

FARMLIFT 525
Tier4
Telescopic Handler

SERVICE MANUAL

Part number 47712944

English

September 2014

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SERVICE MANUAL

Farmlift 525

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INTRODUCTION

Safety rules


Personal safety





This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words **DANGER**, **WARNING**, and **CAUTION** followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 **DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: *Notice indicates a situation which, if not avoided, could result in machine or property damage.*

Throughout this manual you will find the signal word **Notice** followed by special instructions to prevent machine or property damage. The word **Notice** is used to address practices not related to personal safety.

Information

NOTE: *Note indicates additional information which clarifies steps, procedures, or other information in this manual.*

Throughout this manual you will find the word **Note** followed by additional information about a step, procedure, or other information in the manual. The word **Note** is not intended to address personal safety or property damage.

Personal safety

Carefully read this Manual before proceeding with maintenance, repairs, refuelling or other machine operations.

Repairs have to be carried out only by authorized and instructed staff; specific precautions have to be taken when grinding, welding or when using mallets or heavy hammers.

Not authorized persons are not allowed to repair or carry out maintenance on this machine. Do not carry out any work on the equipment without prior authorization.

Ask your employer about the safety instructions in force and safety equipment.

Nobody is allowed to seat on the operator's place during machine maintenance unless he is a qualified operator helping with the maintenance work.

If it is necessary to move the equipment to carry out repairs or maintenance, do not lift or lower the equipment from any other position than the operator's seat.

Never carry out any operation on the machine when the engine is running, except when specifically indicated.

Stop the engine and ensure that all pressure is relieved from hydraulic circuits before removing caps, covers, valves, etc.

All repair and maintenance operations should be carried out with the greatest care and attention.

Service stairs and platforms used in a workshop or in the field should be built in compliance with the safety rules in force.

Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.

⚠ DANGER

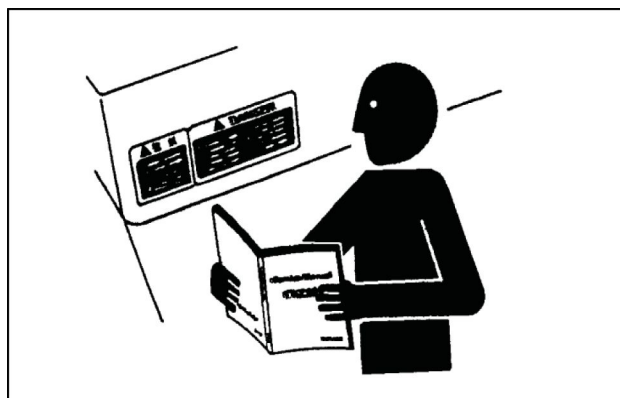
Unexpected movement!

Make sure parking brake is applied. Secure machine with wheel chocks.

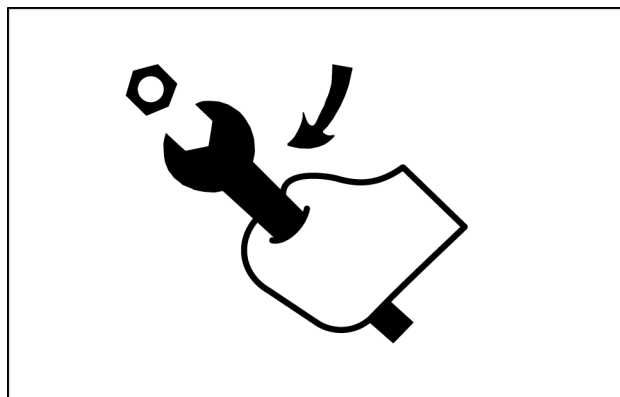
Failure to comply will result in death or serious injury.

D0013A

Before performing any work on the machine, attach a maintenance in progress tag. This tag can be applied on the left-hand control lever, safety lever or cab door.



