



Service Manual

Chassis & Mast

EP13TCB(J)

EP15TCB(J)

EP16/18/20TCB(J)

EP16/18/20TBCB(J)

215E00001-up

216E00001-up

288E00001-up

283E00001-up

264E00001-up

265E00001-up

266E00001-up

267E00001-up

6- 3. Inspection and adjustment

6-3-1. Wheel brake - inspection and adjustment

⚠ CAUTION

Wheel brake is very important for safe operation. Always replace Wheel brake whenever it is damaged.

- ➔ See "2-2-5. Front axle - reassembly" step 9 and "2-3-5. Brake plates - inspection and replacement".

6-3-2. Master cylinder Ass'y - inspection and replacement

⚠ CAUTION

- Before inspecting, drain the oil from Reservoir tank Ass'y, clean the inside of Master cylinder with a volatile wash oil, and then blow oil off with compressed air.
- After inspecting, apply corrosion inhibitor [Metal Rubber#20] to inner surface of the cylinder and around Piston, and then reassemble the parts.

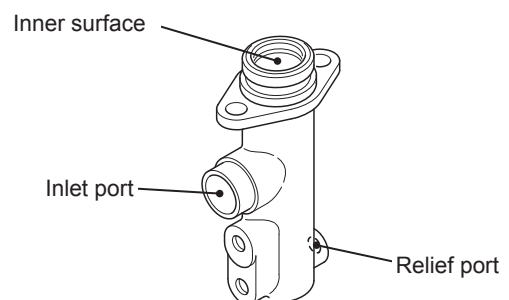
A. Before disassembly, check for the following.

- 1) Damage, deformation, wear, and oil leaks.
- ▶ If you find any parts with problems, replace them.
- 2) Oil leaks or other problems when the machine is operating at a Maximum effective stroke of Piston of 28mm.

B. Inspect cylinder body

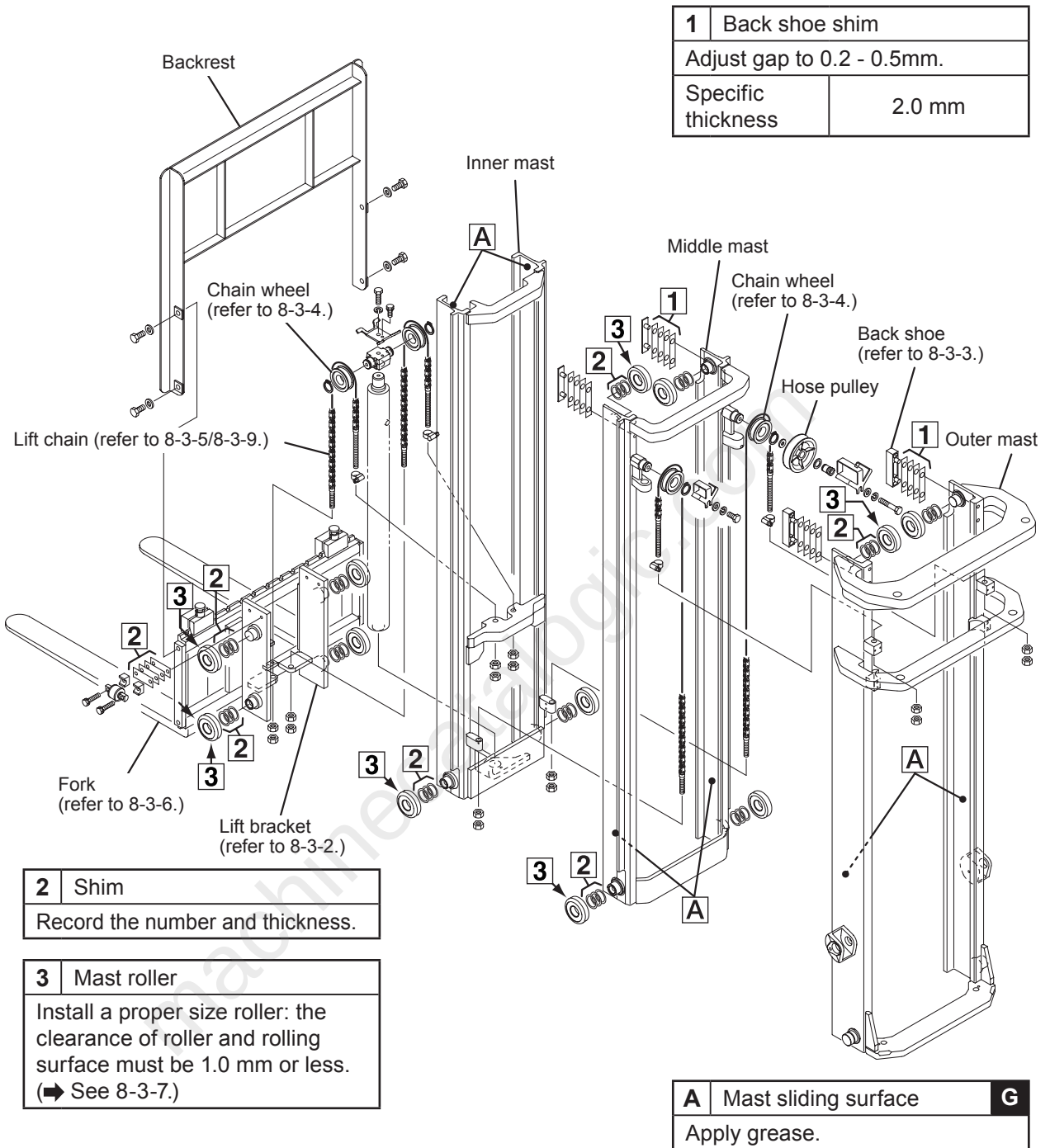
- 1) Check for rust, corrosion and wear of inner surface of the cylinder.
- 2) Check for clogging of Inlet port and Relief port.

