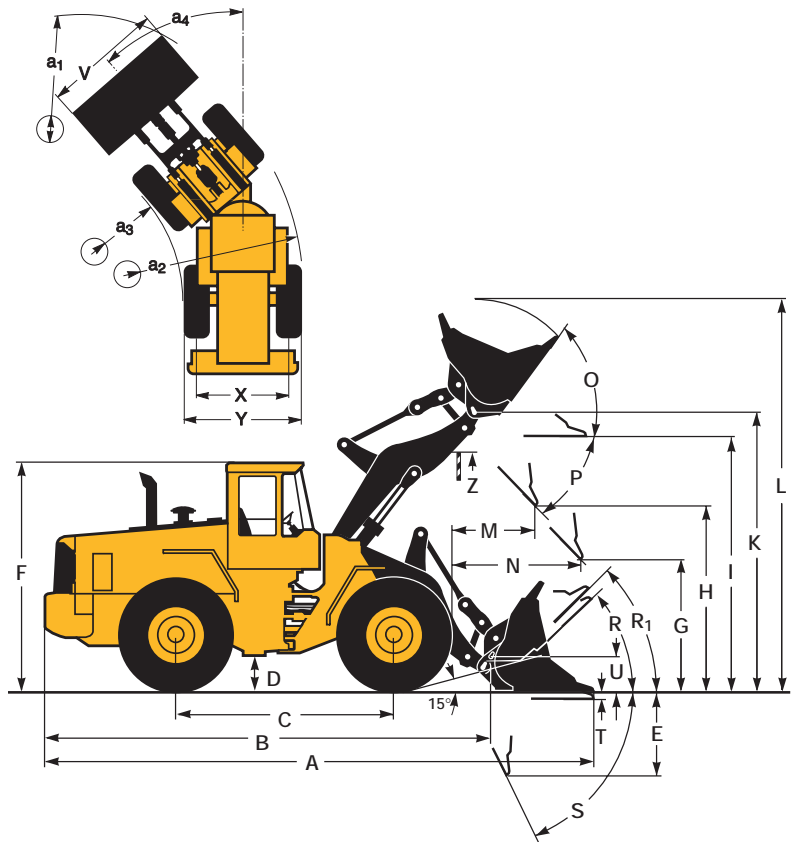


## OPERATIONAL DATA & DIMENSIONS

Tires: 23.5 R25* L2		
	STANDARD BOOM	LONG BOOM
B	6 680 mm	7 170 mm
C	3 200 mm	3 200 mm
D	420 mm	420 mm
F	3 350 mm	3 350 mm
G	2 135 mm	2 135 mm
J	3 790 mm	4 310 mm
K	4 110 mm	4 620 mm
O	55°	55°
P	45° (P max. 49°)	45° (P max. 49°)
R	42°	43°
R <sub>1</sub> *	47°	50°
S	67°	64°
T	90 mm	130 mm
U	510 mm	630 mm
X	2 060 mm	2 060 mm
Y	2 680 mm	2 680 mm
Z	3 350 mm	3 720 mm
a <sub>2</sub>	5 730 mm	5 730 mm
a <sub>3</sub>	3 060 mm	3 060 mm
a <sub>4</sub>	±40°	±40°

\* Carry position SAE

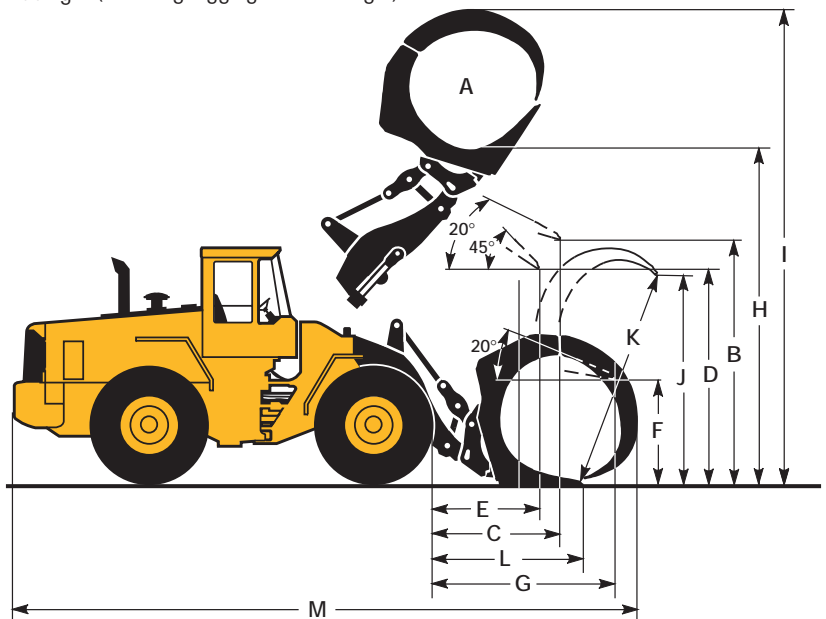
Where applicable, specifications and dimensions are in accordance with ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 5998, SAE J818, ISO 8313.



