

**DIRE CTION FOR USE OF
3-IN-1/40 (3-IN-1/1016)
COMBINATION OF SHEAR,
BRAKE AND ROLL**



ASSEMBLY AND OPERATING INSTRUCTION

USES

This machine is used for shearing and braking low carbon plate (mild steel) or the other metal materials which have the same intensity as the low carbon plate, but their maximum thickness is 1mm. It can also be used for rolling the low carbon plate (mild steel) or the other metal materials which has the same intensity as the low carbon plate, its maximum thickness is 1mm.

1. USES AND MALNTENANCE

- 1.1 Before using this kind of machine tool. You must read this direction, in order to have an intimate knowledge of structure of the machine tool, and also function of the handle ,drive and lubrication systems.
- 1.2 According to the different using conditions, this kind of machine tool must be fixed on the ground or special machine seat, in order to avoid slide of the machine tool.
- 1.3 Please firmly execute the following operating rules:
 - 1.3.1 Before packing this machine tool, antirusting agents are put on it, so when you are getting rid of the king of rust inhibitor, you can unset the yellow coat with varnish diluent and paint flux for machine oil.
 - 1.3.2 Place near the machine be kept clean, and materials which avoid slide can be used in this area.
 - 1.3.3 When you move, install, clean and adjust the machine tool, you must keep away from the shears.
 - 1.3.4 Put down the protecting cover when you don't use the sliding roll of the roll machine.
 - 1.3.5 Keep your hands from the die when you are working on it .
 - 1.3.6 Operators must be familiar with the structure and function of this machine tool. Protecting mask and the other safety devices should be used when work on it.
 - 1.3.7 Focus your attention on the machine and operate when someone are near by the machine.
 - 1.3.8 Any metal plate that thick ness and quality goes beyond the scope that machine demands should be refused to process.
- 1.4 Generally the operating handle was installed on the right side of the machine tool(Left is also acceptable).
- 1.5 Back –measure plate(Angle iron)

Back-measure plate is used for shearing and braking. When it's in the place of braking condition. Please screw two long bars into the nut of concave mould plate, ensure that the bars pass through the front part of the concave mould plate, tighten up the nut and then back-measure plate and concave mould plate can move mould plate can move up and down in company.

When it is in the place of shearing condition, before putting the bars into the positioning plate, screw a 2-m12 nut into the positioning plate, and then followed the bar which was fixed by the nut in the end.

In these two kinds of position, the circular adjustable knob was installed at the back of angle iron.

1.6 Adjustment of the braking installation

1.6.1 Adjustment of the upper die:

Loosen the screw bolt, the upper die will come off the machine. If you don't want the upper die will come off the machine or you wiling to install another new mould plate, you can put a piece of hard wood (25, 25, 160mm) or the other similar matherials on the concave mould plate, turn

the handle and raise the concave mould plate until the wooden piece getting in touch with the upper die (form plunger)

After putting up the new die, all the fasten bolts of the die should be tightened up. In some cases, especially the using of narrow die it is necessary to put a piece thin paper between the upper die and the lower die.

2.6.2 Adjustement of the cross girder

To make the braking work go on smoothly, and to separate the formed metal that between the upper die and the lower die form being blocked , you must adjust the crossbeam.

First, you put a steel plate (its width echo the demand of the machine and its thickness is 1mm) on the concave mould plate, then, turn the handle carefully to raise concave mould plate, loosen the fasten bolt of the crossbeam when the upper die (formplunger) getting in touch with the processing metal plate, after that , in order to fix the crossbeam, you can adjust the screw which on the crossbeam, at last, tighten up all the fasten screws. During this period, the handle is not fixed to turn an angle of 360 degrees, brake a piece of metal plate that with game width and thickness on both side of the braking system, their angles should be similar, the job should be excessively braked when you turn the handle and fully brake the job.

1.7 Adjustment of the shearing installation

You should adjust the zero-clearance of the upper cutter and the lower cutter.

Adjustment of the lower cutter:

Unload the pressing plate, loosen the fasten screw and the two adjustable screws of the working table, turn the handle make the upper cutter near the cutter on the working table, tighten the fasten table room moving bake when the machine is used. Install the pressing plate once again and ensure that it run paralalled to the upper cutter.

