Engine - Remove

Farmall 20B INT, Farmall 25B INT

⚠ WARNING

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders. Failure to comply could result in death or serious injury.

W0398A

⚠ 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

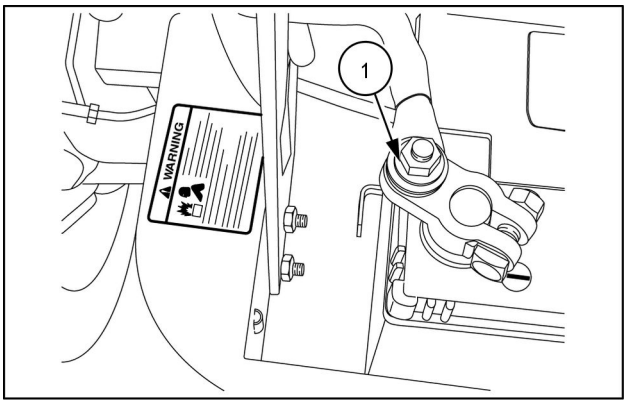
⚠ WARNING

Hot liquid under pressure!
Never remove the filler cap or the recovery tank cap while the engine is running or the coolant is hot. Let the system cool. Turn the filler cap to the first notch and allow any pressure to escape, and then remove the filler cap. Loosen the recovery tank cap slowly to allow any pressure to escape.
Failure to comply could result in death or serious injury.

