

# TECHNICAL INFORMATION



Product

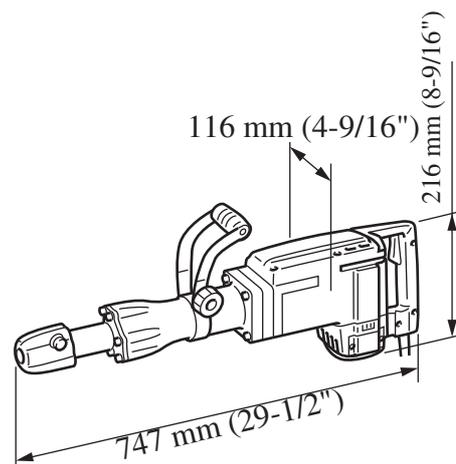
**Models No.** ▶ HM1303

**Description** ▶ Demolition Hammer

## CONCEPTION AND MAIN APPLICATIONS

Model HM1303 is a double-insulated version of model HM1302;

- \* Designed mainly for European and USA markets
- \* With grease-pack lubrication
- \* Much lighter body, lower vibration and less shock than existing model HM1500 for easier and more comfortable operation, especially in angular or horizontal work.



## ▶ Specifications

| Voltage (V) | Current (A) | Cycle (Hz) | Continuous Rating (W) |        | Max. Output(W) |
|-------------|-------------|------------|-----------------------|--------|----------------|
|             |             |            | Input                 | Output |                |
| 100         | 13.5        | 50/60      | 1,300                 | 750    | 1,000          |
| 115         | 11.5        | 50/60      | 1,300                 | 750    | 1,000          |
| 200         | 6.8         | 50/60      | 1,300                 | 750    | 1,000          |
| 220         | 6.1         | 50/60      | 1,300                 | 750    | 1,000          |
| 230         | 5.9         | 50/60      | 1,300                 | 750    | 1,000          |
| 240         | 5.6         | 50/60      | 1,300                 | 750    | 1,000          |

Blows per minute/1.450

Tool acceptable /Hexagonal shank bits-----Shank width: 30 mm (1-3/16 inch)

Net weight /14kg (30.9 lbs)

## ▶ Standard equipment

Bull point 30 - 410, Steel carrying case

## ▶ Optional accessories

Bull point, Cold chisel, Scaling chisel, Clay spade, Rammer, etc.

(These accessories can be used interchangeably with HM1302 and HM1500.)

## ▶ Features and benefits

See the attached sheet for more information.

Note: The standard equipment shown above may differ from country to country.

Light-weighted body and minimized shock assure you of less fatigue and increased demolishing capacity even in a long continuous operation, especially in angular or horizontal work.

**\*Light body**

2.9kg(6.4 lbs) lighter than Makita HM1500

**\*Demolishing capacity comparison (in weight of shifted concrete)**

In horizontal, 10 minutes continuous operation

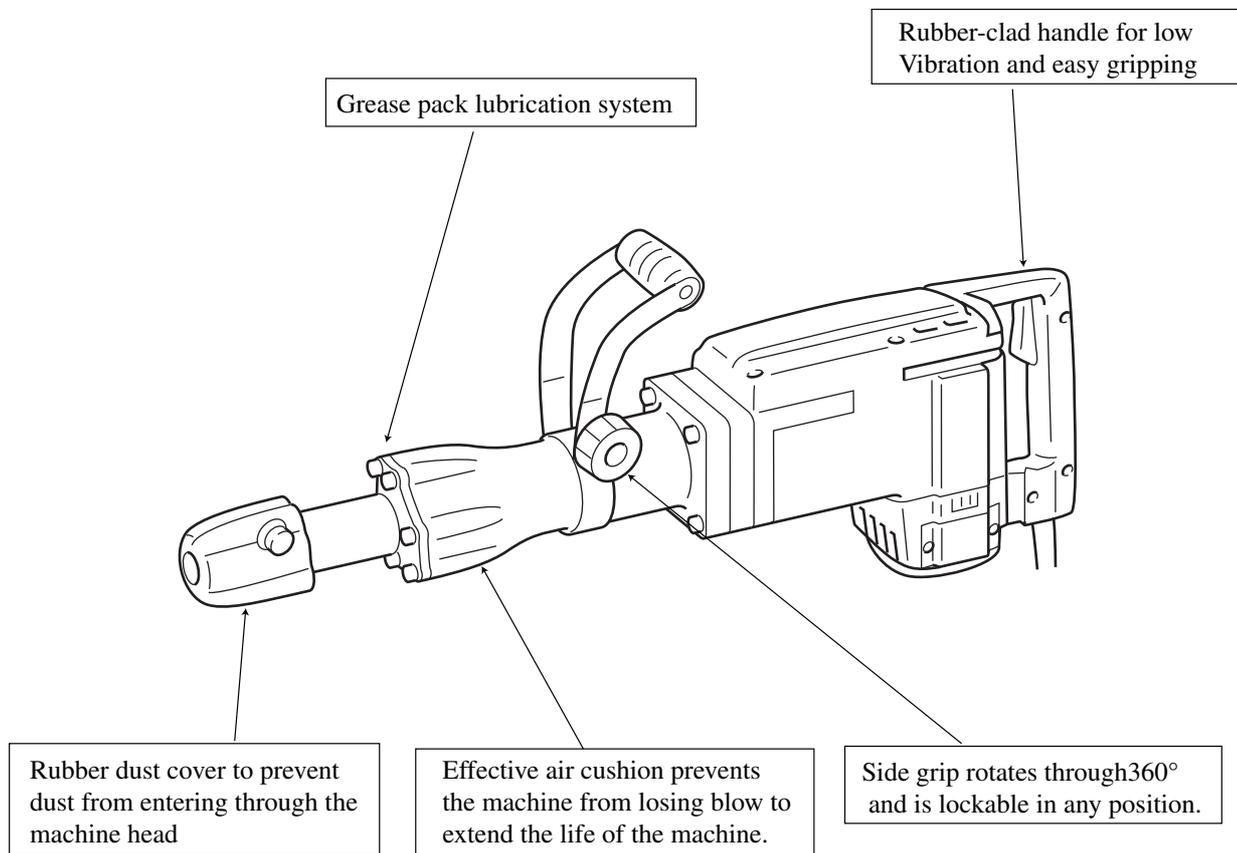
Makita HM1303 / 23.3 kg (51.4 lbs)

