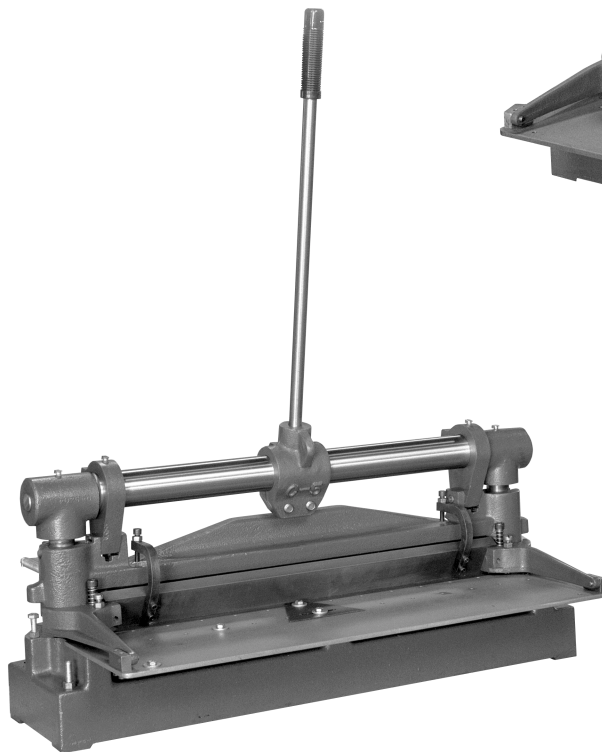




OPERATOR'S MANUAL & INSTRUCTIONS

# **HAND SHEARS NO. 12 AND NO. 24**



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Revised 01/02

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## #12 and #24 SHEAR ASSEMBLY INSTRUCTIONS

### CAUTION

TO PREVENT SERIOUS BODILY INJURY  
AND DAMAGE TO THE MACHINE

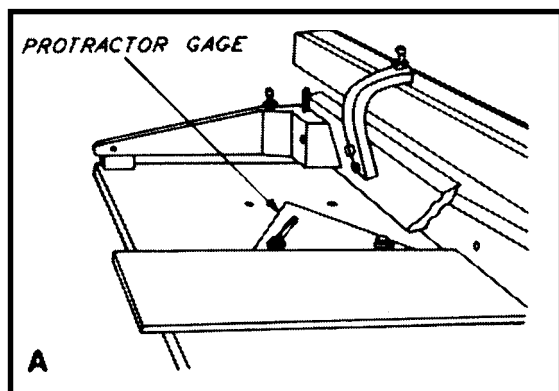
BOLT THE MACHINE TO THE STAND  
AND THE STAND TO THE FLOOR

The Di-Acro Shear is shipped partially “knocked down” for convenience in handling. To set up for operation, follow this suggested procedure:

1. Mount the shear on a flat surface such as a rigid table or bench stand. Shim if necessary to assure support for each foot. Tighten each of the four mounting bolts to secure all feet.
2. Mount the shear table on the base casting with the table screws provided for this purpose.
3. Mount the protractor gauge on the table with the gauge screws.
4. Mount the Quik-Set micrometer gauges as described on page 4.
5. Mount hold down as described on page 5.
6. Insert handle in holder and tighten place.
7. Adjust stop bolts to allow full travel of upper blade.

### SPECIFICATIONS

Model	No. 12		No. 24	
	In.	mm	In.	mm
Max. Shearing Width	12	304.8	24	609.6
Max. Capacity, mild steel	16 ga.	1.5	16 ga.	1.5
Range of Back Gauge	12	304.5	12	304.8
Shipping Weight	168 lbs.	76 kg.	290 lbs.	131 kg.
Stand, Shipping Weight	90 lbs.	41 kg.	95 lbs.	43 kg.

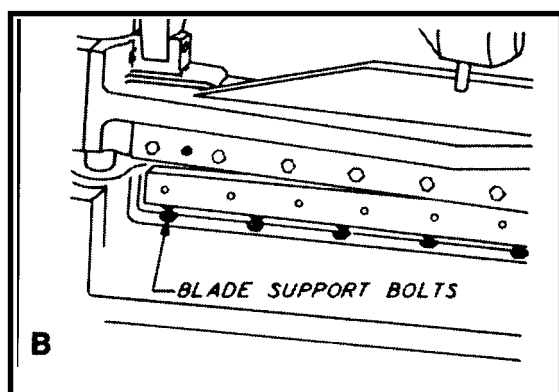


***Operating Procedures for all Di-Acro Shears are the same.***

When setting up for a production run:

Mount the Ruled Squaring Gauge or the Protractor Gauge in the most practical position on the work table and adjust it to the desired angle. (See illustration A)

Mount and position Material Gauge as described on the following page.