## SORTING GRAPPLE (Hook-on)

Tires: 23.5 R25* L3	
A	2,4 m <sup>2</sup>
B	3 570 mm
C	1 850 mm
D	2 950 mm
E	1 470 mm
F	1 540 mm
G	2 780 mm
H	4 690 mm
I	6 710 mm
J	2 750 mm
K	2 960 mm
L	2 130 mm
M	8 950 mm

Order No: 92746  
 Operating weight: 19 860 kg (including logging counterweight)  
 Operating load: 6 400 kg (including logging counterweight)



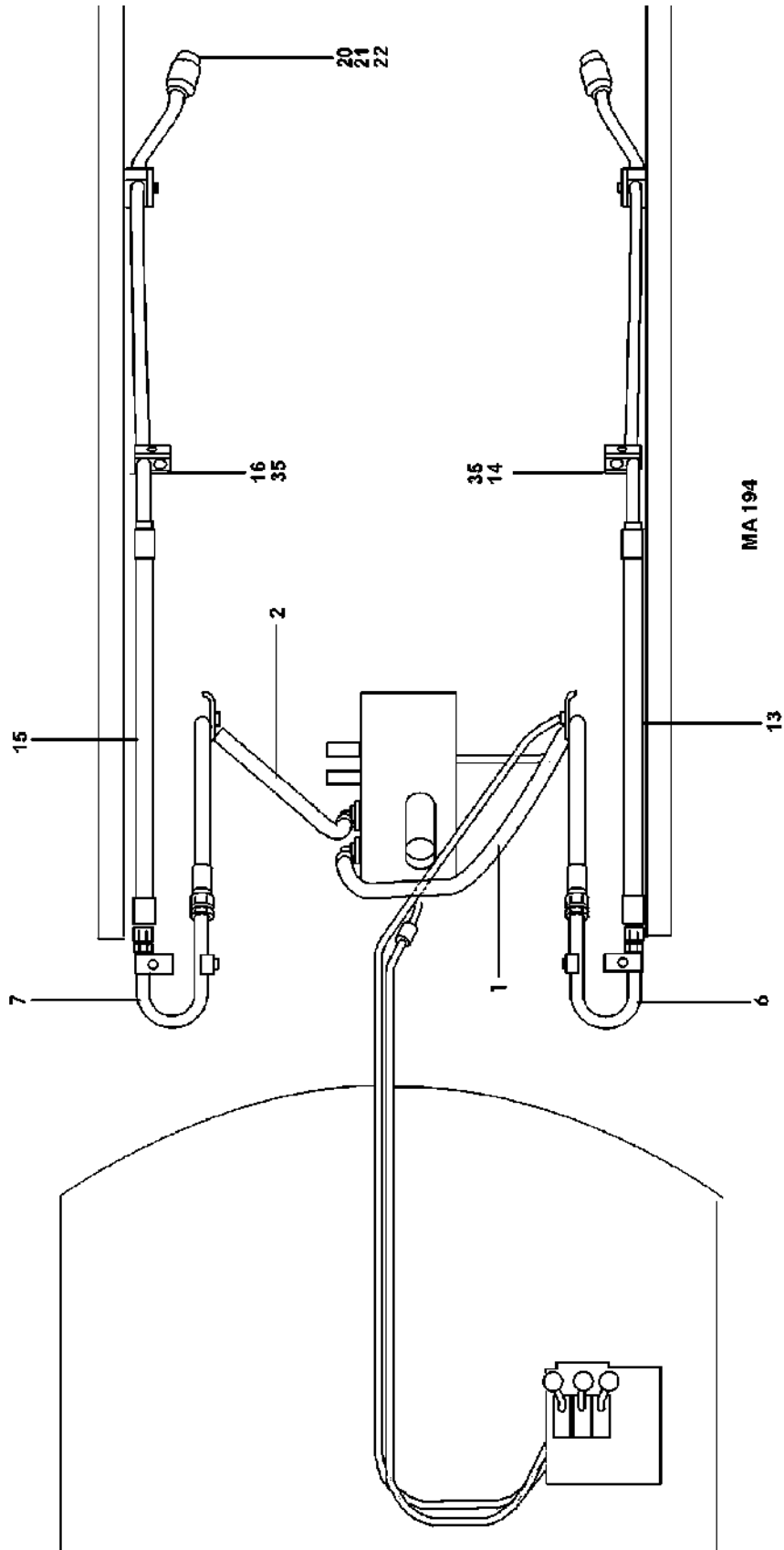
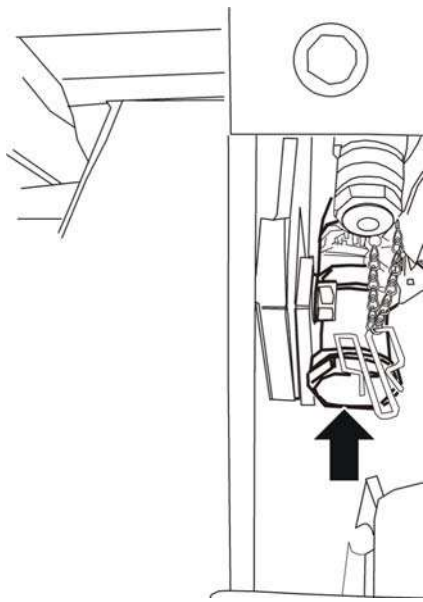


Fig. 6



**Figure 2**  
**Draining, coolant**  
**Draining**

1. remove the header tank filler cap.
2. open the drain nipple on the cylinder block.
3. Press in the clamp on the drain nipple so that the coolant can run out.

