Service Manual

ARTICULATED DUMP TRUCK

714 & 718

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The Following parts are replacement items for kits and would normally be found in the kit numbers above.

Replacement item for kit no. 892/00253

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Hydraulic Circuit Component Key
ADT 714 up to Machine Serial No. 830153
ADT 714 up to Machine Serial No. 832019

1 Ground Driven Pump
2 Emergency Steer Valve
3 Priority Steer Valve
4 Load Sensing Steer Valve
5 Steer Rams
6 Tipping Valve Block
• **6A** Tipping Valve Block (with ARV)
(ADT 714 from machine serial no. 830107;
ADT 718 from machine serial no. 832012)
7 Front and Rear Chassis Umbilical
8 Main Body Lift Rams
9 Main Return Filter
10 Brake Modulating Valve
11 Front Axle Brake Piston
12 Rear Axle Brake Piston
13 Service Brake Accumulator
14 Accumulator Charge Valve
15 Park Brake Valve
16 Propshaft Mounted Disc
17 Park Brake Accumulator
18 Main Tank Return Manifold
19 Tank
20 Strainers
21 Secondary Supply Pump
22 Main Supply Pump
• **23** Over Centre Valve

X ADT 718 machine hydraulic suspension circuit insert. Refer to **Hydraulic Suspension Circuit - ADT 718 Machine Only**.

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Fault Code	Fault Detected	Possible Causes	Action
F6	Clutch adjustment data lost	• Interference during saving data on non volatile memory • TCU is brand new or from another vehicle	• Execute AEB

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Service Brake System Testing

WARNING

The articulation lock must be fitted before any maintenance is done on the machine. This will prevent anyone getting crushed between the two parts of the chassis.

GEN-3-5

Note: The ADT 718 machine differs from the ADT 714 in that it has a pair of brake calipers mounted on each end of the front axle as shown at **X**.

1 Charge Valve Operation

a Park the machine on firm level ground and lower the tipper body.

b Fit a pressure gauge to the brake valve at point **B** using a tee adaptor.

c Apply the parking brake and stop the engine. Operate the brake pedal at least 10 times to exhaust the accumulator pressure (e.g. the gauge shows no pressure rise when the pedal is depressed).

d Connect a 0-400 bar (0-6000 lbf/in^2) pressure gauge at point **A** on the brake valve.

e Start the engine. Monitor the pressure - it should rise to 170±5 bar (2470±72.5 lbf/in^2). Engine speed should increase slightly as the charge valve cuts out.

f Repeatedly apply the footbrake. Check that the charge valve cuts in at 140±5 bar (2100±72.5 lbf/in^2).

g Stop the engine and exhaust the system before removing the gauge.

h Bleed the brakes. (Refer to **Bleeding the Service Brakes**.)

If pressures are incorrect, renew the charge valve, as no adjustment is possible.

2 Brake Valve and Accumulator Pressure

WARNING

A minimum of 10 applications of the service brake are possible from the stored accumulator pressure. Before removing an accumulator or disconnecting any part of the brake hydraulic system, make sure that the engine is switched off and hydraulic pressure is fully discharged.

BRAK-2-3

a Fit the pressure gauge at point **B**.

b Start the engine. Run the engine for 2 minutes, the brake low pressure warning light should extinguish.

c Press the brake pedal. The pressure should rise to 135±5 bar (1960±72.5 lbf/in^2) and hold.
If pressure is **less** than 120±5 bar (1740±72.5 lbf/in^2), check brake valve set up. See **Service Brake Valve, Removal and Replacement**.
If pressure is **more** than 155±5 bar (2250±72.5 lbf/in^2), replace the brake valve.

d Stop the engine. Operate the brake pedal 9 times. The pressure should remain at 135±5 bar (1960±72.5 lbf/in^2).

If after 2 applications of the brake pedal, the pressure decays below 100±5 bar (1450±72.5 lbf/in^2), the accumulator or the non-return valve within the charge valve is faulty.

