Service Manual

Mobile excavator

9503



Machine model	**9503WD**
Edition	**1.0**
Language	**English**
Item no. 1	**1000175340**

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Maintenance

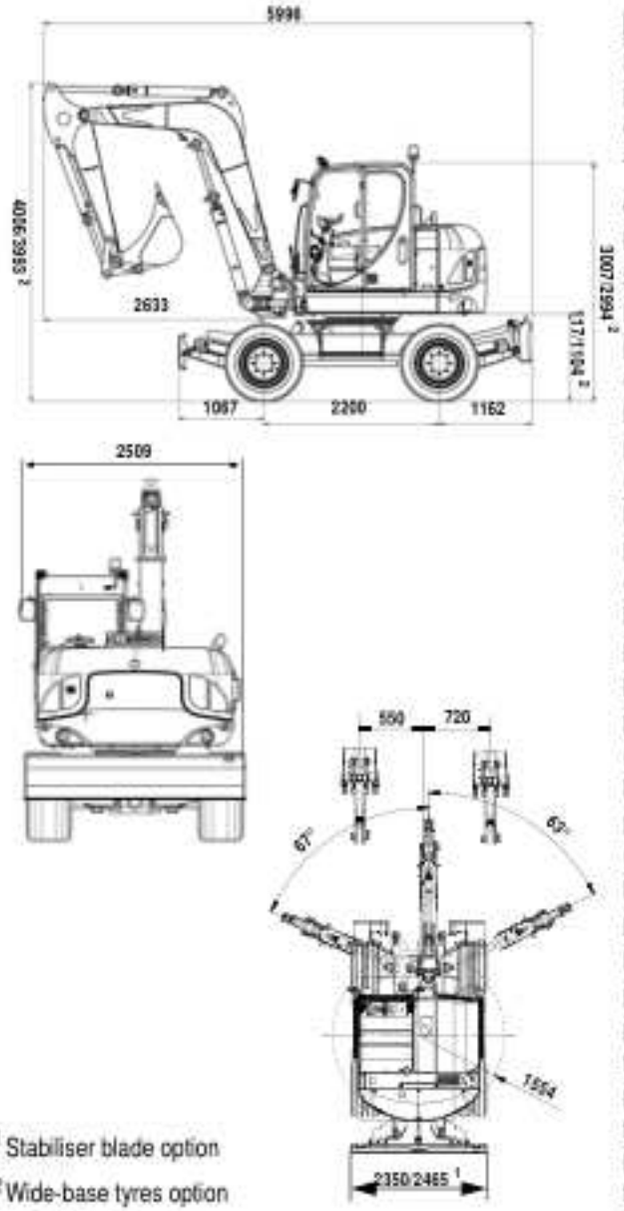
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2.19 Dimensions model 9503 WD



