

► Repair

CAUTION: Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

[1] NECESSARY REPAIRING TOOLS

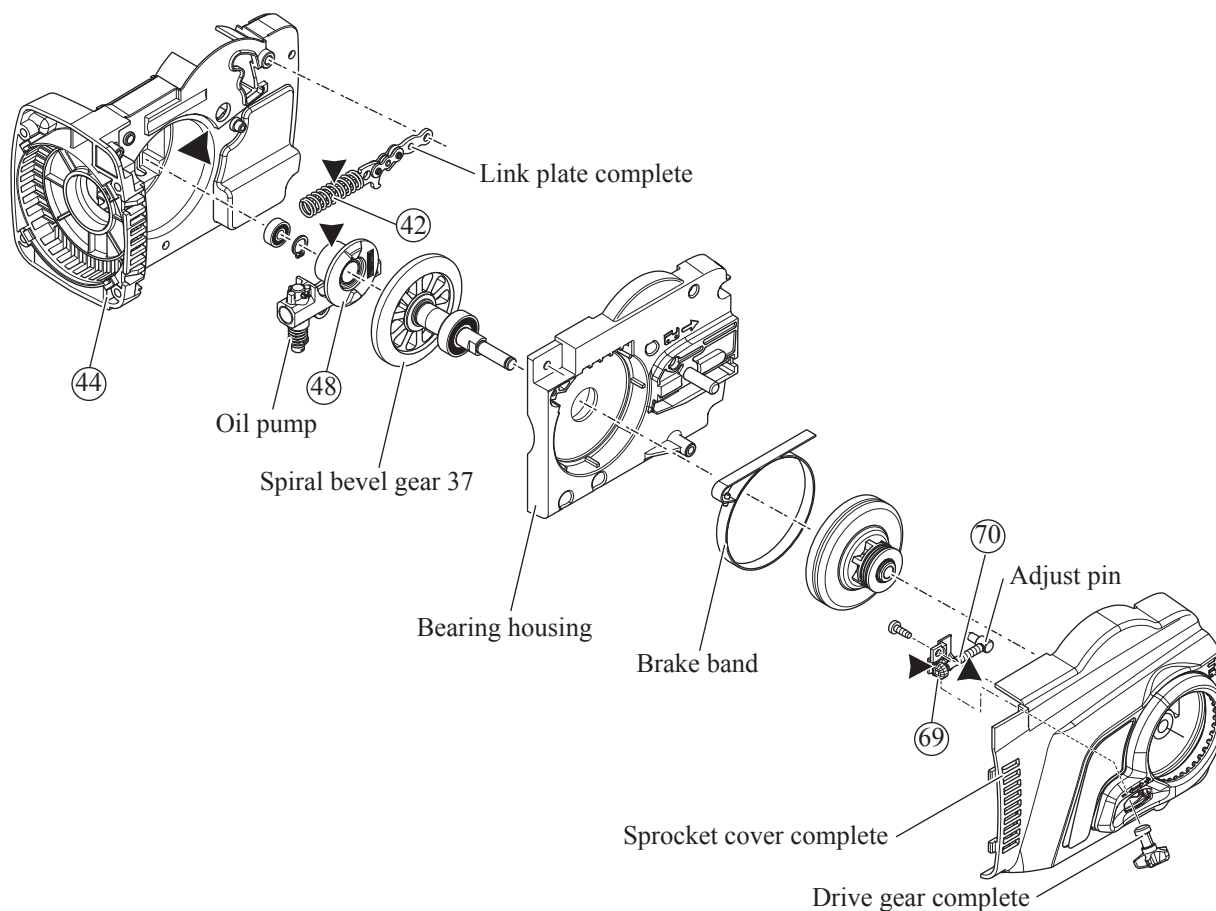
Code No.	Description	Use for
1R003	Retaining ring pliers ST-2N	making Link plate free when disassembling Brake section
1R269	Bearing extractor	removing Ball bearings
1R291	Retaining ring S & R pliers	removing Retaining ring S-10 from the shaft of Spiral bevel gear 37

[2] LUBRICATION

Apply the mixture of 90% Makita grease FA. No.2 with 10% Molybdenum disulfide to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Amount
④②	Compression spring 9	Coil portion	a little
④④	Gear housing	Gear room where Spiral bevel gear 37 engages with Spiral bevel gear 12 of Armature	5g approx.
④⑧	Worm gear	Gear teeth which engages with Oil pump	a little
⑥⑨	Straight bevel gear 14	Gear teeth which engages with Drive gear complete	a little
⑦⑦	Adjust screw	Thread portions (available for UCXX51A series/ TLC models)	a little

