



Service Manual

Chassis, Mast, & Options

EP10KRT PAC ETB10A-00011-up

EP12KRT PAC ETB10A-20001-up

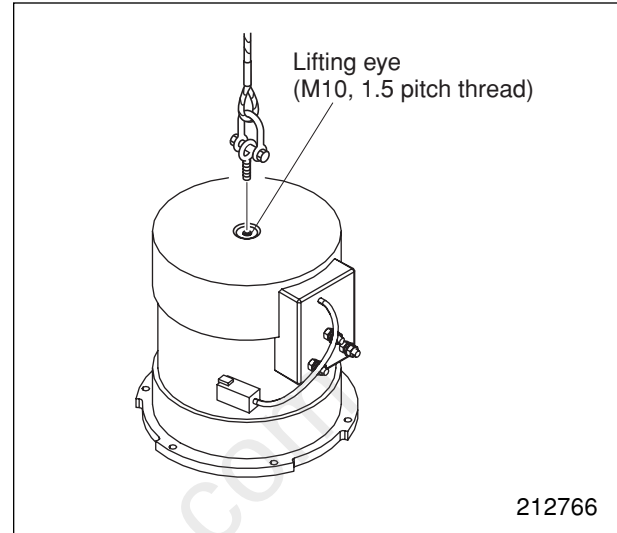
EP15KRT PAC ETB10A-50001-up

Removal and Installation

Drive Motor

Removal

- (1) Park the truck on a flat surface in the service area.
- (2) Turn off (press) the battery switch, then disconnect the battery cable by detaching the plug from the jack on the side of the battery box.
- (3) Remove the battery cover.
- (4) Remove the rear cover.
- (5) Disconnect all the cables and harnesses. Put marks as necessary to facilitate reconnection.
- (6) Screw an eyebolt (M10, 1.5 pitch) into the motor shaft and attach it to a hoist using a sling.
- (7) Remove the six motor mounting bolts (hex socket bolts), then hoist away the motor from the truck.



Installation

Follow the removal sequence in reverse while respecting the following instructions.

- (1) Apply molybdenum grease to the splines on the shaft.
- (2) When installing the motor on the truck, use guide bolts while making sure each section of the motor faces in the correct direction.
- (3) Tighten the motor mounting bolts to the following torque.