[1] Stabiliser blade option

[2] Wide-base tyres option

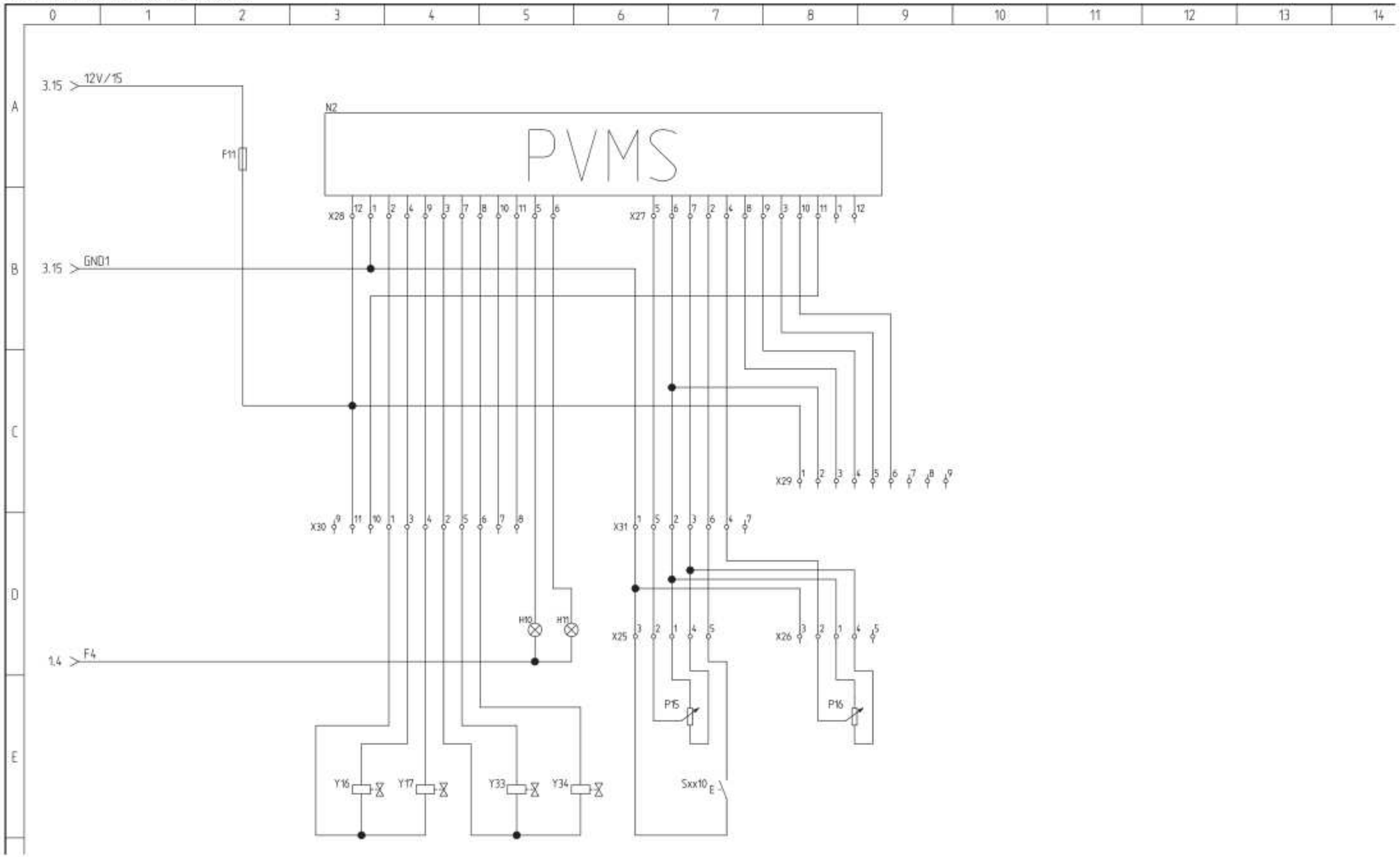
Fig. 22: Machine dimensions

Main data	
Service weight	9500 kg
Height with twin/low-pressure tyres	3007/2994 mm
Width	2509 mm
Transport length	6847 mm
Ground clearance	361 mm
Max. digging depth	3646 mm
Stick length (standard)	1850 mm
Long stick length (option)	2130 mm
Max. digging depth for long stick (option)	3950 mm
Max. vertical digging depth	2596 mm
Max. vertical digging depth for long stick (option)	2895 mm
Max. digging height	6237 mm
Max. digging height for long stick (option)	6372 mm
Max. dump height	4253 mm
Max. dump height for long stick (option)	4388 mm
Max. digging radius	6827 mm
Max. digging radius for long stick (option)	7100 mm
Max. reach at ground level	6550 mm
Max. reach on ground for long stick (option)	6820 mm
Max. breakout force at bucket tooth	50.6 kN
Max. tearout force (standard stick)	40.34 kN
Max. tearout force for long stick (option)	36.34 kN
Min. tail end slewing radius	1554 mm
Max. tail end lateral projection (90° rotation of upper carriage)	329 mm
Max. boom displacement to bucket centre (right-hand side)	720 mm
Max. boom displacement to bucket centre (left-hand side)	550 mm

