SERVICE MANUAL

TK4.90
TK4.90M
TK4.100
TK4.100M
TK4.110
TK4.110M
Tractor

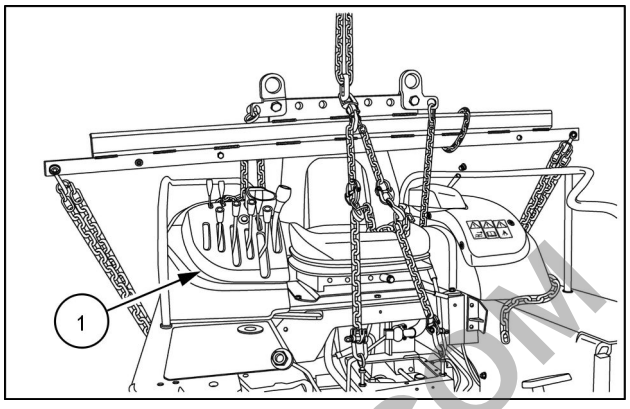
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Part number 51543554
English
March 2019

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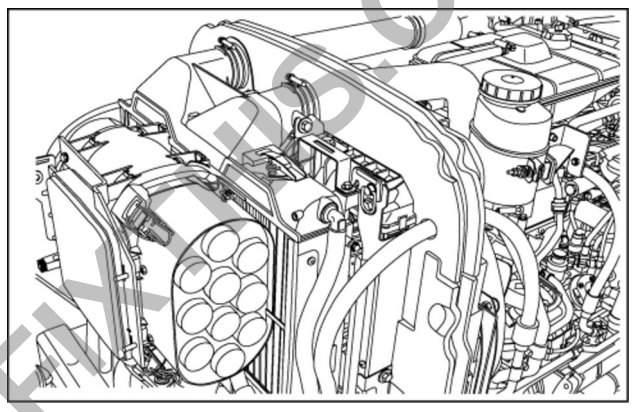
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28. Install the rear-wheel assembly **(1)** complete with transmission housing onto the engine assembly and clutch housing, as described in **Clutch - Install - With mechanical disengagement control (18.110)**.



MOIL17TR01082AA 19

29. Add coolant to replenish the cooling system, as described in **Radiator - Change fluid - Conventional coolant (10.400)**.

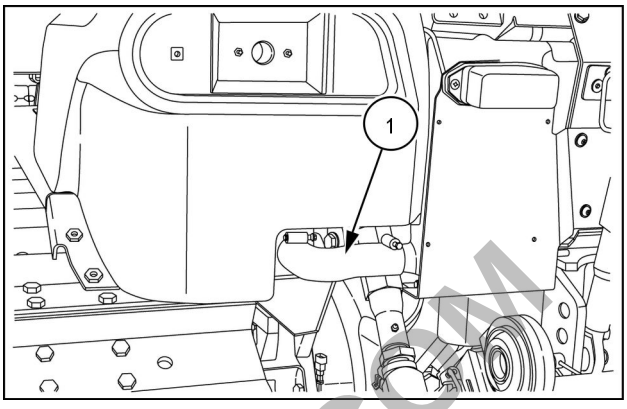


MOIL16TR03834AA 20

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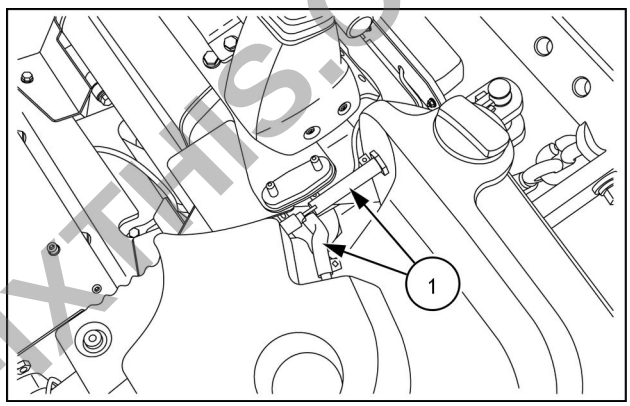
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5. Connect the fuel line **(1)** connected to the auxiliary tank.



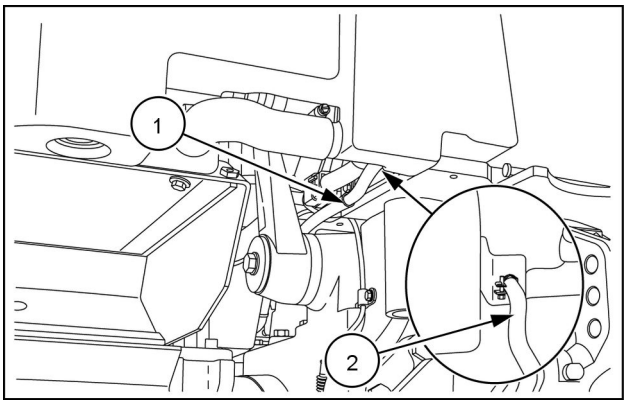
MOIL16TR03562AA 3

6. Connect the fuel lines **(1)**.



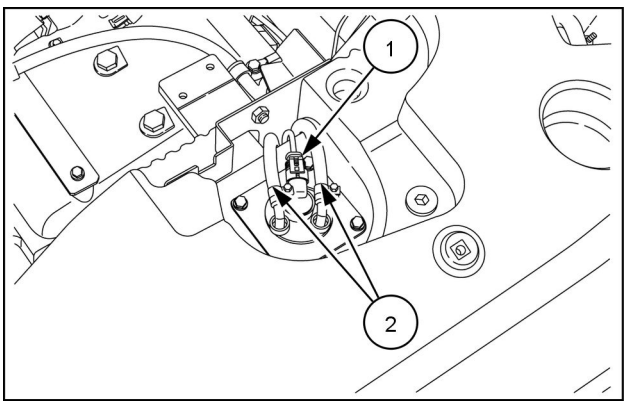
MOIL16TR03561AA 4

7. Connect the fuel line **(2)**.
8. Fit the retaining clamp **(1)**.



MOIL16TR03692AA 5

9. Connect the electrical connection **(1)**.
10. Connect the fuel lines **(2)**, paying attention to the markings you made during removal.



MOIL16TR03559AA 6

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Air intake lines - Install

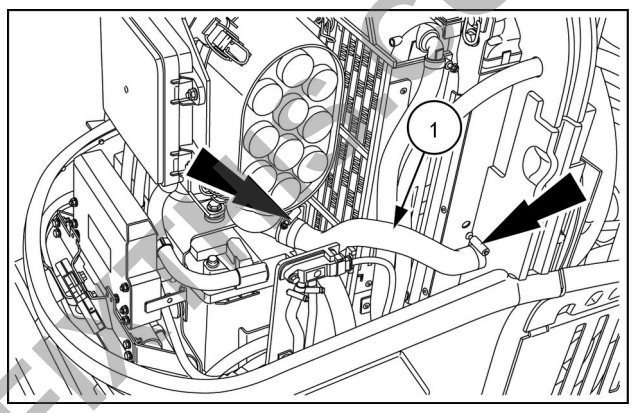
⚠ WARNING

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.

W0208A

Prior operation:
Air intake lines - Remove (10.202)