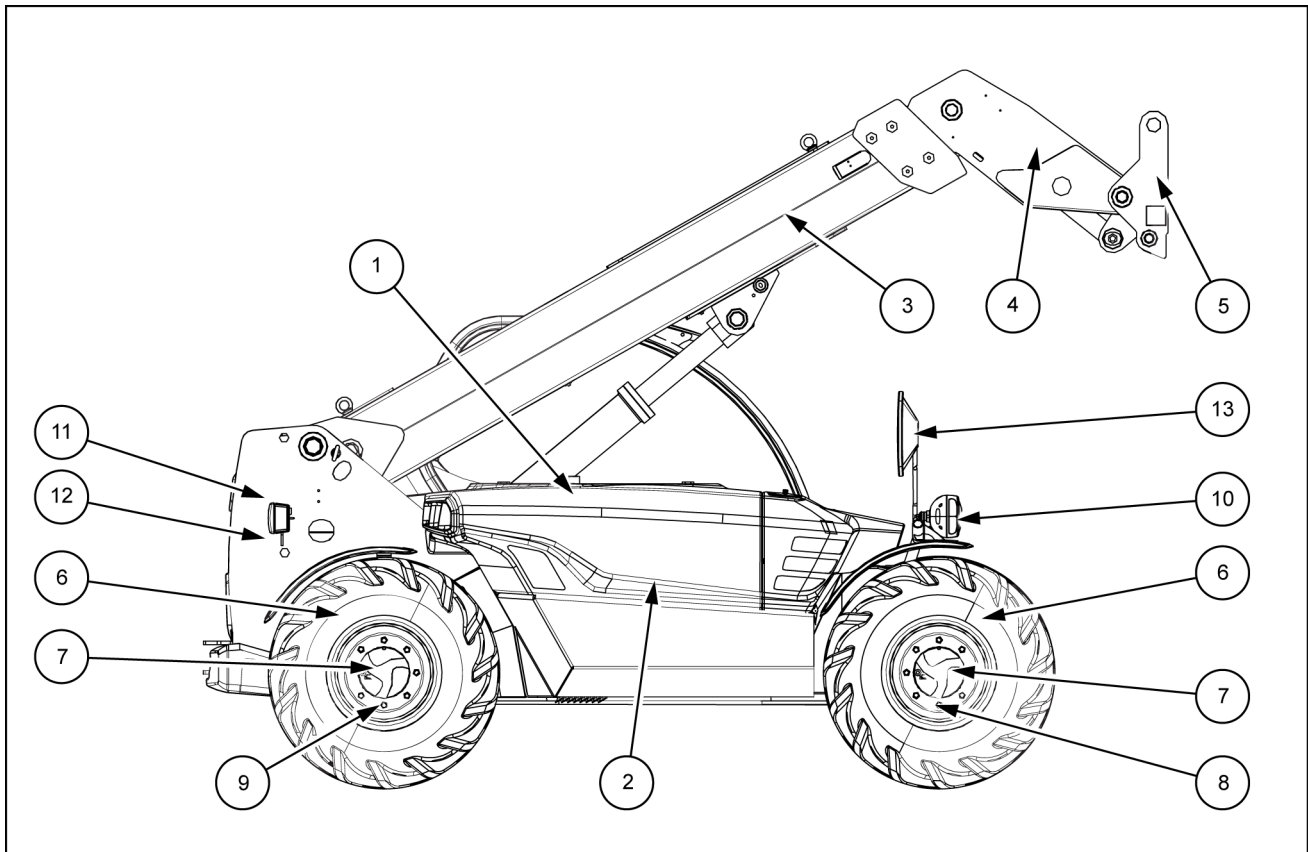
TULI12WEX2004AA 1



TULI12WEX2005AA 2

Product identification

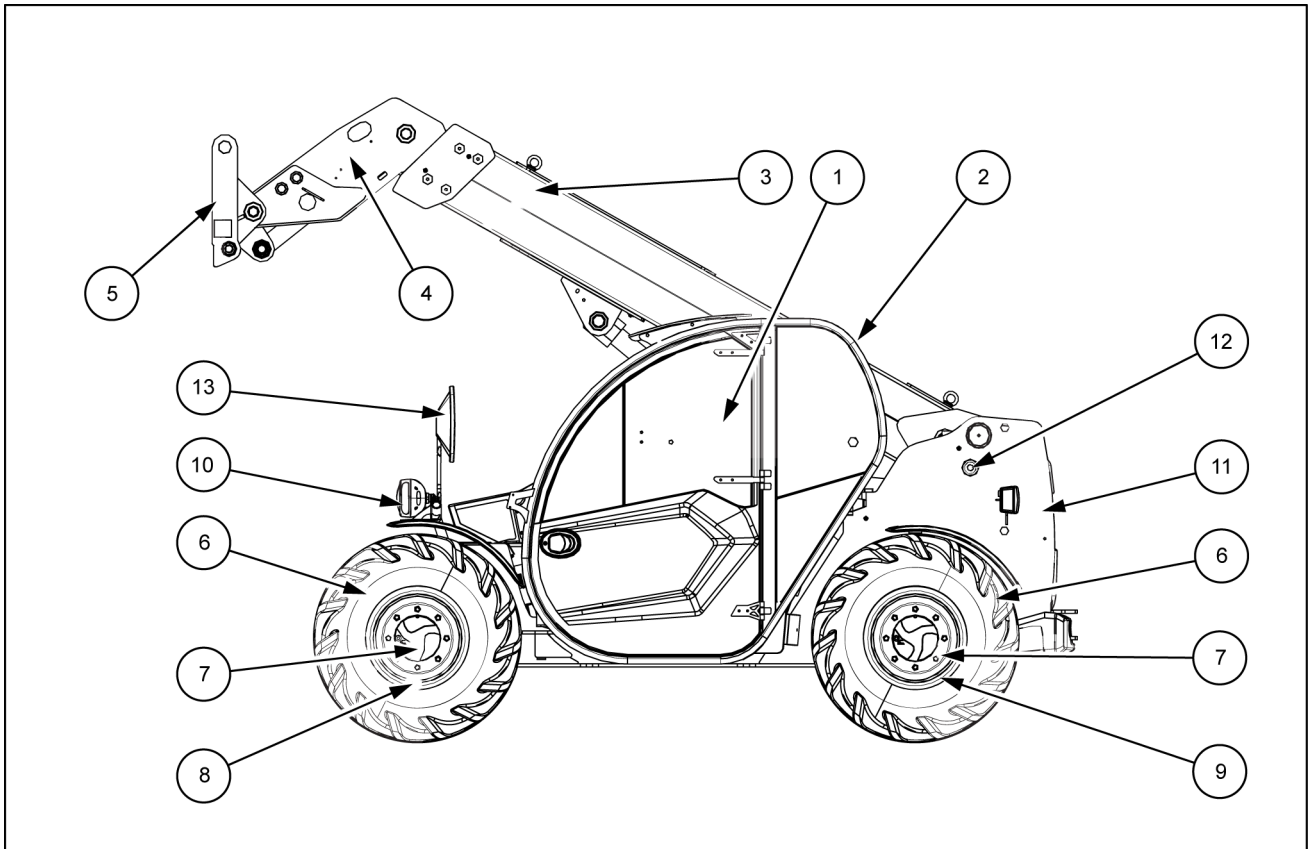
Machine right-hand side



LEIL14TLH0299FB 1

1. Muffler
2. Engine bonnet
3. Telescopic boom
4. Boom head
5. Implement carrier plate
6. Wheel
7. Epicyclic reduction gear
8. Front axle
9. Rear axle
10. Right-hand front headlight
11. Right-hand rear headlight
12. Rear hydraulic ports (optional)
13. Rearview mirror

Machine left-hand side



LEIL14TLH0300FB 2

1. Cab
2. Air conditioning radiator (optional)
3. Telescopic boom
4. Boom head
5. Implement carrier plate
6. Wheel
7. Epicyclic reduction gear
8. Front axle
9. Rear axle
10. Left-hand front headlight
11. Left-hand rear headlight
12. Safety rod for boom support
13. Rearview mirror



