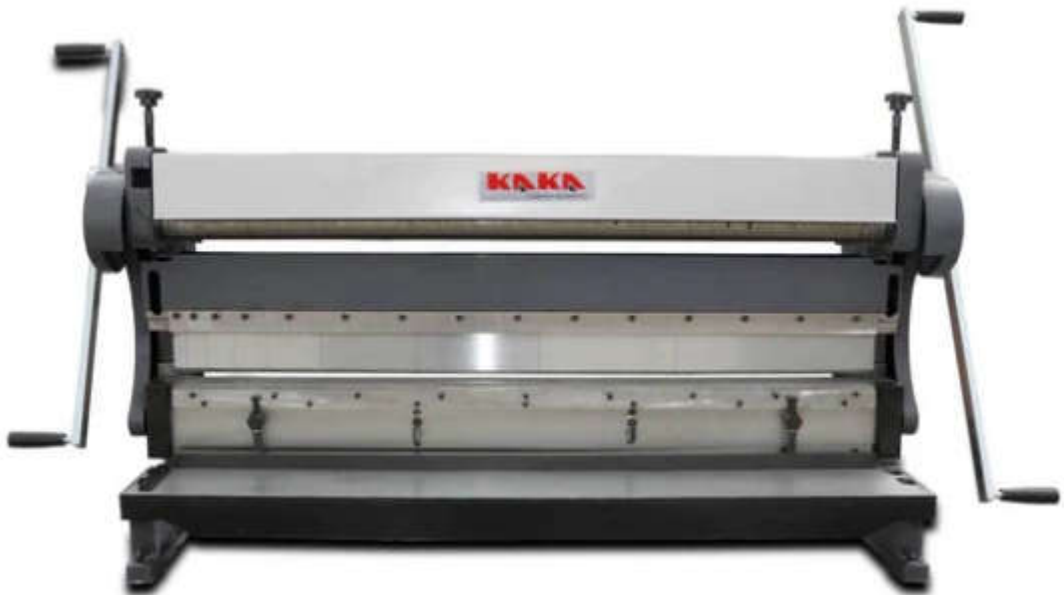


**SHEARER/PRESS BRAKE/ SLIP ROLL**

**Model: 3-IN-1/5216**

**(3-IN-1/1320x1.5、 3-IN-1/1067x1.5)**



**OPERATION MANUAL**

## 1. USES

This machine is used for shearing and bending low carbon plate (mild steel) or the other metal materials which have the same intensity as the low carbon plate, but the maximum thickness is 1.5 mm. 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 1.5 mm.

## 2. USES AND MAINTENANCE

2.1 Before using this kind of machine tool, in order to have an intimate knowledge of structures of the machine tool, and the function of the handle, drive and lubrication systems, you must read this direction first.

2.2 Whatever the working condition is, in order to avoid slide of the machine tool, this kind of machine must be fixed on the ground or special machine seat.

2.3 Please firmly execute the following operating rule:

2.3.1 Before packing this machine tool, antirusting agents are put on it,. So when you want to get rid of the kind of rust inhibitor, you don't have to install the yellow coat with varnish diluent and paint flux for machine oil.

2.3.2 Please keep the machine clean, and materials which avoid slide can be used in this area.

2.3.3 When you move, install, clean and adjust the machine tool, please keep your hand away from the shears.

2.3.4 Close the protecting cover when you don't use the sliding roll of the machine.

2.3.5 Keep your hands away from the die when you are working.

2.3.6 Operators must be familiar with the structure and function of this machine. Protecting mask and the other safety devices should be used when working.

2.3.7 Focus your attention on the machine when someone near the machine.

2.3.8 Any metal plate that thickness and quality goes beyond the demands scope is unaccepted.

2.4 Generally the operating handle was installed on the right side of the machine tool (left is also acceptable).

2.5 Back-measure plate (Angle iron)

Back-measure plate is used for shearing and bending when the machine is under the condition of working. 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, then back-measure plate and concave mould plate can move up and down.

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, then follow the bar which is fixed by the nut in the end.

