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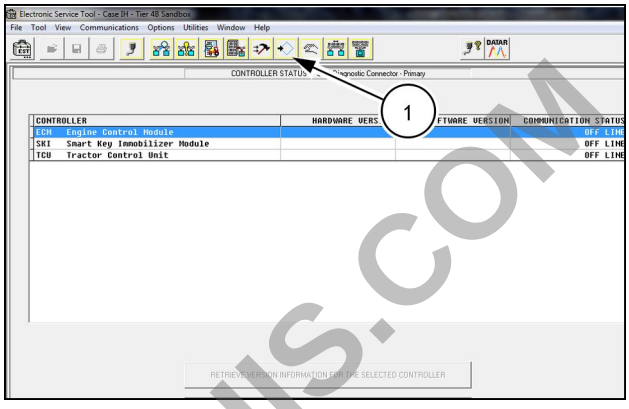
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Exhaust Gas Recirculation (EGR) valve - Configure - Reset ECU data (EGR valve)

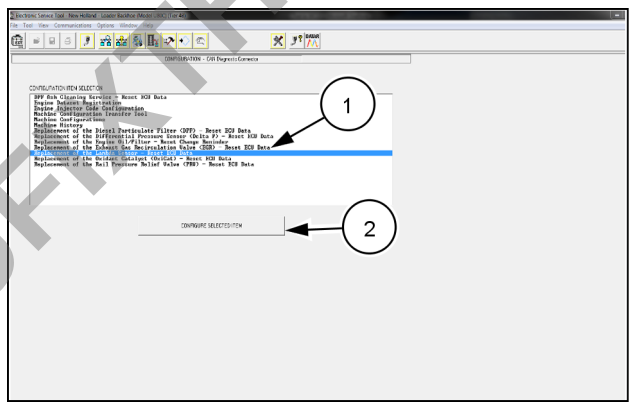
NOTE: *Active dosing faults require additional key cycles in order for the Engine Control Unit (ECU) to determine the fault has been repaired. Afterrun must be completed between each key cycle.*

1. Connect the Electronic Service Tool (EST) and turn the key switch ON without starting the engine.
2. Click the “Configuration” icon **(1)**.



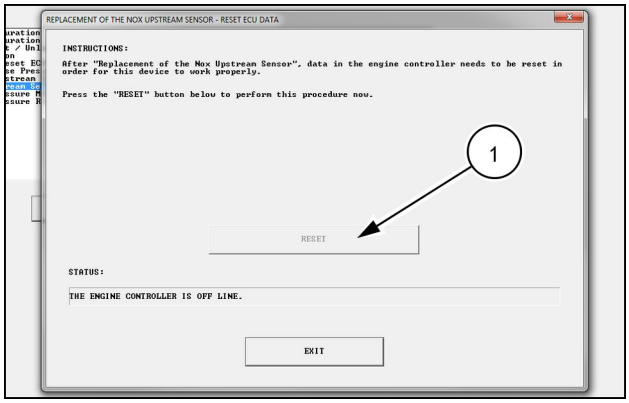
NHPH14ENG0006AA 1

3. Select “Replacement of the EGR valve – Reset ECU Data” **(1)**.
4. Click the “CONFIGURE SELECTED ITEM” button **(2)**.



NHIL15ENG0064AA 2

5. Click the “RESET” button **(1)**.



NHPH14ENG0017AA 3

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FUNCTIONAL DATA

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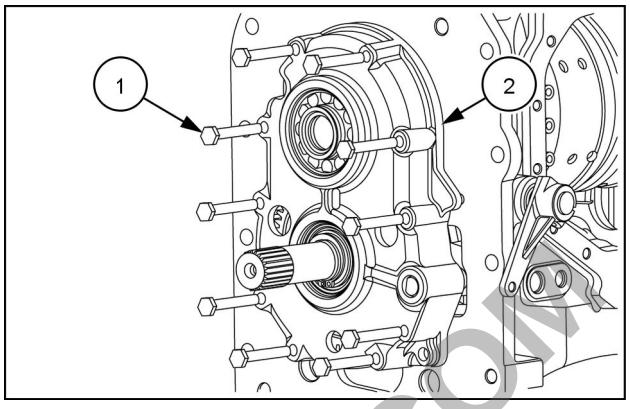
Transmission housing
Remove 23
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Change fluid 36

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20. Tighten the retaining bolts **(1)** on the rear cover **(2)**.

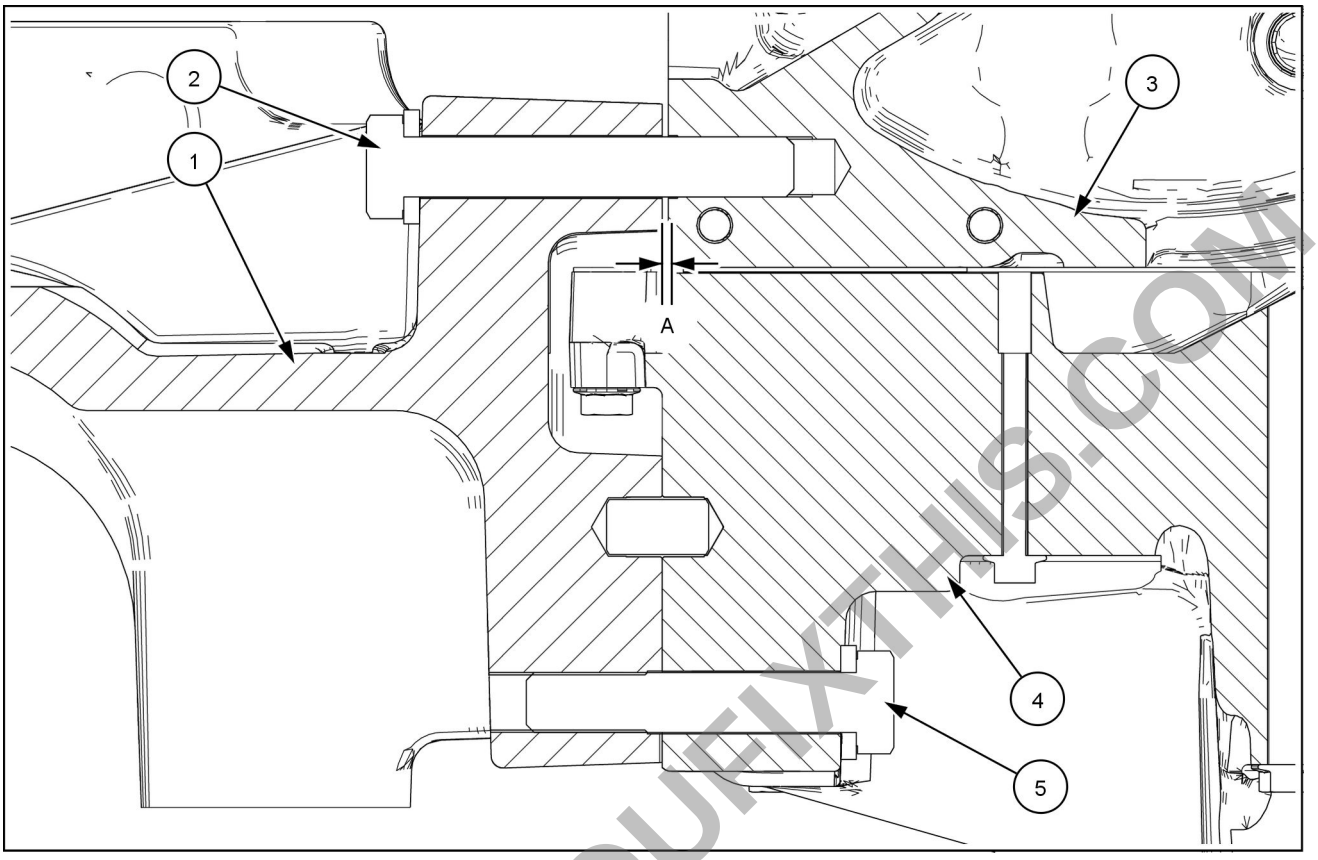


MOIL15TR01051AA 19

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Axle support - Adjust



MOIL16TR01999FA 1

1. Front axle support
2. Upper retaining screw
3. Crankcase
4. Engine oil pan
5. Lower retaining screw

Guide for the correct installation of the front axle support

1. Measure the distance **(A)**.
2. Insert an appropriate shim between the support surface and the crankcase surface.
   (Refer to the table below to select the correct shim)