● Checking cylinder body



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● Disassembling and reassembling Triplex mast



G : Apply grease

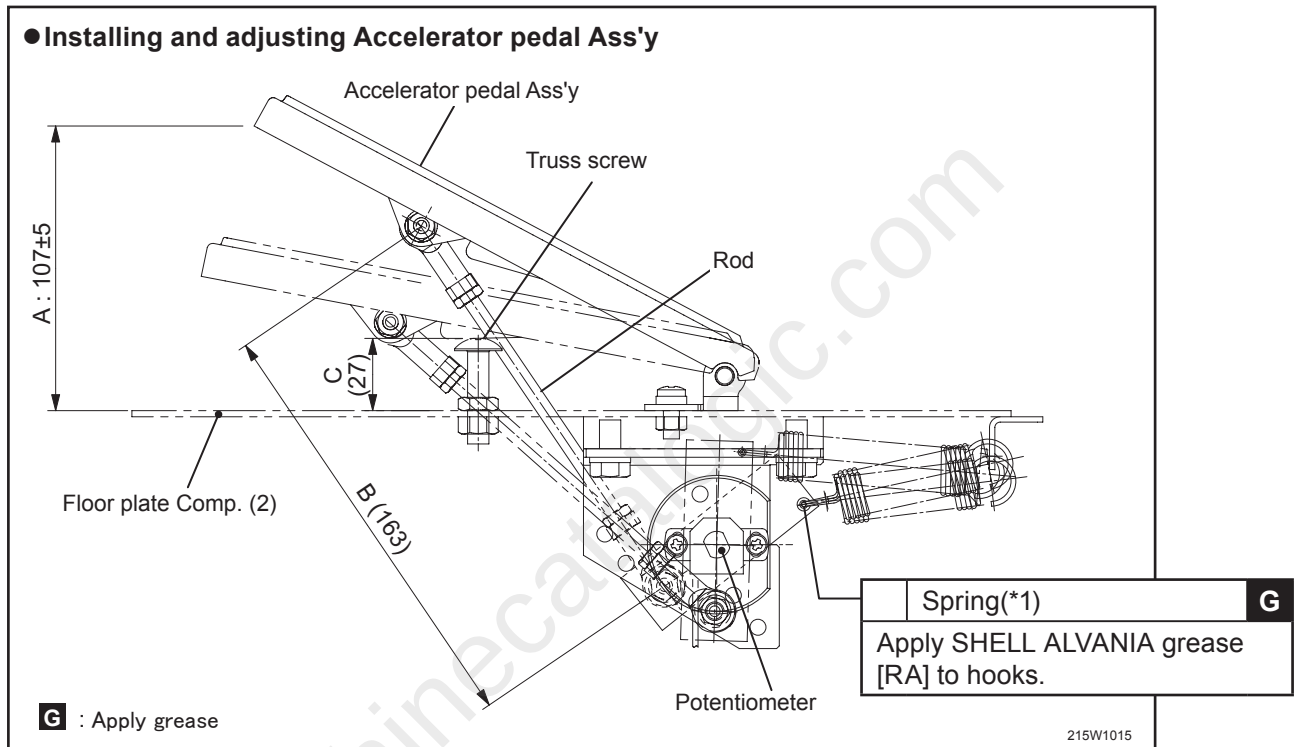
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10c-1-2. Accelerator linkage - installation