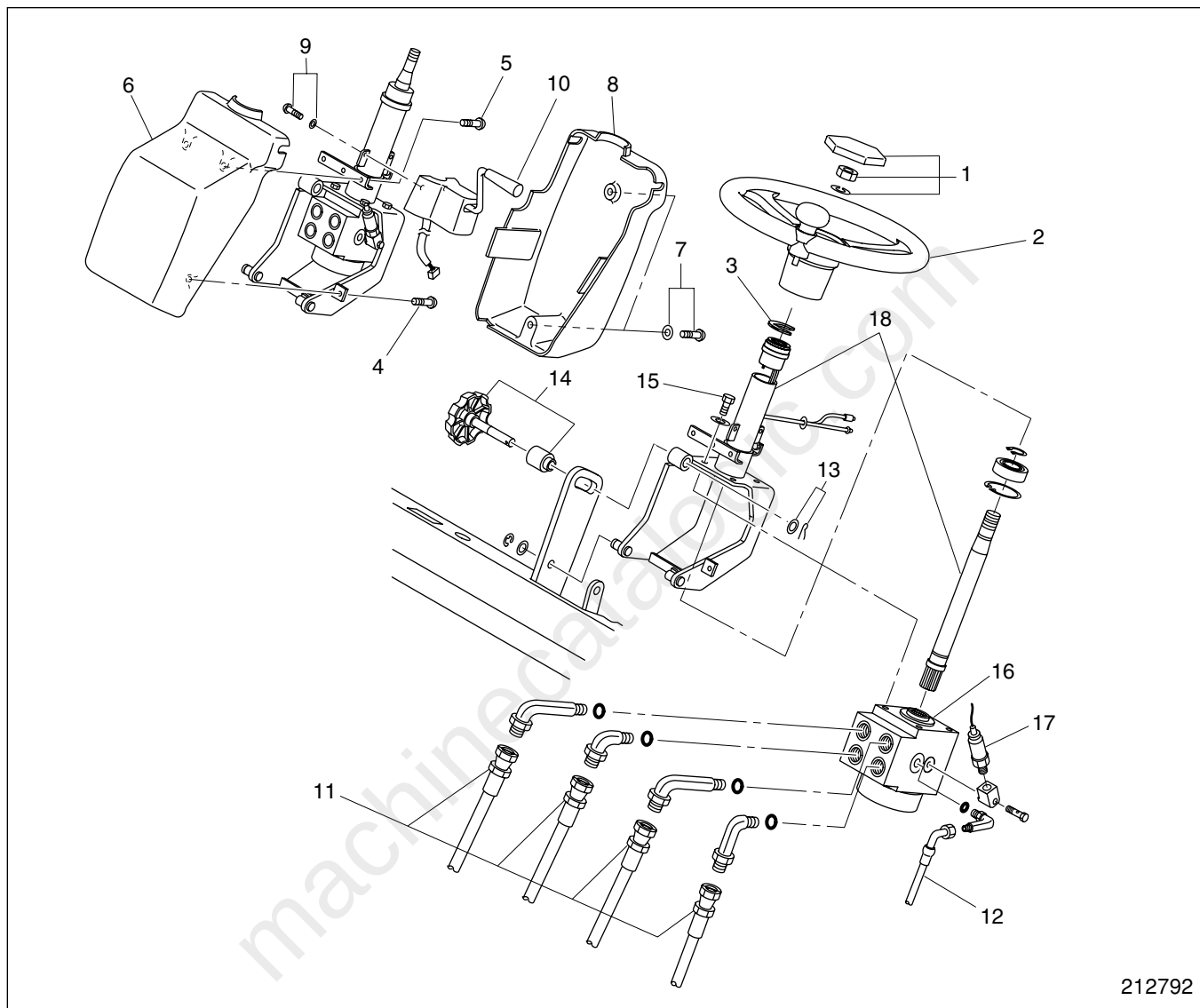
Tightening torque	38.1 N·m (3.9 kgf·m)
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- (4) Install the terminal of each cable such that it does not interfere with another.
- (5) Each cable terminal should be properly covered with a boot.

Removal and Installation

Steering Column Assembly

Removal



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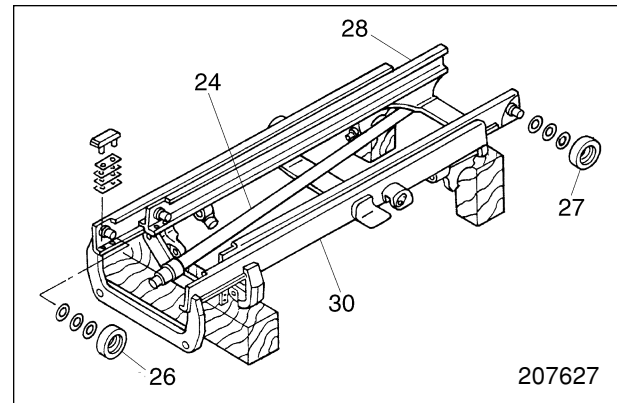
Sequence

- | | | | |
|---|---------------------------------|----|--------------------------|
| 1 | Horn button, Nut, Spring washer | 10 | F·N·R lever assembly |
| 2 | Steering wheel | 11 | Steering hydraulic lines |
| 3 | Carbon washer | 12 | LS pressure line |
| 4 | Tapping screw | 13 | Split pin, Plain washer |
| 5 | Tapping screw | 14 | Knob bolt, Spacer |
| 6 | Front cover | 15 | Bolt |
| 7 | Machine screw | 16 | Steering valve assembly |
| 8 | Rear cover | 17 | Pressure switch |
| 9 | Machine screw, Washer | 18 | Column assembly |