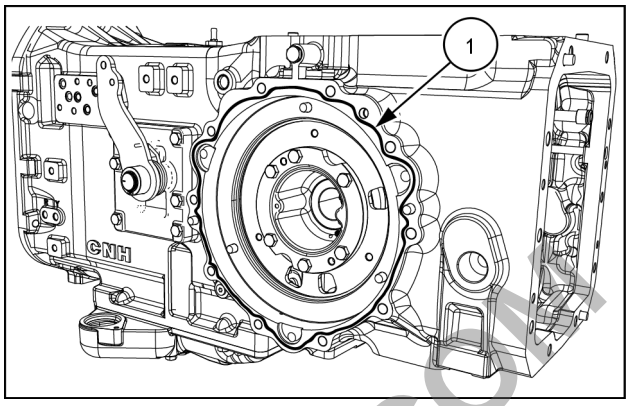
Distance (A)	Shim to insert
1.300 – 1.500 mm (**0.051 – 0.059 in**)	47136468 (1.6 black)
1.510 – 1.700 mm (**0.059 – 0.067 in**)	47128135 (1.8 yellow)
1.710 – 1.900 mm (**0.067 – 0.075 in**)	47128136 (2.0 red)
1.910 – 2.100 mm (**0.075 – 0.083 in**)	47128137 (2.2 green)
2.110 – 2.300 mm (**0.083 – 0.091 in**)	47128138 (2.4 blue)

3. Tighten the screws **(2)** and **(5)** to a torque of **550.0 N·m** (**405.7 lb ft**).

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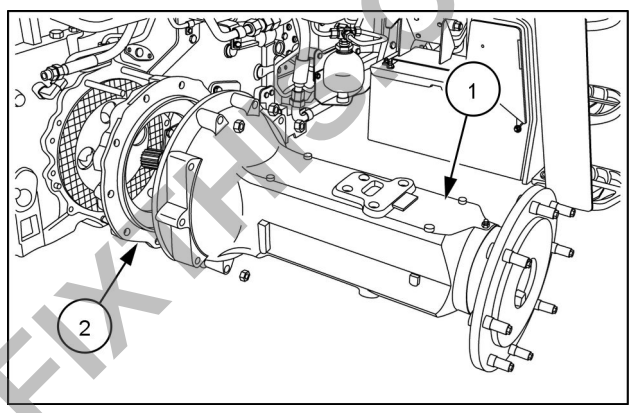
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15. Thoroughly clean the mating surface, then apply a suitable bead of sealing compound **(1)** along the marked line shown in the figure, on both sides.



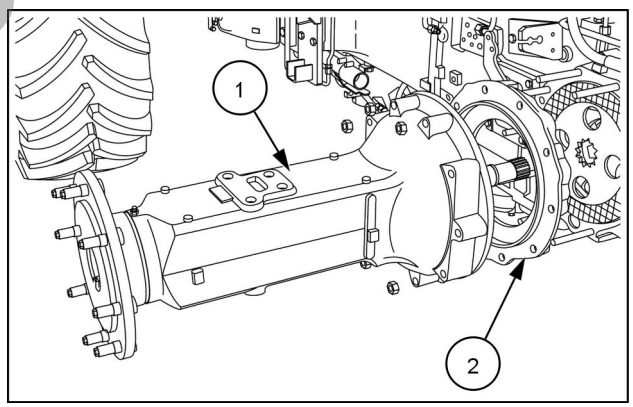
MOIL15TR03269AA 15

16. Mount the spacer **(2)**.
17. Install the right-hand side reduction gear **(1)**, as described in **Final drive housing - Install (27.120)**.



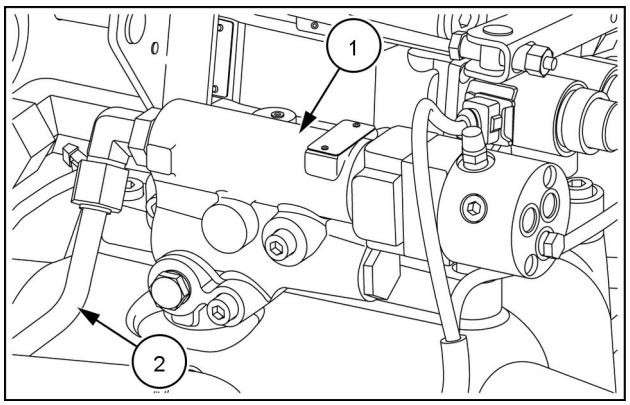
MOIL15TR03259AA 16

18. Mount the spacer **(2)**.
19. Install the left-hand rear reduction gear **(1)**, as described in **Final drive housing - Install (27.120)**.



MOIL15TR03258AA 17

20. If installed, install the trailer hydraulic brake valve **(1)**, as described in **Trailer brake valve - Install (33.220)**, and the line **(2)**.

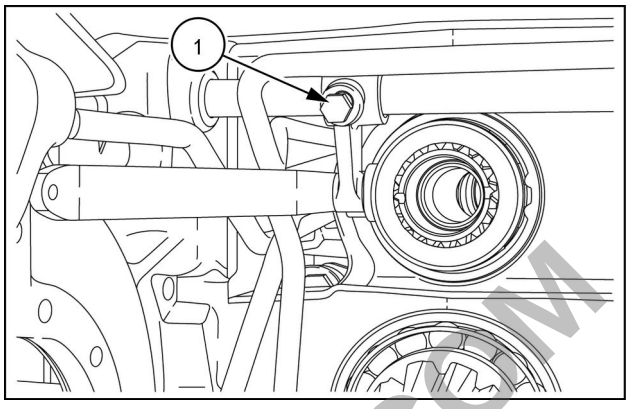


MOIL15TR01936AA 18

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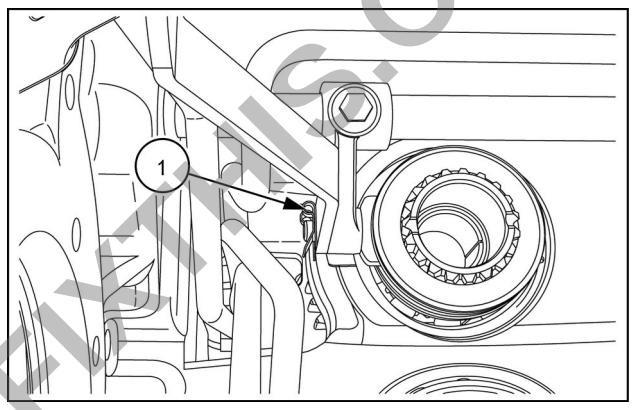
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6. Tighten the screw **(1)**.