check and adjustment

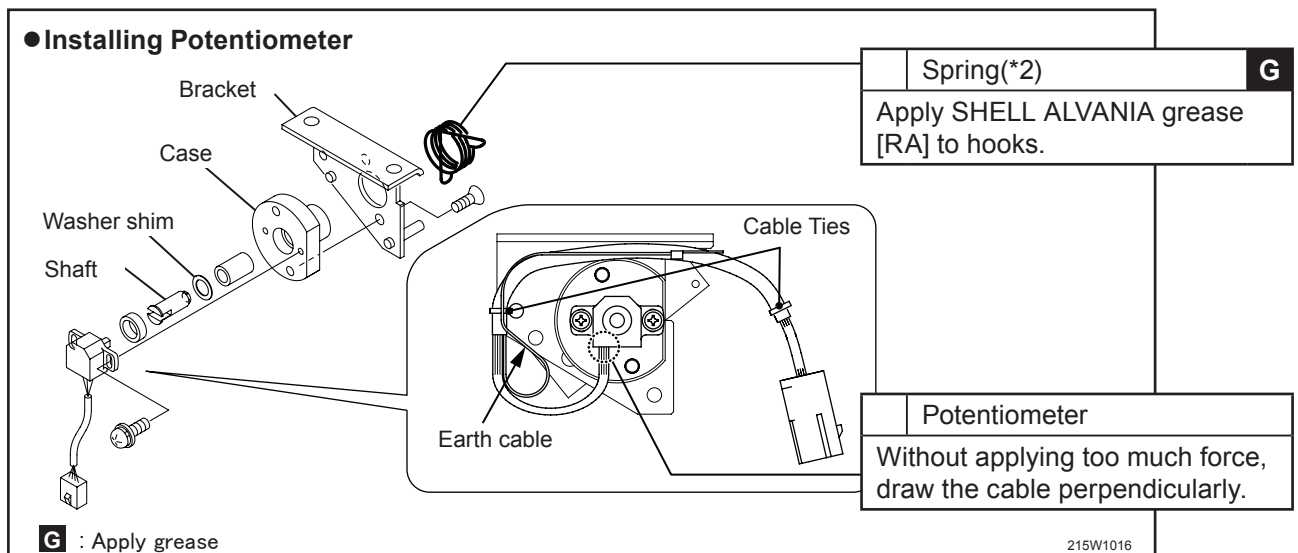
A. Accelerator pedal Ass'y - Installation and adjustment

