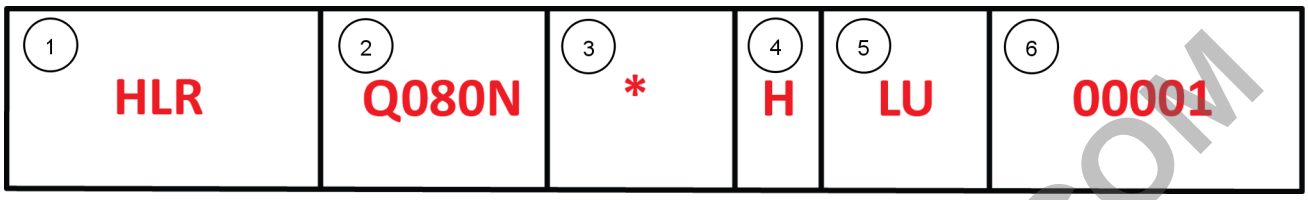
Product identification - Product Identification Number (17 digit PIN)

Product Identification Number (PIN) 17 DIGITS

The Product Identification Number (PIN), also referred to as the Vehicle Identification Number (VIN) on the tractor's identification plate, consists of the following fields:



MOIL17TR03059EA 1

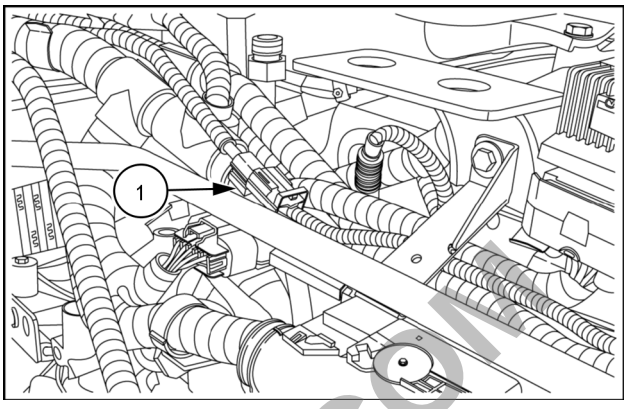
1	DIGITS # 1, 2, 3	MANUFACTURING CODE: HLR = Jesi
2	DIGITS # 4, 5, 6, 7, 8	MODEL IDENTIFICATION: Q080N = FARMALL 80 N Q090N = FARMALL 90 N Q010N = FARMALL 100 N Q011N = FARMALL 110 N Q080V = FARMALL 80 V Q090V = FARMALL 90 V Q010V = FARMALL 100 V Q011V = FARMALL 110 V
3	DIGIT # 9	CONTROL CODE: Alphabetical letters from A to Z
4	DIGIT # 10	YEAR OF PRODUCTION: F=2015 G=2016 H=2017 etc.
5	DIGITS # 11, 12	TYPE APPROVAL: LU= Case IH
6	DIGITS # 13, 14, 15, 16, 17	INCREMENTAL CODE: 00001, 00002, 00003, etc.

For additional information regarding identification refer to the tractor's license plates **Product identification ()** .

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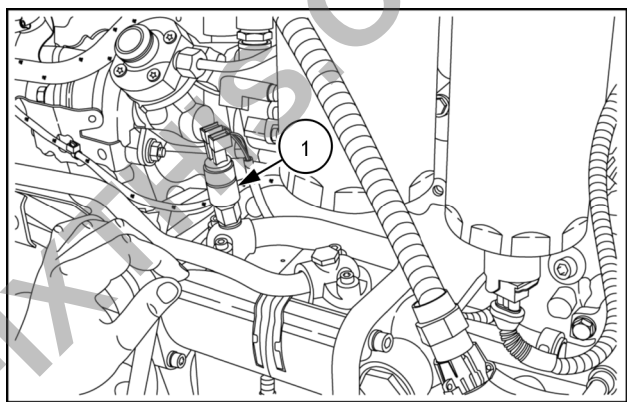
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25. Carefully clean the area around the connector **(1)** of the steering sensor.
26. Disconnect the steering sensor connector **(1)**.
27. Disconnect the connector cable **(1)** from the steering sensor.



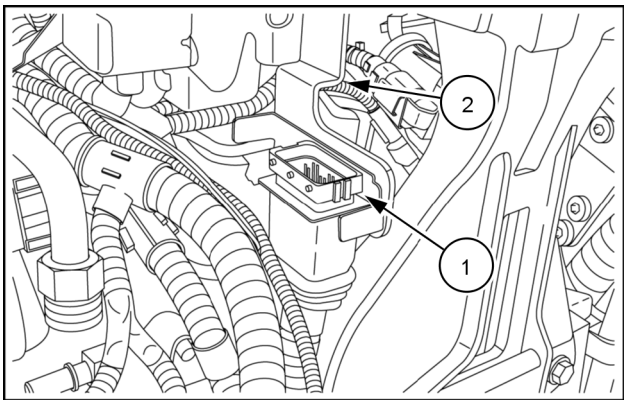
MOIL16TR01459AA 6

28. Carefully clean the area around the connector **(1)** of the hydraulic fluid pressure sensor.
29. Disconnect the connector **(1)** of the hydraulic fluid pressure sensor.
30. Disconnect the connector cable **(1)** from the hydraulic fluid pressure sensor.



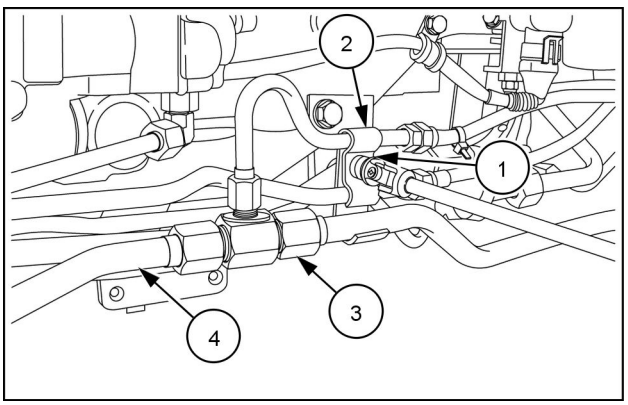
MOIL16TR01460AA 7

31. Carefully clean the area around the connector **(1)**.
32. Disconnect connector **(1)**.
33. Unclamp the connector **(1)** from the support bracket **(2)**.



MOIL16TR01458AA 8

34. Loosen the screw **(1)** and remove the collar **(2)**.
35. Loosen the sleeve **(3)** of the oil delivery pipe **(4)**.



MOIL16TR01462AA 9

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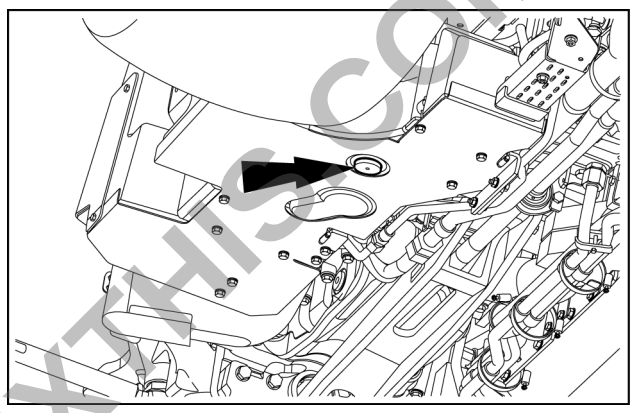
Fuel tank - Filling

⚠ WARNING

Chemical hazard!
When handling fuel, lubricants, and other service chemicals, follow the manufacturer's instructions. Wear Personal Protective Equipment (PPE) as instructed. Do not smoke or use open flame. Collect fluids in proper containers. Obey all local and environmental regulations when disposing of chemicals.
Failure to comply could result in death or serious injury.

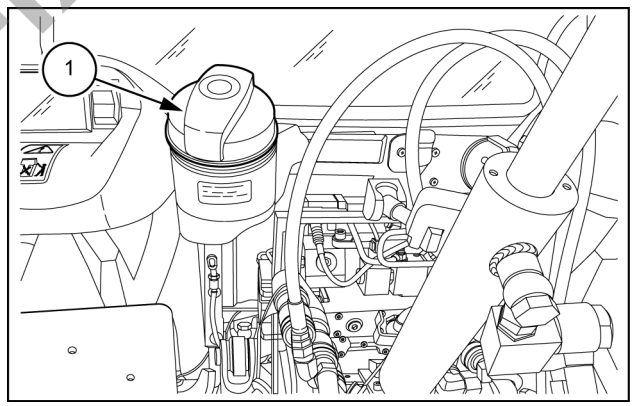
W0371A

1. Thoroughly clean the auxiliary fuel tank drain plug. Replace the related seal.
2. Tighten the auxiliary fuel tank drain plug to the prescribed torque.
3. Fill the fuel tank.



MOIL15TR02119AB 1

4. Tighten the main fuel tank filler cap **(1)**.
5. Check that there is no leak of fuel

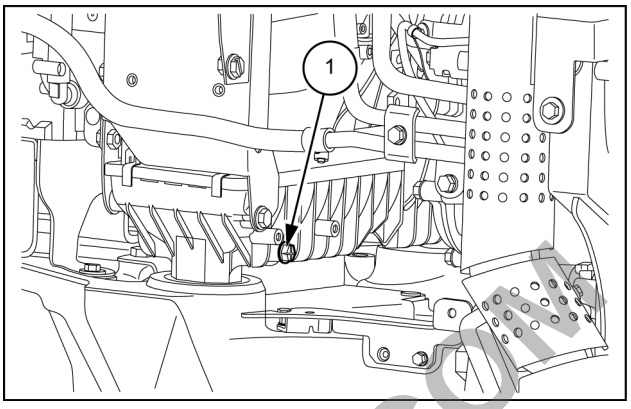


MOIL15TR02255AB 2

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3. Remove the drain plug **(1)** from the radiator and drain the coolant into the container.
4. Tighten the radiator drain plug **(1)**.