SERVICE MANUAL

Engine

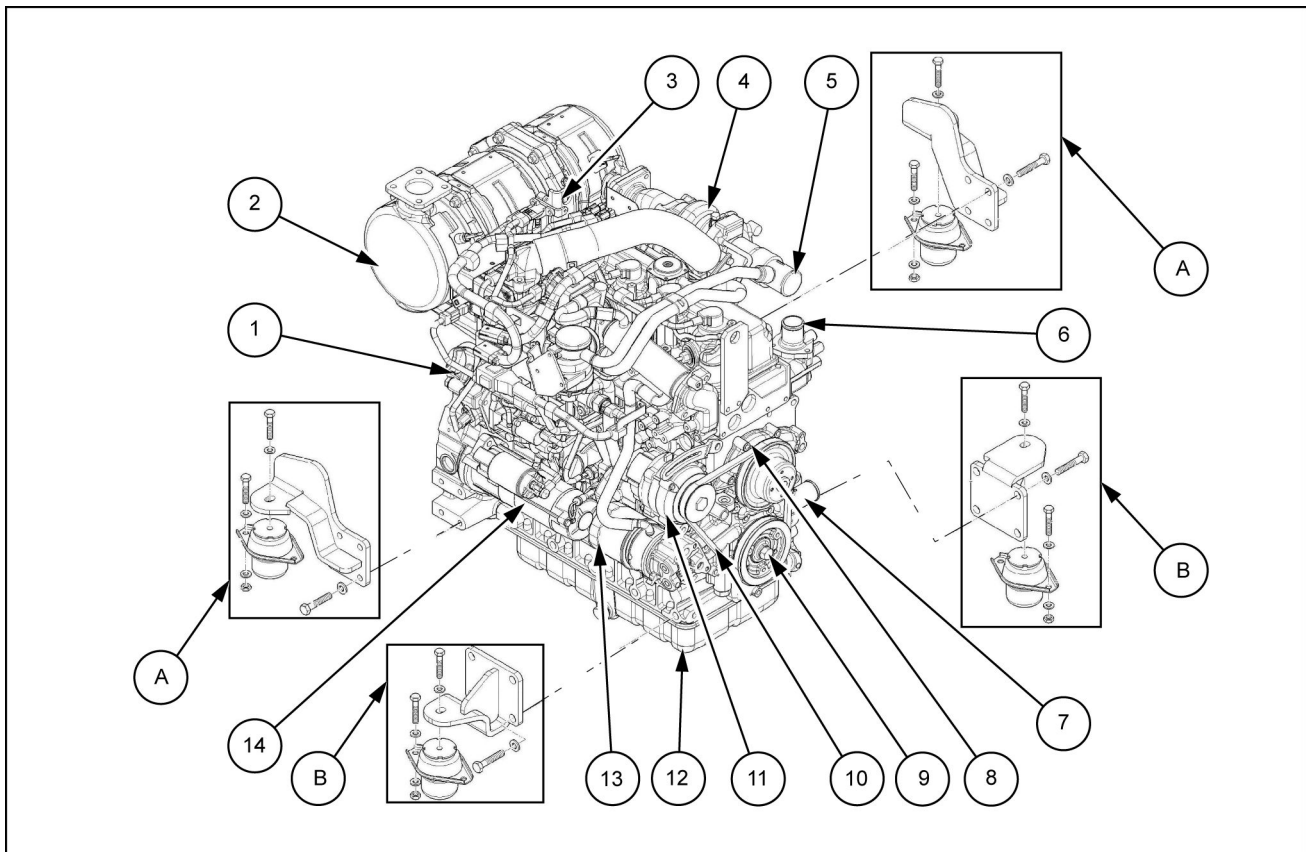
Farmlift 525

Engine - General specification

Main engine specifications

Model	KUBOTA
Maximum power	51.1 kW (69.5 Hp)
RPM	2500 RPM
Operation	4-stroke diesel
Injection	Direct Electronic
Number of cylinder and layout	4, vertical in line
Displacement	3319 cm³ (203 in³)
Fuel	Diesel
Specific consumption at 2500 RPM	248 g/kWh
Engine	Turbocharged
Cooling	Liquid cooling system
Max speed	34 km/h (21.1 mph)
Fuel tank capacity	80 L (21.1 US gal)

Engine - Overview



LEIL14TLH0705F 1

- | | |
|-------------------------------------|------------------------------------------------|
| 1. Engine | 9. Crankshaft pulley |
| 2. Catalyst | 10. Belt |
| 3. Lifting eye | 11. Alternator |
| 4. Turbocharger | 12. Oil sump |
| 5. Connection for air intake filter | 13. Oil filter |
| 6. Connection for water inlet | 14. Starter motor |
| 7. Connection for water output | A. Rear engine support - rear shock absorber |
| 8. Water pump | B. Front engine support - front shock absorber |

Engine - Service instruction

See the engine manual to perform maintenance on the engine.

- For fuel filter (2) replacement and for fuel prefilter (3) replacement: refer to the engine manual.
- For engine oil filter (4) replacement: refer to the engine manual.
- To do the inspection and adjustment of the belt (1): check that the belt has no tears, cracks or signs of rubbing; if in doubt, install a new belt.

Make sure the belt fits properly on the pulleys and the tensioner works correctly.

NOTICE: If the belt does not seem to be in good conditions, replace it with a new one.

- To do the check and the refill of the engine oil: check the oil level positioning the machine in a flat ground and switch off the engine.

