TEREX

TA35 & TA40 Articulated Dumptruck Maintenance Manual



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6. Remove bolts, washers and pins securing steering cylinders to pivot. Secure steering cylinders clear of pivot.

7. Release the parking brake by turning the hex-head on the parking brake actuator fully anticlockwise.

8. Attach suitable lifting equipment to pivot/rear frame assembly. Lifting equipment must prevent pivot from oscillating after separation, and, be capable of pulling pivot/rear frame assembly clear of front frame. Raise lifting equipment to support pivot/rear frame assembly.

9. Remove nut (42) and washer (41) securing upper pin (40).

10. Remove upper pin (40). If necessary tap upper pin (40) to ease removal taking care to avoid damaging the threads.

Note: It may be necessary to relieve binding between the pin and pin bores by raising or lowering the pivot/ rear frame assembly.

11. Remove bolt (48) and hardened washer (44) securing lower pin (43).

12. Remove lower pin (43). If necessary tap lower pin (43) to ease removal taking care to avoid damaging the pin.

Note: Only separate the frames sufficiently to permit removal of the articulation bearings or damage to hydraulic and electrical connections could result.

13. Remove blocks from rear wheels and use lifting equipment to pull pivot/rear frame assembly clear of the front frame. After moving, block pivot/rear frame assembly and block the wheels.

14. Remove spacer (39) noting orientation to ensure correct installation.

Disassembly

1. Identify seal housings (32, 33, 34 & 35) to ensure correct location on assembly/installation.

Note: Seal housings (32, 33, 34 & 35) are not interchangeable.

2. Remove bolts (46 & 47), washers (45), seal housings (32, 33, 34 & 35) and upper and lower shims (38).

3. Prise out and discard seals (36 & 37) from the housings.

4. Remove and tag all bearing assemblies (30) with spacers to ensure correct assembly/installation.

Note: Bearing assemblies (30) and spacers are a matched set, never interchange cups, cones or spacers between sets.

Inspection

1. Clean all parts with a suitable solvent and let dry. DO NOT spin bearings with compressed air. Place bearings on a clean surface, cover with a lint free cloth and allow to dry.

2. Check bearing assemblies (30) and spacers, and pins (40 & 43) for wear or damage. Renew as necessary.

Note: Bearing assemblies (30) and spacers must be renewed as a matched set.

3. Replace all seals with new parts.

Assembly

1. Apply Loctite 243 sparingly to bore of seal housings (32, 33, 34 & 35).

2. Using a suitable driver, install seals (36 & 37) into seal housings (32, 33, 34 & 35) ensuring that the metal ring on inside of the seals are not disturbed, and, that they are located towards the inside of seal housing.

3. Apply Loctite 243 (49) to threads of outer seal housing bolts (46).

4. Place outer seal housings (32 & 34) in position ensuring that grease relief hole in seal housings are directly opposite bearing grease port on pivot. Secure with bolts (46) and washers (45). Tighten bolts (46) to a torque of 94 Nm (68 lbf ft).

Note: Bearing assemblies (30) and spacers are a matched set, never interchange cups, cones or spacers between sets.

5. Using EMS19057 grease (23), pack bearing assemblies (30), including end faces, and install bearings.

6. Place inner seal housings (33 & 35) temporarily in position and secure with bolts (47) and washers (45). Tighten bolts (47) to a torque of 16 Nm (12 lbf ft).

7. Using feeler gauges, as shown in Fig. 2, measure the dimension between the inner pivot faces and seal

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ASSEMBLY

Numbers in parentheses refer to Fig. 1.

> **⚠ WARNING**
> **To prevent personal injury and property damage, be sure lifting equipment is properly secured and of adequate capacity to do the job safely.**

1. Press spherical bearing (21) in base end of cylinder body (1) and piston rod (2) end. Secure spherical bearings (21) with circlips (22).

Note: Install circlip (22) to base end of cylinder ensuring that it is facing down when the cylinder is mounted to the unit.

2. Install new cushion ring (4), circlip (5), rod seal (6), nylon ring (29), 'O' rings (8 & 9) and backup ring (18) in end cap (3).

