



Service Manual

Chassis, Mast

DP100	3DP-10011-up
DP115	4DP-10011-up
DP135	5DP-10011-up
DP150	6DP-10011-up

Suggestions for Removal**(1) Engine control cable**

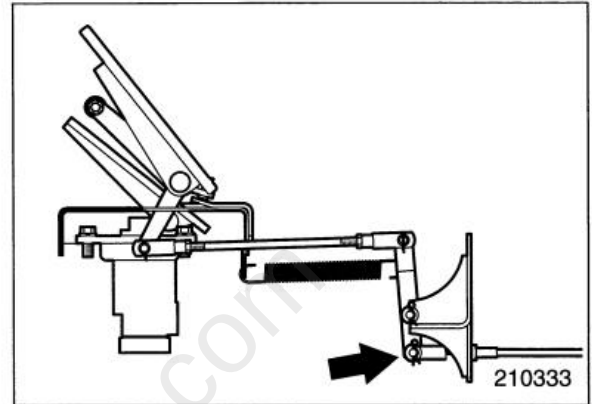
Disconnect the cable at the engine side. Coil it up at the front side of the seat frame.

(2) Inching pedal cable

Disconnect the cable from the clevis pin of the inching lever under the seat frame.

(3) Parking brake lever

Remove the lever mounting bolt with the lever in the brake applied position.

**(4) Hydraulic control cable**

Remove the cable from the clevis pin at the foot of the control lever.

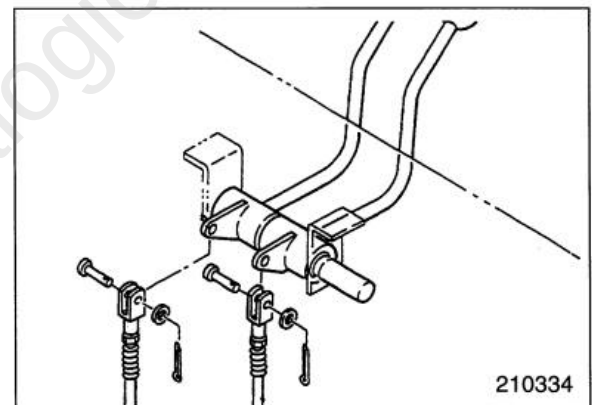
(5) Brake reserve tank

Remove the mounting bolt and drain oil from the tank.

(6) Seat frame harness A

Disconnect the harness at the following connectors.

- (a) Connectors (3 places) to harness B
- (b) Connector of transmission harness

**(7) Body grounding cable**

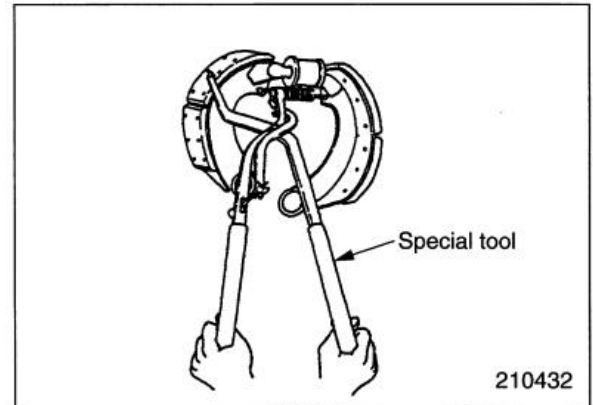
Disconnect the cable at the seat frame side.

5. Return spring installation

Using the Spring Setter (special tool), hook the ends of the return springs to the pins of the shoes.