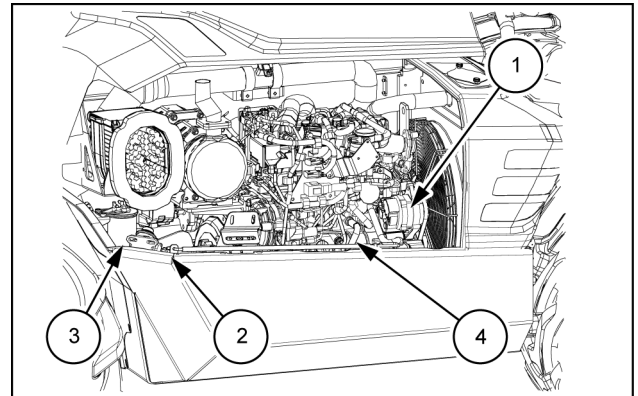
Wait at least 5 minute, to allow the oil to set in the sump.
Take out the dipstick (1), clean it and put it all the way back in.

Remove the dipstick again and check that the oil level is between the "MIN" and "MAX" notches. Insert the dipstick again.

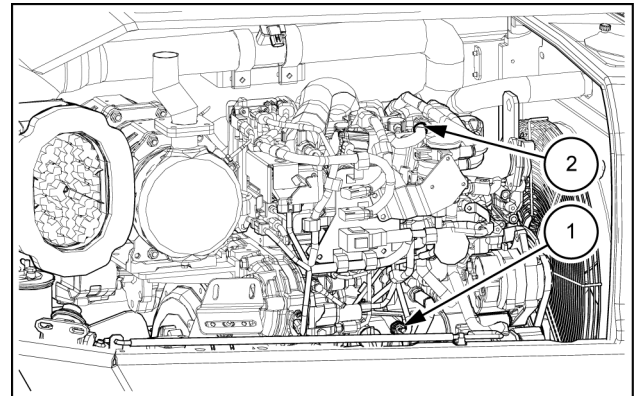
If necessary, add oil **CASE IH AKCELA UNITEK 10W-40** through the cap (2).

NOTICE: Do not top-up above the "MAX" notch. If topped up excessively, the oil is burnt and smoke is produced.

NOTICE: Never use the engine if the oil is below the "MIN" notch.



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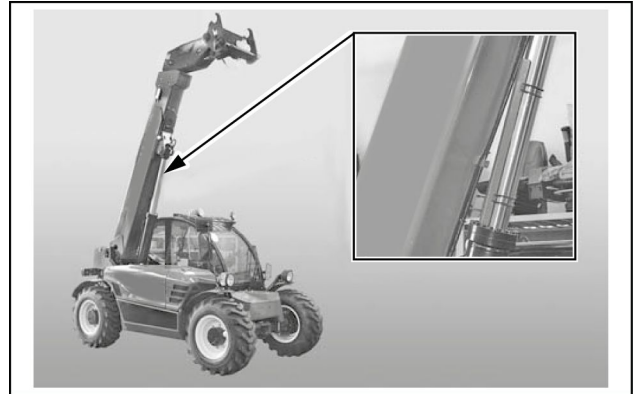


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Engine - Remove

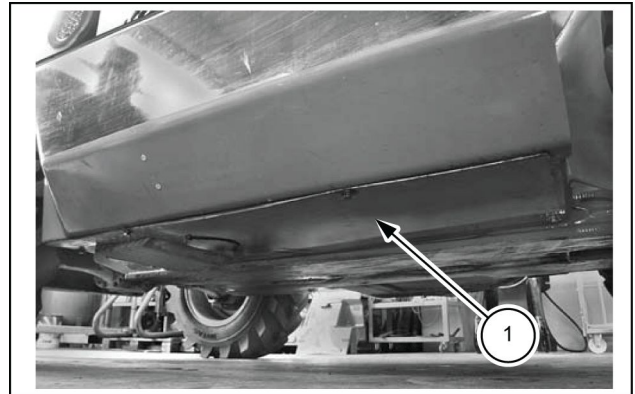
Position the machine on a flat surface. Raise completely the boom. Lock the boom with the safety device. Position the battery master switch to OFF position. Remove the key switch.

1. Remove the engine hood. Refer to **Engine hood - Remove (90.105)**



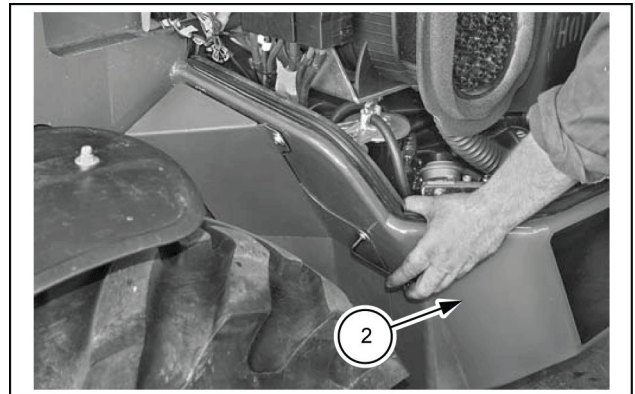
LEIL14TLH1177AA 1

2. Remove the lower protective cover (1)
3. Drain the cooling system (quantity **12.0 L (3.2 US gal)**)
4. Drain the hydraulic oil (quantity **92.0 L (24.3 US gal)**).