Max. lift height of outriggers over subgrade	416 mm
Max. scraping depth of outriggers below subgrade	112 mm
Max. lift height of stabiliser blade (option) over subgrade	513 mm
Max. scraping depth of stabiliser blade (option) below subgrade	132 mm
Axle base	2200 mm
Max. tilting angle of boom to the right	63°
Max. tilting angle of boom to the left	67°
Turning radius	3994/5570 mm
Stabiliser blade width	2465 mm
Stabiliser blade height	575 mm
Overall width of outriggers	2350 mm
Length of outrigger contact surfaces	628 mm
Width of outrigger contact surfaces	399 mm

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10.35 Wiring diagram A3 (page 4)



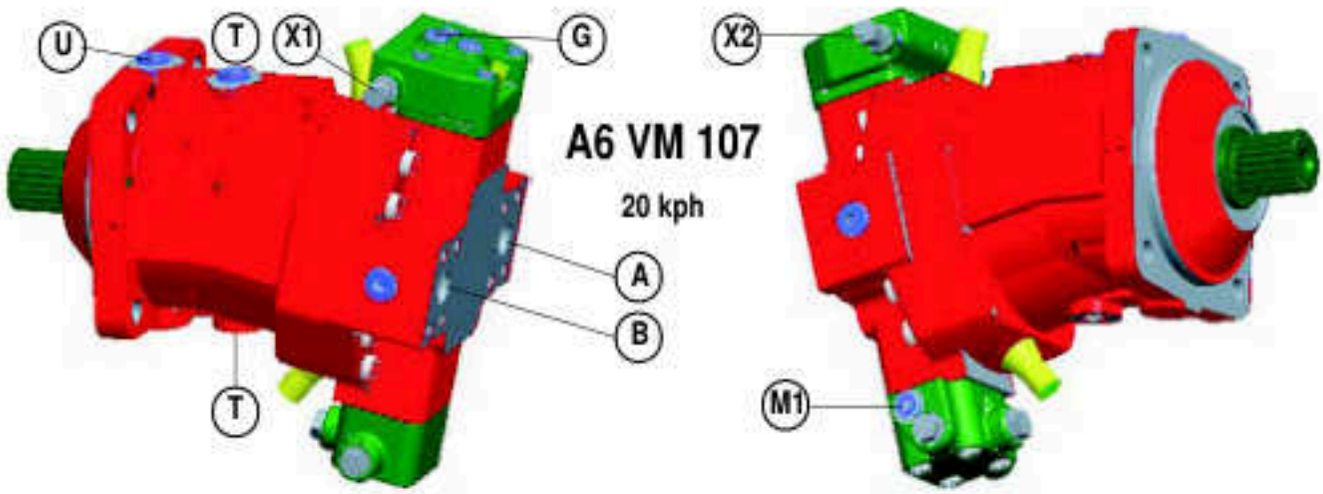
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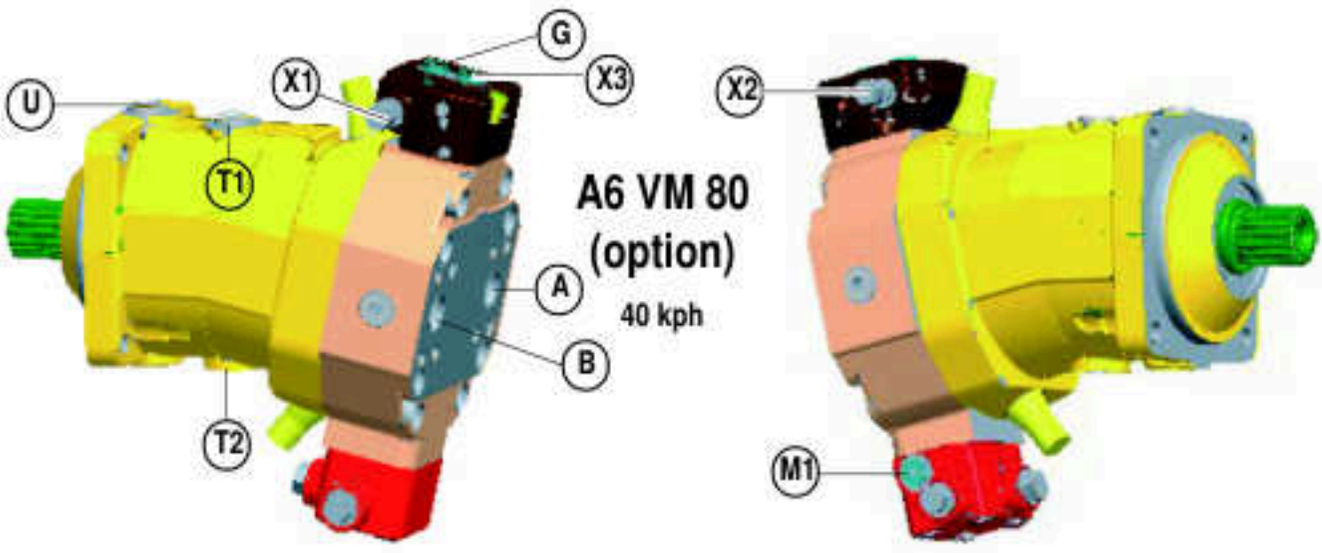
Problem	Possible causes	Troubleshooting
Insufficient cooling output	Heating valve not closed	Close the heating valve
	Open windows and/or door	Close the windows and/or the door
	Fan not in MAX position	Adjust
	Fan duct obstructed	Check air intake and outlet for obstruction. Eliminate the cause for trouble
	Refrigerating agent level too low/too high	Fill in/drain refrigerating agent
	Humidity in system	Empty the air conditioning system, replace the dehumidifier, evacuate and fill up
	Dehumidifier saturated or clogged	Replace the dehumidifier
	Dirty condenser/evaporator fins	Clean the fins. Important: no use of high-pressure cleaners
System cools with interruptions	Line interruption	Check, repair and/or replace the lines
	Defective fan motor	Replace the fan
System runs very loudly	Loose or excessively worn V-belt	Retighten or replace the V-belt
	Loose compressor bracket or worn inside parts of the compressor	Repair the bracket, replace the compressor
	Excessive wear of fan motor	Replace the fan
	System too full	Suck off refrigerating agent
	Not enough refrigerating agent in the system	Check for leaks, fill up the system

