TECHNICAL INFORMATION

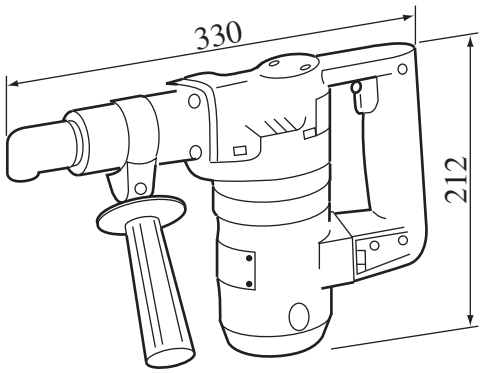
Product

Models No. ► HR2511

Description ► 25mm Rotary hammers

CONCEPTION AND MAIN APPLICATIONS

This model is a single insulation version of HR2510. The operaters are protected from electric shock with the earth.



► Specifications

Voltage(V)	Current(A)	Cycle (Hz)	Continuous rating		Max. output(W)
			Input(W)	Output(W)	
100	6.5	50/60	620	230	480
115	5.7				
200	3.8				
220	3.0				
240	2.7				

No load speed (R.P.M.)			0~800
Blows per minute (R.P.M.)			0~3,000
Shank dia.			ø 10
Max. bit dia. (mm)			25
Drilling in	**Concrete**	**(mm)**	25
	Steel	**(mm)**	13
	Wood	**(mm)**	30
Net weight (kg)			4.2
Power supply cord (m)			5

► Standard equipment

T.C.T. drill bit 10-135
Hex. Wrench 5
Grease for Bit(100g)
Stopper pawl
Spoid 54
Dust Collecter

The standard equipment for the tools shown may differ form country to country.

► Optional accessories

T.C.T.drill bit 6.5mm - 25.5mm, Drill Chuck S13, Chuck Key Complete, Chuck Adapter Taper Shank Adapter, Hammer Grease (30g), Lock NutWrech 35

Features and benefits

1.Suitable also for upward operation becaues of light weight and compact body.
2.T.C.T.hammer bits both of HILTI and BOSCH SDS type can be installed.