**Dispose of waste oil and fluids in an environmentally safe and sound manner.**

**Filling up**

The system is filled with coolant via the header tank, see [Invalid linktarget].

- the engine must be switched off and the heater control turned on.
- fill with coolant up to the max. mark on the header tank.
- warm up the engine and top up the cooling system until it is completely full and bled of air.
- the level should be checked after the engine has been warmed up and then cooled down.

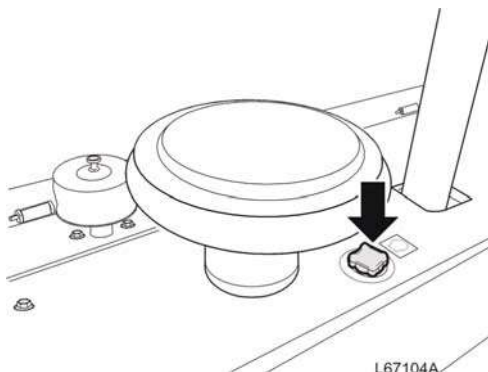
**NOTE!**

The system can also be filled through the drain nipple.

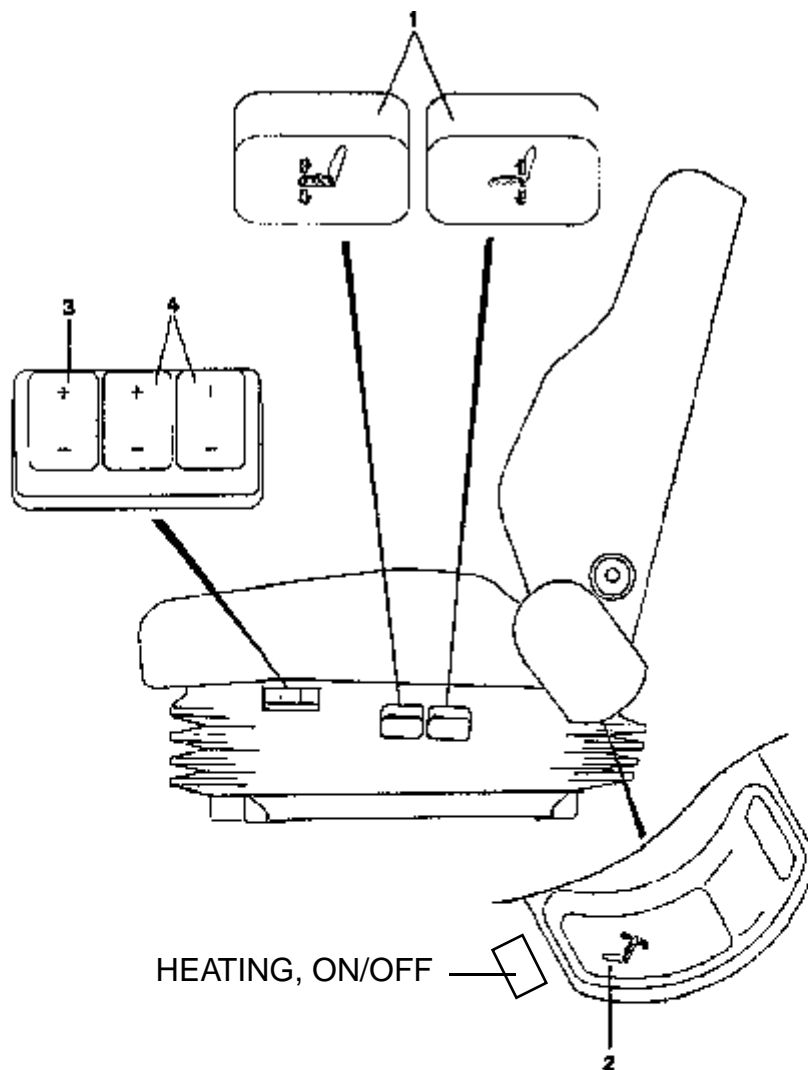


Never fill up with cold coolant when the engine is hot as this could lead to cracks developing in the cylinder block and cylinder head.

Neglecting to change the coolant could result in clogging and lead to engine damage.



**Figure 3**  
**Filling up, coolant**



- ① **Handles for adjusting the height and angle of the seat.** The desired seat height and angle can be adjusted using both handles and **simultaneously** relieving the load on the front and back of the seat cushion.
- ② **Handle for adjusting the backrest.** The angle of the backrest is adjusted by pulling the handle and simultaneously pressing your back against the backrest cushion. The desired position is locked when the handle is released.
- ③ **Weight adjustment.** The hardness of the seat springs can be adjusted to suit the weight of the individual driver. This is done by pressing the buttons marked (+) for filling and (-) for emptying. **Notel** This is not to be used for adjusting the height.
- ④ **Lumbar support adjustment.** Both buttons can be used to individually fill and empty the upper and lower lumbar supports.

