

**Farmlift 632**  
**Farmlift 635**  
**Farmlift 735**  
**Farmlift 742**  
**Farmlift 935**  
**Stage IIIB**  
Telescopic Handler

**SERVICE MANUAL**

Part number 48192604

English

August 2017

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**CASE II**  
AGRICULTURE

## Link Product / Engine

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<b>Product</b>	<b>Market Product</b>	<b>Engine</b>
Farmlift 632 telehandler 6m 120 HP	Europe	F4HFE413C*A
Farmlift 635 Telehandler 6m 140 hp	Europe	F4HFE413J*A
Farmlift 735 Telehandler 7m 120 HP - Dump Angle Increased [FNHZF735NGKC35101 - ]	Europe	F4HFE413C*A
Farmlift 742 Telehandler 7m 140 HP	Europe	F4HFE413J*A
Farmlift 935 Telehandler 10m 120 HP	Europe	F4HFE413C*A

# Contents

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## INTRODUCTION

<b>Engine.....</b>	<b>10</b>
[10.001] Engine and crankcase .....	10.1
[10.218] Fuel injection system.....	10.2
[10.202] Air cleaners and lines .....	10.3
[10.254] Intake and exhaust manifolds and muffler .....	10.4
[10.400] Engine cooling system .....	10.5
[10.304] Engine lubrication system.....	10.6
<b>Transmission.....</b>	<b>21</b>
[21.113] Powershift transmission .....	21.1
[21.135] Powershift transmission external controls.....	21.2
[21.155] Powershift transmission internal components.....	21.3
[21.120] Gearbox .....	21.4
[21.700] Torque converter .....	21.5
<b>Four-Wheel Drive (4WD) system .....</b>	<b>23</b>
[23.314] Drive shaft.....	23.1
<b>Front axle system .....</b>	<b>25</b>
[25.100] Powered front axle .....	25.1
[25.102] Front bevel gear set and differential .....	25.2
[25.108] Final drive hub, steering knuckles, and shafts .....	25.3
<b>Rear axle system.....</b>	<b>27</b>
[27.100] Powered rear axle.....	27.1
[27.106] Rear bevel gear set and differential .....	27.2
<b>Brakes and controls .....</b>	<b>33</b>
[33.202] Hydraulic service brakes .....	33.1
[33.110] Parking brake or parking lock .....	33.2

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[33.220] Trailer brake hydraulic control.....	33.3
[33.204] Front axle brake.....	33.4
<b>Hydraulic systems.....</b>	<b>35</b>
[35.000] Hydraulic systems.....	35.1
[35.104] Fixed displacement pump.....	35.2
[35.106] Variable displacement pump.....	35.3
[35.359] Main control valve.....	35.4
[35.357] Pilot system.....	35.5
[35.128] Auxiliary hydraulic function control.....	35.6
[35.752] Hydraulic fan drive cooling system.....	35.7
[35.100] Main lift system.....	35.8
[35.701] Front loader arm hydraulic system.....	35.9
[35.736] Boom hydraulic system.....	35.10
[35.734] Tool quick coupler hydraulic system.....	35.11
[35.740] Telescopic arm hydraulic system.....	35.12
<b>Steering.....</b>	<b>41</b>
[41.101] Steering control.....	41.1
[41.200] Hydraulic control components.....	41.2
[41.216] Cylinders.....	41.3
<b>Cab climate control.....</b>	<b>50</b>
[50.104] Ventilation.....	50.1
[50.200] Air conditioning.....	50.2
<b>Electrical systems.....</b>	<b>55</b>
[55.100] Harnesses and connectors.....	55.1
[55.201] Engine starting system.....	55.2
[55.301] Alternator.....	55.3
[55.011] Fuel tank system.....	55.4
[55.512] Cab controls.....	55.5

[55.404] External lighting .....	55.6
[55.514] Cab lighting .....	55.7
[55.408] Warning indicators, alarms, and instruments .....	55.8
[55.DTC] FAULT CODES.....	55.9
<b>Telescopic single arm .....</b>	<b>83</b>
[83.122] Telescopic arm .....	83.1
<b>Platform, cab, bodywork, and decals .....</b>	<b>90</b>
[90.150] Cab.....	90.1



