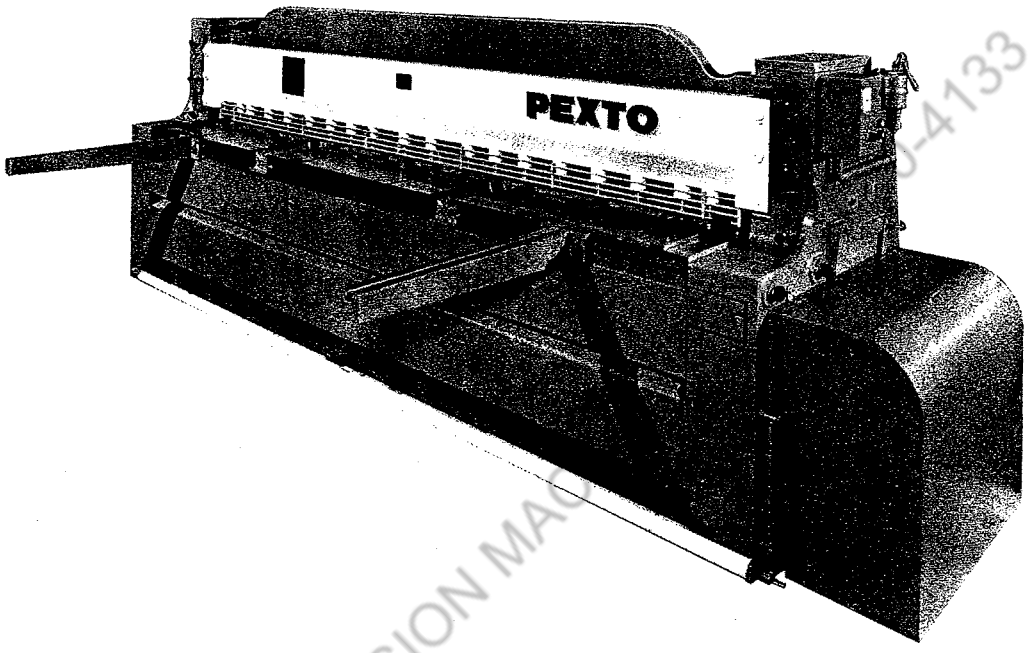
10-U-10

PEXTO PRECISION SHEAR



SPECIFICATIONS

Capacity - Mild Steel	10 Gauge
- Stainless Steel	12 Gauge
Nominal Cutting Length	120 Inches
Motor - 1800 RPM	7-1/2 HP
Back Gauge Range	24 Inches
Front Gauge Range	51 Inches
Speed	60 SPM
Weight (approximately)	17,000 Lbs.

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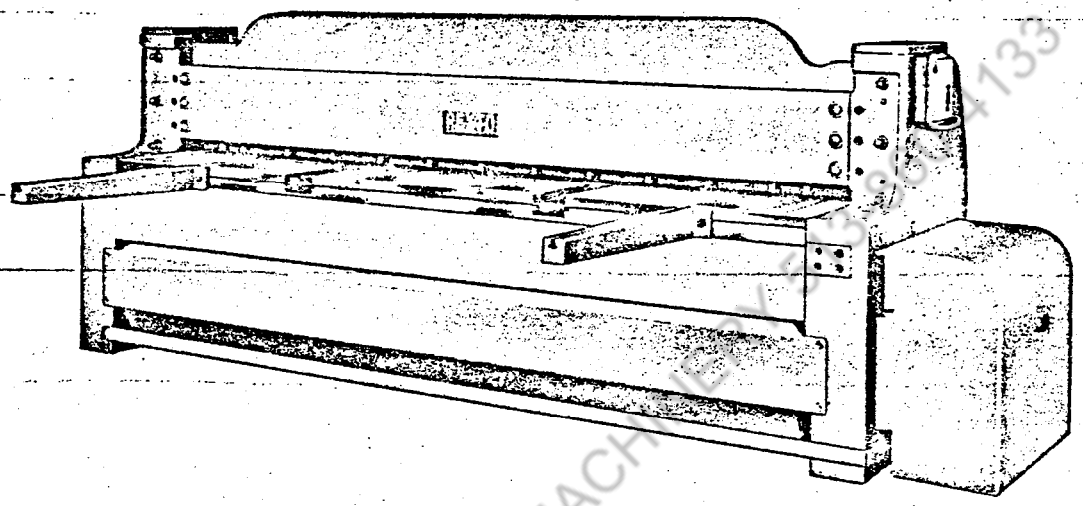

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THE PECK, STOW & WILCOX CO.

SOUTHINGTON, CONNECTICUT

CONTENTS OF MANUAL

ILLUSTRATIONS

SET UP AND OPERATING INSTRUCTIONS

FOR PEXTO

#10-U-10 PRECISION POWER SQUARING

SHEAR

(Reference 1 & 1-A)

I. This shear has been inspected and tested at the factory to cut full length stock of capacity gauge. DO NOT EXCEED SHEARING CAPACITY LIMITS ON ANY LENGTH OF STOCK!

II. To set up: (Refer to Foundation Drawing) - Remove shear from skids and place on level, solid foundation. Remove front and rear panels and gear housing. Level the shear by means of shims at "J" Fig. E as necessary. Bolt shear to foundation-recheck level. Place shims or spacers under the center bearing at "H" Fig. B to support the center bearing and main shaft. It is important that the tie brace be firmly bolted to the foundation and that there be no sag or hump in main shaft.

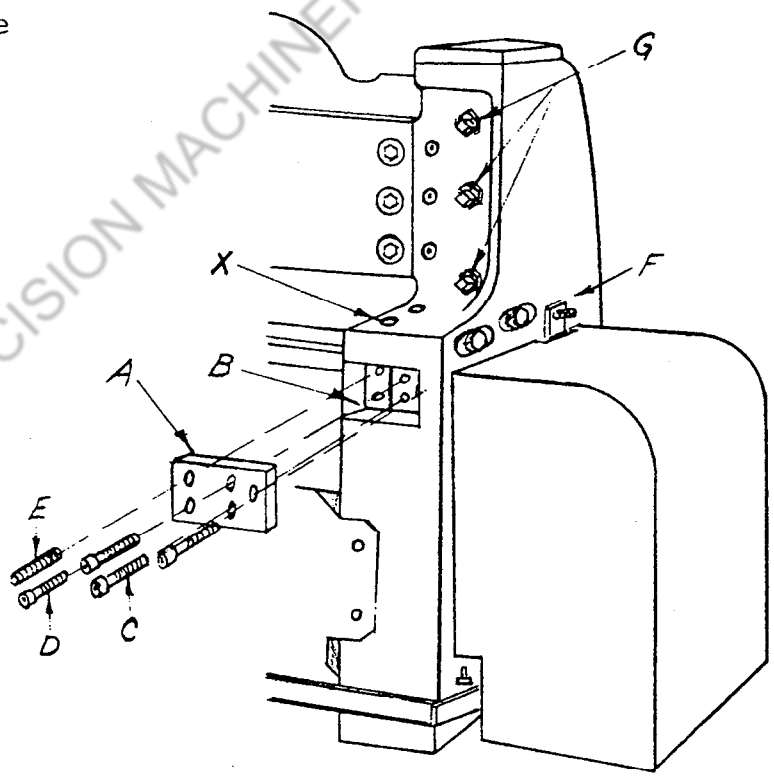


Figure A

III. Shear is shipped with blades out of adjustment to prevent damage in transit. Upper set screws "E" are used to move bed (to which lower blade is fixed,) 'in', lower set screws "D" are used to move bed 'out'. Blade clearance is measured at the cutting edge between the upper and lower blades at point "I" Figure C.

VI. Standard equipment includes a "Bijur" one-shot type lubrication system. The reservoir (G1) for this is located on the right hand leg of the Shear. Check to be sure there is an ample supply of oil (see Lubrication Plate on Shear) in the reservoir. The operating handle is located on top of the reservoir - pull handle to actuate the lubrication system. This should be done twice a day when using Shear. Grease fittings are provided on each back gauge holder and should be serviced daily with alemite chassis lubricant. Four grease fittings for Timken bearings on flywheel shaft and intermediate shaft are located on R.H. housing at gear cover. These four fittings should be serviced once every three months. At the same interval, Texaco "Crater #1" or equal, should be used to lubricate the face of the gear teeth located on the right hand end of the shear under the gear guard cover. Oil or grease counterbalance spring guide rods at top of crosshead under leg caps.

CAUTION: OPERATE ONLY WITH ALL SAFETY DEVICES, SHIELDS AND COVERS IN PLACE - SHUT OFF POWER TO MAKE ADJUSTMENTS.

VIII. OPERATING PROCEDURE

A. Move Clutch cycle control lever "F", Fig. A, to correct position "Back" position for single cycle operation or "Forward" position for continuous operation.

B. Set back gauge to desired width of cut.

C. Turn on power and allow time for flywheel to reach normal speed.

D. Position sheet - to insure a square cut, use care to locate sheet metal positively against back gauge and side gauge. Sheets narrower than full width of Shear should be cut on right side of Shear.

E. Depress treadle to shear stock. During long cutting runs, an occasional wiping of the blades with an oil soaked rag will serve to reduce wear and help prevent "build-up" when shearing aluminum, stainless or galvanized. CAUTION: Shut off power before oiling blades.

VIII. Brake, Fig. D, is located on left hand side of the main shaft and is accessible with the front panel removed. Brake should be tight enough to insure crosshead stopping

IV. It is extremely important that this measurement be made only at the exact point at which the blades cross! Blade clearance for 10 gauge mild steel is .005 at each end, decreasing to .004 at the center. Stainless steel requires a closer setting of blade clearance - .002 at the ends and .001 at the center. It will be necessary to turn the shear through a complete cycle by hand before applying power in order to check blade clearances. To do this, rotate the flywheel BY HAND in the direction of the arrow on the flywheel, with the treadle depressed to engage clutch. Blades must not Touch! Check clearances at every 12 inches across full length of blades. Check only at point of passing between upper and lower blades. Compensation for "bow-in" or "bow-out" of the upper blade is obtained by adjusting the tie rod on the back of the crosshead. This adjustment can be made at each end and in the middle.