Adjustment of the positioning plate:

During the period of the shearing , there will be a powerful strengthen produced at the middle of the cutter, in order to avoid the clearance that between the upper and lower cutter, you should adjust the central screw that behind the positioning plate. If the adjustment was not suitable, the metal plate will be foldedin the middle of the two cutters when shearing is executed.

If the lower cutter and upper cutter still press close together after the adjustment, two parts must be examined: First, the fasten screw of the lower cutter, you can fully tighten the cutter up, then loosen the screw about 1/8 circle. Second ,the contact face of the an cover mould plate and the positioning plate. In most, cases this contact face and lubricate.

1.8 Adjustment of the rolling installation

This rolling installation can roll straight, roll taper or metal ring with the help of the liner channel roller.

When a job was finished, turn the pin to right, the left side of the roller can be taken off the machine, the job will be taken out with ease.

When you operate the slide roller, you must give enough pressure to roller for the purpose of suitable import of the job.

Adjust the cleance of the upper roller have the same learance.

1.9 When you finished your work, you must clean the machine and spread oil on the surface that not be applied a coat of paint.

2. CHIEF TECHNICAL SPECIFICATIONS

Ordinal number	Function parameter	3 in 1/1000 combination of shear, brake and roll
1	Effective width	40"(1000mm)
2	Maximum shearing thickness	1mm low carbon plate
3	Maximum braking thickness	1mm low carbon plate
4	Maximum rolling thickness	1mm low carbon plate
5	Minimum internal diameter of the roll	Φ43mm
6	Measurement of machine tool(L×W×H)	1200×715×550mm ²
7	Net weight of machine tool	200kg

4. LUBRICATION OF THE MACHINE TOOL

Oiling the machine oil into eccentric mechanism and clearance once for a day.

