

MODEL

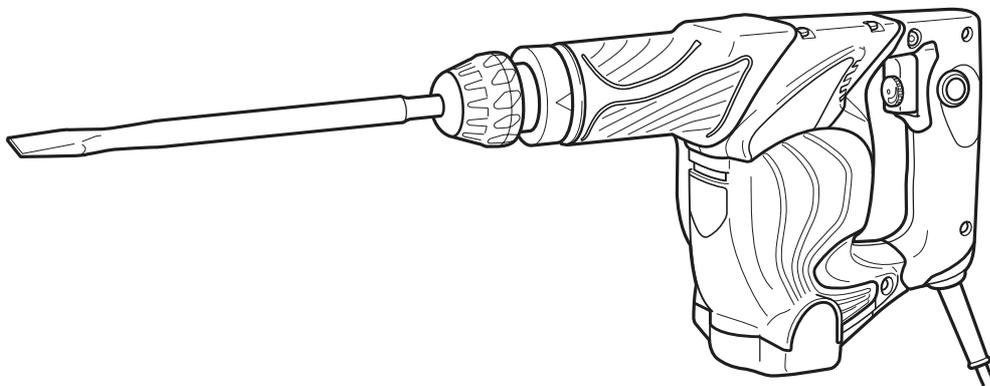
H 25PV

Hitachi
Power Tools

DEMOLITION HAMMER
H 25PV

TECHNICAL DATA
AND
SERVICE MANUAL

H



LIST No. E477

May 2004

REMARK:

Throughout this TECHNICAL DATA AND SERVICE MANUAL, a symbol is used in the place of company name and model name of our competitor.

The symbol utilized here is as follows:

Symbol Utilized	Competitor	
	Company Name	Model Name
C	MAKITA	HK1810



CONTENTS

	Page
1. PRODUCT NAME	1
2. MARKETING OBJECTIVE	1
3. APPLICATIONS	1
4. SELLING POINTS	1
4-1. Selling Point Descriptions	2
5. SPECIFICATIONS	3
5-1. Optional Accessories	4
6. COMPARISONS WITH SIMILAR PRODUCTS	6
6-1. Specification Comparisons	6
6-2. Demolition Performance Comparison	6
7. PRECAUTIONS IN SALES PROMOTION	7
7-1. Handling Instructions	7
7-2. Caution Plate	7
7-3. Grease Replacement	7
7-4. O-Ring Replacement	7
8. REFERENCE INFORMATION	8
8-1. Striking Operation	8
8-2. Idling-proof Mechanism	9
8-3. Sealed and Dustproof Construction	9
8-4. Tool Retainer	10
8-5. Adjusting Mechanism for Tool Swivel Angle	10
9. REPAIR GUIDE	11
9-1. Precautions and Suggestions for Disassembly and Reassembly of Main Body	11
10. STANDARD REPAIR TIME (UNIT) SCHEDULES	20
Assembly Diagram for H 25PV	

1. PRODUCT NAME

Hitachi Demolition Hammer, Model H 25PV

2. MARKETING OBJECTIVE

The Model H 25PV is a compact demolition hammer intended for light-duty jobs such as stripping mortar and tiles, and allows use of SDS-plus shank tools.

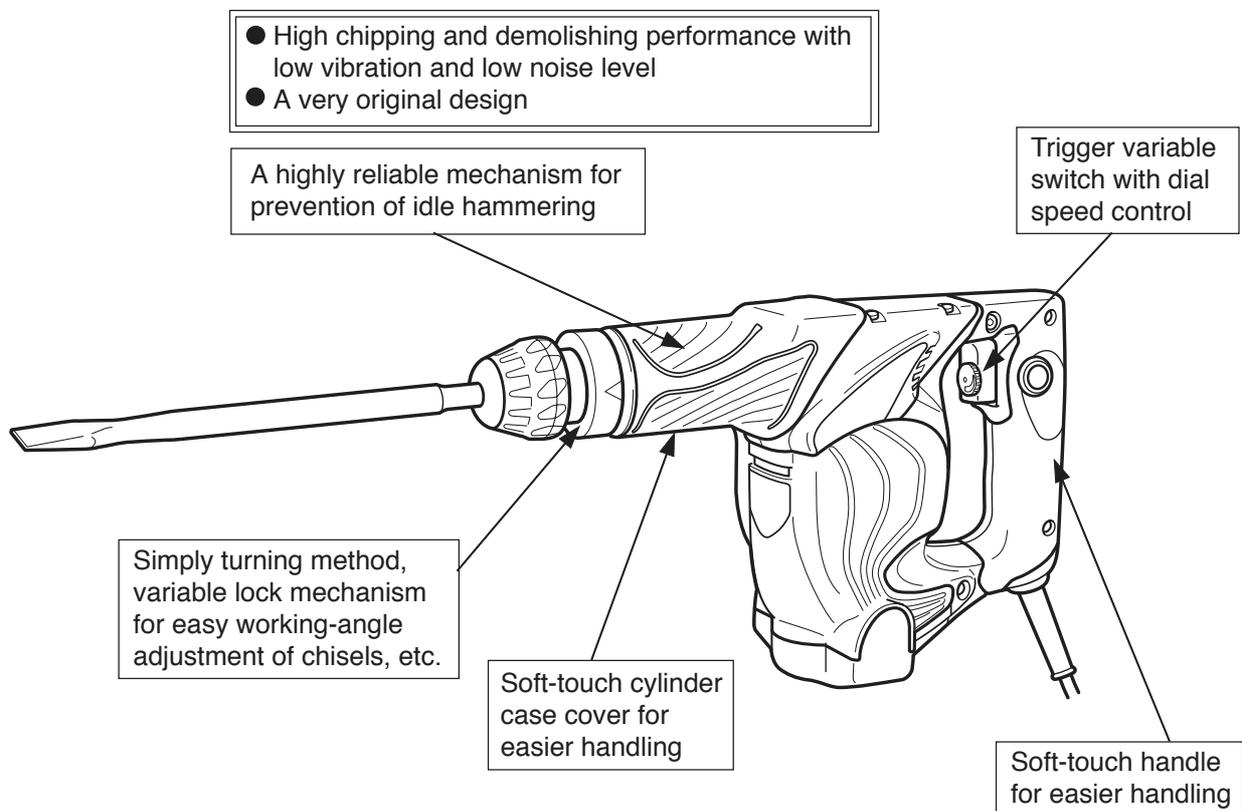
The main specifications are as follows:

- (1) High chipping and demolishing performance with low vibration and low noise level.
- (2) A highly reliable mechanism for prevention of idle hammering results in prolonged service life and comfortable operation.
- (3) Soft-touch handle and cylinder case cover for easier handling.
- (4) Simply turning method, variable lock mechanism for easy working-angle adjustment of chisels, etc.
- (5) Trigger variable switch with dial speed control
- (6) A very original design

3. APPLICATIONS

- Stripping mortar and tiles
- Demolishing and chiseling of concrete
- Grooving and cutting bricks

4. SELLING POINTS



4-1. Selling Point Descriptions

4-1-1. High chipping and demolishing performance with low vibration and low noise level

The chipping performance is about 1.6 times higher than the similar products thanks to the 4.0 J impact energy and the efficient striking speed. Even so, the Model H 25PV produces an equivalent vibration level and remarkably lower sound level than the similar products.

Maker · Model		HITACHI H 25PV	HITACHI H 30PV	C
Impact energy per stroke	J	4.0	5.2	3.9
Ratio of demolished weight	%	100	141	63
Full-load noise level	dB (A)	87.7	93	92.4
No-load noise level	dB (A)	80.8	82.7	86.8
Full-load vibration level	dB (VL)	122	123	121

4-1-2. A highly reliable mechanism for prevention of idle hammering results in prolonged service life and comfortable operation

Conventional mechanism for prevention of idle hammering is to open and close the air holes according to the movement of the striker. The Model H 25PV has air holes located at the position unaffected by the rebound of the striker at no load. The air holes are opened and closed by the movement of sleeve (A) provided around the cylinder that interlocks with the tool and the second hammer to prevent idle hammering. This mechanism securely prevents idle hammering even in wall hammering works or even if a tool that can cause great rebound on the striker such as a cutter is used. Thanks to the highly reliable mechanism for prevention of idle hammering, the service life of the Model H 25PV is prolonged and hammering works requiring much attention not to break the surroundings can be efficiently performed with the Model H 25PV.

4-1-3. Soft-touch grip for easier handling

The double-layer molded handle and crank case cover consists of a nylon resin base covered with a soft plastic layer to ensure a soft touch and firm, non-slip grip of the handle and crank case cover.

4-1-4. Simply turning method, variable lock mechanism for easy working-angle adjustment of chisels, etc.

The tool swivel angle can be easily changed in 8 steps by pushing out lock sleeve ahead and then turning grip. (Fig. 1)

4-1-5. Trigger variable switch with dial speed control

The striking speed can be adjusted by turning the dial of the switch. In addition, a convenient stopper is provided to fix the trigger at a desired speed level.

