

T ECHNICAL INFORMATION



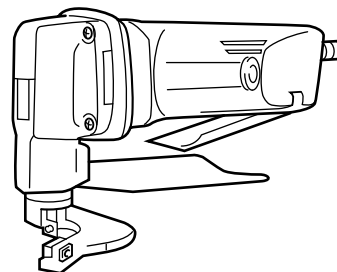
New Tool

Models No. ▶ JS1600

Description ▶ MAKITA Shear

CONCEPTION AND MAIN APPLICATIONS

It is developed to expand the metal working market with the purpose for high-speed cut of soft steel plates, tinplates and stainless plates, etc. We tried to make it as compact as possible and make it easier for use because of applying a lever type switch. Moreover, we paid attention to safety such as the protector and the double insulation structure, etc.



► Specifications

Voltage (V)	Current (A)	Cycle (Hz)	Continuous rating input(W)
100	3.2	50/60	300

Strokes per minute(/min)		40000
Capacity(mm)	Soft steel plate	1.6mm
	Stainless plate	1.2mm
Overall length(mm)		230mm
Net Weight(kg)		1.7kg
Power supply cord(m)		2.0m

► Standard equipment

Hexagonal stick spanner--- 1piece
Wrench holder 3-7---1piece
Special accessories

► Optional accessories

Shear blade

► Features and benefits

1. As we pursued easy-use and designed to be small and light, you can use for long hours without feeling exhaustion and are able to swing round (such as curved line cutting) easily.
2. The upper shear blades and the lower ones are in common in use, of which 8 corners can be used for cutting respectively. Also, since we adjusted the clearance of blades as 0.1mm-0.2mm, you can use without adjusting to the extent of soft steel plates of 1.6mm and stainless plates of 1.2mm.
3. As the Maximum Capacity Gauge is attached, you are able to operate without any worrying.
4. Owing to application of lever type switch, you can operate switches by one hand easily.
5. The protector is provided to safeguard your hands from cut pieces during operation, and you can work safely.
6. You need not earth without worrying, because the machine has an electrically safe double-insulation structure

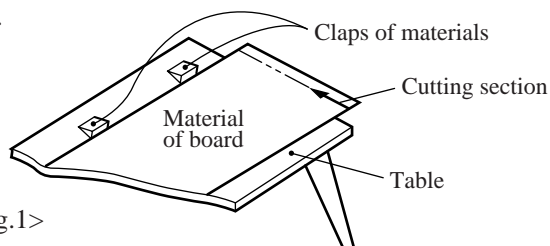
The standard equipment for the tools shown may differ from country to country.

► Capacity

Table – 1

Kinds of plate	Plate thickness (mm)	Load current (A)	Cutting speed (m/mm)	No. of Striking (times /min)
Soft steel plate	0.5	1.5-1.6	6.7	3730-3860
	1.0	1.7-1.8	6.7	3530-3630
	1.6	2.4-2.6	5.6	2870-3020
Stainless plate	0.8	1.5-1.6	5.5	3730-3860
	1.0	1.7-1.9	5.5	3430-3630
	1.2	2.5-2.8	5.2	2740-2950

In the above test, we fixed the cut width to be 10-15mm and the fixing method of the materials is as shown by Fig.1 which is supposed to practice commonly. Also, in shear cutting, the maximum cut width possible is shown as follows, for the cutting capacity depends on the cut width.



<Fig.1>

(Maximum cut width)

In case of cutting a plate of 3-shaku(900mm) x 6-shaku(1800mm)

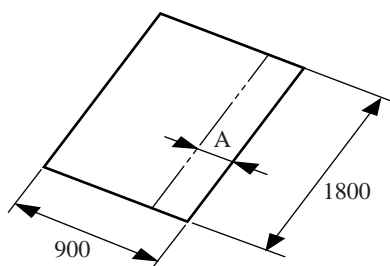


Table – 2

Soft steel plate(mm)	t=1.6	t=1.2
Maximum cut width A(mm)	100	No limit
Stainless plate(mm)	t=1.2	t=1.0
Maximum cut width A(mm)	80	No limit

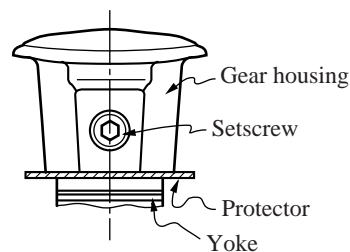
(Minimum cut radius)

Minimum cut radius = 30 mm (when cut a soft steel plate 1.0mm)