Special tool needed

Spring setter	03727 - 10001
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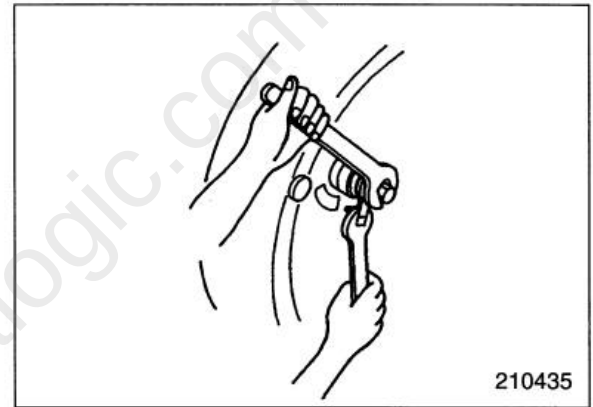


6. Lining wear indicator installation

- (1) Using a wrench, turn the washer to set the pointer as far at inside of the service range scale as possible.
- (2) In setting the indicator, set the adjusting cam with the shoes contracted all the way, and hold the adjusting cam with another wrench to prevent it from rotating when turning the washer.

NOTE

Reset the indicator at minimum value only after the adjusting cam has been reassembled.



7. Wheel brake assembly installation

Tighten the bolts that hold the wheel brake assembly to the front axle to the specified torque.

Tightening torque for wheel brake assembly bolts	M14	156±16 N·m (15.9±1.6 kgf·m) [115±12 lbf·ft]
	M16	233±24 N·m (23.8±2.4 kgf·m) [172±17 lbf·ft]

Inspection and Correction

1. Lift bracket

- (1) Check the main roller and side roller for sticking, wear, and cracks. If any abnormality is found, replace with a new one.
- (2) Check the welded part of the lift bracket for cracks.

2. Fork

Check the forks for bend, irregular tips, and cracks.

3. Hose

Replace hoses every two years.

Installation

To install, follow the reverse of removal sequence.

Suggestions for Installation

1. Adjustment of lift chain tension

Refer to page 12-15.

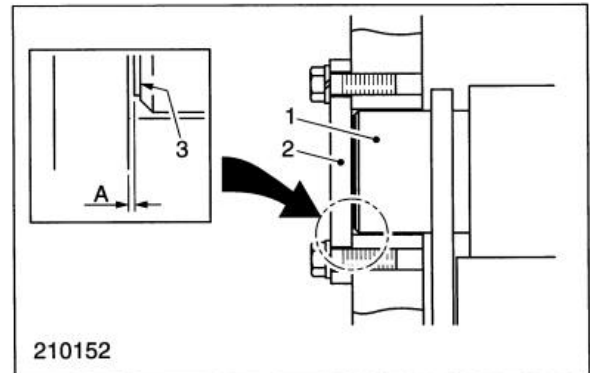
2. Adjustment of fore-and-aft and side-to-side clearance of the lift bracket

Refer to page 12-16.