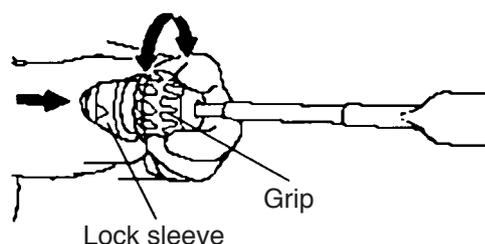


Fig. 1

5. SPECIFICATIONS

Power source	Single-phase AC 50/60 Hz
Voltage	110 V, 230 V, 240 V
Motor type	AC single-phase series commutator motor
Insulation structure	Double insulation
Enclosure	Materials : Aluminum alloy die casting (Crank case, cylinder case and gear cover) Polycarbonate resin (Housing) Nylon resin (Cylinder case cover, crank case cover, tail cover, handle) Paint : Green gray, black
Switch	Variable speed control switch (with stopper)
Type of handles	D-shaped handle
Full-load current	4.8 A (110 V), 2.3 A (230 V), 2.2 A (240 V)
Power input	500 W
Striking speed	No-load : 4,100 min ⁻¹ Full-load : 3,200 min ⁻¹
Weight	Product : 3.2 kg (7.1 lbs.); excluding cord Packed : 6.0 kg (13.2 lbs.)
Packaging	Corrugated cardboard box with plastic tool case
Standard accessories	• Plastic case 1

5-1. Optional Accessories

5-1-1. Demolition work

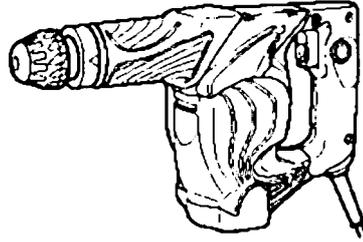


(1) Bull point (square type)



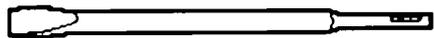
(2) Bull point (round type)

+

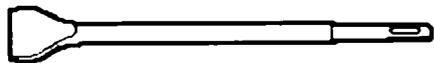


	Overall length	Code No.
Bull point (square type)	250 mm (10")	303046
Bull point (round type)	250 mm (10")	316656

5-1-2. Groove digging and edging work

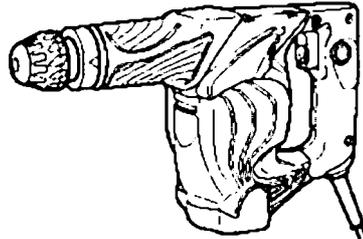


(1) Cold chisel



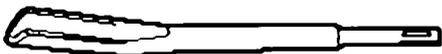
(2) Cutter

+



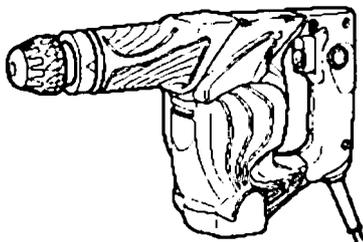
	Width	Overall length	Code No.
Cold chisel	20 mm (1-9/16")	250 mm (10")	316657
Cutter	40 mm (25/32")	250 mm (10")	316658

5-1-3. Grooving work



Grooving chisel

+



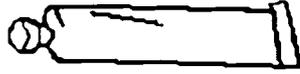
Overall length	Code No.
250 mm (10")	316659

5-1-4. Grease for impact drill



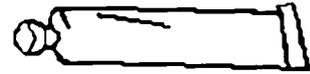
500 g (1.1 lbs.) Can

Code No. 980927



70 g (2.5 oz) Tube

Code No. 308471



30 g (1 oz) Tube

Code No. 981840

(Note)

Code numbers listed above are subject to change. Please refer to periodic Technical News Bulletins.

6. COMPARISONS WITH SIMILAR PRODUCTS

6-1. Specification Comparisons

Maker			HITACHI		C
Model name			H 25PV	H 30PV	
Power input	W		500	720	505
Impact energy per stroke	J		0 to 4.0	0 to 5.2	0 to 3.9
Full-load impact rate	min ⁻¹		0 to 3,200	0 to 3,800	0 to 3,200
Full-load vibration level	dB (VL)		122	123	121
Full-load noise level	dB (A)		87.7	93.0	92.4
No-load noise level	dB (A)		80.8	82.7	86.8
Dimensions	Length	mm	320 (12-5/8")	395 (15-9/16")	315 (12-13/32")
	Height	mm	195 (7-23/32")	226 (8-7/8")	195 (7-23/32")
	Width	mm	102 (4")	102 (4")	92 (3-11/32")
Weight (without cord and side handle)	kg		3.2 (7.1 lbs.)	4.2 (9.2 lbs.)	3.2 (7.1 lbs.)
Insulation structure	—		Double insulation	Double insulation	Double insulation

6-2. Demolition Performance Comparison

The data shown in Fig. 2 are obtained in actual factory tests, and are for reference only. Demolished amount may vary in accordance with operating conditions, operator skill, etc.

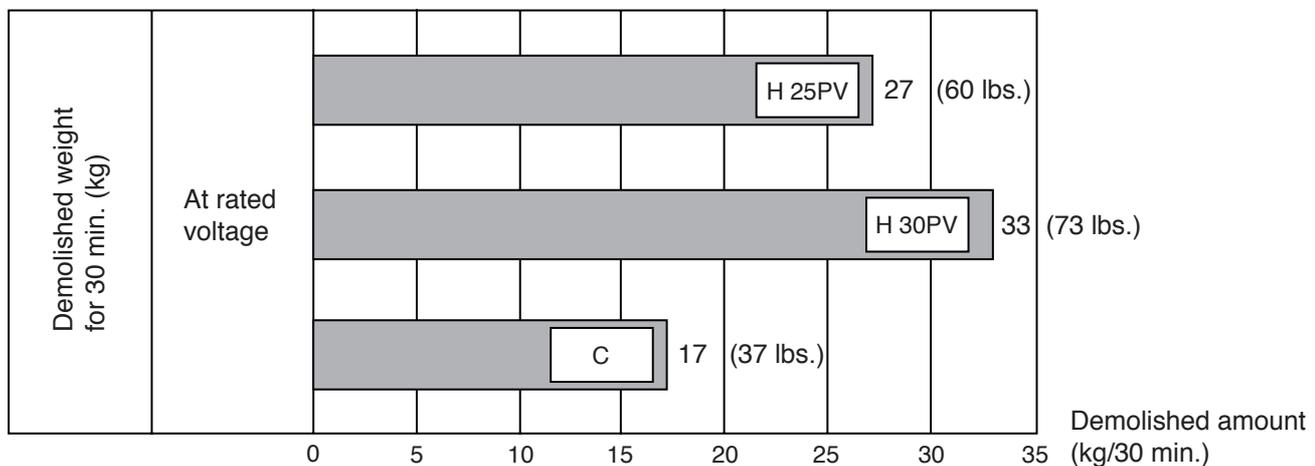


Fig. 2

7. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Model H 25PV Demolition Hammer by all of our customers, it is very important that at the time of sale the salesperson carefully ensures that the buyer seriously recognizes the importance of the contents of the Handling Instructions, and fully understands the meaning of the precautions listed on the caution plate attached to each tool.

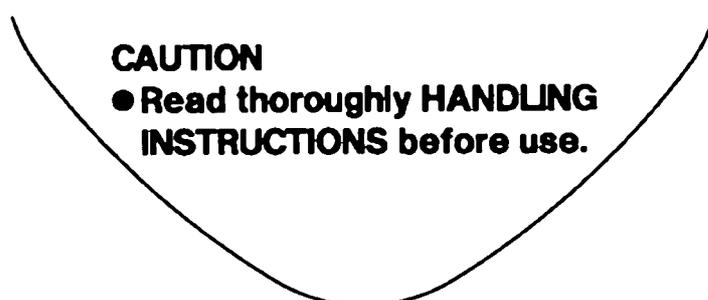
7-1. Handling Instructions

Although every effort is made in each step of design, manufacture, and inspection to provide protection against safety hazards, the dangers inherent in the use of any electric tool cannot be completely eliminated. Accordingly, general precautions and suggestions for the use of electric power tools, and specific precautions and suggestions for the use of the Demolition Hammer are listed in the Handling Instructions to enhance the safe, efficient use of the tool by the customer. Salespersons must be thoroughly familiar with the contents of the Handling Instructions to be able to offer appropriate guidance to the customer during sales promotion.

7-2. Caution Plate

The Model H 25PV unit is provided with a Caution Plate (illustrated below) which lists basic safety precautions in use. Carefully ensure that the customer fully understands and follows these precautions before using tool.

