MANITOU

HANDLING YOUR WORLD

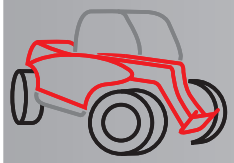
647230 EN (30/05/2018)

MLT 625-75 H SERIES 1-E3
MLT-X 625-75 H SERIES 1-E3

MT 625 T COMFORT SERIES 2-E3
MT 625 TURBO SERIES 2-E3

MT-X 625 T COMFORT SERIES 2-E3
MT-X 625 TURBO SERIES 2-E3

REPAIR MANUAL



GENERAL INSTRUCTIONS AND SAFETY NOTICE

pages

MT-X 625 Turbo / MT-X 625 T COMFORT

CHARACTERISTICS AND FLUIDS

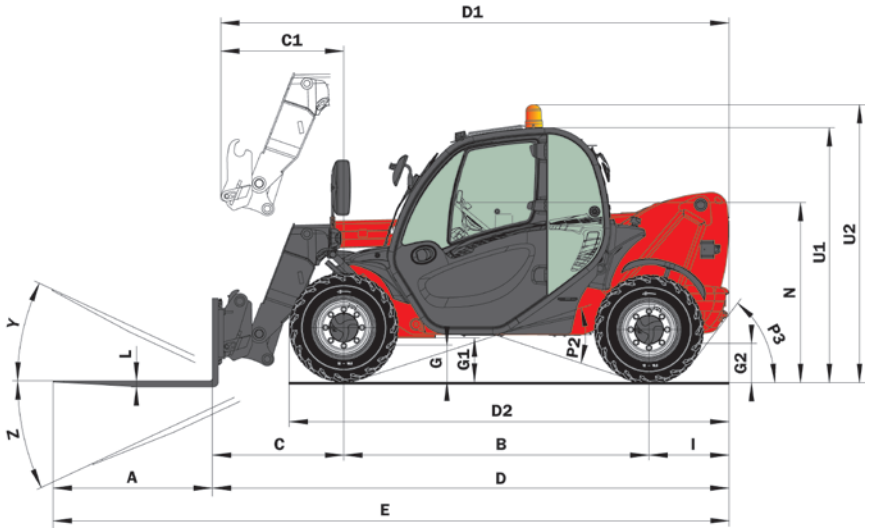
Data from the Operator's Manuel : 647421 from 10/06/2013

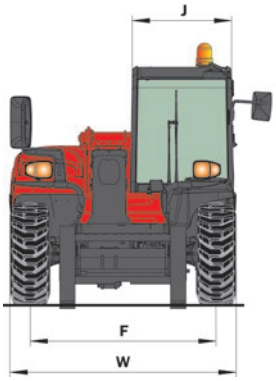
Désignation		Valeur
Lift truck weight with forks		4710 kg
Boom weight		900 kg
Weight per axle with forks	Front unladen	2210 kg
	Rear unlade	2500 kg
Drag strain		3485 daN

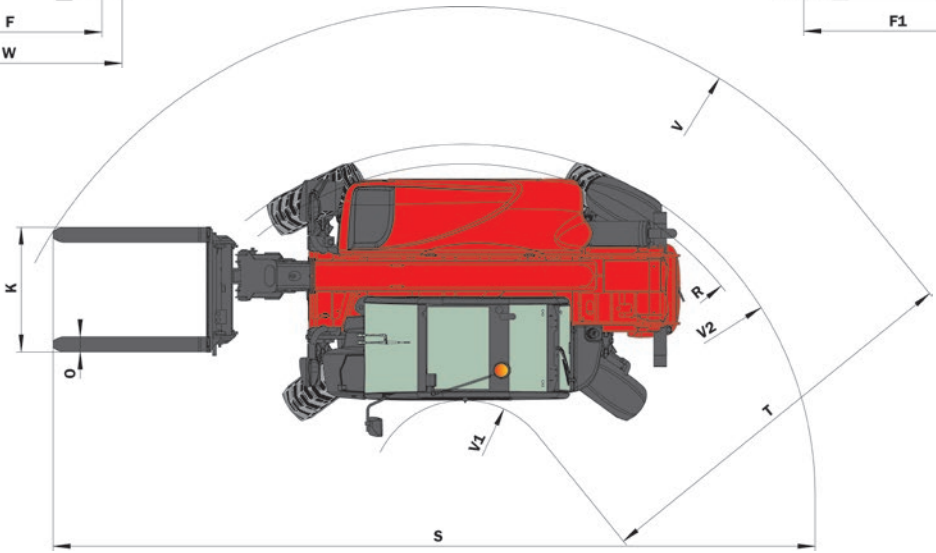
Désignation	Type	Quantité
Fuel Tank	Diesel fuel	63 ℓ
Engine oil	SHELL Oil / RIMULA R4L 15W40 CI4	11,2 ℓ
Cooling circuit	Cooling liquid (protection - 25° / -35°)	12 ℓ
Hydraulic oil tank	MANITOU Oil / Hydraulic ISO VG 46	115 ℓ
Brake system	MANITOU Oil / Mineral brake fluid	1 ℓ
Front transfer box	MANITOU Oil / SAE80W90	0,75 ℓ
Front/ rear axle differential	MANITOU Oil / Special immersed brakes	4 ℓ / 3,8 ℓ
Front/ rear wheels reducers	MANITOU Oil / SAE80W90	0,8 ℓ / 0,9 ℓ

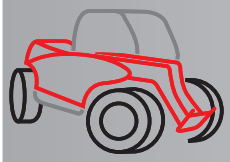
DIMENSIONS

Item	Value
A (mm)	1200
B (mm)	2300
C (mm)	991
C1 (mm)	928
D (mm)	3894
D1 (mm)	3831
D2 (mm)	3275
E (mm)	5094
F (mm)	1492
F1 (mm)	1492
G (mm)	240
G1 (mm)	330
G2 (mm)	253
I (mm)	603
J (mm)	797
K (mm)	1015
L (mm)	45
N (mm)	1314
O (mm)	125
P2 (°)	37
P3 (°)	52
R (mm)	3150
S (mm)	6651
T (mm)	3935
U1 (mm)	1920
U2 (mm)	2054
V (mm)	4700
V1 (mm)	765
V2 (mm)	3310
W (mm)	1813
Y (°)	12
Z (°)	117



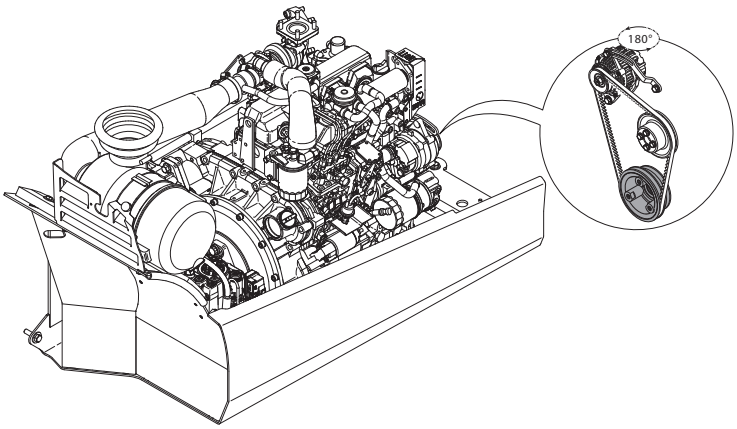




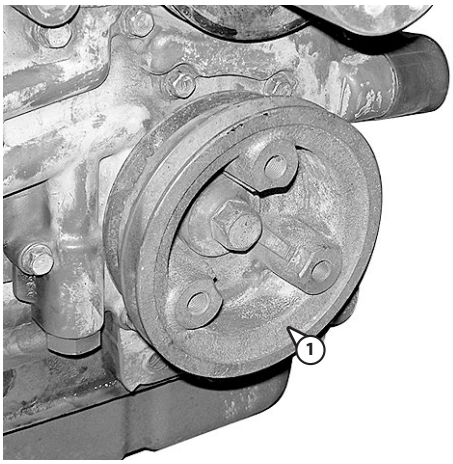


ENGINE COMPONENTS LOCATION

pages



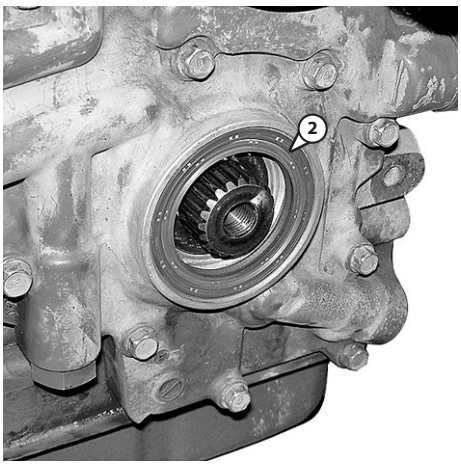
C - REPLACING THE CRANKSHAFT LIP SEAL



Procedure applied as standard as from engine No. AUO138 (October 2010).

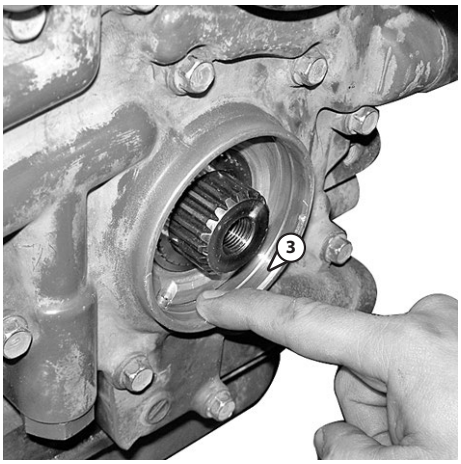
REMOVAL

- Remove the crankshaft pulley (1).



- Remove the worn seal (2).

Be careful not to damage the aluminium seal bearing surface.

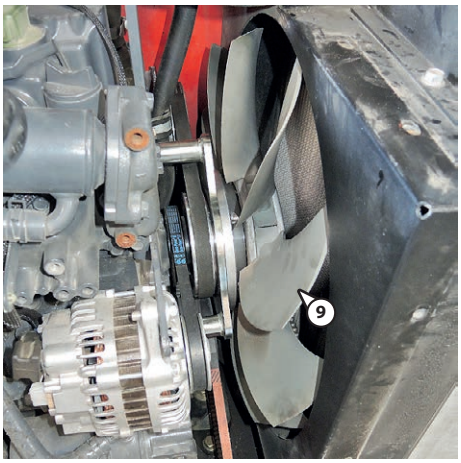


REFIT

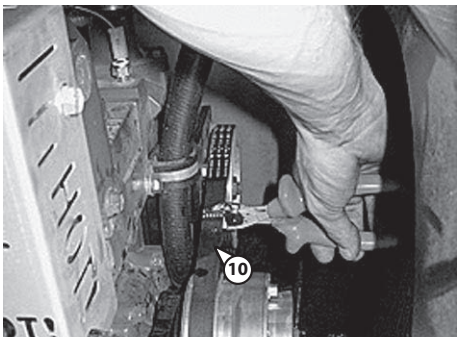
- Apply clean engine oil to the seal bearing surface (3).
- Oil the outside of the new seal.
- Insert the new seal into the crankcase.

NOTE: You can press the seal home using a special tool or 55 mm socket.

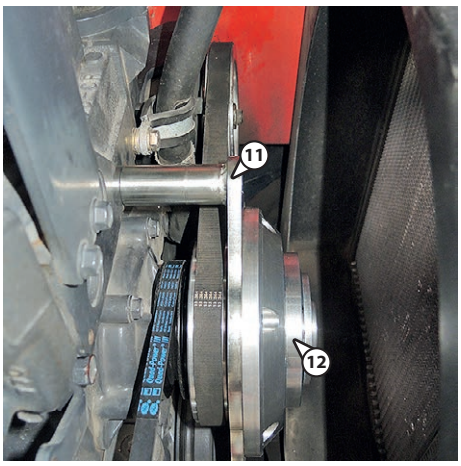
The seal must be pushed all the way in to the crankcase housing to avoid the pulley rubbing on the seal.



Remove the fan (Item 9).

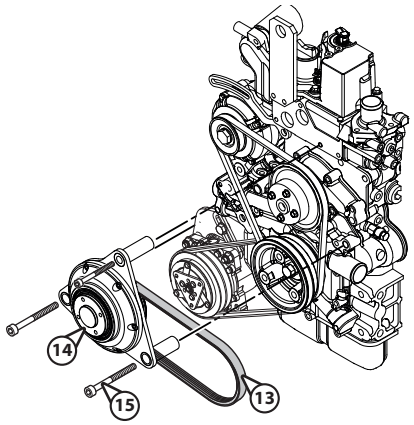


Cut the belt (Item 10), remove and dispose of it (Cutting pliers).



Unscrew the 3 screws (Item 11) in the pulley assembly (Item 12).

Remove the pulley assembly (Item 12).