# 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**

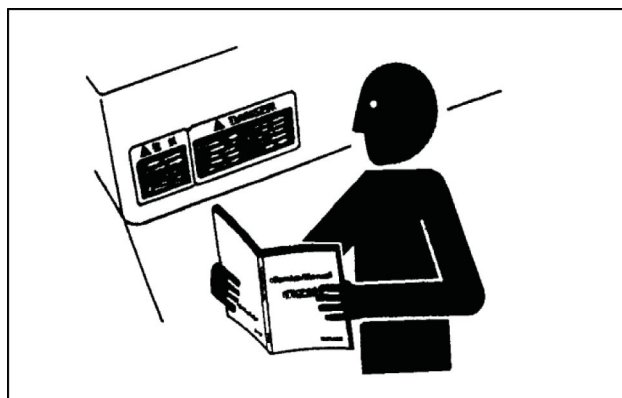
**Unexpected movement!**

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

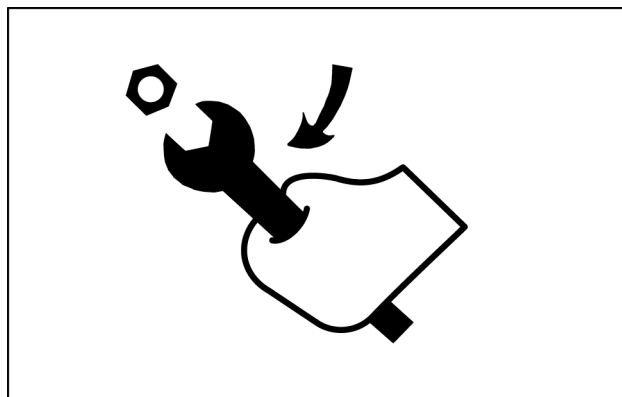
**Failure to comply will result in death or serious injury.**

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.