For Australia



7-3. Grease Replacement

The striking portion and the speed reduction portion of the Model H 25PV respectively use different types of grease. Grease replacement is required if the unit is disassembled for maintenance or O-rings become damaged and worn as described in 7-4. The striking portion uses special grease. If the striking portion (inside the crank case) is disassembled, thoroughly remove all of the old grease from each part. On reassembly, insert 22 g (0.88 oz) of new grease into the crank case (connecting rod side). Do not exceed the designated amount of grease. Excessive grease insertion may cause reduced striking performance. The speed reduction portion (inside the gear cover) uses Hitachi Motor Grease No. 29 (Code No. 930035). The proper supply volume is 10 g (0.35 oz). Never use the striking portion special grease in the speed reduction portion. Special grease would leak into the motor portion and cause subsequent trouble.

7-4. O-Ring Replacement

The O-rings (mounted on the striker and piston) are extremely important to ensure adequate sealing of the air pressure. Although the O-rings are made of special rubber to give them a long service life, they do nonetheless become worn, and should be replaced by new ones periodically depending on frequency of use of the tool. With average use, it is recommended that the O-rings be replaced at least every six months to ensure maximum effectiveness.

8. REFERENCE INFORMATION

Structure:

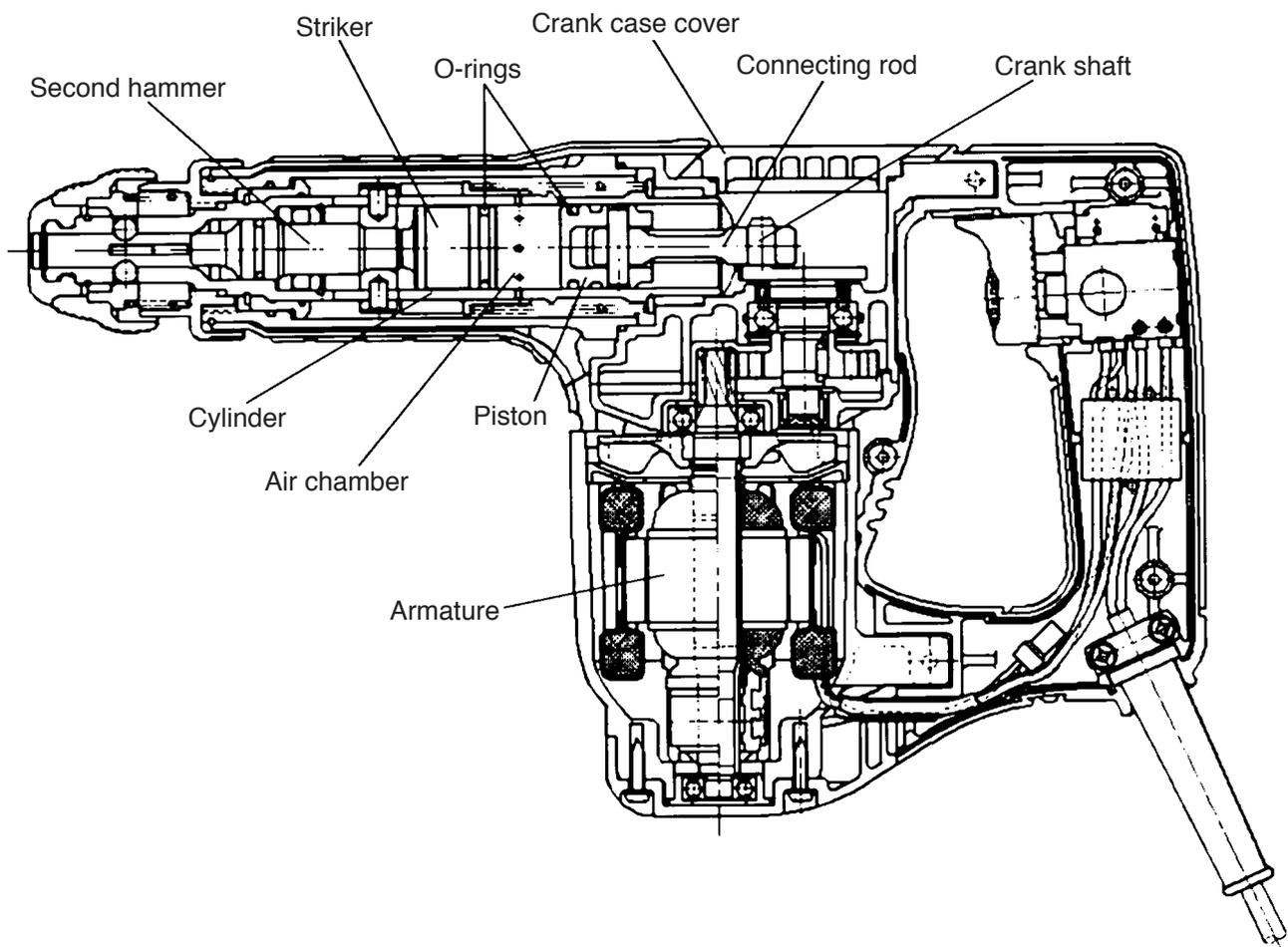


Fig. 3

8-1. Striking Operation

The rotation of the armature is transferred to the crank shaft and connecting rod, which in turn cause the piston to reciprocate inside the cylinder. As the piston reciprocates, the changing air pressure inside the air chamber between the piston and the striker causes the striker to continuously strike against the end of the second hammer. At the same time, the air-cushion effect within the air chamber absorbs the impact of the striker. Should the air escape from the air chamber, the air-cushion effect would cease, and the impact energy would not be absorbed. Accordingly, the O-rings mounted on the striker and the piston play an extremely important role in sealing the air within the air chamber.

8-2. Idling-proof Mechanism

When the tool is released from the concrete surface, sleeve (A) and the second hammer are forcibly moved to the position illustrated in Fig. 4 by spring (A), and the striker moves out of striking position. When this occurs, the air holes located at the position unaffected by the rebound of the striker at no load are opened and the pressure within the air chamber remains unchanged even though the piston continues to reciprocate, thereby preventing striking operation.

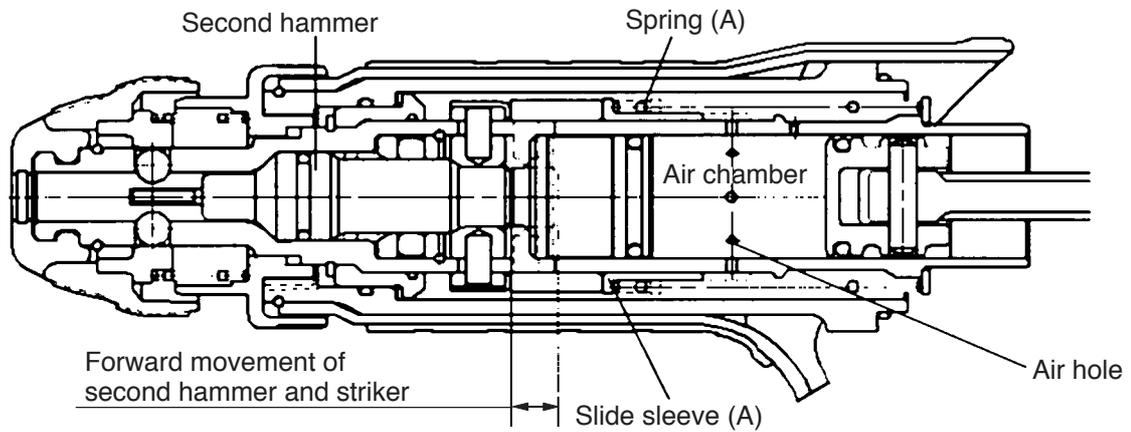


Fig. 4

8-3. Sealed and Dustproof Construction

The cylinder case and crank case are sealed by three o-rings and an oil seal which serve to prevent leakage of the grease, as well as to prevent dust and dirt from entering the mechanism. (Fig. 5)

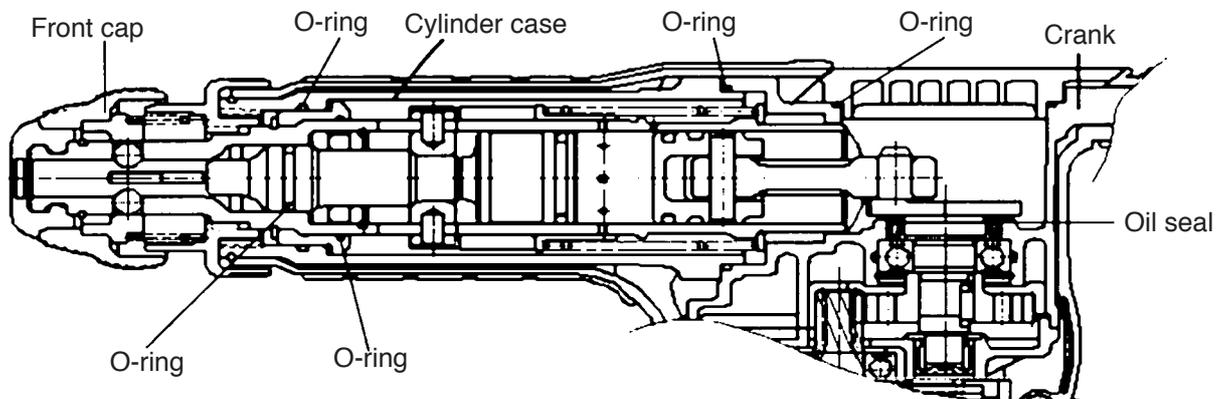


Fig. 5

8-4. Tool Retainer

The Model H 25PV is equipped with a slide-type tool retainer. Tools can be attached and detached just by pulling grip. While pulling grip in ① direction, insert the tool in the hole of the front cap (Fig.6). Adjust the groove position by turning the tool and push it in to the end. Lock the tool by returning grip back to the original position. Make sure it is locked completely by pulling tool in ② direction (Fig. 7).