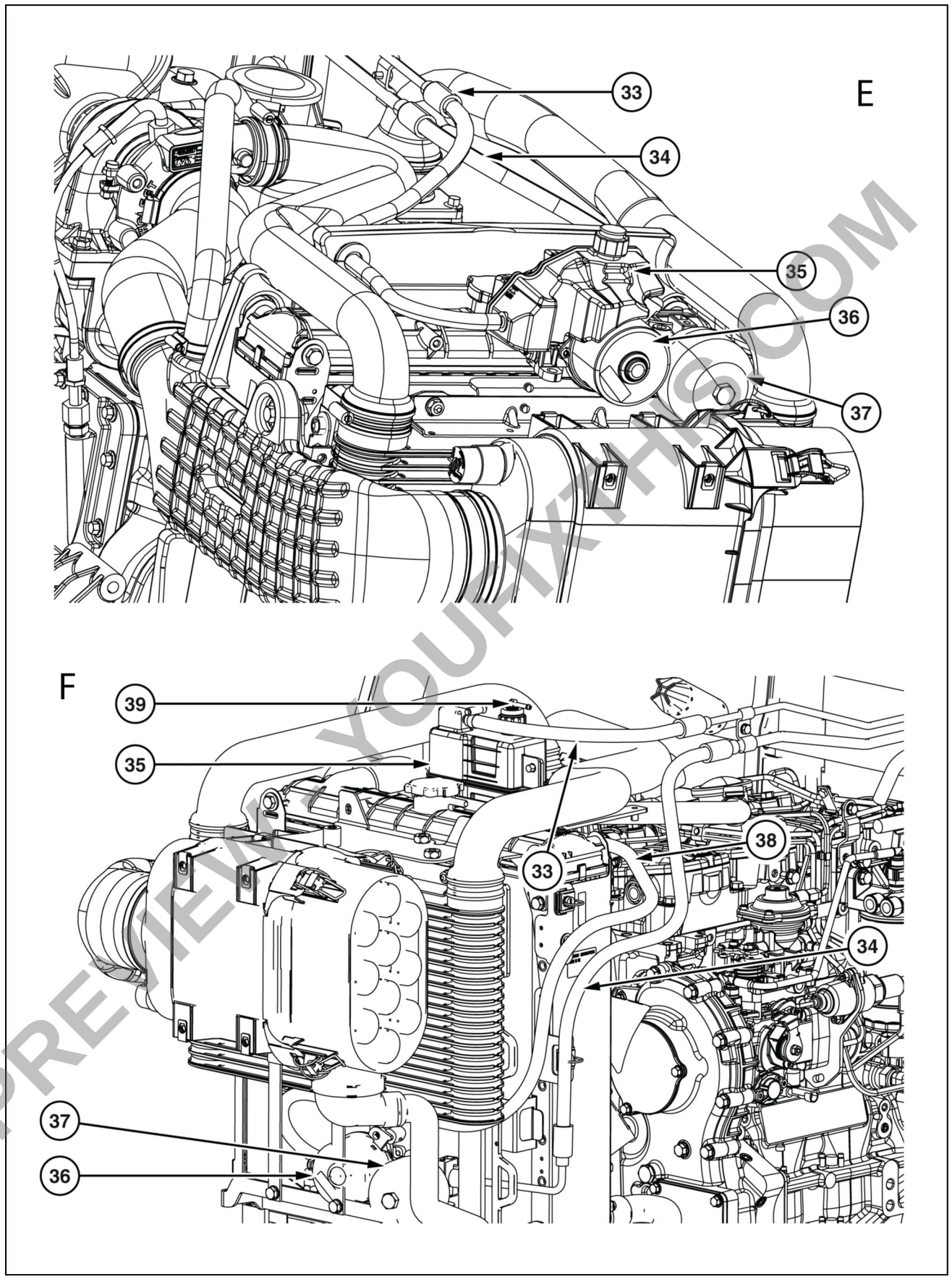
1. Move the intake pipe **(1)** into position.
2. Fasten the retaining straps.



MOIL16TR03753AA 1

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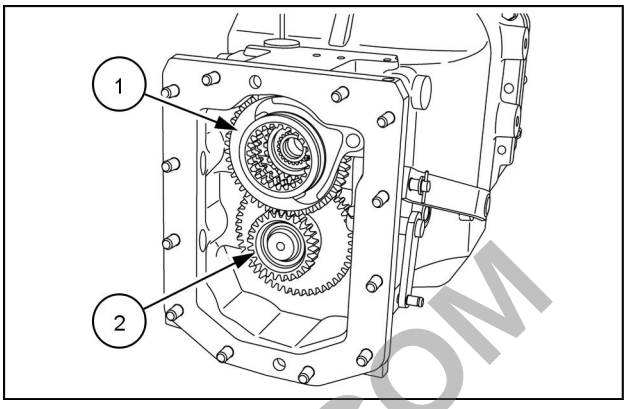
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MOLI11K0140HB 3

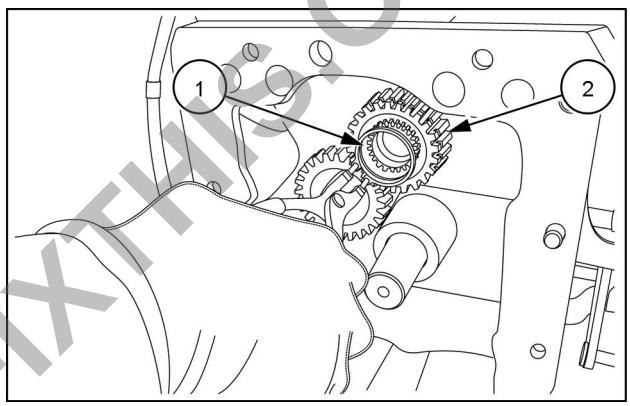
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122. If a supplementary gear reducer is fitted, remove the driving gear **(1)** and the driven gear **(2)**.



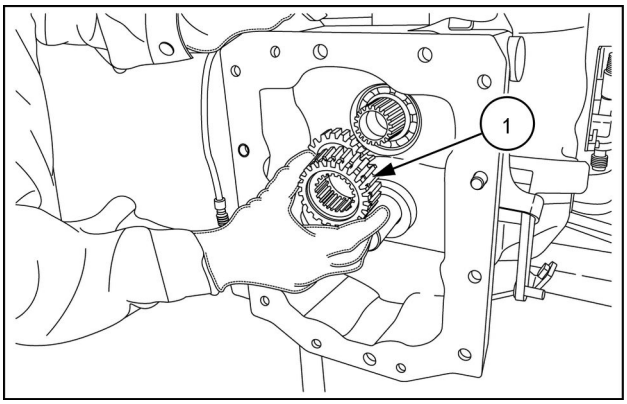
MOIL17TR00943AA 99

123. Remove the circlip **(1)** retaining the driving gear **(2)**.



MOIL17TR00922AA 100

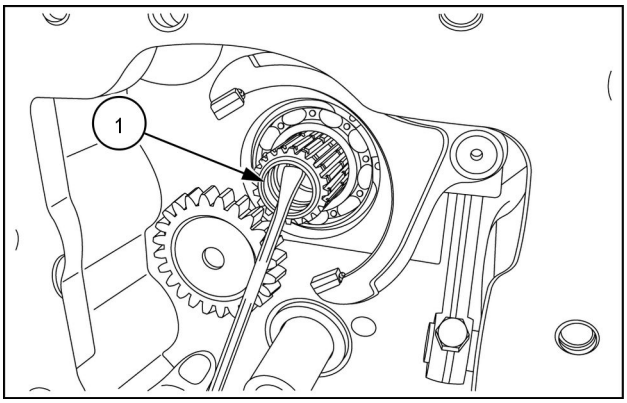
124. Remove the driving gear **(1)**.