W0296A

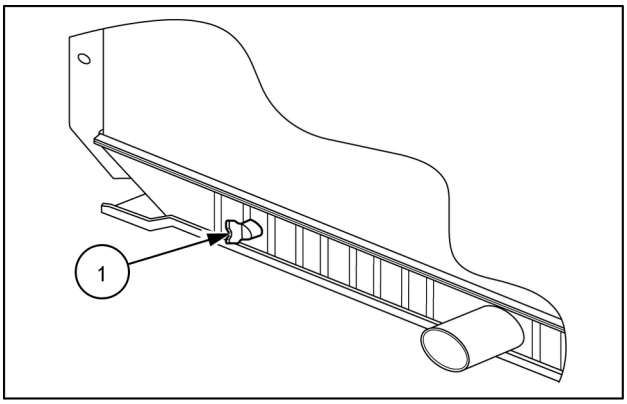
Engine Removal

1. Open hood and disconnect the negative (-) battery terminal **(1)**.



83115266 1

2. Open the drain cock **(1)** under the left hand side of the radiator.

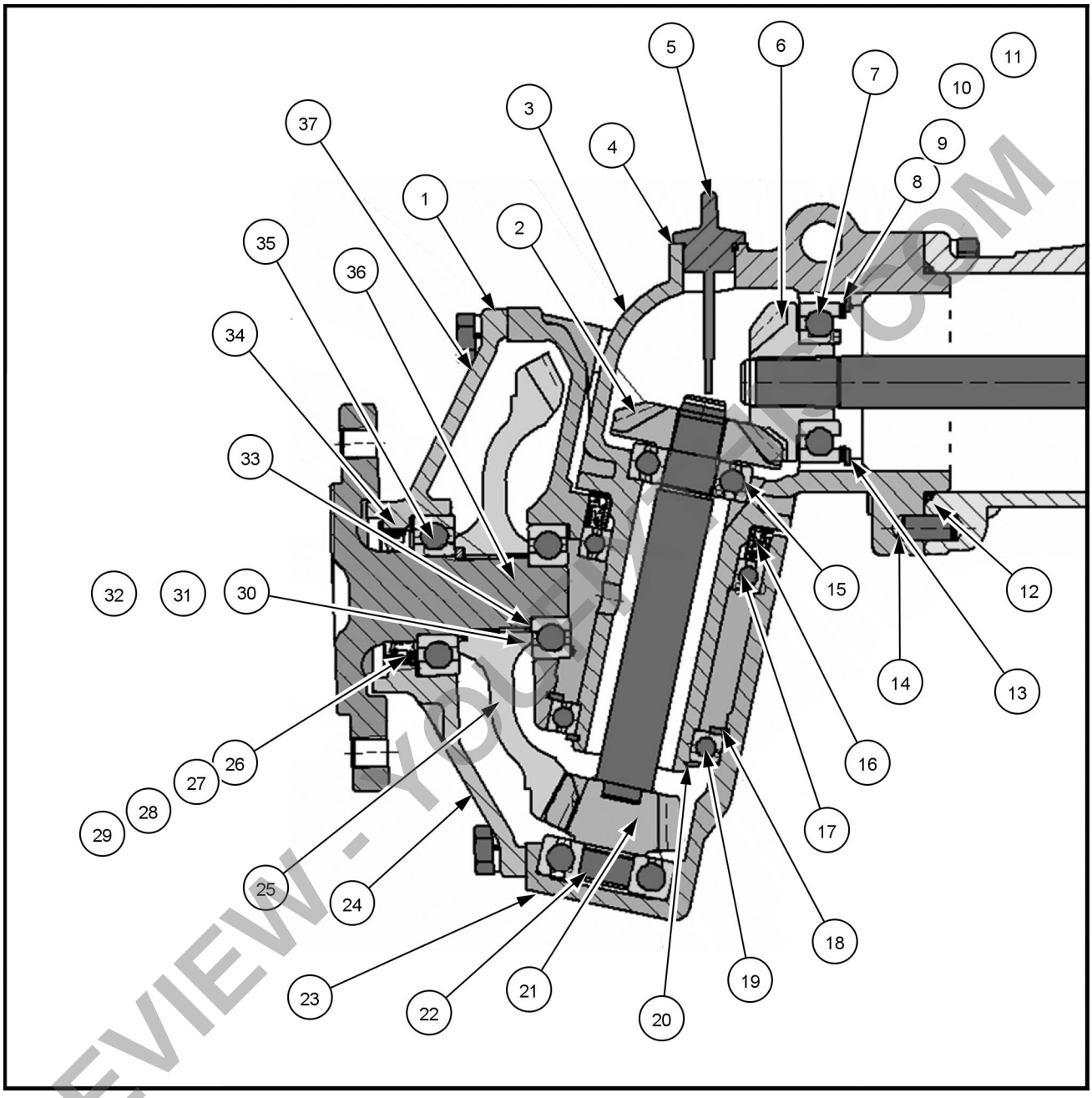


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Disassembly



73118474 1

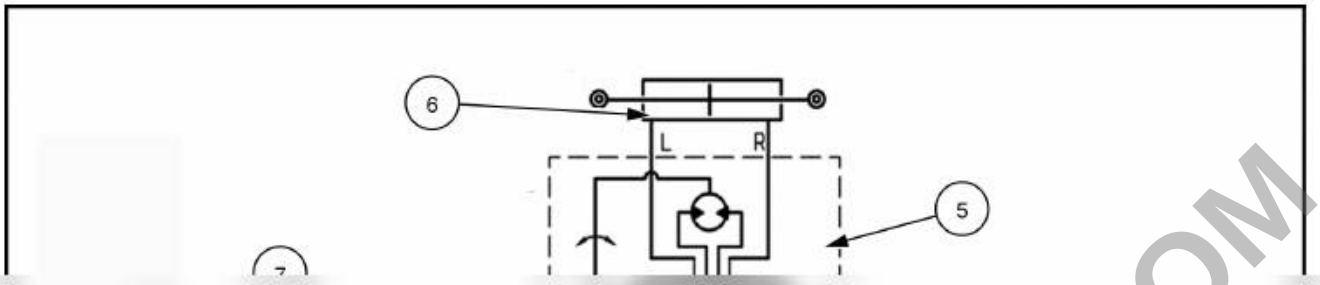
Steering Knuckle

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Hydrostatic transmission - Hydraulic schema

Farmall 20B INT, Farmall 25B INT



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Engine - Install

Farmall 20B INT, Farmall 25B INT

⚠ WARNING

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders. Failure to comply could result in death or serious injury.

W0398A

⚠ 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.

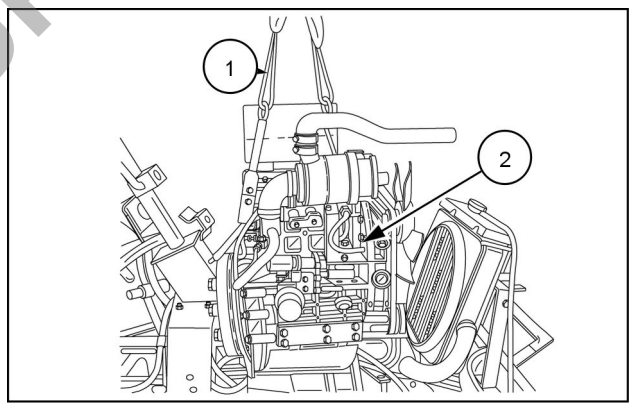
W0208A

⚠ WARNING

Hot liquid under pressure!
Never remove the filler cap or the recovery tank cap while the engine is running or the coolant is hot. Let the system cool. Turn the filler cap to the first notch and allow any pressure to escape, and then remove the filler cap. Loosen the recovery tank cap slowly to allow any pressure to escape.
Failure to comply could result in death or serious injury.

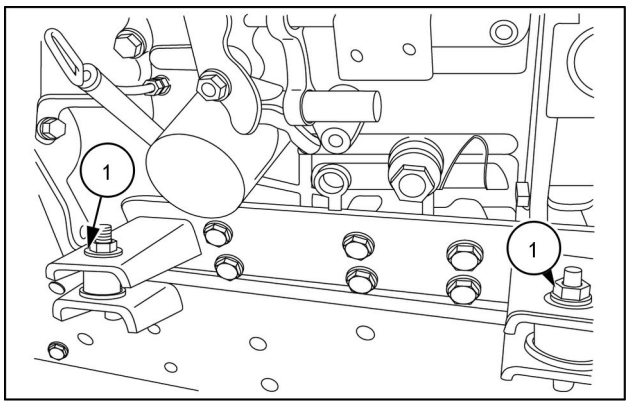
W0296A

1. Use an overhead hoist **(1)** to lift the engine **(2)** Place engine on chassis mounts .



83118798 1

2. Install four **M14** engine mount retaining nuts **(1)**.



83118797 2

NOTICE: *Insure that all necessary tubes, hoses and electrical connectors have been connected . It may also be necessary to connect additional items due to other optional systems being installed on the tractor.*

