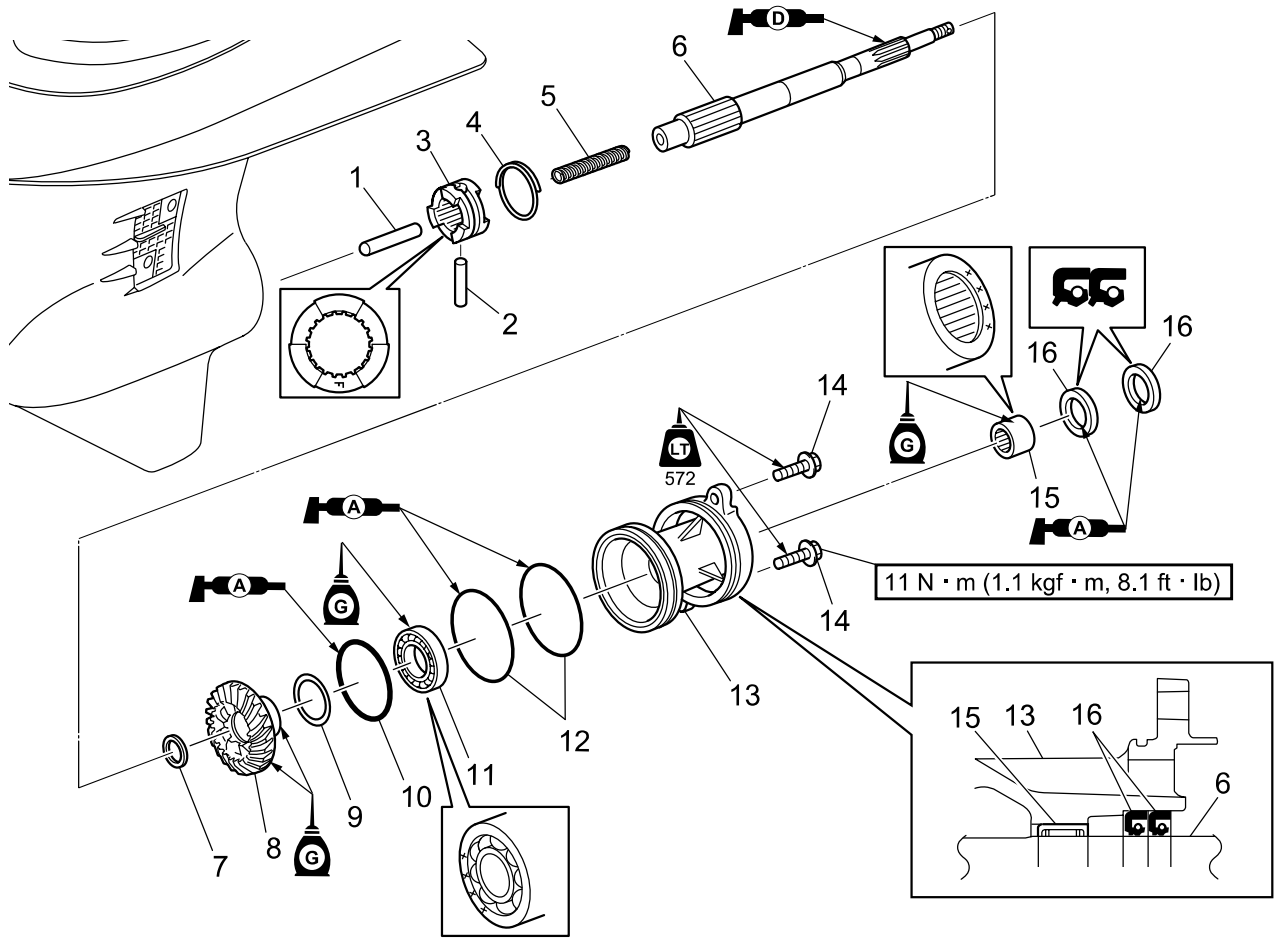


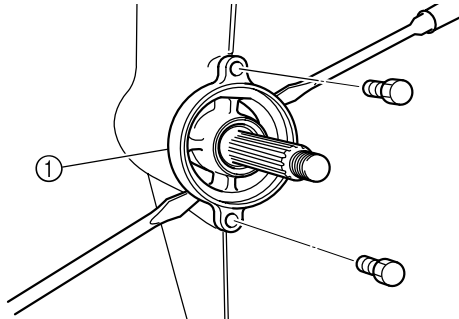
Propeller shaft housing



No.	Part name	Q'ty	Remarks
1	Shift plunger	1	
2	Cross pin	1	
3	Dog clutch	1	
4	Spring	1	
5	Spring	1	
6	Propeller shaft	1	
7	Washer	1	
8	Reverse gear	1	
9	Reverse gear shim	—	
10	O-ring	1	Not reusable
11	Ball bearing	1	Not reusable
12	O-ring	2	Not reusable
13	Propeller shaft housing	1	
14	Bolt	2	M6 × 20 mm
15	Needle bearing	1	Not reusable
16	Oil seal	2	Not reusable

Removing the propeller shaft housing assembly

1. Remove the propeller shaft housing assembly ①.

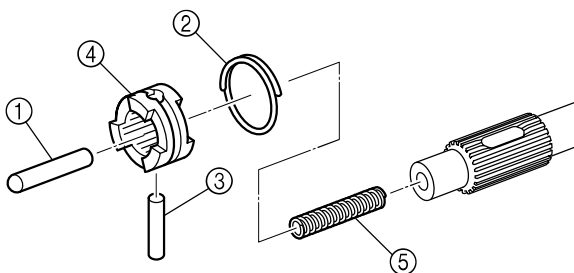


TIP:

- Insert flat-head screwdrivers between the propeller shaft housing assembly ① and the lower case to remove the propeller shaft housing assembly ①.
- If the propeller shaft housing assembly ① is stuck to the lower case, use the special service tools. See "Measuring the forward and reverse gear backlash" (8-28).

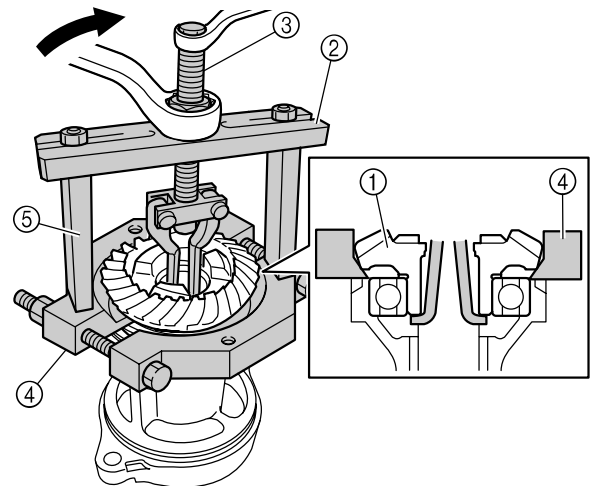
Disassembling the propeller shaft assembly

1. Remove the shift plunger ①.
2. Remove the spring ②, and then remove the cross pin ③ and dog clutch ④.
3. Remove the spring ⑤.



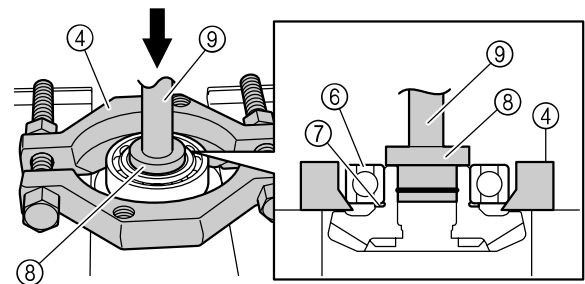
Disassembling the propeller shaft housing assembly