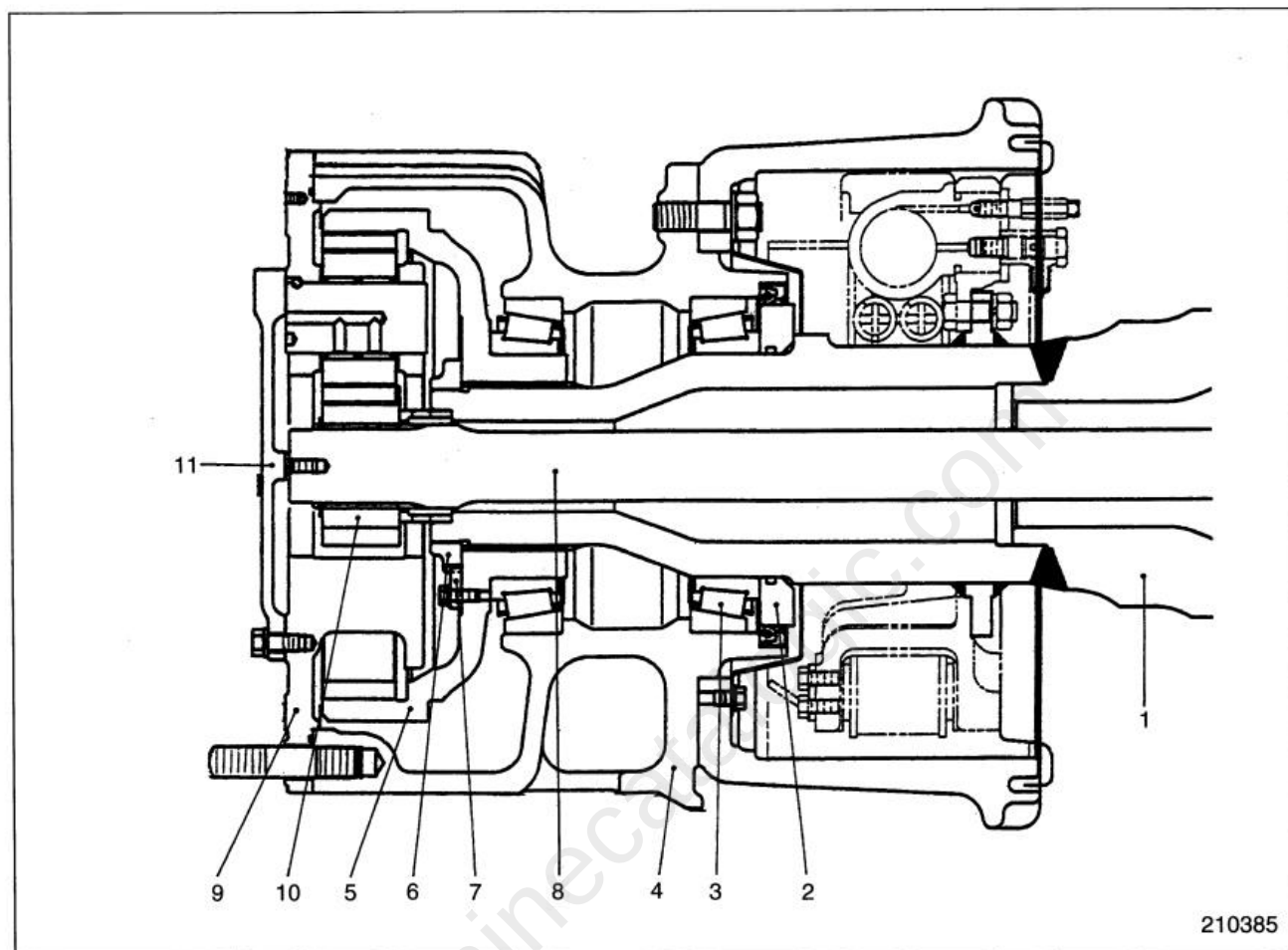
3. Guide bar

When making the clearance between the guide bar 1 and the stopper plate 2 on one side 0, adjust with a shim so that the clearance A between the guide bar 1 and the stopper plate 2 on the opposite side becomes 1.0 mm (0.039 in.) or less.

Part No.	Thickness
94632 - 01800	3.2 mm (0.126 in.)
94632 - 01700	2.3 mm (0.091 in.)
94632 - 01600	1.0 mm (0.039 in.)



