SERVICE MANUAL

T4030V / T4040V

Tractor

PREVIEW - YOUFIXTHIS.COM

Part number 47888352
English
July 2016

NEW HOLLAND AGRICULTURE

© 2016 CNH Industrial Italia S.p.A. All Rights Reserved.

Engine - 10

Engine and crankcase - 001

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775], T4030V With cab [Z8JE04295 - ZCJE10898], T4030V Without cab - Model Year 2012 [ZCJE04397 - ZDJE11084], T4030V Without cab [Z8JE13092 - ZCJE07076], T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978], T4040V With cab [Z8JE04453 - ZCJE08151], T4040V Without cab - Model Year 2012 [ZCJE12068 - ZDJE09487], T4040V Without cab [Z8JE04825 - ZCJE06813]

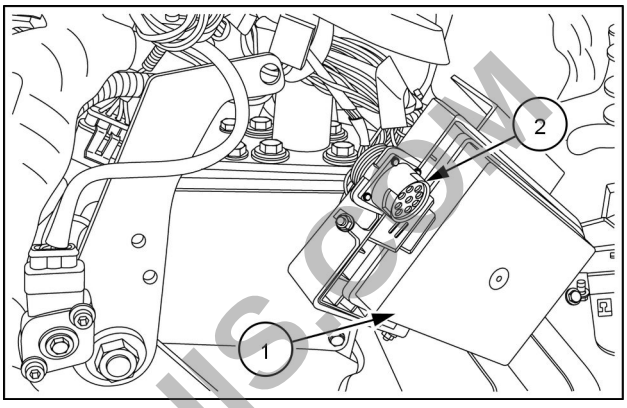
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Clutch mechanical release control - Remove

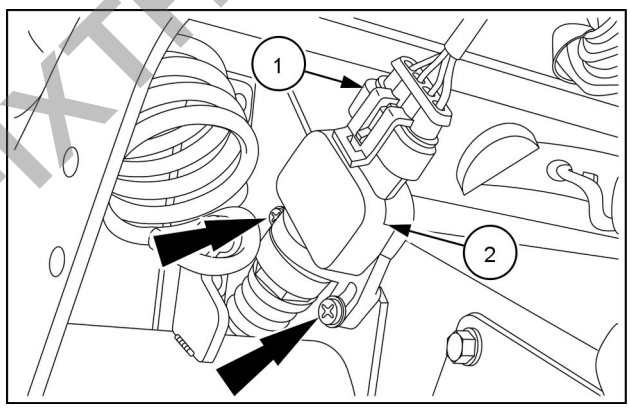
Prior operation:
A. Disconnect the battery negative prong.
B. Remove the front left-hand panel.

1. Partially disconnect the fuse holder box **(1)** and the diagnosis socket **(2)**.



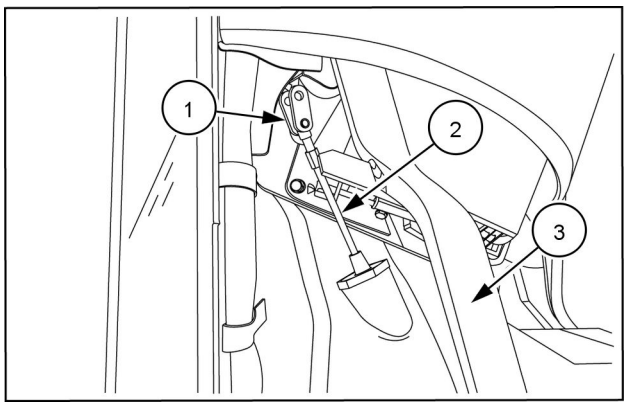
MOIL16TR01988AA 1

2. Correctly disconnect the electrical connector **(1)** from the engine starting inhibitor switch **(2)**.
3. Loosen the two indicated connection screws of the switch **(2)** and the relevant washers.
4. Store the switch **(2)** in a suitable location.



MOIL16TR01989AA 2

5. Disconnect the retaining clip **(1)** of the clutch **(3)** control lever cable **(2)** under the dashboard on the right-hand side of the vehicle.



MOIL16TR01344AA 3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Contents

Transmission - 21

[21.114] Mechanical transmission 21.1

[21.130] Mechanical transmission external controls 21.2

[21.140] Mechanical transmission internal components 21.3

[21.112] Power shuttle transmission 21.4

[21.134] Power shuttle transmission external controls 21.5

[21.154] Power shuttle transmission internal components 21.6

[21.145] Gearbox internal components 21.7

[21.160] Creeper 21.8

[21.162] Reverser 21.9

[21.168] Hi-Lo unit 21.10

[21.182] Differential 21.11

PREVIEW - YOUFIXTHIS.COM

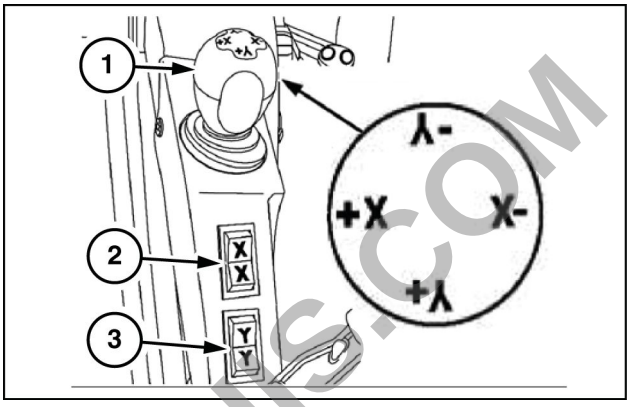
Download full manual at youfixthis.com

Electro-hydraulic control - Service instruction

T4030V With cab [Z8JE04295 - ZCJE10898]	LA Four-Wheel Drive (4WD) - Manual engagement
T4040V With cab [Z8JE04453 - ZCJE08151]	LA Four-Wheel Drive (4WD) - Manual engagement

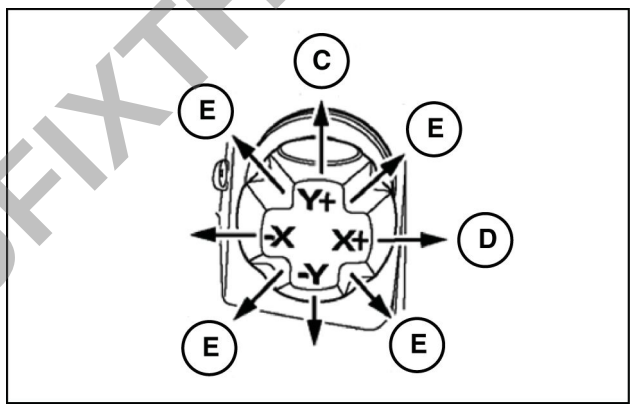
Description and operation

The side spool valves are used for controlling hydraulic implements outside the tractor and are mounted on the tractors fitted with a cab.
The side spool valve assembly is located on the right side, outside the cab.
The side spool valves are governed with a joystick **(1)** and two switches **(2)** and **(3)** located to the operator's right on the fender.
Operating the control lever **(1)** with a crosswise movement (vertical-horizontal) governs the spool valves on the "X" axis or "Y" axis.



MOLI12SVN0086AB 1

Operating this control lever diagonally **(E)** operates two spool valves simultaneously.
To select the spool valve of the relevant color, use the switches **(2)** and **(3)** (Fig. **1**) pressing them to the right or left, the central position of the switch deactivates operation of the relevant spool valve.