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

## 2.6 Adjustment of the braking installation

### 2.6.1 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 come off the machine or install another new mould plate, you can put a piece of hard wood (25,25,160mm) or the other similar materials on the concave mould plate, turn the handle and raise the concave mould plate until the wooden piece get in touch with the upper die (form plunger).

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

### 2.6.2 Adjustment of the cross girder

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

First, please put a steel plate (its width and thickness must be in the range of the machine's range) 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 (form plunger) 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 first, 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 same width and thickness on both side of the bending system, their angle should be similar, the job should be excessively braked when you turn the handle and fully brake the job.

## 2.7 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 and make the upper cutter near the cutter on the working table, tighten the fasten table when the machine is working. Install the pressing plate once more and ensure that it runs parallel with the upper cutter.

Adjustment of the positioning plate:

During the period of the shearing, there will be a powerful strength produced in 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 folded in 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, fasten screw of the lower cutter, to guarantee you can fully tighten the cutter up, then loosen the screw about 1/8 circle. Second, the contact face of the cover mould plate and the positioning plate. In most cases , the contact face should be cleaned and lubricate.

### 2.8 Adjustment of the rolling installation

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

When a job is 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 insert of metal plate.

Clean of the upper roller and lower roller properly, ensure that the two sides of the roller have the same clearance.

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

## 3. 3-in-1/1067x1.5 TECHNICAL SPECIFICATIONS

Ordinal number	Function parameter	3 in 1/1067 combination of shear, brake and roll
1	Effective width	1000mm
2	Maximum shearing thickness	1.5mm low carbon plate
3	Maximum bending thickness	1.5mm low carbon plate
4	Maximum rolling thickness	1.5mm low carbon plate
5	Minimum internal diameter of the roll	φ60mm
6	Measurement of machine tool( L X W X H )	1540X610X900 mm
7	Net weight of machine tool	390 kg

#### 4. 3-in-1/5216 (1320x1.5) TECHNICAL SPECIFICATIONS

Ordinal number	Function parameter	3-in-1/5216 combination of shear, brake and roll
1	Effective width	1320mm
2	Maximum shearing thickness	1.5mm low carbon plate
3	Maximum braking thickness	1.5mm low carbon plate
4	Maximum rolling thickness	1.5mm low carbon plate
5	Minimum internal diameter of the roll	φ60mm
6	Measurement of machine tool( L X W X H )	1830 x610 x970 mm
7	Net weight of machine tool	470kg

#### 5. LUBRICATION OF THE MACHINE TOOL

Oil the eccentric mechanism and clearance once day.