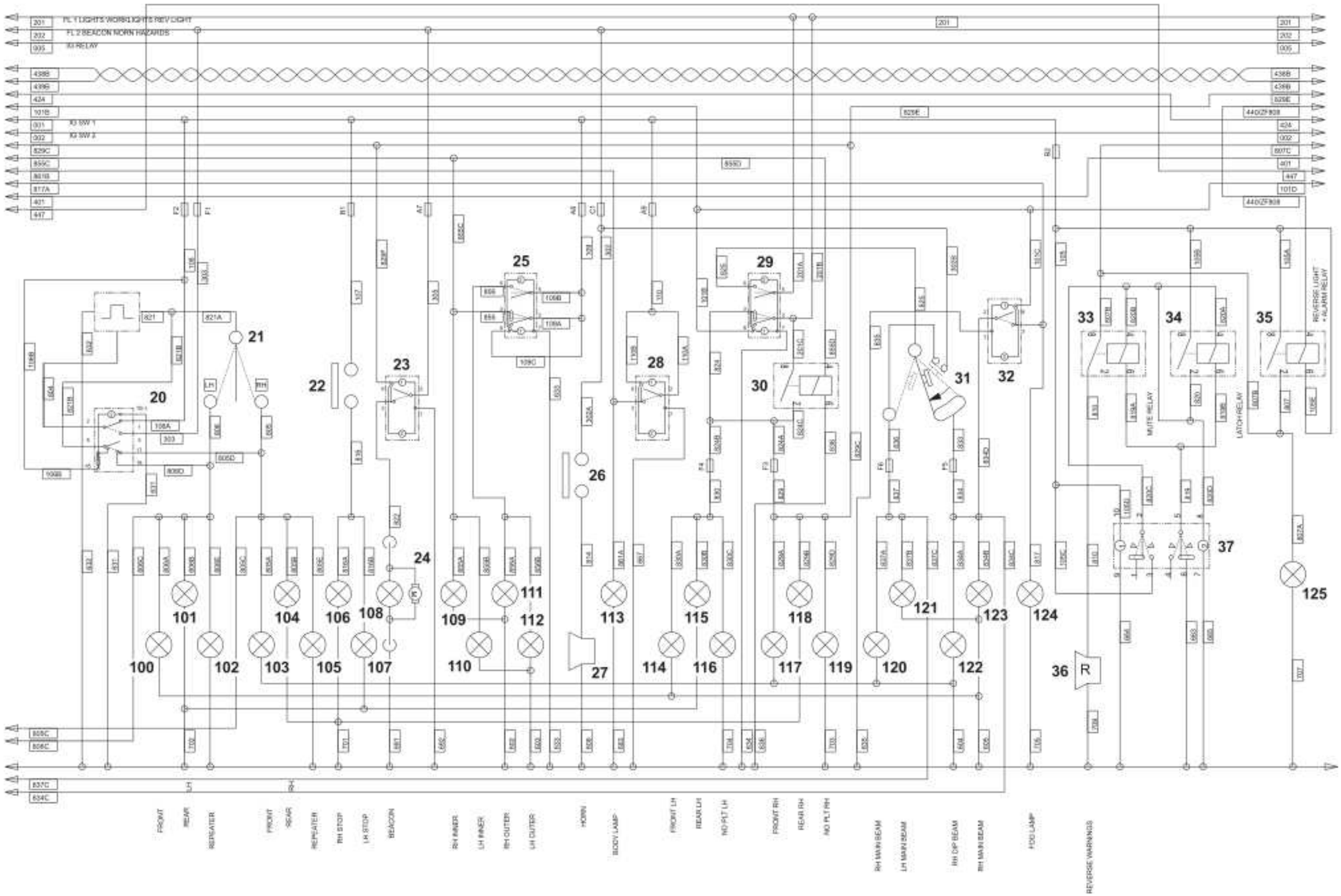
See **Accumulator Charge Valve - Dismantling and Assembly**. Remove and inspect items **25** and **28**. If satisfactory, replace accumulator **B1**.

e Remove the gauge from point **B**. Fit the gauge at point **C**.

f Repeat steps a to d. If necessary replace accumulator **C1**.

g Bleed the brakes, refer to **Bleeding the Service Brakes**.

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