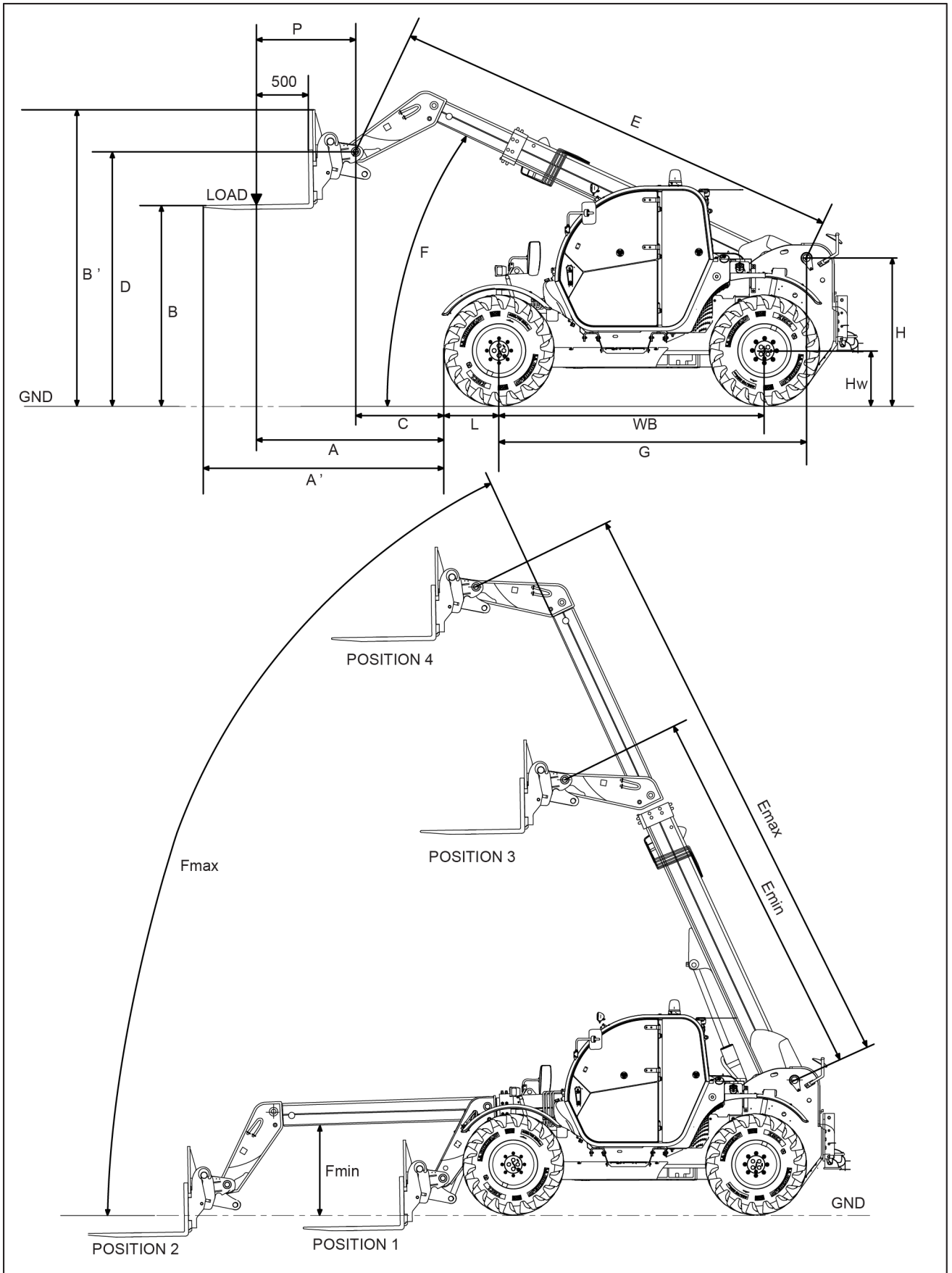


TULI12WEX2004AA 1



TULI12WEX2005AA 2

Lifting Dimensions



LEIL13TLH1387HA 4



# **SERVICE MANUAL**

## **Engine**

**Farmlift 632  
Farmlift 635  
Farmlift 735  
Farmlift 742  
Farmlift 935**

## Engine - General specification

Characteristics	NEF (New Engine Family), 4 cylinder, emission compliant to Tier4 specification
	Direct Injection – High Pressure
	Common Rail System
	Turbocharged
	Full flow engine oil filter
	Pre-fuel filter with water separator
	Aspirated air cleaner – Replaceable dry type with radial seal
	Muffler – Selective Catalyst Reducer (SCR)
	Fuel Tank – capacity <b>140 L</b>
	<b>DEF/AdBLUE®</b> Tank- capacity <b>32 L</b>
	Radiator with expansion bottle
	Antifreeze: - <b>37 °C</b>
Throttle, foot: - Self-adjusting belt tensioner - Balanced Engine	
Bore and stroke	<b>104 mm (4.09 in) x 132 mm (5.20 in)</b>
Displacement	<b>4.5 L (274 in<sup>3</sup>)</b>
Compression Ratio	17:1
Number of cylinders (firing order)	4 (1-3-4-2)
Injection pressure pump type	Bosch Cp 3.3
Revolution (from Flywheel side)	Counterclockwise

### Power

	FARMLIFT 632 – FARMLIFT 735– FARMLIFT 935	FARMLIFT 635 – FARMLIFT 742
Rated Power	<b>81 kW at 2200 RPM</b>	<b>96 kW at 2200 RPM</b>
Peak Power	<b>89 kW at 1800 RPM</b>	<b>105 kW at 1900 RPM</b>
Peak Torque	<b>498 N·m at 1500 RPM</b>	<b>590 N·m at 1500 RPM</b>

