CASE

PROFESSIONAL PARTNER

SERVICE MANUAL

ARTICULATED TRUCK

340

9-93760 NA

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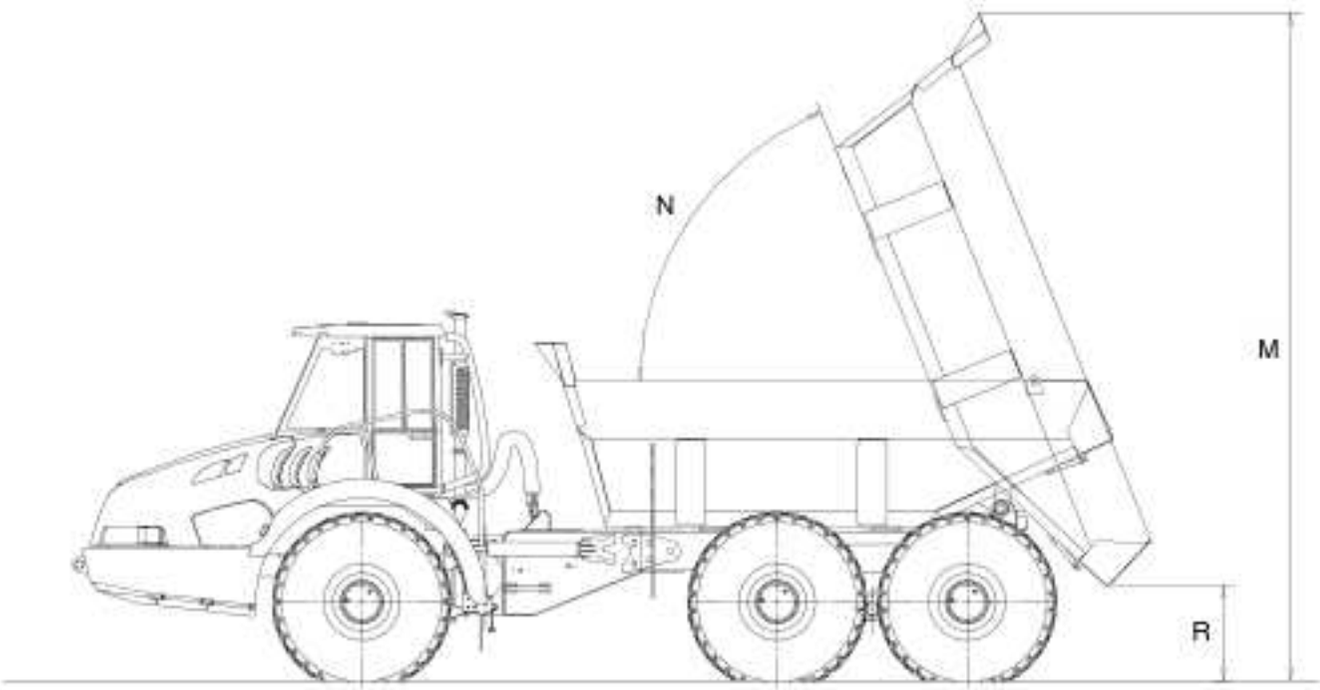
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DIMENSIONS WITH BODY RAISED

M	Maximum height of body (*)	mm	6910
		ft	22.73
N	Maximum tipping angle	degrees	70°
R	Ground clearance (*)	mm	980
		ft	3.22
-	Loading capacity to the brim (SAE 1:1)	m^3	13
		yd^3	17
-	Full loading capacity (SAE 2:1)	m^3	16.8
		yd^3	22

Dimensional tolerance: 3% (*) empty vehicle



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TROUBLESHOOTING BY SYMPTOMS

Main engine operating anomalies:

1 - The engine does not start;
2 - The engine is excessively heated;
3 - The engine lacks efficiency;
4 - The engine has grey smokes (tending to white);
5 - The engine has blue smokes;
6 - Poor engine braking efficiency;
7 - The engine stops;
8 - Excessive fuel consumption;
9 - Excessive or insufficient oil pressure.