Reassembly



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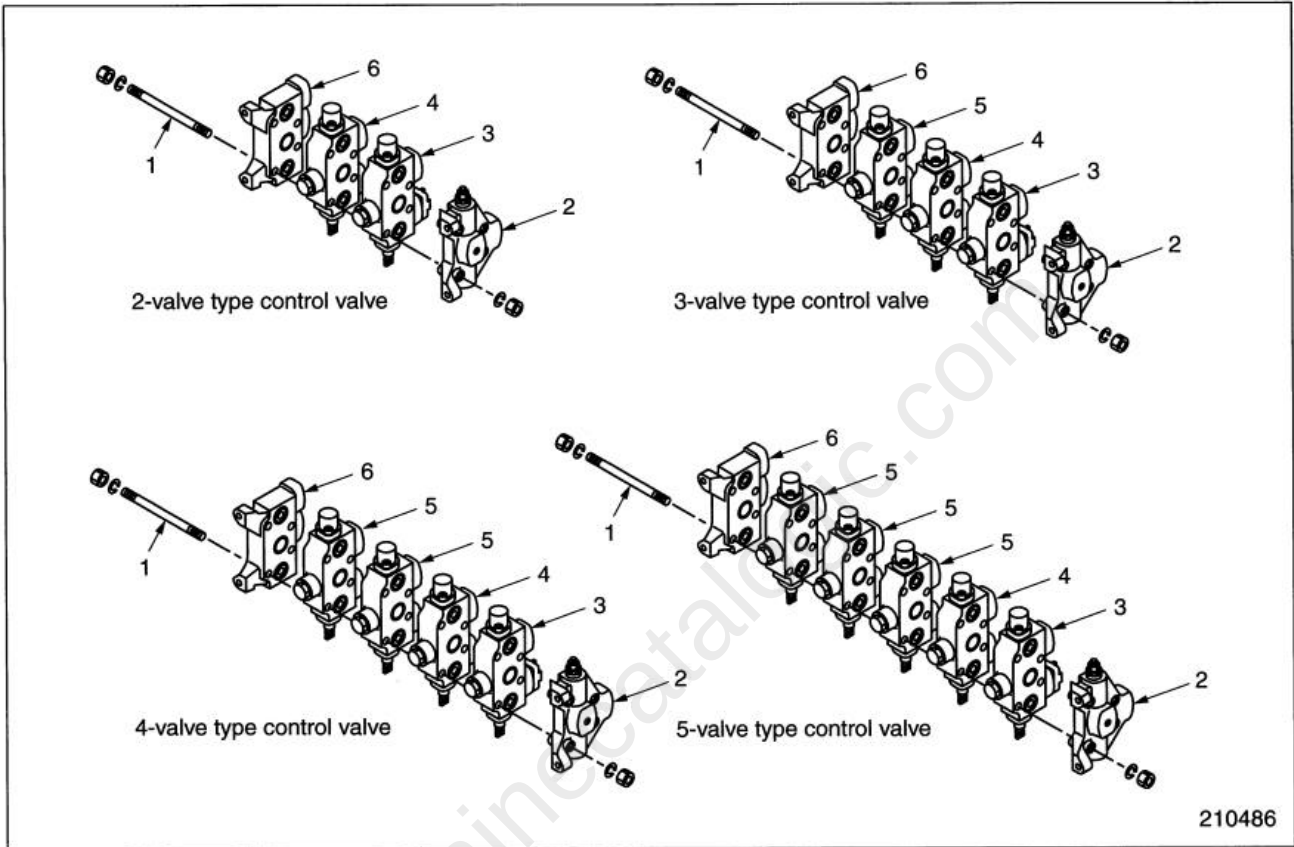
Sequence

1. Front axle housing
2. Oil seal retainer, O-ring
3. Taper roller bearing (inner race)
4. Hub and drum assembly, Front wheel hub, Studs, Brake Drum, Studs, Washers, Nuts, Taper roller bearing (outer race), Oil seal, Oil deflector, Bolts, Washers
5. Ring gear, Taper roller bearing (inner race)
6. Nut
7. Lock plate, Bolts, Washers
8. Sleeve, Axle shaft
9. Planet carrier assembly, Planet carrier, Planet gears, Bushings, Thrust washers, Planet pins, Steel balls, O-ring, Bolt, Washers
10. Sun gear, Snap ring
11. Cover, Gasket, Bolts, Washers

Control Valve

Disassembly

1. Valve Components Disassembly



Sequence

1. Tie bolt, Nut, Washer
2. Inlet cover assembly
3. Lift valve assembly
4. Tilt valve assembly
5. Attachment valve assembly
6. End cover

Reassembly

Follow the disassembly sequence in reverse.