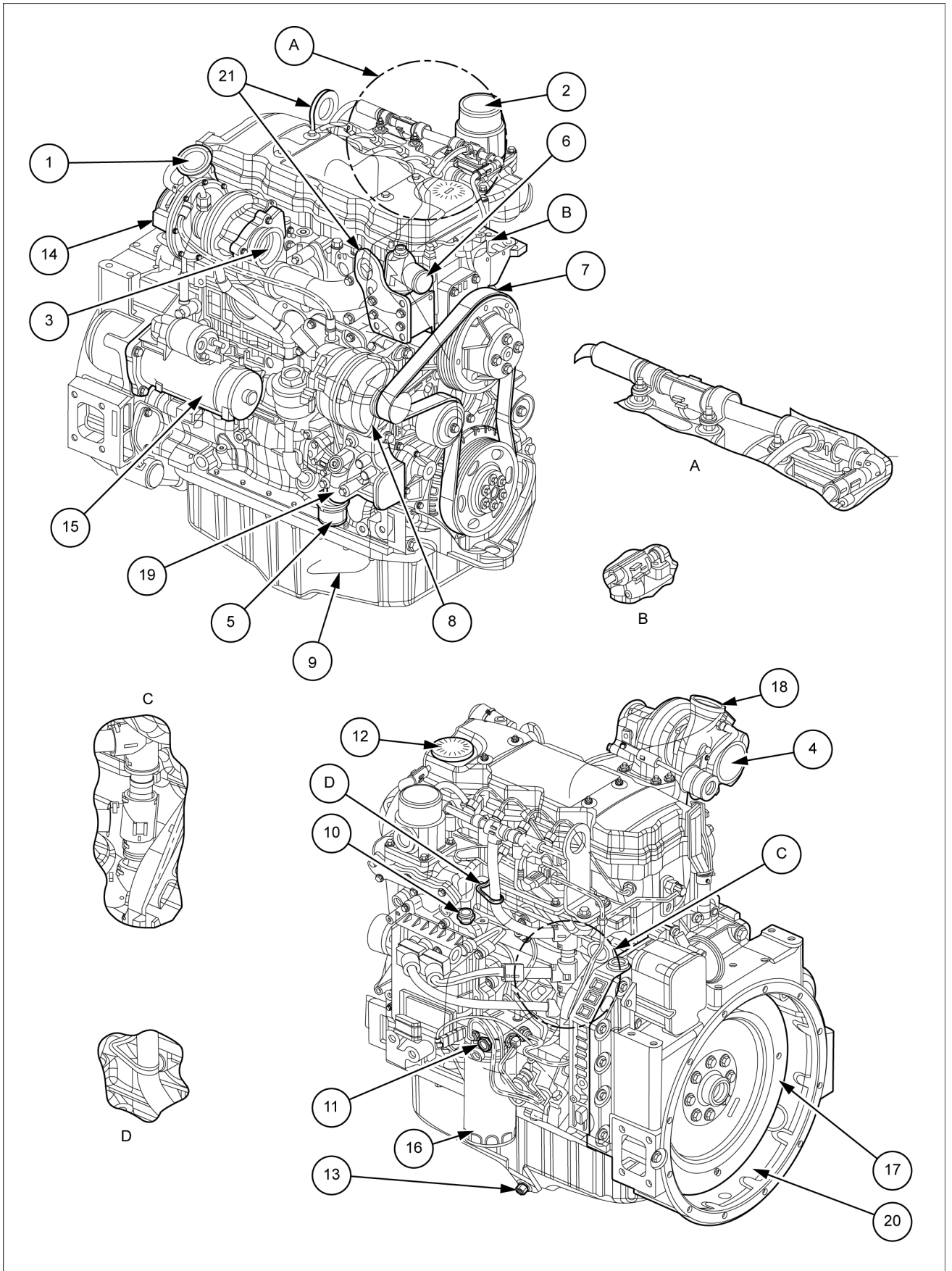
### Engine speeds

Rated speed – full load	<b>2200 RPM</b>
Low Idle speed at no load	<b>1025 – 1075 RPM</b>
High Idle speed at no load (Engine not installed)	<b>2280 – 2380 RPM</b>

### Stall

	FARMLIFT 632 – FARMLIFT 735– FARMLIFT 935	FARMLIFT 635 – FARMLIFT 742
Torque Converter Stall	<b>1960 – 2020 RPM</b>	<b>2110 – 2170 RPM</b>
Hydraulic Stall	<b>2200 – 2300 RPM</b>	<b>2250 – 2350 RPM</b>
Combined Stall	<b>1570 – 1630 RPM</b>	<b>1820 – 1880 RPM</b>

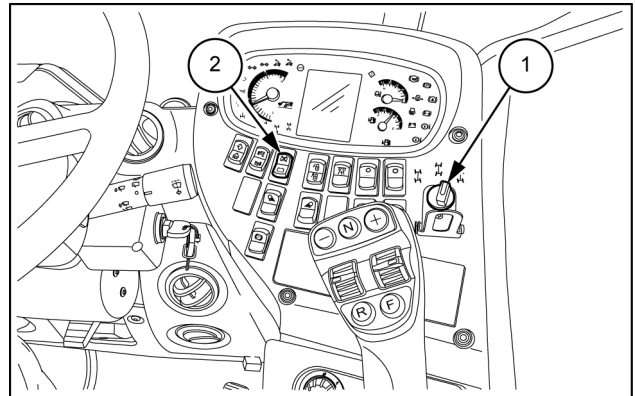
Engine - Engine and crankcase



LEIL14TLH1060H 1

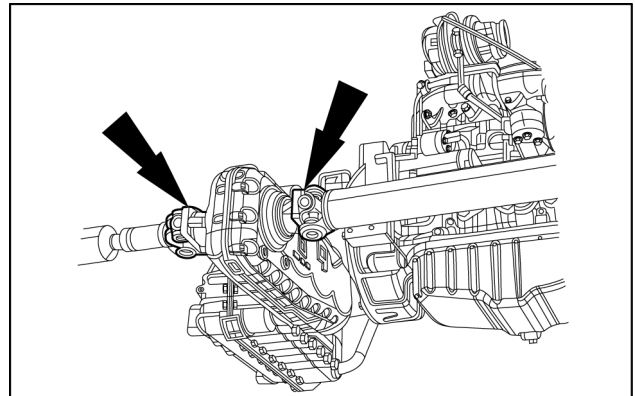
## Engine - Remove

Place the machine on a flat surface.  
 Turn the Steering Mode selector **(1)** to 4WS (Four Wheel Steering) mode (left side positions).  
 Steer the wheels fully to the left side.  
 Turn off the engine, and disconnect the batteries from the button **(2)**.  
 Apply the label "DO NOT START" to the starting key.