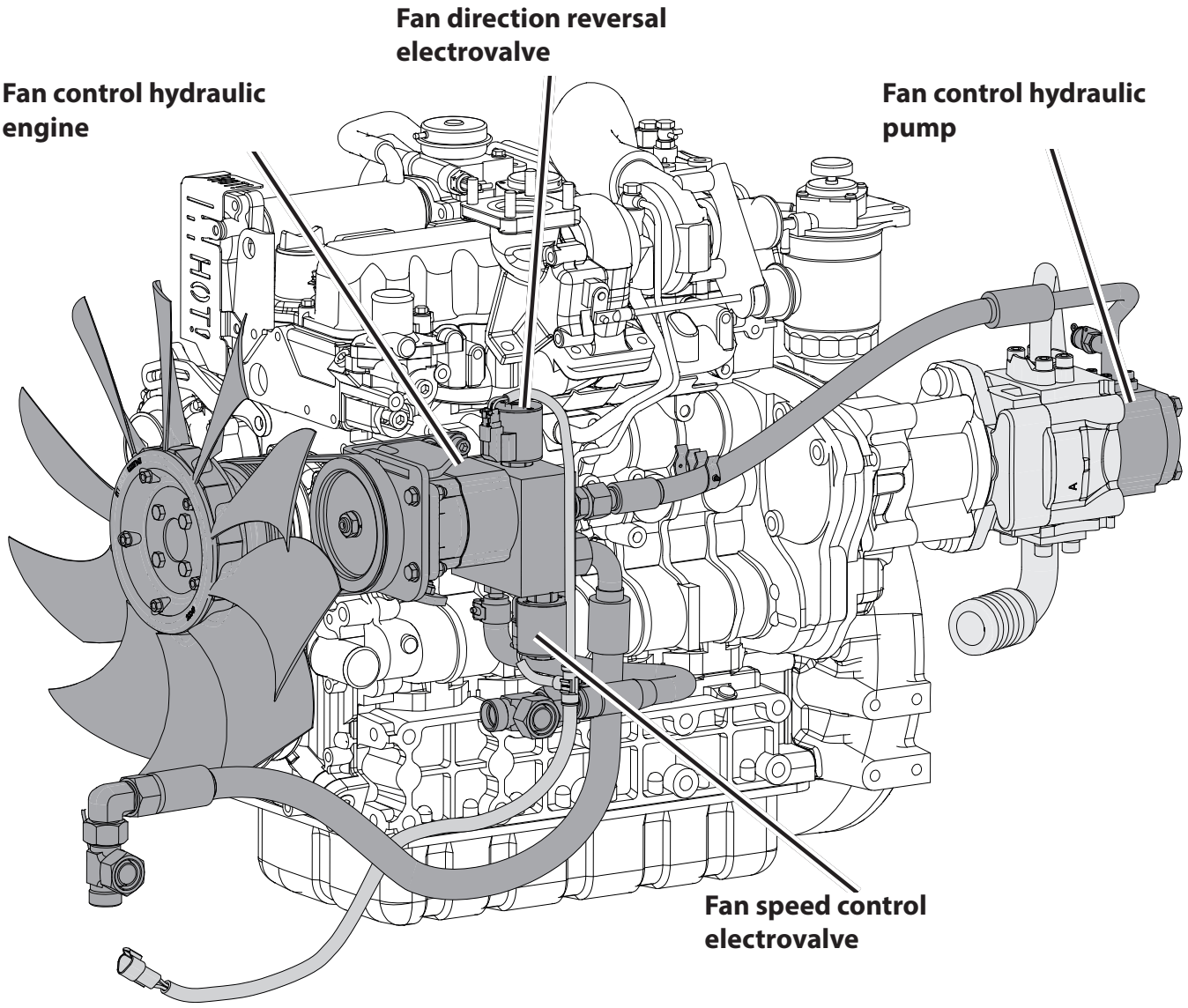
REFITTING

Place the new belt 2 (Item 13) on the pulley 1 (Item 14).

Fit the pulley assembly (Item 14) on the engine with screws (Item 15)

H - FAN CONTROL OPERATION

LOCATION



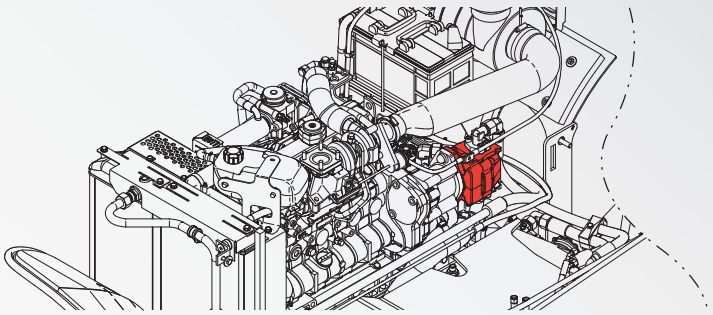
I – FUNCTION

⇒ To adjust the speed of the engine cooling fan according to the temperature (engine and transmission).

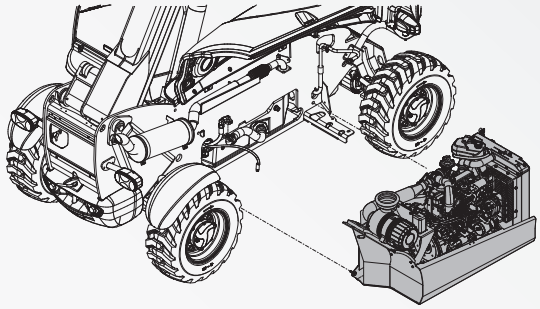
⇒ To temporarily reverse the direction of flow to unclog the bonnet intake grilles.

ORDER OF DISMANTLING

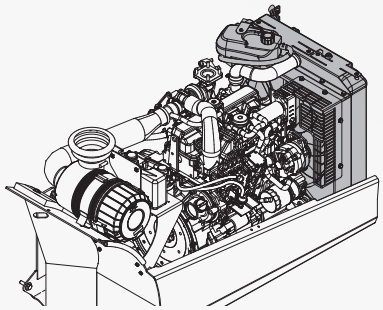
Stage 1 HYDRAULIC PUMP REMOVAL



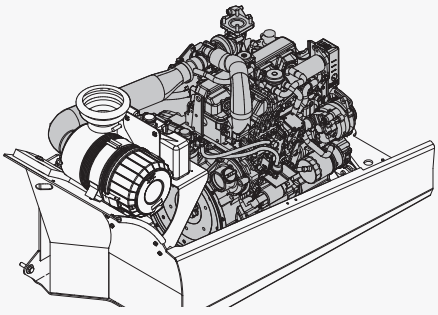
Stage 2 COMPLETE "BOX + ENGINE ASSEMBLY" REMOVAL



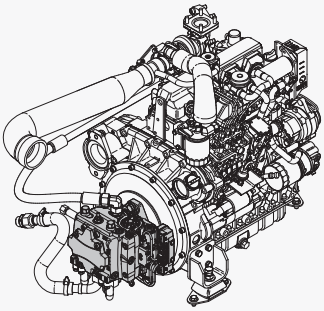
Stage 3 COOLER REMOVAL

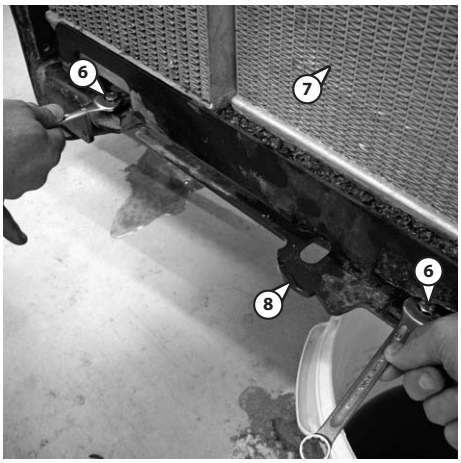


Stage 4 ENGINE REMOVAL



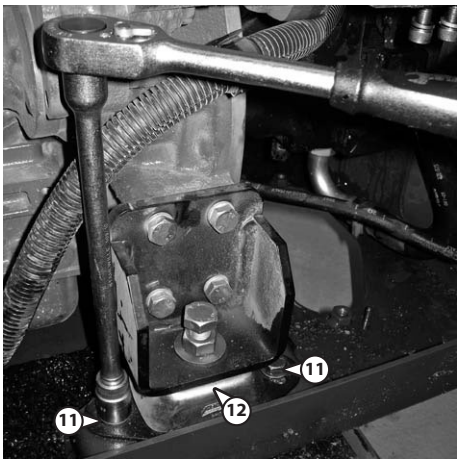
Stage 5 HYDROSTATIC PUMP REMOVAL





Using a 13 mm wrench, unscrew the 2 screws (6) that hold the cooler in position (7) on the box (8).

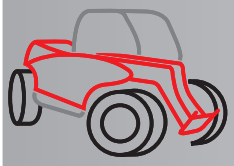
Remove the cooler (7).



Mount the 2 attachment screws (11) of the third silent block (12) (19 mm socket).

Comply with torque tightening: 7 daN.m ±10 %.

Refit the air hose (13) on the air filter (14).
Tighten the clamp (15).



SPECIFIC ENGINE TOOLING

pages

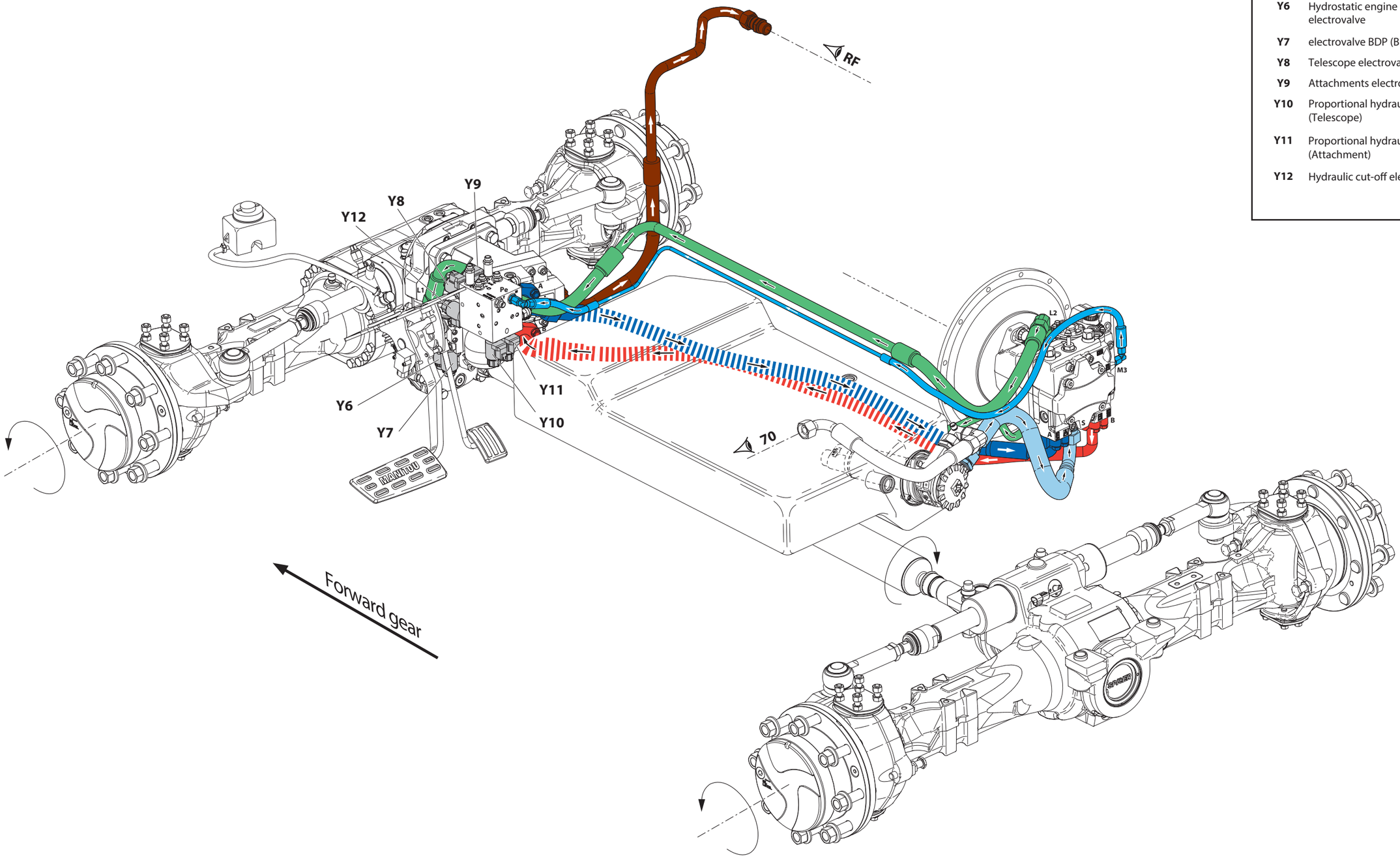
MT 625 TURBO / MT 625 T COMFORT / MT-X 625 TURBO / MT-X 625 T COMFORT

