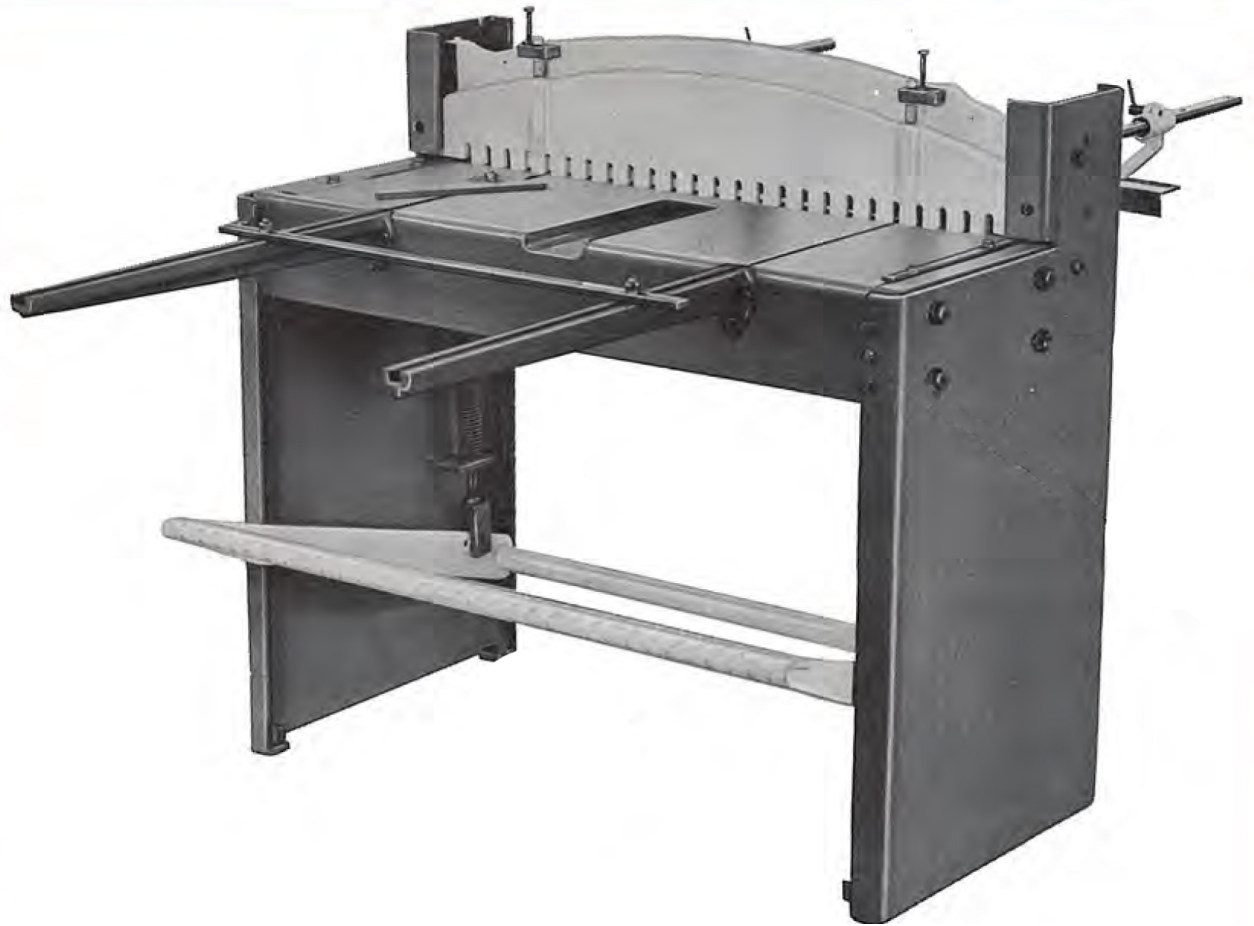


36-K SHEAR OPERATIONS MANUAL



DiAcro[®]