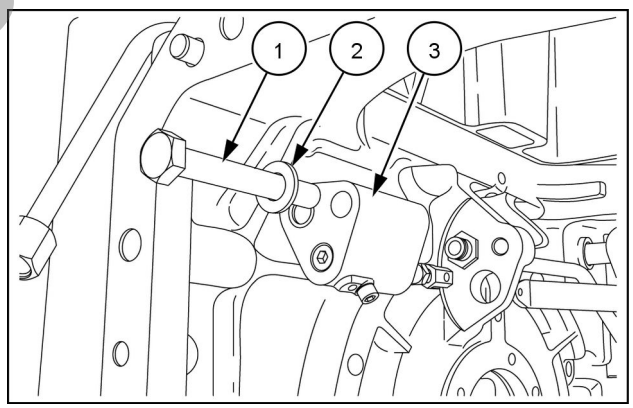
MOIL15TR02869AA 4

7. Install the lock clip **(1)**.



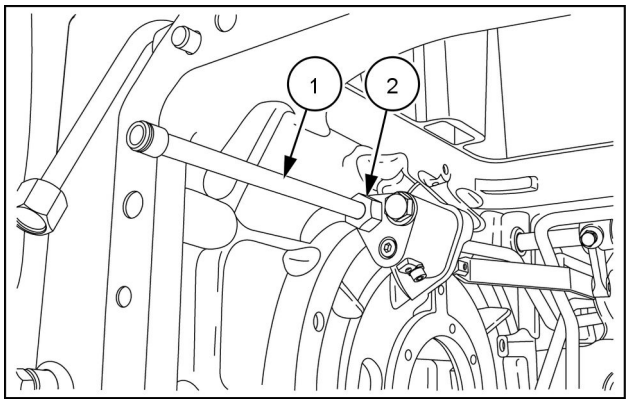
MOIL15TR02868AA 5

8. Position washer **(2)** and secure the power take-off (PTO) control valve **(3)** tightening the screw **(1)**



MOIL15TR02867AA 6

9. Position the pipe **(1)** and tighten the nut **(2)**.



MOIL15TR02866AA 7

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Power Take-Off (PTO) speed rate selector control - Assemble

⚠ WARNING

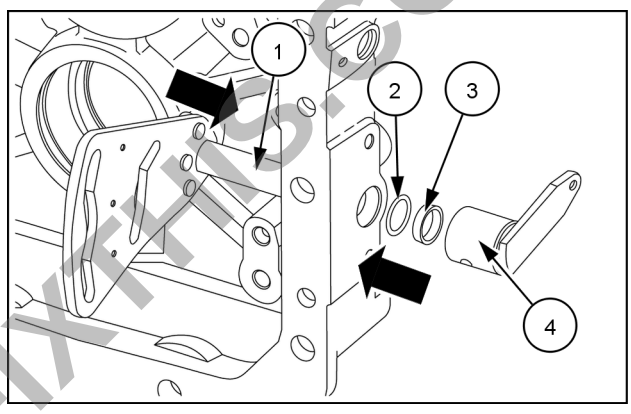
Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

W0208A

Prior operation:
Power Take-Off (PTO) speed rate selector control - Disassemble (31.116).

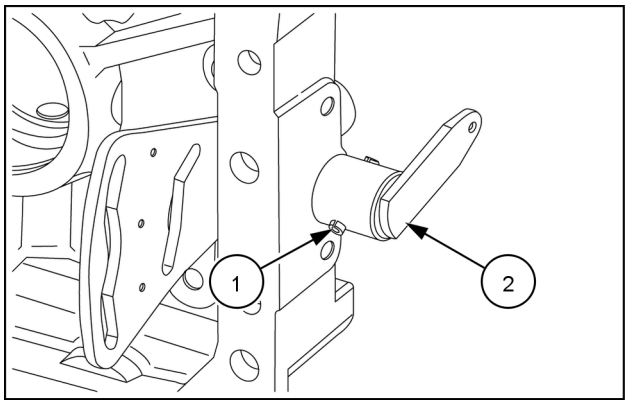
1. Correctly position the speed selection bracket assembly **(1)**.
2. Correctly insert the seal **(2)**, the collet **(3)** and the lever **(4)**.

NOTE: *Renew the seal.*



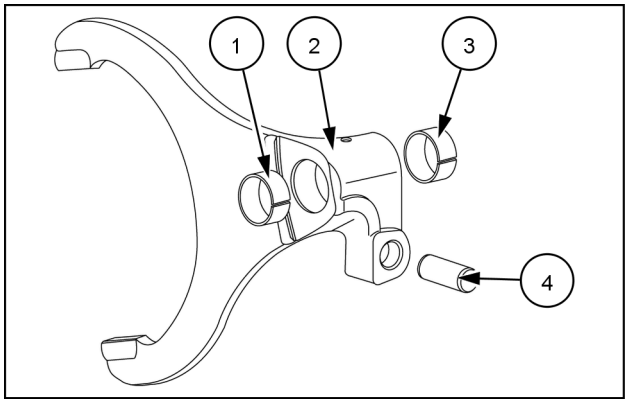
MOIL15TR01974AA 1

3. Insert the locking pin **(1)** on the lever **(2)**.



MOIL15TR01973AA 2

4. Insert the bushings **(1)** and **(3)** and the pin **(4)** into the fork **(2)**.

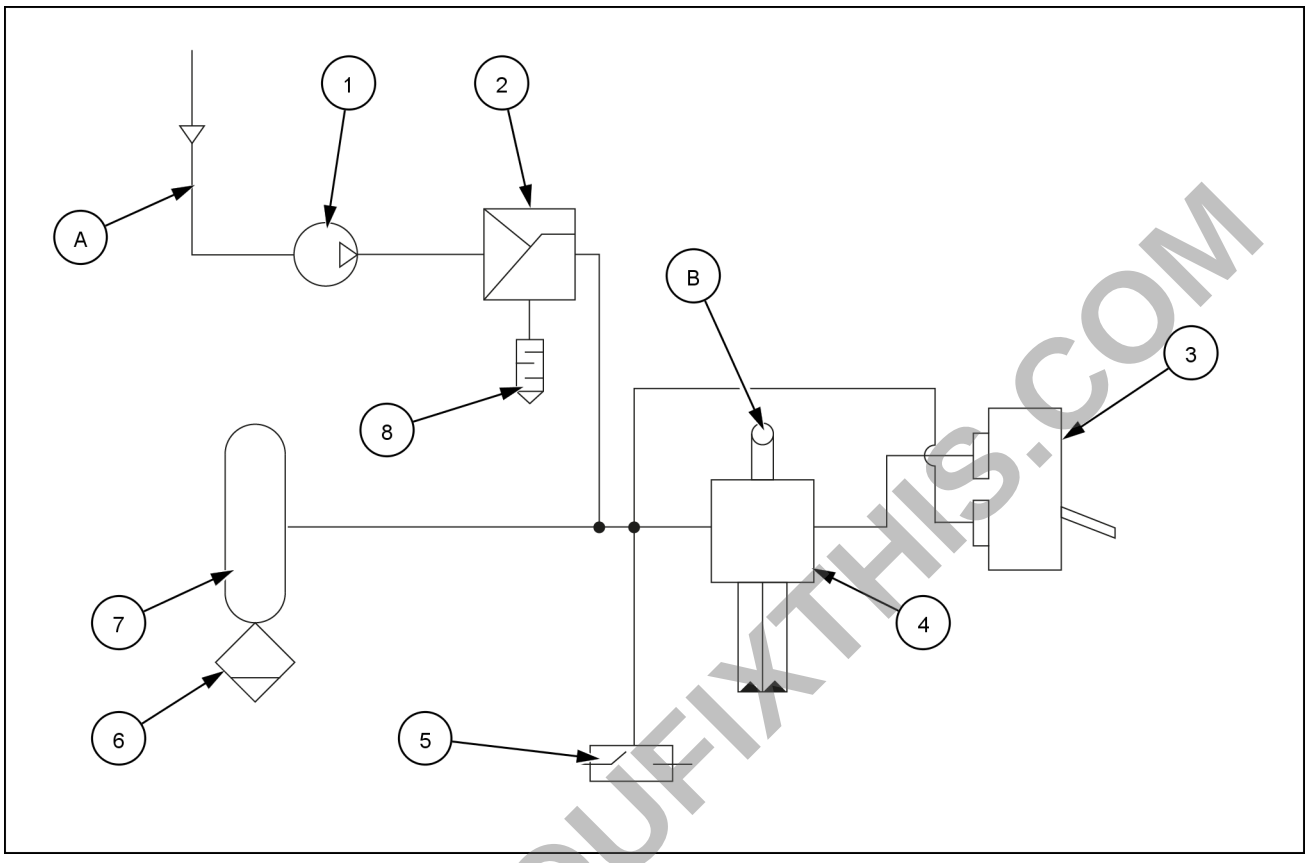


MOIL15TR01957AA 3

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Trailer brake pneumatic control - Component diagram - Italy version