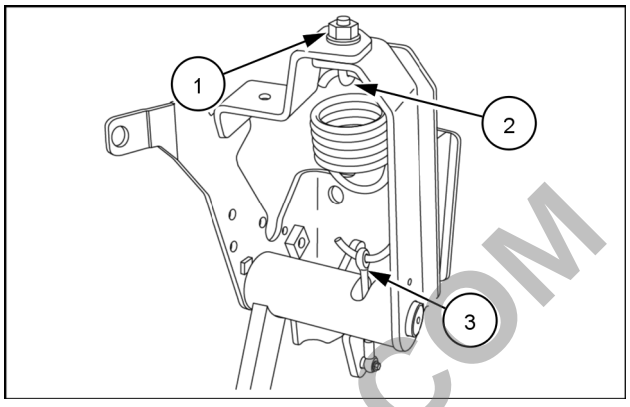
MOIL15TR02289AB 2

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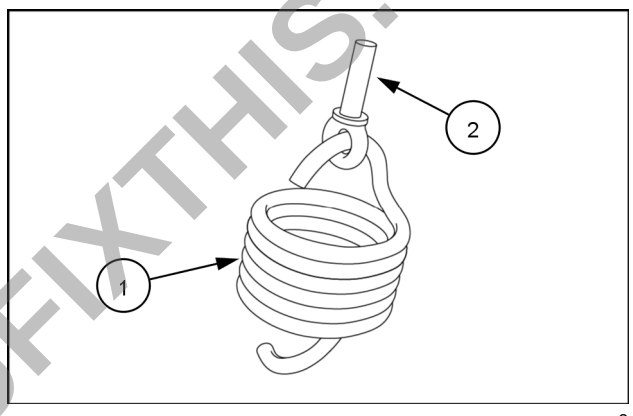
Master clutch release control - Disassemble - Pedal assembly

1. Loosen the nut **(1)** and release the upper side of the spring **(2)**.
2. Release the lower part of the spring from the tie rod **(3)**.



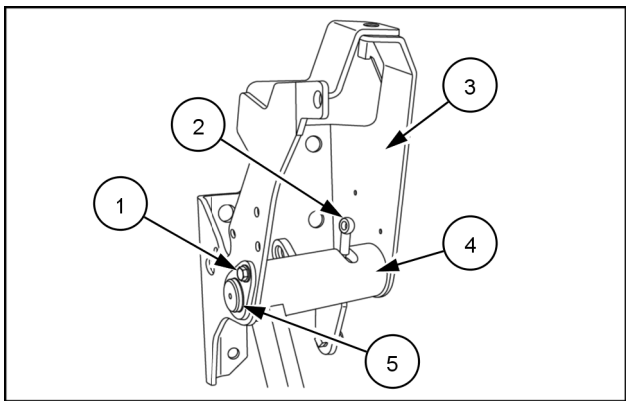
MOIL16TR00374AA 1

3. Remove the spring **(1)** and the eyelet screw **(2)** and place them somewhere safe.



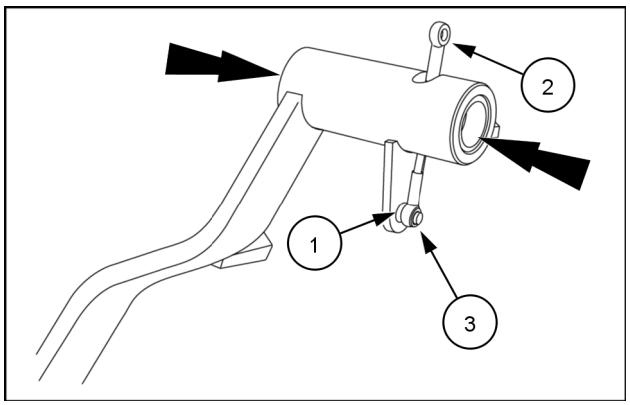
MOIL16TR00375AA 2

4. Loosen the screw **(1)**.
5. Move down the tie rod **(2)**.
6. Slide the pin **(5)** out from the clutch pedal and place it somewhere safe.
7. Remove the main clutch pedal **(4)** and the tie rod **(2)** from the support **(3)**.



MOIL16TR00376AA 3

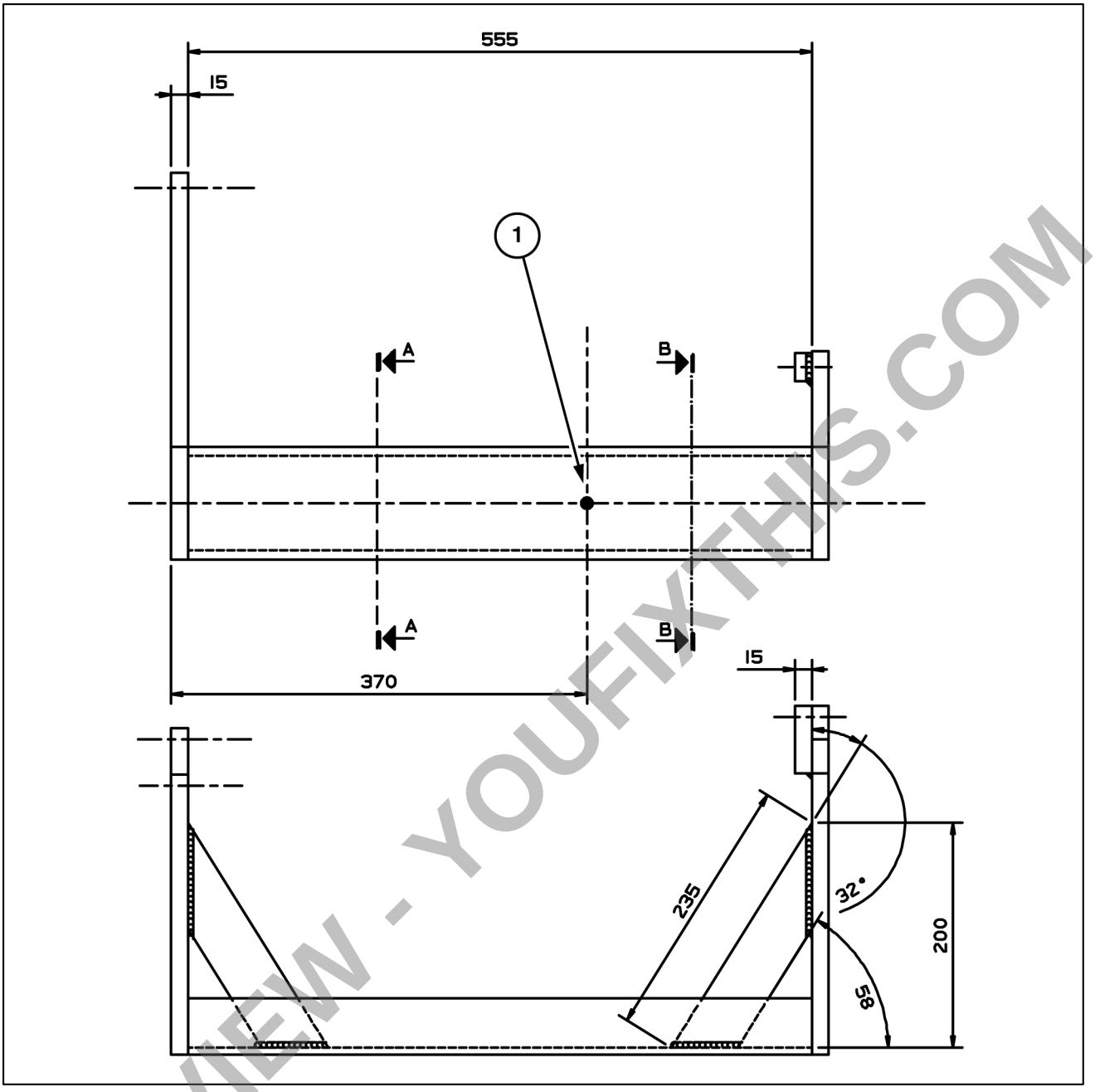
8. Remove the circlip **(3)** and release the pin **(1)** from the tie rod **(2)**.
9. Remove the tie rod **(2)** and place it somewhere safe.
10. Slide the two needle bearings (indicated by the arrows) from the clutch pedal pin housing.



MOIL16TR00378AA 4

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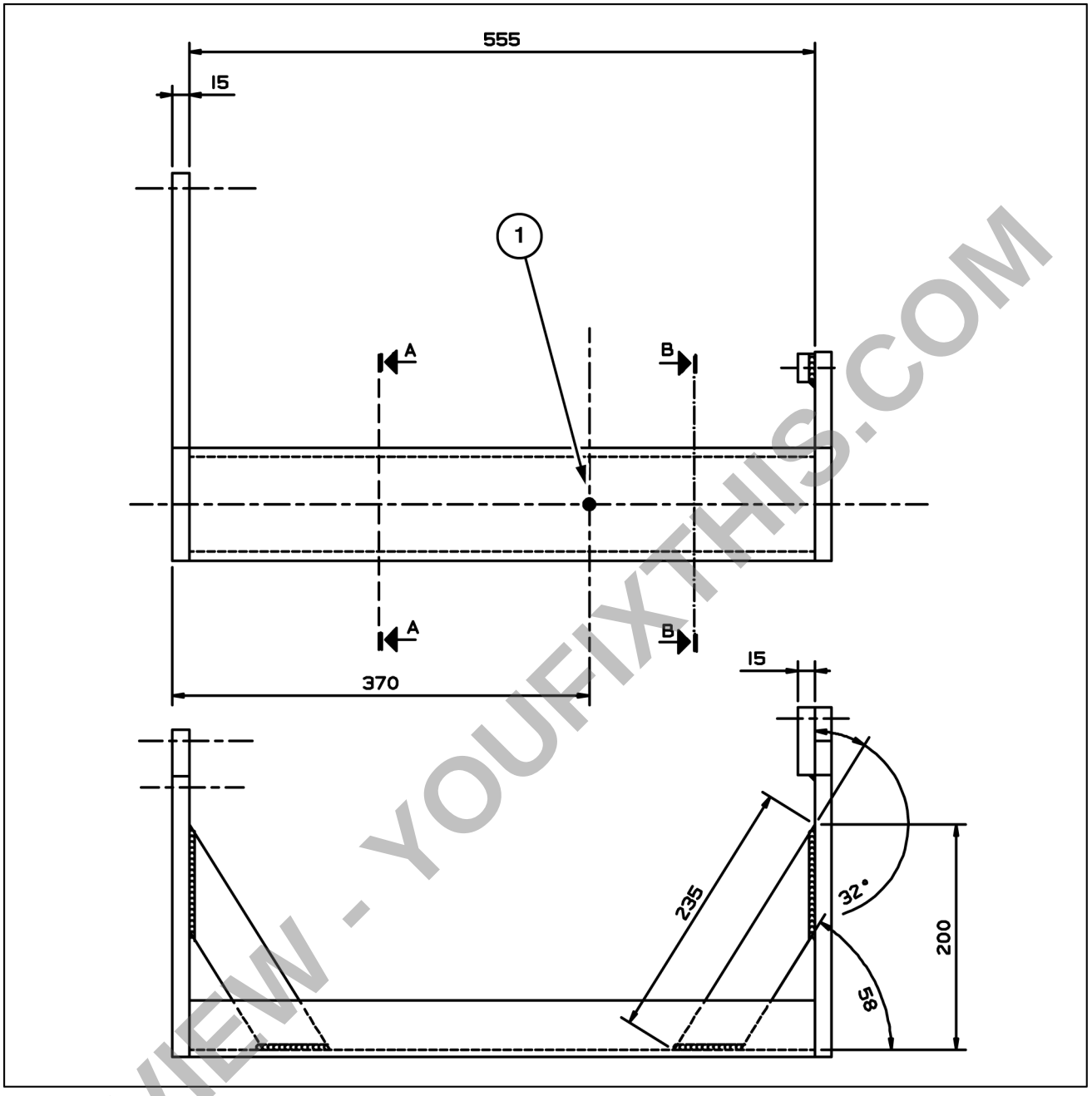
MOLI11F0080GB 1