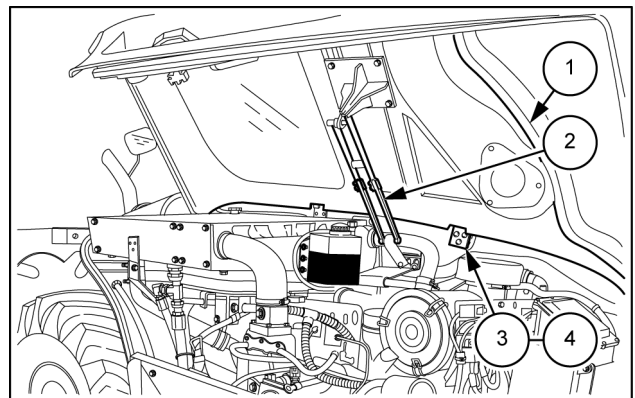
LEIL13TLH0987AB 1

Loosen and remove the bolts and straps that fasten the rear and front drive shaft transmission.  
 Disconnect the drive shaft from transmission.



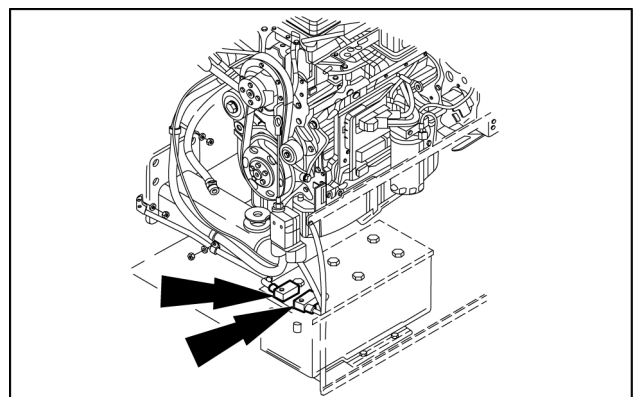
LEIL13TLH0949AB 2

Drain the hydraulic oil (see Operator's manual).  
 Drain the oil transmission (see Operator's manual).  
 Raise the engine hood **(1)**. Attach a suitable lifting device and support the engine hood.  
 Release the top of the engine hood **(1)** by the lift cylinders **(2)**.  
 Loosen and remove the hinges hood mounting bolts **(3)** and **(4)**. Remove the engine hood **(1)** from the machine.  
 Open the battery compartment and disconnect the battery from the machine.



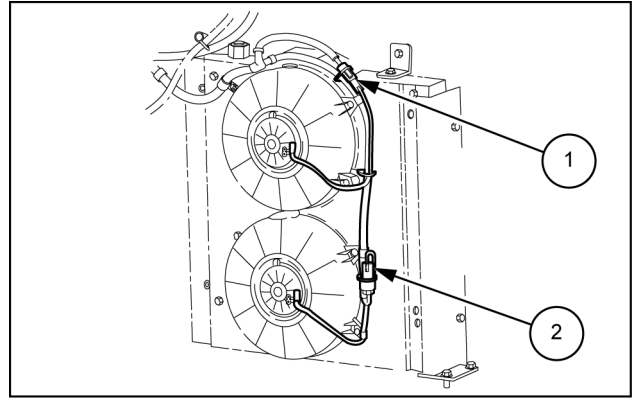
LEIL13TLH0950AB 3

Disconnect the ground cable from the frame.



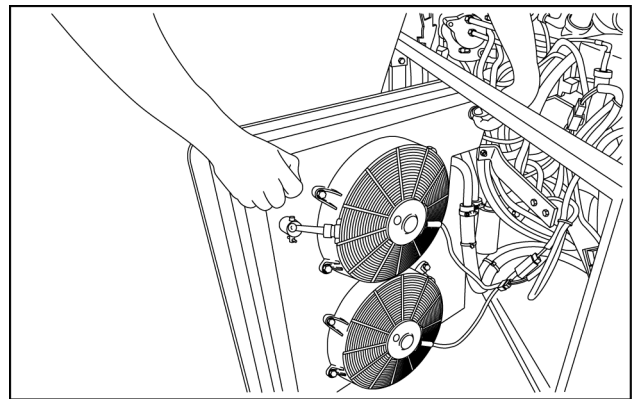
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Open the secondary cooling package cover (side transmission) and remove the two wiring harness (1) and (2) from the fan cooling.



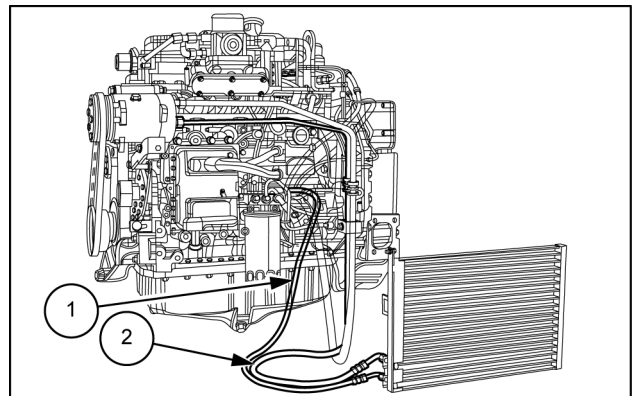
LEIL13TLH0952AB 5

Loosen the knobs and access to the radiators.



