MODEL C 8FB2

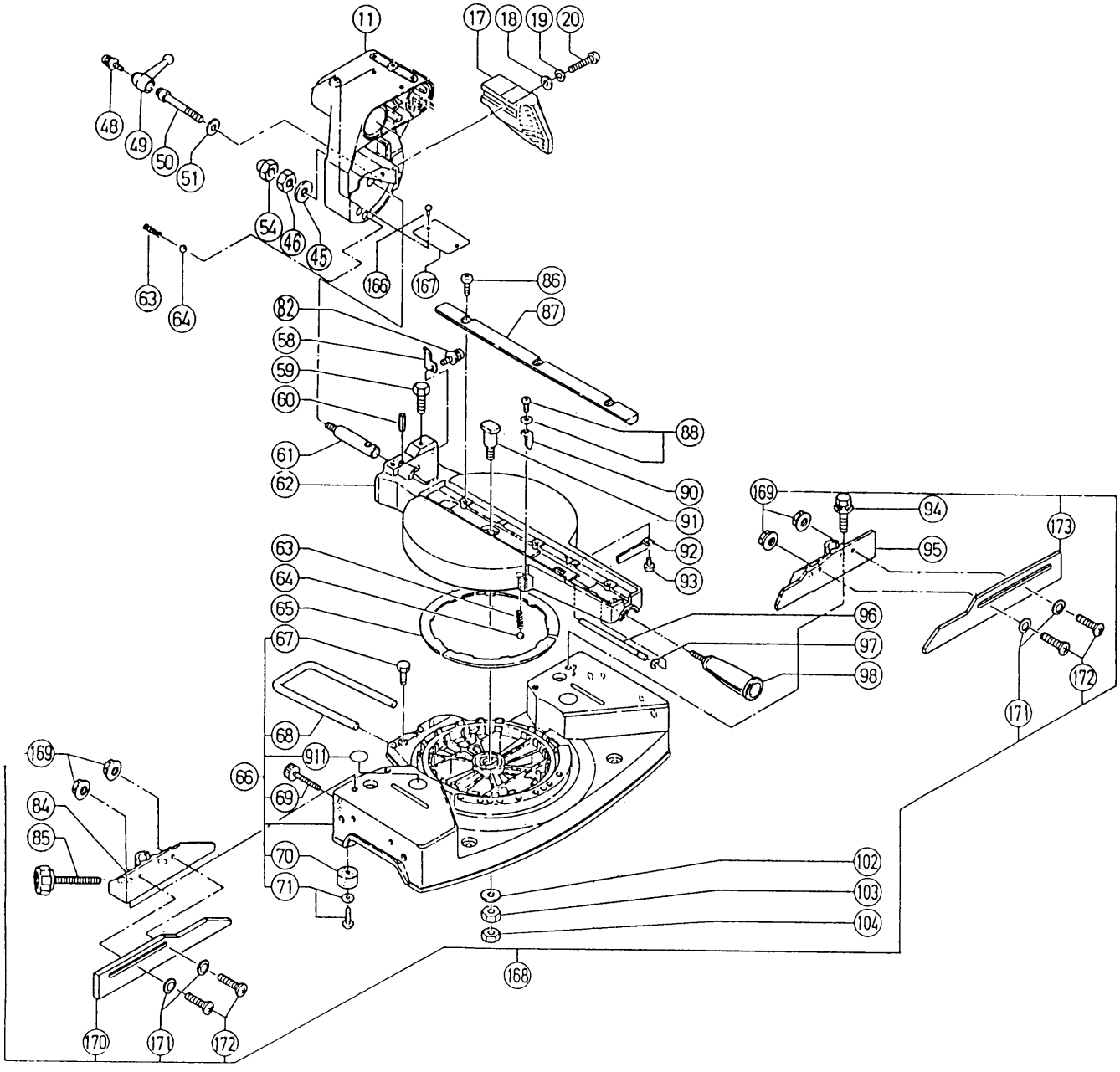
1. PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY:

Points requiring particular attention in disassembly and reassembly are described below. The circled numbers in the descriptions correspond to the item numbers in the Parts List and exploded assembly diagrams.

[CAUTION] Prior to attempting disassembly (including replacement of the saw blade), ensure that the machine is turned OFF and the plug is disconnected from the power source.

1-1. Disassembly:

A. Disassembly of the Turn Table and Base Sections:



Tools Required:

- Plus Head Screwdriver
- 19 mm (3/4") Wrench
- 13 mm (.512") Wrench
- Roll Pin Remover
- Wooden or Plastic Hammer
- Pliers
- 10 mm (.394") Box Wrench (standard accessory)

(1) Remove the M8 x 30 Machine Screw **[20]**, and take off the Guard **[17]**.

(2) Loosen the Clamp Lever **[49]**, remove the M6 x 12 Machine Screw (w/washer and spring washer) **[48]**, and turn the left hand threaded M10 Bolt **[50]** clockwise to remove it from the Turn Table **[62]**. Then, remove the M12 Cap Nut **[54]** and M12 Nut **[46]** from the Holder Shaft **[61]**, disassemble Holder (A) **[11]**, Spring (C) **[63]**, and Steel Ball **[64]** from the Holder Shaft **[61]**. At this time, the saw blade and slide sections are disassembled from the Turn Table **[62]** together with Holder (A) **[11]**.

(3) Remove the four M8 x 35 Bolts **[94]** (w/washers and spring washers), and disassemble Fence (A) **[95]** and Fence (B) **[84]**.

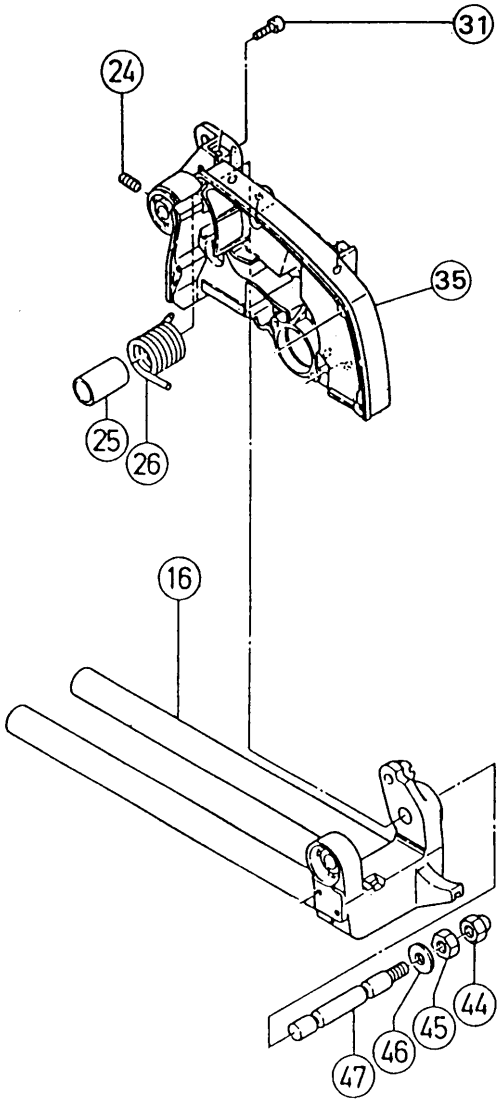
(4) Remove the M12 Nut **[103]** and the M12 Lock Nut **[104]**, and disassemble the Turn Table **[62]** from the Base Assembly **[66]**.

(5) Disassemble the Side Handle **[98]**, extract the D7 E-Type Retaining Ring **[97]**, and extract the Shaft **[96]**.

(6) The rear indicator **[58]**, two Table Inserts **[87]**, front Indicator **[90]** and Spacer **[92]** can be disassembled from the Turn Table **[62]** by removing their retaining screws.

(7) The Holder **[68]** and five Base Rubbers **[70]** can be disassembled from the Base Assembly **[66]** by removing their retaining bolts and screws.

B. Disassembly of the Hinge Shaft and Spring Section.



Tools Required

- 3 mm (.118") Hex. Bar Wrench
- 4 mm (.157") Hex. Bar Wrench
- 19 mm (3/4") Wrench
- Wooden or Plastic Hammer

(2) Remove the two M6 x 16 Set screws **[24]** and the M5 x 10 Socket Bolt **[31]** from the Gear Case Assembly **[35]**.

[CAUTION]

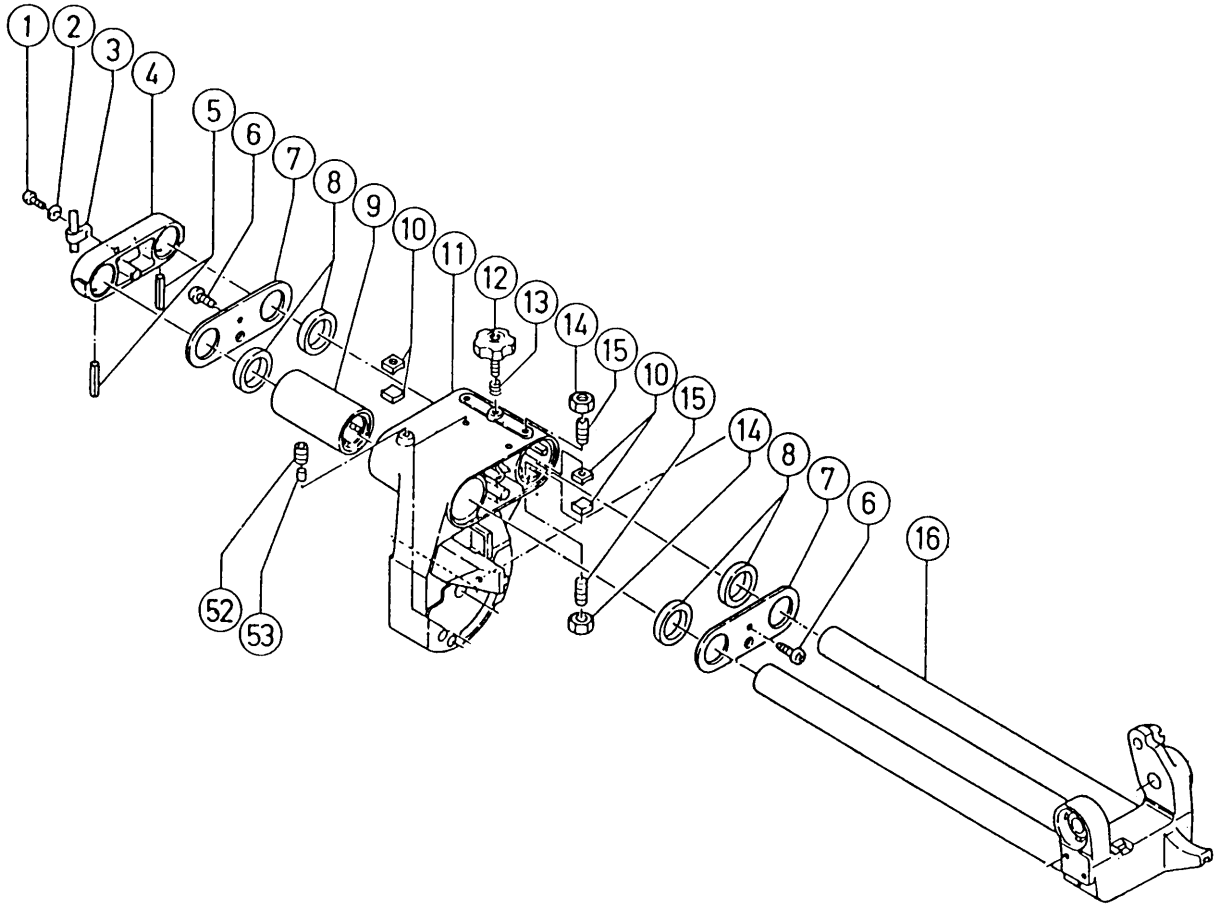
As the M5 x 10 Socket Bolt [31] acts as a stopper for the Gear Case Assembly [35], be very careful to prevent the Gear Case Assembly [35] from springing upward suddenly when the bolt is removed.

(2) Remove the M12 Cap Nut **[44]** and the M12 Nut **[45]**, and tap gently on the end of the Hinge Shaft **[47]** with a wooden or plastic hammer to extract it while supporting the Gear Case Assembly **[35]**. At this time, the Gear Case Assembly **[35]** can be taken off, and the Spring **[26]** and Sleeve **[25]** can be removed.

C. Disassembly of the Holder (A), Hinge, Ball Bush, Bushes, and Related Parts:

Tools Required

- Roll Pin Remover
- Wooden or Plastic Hammer
- Plus Head Screwdriver
- 4 mm (.157") Hex. Bar Wrench.

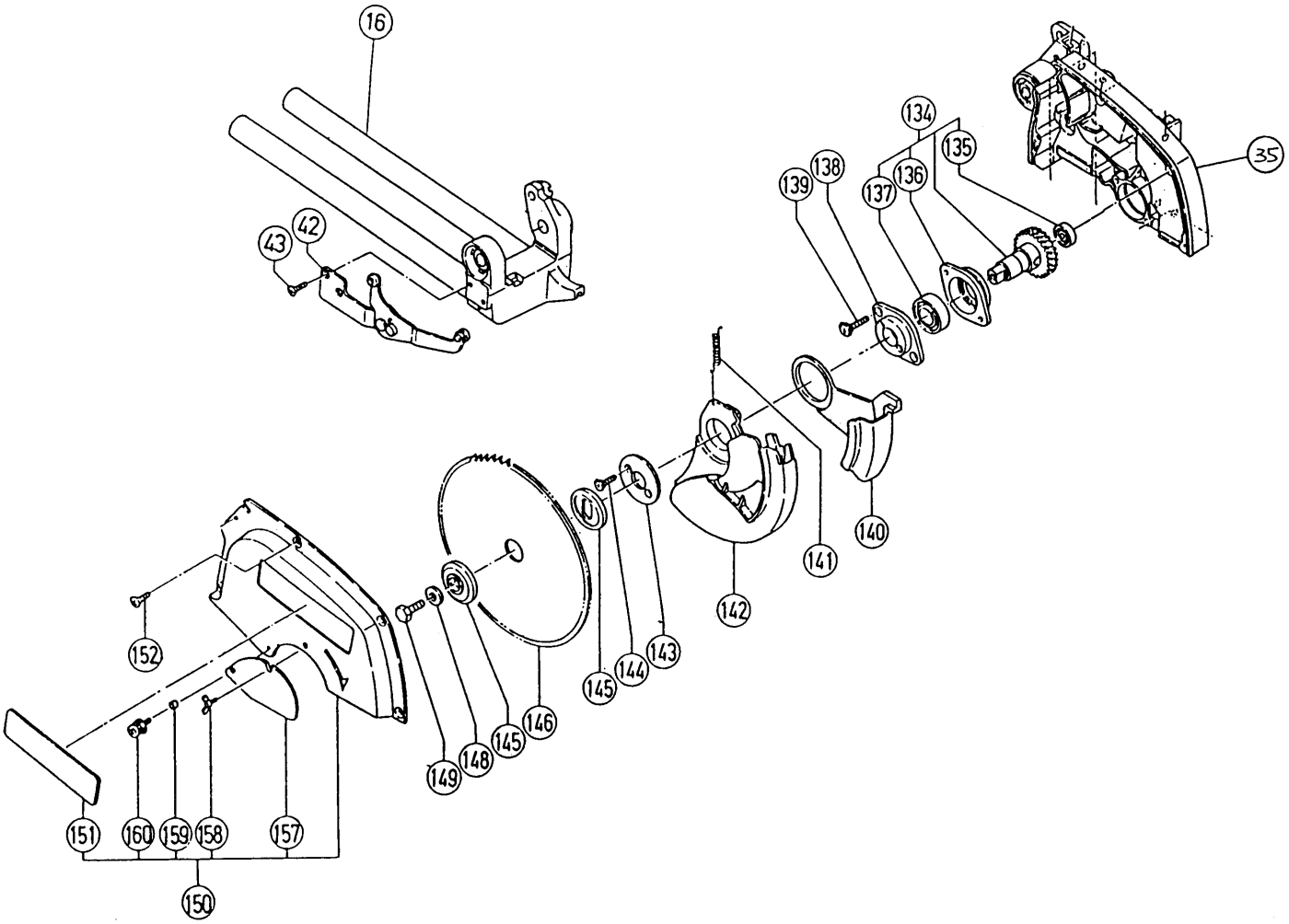


(1) Apply an appropriate roll pin remover to the end of each of the two D6 x 40 Roll Pins **[5]**, and tap them gently inward with a wooden or plastic hammer to disengage them. Then use the wooden or plastic hammer to lightly tap the Support **[4]** outward to remove it from Slide Pipes (A) and (B). Next, loosen the M8 Knob Bolt **[12]**, and slide the Hinge **[16]** to extract it from Holder (A) **[11]**.

(2) Remove the two M5 x 12 Machine Screws **[6]** which fix the two Packing Covers **[7]** to Holder (A) **[11]**, and remove the Packing Covers **[7]** and the four Felts **[8]**. Then, loosen the M8 x 8 Set Screw **[52]**, and tap gently on the Ball Brush **[9]** to remove it from Holder (A) **[11]**.

(3) Finally, take out the four Brushes **[10]**.
(When reassembling the four Bushes, please refer carefully to the instructions and precautuions listed in Paragra 1-5-(4), Assembly of the Bushes.)

D. Disassembly of the Saw Cover, Safety Cover, Spindle Assembly, and Washers (C):



Tools Required

- Plus Head Screwdriver
- 10 mm (.393") Box Wrench (standard accessory)
- Wooden or Plastic Hammer

(1) Remove the four M5 x 10 Flat Head Screws **[152]**, and take off the Saw Cover Assembly **[150]**.

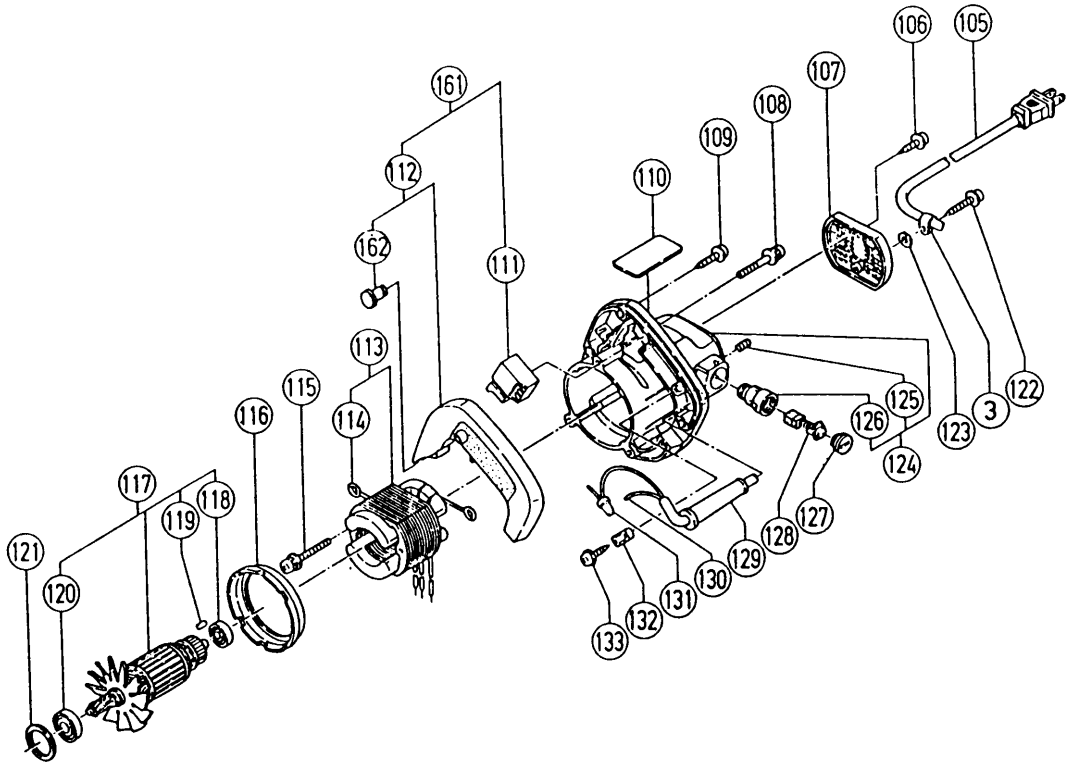
(2) Remove the M6 x 16 Flat Head Screw **[43]**, and disassemble the Ring **[42]** from the Hinge **[16]**.

(3) With the 10 mm (.393") Box Wrench, remove the M7 LH Bolt **[149]** and take off Washer (C) **[145]**, the TCT Saw Blade **[146]**, and the inner Washer (C) **[145]** in the order.

(4) Remove the two M4 x 12 Flat Head Screws **[144]**, and take off the Cover **[143]** and Safety Cover **[142]**, Return Spring **[141]** and Sub Cover **[140]**.

(5) Remove the two M5 x 35 Flat Head Screws **[139]**, and disassemble the Cover Holder **[138]** from the Gear Case Assembly **[35]**. Then lightly tap on the end surface of the Gear Case Assembly **[35]** with the wooden or plastic hammer to loosen and remove the Spindle Ass'y **[134]**.

E. Disassembly of the Housing Assembly, Switch, Armature Assembly, and Stator Assembly:



Tools Required

- Minus Screwdriver
- Plus Head Screwdriver
- Nippers
- Wooden or Plastic Hammer

(1) Disassembly of the Armature:

① Remove the Brush Caps **[127]**, and take out the Carbon Brushes **[128]**. Then, remove the three M5 x 50 Machine Screws (w/washer and spring washer) **[108]**. The Housing Assembly **[124]** together with the Handler Cover Assembly **[112]** can then be disassembled from the Gear Case Assembly **[35]**.

② Extract the Armature Assembly **[117]** from the Housing Assembly **[124]**.

(2) Remove the three D4 x 25 Tapping Screws **[109]**, and take off the Handle Cover Assembly **[112]**. The Switch **[111]** can be removed after disconnecting the leadwires from the Stator Assembly **[113]** and Cord **[105]**.

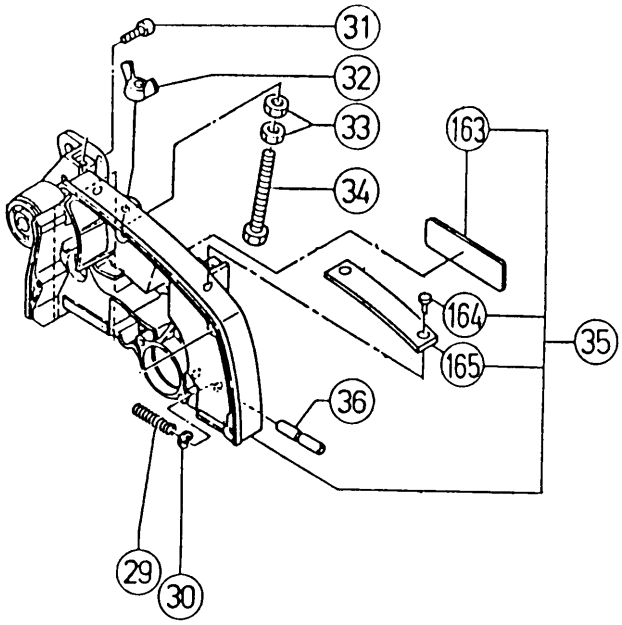
(3) Disassembly of the Stator Assembly:

① Remove the D4 x 20 Tapping Screw **[106]** (w/washer) and the D4 x 25 Tapping Screw **[122]** (w/washer), and disassembling the Tail Cover **[107]** from the Housing Assembly **[124]**.

② From the Brush Holders **[126]**, disconnect the Brush Terminals **[114]** of the Stator Assembly **[113]**. Then, cut off the single leadwire from the Stator Assembly **[113]** at the Connector **[131]** with the nippers.

③ Remove the two M5 x 60 Machine Screws **[115]** (w/washer and spring washer) which fix the Stator Assembly **[113]**, and then tap lightly on the Gear Case Assembly **[35]** mounting surface of the Housing Assembly **[124]** with a wooden or plastic hammer to loosen and remove the Stator Assembly **[113]**.

F. Disassembly of the Stopper Pin:



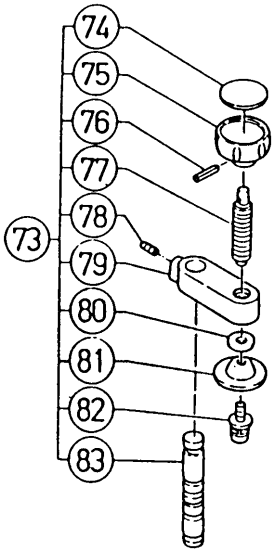
Tools Required

- Pliers

(1) First take off the Safety Cover **[142]**, and Return Spring **[141]** by following the disassembly procedures in Paragraph 1-1-D.

(2) With the pliers, extract the D7 E-Type Retaining Ring **[30]**, and disassemble the Stopper Pin **[36]** and the Spring **[29]**.

G. Disassembly of the Vise Assembly:



Tools Required

- 4 mm (.157") Hex. Bar Wrench
- Roll Pin Remover
- Plus Head Screwdriver

(1) Remove the M8 x 16 Set Screw **[78]**, and extract the Vise Shaft **[83]** from the Screw Holder **[79]**.

(2) Finally, remove the D4 x 25 Roll Pin **[76]** and the M6 x 10 Machine Screw (w/washer and spring washer) **[82]**, and take off the Knob **[75]** and the Vise Plate **[81]**.

1-2. Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

(1) Prior to reassembly, measure the insulation resistance of the Armature Assembly, Stator Assembly, Switch and other electrical components with a 500V DC Megohm Tester, and confirm that the insulation resistance of each part is more than 5 MΩ. If the insulation resistance of any component is less than 5 MΩ, that component must be replaced with a new one.

(2) If the M12 Nut **[45]** and M12 Cap Nut **[44]** of the Hinge Shaft **[47]** are fastened too tightly, it will interfere with the smooth movement of the Gear Case Assembly **[35]**; if they are fastened too loosely, there will be excessively play and vibration between the Gear Case Assembly **[35]** and the Hinge **[16]** which will result in uneven and inefficient cutting. Carefully adjust the M12 Nut **[45]** and M12 Cap Nut **[44]** so that the Gear Case Assembly **[35]** moves smoothly without excessive play or vibration.

(3) If the M12 Nut **[55]** and M12 Cap Nut **[54]**, Spring (C) **[63]**, and Steel Ball **[64]** of Holder Shaft **[61]** are fastened tightly, it will interfere with the smooth movement of Holder (A) **[11]**, and will result in ineffcient believing of the saw blade. Carefully adjust the M12 Nut **[55]** and M12 Cap Nut **[54]** so that the Holder (A) **[11]** slides smoothly without excessive play or vibration.

(4) When replacing the Spring **[26]**, apply approximately 3 grams (.11 oz) of grease (Hitachi Motor Grease, Code No. 930035, is recommended) to the inner circumference of the new Spring prior to assembly.

(5) When replacing or reassembling the Liner **[65]**, ensure it is positioned and assembled as illustrated in Fig. 1. In addition, coat approximately 8 grams (.28 oz) of grease (Hitachi Motor Grease, Code No. 930035, is recommended) on the Liner sliding portion of the Turn Table **[62]**.

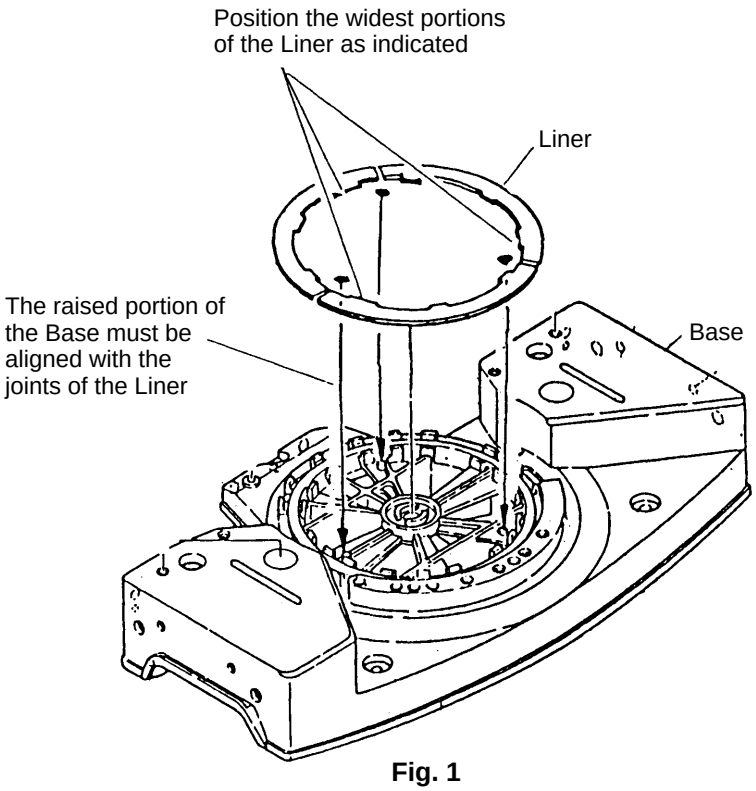


Fig. 1

(6) If the M12 Nut **[103]** and M12 Lock Nut **[104]** of the Shaft **[91]** are fastened too tightly, it will interfere with the smooth movement of the Turn Table **[62]**; if they are fastened too loosely, there will be excessive play and vibration of the Turn Table **[62]** that will cause uneven and inefficient cutting. Carefully adjust the M12 Nut **[103]** and M12 Lock Nut **[104]** so that the Turn Table **[62]** moves smoothly without excessive play or vibration.

(7) If it is necessary to replace the Hinge **[16]** or the Support **[4]**, first press Slide Pipes (A) and (B) of the Hinge **[16]** into the Support **[4]**, as illustrated in Fig. 2. Then, drill two vertical holes with a ϕ 6 mm drill as shown, and drive two D6 x 40 Roll Pines **[5]** into the drilled holes. This procedure is necessary to prevent Slide Pipes (A) and (B) from becoming twisted due to dislocation of holes. (When reassembling them, it is not necessary to drill ϕ 6 mm holes. Simply drive the D6 x 40 Roll Pins **[5]** into the previously drilled ϕ 6 mm holes.)

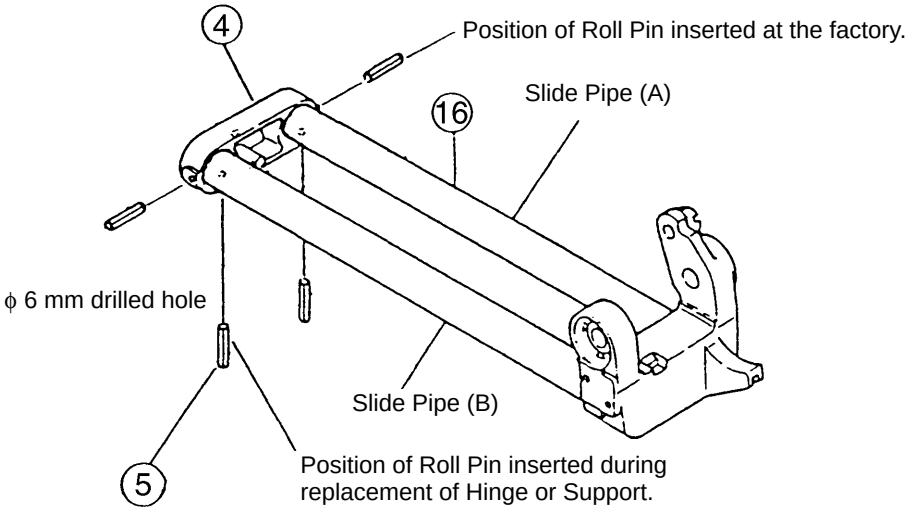
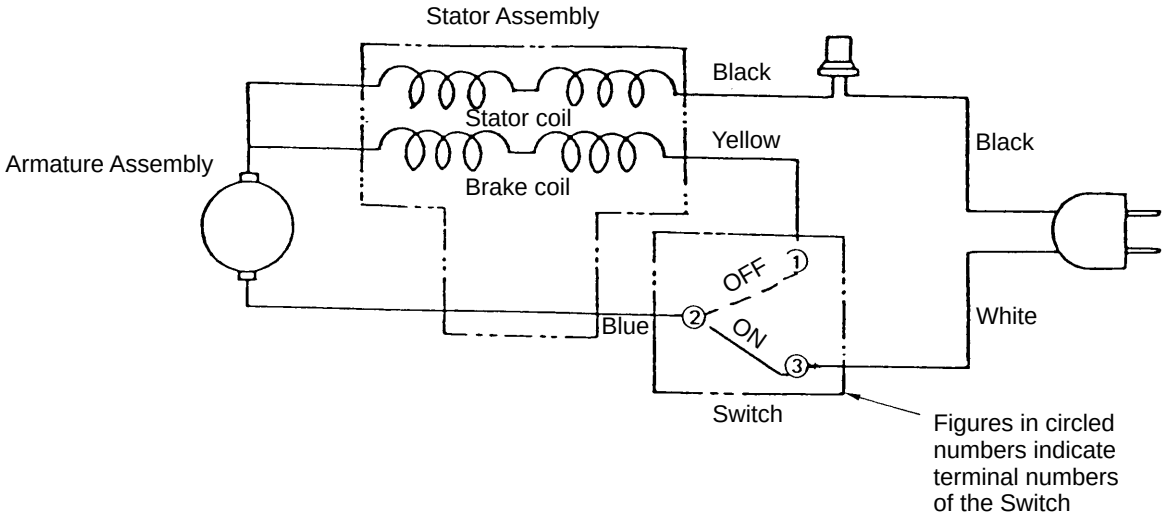


Fig. 2

1-3. Wiring Diagrams and Leadwire Arrangements:

The diagram and leadwire arrangement illustrated below are for 115 V products which are equipped with a dynamic brake. Carefully ensure that wiring is accomplished exactly as illustrated below. As incorrect wiring will result in lack of rotation, reverse rotation or other malfunctions, close attention is absolutely necessary.

(1) Wiring Diagram:



(2) Leadwire Arrangements:

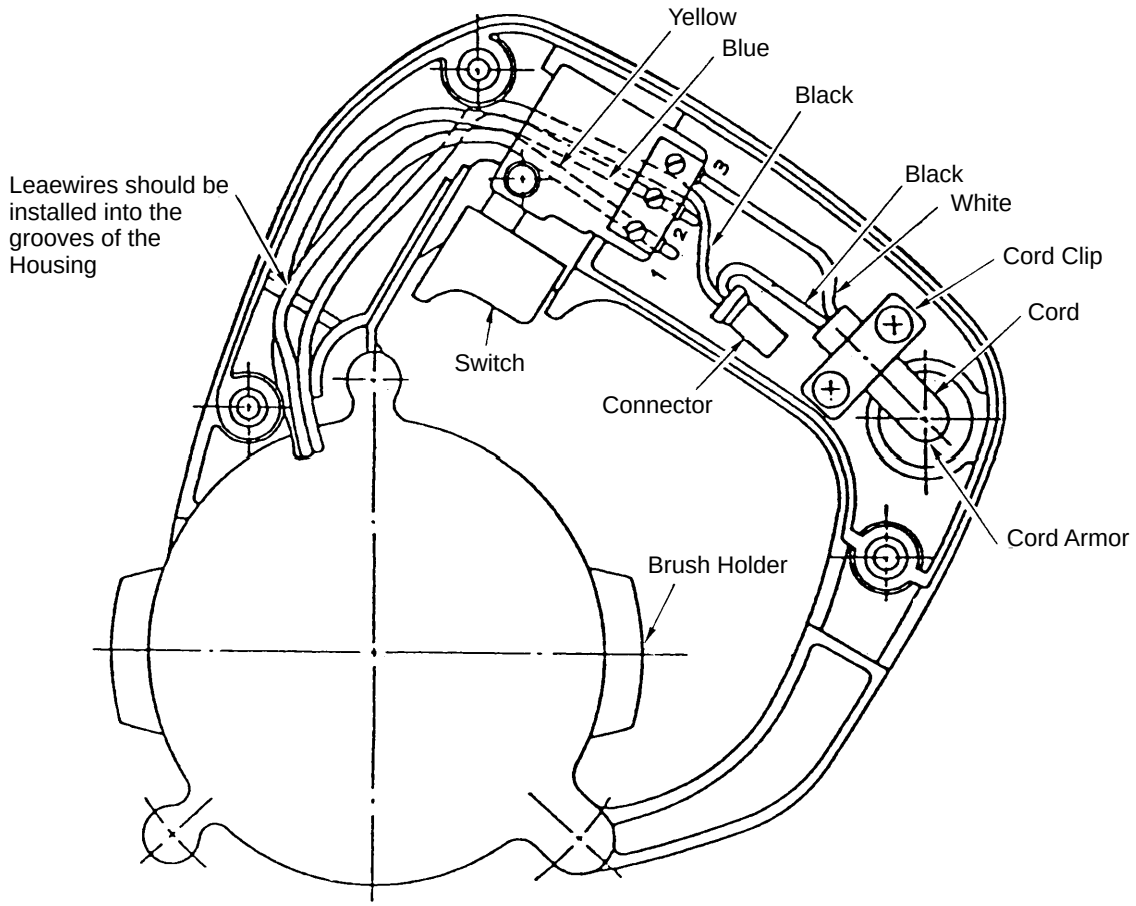


Fig. 3

1-4. Wiring Precautions:

When connecting leadwires, be very careful not to remove any more of the insulation coating of each leadwire than is absolutely necessary. Exposed cores of wires leading from the connectors, for example, are extremely hazardous. In particular, ensure that the leadwires are NOT pinched between the joint of the Handle Cover.

1-5. Assembly Adjustments Requiring Particular Attention:

(1) Adjustment to Ensure Perpendicularity of the Saw Blade (or Dummy Disc) and the Fences:

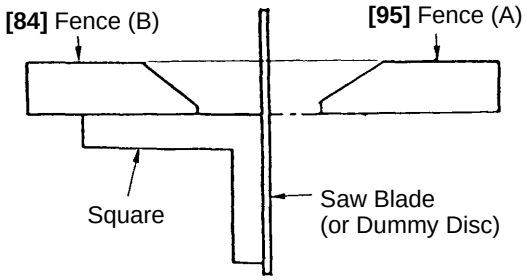


Fig. 4

After disassembly/reassembly or replacement of the Base Assembly **[66]**, Turn Table **[62]**, Fence (A) **[95]**, Fence (B) **[84]**, Holder (A) **[11]**, or the Hinge **[16]**, or after disassembly/ reassembly or adjustment of the Bushes **[10]**, it is necessary to perform necessary adjustments to ensure that the fences are positioned at exact right angles to the saw blade (or, for adjustment purposes only, a dummy disc). As illustrated in Fig. 4, place a square so that it is flush against the side surface of the saw blade (or dummy disc), and move the fence as necessary to adjust it to an exact right angle in relation to the saw blade (or dummy disc). Once one of the fences (either Fence (A) **[95]** or Fence (B) **[84]**) has been adjusted, use that fence as a standard to adjust the other fence. In this case, simply place a straightedge against the surfaces of both fences, and adjust the remaining fence so that it is exactly aligned with the adjusted fence. Finally, confirm that the second fence is properly adjusted by using the square to check the perpendicularity of the fence with the saw blade (or dummy disc).

(2) Adjustment of the Lower Limit position of the Saw Blade:

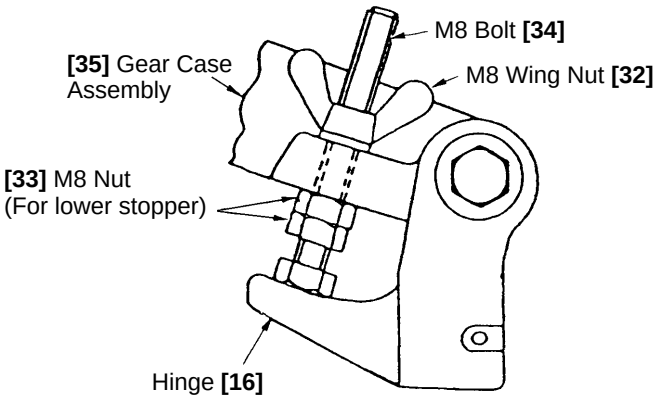


Fig. 5

The saw blade lower limit position must be adjusted so that the cutting edge of the saw blade projects 12 – 13 mm (15/32 – 1/2") below the upper surface of the base (or the upper surface of the table inserts) (see *). To perform the adjustment, loosen the M8 Wing Nut **[32]** and the two M8 Nuts **[33]**, and turn the M8 x 100 Bolt **[34]** as necessary to raise or lower the Gear Case Assembly **[35]** with relation to the upper M8 Nut **[33]**. Raising the Gear Case Assembly **[35]** raises the lower limit position of the saw blade, while lowering the Gear Case Assembly **[35]** lowers the lower limit position of the saw blade. When the positioning adjustment is completed, securely tighten the two M8 Nuts **[33]** against the lower surface of the Gear Case Assembly **[35]**, and thoroughly tighten the M8 Wing Nut **[32]**.

* The lower limit position of the saw blade is factory adjusted for dimension of 12 – 13 (15/32 – 1/2") below the upper surface of the base, as illustrated in Fig. 17. Carefully confirm that it is properly adjusted before operating the machine. If the lower limit dimension is less than the designated amount, there may be cases when the lower part of the workpiece on the fence (guard) side may not be cleanly cut off.

If it is necessary to adjust the saw blade lower limit, loosen the two M8 Nuts and the Lock Nut (see Fig. a) and adjust as necessary to obain the designated dimension. On completion of the adjustment, ensure without fail that the two M8 Nuts are securely tightened. Once the saw blade lower limit is properly adjusted, there should be no reason to readjust it.

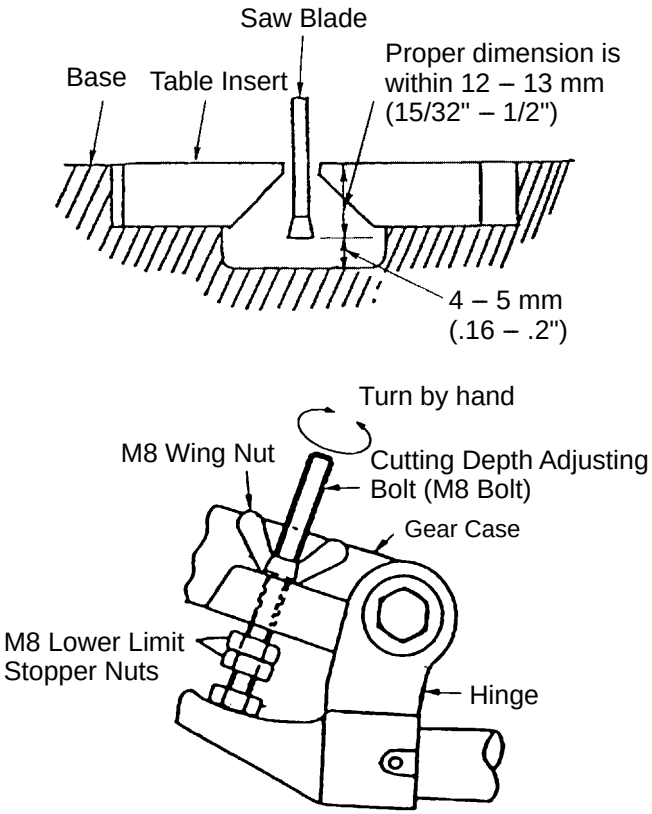


Fig. a

(3) Assembly of the Ball Bush (Linear Ball Bearing):

The Ball Bush **[9]** fits very closely into Holder (A) **[11]**, and must be inserted very carefully. When inserting the Ball Bush **[9]** gently tap it with a wooden or plastic hammer, being very careful to ensure that it is kept horizontally aligned with Holder (A) **[11]** throughout the insertion. After it has been fully inserted, tighten the M8 x 8 Set Screw **[52]** so that the Ball Bush **[9]** is properly locked in position. In addition, apply approximately 2 grams (.07 oz) of grease (Hitachi Motor Grease, Code No. 930035, is recommended) on the steel balls within the Ball Bush **[9]**, and coat machine oil on Slide Pipes (A) and (B).

Steel Ball Positioning

When assembling the Ball Bush **[9]** into Holder (A) **[11]**, insert it so that the steel balls within the Ball Bush **[9]** are positioned as illustrated on side (A) in Fig. 6. Visual alignment of the steel balls during assembly is acceptable. As shown in Fig. 6, the load is more evenly distributed when the steel balls are aligned as in side (A). The side (A) alignment is approximately 30 % more efficient than the alignment illustrated in side (B).

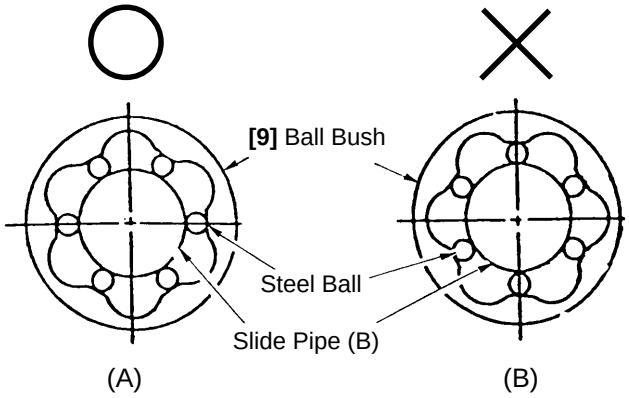


Fig. 6

(4) Assembly of the Bushes:

For play adjustment, please refer to Paragraph 1-2. Prior to inserting Slide Pipe (A) into Holder (A) **[11]**, position the four Bushes **[10]** so that they will not come in contact with Slide Pipe (A) during its insertion. At this time, place a little grease on the ends of the M8 x 16 Set Screws **[15]** so that the Bushes **[10]** will stick in position and not drop off. On completion of the assembly, tighten the M8 x 16 Set Screws **[15]** as described in Paragraph 1-2 to eliminate any excessive play or vibration in the movement of Slide Pipe (A). After completing adjustment, confirm that the thrust (force) required to slide the unit is within 2 – 3 kg (4.4 – 6.6 lbs), that the perpendicularity of the saw blade with relation to the upper surface of the base is within a tolerance of 0.15/100 mm (.006"/4"), that the perpendicularity of the fences with relation to the saw blade is within 0.15/100 mm (.006"/4"), and that the parallelism of the slide pipes with relation to the turn table is within a tolerance of 0.15/100 mm (.006"/4").

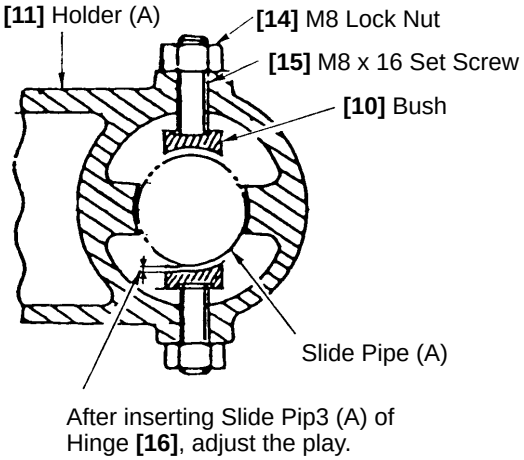


Fig. 7

(5) Assembly of the Turn Table: (See Fig. 8)

When assembling the Turn Table **[62]** and the Base Assembly **[66]**, mutually tighten the M12 Nut **[103]** and the M12 Lock Nut **[104]** so that the turn table turns smoothly without excessive play or vibration. During assembly, liberally apply grease (Hitachi Motor Grease, Code No. 930035, is recommended) on the portions marked Ⓐ in Fig. 8.

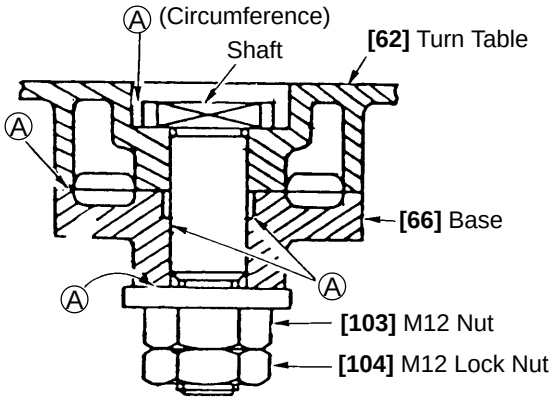


Fig. 8

1-6. Lubrication:

Advise the customer to lubricate the machine as indicated below at least once a month. Also, prior to applying the lubrication, any sawdust, dirt, or other foreign matter should be thoroughly wiped away with a soft rag.

(1) Swiveling Section of the Gear Case Assembly **[35]**:

Coat machine oil on the swiveling and sliding portions of the Gear Case Assembly **[35]** and Hinge **[16]**.

(2) Vise Section:

Coat machine oil on the Screw **[77]** portion of the Vise Assembly **[73]**.

(3) Slide Pipe Section:

Coat machine oil on the sliding portions of Slide Pipe (A), Slide Pipe (B), and the Hinge **[16]**.

1-7. Machine Accuracy:

On completion of assembly confirm the accuracy of the product as listed below standard.

Item	Accuracy
Deflection of the Saw Blade (or Dummy Disc)	0.15/200 mm (.006"/8")
Perpendicularity between the Base and Fences (A) and (B)	0.1/40 mm (.004"/1.574")
Straightness of Fences (A) and (B)	0.1 mm (.004")
Perpendicularity between the Saw Blade (or Dummy Disc) and Fences (A) and (B)	0.15/100 mm (.006"/4")
Parallelism between the Turn Table and Slide Pipe	0.3/180 mm (.012"/7-3/32")
Perpendicularity between the Saw Blade (or Dummy Disc) and Turn Table	0.15/100 mm (.006"/4")

1-8. Cutting Accuracy:

Prepare appropriate test workpieces, cut them as described, and measure cutting accuracy with a square or other standard measuring device to ensure they are within listed tolerances.

[CAUTION] The test workpieces should be processed with a jointer, and their dimensions and accuracy should be carefully checked prior to cutting tests. Test pieces which are manually and/or inaccurately prepared are useless to check the cutting accuracy of the Model C 8FB2.

(1) Press Cutting:

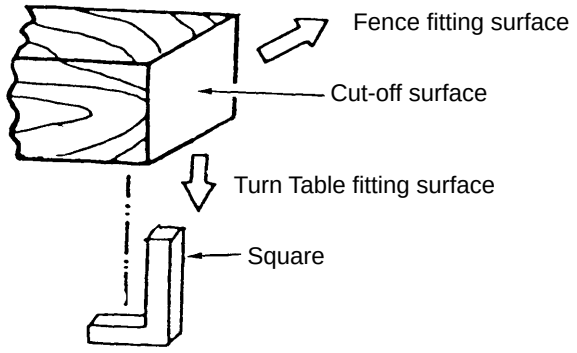
Cutting Conditions:

① Test piece: Yellow Pine 60 mm (2-3/8") Square Piece ..... All surfaces planed squarely.
(for 45˚ Bevel Cutting: 60 x 45 mm [2-3/8" x 1-25/32"])

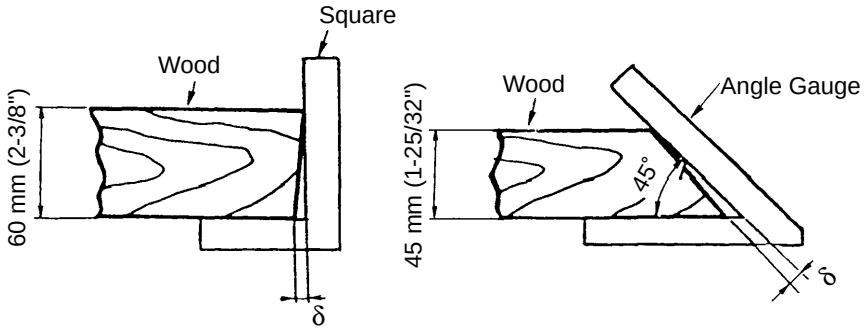
② Saw Blade: 216 mm (8-1/2") TCT Saw Blade (No. of Teeth 24)

③ Cutting Time: 0˚ (Plunge Cutting) ..... 6 sec.
45˚ (Bevel Cutting) ..... 9 sec.

④ Measuring Points:



⑤ Cutting Accuracy:



Angle \ Accuracy	δ
0˚	0.12 mm (.005") or Less
45˚	0.17 mm (.007") or Less

Fig. 9

(2) Bevel Cutting:

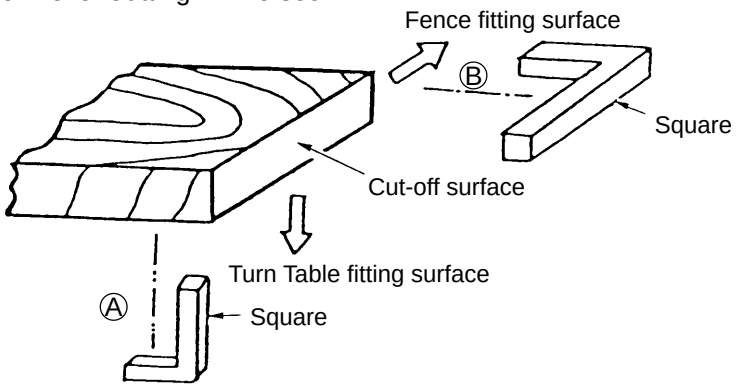
Cutting Conditions:

① Test piece: Yellow Pine 30 mm (1-3/16") – Height x 240 mm (9-7/16") – Width Piece ..... All surfaces are planed rectangularly.

② Saw Blade: 216 mm (8-1/2") TCT Saw Blade (No. of Teeth 24)

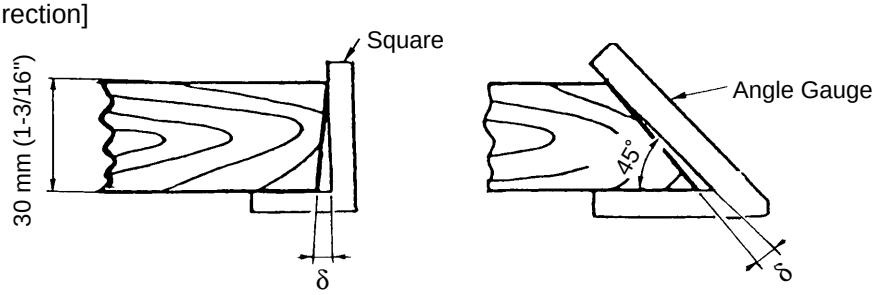
③ Cutting Time: 0˚ ..... 10 sec., 45˚ Bevel Cutting ..... 15 sec.

④ Measuring Points:

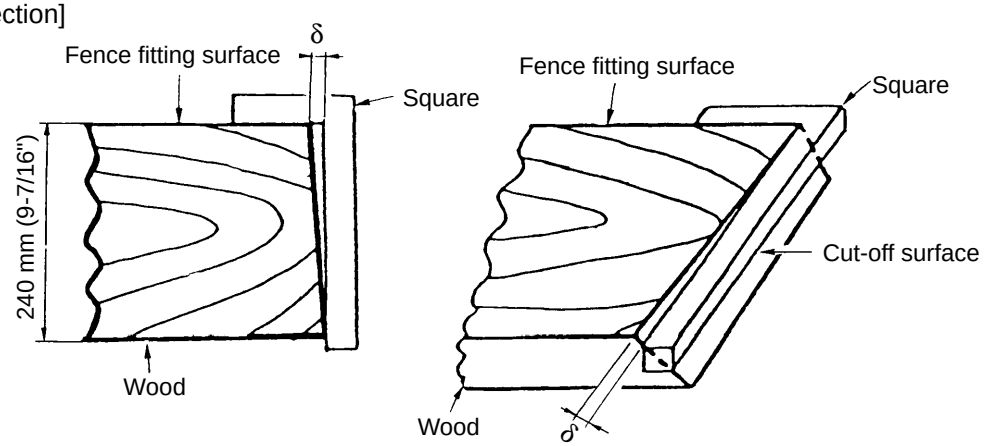


⑤ Cutting Accuracy:

[Ⓐ Direction]



[Ⓑ Direction]

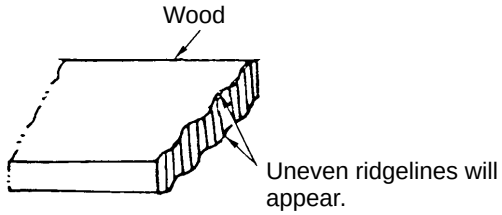


Angle \ Accuracy		δ
Ⓐ	0˚	0.06 mm (.0025")
	45˚	0.085 mm (.0035")
Ⓑ	0˚	0.5 mm (.02")
	Bevel Surface	0.5 mm (.02")

Fig. 10

[CAUTION]

If the test workpiece has uneven surfaces, the cutting surface obtained through bevel cutting will also clearly be uneven. Therefore, it is particularly necessary to carefully measure the test piece before performing the cutting test. Test workpieces which are cut with a bandsaw are particularly apt to have uneven surfaces.



(3) Miter Cutting:

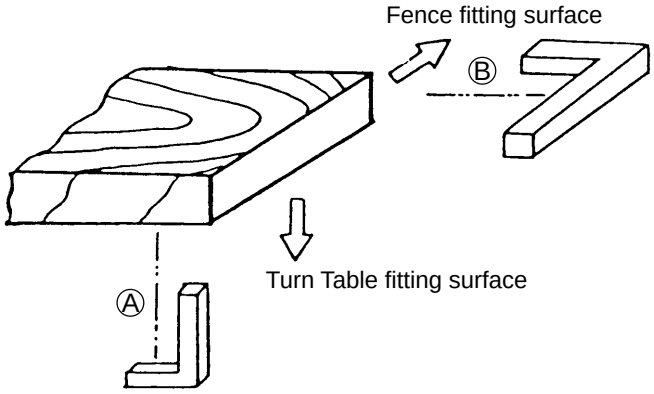
Cutting Conditions:

① Test piece: Yellow Pine 30 mm (1-3/16") – Height x 210 mm (8-5/16") – Width Piece ..... All surfaces are planed rectangularly.

② Saw Blade: 216 mm (8-1/2") TCT Saw Blade (No. of Teeth 24)

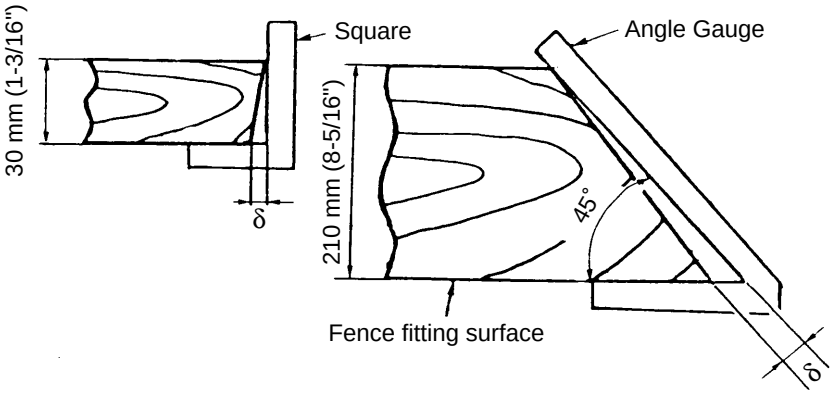
③ Cutting Time: 10 sec.