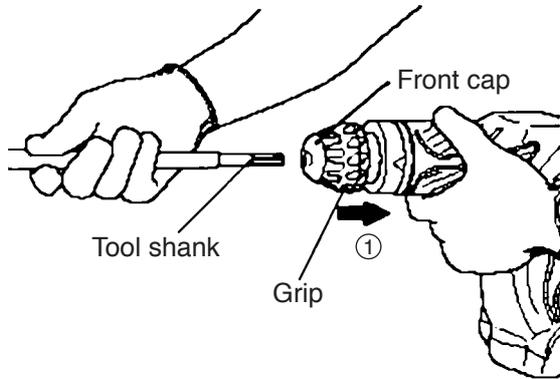


Fig. 6

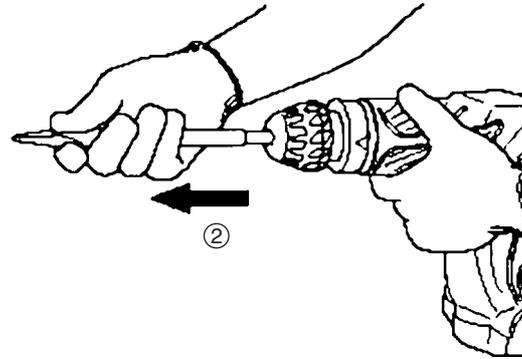


Fig. 7

8-5. Adjusting Mechanism for Tool Swivel Angle

Sliding the lock sleeve in the direction ①, turn the grip in the direction ② as shown in Fig. 8. Then the tip angle of the tool can be adjusted in eight levels. After adjustment, release the lock sleeve and check for secure locking by turning the grip.

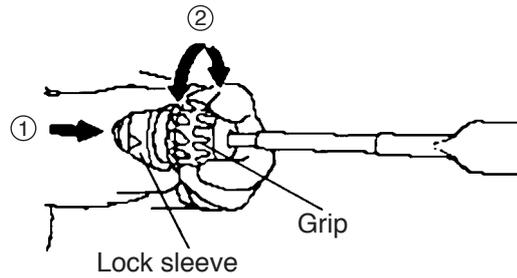


Fig. 8

9. REPAIR GUIDE

9-1. Precautions and Suggestions for Disassembly and Reassembly of Main Body

The numbers in **[Bold]** correspond to the item numbers in the Parts List and exploded assembly diagrams.

9-1-1. Disassembly

● Retainer disassembly

Pull the Grip **[2]** fully in the arrow direction as shown in Fig. 9 and remove the Front Cap **[1]** (since the Front Cap **[1]** is made of rubber and engaged firmly with the Cylinder **[24]**, pull it strongly to remove). This allows Grip **[2]** to be separated from the Cylinder **[24]**.

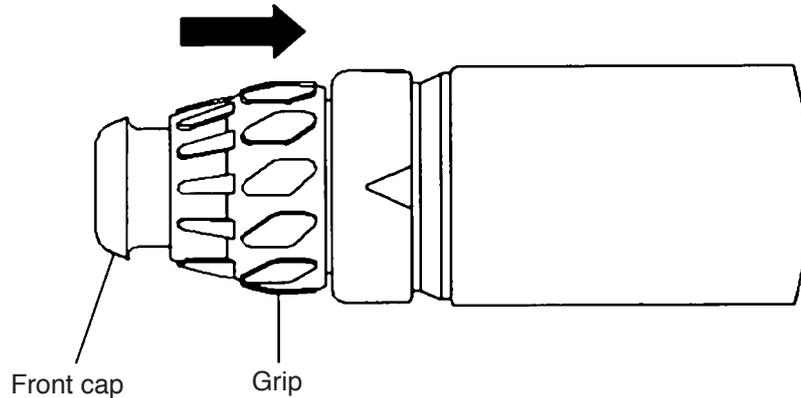


Fig. 9

Remove the Stopper Ring **[3]** by means of a snap ring remover, then the Ball Holder **[4]**, two Steel Balls D7.0 **[23]**, Retainer Spring **[5]** and Lock Sleeve **[6]** can be removed from the Cylinder **[24]**. Remove Ring (A) **[7]** by means of a snap ring remover, then the Cylinder Case Cover **[8]** can be removed from the Cylinder Case **[9]**.

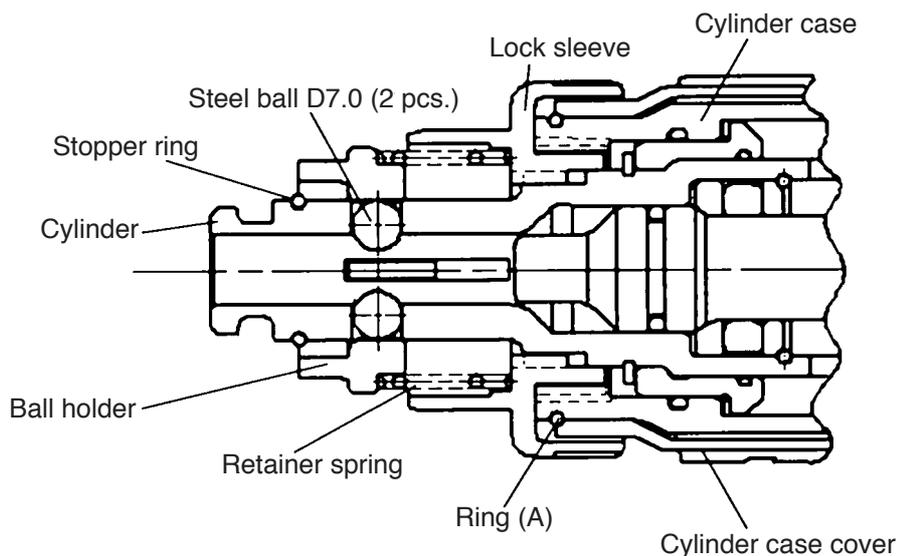


Fig. 10

● Cylinder case and cylinder disassembly

Remove the Seal Lock Hex. Socket Hd. Bolts M6 x 22 [10] fixing the Cylinder Case [9], then the Cylinder Case [9] can be removed from the Crank Case [46], and the Thrust Washer [25] and Spring (A) [22] can be removed between the Crank Case [46] and the Cylinder Case [9] (Fig. 11).

The Cylinder [24] can be removed from the Cylinder Case [9] by pushing the Cylinder [24]. Remove the Retaining Ring for D28 Shaft [13] from the Cylinder [24] by means of a snap ring remover, then the Cylinder Holder [15] can be removed from the Cylinder [24]. Remove the four Needle Rollers [18] then remove the Needle Holder [17], Needle Cover [19], Slide Sleeve (B) [20] and Slide Sleeve (A) [21] (Fig. 12).