3. Apply Loctite 242 to the first two threads on end cap (3). Load end cap (3) over piston rod (2) thread taking care not to damage rod seal (6) on the thread.

4. Install new 'O' rings (17) on piston rod (2) and replace cushion spear (11).

5. Using special tool which can be fabricated as shown in Fig. 3, screw on piston (12) and tighten to a torque of 1 356 Nm (1 000 lbf ft).

6. Insert piston grub screw (16) through bearing ring (14) groove in piston (12) and into groove machined in piston rod (2). Tighten grub screw (16) to a torque of 49 Nm (36 lbf ft).

7. Lock grub screw (16) in place with grub screw (15) and tighten grub screw (15) to a torque of 49 Nm (36 lbf ft). Ensure the extreme of grub screw (15) is below the level of bearing ring (14) groove.

8. Ensure cushion ring (19) and circlip (20) are secure in piston (12).

9. Insert new piston seal (13) and new bearing rings (14) in piston (12).

10. Fully grease piston (12) OD and 'O' rings (8 & 9) in end cap (3).

Note: Approximate weight of piston rod (2) is 318 kg (700 lb), therefore, correct slinging is important along the length of the rod to prevent subsequent damage.

11. Sling assembled piston rod (2) in a manner to allow careful leading of the assembled piston rod into cylinder body (1). Take care not to damage piston seal (13) on cylinder body threads.

12. After piston (12) is inserted in cylinder body (1), push the piston rod assembly into cylinder body (1) maintaining coincidental centre lines of piston rod and cylinder body.

13. Before piston rod (2) is fully home and, with slings still taking some of piston rod (2) weight, engage end cap (3) thread and screw home.

14. Push piston rod (2) to the fully retracted position and torque tighten end cap (3) to 237 Nm (175 lbf ft).

15. Re-drill end cap (3) for lock ring (10) (3 x 12 mm (0.125 x 0.50 in) deep) if necessary. Insert lock ring (10) in end cap (3).

INSTALLATION

Numbers in parentheses refer to Fig. 1.

Note: Tighten all hydraulic lines fitted with ORFS connections, as described in Section 230-0000, BODY SYSTEM SCHEMATIC. Renew all 'O' rings where used.

> **⚠ WARNING**
> **To prevent personal injury and property damage, be sure lifting equipment is properly secured and of adequate capacity to do the job safely.**