MOLI12SVN0087AB 2

The oil coming from the hydraulic pump **(11)** (**Electro-hydraulic control - Component diagram (23.202) Figure 1**) is conveyed, via the relevant solenoid valves, to the hydraulic motor **(2)** (**Electro-hydraulic control - Component diagram (23.202) Figure 1**) or to the front lift **(3)** (**Electro-hydraulic control - Component diagram (23.202) Figure 1**) or to the side spool valves.

The oil that is not used will go, through the pipe **(9)** (**Electro-hydraulic control - Component diagram (23.202) Figure 1**), to feed the rear hydraulic lift and the rear auxiliary spool valves.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

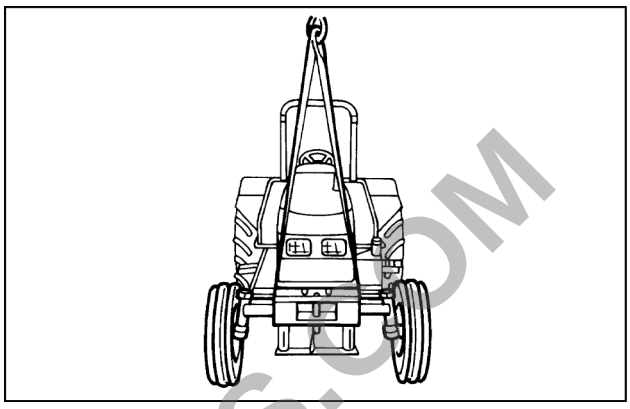
Steering knuckle and king pin - Overhaul

Stub axle overhaul

⚠ 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.

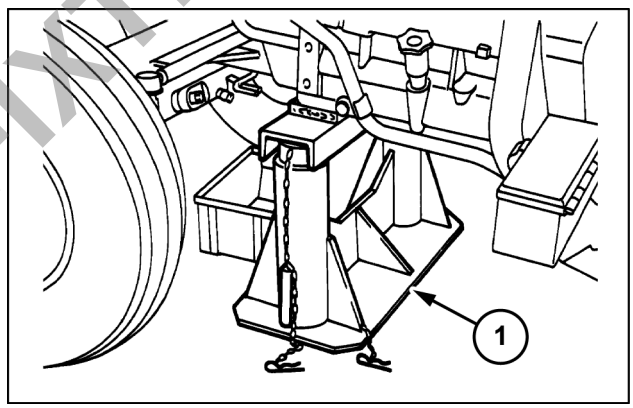
W0208A



ITIL11T40291A0A 1

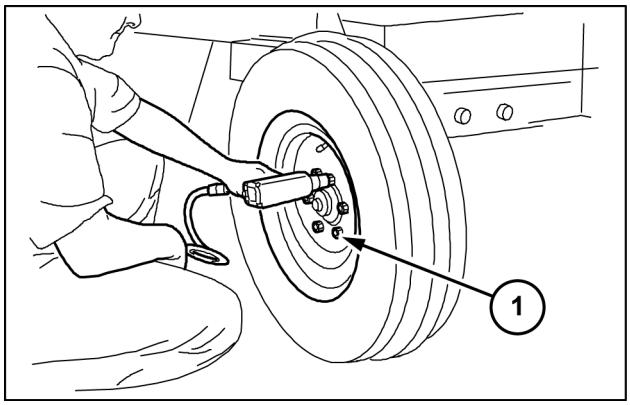
Proceed as follows for each wheel, remembering that the stub axles can be removed without removing the axle from the tractor:

1. Lock the rear wheels using suitable chocks.
2. Lift the front of the tractor.
3. Place a mechanical stand **(1)** under the engine sump and insert a wooden block between the engine sump and the stand.



ITIL11T40292A0B 2

4. Remove the front wheel retaining bolts **(1)**.



ITIL11T40293A0B 3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Contents

Rear axle system - 27

[27.100] Powered rear axle 27.1

[27.106] Rear bevel gear set and differential 27.2

[27.120] Planetary and final drives 27.3

[27.126] Spur gear and final drives 27.4

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Power Take-Off (PTO) - 31

Rear mechanical control - 101

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775], T4030V With cab [Z8JE04295 - ZCJE10898], T4030V Without cab - Model Year 2012 [ZCJE04397 - ZDJE11084], T4030V Without cab [Z8JE13092 - ZCJE07076], T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978], T4040V With cab [Z8JE04453 - ZCJE08151], T4040V Without cab - Model Year 2012 [ZCJE12068 - ZDJE09487], T4040V Without cab [Z8JE04825 - ZCJE06813]

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

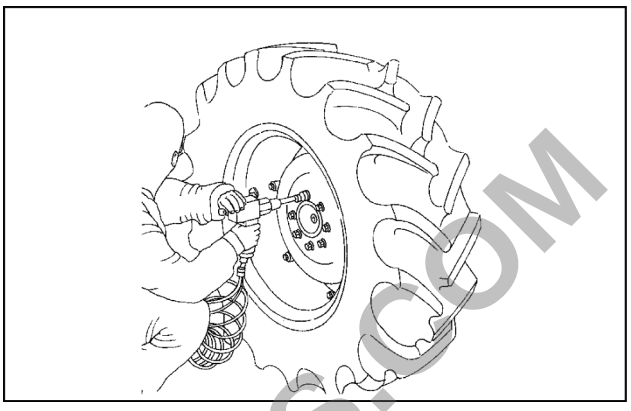
Mechanical transmission - Remove

Parking locking on the transmission

ATTENTION: *Handle all parts with care. Do not put your hands or fingers between parts. Wear the prescribed safety clothing, including goggles, gloves and safety footwear.*

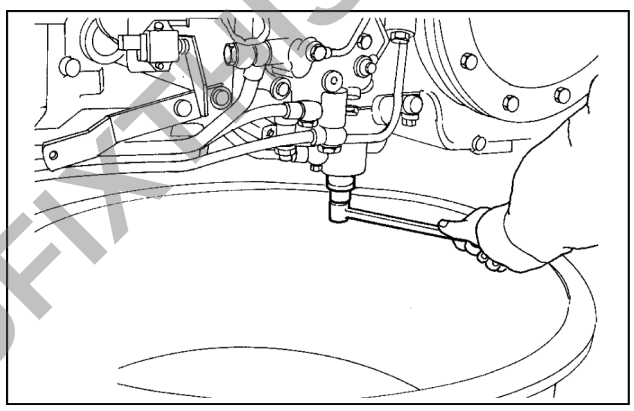
Proceed as follows:

1. Raise the rear of the tractor, position a fixed stand under the transmission, unscrew the relevant fixing screws and detach the left rear wheel.