1 ENGINE DOES NOT START

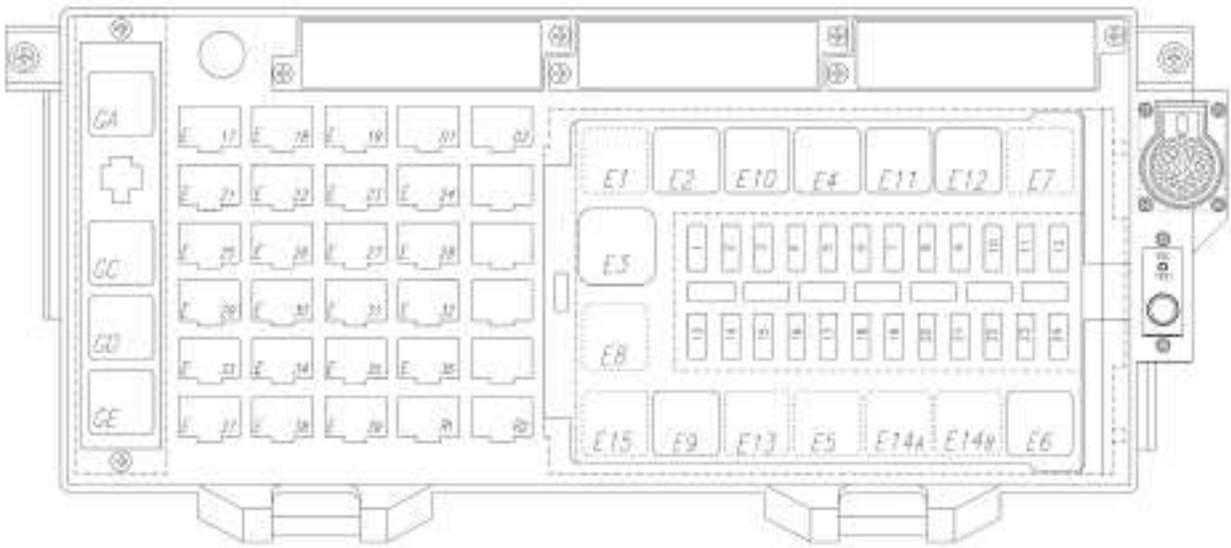
Battery efficient	NO →	Pre-heating element always on Check alternator efficiency Check battery terminal connections
YES ↓		
Starter motor efficient	NO →	Carry out checks / replace
YES ↓		
Air heater efficient	NO →	Check power supply and earth connection Check heater relay by active diagnosis
YES ↓		
Main relay efficient	NO →	Check fuses Check relay by active diagnosis
YES ↓		
Fuel pump efficient	NO →	Check efficiency checking pressure at filter
YES ↓		
Fuel prefilter - filter efficient	NO →	Check for clogging / replace

(continued)

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RELAYS AND FUSES

Relays



Code	Type	Description
E1	--	--
E2	N	Headlight circuit relay (low end high beam)
E3	F	Accessories cut-off during cranking relay
E4	N	Headlight flasher relay
E5	--	
E6	N	Brake light relay
E7	--	–
E8	--	--
E9	X	Intermittent windshield wiper relay
E10	N	Low-beam/high-beam headlight relay
E11	N	Work light relay
E12	N	Horn relay
E13	--	–
E14A	--	--
E14B	--	--
E15	--	--

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Checking parking brake efficiency

Proceed as follows:

- Position the vehicle on a flat surface that is wide enough to allow small movements.
- Switch the engine off, move the selector lever to Neutral and engage the parking brake; the parking brake warning lamp should light up.
- With the engine off, disengage the parking brake: the parking brake warning lamp should go out.
- Repeatedly engage and disengage the parking brake until the warning lamp remains lit when the control is disengaged.
- Start the engine and wait for the parking brake warning lamp to go out.
- Select manual, insert the first speed, let the vehicle move forward VERY SLOWLY, then engage the parking brake: the warning lamp should light up and the vehicle should stop immediately (the gearbox automatically goes into Neutral).