MOIL17TR00923AA 101

125. Remove the oil seal **(1)** from inside the clutch shaft.

NOTE: *Always replace with a new one during reassembly.*

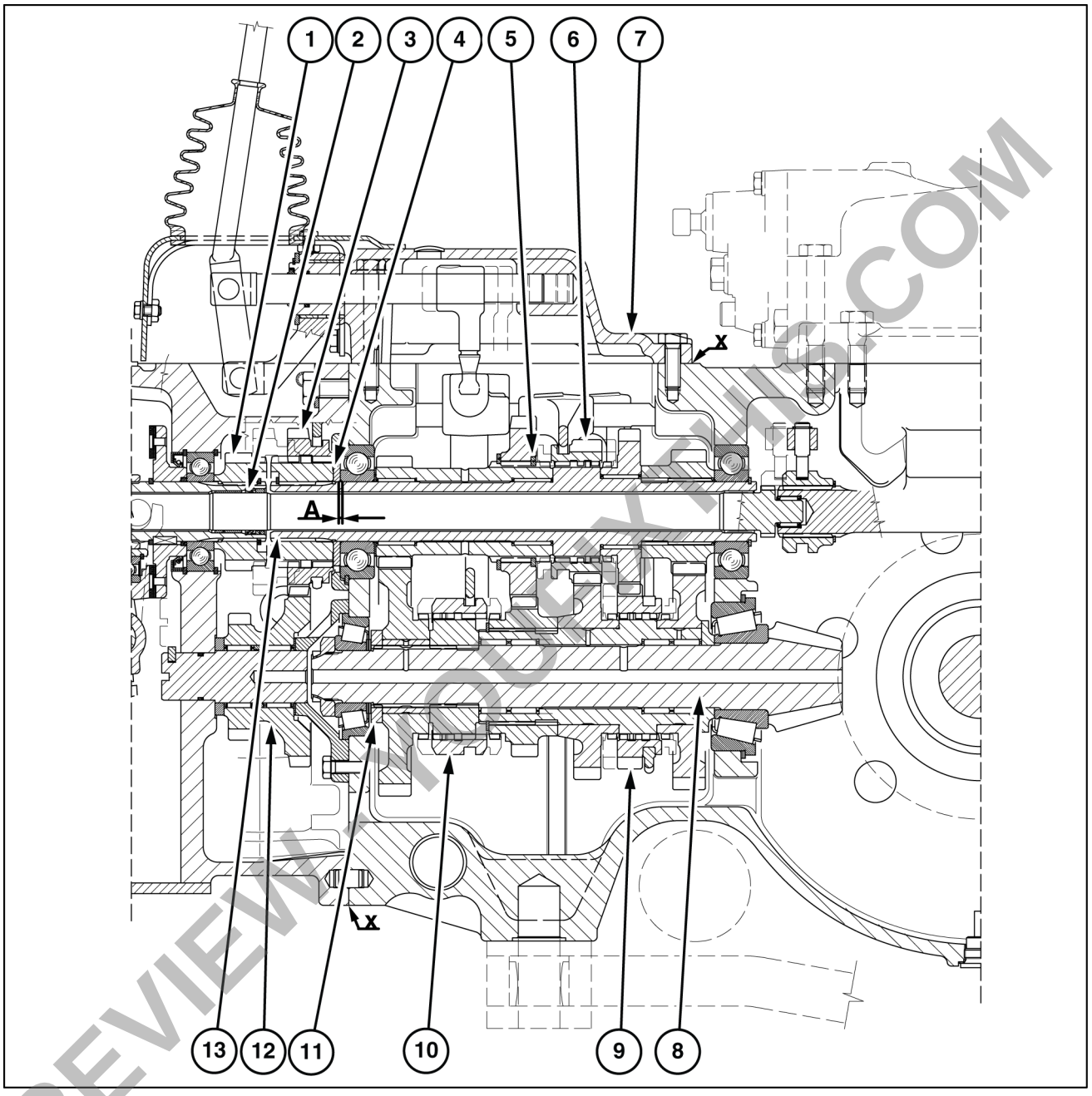


MOIL17TR00924AA 102

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Transmission internal controls - Sectional view gearbox with reverser



MOLI11K0168GB 1

Cross-sectional view of gearbox

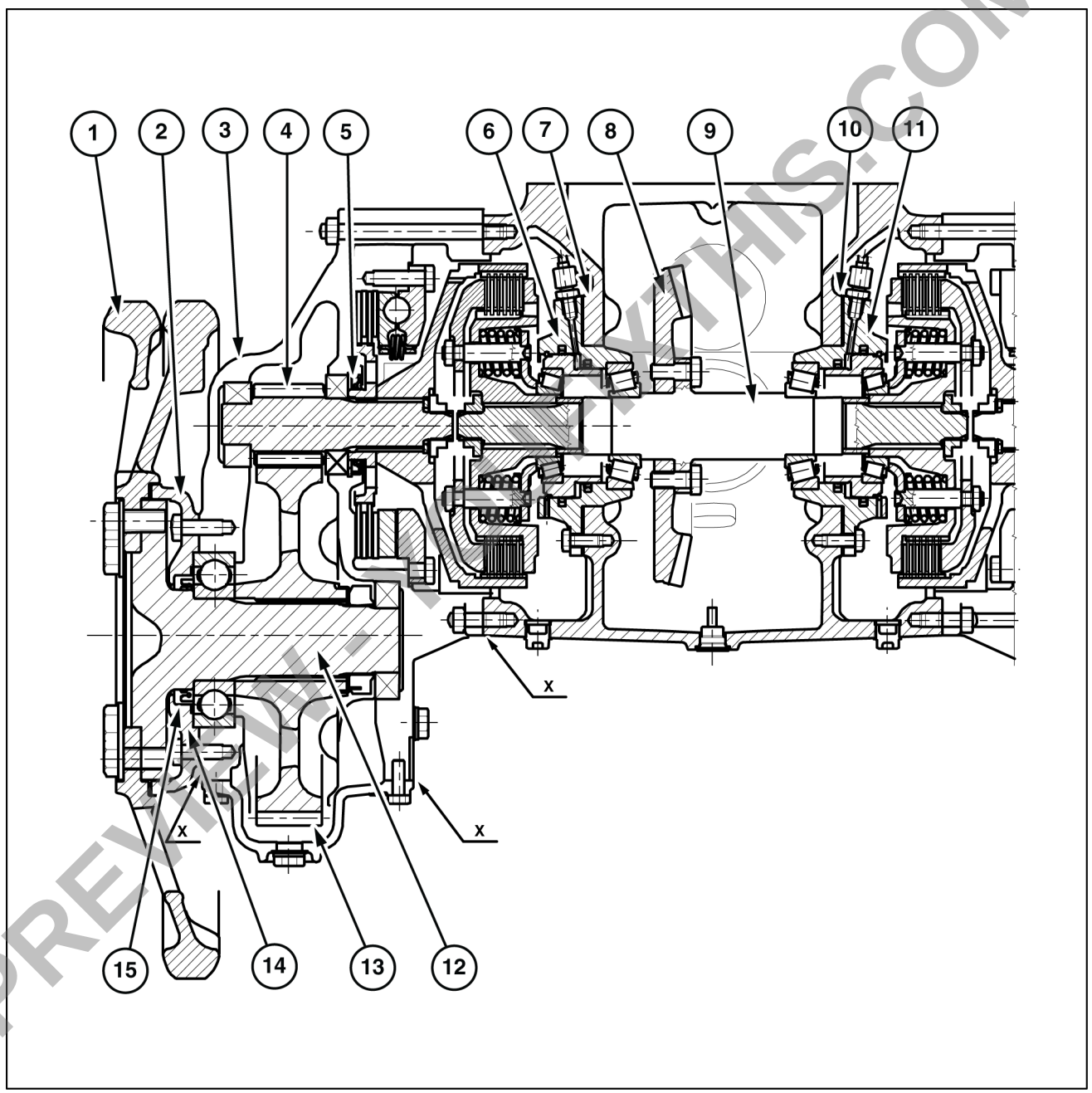
A.	Drive shaft gear unit clearance	7.	Lid
1.	Reverser drive gear unit	8.	Bevel Pinion Shaft
2.	Sealing	9.	Engagement gear for 1st and 2nd gear
3.	Shuttle gear unit	10.	Slow or fast range coupling sleeve
4.	Drive shaft thrust washer.	11.	Bevel pinion shaft thrust washer
5.	Stop half rings	12.	Reverser driven gear unit
6.	Engagement gear for 3rd and 4th gear	13.	Drive shaft

NOTE: *During installation, apply sealing compound to surfaces "X" as shown on* ***Transmission housing - Reseal (21.114)***

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Spur gear and final drives - Sectional view

TK4.100 With cab	ANZ --- LA --- WE
TK4.100 Without cab [ZGJK11857 -]	ANZ --- LA --- WE
TK4.100M With cab	ANZ --- LA --- WE
TK4.100M Without cab [ZGJK07163 -]	ANZ --- LA --- WE
TK4.110M	ANZ --- LA --- WE
TK4.110	ANZ --- LA --- WE
TK4.90 With cab	ANZ --- LA --- WE
TK4.90 Without cab [ZGJK07671 -]	ANZ --- LA --- WE
TK4.90M With cab	ANZ --- LA --- WE
TK4.90M Without cab	ANZ --- LA --- WE