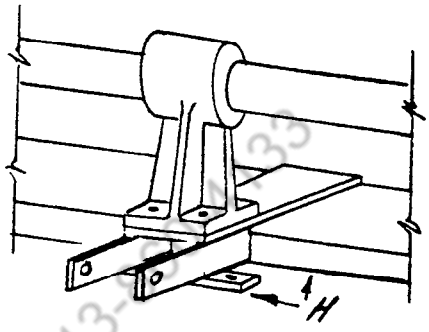


Figure B

NOTE: This critical adjustment has been correctly made at the factory and further adjustment should be avoided unless absolutely necessary. When blades are set correctly, securely tighten all bed bolts, push down screws, and replace front panel and gear housing before applying power to shear.

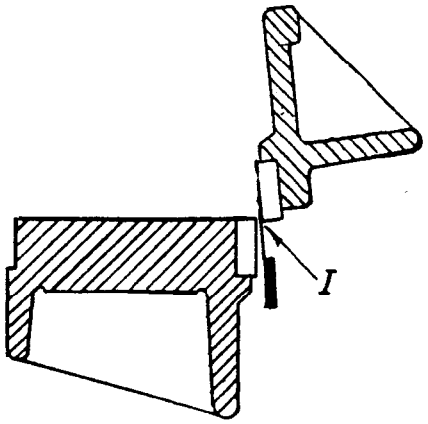


Figure C

V. Electrical connections must be made by a qualified electrician. To make electrical connections, remove rear apron from shear. Make sure available voltage is proper for motor as indicated on motor nameplate. When testing motor, check flywheel rotation as shown by arrow on flywheel. Check drive belts and tighten if necessary by turning wing nut on motor base. NOTE: Belts should be just tight enough to drive shear with no slip. Over tension on belts reduces their life.

at top of stroke and to prevent "Clicking" of clutch pin. Left hand end of main shaft and leg are marked (see Fig. E) to indicate correct position of main shaft when crosshead is at top of stroke. Misalignment of these marks indicate that brake adjustment is required. If the mark on the shaft stops to the left of the mark on the leg, loosening of the brake is indicated. If the mark on the shaft stops to the right of the mark on the leg, tightening is indicated. Brake will overheat if adjustment is too tight. Brake band must be kept dry and free of oil, grease, etc. Brake should be checked occasionally to maintain correct adjustment.

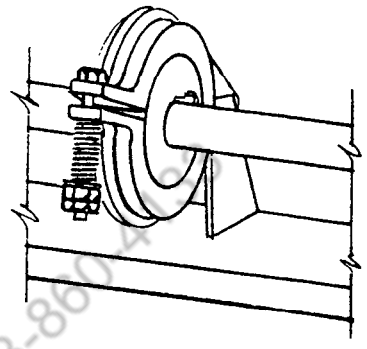


Figure D

IX. Gibs are located inside of legs at top to provide adjustable bearing surfaces for crosshead ways and are adjusted by means of 3 set screws "G" Fig. A with locking nuts. Adjustment too loose will prevent accurate shearing of material. Adjustment too tight will cause crosshead to "freeze". For correct adjustment, bring all set screws "G" to snug tight, set clearance at .002" at top and bottom of crosshead bearing with feeler gauge.

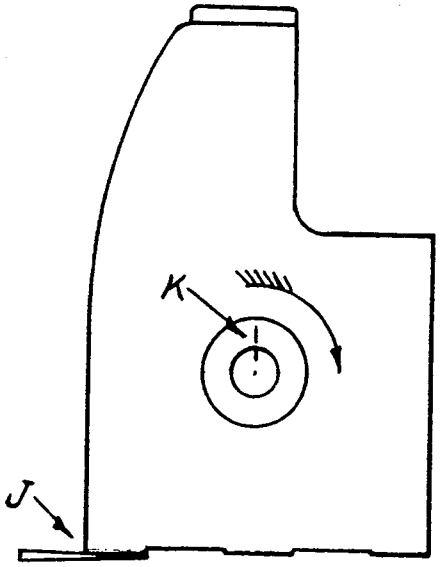


Figure E

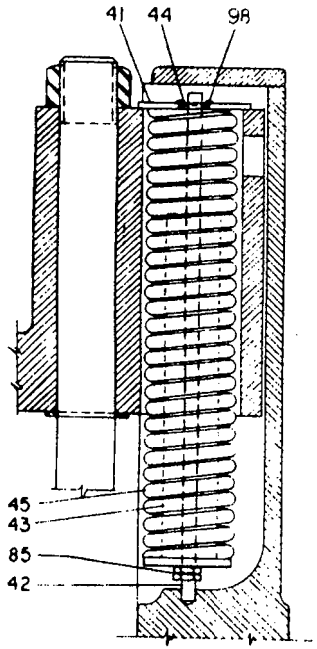
X. Blades are four edge type. Turn end for end or rotate to provide new cutting edge. Return blades to factory for regrinding when all four cutting edges have been used. To rotate blades, turn power off. To remove upper blade first, dismount holddown (See holddown instruction sheet) Use blocks of wood between upper blade and bed blade (one piece at each end) to prevent blade from dropping. Remove all blade bolts (work from ends to center.) Rotate blade or turn end for end to get new edge into cutting position. CAUTION: Wear gloves when handling blades and use care to prevent damage to blades. Avoid contact with all other materials except wood when blades are removed from shear. With new cutting

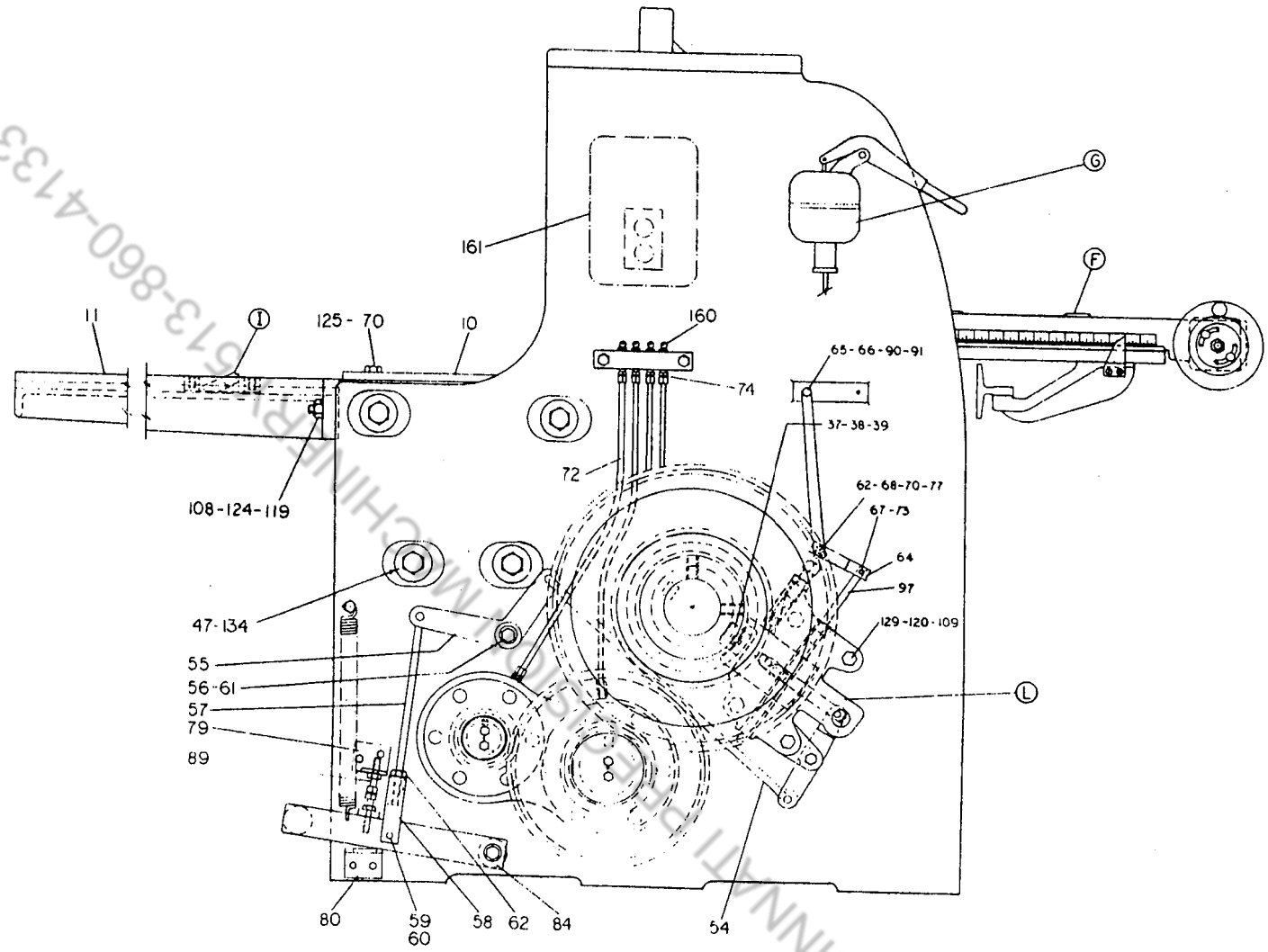
edge in position, replace all bolts, (work from center out to ends), nuts and washers. Use wood pry bar to seat top of blade tight to crosshead. Tighten all nuts on blade bolts very securely, working from center out to ends. To remove lower blade, set back gauge to extreme "out" position. Remove blade bolts and set new cutting edge into position. CAUTION: Wear Gloves! (see note above) Shims are used under lower blade to position cutting edge exactly flush with surface of bed. After regrinding blades, shims must be added. Use wood pry bar to seat blade to shims on bed. Tighten nuts on all blade bolts very securely.

XI. TREADLE ADJUSTMENT (Refer to Figures I and IA) The treadle actuates the Shear through the movement of the Connecting Link in Clutch (Part G - Fig. 7) Set screws (89 - R.H. Side) and (94 - L.H. Side) limit treadle stroke. If clutch does not engage when treadle is depressed, adjust set screws to allow treadle to move upward. If clutch "clicks" when treadle is depressed, (indicating only partial release of clutch pin), adjust to allow treadle to move downward.