### **ADJUSTING AND GRINDING BLADES —**

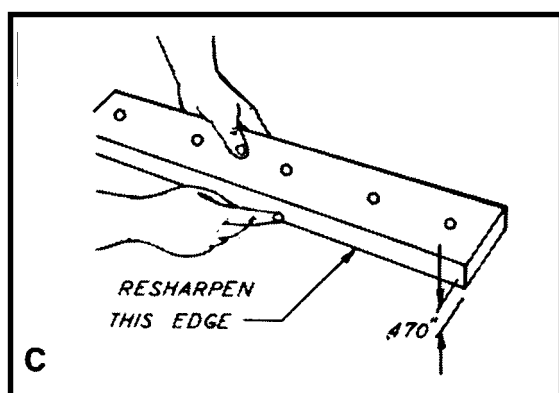
The precision standards to which Di-Acro Shears are built eliminate the necessity of adjusting the shear blades after they have been bolted into position against the base and top blade casting.

When shipped from the factory, these machines are adjusted to accurately shear 16 gauge steel and the thinnest of sheet materials.

The bottom shear blade should at all times be located so that its upper edge is flush with the top of the base casting and shear table.

Vertical adjustment of the bottom shear blade is obtained by use of Blade Support Bolts which are located in the base casting directly below the bottom blade ( see illustration B).

Di-Acro Shear blades are made from high quality oil hardened tool steel properly heat treated and precision ground. They are easily resharpened on an ordinary surface grinder by grinding the narrow edge of the blade which measures .470" (see illustration C).



NOTE: Grinding wide edge of the blades reduces its size and necessitates shimming to obtain proper adjustment.

### INSTRUCTIONS “QUIK-SET” MICROMETER GAUGES

To install “Quik-Set” Micrometer Gauges on Hand Models follow the procedures listed below:

#### INSTALLATION:

1. Mount Material Stop C on Micrometer Gauges D and E
2. Screw in Threaded Rods A & B by hand until they stop. Make sure lock nuts are loose.
3. Synchronize gauges.

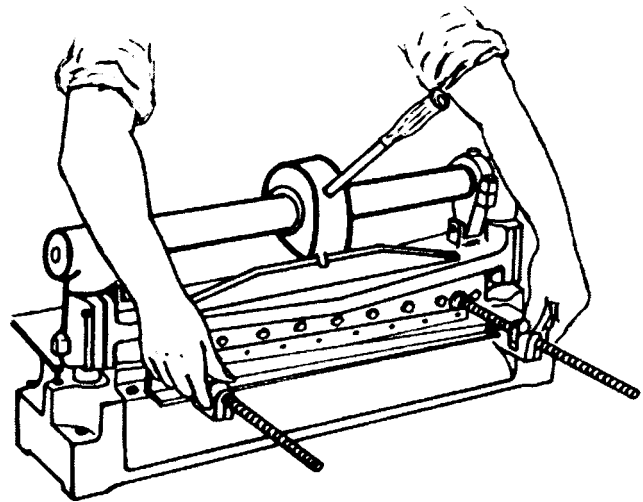
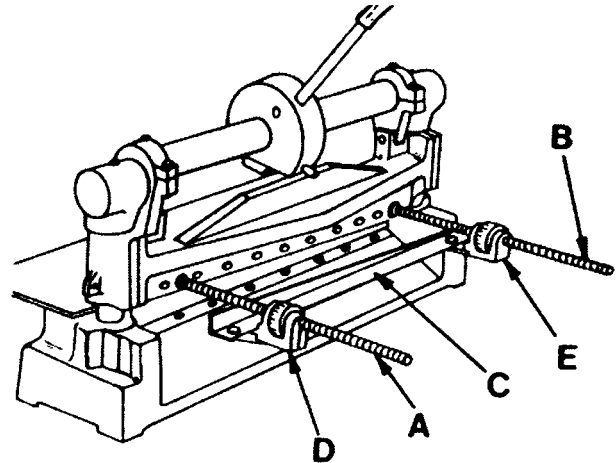
#### TO SYNCHRONIZE GAUGES:

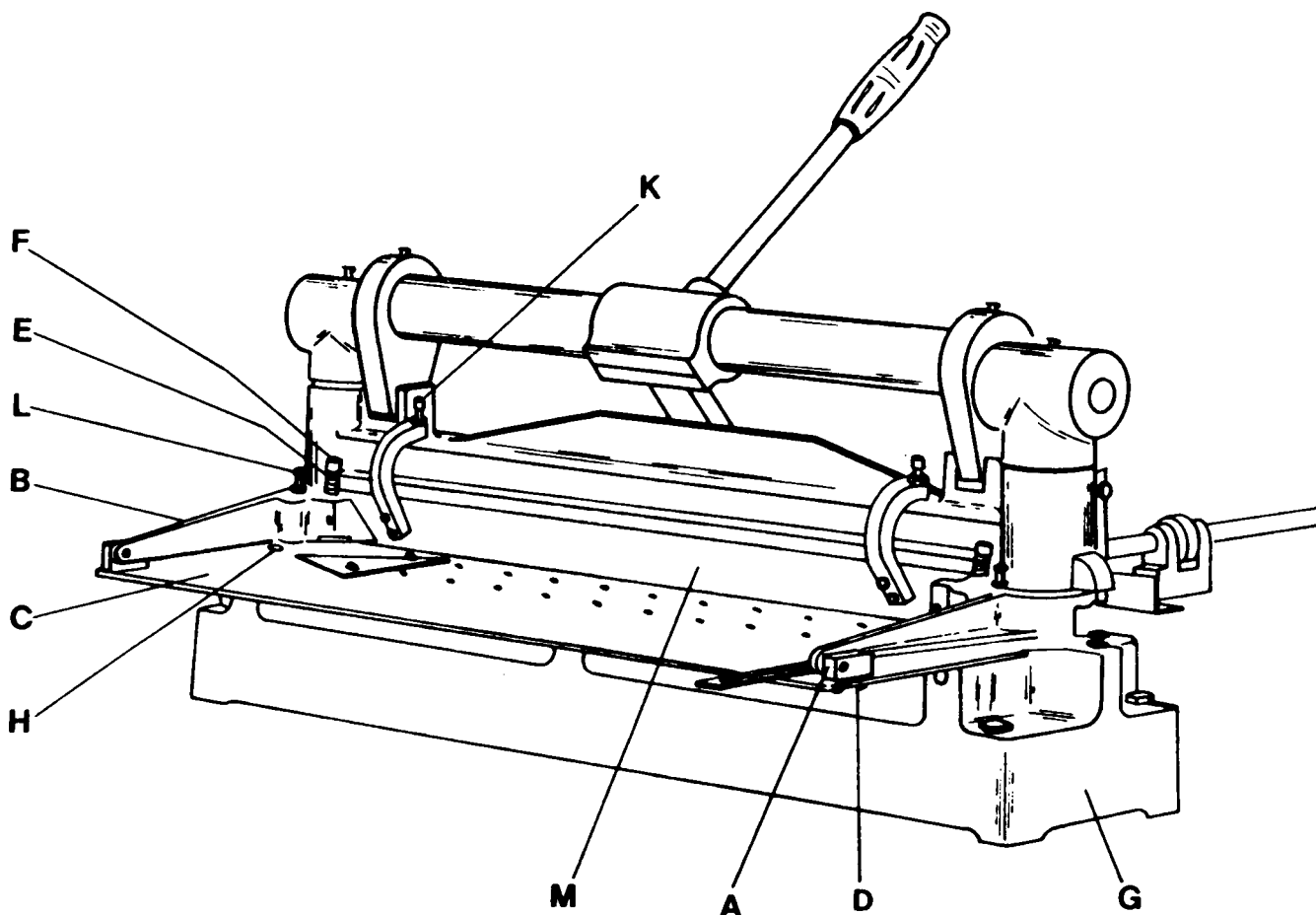
- A. Set Micrometer Gauges D and E on Zero
- B. Push down or depress spring loaded Micrometer Gauges to release them from Threaded Rods and slide Material stop Assembly forward until it touches lower shear blade.
- C. Turn Micrometer Gauges D and E to engage Threaded Rods.
- D. Turn Threaded Rods A and B counter clockwise and Micrometer Gauges D and E clockwise until Material Stop C touches lower shear blade and Micrometer Gauges read zero.
- E. Tighten lock nut on each Threaded Rod.

