

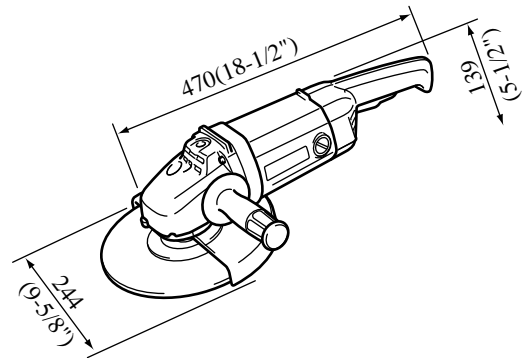
**Models No.** ▶ 9049S

**Description** ▶ 230mm Dish Grinder

## CONCEPTION AND MAIN APPLICATIONS

230mm Disk grinder based on #9049, adding Lift start mechanism and decreasing the impact in starting for easier operation.

#9049SF: 9049S with Super flange



### ► Specifications

Voltage (V)	Current(A)	Cycle(Hz)	Consuming power(W)	Nominal output(W)	Max. output(W)
100	15.0	50/60	1,430	600	2,600
120	15.0	50/60	1,650	850	2,600
200	11.0	50/60	2,100	1,350	3,500
220	10.0	50/60	2,100	1,350	3,500
230	9.6	50/60	2,100	1,350	3,500
240	9.2	50/60	2,100	1,350	3,500

<b>Motor</b>	Series commutator motor
<b>Speed at no load</b>	6600 rpm
<b>Grinding wheel</b>	Outer dia.230 x Inner dia. 22.23 x Thickness 6 (9" x 7/8" x 1/4")

### ► Standard equipment

Lock nut wrench 35  
Grip

### ► Optional accesories

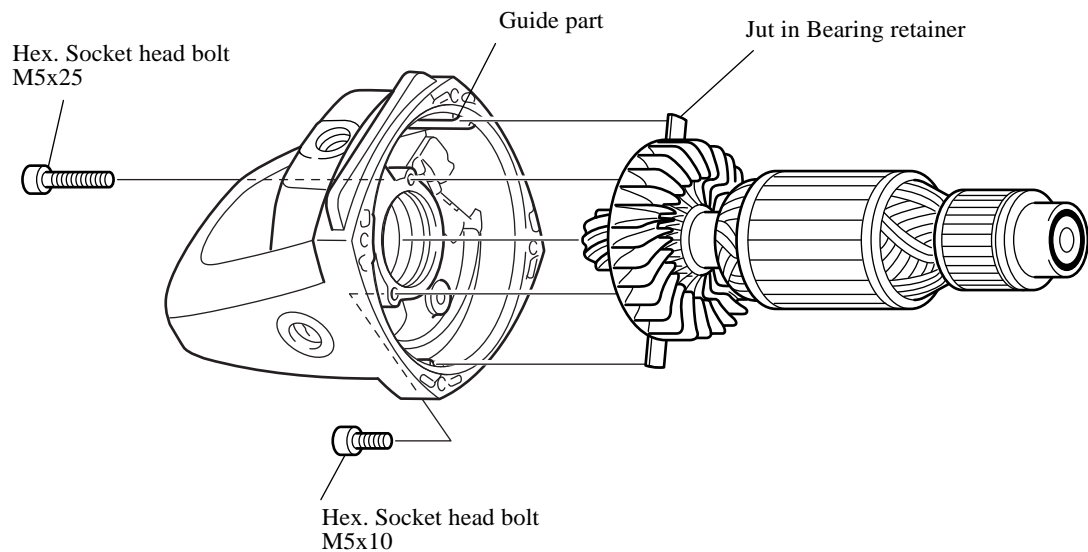
Inner flange 47 set ( DIN spec., Super flange)  
Depressed center wheel  
Diamond wheel  
Wire cup brush 110 set  
Dust collecting wheel cover  
Loop handle

## ► Repair

### 1) Exchange of Armature

- i. Remove Wheel, Wheel cover, Bearing box respectively.
- ii. After removing Carbon brush, take out a unit of Gear housing and Armature from Motor housing.
- iii. Remove Bearing retainer fixing bolts ( Hex. Socket head bolt, M5x10, M5x25) and pull out Armature.
- iv. In attaching Armature to Gear housing, put Bearing retainer guide of Gear housing together with Jut of Bearing retainer and insert it, fastening by Hex.

Socket head bolts. Be sure to use Hex. Socket head bolt with adhesives, and replace it with new one after removing it.



### 2) How to exchange Spiral gear 12 (16)

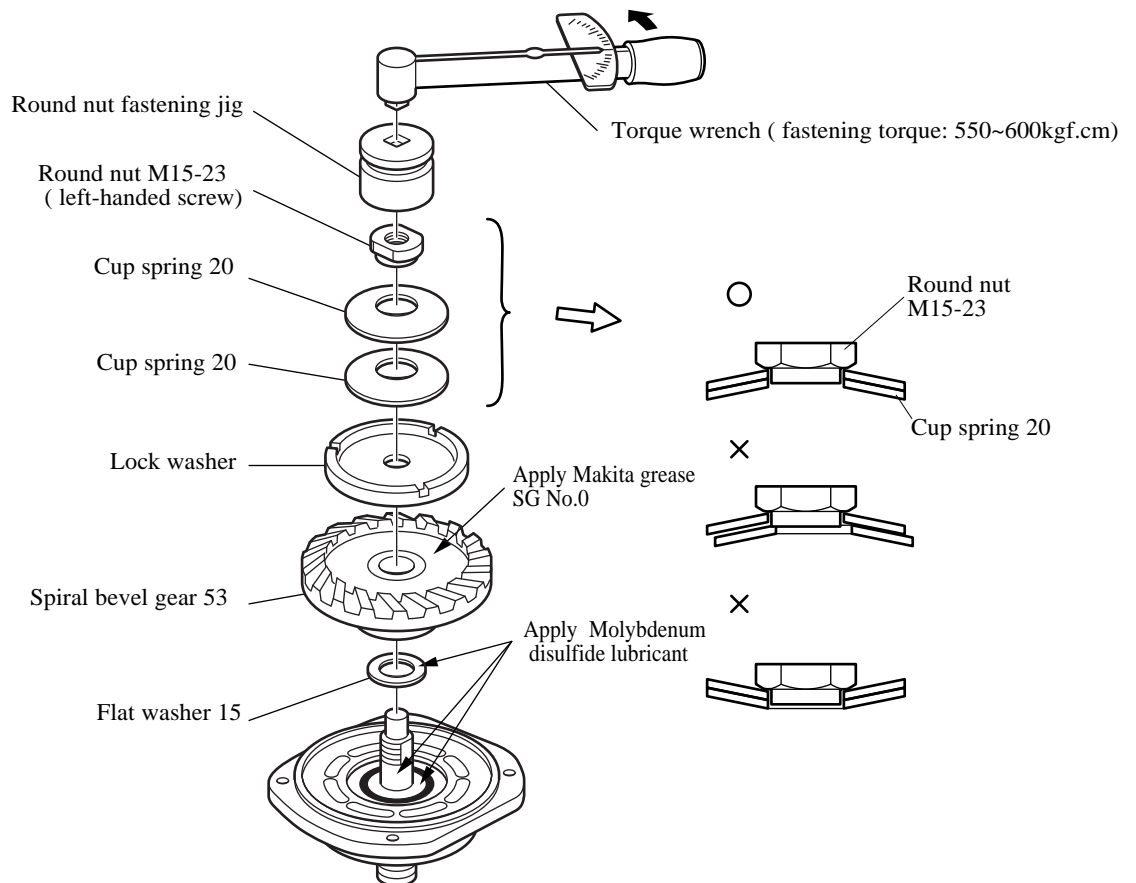
After having removed Armature from Gear housing according to the way above 1), remove Retaining ring in upper part of Gear and exchange it.

If Armature is attaching to Gear housing, you cannot exchange Gear.

3) How to exchange Lock washer and Spiral bevel gear

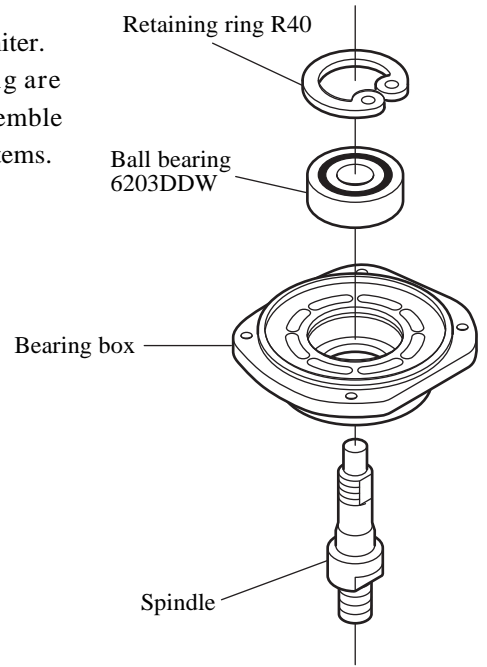
When exchanging components, check every contact face, and exchange them together if the surfaces are rough (scratched) to make Torque limiter function properly. Also, replace Round nut M15 (w/adhesive) and Cup spring 20 with new ones in disassembly.

- I. Remove Torque limiter assembly from Gear housing.
- II. Remove Round nut M15-23, and pull out Cup spring 20, Lock washer, Spiral bevel gear 53 and Flat washer 15. (Note: Round nut for left-handed screw)
- III After exchanging components, install Cup spring 20, Lock washer, Spiral bevel gear 53 and Flat washer. At that time be careful so that Molybdenum disulfide lubricant and Makita grease SG No.0 may not stick to Spindle screw and install them according to the following procedure. Further, see to it that dusts never enter the contact face of each component.
  - i) Apply Molybdenum disulfide lubricant to the part where Ball bearing inner wheel and Spiral bevel gear of Spindle are placed.
  - ii) Put Flat washer 15 into Spindle, and apply Molybdenum disulfide lubricant to Flat washer 15.
  - iii) Put Spiral bevel gear 53 into Spindle, apply Makita grease SG No.0 on upper face of Spiral bevel gear, and install Lock washer and Cup spring in this order.
- IV. Fix two faces of Spindle by Vice, twist Round nut M15-23, preventing its Convex part from coming to Cup spring, and fasten it by Torque 550~600kgf.cm. Besides, please ask a bout Nut fastening jig to our Sales Management Section or International Planning Room.



How to exchange Spindle and Ball bearing 6203

- i) According to the above I , II procedures, disassemble Torque limiter.
- ii) Spindle, Bearing box, Ball bearing 6203 and Retaining ring are assembled as shown in the illustration. After disassembly, assemble them in the order of above III and IV , having exchanged faulty items.



4) Reference: Adjusting Gear housing angles.

- In Gear housing, angles can be adjusted to four directions every 90 . When adjusting, obey the following procedures.
- i. Remove Wheel and Wheel cover.
- ii. Remove Gear housing fixing screws ( Tapping screws: Flange PT 5x35).
- iii. Attach Gear housing again in correspondence with a desirable angle.