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Differential - Install

Farmall 20B INT, Farmall 25B INT

⚠ WARNING

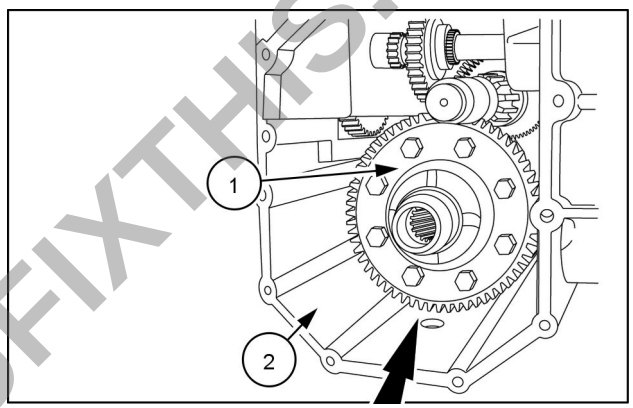
Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

W0208A

Prior operation:
Differential - Assemble (27.106)

Install

1. Slide the differential **(1)** into the housing **(2)**.



83118686 1

Next operation:
Final drives - Install (25.310)

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Hydrostatic transmission - Overhaul Disassembly

Farmall 20B INT, Farmall 25B INT

⚠ DANGER

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.
Failure to comply will result in death or serious injury.

D0076A

⚠ DANGER

Heavy parts!
Support designated component(s) with adequate lifting equipment.
Failure to comply will result in death or serious injury.

D0018A

⚠ WARNING

Personal Protective Equipment (PPE) required.
When assembling, operating, or servicing the machine, wear protective clothing and PPE necessary for the particular procedure. Some PPE that may be necessary includes protective shoes, eye and/or face protection, hard hat, heavy gloves, filter mask, and hearing protection.
Failure to comply could result in death or serious injury.

W0353A

⚠ WARNING

Avoid injury! Always do the following before lubricating, maintaining, or servicing the machine.
1. **Disengage all drives.**
2. **Engage parking brake.**
3. **Lower all attachments to the ground, or raise and engage all safety locks.**
4. **Shut off engine.**
5. **Remove key from key switch.**
6. **Switch off battery key, if installed.**
7. **Wait for all machine movement to stop.**

Failure to comply could result in death or serious injury.

W0047A

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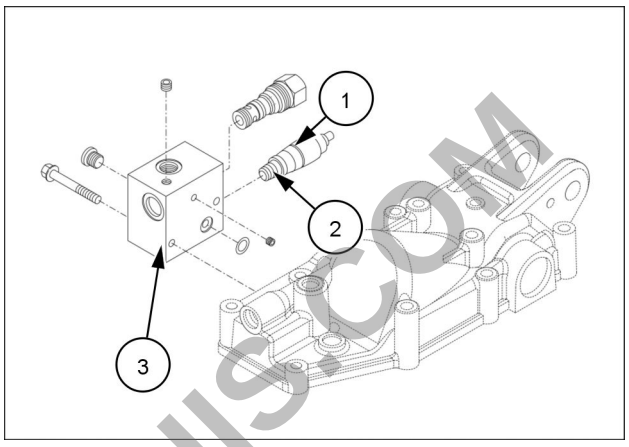
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Relief valve - Install

Farmall 20B INT, Farmall 25B INT

1. Install O-ring **(1)** onto relief valve body.
2. Install relief valve **(2)** into Priority Valve Block **(3)**.

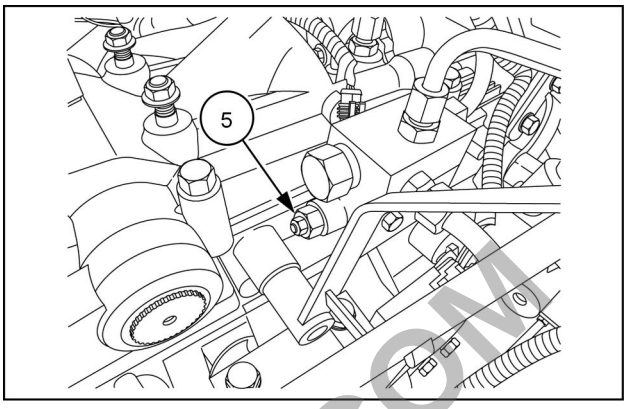


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7. If the gauge reading is lower than specified pressure, increase relief pressure by turning the relief valve **(5)** clockwise and if gauge reading is higher than specified pressure decrease relief valve pressure by turning relief valve counterclockwise.