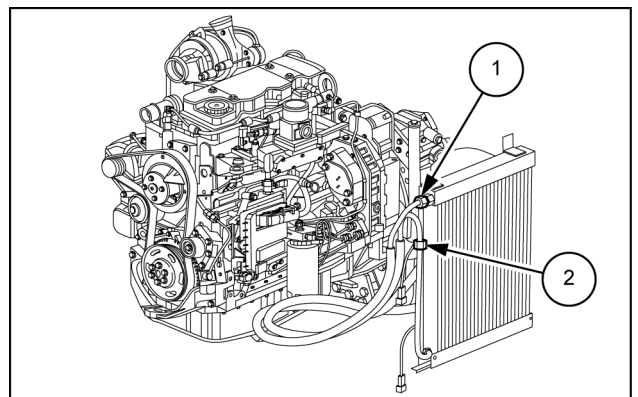
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Drain the air conditioning system (optional) and disconnect the condenser hoses (1) and (2) from the condenser then remove them.



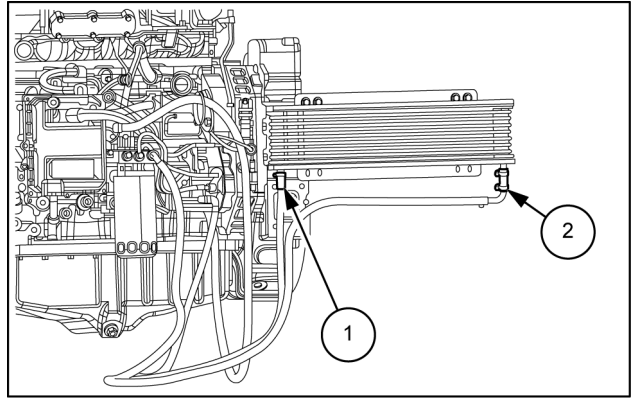
LEIL13TLH0954AB 7

Disconnect the hoses (1) and (2) from the transmission oil cooler (radiator side).



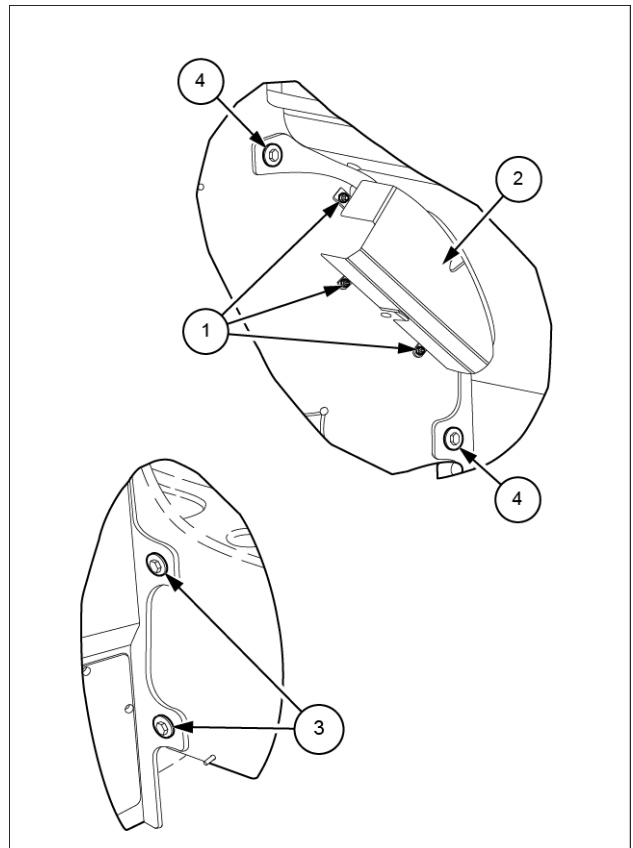
LEIL13TLH0955AB 8

Disconnect two hoses **(1)** and **(2)** from the fuel cooling radiator.