Fig. 1



► Repair

[3] DISASSEMBLY/ASSEMBLY

[3]-1. Oil pump complete, Front hand guard complete

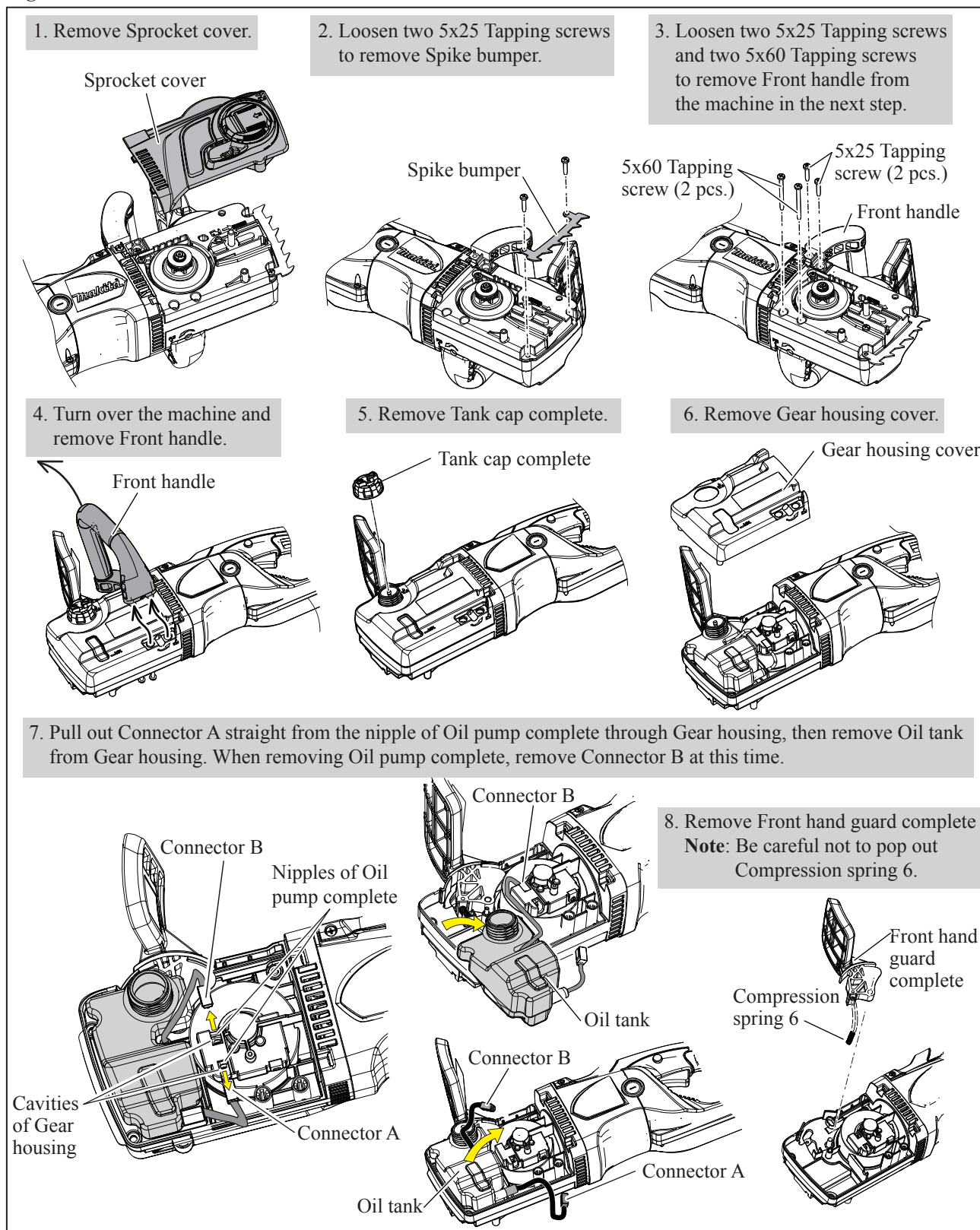
DISASSEMBLING

Note: Unplug the machine from the power source. Remove Saw chain and Guide bar from the machine for safety before repair/ maintenance.

Remove Chain oil from Oil tank in advance.

(1) Disassemble Gear housing cover side after removing Sprocket cover, Front handle and Spike bumper as drawn in Fig. 2.

Fig. 2



► Repair

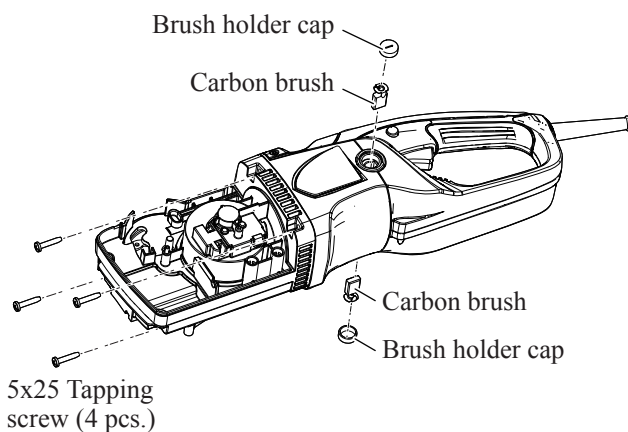
[3] DISASSEMBLY/ASSEMBLY [3]-1. Oil pump, Front guard (cont.)

DISASSEMBLING

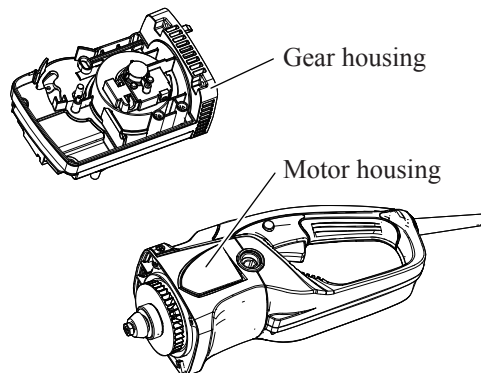
(2) Remove Oil pump complete as drawn in Fig. 3.

Fig. 3

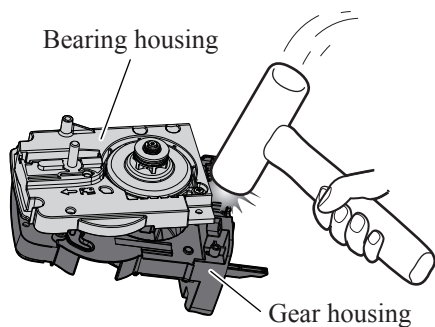
1. Remove Brush holder caps and Carbon brushes from the machine.
Then, remove four 5x25 Tapping screws.



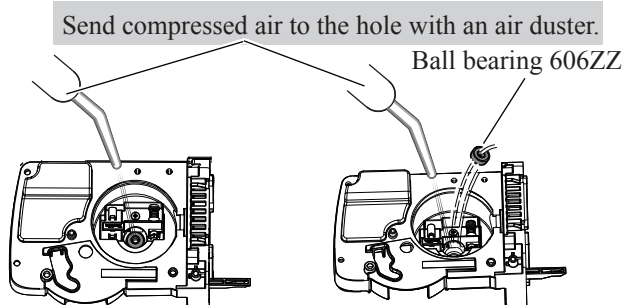
2. Separate Motor housing from Gear housing.