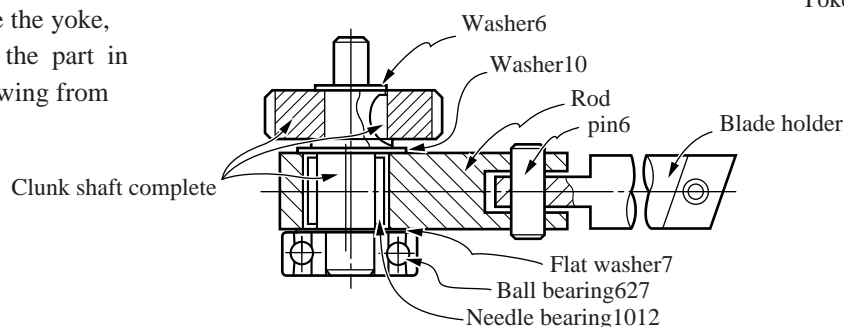
► Repair

[Disassembly order and Notes]

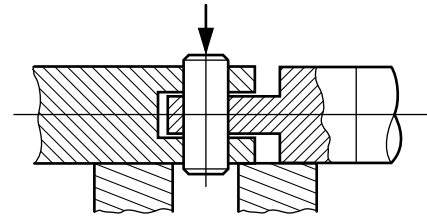
1. Remove the shear blade by taking off the hexagonal-hole bolt fixing the upper shear blade to blade holder with the accessory hexagonal spanner 3.
2. Remove Gear-housing by taking off the pan-head small screw fixing Gear housing, Gear housing cover and Motor housing in 4 corners, with a + screw driver.
3. Remove the yoke by about three-time-turn loosening of a setscrew fixing yoke to gear-housing.



4. When you remove the yoke, you can take out the part in the rigc bbb ht drawing from the gear-housing.



5. As in the Fig. 6, take the ball bearing 627, and disassemble into (Clunk shaft complete) ,(Washer 6,7,10),and (rod-pin6, blade holder).
6. Pick out Pin6 by rbor, etc.. The Pin 6, connecting the rod with the blade holder, is inserted with pressure into the both side holes of the rod.



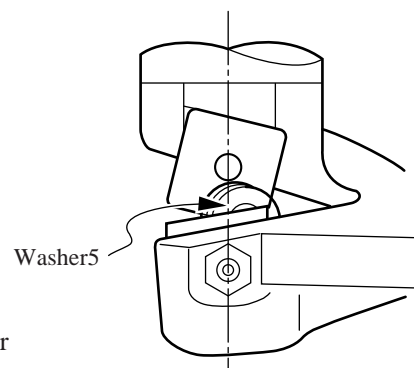
[Assembly Order and Note]

The assembly order is contrary to that of disassembly. Besides, the followings are the points which you should be careful of during assembling.

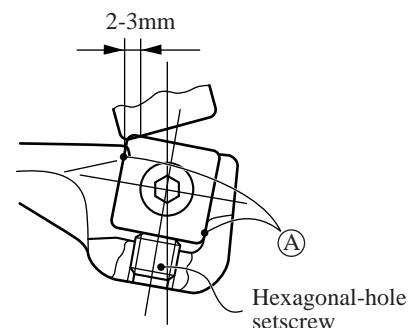
1. When you put the needle bearing into the rod with pressure, press it until the bearing corresponds to the side of rod. At that time apply greese to the needle bearing
2. When you put the ballbearing 627 into clunk shaft with pressure, be sure to check if the flat washer 7 and 10 have been put or not.
3. In attaching the parts of Fig.6 to Gear housing, be careful enough about gouging.
4. Fasten tightly the setscrew , fixing Yoke to Gear housing, so that it will be loose because of vibration during operation.
5. When you coordinate Gear Housing with Gear Housing Cover, you must check the existence of Flat Washer 6 for sure.
6. Pay attention to Armature Ballbearing because it is sealed in one side only and the direction is fixed.
 Ballbearing 608LB ----- Sealed in Fan side, Open in Gear side
 Ballbearing 627LB-----Sealed in Fan side, Open in rear end side

(Adjust Method of Shear Blade)

1. Attach the lower shear blade to the attaching surface of blade without gap, and fasten temporarily.
2. Put the upper shear blade on the fixing site of blade in Blade Holder.
3. Between Upper and Lower blades, insert Washer 5 as many as possible. (in case of Fig. 8, 3 pcs)
4. Insert the number of washers (minus 1pc from the above; in Fig.8, =2pcs) between Blade holder and Shear blade, and fasten tightly the hexagonal-hole bolt for fixing Upper shear blade. (Ref. Blade clearance : 0.1- 0.2mm)
5. At the time of dead point on Upper shear blade, as Fig.-9, put Upper/Lower blades so that they may overlap each other by 2-3mm , and fasten strongly the hexagonal-hole bolt, paying attention not to make a gap in the Positiion A.
6. Apply Screw Lock Super 103Q a little to the screw part of Hexagonal-hole setscrew Fig.9, then put it into the lower tap of Yoke, and make it attach in the condition that the end of .Setscrew should hit the side of Shear blade. This time, do not fasten the setscrew so tightly.



<Fig. 8>



<Fig. 9>