XII. For replacing holddown, see holddown instructions. Before applying power, check blade clearance (see para. 3). Turn through complete stroke by hand to be sure blades do not lap.

Adherence to these instructions will provide continuous trouble-free service. The shear is built to stand hard usage over extended periods of time. If replacement parts are ever required, contact your dealer or the factory and specify name of part required as well as the model or serial given on the Shear nameplate.

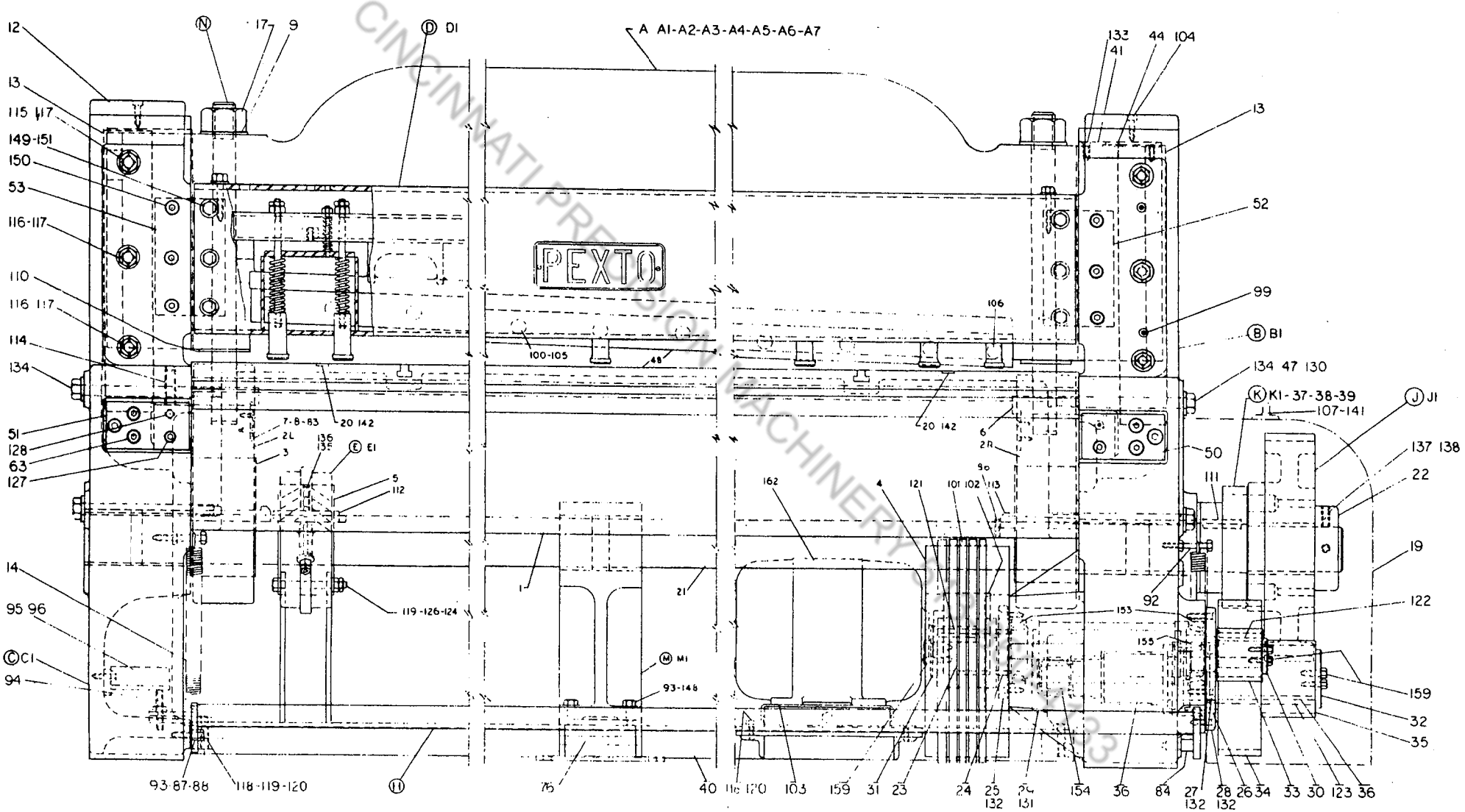




PARTS IDENTIFICATION CHART

REFER TO SECTIONS IVA AND IVB FOR PARTS LIST

FIGURE 1A



PARTS IDENTIFICATION CHART

REFER TO SECTION IVA AND IVB FOR PARTS LIST

FIGURE 1

SECTION IVA

#10-U-8 GENERAL PARTS LIST

1	Bed
2R	Connection R.H.
2L	Connection L.H.
3	Eccentric
4	Flywheel
5	Brake Block
6	Pivot Pin (Conn.)
7	Conn. Plate
8	3/8-16X3/4 Button Hd Soc. Cap Scr. (Conn. Plate)
9	1-7/8 Std. Washer
10	Side Gauge
11	Front Arms
12	Leg Caps
13	Gibs
14	Treadle Springs
15	Mounting Brkt. (Rear Panel) (Not Shown)
16	Front Panel Guard (Not Shown)
17	2"-4½ Hex Nuts
18	Rear Panel (Not Shown)
19	Gear Guard
20	Bed Scales
21	Main Shaft
22	Collar (Main Shaft)
23	Flywheel Shaft
24	Brg. Sleeve
25	Inner Ret. Collar (Flywheel Shaft)
26	Intermediate Shaft Sleeve
27	Outer Ret. Collar (Flywheel Shaft)
28	Inter. Shaft Collar
29	Inter. Shaft Cap
30	Pinion Washer (Flywheel Shaft)
31	Washer (Flywheel Shaft)
32	Washer (Inter. Shaft)
33	Pinion -
34	Intermediate Gear -
35	Intermediate Pinion
36	Intermediate Shaft
37	Clutch Pin Spring
38	Clutch Pin
39	Clutch Pin Spring Guide
40	Tie Brace

41	Crosshead End Caps
42	Spring Rods (C'Balance)
43	Spring Pipe (C'Balance)
44	Spring Rod Brg. (C'Balance)
45	Counterbalance Spring
46	Safety shield (not shown)
47	Special Washers (Bed to leg)
48	Std. & Edge Blades
49	#6 Taper Pin 2½ lg w/nuts (back ga. to crosshead) (Not Shown)
50	R.H. Bed Adj. Plate
51	L.H. Bed Adj. Plate
52	R.H. Holddown Lug
53	L.H. Holddown Lug
54	Long Clutch Rod
55	Bell Crank Lever
56	Spacer (Bell Crank Lever)
57	Short Clutch Rod
58	Clevis (Clutch Rod)
59	Clevis Pin
60	1/8 x 1 Cotter Pin (Clevis Pin)
61	½-13x2¼ Hex Cap Screw (Bell Crank)
62	½-13 Hex Nut
63	3/4-10x2½ Soc. Hd. Cap Scr. (Bed Adj. Plate)
64	Clutch Control Lever
65	Lock
66	Spring (lock)
67	Pin (Clutch Cont. Lever)
68	Pivot Stud
69	Nameplate (not shown)
70	1/2 Std. Washer
71	5/16-18 Hex Nuts (rear panel) (not shown)
72	Copper Tubing
73	3/32 x 3/4 Cotter Pin
74	Compr. Unions (¼" Tubing - 1/8 Male Pipe Thd.)
75	Compr. Elbows
76	Pivot Pin (treadle center brg.)
77	½-13 Hex Check Nut
78	1/8 x 1¼ Cotter Pin
79	R.H. Treadle Stop (Top)
80	R.H. Treadle Stop (Lower)
81	5/32 x 1 1/8 Roll Pins (Cycle Cont. Stop)
82	Lube Block
83	3/8 Lock Washer
84	R.H. Hinge Pivot (Treadle)
85	3/4 - 10 Hex Nut

86	5/8-11x1¼ Soc. Set Scr. (Main Shaft Key)
87	Spacer (L.H. Treadle Hinge Bolt)
88	½-13x2½ Hex Cap Scrs.
89	½-13x2½ Sq. Hd Set Scrs.
90	1/16 x 5/8 Spiral Pin (Lock)
91	3/16 Washer
92	½-13X3 Hex Cap Scr. (Treadle Spr. Stud)
93	½ Lock Washer (Treadle Pivot Stud)
94	½-13x1½ Cup Pt. Soc. Set Scr. (L.H. Treadle Stop)
95	L.H. Treadle Stop
96	3/8-16X1½ Hex Cap Scr. (LH. Treadle Stop)
97	Clutch Shift Plunger
98	1/4-20x5/8 Button Hd Cap Scr. (Soc. Type)
99	Grease Pipe
100	5/8 Heavy Washer (Blades)
101	B78 "V" Belts (Matched set of 5)
102	Motor Sheave (5 Groove "B" Sect.-6.4 P.D.- 1 3/8 Bore)
103	Motor Base (West. #213)
104	½-13X1-3/4 Stripper Bolts (Leg Cap)
105	Blade Bolts
106	End Blade Bolts (upper only)
107	Handle (gear guard)
108	5/8-11x2½ T Slot Bolts
109	Alemite Compressor
110	Eye Rod Spacers
111	1 x 4½ Feather Key (Clutch Block)
112	1 x 5½ Feather Key (Brake Block)
113	1 X 6 Gib Key (Eccentrics)
114	7/8-9X3 Soc. Set Scrs. (Bed Pull Down)
115	7/8-9X4½ Sq. Hd Set Special Screw (Gib)
116	7/8-9X4½ Half Dog Sq. Hd Set Scr (gib)
117	7/8-9 Hex Check Nut
118	5/8-11X1½ Hex Cap Scr (Tie Brace)
119	5/8 Washers
120	5/8 Lock Washers
121	Flywheel Key
122	½ x 3-3/4 Feather Key (Pinion)
123	7/8x7-7/8 Key (Inter. Shaft Pinion & Gear)
124	5/8-11 Hex Nuts
125	½-13X1¼ Hex Cap Scrs (Side Gauge)
126	5/8-11X4 Hex Cap Scrs (Brake Strap)
127	Adj. Screw (Bed "out")
128	7/8X9X2½ Half Dog. Pt. Soc. Set Scrs. (Bed"in"
129	5/8-11X2¼ Hex Cap Screw (Clutch)
130	1" Spring Type Lockwasher

