

PALMGREN®

COMBINATION 3-IN-1 SHEAR, BRAKE & ROLL



Model 9629264 shown.

**9629620 COMBINATION 30" 3-IN-1
SHEAR, BRAKE & ROLL**

**9629622 COMBINATION 40" 3-IN-1
SHEAR, BRAKE & ROLL**

**9629624 COMBINATION 52" 3-IN-1
SHEAR, BRAKE & ROLL W/ STAND**

Read carefully and follow all safety rules and operating instructions before first use of this product.

DESCRIPTION

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 1 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 1 mm.

UNPACKING

Carton Contents:

- 3-in-1 Press Brake Machine (1)
- Allen Wrench, 5 mm (1)
- Allen Wrench, 12 mm (1)

OPERATION

- 2.1 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.
- 2.2 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.
- 2.3 Please firmly execute the following operating rules:
 - 2.3.1 Before packing this machine tool, anti-rusting agents are put on it, so when you are getting rid of the kind of rust inhibitor, you can unset the yellow coat with varnish diluent and paint flux for machine oil.
 - 2.3.2 Place near the machine be kept 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, you must keep away from the shears.
 - 2.3.4 Put down the protecting cover when you don't use the sliding roll of the roll machine.
 - 2.3.5 Keep your hands from the die when you are working on it.
 - 2.3.6 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.
 - 2.3.7 Focus your attention on the machine and operate when someone is near by the machine.
 - 2.3.8 Any metal plate that thickness and quality go beyond the scope that machine demands should be refused to process.
- 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 uses for shearing and braking. When it's in the place of braking condition. please screw two long bars into the nut of concave mold plate. ensure that the bars pass through the front part of the concave mold plate, tighten up the nut and then back-measure plate and concave mold plate can move mold 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.

- 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 will come off the machine or you wilking to install another new mold plate, you can put a piece of hardwood (25. 25. 160 mm) or the other similar materials on the concave mold plate. Turn the handle and raise the concave mold 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 Adjustment 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 from being blocked, you must adjust the crossbeam.

First, you put a steel plate (its width echoes the demand of the machine and its thickness is 1 mm) on the concave mold plate, then turn the handle carefully to raise concave mold 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 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 same width and thickness on both side of the braking system, their angles should be similar, the job should be excessively braked when you tum 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 make the upper cutter near the cutter on the working table, tighten the fasten table from moving bake when the machine is used. Install the pressing plate once again and ensure that it run parallel to the upper cutter.

Adjustment of the positioning plate: During the period of the shearing, there will be a powerful strength 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 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, the fasten screw of the lower cutter, you can fully tighten the cutter up, then lessen the screw about 1/8 turn. Second, the contact face of the cover mold plate and the positioning plate. In most, cases this contact face and lubricate.

- 2.8 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 clearance of the upper roller have the same clearance.

SPECIFICATIONS

Model	9629620	9629622	9629624
Bed Size	30"	40"	52"
Max shearing thickness (low carbon plate)	0.039	0.039	0.039
Max bending thickness (low carbon plate)	0.039	0.039	0.039
Max rolling thickness (low carbon plate)	0.039	0.039	0.039
Min rolling diameter	1.535	1.693	1.693
Overall dimensions	38.6" x 17.3" x 26.4"	50.4" x 17.3" x 26.4"	63.8" x 22.8" x 29.1"
Die sizes included	1", 2", 3", 6", 8", 10"	1", 2", 4", 6", 7¼", 9½", 10¼"	1", 2", 3", 4", 5½", 7", 8", 10", 12"
Height of table (when on stand)	26"	26"	28.35"
N.W.	265 lbs	441 lbs	728 lbs
Stand	9629621	9629623	NA

Equivalency chart

Mild Steel	0.0390
Stainless	0.0325
SAE 1050 Cold-Rolled Steel	0.0325
Aluminum	0.0693
Soft Brass	0.0553
1/2 Hard Brass	0.0390
Annealed Phosphor Bronze	0.0433
Soft Copper	0.0542
Hard Copper	0.0433
ABS Plastic	0.1300

MAINTENANCE

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

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

ACCESSORIES

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



Model 9629264 shown.