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5.2 Hydraulic motor A6VM



Engine	Standard version 20 kph	40 kph high-speed version (option)
Drive	Dana type 311	Dana type 357
Type	A6VM 107 DA1	A6VM 80 DA1
Installation position	Vertical, curved downwards	
Slewing range	37.5 – 107 cm^3/rev	26.4 – 80 cm^3/rev
Control initiation	330 bar	345 bar
Engine revs	3619 rpm at Vg_{max}	4167 rpm at Vg_{max}



Pos.	Description	Pos.	Description
A, B	Work ports	M1	Measuring port for setting pressure
G	Closed	X1, X2	Control pressure ports Use the screw connection that is mounted! Do not unscrew!
T, T1, T2	Leak oil ports		
U	Closed	X3	Closed

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9.6 Main valve block

Ports

Triple articulation boom (option)

Auxiliary hydraulics

Bucket

Stick

Boom

Input P1 (pump 3)

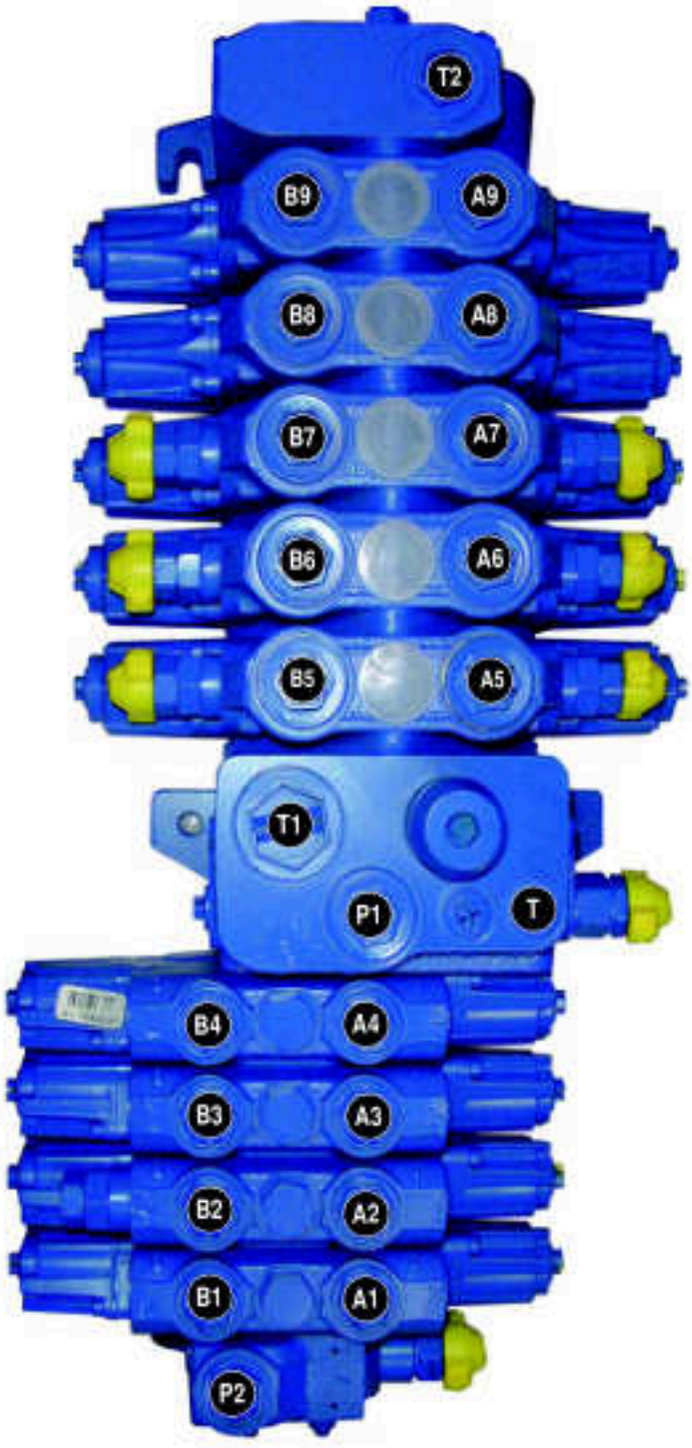
3rd control circuit (option)

Swivel boom

Stabiliser blade

Upper carriage rotation

Input P2 (pumps P4 + P5)



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Fig. 2: Switch panel on right-hand side control lever base