Makita HM1302 / 20.5 kg (45.2 lbs)

In vertical, 30 minutes continuous operation

Makita HM1303 / 71.4 kg (157.4 lbs)

Makita HM1302 / 72.6 kg (160.01 lbs)



## ► Repair

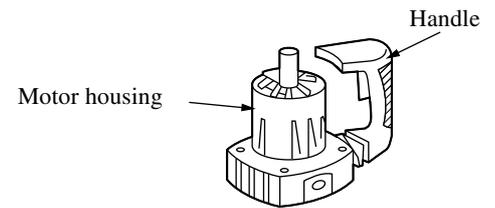
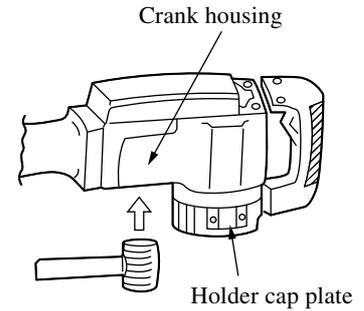
For assembling/disassembling, proceed in almost same manners as for HM1302.

### (1) Replacing of Armature and Field

(Disassembling)

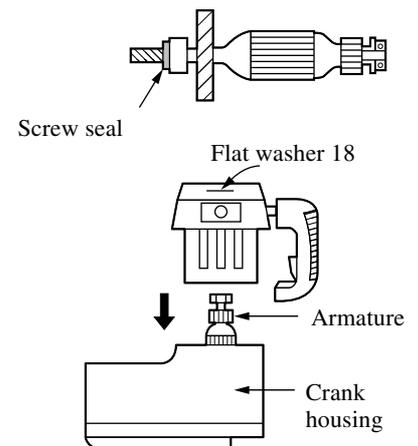
- i) Remove the Holder cap plate, Holder cap, and Carbon brush.
- ii) Remove the Hex. Socket head bolt(8 pieces in total) for mounting Handle and Motorhousing.
- iii) Hammer the crank housing by the Resin hammer to take away the Armature, Field along with the Motor housing and Handle.

[Note] The wire connection between the Field lead wire and the Brush holder is conducted inside the Handle. (See the circuit drawing on page 7/7.)



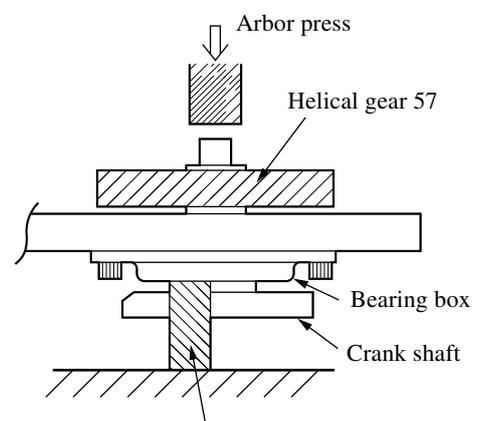
(Assembling)

- i) Make sure that the Screw seal is securely mounted on the Armature.
- ii) Pressure-insert the Motor housing after setting the Armature in the Crank housing.  
Make sure that the Flat washer 18 is inside the Bearing room of Motor housing in this case.