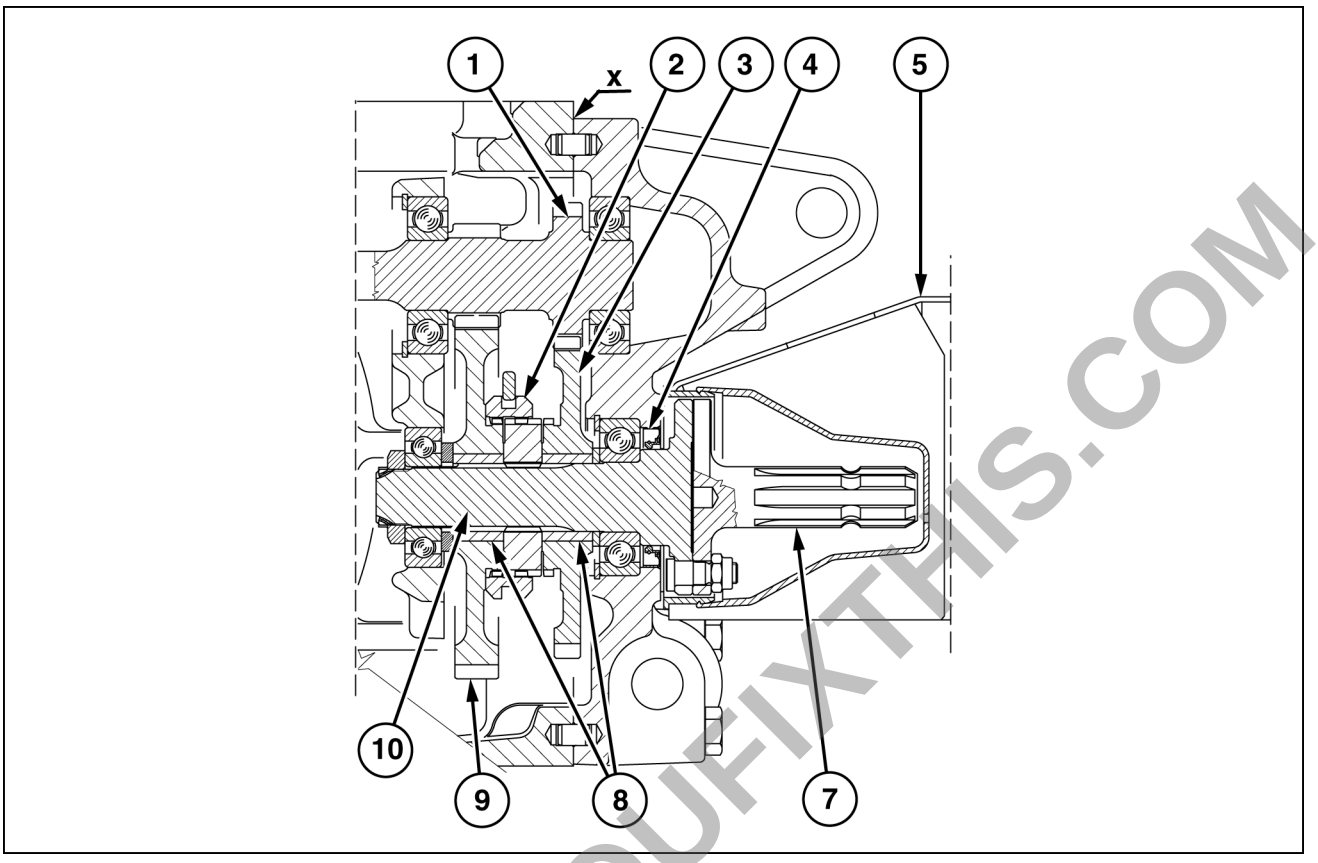
MOLI11K0205GB 1

Sectional view of the transmission (TK4.80F, TK4.80V, TK4.80N models)

1. Drive sprocket
2. Final drive housing cover
3. Final drive casing
4. Final drive driving shaft-gear
9. Bevel ring gear shaft
10. Right-hand shim for bearings adjustment and coupling between ring gear and pinion
11. Right-hand support for bevel ring gear
12. Drive wheel shaft

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Two-speed rear Power Take-Off (PTO) - Sectional view



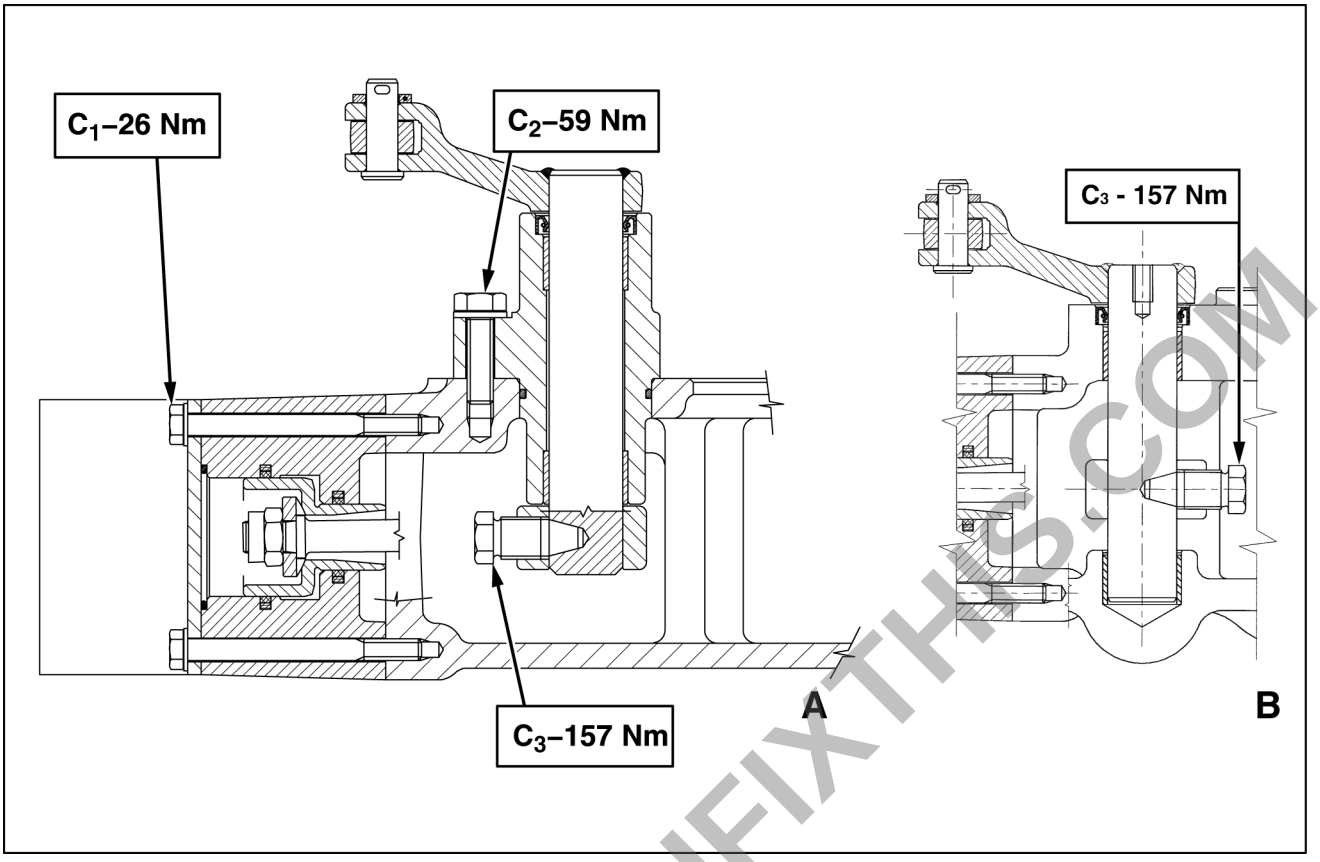
MOIL15TR00172FA 1

Longitudinal cross section of the 540/1000 RPM power take-off.

1. Drive shaft
2. Coupling sleeve
3. 540E rpm or **1000 RPM** driven gear
4. Seal
5. Splined end shield
6. Driven shaft with splined end
7. Splined output shaft
8. Bushings
9. **540 RPM** driven gear
10. Driven shaft

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MOLI11K0322FA 3

Parts to be torqued	Thread	Tightening torque
Braking unit hydraulic actuator cover retaining bolts **(C₁)** (Fig. **3**)	–	**26 N·m** (**19 lb ft**)
Brakes mechanical lever support retaining bolts **(C₂)**	–	**59 N·m** (**44 lb ft**)
Brakes mechanical lever retaining bolts **(C₃)**	**M16 x 1.5**	**157 N·m** (**116 lb ft**)

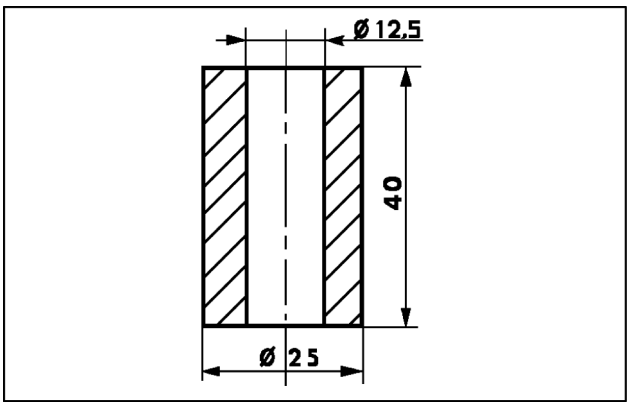
A. Mod.

B. Mod.

Brake controls - 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.

