

Instructions and Parts List for No. 24 Ball Bearing Punch

CARE: Before attaching punch to spindle, grease punch head, Oil punch point.

OPERATION: One complete revolution (360°) of the spindle lowers punch 1/2". When punching I beams, bevel dies should be used. Punch couplers have left hand thread. Punch should turn freely after installation. On contact with metal being punched the punch should not turn. Stripper bolts must be level at all times.

TO CHANGE DIES: Loosen die shoe set screw, Remove one die shoe bolt and pivot die shoe toward operator. Push up on die. Insert new die and die shoe bolt. Tighten die shoe set screw. Lower punch into die, check clearance and tighten both die shoe bolts.

To assemble spindle assembly, place a small amount of heavy grease in ball race of spindle. Slide stop collar on spindle with notch "A" in stop collar in down position. Place 32 ball bearings (1 1/32") in ball race of spindle and thread into ball race sleeve as far as possible; turn back until ball race can be seen. Align notch "A" in stop collar with "B" start of ball race in frame and tighten the three stop collar set screws. Screw ball race sleeve into punch body until bottom of ball race sleeve is even with bottom of punch body. Align flats and insert set screw plugs and screws.

To assemble irregular shaped punches and dies, place die in frame. Do not tighten set screw. Fasten punch to spindle with coupler. Thread punch point through guide stripper and fasten guide stripper to frame using screws and spacers furnished. The guide stripper must be level with die and the punch point must never leave the guide stripper. Lower punch and align die and tighten die set screw. Raise punch and lower through die to recheck alignment.

FOR AOFAXIMUM OPERA TOR SAFETY DO:

1. Read and understand this manual.
2. Use only No. 20 punches and dies marked with a "W" in a circle or R-W designed for this tool.
3. Be sure you punch within the twenty ton capacity for No. 24 or 11 ton for No. 25. Type and thickness of material versus final hole size will give you this tonnage.
4. Wear safety glasses.

FOR MAXIMUM OPERA TOR SAFETY DO NOT.

1. Use punches and dies that are chipped or dulled.
2. Punch over capacity of the tool.
3. Nibble. Punch a full hole not a half hole as punch may contact die.

When ordering, list Item No., Part No., and Part Name

Item No.	Part No.	Part Name	No. Req'd.
1	WS 14	Operating Handle Screw 5/16-18 x 1/2 Hex Head Cap Screw	1
2	10-7	Operating Handle Washer	1
3	20-12	Operating Handle	1
4	20-4	Dust Cap	1
5	20-26	48" Pipe Handle	1
6	24-3	Spindle	1
7	WS 1807	11/32 Ball Bearings (32 per set)	Set
8	20-10	Stop Collar	1
9	WS 812A	Stop Collar Set Screws 1/4-20 x 3/16 Socket Set Cone Point	3
10	WS 843	Ball Race Sleeve Set Screws 3/8-16x3/8 Socket Set	2
11	24-4	Ball Race Sleeve	1
12	24-15	Ball Race Sleeve Set Screw Plugs	2
13	24-2	Frame	1
13	25-1	Frame	1
14	20-11	11/16 Coupling Nut	1
15	20-25	3/4 Coupling Nut	1
16	20-35	Split Coupling Nut	1
17	WS 813	Die Shoe Set Screw 1/4-20 x 1/4 Socket Set	1
18	25-2	Die Shoe	1
19	WS 1335	Stripper Bolt Nuts 1/2-13 Hex Jam	2
20	WS 68	Stripper Bolts 1/2-13 x 2-1/4 Hex Head	2
21	WS 1704	Die Shoe Bolt Washers	2
22	WS 40	3/8 Flat Die Shoe Bolts 3/8-16 x 2-3/4 Hex Head	2
		Ball Race Sleeve Assembly	1
		Consists of Item Nos. 6, 7, 8, 9, 11 and 14 Fully Assembled	