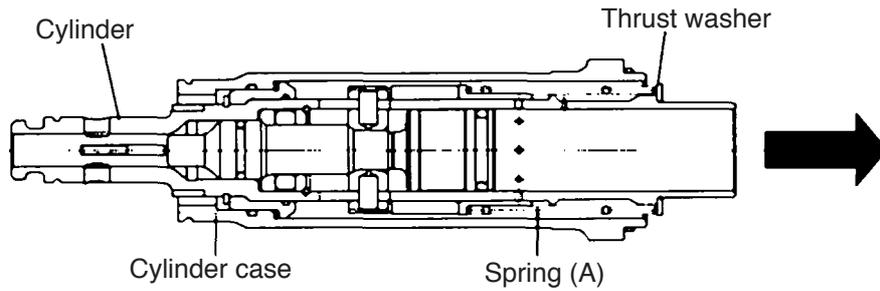


Fig. 11

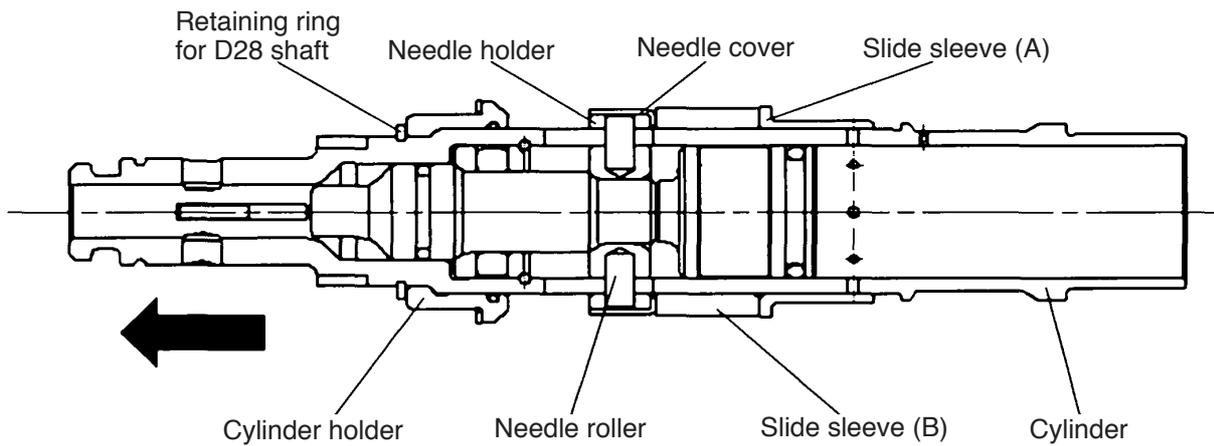


Fig. 12

● Inside cylinder disassembly

Remove the Striker [33] and the Slide Ring [32] from inside Cylinder [24] (Fig. 13). Remove the Stopper Ring [31] from the groove inside Cylinder [24] by striking the Stopper Ring [31] through the hole provided on Cylinder [24]. Next, take out the Stopper Ring [31] from inside Cylinder [24] by the spring hook (J201, No. 970977). Then the Damper Holder [30], Damper [29], Damper Washer [28] and Second Hammer [26] can be removed from the Cylinder [24] (Fig. 14).

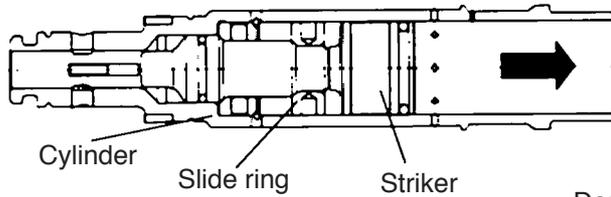


Fig. 13

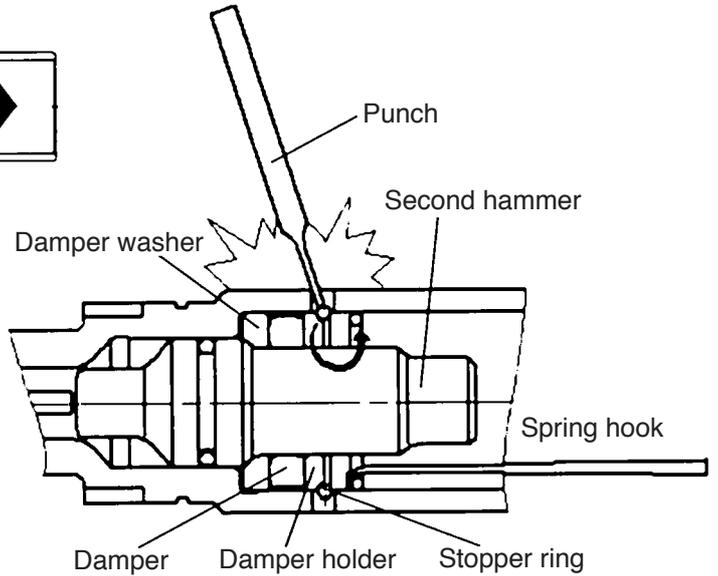


Fig. 14

● Piston disassembly

Remove the Seal Lock Hex. Socket Hd. Bolts M4 x 12 [43] fixing the Crank Case Cover [42], then the Crank Case Cover [42] can be removed from the Crank Case [46]. Move the Crank Shaft [40] to the bottom dead center then the piston ass'y can be removed from the Crank Shaft [40] (Figs. 15 and 16).

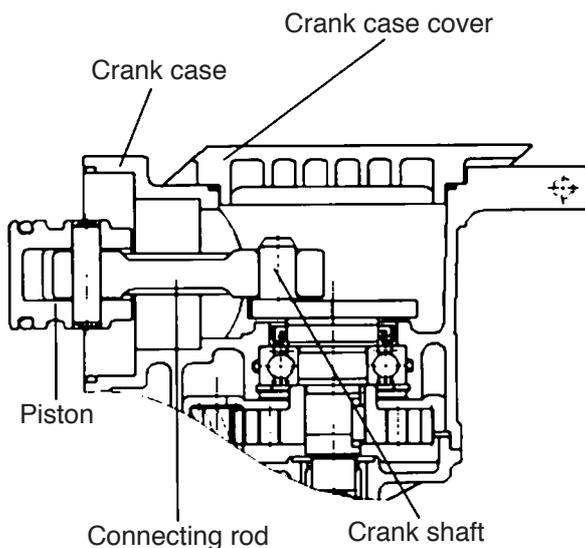


Fig. 15

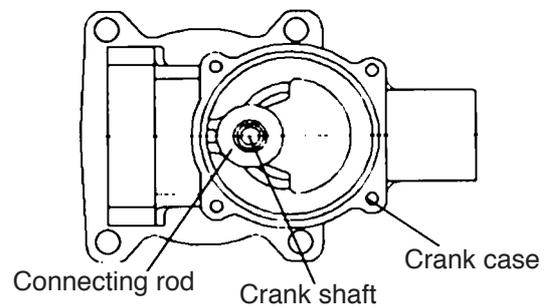


Fig. 16

● First gear and crank shaft disassembly

Remove the Hex. Socket Hd. Bolts (W/Flange) M5 x 16 [70] and the Tapping Screws (W/Flange) D5 x 20 (Black) [71] fixing Handle (B) [69] and Handle (A) [80], then Handle (B) [69] and Handle (A) [80] can be removed from the Crank Case [46] and Housing Ass'y [65] (Fig. 17). Remove the Hex. Socket Hd. Bolts M6 x 35 [47] fixing the Crank Case [46], then the Crank Case [46] can be removed from the Housing Ass'y [65]. Two bolts M5 are inserted in M5 screw holes of First Gear [52]. Remove the First Gear [52] from the Crank Shaft [40] by using the bearing puller ass'y (J30, No. 970804) (Fig. 18). Place the Connecting Rod [38] side of the Crank Case [46] downward on a workbench and apply pressure on the end surface of the Crank Shaft [40] with a hand press to remove the First Gear [52] and the Crank Shaft [40] (Fig. 19).