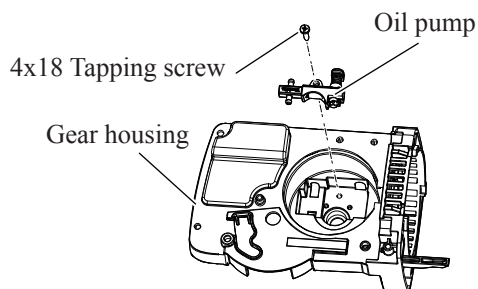
3. Remove Bearing housing from Gear housing by tapping the edge of Gear housing with a plastic hammer.



Note: If Ball bearing 606ZZ is left in Gear housing, blow out Ball bearing 606ZZ from Gear housing with an air duster.



4. Disassemble Oil pump complete from Gear housing by loosening 4x18 Tapping screw.



► **Repair**

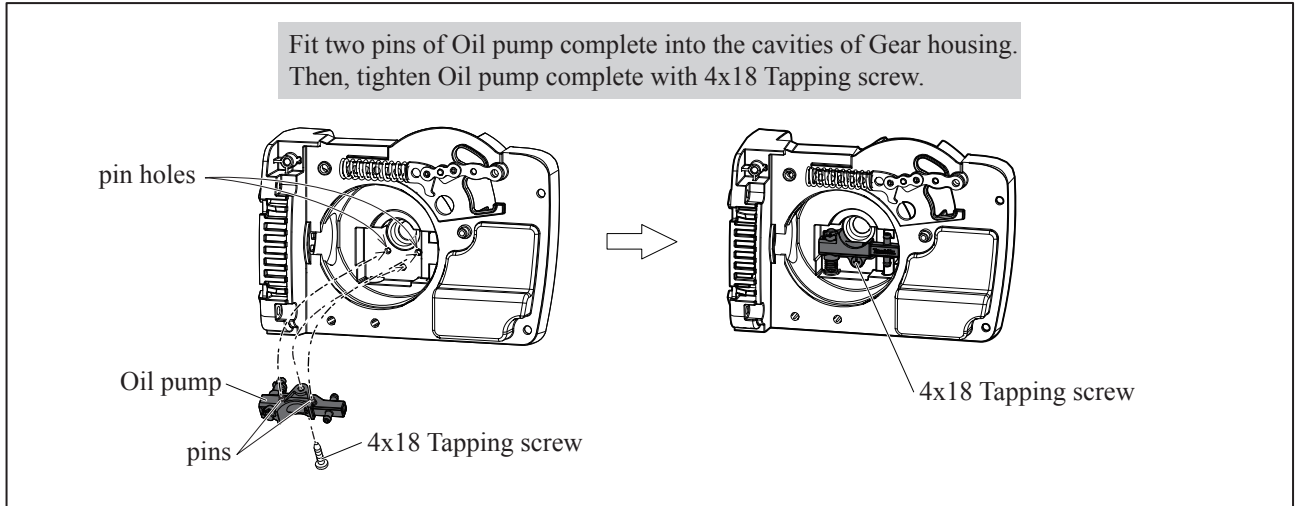
[3] DISASSEMBLY/ASSEMBLY

[3]-1. Oil pump complete, Front hand guard complete (cont.)

ASSEMBLING

(1) Assemble Oil pump to Gear housing as drawn in **Fig. 4**.

Fig. 4

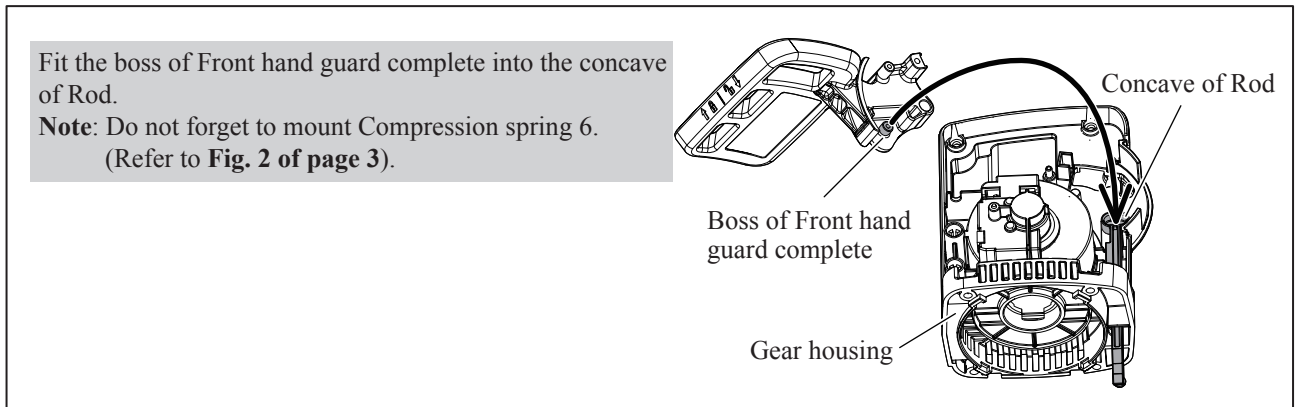


(2) Assemble Bearing housing section to Gear housing. (Refer to **Fig. 3 of page 4**).

(3) Assemble Motor housing section to Gear housing and set Carbon brushes. (Refer to **Fig. 3 of page 4**).