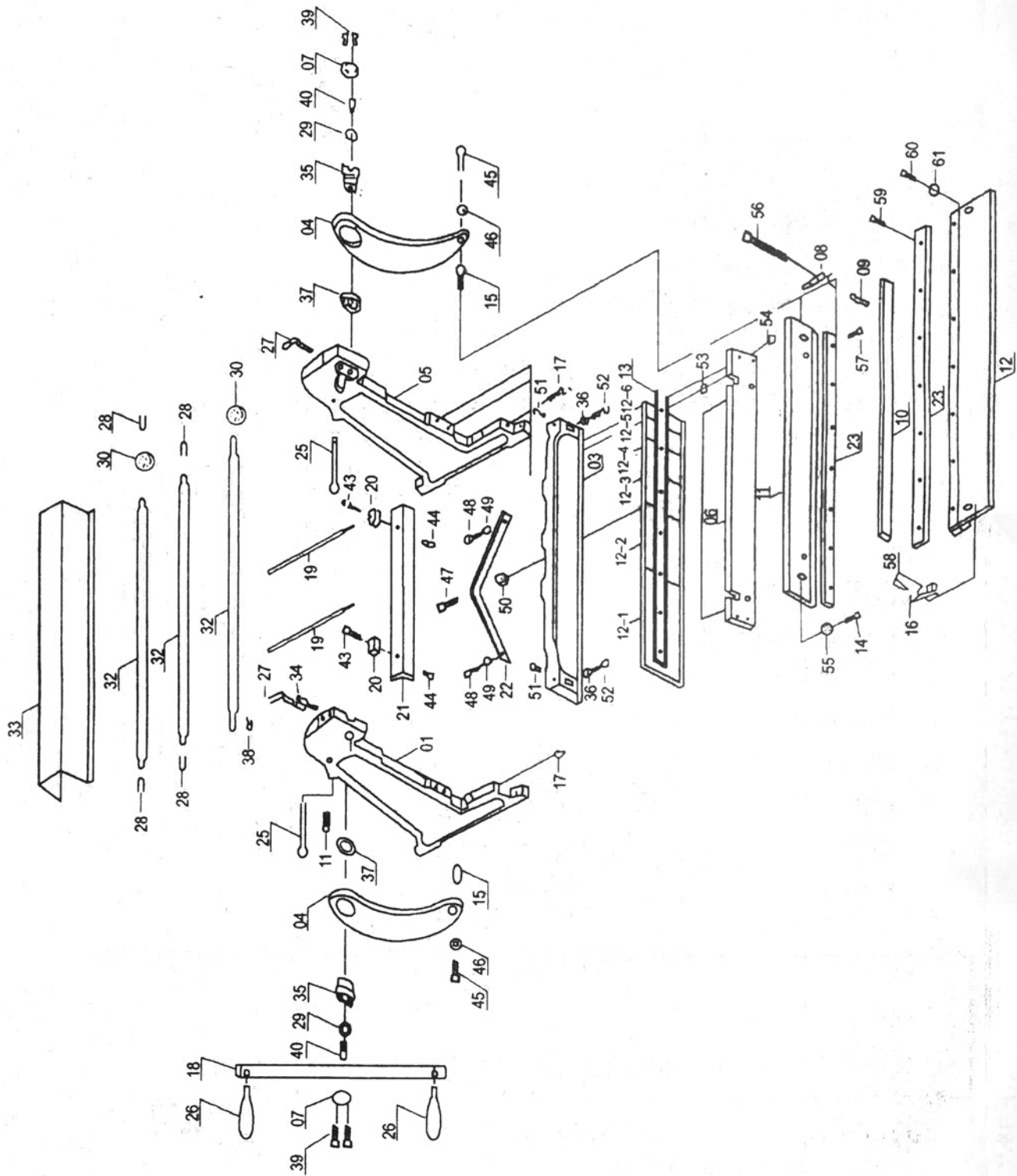


Figure 1 - Repair Parts Illustration for 3-in-1 Press Brake Machines

REPAIR PARTS LIST FOR 3-IN-1 PRESS BRAKE MACHINES

Ref. No.	Description	Part No. for 9629620	Part No. for 9629622	Part No. for 9629624	Qty.	Ref. No.	Description	Part No. for 9629620	Part No. for 9629622	Part No. for 9629624	Qty.
1	Left Wall	965296001	965300301	965304601	1	31	Lower Pressing Roll	965298701	965303001	965307301	1
2	Workbench	965296101	965300401	965304701	1	32	Upper Pressing Roll	965298801	965303101	965307401	3
3	Crossbeam	965296201	965300501	965304801	1	33	Protecting Cover	965298901	965303201	965307501	1
4	Crank Arm	965296301	965300601	965304901	2	34	Rotation Shaft	965299001	965303301	965307601	1
5	Right Wall	965296401	965300701	965305001	1	35	Eccentric Shaft	965299101	965303401	965307701	2
6	Bear Frame	965296501	965300801	965305101	1	36	Gasket (Washer)	965299201	965303501	965307801	2
7	Cover	965296601	965300901	965305201	2	37	Jacket	965299301	965303601	965307901	2
8	Bear Frame	965296701	965301001	965305301	2	38	Flat Key	965299401	965303701	965308001	1
9	Spring	965296801	965301101	965305401	2	39	Hex Head Bolts, M6x12	*	*	*	4
10	Pressing Plate	965296901	965301201	965305501	1	40	Hex Socket Cap Head Screws, M6x12	965299501	965303801	965308101	2
11	Moving Cutter Plate	965297001	965301301	965305601	1	43	Hex Head Bolts, M8x15	*	*	*	2
12	Upper Braking Die set	965297101	965301401	965305701	1	44	Hex Head Bolts, M8x15	*	*	*	2
12-1	Die 1	†	†	†	1	45	Hex Socket Cap Hd. Screws, M10x55	*	*	---	2
12-2	Die 2	†	†	†	1	45	Hex Socket Cap Hd. Screws, M10x60	---	---	*	2
12-3	Die 3	†	†	†	1	46	Gasket (Washer), 10	965299601	965303901	965308201	2
12-4	Die 4	†	†	†	1	47	Hex Head Bolts, M12x90	*	*	*	1
12-5	Die 5	†	†	†	1	48	Hex Head Bolts, M10x20	*	*	---	2
12-6	Die 6	†	†	†	1	48	Hex Head Bolts, M16x40	---	---	*	2
13	Pressing Plate	965297201	965301501	965305801	1	49	Gasket (Washer), 10	965299701	965304001	---	2