131	3/8-16x2 Hex Cap Scr. (inter. Shaft Cap)
132	½-13x1½ Soc. Type Flat Hd Cap Scr. (Ret. Collars)
133	½-20x1-3/4 Flat Hd. Cap Scr. soc. Type (crosshead end cap)
134	1"-8x11½ Hex Cap Screw (Bed to leg)
135	½-13x1 Cone Pt. Soc. Set Scr. (Brake Block)
136	1/2-13x1/2 Oval Pt. Soc. Set Scr. (Brake Block)
137	3/4-10x3/4 Cup Pt. Soc. Set Scr. (Main Shaft Collar)
138	3/4-10x3/4 Oval Pt. Socket Set Scr. (Main Shaft Collar)
139	Hex Key Set
140	5/16-18x½ Bending Hd. Mach. Scr. (Front Panel) (Not Shown)
141	#6-32x½ Flat Hd. Mach. Scrs. (Gear Guard Handle
142	#6-32x3/8 Flat Hd. Mach. Scrs. (Bed Scales)
143	5/16-18x3/4 Rnd. Hd. Scrws. (Gear Guard) (not shown)
144	5/16 Std. Washers (finger guard) (not shown)
145	5/16 Lock Washers (Finger guard) (not shown)
146	5/16-18X3/4 Filister Hd. Mach. Scr. (finger guard) (not shown)
147	½-20x3/4 Rnd. Hd. Scrs. (starter) (not shown)
148	½-13x2½ Hex Cap Scrs. (Center Brg)
149	7/8-9x3-3/4 Hex Cap Scr (holddown lug)
150	7/8-9/2-3/4 Hex Cap Scr (holddown lug)
151	7/8 Std. Washers
152	½-13-2-3/4 Hex Cap Scrs (holddown Adj.)
153	Timken Brg. (Flywheel Shaft)
154	Timken Brg. (Inside Inter. Shaft)
155	Timken Brg. (outside Inter. Shaft)
156	Timken Lock Nut TN10
157	Timken Washer TW110
158	Timken Shims (Flywheel Shaft) (not shown)
159	Special Hex Cap Screw (Inter. & Flywheel Shaft)
160	1/8 x 45 degree alemite fittings
161	Magnetic Starter
162	7-1/2 HP - 1800 RPM open dripproof Bell Brg. Motor
163	Timken Shims (Inter. Shaft) (not shown)
164	Lubrication Plate (not shown)

SECTION IV B

SUB-ASSEMBLY PARTS LIST

A CROSSHEAD ASSEMBLY

- A1 Crosshead
- A2 Tie Rod
- A3 Adj. Screw
- A4 Hex Nuts 1-1/2 - 6 Thd.
- A5 Washers 1-1/2
- A6 Adj. Screw Washer
- A7 Adj. Screw Nut 1-1/8 - 7 Thd.

B R.H. LEG ASSEMBLY

- B1 R.H. Leg
- B2 Bushings

C L.H. LEG ASSEMBLY

- C1 L.H. Leg
- C2 Bushings

D HOLDDOWN ASSEMBLY

- D1 Holddown beam
- D2 Plunger beam
- D3 Plunger springs
- D4 Plunger Rods
- D5 Plunger Feet
- D6 Support Springs
- D7 .156 X 1-3/8 Roll Pins
- D8 5/8 - 11 Hex Nuts
- D9 5/8 - 11 Check Nuts
- D10 Name Plate
- D11 Studs - Support Spring
- D12 Brass Plugs
- D13 3/8 - 16 Half dog pt. Set Screw
- D14 3/4 - 10 Allen Set Screw Oval Pt.
- D15 1/4 - 20 Flat Hd. Screws
- D16 5/8 - 11X6 Hex Cap Screws
- D17 5/16 - 18 Hex Nuts

E BRAKE ASSEMBLY

E1 Upper Strap
E2 Lower Strap
E3 Asb. Lining
E4 Copper Rivets
E5 Pins
E6 Cotter Pins
E7 7-5/8 Hex Cap Screw
E8 5/8 - 11 Hex Nut
E9 5/8 - 11 Hex Check Nut
E10 5/8 Washer
E11 Spring

F BACK GAUGE ASSEMBLY (See Reverse Side of Figure 5)

G BIJUR LUBRICATION SYSTEM

G1 Lubricator - Pump
G2 Meter Unit FSA-1 Clutch (3)
G3 Meter Unit FSA-4 L.H. Conn. (1)
G4 Meter Unit FSA-3 Crosshead Lower Front (2) R.H. Conn. (1) Legs (2) Main Shaft (11) Eye Rods (2)
G5 Meter Elbow Tee FTD-4 Front Upper Crosshead (2)
G6 Meter Tee FTA-4 Upper Rear Crosshead (2)
G7 Meter Tee FTA-3 Lower Rear Crosshead (2)
G8 1/4" Swivel Mainshaft (1)
G9 5/8X90° Elbow Conn. Clutch (1)
G10 5/8X45° Elbow Conn. Legs-Mainshaft (2) Connections (2)
G11 3 Way Junctions Eye Rods (2)
G12 Meter Tee FTD-2 Center Bkg. (1)
G13 6 Way Junction - Double Outside R.H. Leg (1)
G14 5 Way Junction - Single Inside R.H. Leg (1)
G15 4 Way Junction - Single Inside L.H. Leg (1)
G16 18" Hose Assy. 7/16 Type SS Connections (2)
G17 10" Hose Assy. 5/16 Type SS Eye Rods (2)
G18 5/32 OD X .020 Wall Steel Tubing 5-S-20
G19 Single Tubing Clips (18)
G20 Compression Nuts - Female Thd - (14)
G21 Compression Bushings - Male Thd (38)
G22 Compression Sleeves - Ferrule (53)
G23 5/16 - 18 x 1/2 Hex Cap Screws - Pump (2)
G24 5/16 Washers - Pump (2)
G25 1/4 - 20 X 1 Button Hd. Screws (8) Junctions
G26 3/16 - 24 X 3/8 Button Hd. Screws (18) Clips
G27 Elbow Connections 1-1/4 X 90° Front Lower Crosshead (2)
G28 Elbow Connections 1-1/4 X 45° Eye Rods (2)

H TREADLE ASSEMBLY

I DISAPPEARING GAUGES

- I1 Base
- I2 Finger
- I3 Pivot Pin
- I4 Brass Plugs
- I5 1/2 - 13 X 3/4 Sock Set Screws

J CLUTCH GEAR ASSY.

- J1 Gear
- J2 Bronze Bushing
- J3 Wheel Pins (3)
- J4 Backlash Pins (3)
- J5 Wheel Ring

K CLUTCH BLOCK ASSEMBLY

- K1 Clutch Block
- K2 Ring
- K3 Plate
- K4 Cam Screw
- K5 3/8 - 16 X 7/8 Flat Hd. Screw

L THROWOUT ASSEMBLY

M CENTER BEARING ASSEMBLY

- M1 Center Brg.
- M2 Sleeve Brgs (2)

SECTION II

HOLDDOWN INSTRUCTIONS

READ CAREFULLY BEFORE MAKING ANY ADJUSTMENTS

Refer to Figure 3 - HOLDDOWN ADJUSTMENT

Key

A. Six holddown mounting bolts (Hex cap screws)

B. Holddown pressure adjustment (two hex head cap screws)

C. Holddown removal screws (Six 5/8" x 6" Hex head cap screws to be inserted only when removing holddown.)

I. GENERAL INSTRUCTIONS:

The holddown has been correctly installed and adjusted at the factory. Further adjustment is unnecessary and should be avoided.

Should it become necessary to remove or adjust the holddown, read carefully the complete instructions for removal, adjustment and replacement before proceeding.

II. HOLDDOWN REMOVAL:

IIa. Shut off power with crosshead at top of stroke.

IIb. Insert removal screws (C) in holes. Bring to snug tight, then tighten two more complete turns. (This relieves spring pressure on crosshead).

IIc. Remove two holddown pressure screws (B).

IId. Remove six holddown mounting bolts (A).

IIe. Force holddown away from crosshead and remove from shear. CAUTION: Place wood strips on bed to protect surface.

IIf. Lubricate all springs and holddown plunger feet bearings before replacing.

III. HOLDDOWN REPLACEMENT:

IIIa. Power must be off with crosshead at top of stroke.

IIIb. Remount holddown on shear and run up six mounting bolts (A) to snug position.

IIIc. Replace two holddown pressure adjustment screws (B).

IIId. Take out removal screws (C).

IIIe. Set holddown at "Normal" position with screws (B).

IIIf. Tighten 6 mounting bolts (A) securely and holddown is ready for operation.

IV. HOLDDOWN PRESSURE ADJUSTMENT:

Holddown and legs are marked at each end to indicate the correct setting for normal holddown pressure. This is maximum holddown pressure and cannot be increased. Holddown pressure can be decreased by means of adjusting screws (B).

IVa. Power must be off with crosshead at top of stroke.

IVb. Position holddown with adjusting screws (B) at "Normal"

IVc. Loosen mounting bolts (A) one full turn.