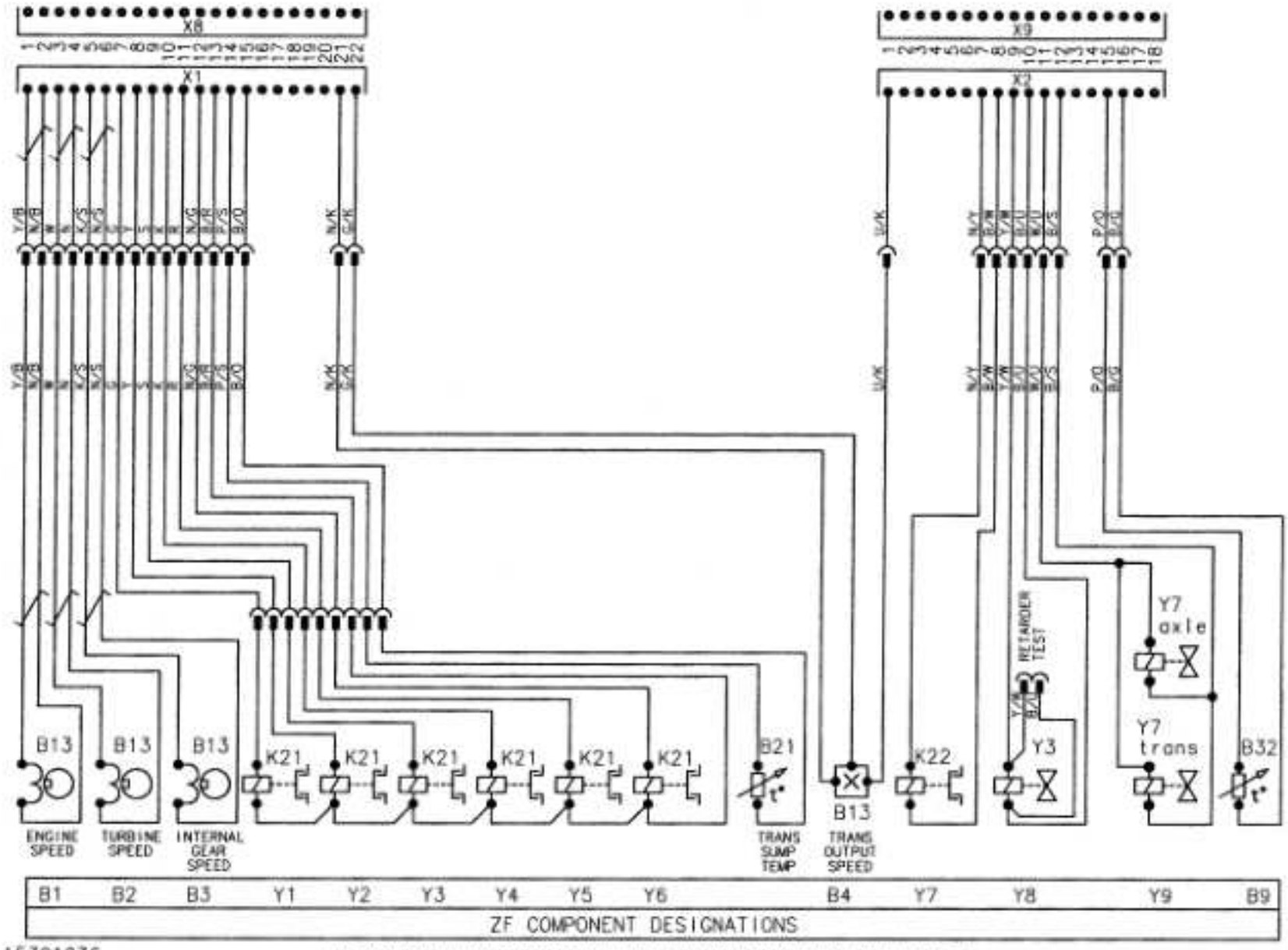
1. Install a suitable strap around the cylinder and position cylinder on unit with base end of cylinder (circlip (22) facing down) ready for mounting.

2. Install spacers (26) in base end of cylinder, align spherical bearing (21) with bores in frame mounting and install lower pin (24) through mounting bores, spacers (26) and spherical bearing (21). Secure lower pin (24) to the frame with washer (27) and bolt (28). Tighten bolt (28) to a torque of 66 Nm (49 lbf ft).

3. Install spacers (26) in piston rod (2) eye end of cylinder, align spherical bearing (21) with bores in body and install upper pin (25) through mounting bores, spacers (26) and spherical bearing (21). Secure upper pin (25) to the body with washer (27) and bolt (28). Tighten bolt (28) to a torque of 66 Nm (49 lbf ft).