METAL FABRICATION EQUIPMENT

579 SCHOMMER DR - STE C

HUDSON, WI 54016

(651) 342-1756 (P)

OBSOLETE MACHINE

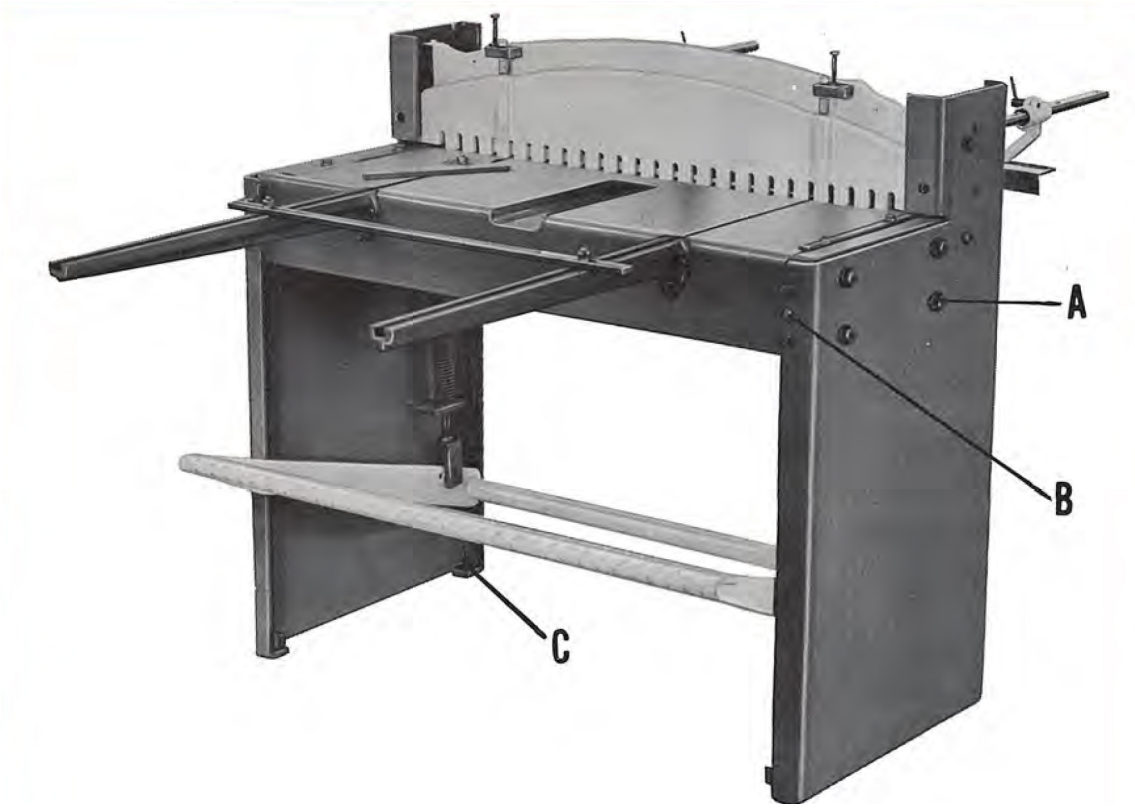
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LEVELING AND SECURING:

The Model 36K Di-Acro Foot Shear is designed so that it is not necessary to bolt to the floor for operation. It should, however, be level and one foot pad is adjustable for this purpose.

After the machine has been set in its location, check with a feeler gauge under bed to make certain that it is seated on both side frames.

if bed is not seated:

1. Loosen bed clamp bolts A (four) and bed adjusting screw B on side that is not seated.
2. Adjust screw C (L. Rear on foot pad) until bed is seated on rail. Tighten lock nut.
3. Check clearance between blades and tighten bed screws A. Note: clearance between blades should be as close as possible without rubbing. Contact will dull blades and possibly chip them. See page 4 Adjusting Clearance of Blade.

if bed is seated:

1. Loosen adjustable screw C on foot pad so that it is not touching the floor.
2. Lower adjustable screw C so that it touches floor, then turn screw in additional one-half turn and tighten lock nut. This should eliminate any twist or strain.