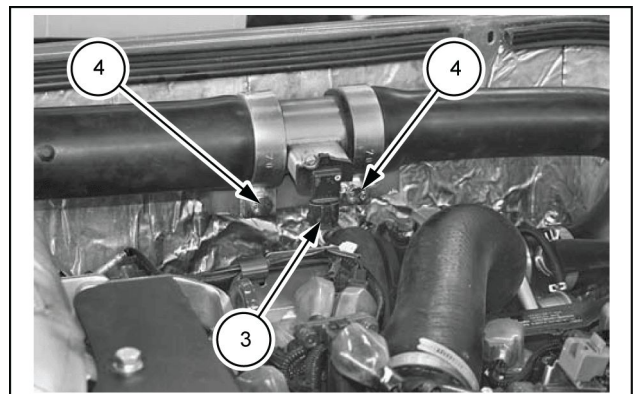
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5. Remove the rear cover (2).



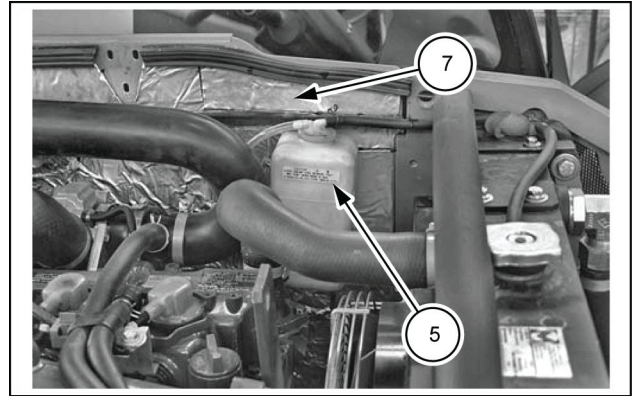
LEIL14TLH0778AB 3

6. Disconnect the connector of the air pressure sensor (3) X746. Remove the screws (4) of the clamps.



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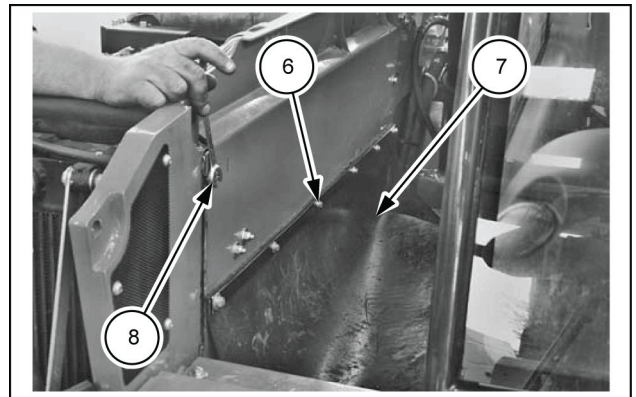
7. Remove the coolant tank (5) from the bulkhead (7).



LEIL14TLH0780AB 5

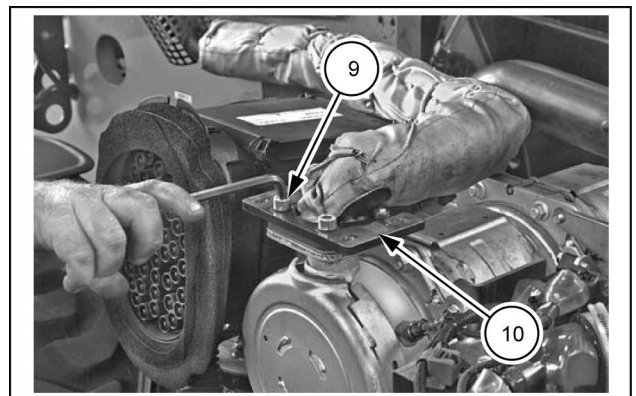
8. Remove the six screws (6) to remove the bulkhead (7).