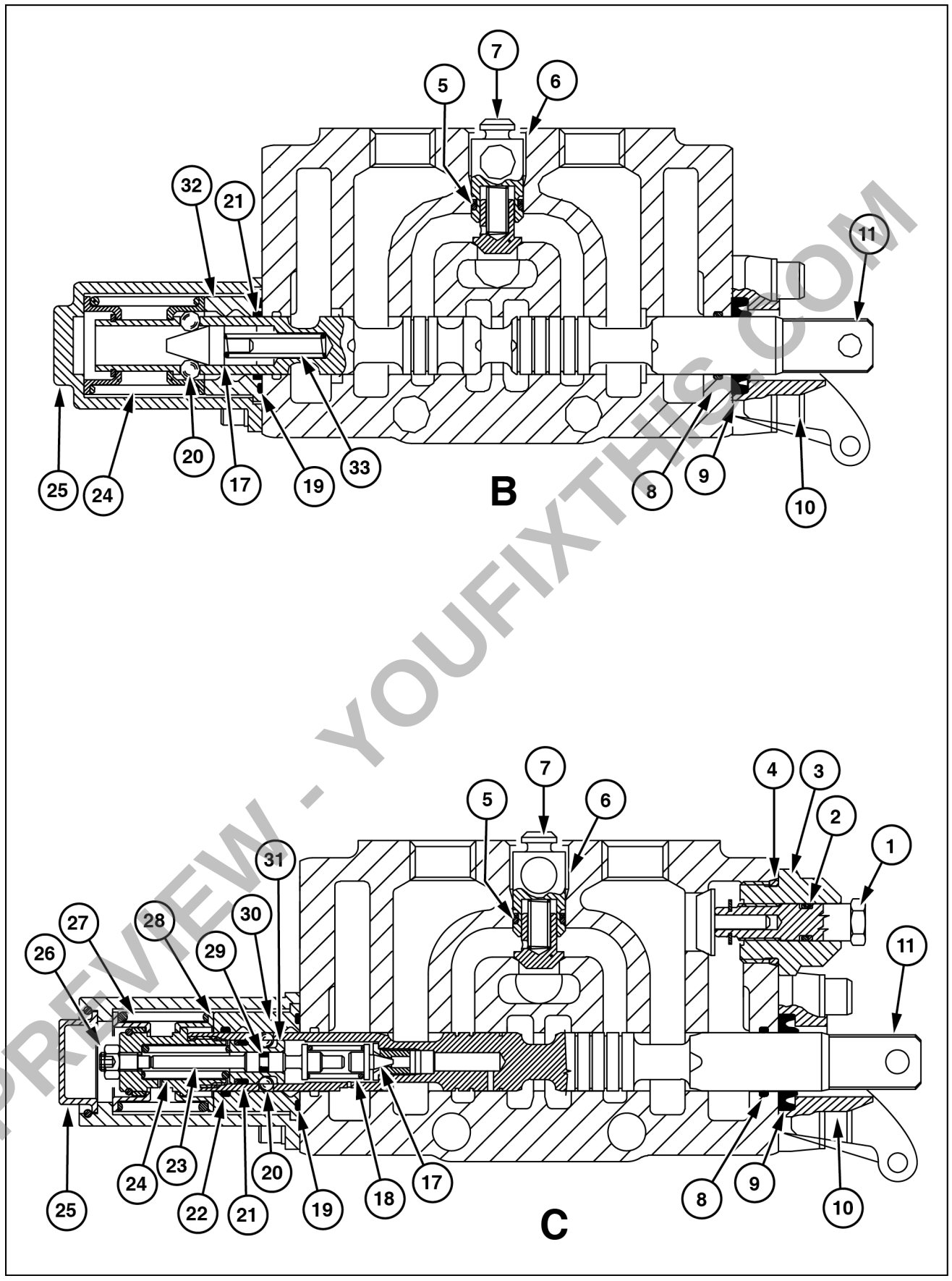
380000227	Clutch casing lift hook
380002459	Steering clutches external drum stop (with 50071)
380000241	Check valve O-ring assembly guide
380000240	Universal pressure control kit



MOLI11K0323AA 1

Spacer to be made for removing-refitting the steering clutches external drum. To be used with 380002459 (mark part with no. 50071 − measurements in mm) (make 2 spacers)
Make in **UNI C40** material.

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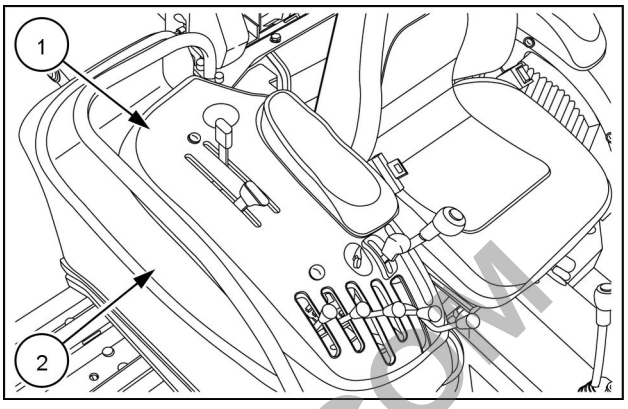


MOLI11K0434HA 2

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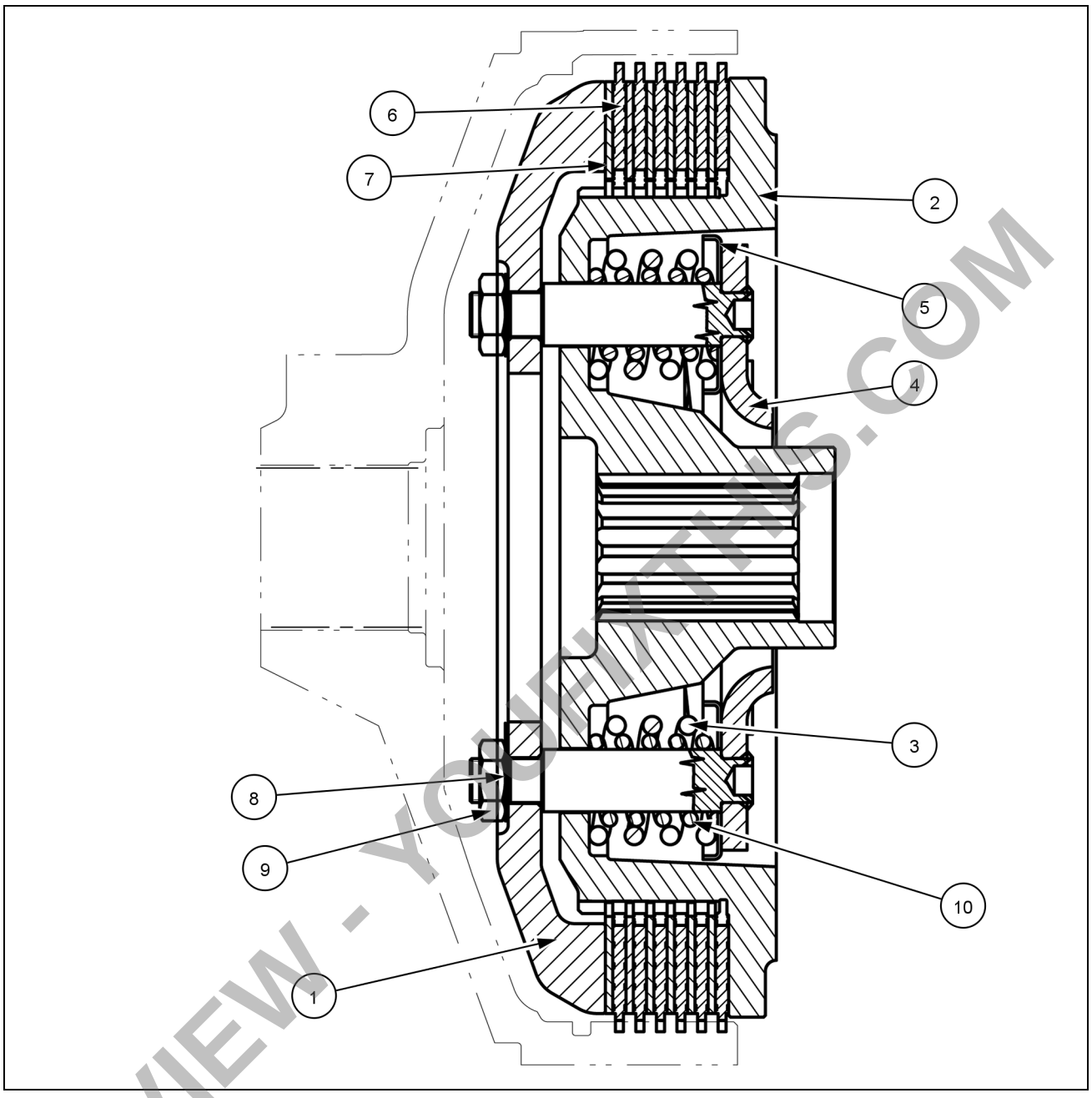
10. Fit the hood **(2)** protecting the auxiliary control valves as described in **Fender guard - Install - Hood for protecting the control valves (90.116)**.
11. Fit the guard **(1)**, as described in **Fender guard - Install - Right-hand (90.116)**.