NOTE

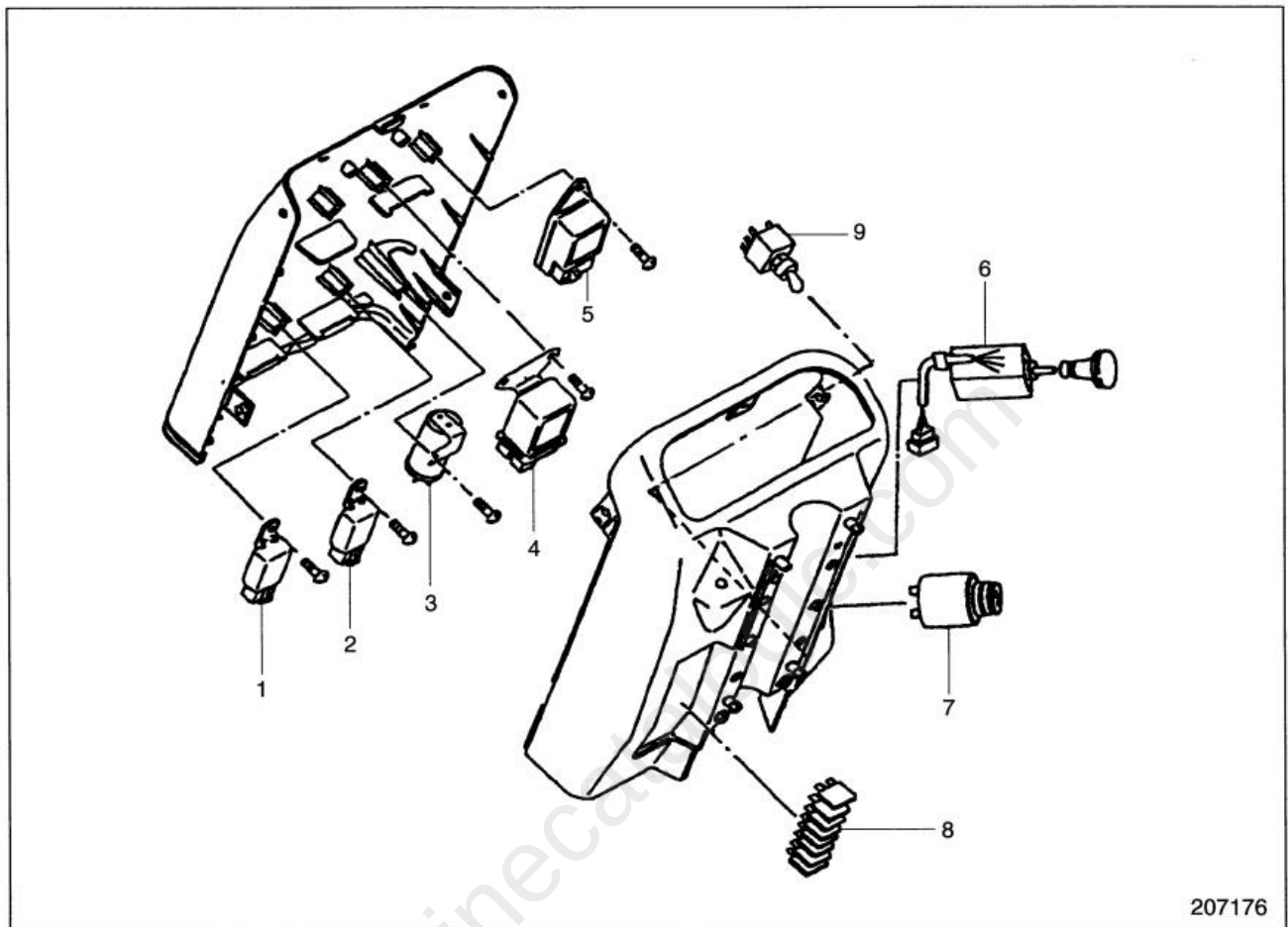
Do not use liquid packing.

Suggestions for Reassembly

- (1) Tighten the tie bolt nut to the specified torque.