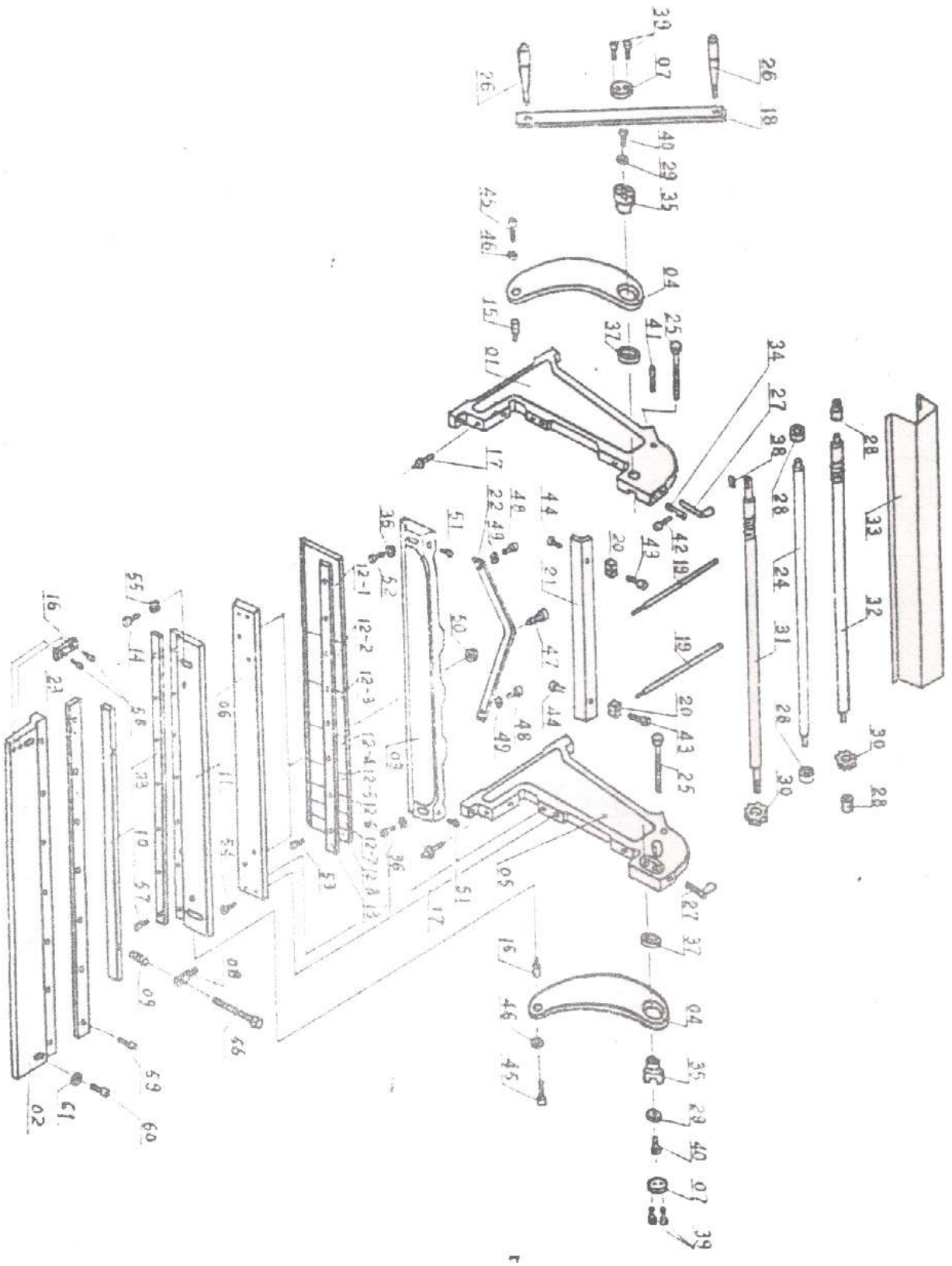
5. ACCESSORIES OF THE MACHINE TOOL

Allen keys (5mm, 12mm, two kinds in all) with every set of machine tool.

PACKING LIST

Ordinal number	contents	Quantity
1.	3in 1 combinayion of shear, Brake and roll	1set
2	5mm Allen key	1piece
3	12mm Allen key	1piece

ASSEMBLY DIAGRAM



PARTS LIST

Part No.	Description	Qty	Part No.	description	Qty
01	Left wall	1	31	Lower pressing roll	1
02	Work bench	1	32	Upper pressing roll	1
03	Crossbeam	1	33	Protecting cover	1
04	Crank arm	2	34	Rotation shaft	1
05	Right wall	1	35	Eccentric shaft	2
06	Bear frame	1	36	Gasket(washer)	2
07	Cover	2	37	Jacket	2
08	Bear frame	2	38	Flat key	2
09	Spring	2	39	Hexagon head bolts	4
10	Pressing plate	1	40	Hexagon socket cap head screws	2
11	Moving cutter plate	1	41	Hexagon head cap bolts	2
12	Upper braking die	1	42	Hexagon socket cap head screws	1
13	Pressing plate	1	43	Hexagon head bolts	2
14	Bolt	2	44	Hexagon head bolts	2
15	Cranking arm rolling wheel	2	45	Hexagon socket cap head screws	2
16	Positioner	1	46	Gasket (washer)	2
17	Adjustable bolt	2	47	Hexagon head bolts	1
18	Handle	1	48	Hexagon head bolts	2
19	Screw	2	49	Gasket(washer)	1
20	Position piece	2	50	Hexagon nuts	1
21	Position plate	2	51	Hexagon head bolts	1
22	Support plate	1	52	Hexagon screws	2
23	Cutter	2	53	Hexagon screws	1
24	Back pressing	1	54	Hexagon screws	1
25	Screw	2	55	Gasket(washer)	2
26	Handle jacket	2	56	Hexagon head bolts	2
27	Adjustable bolt	2	57	Hexagon screws	2
28	Jacket	4	58	Hexagon screws	2
29	Press cover	4	59	Hexagon screws	2
30	Gear	2	60	Hexagon screws	4
			61	Gasket (Washer)	2

Note: This manual is only for your reference. Owing to continuous improvement of the machines,
Changes may be made at any time without obligation on notice.