# BL70B

Op.no.	time (h)		Notes
218-009	1.25	Engine mounts, replacing	2326013 - 2330000
<b>22</b>		<b>LUBRICATING SYSTEM</b>	
221-021	0.40	Lubrication oil pressure, checking	2326013 - 2330000
<b>23</b>		<b>FUEL SYSTEM</b>	
233-001	0.10	Fuel system, bleeding	2326013 - 2330000
233-001	0.10	Fuel system, bleeding	330101 - 340000
233-002	0.40	Feed pump, replacing	330101 - 340000
233-011	0.80	Fuel pump, removing	2326013 - 2330000
233-012	0.70	Fuel pump, installing	2326013 - 2330000
233-014	0.40	Fuel filters, replacing	2326013 - 2330000
233-014	0.50	Fuel filters, replacing	330101 - 340000
234-011	0.60	Fuel tank, removing	
234-012	0.60	Fuel tank, installing	
236-079	2.00	Injection pumps, changing	330101 - 340000
237-002	3.50	Injectors, replacing all	330101 - 340000
237-040	0.40	Overflow pipe, checking for leakage	330101 - 340000
239-001	0.60	Fuel cooler, replacing	330101 - 340000
<b>25</b>		<b>INLET SYSTEM; EXHAUST SYSTEM</b>	
252-020	1.50	Silencer, replacing	2326013 - 2330000
252-021	0.40	Exhaust pipe, flexible tube, replacing	2326013 - 2330000
252-023	0.60	Exhaust pipe, replacing	330101 - 340000
254-001	3.00	Diesel particulate filter, check and clean	330101 - 340000
256-010	0.40	Air cleaner, removing	330101 - 340000
256-010	0.40	Air cleaner, removing	2326013 - 2330000
256-011	0.30	Air cleaner, installing	330101 - 340000
256-011	0.40	Air cleaner, installing	2326013 - 2330000
258-023	0.90	Charge air cooler, removing	330101 - 340000
258-024	0.90	Charge air cooler, installing	330101 - 340000
<b>26</b>		<b>COOLING SYSTEM</b>	
261-011	2.00	Radiator, removing	2326013 - 2330000
261-011	1.75	Radiator, removing	330101 - 340000
261-012	0.50	Radiator hose upper, replacing	330101 - 340000
261-012	0.40	Radiator hose upper, replacing	2326013 - 2330000
261-013	1.25	Radiator, installing	330101 - 340000
261-013	0.80	Radiator, installing	2326013 - 2330000
261-014	0.80	Radiator hoses lower, replacing	330101 - 340000
261-014	0.80	Radiator hoses lower, replacing	2326013 - 2330000
261-018	0.70	Expansion tank, replacing	330101 - 340000
261-018	0.80	Expansion tank, replacing	2326013 - 2330000
263-012	0.80	Fan belt and/or alternator belt, replacing	330101 - 340000
263-012	0.80	Fan belt and/or alternator belt, replacing	2326013 - 2330000

Op.no.	time (h)	Notes
<b>38</b>		<b>INSTRUMENT; SENSOR; WARNING AND INFORMATION SYSTEM</b>
383-001	0.30	Hour meter, replacing
386-006	0.40	Engine temperature sensor, replacing
386-007	0.40	Engine oil pressure sensor, replacing
386-011	0.60	Fuel level sender, replacing
386-017	0.50	Hydraulic oil temperature sensor, replacing
<b>39</b>		<b>MISCELLANEOUS</b>
393-001	0.80	Voltage converter, replacing
393-021	0.70	Radio, replacing
395-021	0.50	Antenna, replacing
395-031	0.40	Speaker, replacing
398-001	0.60	CareTrack antenna, replacing
398-004	0.50	CareTrack battery, replacing
398-005	1.25	W-ECU, replacing, non-programmed
398-006	0.90	W-ECU, replacing, pre-programmed
<b>4</b>		<b>POWER TRANSMISSION</b>
<b>43</b>		<b>GEARBOX,</b>
431-021	6.50	Swing gearbox, replacing
431-031	4.00	Pump gearbox coupling assembly, replacing
431-053	6.50	Swing unit, replacing
431-115	1.25	Track gearbox (removed), replacing floating seal
431-117	1.50	Track gearbox, replacing cover
431-127	6.00	Track unit, replacing
<b>44</b>		<b>HYDROSTATIC DRIVE</b>
441-021	2.50	Swing motor, replacing
441-022	0.70	Swing motor relief valve, replacing
441-024	1.50	Swing motor, replacing plate (brake)
441-025	1.50	Swing motor, replacing brake piston seal
441-026	0.70	Swing motor removed, replacing seal
441-112	0.70	Track motor relief valve, replacing
443-037	5.50	Center passage, replacing
443-038	7.00	Center passage, replacing seal kit
<b>49</b>		<b>MISCELLANEOUS</b>
492-021	11.00	Swing ring gear, replacing
492-031	3.00	Swing ring gear outer seal, replacing
492-032	9.00	Swing ring gear inner seal, replacing
492-091	0.40	Ring gear grease pipe, replacing
492-095	0.70	Swing ring gear cover, removal
492-096	0.70	Swing ring gear cover, installation