ADJUSTING GAUGES:

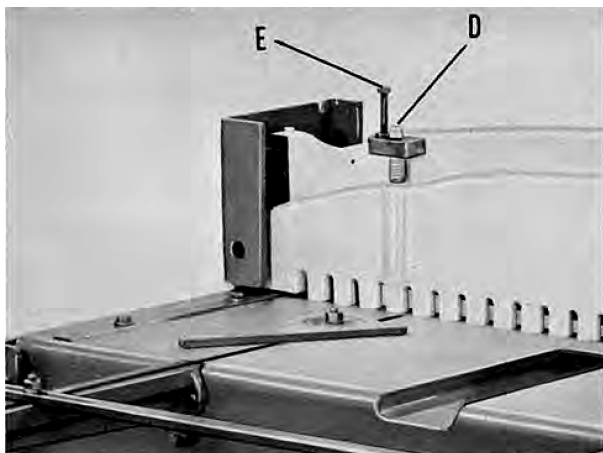
Front gauge is furnished as standard equipment, T-slotted front brackets are bolted to the bed and a bar for gauging material is provided. The protractor gauge is located on the left side of shearing table.

To Mount Rear Material Gauge Rods

Insert socket head screws through holes in holddown bar and ram and screw into gauge rods keeping the steel rule side up. Slide brackets holding angle gauge on to gauge rods.

To Zero Rear Material Gauge

Move angle bar forward until contact is made with lower blade. Reading at rear of brackets should be zero. If not, loosen screws holding steel rule to gauge rod and position rule on zero. Tighten screws.



ADJUSTING HOLDDOWN BAR

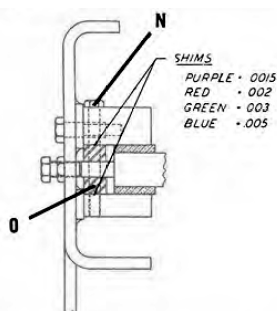
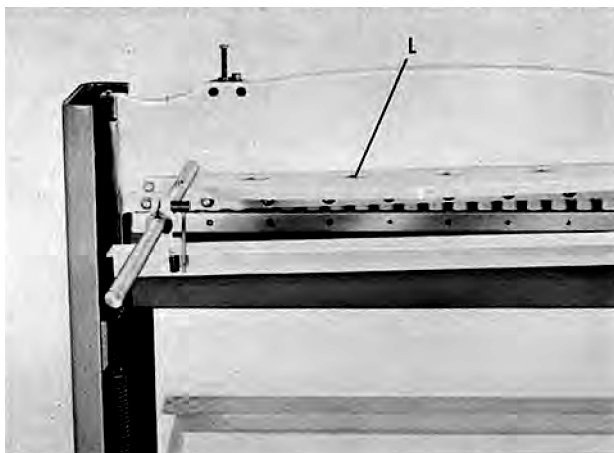
To increase or decrease opening between holddown bar and bed adjust nuts (D) until opening is obtained. Slitting may be performed on either side of the machine by adjusting screw (E) to stop ram travel.

LUBRICATION

Ram slides are oil impregnated and require no lubrication. Remainder of bearings are oiled and require only occasional lubrication.