MOIL15TR01675FA 1

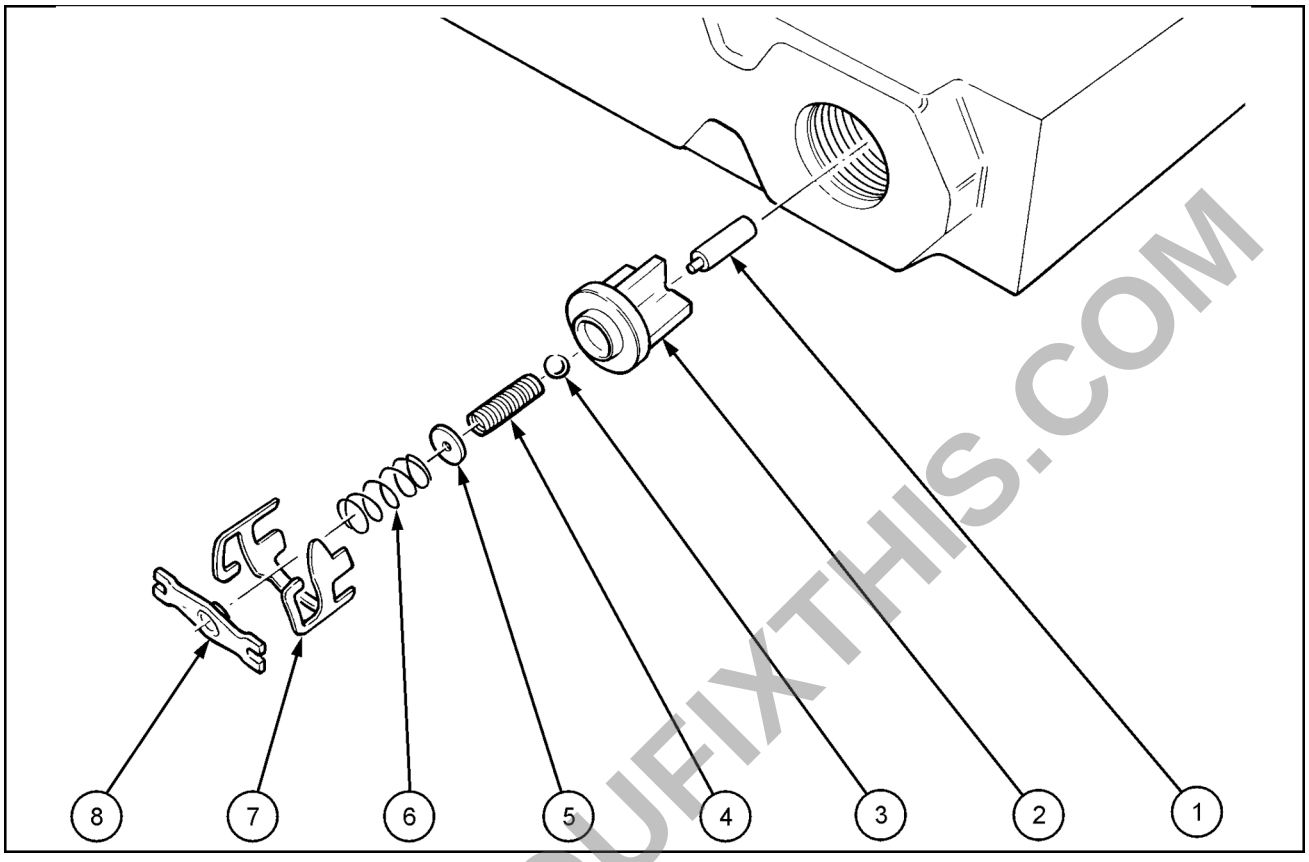
1. Compressor
2. Air drier and drain valve
3. Brake circuit couplers (Italy)
4. Trailer brake pilot valve
5. Pressure sensor
6. Reservoir condensate drain valve
7. Air reservoir
8. Silencer

A. Air intake from the manifold between the air cleaner and the turbocharger
B. Mechanical connection to hand brake handle

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Lock valve components



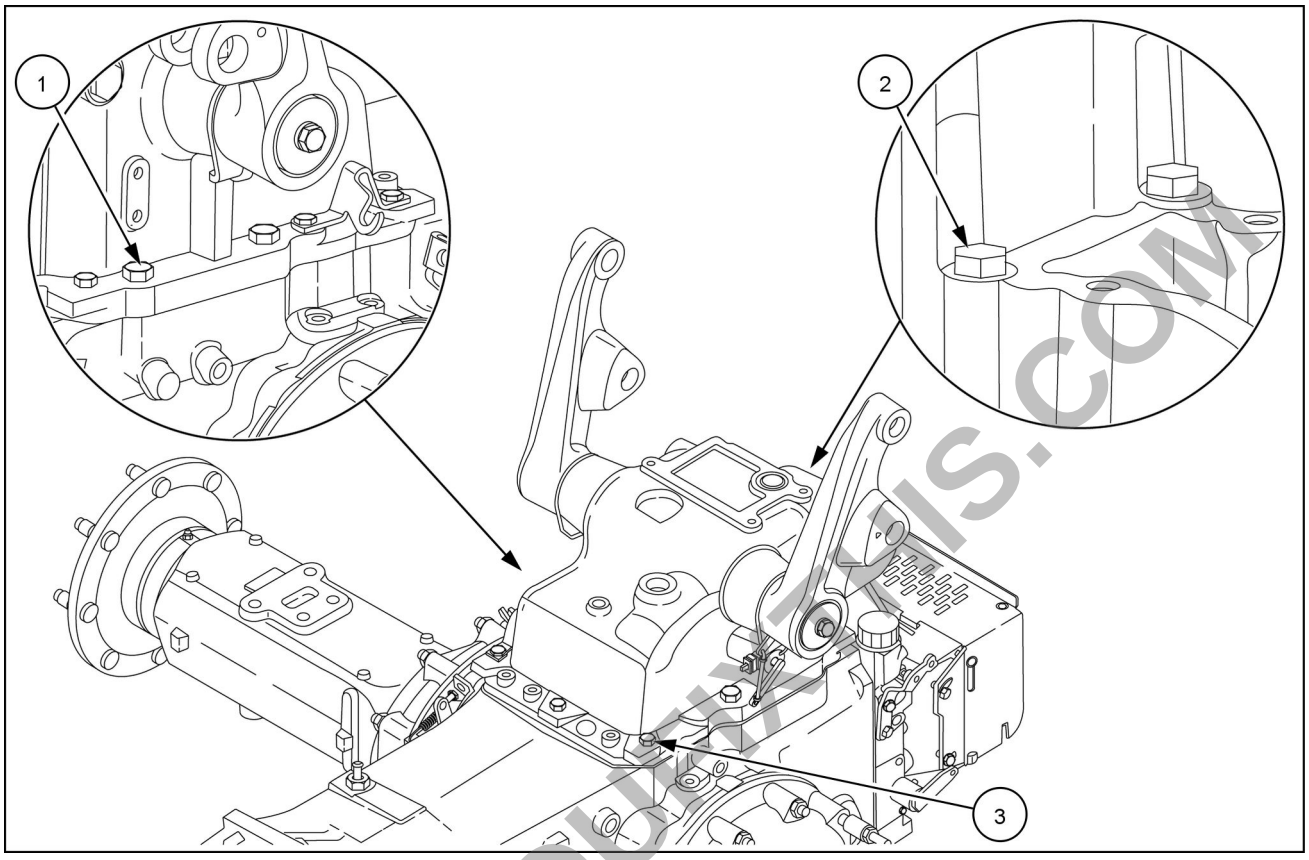
SEZ35CAP3F-6 4

(1). Plunger
(2). Load check valve
(3). Ball
(4). Spring
(5). Washer
(6). Spring
(7). Spring Seat
(8). Spring centering

