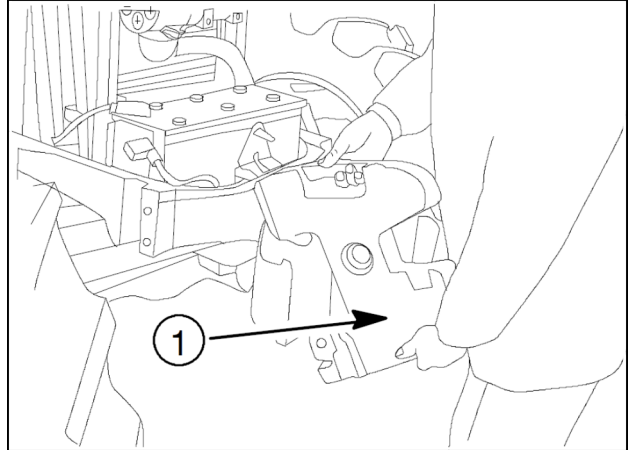
ANIL17TRO0992AA 6

6. Remove the front weight lower connection rod (1).



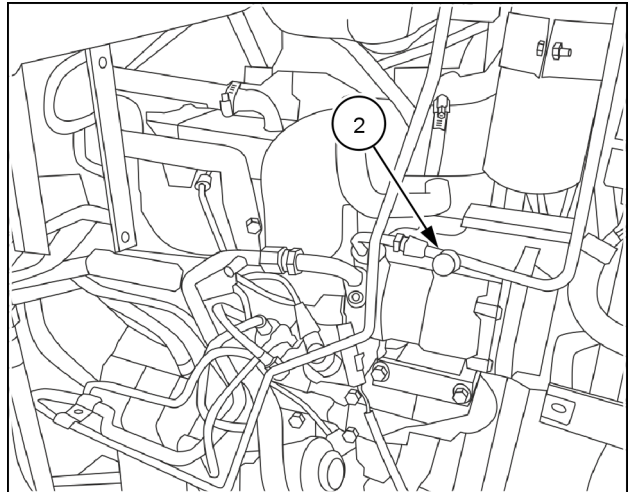
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7. Remove the front weights **(1)**.



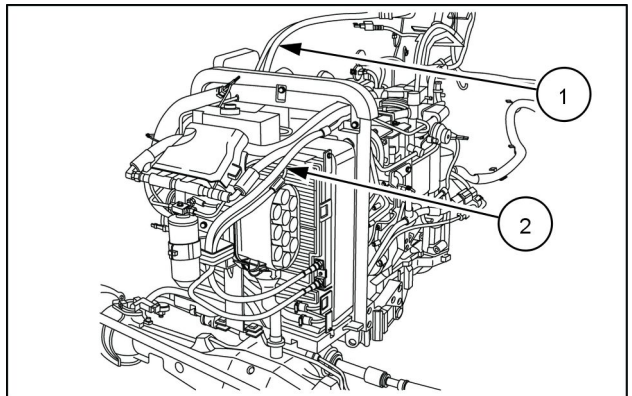
ANIL17TRO0931AA 8

8. **(1)**Use the specific tool to discharge the refrigerant from the system via the greasers and **(2)**. Remove the bracket strips and separate the two lines. 380000315



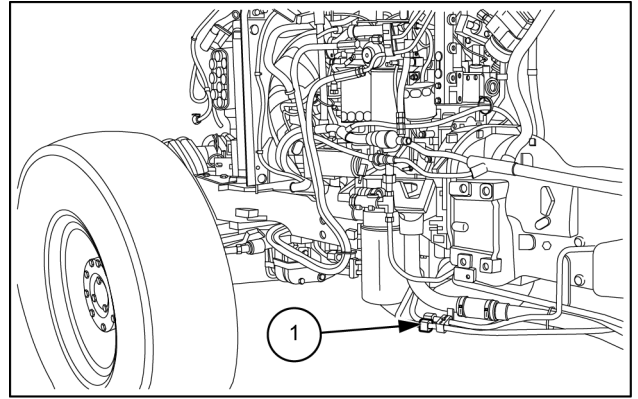
ANIL1800789AA 9

9. Disconnect lines **(1)** and **(2)** of the cab A/C and heating (if any).



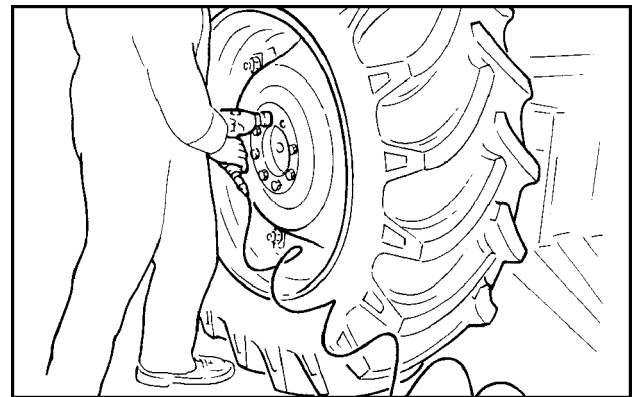
MOIL13TR02884AA 10

10. Separate the supply and return pipes for the **(1)** transmission cooling oil at the connection point. Disconnect the hoses from the supports on the engine block. .



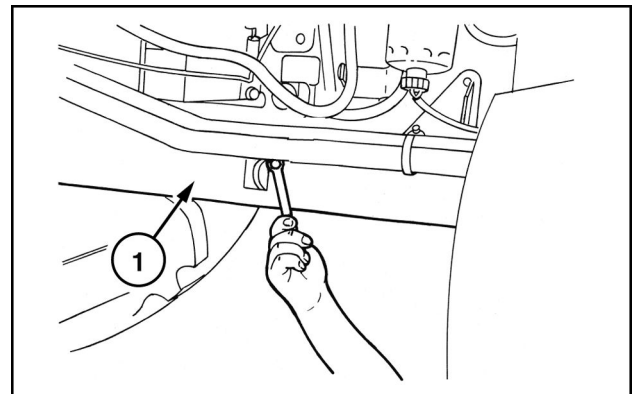
MOIL13TR02886AB 11

11. Lift the rear of the tractor with a hydraulic jack. Place a mechanical jack under the crawl speed gear housing. Use an air gun to remove the retaining nuts on the left rear wheel. Then remove the wheel.