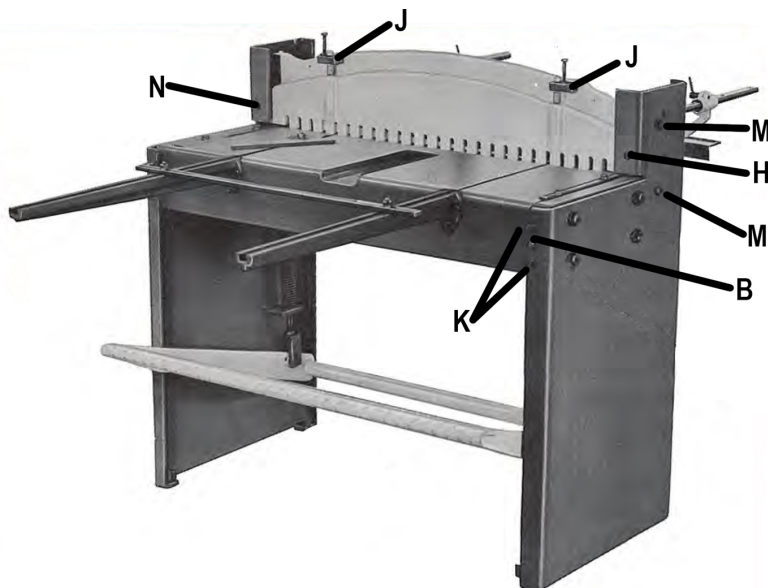
BLADE SHARPENING

Sharpen only the wide side of the blade as adjustment can be made to compensate for material removed from the blade sides. If other sides are ground, it becomes necessary to shim lower blade to raise it to table level.



ADJUSTING RETURN SPRING

If ram does not return to top tighten spring by turning nut (D) at top of spring.



TO REMOVE LOWER BLADE

1. Remove bolts accessible through opening in bottom of bed.

TO REMOVE UPPER BLADE

1. Remove screws (H) and screws holding brackets (J) to ram. Remove holddown bar from machine.
2. Remove bolts fastening blade to ram.

ADJUSTING CLEARANCE OF BLADE:

If bed clamp screws (A) have been loosened to level machine or blades have been sharpened, it may be necessary to adjust clearance of blades. Blade clearance may be varied but for longer blade life, a few thousandths clearance is better than the blades in actual contact with each other. Best results may generally be obtained with .002" clearance on the ends and .001" clearance in center.

1. Depress the foot treadle until ram is on the bottom of its stroke.
2. Check clearance between blades, adjust to obtain equal clearance on both ends or mm. Opposing screws (K and B) on both ends will move bed in or out when bed clamp bolts (A) are loose.
3. If clearance of blade is other than recommended above, adjust nuts (L) to obtain proper clearance. This will align top blade with lower blade (e.g., loosening inner nut and tightening outer nut will pull blade and ram forward or decrease blade clearance).
4. When final adjustment is complete, nuts (L) should be locked against blade straightener. Note: Check clearance while this is being done - 1/2" of a turn can vary blade straightness approximately .007".

TO ADJUST FOOT TREADLE

The foot treadle on the No. 36 Di-Acro Shear is adjustable. The hole nearest pivot point is for heavier material and decreases the amount of pressure needed. The hole farthest from pivot point is for the lighter material and the amount of treadle travel is decreased. To adjust treadle remove pin and position clevis at proper hole to obtain best leverage.

EXTENSION SQUARING ARM:

Shear bed is tapped for mounting extension arm. Squaring of the gauge is accomplished with a square along the blade surface. The mounting holes are over-size to allow gauge to be squared. The scale on the bar is adjustable to compensate for sharpening of the blades.

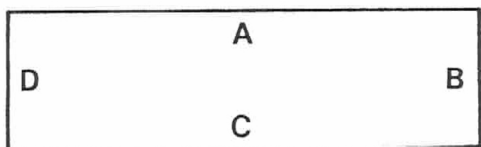
ADJUSTING CLEARANCE ON RAM SLIDES

Clearance on ram slides should be kept to a minimum but should not bind. Binding in guides will not allow spring to return ram to top position.

1. Loosen bolts (M and N) and remove required amount of shims or grind spacer (O).
2. Tighten bolts evenly.

HANDY TIPS TO GET THE MOST OUT OF YOUR DI-ACRO SHEAR

Di-Acro Shears are designed to shear material to extremely close tolerances. For satisfactory results the machine must be level and proper clearance of shear blades maintained. Holddown bar prevents drawing of material to insure straightest possible cut, however, excessive holddown pressure is detrimental. Extreme accuracy and highest degree of straightness is obtained by first shearing material oversize, then cut to finish size by trimming.