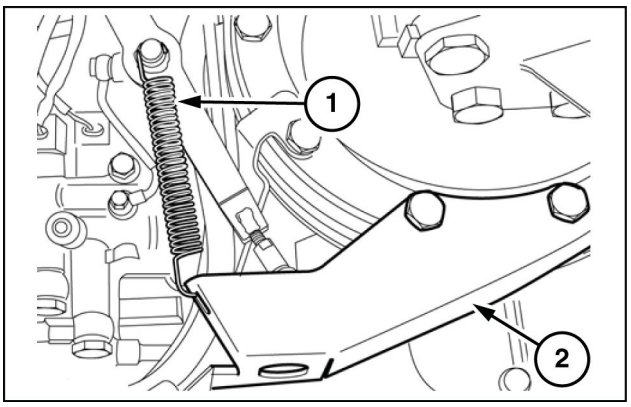
MOLI12SVN0001AA 1

2. Remove the drain plug from the drive box and collect the oil in a suitable container.



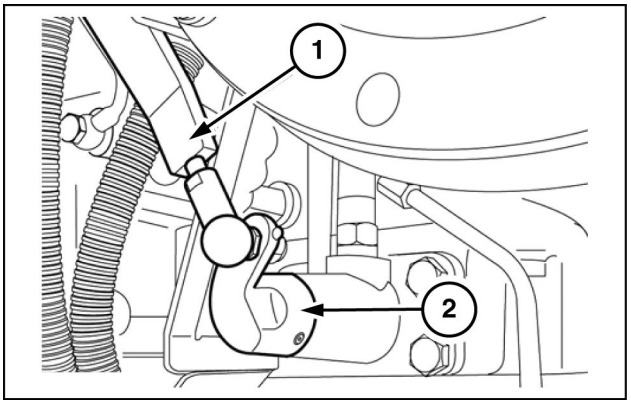
MOLI12SVN0002AA 2

3. Unhook the return spring **(1)**, unscrew the relevant screws and to detach the guard **(2)**.



MOLI12SVN0003AB 3

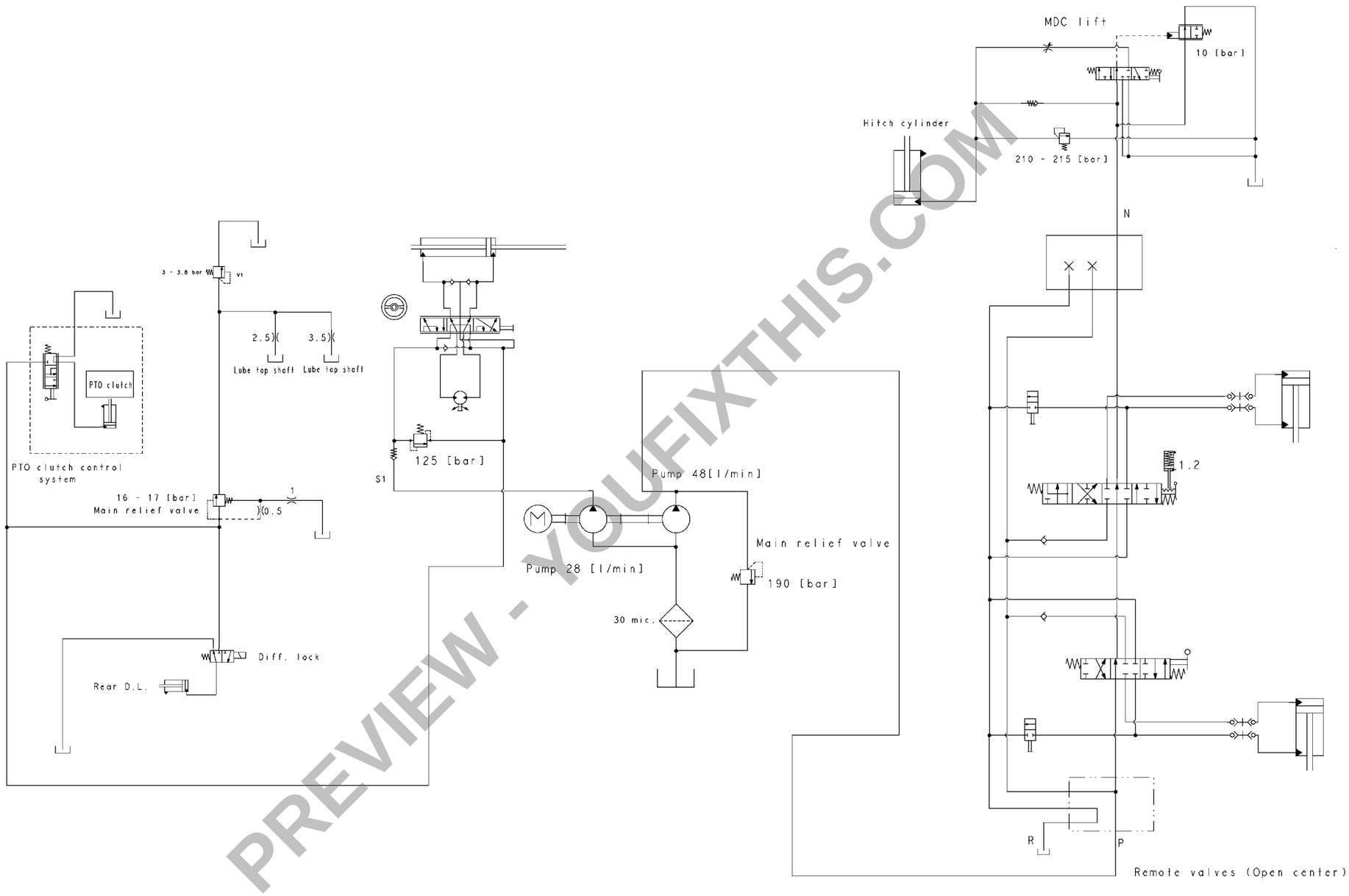
4. Detach the control rod **(1)** from the external lever **(2)** for parking locking on the transmission.