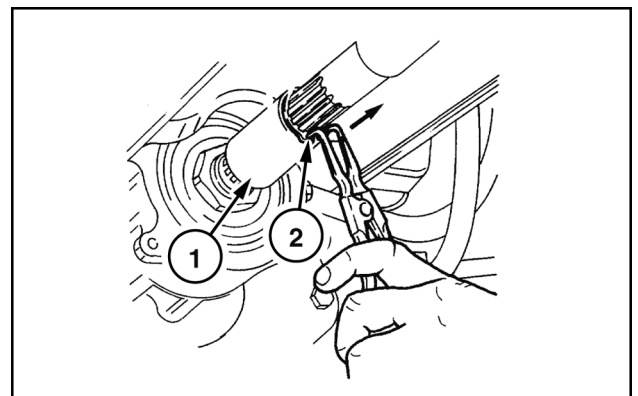
WLAPL4S10C110A 12

12. Remove the front center and rear retaining bolts on the front wheel drive control shaft housing. Then remove the guard. **(1)**.



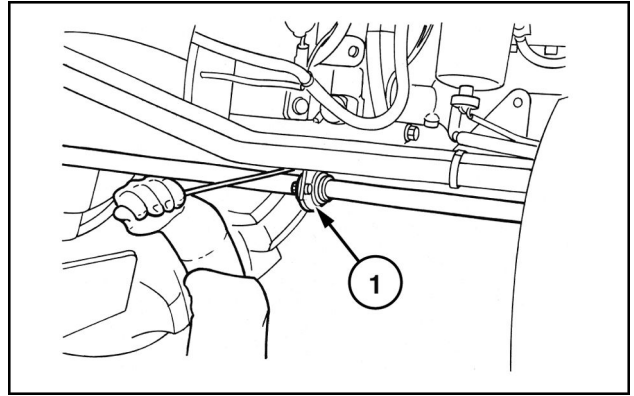
WLAPL4S10C112AA 13

13. Remove the retaining ring **(2)**. Move the front screen in the direction of the arrow **(1)** to remove the screen from the grooves on the front axle.



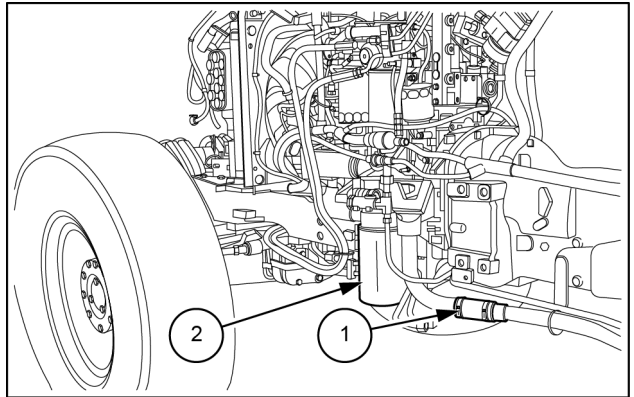
WLAPL4S10C113AA 14

14. Remove the retaining bolts of the middle bracket of the drive shaft (1). Remove the shaft and the bracket. Remove the adjustment washer that adjusts the shaft space behind.



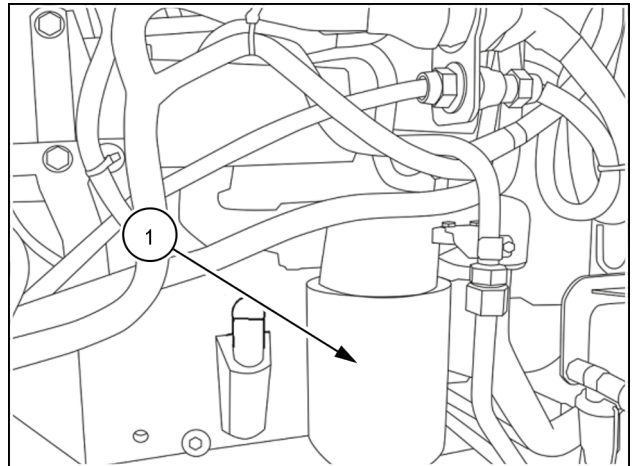
WLAPL4S10C115AA 15

15. Loosen the strips. Separate the suction hose (1) that goes to the oil filter from the transmission (2).



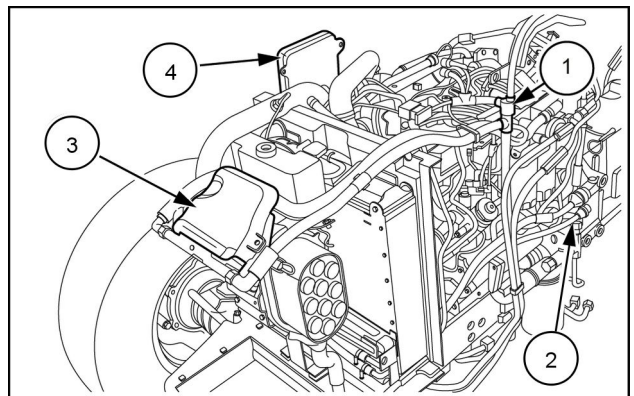
MOIL13TR02887AB 16

16. For machines with a hydraulic lifter and middle mounted valves, remove the oil feed pipe to the distributor of the lifting device and oil filter (1).



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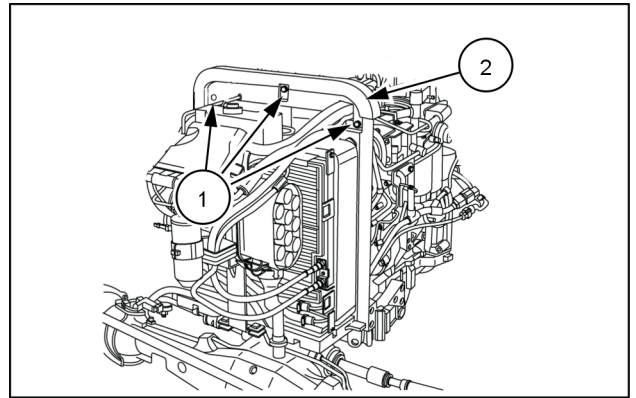
17. Disconnect all electrical connections that prevent the engine from being removed from the gearbox transmission housing. For example, the main connections (1), the main cab and power connections (2), the engine control unit connections (3), the fuse box (4), the sensors, and the extensions, depending on the tractor model.