SQUARING

Side gauges may not be absolutely square with the shear blade; their position can best be determined by actual shearing. The following method of squaring a sheet will produce the least amount of irregularity. Without turning a sheet upside down between operations, trim long edge A; with edge A against left side gauge, trim edge B; with edge A against front gauge, trim long edge C; with edge C against same side gauge used in the second cut, trim edge D.

PARALLEL SHEARING

Either front gauge or back is used. The narrower the strip, the greater the difficulty in shearing straight and parallel.

The front gauge always gives the most accurate results, especially on narrow widths. It is not necessarily set absolutely parallel with the shear blade to obtain a parallel cut; the difference varies according to the strain in the metal. The most perfect parallel edges are obtained by shearing oversize, then trimming to the exact size.

SHEARING TO A SCRIBED LINE

A scribed line on material can be seen through the openings in the holddown and aligned with cutting edge of shear blades for ordinary accuracy. Most accurate shearing to a line can be done by sighting down between the holddown and ram using the cutting edge of the lower blade for alignment.

SHEARING NARROW WIDTHS

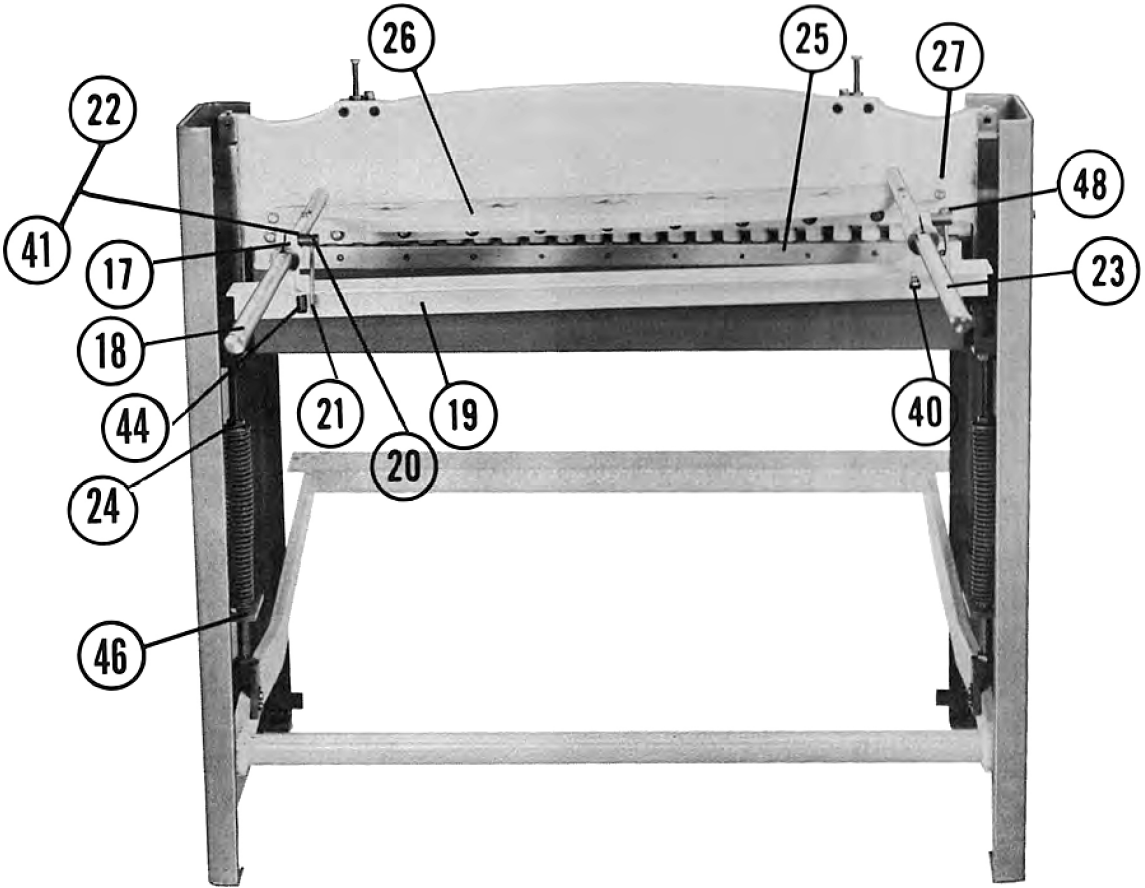
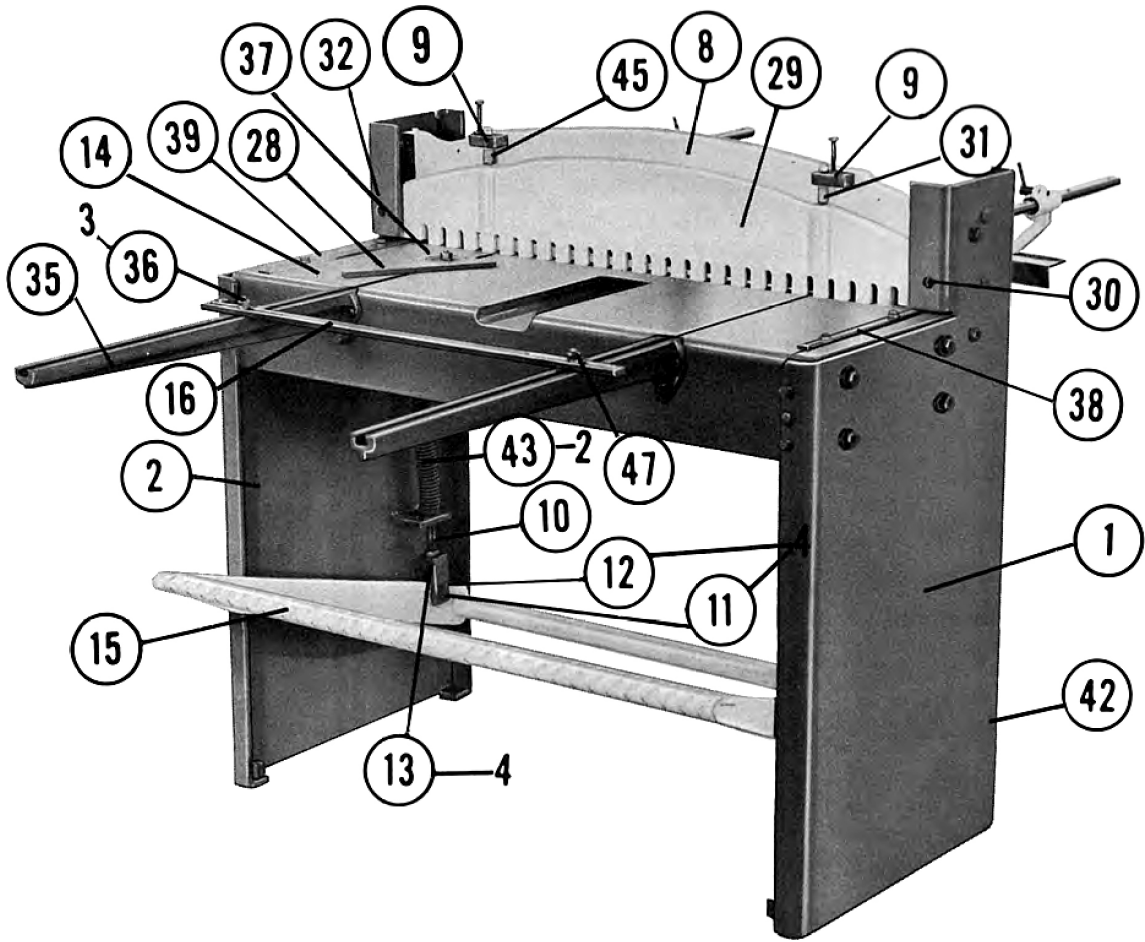
When shearing narrow widths the most accurate cut can be obtained by shearing at the extreme right side of the bed. Because of the angle of the blade the material being sheared tends to move to the right. By shearing on the right side of the bed, the right hand squaring gauge will hold the material in place.