MOIL16TR03537AA 8

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MOIL18TR00390GA 3

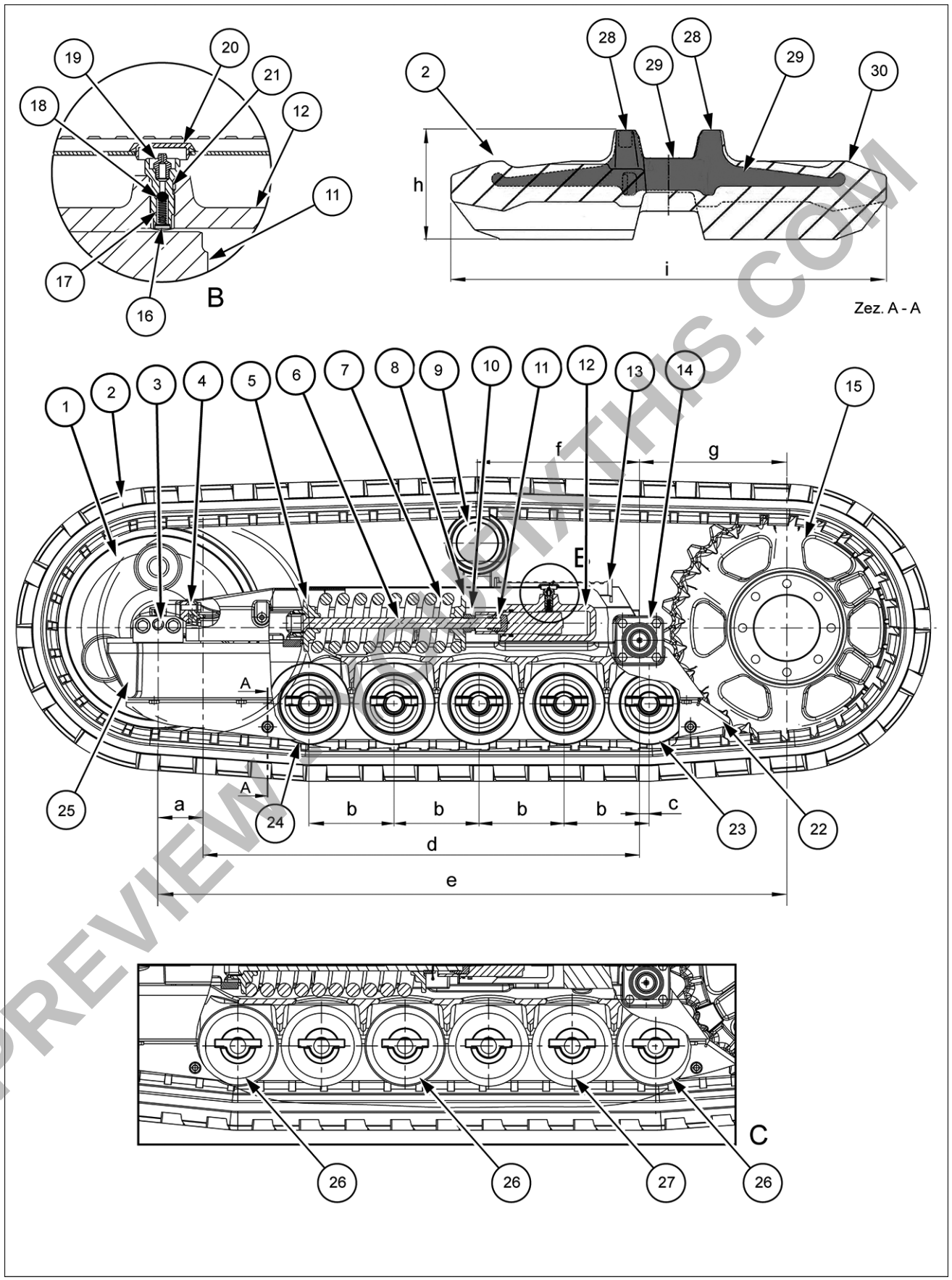
1. Disc pusher ring
2. Clutch external drum
3. Spring
4. Clutch internal drum
5. Stop ring
6. Drive discs
7. Driven discs
8. Plate
9. M12 x 1.5 nut
10. Spring

NOTE: *When fitting apply sealing compound to surfaces marked “X” as shown in* ***Powered rear axle - Reseal (27.100)****.*

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Rubber track - Sectional view - From PIN ZEJK03735

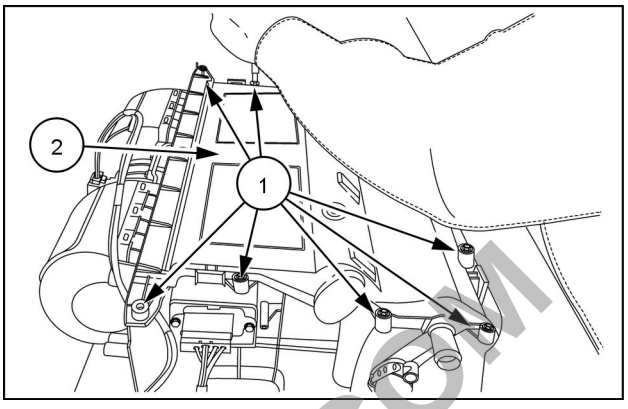


MOIL14TR00102HA 1

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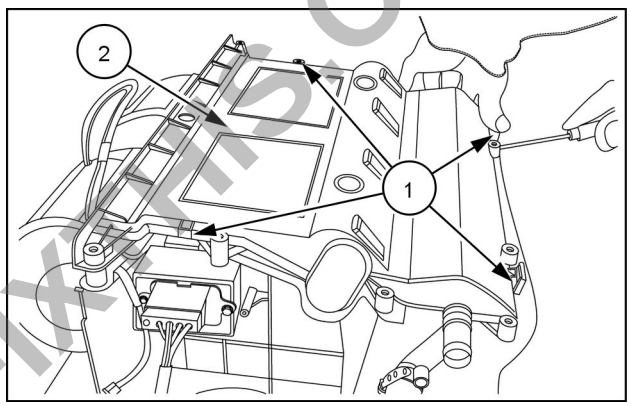
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4. Loosen the ten screws **(1)** fastening the evaporator cover **(2)**.



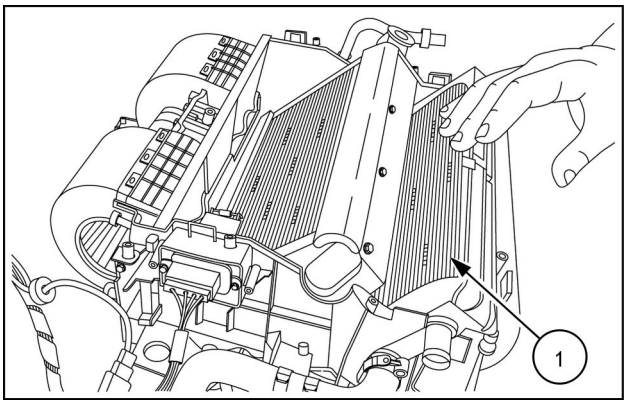
MOIL18TR01109AA 4

5. Unhook the four snap clips **(1)** and remove the evaporator cover **(2)**.



MOIL18TR01108AA 5

6. Carefully remove the evaporator **(1)** from its seat sliding it along the relative guides.
7. Place the evaporator **(1)** in a suitable place.