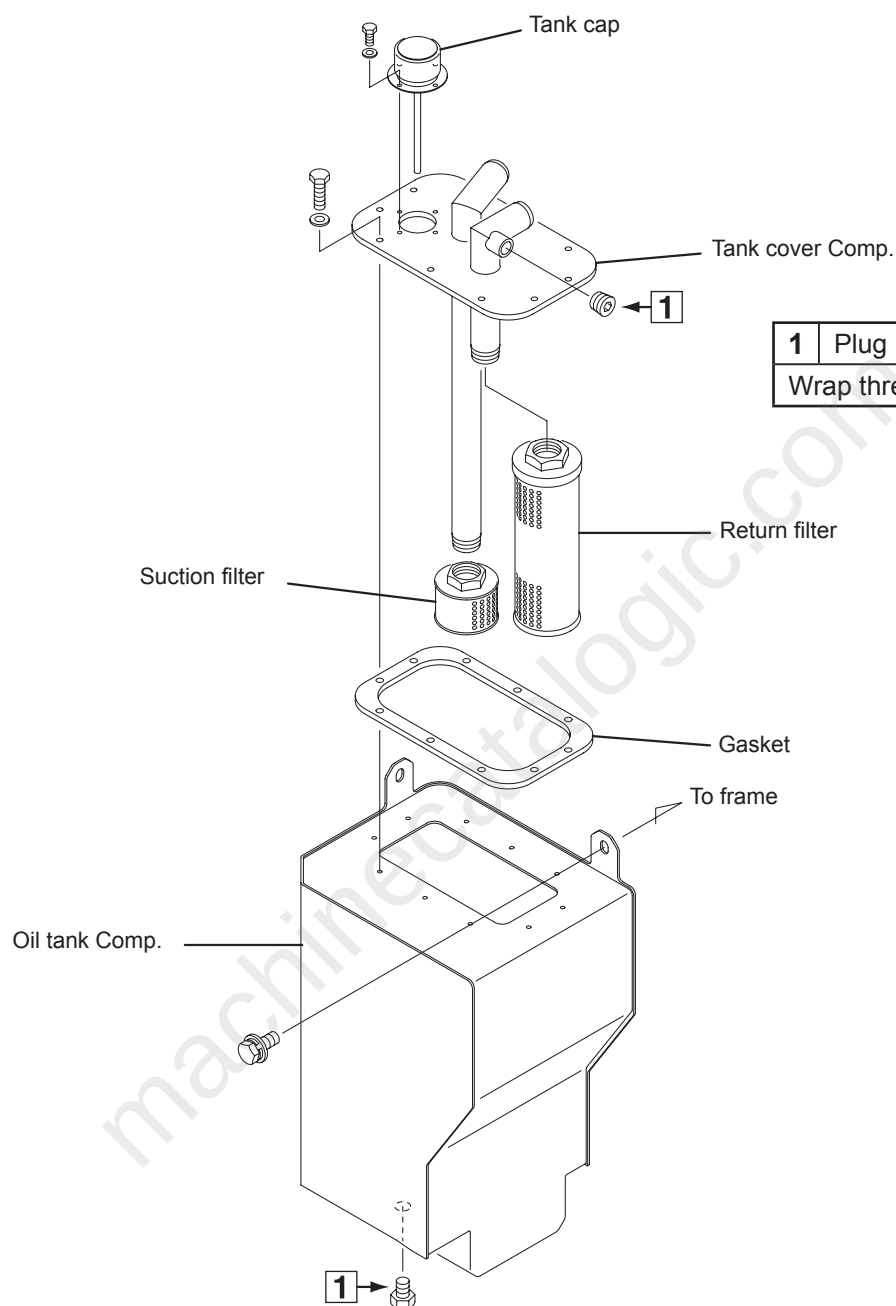
- 1) Adjust dimension B (design dimension: 163mm) so that dimension C is 107mm $\pm$ 5mm when releasing the accelerator pedal.
- 2) Adjust dimension C to 27mm.



B. Potentiometer - Installation

- 1) A small amount of SHELL ALVANIA grease [RA] between Shaft and Washer shim.
- 2) Apply SHELL ALVANIA grease [RA] to the surface of Spring(*1).
- 3) Attach a Ground cable to Potentiometer when tightening the connector.
- 4) Apply SHELL ALVANIA grease [RA] to the hooks of Spring(*2).