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Rear three-point hitch - Torque



MOIL15TR03326FA 1

Part to tighten	Thread	Tightening torque
Bolt **(3)** retaining the lift housing to the transmission housing	M12 x 1.25 x 45	**117 – 129 N·m** (**86.29 – 95.15 lb ft**)
Bolt **(1)** retaining the lift housing to the transmission housing	M16 x 1.5 x 55	**240 – 250 N·m** (**177.01 – 184.39 lb ft**)
Bolt **(2)** retaining the lift housing to the transmission housing	M12 x 1.25 x 170	**117 – 129 N·m** (**86.29 – 95.15 lb ft**)

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Heater control valve - Remove

⚠ WARNING

Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

W0208A

⚠ CAUTION

Burn hazard!
Wait for all components to cool before performing any operation.
Failure to comply could result in minor or moderate injury.

C0053A

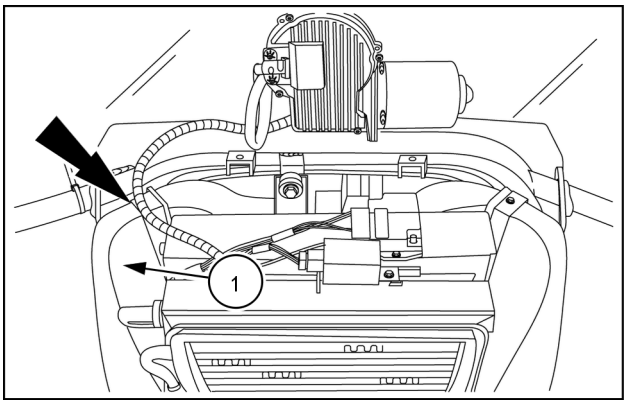
⚠ WARNING

Hazardous chemicals!
Coolant can be toxic. Avoid contact with skin, eyes, and clothing. Antidotes:
EXTERNAL - Rinse thoroughly with water. Remove soiled clothing.
INTERNAL - Rinse the mouth with water. DO NOT induce vomiting. Seek immediate medical attention.
EYES - Flush with water. Seek immediate medical attention.
Failure to comply could result in death or serious injury.

W0282A

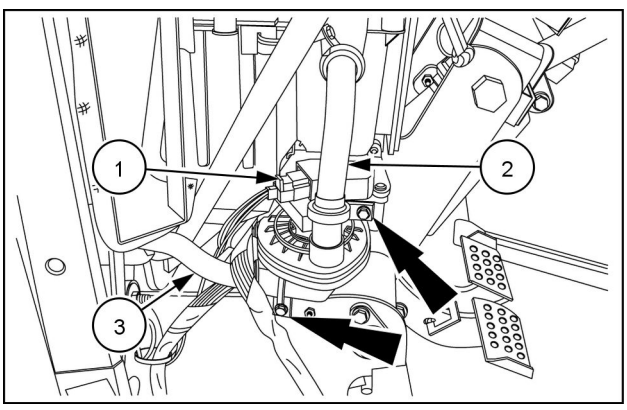
Prior operation:
Instrument dash panel - Remove (90.151)

1. Drain the engine coolant as described in **Radiator - Drain fluid (10.400)**.
2. Loosen the retaining screw and remove the left-hand air pipe **(1)**.



MOIL15TR02901AA 1

3. Remove the retaining clamps and disconnect the coolant lines **(2)** and **(3)**.



MOIL15TR02902AA 2

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F-024 - POSITION LIGHT 1 (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 15**

F-025 - POSITION LIGHT 2 (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 15**

F-026 - CRANKING (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 06**

F-027 - ENGINE switched (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 09**

F-028 - Stop lights (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 15**

F-029 - ELECTRICAL SEAT & REV ALARM (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 07**

F-030 - FAN 4th speed RH (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 10**

F-031 - 25A / 30A BALER / 40 ISO (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 12**

F-032 - IGNITION SWITCH (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 06**

F-033 - CIGARETTE SOCKET (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 12**

F-034 - ISOBUS B+ switched (Fuse)

Component Type	Fuse
Wiring frames	**SHEET 13**

F-035 - FRONT WIPER and WASHING (Fuse)

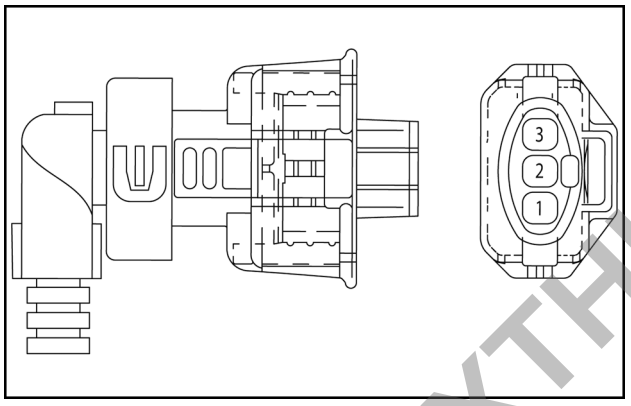
Component Type	Fuse
Wiring frames	**SHEET 07**

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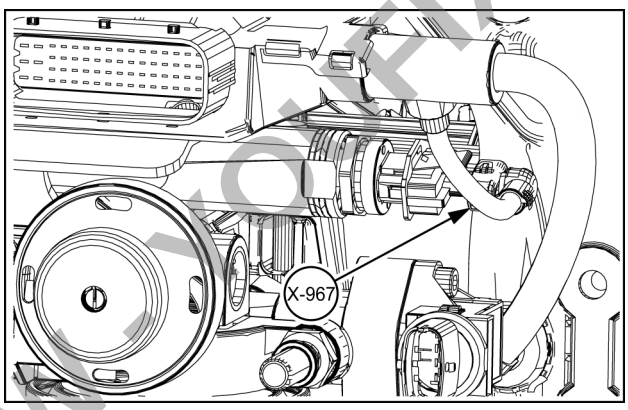
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X-967 Common rail pressure sensor

Pin	From	Description	Wire Size	frame
1	**X-941A (Female) pin 5**	**A-010 X-939 (Female) pin 26** Rail pressure sensor ground	0.75H	**Wiring harnesses - Electrical schematic sheet 20 (55.100)**
2	**X-941A (Female) pin 6**	**A-010 X-939 (Female) pin 41** Rail pressure sensor signal	0.75H	
3	**X-941A (Female) pin 7**	**A-010 X-939 (Female) pin 11** Rail pressure sensor +5V	0.75H	