#### ADJUSTING “QUIK-SET” MICROMETER GAUGES

Operator can easily and quickly adjust Gauges while standing either in front or back of Shear.  
To adjust:

1. Set both Micrometer Gauges on zero and push down or depress. This releases the Material Stop Assembly from the threaded rods.
2. Move Material Stop to approximate desired location (complete assembly can be freely moved back and forth on threaded rods when Micrometer Gauges are depressed) and adjust micrometer Gauges to accurately position Material Stop.





**MOUNT** Shear Table C on Casting with Screws H.

**TO MOUNT** Basic Hold Down Bar Assembly, screw Hold Down Bar M to Hold Down Arms B using Socket HD Cap Screws.

**PLACE** Hold Down Bar Assembly on Shear Table centering Bolts D in oversize holes.

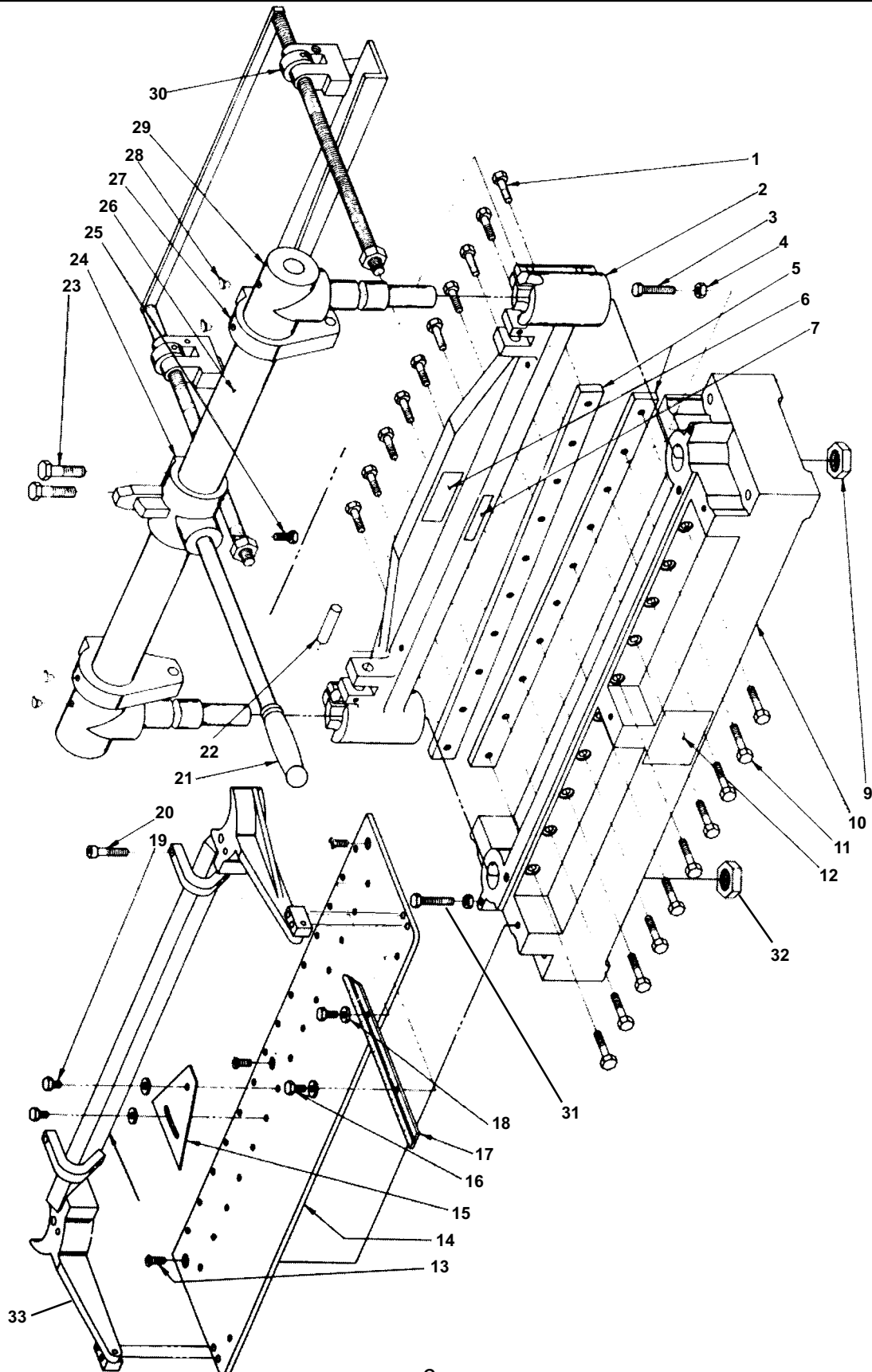
**MOUNT** hold Down Bar Assembly on Shear Table locating Springs E on screws F and starting them into tapped holes in Base Casting.