Op.no.	time (h)	Notes
<b>3</b>		<b>ELEC. SYSTEM; WARNING SYSTEM; INFORMATION SYSTEM; INSTRUMENTS</b>
<b>30</b>		<b>GENERAL</b>
300-007	1.00	VCADS Pro, MID 142, programming W-ECU
300-008	0.80	VCADS Pro, MID 140, programming I-ECU
<b>31</b>		<b>BATTERY</b>
311-001	0.70	Battery charging capacity, checking
311-002	0.40	Batteries, replacing
313-001	0.30	Battery box, removing
313-002	0.30	Battery box, installing
<b>32</b>		<b>ALTERNATOR; CHARGE REGULATOR</b>
321-003	0.40	Alternator, removing
321-004	0.40	Alternator, installing
<b>33</b>		<b>STARTING SYSTEM</b>
331-016	0.40	Starter motor, removing
331-017	0.30	Starter motor, installing
334-011	0.40	Starter switch (engine start switch), replacing
<b>35</b>		<b>LIGHTING</b>
352-002	0.60	Headlights, adjusting
<b>36</b>		<b>OTHER ELECTRICAL EQUIPMENT</b>
361-018	0.40	Direction indicator switch, replacing
362-003	0.40	Reverse alarm, replacing
363-001	0.60	Windscreen wiper rear, replacing motor
363-002	0.80	Windscreen wiper front, replacing motor
363-005	0.70	Lower window wiper, replacing
363-006	1.75	Windscreen wiper, replacing pivot linkage
363-007	1.00	Windscreen wiper, install and adjust
366-007	0.80	VCADS Pro, MID187, programming V-ECU
367-052	1.25	V-ECU, replacing
367-056	1.25	I-ECU, replacing
<b>38</b>		<b>INSTRUMENT; SENSOR; WARNING AND INFORMATION SYSTEM</b>
386-004	1.00	Transmission temperature sensor, replacing
386-005	0.60	Transmission, revolution sensor, replacing
386-009	0.70	Transmission sensor and connection, checking
386-011	0.30	Fuel level sender, replacing
386-032	1.25	Sensor unit (differential lock), replacing
386-061	0.50	Revolution sensor (hydraulic cooling fan), replacing
387-008	0.30	Display unit, replacing

Op.no.	time (h)	Notes
<b>9</b>		<b>HYDRAULIC SYSTEM; DIGGING/ HANDLING/ GRADING EQUIPM.; MISC. EQUIP.</b>
<b>90</b>		<b>GENERAL</b>
900-002	0.40	Hydraulic system, bleeding
900-003	0.10	Hydraulic system, relieve pressure
900-005	0.30	Vacuum pump, connection
900-006	0.20	Vacuum pump, disconnection
<b>91</b>		<b>WORKING HYDRAULICS; SERVO HYDRAULICS</b>
912-078	0.60	Dump lever, changing
912-115	5.00	Steering and tipping valve, removal
912-116	5.00	Steering and tipping valve, installation
913-003	0.90	Hydraulic pump, checking and adjusting standby pressure
913-004	0.80	Hydraulic pump, checking and adjusting max working pressure
913-007	0.30	Hydraulic pump (removed), changing shaft seal
913-023	0.90	Pump, removal
913-024	1.50	Pump, installation
913-042	0.50	Working pumps, checking function
913-043	0.70	Torque limiting valve, checking and adjusting
913-068	1.50	Pump regulator, checking
914-095	0.90	Dumping lever, checking pressure
<b>95</b>		<b>LOAD CARRIER</b>
951-003	0.30	Dump body position indicator, adjusting
951-005	1.00	Hoist cylinder bearing, changing
951-005	0.90	Hoist cylinder bearing, changing
951-006	3.00	Hoist cylinder removed, reconditioning
951-007	1.00	Hoist cylinder, removal
951-008	1.00	Hoist cylinder, installation
951-011	0.30	Cylinder, rear flap, gas pressure, checking and adjusting
951-030	0.40	Dump body alternative, lowering
951-040	2.50	Dump body joint, changing tipping bearing
951-041	2.50	Dump body, adjusting against frame
<b>99</b>		<b>MISCELLANEOUS</b>
993-030	0.80	Shift valve, checking



Op.no.	time (h)	Notes
<b>1</b>		<b>STANDARD PARTS, SERVICE</b>
<b>17</b>		<b>SERVICE</b>
170-005	0.25	Start of VCADS Pro computer and reading machine data
171-001	1.00	Arrival Inspection, according to Inspection Programme
171-002	3.00	Delivery Inspection, according to Inspection Programme
173-002	1.00	Maintenance service, daily
173-004	1.50	Maintenance service, every 50 hours
173-007	2.50	Maintenance service, every 250 hours
173-010	4.50	Maintenance service, every 500 hours
173-012	6.50	Maintenance service, every 1000 hours
173-014	9.50	Maintenance service, every 2000 hours
173-059	0.60	Engine, changing oil and filter
173-074	1.25	Hydraulic oil tank, changing oil and filter
173-076	0.25	Hydraulic oil tank, return oil filter change
173-077	0.20	Hydraulic oil tank, changing breather filter
173-079	1.00	Swing motor gearbox, changing oil
<b>2</b>		<b>ENGINE WITH MOUNTING AND EQUIPMENT</b>
<b>21</b>		<b>ENGINE</b>
210-070	8.00	Engine, removing
210-072	8.00	Engine, installing
211-002	12.00	Cylinder head, replacing gasket
214-036	1.00	Valve covers, fitting new gasket
216-014	3.50	Crankshaft, replacing front oil seal
216-018	10.00	Crankshaft, replacing rear oil seal
<b>23</b>		<b>FUEL SYSTEM</b>
234-010	5.00	Fuel tank, replacing
234-041	0.50	Fuel filling pump, removing
234-042	0.50	Fuel filling pump, installing
<b>25</b>		<b>INLET SYSTEM; EXHAUST SYSTEM</b>
252-020	1.50	Silencer, replacing
252-021	1.50	Exhaust pipe, flexible tube, replacing
255-070	2.00	Turbocharger, removing
255-071	4.00	Turbocharger, replacing
255-072	2.00	Turbocharger, installing
256-001	0.25	Air cleaner, cleaning filter element
256-003	0.25	Air cleaner, primary filter replacing