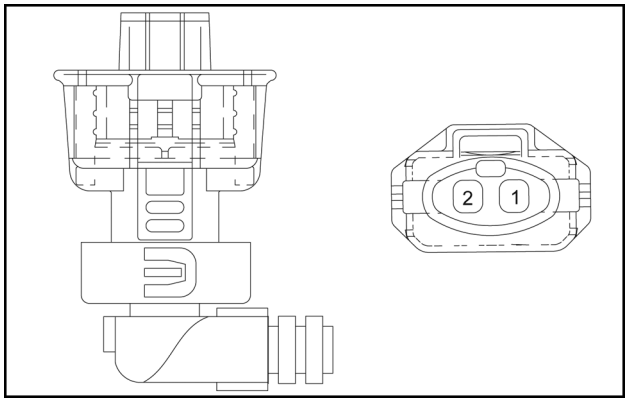
X-967OK 14



MOIL13TR00070AA 15

X-968 Fuel temperature sensor

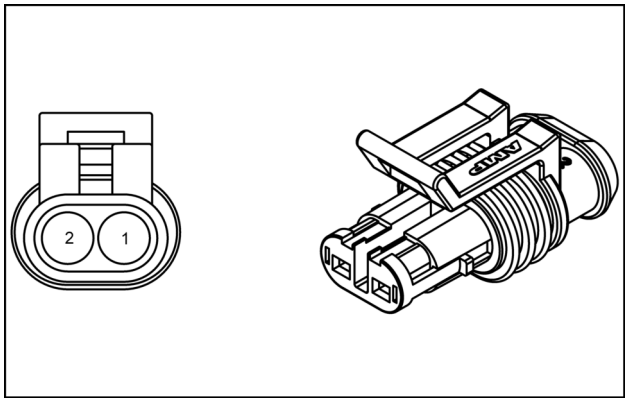
Pin	From	Description	Wire Size	frame
1	**X-941A (Female) pin 16**	**A-010 X-939 (Female) pin 38** Fuel temperature sensor signal	0.75H	**Wiring harnesses - Electrical schematic sheet 20 (55.100)**
2	**X-941A (Female) pin 15**	**A-010 X-939 (Female) pin 23** Fuel temperature sensor ground	0.75H	



X-968OK 16

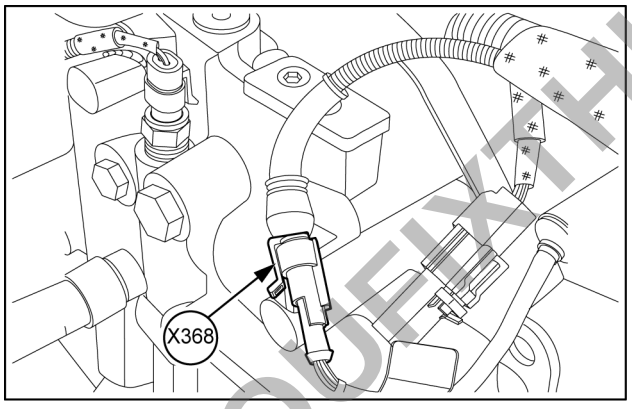
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X-368 - Diff lock status switch [S-011] (82012083) (Receptacle)



82012083 13

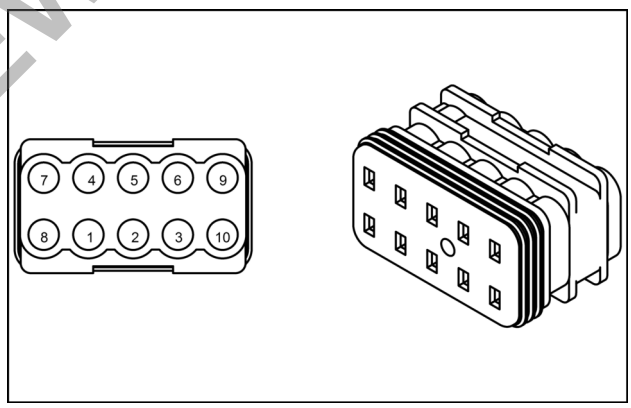
82012083



MOIL12TR0487AA 14

Pin	From	Wire	Description	Color-Size	Frame
1	**X-300B (Receptacle) pin 25** Trasnmissison-cab inline	TR-0701	Diff lock dog clutch status sw	YE - 1.0	**SHEET 24**
2	TR-SP-5100-P-X	TR-5100B	12 V from F-010 to Diff lock status sw	OR - 1.0	**SHEET 08**

X-369 - CRPM +/- sw [S-046] (84819781) (Receptacle)



84819781 15

84819781

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Engine wiring harness - Replace

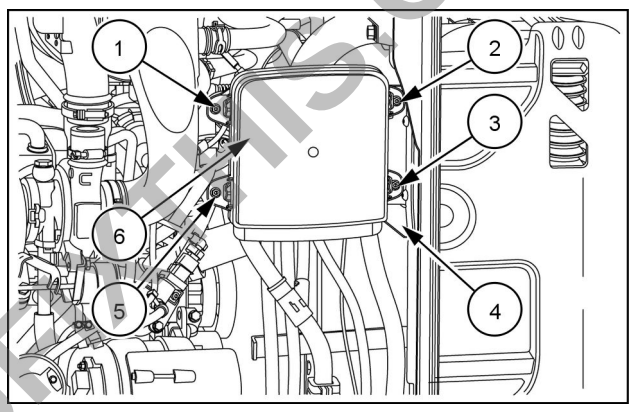
⚠ WARNING

Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

W0208A

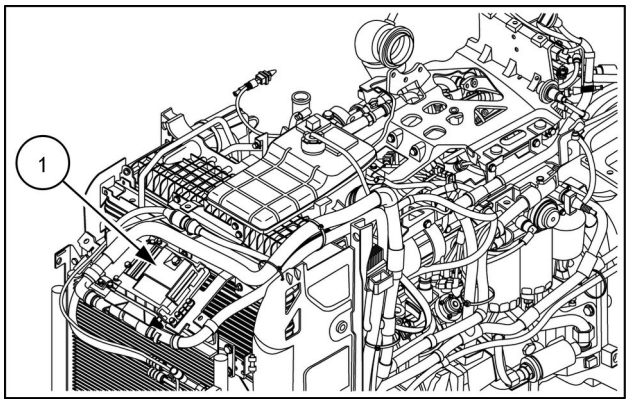
Prior operation:
Hood - Remove (90.100).
Side panels - Remove (90.100).
Air cleaner - Remove (10.202).

1. Loosen the retaining nuts **(1)**, **(2)**, **(3)** and **(5)** on the maxi fuse box **(6)**.
2. Remove the wiring harness fasteners from the bracket **(4)**.



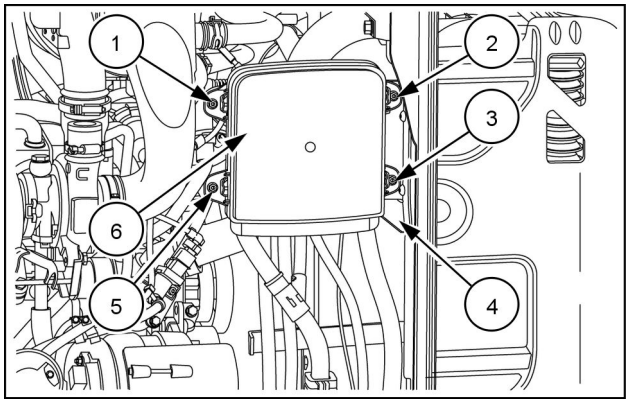
MOIL15TR00493AA 1

3. Disconnect the wiring harness starting from the engine control unit **(1)** up to the maxi fuse box taking care to disconnect the temperature and pressure sensors placed on the engine.
4. Collect the wiring on both sides of the engine and replace it.
5. Starting from the engine control unit **(1)**, lay out the electric wiring harness restoring the connections of the temperature and pressure sensors placed on the engine.



MOIL15TR01228AA 2

6. Install the wiring harness fasteners on the bracket **(4)**. Tighten the retaining nuts **(1)**, **(2)**, **(3)** and **(5)** on the maxi fuse box **(6)**.