**LOCATE** front edge of Hold Down Bar M at edge of lower shear blade so it may be used as gauge when shearing to a scribed line. Horizontal adjustment of the Hold Down Bar is provided for by the oversize mounting holes for Hold Down Trunnions A.

**ADJUST** vertical clearance of Hold Down Bar on Screws K. For accuracy, when shearing to a scribed line, it is important that both vertical and horizontal adjustments of the bar be made so that the bar is very close to the material being sheared.

**REGULATE** tension of Hold Down Bar by adjusting Hold Down Spring Screws F. Adjust to minimum tension required to securely hold material while shearing. When shearing narrow strips of material on one end of the shear, two ways assuring even hold down pressure across the material are:

1. Place a piece of the material between the Hold Down Bar and the table on the opposite end.
2. Adjust Screw L on the opposite end to a point where a material thickness is the distance between the Hold Down Bar and the Table.

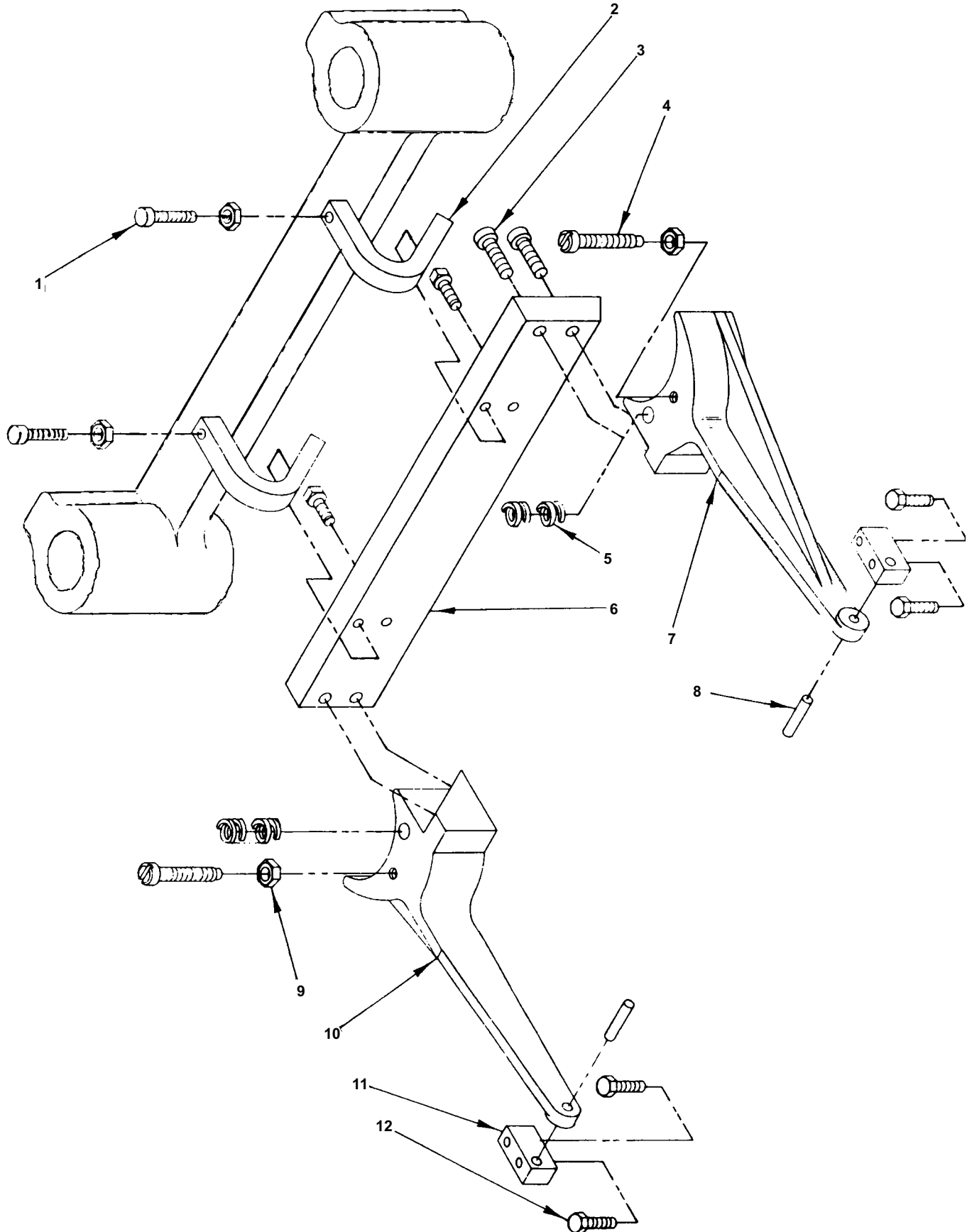




## #12 and #24 HAND SHEAR

PART NUMBER	8231800-080 SHEAR NO. 12	8241800-080 SHEAR NO. 24	DESCRIPTION	QTY	
				12	24
1.	21A0516C1304	21A0516C1104	Screw	10	10
2.	8230121-300	8240121-300	Upper Casting	1	1
3.	21A0516C1104	21A0516C1104	Screw	2	2