MOLI12SVN0004AB 4

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

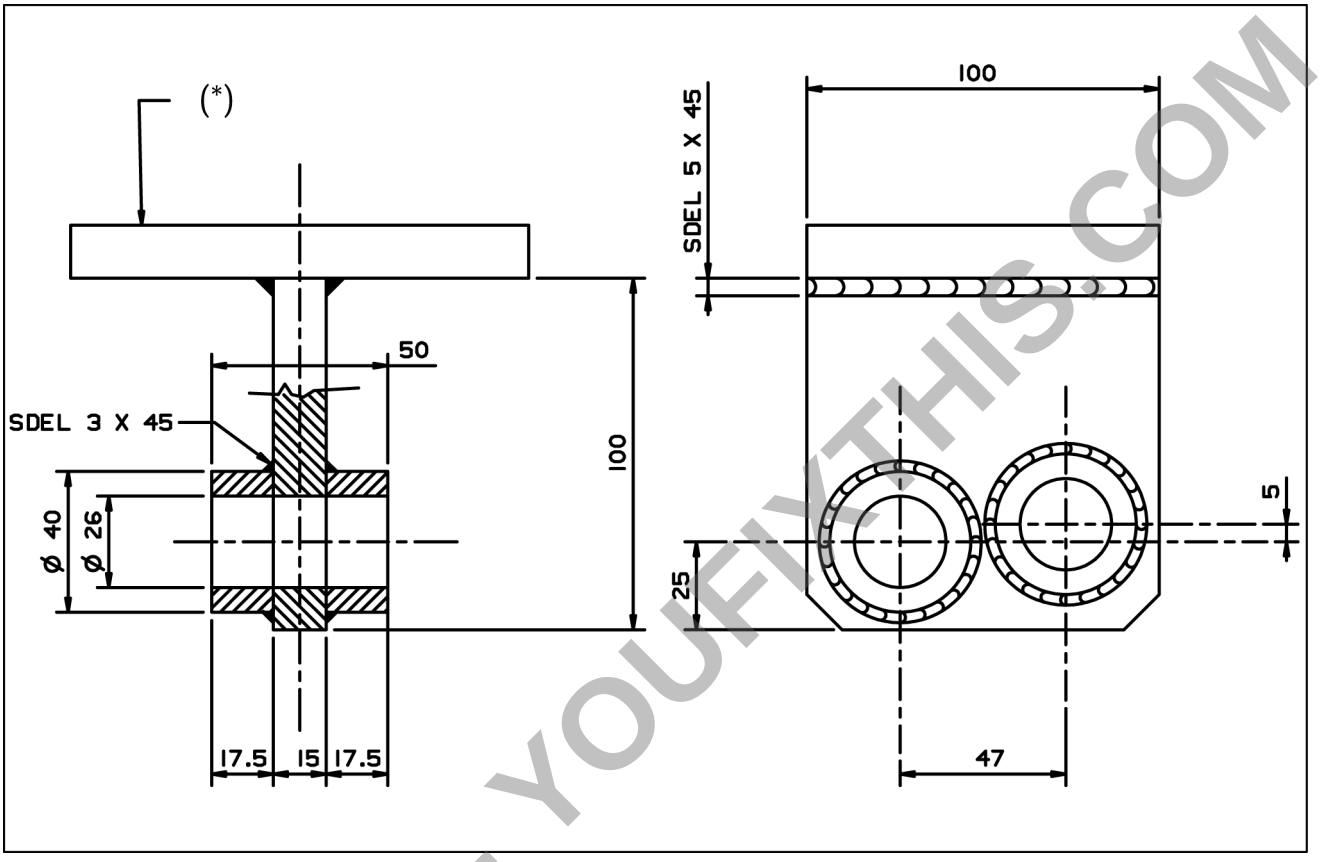


PREVIEW - YOUFIXTHIS.COM

MOIL14TR00561JA 1

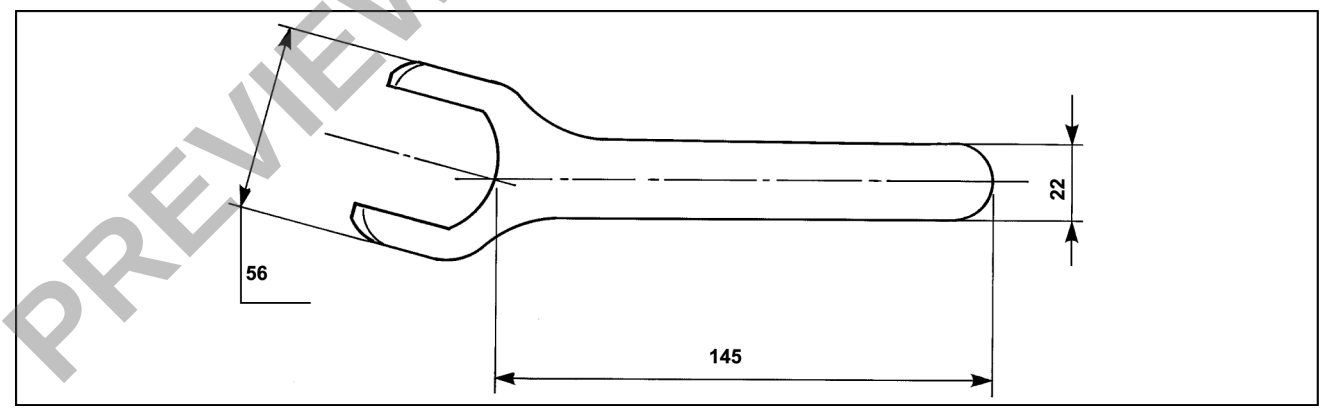
Download full manual at youfixthis.com

X	**380000231**	Wrench for lift pressure relief valve setting ring nut
	380000240	Universal pressure control kit
X	380000215	Hand pump for valve calibration
X	**380000218**	Union for cylinder safety valve calibration
X	**380000217**	Union for lift pressure relief valve calibration
X	**380000282**	Instrument for system diagnostics



ITIL11T40119F0A 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.



ITIL11T40120E0A 2

Modification to make to a 36 mm (1.417 in) wrench for removing, overhaul and refitting the controlled draft sensor (mark tool with No. 50070 − measurement in mm)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

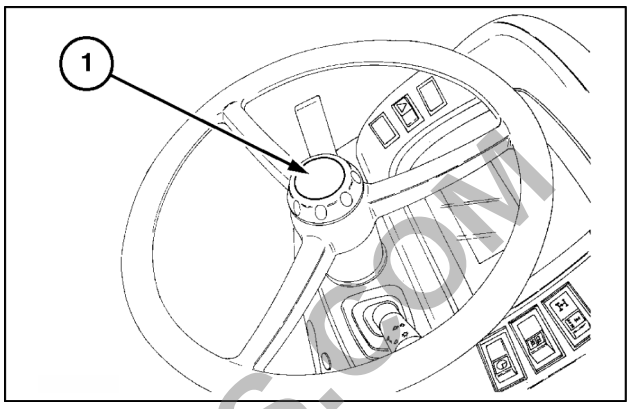
Power steering wheel - Replace

Hydrostatic steering wheel

⚠ 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.

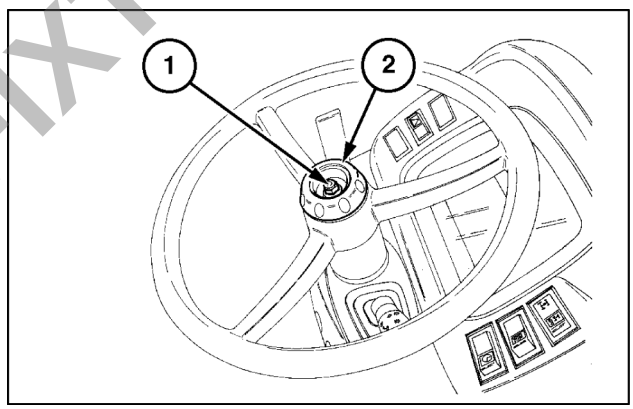
W0208A



ITIL11T40187A0B 1

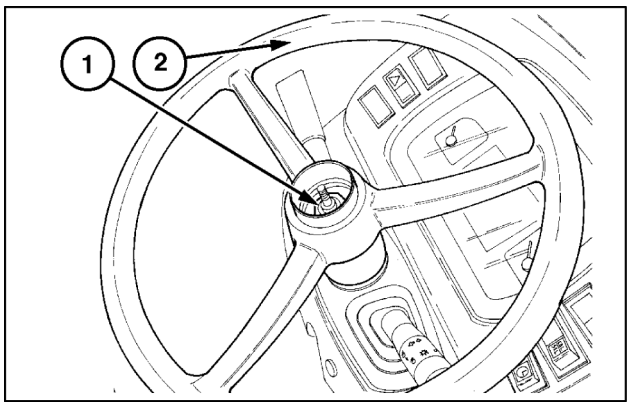
Proceed as follows:

1. Using a sharp tool, remove the centre of the steering wheel, unscrew the nut and the central knob **(1)**.
2. Unscrew the retaining nut **(1)** and remove the steering wheel height adjustment central knob **(2)**.



ITIL11T40188A0B 2

3. Unscrew the retaining nut **(1)** and remove the steering wheel **(2)** using tool 380000223 **(1)** (Fig. **4**).



ITIL11T40189A0B 3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Wheels - 44

Front wheels - 511

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775], T4030V With cab [Z8JE04295 - ZCJE10898], T4030V Without cab - Model Year 2012 [ZCJE04397 - ZDJE11084], T4030V Without cab [Z8JE13092 - ZCJE07076], T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978], T4040V With cab [Z8JE04453 - ZCJE08151], T4040V Without cab - Model Year 2012 [ZCJE12068 - ZDJE09487], T4040V Without cab [Z8JE04825 - ZCJE06813]

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Heating, Ventilation, and Air-Conditioning (HVAC) unit - Disassemble

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775]	LA
T4030V With cab [Z8JE04295 - ZCJE10898]	LA
T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978]	LA
T4040V With cab [Z8JE04453 - ZCJE08151]	LA