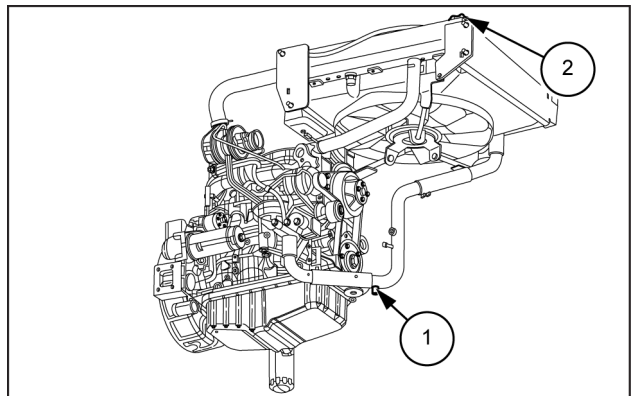
LEIL13TLH0956AB 9

Loosen the screws **(1)** and remove the DEF/ADBLUE® injectors cover **(2)** located behind the rear fender. Loosen the securing bolts **(3)** and **(4)** and washers from machine. Remove the engine cover and pulling to the side. Place a suitable container below radiator drain.



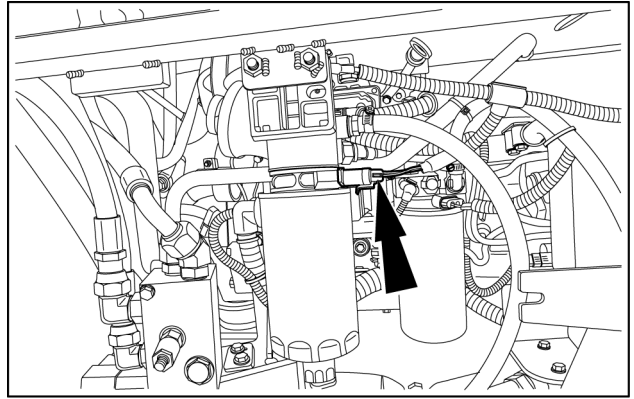
LEIL13TLH0958BB 10

Remove drain cap **(1)** and drain the engine coolant. To facilitate the discharge remove the introduction radiator cap **(2)** of the liquid radiator. Install the drain plug and radiator cap after coolant has drained.



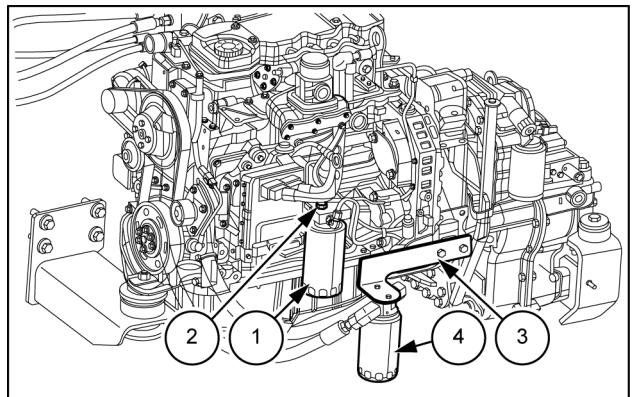
LEIL13TLH0959AB 11

Disconnect the wiring harness from fuel filter sensor.



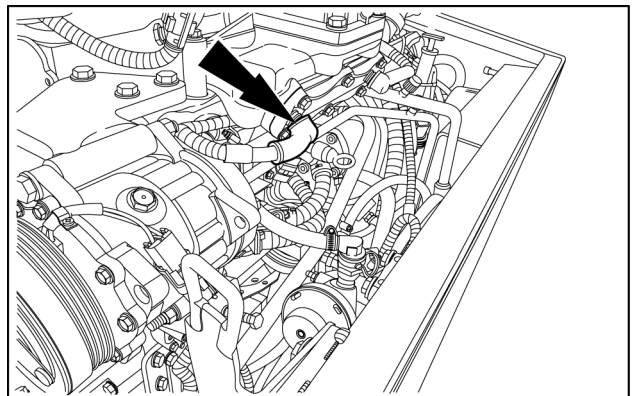
LEIL13TLH0990AB 12

Disconnect the fuel line hose from fuel filter.  
Loosen the screw (2) and remove the fuel filter (1) with support bracket from the frame.  
Loosen the screw (3) and remove the hydraulic oil filter (4) from the engine.



LEIL13TLH0960AB 13

Tag and remove the grid heater cable.