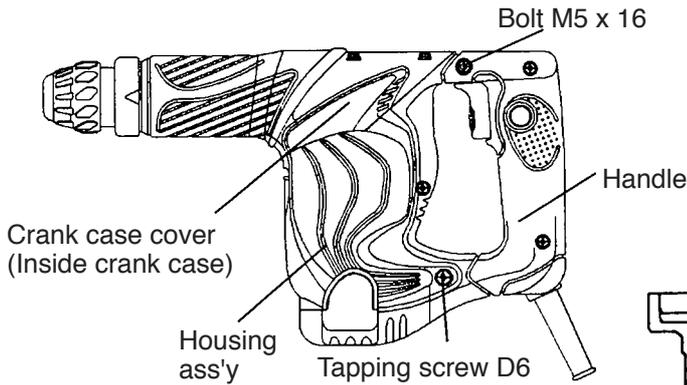


Fig. 17

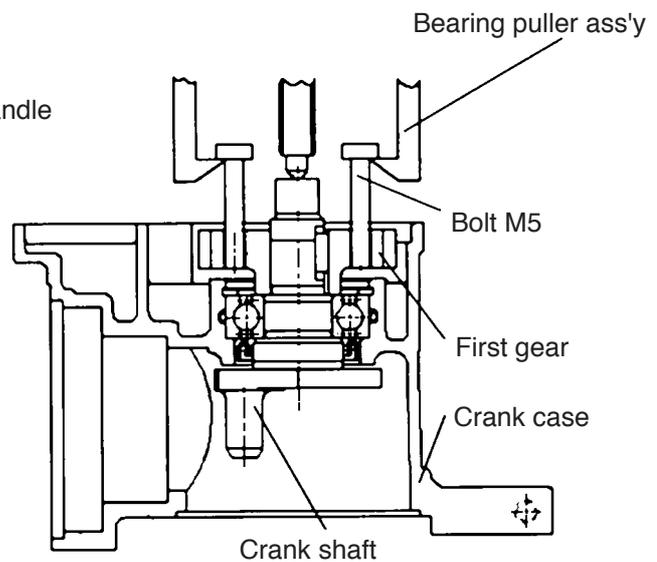


Fig. 18

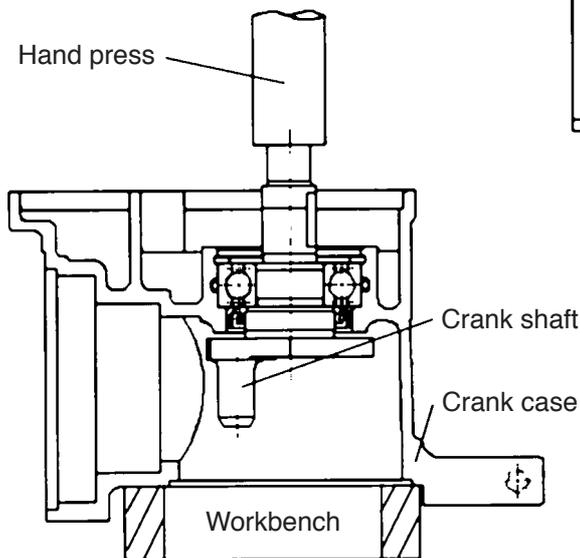


Fig. 19

9-1-2. Reassembly

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

● First gear and crank shaft reassembly

Press-fit Oil Seal (B) [48] in the Crank Case [46] then the O-ring (S-32) [49] is fitted in the groove inside the Crank Case [46]. Press-fit the Ball Bearing 6002DDCMPS2L [50] in the Crank Case [46] then the Retaining Ring for D32 hole [51] is fitted in the groove inside the Crank Case [46]. Press-fit the Crank Shaft [40] in the Ball Bearing 6002DDCMPS2L [50]. Put the Feather Key 3 x 3 x 8 [39] into the groove of the Crank Shaft [40] and press-fit the First Gear [52] with a suitable tool while holding the flat portion of the Crank Shaft [40] with a steel bar. Before press-fitting, make sure that the Feather Key 3 x 3 x 8 [39] fits in the key groove of the First Gear [52] (Fig. 20).

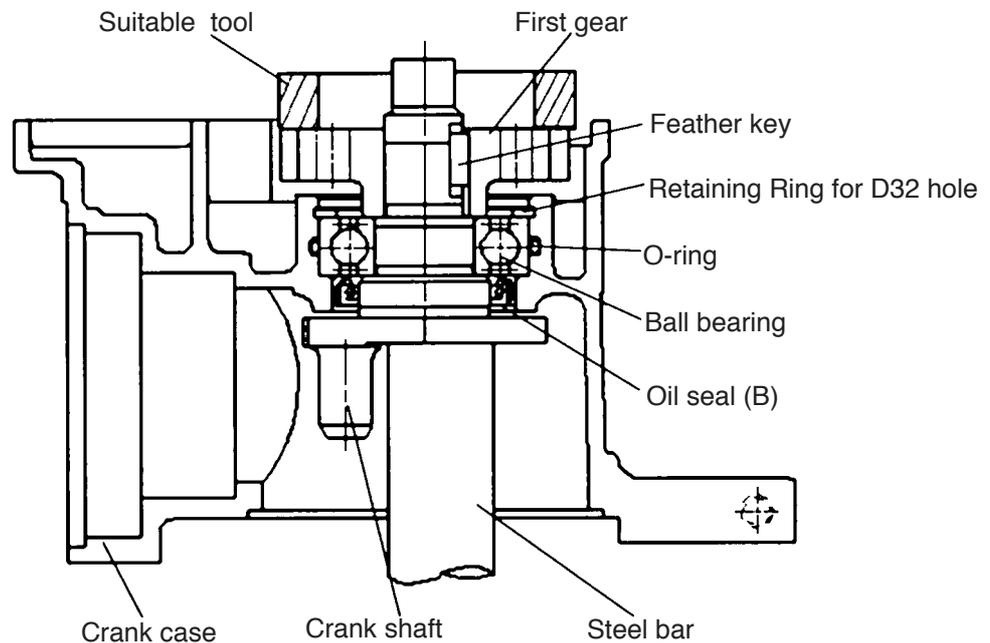


Fig. 20

● Piston reassembly

Mount the O-ring [35] to the Piston [37]. Insert the Piston Pin [36] into the Piston [37] and the Connecting Rod [38]. Move the Crank Shaft [40] to the bottom dead center then insert the piston ass'y into the Crank Case [46] from Cylinder Case [9] side (Figs. 21 and 22).

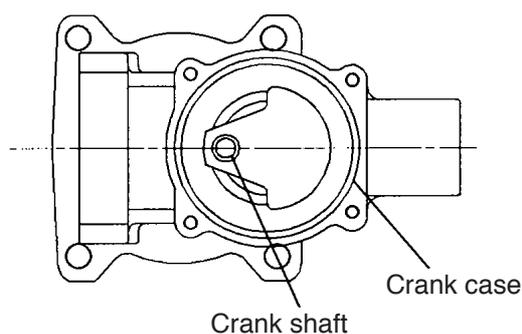


Fig. 21

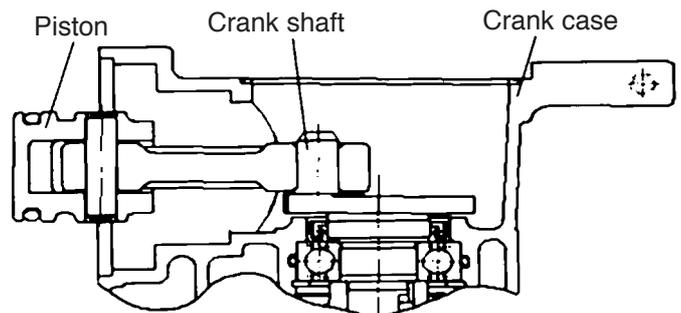


Fig. 22

● Inside cylinder reassembly

Mount O-ring (C) [27] to the Second Hammer [26], then insert the second hammer ass'y, Damper Washer [28], Damper [29] and Damper Holder [30] into the Cylinder [24]. Make sure of the direction of the Damper Washer [28] and the Damper Holder [30] (Fig. 23). Insert the Stopper Ring [31] into the Cylinder [24], then the Stopper Ring [31] is pushed to the groove inside the Cylinder [24] with a suitable pipe (Fig. 24). Make sure the Stopper Ring [31] is in the groove inside the Cylinder [24] by watching the hole provided on the Cylinder [24]. Insert the Slide Ring [32] into the Cylinder [24]. Mount the O-ring [34] to the Striker [33], then insert the striker ass'y into the Cylinder [24].

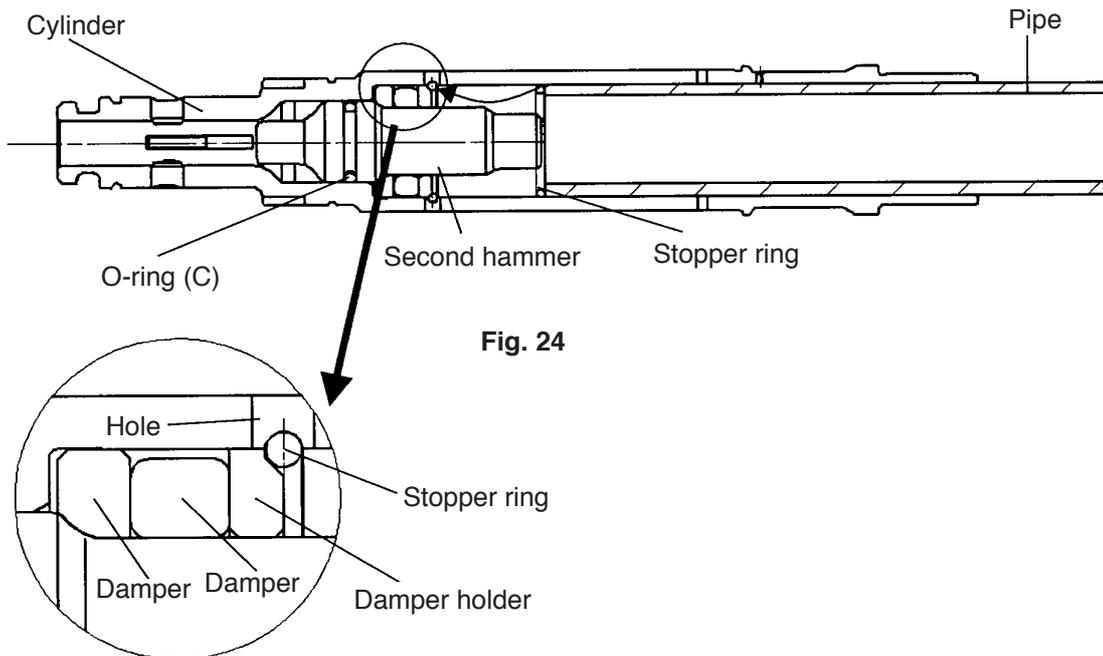


Fig. 24

Fig. 23

● Cylinder, cylinder case reassembly

Slide Sleeve (A) [21], Slide Sleeve (B) [20], Needle Cover [19] and Needle Holder [17] are inserted in the outer circumference of the Cylinder [24]. Insert the four Needle Rollers [18] into holes of the Needle Holder [17] and the Slide Ring [32]. Make sure of the direction of Slide Sleeve (B) [20] (Fig. 26). Mount O-ring (A) [16] to the Cylinder Holder [15]. The cylinder holder ass'y is inserted in the outer circumference of the Cylinder [24], then the Retaining Ring for D28 Shaft [13] is attached in the Cylinder [24] by means of a snap ring remover. The Washer [14] is inserted in the outer circumference of the Cylinder Holder [15] then insert the Cylinder [24] into the Cylinder Case [9] (Fig. 25). Spring (A) [22] and the Thrust Washer [25] are inserted in the outer circumference of the Cylinder [24], then the Cylinder Case [9] is combined with the Crank Case [46]. It will become easy if the Crank Shaft [40] is moved to the bottom dead center at this time (Fig. 27).