FLUID FLOW DISPLAY IN FORWARD GEAR (VIEW 2)

Key:

- Suction pressure
- Boost pressure
- High Pressure
- Low Pressure
- Cooling pressure
- Drainage pressure

RF	Oil cooler
Y6	Hydrostatic engine 2P proportional electrovalve
Y7	electrovalve BDP (Brake Pressure Defeat)
Y8	Telescope electrovalve + or - direction
Y9	Attachments electrovalve + or - direction
Y10	Proportional hydraulic pilot electrovalve (Telescope)
Y11	Proportional hydraulic pilot electrovalve (Attachment)
Y12	Hydraulic cut-off electrovalve (TUV)



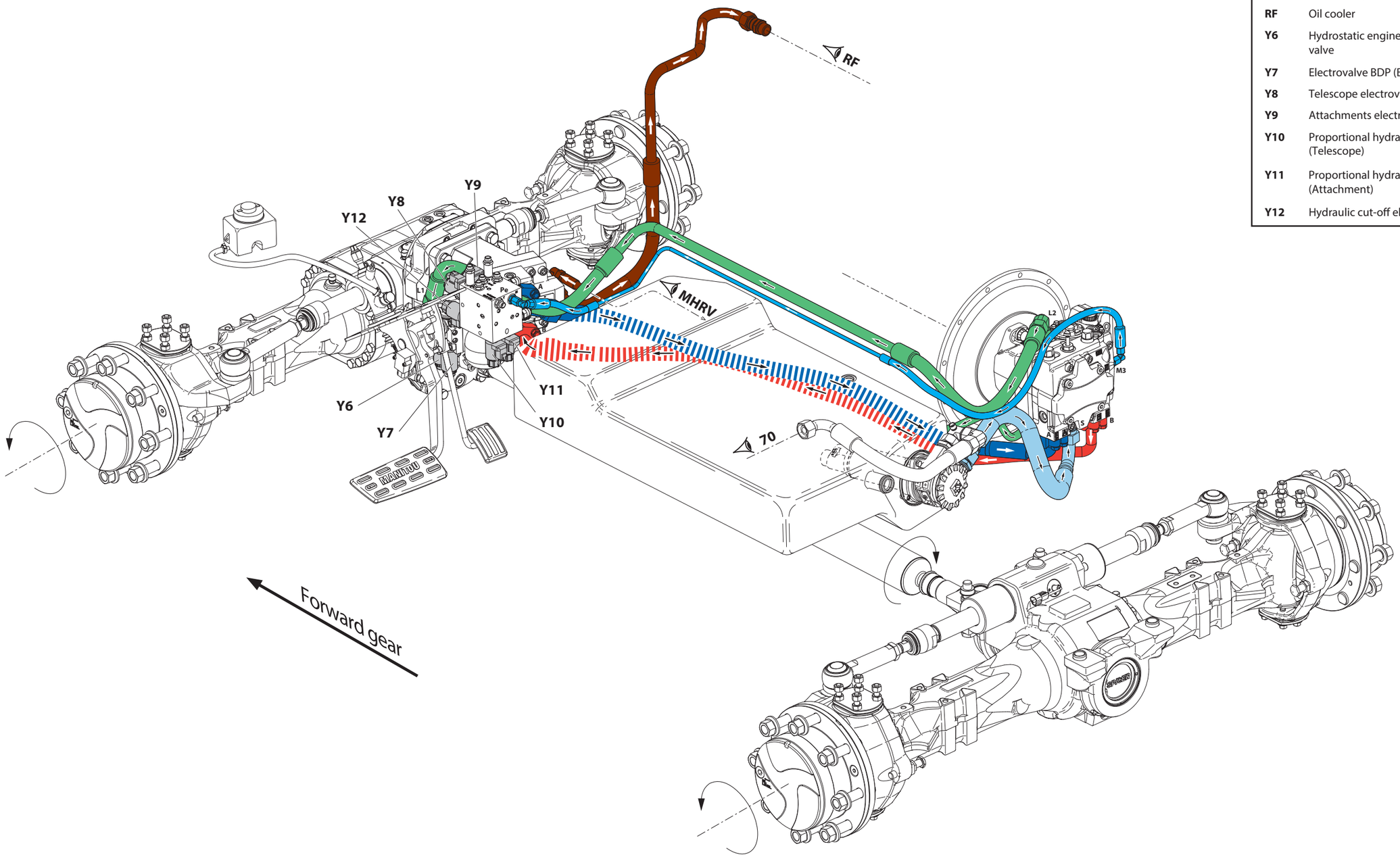
MLT 625-75 H / MLT-X 625-75 H

FLUID FLOW DISPLAY IN FORWARD GEAR (VIEW 2)

Key:

- Suction pressure
- Boost pressure
- High Pressure
- Low Pressure
- Cooling pressure
- Drainage pressure

MHRV	Fan drive hydraulic motor
RF	Oil cooler
Y6	Hydrostatic engine 2P proportional solenoid valve
Y7	Electrovalve BDP (Brake Pressure Defeat)
Y8	Telescope electrovalve + or - direction
Y9	Attachments electrovalve + or - direction
Y10	Proportional hydraulic pilot electrovalve (Telescope)
Y11	Proportional hydraulic pilot electrovalve (Attachment)
Y12	Hydraulic cut-off electrovalve (TUV)

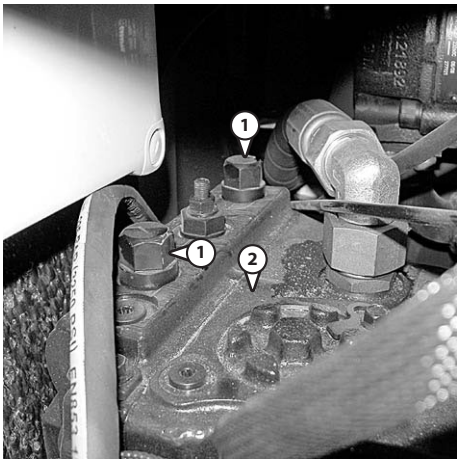


TOWING PROCEDURE

If the lift truck is not on level ground, chock it so that it does not descend the slope.

The lift truck must be towed at very slow speed (less than 5 km/h) over the shortest possible distance (less than 100 m).

- For towing a lift truck, the high pressure relief valves must be unlocked to avoid damaging the hydrostatic transmission, and the parking brake on the front axle must be released.



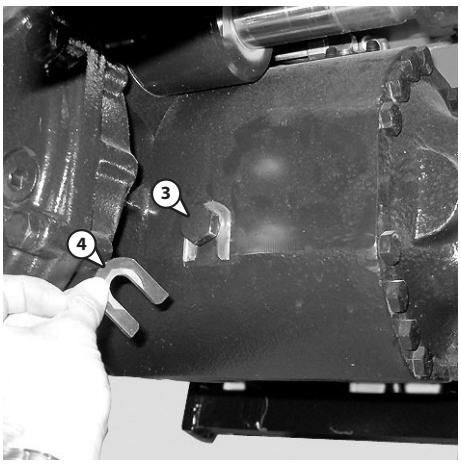
- Switch on lift truck ignition.
- Set the forward/reverse selector to neutral.
- Release the hand brake.

UNLOCKING THE HIGH PRESSURE RELIEF VALVES:

- Open the engine bonnet.
- Loosen the nuts (1) on the hydrostatic pump (2) by no more than three turns.

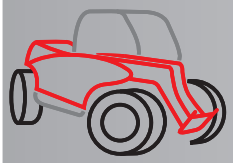
RELEASING THE PARKING BRAKE ON THE FRONT AXLE:

- Unscrew the screws (3) on the front axle, remove the shims (4) and fully retighten the screws (3).



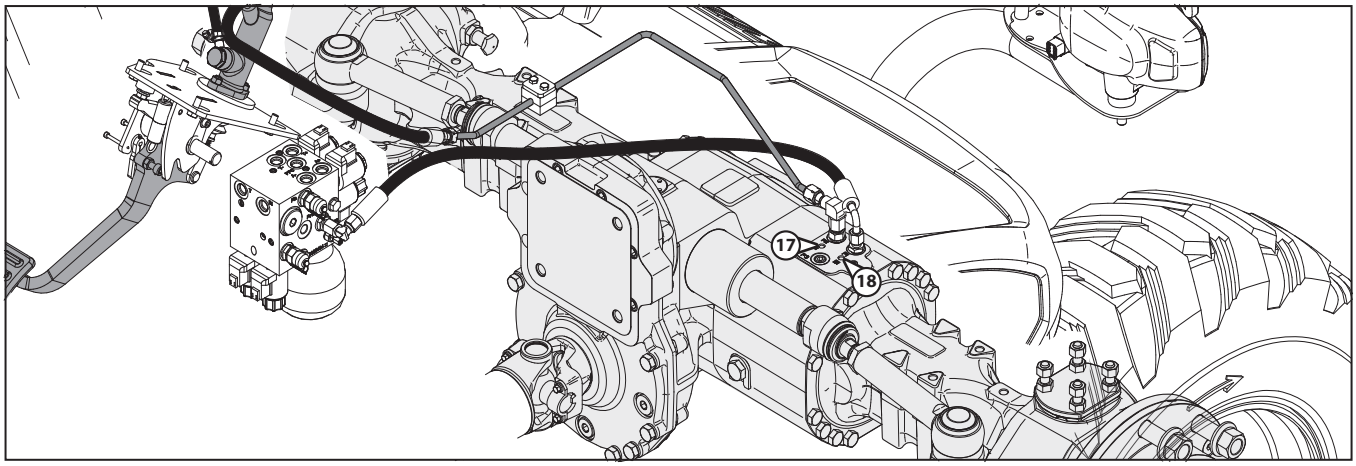
TOWING:

- Switch on the hazard warning lights.
- Since there will be no steering or braking assistance, operate the steering and pedal slowly avoiding sudden or jerky movements.
- After towing, retighten screws (1) (tightening torque 70 N.m).
- Unscrew the screws (3), refit the shims (4) and retighten the screws (3) (tightening torque 95 - 115 N.m).



BRAKE CHARACTERISTICS AND SPECIFICATIONS

pages



Drain service brake on front axle:

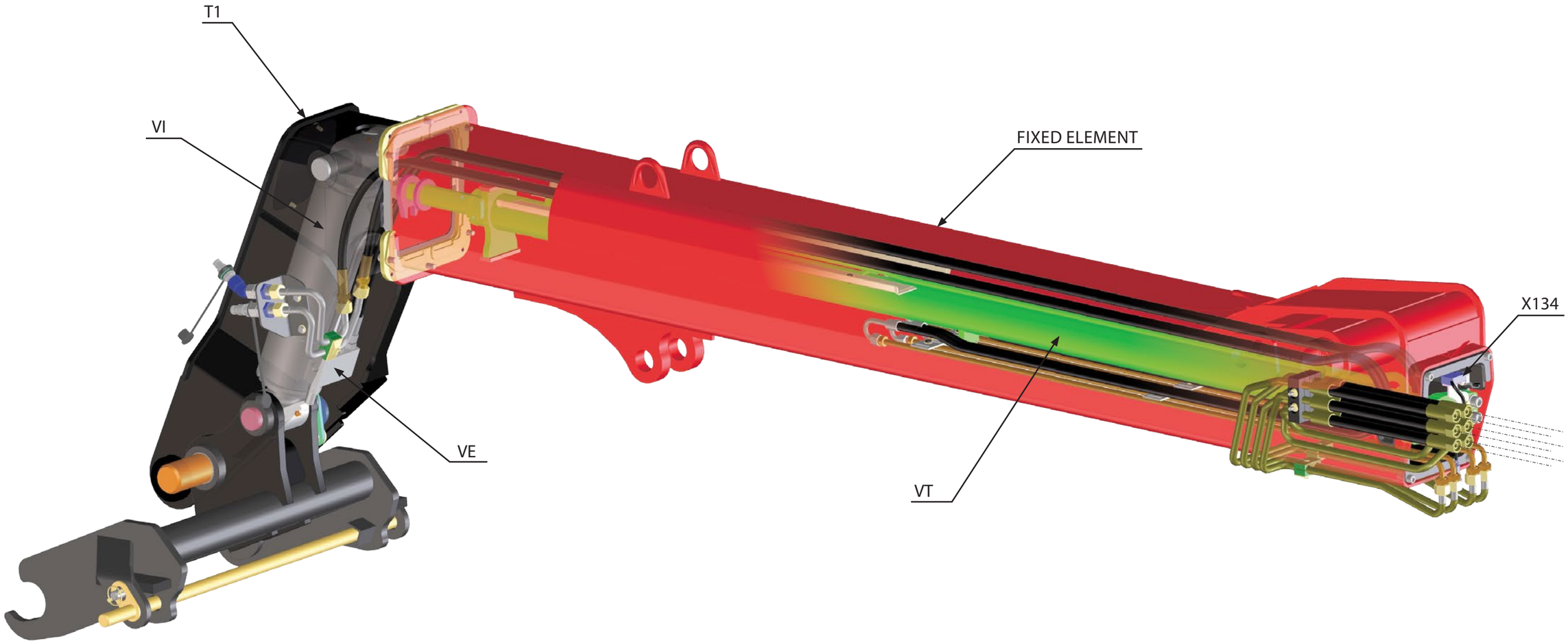
- Install a transparent recuperation tube on the vent screw (Item 17).
- Loosen the vent screw, then when the brake fluid flows without air bubbles, retighten the vent screw.