Bracket to be made for gearbox overhaul on rotating stand
| (Mark part with no. 50157−measurements in mm)

Rotating stand shaft. Make in Aq 42 material

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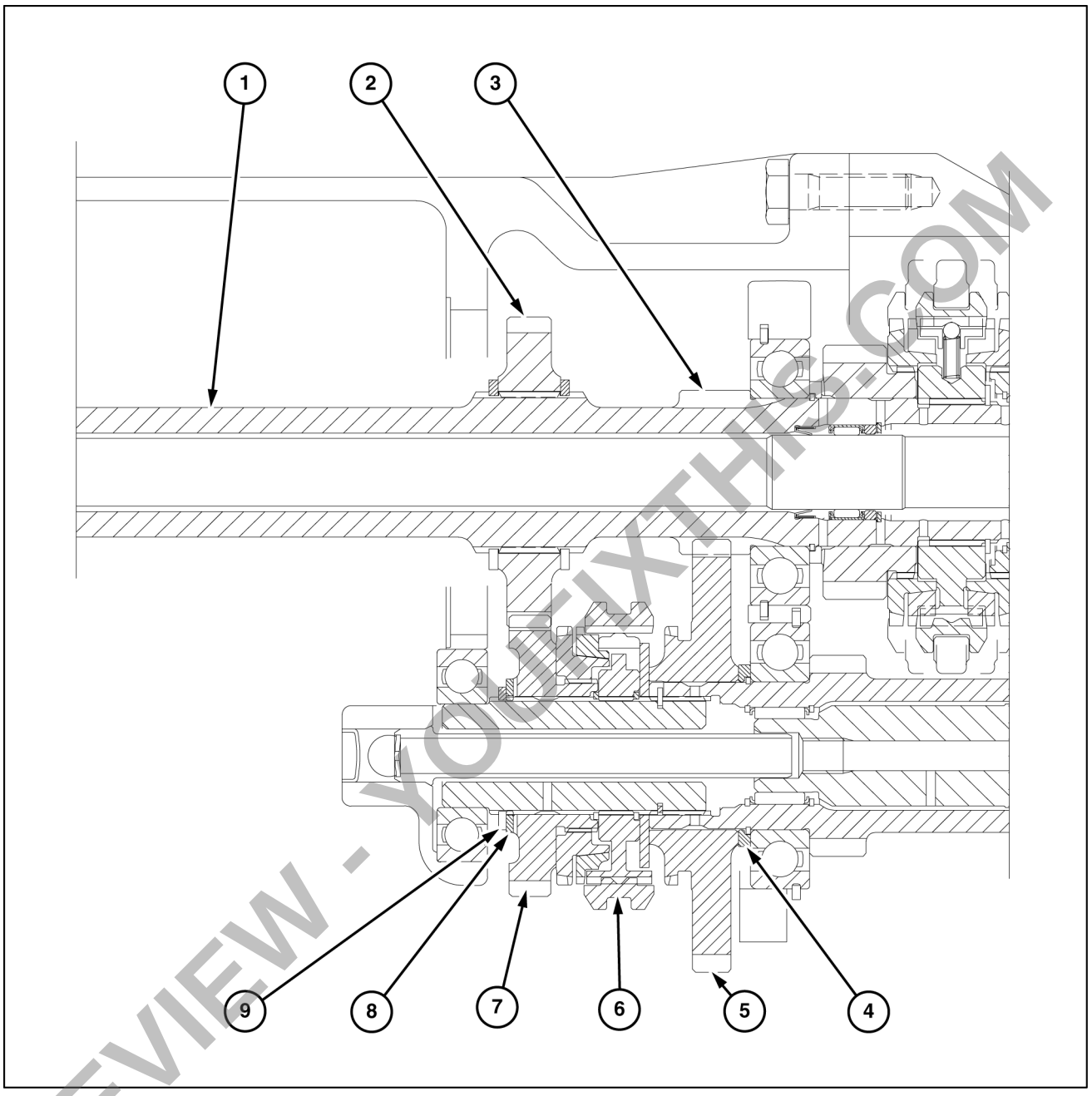
MOLI11F0172GA 1

Bracket to be made for gearbox overhaul on rotating stand
(Mark parts with No. 50157 − Measurements in mm)
Rotating stand shaft − Make in AQ 42 material

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Creeper - Sectional view



MOLI11F0161GB 1

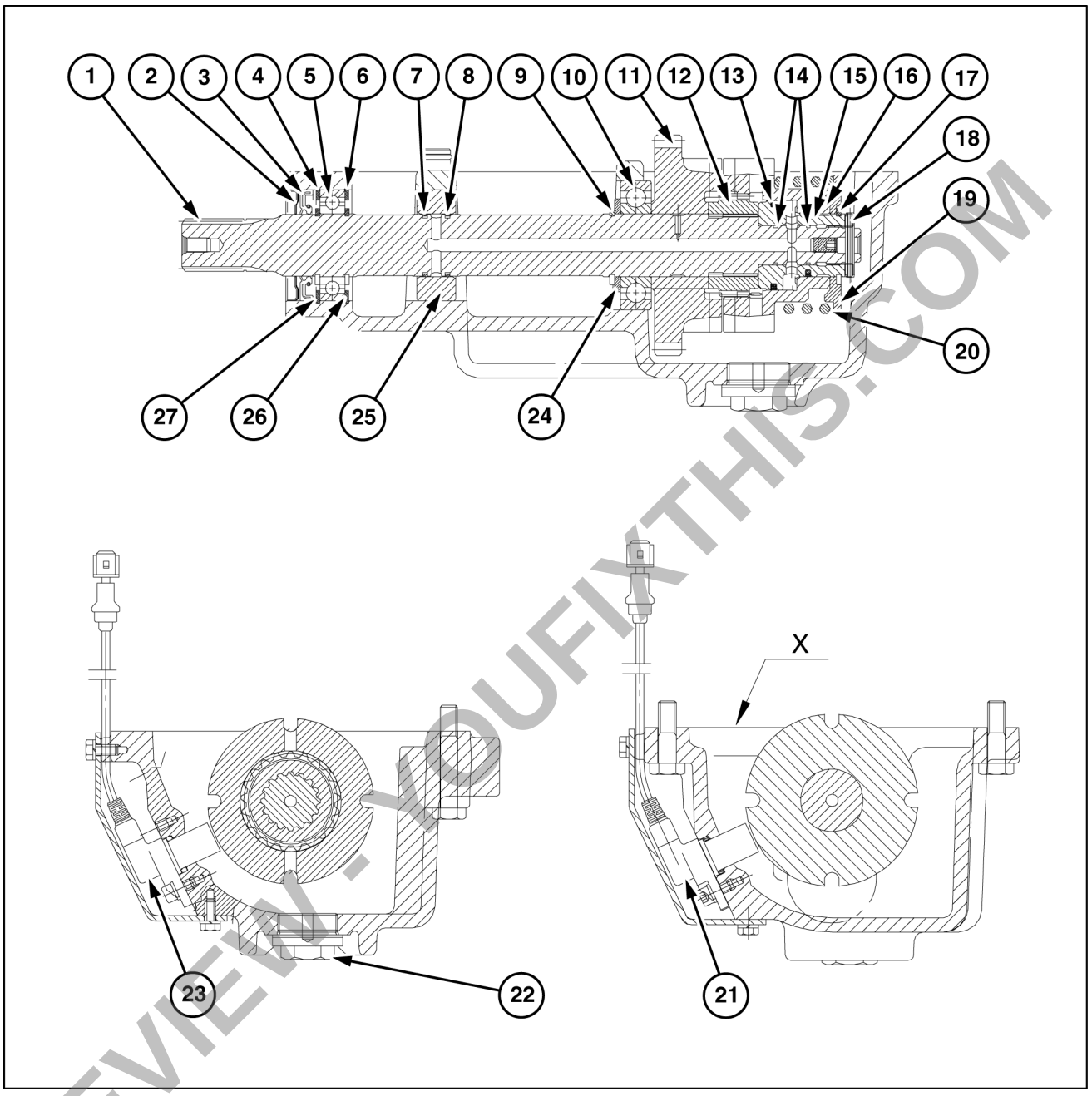
Longitudinal cross-sectional view of splitter and creeper unit

1. Gearbox driving shaft
2. Splitter device driving gear
3. Creeper unit driving gear
4. Thrust washer
5. Creeper unit driven gear
6. Splitter device or creeper unit control synchroniser
7. Splitter device driven gear
8. Thrust washer
9. Circlip