NHIL12CT00303AA 19

8. Remove the female coupler, hose and gauge from the male coupler.

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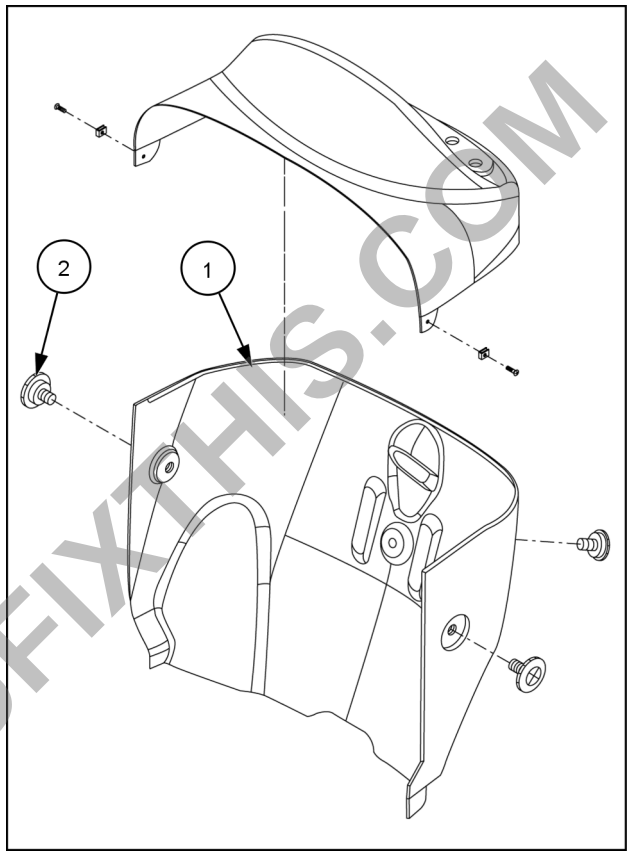
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Turn signal switch - Remove

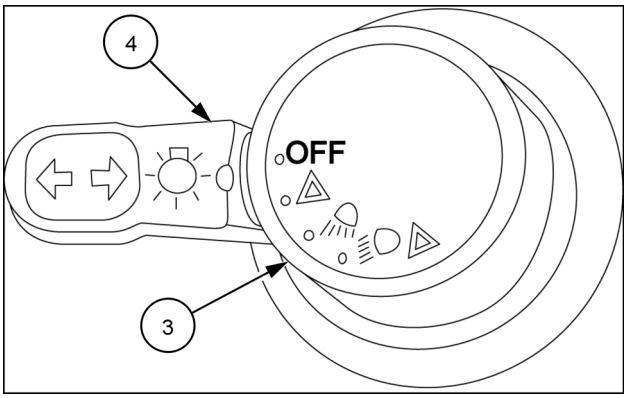
Farmall 20B INT, Farmall 25B INT

1. Remove negative (-) battery cable from negative (-) battery terminal.
2. Remove lower center console panel **(1)**. by removing the three threaded knobs **(2)**.



NHIL12CT00078GA 1

3. Disconnect the switch connector from the tractor wire harness.
4. Pull switch knob **(3)** and arm **(4)** from the switch stem.



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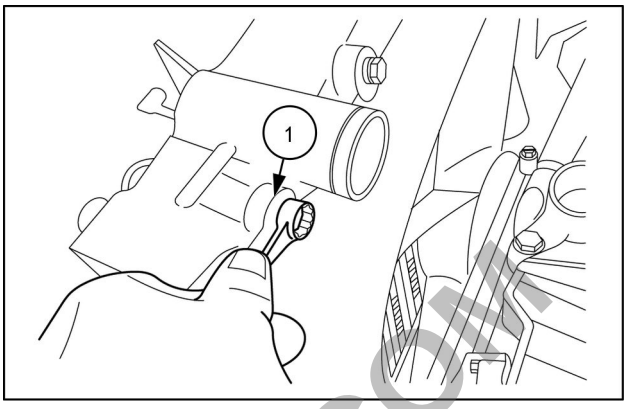
5. Remove retaining nut from the switch and remove switch from the bottom side of the dash panel.

Next operation:
Turn signal switch - Test (55.405)

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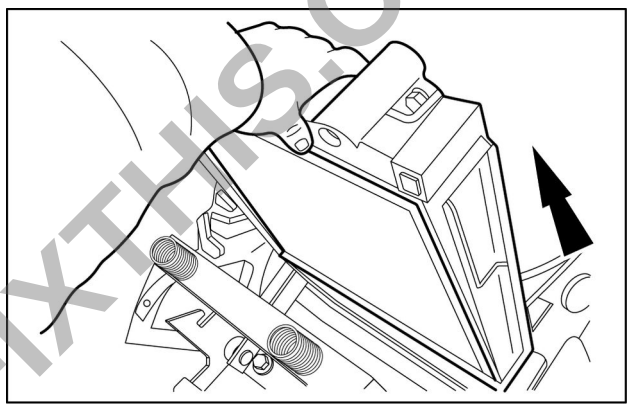
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7. Remove the **M8 x 16mm** radiator retaining bracket bolts **(1)**.



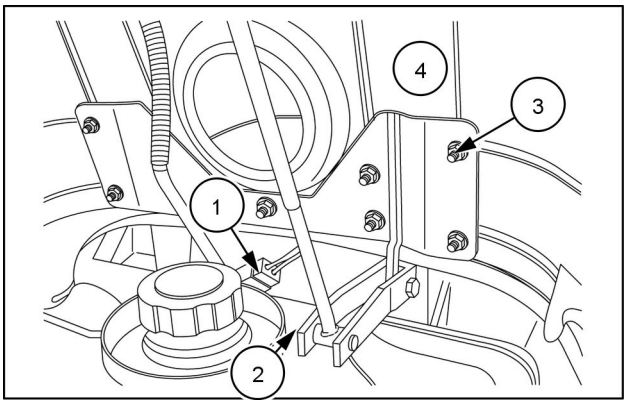
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8. Remove the radiator **(1)** in the direction of the arrow.