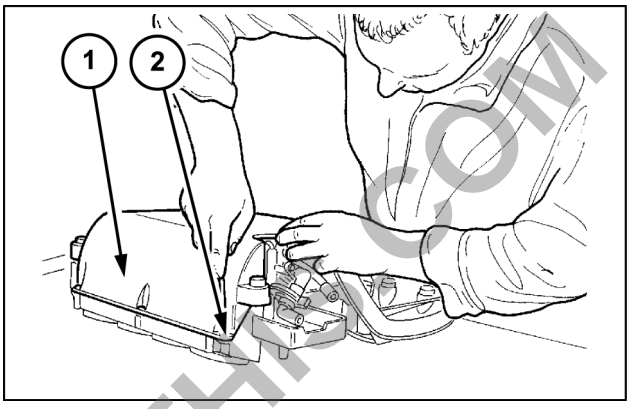
⚠ WARNING

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

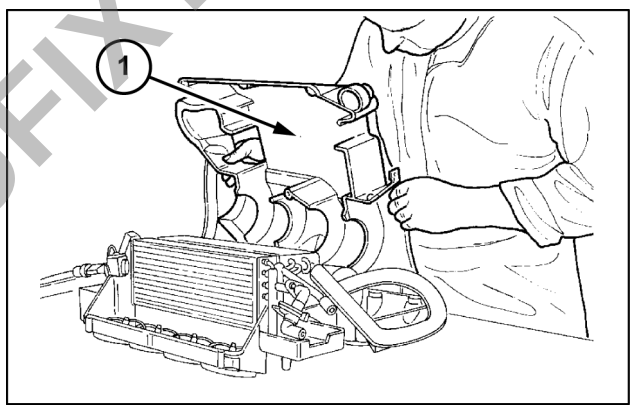
With the unit on the work bench, proceed as follows:

1. Remove the heater − conditioning unit half-casing **(1)** retaining screws **(2)**.



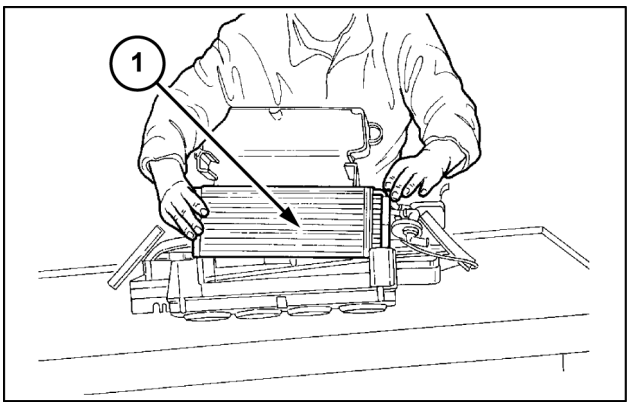
ITIL11T40345A0B 1

2. Remove the half-casing **(1)**.



ITIL11T40346A0B 2

3. Remove the heater radiator **(1)**.



ITIL11T40347A0B 3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Contents

Electrical systems - 55

[55.000] Electrical system 55.1

[55.100] Harnesses and connectors 55.2

[55.201] Engine starting system 55.3

[55.301] Alternator 55.4

[55.302] Battery 55.5

[55.202] Cold start aid 55.6

[55.640] Electronic modules 55.7

[55.051] Cab Heating, Ventilation, and Air-Conditioning (HVAC) controls 55.8

[55.050] Heating, Ventilation, and Air-Conditioning (HVAC) control system 55.9

[55.047] Steering control system 55.10

[55.523] Cab hitch controls 55.11

[55.130] Rear three-point hitch electronic control system 55.12

[55.404] External lighting 55.13

[55.514] Cab lighting 55.14

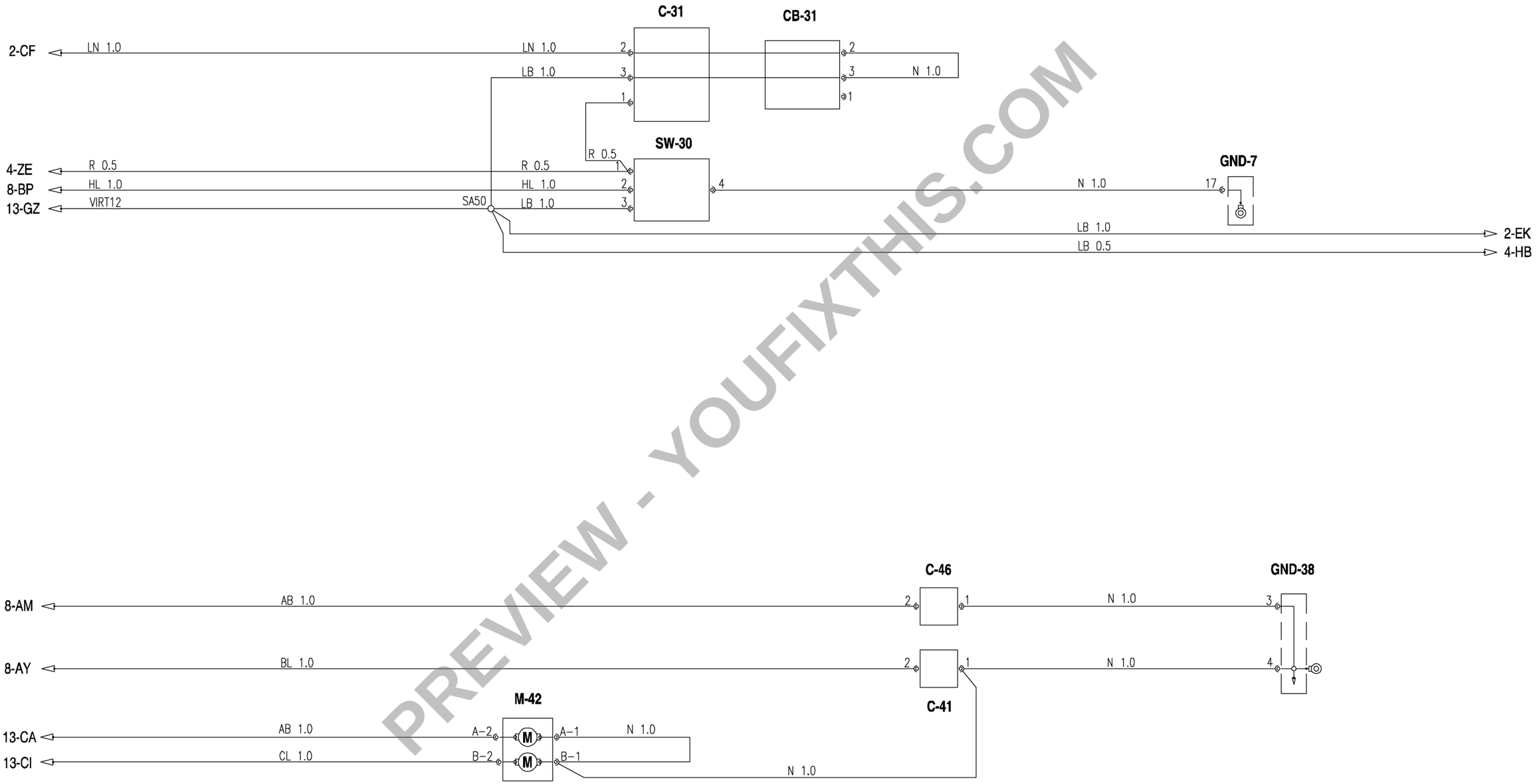
[55.511] Light harnesses 55.15

[55.408] Warning indicators, alarms, and instruments 55.16

[55.DTC] FAULT CODES 55.17

PREVIEW - YOUFIXTHIS.COM

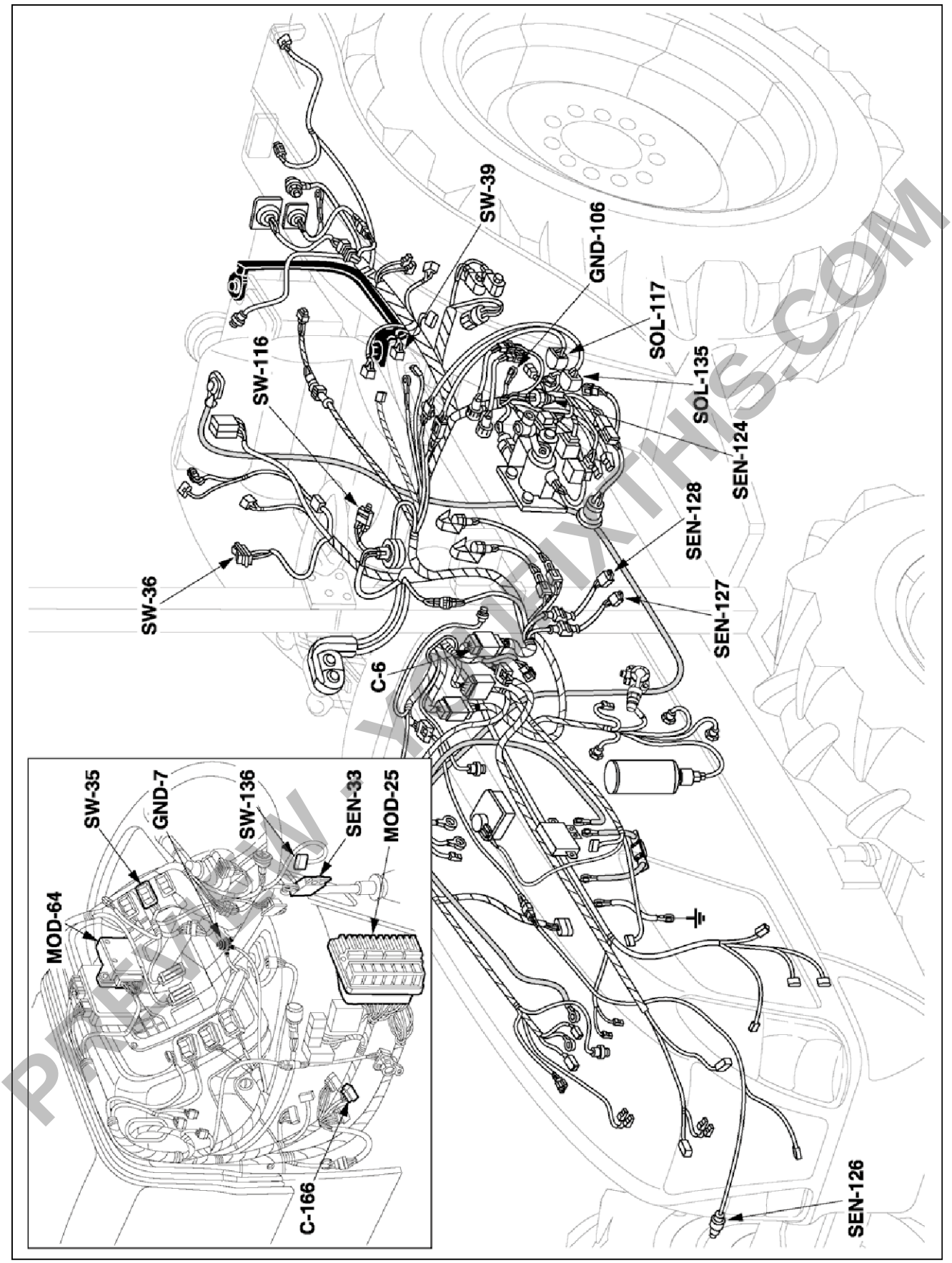
Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

ITIL11T41051J0A 1

Download full manual at youfixthis.com



ITIL11T40735H0A 1

Four-wheel drive circuit — Brakes, brake lights, differential lock circuit

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

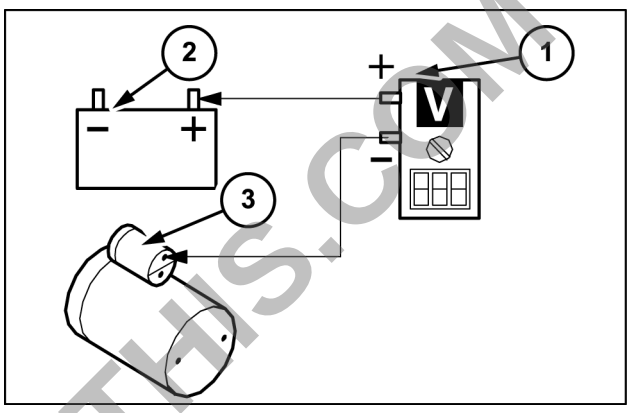
Starting system circuit resistance (voltage drop) Fig 1

If the voltage absorption value is too high, check the individual circuit components to find the cause of the voltage drop.

NOTICE: *Disconnect the injection pump shut-off solenoid valve wire.*

Battery positive cable

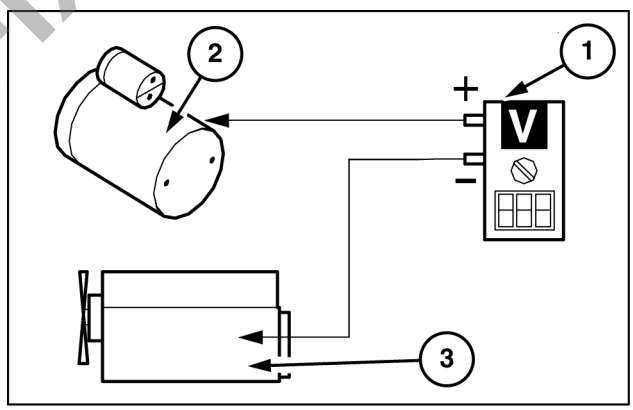
1. Connect the positive voltmeter point **(1)** to the positive battery terminal clamp **(2)**.
2. Connect the negative lead on the voltmeter to the starter motor electromagnet terminal **(3)**.
3. Run the engine and check the voltmeter readings. If voltage exceeds **0.2 V**, check and tighten the cable connections. Recheck the voltage and, if the value is still too high, replace the cable.



ITIL11T40962A0B 2

Starter motor ground connection

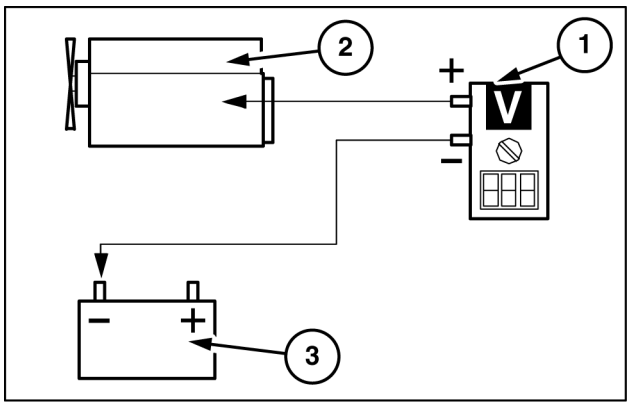
1. Connect the positive lead on the voltmeter **(1)** to the starter motor casing **(2)**.
2. Connect the negative lead on the voltmeter to the engine block **(3)**.
3. Run the engine and check the voltmeter readings. If the value exceeds **0.2 V** check the ground connections between the starter motor flange and the engine rear cover.