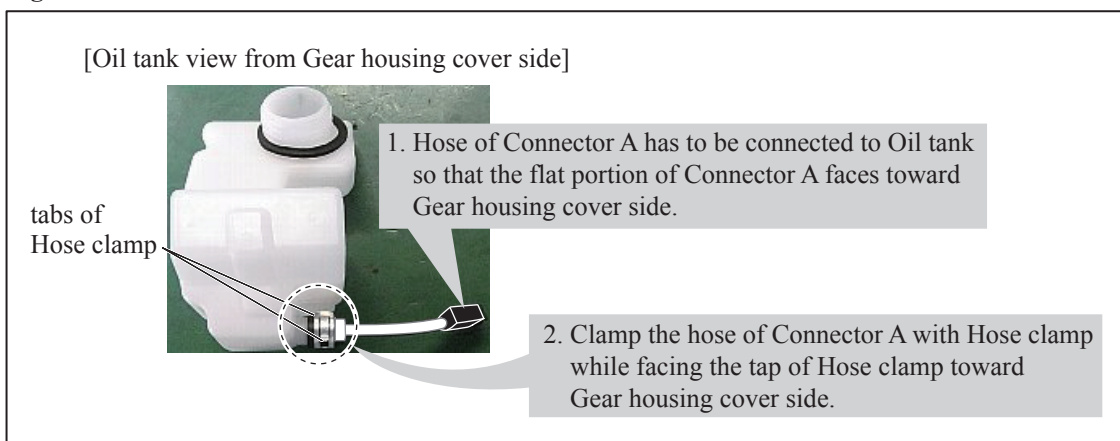
(4) Assemble Front hand guard complete to Gear housing as drawn in **Fig. 5**.

Fig. 5



(5) Connector A has to be connected to Oil tank as drawn in **Fig. 6**.

Fig. 6



(6) Assemble the rest of parts by reversing the disassembly procedure. (Refer to **Fig. 2**).