MOIL13TR02889AB 18

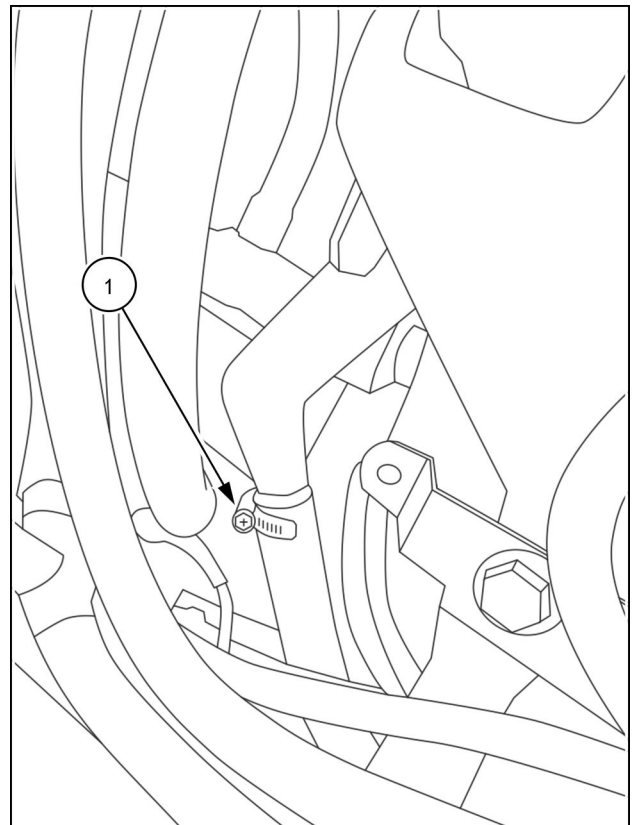
18. Remove the retaining bolts (1). Remove the top radiator guard (2). Remove all the remaining free wire bundles.

..



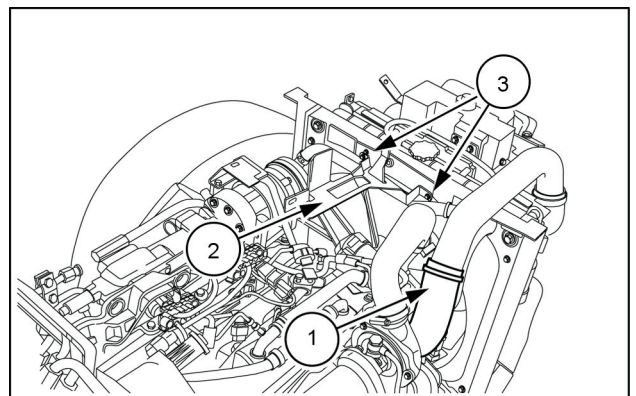
MOIL13TR02942AA 19

19. Loosen the strip on the inlet of the hose (1) that feeds fluid to the radiator. Disconnect the hose. Drain the engine radiator fluid and refill with fluid.
20. Remove the retaining strip. Hose (2) that returns the radiator fluid to the engine.



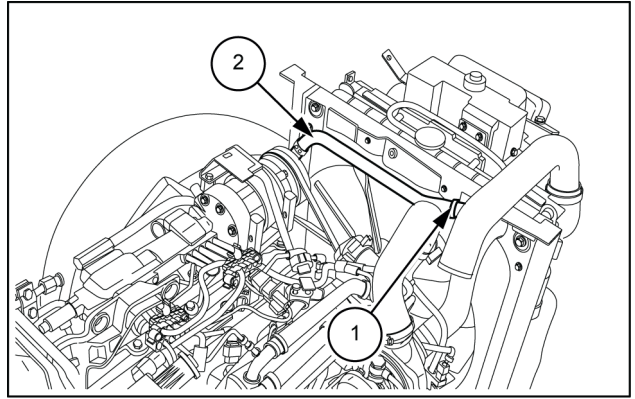
ANIL18TRO1099AA 20

21. Loosen the strip. Disconnect the hose (1) that runs from the air filter to the turbine. Next, remove the two bolts (3) and remove the bracket (2).