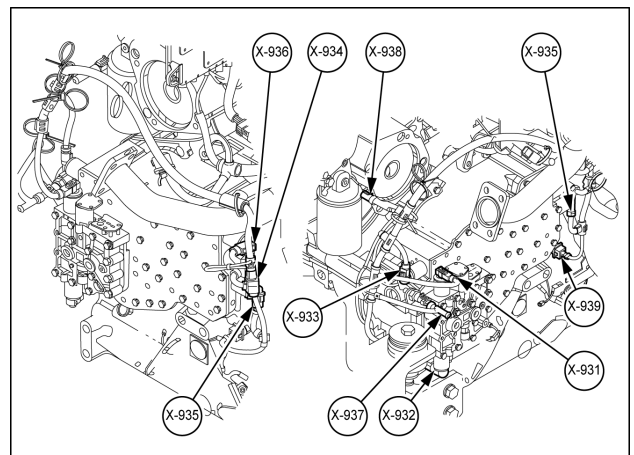
LEIL13TLH0989AB 14

Tag and disconnect the connectors of the engine wiring harness as listed below:

- (X-936)
- (X-934)
- (X-935)

Tag and disconnect the connectors of the transmission wiring harness listed below:

- (X-939)
- (X-931)
- (X-938)
- (X-933)
- (X-937)
- (X-932)



LEIL13TLH0961BB 15



**Suggest:**

**If the above button click is invalid.**

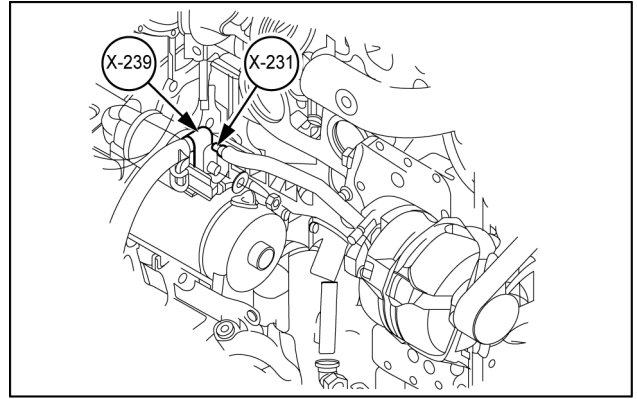
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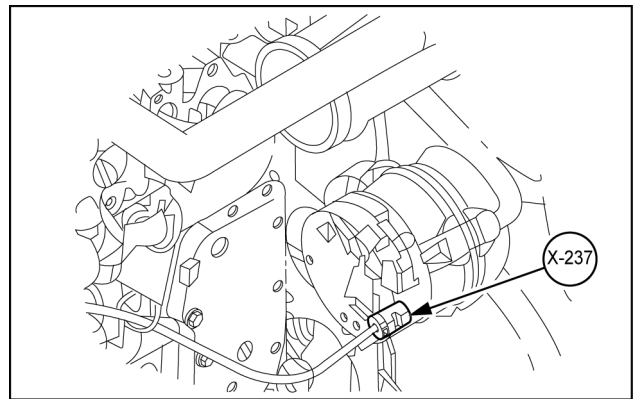
**Thank you so much for reading**

Tag and disconnect the wiring harness connectors (X-239) and (X-231) from the starter.



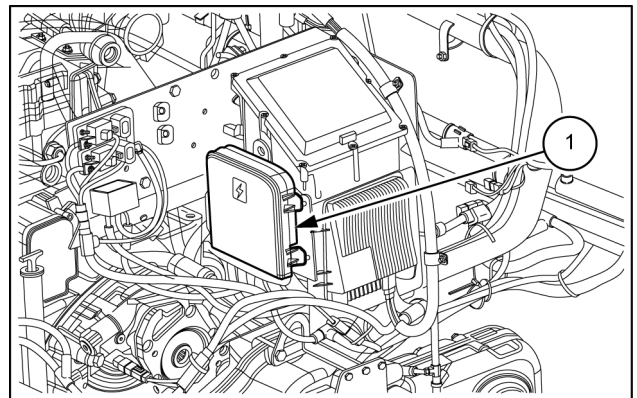
LEIL13TLH0986AB 16

Tag and disconnect the wiring harness connector (X-237) from the alternator.



LEIL13TLH0962AB 17

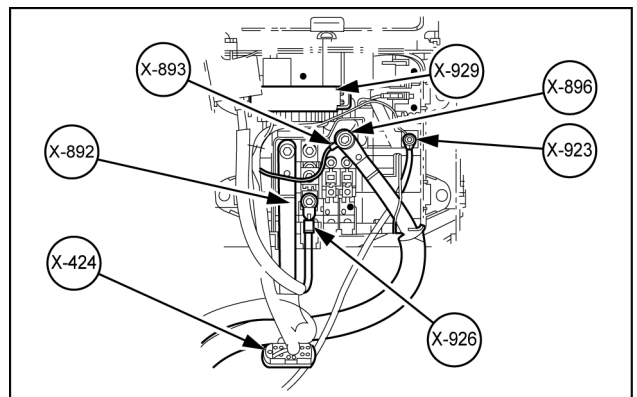
Open the fuse cover (1).



LEIL13TLH0963AB 18

Tag and disconnect the connector of the electrical wiring harness as listed below:

- (X-986)
- (X-923)
- (X-926)
- (X-892)
- (X-893)
- (X-929)



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