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Gearbox - Sectional view



MOLI11F0215GB 1

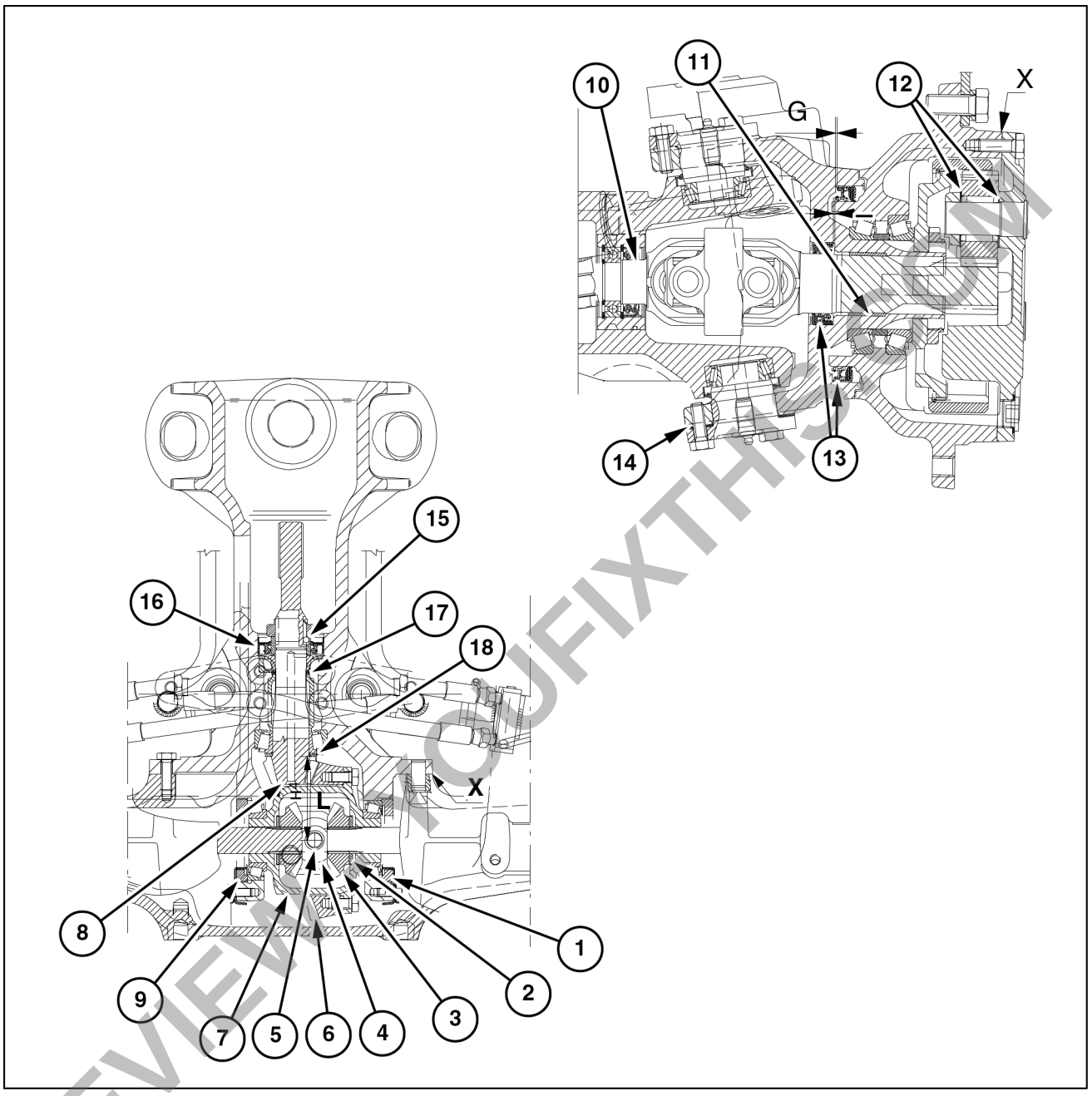
Sectional view of drive gear with electrohydraulic coupling

1. Driven shaft
2. Dust seal ring
3. Seal
4. Ring, snap
5. Bearing
6. Ring, snap
7. Metal seal segment
8. Metal seal segment
9. Ring, snap
10. Bearing
11. Driving gear
12. Gear sleeve
13. Seal
15. Seals
16. Mobile coupling
17. Ring, snap
18. Flexible pin
19. Plate
20. 4WD engagement spring
21. Rear axle speed sensor
22. Transmission oil drainage plug
23. Front axle speed sensor
24. Thrust ring
25. Manifold ring
26. Ring, snap
27. Ring, snap

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Powered front axle - Sectional view



MOLI11F0234GC 1

Cross−sectional views of front axle

G = **0.5 – 1 mm** (**0.0197 – 0.0394 in**). Gasket **(13)** assembly clearance in seat

H_4 = **95 mm** (**3.7401 in**). Nominal distance between crown wheel axis and greater diameter of the pinion

1. Crown wheel bearing adjustment ring nut
2. Side gear thrust washers
3. Side gear
4. Side pinion
5. Cross pin for side pinions
6. Bevel crown wheel
7. Differential casing
8. Bevel pinion
9. Crown wheel bearing adjustment ring nut
10. Axle shaft
11. Axle shaft bush **(10)**
12. Epicyclic reduction unit driven gear shims
13. Seal
14. Steering knuckle adjustment plates
15. Ball joint
16. Seal
17. Bevel pinion bearing adjustment spacer
18. Bevel pinion position adjustment spacer

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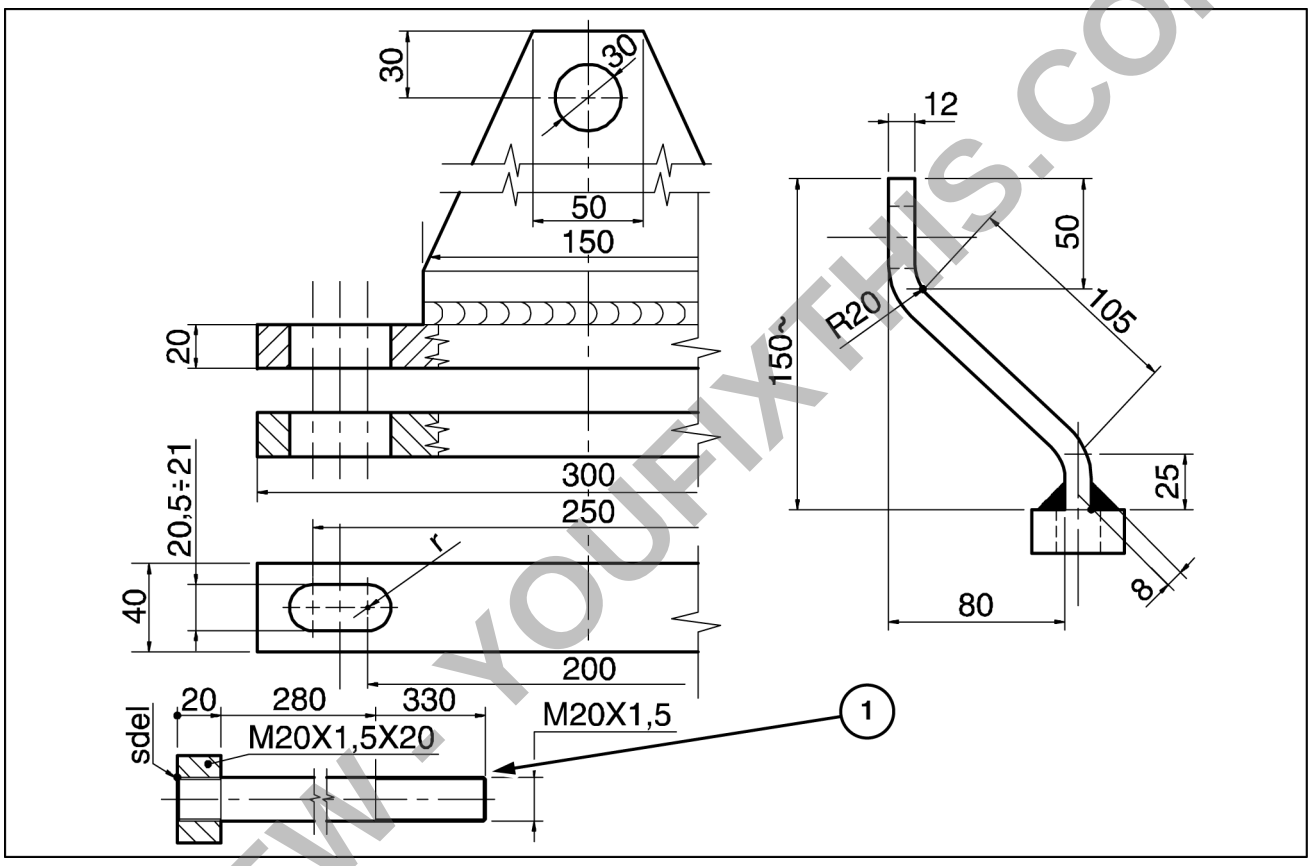
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Powered rear axle - Special tools

NOTICE: *The operations described in this section can only be carried out with ESSENTIAL tools indicated by an (X). To work safely and efficiently and obtain the best results, it is also necessary to use the recommended specific tools listed below and certain other tools, which are to be made according to the drawings included in this manual.*

List of specific tools required for the various operations described in this section.