Op.no.	time (h)		Notes
<b>1</b>		<b>STANDARD PARTS, SERVICE</b>	
<b>17</b>		<b>SERVICE</b>	
173-001	3.00	Maintenance service, as required	22092 - 999999
173-003	3.00	Maintenance service, every 10 hours	22092 - 999999
173-006	6.00	Maintenance service, every 100 hours	22092 - 999999
173-010	8.50	Maintenance service, every 500 hours	22092 - 999999
173-012	17.00	Maintenance service, every 1000 hours	22092 - 999999
173-013	10.00	Maintenance service, every 1500 hours	22092 - 999999
173-014	19.00	Maintenance service, every 2000 hours	770128 - 999999
173-014	20.00	Maintenance service, every 2000 hours	22092 - 770127
173-016	20.00	Maintenance service, every 3000 hours	22092 - 999999
173-018	20.00	Maintenance service, every 4000 hours	770128 - 999999
173-036	3.50	Maintenance service, first 100 hours	22092 - 999999
<b>19</b>		<b>GENERAL</b>	
191-022	2.50	Service position 2	
191-025	3.00	Service position 3	
<b>3</b>		<b>ELEC. SYSTEM; WARNING SYSTEM; INFORMATION SYSTEM; INSTRUMENTS</b>	
<b>30</b>		<b>GENERAL</b>	
301-001	0.40	Control panel, software update	
301-004	0.20	Control panel, parameter setting	
301-005	0.70	Pre-programmed ECU, replacing	
301-014	0.60	Trimming (offset adjustment)	
<b>4</b>		<b>POWER TRANSMISSION</b>	
<b>43</b>		<b>GEARBOX,</b>	
431-012	5.00	Travel gearbox, removal	
431-013	5.50	Travel gearbox, installation	
<b>44</b>		<b>HYDROSTATIC DRIVE</b>	
440-024	3.00	Travel drive, calibrating	
441-035	4.50	Drive motor, removing	
441-036	5.00	Drive motor, installing	

Op.no.	time (h)	Notes
<b>4</b>		<b>POWER TRANSMISSION</b>
<b>44</b>		<b>HYDROSTATIC DRIVE</b>
441-011	3.00	Travel motor, replacing one
441-030	1.25	Swing motor, removing
441-031	1.50	Swing motor, installing
<b>7</b>		<b>FRAME; SPRINGS; DAMPING; AXLE SUSPENSION; WHEEL/TRACK UNIT</b>
<b>71</b>		<b>FRAME</b>
716-001	0.50	Counterweight, removing
716-002	0.60	Counterweight, fitting
716-003	1.25	Counterweight, replacing
<b>77</b>		<b>WHEELS; TRACKS; TYRE; HUB; DRUM</b>
775-009	1.50	Front idler, removing
775-010	1.50	Front idler, installing
775-021	3.00	Sprocket, replacing one
775-022	1.25	Sprocket, removal
775-023	1.75	Sprocket, installation
775-024	0.30	Removing the guide sprocket
775-025	0.30	Assembling the guide sprocket
775-034	1.00	Track chain assembly, removing
775-035	1.00	Track chain assembly, installing
775-051	1.00	Top roller, replacing one
775-052	0.50	Top roller, removal
775-053	0.50	Top roller, installation
775-061	1.25	Bottom roller, replacing one
775-062	0.75	Bottom roller, removing
775-063	0.50	Bottom roller, installing
775-071	0.50	Track guard, replacing one
<b>8</b>		<b>MACHINERY HOUSE; CAB; EXTERIOR TRIM PARTS ANYWHERE</b>
<b>81</b>		<b>CAB, NAKED; CANOPY</b>
810-001	0.60	Cab, removing
810-002	0.60	Cab, installing
810-003	3.25	Operator cab, replacing
<b>82</b>		<b>ENGINE HOOD; MUDGUARD; FOOT STEP</b>
821-001	0.20	Engine hood, removing

Op.no.	time (h)	Notes
<b>3</b>		<b>ELEC. SYSTEM; WARNING SYSTEM; INFORMATION SYSTEM; INSTRUMENTS</b>
<b>31</b>		<b>BATTERY</b>
311-002	1.25	Batteries, replacing
<b>32</b>		<b>ALTERNATOR; CHARGE REGULATOR</b>
321-002	2.50	Alternator, replacing incl function check
<b>33</b>		<b>STARTING SYSTEM</b>
331-018	0.50	Starter motor, replacing
334-011	0.70	Starter switch (engine start switch), replacing
<b>36</b>		<b>OTHER ELECTRICAL EQUIPMENT</b>
362-003	0.40	Reverse alarm, replacing
363-001	0.60	Windscreen wiper rear, replacing motor
363-002	0.60	Windscreen wiper front, replacing motor
364-004	0.30	Switch, replacing
<b>38</b>		<b>INSTRUMENT; SENSOR; WARNING AND INFORMATION SYSTEM</b>
386-007	0.30	Engine oil pressure sensor, replacing
386-007	0.30	Engine oil pressure sensor, replacing
386-011	1.75	Fuel level sender, replacing
386-017	0.60	Hydraulic oil temperature sensor, replacing
<b>4</b>		<b>POWER TRANSMISSION</b>
<b>42</b>		<b>TRANSMISSION, HYDRAULIC CONTROL</b>
421-088	4.00	Two speed valve solenoid and cartridge, replacing
421-089	1.25	Pump de-stroke valve solenoid and cartridge, replacing
<b>44</b>		<b>HYDROSTATIC DRIVE</b>
440-021	1.25	Hydrostatic controller, removing
440-022	1.50	Hydrostatic controller, installing
441-011	4.00	Travel motor, replacing one
441-035	5.00	Drive motor, removing
441-036	5.00	Drive motor, installing
441-061	1.75	Thermal bypass valve, replacing
442-021	3.50	Hydrostatic pump, removing
442-021	3.50	Hydrostatic pump, removing
442-022	4.50	Hydrostatic pump, installing
442-045	4.00	Pump coupling, removing
442-046	5.00	Pump coupling, installing
442-068	0.50	Loop flushing valve, replacing