Check efficiency of the accumulator recharging valve

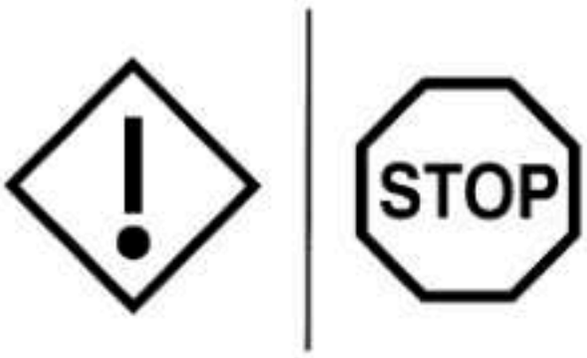
Proceed as follows:

- Switch the engine off, move the selector lever to Neutral and engage the parking brake.
- Operate the service brake five times.
- Check that NO alarm warning lights (fig.1) come on.

Checking emergency steering pump control efficiency

Proceed as follows:

- Switch the engine off, move the selector lever to Neutral and engage the parking brake.
- Turn the ignition switch to position 1.
- Move the selector to the Forward position.
- In this condition, the alarm warning lights (fig.1) should come on and a message should appear on the display. A buzzer should start sounding (continuously) (where fitted).



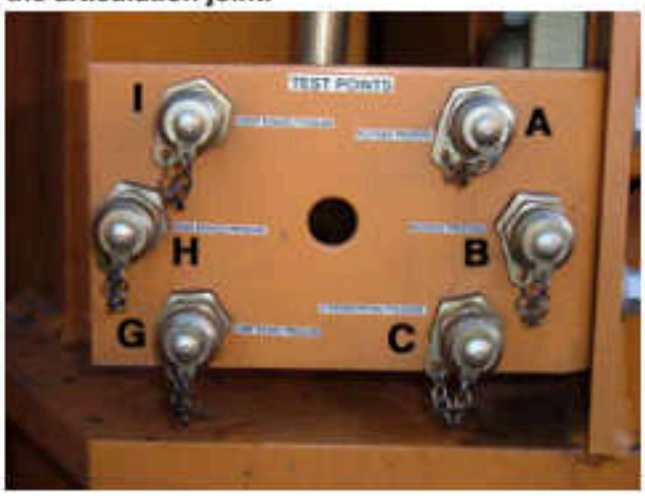
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Pressure testing procedure

Use a pressure gauge with a suitable full-scale for testing.

All procedures must be carried out with the vehicle on flat ground, the parking brake applied and the transmission in neutral.

The hydraulic pressure test ports (A, B, C, G, H & I) are located on the back of the cab on the left side of the articulation joint.



If there is any question about the pressure you are reading, double check to be sure the hoses at the check point are connected to the right ports on the main control valve.

- **Test port A** is for the **pilot pressure** which strokes the control valve to raise and lower the dump body, (Main Control Valve port XP, on the bottom of the valve). 22 bar (320 psi) check this pressure while raising the body. Adjustment is at valve 1.16 on the left side, bottom of the Main Control Valve. (See Tipping Valve diagram on page 32. **Check the Pressure at Test Port B first.**
- **Test port B** is for the **reduced pressure** which is used to produce the Pilot Pressure, (Main Control Valve port RP, on the bottom of the valve). 50 bar (725 psi) check by steering left against the articulation stop. Adjustment is at valve 1.11 on the rear side of the Main Control Valve, right most valve.
- **Test Port C** is for checking the **Steering pressure**, 230 bar (3335 psi), and for checking the **Body Hoisting pressure** of 185 bar (2685 psi), (Main Control Valve port 4, on the top of the valve), the testing procedure is as follows:
-

The Steering Pressure is tested while steering left against the articulation stop. 230 bar (3335 psi) adjustment is at valve 1.03 on the rear side of the Main Control Valve, left most valve.

The body raising pressure is checked by following these instructions:

Refer to the following illustrations indicated by the text.