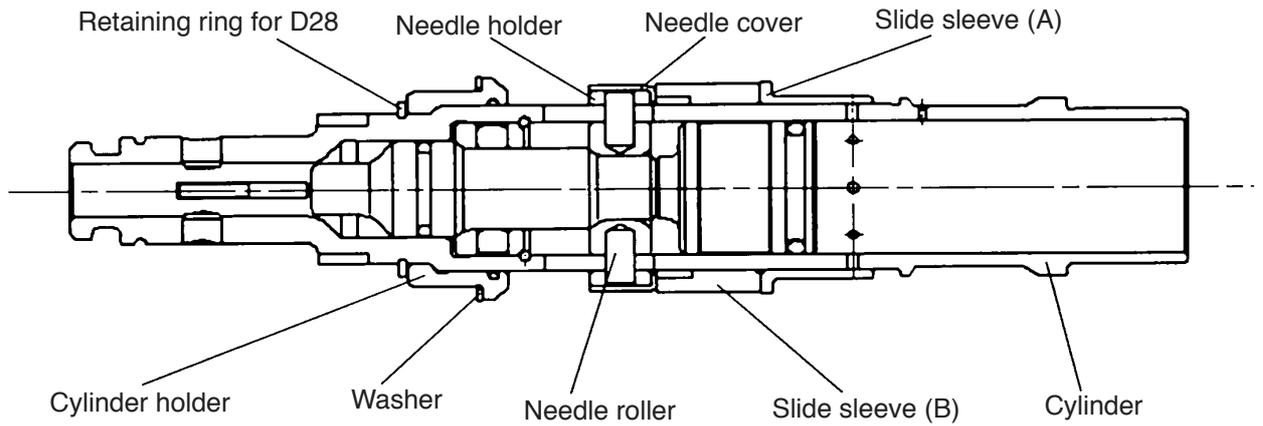


Fig. 25

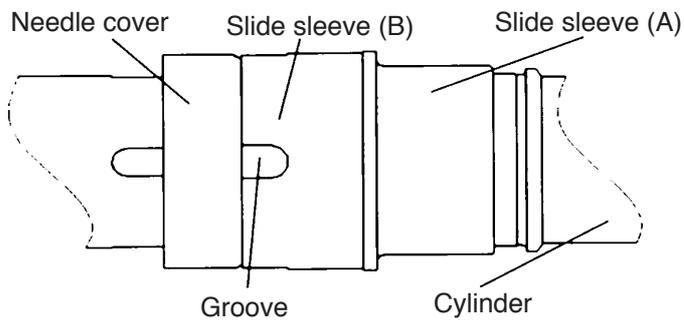


Fig. 26

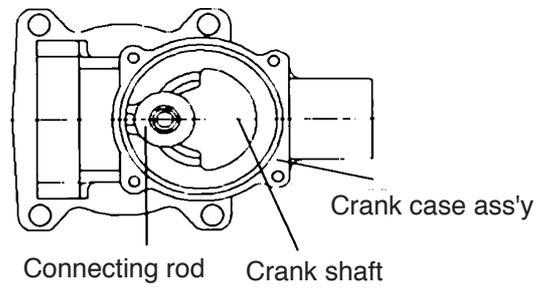


Fig. 27

● Fan guide reassembly

Assemble the Fan Guide [58] into the housing ass'y being careful of the concave portion of the fan guide (Fig. 28).

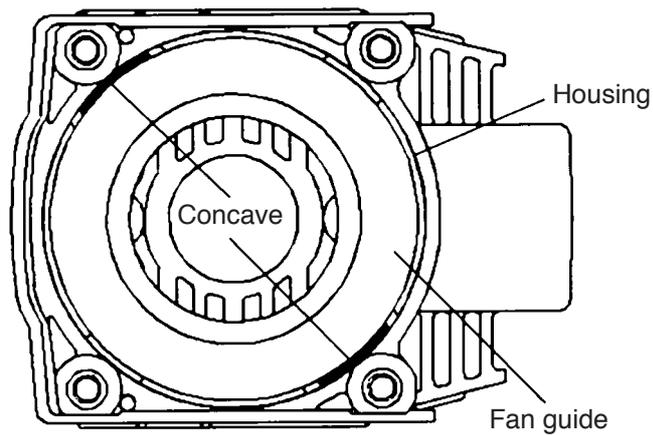


Fig. 28

● Lock sleeve reassembly

Be careful of the slot position of the Cylinder [24] and the Cylinder Case [9] when inserting the Lock Sleeve [6] between the Cylinder [24] and the Cylinder Case [9] (Fig. 29).

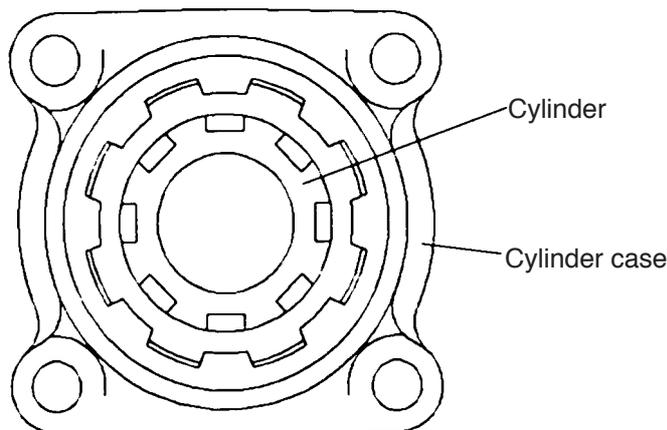


Fig. 29

● Lubrication

Apply Hitachi Motor Grease No. 29 to the following places:

Apply 10 g (0.35 oz) on the gears in the Gear Cover [54] and the Crank Case [46], and coat grease on the Needle Bearing (M661) [53] (motor ass'y), Steel Ball D7.0 [23], pinion of armature ass'y.

Apply special grease (grease for electric impact drill) to the following places:

Apply 22 g (0.88 oz) on the Connecting Rod [38] in the crank case, coat grease on the inside diameter portion of the Piston [37], O-ring [35], sliding portion of the Second Hammer [26], Damper [29], O-ring (C) [27], inside diameter portion of Oil Seal (B) [48] (lip portion), inside diameter portion of Slide Sleeve (A) [21], inside diameter portion of Slide Sleeve (B) [20] and the inside diameter portion of the Needle Holder [17].

● Oil seals

Be very careful not to damage the O-ring (S-46) [11] on the Cylinder Case [9], O-ring (S-36) [12] in the Cylinder Case [9], O-ring (S-48) [45] on the Crank Case Cover [42], O-ring (A) [16] in the Cylinder Holder [15], O-ring (S-32) [49] in the Crank Case [46], O-rings [27], [34], [35] on the Second Hammer [26], on the Striker [33] and on the Piston [37] and Oil Seal (B) [48] in the Crank Case [46].

9-1-6. Wiring of variable speed control switch

Insert each cord into the terminal 1↑ and terminal 2↑ of the speed control switch as shown in Fig. 30 and tighten the screw [tightening torque: 0.6 ± 0.2 N·m (6 ± 2 kg·cm, 5.2 ± 1.7 in·lbs.)]. Insert each lead wire (black) coming from the stator ass'y into the terminal M1 and M2. Insert each lead wire (black) coming from the noise suppressor into the terminals C1 and C2. After insertion, pull each lead wire slightly to check the lead wires do not come off. To disconnect the lead wires, insert a small flatblade screwdriver into the slots near the terminal and pull out the lead wires.