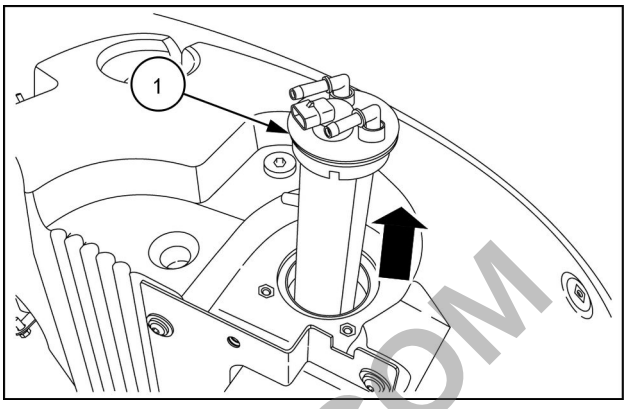


MOIL18TR01107AA 6

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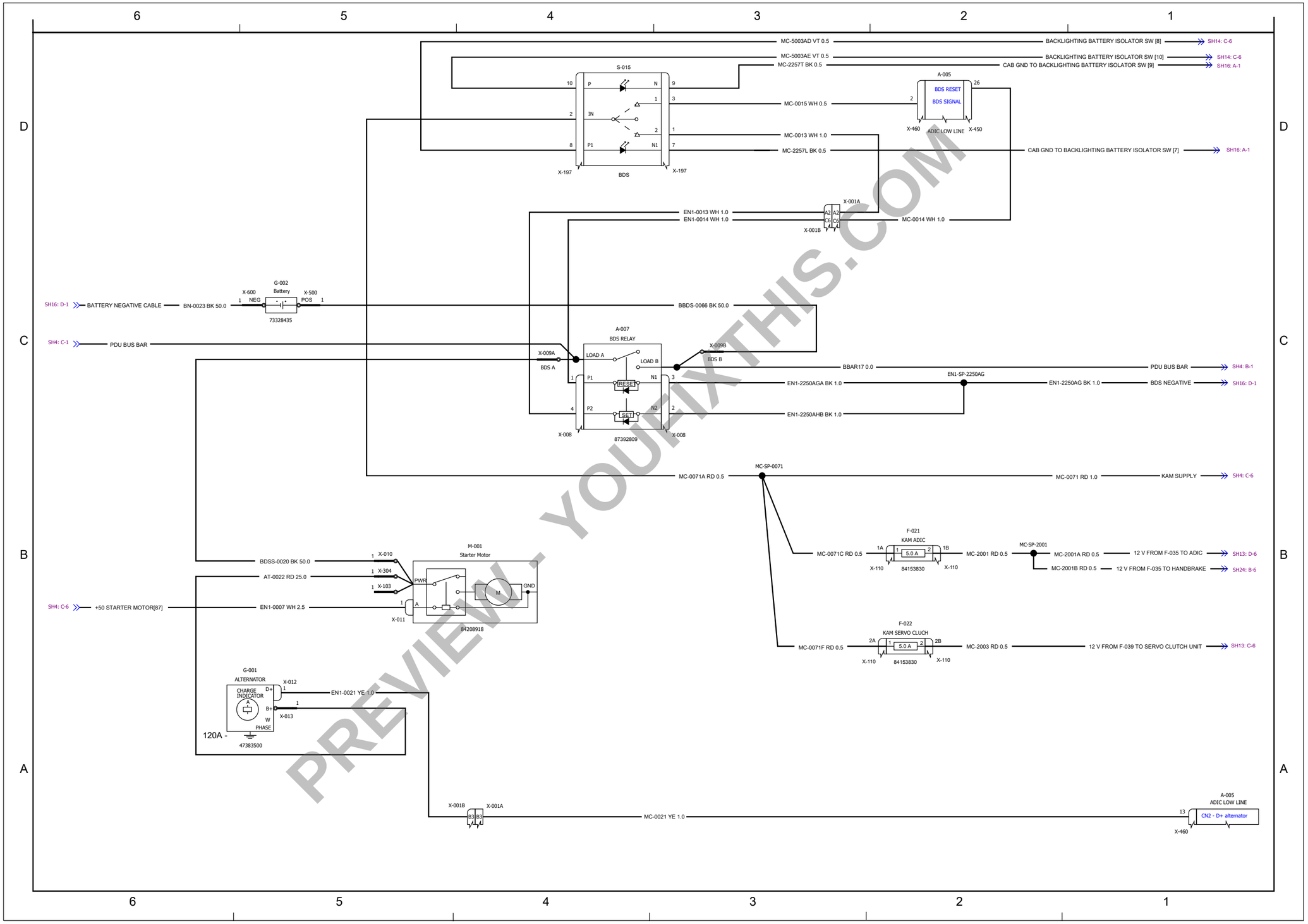
5. Remove the fuel level sensor **(1)**.



MOIL16TR03763AA 4

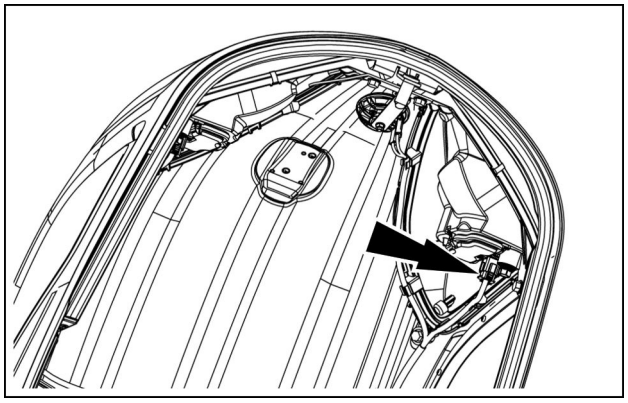
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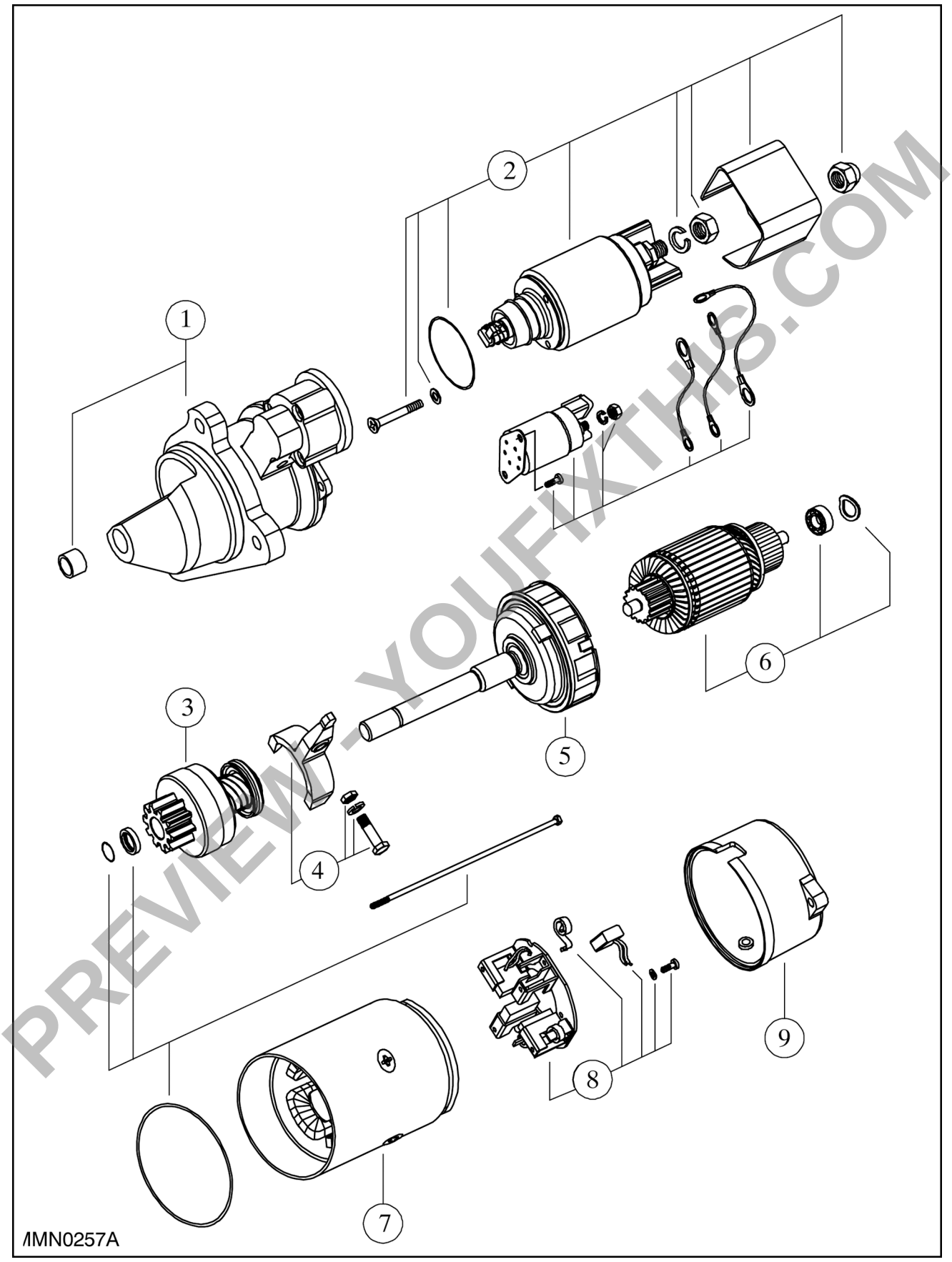
MOIL16TR00027AA 16