380000227	Clutch casing lift hook
380000301	Rotating stand for overhaul operations
380001622	Grooved wrench for bevel gear



MOLI11F0333FB 1

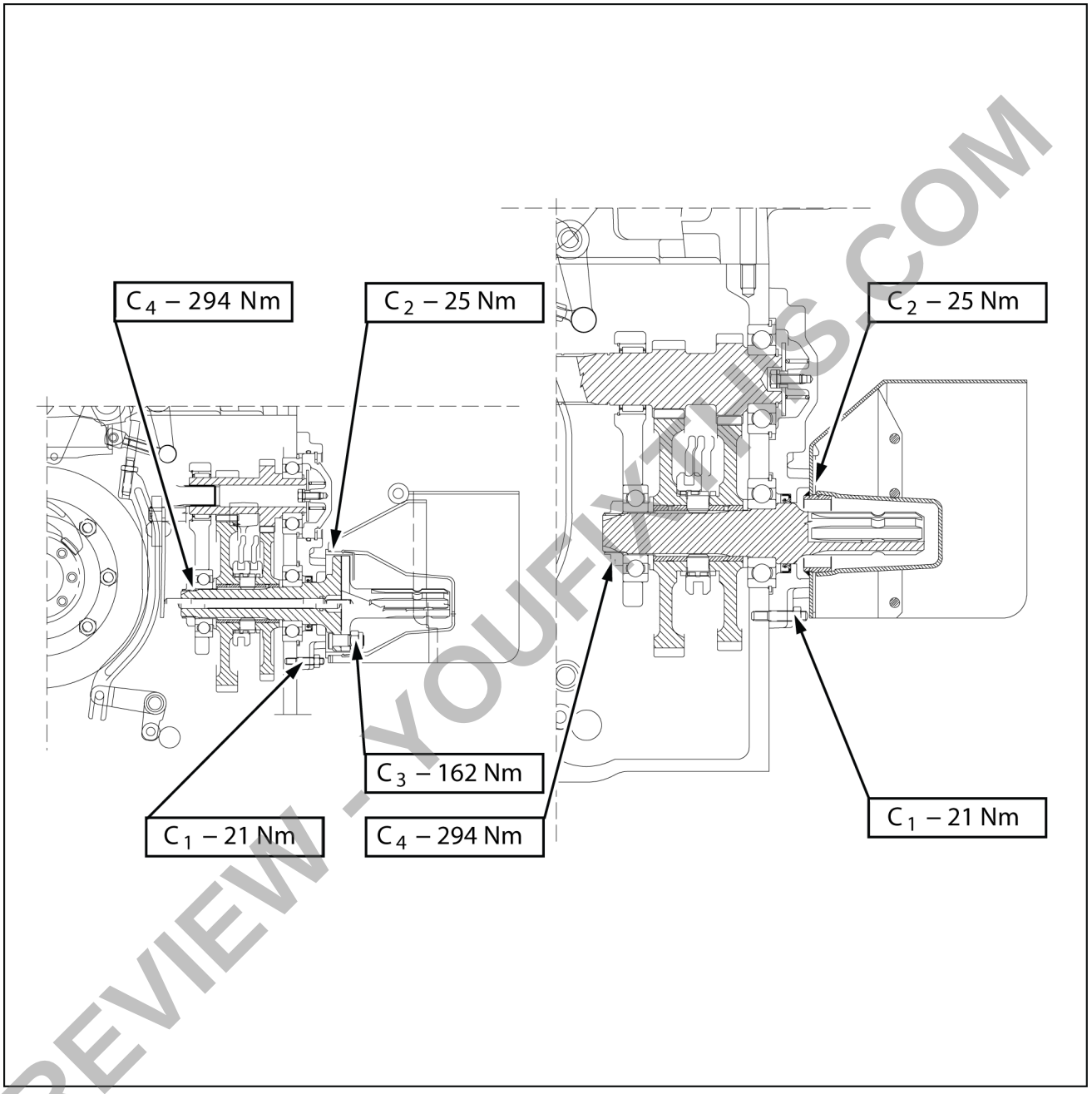
Tool to be made for disassembly-assembly of the final drives, to be used with 50114.
(Mark part with No. 50091 - Measurements in mm)
Make in AQ 42 D material.
1. Make no. 2 tie-rods in C40 bon material.

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Rear mechanical control - Torque

Tightening torques



MOLI11F0378GA 1

Parts to be tightened	Thread	Tightening torque
Bearing support retaining bolts (P.T.O. 540/540E and **540 – 1000 RPM**)	M12 x 1.25	**98 N·m** (**72.3 lb ft**)
P.T.O. cover retaining bolts (C_1)	-	**21 N·m** (**15.5 lb ft**)
P.T.O. guard retaining bolts (C_2)	M8 x 1.25	**25 N·m** (**18.4 lb ft**)
Self-locking nuts for securing grooved terminal (C_3 for **540 – 1000 RPM**) and (C_3 for 540/540E/1000 rpm P.T.O.)	M12 x 1.25	**162 N·m** (**119.5 lb ft**)
Nut locking driven gear shaft: (C_4) for **540 RPM** and **540 – 750 RPM** P.T.O.	M32 x 1.5	**294 N·m** (**216.8 lb ft**)
(C_4) for 540/540E **1000 RPM** P.T.O.	M28 x 1.5	**294 N·m** (**216.8 lb ft**)

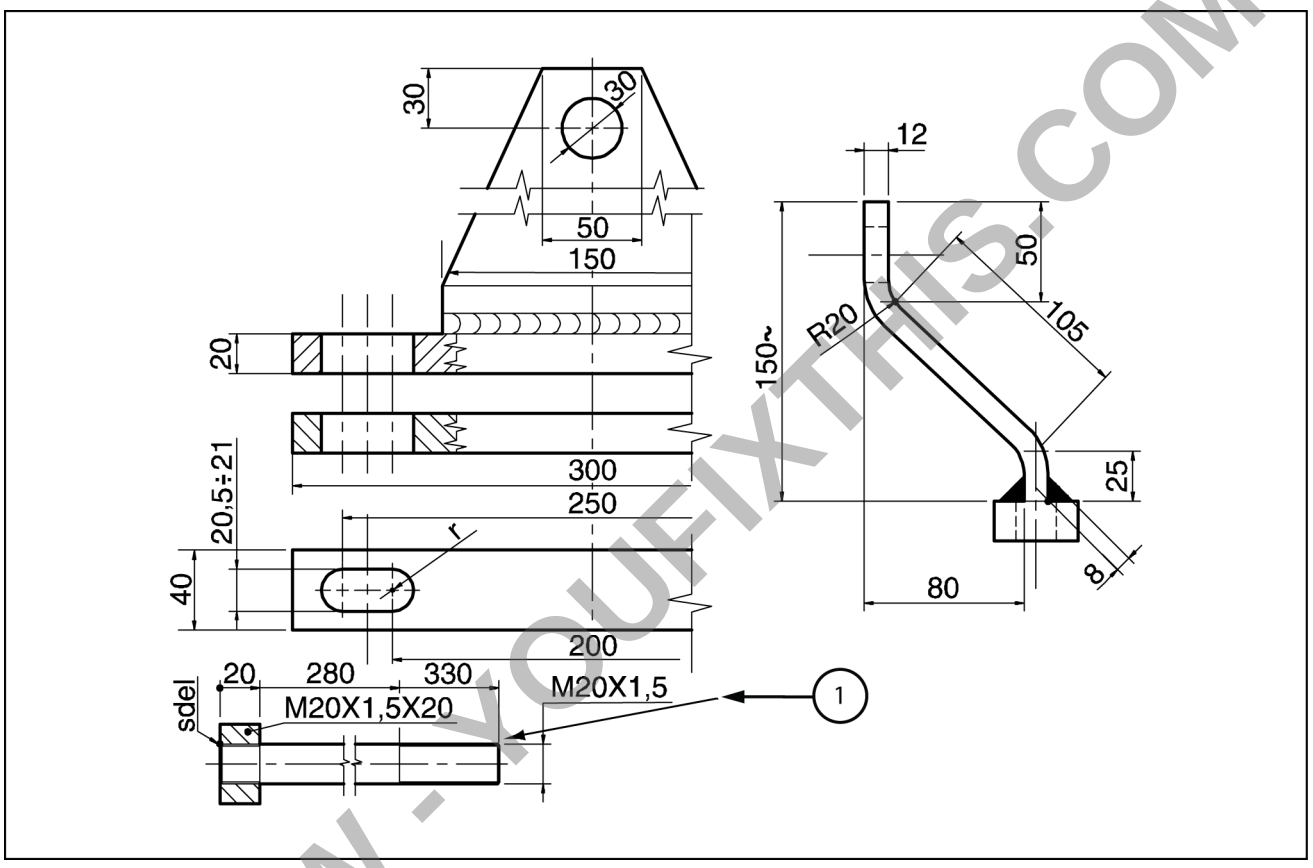
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Hydraulic service brakes - Special tools

Tools

NOTICE: *The operations described in this section can only be carried out with ESSENTIAL tools indicated by an "X". To work safely and efficiently and obtain the best results, it is also necessary to use the recommended specific tools listed below and certain other tools, which are to be made according to the drawings included in this manual.*