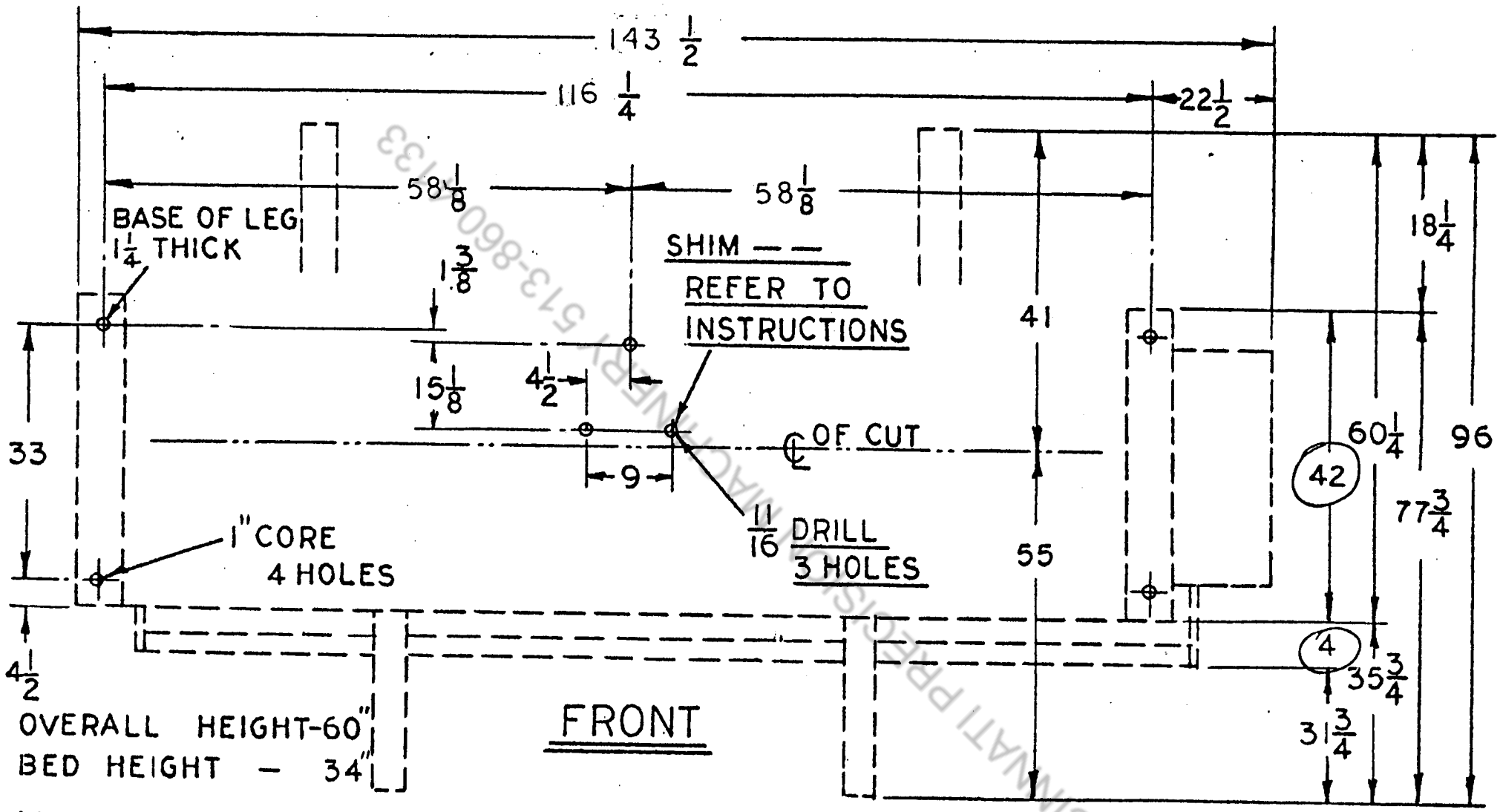
IVd. Back off adjusting screws (B) within range of holddown beam movement to obtain decreased pressure.

IVe. This adjustment will not exceed 3/8 inches. It is essential that an equal adjustment be made at each end when adjustment is completed. Holddown pads must engage sheet before blades start to cut.

IVf. Tighten mounting bolts (A) securely.

IVg. Safety shield is adjustable and must be repositioned whenever holddown pressure adjustment is changed from its original location. Screws in front of finger guard are movable in slotted holes to allow correct positioning of guard.

IVh. Holddown is ready for operation.

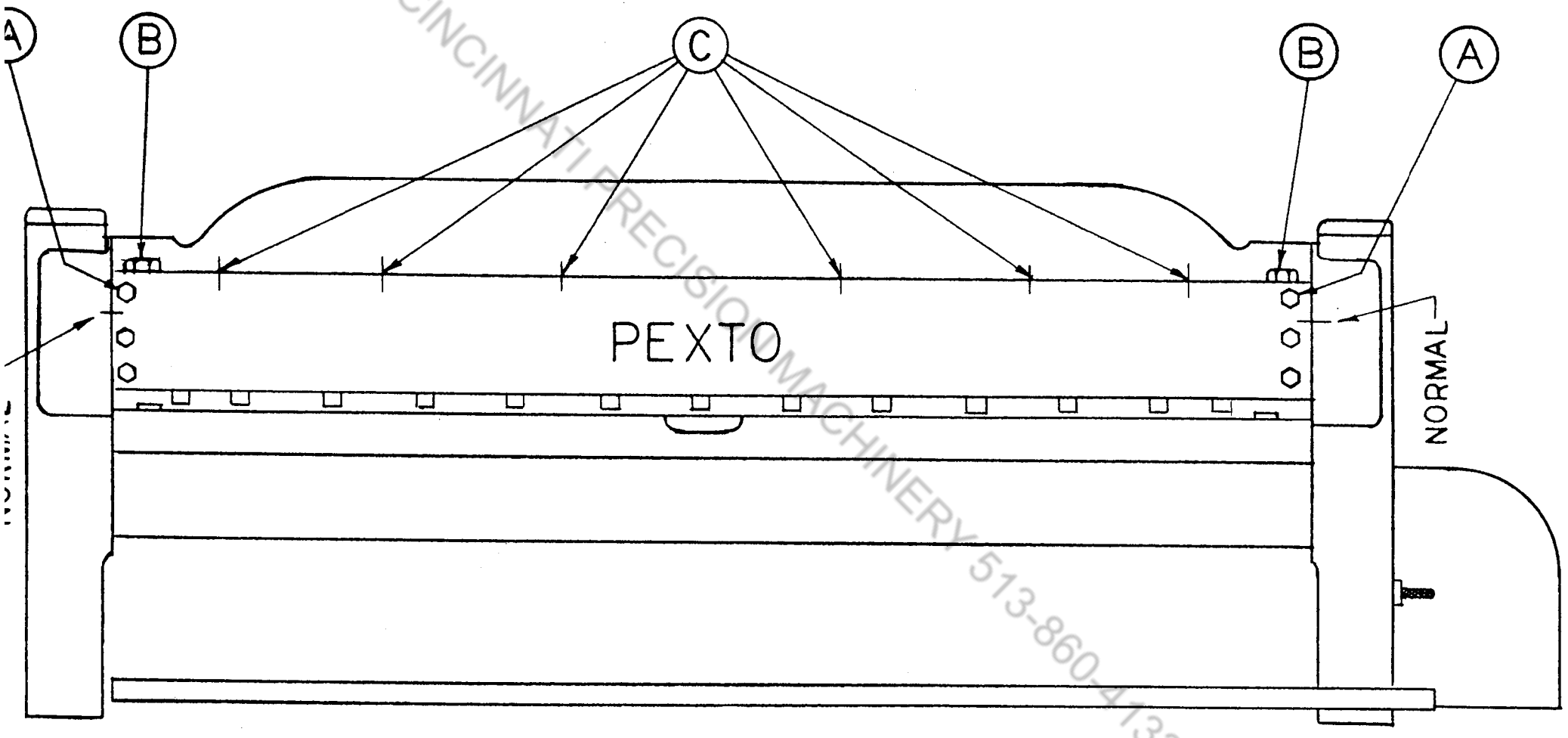


NOTE: PLACE FOUNDATION BOLTS IN 2 1/2 DIA. PIPE TO ALLOW FOR VARIATIONS IN MOUNTING DIMENSIONS.

SET INTO A MINIMUM OF 12 THICK STEEL REINFORCED CONCRETE.