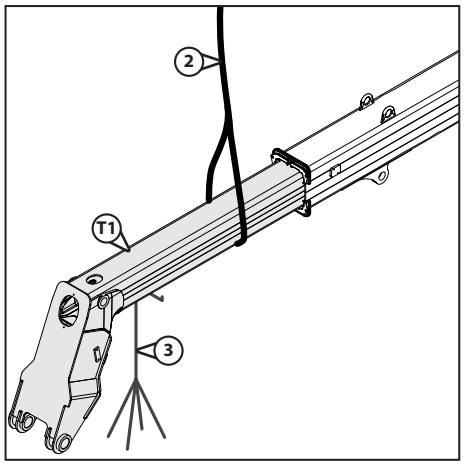
Drain parking brake on front axle:

- Carry out the same operation on the vent screw (Item 18).

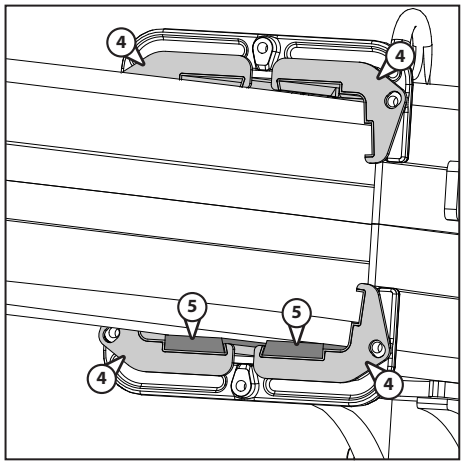
- Top up the brake fluid tank level.

LOCATION OF THE DUPLEX BOOM MAIN COMPONENTS

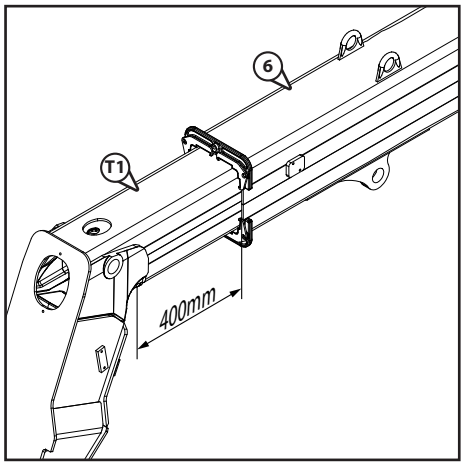




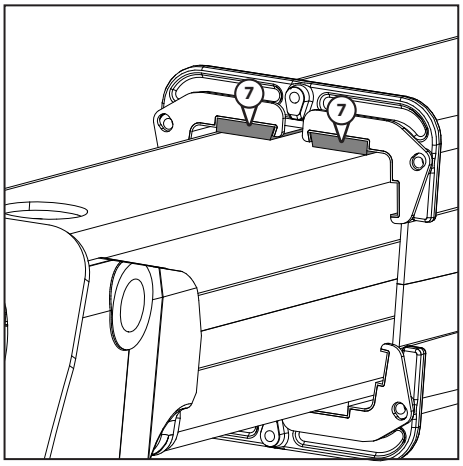
Insert telescope T1 into the foot of the boom using a sling (Item 2) and a jib crane.
Remove the support stand (Item 3).



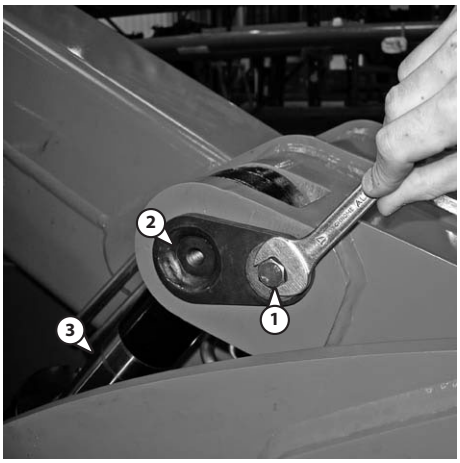
Place the 4 pad cages (Item 4)
Place the bottom front slide pads (Item 5) ensuring that they are mounted in the correct direction.
Grease the sliding surfaces of the pads (◅ RECOMMENDATIONS FOR FITTING BLOCKS AND GREASING AREAS).



Insert telescope T1 into the boom foot (Item 6) to within 400 mm of the end.

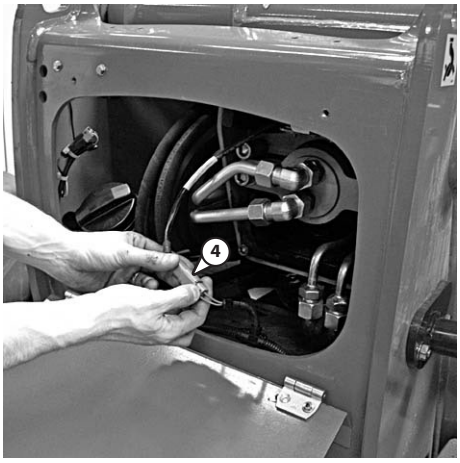


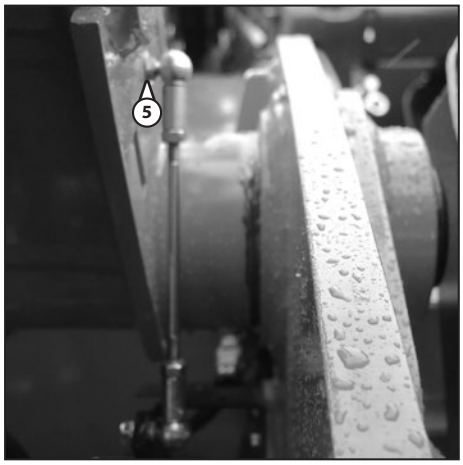
Place the top front pads (Item 7) in the correct direction and with the correct clearance.
Grease the sliding surfaces of the pads (◅ RECOMMENDATIONS FOR FITTING BLOCKS AND GREASING AREAS).



Remove the screw (Item 1) (17 mm wrench).

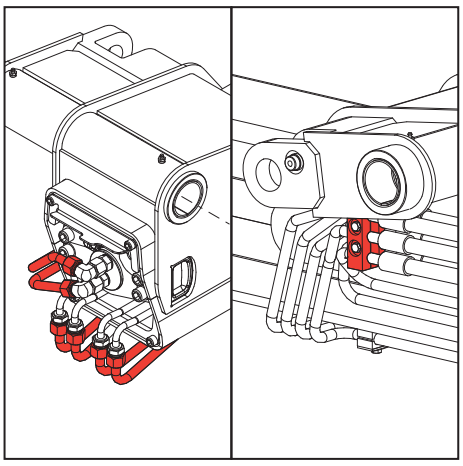
Remove the pin (Item 2) from the compensating cylinder (Item 3).





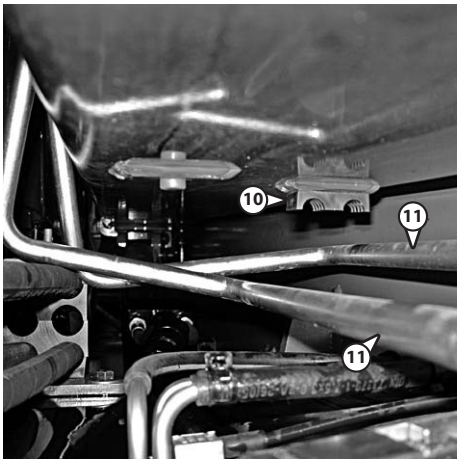
Disconnect the electrical connector (Item 4) located at the base of the boom.

Unscrew the boom angle sensor ball joint (Item 5)



Disconnect all hydraulic pipes and remove the clamp.

Place a container under the pipes to collect the oil.



Remove the retaining bracket (Item 10) securing the 2 pipes (Item 11) by removing the screw.

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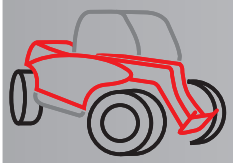


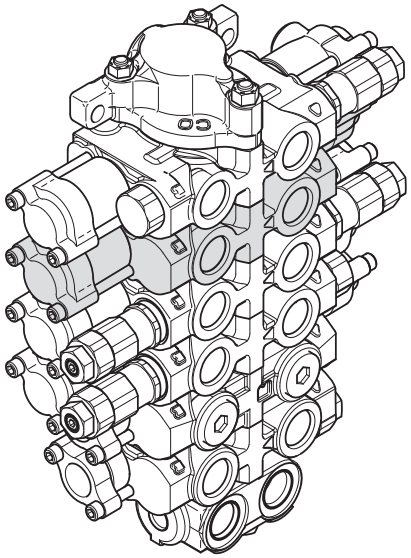
HYDRAULIC CHARACTERISTICS AND SPECIFICATIONS

HYDRAULIC COMPONENT SHEETS

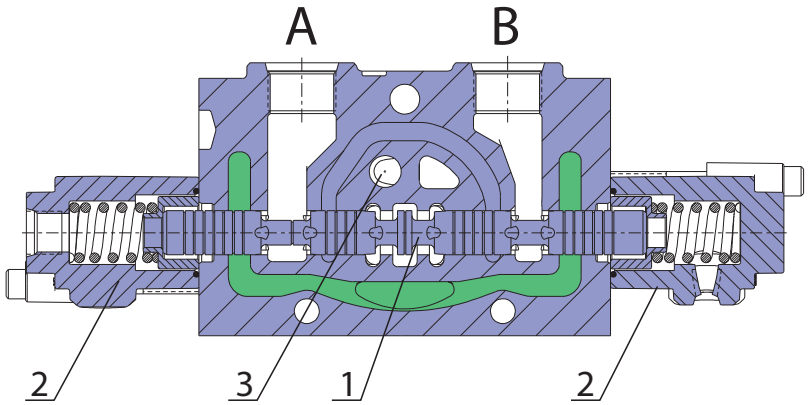
- COMPLETE ELECTROVALVE
- DISTRIBUTOR 5000 (INLET ELEMENT)
- DISTRIBUTOR 5000 (LIFTING ELEMENT)
- DISTRIBUTOR 5000 (TILTING ELEMENT)
- DISTRIBUTOR 5000 (ATTACHMENT ELEMENT)
- DISTRIBUTOR 5000 (TELESCOPING ELEMENT)
- FEED BLOCK + ACCUMULATOR
- AGGRAVATING MOVEMENT CUT-OFF BLOCK
- STEERING BLOCK
- COUNTERBALANCE VALVE VBSN
- COMPENSATION INSULATION VALVE VIC

DISTRIBUTOR 5000 (ATTACHMENT ELEMENT)

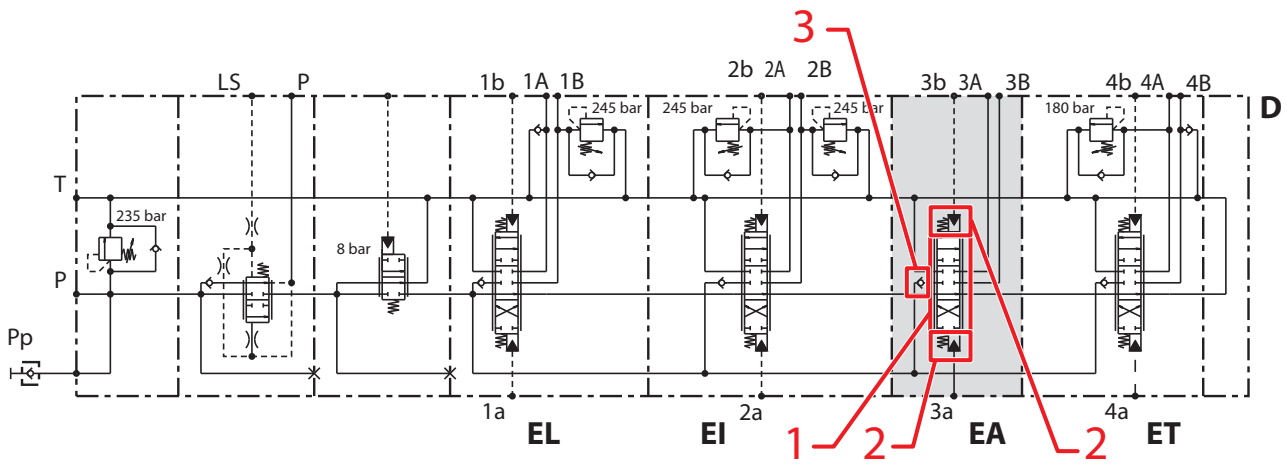
Values indicative only



Role:
- Enables several actuators to be supplied according to pilot-operated distribution spool position.