MAST AND FORK

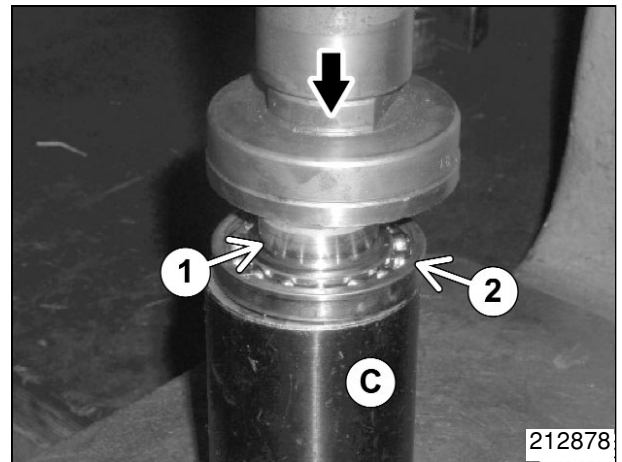
4. Removing main rollers 26, 27 from middle mast 28 and outer mast 30

Remove the bolts that are holding second lift cylinders 24. Place the cylinder rod ends on the outer mast. Lower middle mast 28 until main rollers 26, 27 can be removed. Then, remove the main rollers.

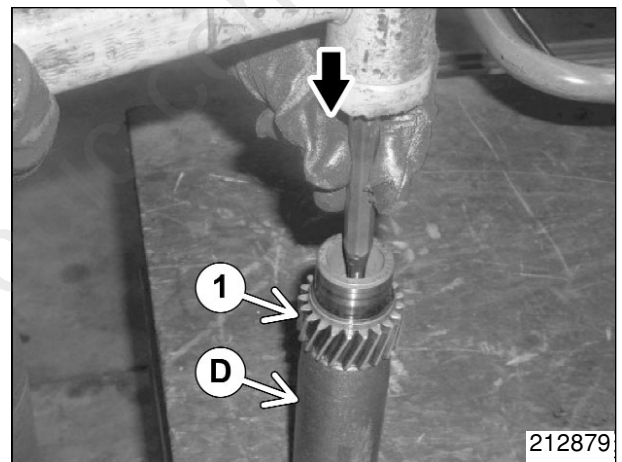


10. Single Component Removal

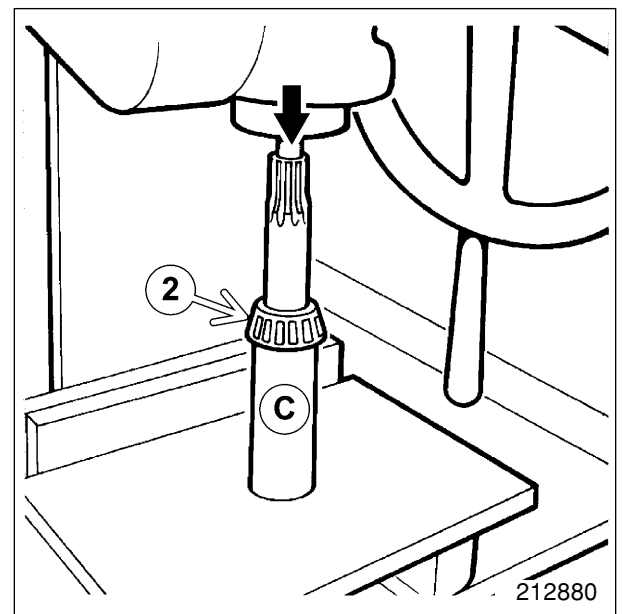
- (1) Put the removed assembly of drive pinion 1 and bearing 2 onto the sleeve C and place them together under a hand lever press.
- (2) Using the press, force the drive pinion into the sleeve, to separate it from the bearing.