REF NR REF NO 21 3 779 3622	SATS NR KIT NO 11705491 (93792)	DATUM/DAT ENHET/DEF 200211 CEE-43	L50D, L70D, L90D, L120D, L150D, L180D, L180D/HL, L220D, L220E	PAGE 2/2
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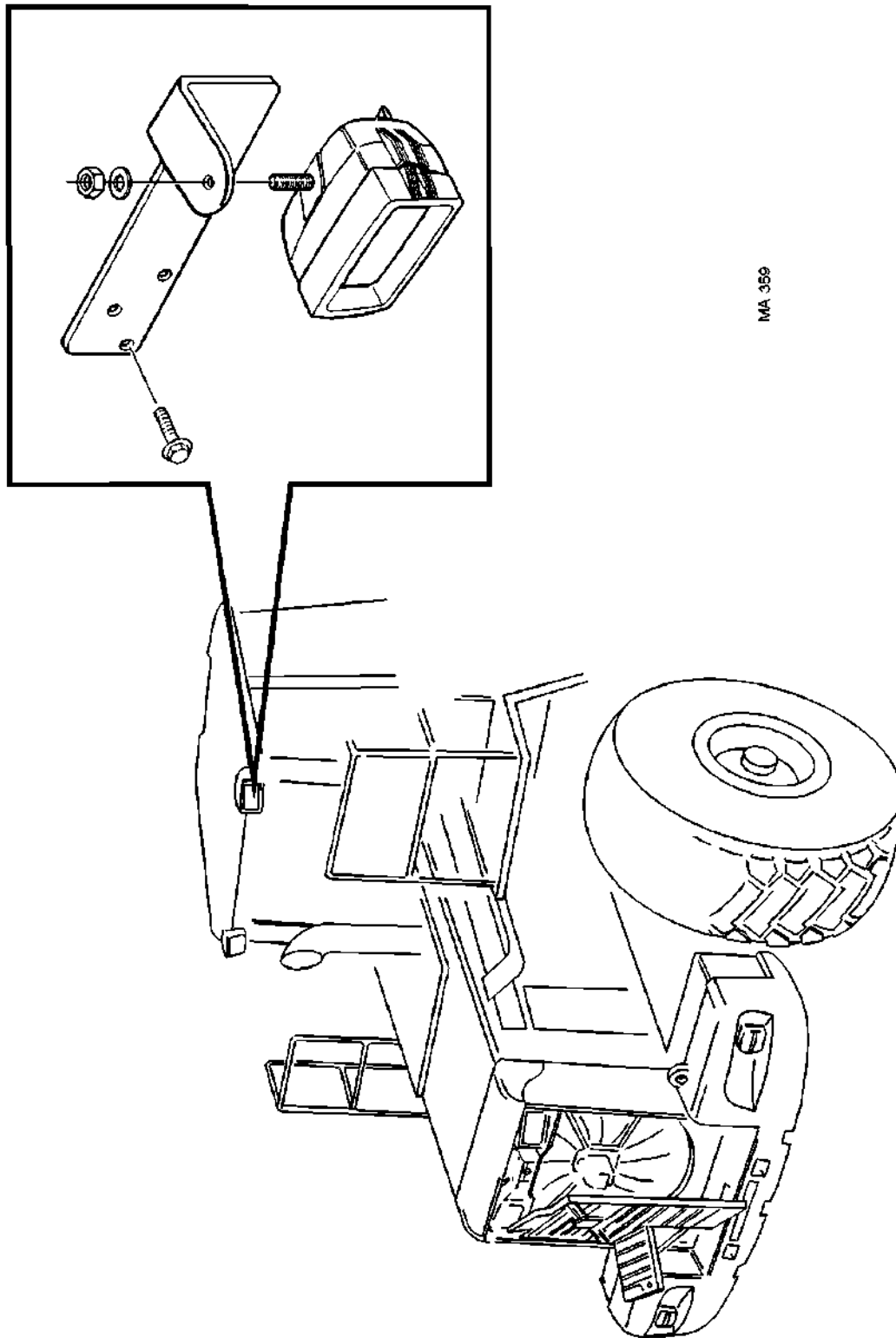
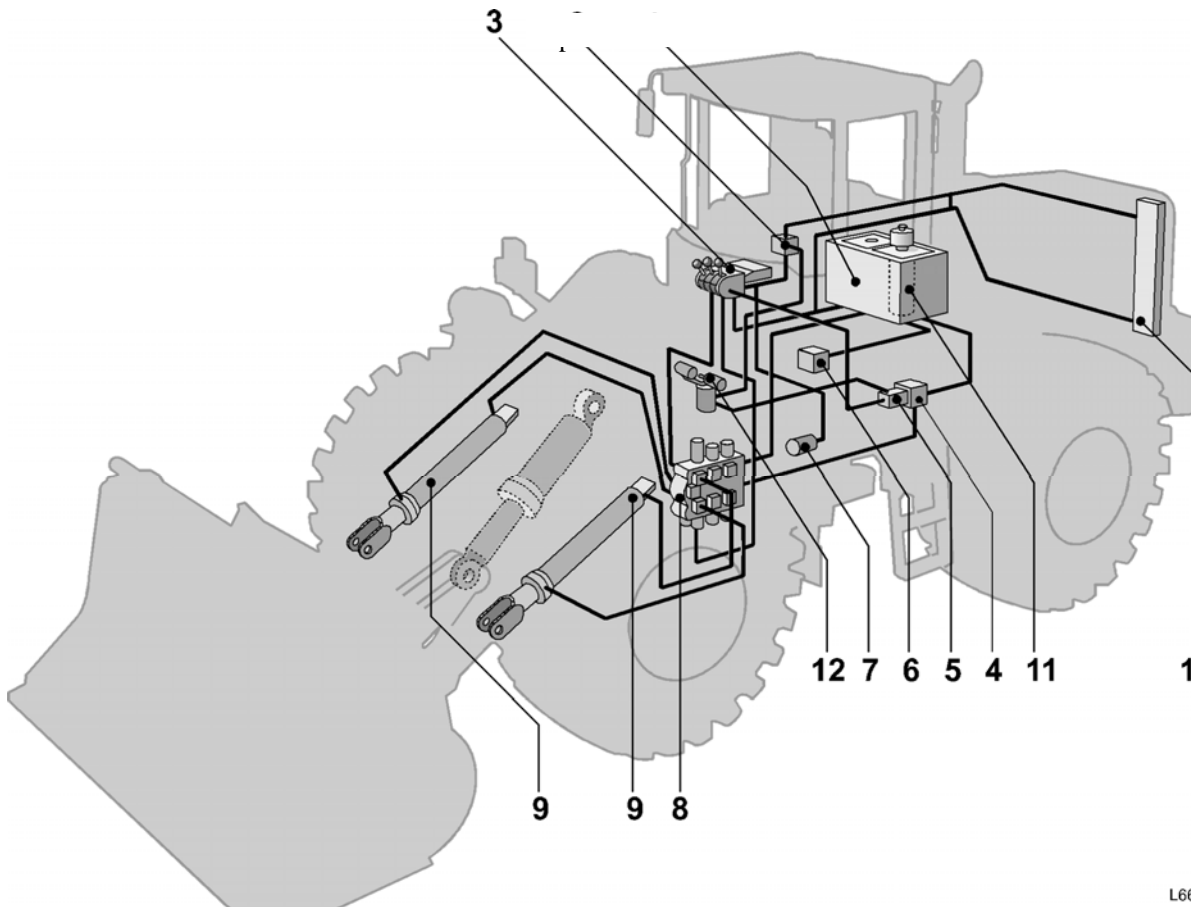