1. Remove the reverse gear assembly ①.



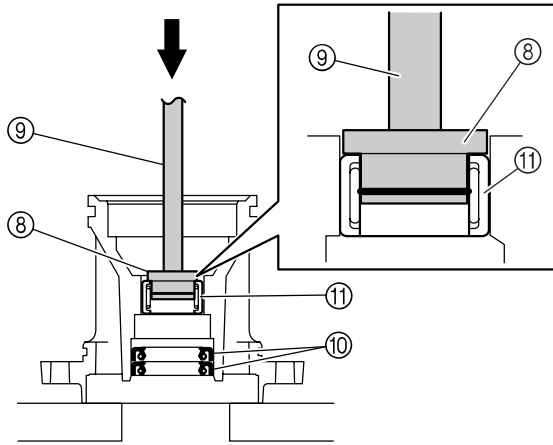
Stopper guide plate ②: 90890-06501
 Bearing puller assembly ③: 90890-06535
 Bearing separator ④: 90890-06534
 Stopper guide stand ⑤: 90890-06538

2. Remove the ball bearing ⑥ and reverse gear shims ⑦.



Bearing separator ④: 90890-06534
 Needle bearing attachment ⑧:
 90890-06615
 Driver rod L3 ⑨: 90890-06652

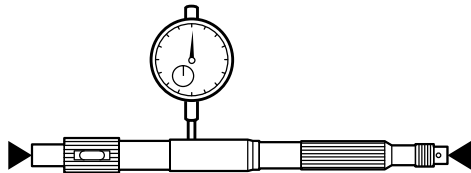
3. Remove the oil seals ⑩ with the needle bearing ⑪.



Needle bearing attachment (8):
90890-06615
Driver rod L3 (9): 90890-06652

Checking the propeller shaft

1. Check the propeller shaft. Replace if damaged or worn.
2. Measure the propeller shaft runout.



Propeller shaft runout:
0.02 mm (0.0008 in)

Checking the dog clutch

1. Check the dog clutch, shift plunger, cross pin, and spring. Replace if cracked or worn.

Checking the propeller shaft housing

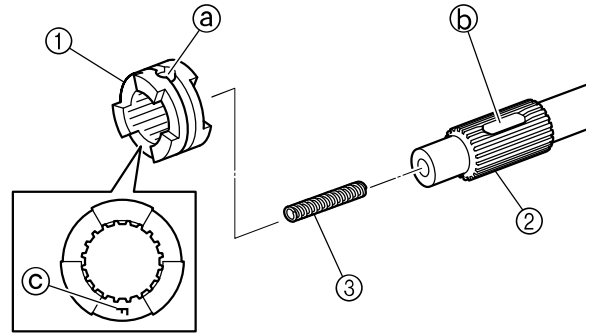
1. Check the propeller shaft housing. Replace if cracked or damaged.

Checking the reverse gear

1. Check the teeth and dogs of the reverse gear. Replace if cracked or worn.

Assembling the propeller shaft assembly

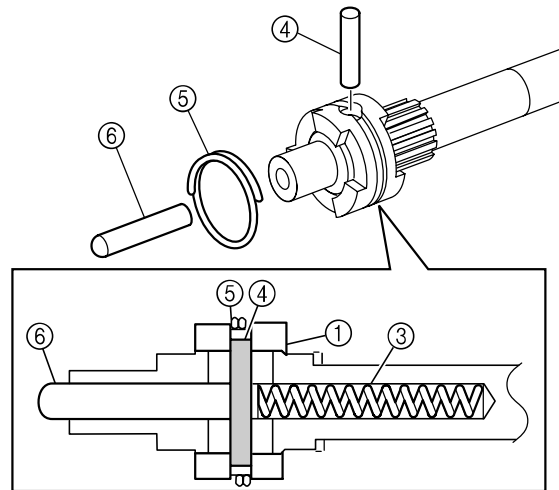
1. Align the hole (a) in the dog clutch (1) with the hole (b) in the propeller shaft (2).
2. Install the spring (3).



TIP:

Install the dog clutch (1) with the "F" mark (c) facing toward the forward gear.

3. Install the cross pin (4) and cross pin ring (5), and then install the shift plunger (6).

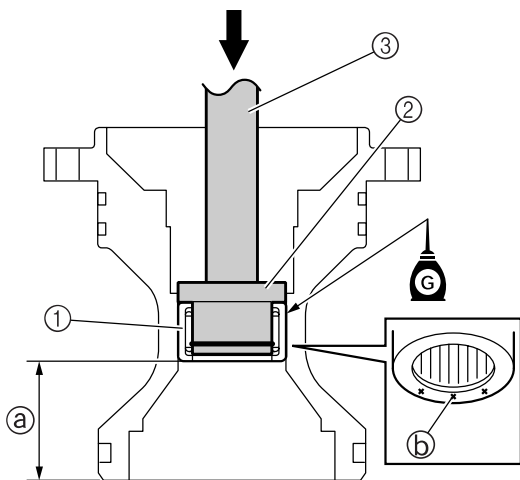


Assembling the propeller shaft housing assembly

NOTICE

Do not reuse a bearing, oil seal, or O-ring, always replace it with a new one.