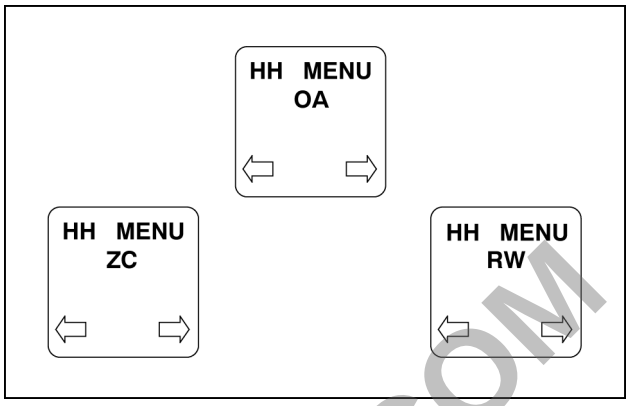


MOIL15TR00493AA 3

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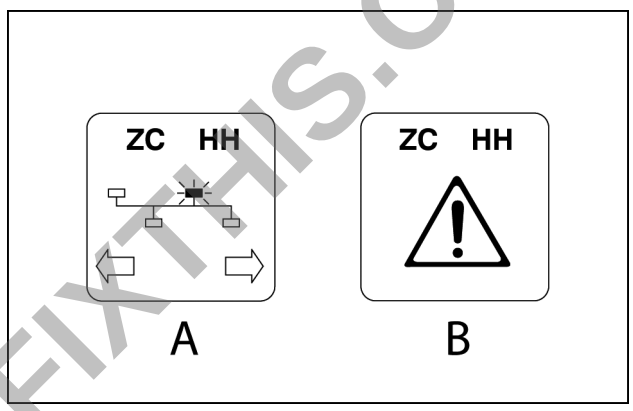
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5. Pressing the button (**(2)**, **3**), **(A)** or **(B)**, is possible shifts from the control unit of the dashboard (ZC) to the control unit of the transmission (RW) or to the control unit of the ISOBUS (OA) (optional).
   The button (**(1)**, **3**) **(B)** confirms the control unit in which you want to enter; the display will show the image **(A)** , **6**.
   The arrows at the sides mean that by pressing the button (**(2)** , **3**), **(A)** or **(B)**, is possible scroll through the various options.



MOIL13TR02715AA 5

6. The menu of the selected control unit **(A)** appears on the information monitor.
   If the control unit responds to the menu access ADIC message negatively **(B)** , the attention sign will appear, in this case you need to turn the switch (**(2)**, **2**) to **(A)** (OFF) and repeat the HH menu access procedure after checking the supply and connection of the relevant control unit are correct.
   - **(A)**: correct access;
   - **(B)**: the control unit responds incorrectly.



WLAPL4S55C1006A 6

NOTE: *Cause of the numerous updates of the control units (ADIC [ZC], CCU [RW] and TECU [OA]) is possible that one or more options, of the various HH menu, aren't present on the machine.*

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First Name	channel	Connector and pin number	Typical reading
Shuttle switch: Gear FW backward inactive	c133	X504-35	at **14 V** battery voltage **7500 – 8800 mV** **1900 – 3200 mV** **3700 – 4900 mV**
Comfort shift switch: inactive active	c134	X504-50	at **12 V** battery voltage **7000 – 8000 mV** **8300 – 11000 mV**
Comfort shift switch: inactive active	c134	X504-50	at **14 V** battery voltage **8100 – 9400 mV** **9600 – 12900 mV**
Clutch pedal position sensor	c188	X504-38	**900 – 4150 mV**
Differential lock valve current sense	c192	X504-11	**150 – 1200 mA**
4WD valve current detection	c193	X504-57	**150 – 1200 mA**
12 V PS2*	c195	X504-8	**12000 mV**
12 V PS1*	c196	X504-12, X504-13	**12000 mV**
12 V PE*	c197	X504-23, X504-68	**12000 mV**
12 V PI*	c198	X504-45	**12000 mV**
5 V sensor power supply	c217	X504-37	**5000 mV**
Power shuttle clutch F current detection	c223	X504-55	**135 – 1200 mA**
Power shuttle clutch G current detection	c224	X504-54	**135 – 1200 mA**

*	Definition
12 V PS2	Solenoid valve power supply 2
12 V PS1	Solenoid valve power supply 1
12 V PE	Permanent power supply
12 V PI	Switched battery power supply

4. Press the HOME switch to exit the menu.

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Front light - Install - Headlamps

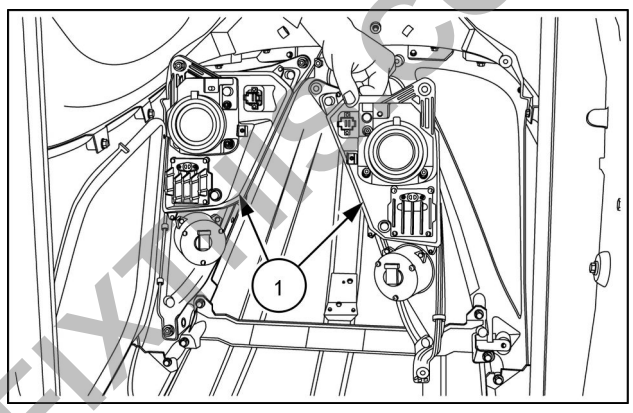
⚠ WARNING

Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

W0208A

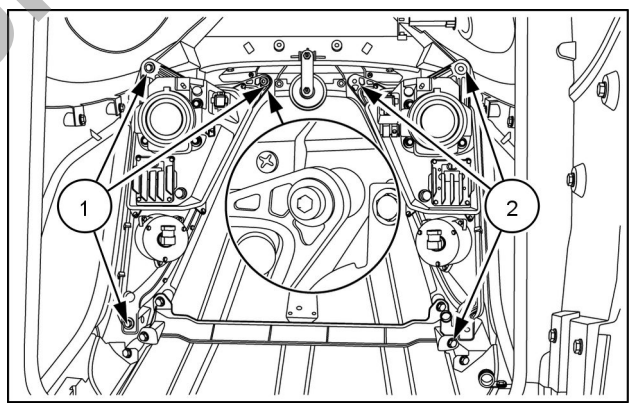
Prior operation:
Front light - Remove (55.404) should be present.

1. Install the headlamps **(1)** into the related housings.



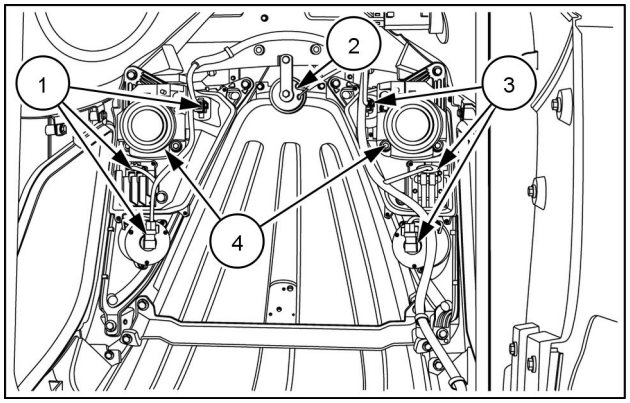
MOIL15TR01209AA 1

2. Tighten the retaining bolts **(1)** and **(2)** of the headlamps to the bonnet.



MOIL15TR01208AA 2

3. Connect the electrical connection **(2)** of the horn .
4. Connect the electrical connections **(1)** and **(3)** of the headlamps **(4)**.



MOIL15TR01207AA 3

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Wiring harnesses - Electrical schematic sheet 23 (55.100)

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3158 - Engine anti-tamper security check failed

Control Module: ECU

Cause:
This fault code can appear after downloading software to the Engine Control Unit (ECU) **A-010** and completing the data set registration, if the engine was not allowed to run for at least five minutes before turning the ignition switch OFF.
The message to 'register the data set, if it has been changed', will occasionally appear on the Electronic Service Tool (EST) after downloading software. If the procedure to register the data set has been completed, the machine needs to run for five minutes to complete the registration process between machine modules.