14	Bolt M10x1.5, 40mm	*	*	N/A	1	49	Gasket (Washer), 16	---	---	965308301	2
14	Bolt M12x1.75, 40mm	N/A	N/A	*	1	50	Hex Nuts, M12	965299801	965304101	965308401	1
15	Cranking Arm Rolling Wheel	965297301	965301601	965305901	2	51	Hex Head Bolts, M10x40	*	*	---	2
16	Positioner	965297401	965301701	965306001	1	51	Hex Head Bolts, M12x50	---	---	*	2
17	Adjustable Bolt	965297501	965301801	965306101	2	52	Hex Screws, M10x65	*	*	---	2
18	Handle	965297601	965301901	965306201	1	52	Hex Screws, M12x60	---	---	*	2
19	Screw M14x2, 480mm	*	*	N/A	2	53	Hex Screws, M8x30	*	*	*	1
19	Screw M16x2, 480mm	N/A	N/A	*	2	54	Hex Screws, M10x25	*	*	---	1
20	Positioning Piece	965297701	965302001	965306301	2	54	Hex Screws, M14x40	---	---	*	1
21	Positioning Plate	965297801	965302101	965306401	1	55	Gasket (Washer)	965299901	965304201	965308501	1
22	Supporting Plate	965297901	965302201	965306501	1	56	Hex Head Bolts	965300001	965304301	965308601	1
23	Cutter	965298001	965302301	965306601	2	57	Hex Screws, M6x12	*	*	---	1
24	Back Pressing Roll	965298101	965302401	965306701	1	57	Hex Screws, M8x16	---	---	*	1
25	Screw M10, 200mm	*	*	*	2	58	Hex Screws	965300101	965304401	965308701	1
26	Handle Jacket	965298201	965302501	965306801	2	59	Hex Screws, M6x12	*	*	---	1
27	Adjustable Bolt	965298301	965302601	965306901	2	59	Hex Screws, M8x25	---	---	*	1
28	Jacket	965298401	965302701	965307001	3	60	Hex Screws, M10x30	*	*	---	1
29	Press Cover	965298501	965302801	965307101	2	60	Hex Screws, M14x40	---	---	*	1
30	Gear	965298601	965302901	965307201	2	61	Gasket (Washer)	965300201	965304501	965308801	1

(A) Not shown. (N/A) Not available as repair part. (*) Standard hardware item, available locally. (†) See Die Table on Page 6

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All arbor presses, vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

PALMGREN®

Palmgren - a C.H. Hanson Company
2000 N. Aurora Rd., Naperville, IL 60563 U.S.A.
or call 1-800-827-3398