List of specific tools required for the various operations described below



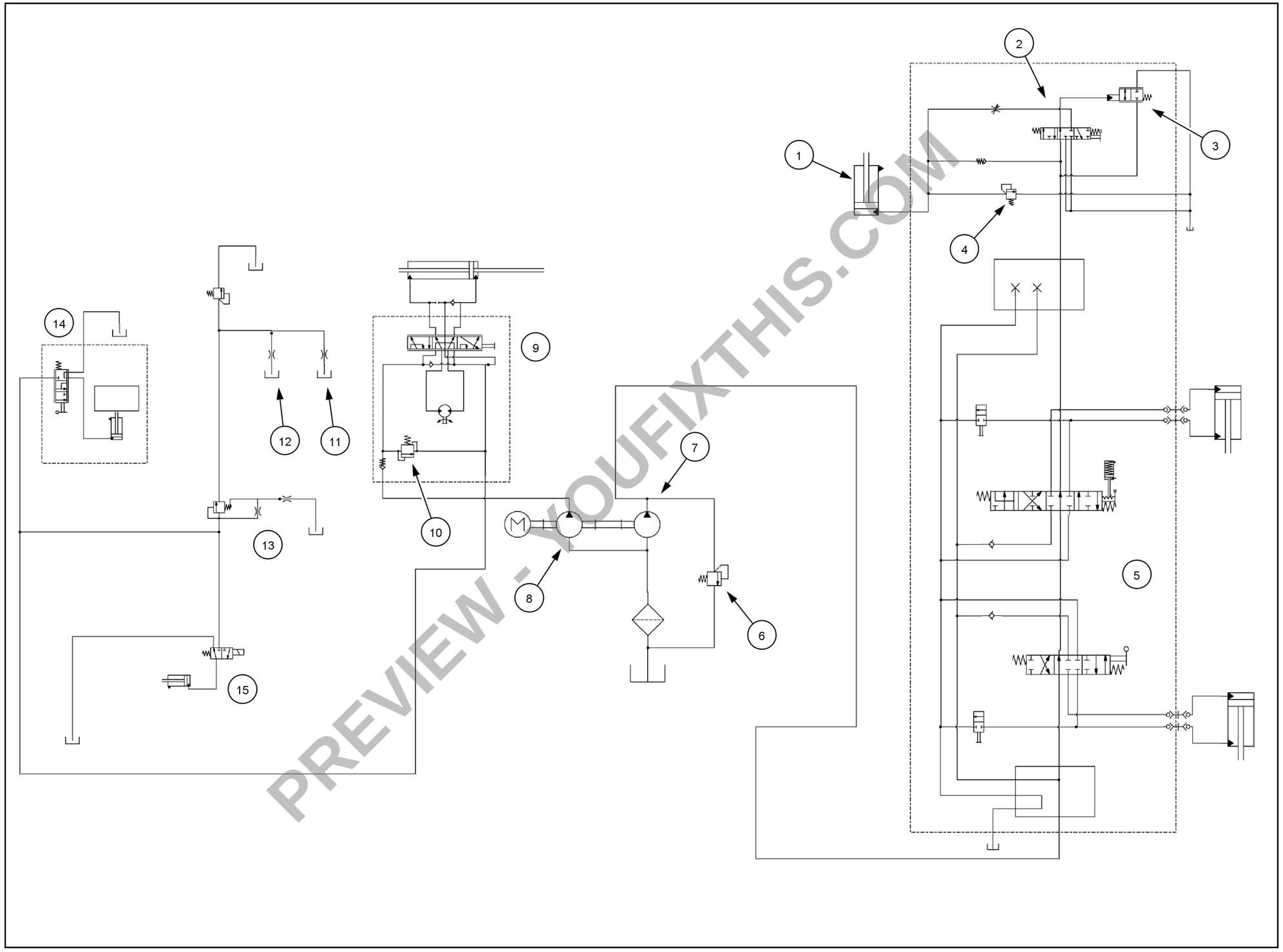
MOLI11F0405FB 1

Tool to be made for disassembly-assembly of the final drives, to be used with 50114. (Mark part with No. 50091 - Measurements in mm)

Construct in **Aq 42** material. Make no. 2 tie-rods in **C40** bon material.

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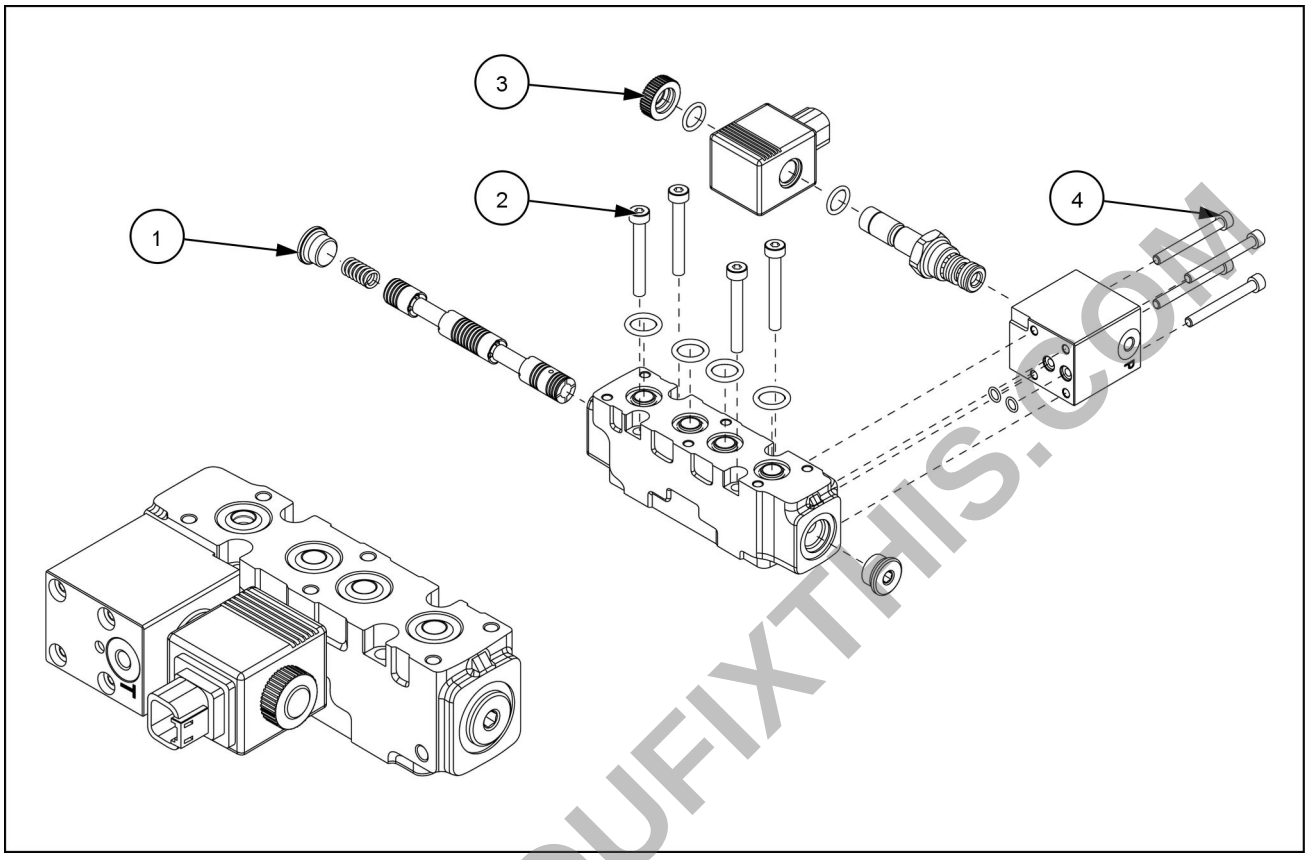


MOIL16TR01162HA 1

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Electro-hydraulic control valve - Torque - Diverter

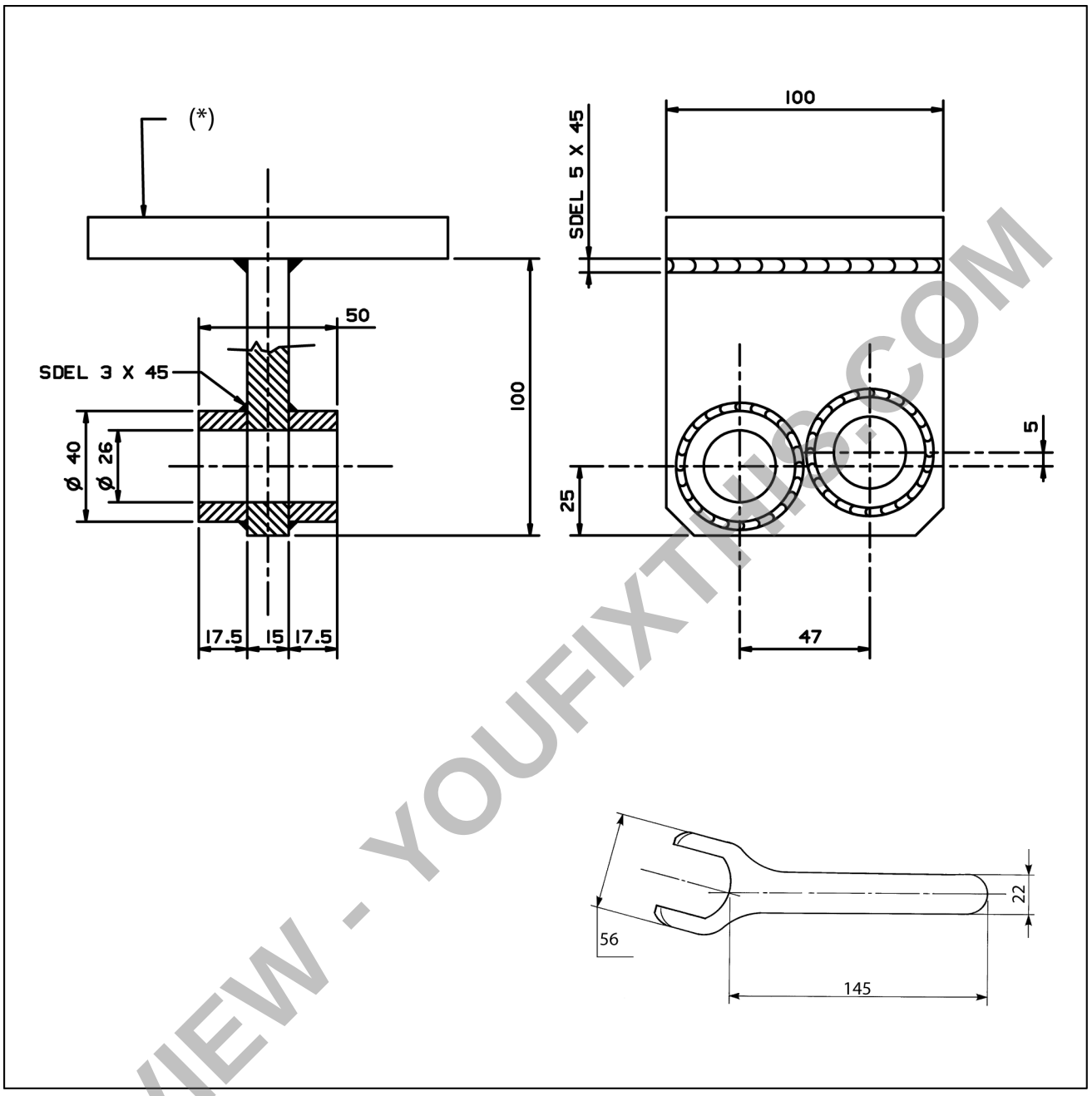


MOIL16TR03424FA 1

Reference	Description	Tighten torque
(1)	Valve body caps	**24 N·m** (**212.4 lb in**)
(2)	Valve body mounting screws	**10 – 12 N·m** (**88.5 – 106.2 lb in**)
(3)	Solenoid valve	**4 – 6 N·m** (**35.4 – 53.1 lb in**)
(4)	Valve control system mounting screws	**6.6 N·m** (**58.4 lb in**)

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MOLI11F0579GB 1

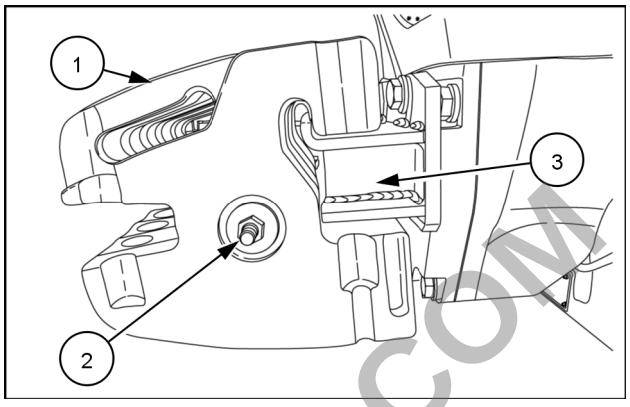
Bracket to be made for overhauling lift to rotating stand (mark tool with No. 50155-measurements in mm).
Make in Aq 42 material-(*) Area for fixing bore to rotating stand
Modification to make to a 36 mm (1.4173 in) wrench for removing, adjusting and fitting the position control sensor (mark tool with No. 50070-measurements in mm).