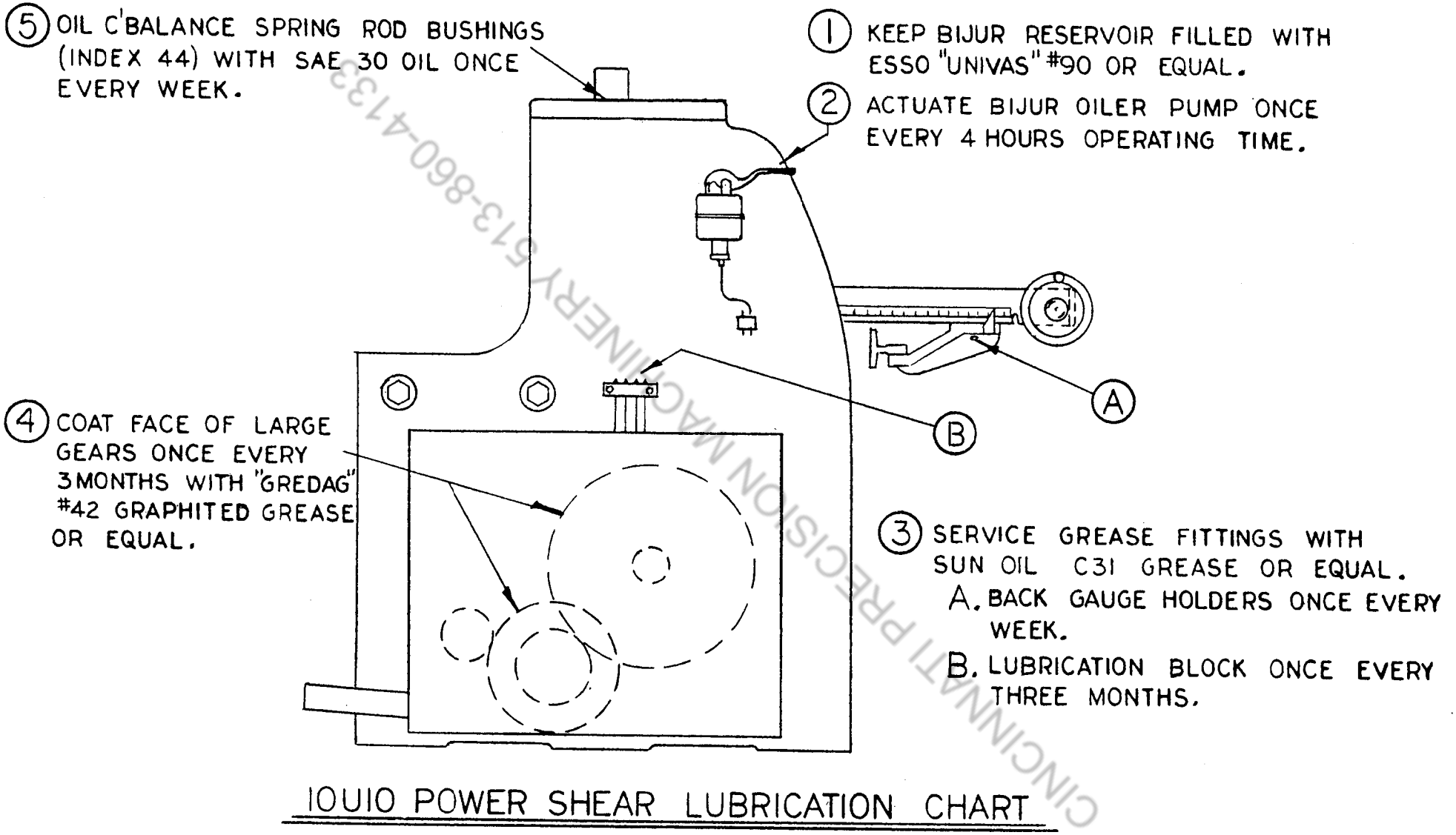
FOUNDATION PLAN

FIGURE 2



10U10 HOLDDOWN ADJUSTMENT

FIGURE 3



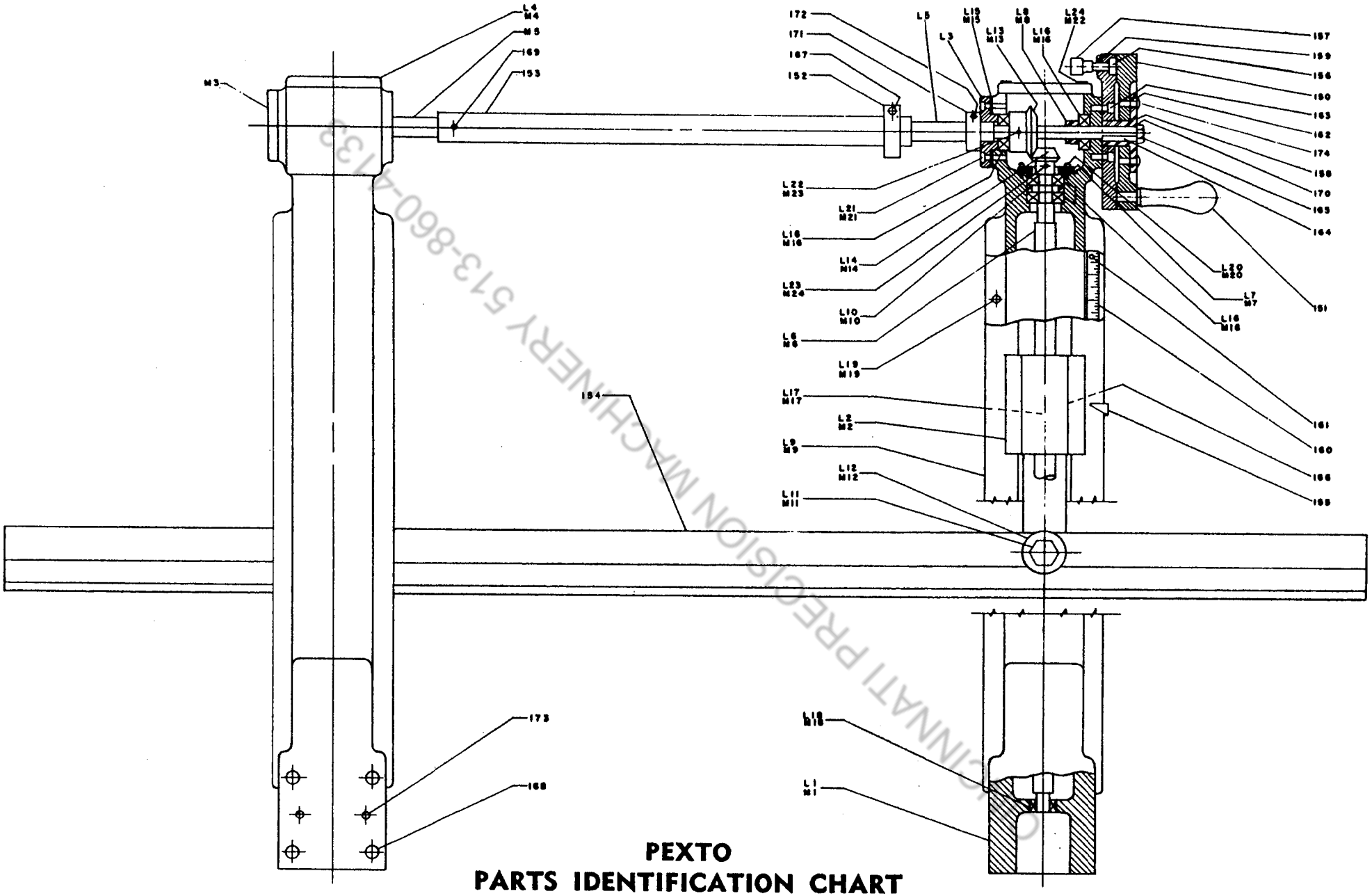
10U10 POWER SHEAR LUBRICATION CHART

FIGURE 4

B-18 AND B-24 BACK GAUGE

INDEX	PART
150	Handwheel
151	Handwheel Handle
152	Clamp
153	Cross Shaft Tube
154	Gauge Bar
155	Pointer
156	Friction Shoe
157	Lock Screw
158	Adjusting Collar
159	Index Plate
160	Scale
161	#2 x ¼ Long Drive Screw
162	¼ Std. Lock Washer
163	¼-20 NC x ½ Socket Hd. Cap Screw
164	3/16 x 15/16 Key
165	⅜-16 NC Check Nut
166	3/16-24 NC x ½ Rd. Hd. Mach Screw
167	¼-20 NC x ¾ Soc. Hd. Cap Screw
168	½-13 NC x 1¾ Hex. Hd. Cap Screw
169	.156 x 1⅛ Rollpin
170	5/16 Std. Washer
171	Thrust Collar
172	#10-24 NC x 1 Soc. Cap Screw
173	#5 x 2½ Taper Pin
174	¼-20 NC x ⅝ Button Head Socket Screw
L	Complete R. H. Bracket Assembly
L1	Bracket
L2	Gauge Holder
L3	Bearing Retainer Cap
L4	Housing Cap
L5	Handwheel Shaft
L6	Adjusting Screw
L7	Bearing Retainer
L8	Thrust Collar
L9	Gauge Holder Gib
L10	Bearing Spacer
L11	Shoulder Screw
L12	Special Washer
L13	Gear
L14	Pinion
L15	Timken Shims
L16	Timken Bearing Cone & Cup
L17	Grease Fitting ⅛ Pipe Thd.
L18	Needle Bearing
L19	⅜-16 NC x ¾ Soc. Hd. Cap Scr.
L20	12-24 NC x ½ Fil. Hd. Screw
L21	¼-20 NC x ⅝ Soc. Hd. Cap Scr.
L22	Soc. Hd. Cap Screw .156 x 1⅜ Rollpin
L23	.156 x ⅞ Rollpin
L24	¼-20 NC x ½ Soc. Hd. Cap Scr.
M	Complete L. H. Bracket Assembly
M1	Bracket
M2	Gauge Holder
M3	Bearing Retainer Cap
M4	L. H. Housing Cap
M5	L. H. Gear Shaft
M6	Adjusting Screw
M7	Bearing Retainer
M8	Thrust Collar
M9	Gauge Holder Gib
M10	Bearing Spacer
M11	Shoulder Screw
M12	Special Washer
M13	Gear
M14	Pinion
M15	Timken Shims
M16	Timken Bearing Cone & Cup
M17	Grease Fitting ⅛ Pipe Thd.
M18	Needle Bearing
M19	⅜-16 NC x ⅞ Soc. Hd. Cap Screw
M20	12-24 NC x ½ Fil. Hd. Screw
M21	¼-20 NC x ⅝ Soc. Hd. Cap Screw
M22	¼-20 NC x ½ Soc. Hd. Cap Screw
M23	.156 x 1⅜ Rollpin
M24	.156 x ⅞ Rollpin

When ordering replacement parts always give Model No. and Serial No. of Shear and specify length of gauge, 18 inch or 24 inch.



PEXTO
PARTS IDENTIFICATION CHART
FOR
B-18 & B-24 BACK GAUGE

(See reverse side for Legend)

Ⓜ LEFT HAND BRACKET

Ⓛ RIGHT HAND BRACKET

FRONT OPERATED

, F-24 BACK GAUGE - INSTRUCTIONS

This back gauge has been adjusted and aligned at the factory and is shipped mounted on the Shear to save assembly time, as well as possible damage in transit.

Adjustment of this back gauge may have been disturbed slightly in shipping. To check and reset, after Shear has been adjusted:

1. Tighten all set screws between operating wheel and right-hand bracket, including those around ratchet assembly. Turn operating wheel until indicator shows a setting of one inch. Insert stock in machine, making sure it is squarely against back gauge bar for entire length of cut. Cut two pieces in this manner. Measure the second piece cut for width and parallelism.

2. If piece is not parallel, loosen split collar at right-hand end of connecting shaft between brackets, and by turning connecting shaft, move left-hand end of back gauge bar in or out as needed. Tighten split collar and take a cut. If still not parallel, repeat above.

3. If indicator does not show true width of piece as cut, adjust as follows after parallel setting is made: - With indicator set at one inch, cut a strip of stock and check with a micrometer. Dismount indicator gear cover by removing three screws holding cover to indicator. Loosen set screws in counter pinion and set indicator to correct width as measured. DO NOT MOVE BACK GAUGE. Adjust gears so no back-lash exists, and tighten set screws. Check setting by cutting another strip and repeat if necessary. Grease indicator gears lightly and replace gear cover.