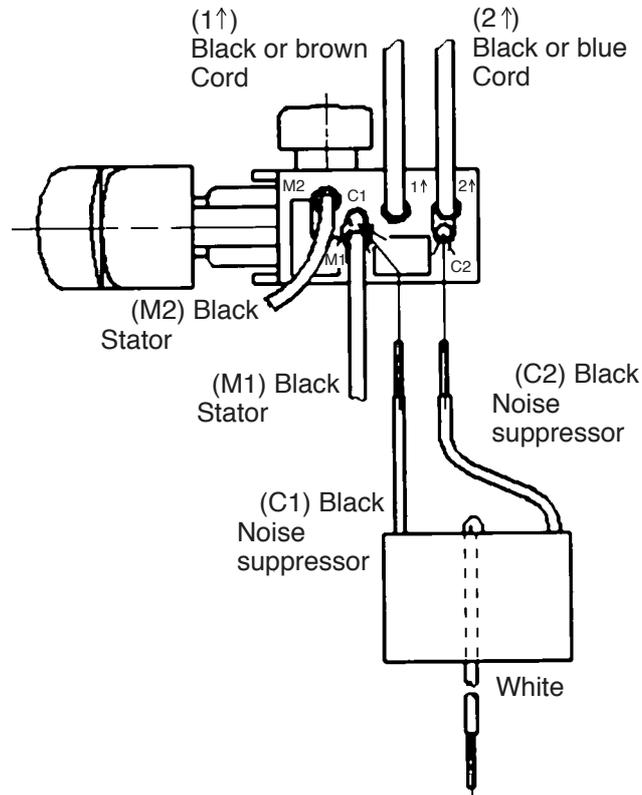


Fig. 30

9-1-7. Insulation Tests

On completion of disassembly and repair, measure the insulation resistance and the dielectric strength.

Insulation resistance: 7 MΩ or more with DC 500 V megohm tester

Dielectric strength: AC 4,000 V/1 minute, with no abnormalities ... 220 V – 240 V
(and 110 V for U.K. products)

AC 2,500 V/1 minute, with no abnormalities ... 110 V – 127 V
(except U.K. products)

9-1-8. No-load current value

After no-load operation for 30 minutes, the no-load current value should be as follows:

Voltage (V)	110	230	240
Current (A) (Max.)	2.9	1.4	1.3

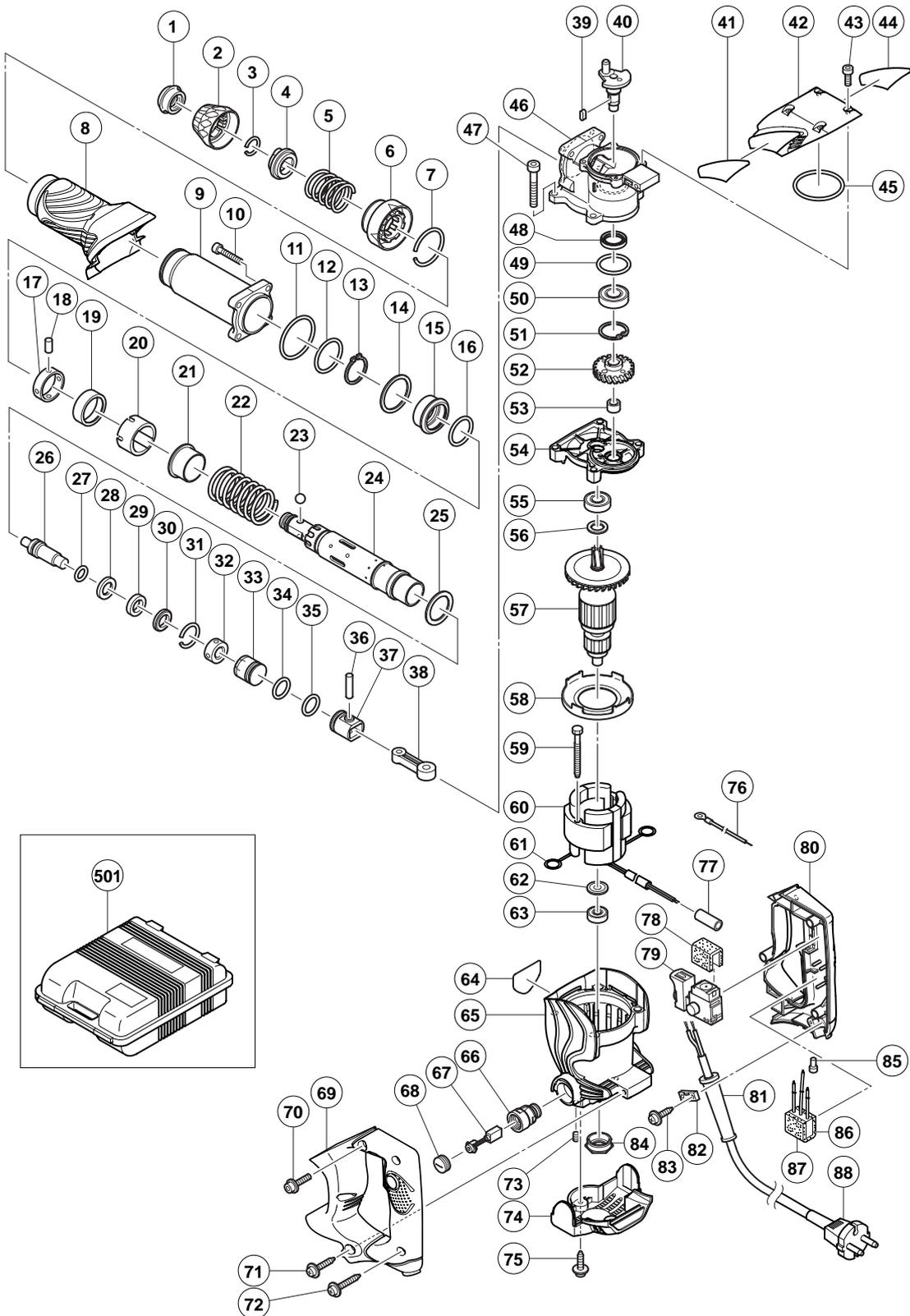
10. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min.	
	Fixed								
H 25PV	General Assembly	Work Flow							

ELECTRIC TOOL PARTS LIST

■ DEMOLITION HAMMER
Model H 25PV

2004 • 5 • 15
(E1)



PARTS

H 25PV

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
1	323-078	FRONT CAP	1	
2	323-077	GRIP	1	
3	306-340	STOPPER RING	1	
4	323-076	BALL HOLDER	1	
5	323-075	RETAINER SPRING	1	
6	323-074	LOCK SLEEVE	1	
7	323-073	RING (A)	1	
8	323-093	CYLINDER CASE COVER	1	
9	323-072	CYLINDER CASE	1	
10	321-313	SEAL LOCK HEX. SOCKET HD. BOLT M6X22	4	
11	882-874	O-RING (S-46)	1	
12	984-483	O-RING (S-36)	1	
13	962-553	RETAINING RING FOR D28 SHAFT	1	
14	323-071	WASHER	1	
15	323-069	CYLINDER HOLDER	1	
16	323-070	O-RING (A)	1	
17	323-080	NEEDLE HOLDER	1	
18	991-449	NEEDLE ROLLER	4	
19	323-081	NEEDLE COVER	1	
20	323-065	SLIDE SLEEVE (B)	1	
21	323-064	SLIDE SLEEVE (A)	1	
22	323-067	SPRING (A)	1	
23	959-156	STEEL BALL D7.0 (10 PCS.)	2	
24	323-056	CYLINDER	1	
25	323-068	THRUST WASHER	1	
26	323-057	SECOND HAMMER	1	
27	323-058	O-RING (C)	1	
28	323-059	DAMPER WASHER	1	
29	323-060	DAMPER	1	
30	323-061	DAMPER HOLDER	1	
31	323-062	STOPPER RING	1	
32	323-063	SLIDE RING	1	
33	323-066	STRIKER	1	
34	319-577	O-RING (I.D 19.2)	1	
35	319-577	O-RING (I.D 19.2)	1	
36	319-581	PISTON PIN	1	
37	319-580	PISTON	1	
38	319-585	CONNECTING ROD	1	
39	944-109	FEATHER KEY 3X3X8	1	
40	323-054	CRANK SHAFT	1	
41		HITACHI LABEL	1	
42	323-079	CRANK CASE COVER	1	
43	983-162	SEAL LOCK HEX. SOCKET HD. BOLT M4X12	4	
44		HITACHI LABEL	1	
45	980-715	O-RING (S-48)	1	
46	323-053	CRANK CASE	1	
47	949-692	HEX. SOCKET HD. BOLT M6X35 (10 PCS.)	4	
48	981-851	OIL SEAL (B)	1	
49	872-767	O-RING (S-32)	1	
50	600-2DD	BALL BEARING 6002DDCMPS2L	1	
51	948-001	RETAINING RING FOR D32 HOLE	1	