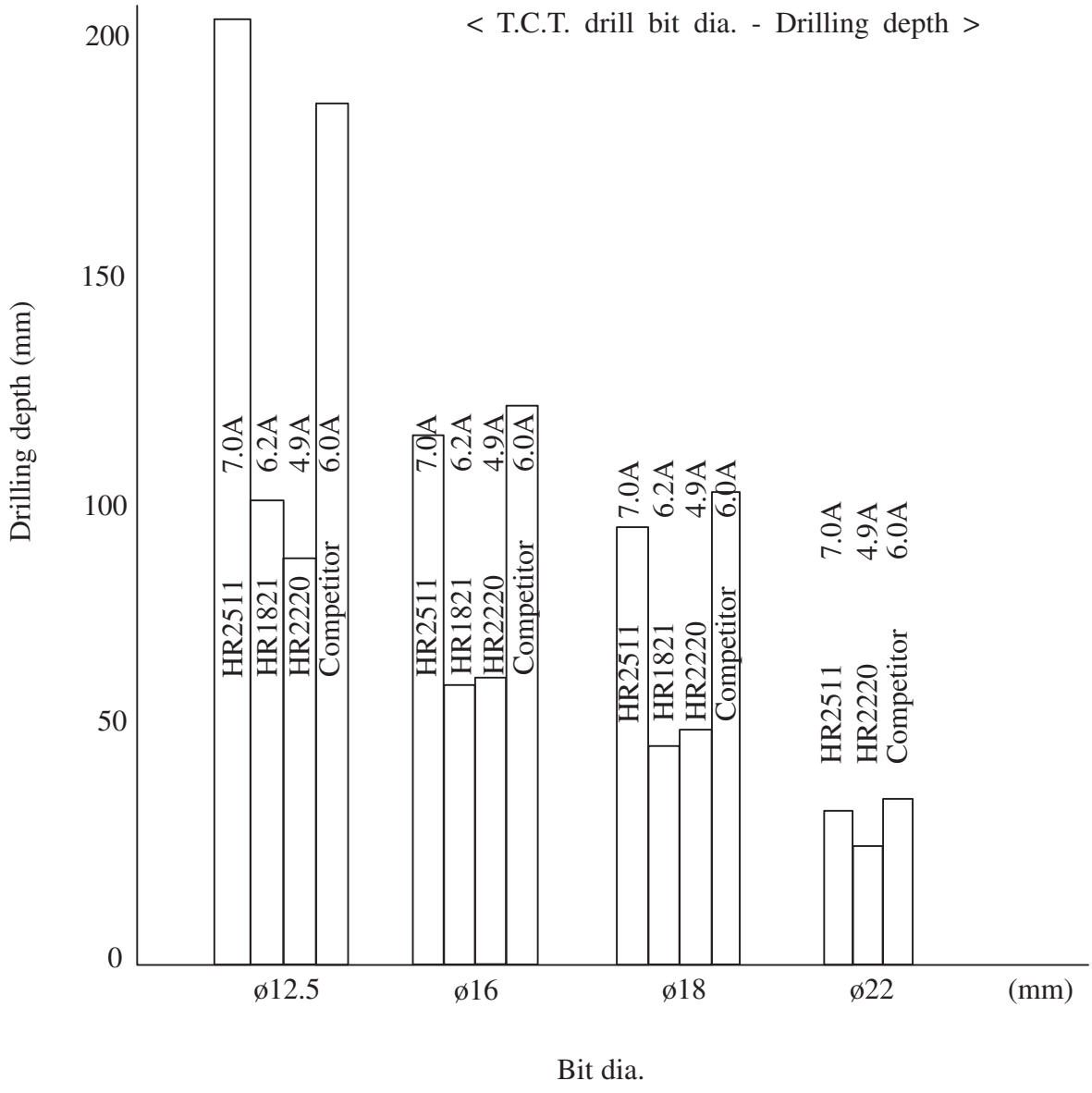
Section of HILTI type bit' shank →

Section of BOSCH SDS type bit' shank →

3.Grease pack structure allows long time operation without lubrication.
4.2 working modes (rotating + hammering / rotating only) can be selected by change lever.
5.Employable as a drill for wood and metal working in the rotating mode,
if the Drill Chuck S-13 is mounted.
6.Auto brake carbon brush protects the commutator from the damage by the worn out carbon brush.

Capacity

Test Condition
1) Voltage: for test: when making a hole in concrete (at loading) 100V
2) Work Piece: concrete block with pressure strength 250kgs/cm2
3) Drilling: horizontal use each 30seconds
4) T.C.T. drill bit: ø12.5, ø16, ø18, ø22



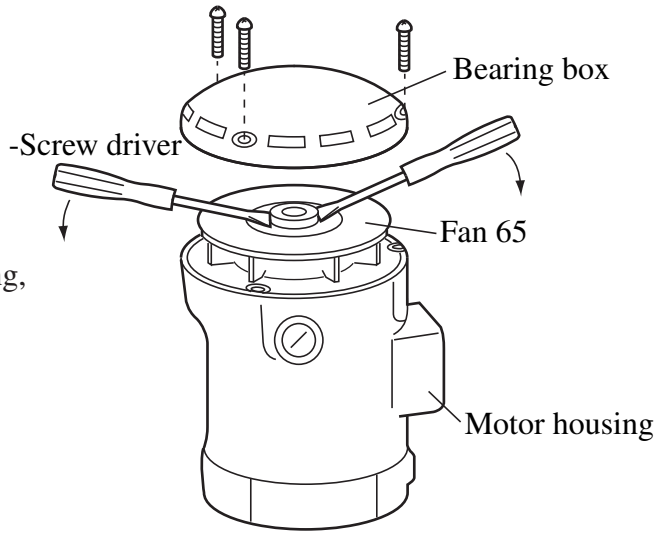
Comparison

Model No.			Makita		Competitor	Competitor	Competitor
		HR2511	HR1821	HR2220			
Voltage(V) 100		100	100	100	100	100	100
Rated current(A)		6.5	5.2	5.5	5.6	4.6	5.3
Continuous rating Input (W)		620	505	520	520	450	500
Rotation (R.P.M.)		0-800	0-1000	0-600	0-580	0-600	0-800
Blows per minute (bpm.)		0-3000	0-3500	0-3000	0-3150	0-3250	0-3150
Net Weight(kg)		4.2	3.1	4.4	5.7	3.0	4.3
Max. drilling capacity (mm)	concrete	25	18	22	25	22	22
	steel	13	10	-	13	13	13
	wood	30	15	-	-	-	-