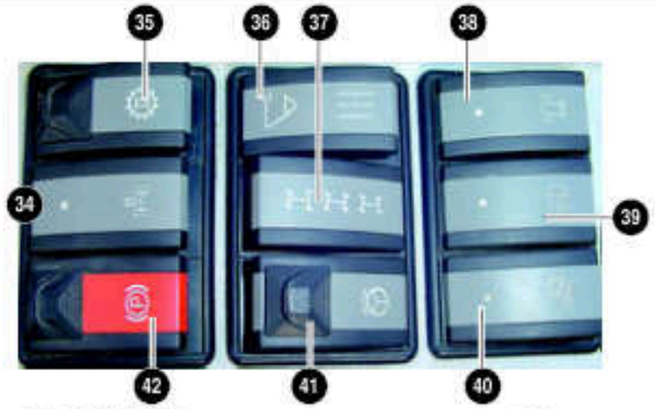


Fig. 3: Lateral switch panel



Fig. 4: Safe load indicator

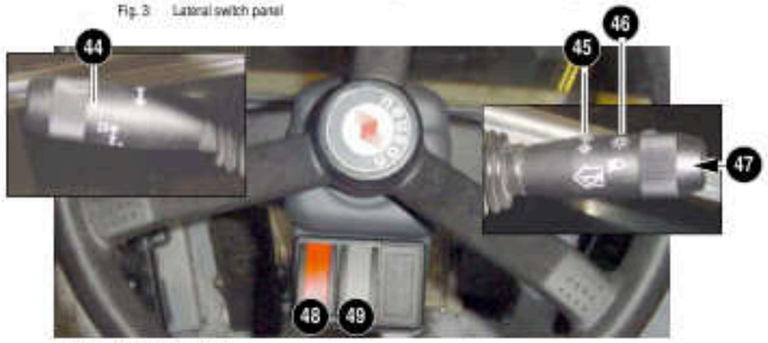


Fig. 5: Multifunctional lever



Fig. 6: Switch panel on left-hand side control lever base

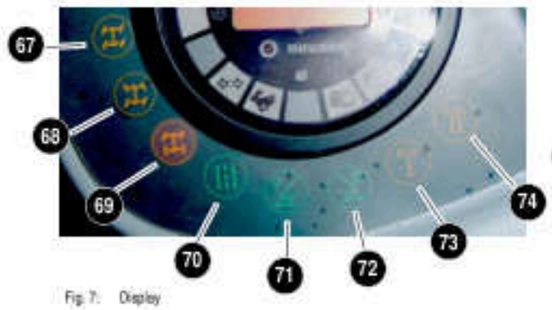


Fig. 7: Display

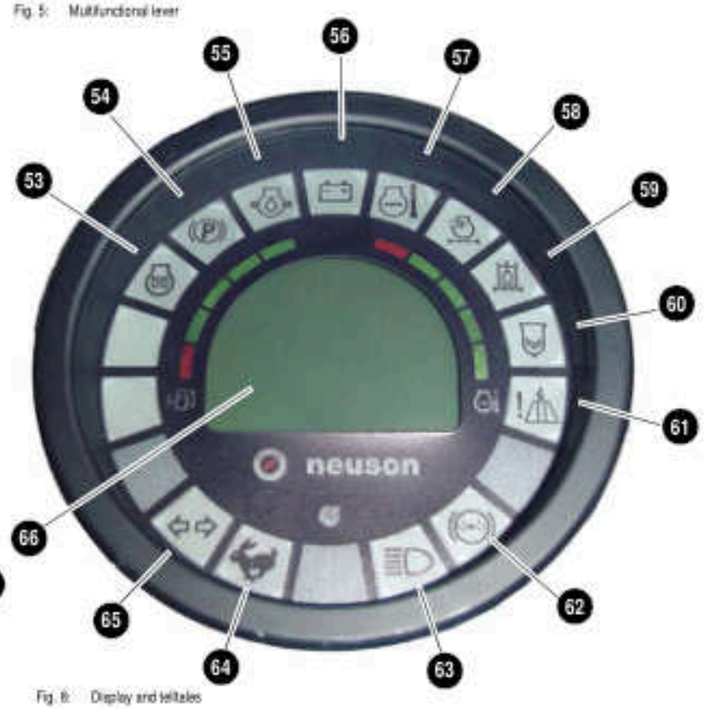


Fig. 8: Display and telltales

Instrument panel, multifunctional lever, switch consoles: overview

Display	
30	Central lubrication switch (option)
31	Quickhitch switch (option)
32	Air conditioning switch (option)
33	Fan switch
34	Oscillating axle interlock
35	2nd speed switch
36	Work position/road travel switch
37	Steering mode switch
38	Rotating beacon switch
39	Rear roof light switch
40	Front roof light switch
41	Steering direction changeover switch
42	Parking brake switch
43	Safe load indicator switch (option)
44	Forwards/reverse driving direction lever and up = fast/down = slow
45	Multifunctional lever lights/horn/turn indicators
46	Rotary switch OFF/parking light/low/high beam
47	Horn tip switch
48	Hazard warning system
49	Wiper/wash system
50	Rear left/right outriggers
51	Front left/right outriggers
52	Changeover for front/rear outriggers
53	Telltale (yellow) – cold starter
54	Parking brake telltale (red)
55	Telltale (red) – engine oil pressure
56	Telltale (red) – alternator charge function
57	Telltale (red) – coolant temperature
58	Telltale (red) – air filter
59	Telltale (red) – hydraulic oil reflux filter
60	Water separator telltale (red)
61	Telltale (red) – safe load indicator (option)
62	Spring brake actuator telltale (red)
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64	2nd speed telltale (red)
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69	Front axle steering telltale (orange)
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