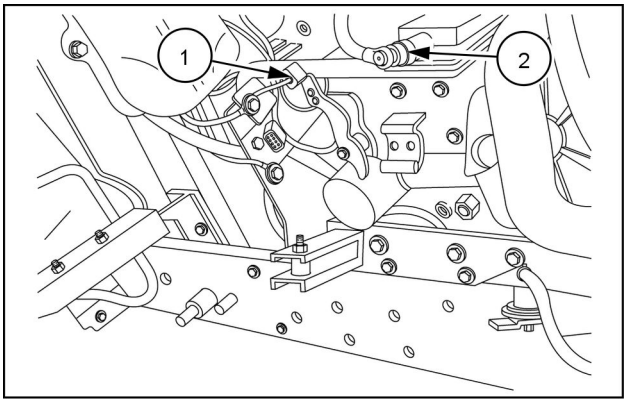
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9. Disconnect the electrical connection **(1)** remove the clip **(2)**.
10. Remove hood retaining nuts **(3)**.
11. Remove the engine hood **(4)**



83118792 9

12. Disconnect the throttle cable **(1)** and the fuel line **(2)**.



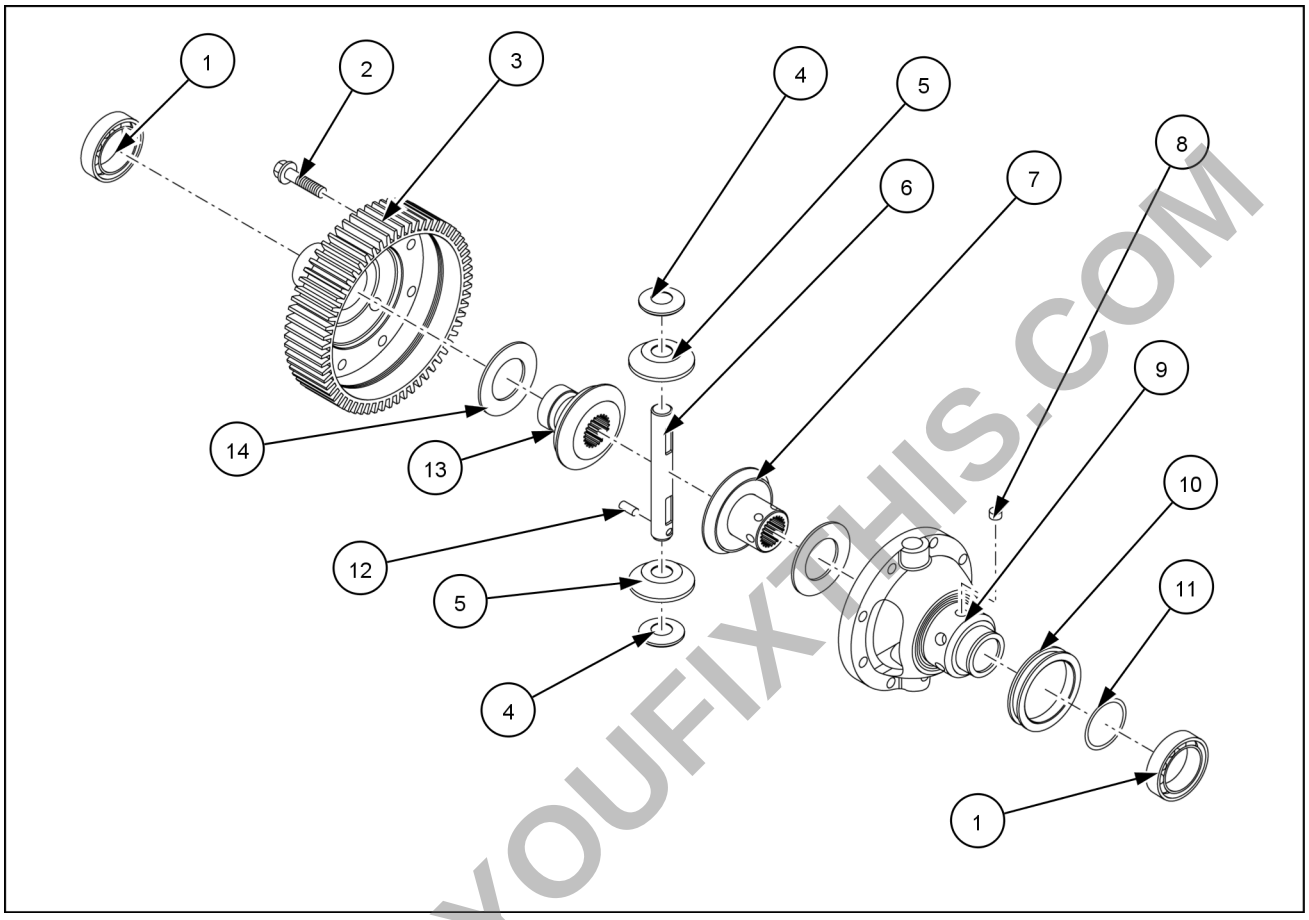
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Differential - Detailed view