### (2) Disassembling of Helical gear 57

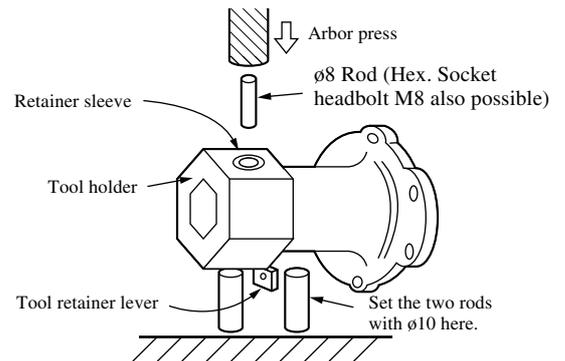
After setting the two Round rods(same length) with about  $\phi 30$  to the Bearing box as shown on the right figure, press the Crank shaft using the Arbor press to remove the Helical gear.



Set the two Round rods with about  $\phi 30$ .

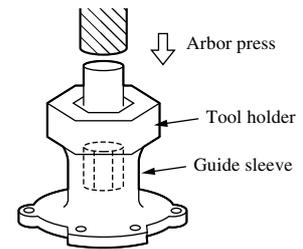
(3) Disassembling of Tool retainer

The Tool retainer and Retainer sleeve are pressure-inserted .  
 For disassembling, after pulling the Tool retainer lever as shown on the right figure to turn the Tool retainer by 90 , set the two Rods with about  $\phi 10$  to the Tool holder, and then press the Tool retainer using the Arbor press.

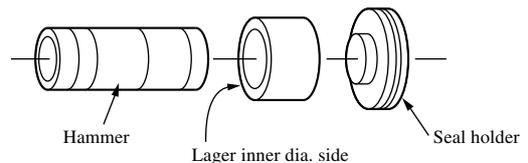


(4) Disassembling of Guide sleeve

Set the Rod with about  $\phi 30$  and then use the Arbor press to press.

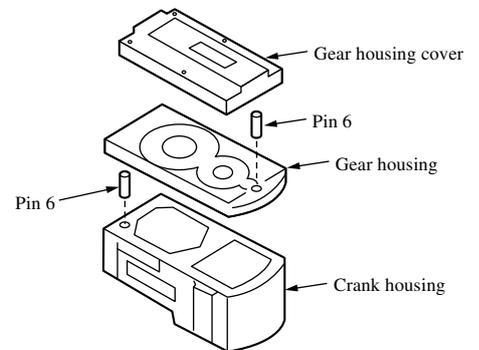


(5) Assemble the Idler while its larger inner dia. side is directing toward Hammer side.



(6) Crank housing and Gear housing

Be sure to set the Pin 6 when the Gear housing and Gear housing cover are assembled.



(7) Greasing points

To prevent earlier wearing and baking, grease the points marked by arrow on the figure shown below.

Needle bearing of Connecting rod

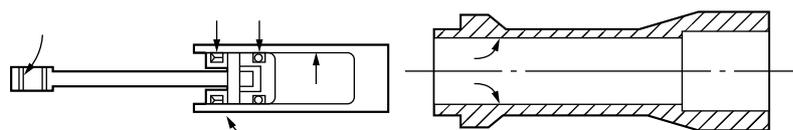
Pin 12

O ring 36

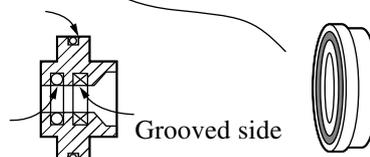
Y ring 36

Inner side of Hammer

Inner side of Barrel

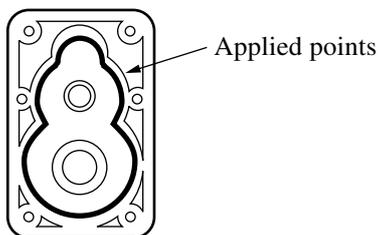


O ring and X ring of Seal holder



Note) Use care of the assembling direction of Y ring 36.

(8) Apply the Seal material (Three bond 1215) for preventing grease-leaking on the specified points of Gear housing cover shown on the below figure.