- (3) With the sealing cap faced downwards, put the drive pinion 1 onto the sleeve D. Use a suitable tool to loosen and remove the sealing cap.



- (4) Using the sleeve C, press the bevel pinion shaft to separate the bearing inner ring 2 from the shaft.



Suggestions for Disassembly

NOTE

- (1) Prior to disassembly, clean the pump surface and the drive shaft.
- (2) Place the disassembled parts on a clean paper or cloth. Be careful not to scratch or dent them.
- (3) Arrange the disassembled parts in such a way that their original locations in the pump can be readily identified.

1. Holding hydraulic pump

Hold the hydraulic pump with its mounting flange surface down by clamping the mounting flange 12 with a vice. Put a piece of soft material such as wooden block, aluminum or copper plate in between pump and the vice.

2. Removing side plate

The side plate can be easily removed when the drive gear or driven gear shaft is slightly lifted.

3. Removing drive and driven gears

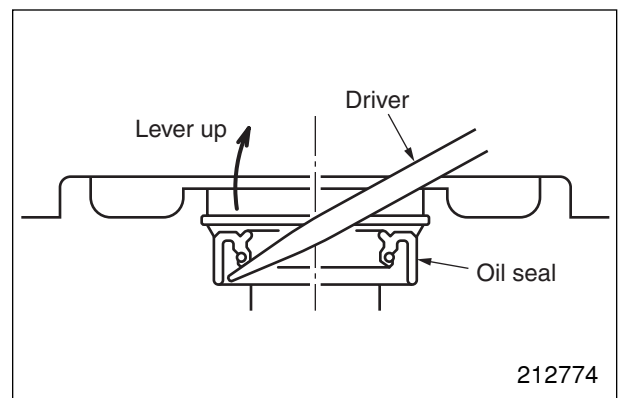
Before removing the gears, provide alignment marks on their shaft end faces.

4. Removing gear plate

Remove the gear plate with either its mounting flange or cover side marked for installation.

5. Removing oil seal

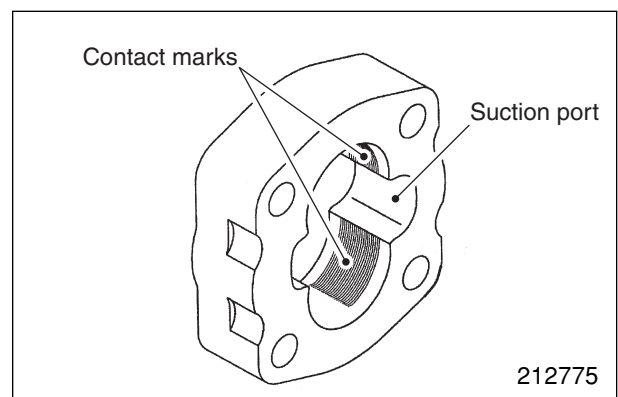
Lever up the oil seal by inserting the tip of a flat screwdriver or the like behind it.