Farmall 20B INT, Farmall 25B INT



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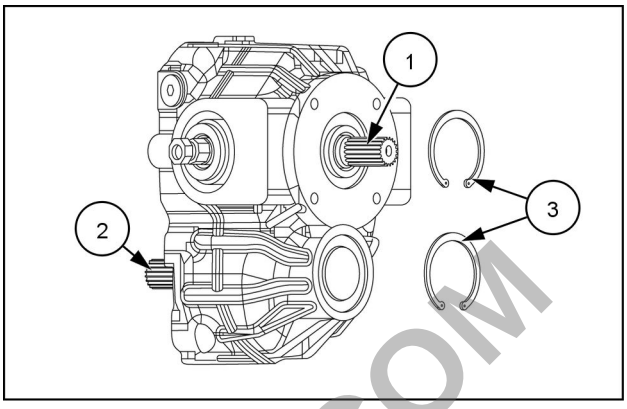
Rear Differential

(1) Bearing	**(3)** Final Drive Gear	**(5)** Pinion Drive	**(7)** Differential Gear, Left hand Side	**(9)** Rear Differential Casing	**(11)** Snap Ring	**(13)** Differential Gear, Right Hand Side
(2) Flange Bolt, **M10 x 35mm**	**(4)** Thrust Washer	**(6)** Differential Pin	**(8)** Roller	**(10)** Rear Differential Holder	**(12)** Spring Pin	**(14)** Thrust Washer

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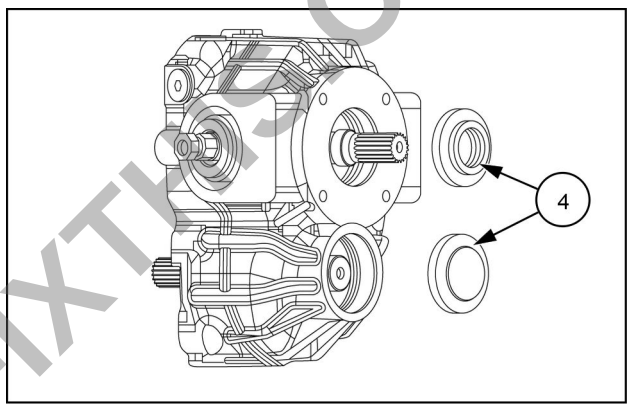
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9. Remove shaft assemblies from the pump side **(1)** and motor side **(2)**.
10. Remove snap rings **(3)** from both the pump and motor sides.



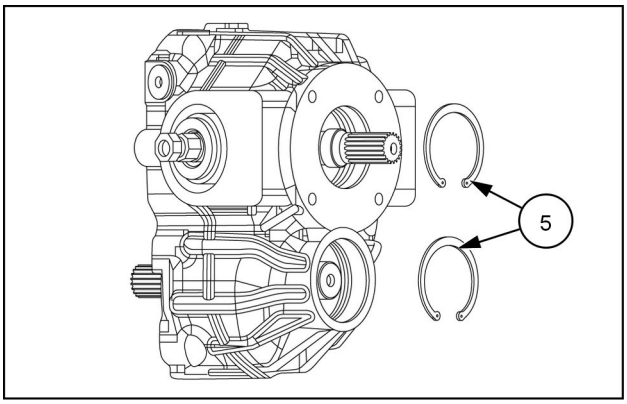
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11. Remove seals **(4)** from both pump and motor sides.



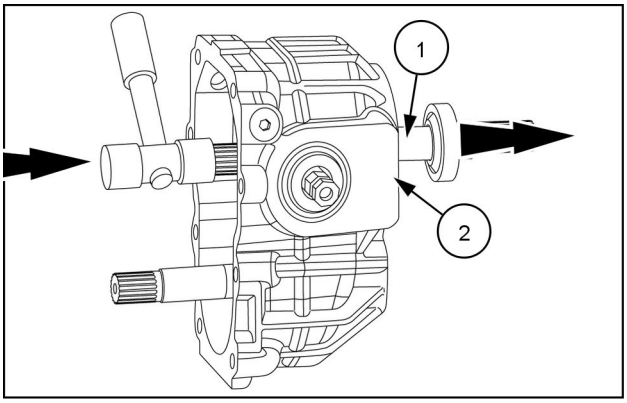
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12. Remove inside snap rings **(5)** from pump and motor sides.



NHIL11CT00011AA 12

13. Remove shaft **(1)** from pump side **(2)**.



NHIL11CT00012AA 13

NOTE: *Tap shaft with a plastic hammer to separate it from housing.*

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Parking brake or parking lock - Dynamic description

Farmall 20B INT, Farmall 25B INT

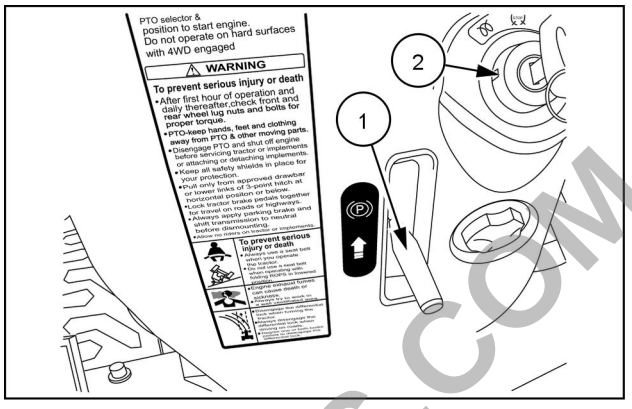
NOTICE: *Always check brake pedal free travel before adjusting the parking brake.*