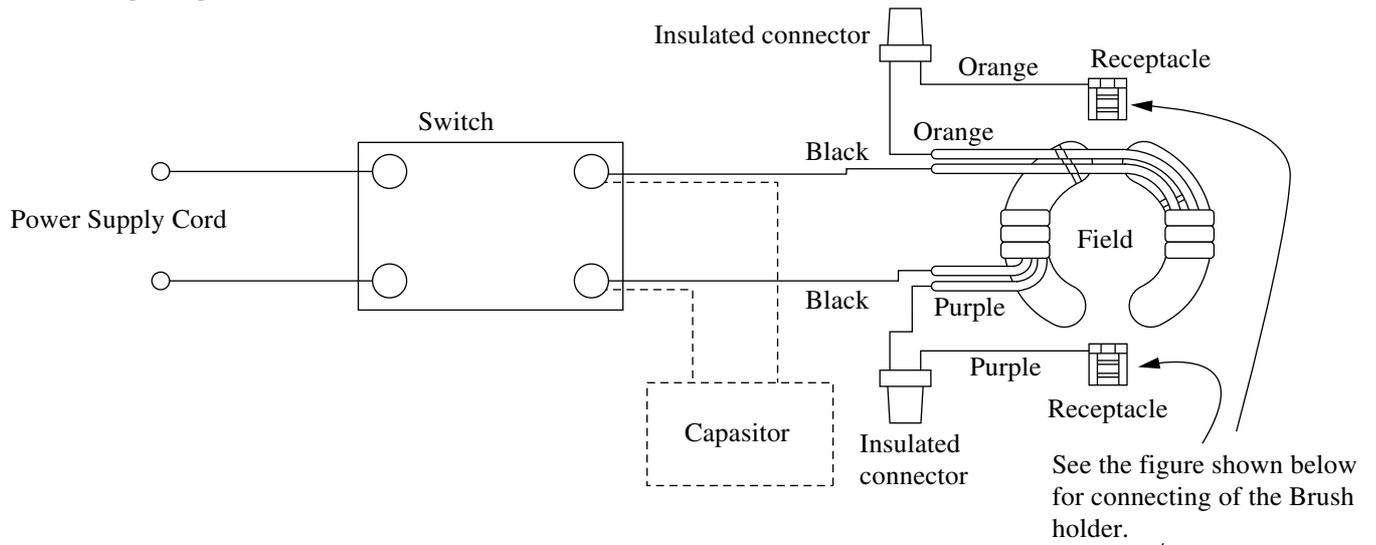
(9) Fastening torque of screws

|                                                                                 |   |                                |
|---------------------------------------------------------------------------------|---|--------------------------------|
| Hex. Socket head bolt M10 x 35(for mounting the Crank sleeve)                   | — | 500-600kgf•cm(36.2~43.4ft•lbs) |
| Hex. Socket head bolt M 8 x 30(for mounting the Tool holder, Adhesive attached) | ┌ | 300-400kgf•cm(21.7~28.9ft•lbs) |
| Hex. Socket head bolt M 8 x 40(for mounting the Barrel, Adhesive attached)      | └ |                                |
| Hex. Socket head bolt M 6 x 22(for mounting the Bearing box, Adhesive attached) | ┌ | 130-160kgf•cm(9.4~11.6ft•lbs)  |
| Hex. Socket head bolt M 6 x 50(for mounting the Gear housing cover)             | └ |                                |
| Hex. Socket head bolt M 6 x 40(for mounting the Handle)                         | ┌ | 40-60kgf •cm(2.9~4.3ft•lbs)    |
| Hex. Socket head bolt M 6 x 55(for mounting the Handle and Motor housing)       | └ |                                |
| Hex. Socket head bolt M 5 x 16(for the Set bolt)                                | — | 60-90kgf•cm(4.3~6.5ft•lbs)     |

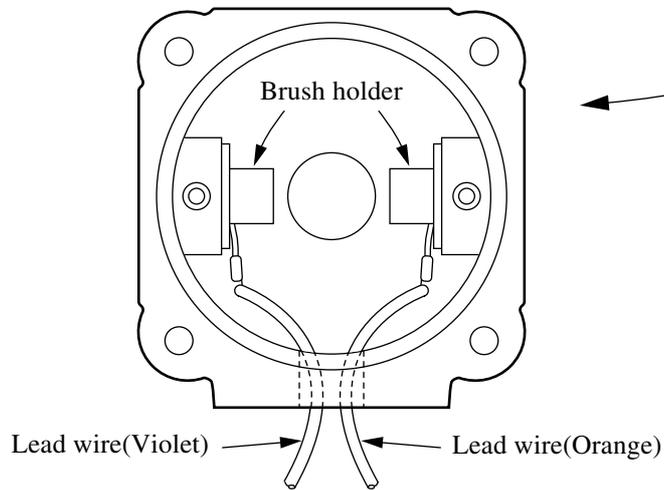
(10) Replacing of grease(Replace the grease when the breaking carbon brush starts shifting)

To replace the grease, remove the Bolt for mounting the Barrel, separate the Barrel and Crank housing, discharge the old grease and then use the cloth to clean the grease adhered on the wall. At last apply the new MAKITA grease, R NO.00 of 40 g(1.4 OZ) into the Barrel and Crank housing.

## ► Wiring diagram



Connect the Brush holder connecting lead wire as shown on the below figure.



Motor housing viewed from the Fan side

(Note) Condenser is not used in some areas.