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Parking brake distributor

1 AIR ESCAPE FROM EXHAUST WITH CONTROL LEVER IN RELEASE POSITION

Defective exhaust valve, valve seat or O–ring → YES → Check and overhaul the component, replacing defective parts. Carefully clean all components

2 AIR ESCAPE FROM EXHAUST WITH CONTROL LEVER IN BRAKING POSITION

Worn component control valve, O–ring and valve → YES → Check and overhaul the component, replacing defective parts. Carefully clean all components

NO

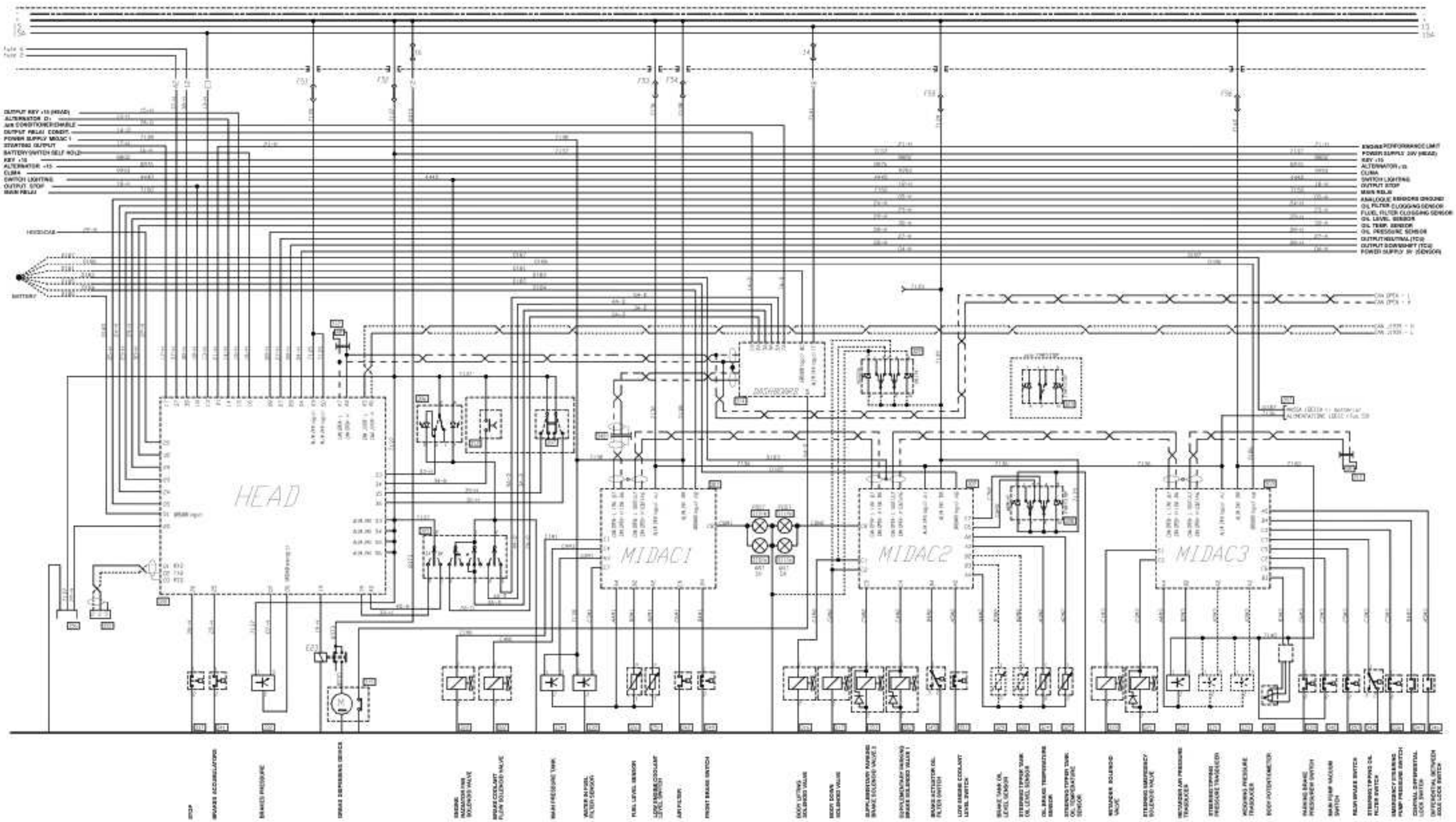
Obstruction inside distributor → YES → Check and overhaul the component, and lubricate all sliding parts

3 CONTROL LEVER STIFF

Obstruction inside distributor → YES → Check and overhaul the component, and lubricate all sliding parts

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Layout electrical system (Section 3/5)



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