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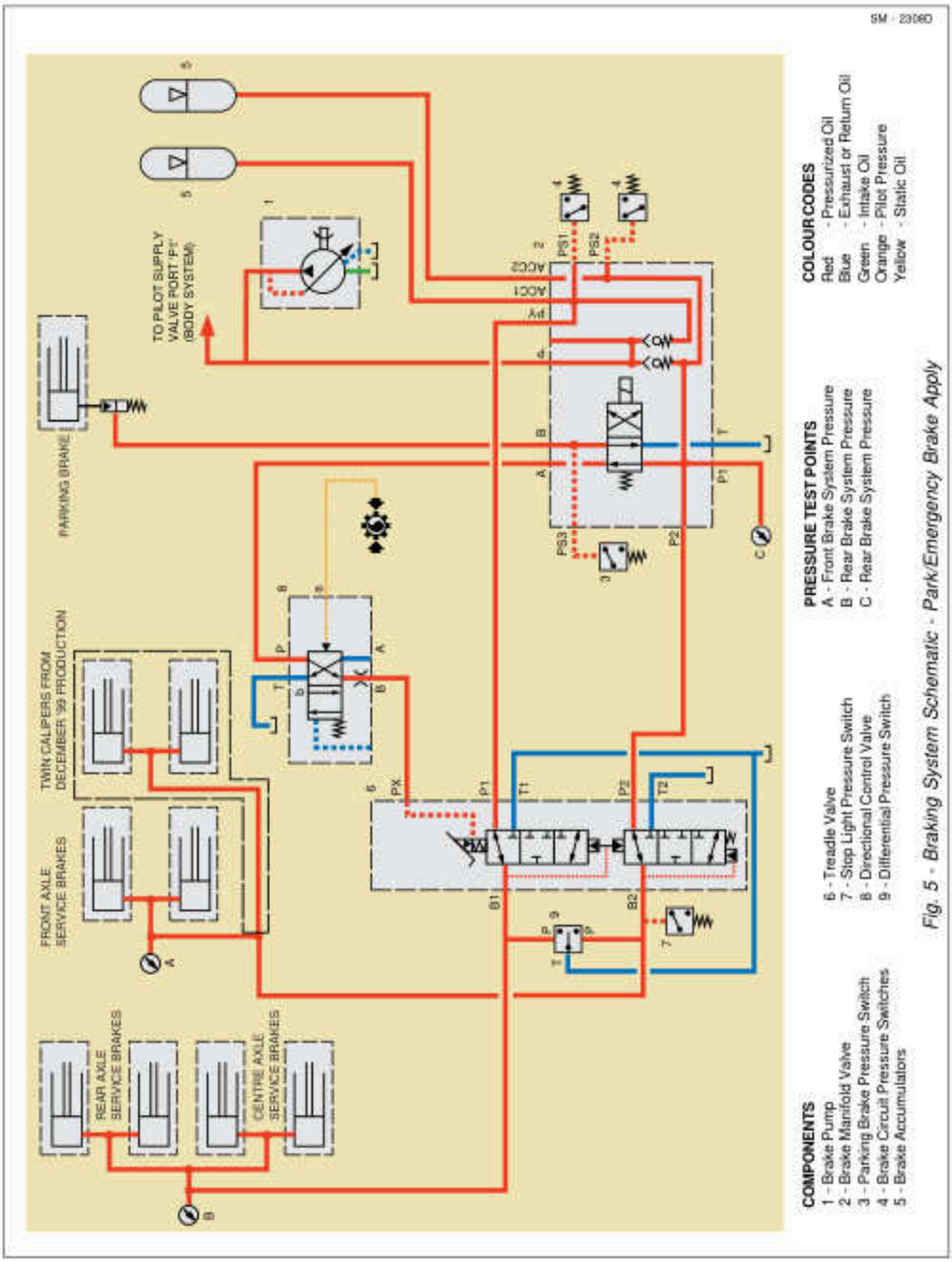
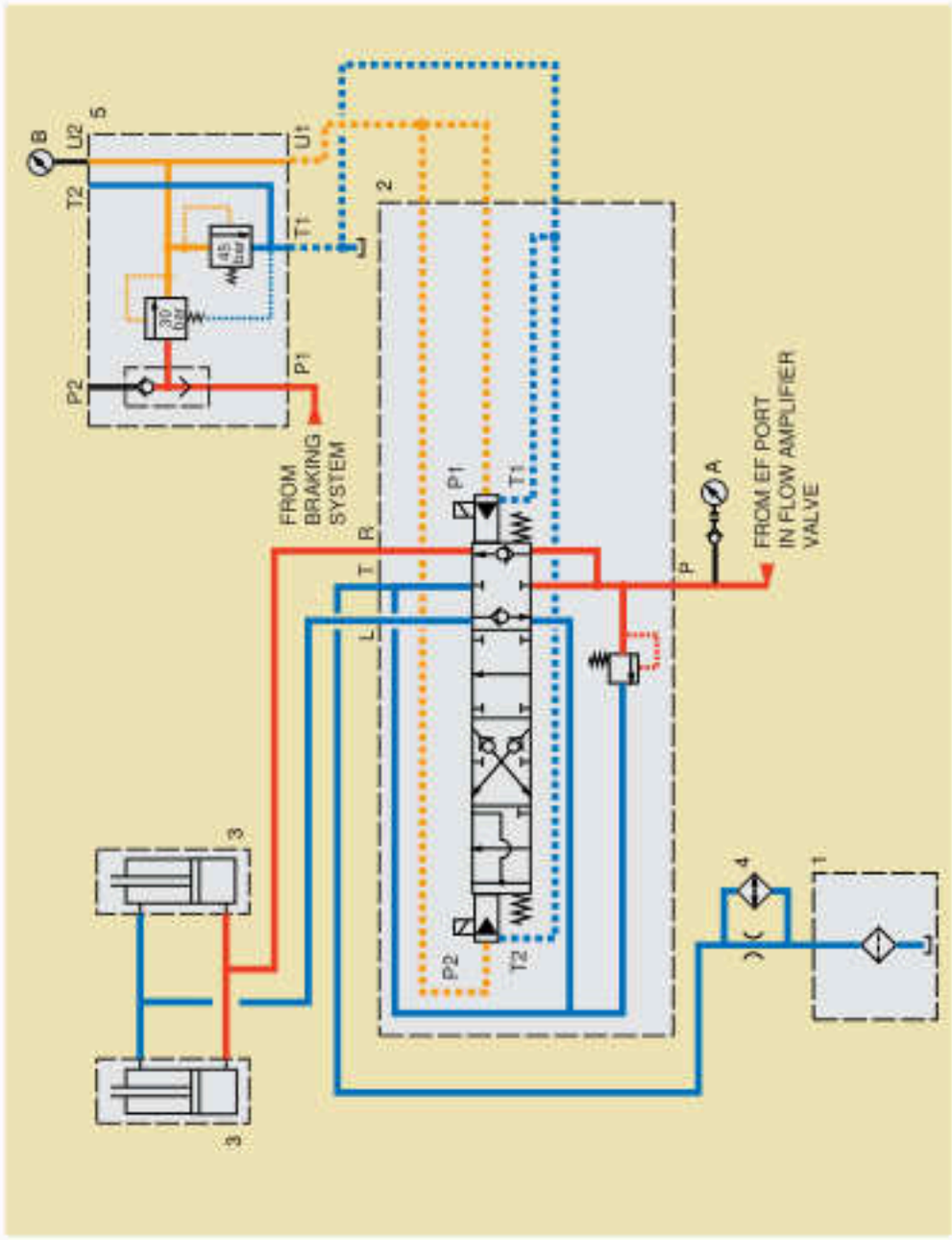