4. To adjust ratchet between flexible shaft and right-hand bracket, loosen check nut and move 5/8 set screw (near ratchet on bracket between right-hand gauge bracket and flexible shaft) in or out to in-crease or decrease ratchet holding power. Do not remove ratchet entirely as it holds gauge setting. Each notch of ratchet wheel = .006" movement of gauge bar.

5. Back gauge is now ready to give long, accurate service. Lubricate occasionally with automobile chassis lubricant all points provided with grease fittings, as well as ratchet and both back gauge lead screws (located inside back gauge brackets).

MOTOR OPERATED

BACK GAUGE - INSTRUCTIONS

This back gauge has been adjusted and aligned at the factory and is shipped mounted on the Shear to save assembly time, as well as possible damage in transit.

Adjustment of this back gauge may have been disturbed slightly in shipping. To check and reset, after Shear has been adjusted:

1. Remove chain guard between motor and connecting shaft. Tighten motor mounting bolts. Check and tighten set screws in both chain sprockets. Check chain lubrication and regrease if necessary. Replace chain guard. Check motor operation by pushing buttons marked "in" or "out", to move back gauge. Do not hold button down when setting near "0" or near maximum setting. Jog motor near these points to prevent damage to back gauge. If motor moves back gauge freely, set until counter reads one inch. Insert stock in machine, making sure it is squarely against back gauge bar for entire length of cut. Cut two pieces in this manner. Measure the second piece cut for width and parallelism.

2. If piece is not parallel, loosen split collar at right hand end of connecting shaft between brackets, and by turning connecting shaft, move left hand end of back gauge bar in or out as needed. Tighten split collar and take a cut. If still not parallel, repeat above.

3. If indicator does not show true width of piece as cut, adjust as follows after parallel setting is made: With indicator set at one inch, cut a strip of stock and check with a micrometer. Dismount indicator gear cover by removing three screws holding cover to indicator. Loosen set screws in counter pinion and set indicator to correct width as measured. DO NOT MOVE BACK GAUGE. Adjust gears so no back-lash exists, and tighten set screws. Check setting by cutting another strip and repeat if necessary. Grease indicator gears lightly and replace gear cover.

4. To adjust ratchet on right-hand bracket, loosen check nut and move 5/8 set screw in or out to increase or decrease ratchet holding power. Do not remove ratchet entirely as it holds gauge setting. Each notch of ratchet wheel = .006" movement of gauge bar.

5. Back gauge is now ready to give long, accurate service. Lubricate all points provided with grease fittings weekly with automobile chassis lubricant, as well as ratchet and both back gauge lead screws (located inside back gauge brackets).

SECTION III

B-24 BACK GAUGE - INSTRUCTIONS

A. Set up shear as per Shear Operating Instructions.

B. Loosen knurled lock screw on index plate next to handwheel. Turn handwheel until scale pointer (on R.H. bracket) reads 1" and index points to "0" on handwheel. Tighten lock screw to hold handwheel in position. Insert stock in machine, making sure it is squarely against gauge tee-bar for entire length of cut. Cut two pieces in this manner, and measure the second piece cut for width and parallelism.

C. If piece is not parallel, loosen split collar at right hand end of connecting shaft between brackets. By turning connecting shaft, move left hand end of back gauge bar in or out as needed. Tighten split collar and take a cut. If still not parallel, repeat above.

D. If scale and handwheel do not show true width of piece as cut, proceed as follows after parallel setting is made - with handwheel at "0" and pointer at "1", cut a strip of stock and measure with a micrometer. Loosen 2 Socket Head Cap Screws at face of handwheel, as well as lock screw in index plate. Without moving back gauge, move handwheel until proper setting as measured, is shown at index line. (Each division of the handwheel equals 1/128" or .008") When measurement and handwheel reading coincide, tighten Socket Head Cap Screws on face of handwheel. Move handwheel to reset back gauge for 1". Take another cut and check width of piece. Repeat above if necessary.

E. After width and parallel settings are made, adjust pointer by loosening screws holding it to R.H. gauge holder and sliding pointer until it is right on either a "full inch" mark of a"1/2 inch" - mark on the scale with handwheel at "zero". Tighten pointer screws.

F. Back gauge is now ready to give long accurate service. Lubricate weekly all points provided with grease fittings, with automobile chassis lubricant as well as oiling behind behind handwheel at frequent intervals.

XI. DISAPPEARING FRONT GAUGING STOPS:

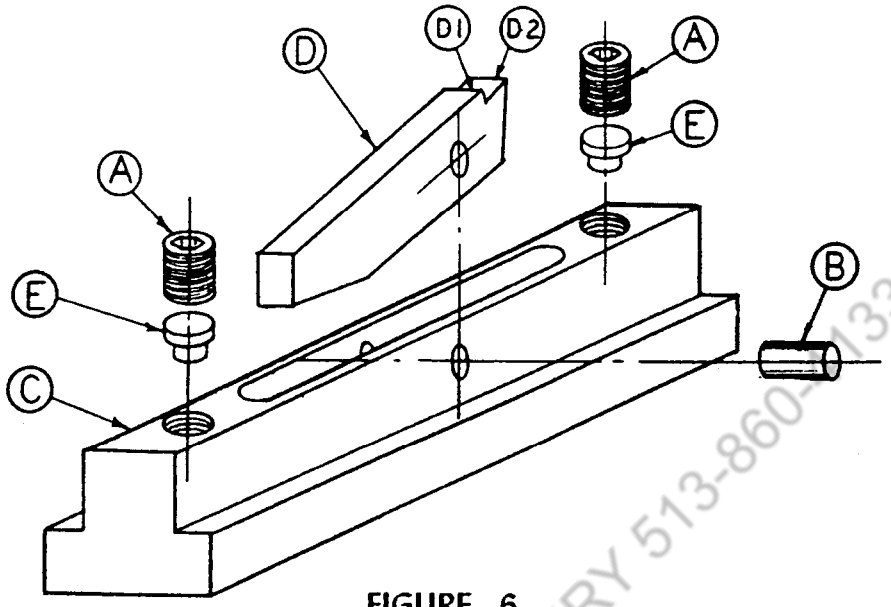


FIGURE 6

INDEX TO DRAWING:

A - Socket Set Screws
B - Pivot Pin
C - Gauge Holder
D - Disappearing Stop

D1 - Trim-cut Stop Surface
D2 - Finish-cut Stop Surface

E - Brass Plug

GAUGE ADJUSTMENT:

The Disappearing Front Gauge Stops are used in lieu of a front gauge bar. The stops have two gauge surfaces, D1 and D2. D1 is used for trimming or squaring of sheets. Surface D2 is used for precise finish cuts. Distance between D1 and D2 is 1/4".

To set gauge, loosen socket set screws (A) and slide gauge in tee slot to desired position. Surface D1 will be 1/4" further from blade than desired width of finish cut. Tighten Screws (A)

PEXTO®

PARTS IDENTIFICATION CHART

AND

PARTS LIST

FOR

B-F-M BACK GAUGE

B – Standard Rear • Hand Operated

F – Front • Hand Operated

M – Motor Operated

FIGURE 5

ROPER WHITNEY, INC. ROCKFORD, ILL. 61101

PARTS LIST (B-F-M-BACK GAUGES)

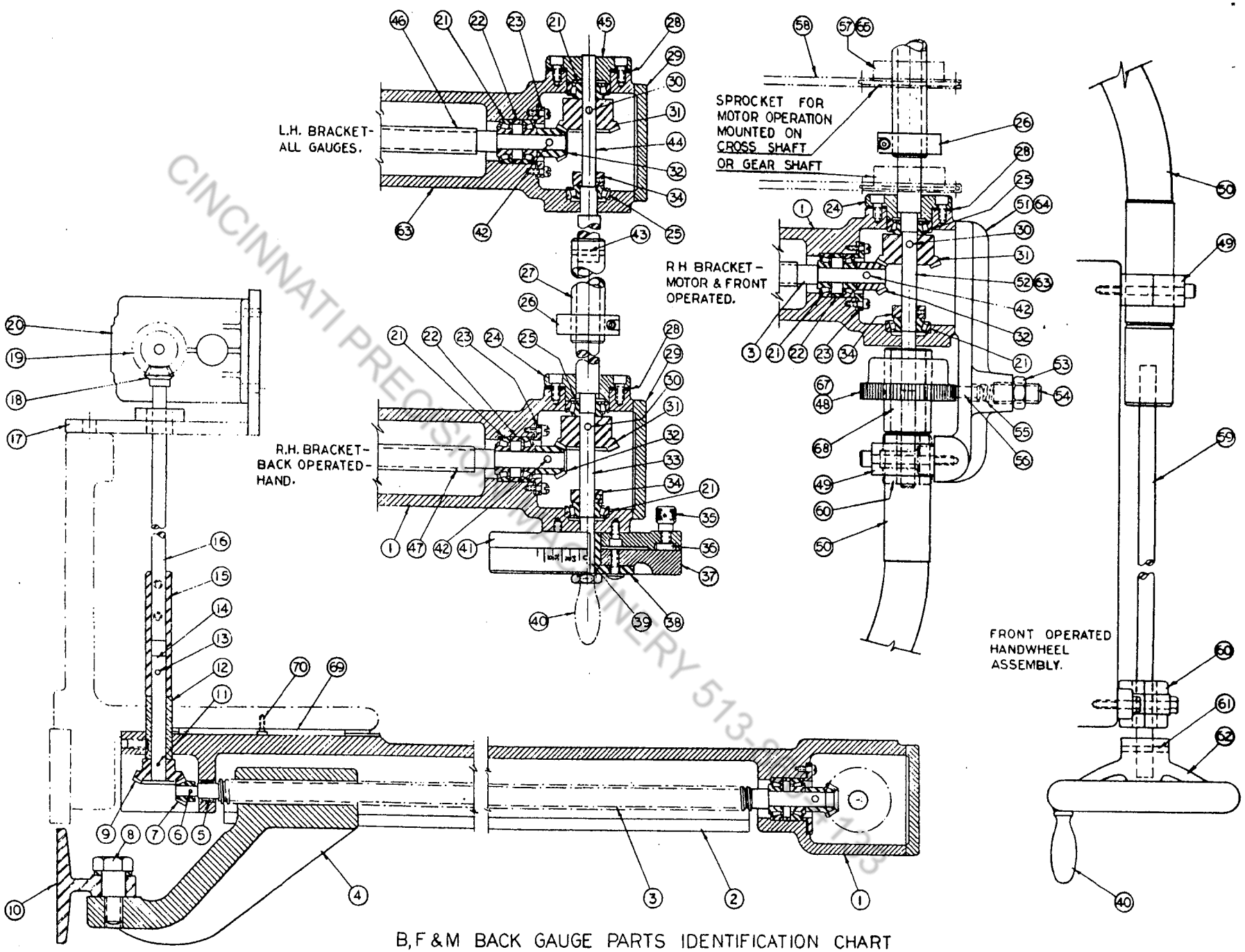
B-Standard Rear-Hand Operated
F-Front-Hand Operated
M-Motor Operated