ITIL11T40963A0B 3

Battery ground cable

1. Connect the positive lead on the voltmeter **(1)** to the engine block **(2)**.
2. Connect the negative lead on the voltmeter to the negative terminal on the battery **(3)**.
3. Run the engine and check the voltmeter readings. If voltage exceeds **0.2 V**, check and tighten the ground cable connections. Recheck the voltage and, if the value is still too high, replace the ground cable.



ITIL11T40964A0B 4

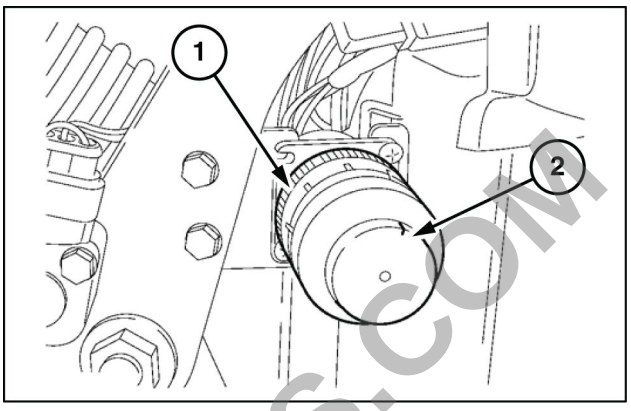
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Electronic modules - Configure

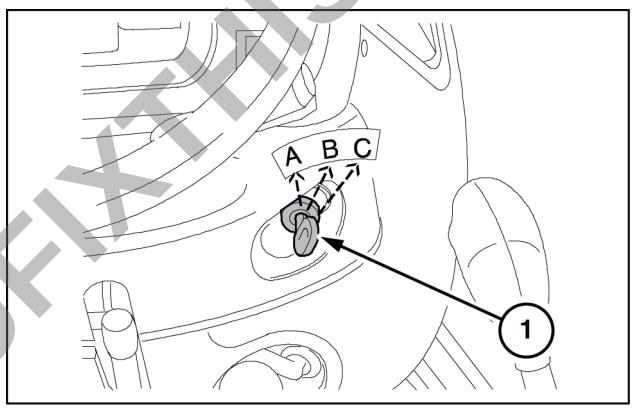
HH menu access

Connect instrument 380000843 **(1)** to the diagnostics socket **(2)**.



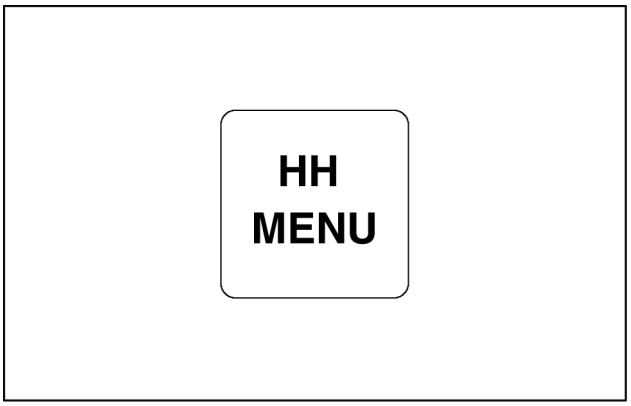
ITIL11T40760A0B 1

Turn the key start switch **(1)** to position "B" (control panel power).



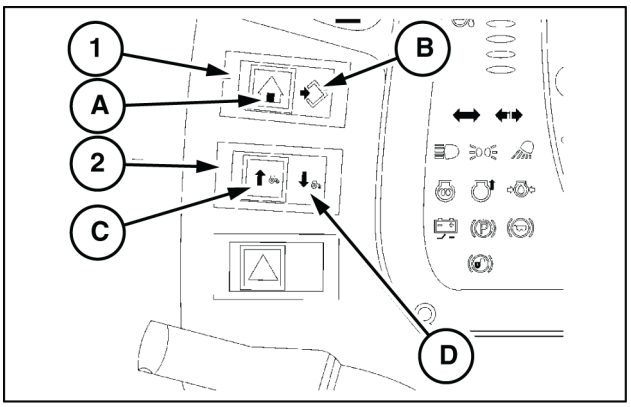
ITIL11T40761A0B 2

The information display will show "HH MENU".



ITIL11T40762A0A 3

Now, using the switch **(2)**, it is possible to select the module to examine. The modules are:
ZA = control panel
SA = Rear electronic draft control
SB = Power-Shuttle
SC = Automatically engaged four−wheel drive
SD = Automatically engaged four−wheel drive and front power take−off
MW = Electronically controlled side spool valves



ITIL11T40763A0B 4

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Electrical systems - 55

FAULT CODES - DTC

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775], T4030V With cab [Z8JE04295 - ZCJE10898], T4030V Without cab - Model Year 2012 [ZCJE04397 - ZDJE11084], T4030V Without cab [Z8JE13092 - ZCJE07076], T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978], T4040V With cab [Z8JE04453 - ZCJE08151], T4040V Without cab - Model Year 2012 [ZCJE12068 - ZDJE09487], T4040V Without cab [Z8JE04825 - ZCJE06813]

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Platform - Remove

T4030V With cab - Model Year 2012 [ZCJE01906 - ZDJE09775]	LA
T4030V With cab [Z8JE04295 - ZCJE10898]	LA
T4040V With cab - Model Year 2012 [ZCJE05523 - ZDJE09978]	LA
T4040V With cab [Z8JE04453 - ZCJE08151]	LA

Removal−refitting

⚠ 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

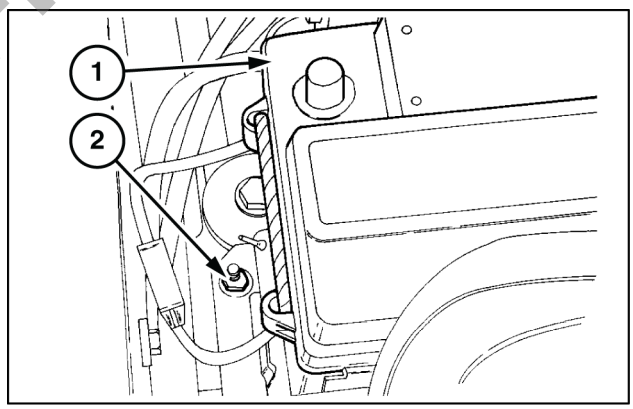
⚠ WARNING

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

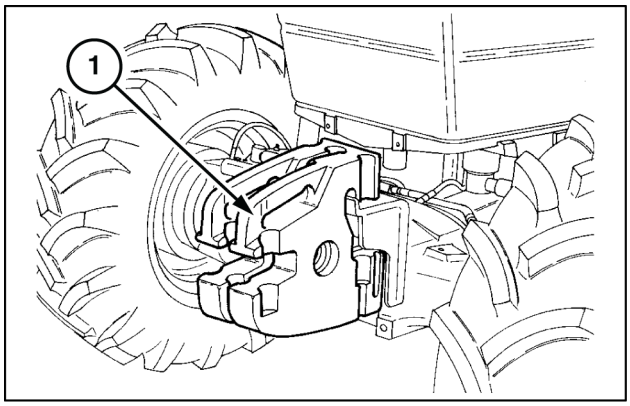
Proceed as follows:

1. Unscrew the retaining bolts **(2)** and remove the battery **(1)**.
2. Carry out operation **Hood - Remove (90.100)**.
3. Carry out operation **Side shield - Remove (90.102)**.
4. Carry out operation **Instrument cluster - Remove (55.408)**.