1. Distribution spool
2. Pilot head
3. Non-return valve



Notes: _____

(13/02/2012)

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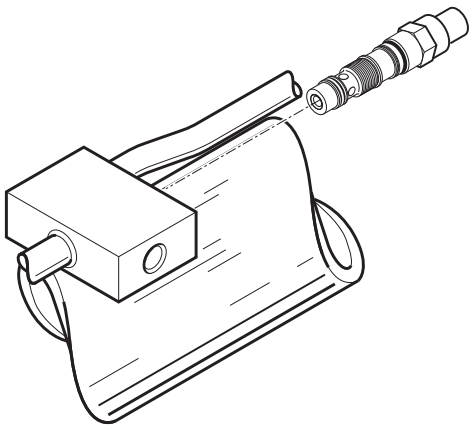
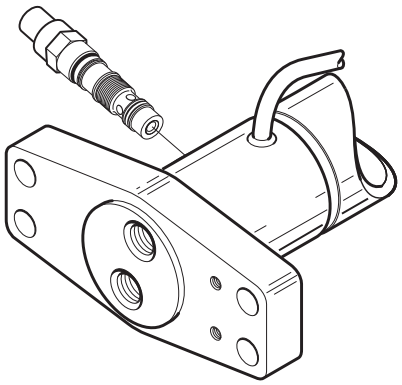
COUNTERBALANCE VALVE VBSN

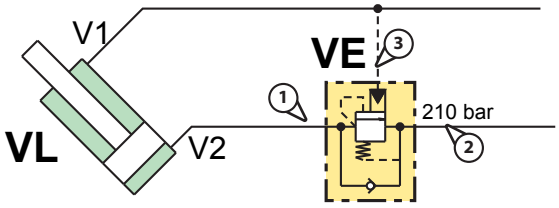
Values indicative only

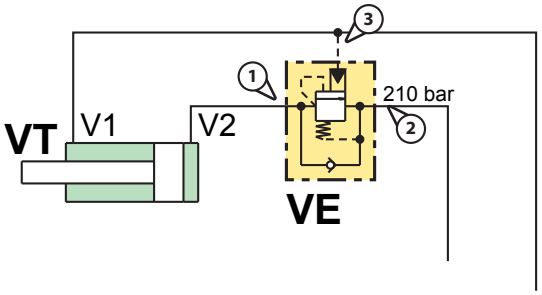


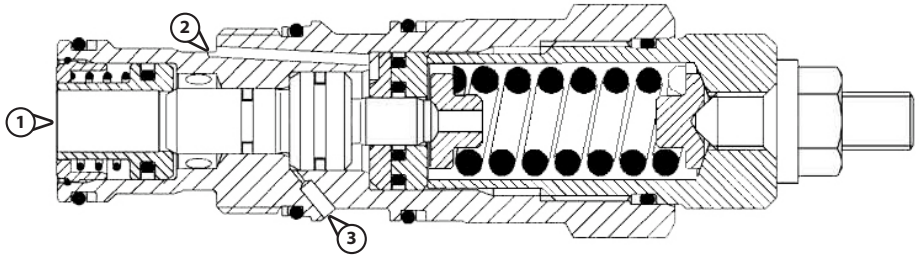
On lifting cylinder



On telescoping cylinder





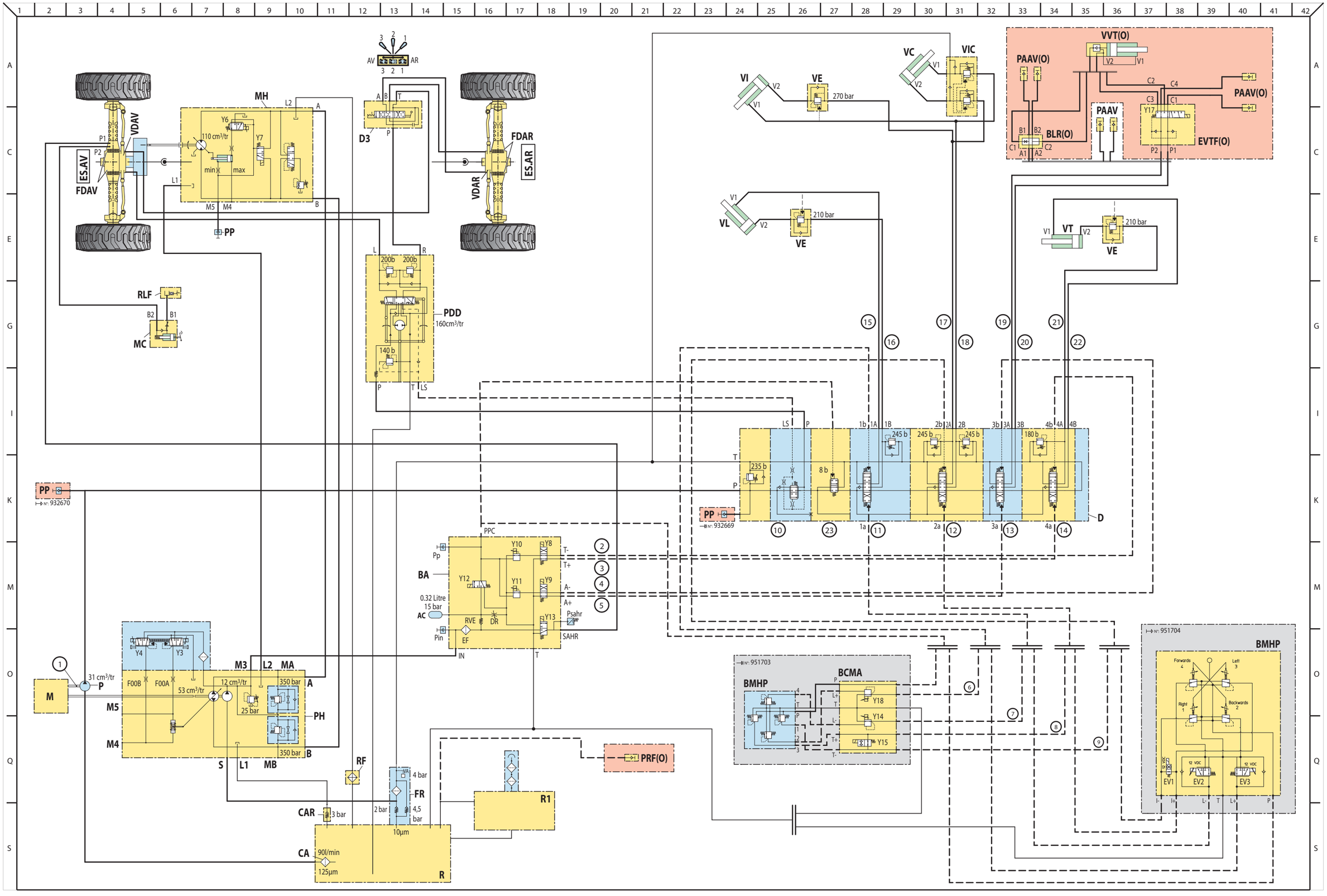


Operation:

Pilot-assisted counterbalance valves are a combination of two valves; a non-return valve and a pressure relief valve. The non-return valve allows free flow from the distributor (chamber 2) to the load (chamber 1), while a pilot-assisted direct acting pressure relief valve controls the flow from chamber 1 to chamber 2. The effective pressure relief valve setting is lowered by the pilot pressure at port 3 to a value determined by the pilot ratio.

Notes: _____

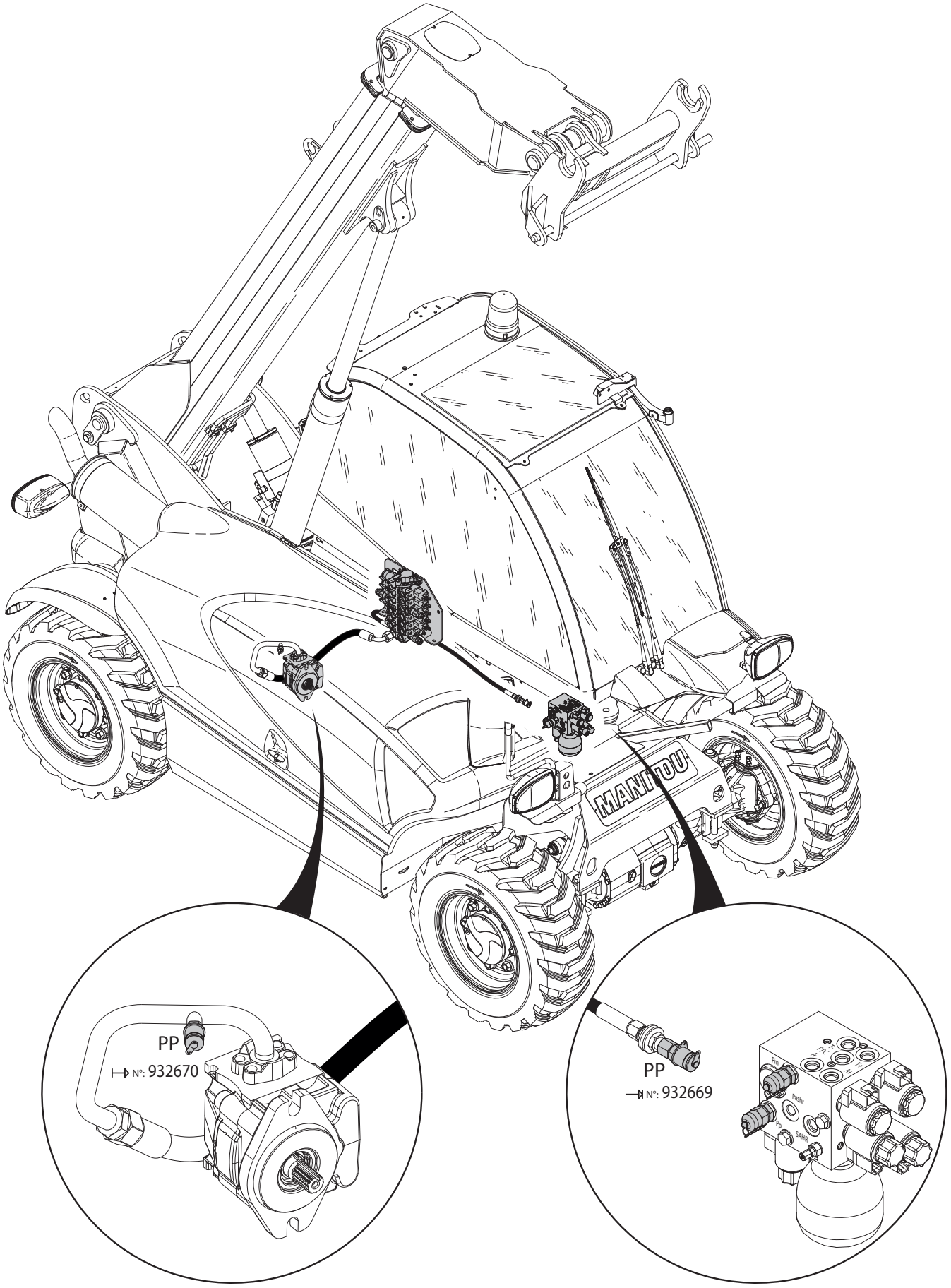
HYDRAULIC DIAGRAM

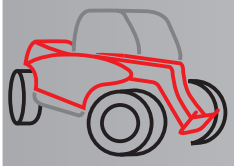


MT 625 TURBO / MT 625 T COMFORT
MT-X 625 TURBO / MT-X 625 T COMFORT

pages

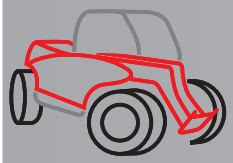
LOCATION





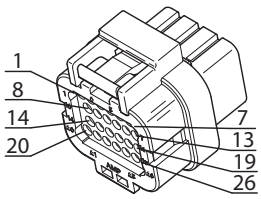
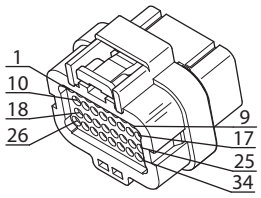
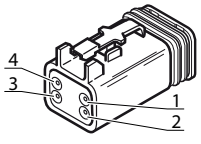
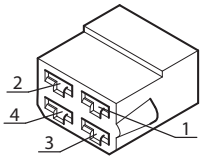
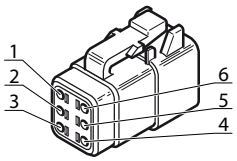
HYDRAULIC COMPONENTS REFIT