1. Install a new needle bearing (1) to the specified depth (a).

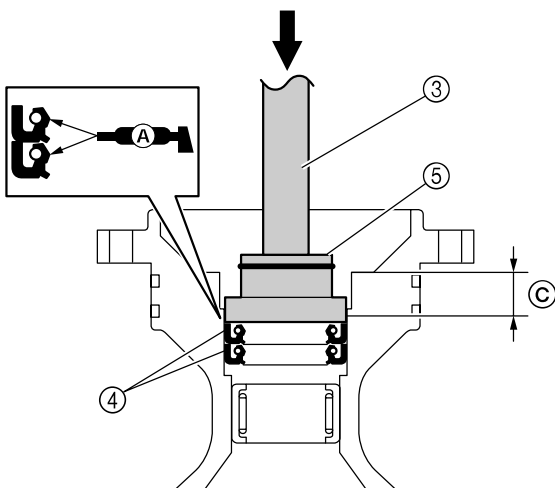


Needle bearing attachment ②:
90890-06615
Driver rod L3 ③: 90890-06652

Depth ①: 31.0–31.5 mm (1.220–1.240 in)

TIP: _____
Face the identification mark ① on the needle bearing toward the reverse gear side.

2. Install new oil seals ④ to the specified depth ③.

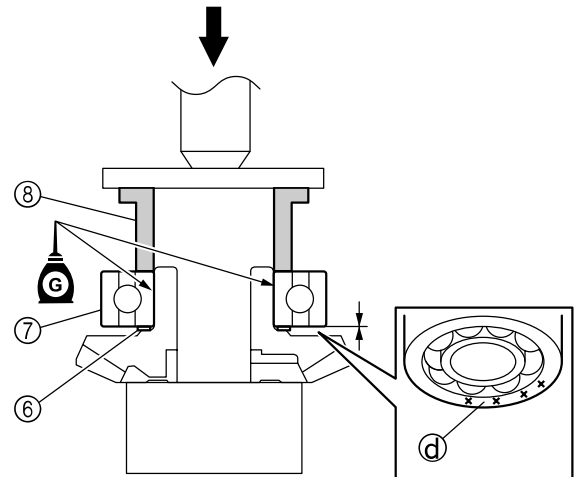


Driver rod L3 ③: 90890-06652
Needle bearing attachment ⑤:
90890-06611

Depth ③: 6.0–6.5 mm (0.236–0.256 in)

TIP: _____
Install an oil seal halfway into the propeller shaft housing, and then install the other oil seal.

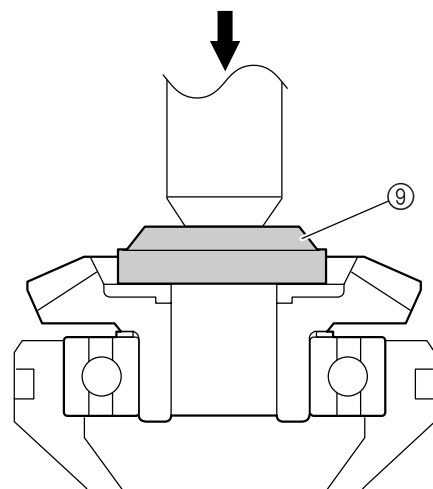
3. Install the original reverse gear shims ⑥ and a new ball bearing ⑦.



Bearing inner race attachment ⑧:
90890-06640

TIP: _____
Face the identification mark ④ on the ball bearing toward the reverse gear.

4. Install the reverse gear assembly.



Bearing outer race attachment ⑨:
90890-06628

5. Install new O-rings ⑩ and ⑪.

LOWR



Lower unit

