

Piston Rod Assembly

1. Drain hydraulic oil from the cylinder, and secure the tube end of the cylinder in a vise.
2. Unscrew the cylinder head (1) with the adjustable gland nut wrench (4).
3. Pull out the piston rod assembly (2) from the cylinder tube (3).

(When reassembling)

- Visually inspect the cylinder tube for signs of scoring or damage.
- Insert the piston rod assembly to the cylinder tube, taking care not to damage the piston seal on the piston.
- Install the cylinder head to the cylinder tube, taking care not to damage the O-ring on the cylinder head.

- (1) Cylinder Head
(2) Piston Rod Assembly

- (3) Cylinder Tube
(4) Adjustable Gland Nut Wrench

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Cylinder Head, Piston and Nut

1. Secure the rod end in a vise.
2. Unscrew the nut (4), remove the piston (3) and cylinder head (2) from the piston rod (1).

(When reassembling)

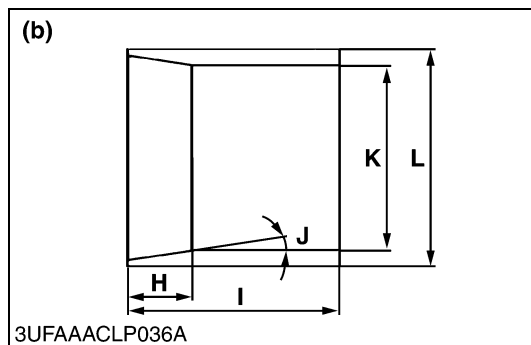
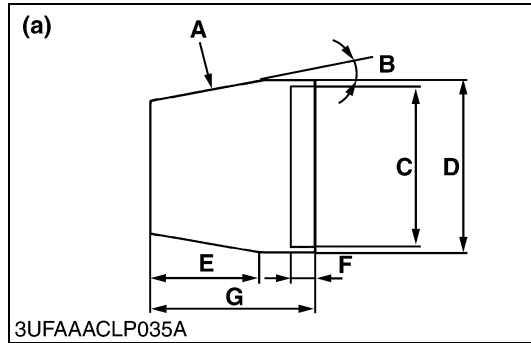
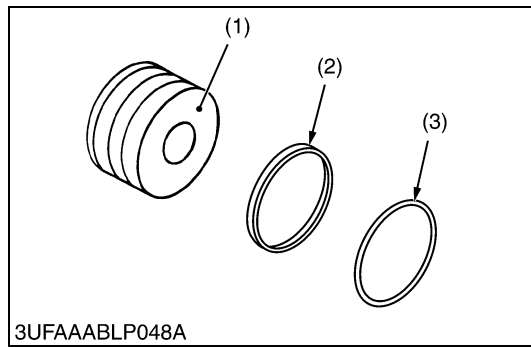
- Visually inspect all parts for signs of scoring or damage.
- Insert the piston rod to the cylinder head, taking care not to damage the wiper seal (5) and oil seal (6).

Tightening torque	Boom and bucket cylinder head	LA1153	575 to 605 N·m 58.7 to 61.6 kgf·m 424 to 446 lbf·ft
		LA1353	250 to 280 N·m 25.5 to 28.5 kgf·m 185 to 206 lbf·ft
	Boom and bucket cylinder piston mounting nut	LA1153	330 to 350 N·m 33.7 to 35.6 kgf·m 244 to 258 lbf·ft
		LA1353	160 to 200 N·m 16.4 to 20.3 kgf·m 119 to 147 lbf·ft

- (1) Piston Rod
(2) Cylinder Head
(3) Piston
(4) Nut

- (5) Wiper Seal
(6) Oil Seal
(7) O-ring

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Piston Seal and O-ring

1. Remove the piston seal (2) and O-ring (3) from the piston (1).

■ IMPORTANT

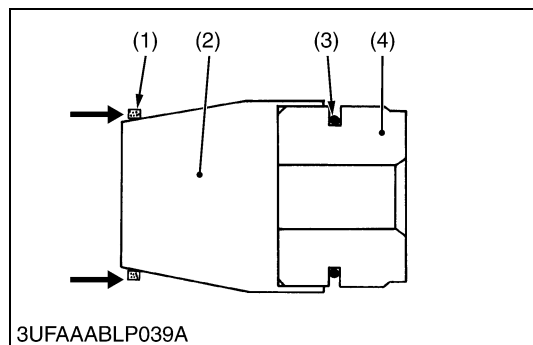
- When installing the O-ring (3) and piston seal (2) to the piston (1), use the slide jig and correcting jig as shown in the figure.

	Boom cylinder (LA1153) Bucket cylinder (LA1153)	Boom cylinder (LA1353)	Bucket cylinder (LA1353)
A	80 √	80 √	80 √
B	9° 0.157 rad	9° 0.157 rad	9° 0.157 rad
C	60.18 mm DIA. 2.37 in. DIA.	70.18 mm DIA. 2.76 in. DIA.	65.18 mm DIA. 2.57 in. DIA.
D	61.18 mm DIA. 2.41 in. DIA.	71.18 mm DIA. 2.80 in. DIA.	66.18 mm DIA. 2.61 in. DIA.
E	42 mm 1.65 in.	42 mm 1.65 in.	42 mm 1.65 in.
F	10 mm 0.4 in.	10 mm 0.4 in.	10 mm 0.4 in.
G	58.5 mm 2.3 in.	58.5 mm 2.3 in.	58.5 mm 2.3 in.
H	14 mm 0.55 in.	14 mm 0.55 in.	14 mm 0.55 in.
I	35 mm 1.38 in.	35 mm 1.38 in.	35 mm 1.38 in.
J	7° 0.122 rad	7° 0.122 rad	7° 0.122 rad
K	60.2 mm DIA. 2.37 in. DIA.	70.2 mm DIA. 2.76 in. DIA.	65.2 mm DIA. 2.57 in. DIA.
L	68.9 mm DIA. 2.71 in. DIA.	78.9 mm DIA. 3.11 in. DIA.	73.9 mm DIA. 2.91 in. DIA.

- (1) Piston
(2) Piston Seal
(3) O-ring

- (a) Slide Jig
(b) Correcting Jig

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Installing O-ring and Piston Seal

1. Place the slide jig (2) on the piston (4).
2. Install the O-ring (3) on the piston using the slide jig.
3. Install the piston seal (1) over the O-ring using the slide jig.
4. Compress the piston seal to the correct size by installing the piston into the correcting jig (5).

■ NOTE

- Do not turn (roll) the piston seal as you install it.

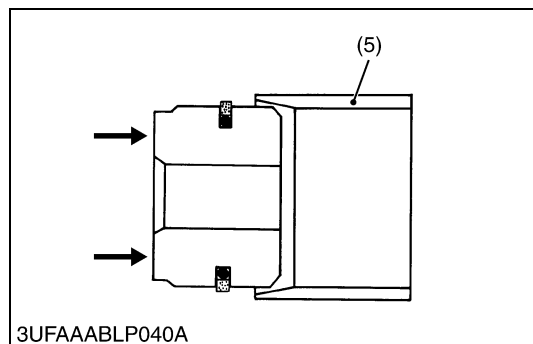
(1) Piston Seal

(2) Slide Jig

(3) O-ring

(4) Piston

(5) Correcting Jig



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