4.	31X0516C	31X0516C	Nut	2	2
5.	8230120-900	8240120-900	Blade	2	2
6.	8150650-110	8150650-110	Name Plate	1	1
7.	8030650-310	8030650-310	Instr. Plate	1	1
9.	31X1000F	31X1000F	Nut	2	2
10.	8230110-100	8240110-100	Base	1	1
11.	21A0516C1304	21A0516C1304	Screw	10	10
12.	8030650-300	8030650-400	Caution Plate	1	1
13.	22C0104C0304	22C0104C0304	Screw	2	3
14.	8250110-501	8240110-501	Table	1	1
15.	8230143-502	8230143-502	Protractor Gauge	1	1
16.	21A0104C0102H	21A0104C0102H	Screw	2	2
17.	8250160-108	8250160-108	Squaring Gauge	1	1
18.	61X0104	61X0104	Washer	4	4
19.	21A0104C0308	21A0104C0308	Screw	2	2
20.	20A0516C1000	20A0516C1102	Screw	2	2
21.	8000120-871	8000120-871	Long Handle Arm Assy	1	1
22.	8230120-300	8230120-300	Pin	2	2
23.	21A0102C2000	21A0102C2000	Scewr	1	2
24.	8230120-801	8240120-801	Handle Holder	1	1
25.	23A0104C0304	23A0104C0304	Screw	1	1
26.	8230121-100	8240121-100	Shaft	1	1
27.	8230121-200	8240121-200	Shaft Link	2	2
28.	8690100-100	8690100-100	Oil Hole Cover	4	4
29.	8230110-371	8240110-371	Shaft Bearing Assy	2	2
29A.	8903000-000	8903000-000	Shaft Bearing	2	2
29B.	8230110-300	8230110-300	Shaft	2	2
30.	8230143-179	8240143-179	Quikset Back Gauge	1	1
31.	21A0104C0708	21A0104C0708	Screw	5	8
32.	31X100F	31X1000F	Nut	5	8
33.	8251121-971	8271121-971	Holddown Assy		