pages



ELECTRICAL CHARACTERISTICS AND SPECIFICATIONS

pages

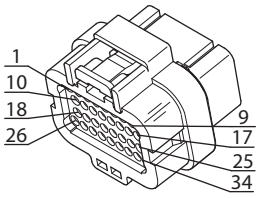
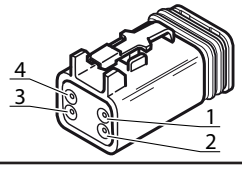
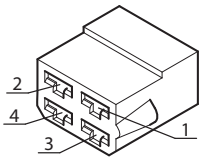
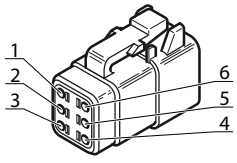
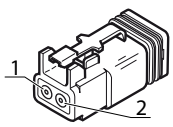
Item	Pos	Wire No.	Color	Towards	Illustration
X56 (continued)	17	427	GREY	EP6	
	18	263	GREY	X67-6	
	19	PLUG	PLUG	PLUG	
	20	454	BLACK	X303	
	21	87	GREY	EP17	
	22	PLUG	PLUG	PLUG	
	23	PLUG	PLUG	PLUG	
	24	PLUG	PLUG	PLUG	
	25	49	GREEN	X100-3	
	26	455	BLACK	X303	
X57	1	345	RED	EP19	
	2	346	GREEN	EP18	
	3	285	GREEN	EP7	
	4	286	GREEN	EP7	
	5	126	GREEN	X264-1	
	6	202	GREEN	X270-1	
	7	206	GREEN	X269-1	
	8	353	GREEN	EP5	
	9	354	GREEN	EP5	
	10	PLUG	PLUG	PLUG	
	11	PLUG	PLUG	PLUG	
	12	PLUG	PLUG	PLUG	
	13	PLUG	PLUG	PLUG	
	14	PLUG	PLUG	PLUG	
	15	139	GREY	X134-4	
	16	264	GREY	X67-7	
	17	PLUG	PLUG	PLUG	
	18	PLUG	PLUG	PLUG	
	19	391	GREY	X268-1 or X372-7	
	20	PLUG	PLUG	PLUG	
	21	PLUG	PLUG	PLUG	
	22	281	GREEN	X274-2	
	23	204	GREY	X134-2	
	24	262	GREY	EP8	
	25	169	GREEN	X377-1	
	26	PLUG	PLUG	PLUG	
	27	PLUG	PLUG	PLUG	
	28			EP16	
	29	120	GREEN	X266-1	
	30	PLUG	PLUG	PLUG	
	31	284	BLACK	EP12	
	32	201	GREEN	X275-1	
	33	PLUG	PLUG	PLUG	
	34	456	BLACK	X303	
X58	1	140	BLACK	X303	
	2	89	GREEN	BF2 Module 1/F2	
	3	141	RED	EP22	
	4	142	GREEN	EP21	
X59	1	319	YELLOW	X276-6	
	2	248	YELLOW	X276-5	
	3	253	GREEN	X276-2	
	4	406	BLACK	X331-2	
X62	1	PLUG	PLUG	PLUG	
	2	572	GREY	X292-4	
	3	573	GREY	X295-5	
	4	574	GREY	X295-3	
	5	575	GREY	X295-4	
	6	PLUG	PLUG	PLUG	

80

MT 625 T COMFORT / MLT 625-75 H
MT-X 625 T COMFORT / MLT-X 625 75 H

pages

MT 625 T COMFORT / MLT 625-75 H
MT-X 625 T COMFORT / MLT-X 625-75 H
From machine ⟼ no. 906046

Item	Pos	Wire No.	Color	Towards	Illustration
X57	1	345	RED	EP19	
	2	346	GREEN	EP18	
	3	285	GREEN	EP7	
	4	286	GREEN	EP7	
	5	126	GREEN	X264-1	
	6	202	GREEN	X270-1	
	7	206	GREEN	X269-1	
	8	353	GREEN	EP5	
	9	354	GREEN	EP5	
	10	PLUG	PLUG	PLUG	
	11	PLUG	PLUG	PLUG	
	12	357	GREY	X67-9	
	13	86	GREY	X370-1	
	14	365	GREEN	X382-1 or X383-1	
	15	139	GREY	X134-4	
	16	264	GREY	X67-7	
	17	362	GREEN	X381-A	
	18	PLUG	PLUG	PLUG	
	19	391	GREY	X268-1 or X372-7	
	20	PLUG	PLUG	PLUG	
	21	PLUG	PLUG	PLUG	
	22	281	GREEN	X274-2	
	23	204	GREY	X134-2	
	24	262	GREY	EP8	
	25	169	GREEN	X377-1	
	26	PLUG	PLUG	PLUG	
	27	PLUG	PLUG	PLUG	
	28	DRAIN CABLE 6		EP16	
	29	120	GREEN	X266-1	
	30	363	GREEN	X381-B	
	31	284	BLACK	EP12	
	32	201	GREEN	X275-1	
	33	311	GREEN	X322-9	
	34	456	BLACK	X303	
X58	1	140	BLACK	X303	
	2	89	GREEN	BF2 Module1/F2	
	3	141	RED	EP22	
	4	142	GREEN	EP21	
X59	1	319	YELLOW	X276-6	
	2	248	YELLOW	X276-5	
	3	253	GREEN	X276-2	
	4	406	BLACK	X331-2	
X62	1	PLUG	PLUG	PLUG	
	2	572	GREY	X292-4	
	3	573	GREY	X295-5	
	4	574	GREY	X295-3	
	5	575	GREY	X295-4	
	6	PLUG	PLUG	PLUG	
X63	1	178	GREEN	X13-2	
	2	451	BLACK	X304	
X64-1	1	181	GREEN	BF2 Module 5/K3-2	
X64-2	1	188	BLACK	X303	

80

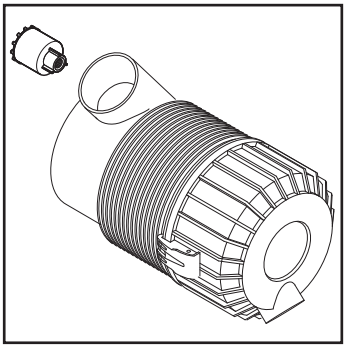
MT 625 T COMFORT / MLT 625-75 H
MT-X 625 T COMFORT / MLT-X 625-75 H
From machine ⟼ no. 906046

Splices

Item	Wire No.	Color	Towards
EP1	9	GREEN	X289-IG
	10	GREEN	X8-1
	19	YELLOW	X310-B8
EP5	353	GREEN	X57-8
	354	GREEN	X57-9
	355	YELLOW	BF2 Module1/F7
	360	GREY	X56-1
EP6	427	GREY	X56-17
	282	GREEN	X274-3
	39	GREY	X310-C7
EP7	287	GREEN	X56-13
	82	YELLOW	X138-1
	285	GREEN	X57-3
	286	GREEN	X57-4
EP8	262	GREY	X57-24
	260	GREY	X67-4
	261	GREY	X67-5
EP9	72	BLACK	X139-1
	73	BLACK	X139-4
	16	BLACK	X310-B4
EP10	74	GREEN	X139-2
	75	GREEN	X139-5
	17	GREEN	X310-B5
EP11	259	GREY	X56-12
	257	GREY	X67-2
	258	GREY	X67-3
EP12	284	BLACK	X57-31
		BLACK	X99-3
	326	BLACK	X370-3
	183	BLACK	X67-1
EP13	80	GREEN	X294-5
	38	GREEN	X310-C3
	81	YELLOW	BF2 Module1/F4
EP14	57	GREEN	X374-1 or EP26
	339	GREEN	X114-1
	341	GREEN	X114-3
EP15	58	GREEN	BF2 Module1/F6
	48	GREEN	X100-2
	53	GREEN	X100-5
	333	GREY	X134-1
	138	GREY	X134-3
EP16	DRAIN		CABLE 3
	DRAIN		CABLE 6
	DRAIN		CABLE 7
EP17	87	GREY	X56-21
	85	GREY	X370-2
		RED	X99-2
EP18	60	GREEN	X19-2
	346	GREEN	X57-2
	348	GREEN	EP21
EP19	59	RED	X19-1
	345	RED	X57-1
	347	RED	EP22
EP20	107	GREY	X13-15
	108	GREEN	X36-4
	344	YELLOW	BF2 Module 2/F22
EP21	88	GREEN	X115-14
	142	GREEN	X58-4
	348	GREEN	EP18
	67	GREEN	X13-22

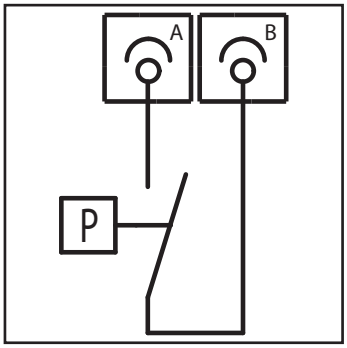
DATA SHEETS FOR ELECTRICAL COMPONENTS

B35 AIR FILTER SWITCH X20



	PIN	Function
	A	Clogging info
	B	Ground

Corresponding connector



Diagram

	PIN	Typical
Nominal depression		62 mbar ± 5%
Voltage	B	Ground
Consumption		25 mA

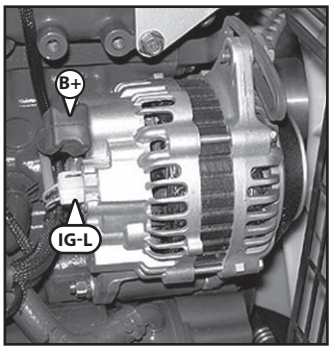
Note : contact closed = clogged filter

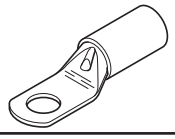
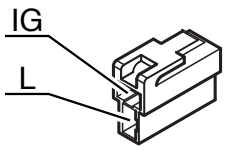
Notes: _____

_____

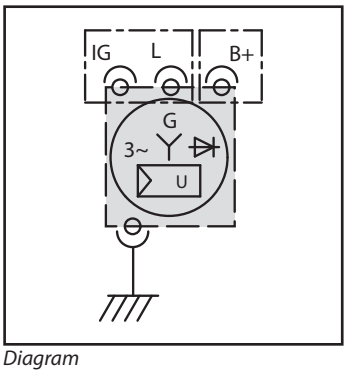
_____

B+/IG-L ALTERNATOR X290+X289



	PIN	Function
	B+	Battery power supply
	IG	Engine EV info 12V +APC
	L	Pre-heating signal

Corresponding connector



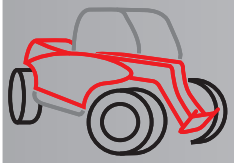
Diagram

	PIN	Minimum	Typical	Max
Outlet logic	B+	Engine running: B+ = 12 V Engine not running: B+ = 0 V		
Supply voltage	IG	10 V	12 V	14 V
Voltage (Engine not running)	L	0 V	0 V	0 V
Voltage (Engine running)	L	13 V	13.8 V	16 V

Note :