► Repair

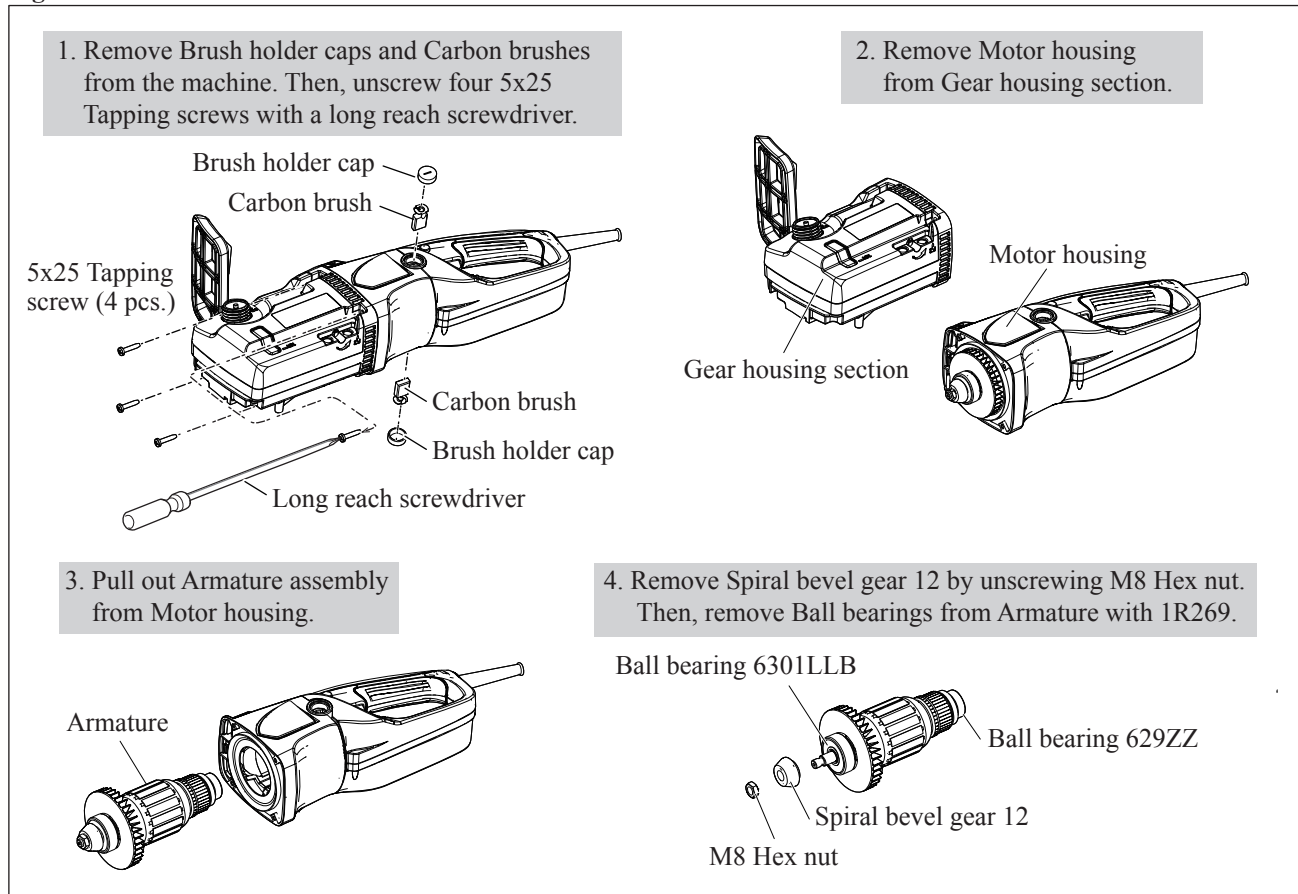
[3] DISASSEMBLY/ASSEMBLY

[3] -2. Armature, Spiral bevel gear 12, Spiral bevel gear 37

DISASSEMBLING

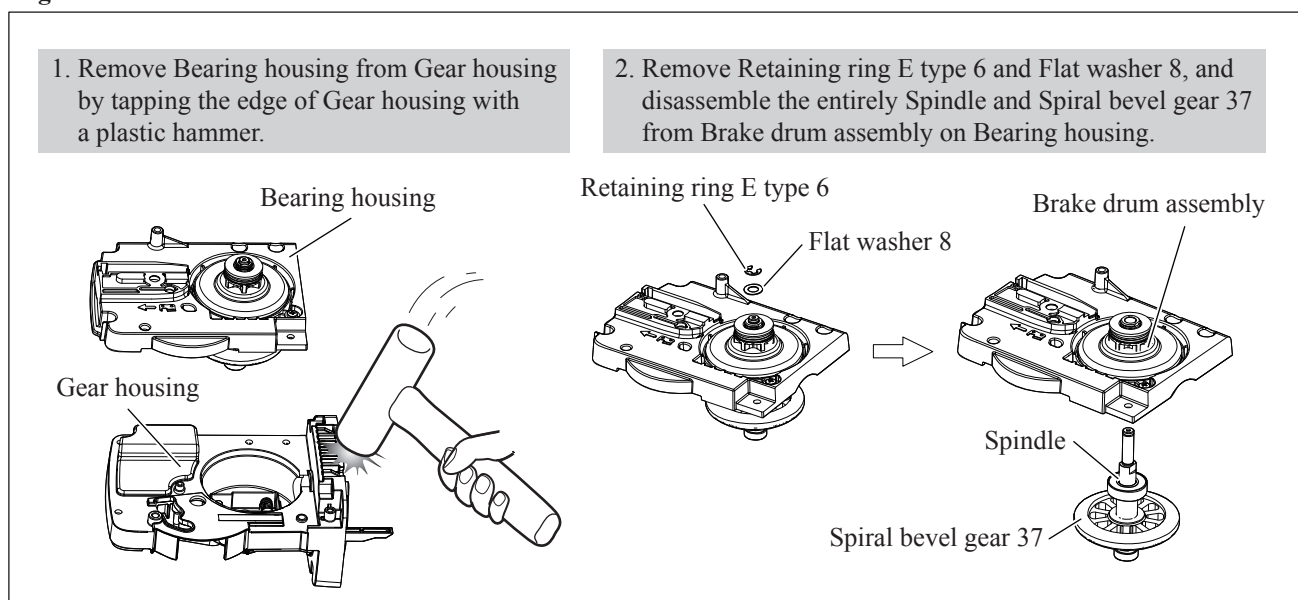
- (1) Disassemble Sprocket cover, Front handle and Spike bumper as drawn in **Fig. 2**.
- (2) Disassemble Armature and Spiral bevel gear 12 as drawn in **Fig. 7**.

Fig. 7



- (3) Disassemble Bearing housing from Gear housing. (**Fig. 8**)
Note: Spiral bevel gear 37 on Bearing housing cannot be disassembled without removing Armature.
- (4) Disassemble Spiral bevel gear 37 as drawn in **Fig. 8**.

Fig. 8



► Repair

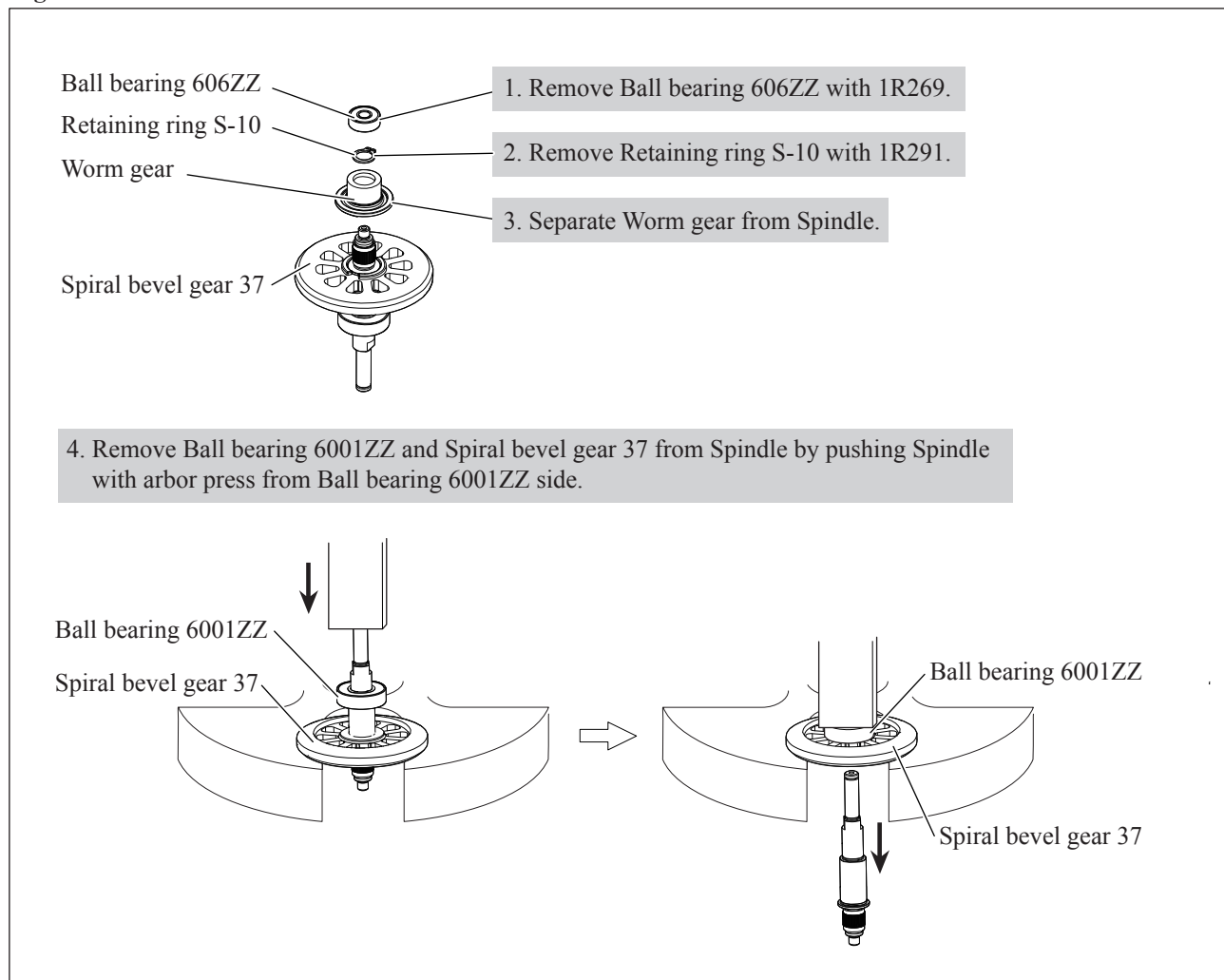
[3] DISASSEMBLY/ASSEMBLY

[3]-2. Armature, Spiral bevel gear 12, Spiral bevel gear 37 (cont.)