9. Remove the six screws (8).



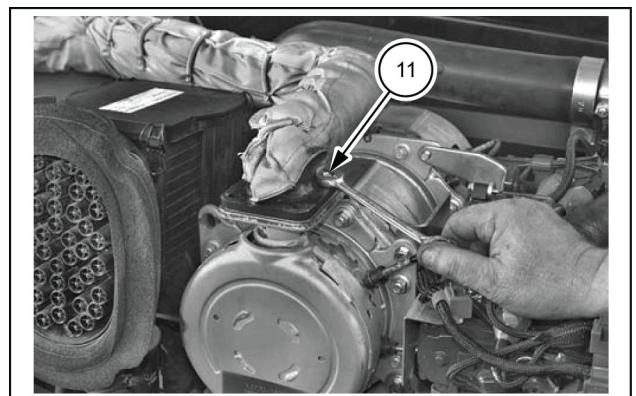
LEIL14TLH0781AB 6

10. Remove the screws (9) to remove the bracket (10).



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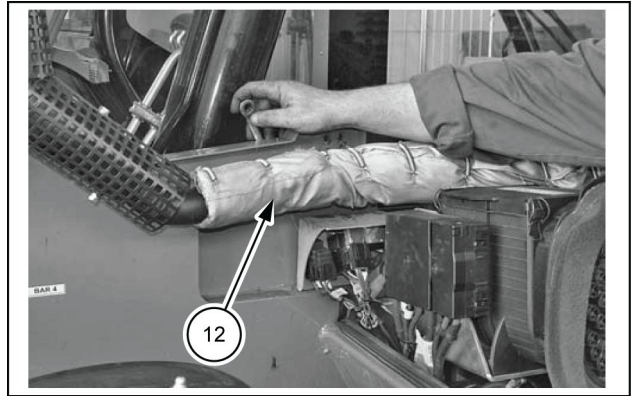
11. Remove the screws and the nuts (11).



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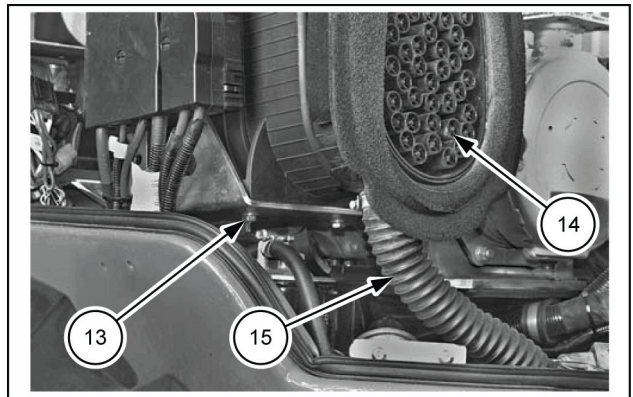
12. Remove the muffler (12).

NOTICE: do not discard the sheath.



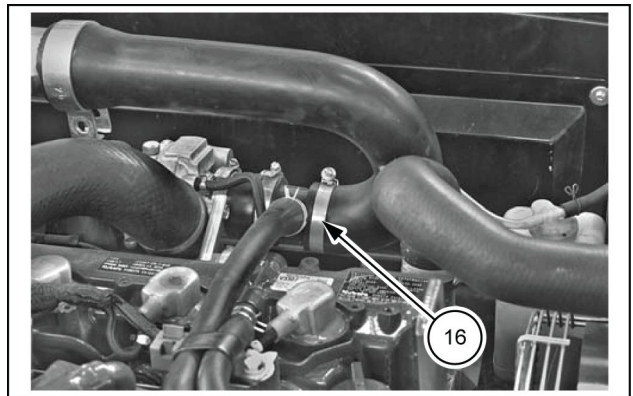
LEIL14TLH0784AB 9

13. Remove the screws (13) of the air filter (14). Disconnect the hose (15).



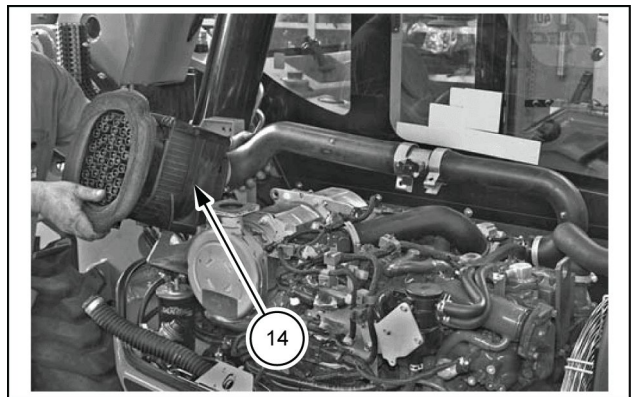
LEIL14TLH0785AB 10

14. Loosen the clamp (16).



LEIL14TLH0786AB 11

15. Remove the air filter (14) and the hoses.



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Suggest:

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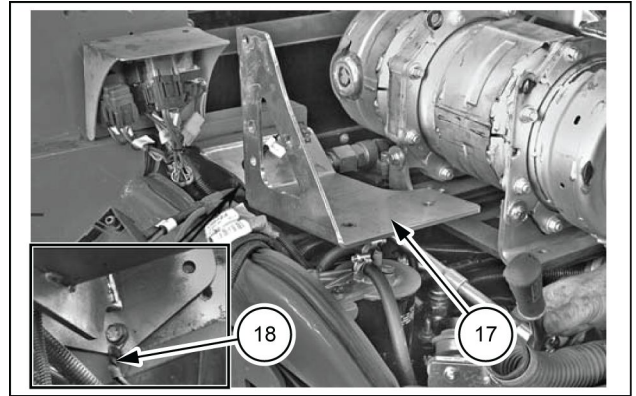
first, and then click the above link

to download the complete manual.

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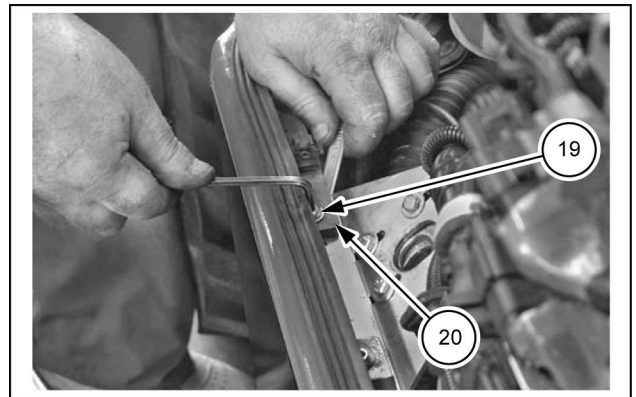
16. Remove the three screws. Remove the bracket (17).

NOTICE: mark the fixing of the ground cable (18).



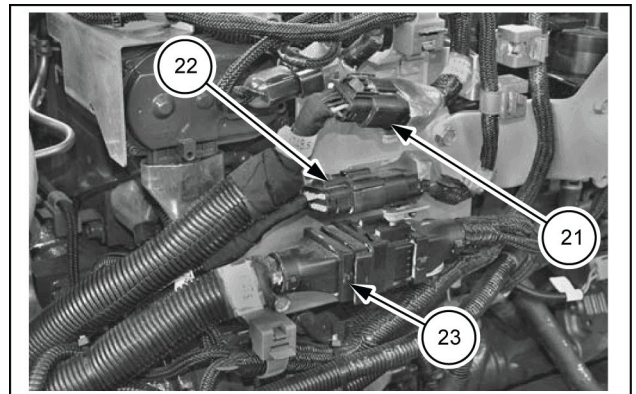
LEIL14TLH0788A 13

17. Remove the three screws (19). Move sideways the lock (20) of the engine hood.



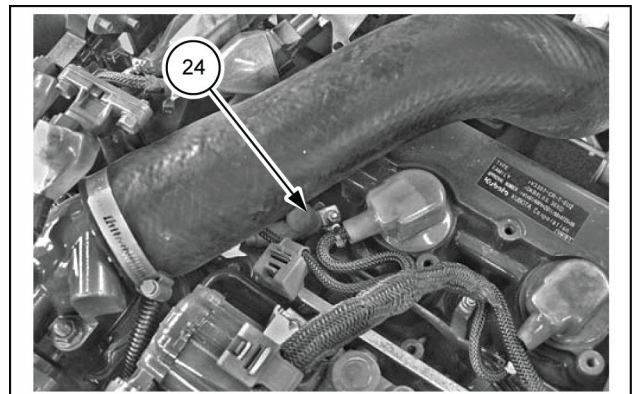
LEIL14TLH0789AB 14

18. Disconnect the connectors (21) X748.5, (22) X747.5 and (23) X749.5 of the engine.



LEIL14TLH0790AB 15

19. Disconnect the preheating connector X533 (24). Recover the hose of the intake air sensor.



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