Nut tightening torque	98 to 118 N·m (10 to 12 kgf·m) [72 to 87 lbf·ft]
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Components



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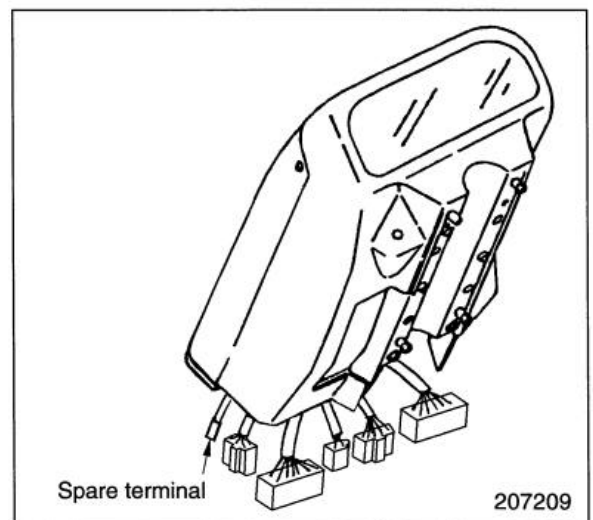
- | | | |
|----------------------|--------------------|-------------------------------|
| 1. Power relay | 4. Glow plug relay | 7. Starter switch |
| 2. Power relay | 5. Glow plug timer | 8. Fuses |
| 3. Turn signal relay | 6. Lighting switch | 9. Travel speed select switch |

Spare Terminals

The spare terminal cord extends from the fuse box in the console box. (Another spare terminal is in the chassis-side main harness.)

Color code	Lg (light green)
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Removing the console box rear panel will permit you to gain access to this spare terminal which is taped to the harness protector.



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Suggestions for Disassembly

1. Removal of hose

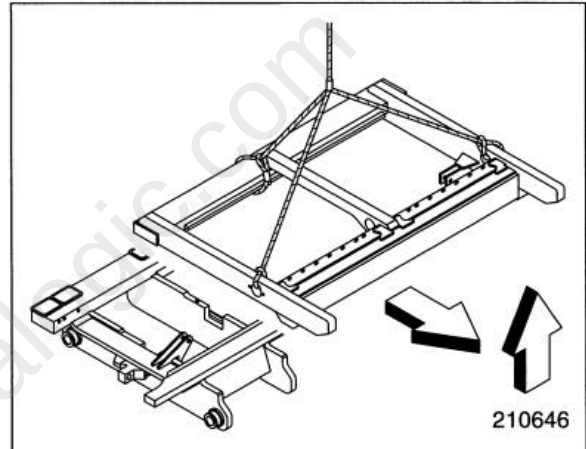
Remove hoses 1 from the connector of side shift cylinder 3.

2. Removal of side shift cylinder

- (1) When removing, be careful not to damage threads of the cylinder rod and connector.
- (2) It is advisable to remove the side shift cylinder with the cylinder rod fully contracted.

3. Removal of carriage

- (1) Hang a wire rope on the carriage, utilizing three locations (two guide bar mounting holes on the right and left and plate on the center bottom), and support it with a crane.
- (2) Remove support 4.
- (3) Slide carriage 5 sideways until slider block 6 is disengaged. After disengagement, lift it up as it is.



6D16

diesel engine

Shop Manual

(for industrial use)

FOREWORD

This Shop Manual is published for the information and guidance of personnel responsible for maintenance of 6D16 diesel engine, and includes procedures for adjustment and maintenance services.

We earnestly look forward to seeing that this manual is made full use of in order to perform correct service with no wastage.

For more details, please consult your nearest authorized Cat[™] dealer or distributor.

Kindly note that the specifications and maintenance service figures are subject to change without prior notice in line with improvement which will be effected from time to time in the future.

Applicable models

6D16

6D16-TLE

GROUP INDEX

HOW TO READ THIS MANUAL

GENERAL	00
ENGINE.....	11
LUBRICATION	12
FUEL AND ENGINE CONTROL	13
COOLING.....	14
INTAKE AND EXHAUST	15
ELECTRICAL SYSTEM	54
SPECIAL EQUIPMENT	61

Full Version Available

Caterpillar DP115 Forklift Service and Schematic Manual (99799-80120)

Caterpillar DP115 Forklift service manual, covers hydraulics, mast, drive unit, wiring, and engine service data. Searchable PDF download.

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