DISASSEMBLING

(5) Disassemble Spiral bevel gear 37 as drawn in **Fig. 9**.

Fig. 9



ASSEMBLING

Assemble the parts by reversing the disassembly procedure. (Refer to **Figs. 9, 8, and 7**).

► Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Brake mechanism

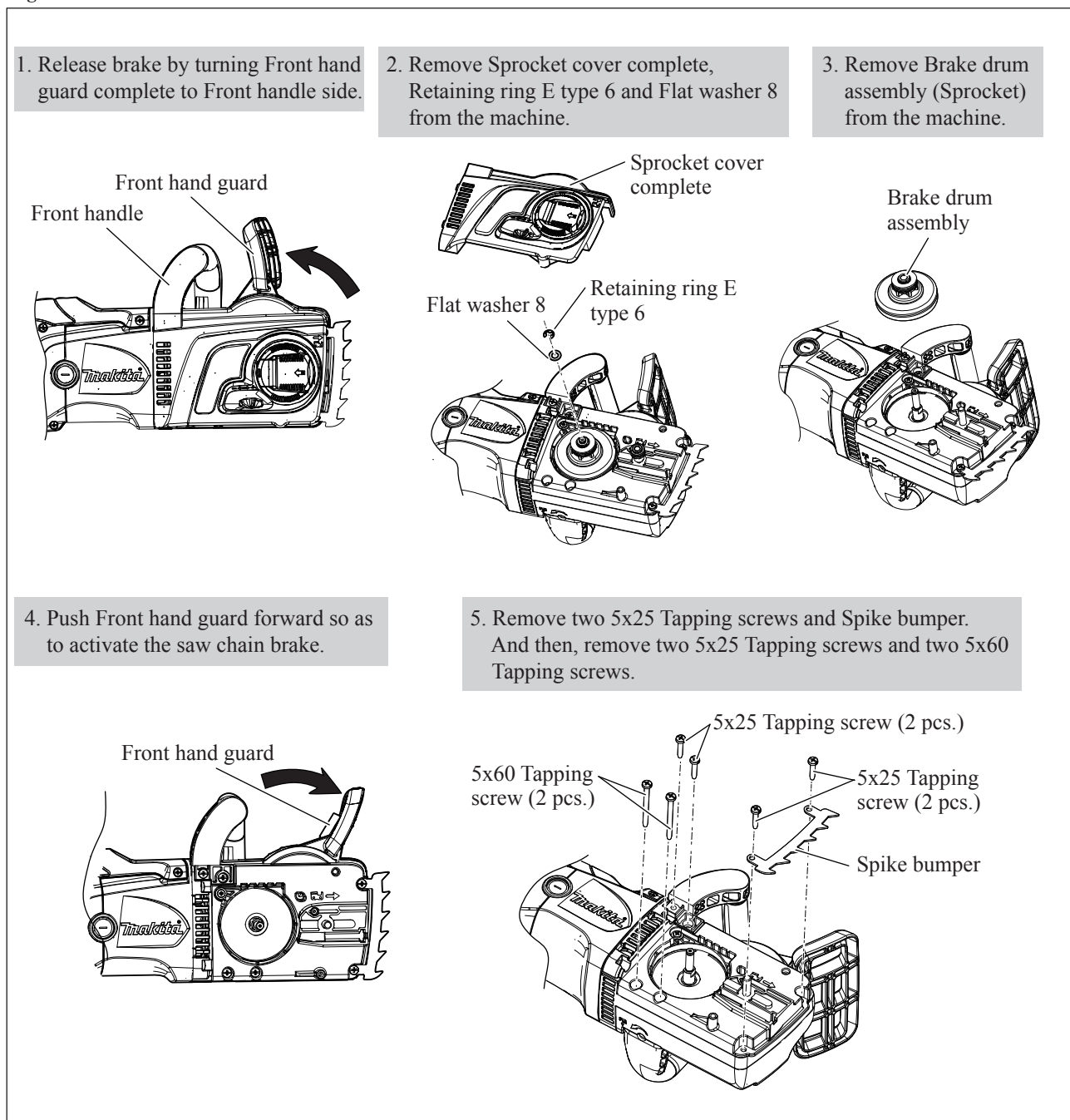
DISASSEMBLING

(1) If Front hand guard is damaged, replace it with a new one as drawn in **Fig. 2**.

Note: Be careful not to lose Compression spring 6.

(2) Disassemble Brake mechanism as drawn in **Fig. 10**.

Fig. 10



(3) Remove Front handle, Tank cap complete, Gear housing cover, Oil tank with Connectors and Front hand guard.

(Refer to the **steps 4 to 9** in **Fig. 2**).

(4) Separate Motor housing from Gear housing. (Refer to the **steps 1 to 2** in **Fig. 3**).

► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3]-3. Brake mechanism (cont.)

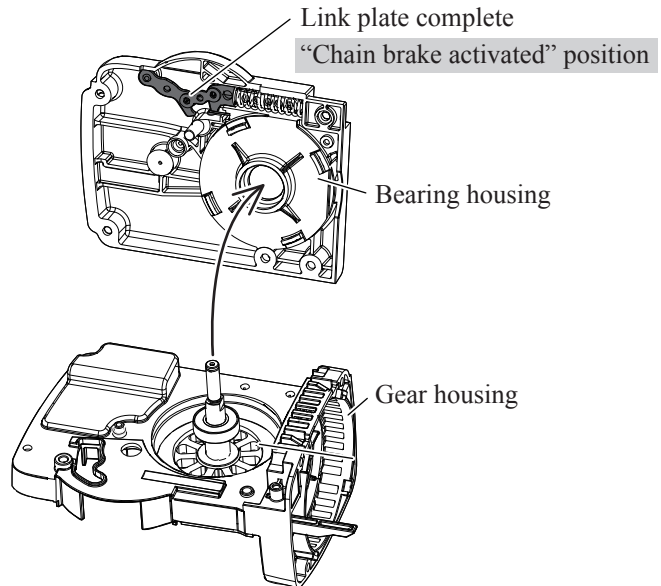
DISASSEMBLING

(5) Disassemble Brake mechanism as drawn in **Fig. 11**.