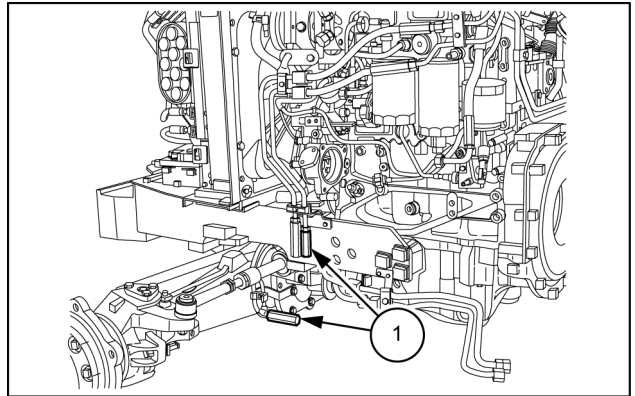
MOIL13TR02890AB 21

22. Loosen the strip **(1)**. Remove the hose **(2)** that connects the air filter to the injection pump. .



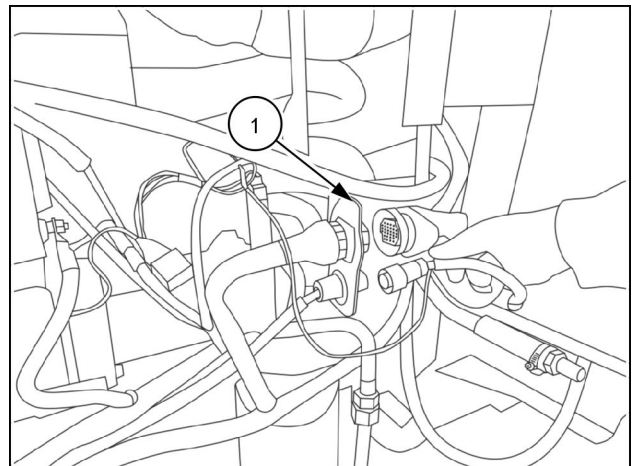
MOIL13TR02891AB 22

23. Disconnect the hydraulic steering hoses **(1)**. Disconnect the lines from the axle bracket. .



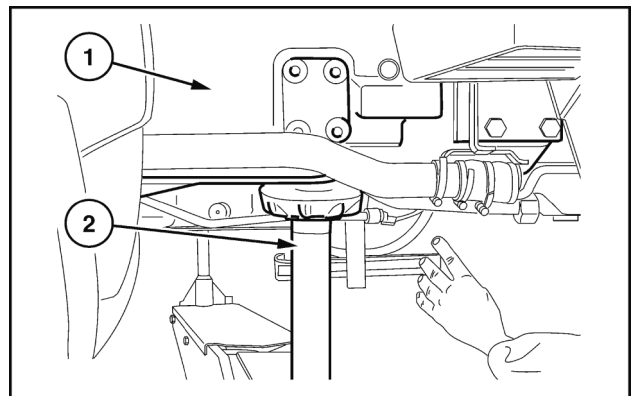
MOIL13TR02881AB 23

24. Unplug the headlamp and the signal cable bundle from the engine hood socket **(1)**.



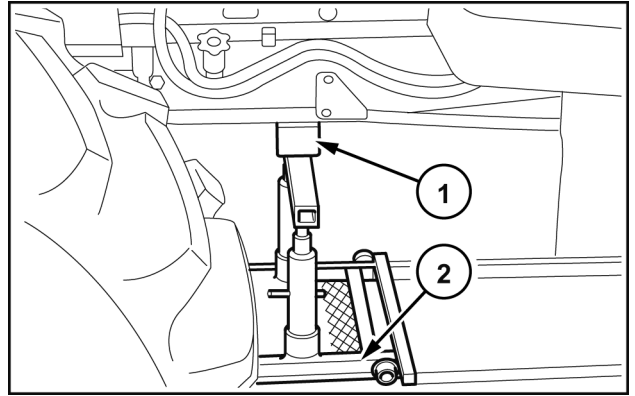
ANIL1898734AA 24

25. Attach chains or ropes to the lifting and eye bolts behind the engine and attach to a winch. Place a fixed lifting jack **(2)** under the clutch body **(1)** next to the engine retaining flange. Apply the handbrake.



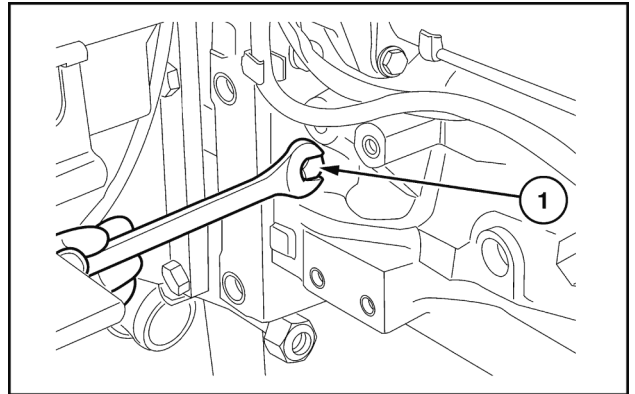
WLAPL4S10C129A 25

26. Place the moving tractor separator tool (2) under the engine with the mounting bracket and the adapter plate. Place a wooden block (1) at the points of contact between the tool and the motor. Chock the axle to prevent the axle from shaking. **380000405**.



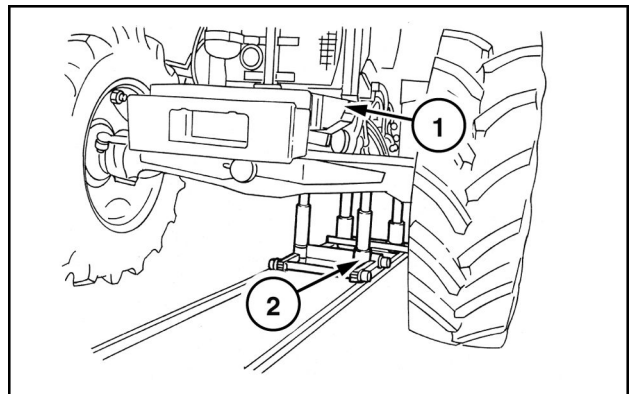
WLAPL4S10C140A 26

27. Remove the retaining bolts (1) between the engine and the transmission.



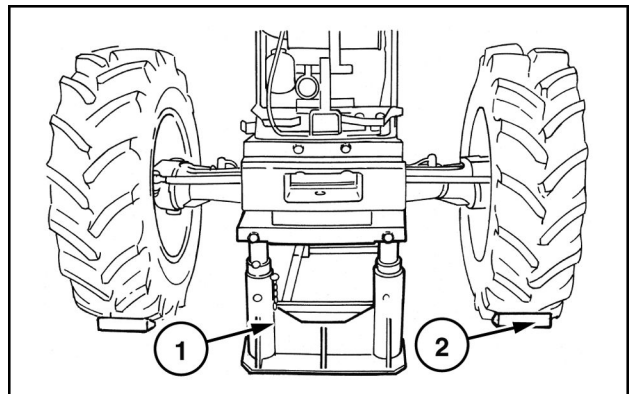
WLAPL4S10C130A 27

28. Separate the engine from the transmission with tool **380000405** (2). **380000405**.



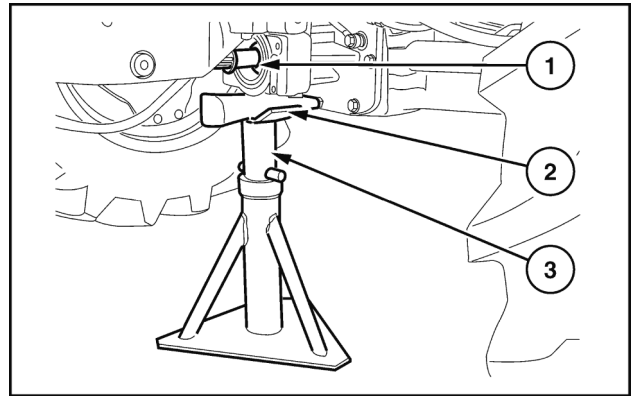
WLAPL4S10C131AA 28

29. Place the fixed lifting jack (1) under the additional weight support. Use wooden blocks (2) to secure the front wheels.



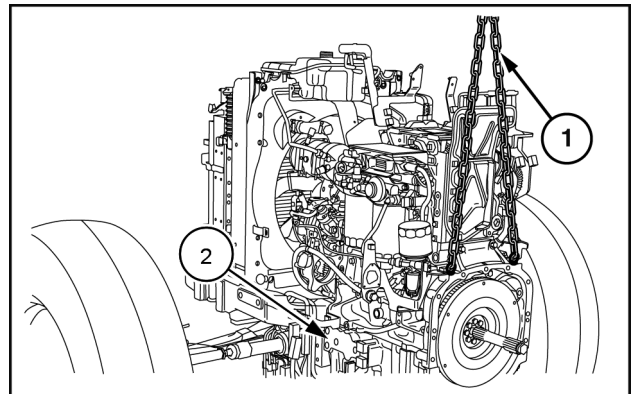
WLAPL4S10C132AA 29

30. Place a wooden stop between parts **(3)** and **(1)**. Place a fixed lifting jack **(3)** under the front axle drive groove **(1)** bracket.