NOTICE: *If the parking brake fails to engage, the service brake is adjusted too tightly and must be readjusted.*

NOTE: *The engagement point of the ratchet pawl is predicated by the service brake adjustment.*

NOTE: *For adjustment procedure refer to* ***Mechanical service brakes - Adjust (33.120)****.*

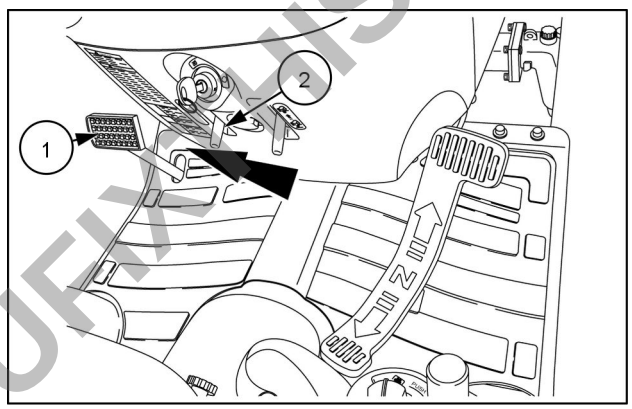
The parking brake handle **(1)** is located to the left of the key ignition **(2)**.



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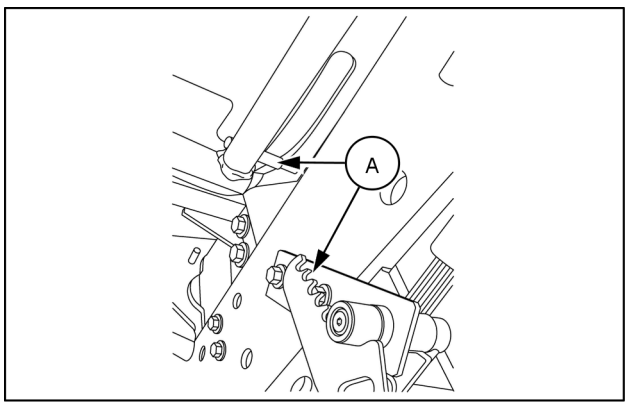
To engage the parking brake, do the following :

1. Depress the brake foot pedal **(1)**.
2. Pull upward (Direction of the arrow) on the parking brake handle **(2)**.



83118713 2

3. The parking brake ratchet pawl will engage the brake pedal linkage at point **(A)**.



83118732 3

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4. Run the engine at 1200 RPM, actuate valve for the proper flow and record the flow meter reading.
5. Run the engine at 2400 RPM and read the flow meter. The reading should indicate that the flow has doubled. If the meter reading is low, check the hydraulic lines and filter for damage, clogs or air leaks. If there are no problems with hydraulic lines or hydraulic filter, the hydraulic pump may require replacement. Use the pump Efficiency Test, to further test the hydraulic pump.

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Hydraulic control components - Visual inspection of hydraulic steering control valve parts

Farmall 20B INT, Farmall 25B INT

Prior operation:
Hydraulic control components - Disassemble Steering valve (41.200)

Inspection

NOTICE: *Establish a clean work area.*

1. Check all parts for damage and replace if necessary. After cleaning the parts with a solvent, allow to dry.

NOTICE: *After disassembly, use new O rings and seals.*

NOTICE: *Do not grind or polish any part with sandpaper.*

NOTICE: *Lubricate all O rings lightly.*

NOTICE: *Do not lubricate the oil seal.*

2. Install the retaining ring in the housing, making sure it is properly seated in the groove.

Next operation:
Hydraulic control components - Assemble Steering valve (41.200)

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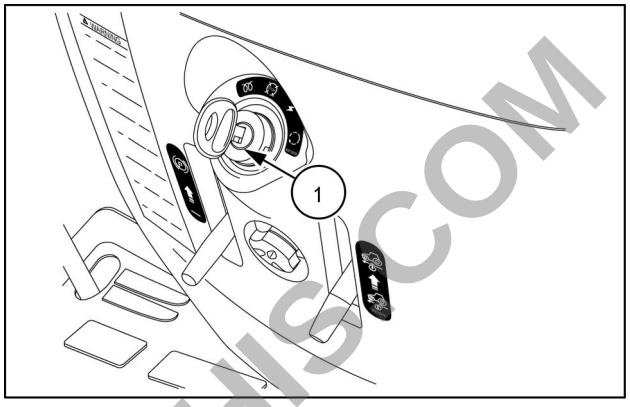
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Ignition switch - Install