ITIL11T40859A0B 1

5. Unscrew the retaining bolt and remove the ballast **(1)**.



ITIL11T40860A0B 2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SPECIAL TOOL INDEX

Genuine	Reference	PAGE
380000293 [CLUTCH LEVERS ADJUSTMENT GAUGE]	Clutch - Special tools	18.3 / 5
380000256 [Clutch Adjusting Wrench Set]	Clutch - Special tools	18.3 / 5
380001613 [Front Axle / Engine Support Bracket]	Clutch - Remove	18.3 / 8
380000293 [CLUTCH LEVERS ADJUSTMENT GAUGE]	Clutch - Alignment	18.3 / 20
380000293 [CLUTCH LEVERS ADJUSTMENT GAUGE]	Clutch - Alignment	18.3 / 20
380000293 [CLUTCH LEVERS ADJUSTMENT GAUGE]	Clutch - Alignment	18.3 / 21
380001614 [Gearbox Drive and Driven Shaft Adjuster]	Mechanical transmission - Special tools	21.1 / 5
380001615 [Drive Shaft Unit Tie Rod]	Mechanical transmission - Special tools	21.1 / 5
380001616 [Drive Shaft Retainer]	Mechanical transmission - Special tools	21.1 / 5
380001617 [Shaft Snap Ring Pliers]	Mechanical transmission - Special tools	21.1 / 5
380001619 [Drive Shaft Seal Installer]	Mechanical transmission - Special tools	21.1 / 5
380001610 [Handgrip - To Be Used With 380001609 And 380001620]	Mechanical transmission - Special tools	21.1 / 5
380001620 [PTO Drive Shaft Seal Installer]	Mechanical transmission - Special tools	21.1 / 5
380001609 [PTO Shaft Needle Bearing Installer]	Mechanical transmission - Special tools	21.1 / 5
380001620 [PTO Drive Shaft Seal Installer]	Mechanical transmission - Special tools	21.1 / 5
380001610 [Handgrip - To Be Used With 380001609 And 380001620]	Mechanical transmission - Special tools	21.1 / 5
380001609 [PTO Shaft Needle Bearing Installer]	Mechanical transmission - Special tools	21.1 / 5
380001610 [Handgrip - To Be Used With 380001609 And 380001620]	Mechanical transmission - Special tools	21.1 / 5
380001618 [Drive Shaft Seal Installer]	Mechanical transmission - Special tools	21.1 / 5
380001614 [Gearbox Drive and Driven Shaft Adjuster]	Mechanical transmission - Remove Splitter device and creeper unit gearbox, shafts and bearings	21.1 / 12
380001616 [Drive Shaft Retainer]	Mechanical transmission - Remove Splitter device and creeper unit gearbox, shafts and bearings	21.1 / 12
380001615 [Drive Shaft Unit Tie Rod]	Mechanical transmission - Remove Splitter device and creeper unit gearbox, shafts and bearings	21.1 / 12
380001616 [Drive Shaft Retainer]	Mechanical transmission - Install Splitter device and creeper unit gearbox, shafts and bearings	21.1 / 15
380001615 [Drive Shaft Unit Tie Rod]	Mechanical transmission - Install Splitter device and creeper unit gearbox, shafts and bearings	21.1 / 15
380000301 [Rotating Engine Stand]	Transmission housing - Disassemble	21.1 / 23

Download full manual at youfixthis.com

PREVIEW - YOUFIXTHIS.COM

Contents

INTRODUCTION

Engine 10

[10.001] Engine and crankcase 10.1

Clutch 18

[18.100] Clutch mechanical release control 18.1

[18.104] Clutch hydraulic release control 18.2

[18.110] Clutch and components 18.3

Transmission 21

[21.114] Mechanical transmission 21.1

[21.130] Mechanical transmission external controls 21.2

[21.140] Mechanical transmission internal components 21.3

[21.112] Power shuttle transmission 21.4

[21.134] Power shuttle transmission external controls 21.5

[21.154] Power shuttle transmission internal components 21.6

[21.145] Gearbox internal components 21.7

[21.160] Creeper 21.8

[21.162] Reverser 21.9

[21.168] Hi-Lo unit 21.10

[21.182] Differential 21.11

Four-Wheel Drive (4WD) system 23

[23.202] Electro-hydraulic control 23.1

[23.304] Four-Wheel Drive (4WD) gearbox 23.2

[23.314] Drive shaft 23.3

Front axle system 25

[25.100] Powered front axle 25.1

[25.102] Front bevel gear set and differential 25.2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Low pressure switch for automatic compressor switch on/off.

Graduated container for discharge of recovered contaminated oil.

Switch **(5)** 1–0–2 for recovery and cylinder heating. Operation indicator lights.

Flexible service pipes **(11)**, **(12)** and **(16)** with safety cocks.

Recovery capacity:	200 grams/minute
Power supply:	**220 V** – **50 Hz**

Maintenance

Replacement of refrigerant decontamination filter **(3)**.

Refer to Figure **1**, proceed as follows:

ATTENTION: *Replace the filter **(3)** every 12 months, or earlier if the humidity indicator **(15)** becomes yellow (and remains this color) during the recovery/recirculation phase.*

1. Close all the valves including the yellow service valve **(9)** installed below the distillation cylinder **(4)**.
2. If refrigerant is present in the circuit set push button **(5)** to position “1” and carry out the refrigerant recovery operation. The compressor will stop automatically when the pressure gauge **(2)** drops to **-0.3 bar** (**-4.35 psi**).
3. Remove and replace the contaminated filter **(3)**.
4. Carry out a normal evacuation operation for approx. **30 min**, using the evacuation/charging system (**380000315**) proceeding as follows:
   Connect the piping **(17)** (Fig. **2**) to the service valve **(14)** (Fig. **1**), open the cock on the piping and cocks (**(4)**, **(9)** and **(10)**, Fig. **2**).
   On completion of the evacuation operation, close cocks **(4)**, **(9)** and **(10)**, the cock fitted on the pipe **(17)** and disconnect pipe **(17)**.

   Check filter connections for leaks **(3)**.

   Refer to Figure **1**, proceed as follows:
5. To check for leaks at the connections of the previously replaced filter **(3)** open the yellow service cock **(9)** on the distillation cylinder **(4)**.
6. Carry out a brief recycling operation on the refrigerant contained in the cylinder **(19)**, proceeding as described in operations **18** to **21**, and, using a leak detector, check for leaks at the connections of the new filter.
7. Record the operation on the appropriate service report card.

Changing the compressor oil in the recovery / recycling station

Refer to Figure **1**, proceed as follows:

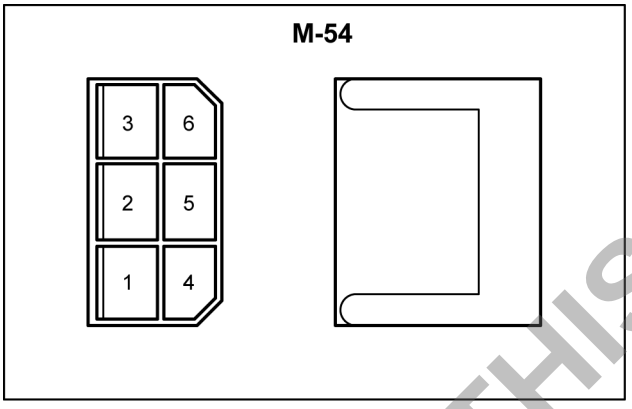
ATTENTION: *The oil in the recovery/recycling station compressor should be replaced with new oil every12 months, in order to maintain station refrigerant treatment capacity and to protect the compressor.*

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

M−54

For model with cab

Pin	Col.	Sect.	Pin	Col.	Sect.
1	N	1.0	4	-	-
2	V	1.0	5	R	1.0
3	G	1.0	6	L	1.0



ITIL11T40502A0A 5

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 2515 pages

The full manual includes:

- All 2515 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

New Holland T4030V, T4040V Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual