Power Tools Service Manual

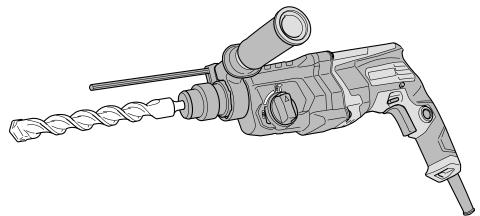
PRODUCT NAME

Rotary Hammer

Models 24 mm DH 24PG2 26 mm DH 26PB2 28 mm DH 28PBY2

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DH 28PBY2

Koki Holdings Co., Ltd.

Overseas Sales Management Dept.

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REPAIR GUIDE

WARNING: Be sure to disconnect the power cord plug from the wall outlet before conducting repair. Otherwise, the motor may run suddenly and you could get injured.

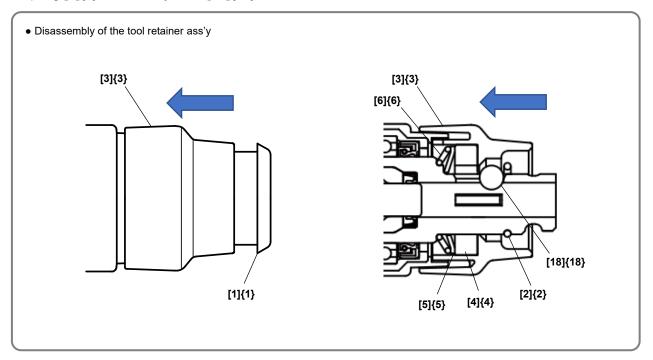
1. Precautions on disassembly and reassembly

[Bold] numbers in the description below correspond to the item numbers in the parts list and exploded assembly diagram for the Models DH 24PG2 and DH 26PB2, and **{Bold}** numbers to those for the Model DH 28PBY2.

Disassembly

1. Disassembly of the tool retainer ass'y

- Fully pull the Grip [3]{3} in the arrow direction and detach the Front Cap [1]{1}.
- Using a retaining ring puller, remove the Stopper Ring [2]{2} while pulling the Grip [3]{3} in the arrow direction.
- Detach the Grip [3]{3}, Ball Holder [4]{4}, Steel Ball D7.0 [18]{18}, Holder Plate [5]{5}, and Holder Spring [6]{6} from the Cylinder [19]{19}.



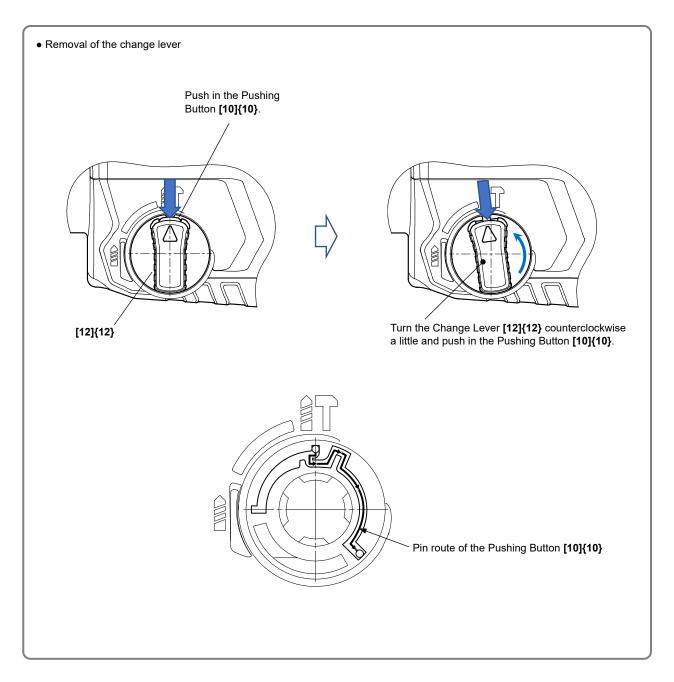
2. Removal of the change lever

Push in the Pushing Button [10]{10} at the "Rotation + Hammering" (mark) position, turn the Change Lever [12]{12} counterclockwise a little, and then fully push in the Pushing Button [10]{10}. In this state, turn the Change Lever [12]{12} clockwise. When the Change Lever [12]{12} stops, release the Pushing Button [10]{10} so that the Pushing Button [10]{10} protrudes from the Change Lever [12]{12} and then turn the Change Lever [12]{12} clockwise until it stops.

NOTE: If the Pushing Button [10]{10} does not protrude from the Change Lever [12]{12}, hold the Change Lever [12]{12} and move it from side to side slightly.

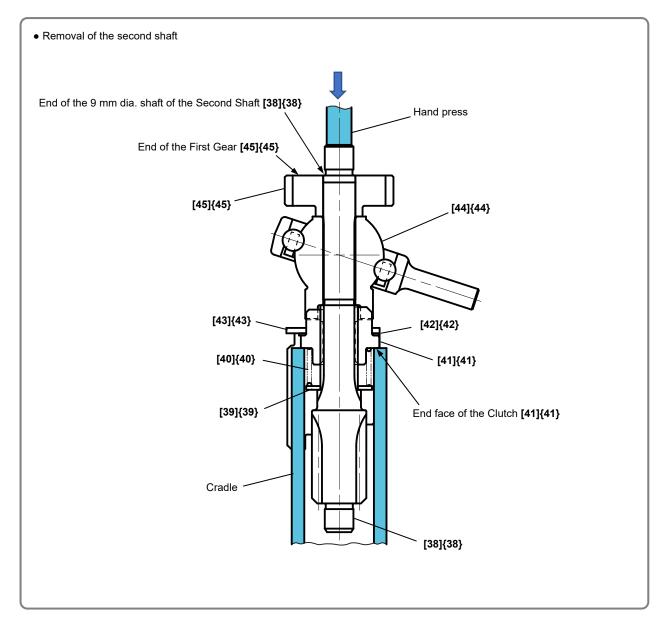
• Fully push in the Pushing Button [10]{10} and turn the Change Lever [12]{12} clockwise until it stops. At this position, pry the Change Lever [12]{12} off.

NOTE: Be careful not to let the Pushing Button [10]{10} pop out.



3. Disassembly of the hammering mechanism

- Use a drill bit or screwdriver to push the Second Hammer [27]{27} into the front end, and then remove the Striker [33]{33} that is chucked by O-ring (C) [30]{30}.
- Remove the Tapping Screw (W/Flange) D5 x 35 [69]{75} from the Housing [59]{65} and then detach the Gear Cover [14]{14}.
 - NOTE: Do not let the Inner Cover [48]{48} come off the Housing [59]{65}. Otherwise, the Armature [56]{62} is removed together with the Inner Cover [48]{48} causing damage to the carbon brushes and the commutator of the Armature [56]{62}.
- Rotate the Second Shaft [38]{38} to allow the Piston [35]{35} to reach the top dead point (towards the Inner Cover [48]{48}). The arm of the Reciprocating Bearing [44]{44} comes off the Piston Pin [36]{36} and the Bearing Washer [46]{46} and the parts on the Second Shaft [38]{38} come off together from the Inner Cover [48]{48}.
- Place the end face of the Clutch [41]{41} on the cradle as shown in the figure below. Push the rear end of the Second Shaft [38]{38} with a hand press to push out the First Gear [45]{45}, Reciprocating Bearing [44]{44}, Clutch [41]{41}, Change Plate [43]{43}, Washer [42]{42}, Clutch Spring [40]{40}, and Washer (C) [39]{39} from the Second Shaft [38]{38}. Note that the First Gear [45]{45} is press-fitted to the end of the 9 mm dia. shaft of the Second Shaft [38]{38} for alignment.



4. Disassembly of the cylinder ass'y

- (1) Disassembly of the slip clutch ass'y
 - Remove the tool retainer ass'y and pull out the Cylinder [19]{19} ass'y from the Gear Cover [14]{14}.
 - Remove Washer (A) [22]{22} from the Cylinder [19]{19} and use a retaining ring puller to pull out the Retaining Ring for D30 Shaft [23]{23}. Then remove Washer (A) [22]{22}, Spring (B) [21]{21}, and Second Gear [20]{20} from the Cylinder [19]{19}.

NOTE: Be careful not to let the Retaining Ring for D30 Shaft [23]{23} and Washer (A) [22]{22} pop out.

- (2) Removal of the parts from the inside of the cylinder
 - Use the special repair tools specified in the table for removal of the parts from the inside of the Cylinder [19]{19}.

•	Insert the non-hole side of J-341 stopper ring jig
	(A) into the Cylinder [19]{19} as shown in the

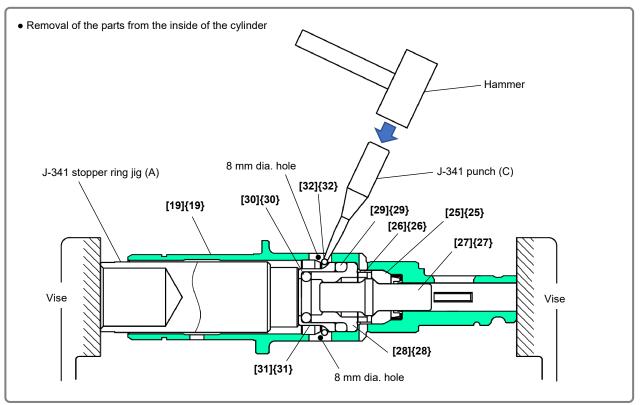
Spe	Code No.	
	Stopper ring jig (A)	324202
J-341	Ring puller jig (B)	324203
	Punch (C)	324204

figure below until it contacts the end of the Damper Holder **[31]{31}**. Clamp the ends of the Cylinder **[19]{19}** and J-341 stopper ring jig (A) with a vise to compress Damper (A) **[29]{29}**. (Push the Stopper Ring **[32]{32}** with J-341 punch (C) and make sure it moves a little.)

- In this state, insert J-341 punch (C) into each of the two 8 mm dia. holes on the Cylinder [19]{19}. Hammer the punch head to give force to the periphery of the Stopper Ring [32]{32} in order to detach the ring from the bore groove of the Cylinder [19]{19}. Fully hammer along the periphery of the Stopper Ring [32]{32} until the Stopper Ring [32]{32} disappears from the two 8 mm dia. holes.
- Unclamp the Cylinder [19]{19} from the vise and use J-341 ring puller jig (B) to pull out the Stopper Ring [32]{32} from the inner circumference of the Cylinder [19]{19}.

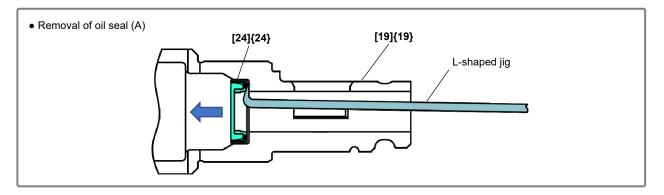
NOTE: Be careful not to let the Stopper Ring [32]{32} pop out.

- Once the Stopper Ring [32]{32} is detached from the Cylinder [19]{19}, Hammer Holder (B) [25]{25}, Holder Sleeve [26]{26}, Second Hammer [27]{27}, Hammer Holder (A) [28]{28}, Damper (A) [29]{29}, O-ring (C) [30]{30}, and the Damper Holder [31]{31} can be removed from the Cylinder [19]{19}.
 - NOTE: The Stopper Ring [32]{32} is deformed by disassembly and must be replaced with a new one when reassembled. Replace O-ring (C) [30]{30} with a new one at each disassembly to prevent idle-hammering.



• To remove Oil Seal (A) [24]{24} from the Cylinder [19]{19}, insert an L-shaped jig between Oil Seal (A) [24]{24} and Cylinder [19]{19} and push it backward.

NOTE: Oil Seal (A) [24]{24} is deformed by disassembly and must be replaced with a new one when reassembled.



Reassembly

Reassembly can generally be conducted by reversing the disassembly procedure. However, special attention should be given to the following items.

NOTE: The retaining rings, stopper rings, and oil seals are deformed by disassembly and must be replaced with new ones when reassembled.

1. Mounting the oil seals

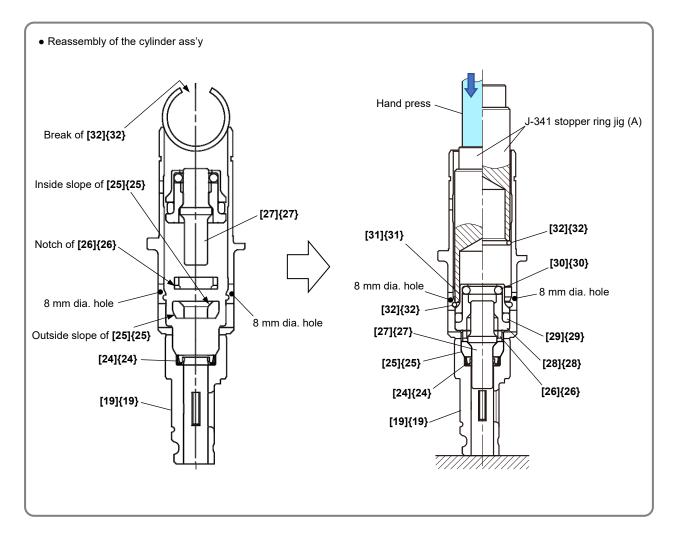
When mounting the Oil Seal **[8]{8}** and Oil Seal (A) **[24]{24}**, apply grease to the inner circumferences of both seals, but do not apply grease along their peripheries. Be careful not to skew the Oil Seal **[8]{8}** and Oil Seal (A) **[24]{24}** when press-fitting these parts.

2. Reassembly of the cylinder ass'y

- Use the J-341 stopper ring jig (A) (Code No. 324202) for reassembly of the cylinder ass'y.
- Press-fit Oil Seal (A) [24]{24} into the Cylinder [19]{19}.

NOTE: Do not reverse the orientation of Oil Seal (A) [24]{24}.

- Insert the set of Hammer Holder (B) [25]{25}, Holder Sleeve [26]{26}, Second Hammer [27]{27}, Hammer Holder (A) [28]{28}, Damper (A) [29]{29}, O-ring (C) [30]{30}, and Damper Holder [31]{31} into the Cylinder [19]{19} as shown in the figure below.
 - NOTE: Assemble with the outside slope of Hammer Holder (B) [25]{25} set at the front end and the inside slope set at the rear end, and with the notch of the Holder Sleeve [26]{26} set at the front end as shown in the figure below. Be careful of the assembling order.
- Push a new Stopper Ring [32]{32} into the Cylinder [19]{19} with the break of the Stopper Ring [32]{32} facing away from the 8 mm dia. holes on the Cylinder [19]{19} as shown in the figure below. If the Stopper Ring [32]{32} is mounted with the ring break aligning with the 8 mm dia. holes, it becomes difficult to disassemble the cylinder ass'y.
- Insert the hole side of J-341 stopper ring jig (A) into the Cylinder **[19]{19}**. Use a hand press to press against the upper end of the jig until the Stopper Ring **[32]{32}** is fitted into the bore groove of the Cylinder **[19]{19}**.
- Check that the Stopper Ring [32]{32} is fitted securely into the bore groove of the Cylinder [19]{19} through the two 8 mm dia. holes on the periphery of the Cylinder [19]{19}.

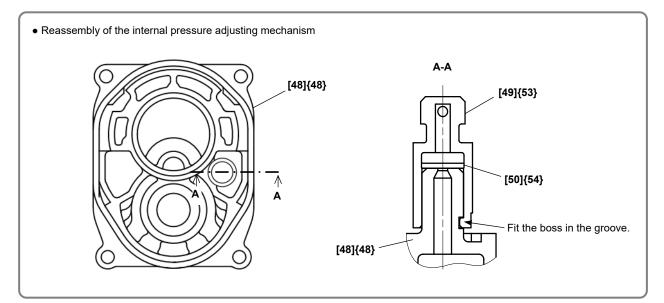


3. Press-fitting the first gear

Press-fit the First Gear **[45]{45}** so that the end of the First Gear **[45]{45}** aligns with the rear end of the 9 mm dia. shaft of the Second Shaft **[38]{38}**. After press-fitting the First Gear **[45]{45}**, check that the inner ring of the Reciprocating Bearing **[44]{44}** rotates smoothly.

4. Reassembly of the internal pressure adjusting mechanism

Insert Felt Packing (A) **[50]{54}** into the hole on the Air Cap **[49]{53}** and put the Air Cap **[49]{53}** over the 8.6 mm dia. shaft of the Inner Cover **[48]{48}**. Fit the boss inside the Air Cap **[49]{53}** hole in the groove on the 8.6 mm dia. shaft of the Inner Cover **[48]{48}**.

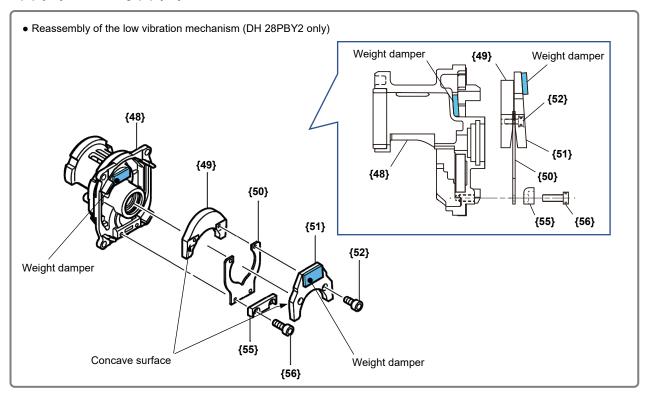


5. Reassembly of the low vibration mechanism (DH 28PBY2 only)

• Degrease the threaded portion of Weight (A) **{49}**. Secure Weight (B) **{51}** and Leaf Spring **{50}** to Weight (A) **{49}** with the Seal Lock Hex. Socket Hd. Bolt M3 x 8 **{52}** facing the concave surfaces as shown in the figure below.

NOTE: Check that the weight damper is adhered to Weight (B) {51}.

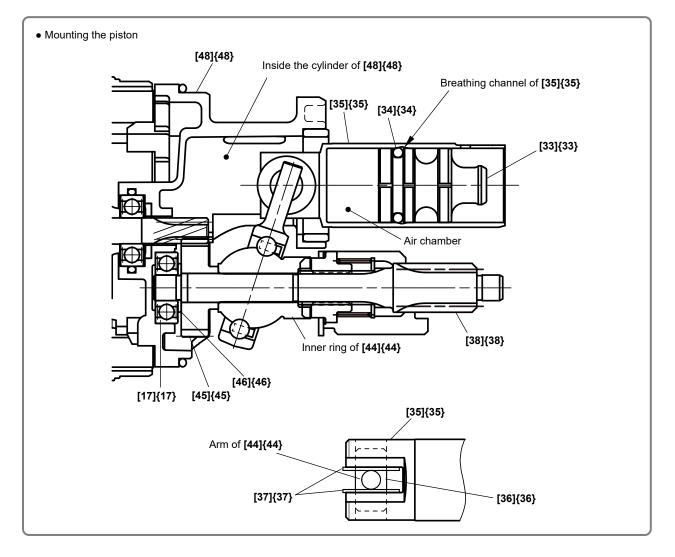
Check that the weight damper is adhered to the Inner Cover {48}. Degrease the threaded portion of the Inner Cover {48} and secure the Leaf Spring {50} and Spring Holder {55} to Inner Cover {48} with the Seal Lock Hex. Socket Hd. Bolt M4 x 12 {56} facing Weight (A) {49} to the Inner Cover {48} and Weight (B) {51} to Housing (B) {65}.



6. Mounting the piston

Mount the Piston [35]{35} as shown in the figure below.

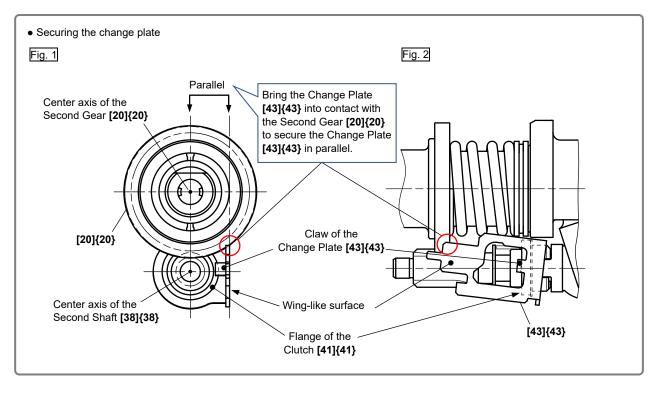
- Apply the specified grease to the inner and outer circumferences of the Piston [35]{35}. Also apply grease to the inner and outer circumferences of the Piston Pin [36]{36} and Piston Washer [37]{37}.
- Mount the Piston Washer [37]{37} on the Piston [35]{35} and then insert the Piston Pin [36]{36}.
- Fill the cylinder of the Inner Cover **[48]{48}** with 20 grams of the specified grease and then insert the Piston **[35]{35}** into the cylinder of the Inner Cover **[48]{48}**.
- Insert the arm of the Reciprocating Bearing [44]{44} of the Second Shaft [38]{38} ass'y into the Piston Pin [36]{36} so that the arm of the Reciprocating Bearing [44]{44} is sandwiched between the two Piston Washers [37]{37} as shown in the figure below.
- After inserting the arm, mount the Bearing Washer [46]{46} to the rear of the First Gear [45]{45}. Insert the rear end of the Second Shaft [38]{38} into the Ball Bearing 608VV [17]{17} mounted to the Inner Cover [48]{48}.
- After inserting the rear end of the Second Shaft **[38]{38}**, allow the inner ring of the Reciprocating Bearing **[44]{44}** to make one rotation and check that the Piston **[35]{35}** makes one reciprocation. Pull the Piston **[35]{35}** to check that it does not come off.
- Pushing the Striker [33]{33} into the Piston [35]{35} compresses the air in the air chamber. The compressed air is released when the O-ring [34]{34} exceeds the breathing channel of the Piston [35]{35}. Push in the Striker [33]{33} until the O-ring [34]{34} exceeds the breathing channel of the Piston [35]{35}. (Listen for the sound of air being released when the O-ring [34]{34} exceeds the breathing channel of the breathing channel of the Piston [35]{35}.

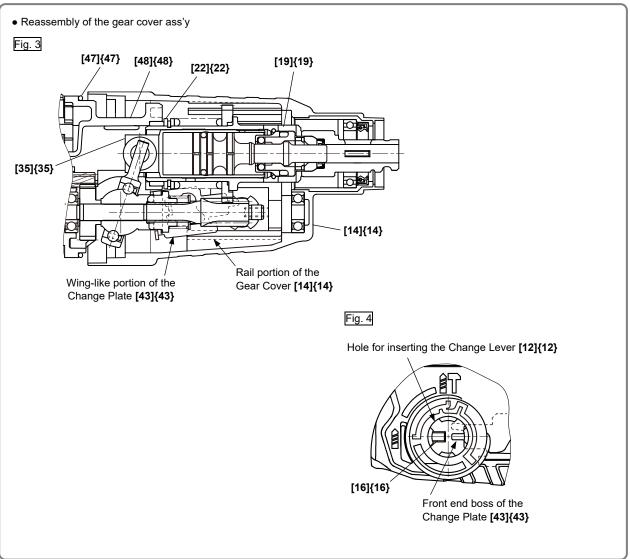


7. Reassembly of the gear cover ass'y

- Mount the O-ring [47] {47} to the Inner Cover [48] {48}.
- Mount Washer (A) [22]{22} and Cylinder [19]{19} ass'y to the Inner Cover [48]{48} ass'y mounted with the Piston [35]{35}.
- Put the claw of the Change Plate **[43]{43}** on the flange of the Clutch **[41]{41}**. Secure the Change Plate **[43]{43}** so that the wing-like surface of the Change Plate **[43]{43}** is parallel with the plane made by the center axis of the Second Gear **[20]{20}** and the center axis of the Second Shaft **[38]{38}** as shown in Fig. 1. To facilitate securing the Change Plate **[43]{43}** in parallel, bring the Change Plate **[43]{43}** into contact with the Second Gear **[20]{20}** tooth surface as shown in Fig. 2.
- Insert the Ball Bearing 6805 [9]{9} into the Gear Cover [14]{14} in which the Oil Seal [8]{8} is press-fitted. Insert Spring (E) [16]{16} into the hole beside the bearing chamber inside the Gear Cover [14]{14}.
- Adjust the position of the Gear Cover [14]{14} so that the wing-like portion of the Change Plate [43]{43} is inserted into the rail portion of the Gear Cover [14]{14} as shown in Fig. 3. Put the Gear Cover [14]{14} in position until the front end of the Change Plate [43]{43} can be seen from the insertion hole for the Change Lever [12]{12} (position indicated in Fig. 4).
- With the Gear Cover [14]{14} in that state, use a pair of tweezers or other means to reposition the Change Plate [43]{43} so that the front end boss of the Change Plate [43]{43} is inserted into Spring (E) [16]{16} (and the center axis of the Change Plate [43]{43} may be parallel with the center axis of the Second Shaft [38]{38}).
- Check that the front end boss of the Change Plate [43]{43} is inserted into Spring (E) [16]{16}, and then put the Gear Cover [14]{14} in position until it contacts the Housing [59]{65}.

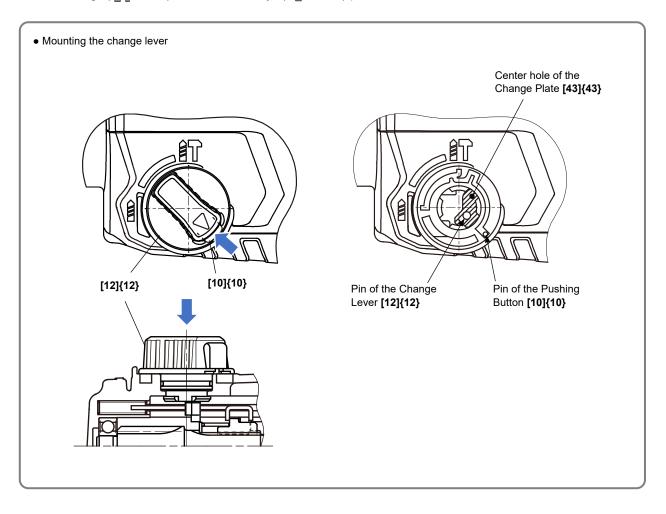
NOTE: Be careful not to get the O-ring [47]{47} caught in the Gear Cover [14]{14}.





8. Mounting the change lever

- Mount the Pushing Spring [11]{11}, Pushing Button [10]{10}, and O-ring [13]{13} to the Change Lever [12]{12}.
- Orient the Pushing Button [10]{10} to position its pin as shown in the figure below while pressing the Pushing Button [10]{10} into the hole on the Change Lever [12]{12}. Insert the Change Lever [12]{12} into the Gear Cover [14]{14} ass'y so that the pin of the Change Lever [12]{12} is inserted into the center hole of the Change Plate [43]{43}.
- Operate the Change Lever **[12]{12}** by reversing the disassembly procedure to set to the "Rotation + Hammering" (mark) or "Rotation only" (mark) position.



9. Operation check

If an improperly assembled product is powered on and its motor runs, components may be damaged. To prevent this, be sure to check the operation of the assembled product by following the procedure below first.

- (1) After reassembly, turn the Change Lever **[12]{12}** to "Rotation + Hammering" (mark) and "Rotation only" (mark) and check that it is switched normally.
- (2) Set the Change Lever [12]{12} to the "Rotation + Hammering" (mark) position. Insert the SDS plus shank into the Cylinder [19]{19} and let the Cylinder [19]{19} make one rotation. Check that the fan of the Armature [56]{62} rotates.
- (3) Set the Change Lever [12]{12} to the "Rotation only" (a mark) position. Insert the SDS plus shank into the Cylinder [19]{19} and let the Cylinder [19]{19} make one rotation. Check that the fan of the Armature [56]{62} rotates.

Lubrication points and type of lubricant

Apply the specified grease (rotary hammer grease) to the following portions.

- Periphery of the Second Hammer [27]{27} (Fig. 1), O-ring (C) [30]{30}, and Damper (A) [29]{29}
- Oil Seal (A) [24]{24} lip in the Cylinder [19]{19}
- Clutch claws of the Second Gear [20]{20} and Cylinder [19]{19} (Fig. 2)
- Inner circumference of the Cylinder [19]{19} (sliding portion of the Piston [35]{35}) (Fig. 3)
- Bore surface and arm of the Reciprocating Bearing [44] {44} (Fig. 4)
- Reciprocating Bearing [44]{44} rotating shaft and spline of the Second Shaft [38]{38} (Fig. 5)
- Clutch [41]{41}, Washer [42]{42}, and Change Plate [43]{43} contact portion (Fig. 6)
- Tooth plane of the First Gear [45] {45} and pinion tooth plane of the Armature [56] {62}
- Metal inner circumference of the Inner Cover [48] {48} (Fig. 9)
- Inner and outer surfaces of the Piston [35]{35}, inner and outer surfaces of the Piston Pin [36]{36}, and Piston Washer [37]{37} (Fig. 7)
- Periphery of the Striker [33]{33} and O-ring [34]{34} for the Striker [33]{33} (Fig. 8)
- Oil Seal **[8]{8}** lip in the Gear Cover **[14]{14}**, ball portion of the Ball Bearing 6805 **[9]{9}** (Fig. 10), and Spring (E) **[16]{16}**
- Washer (A) [22]{22} and tooth plane of the Second Gear [20]{20} (Fig. 3)
- Inner circumference of the 20 mm dia. hole of the Gear Cover [14]{14} and the O-ring [13]{13} for the Change Lever [12]{12}
- Steel Ball D7.0 [18]{18}

Fill the following portions with the specified grease (rotary hammer grease).

• Ball portion of the Reciprocating Bearing [44] {44} (Fig. 4) ·····
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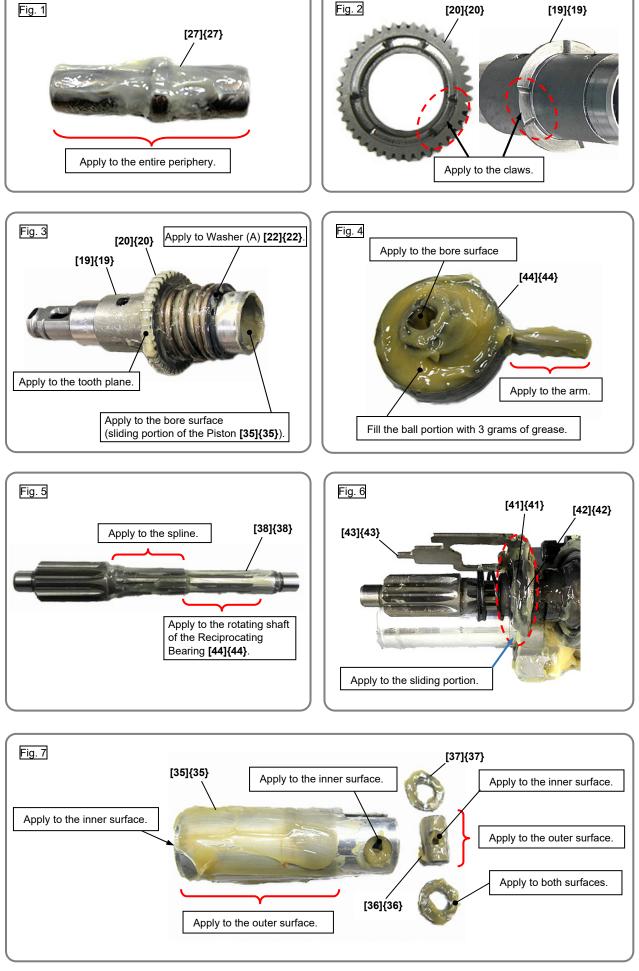
- Hollow on abutted surface for the Ball Bearing 608VV [17]{17} of the Gear Cover [14]{14} (Fig. 10)0.3 g

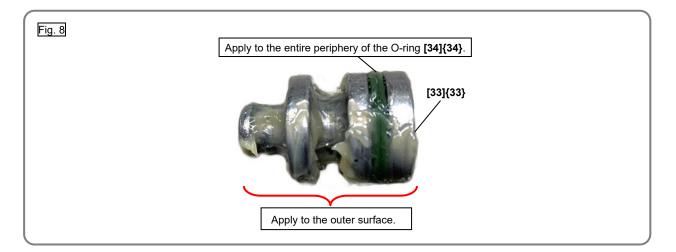


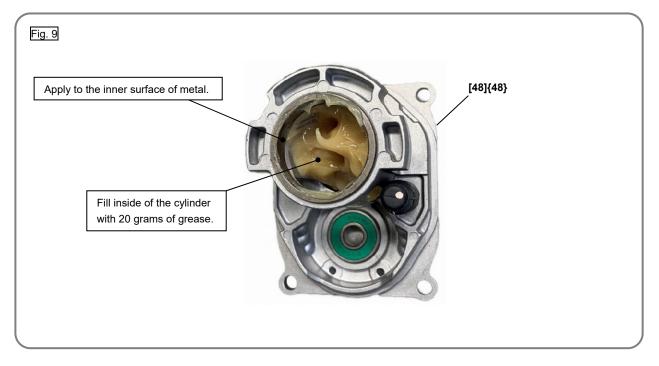
Net weight	Code No.
500 g	335781
60 g	335782

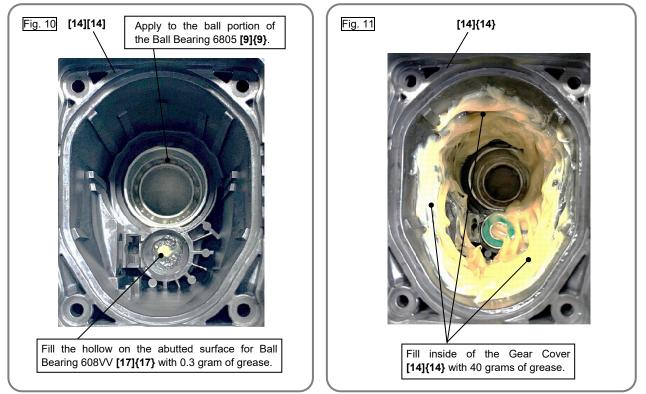
CAUTION: The viscosity and consistency of this specified grease are optimized for the rotary hammer Models DH 24PG2, DH 26PB2, and DH 28PBY2 in order to prolong the service life. Therefore, applying other grease to these models may significantly shorten the service life.

Apply or fill with the specified grease unless otherwise specified.









Tightening torque

Item	Item No.		Tightenir	Tightening torque	
DH 24PG2 DH 26PB2	DH 28PBY2	Part name	N•m	kgf•cm	
—	{52}	Seal Lock Hex. Socket Hd. Bolt M3 x 8	2.45±0.5	25±5	
—	{56}	Seal Lock Hex. Socket Hd. Bolt M4 x 12	3.43±0.5	35±5	
[57]	{63}	Hex. Hd. Tapping Screw D4 x 45	1.96±0.5	20±5	
[69]	{75}	Tapping Screw (W/Flange) D5 x 35	2.94±0.5	30±5	
[73]	{79}	Tapping Screw (W/Flange) D4 x 16	1.96±0.5	20±5	
[76]	{82}	Tapping Screw (W/Flange) D4 x 20 (Black)	1.96±0.5	20±5	

Insulation test

Measure the insulation resistance and conduct a dielectric strength test after reassembly.

- Insulation resistance: 7 M Ω or higher (as measured with a 500 VDC megohm tester)
- Dielectric strength: $110 V 127 V \cdots 2,500 VAC$ per minute, with no abnormalities
 - 220 V 240 V ······4,000 VAC per minute, with no abnormalities

No-load current value

After no-load operation for 30 minutes, the no-load current value at a frequency of 50/60 Hz must be as follows.

• DH 24PG2

Voltage	110 V	220 V	230 V
Current max.	3.7 A	1.8 A	1.9 A

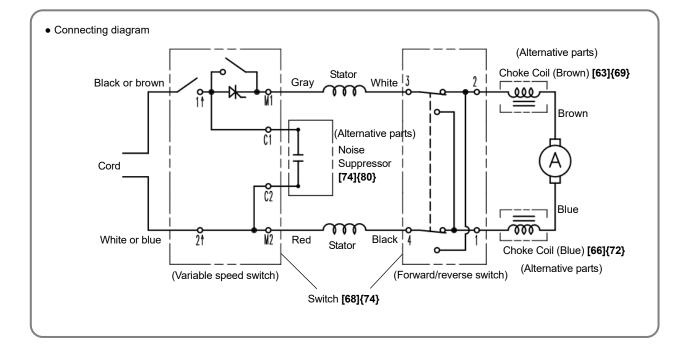
• DH 26PB2

Voltage	110 V	120 V	220 V	230 V	240 V
Current max.	4.7 A	4.2 A	2.1 A	2.2 A	2.1 A

• DH 28PBY2

Voltage	110 V	220 V	230 V	240 V
Current max.	4.7 A	2.1 A	2.2 A	2.1 A

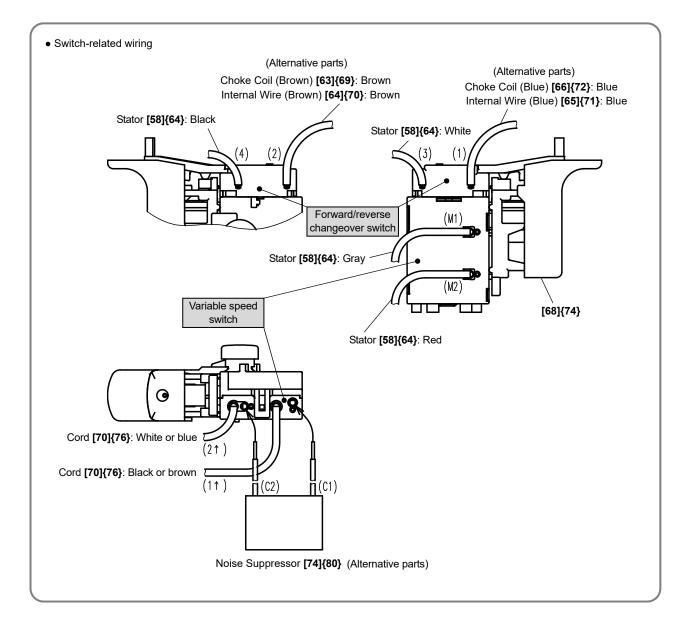
Connecting diagram



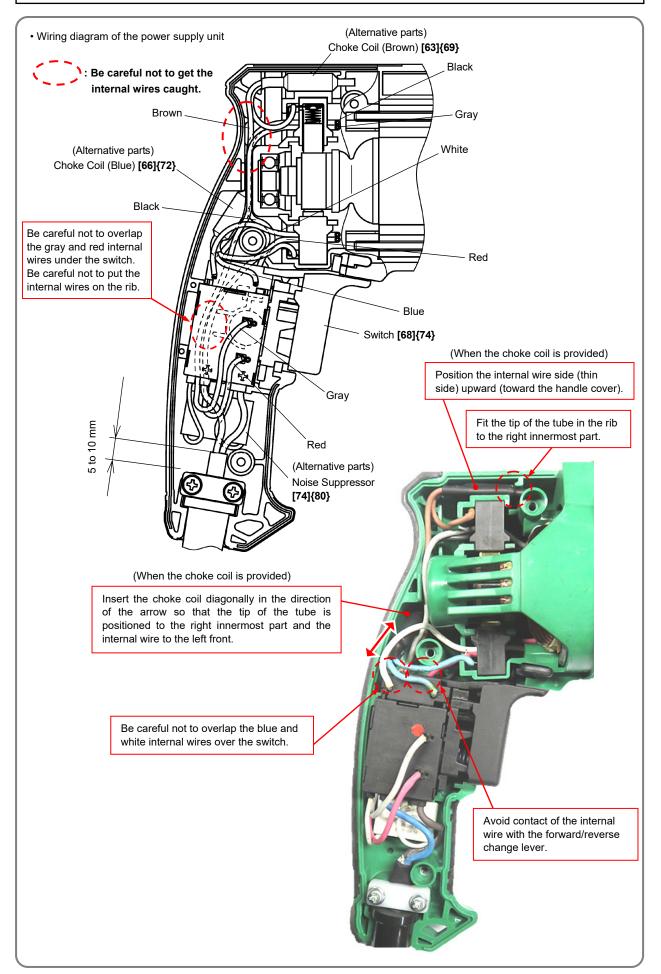
Switch-related wiring

(1) Wiring of the forward/reverse changeover switch

- Insert the Choke Coil (Blue) [66]{72} or the Internal Wire (Blue) [65]{71} into the terminal (1) and the Choke Coil (Brown) [63]{69} or the Internal Wire (Brown) [64]{70} into the terminal (2) marked on the Switch [68]{74} as shown in the figure below. Then, insert the white internal wire coming from the Stator [58]{64} into the terminal (3) and the black internal wire coming from the Stator [58]{64} into the Switch [68]{74}.
- After inserting the internal wires, pull the internal wires lightly to check that they do not come off.
- When removing the internal wires, insert the tip of a small flat-blade screwdriver or a needle into the window portion provided on the side of each terminal and pull out the internal wire.
- (2) Wiring of the variable speed switch
 - Insert the black or brown Cord [70]{76} into the terminal (1↑) and the white or blue Cord [70]{76} into the terminal (2↑) marked on the Switch [68]{74} as shown in the figure below. Tighten each terminal screw with tightening torque of 0.5 ± 0.1 N•m (5 ± 1 kg•cm).
 - Insert the gray internal wire coming from the Stator [58]{64} into the terminal (M1) and the red internal wire coming from the Stator [58]{64} into the terminal (M2). Insert the internal wires coming from the Noise Suppressor [74]{80} into the terminals (C1) and (C2).
 - After inserting the cords and internal wires, pull them lightly to check that they do not come off.
 - When removing the internal wires, insert the tip of a small flat-blade screwdriver or a needle into the window portion provided on the side of each terminal and pull out the internal wire.



Wiring diagram



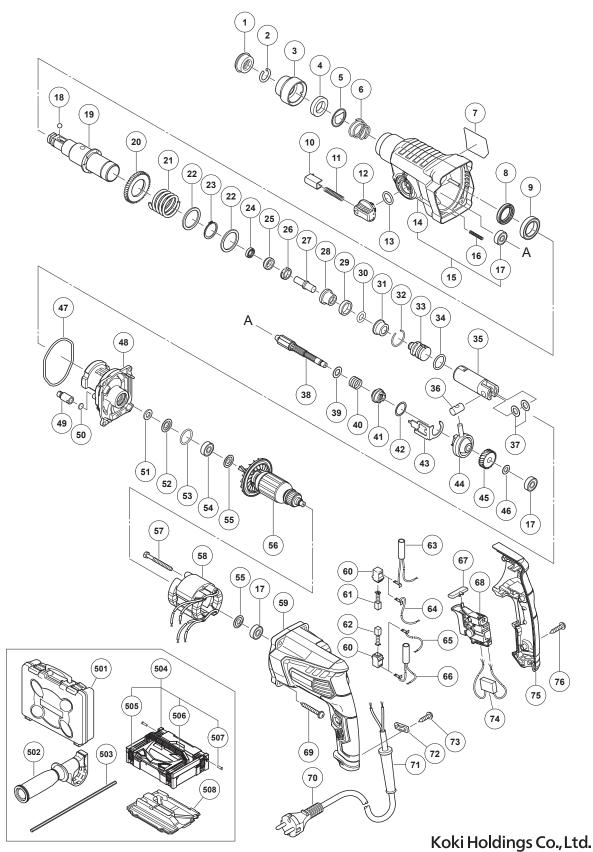
LIST NO. F446

ELECTRIC TOOL PARTS LIST

ROTARY HAMMER Model DH 26PB2

2019·3·29

(E1)



PA	RTS				DH 26PB
ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	306345	FRONT CAP	1		
2	306340	STOPPER RING	1		
3	374436	GRIP	1		
4	374437	BALL HOLDER	1		
5	374435	HOLDER PLATE	1		
6	322812	HOLDER SPRING	1		
7		NAME PLATE	1		
8	335259	OIL SEAL	1		
9	6805BB	BALL BEARING 6805	1		
10	322789	PUSHING BUTTON	1		
11	317223	PUSHING SPRING	1		
12	334011	CHANGE LEVER	1		
13	878885	O-RING (S-18)	1		
14	374620	GEAR COVER	1		
15	375017	GEAR COVER ASS'Y	1	INCLUD.14,17	
16	335800	SPRING (E)	1		
17	608VVM	BALL BEARING 608VVC2PS2L	3		
18	335300	STEEL BALL D7.0 (10 PCS.)	1		
19	374426	CYLINDER	1		
20	335265	SECOND GEAR	1		
21	374430	SPRING (B)	1		
22	301679	WASHER (A)	2		
23	948310	RETAINING RING FOR D30 SHAFT	1		
24	335262	OIL SEAL (A)	1		
25	374431	HAMMER HOLDER (B)	1		
26	374427	HOLDER SLEEVE	1		
27	374432	SECOND HAMMER	1		
28	374429	HAMMER HOLDER (A)	1		
29	322805	DAMPER (A)	1		
30	322808	O-RING (C)	1		
31	324524	DAMPER HOLDER	1		
32	322807	STOPPER RING	1		
33	374443	STRIKER	1		
34	372816	O-RING	1		
35	372817	PISTON	1		
36	335793	PISTON PIN	1		
37	335794	PISTON WASHER	2		
38	374621	SECOND SHAFT	1		
39	335251	WASHER (C)	1		
40	323182	CLUTCH SPRING	1		
41	375022	CLUTCH	1		
42	331315	WASHER	1		
43	335252	CHANGE PLATE	1		
44	335249		1		
45	374441	FIRST GEAR	1		
46	374442	BEARING WASHER	1		
47	335245	O-RING D72.2	1		
48	374433	INNER COVER	1		
49	334008	AIR CAP	1		
50	324543	FELT PACKING (A)	1		

ITEI NC	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
5		FELT PACKING	1		
5	2 322818	PACKING WASHER	1		
5	3 876796	O-RING (P-22)	1		
5	4 608DDM	BALL BEARING 608DD	1		
5	5 982631	WASHER (A)	2		
5	6 361106C	ARMATURE (A) 110V	1		
5	6 361106D	ARMATURE (A) 120V	1		
5	6 361106E	ARMATURE (A) 220V-230V	1		
5	6 361106F	ARMATURE (A) 240V	1		
5	7 981824	HEX. HD. TAPPING SCREW D4 X 45	2		
5	8 341028H	STATOR (A) 110V	1		
5	8 341028C	STATOR (A) 110V (W/CR)	1	FOR TPE	
5	8 341028D	STATOR (A) 120V	1		
5	8 341028K	STATOR (A) 220V-230V	1		
5		STATOR (A) 240V	1		
	9 374616	HOUSING (A)	1		
5		HOUSING (A)	1	FOR MEX	
6		BRUSH HOLDER	2		
6	1 999041	CARBON BRUSH (1 PAIR)	1		
6	2 999072	CARBON BRUSH (AUTO STOP TYPE) (1 PAIR)	1		
-	3 374615	CHOKE COIL (BLOWN)	1	FOR EUROPE,RUS,CHN,TPE	
6	4 374613	INTERNAL WIRE (BROWN)	1	EXCEPT FOR EUROPE,RUS,CHN,TPE	
6		INTERNAL WIRE (BLUE)	1	EXCEPT FOR EUROPE,RUS,CHN,TPE	
-	6 374614	CHOKE COIL (BLUE)	1	FOR EUROPE,RUS,CHN,TPE	
6		PUSHING BUTTON	1		
-	8 374611	SWITCH 100V-127V	1		
-	8 374610	SWITCH 220V-240V	1		
6		TAPPING SCREW (W/FLANGE) D5 X 35	4		
	0 500390Z	CORD	1	(CORD ARMOR D8.8)	
	0 500239Z	CORD		(CORD ARMOR D10.1) FOR THA,HKG (110V),	
				UAE (110V)	
7	0 500424Z	CORD		(CORD ARMOR D8.8) FOR MAL,SIN,UAE (230V)	
	0 5004242 0 500440Z	CORD		(CORD ARMOR D8.6) FOR MAL, SIN, DAE (230V)	
	0 5004402 0 500249Z	CORD	1	(CORD ARMOR D8.8) FOR MEX	
	0 5002492 0 500496Z	CORD	1	(CORD ARMOR D8.8) FOR CHN	
	0 323974	CORD	1	(CORD ARMOR D10.1) FOR TPE	
	1 953327	CORD ARMOR D8.8	1		
	1 938051	CORD ARMOR D8.8	1		
	2 937631	CORD CLIP	1		
	3 984750	TAPPING SCREW (W/FLANGE) D4 X 16	2		
	4 930039	NOISE SUPPRESSOR	1	FOR EUROPE,RUS,CHN,TPE	
	4 930039 5 374617	HANDLE COVER (A)	1		
	6 301653	TAPPING SCREW (W/FLANGE) D4 X 20 (BLACK)	3		
1	501055	TAFFING SCREW (W/FLANGE) D4 X 20 (DLACK)	3		
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STANDARD ACCESSORIES

[ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	501	374619	CASE	1		
	502	374447	SIDE HANDLE	1		
*	503	303709	DEPTH GAUGE	1		
*	503	310331	DEPTH GAUGE	1	FOR MEX	
	504	337739	CASE ASS'Y (STACKABLE 1)	1	INCLUD.505-507	
	505	336472	LATCH	4		
	506	336473	HANDLE	1		
	507	336474	HINGE	2		
	508	337741	INNER TRAY	1		

OPTIONAL ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
601	306885	DUST COLLECTOR (B) ASS'Y	1	INCLUD.602,610	
602	986802	DUST COLLECTOR ASS'Y	1	INCLUD.603-609	
603	986803	DUST COVER	1		
604	986804	SEAL COVER	1		
605	948310	RETAINING RING FOR D30 SHAFT	1		
606	958063	WASHER	1		
607	959150	STEEL BALL D6.35 (10 PCS.)	19		
608	986805	OUTER RACE	1		
609	986806	SOCKET	1		
610	306910	SOCKET ADAPTER (B)	1		
611	971787	DUST CUP	1		
612	931844	STOPPER	1		
613	321814	DRILL CHUCK 13VLRB-D	1	INCLUD.614	
614	331966	FLAT HD. SCREW (LEFT HAND) M6 X 20	1		
615	321813	DRILL CHUCK 13VLD-D	1		
616	971511Z	+ DRIVER BIT (A) NO.2 25L	1		
617	971512Z	+ DRIVER BIT (A) NO.3 25L	1		
618	971794	ANCHOR SETTING ADAPTER A W1/4" (MANUAL)	1		
619	971795	ANCHOR SETTING ADAPTER A W5/16" (MANUAL)	1		
620	971796	ANCHOR SETTING ADAPTER A W3/8" (MANUAL)	1		
621	971797	ANCHOR SETTING ADAPTER A W1/2" (MANUAL)	1		
622	971798	ANCHOR SETTING ADAPTER A W5/8" (MANUAL)	1		
623	971799	ANCHOR SETTING ADAPTER B W1/4" (MANUAL)	1		
624	971800	ANCHOR SETTING ADAPTER B W5/16" (MANUAL)	1		
625	971801	ANCHOR SETTING ADAPTER B W3/8" (MANUAL)	1		
626	971802	ANCHOR SETTING ADAPTER B W1/2" (MANUAL)	1		
627	971803	ANCHOR SETTING ADAPTER B W5/8" (MANUAL)	1		
628	320859	SYRINGE (BLOW-OUT BULB TYPE)	1		
629	944477	COTTER	1		
630	982684	CENTER PIN (A) 109L FOR CORE BIT D32-38	1		
631	982685	CENTER PIN (B) 104L FOR CORE BIT D45-90	1		
632	335781	GREASE FOR ROTARY HAMMER (500G)	1		
633	335782	GREASE FOR ROTARY HAMMER (60G)	1		
- 4 -		*AI TERNATIVE P	Printed in Japan	2 10	