WLAPL4S10C133A 30

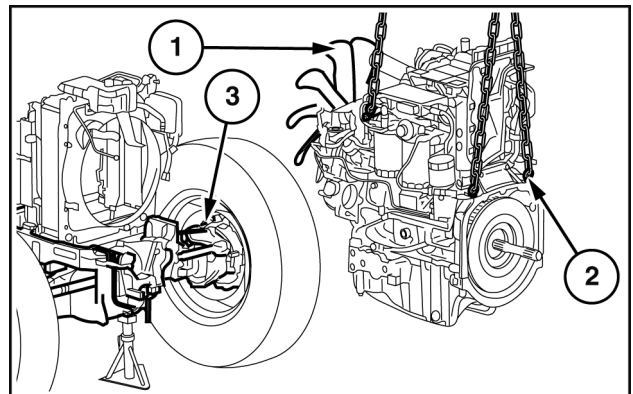
31. With the connection assembly firmly secure, place a lifting jack at the rear of the engine to leave slack in the winch. Add a rope or chain to the front of the engine **(1)**. Keep the engine balanced and take the slack out of the lifting assembly.



WLAPL4S10C136A 31

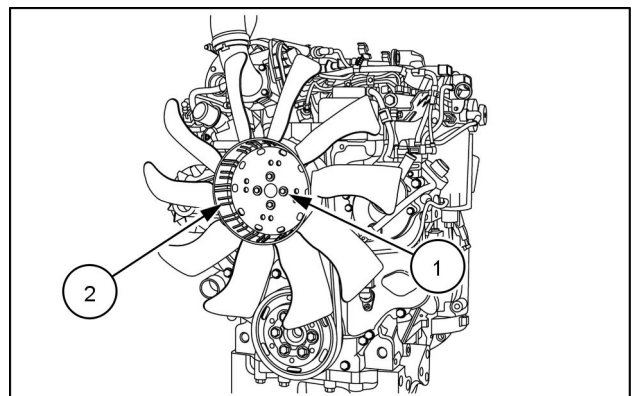
32. Remove the bolts that secure the front axle bracket to the engine **(2)**.

33. Check that there is no elbow between the engine and the radiator. Separate the engine **(2)** from the axle **(3)**. To prevent damage to the fins of the radiator on the engine ventilator **(1)** axle, try to avoid incorrect manoeuvres with the winch. Lower the engine **(2)** onto a support bracket.



WLAPL4S10C138A 32

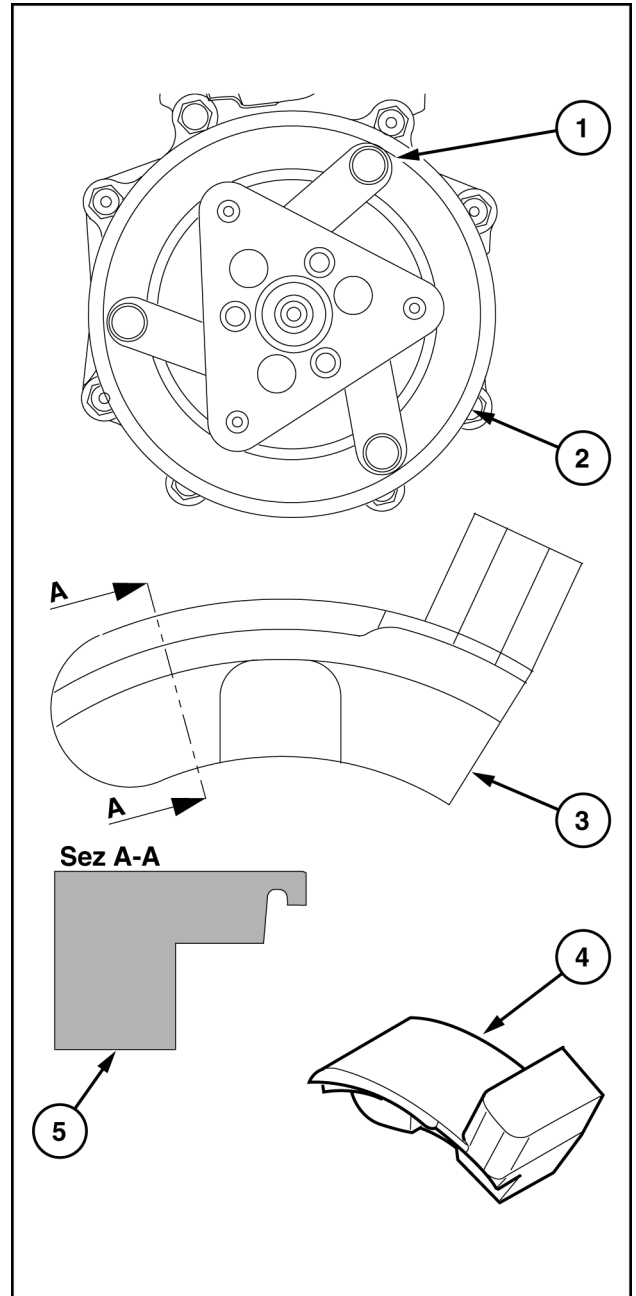
34. Loosen the four bolts **(1)**. Remove the fan **(2)**.



MOIL13TR02885AA 33

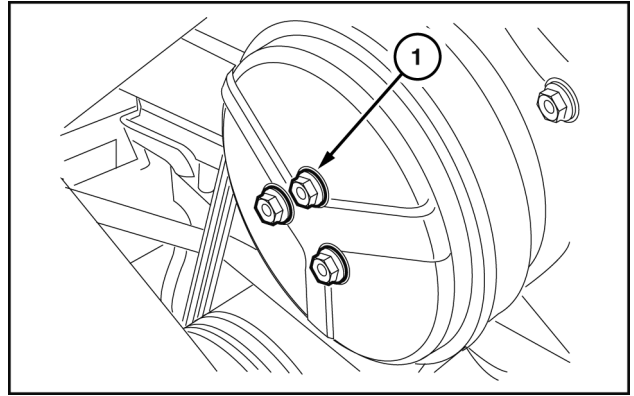
Engine and crankcase - Install

1. Reattach the flexible strap to the alternator and take the tension according to the procedure in the **Alternator - Tension adjust (55.301)** section.
2. Repeat this operation to reposition the compressor and the corresponding belt.
 - Put the compressor on the bracket together with the relevant hose bracket. Secure with the bolts.
 - - Use tool **380200011** to install the multi-V belt.
 - (1)The drive bracket of the compressor clutch actuator.
 - (2)Outer edge of the multi-V belt pulley.
 - (3)Tool space. Use to drive the tool. The bracket (1) is housed in this space
 - (4) Tail end. The multi-V belt drives the pulley socket.
 - (5) Coupling. This space around the outer edge (2) allows the tool to remain connected to the compressor. (2).