④ Measuring Points:



⑤ Cutting Accuracy:

[Ⓐ Direction] [Ⓑ Direction]

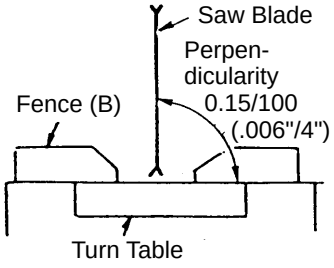
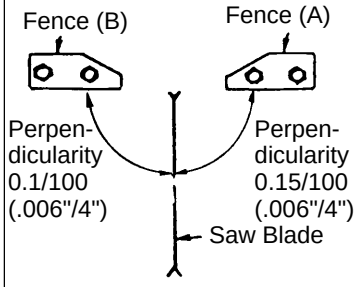
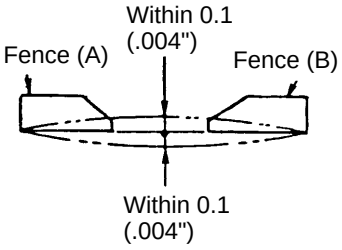
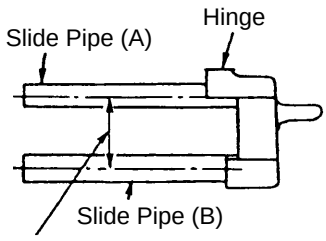
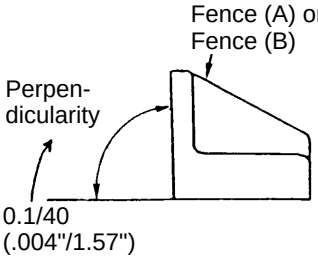


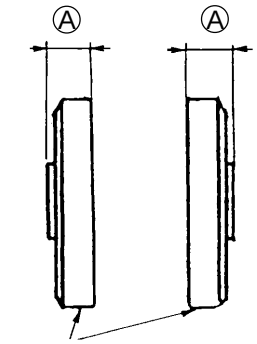
Angle \ Accuracy	δ
Ⓐ	0.06 mm (.0025")
Ⓑ	0.6 mm (.025")

Fig. 11

2. REPAIR GUIDE:

The circled numbers in the table below correspond to the item numbers in the Parts List and exploded assembly diagrams.

Item	Phenomenon	Possible Cause (s)	Standard	Inspection, Repair and Adjustment
1	Inaccurate cutting * Inaccurate perpendicularity of the cutting surface. * Inaccurate miter cutting  **Fig. 12**	a. Inaccurate perpendicularity causes inclined cutting of the Saw Blade into the workpiece.	0.15/100 (.006"/4") with use of a Dummy Disc (Fig. 12) When fully slid, deflection of the tip of the Dummy Disc must be within 0.25/100 (.01"/4")	• Readjust the perpendicularity with M8 Bolt **[59]**. • Readjust the play between the Hinge **[16]** and Gear Case assembly **[35]** with M12 Cap Nut **[44]** and M12 Nut **[45]**. • Readjust the gap between the Bush **[10]** and slide Pipe (A) of Hinge **[16]** with M8 Set Screw **[15]**. • If deformed, replace the Hinge **[16]**, Gear Case assembly **[35]**, or Turn Table **[62]**.
		b. Excessive deflection of the Saw Blade. (Excessive vibration)	0.15/200 (.006"/8") [Dummy Disc]	• Replace the TCT Saw Blade **[146]**. • Check for damage on Washer (C) **[145]**, smooth minor defects with a file. • Replace Washer if excessively damaged or deformed.
	 **Fig. 13**	c. Inaccurate perpendicularity of the Saw Blade with Fences (A) (B).	0.15/100 (.006"/4") (Fig. 13)	• Loosen the M8 Bolt **[94]**, and readjust it. • Replace Fences (A) **[95]** and (B) **[84]**.
		d. Due to inaccurate alignment of Fences (A) (B), the workpiece traces, and this causes inaccurate perpendicularity.	Within 0.1 (.004") (Fig. 14)	• Readjust alignment of Fences (A) **[95]**, (B) **[84]** by loosening M8 B915 **[94]**. • Replace Fences (A) **[95]** and (B) **[84]** if damaged.
		e. Inaccurate surface flatness of the Turn Table.	Within 0.15 (.006")	• Replace the Turn Table **[62]**.
	 **Fig. 14**	f. When slid, the perpendicularity between the Saw Blade and Turn Table varies.	Same as Item a (Fig. 15)	• Confirm the precision after press fitting Slide Pipes (A) and (B) of Hinge **[16]**, replace the Hinge component **[16]** if precision is inaccurate (Fig. 15) • Adjust the play between the Bushes **[10]** and Slide Pipe (A) with M8 Set Screws **[15]**. The saw blade section should slide smoothly. Slide thrust should be within 2 – 3 kg (4.4 – 6.6 lbs).
		g. Inaccurate perpendicularity of Fences (A) (B), Turn Table and Base causes inaccurate cutting angle when miter cutting is accomplished.	0.1/40 (.004"/1.57") (Fig. 16)	• Replace Fences (A) **[95]** and (B) **[84]**.
	 Parallelism and torsion tolerance 0.05/100 (.002"/4") or Less **Fig. 15**	h. There is a play in the swivel sliding portion between the Hinge **[16]** and Gear Case **[35]**, or swivel resistance is heavy. For above reasons, the Gear Case swivels, or excessive force applied causes deformation on each part.	—	• Confirm foreign matters (sawdust, chips etc.) are contained or not on the fitting surfaces of the Hinge **[16]**, Gear Case Assembly **[35]** or Hinge Shaft **[47]**. • Readjust the play between the Hinge **[16]** and the Gear Case Assembly **[35]** with M12 Cap Nut **[44]** and M12 Nut **[45]**.
		I. Excessively fast cutting speed causes deflection of the Saw Blade, and this causes inaccurate cutting.	—	• Reduce the cutting speed. (An appropriate cutting speed of 65 mm (2-9/16") square wood workpiece is 6 – 9 sec.).
	 **Fig. 16**	j. Excessive pressing force is required due to a dull or damaged Saw Blade.	—	• Resharpen or replace the Saw Blade.
		k. Deformation of the workpiece (deflected, bent, etc.) causes movement of the workpiece during cutting operation.	—	• Try cutting operation after correcting the deflection, bending of the workpiece with a planer.

Item	Phenomenon	Possible Cause (s)	Standard	Inspection, Repair and Adjustment
2	Rough Cutting Surface: Parallelism (A) = 0.03/44 (.001"/1.73")  Washer (C) **Fig. 17**	a. Large deflection of the Saw Blade. (Large deflection causes rough cutting surface.)	0.15/200 (.006"/8") [Dummy Disc]	Same as Item 1-(b).
		b. Irregular or heavy sliding resistance of Slide Pipe(s) prevent smooth cutting.	Appropriate sliding thrust is 2 – 3 kg (4.4 – 6.6 lbs).	• Coat machine oil on Sliding Pipes. • Check for damage on the Slide Shafts, and repair or replace as necessary.
		c. Excessive play of the Slide Pipes.	—	• Readjust the Bushes **[10]**. • Replace the Hinge component **[16]** and Ball Bush **[9]**.
		d. Damage of Washers (C) causes inaccurate parallelism.	0.03/44 (.001"/1.73") (Fig. 17)	• Remove damage on Washers (C) **[145]**, or replace if beyond repaired.
		e. Incorrect slide cutting method.	—	• Refer to Para. 8-5-(4), Slide Cutting is SERVICE MANUAL. Slide cutting should be accomplished by sliding smoothly with minimal thrust.
		f. Inaccurate perpendicularity between the Turn Table and Saw Blade causes tilted approach of the Saw Blade, and this causes uneven cutting surface.	0.15/100 (.006"/4") (Fig. 12)	• Same as Item 1-(a).
		g. Excessively fast Cutting Speed.	—	• Reduce the cutting speed.
		h. Improper fixing of the workpiece.	—	• Properly fix the workpiece with Vise Assembly.
		i. Turn Table is not fixed with Side Handle.	—	• When carrying out cutting operation, without fail fix the Turn Table **[62]** with Side Handle **[98]**.
		j. There is play in the swivel sliding portion between the Hinge and Gear Case, or swivel resistance is excessive.	—	Same as Item 1-(h).
		k. Deformation of the workpiece (deflected, bent, etc.) causes movement of the workpiece during cutting operation.	—	• Try cutting operation after correcting the deflection, bending of the workpiece with a planer.
		l. Excessive vibration.	—	• Recheck Items (a), (c), (d) and (j).
3	Saw Blade is Locked	a. Excessively fast cutting speed.	—	• Reduce cutting speed.
		b. Nominal sectional area of Extension Cord is too small.	—	• Use larger diameter and/or shorter Extension Cord.
		c. Excessive cutting thrust is applied due to a dull or damaged Saw Blade.	—	• Reasharpen or replace the Saw Blade.
		d. Incorrect Saw Blade.	—	• Use genuine Hitachi TCT Saw Blade. Increase of No. of teeth of Saw Blade causes increased cutting resistance. When using a saw blade with more than 24 teeth, reduce the cutting speed.
		e. Workpiece binds the Saw Blade during cutting operation due to deflection, bending, etc. of the workpiece.	—	• Plane the workpiece, and remove the deflection, bending, etc.