REPETITIVE SHEARING OF LONG SHEETS

When shearing in lengths greater than the range of the back gauge, or when a predetermined succession or various sizes are to be sheared, an extension squaring arm with a series of adjustable stops should be used. The operator moves the sheet forward, then pulls it back to the stop to gauge.

MATERIAL TWIST

The narrower the strip being sheared the greater the amount of twist. Twist can be almost avoided by feeding the sheet from the back and gauging against the front gauge.



ITEM NO.	PART NO.	DESCRIPTION
1	237-1103001	SIDE FRAME ASSEMBLY R
2	237-1103002	SIDE FRAME ASSEMBLY L
3	237-1108005	REAR GUIDE
4	237-1108006	FRONT GUIDE R
5	237-1108007	FRONT GUIDE L
6	237-1108009	GUIDE SPACER
7	237-3120020	WEAR STRIP
8	237-1213015	RAM
9	237-1213022	RAM STOP
10	237-1201025	CONNECTING ROD
11	237-1203026	CLEVIS PIN
12	237-4706027	PIN RETAINER
13	237-1201028	CLEVIS
14	237-1104030	BED ASSEMBLY
15	237-1208035	TREADLE ASSEMBLY
16	237-1434038	FRONT GAGE
17	237-1434040	GAGE CLAMP
18	237-1434041	GAGE ROD
19	237-1434042	GAGE ANGLE
20	237-1434043	CLAMP SCREW
21	237-1434044	HANDLE
22	237-1434045	SHOE </td
23	237-1601046	RULE
24	490110	5/8 WASHER
25	236-1209009-0	BLADE - STD.
25	236-1209009-A	BLADE - H.C.H.C.
26	236-1213011	BLADE STRAIGHTENER
27	236-1213012	BLADE STRAIGHTENER SPACER
28	236-1435028	PROTRACTOR BODY
29	236-1213031	HOLDDOWN BAR
30	236-4901032	HOLDDOWN BAR WASHER
31	236-4701033	HOLDDOWN STUD
32	236-1108035	HOLDDOWN GUIDE
33	280-310008-A	THRUST BEARING
34	280-3120010-A	TAKE UP SCREW INSERT
35	280-1434072	FRONT GAGE EXTENSION
36	4701135	T. BOLT
37	280-1435075	PROTRACTOR CLAMP
38	280-1432087	SQUARING GAGE R
39	280-1432088	SQUARING GAGE L
40	310-5102009	SPRING
41	5102119	SPRING
42	3114101	BEARING 1.003 ID, 1.254 X 1-1/4" LONG
43	5102118	SPRING
44	5102117	SPRING
45	5102107	SPRING
46	4901115	WASHER
47	4901110	WASHER
48	4901106	WASHER
51	280-1432096	EXT. SQ. ARM BAR 6' R
51	280-1432096	EXT. SQ. ARM BAR 6' L
52	280-1432091	SHEET SUPPORT 6'
53	280-1601092	RULE 6'
54	280-1432093	LEG ASSEMBLY
55	280-1432097	GAGE STOP BODY R
55	280-1432094	GAGE STOP BODY L
56	280-1432098	GAGE STOP R
56	280-1432095	GAGE STOP L
60	220-1431038	QUIK SET BRACKET
61	210-1431042	QUIK SET DIAL NUT
62	210-1431043	QUIK SET DIAL SHOE
63	210-5102048	SPRING
64	220-1431045	QUIK SET LOCK NUT
65	210-1431046	QUIK SET PIVOT SLEEVE
66	210-1431038	QUIK SET BRACKET
67	236-1431036	QUIK SET STOP
68	236-1431039	QUIK SET ROD
69	236-1431040	QUIK SET ARM, SHORT
70	236-1431041	QUIK SET ARM, LONG
71	237-1431750	GAUGE SUPPORT ROD
72	237-1431751	LINK
73	236-1431050	QUIK SET TIE BAR
74	240-1431047	QUIK SET PIVOT SLEEVE