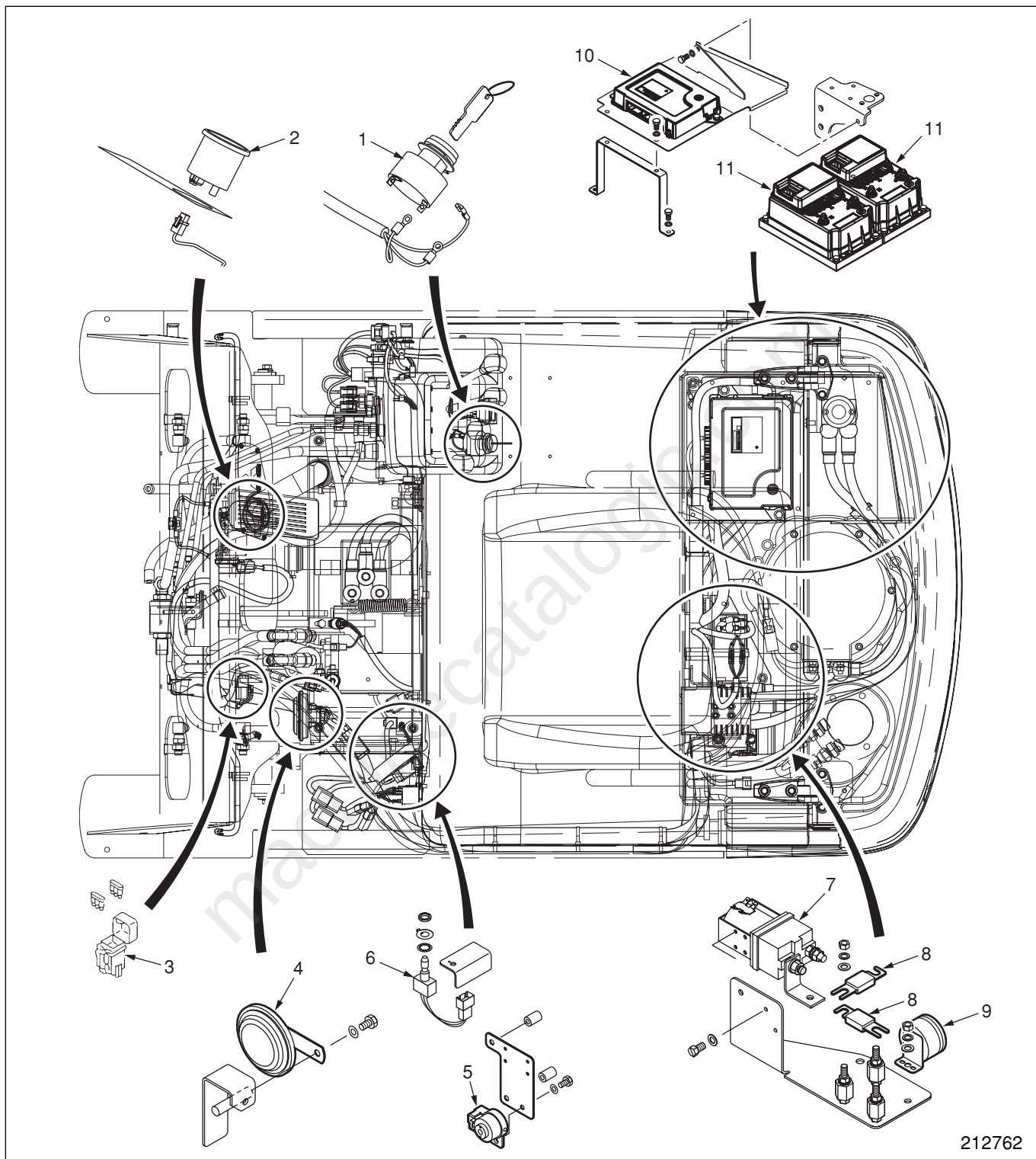
Inspection and Repair

1. Gear plate

- (1) For higher volume efficiency, this gear pump is so designed that it rotates with the gear tooth tops in contact with the inside wall of the gear plate. Therefore, the pumps that have already been operated show contact marks left by the tooth tops near the suction port of the gear plate. The range of the correct contact marks will be narrower than the half of the inner wall of the gear plate.



Electrical Components



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|---------------|--------------|-----------------|---------------|
| 1 Key switch | 4 Horn | 7 Contactor | 10 Logic unit |
| 2 Display | 5 PDS buzzer | 8 Fuse | 11 Inverter |
| 3 Fuse holder | 6 DRS switch | 9 Backup buzzer | |

Full Version Available

Caterpillar EP15KRT PAC Forklift Service Manual (99759-6G100)

Caterpillar EP15KRT PAC service manual, covers wiring, hydraulics, drive systems, and fault diagnosis. Downloadable PDF format.

[VIEW THE FULL MANUAL](https://machinecatalogic.com/caterpillar-ep15krt-pac-forklift-service-manual-99759-6g100/)

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