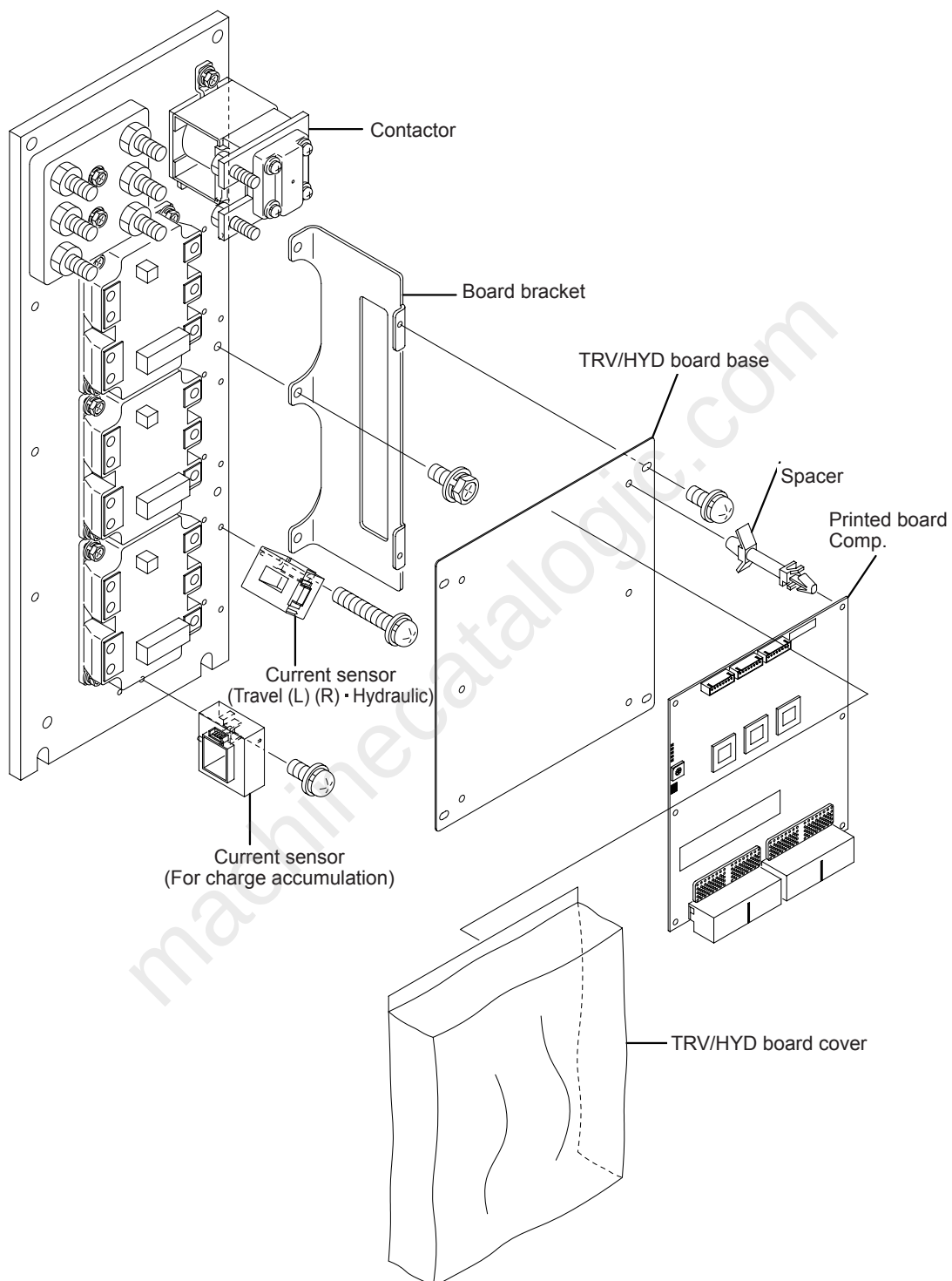


● Disassembling and reassembling Steel tank

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10a-2-4. Control unit - disassembly and reassembly

● Disassembling and reassembling Control unit (1)