Repair

Disassembly

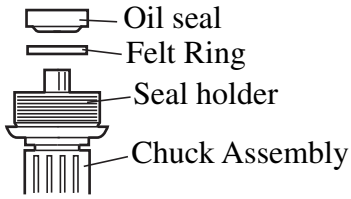
1. In replacement of armature, first remove Bearing Box, and take off Ball bearing 608LB on the end of Fan 65 with two (-) drivers as shown in the right illustration. Also remove Fan 65 in the same way. And then take off Pan-head screws from handle and Hex socket head bolts from crank housing, then armature can be dismounted together with gear housing. Finally, pull out Armature from Gear Housing by Hand Press.



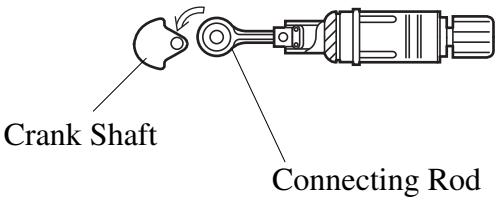
2. How to remove Helical Gear36 is the same way as the replacemment of Armature;
First, remove Ball bearing1507 by two minus drivers, and Helical Gear 36 can be dismounted usually by hands. If it cannot be dismounted by hand, it can be pull out in the same way as the above, by two minus drivers.

Assembly

1. Since the Grease Pack System is applied to this machine, assemble it after applying very little grease on the Lips of O Ring and Oil Seal, etc. If the components in Housing are broken, be sure to clean up inside of housing .
2. Before assembly, impregnate Felt Ring20 with MAKITA Hammer Oil, and attach Felt Ring and Oil Seal after connecting Seal Holder with Chuck Assembly.



3. As for assembling of the parts where steel balls are used, apply grease a little in Insert Hole. So, Steel Ball will not fall down.
4. Wipe up grease completely from the thread parts of Cylinder Liner and Nut M30.0-36, and apply adhesive, and put in drying hearth or otherwise leave it as it is for natural dry.
5. Pour Adhesive(Super three bond No.50,No.0450079) into the groove for insereting O Ring on the end surface of Gear Housing without rifts, paying attention for overpouring.
6. As for mounting of Ball bearing 6902 on the end surface of Helical Gear36, insert it into Crank Shaft together with Housing, after inserting into Gear Housing.
7. In the fabrication of Barrel and Crank Housing, attach the end part of Barrel in advance , and insert Rod, Pin 6, and Piston into Cylinder Liner about 15mm deep, being careful that Pin will not fall down. It is easy if you insert Rod into Crank Shaft after that.



7. Fastening torque of screw

The screws have to be fastened with the following fastening torque.

Screw or Bolt	Fastening Points	Fastening Torque
Seal Holder (left handed screw)	Barrel	400 - 600 Kgf/Cm2
Nut M 30.3 - 36	Cylinder Liner 25	400 - 600 Kgf/Cm2
Crank Cap	Crank Housing	100 - 160 Kgf/Cm2
Hex Socket Hd. Bolt M6 x 25	joining Barrel and Crank Housing	80 - 120 Kgf/Cm2
Hex Socket Hd. Bolt M6 x 25	joining Crank Housing and Motor Housing	40 - 60 Kgf/Cm2
Pan Hd.Screw M6x18	joining Crank Housing and Handle R.L	40 - 60 Kgf/Cm2
Pan Hd.Screw M5x25	joining Handle R and L	30 Kgf/Cm2
Pan Hd.Screw M5x28	joining Bearing Box and Motor Housing	30 Kgf/Cm2

Repairing Tools and Instruments

Hexagonal stick spanner 5
+ screw driver
- screw driver 2pieces
Spanner 36
Spanner 30
Lock nut wrench35
Handpress
Vice
Measurer of torque