Pin	From	Wire	Description	Color-Size	Frame
1	HE-SP-2250M-P-X	HE-2250PB	CAB GND TO HEAD LIGHTS RIGHT-HAND NH [1]	BK - 1.0	**SHEET 36 SH-036_LIGHTS_ROAD**
2			Not Used		
3	HE-SP-0205-P-X	HE-0205A	High beam	VT - 1.0	**SHEET 36 SH-036_LIGHTS_ROAD**
4	HE-SP-0201-P-X	HE-0201A	Low beam	VT - 1.0	**SHEET 36 SH-036_LIGHTS_ROAD**

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Engine starter - Exploded view



SEZ55CAP3H-2 1

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Electrical systems - 55

FAULT CODES - DTC

TK4.100 With cab, TK4.100 Without cab [ZGJK11857 -], TK4.100M With cab, TK4.100M Without cab [ZGJK07163 -], TK4.110 With cab, TK4.110 Without cab, TK4.110M With cab, TK4.110M Without cab, TK4.90 With cab, TK4.90 Without cab [ZGJK07671 -], TK4.90M With cab, TK4.90M Without cab

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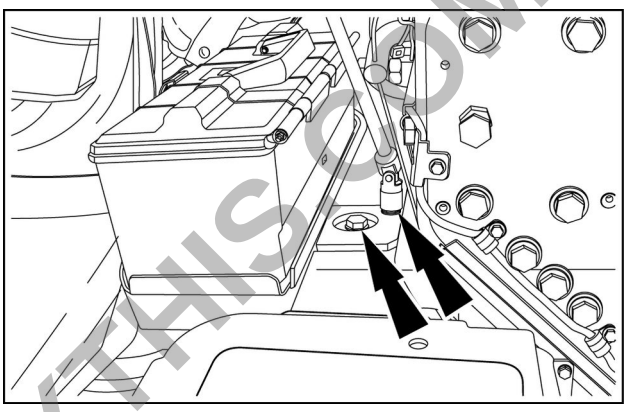
Tool box - Remove

⚠ 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.

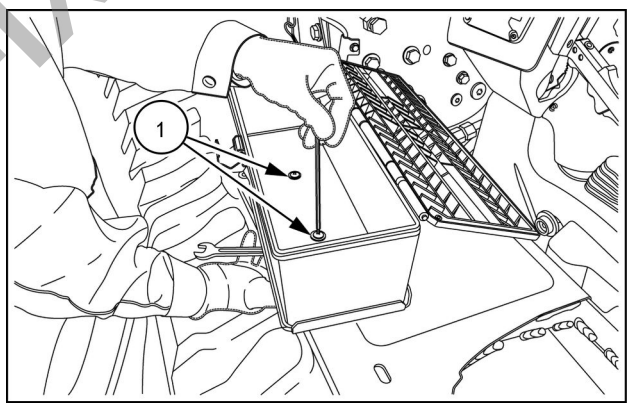
W0208A

1. Loosen the two retaining screws and remove the support complete with its toolbox.



MOIL17TR00116AA 1

2. Holding the lower nuts firmly in place, loosen the retaining screws **(1)** and separate the toolbox from the support.



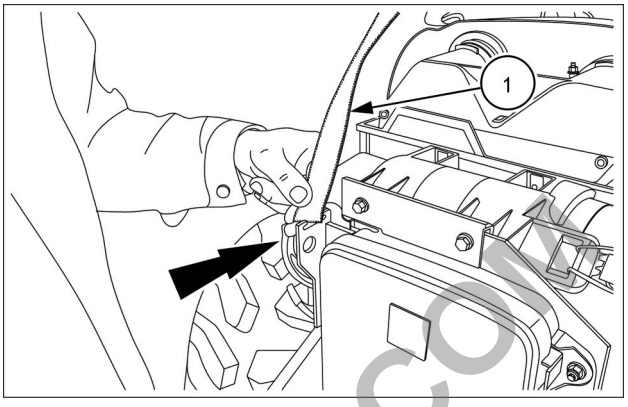
MOIL17TR00117AA 2

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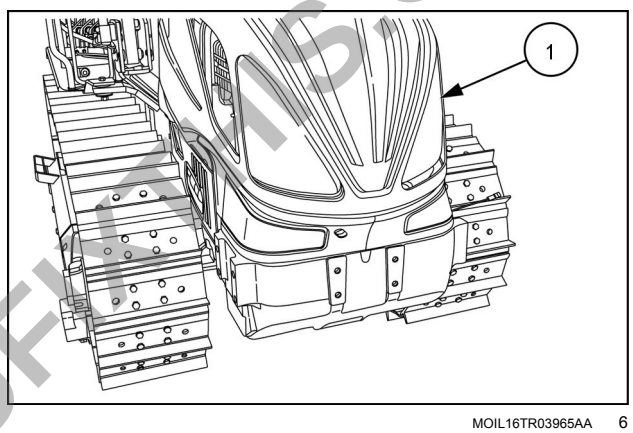
Closing the engine hood

If it has been disconnected, connect the safety strap **(1)** to the hook bracket.



MOIL17TR00226AA 5

Hold the hood **(1)** and pull it down until it shuts firmly.
Manually push the hood **(1)** all the way until the closing engagement clicks.
Check that the hood is properly closed and hooked.



MOIL16TR03965AA 6

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380000256 [Clutch Adjusting Wrench Set]	Clutch - Special tools	18.3 / 4
50135 [Drift]	Clutch - Special tools	18.3 / 5
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[10.414] Fan and drive 10.8

[10.501] Exhaust Gas Recirculation (EGR) exhaust treatment 10.9

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[18.104] Clutch hydraulic release control 18.1

[18.100] Clutch mechanical release control 18.2

[18.110] Clutch and components 18.3

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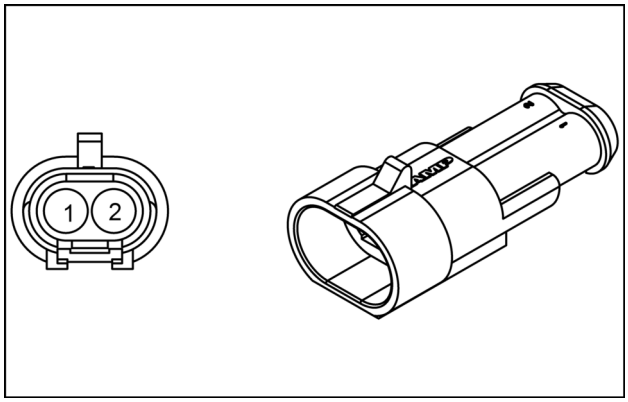
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X-071B - Beacon - roof inline (87687244) (Plug)

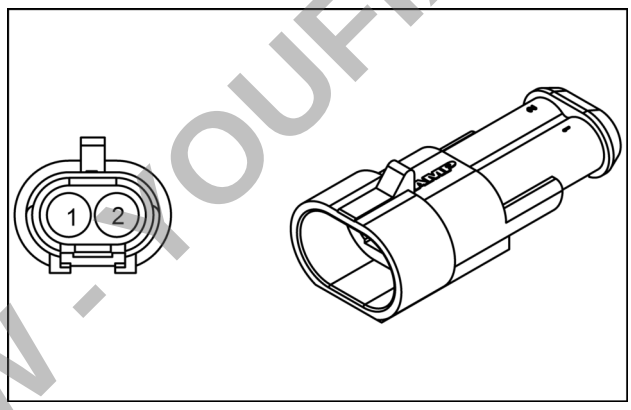


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Pin	From	Wire	Description	Color-Size	Frame
1	**X-390 (Receptacle) pin 1** - BEACON light connection [E-033] (87691062)	BJ-0270B	BEACON light signal	VT - 1.0	**SHEET 31 SH-031_LIGHTS_POSITION_LICENSE_BEACON_SPOT**
2	**X-070 (Plug) pin 1** - BEACON light connection [E-033] (87680217)	BJ-2261E	BEACON light GND	BK - 1.0	

X-071BZ - BEACON- ROPS INLINE (87687244) (Plug)



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87687244

Pin	From	Wire	Description	Color-Size	Frame
1	**X-390 (Receptacle) pin 1** - BEACON light connection [E-033] (87691062)	BJ-0270BZ	BEACON light signal	VT - 1.0	**SHEET 31 SH-031_LIGHTS_POSITION_LICENSE_BEACON_SPOT**
2	**X-070 (Plug) pin 1** - BEACON light connection [E-033] (87680217)	BJ-2261EZ	BEACON light GND	BK - 1.0	

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