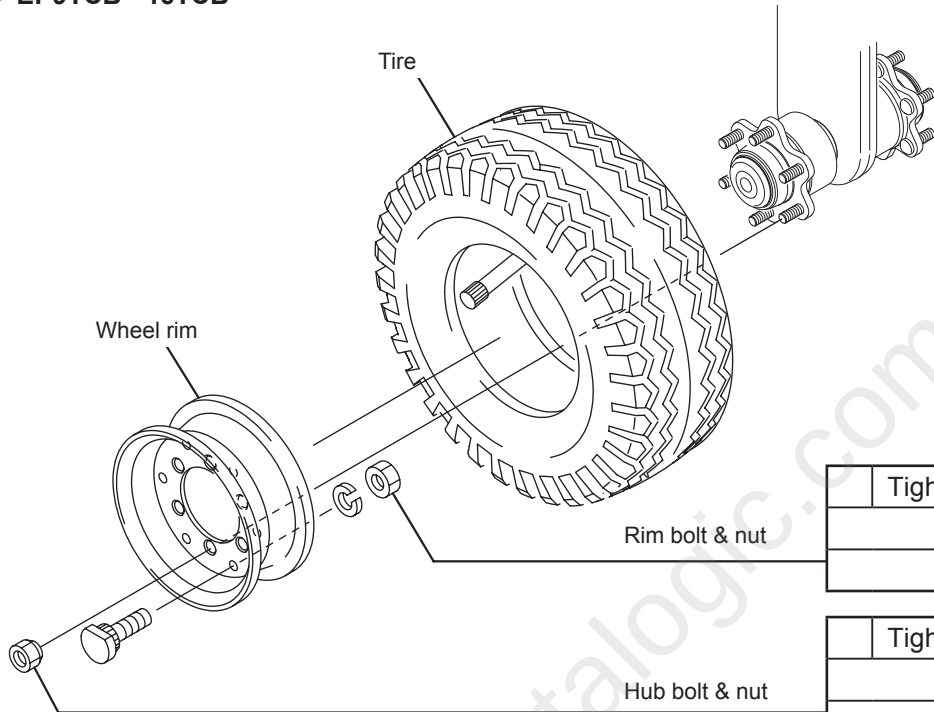


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4- 2. Rear tire

4-1-2. Names of parts

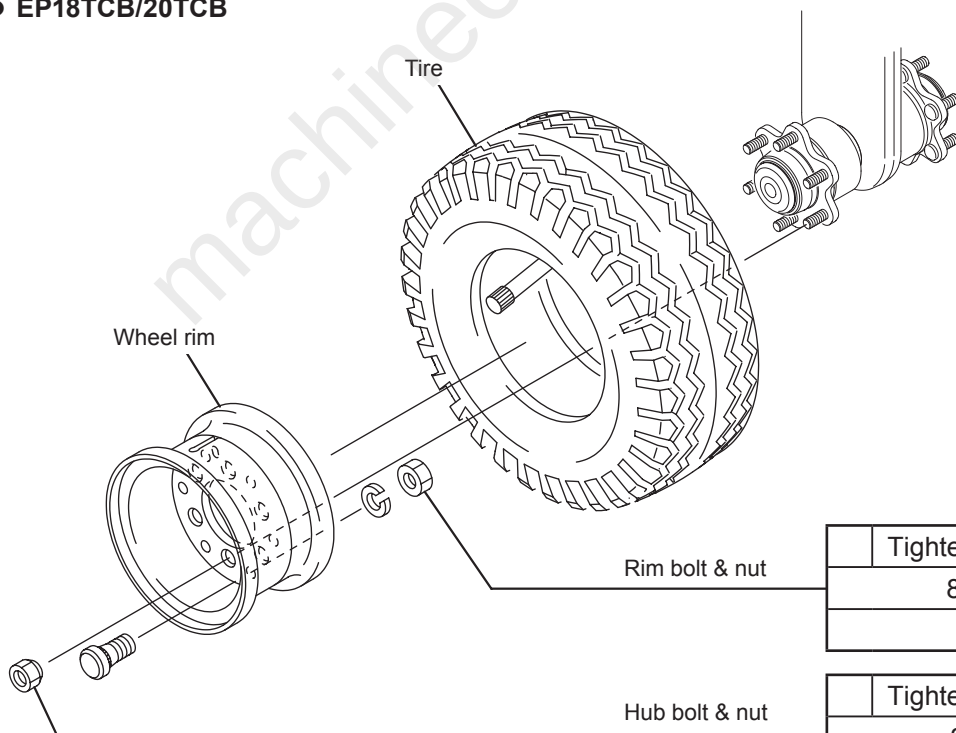
● EP9TCB - 16TCB



Tightening torque	
68.5 - 78.5 N · m	
{7 - 8 kgf · m}	

Tightening torque	
88.2 - 108 N · m	
{9 - 11 kgf · m}	

● EP18TCB/20TCB



Tightening torque	
88.2 - 108 N · m	
{9 - 11 kgf · m}	

Tightening torque	
216 - 264 N · m	
{22 - 27 kgf · m}	

 : Tightening torque

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10e- 2. Inspection and adjustment

10e-2-1. Battery - inspection and adjustment

Electrolyte level - inspection

CAUTION

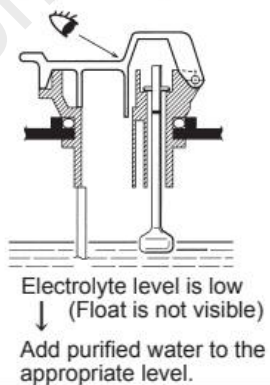
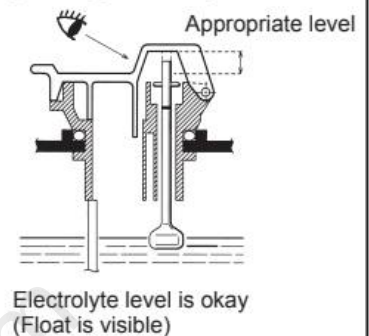
Always wear protection goggles, rubber gloves, and boots.

- 1) Disconnect Battery plug.
- 2) Remove Cover catch, and then open Battery cover.
- 3) Open the caps of all cells, and visually check the floats.

<Evaluation criteria>

- If you can see Float, the cell's electrolyte level is okay.