Possible failure modes:

1. **A-010** does not have the valid data set installed.
2. The new engine data set has not been registered on the machine.
3. The engine was not allowed to run for at least five minutes after completing a data set registration before turning the ignition switch OFF.

Solution:

1. Download the correct engine data set using the EST.
   After the download has completed, register the engine data set for use with the EST configuration screen “Engine data registration.”

   If this fault code appears or the message to register the data set appears on the EST and the registration procedure has already been completed, it should not need to be completed again. Start the engine and allow to idle for five minutes.

   Once the engine has idled for five minutes, the fault can go 'inactive' or 'non present'. Once this occurs, the fault code can be cleared and should not appear again.
   If the fault recurs again, run the engine for an additional five minutes to make sure the fault does not occur again.

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4510 - Electro Hydraulic Remote valve (EHR) front 1 - driver faulty

Control Module: CCU

Context:
Each Electro-Hydraulic Remote (EHR) valve is connected to a CAN bus system (EHR CAN bus) for the communication with the Central Control Unit (CCU). Each EHR valve is able to detect system faults. During operation, each EHR valve compares the voltage to the internal solenoids continuously with the trigger voltage and checks the solenoid current for plausibility.

The effect of the fault:
The amber warning light is ON. The EHR valve 1 for the front implement switches into the neutral position. The appropriate hydraulic implement cannot be operated.

Cause:
The EHR valve 1 detected a fault regarding the internal power stage (short circuit or open circuit).

Possible failure modes:

1. The EHR valve 1 for the front implement (A-079) is faulty.

Solution:

1. Make sure that the fault code is still present.

   A. If the fault code is no longer present, return the machine to normal operation.

   B. If the fault code is still present, continue to Step **2**.

   NOTE: *After the rectification of the cause of the fault code, clear the fault code. Then test the system for normal operation.*
2. Check the instrument cluster for other fault codes (especially regarding the EHR valve 1).

   A. If the instrument cluster shows other fault codes, continue with the procedures for these fault codes.

   B. If the instrument cluster shows no other fault codes, continue to Step **3**.
3. Make sure that the EHR valve 1 uses the latest valid software version.
   Use therefore the Electronic Service Tool (EST). Also check the configuration of the EHR valves. Refer to (**Electronic module - HJ - Electronic hydraulic remote control valve number programming (RA) (55.640)** and **Electronic module - H3 - Configurations and options (RA) (55.640)**), within engine technical information.

   A. If the latest valid software version is not in use, download the latest valid software version to the EHR valve 1.

   B. If the software version in use is up to date and the fault re-occurs, replace the EHR valve 1.

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A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

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A. If other faults do exist, use the appropriate vehicle service manual to locate and repair the faulted power, ground or CAN wiring condition.

B. If no other faults exist, the vehicle (VE) harness wiring is damaged between the SCR devices harness splice and the DEF/AdBlue® quality level temperature sensor **B-001** controller connector **X-926** pin 1 and/or **X-926** pin 2 for supply power and ground or **X-926** pin 5 and/or **X-926** pin 4 for CAN signal. Locate and repair the damage to the SCR supply power and ground or CAN circuit wiring.

5. As there is no method for field testing or re-flashing the sensor controller, replace the DEF/AdBlue® quality level temperature sensor **B-001** unit.

   Then check to see that the fault is resolved.

   A. If the fault is resolved, use the EST, see **Selective Catalytic Reduction (SCR) exhaust treatment - Configure - Engine restart counter reset (10.500)** within engine technical information, if necessary. to perform the Engine Restart Counter Reset / Unlock Inducement configuration. Then return the machine to service.

   B. If the fault is not resolved, check the ECU **A-010** for the appropriate software and re-flash, if necessary.

6. Visually inspect the relevant harnesses and connectors for damage, bent or dislocated pins, corroded terminals, or broken wires. Verify that the connectors are fully installed. Flex the harnesses involved to reveal intermittent breaks or shorts in the wiring concerned. Operate the machine while you monitor the display.

   A. If you find damage or the display indicates other than normal display readings, then repair the damage discovered during the inspection or locate and repair the other than normal display condition and verify that the error has been resolved.

   B. If you do not find damage and the display indicates only normal readings, then erase the fault code and continue operation.

Wiring harnesses - Electrical schematic sheet 19 (55.100)

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Cab door retainer - Install

⚠ WARNING

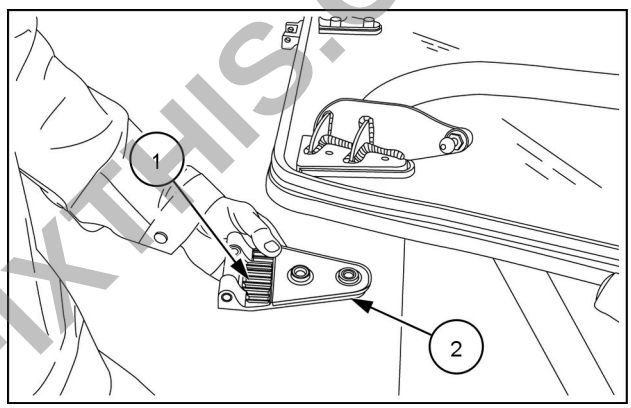
Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

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Prior operation:
Cab door retainer - Remove (90.154).

Lower cab door retainer

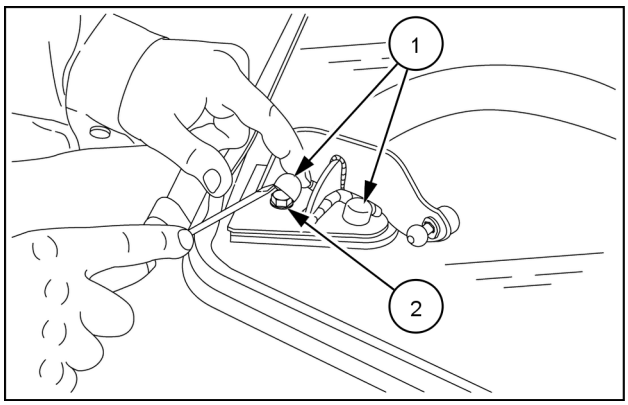
1. Position the hinge **(1)** and its gasket **(2)** with bushes on the cab door.



MOIL15TR00837AA 1

2. Tighen the retaining bolts **(2)** to the specified torque, see **Cab door window - Torque (90.154)** .
3. Install the protective caps **(1)**.

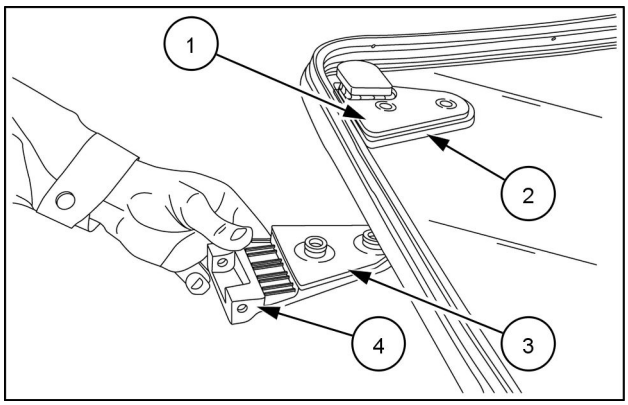
NOTE: *Before tightening the bolts* ***(2)****, apply a few drops of* ***LOCTITE® 243™****.*



MOIL15TR00836AA 2

Upper cab door retainer

1. Position the gasket **(2)** and the hinge support bracket **(1)** on the inner side of the cab door.
2. Position the gasket **(3)** with bushes and the hinge **(4)** on the external side of the cab door.



MOIL15TR00866AA 3

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