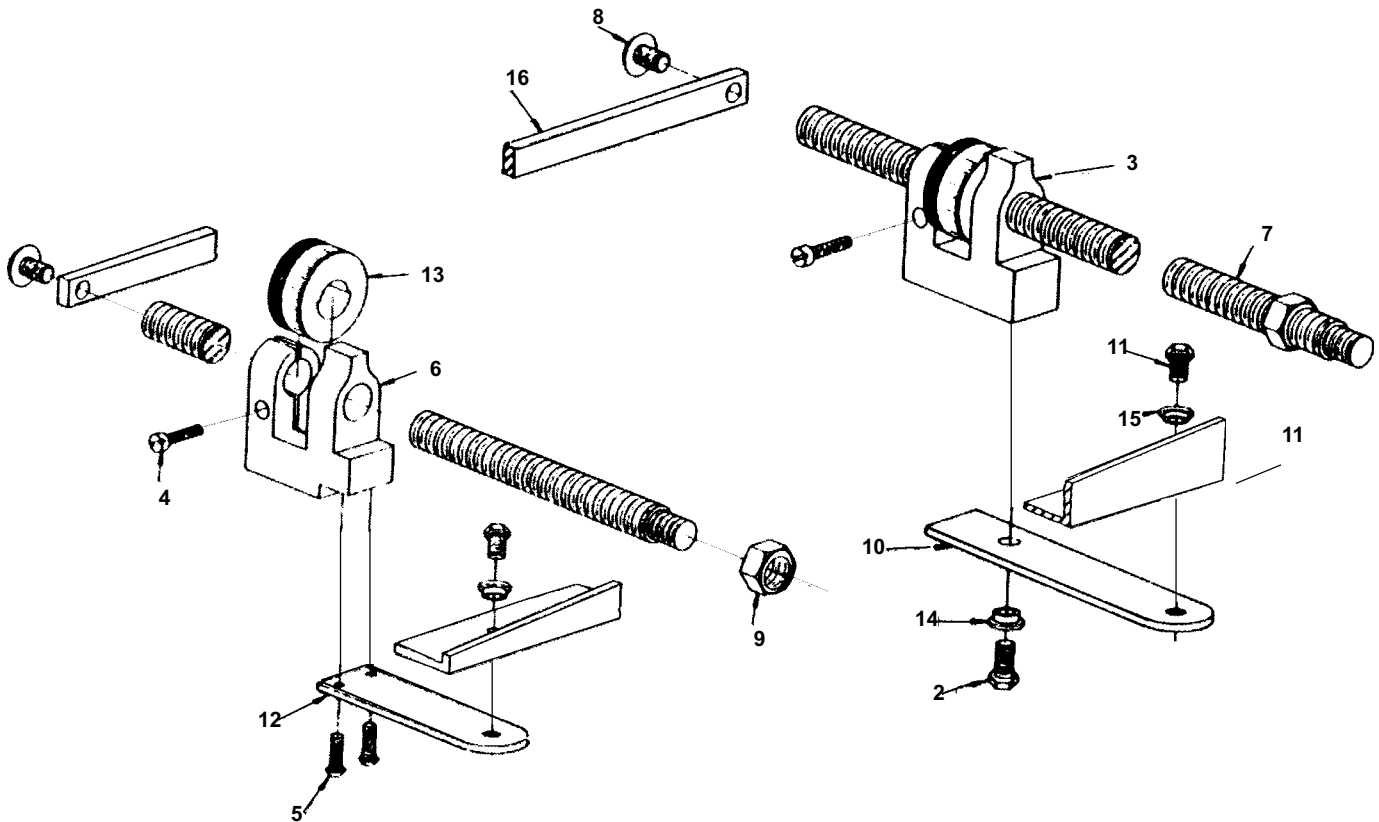




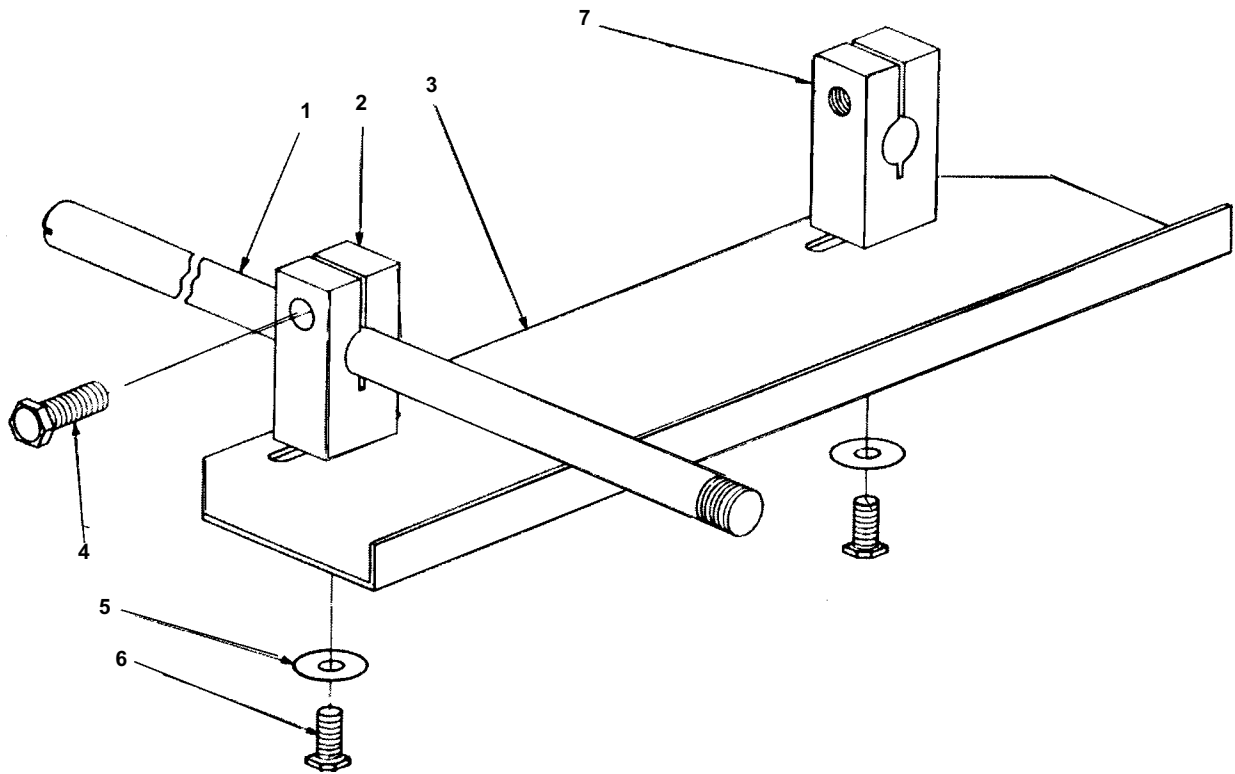


## #12 and #24 SHEAR HOLD DOWN ASSEMBLY

PART NUMBER	SHEAR NO. 12	SHEAR NO. 24	DESCRIPTION	QTY
1.	20A0516C1104	20A0516C1104	Screw	2
2.	8051121-901	8271121-701	Hold Down Bracket	2
3.	20A0516C1104	20A0516C1104	Screw	4
4.	8251470-101	8251470-101	Arm Adj Bolt	2
5.	8510211-700	8510211-700	Spring	2
6.	8051121-900	8240121-900	Hold Down Bar	1
7.	8251121-900	8251121-900	Hold Down Arm "R"	1
8.	19A0104X1000	19A0104X1000	Pin	2
9.	31X0516C	31X0516C	Nut	4
10.	8251121-901	8251121-901	Hold Down Arm "L"	1
11.	8000121-901	8000121-901	Hold Down Trunnion	2
12.	21A0104F0708	21A0104F0708	Screw	8



PART NUMBER	SHEAR NO. 12	SHEAR NO. 24	DESCRIPTION	QTY
1.	8030143-103	8240143-103	Quik Set Stop	1
2.	21A0104C0102H	21A0104C0102H	Screw	1
3.	8000143-103	8000143-103	Quik Set Bracket	2
4.	22B0104C0708	22B0104C0708	Screw	2