Notes: _____

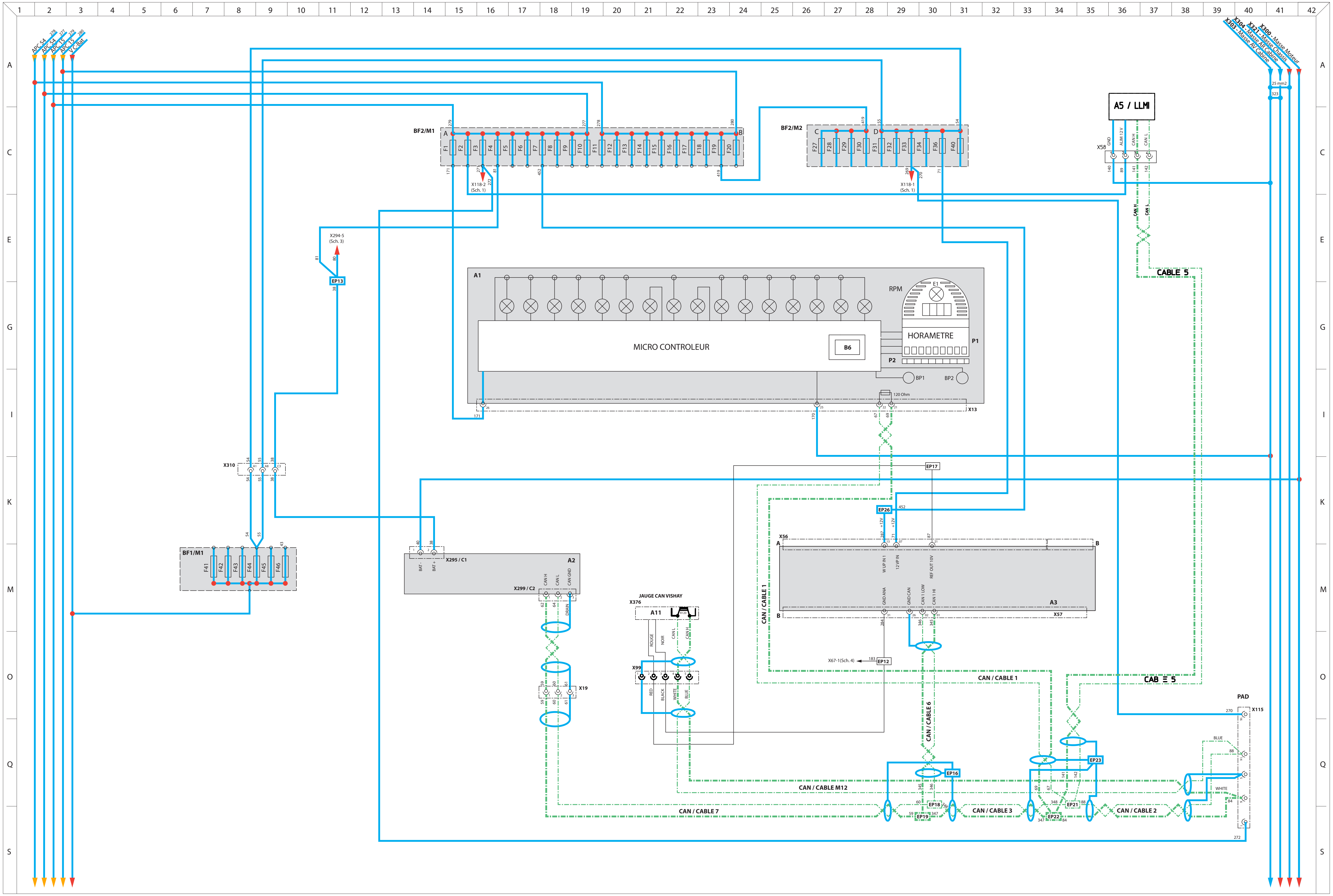
_____



ELECTRICAL SCHEMATIC DIAGRAMS

pages

DIAGRAM 2

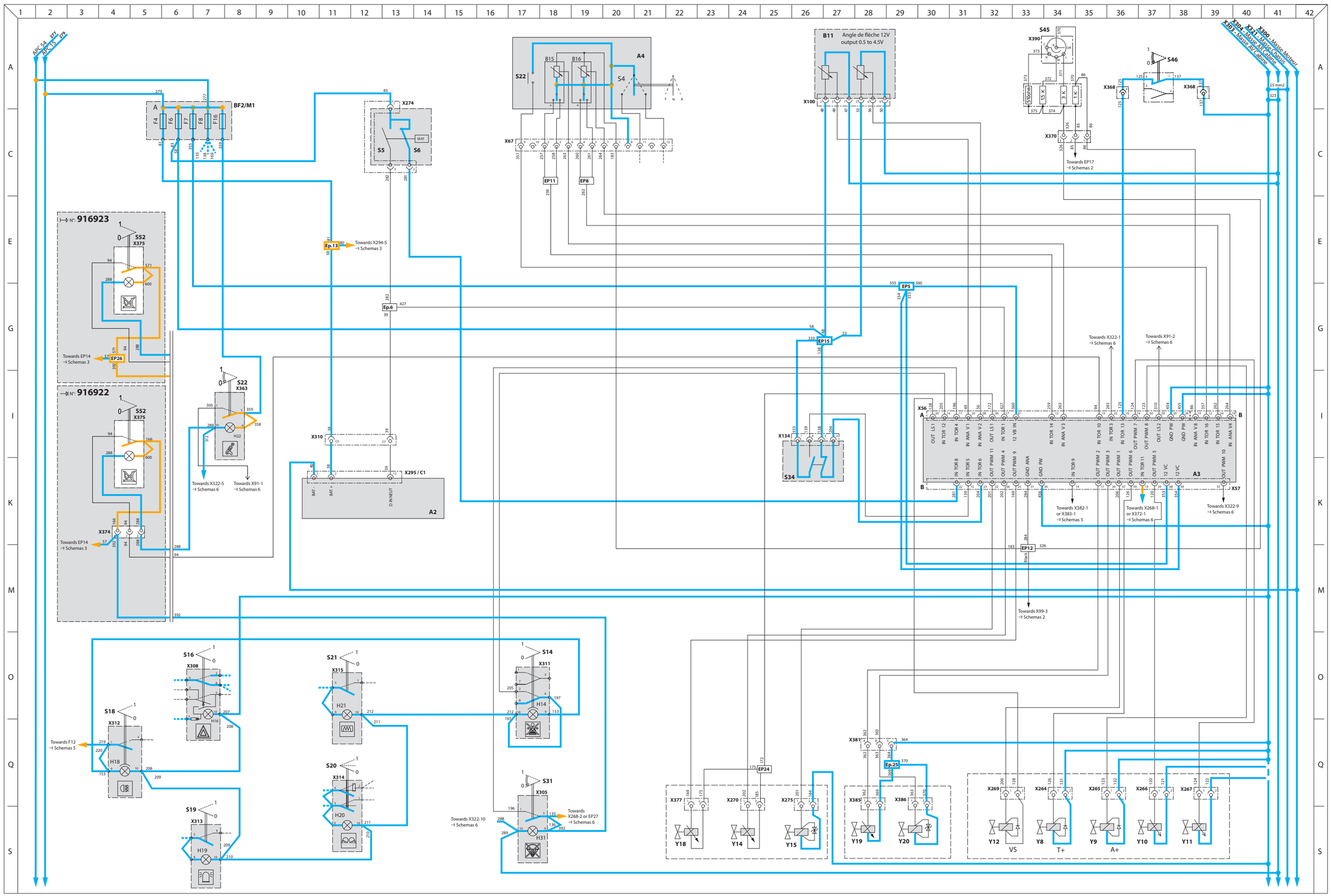


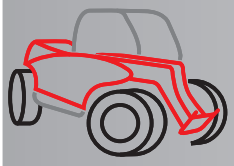
APC 54
APC 54
APC 15
APC 15
V Bat
BF2/M1
BF2/M2
X118-2 (Sch. 1)
X118-1 (Sch. 1)
X294-5 (Sch. 3)
EP13
A5 / LLMI
X58
GND
ALIM 12 V
CAN H
CAN L
CABLE 5
X300 - Masse Moteur
X321 - Masse Chassis
X304 - Masse AR Cabine
X303 - Masse AV Cabine
A1
RPM
HORAMETRE
MICRO CONTROLEUR
B6
P1
P2
BP1
BP2
120 Ohm
X13
X310
EP17
EP26
X56
A3
X57
BF1/M1
X295 / C1
A2
X299 / C2
CAN H
CAN L
CAN GND
DRAIN
JAUGE CAN VISHAY
X376
A11
ROUGE
NOIR
X99
RED
BLACK
WHITE
BLUE
X19
X67-1(Sch. 4)
EP12
CAN / CABLE 1
CAN / CABLE 6
CAB = 5
PAD
X115
EP23
EP16
CAN / CABLE M12
CAN / CABLE 7
CAN / CABLE 3
CAN / CABLE 2
EP18
EP19
EP21
EP22

MT 625 T COMFORT / MLT 625-75 H
MT-X 625 T COMFORT / MLT-X 625-75 H

pages

DIAGRAM 4

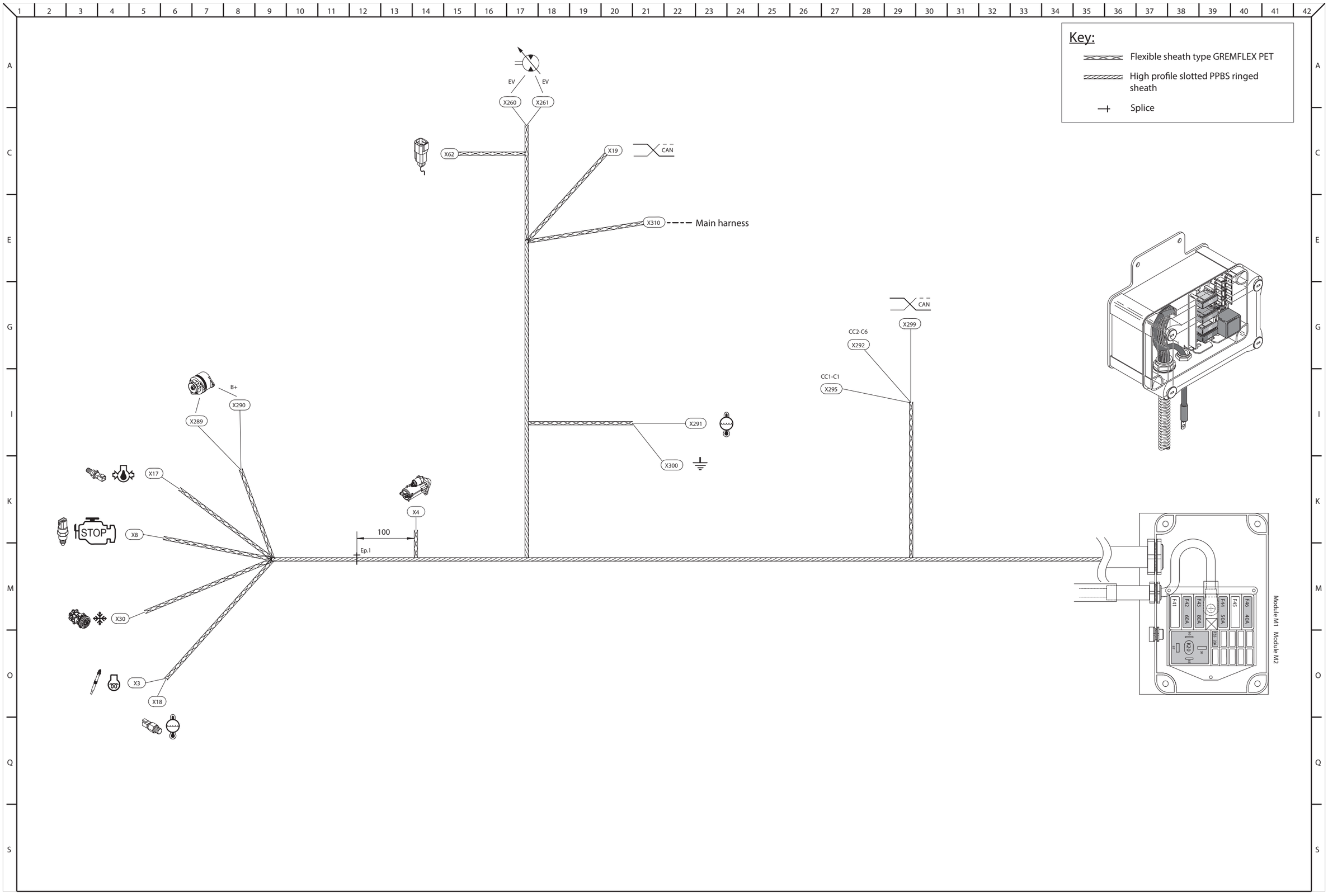

APC-4
APC-13
BF2/M1
F4
F6
F7
F8
F16
X274
S5
S6
SEAT
S22
B15
B16
A4
S4
X67
EP11
EP8
B11
Angle de flèche 12V
output 0.5 to 4.5V
X100
S45
X390
500ohm
15 K
3 K
1 K
X370
Towards EP17
Schemas 2
S46
X368
X300 - Masse Moteur
X321 - Masse châssis
X303 - Masse AV Cabine
25 mm2
N°: 916923
S52
X375
Towards EP14
Schemas 3
EP26
N°: 916922
X374
S22
X363
H22
Towards X322-5
Schemas 6
Towards X91-1
Schemas 6
Towards X294-5
Schemas 3
Ep.13
Ep.6
X310
X295 / C1
BAT -
BAT +
D IN NEUT
A2
EP5
EP15
X134
S34
X56
A3
X57
Towards X322-1
Schemas 6
Towards X91-2
Schemas 6
Towards X382-1
or X383-1
Schemas 5
Towards X268-1
or X372-1
Schemas 6
Towards X322-9
Schemas 6
EP12
Towards X99-3
Schemas 2
S16
X308
H16
S21
X315
H21
S14
X311
H14
S18
X312
H18
Towards F12
Schemas 5
S20
X314
H20
S19
X313
H19
S31
X305
H31
Towards X322-10
Schemas 6
Towards
X268-2 or EP27
Schemas 6
EP24
X377
X270
X275
Y18
Y14
Y15
X381
Ep.25
X385
X386
Y19
Y20
X269
X264
X265
X266
X267
Y12
VS
Y8
T+
Y9
A+
Y10
Y11