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Front ballast - Install

1. Recover and thoroughly clean the front ballast plates **(1)**.
2. Thoroughly clean the front ballast plates **(1)** seat.
3. Manually insert the front ballast plates **(1)** in their seat sliding them on the support bracket **(2)**.
4. Insert the threaded bar **(3)** in the related hole of the front ballast plates **(1)**.
5. Tighten the nut **(3)** and lock the front ballast plates **(1)**.

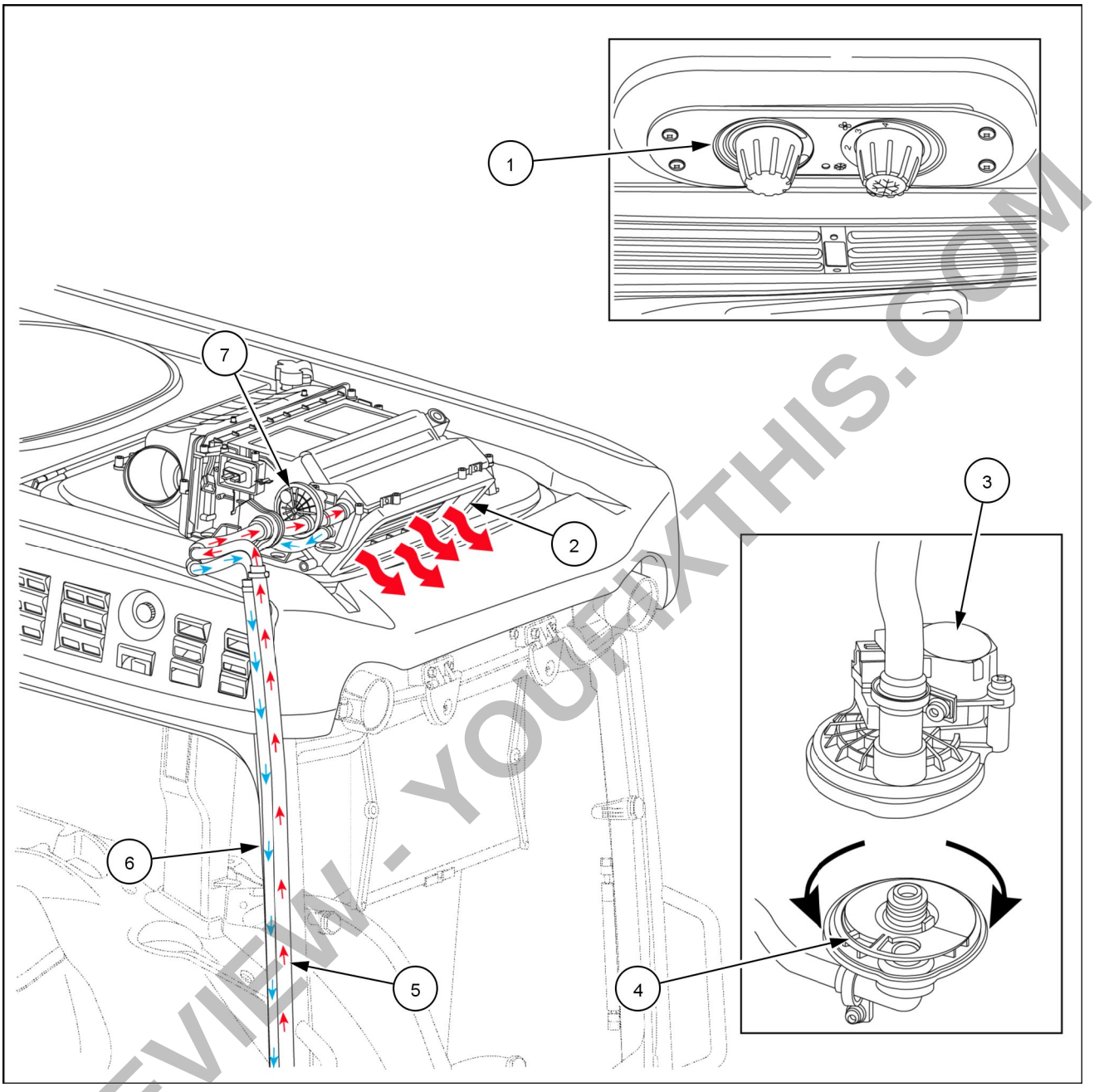


MOIL16TR01403AA 1

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Heating - Dynamic description



MOIL16TR03497GA 1

The tractor cab is heated via a heating radiator **(2)** which is connected to the cab ventilation system, and behaves like a ventilated stove.
The hot coolant from the engine reaches the control valve **(7)** via the delivery pipe **(5)**. In accordance with the impulse received by the valve from the temperature control knob **(1)**, it opens or closes proportionally, allowing a higher or lower amount of hot liquid into the radiator **(2)**.

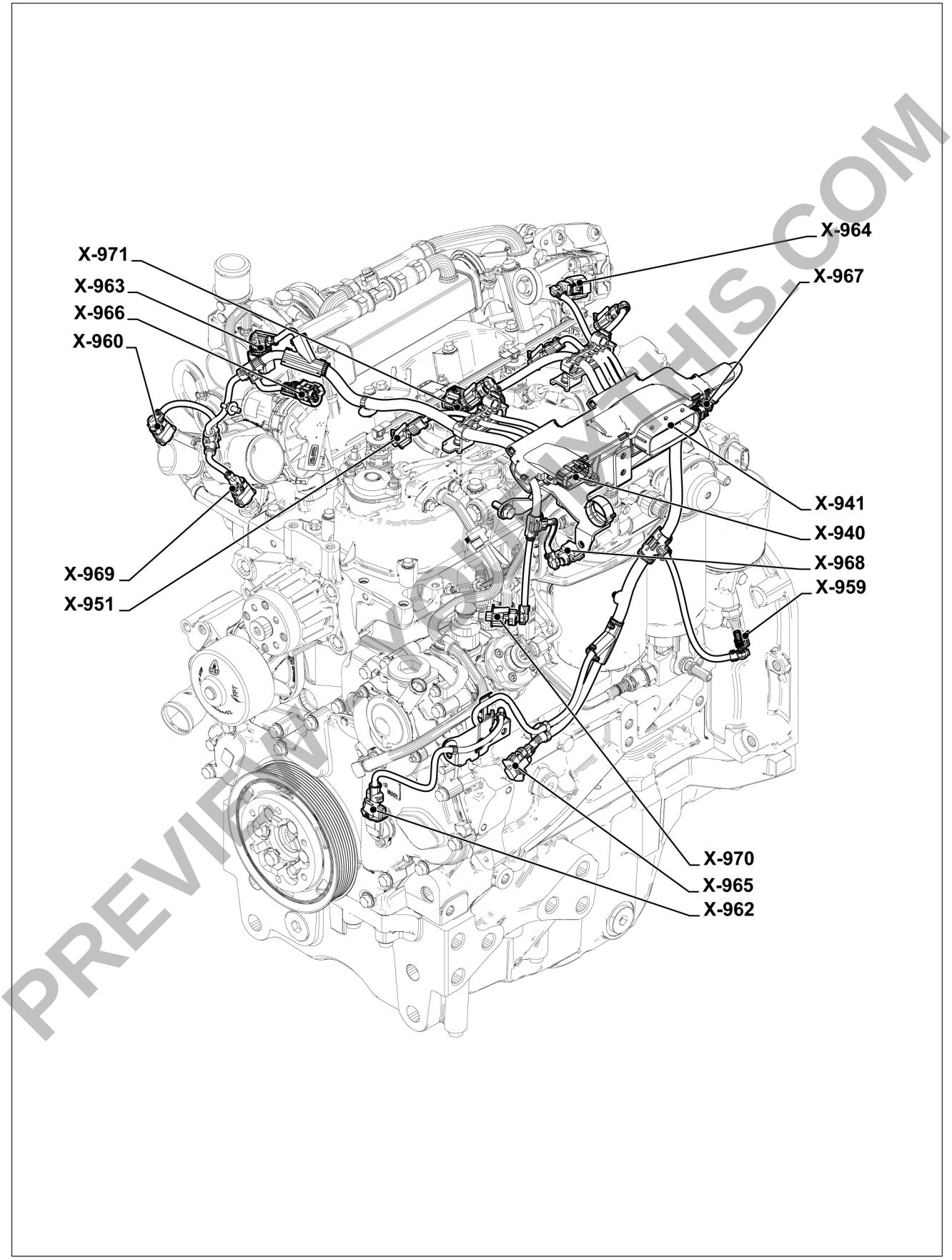
Temperature control knob

- Rotated fully in a counter-clockwise direction = minimum temperature (hot water circulation closed).
- Rotated fully in a clockwise direction = maximum temperature (hot water circulation fully open).

The hot liquid that the valve allows to pass circulates in the radiator, transferring the heat given out to the aeration system, before being channelled back to the engine via the return pipe **(6)**.

