



TECHNICAL INFORMATION

- Model No.** ▶ DFR540, DFR550, DFR750
- Description** ▶ Cordless Auto Feed Screwdriver

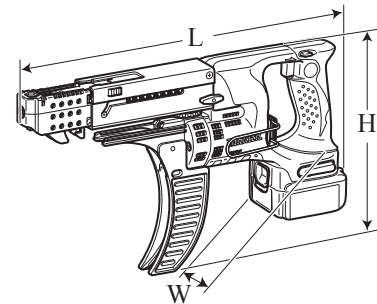
CONCEPT AND MAIN APPLICATIONS

Models DFR540, DFR550 and DFR750 are advanced models of Model DFR440, featuring higher durability.

These models feature more reliable casing attachment with the following benefits:

- Rigid aluminum casing
- Stopper base with anti-tilt device for preventing screws from swaying
- Rubber cap securely fixed to stopper base
- Dust-proof construction for smooth sliding action

Model DFR540 is powered by Makita 14.4V Li-ion battery of BL1415 (1.3Ah), BL1415N (1.5Ah), BL1415NA (1.5Ah), BL1430 (3.0Ah), BL1430A (3.0Ah), BL1440 (4.0Ah) or BL1450 (5.0Ah). Model DFR550 and DFR750 are powered by Makita 18V Li-ion battery of BL1815 (1.3Ah), BL1815N (1.5Ah), BL1820 (2.0Ah), BL1830 (3.0Ah), BL1840 (4.0Ah) or BL1850 (5.0Ah).



(The image above is DFR540.)

Dimensions: mm (")		
	DFR540/DFR550	DFR750
Length (L)	424 (16-3/4)	464 (18-1/4)
Width (W)	80 (3-1/8)	
Height (H)	238 (9-3/8)	

Specification

Specification		Model	DFR540	DFR550	DFR750
Battery	Voltage: V		14.4	18	
	Capacity: Ah		1.3, 1.5, 3.0, 4.0, 5.0	1.3, 1.5, 2.0, 3.0, 4.0, 5.0	
	Cell		Li-ion	Li-ion	
	Energy capacity: Wh		19, 22, 44, 58, 72	24, 27, 36, 54, 72, 90	
	Charging time: min		15, 15, 22, 36, 45 with DC18RC	15, 15, 24, 22, 36, 45 with DC18RC	
Max output: W			235		
No load speed: min ⁻¹ = rpm			4,000		
Driver bit: mm (")	Shank		6.35 (1/4) Hex		
	Overall length*1		162 (6-3/8) or 157 (6-3/16)		182 (7-1/8) or 177 (7)
Capacities: mm (") [collated drywall screw]	Diameter		4 (5/32)		
	Overall length		25 to 55 (1 to 2-3/16)		45 to 75 (1-3/4 to 2-15/16)
Reverse switch			Yes		
Weight according to EPTA-Procedure 01/2003*2:kg(lbs)			2.1 (4.6)	2.3 (5.0)	

*1 Overall length of driver bit may vary by country.

*2 DFR540: includes battery BL1430, BL1440 or BL1450
DFR550/ DFR750: includes battery BL1830, BL1840 or BL1850

Standard equipment

Philips bit 2-162 or 2-157 (for DFR540/DFR550)
Philips bit 2-182 or 2-177 (for DFR750)

Belt clip

Battery*3

Charger*3

Battery cover*4

Plastic carrying case or Connector plastic case (type 3)
(for some countries only)*3

*3 Battery, charger and plastic carrying case/

Connector plastic case (type 3) are not supplied with "Z" model.

*4 Supplied with the same quantity of extra Battery

Note: The standard equipment may vary by country or model variation.

Optional accessories

Extension handle set

Charger DC18SD

Charger DC24SC

Fast charger DC18RC

Automotive charger DC18SE

Four port multi charger DC18SF

Two port multi fast charger DC18RD

Casing attachment

For DFR540/DFR550

Philips bit 2-162 or 2-157

Square bit 2-162 or 2-157

For DFR750

Philips bit 2-182 or 2-177

Square bit 2-182 or 2-177

For DFR540

Li-ion Battery BL1450

Li-ion Battery BL1440

Li-ion Battery BL1430A

Li-ion Battery BL1430

Li-ion Battery BL1415NA

Li-ion Battery BL1415N

Li-ion Battery BL1415

For DFR550/DFR750

Li-ion Battery BL1850

Li-ion Battery BL1840

Li-ion Battery BL1830

Li-ion Battery BL1820

Li-ion Battery BL1815N

Li-ion Battery BL1815

► Repair

CAUTION: Remove the battery from the machine for safety before repair/ maintenance in accordance with the instruction manual!

[1] NECESSARY REPAIRING TOOLS

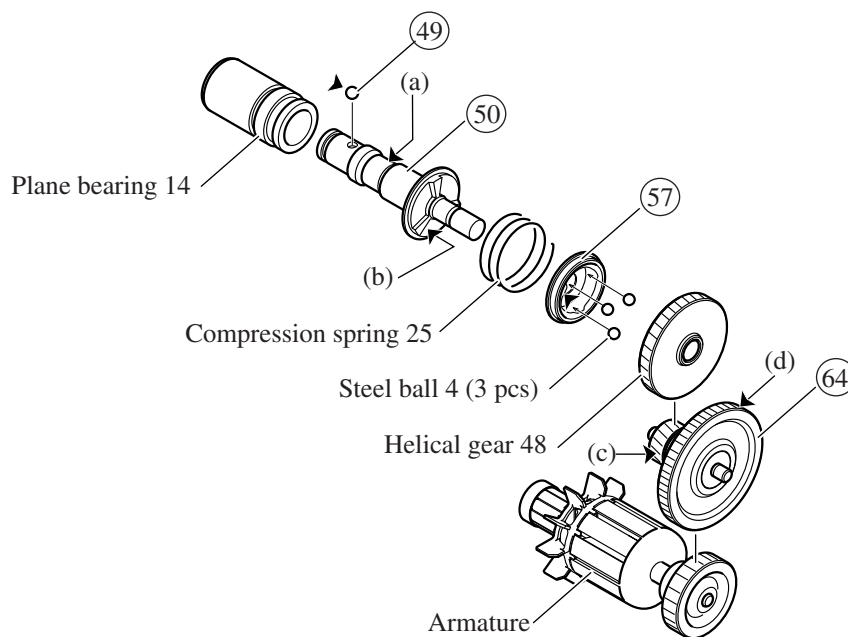
Code No.	Description	Use for
1R032	Bearing setting plate 8.2	Removing Pin 2 from Guide box complete
1R266	Spring pin extractor 2	
1R291	Retaining ring S and R pliers	Removing Casing cover and Insulation sleeve

[2] LUBRICATION

Apply Makita grease FA.No.2 to the following portions designated with the black triangle to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate
④9	Steel ball 3.5	Whole surface
⑤0	Spindle B	(a) The Drum portion that contacts Plane bearing 14
		(b) The Cam portion that contacts ⑤7 Clutch cam C
⑤7	Clutch cam C	Each depressed portion for Steel ball 4
⑥4	Gear complete 18-44	(c) Teeth of the small gear that engages Helical gear 48
		(d) Teeth of the large Gear that engages Armature's gear

Fig. 1



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly

DISASSEMBLING

Disassemble by taking the steps described in Fig. 2 to Fig 17.

Fig. 2

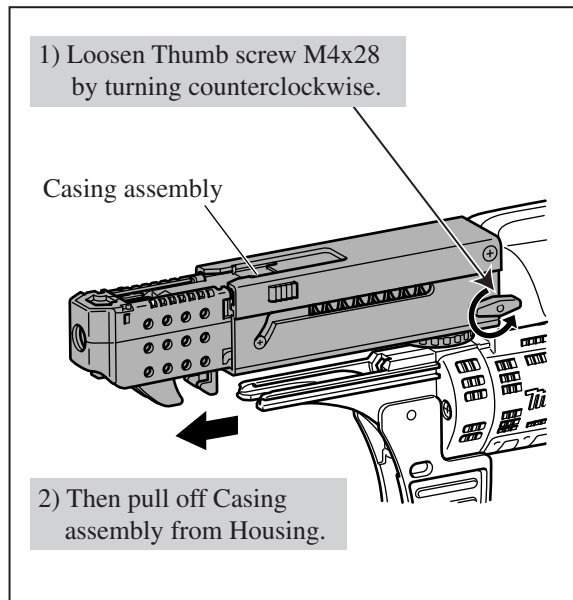


Fig. 3

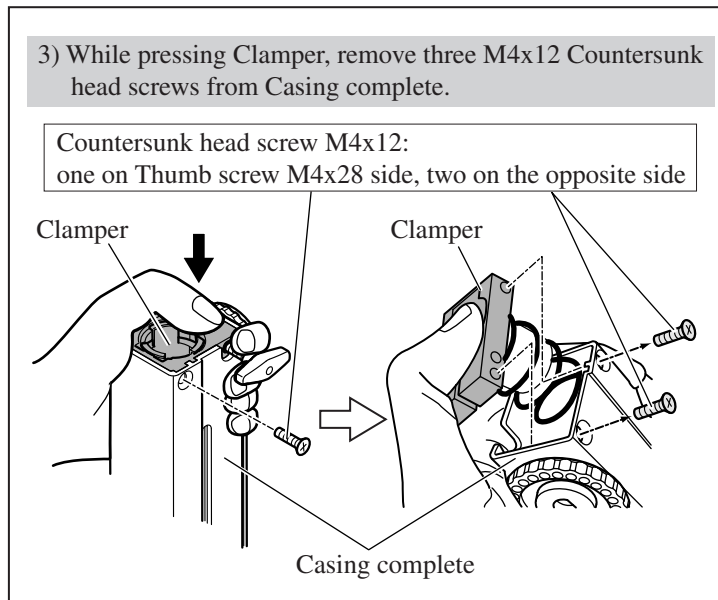


Fig. 4

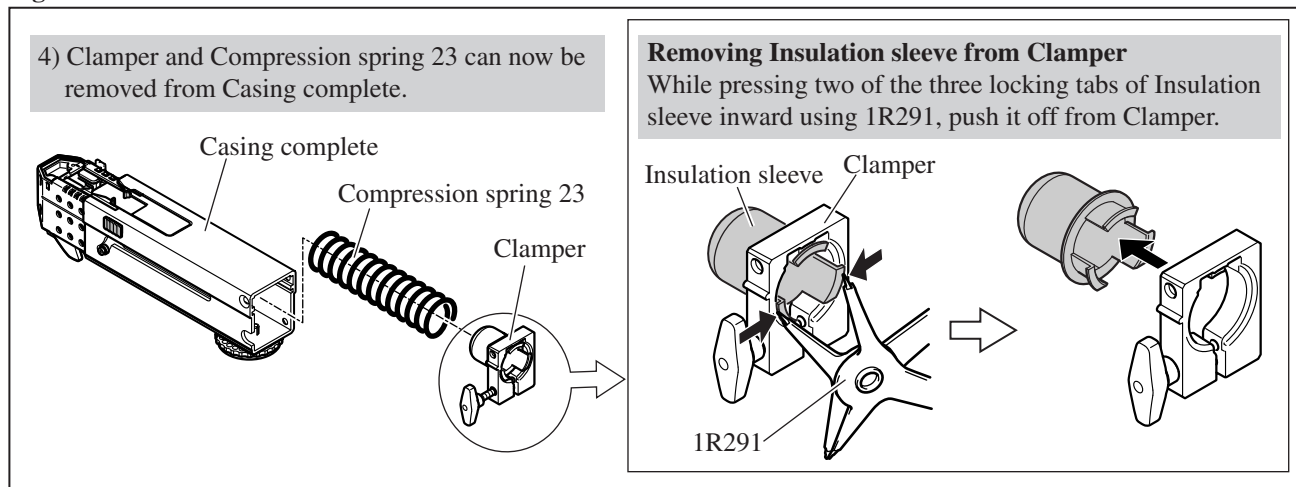


Fig. 5

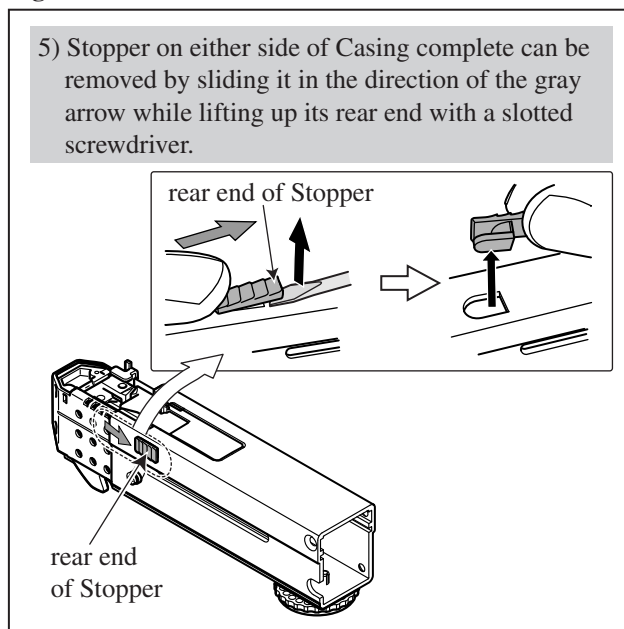
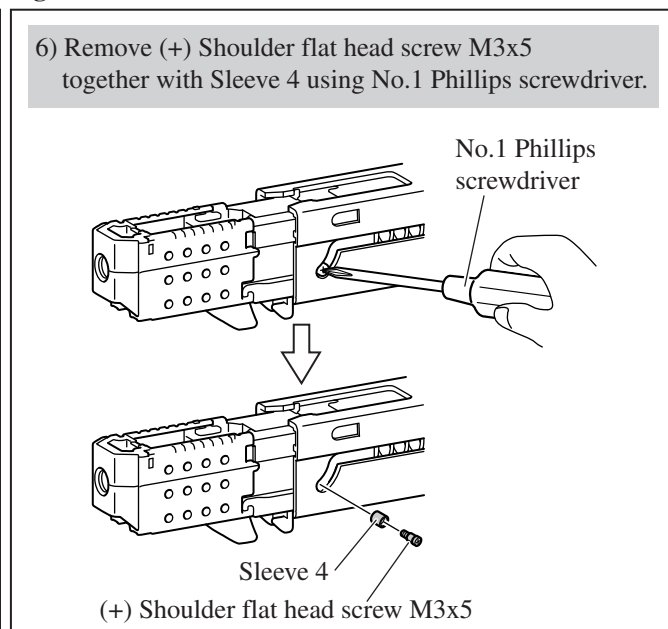


Fig. 6



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

DISASSEMBLING

Fig. 7

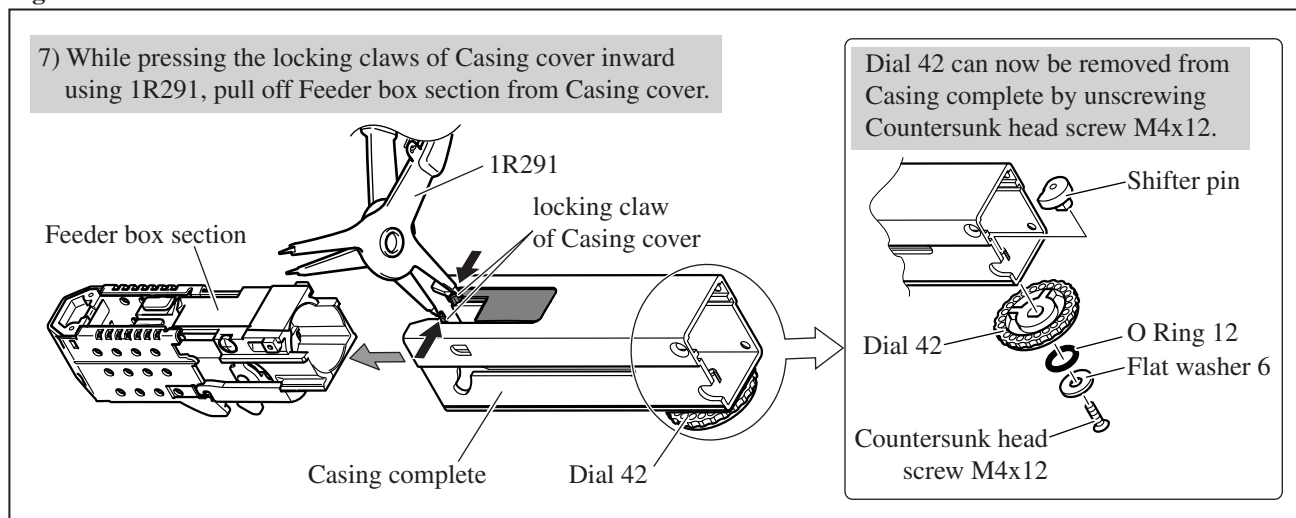


Fig. 8

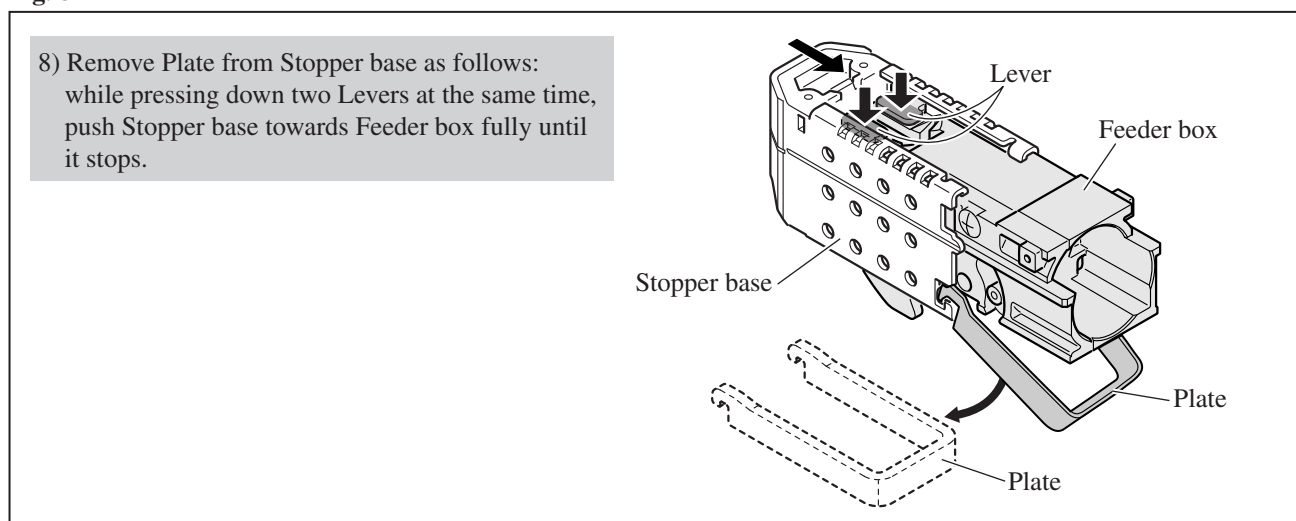


Fig. 9

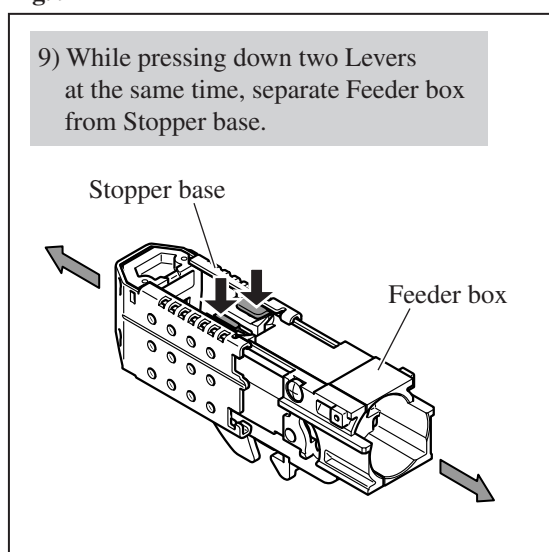
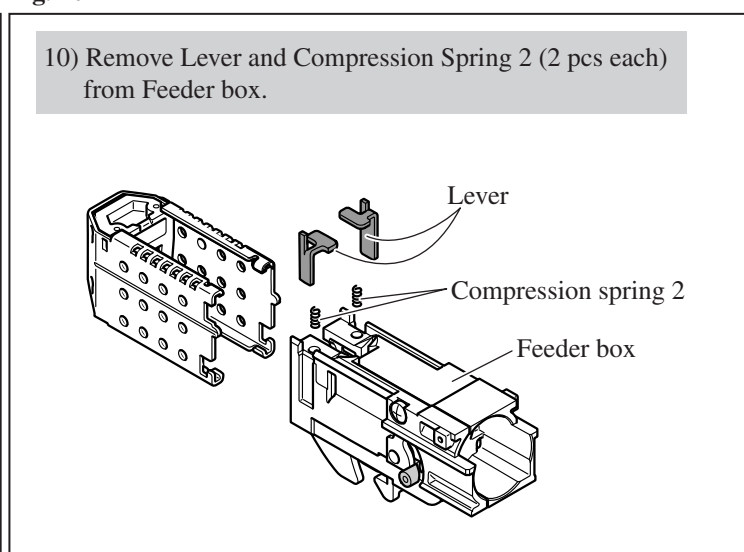


Fig. 10



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

DISASSEMBLING

Fig. 11

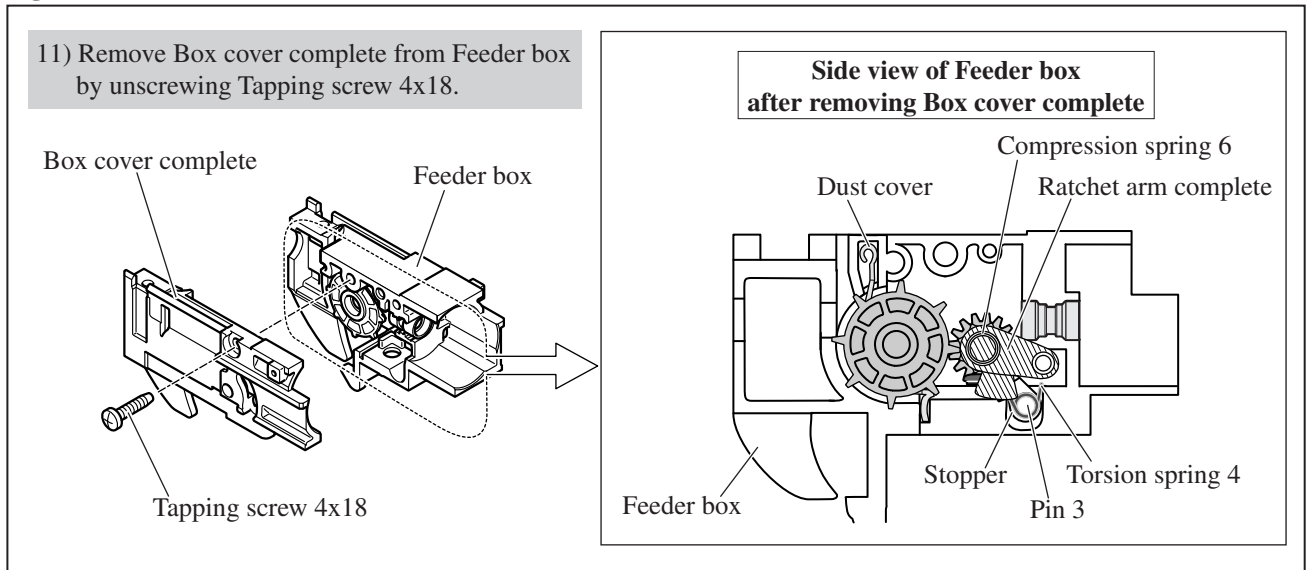


Fig. 12

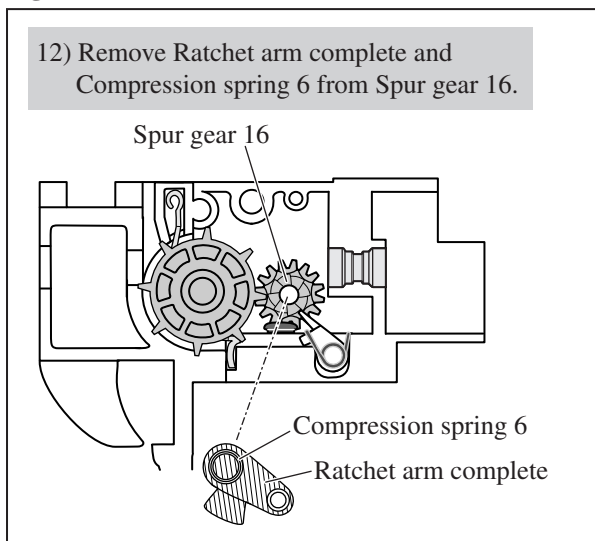


Fig. 13

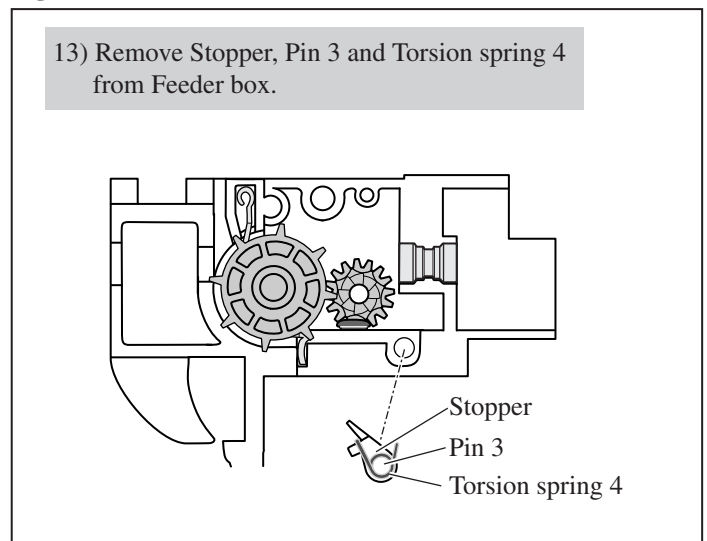
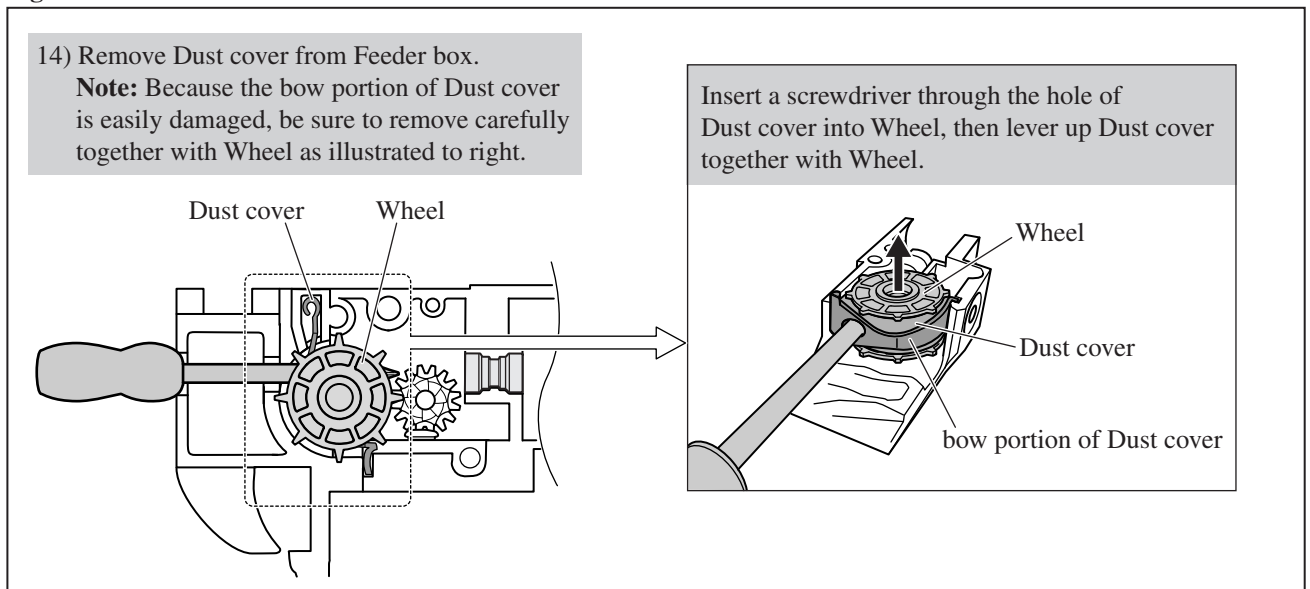


Fig. 14



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

DISASSEMBLING

Fig. 15

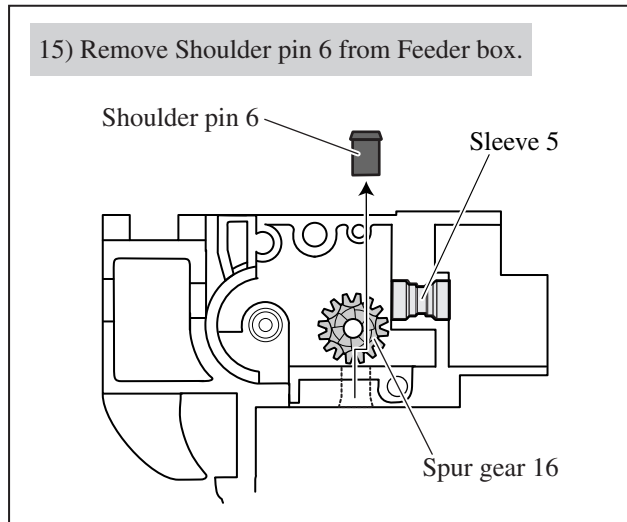


Fig. 16

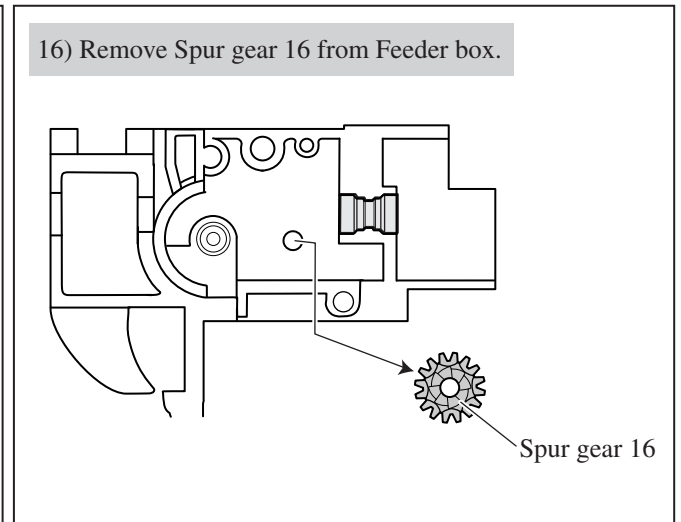
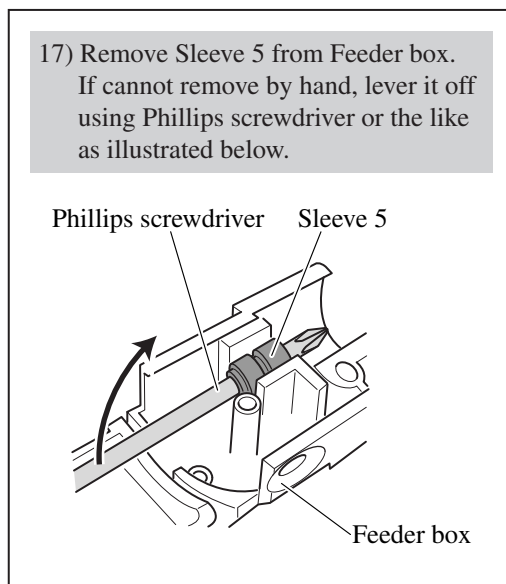


Fig. 17



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

ASSEMBLING

- 1) Assemble Sleeve 5, Spur gear 16 and Shoulder pin 6 to Feeder box. (See Fig. 17 to Fig. 15 on page 7.)
- 2) Assemble Wheel together with Dust cover to Feeder box. (See Fig. 14.)

Important 1: Dust cover must be fixed securely to Feeder box as described in Fig. 18.

Important 2: Make sure that Wheel and Spur gear 16 are correctly engaged. (Fig. 19)

- 3) Assemble Pin 3 and Torsion spring 4 to Stopper (Fig. 20), then assemble them to Feeder box as described in Fig. 21.

Fig. 18

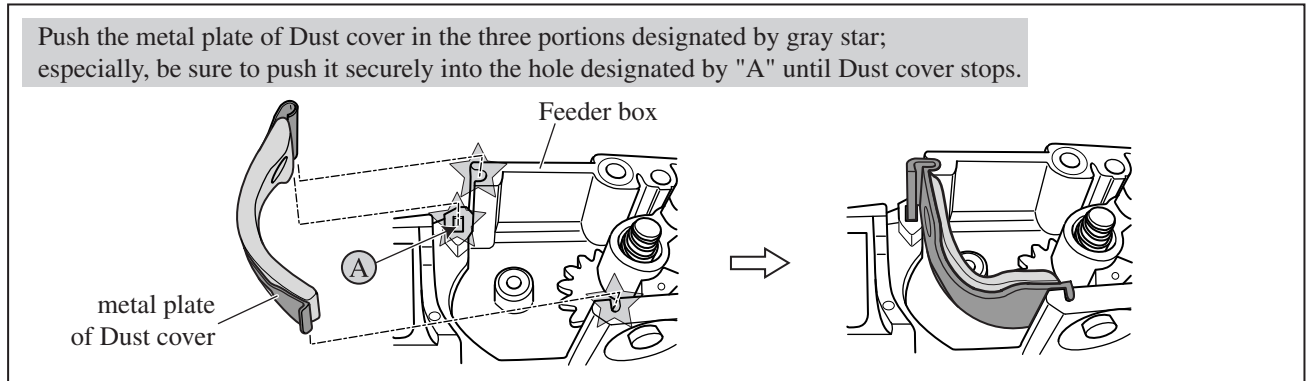


Fig. 19

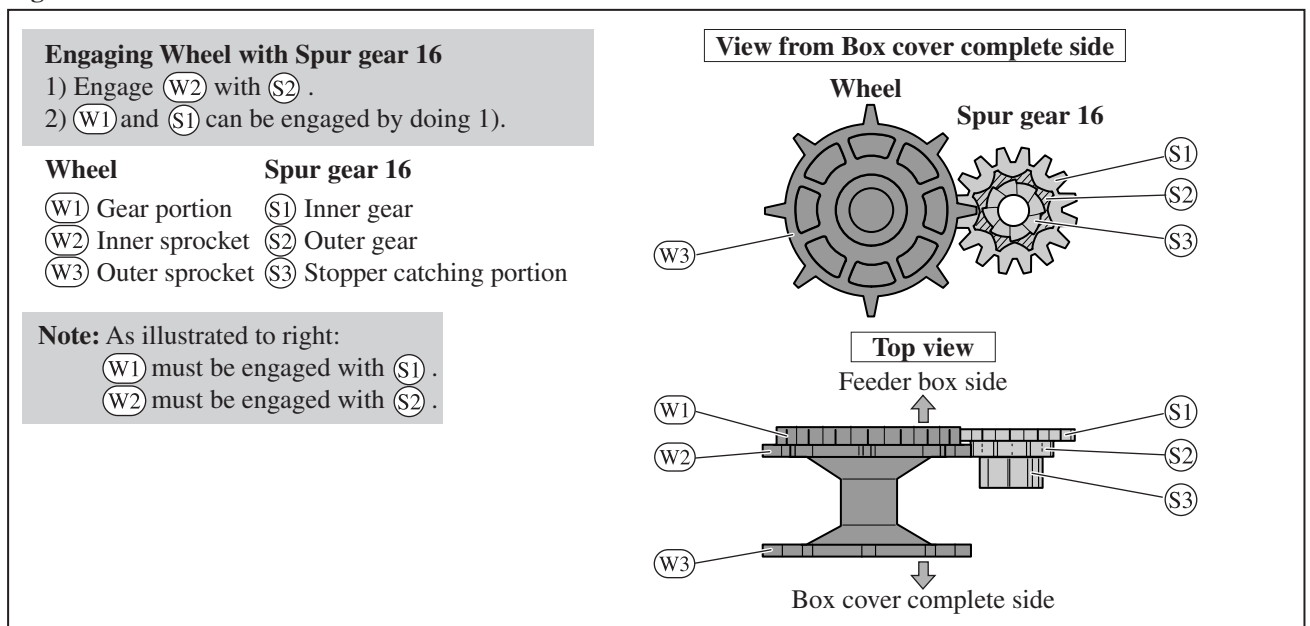


Fig. 20

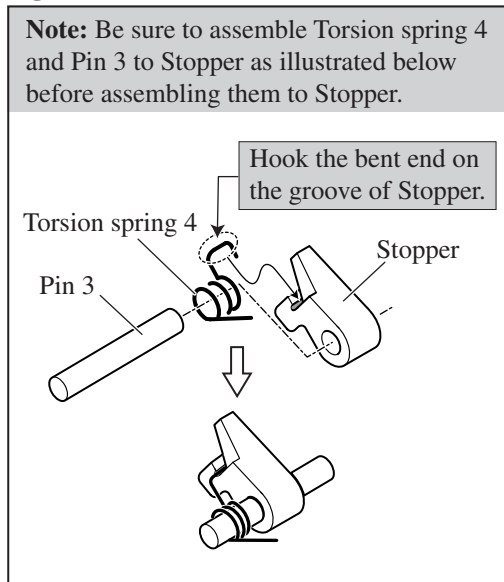
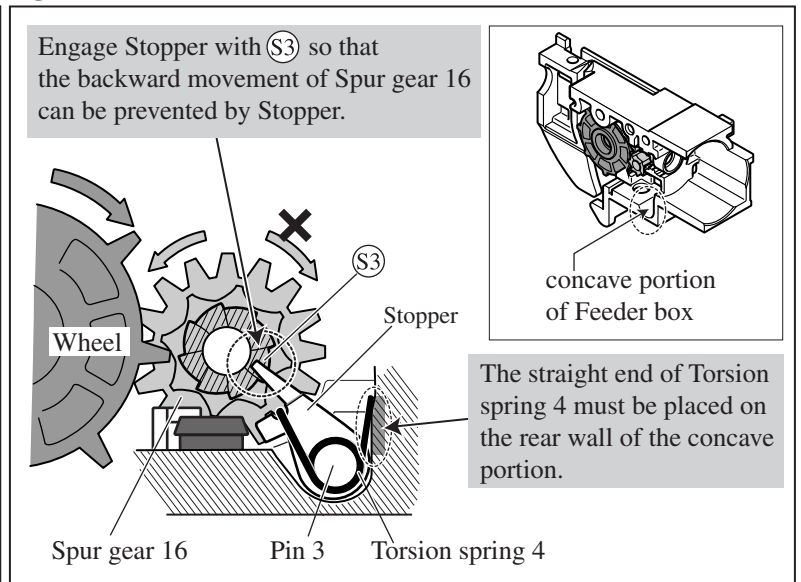


Fig. 21



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

ASSEMBLING

- 4) Assemble Ratchet arm complete and Compression spring 6 to Spur gear 16. (See Fig. 12 on page 6.)
- 5) Assemble Box cover complete to Feeder box. (See Fig. 11 on page 6.)
- 6) Make sure that Wheel moves correctly as described in Fig. 22 by pushing Ratchet arm complete up and down .
- 7) Make sure that Wheel can be stopped by pushing in Shoulder pin 6. (Fig. 23)

Note:

Do not apply any lubricant oil/grease or anticorrosive oil to the parts illustrated in Fig. 24. because smooth feeding can be prevented by dirt and dust sticking to such oily/greasy parts.

Fig. 22

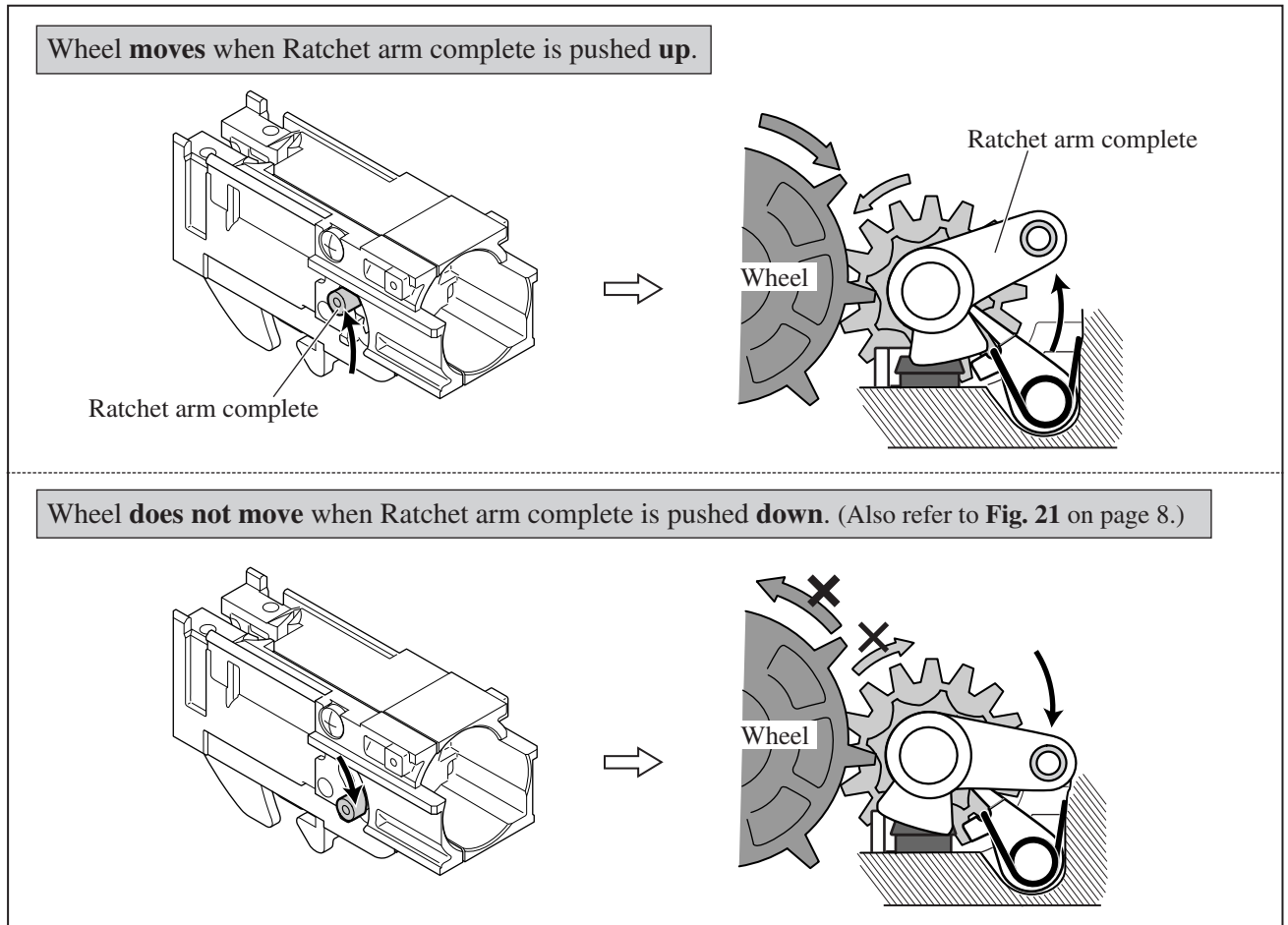


Fig. 23

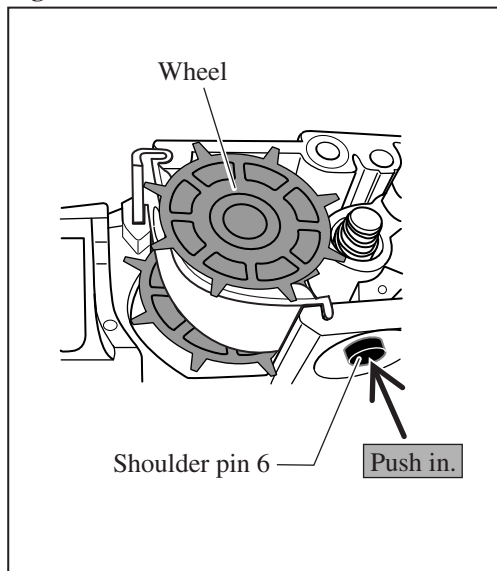
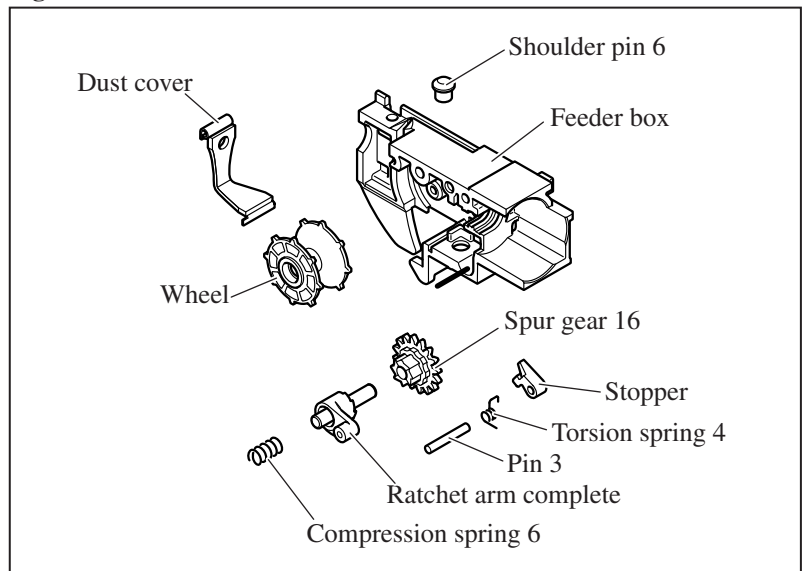


Fig. 24



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Casing Assembly and Feeder Box Assembly (cont.)

ASSEMBLING

8) Casing complete can be assembled by doing the reverse of the disassembling steps. (Fig. 7 to Fig. 2 on pages 5 to 4)

Note: Be sure to follow the instructions described in Fig. 25 to Fig. 27.

Fig. 25

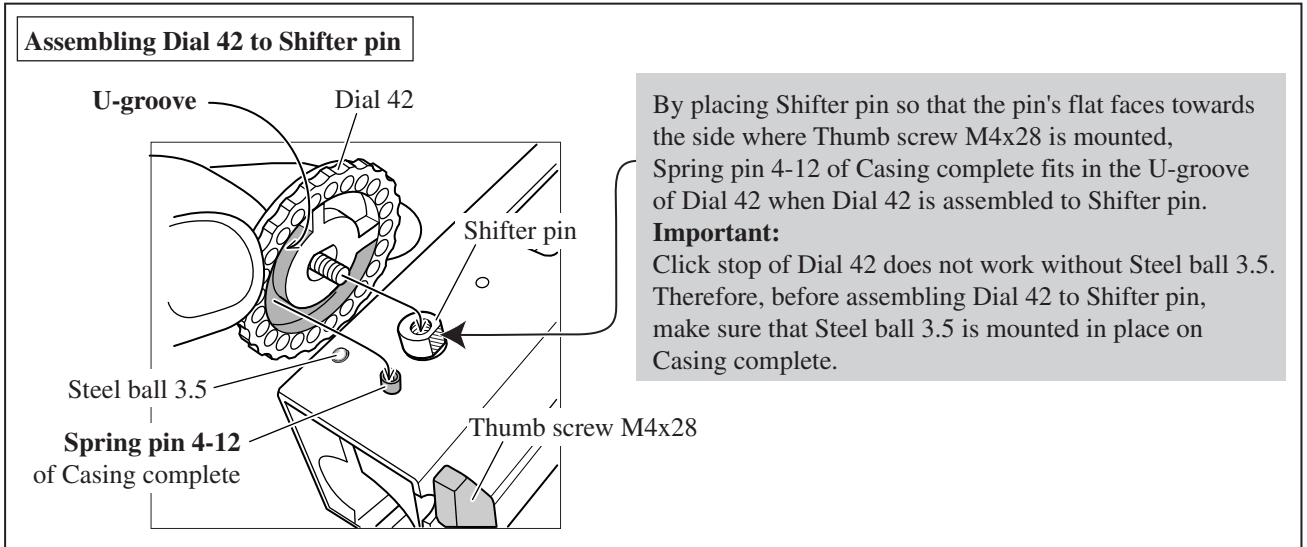


Fig. 26

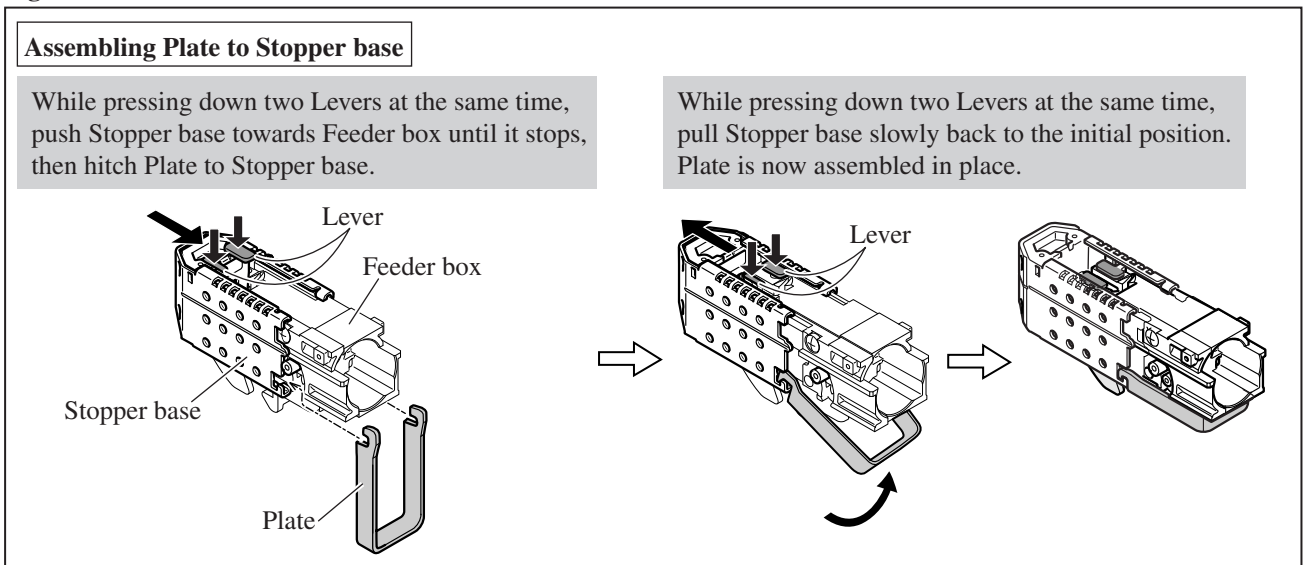
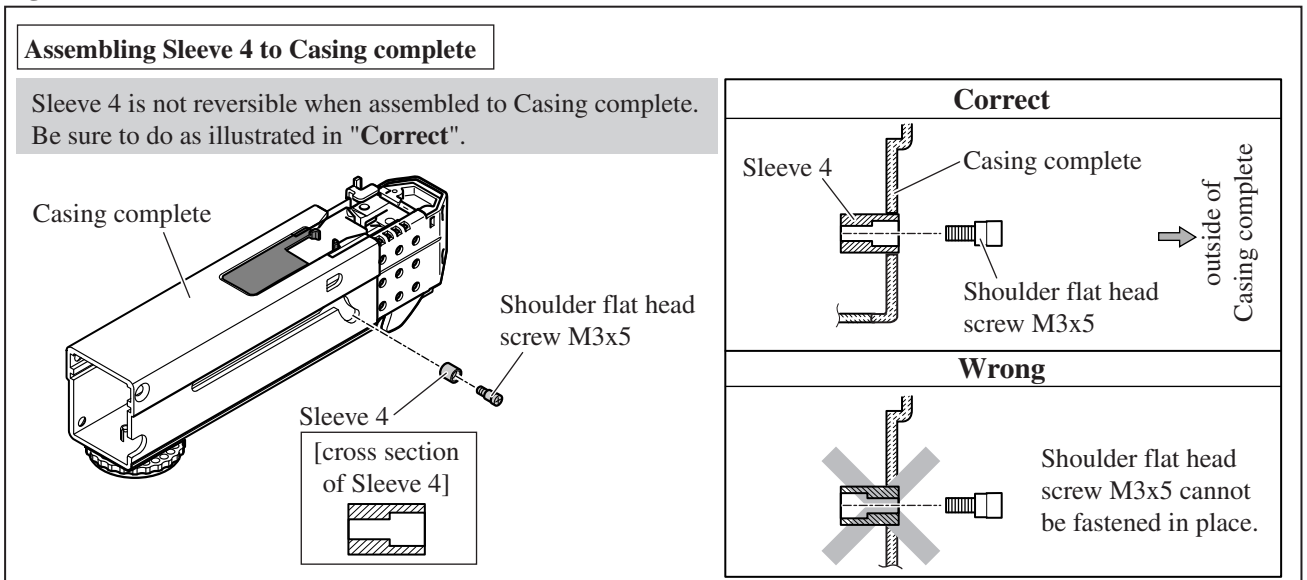


Fig. 27



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -2. Stopper Base Section

DISASSEMBLING

Disassemble by taking the steps described in **Fig. 28** to **Fig. 31**.

Fig. 28

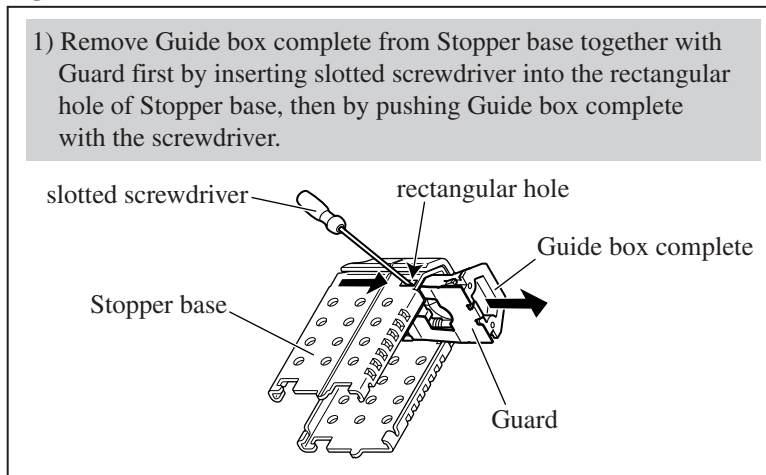


Fig. 29

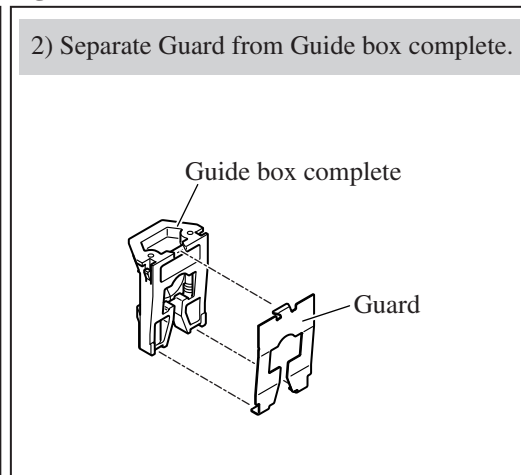


Fig. 30

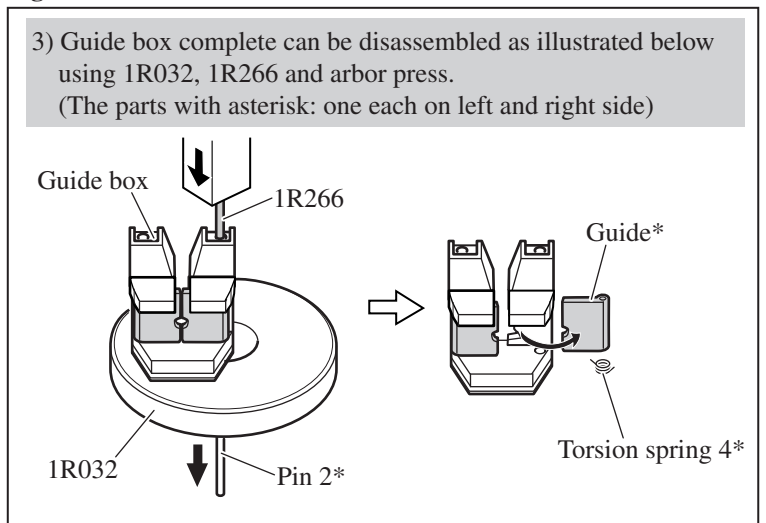
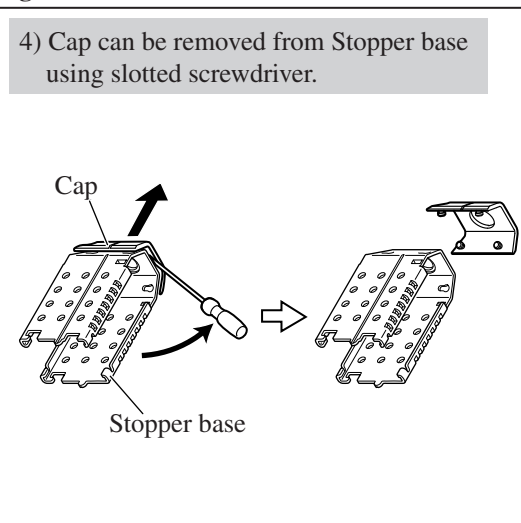


Fig. 31

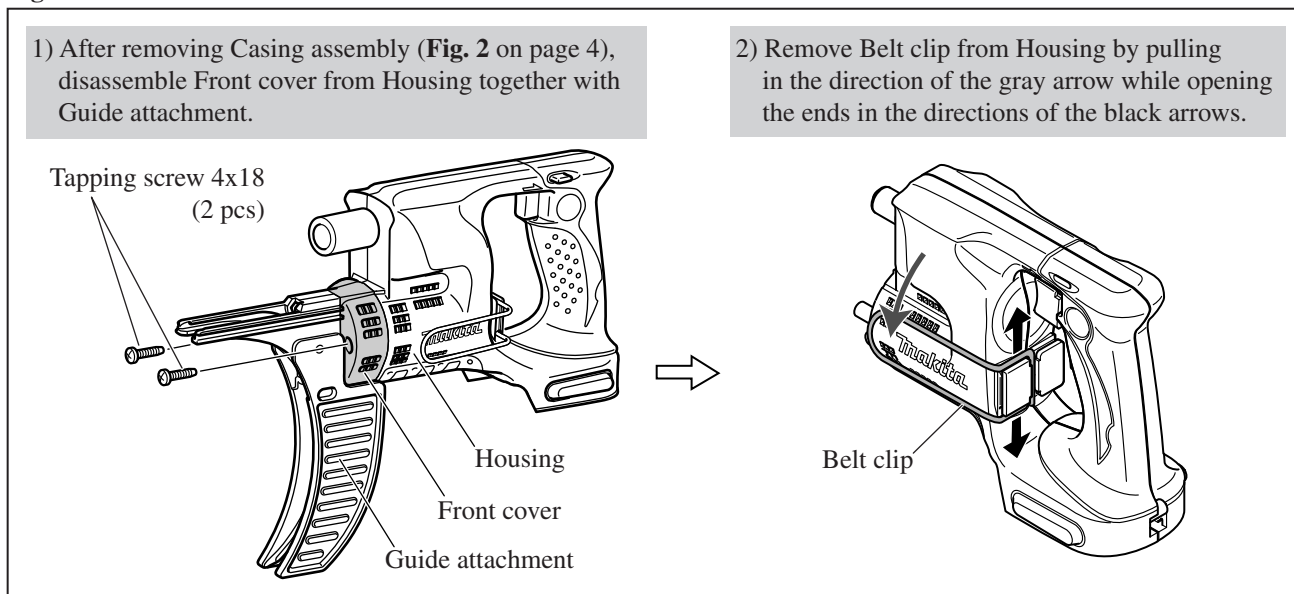


[3] -3. Clutch Section

DISASSEMBLING

Disassemble by taking the steps described in **Fig. 32** to **Fig. 36**.

Fig. 32



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Clutch Section

DISASSEMBLING

Disassemble by taking the steps described in **Fig. 32** to **Fig. 36**.

Fig. 33

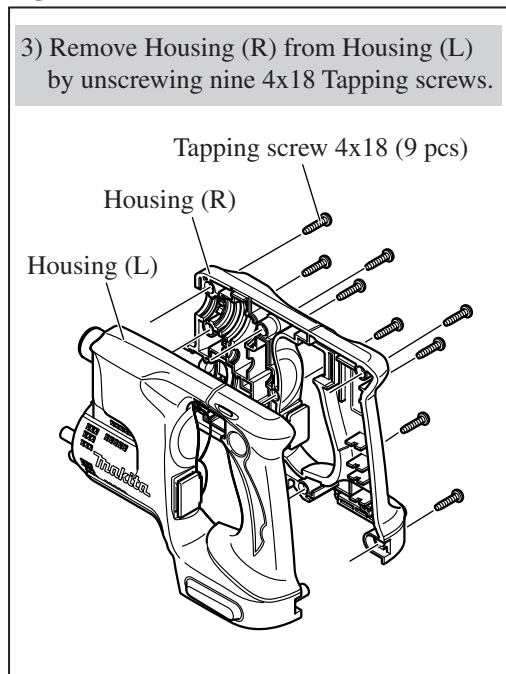


Fig. 34

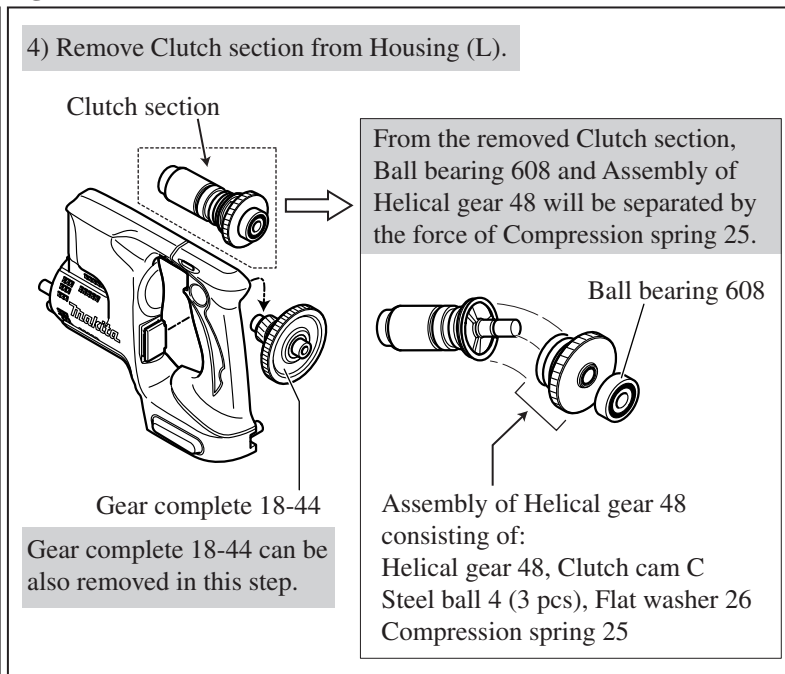


Fig. 35

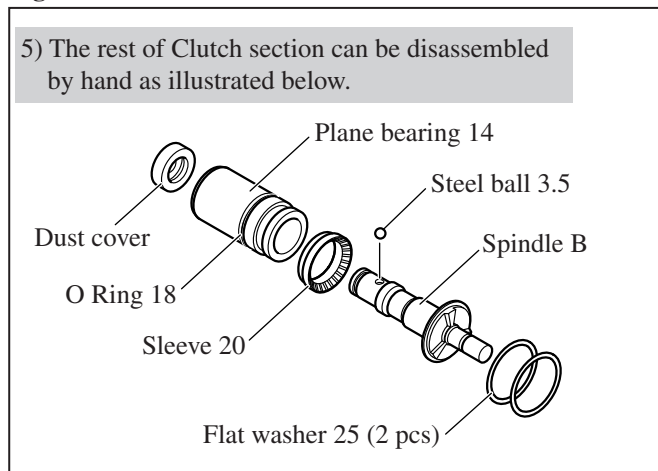
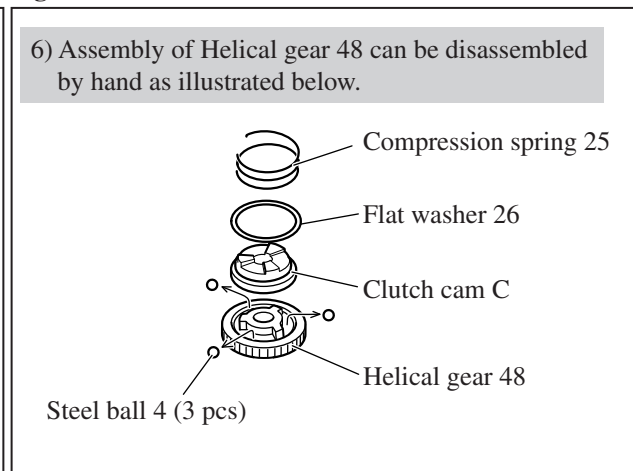


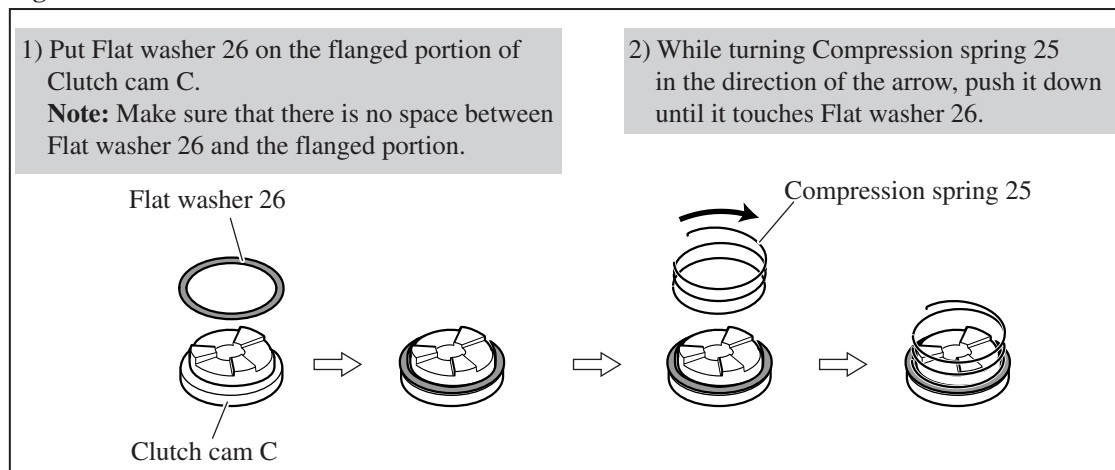
Fig. 36



ASSEMBLING

Assemble by taking the steps described in **Fig. 37** to **Fig. 40**.

Fig. 37



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -3. Clutch Section (cont.)

ASSEMBLING

Fig. 38

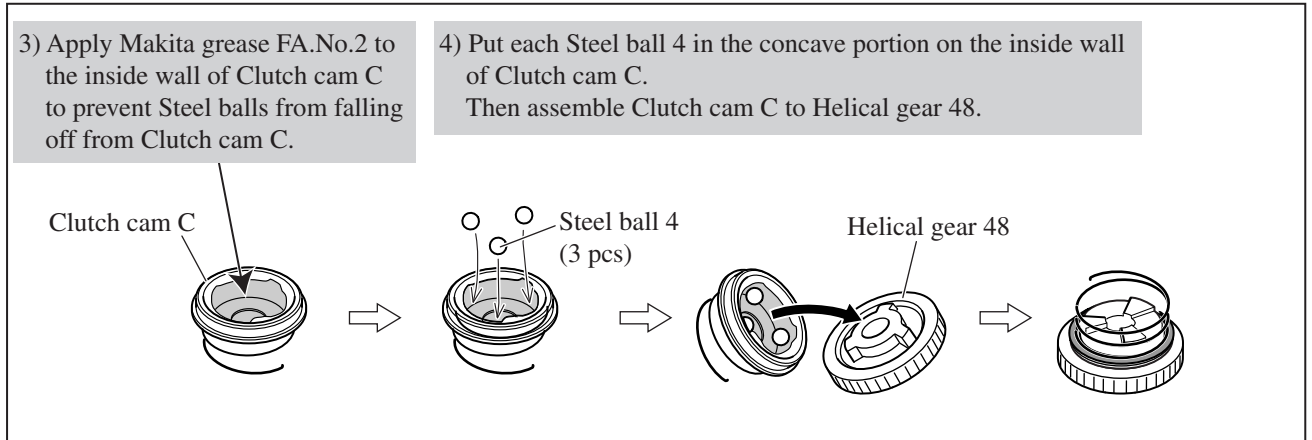


Fig. 39

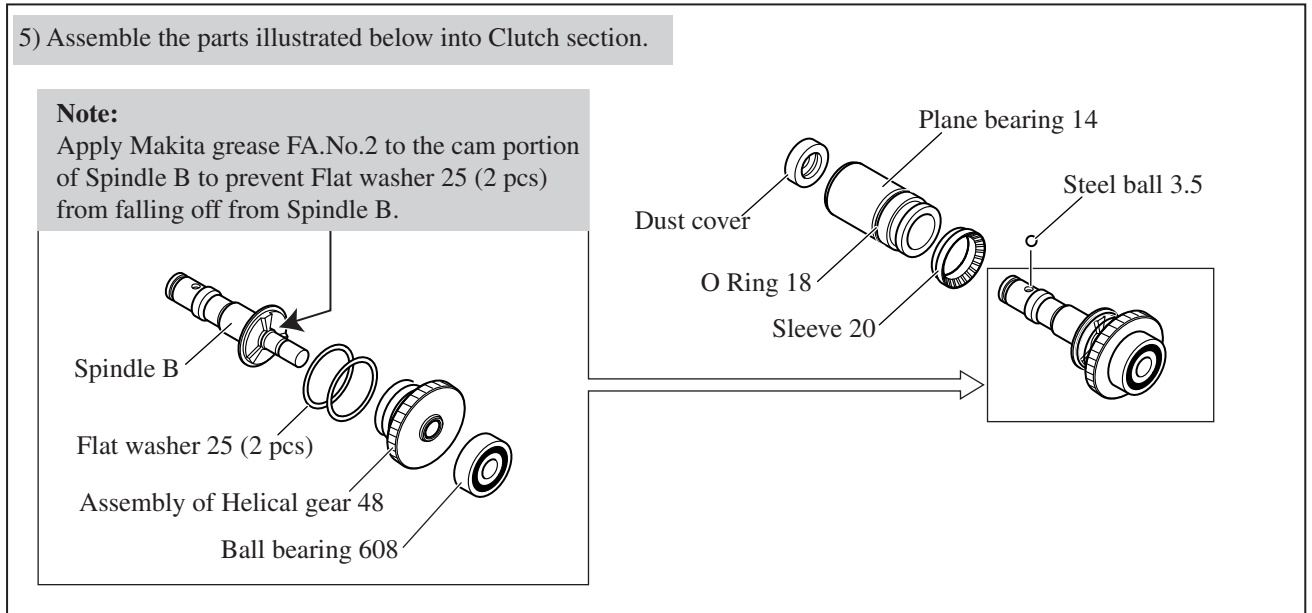
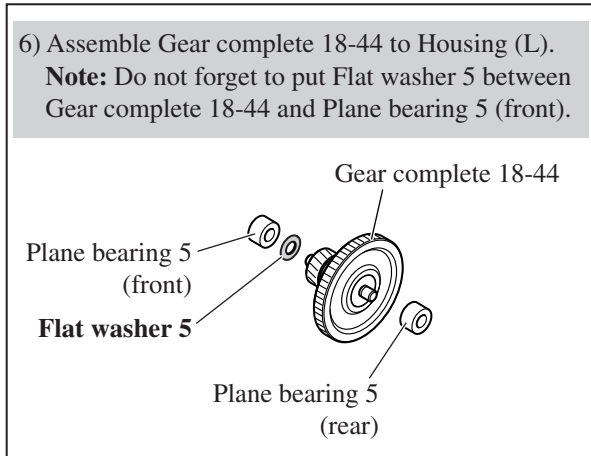


Fig. 40



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

[3] -4. Motor Section

DISASSEMBLING

- 1) Remove Casing assembly. (**Fig. 2** on page 4)
Then disassemble Front cover, Guide attachment and Belt clip. (**Fig. 32** on page 11)
- 2) Remove Housing (R) from Housing (L) by unscrewing nine 4x18 Tapping screws. (**Fig. 33** on page 12)
- 3) Disassemble Armature from the machine as illustrated in **Figs. 41, 42**.

Fig. 41

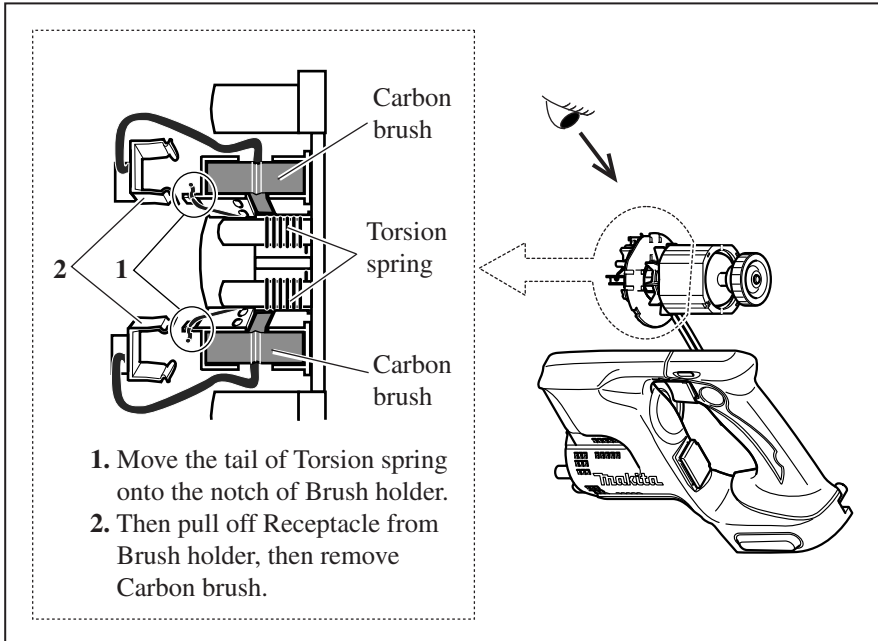
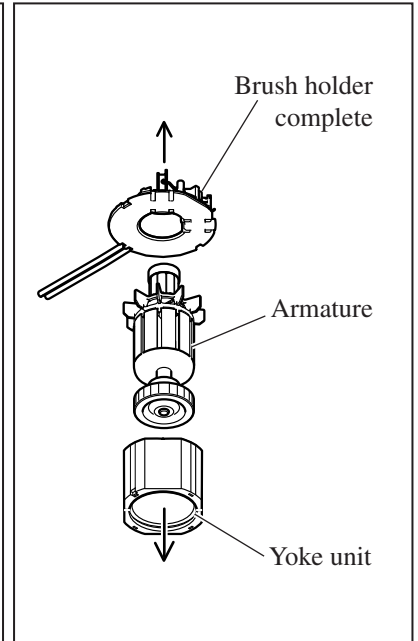


Fig. 42



ASSEMBLING

- 1) Insert Armature into Yoke unit as described in **Figs. 43, 44**.
- 2) Assemble Brush holder complete to the commutator end of Armature. (**Fig. 41**)

Fig. 43

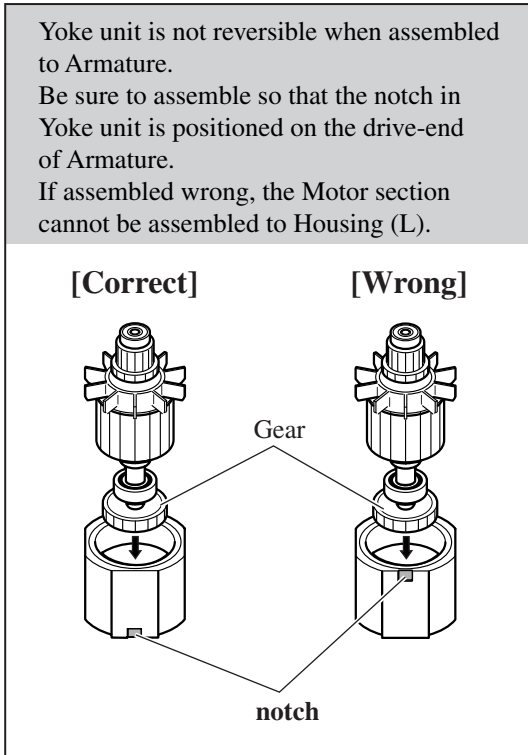
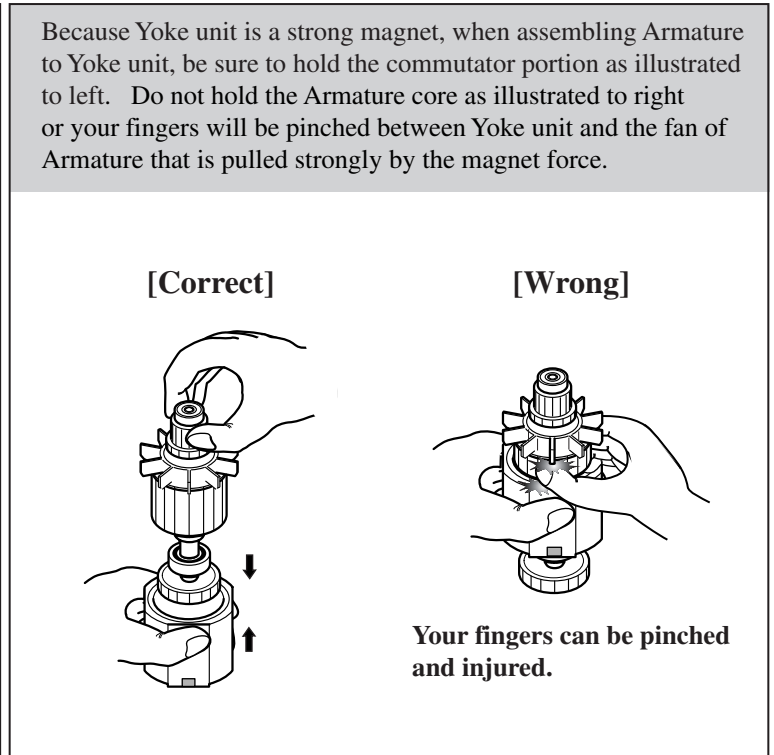


Fig. 44



► **Repair**

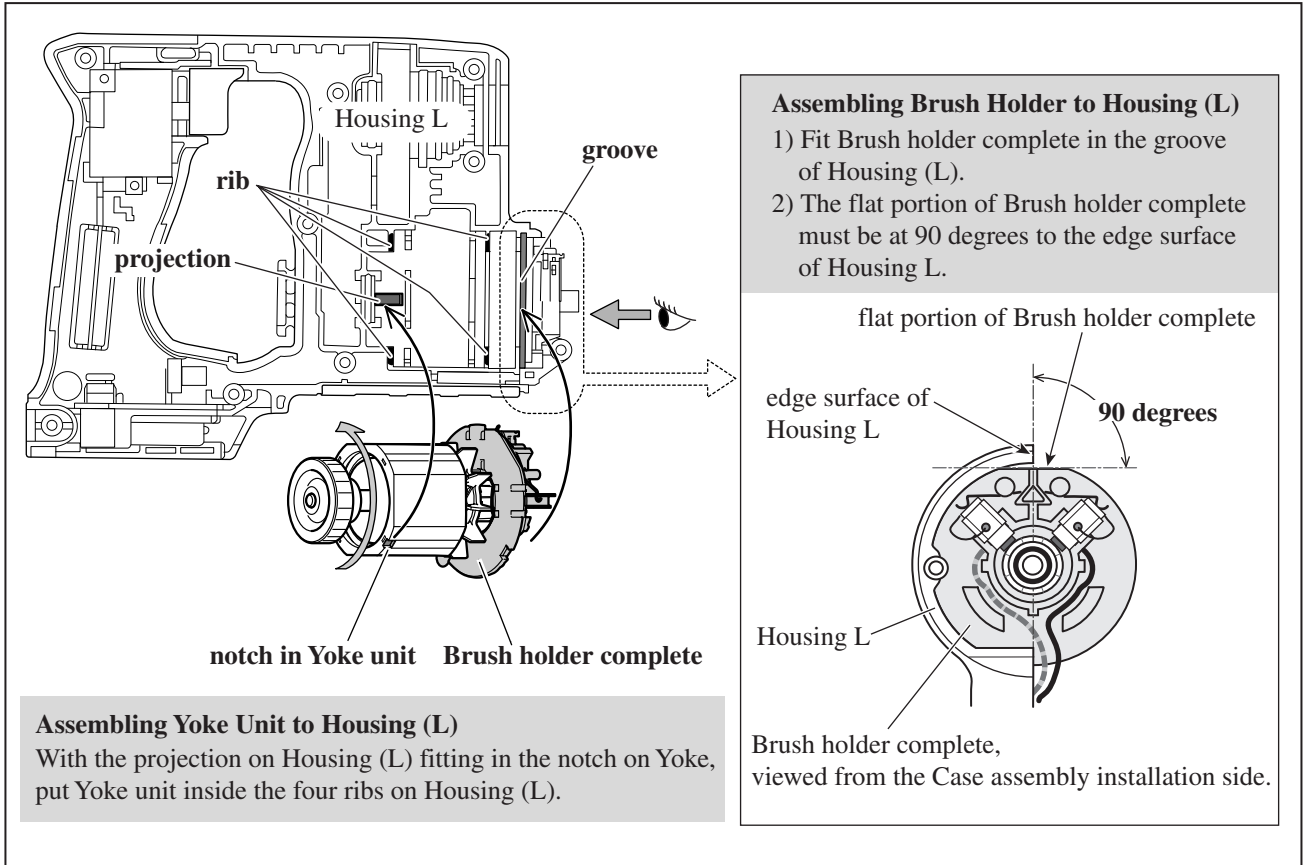
[3] DISASSEMBLY/ASSEMBLY

[3] -4. Motor Section (cont.)

ASSEMBLING

3) Assemble the Motor section to Housing (L) as illustrated in **Fig. 45**.

Fig. 45

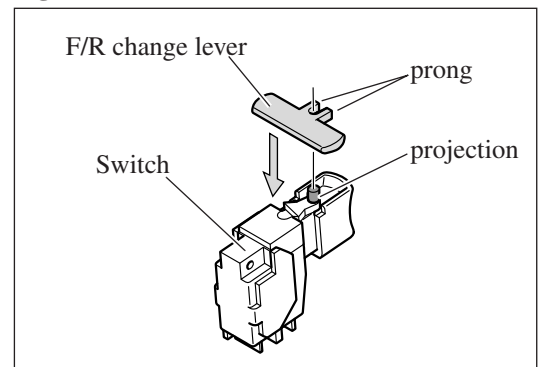


[3] -5. Switch

ASSEMBLING

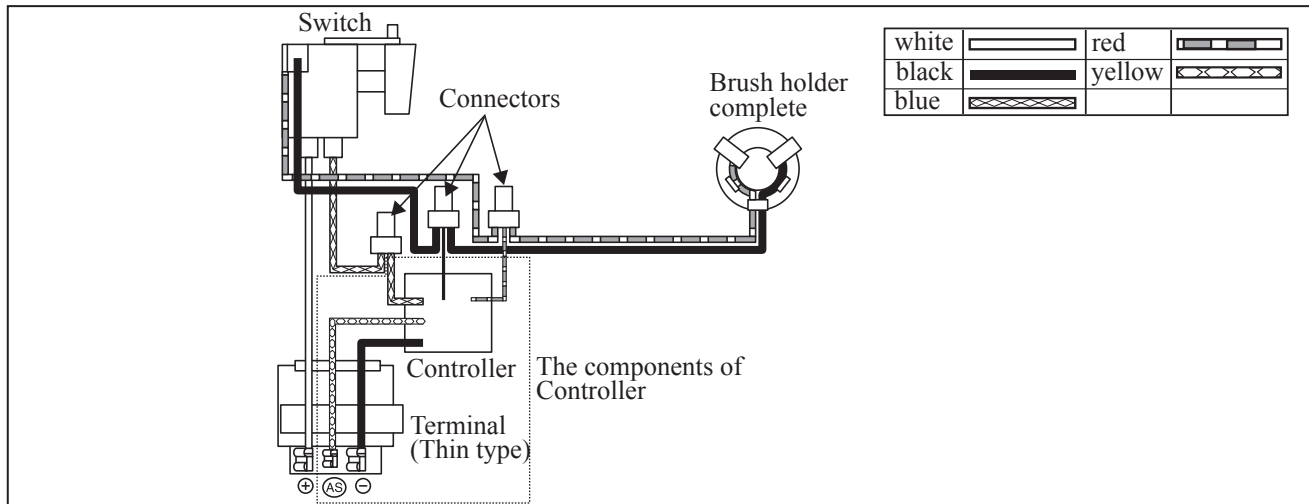
Put the projection on Switch between the prongs of F/R change lever, then assemble the Switch to Housing L. (**Fig. 46**)

Fig. 46



► **Circuit diagram**

Fig. D-1



► **Wiring diagram**

Fig. D-2