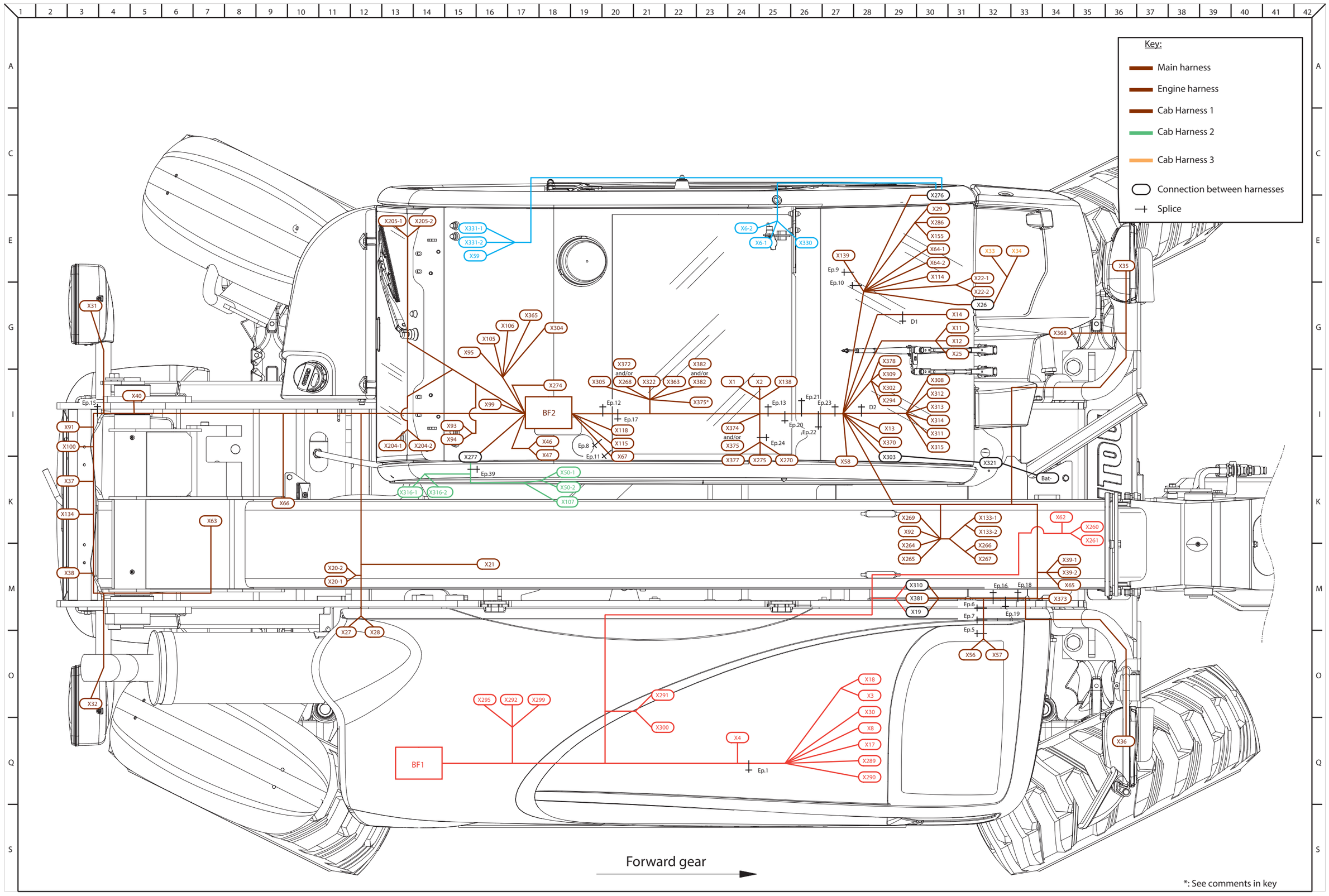
ELECTRICAL COMPONENTS LOCATION

pages

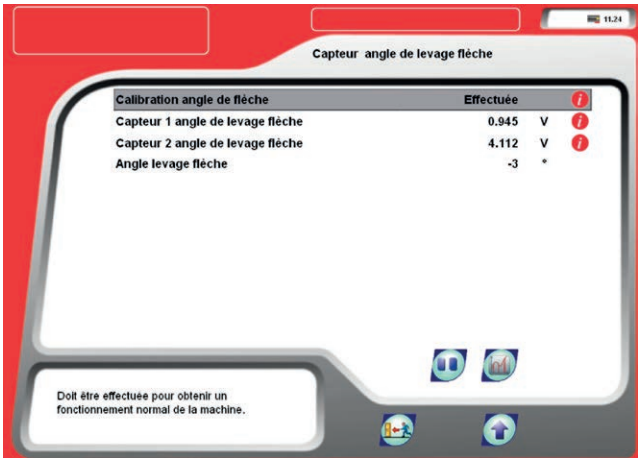
MT 625 Turbo / MT-X 625 Turbo



MT 625 T COMFORT / MLT 625-75 H / MT-X 625 T COMFORT / MLT 625-75 H



9 - Select «Diagnostic global (tous les calculateurs)» and then confirm.
10 - Select «Calulateur central SPU» and then confirm.
11 - Select «Lecture paramètre» and then confirm. If there are any faults, refer to them and delete them.
12 - Select «Hydraulique» service and then confirm.
13 - Select «État des capteurs» and then confirm.
14 - Select «Capteur angle de flèche» and then confirm.



The PAD displays the voltages of each boom angle potentiometer sensor.

15 - Loosen the brake nut and bolt (Item A) on the lever.

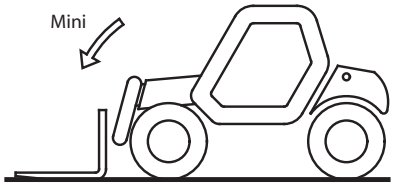
16 - Using a screwdriver, turn the potentiometer pin (Item B) to obtain the adjustment values defined below.

Note: The adjustment is done by slightly turning the pin in the lever housing.

Adjustment values to be obtained:

	Mini	*Maxi*
Voltage	0.7 V	4.3 V

17 - Then tighten the brake nut and bolt (Item A).

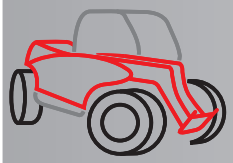


18 - Place the boom in the down position (stabilizers retracted).

19 - Check that the values are similar to those found in the top boom position and are within the recommended adjustment range.

20 - Calibrate the boom angle sensor.

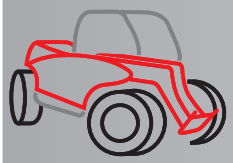
Group 80 - Electrical control and adjustment - Strain gauge and angle sensor calibration.



ELECTRICAL COMPONENTS REMOVAL

pages

80

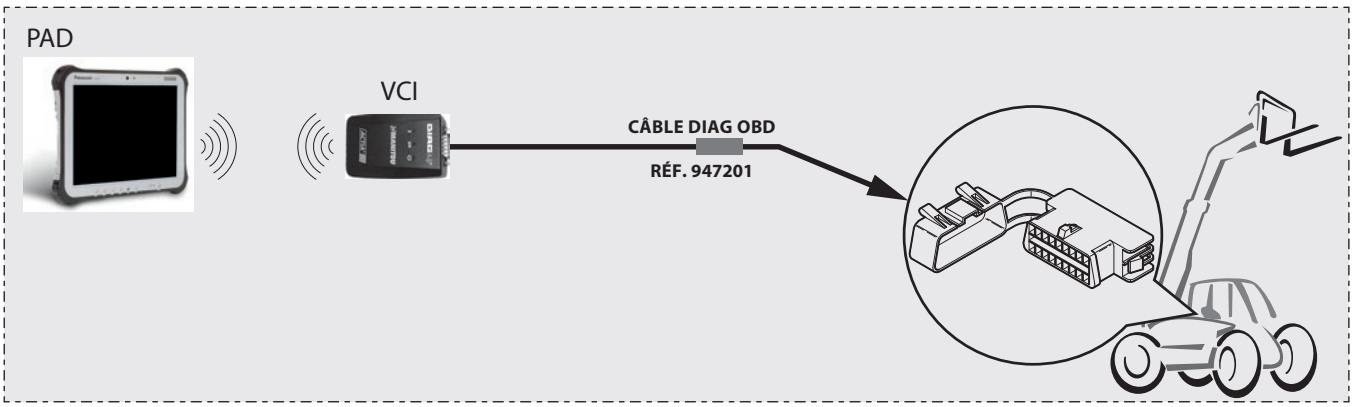


ELECTRICAL TROUBLESHOOTING

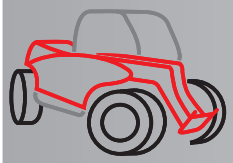
pages

CONNECTIONS TO FORKLIFT TRUCK

CASE 1



Note: The cable Ref. 947201 can diagnose the entire machine.



DRIVER'S CAB SCHEMATIC DIAGRAMS

pages

REFRIGERANT FLUID CHARGE FOR THE AIR CONDITIONING CIRCUIT

Refrigerant fluid:	R134a
Charging equipment:	Charging station
Quantity of fluid:	**725 gm ± 25 gm**
PAG ISO 100 SP20 oil:	No additional oil should be added. You should just check that there is 135ml in the compressor.

Change the cores in the event of leakage (plugs in the charging ports): Ref. 797464

CHARGING METHOD

Prior to using the charging station, refer to the instruction booklet for the device.

Initial refrigerant charging (duration 56 min)

1. Station connection to circuit phase (about 1 minute).
2. Refrigerant circuit evacuation phase (minimum duration 45 minutes).
   - Reach the vacuum pressure of –0,75 bar in 10 minutes maximum,
   - Maintain the vacuum pressure at –0,99 bar maximum for dehumidifying in 30 minutes minimum,
   - Checking leaks in 5 minutes minimum.
3. Charging operation (maximum duration 10 minutes).

Refrigerant charging after servicing and repair (duration 90 min)

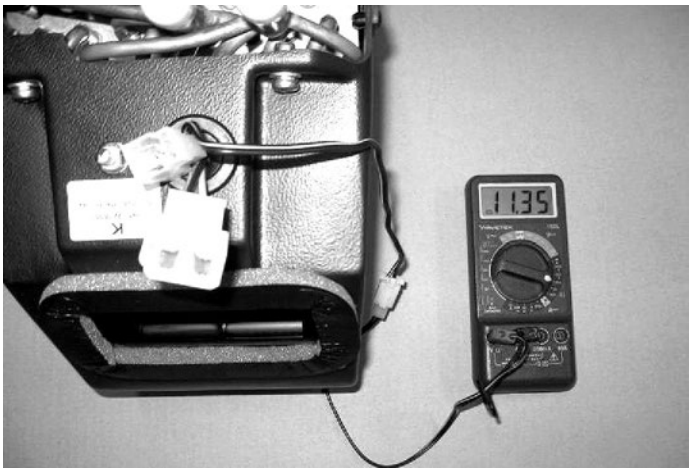
1. Preparation phase (about 15 minutes).
   - Connect the station to the circuit,
   - Run the vehicle engine between 800 and 1200 rpm,
   - Simultaneously, put the air conditioning on at maximum speed "III",
   - Turn the vehicle ignition off after 10 to 15 minutes.
2. Recovery phase(15 minutes maximum).
   Its aim is to recover and recycle the gas, oil and any impurities present in the circuit.
   Launch the fluid recovery cycle on the station.
3. Waiting phase of 3 to 4 minutes to enable any micro-frozen granules of oil and moisture to be recovered.
4. Recovered oil discharge (about 1 minute).
5. Phases 1, 2 and 3 can be repeated if a build-up of pressure is observed during phases 2 and 3.
6. Refrigerant circuit evacuation phase (minimum duration 45 minutes).
   - Reach the vacuum pressure of –0,75 bar in 10 minutes maximum,
   - Maintain the vacuum pressure at –0,99 bar maximum for dehumidifying in 30 minutes minimum,
   - Checking leaks in 5 minutes maximum.
7. Charging phase (maximum 10 minutes).

d. If the ohmic value is «infinity» then the sensor is cut and the thermostatic sensor is to be replaced.

2. Thermostat

a. Check the thermostat setting:

Connect an ohmmeter to the thermostat's terminals in the place of the sensor and check that it is set to 11,35 K Ohm (± 0,05).



b. Connect the sensor to the thermostat
c. Connect the thermostat to the electrical harness,
d. Power the system and turn on the air conditioning (switch to ON)
e. Using a voltmeter, check:

- That the voltage between the red wire (+ 12 Vdc) and the black wire (ground) is between 10 and 14,4 Vdc:
  - If this is the case, the thermostat is correctly powered.
  - If not, check the electrical harness.
- That the voltage between the green wire (compressor +12 Vdc output) and the black wire (ground) is between 10 and 14,4 Vdc.
  - If this is the case, the thermostat is working correctly.
  - If not, replace the thermostat.