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Harnesses and connectors - Component localization 01 - Engine wiring harness 1, LH side view



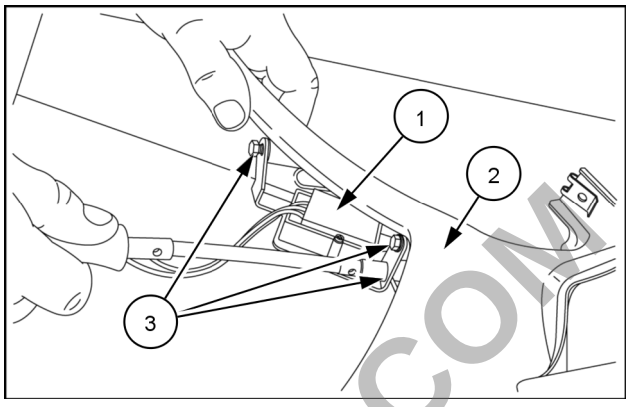
MOIL17TR01879HA 1

Drawing 01 — engine wiring harness 1, LH side view

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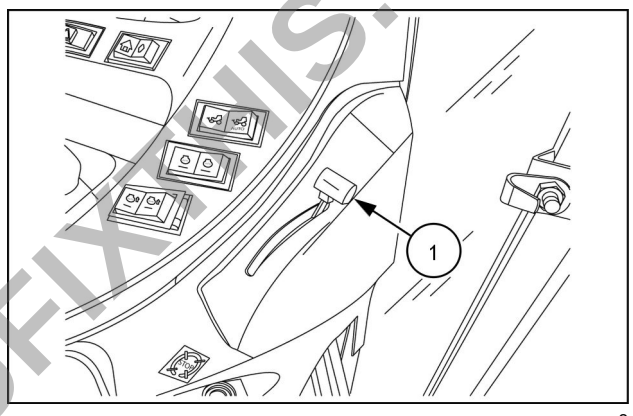
Hand throttle potentiometer - Install

1. Recover and accurately clean the hand throttle lever potentiometer **(1)**.
2. Correctly position the hand throttle lever potentiometer **(1)** in its seat on the right-hand side panel under the instrument panel **(2)**.
3. Screw the three retaining screws **(3)** of the hand throttle lever potentiometer **(1)**.



MOIL16TR01531AA 1

4. Connect the knob **(1)** to the potentiometer control lever of the hand throttle.



MOIL16TR01333AA 2

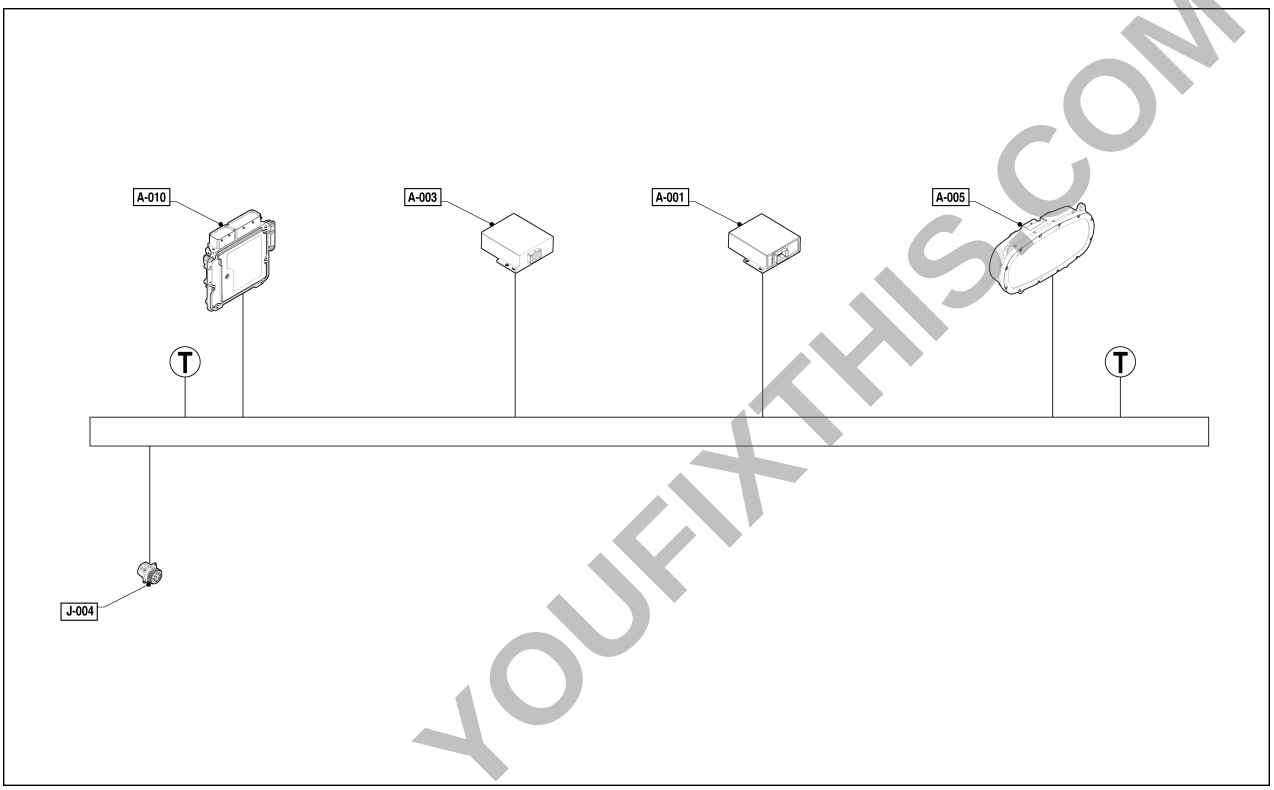
Next operation:
A. Reconnect the right-hand side panel under the instrument panel - See **Cab front panel - Install - Right-hand side (90.160)**.
B.Check the correct vehicle operation.

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Controller Area Network (CAN) data bus - Overview

Farmall® 100N Without cab [HLRQ010N*JLU***** -]	NA
Farmall® 100V Without cab [HLRQ010V*JLU***** -]	NA
Farmall® 110N Without cab [HLRQ011N*JLU***** -]	NA
Farmall® 110V Without cab [HLRQ011VLHLU09499 -]	NA
Farmall® 80N Without cab [HLRQ080NCJLU00104 -]	NA
Farmall® 80V Without cab [HLRQ080V*JLU***** -]	NA
Farmall® 90N Without cab [HLRQ090N*JLU***** -]	NA
Farmall® 90V Without cab [HLRQ090V*JLU***** -]	NA



MOIL16TR00661JA 1

Code	Component	Software identifier	Component description
A-001	ICU SR	SR	Four-Wheel Drive (4WD) control unit — Intermediate Control Unit (ICU) — SR
A-003	ICU SP	SP	Transmission electronic control module — Intermediate Control Unit (ICU) — SP
A-005	ADIC	ZG	Analog-Digital Instrument Cluster (ADIC)
A-010	ECU		Engine Control Unit (ECU)
J-004	Diagnostic socket 1		Diagnostic socket 1

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01 - Control panel disconnected from CAN bus line or CAN bus line failure

Farmall® 100N With cab [HLRQ010N*JLU***** -]	NA
Farmall® 100V With cab [HLRQ010V*JLU***** -]	NA
Farmall® 110N With cab [HLRQ011NEHLU09277 -]	NA
Farmall® 110V With cab [HLRQ011V*JLU***** -]	NA
Farmall® 80N With cab [HLRQ080NCHLU10621 -]	NA
Farmall® 80V With cab [HLRQ080V*JLU***** -]	NA
Farmall® 90N With cab [HLRQ090N*JLU***** -]	NA
Farmall® 90V With cab [HLRQ090V*JLU***** -]	NA

Control Module: CAT4

Context:
The HVAC ECU **A-018** is lost. The system remains in CAT4 status. At the next key-on, after the **25 s** system goes into the OFF state: both flaps go into the closed position and the fan is switched off.

Cause:

1. No control unit power supply;
2. Faulty wiring;
3. Controller faulty.

Solution:

1. Turn the ignition switch to the off position.

   Verify if the fuse **F-013** is damaged

   A. If the fuse is damaged, replace the fuse;

   B. If the fuse is OK, continue to step **2**.
2. Check the correct wiring of the CAN line between **X-850** of the control unit **A-018** and the connector **X-050**, check that the connectors are properly connected, the connector pins are not oxidized and are well-connected to the connector itself.

   Check for continuity between the pins:
   X-850 pin 18 and **X-050A (Receptacle) pin 9**, **X-050B (Plug) pin 10**;
   X-850 pin 17 and **X-050A (Receptacle) pin 9**, **X-050B (Plug) pin 9** .

   A. If the is no continuity, repair or replace the wiring harness as necessary.

   B. If there is correct continuity, continue to step **3**.
3. Check that the control unit is not damaged.

   A. If the control unit is damaged, replace the control valve.

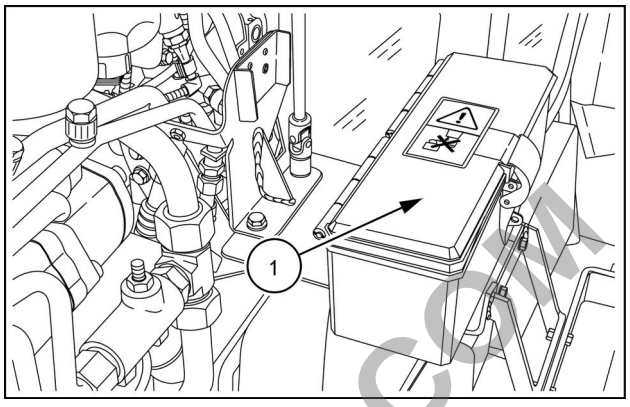
Wiring harnesses - Electrical schematic sheet 44 (55.100)
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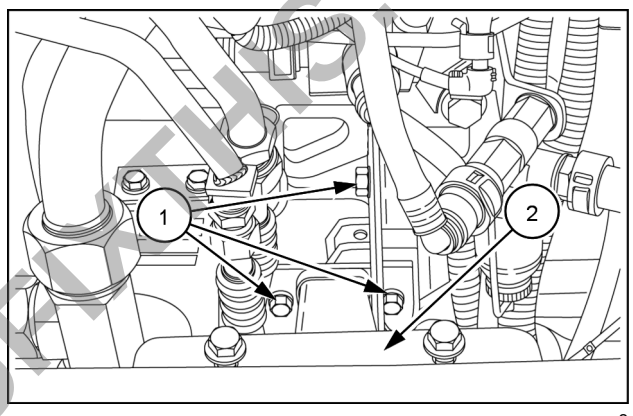
Tool box - Install

1. Retrieve and carefully clean the tool box **(1)**
2. Carefully clean the seat of the tool box on the vehicle.
3. Correctly position the tool box in its seat on the vehicle.



MOIL15TR03685AA 1

4. Tighten the three fastening screws **(1)** on the bracket **(2)** for the tool box.



MOIL16TR03980AA 2

Next operation:
A. Reattach the windshield washer fluid reservoir – See **Windshield washer fluid reservoir - Install (55.518)**.

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