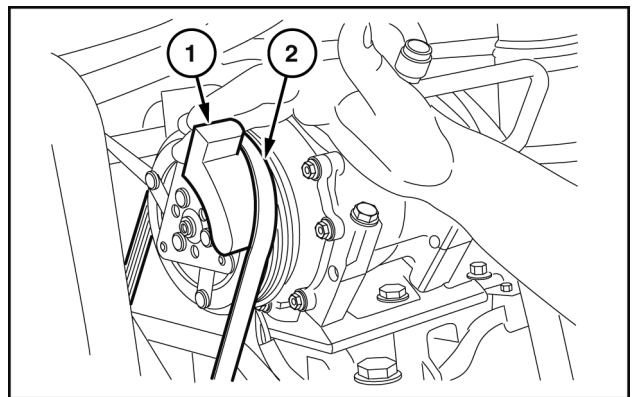
WLAPL4S10C101C 1

3. Remove the three bolts (1). Remove the corresponding dust cover for the compressor clutch.



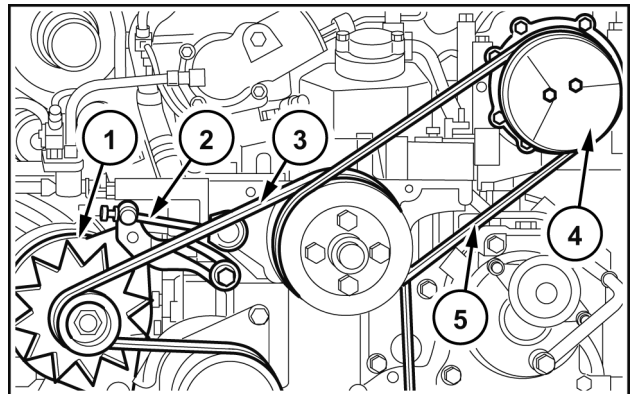
WLAPL4S10C142A 2

4. Make sure that the multi-V belt (2) is properly positioned in the ventilator pulley.
5. Move the belt (2) to the side of the compressor pulley. Hold tool 380200011 under the belt. Hook the compressor clutch from the innermost part of the tool to slightly stretch the belt.



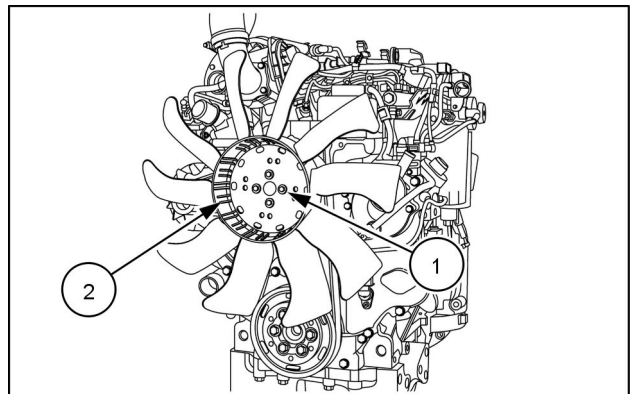
WLAPL4S10C143A 3

6. With your left hand on the ventilator and your right hand on the tool, turn both clockwise to move the belt along the compressor pulley. Replace the dust cap on the compressor clutch. To prevent loosening, make sure that locking film covers the ends and tighten the three screws.
7. Position the alternator (1) and elastic belt (3). Tighten the belt tensioner (2).



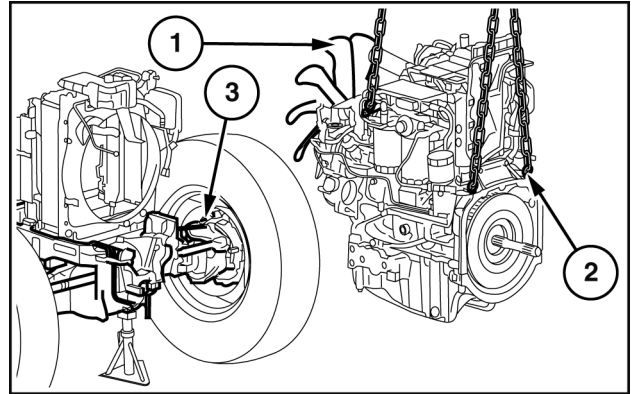
WLAPL4S10C145A 4

8. Position the ventilator (2). (1) Tighten the four screws to the correct torque value.



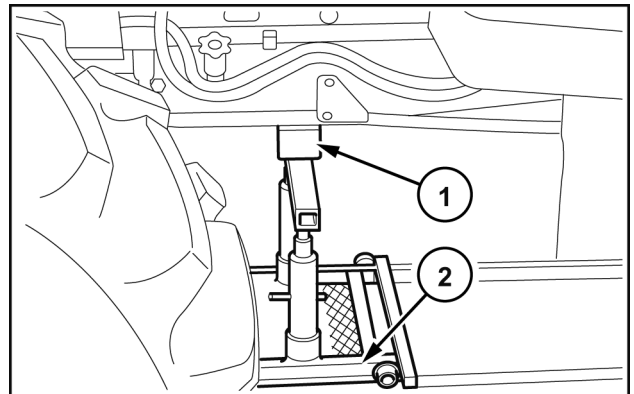
MOIL13TR02885AA 5

9. Place the three hooks of the chain in the holes on the engine. Use a winch to lift the engine completely from the platform bracket.
10. Position the engine **(2)** on the front axle. **(3)**. To prevent damage to the fins of the radiator on the engine ventilator, try to avoid incorrect manoeuvres with the winch. **(1)**.
Then combine the two components with the special adjustment bolts and the necessary adjustment spacers of the sump/cylinder block bracket.



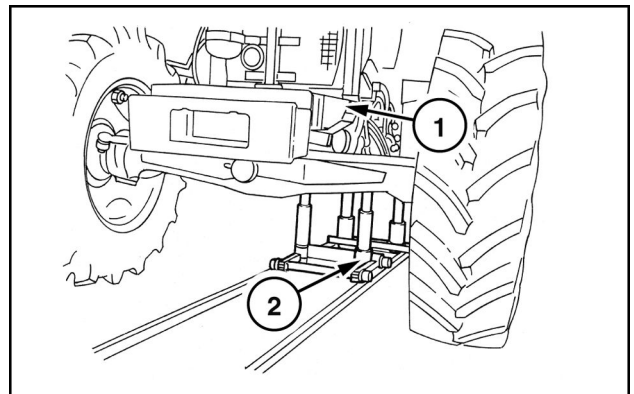
WLAPL4S10C138A 6

11. Reposition the moving tool under the engine to disassemble the tractors **(2)**. Place a wooden block between the contact points of the tool **(1)** and engine.



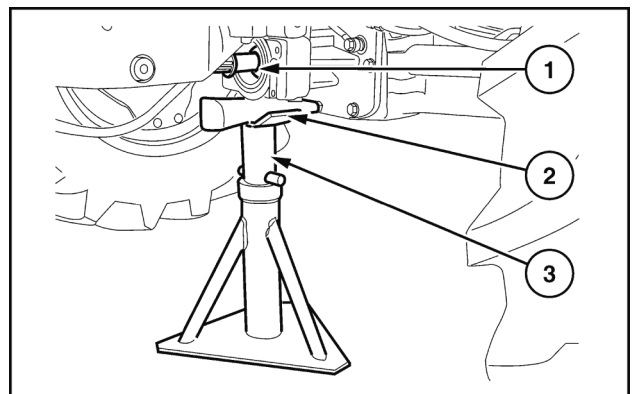
WLAPL4S10C140A 7

12. With a winch, position the engine **(1)** on the tool **(2)**. Remove the bolts attached previously to the rear of the engine for the purposes of lifting.



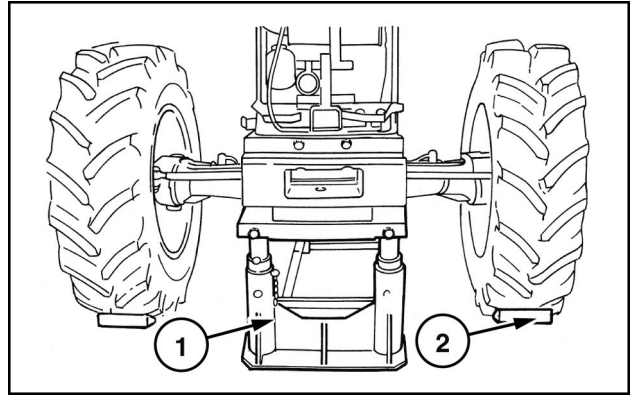
WLAPL4S10C131AA 8

13. Remove the fixed lifting jack **(3)** and the wooden wedge **(2)** previously positioned under the groove bracket of the front axle drive shaft **(1)**. **(2)**.



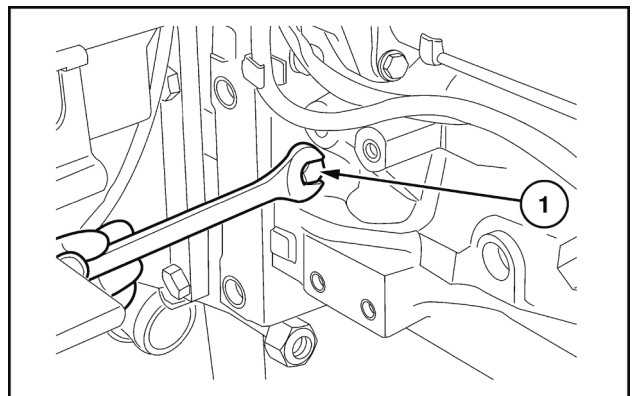
WLAPL4S10C133A 9

14. Remove the fixed lifting jack **(1)** previously placed under the additional weight bracket. Remove the chocks **(2)** that secure the front wheels. **(2)**



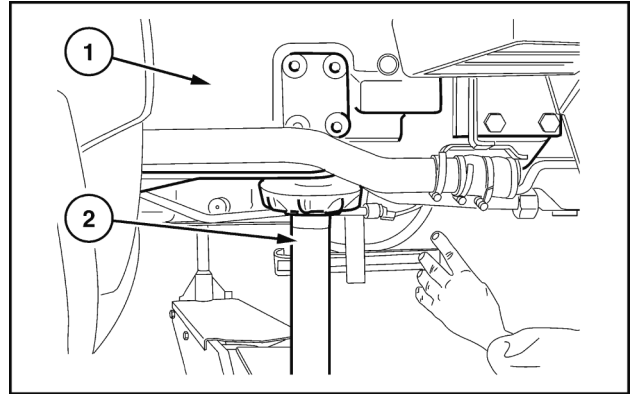
WLAPL4S10C132AA 10

15. Remove the sealant from the two surfaces of the engine and housing.
16. Apply **LOCTITE® 518™** and sealant to the matching surfaces of the motor and the clutch housing.
17. Place a wooden chock under the right rear wheel. Make sure that the handbrake is fully applied and that all fixed and movable stands are securely positioned.
18. The assembly phase described here requires the presence of two or three workers to use the special moving tool needed to dismantle the tractor, and to move the engine/front axle housing towards the gearbox housing.
19. When you mount the engine/front axle assembly to the gearbox housing, push the front wheels to prevent the hoses and the cables/electrical connections being trapped between the two parts. In this phase you also need to turn the crankshaft with the radiator cooling fan to help establish a connection between the sleeve and the drive shaft.
20. Tighten all the retaining bolts **(1)** that connect the engine to the gearbox housing to connect the two assemblies. **(1)**



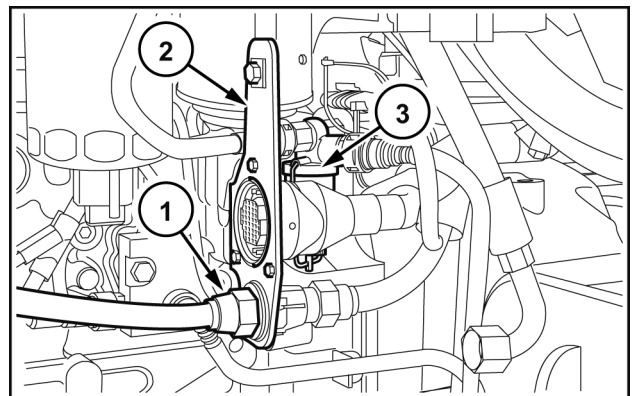
WLAPL4S10C130A 11

21. Remove the winch chains. Remove the lifting jack (1) previously positioned under the clutch housing (2). Remove the moving tool used to disassemble the tractors.