5.	22AXX10F0102	22AXX10F0102	Screw	2
7.	8230143-103	8230143-103	Quik Set Rod	2
8.	22D-0516C0102	22D-0516C0102	Screw	2
9.	8690470-404	8690470-404	Nut	2
10.	8220143-104	8220143-104	Quik Set Arm Long	1
11.	21A0104C0308	21A0104C0308	Screw	2
12.	8100143-104	8100143-104	Quik Set Arm Short	1
13.	8210143-172	8210143-172	Dial Nut Assy	2
13 A.	8120510-204	8120510-204	Spring	2
13 B.	8000143-104	8000143-104	Dial Shoe	2
14.	8200143-104	8200143-104	Pivot Sleeve	1
15.	8010143-104	8010143-104	Spacer Sleeve	2
16.		8240143-105	Quik Set Tie Bar	1



PART NUMBER	SHEAR NO. 12	SHEAR NO. 24	DESCRIPTION	QTY	
				12	24
1.	8240140-800	8240140-800	Stop Rod	2	2
2.	8040140-700	8040140-700	Stop Clamp	2	1
3.	8230142-000	8230142-000	Material Stop	1	1
4.	21A0516C1000H	21A0516C1000H	Screw	2	2
5.	61X0104	61X0104	Washer	2	2
6.	21A0104C0102H	21A0104C0102H	Screw	2	2
7.	8240140-700	8240140-700	Stop Clamp	0	1