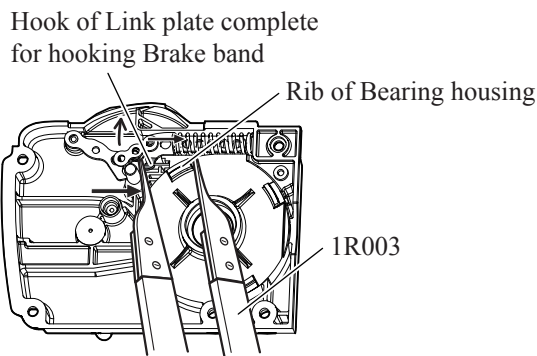
Fig. 11

1. Remove Bearing housing from Gear housing.

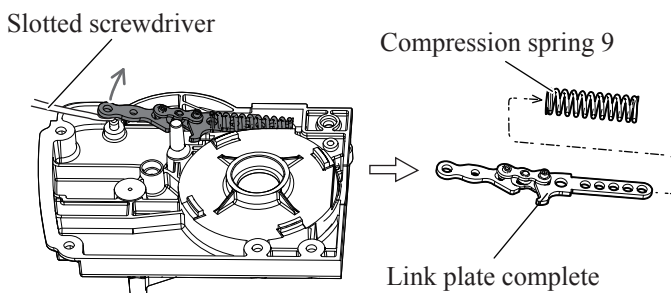
Note: Be sure that Link plate complete is in "Saw chain brake activated" position. (See **step 4** in **Fig. 10**).
If not, set the Link plate to that position by gripping it with a water pump pliers.



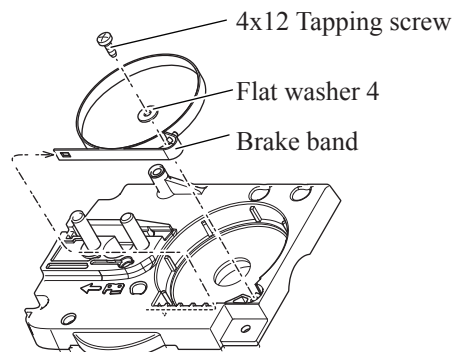
2. Using 1R003, pinch the hook of Link plate complete and the rib of Bearing housing to free Link plate from Bearing housing.



3. Link plate complete section can now be disassembled by prying it up with a slotted screwdriver.



4. Remove Brake band from the opposite side of Bearing housing by unscrewing 4x12 Tapping screw.



► Repair

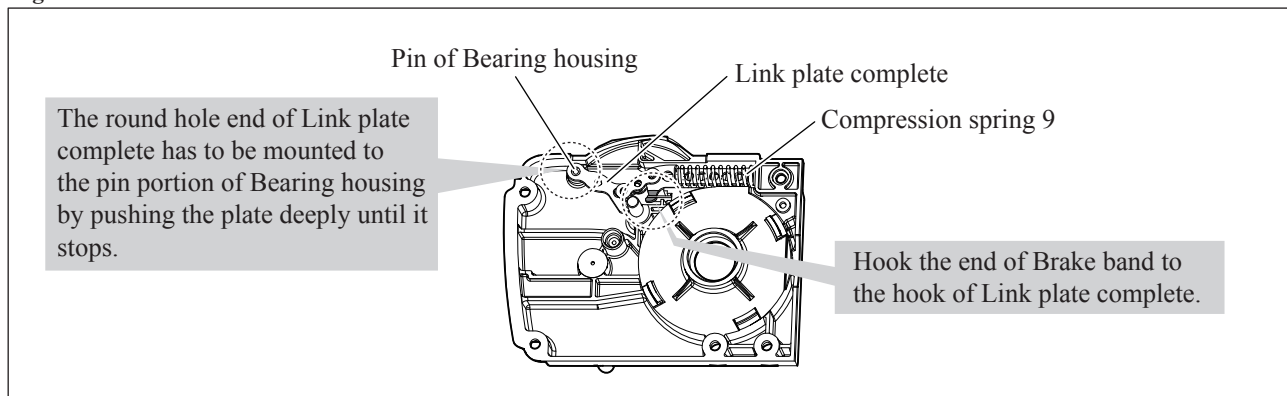
[3] DISASSEMBLY/ASSEMBLY

[3]-3. Brake mechanism (cont.)

ASSEMBLING

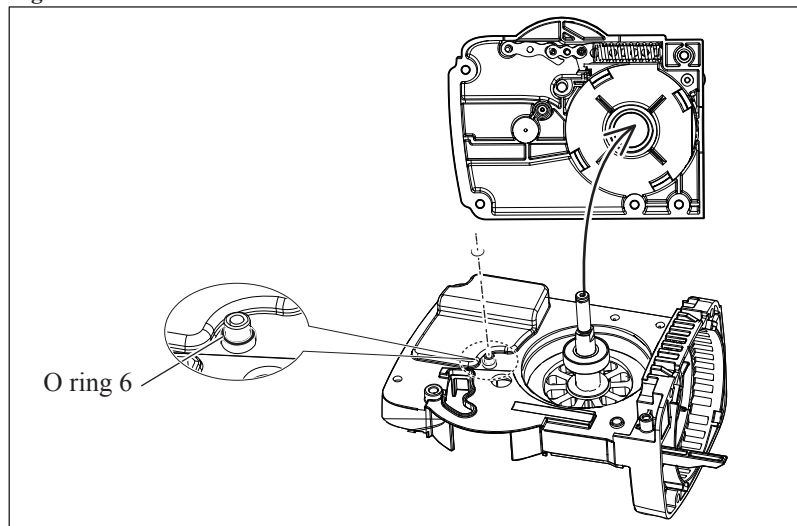
- (1) Assemble Brake band to Bearing housing. (Refer to the **bottom right** illustration in **Fig. 11 of page 9**).
- (2) Pass Compression spring 9 through Link plate complete, and mount the plate to Bearing housing as drawn in **Fig. 12**.