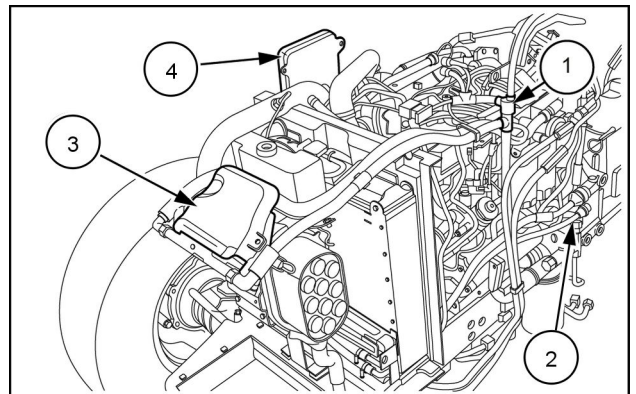
WLAPL4S10C129A 12

22. Reinstall the support bracket (2) of the cab connectors (1), the cab electrics, and the cup filter (3). Connect the mechanical diesel automator connection on the sediment filter of the cup filter.
23. Connect the cab electrical cable connector (1) on the left side. Put the connector on the maxi fuse box and fasten with the cuffs.



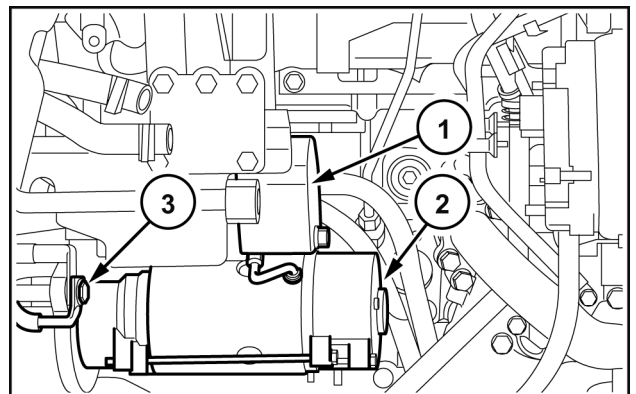
WLAPL4S10C139A 13

24. Lay the FPT engine cable on the machine. Reconnect the various connections. Secure the cables with the cuffs.
- Reconnect the main electrical connections (1), the cab connections and power (2), the engine control connections (3), the fuse section (4) and connections, the sensors, and the extensions, depending on the tractor model.



MOIL13TR02889AB 14

25. Reattach the starter motor (2). Then connect the engine chassis cable and battery system. Secure the chassis cable with the bolt (3).
26. On the right-hand side, reconnect the positive battery cable and wiring harness to the starter motor and alternator. Put the cover (1) back onto the starter motor (2).



WLAPL4S10C135A 15



Suggest:

If the above button click is invalid.

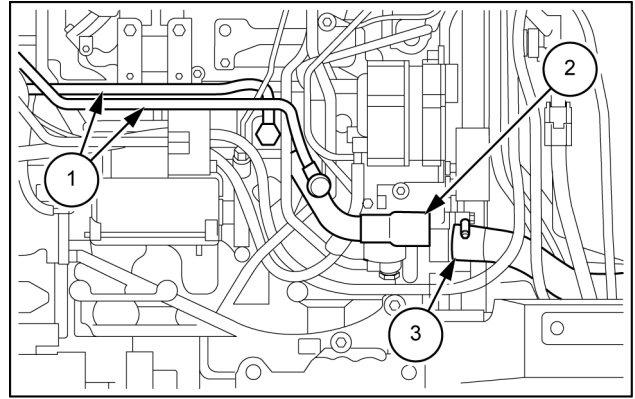
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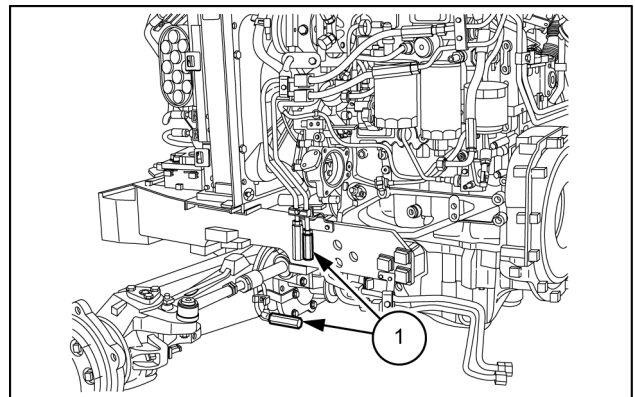
Thank you so much for reading

27. Reinstall the two feed and return pipes to the cab heater (1) and the hose (3) from the expansion tank, which is attached to the bottom sleeve.



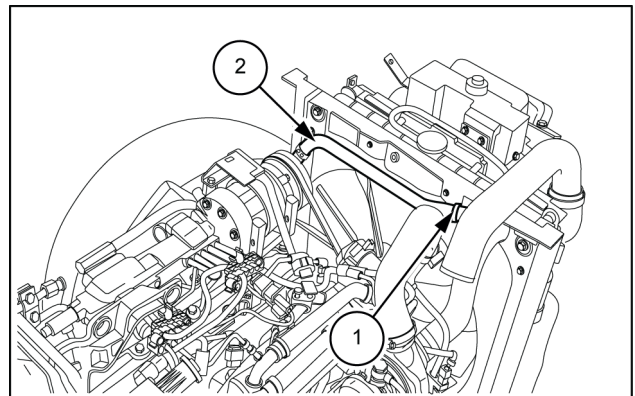
MOIL13TR01739AB 16

28. Install and connect the hydraulic steering (1). Secure the hydraulic steering lines to the front axle bracket.



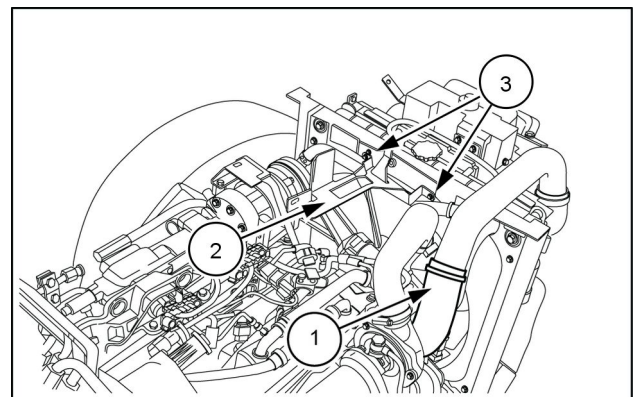
MOIL13TR02881AB 17

29. Connect the hose (2) that connects the air filter to the injection pump. Tighten the strip to secure the hose. (1).



MOIL13TR02891AB 18

30. Connect the hose that runs from the air filter to the turbine. Tighten the strip to secure the hose. (1)
 . - - Also reattach the hood bracket (2). Tighten the two bolts (3) to secure the hood bracket.



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