Farmall 20B INT, Farmall 25B INT

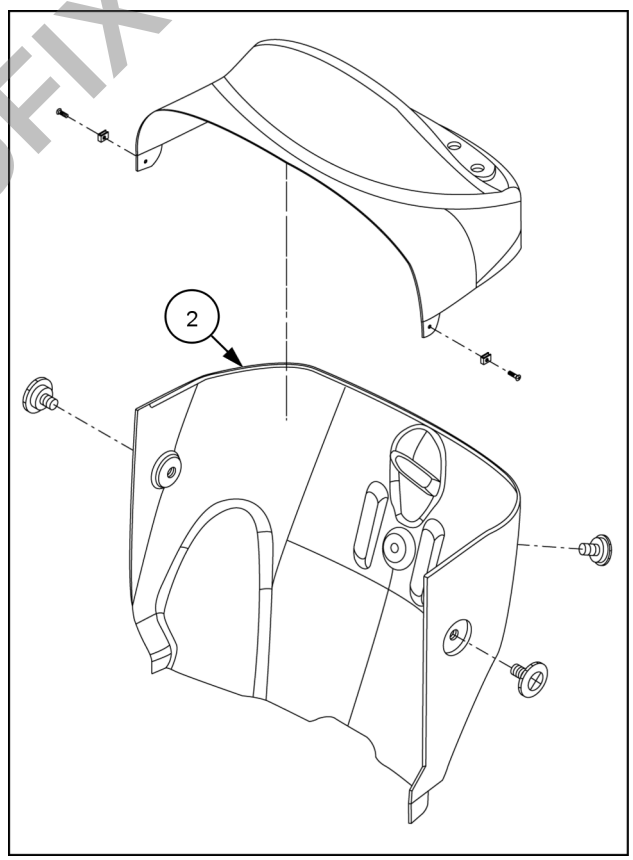
Prior operation:
Ignition switch - Test (55.201)

1. Install switch from the back side of the right-hand side console panel and install retaining nut **(1)**.



83114145 1

2. Connect the two switch connectors to tractor wire harness.
3. Reinstall console lower panel **(2)**.



NHIL12CT00078GA 2

4. Reconnect negative (-) battery cable to the negative (-) battery terminal.

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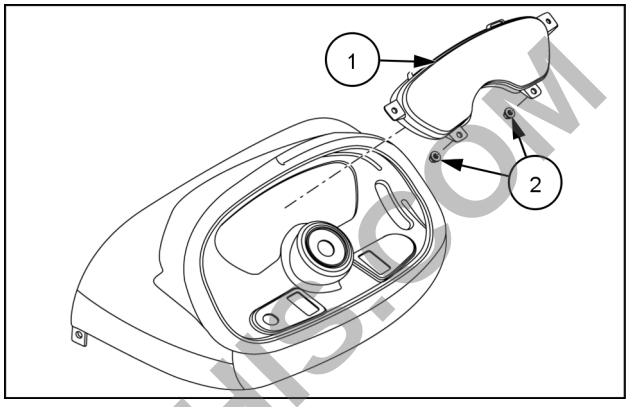
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Instrument cluster Analog instrument cluster - Install

Farmall 20B INT, Farmall 25B INT

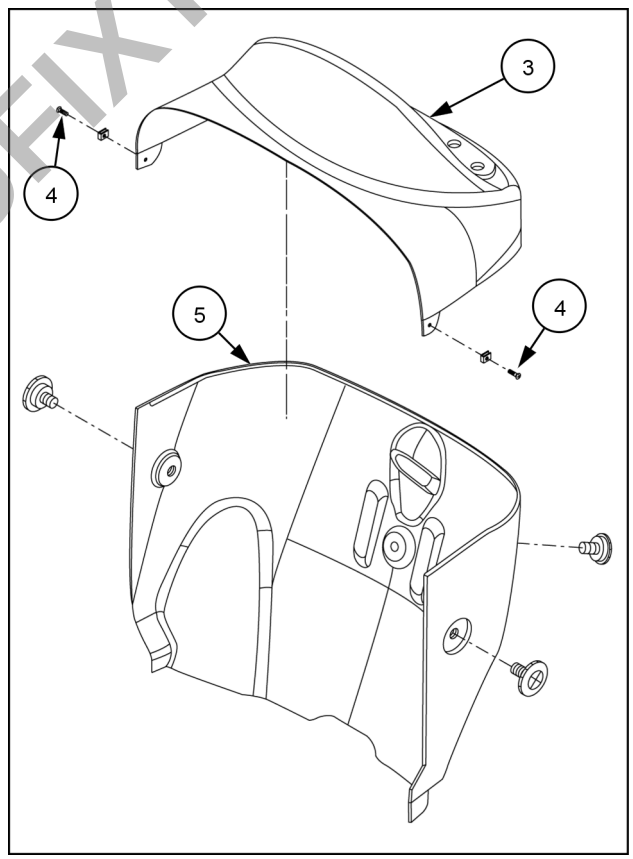
Prior operation:
Instrument cluster Analog instrument cluster - Test (55.408)

1. Install instrument panel **(1)** from the underside of the console, secure instrument panel to console with four **M8** nuts **(2)**.



NHIL12CT00079GA 1

2. Connect wire harness connectors to instrument panel.
3. Install instrument panel upper console **(3)** using the two screws **(4)** and the one **M6** nut (not shown), onto tractor.
4. Install instrument panel lower console **(5)** onto the tractor.



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5. Reconnect the negative (-) battery cable to the negative (-) battery terminal.

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