Fig. 12



- (3) Using 1R003, pinch the hook of Link plate complete and the rib of Bearing housing to free Link plate from Bearing housing so that Link plate complete is in “Saw chain brake released” position. (Refer to the **center** illustration in **Fig. 11 of page 9**).
- (4) Assemble Bearing housing to Gear housing by reversing the disassembly procedure. (Refer to **Figs. 11 and 13**).
Note: Put O ring 6 to Gear housing before assembling Bearing housing to Gear housing. (**Fig. 13**)

Fig. 13



- (5) Assemble Brake drum assembly to Bearing housing. (Refer to the **top right** and **top center** illustrations in **Fig. 10 of page 8**).
Note: Be sure that Brake band is in “Saw chain brake released” condition before assembling Brake drum assembly. If not, set the Link plate to that position by gripping it with a water pump pliers.

► **Wiring diagram**

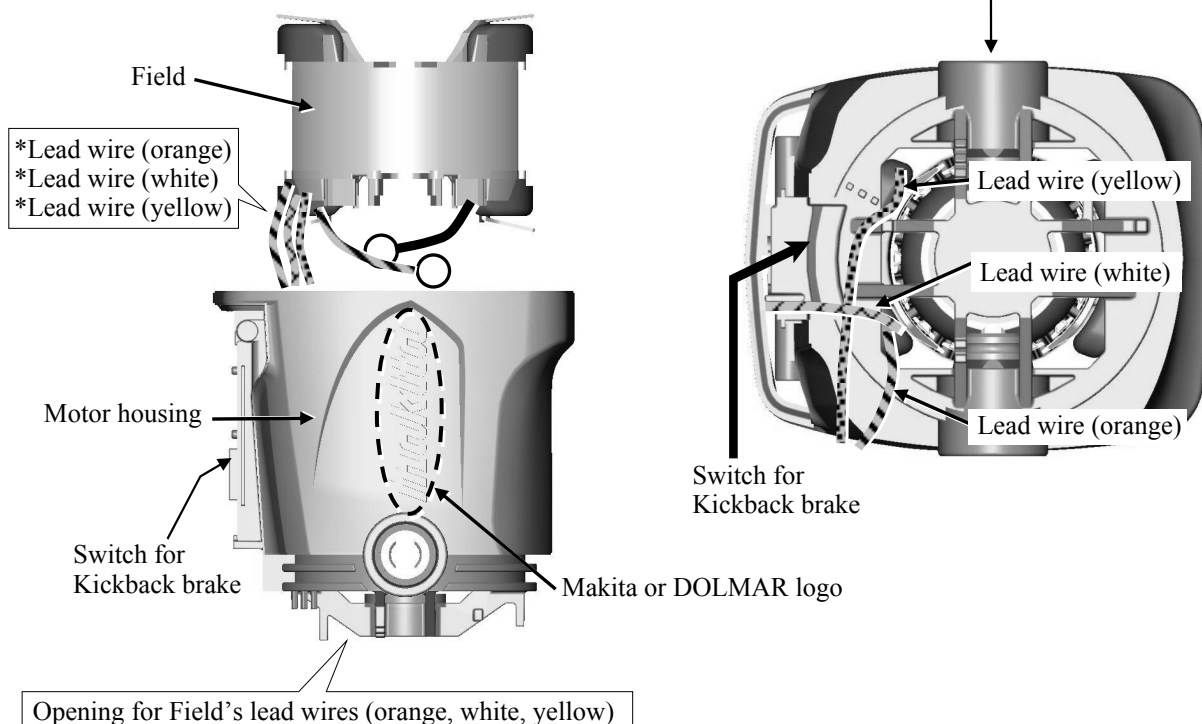
Fig. D-2

Wiring of Field's lead wires in Motor housing

1. Assemble Field to Motor housing while facing the following lead wires to Switch for Kickback brake side.

- *Lead wire (orange)
- *Lead wire (white)
- *Lead wire (yellow)

2. Pull out Field's lead wires (yellow, white, orange) through the holes of Motor housing as shown below.



Wiring of Switch for Kickback brake

Fix Lead wires of Switch for Kickback brake in this lead wire holder.

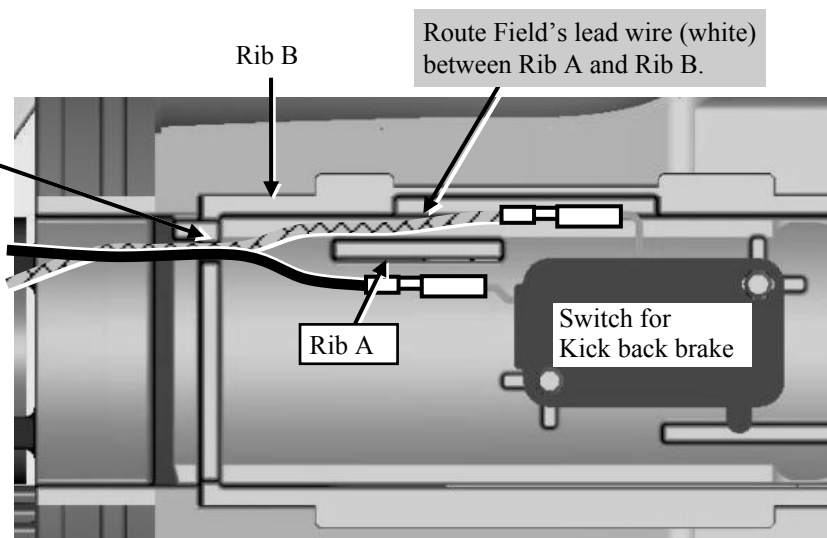


Fig. D-3