Fig. 1



L6t

**Figure 2**  
**Hydraulic system, lift**

1. Hydraulic oil tank
2. Pressure limiting valve, servo pressure
3. Servo valve
4. Hydraulic oil pump, working hydraulics
5. Hydraulic oil pump, brake and servo systems
6. Steering pump
7. Pressure back-up, servo circuit
8. Control valve
9. Lift cylinder
10. Oil cooler
11. Return oil filter
12. Foot brake valve

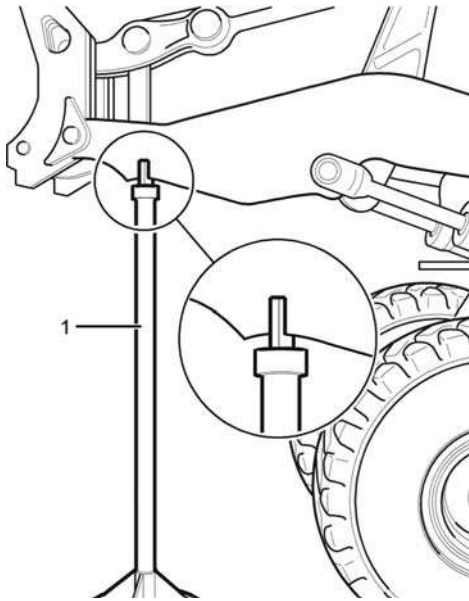
# Working pressure, checking

Op nbr 91324

[999 3831 Support](#)

[11 666 020 Pressure gauge 0–25 MPa \(0–3625 psi\)](#)

[11 666 037 Hose](#)



**Figure 1**  
**Securing boom**

1. 999 3831

## The following applies when checking:

Temperature: **Normal operating temperature**

Engine speed: **High idle speed**

### NOTE!

Always use the support to secure the boom when working under a raised boom.

1. Remove the cover plate in the front frame.
2. Connect the pressure gauge to the pressure outlet.