#### 6. ACCESSORIES OF THE MACHINE

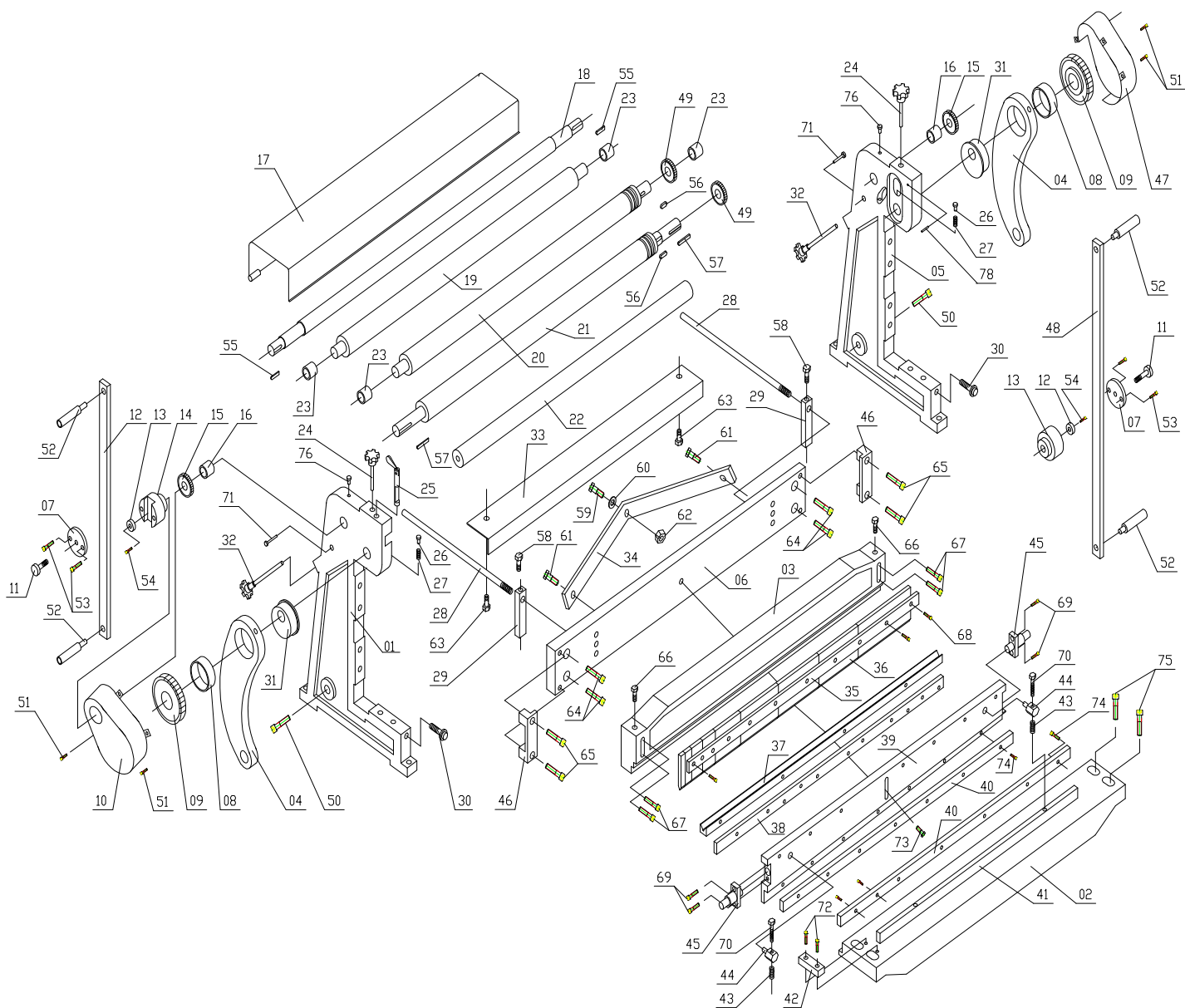
Allen keys (5mm, 12mm, two kinds in all) with every set of machine.

#### 7. DETAIL LIST OF PARTS

Part No.	Description	Part No.	Description
01	Left wall	33	Back Gauge
02	Workbench	34	Bending Rod
03	Crossbeam	35	Press Blade
04	Crank arm	36	Brake Blade
05	Right wall	37	Brake Blade Die
06	Connector	38	Adjusting Plate
07	Cover	39	Movable Blade
08	Copper Sheath	40	Blade
09	Big Gear Wheel	41	Press Body
10	Left Gear Wheel Cover	42	Limiting Block
11	Bolt	43	Press Spring
12	Short Handle	44	Support plate
13	Pressing Cover	45	Pin Seat
14	Handle Seat	46	Left & Right Press Block
15	Gear Wheel	47	Right Protecting Cover

16	Copper Sheath	48	Long Handle
17	Protect Cover	49	Small Gear Wheel
18	Transmission Shaft	50	Bolt
19	Shaft 3	51	Bolt
20	Shaft 2	52	Handle Bolt
21	Shaft 1	53	Hexagon screws
22	Connect Pipe	54	Hexagon screws
23	Sheath	55	Flat key
24	Press Shaft	56	Flat key
25	Limiting Bar	57	Flat key
26	Shaft	58	Bolt
27	Spring	59	Bolt
28	Long Screw	60	Gasket (washer)
29	Stand Die	61	Bolt
30	Adjustable Bolt	62	Hexagon Nut
31	Eccentric Shaft	63	Bolt
32	Shaft	64	Bolt
65	Bolt	72	Hexagon screws
66	Bolt	73	Bolt
67	Bolt	74	Hexagon screws
68	Hexagon screws	75	Bolt
69	Hexagon screws	76	Oil Cup
70	Bolt	77	Bolt
71		78	Pin

# ASSEMBLY DIAGRAM



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.