- ▶ If not be seen, replenish refined or distilled water till the appropriate level.

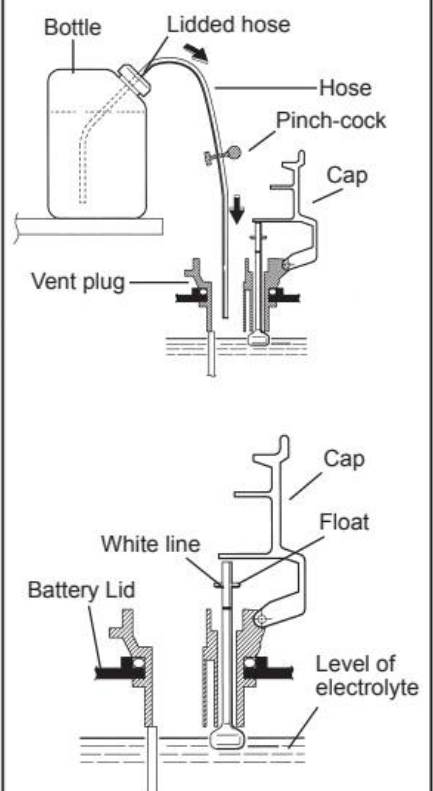
● Inspecting Electrolyte level



How to add water

- 1) Place Bottle of purified water so that it is higher than Battery.
- 2) Remove the lid of Bottle, insert Lidded hose deeply into Bottle, and then tighten lid.
- 3) Open Vent plug, and then insert Hose with Pinch-cock.
- 4) Loosen Pinch-cock, and then press the middle of Bottle several times to produce a siphon action that pushes the purified water through the hose.
- 5) Add purified water until White line of Float is at the same level as top of Vent plug.
- 6) When the water reaches the appropriate level, tighten Pinch-cock.

● Replenishing procedure



Full Version Available

Caterpillar EP20TBCB Forklift Service and Operator Manual (99759-6T110)

Caterpillar EP20TBCB Forklift service manual, covers hydraulics, drive unit, wiring, and controller diagnostics. Searchable PDF download.

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