Fig. 5 - Braking System Schematic - Park/Emergency Brake Apply

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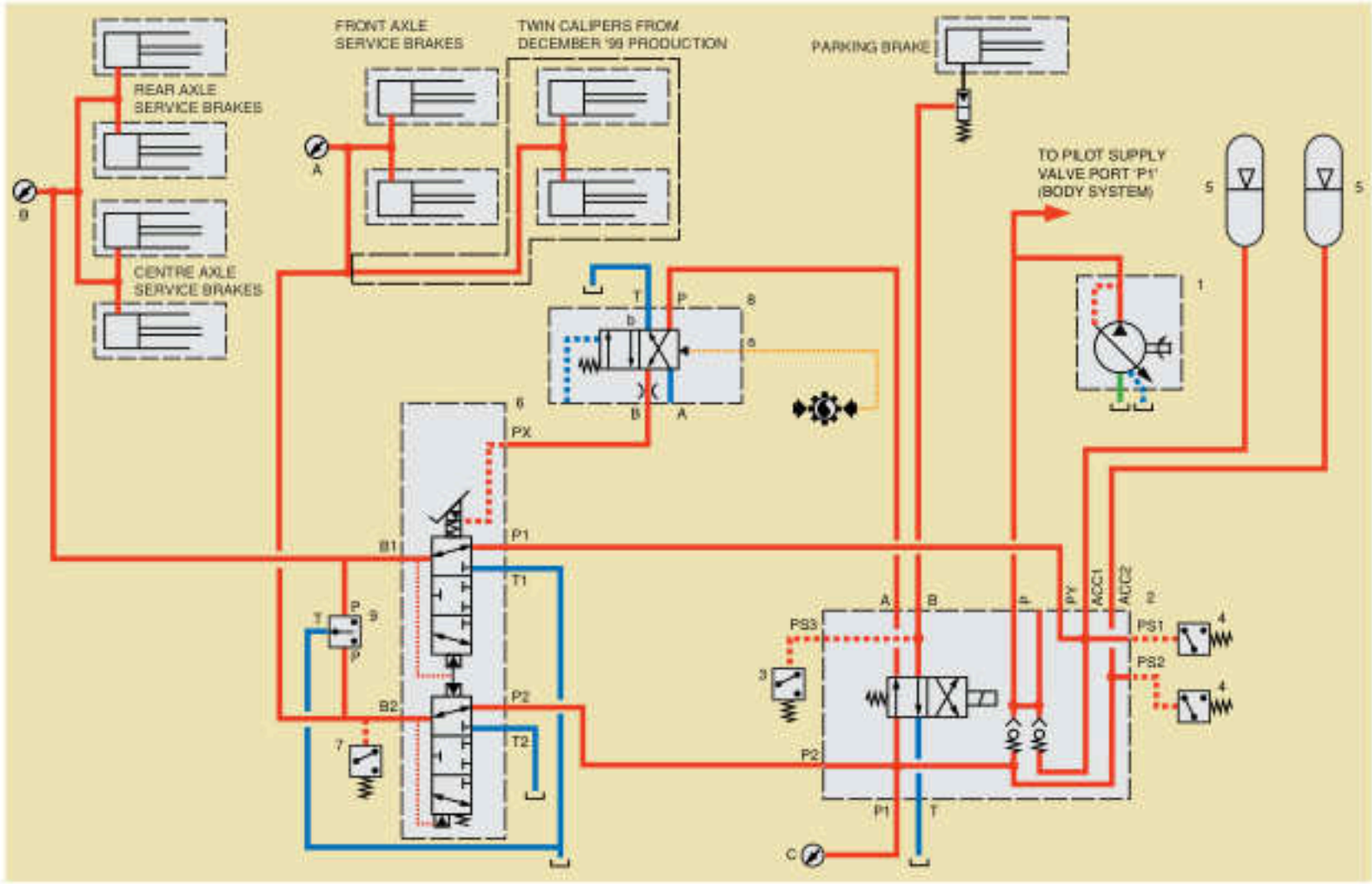
COMPONENTS
1 - Hydraulic Tank
2 - Body Control Valve
3 - Body Cylinders
4 - Hydraulic Oil Cooler
5 - Pilot Supply Valve

COLOUR CODES
Red - Pressurized Oil
Blue - Exhaust or Return Oil
Green - Intake Oil
Orange - Pilot Pressure
Yellow - Static Oil

Fig. 5 - Body Hoist System Schematic - Body Control Valve in the 'Raise' Position

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Section 250-0000 BRAKING SYSTEM - Braking System Schematic



COMPONENTS

1 - Brake Pump
2 - Brake Manifold Valve
3 - Parking Brake Pressure Switch
4 - Brake Circuit Pressure Switches
5 - Brake Accumulators
6 - Treadle Valve
7 - Stop Light Pressure Switch
8 - Directional Control Valve
9 - Differential Pressure Switch

PRESSURE TEST POINTS

A - Front Brake System Pressure
B - Rear Brake System Pressure
C - Rear Brake System Pressure

COLOUR CODES

Red - Pressurized Oil
Blue - Exhaust or Return Oil
Green - Intake Oil
Orange - Pilot Pressure
Yellow - Static Oil

Fig. 5 - Braking System Schematic - Park/Emergency Brake Apply

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