INDEX	PART
1.	R.H. Brkt.
2.	Gauge Holder Gib-R.L.
3.	R.H. Adj. Screw (F&M)
4.	Gauge Holder
5.	Needle Bearing
6.	Pin
7.	Lower Pinion (F&M)
8.	Shoulder Screw
9.	Lower Gear (F&M)
10.	Gauge Bar
11.	Pin (F&M)
12.	Lower Gear Shaft Bushing (F&M)
13.	Pin
14.	Lower Gear Shaft (F&M)
15.	Coupling Sleeve (F&M)
16.	Upper Gear Shaft (F&M)
17.	Counter Mtg. Brkt. (F&M)
18.	Counter Pinion (F&M)
19.	Counter Gear (F&M)
20.	Counter (in Fractions)(F&M)
21.	Timken Type "S" Brg. Cone A4050 Cup A4138
22.	Bearing Spacer
23.	Bearing Retainer
24.	R.H. Brg. Retainer Cap.
25.	Timken Type "S" Brg. Cone A4059 Cup A4138
26.	Clamp
27.	Cross Shaft Tube
28.	Timken Shim Set
29.	Housing Cap
30.	Pin
31.	Bevel Gear
32.	Bevel Pinion
33.	R.H. Gear Shaft (B)
34.	Thrust Collar

INDEX	PART
35.	Lock Screw (B)
36.	Friction Screw (B)
37.	Handwheel (B)
38.	Adj. Collar (B)
39.	Key (B)
40.	Handwheel Handle (B&F)
41.	Index Plate (B)
42.	Pin
43.	Pin
44.	L.H. Gear Shaft
45.	L.H. Bearing Retainer Cap
46.	L.H. Adj. Screw
47.	R.H. Adj. Screw (B)
48.	Ratchet Wheel (F&M)
49.	Flex Shaft Mtg. Brkt. (F)
50.	Flexible Shaft (F)
51.	R.H. Housing Cap (F)
52.	R.H. Gear Shaft (F)
53.	Lock Nut (F & M)
54.	Pawl Adj. Screw (F&M)
55.	Pawl Spring (F&M)
56.	Pawl (F&M)
57.	Sprocket (M)
58.	Chain (M)
59.	Handhwheel Shaft (F)
60.	Mtg. Brkt. (M&F)
61.	Pin (F)
62.	Handwheel (F)
63.	L.H. Brkt.
64.	R.H. Housing Cap (M)
65.	Motor Sprocket (M)
66.	R.H. Gear Shaft (M)
67.	Ratchet Wheel (M)
68.	Ratchet Wheel Sleeve (M)
69.	Aligning Key
70.	Cap Screw

PARTS NOT SHOWN

100.	Pointer (B)
101.	Counter Gear Cover(F&M)
102.	Counter Reset Wheel(F&M)
103.	Scale (B)
104.	Motor Plate (M)
105.	Chain Guard (M)
106.	Motor-1/8 HP, 48 R.P.M. G.E. Right Angle Gear Mtr Frame #032711, Fig. 2 Mtg.
107.	Starter-Westinghouse-Magnetic Reversing, Class A210-SA
108.	Push Btn. Sta.-Westinghouse Class 15-020 Legend- "open"-"close"
109.	Micro Switch BZE-2RQ enclosed
110.	Limit Switch Trip Cam
111.	Dial Plate



B,F&M BACK GAUGE PARTS IDENTIFICATION CHART

FIGURE 5

SECTION V

A C C E S S O R I E S

EXTENSION SQUARING GAUGE

MOBILE CONTROL

MANUAL FRONT OPERATED BACK GAUGE

POWER OPERATED BACK GAUGE

LIGHT BEAM

The accessories detailed in this section are not standard equipment. They may be ordered as optional equipment for Shear.

EXTENSION GAUGE MOUNTING

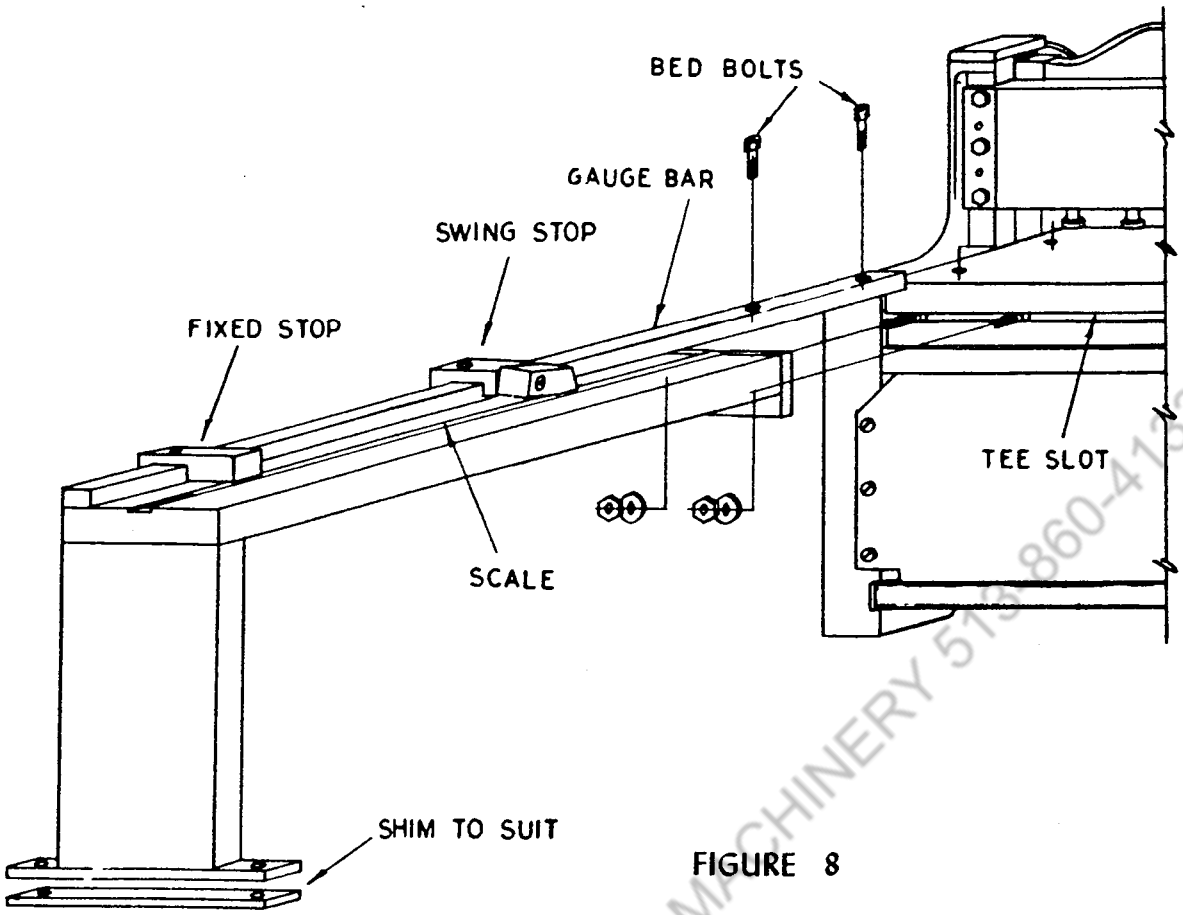


FIGURE 8

EXTENSION SQUARING GAUGES

The Extension Squaring Gauge provides long length precision positioning surface for resquaring sheets and shearing blanks. Gauge is equipped with one fixed stop and one swing stop for two gauge settings. The fixed stop is used for settings farthest from blades. Additional swing stops are available for multiple settings. The gauge can be mounted on either side of the shear, (preferably on the right.)

To mount gauge, insert two tee bolts in T-slot in front of bed. Bring gauge up to shear, allowing tee bolts to pass through the mounting holes in the bracket of the gauge. Put on washers and nuts but do not tighten. Line up mounting holes in gauge bar with bed holes normally used for side gauge. Insert bed bolts but do not tighten. Check gauge to make sure it is level with top of bed, if not, shim up gauge outer support leg. Square up gauge with blades. Tighten all bolts securely. Secure gauge support leg to floor. Recheck squareness of gauge bar with blades and level of gauge. Check gauge on regular basis during use.

ACCESSORY EQUIPMENT PARTS LIST

MOTOR OPERATED BACK GAUGE

QUANTITY	PART NAME
1	Counter Mounting Bracket
1	Push Button Station Bracket
1	Counter Gear Cover
1	Upper Shaft Collar
1	Clamp
1	Motor Mounting Plate
1	Upper Gear Shaft (Counter)
1	Lower Gear Shaft (Counter)
1	Coupling Sleeve - upper - lower gear shaft
1	Counter Reset Wheel
1	Lower Gear Shaft Bushing
2	Micro Switches #BZE-2RQ
1	Chain Guard
1	Counter Gear
1	Counter Pinion
1	Lower Gear
1	Lower Pinion
1	Right Angle, instantly reversible gear motor - 1/8 HP, 48 RPM mounting (Specify voltage - phase & frequency)

ACCESSORY EQUIPMENT PARTS LIST

SOLENOID OPERATED CLUTCH

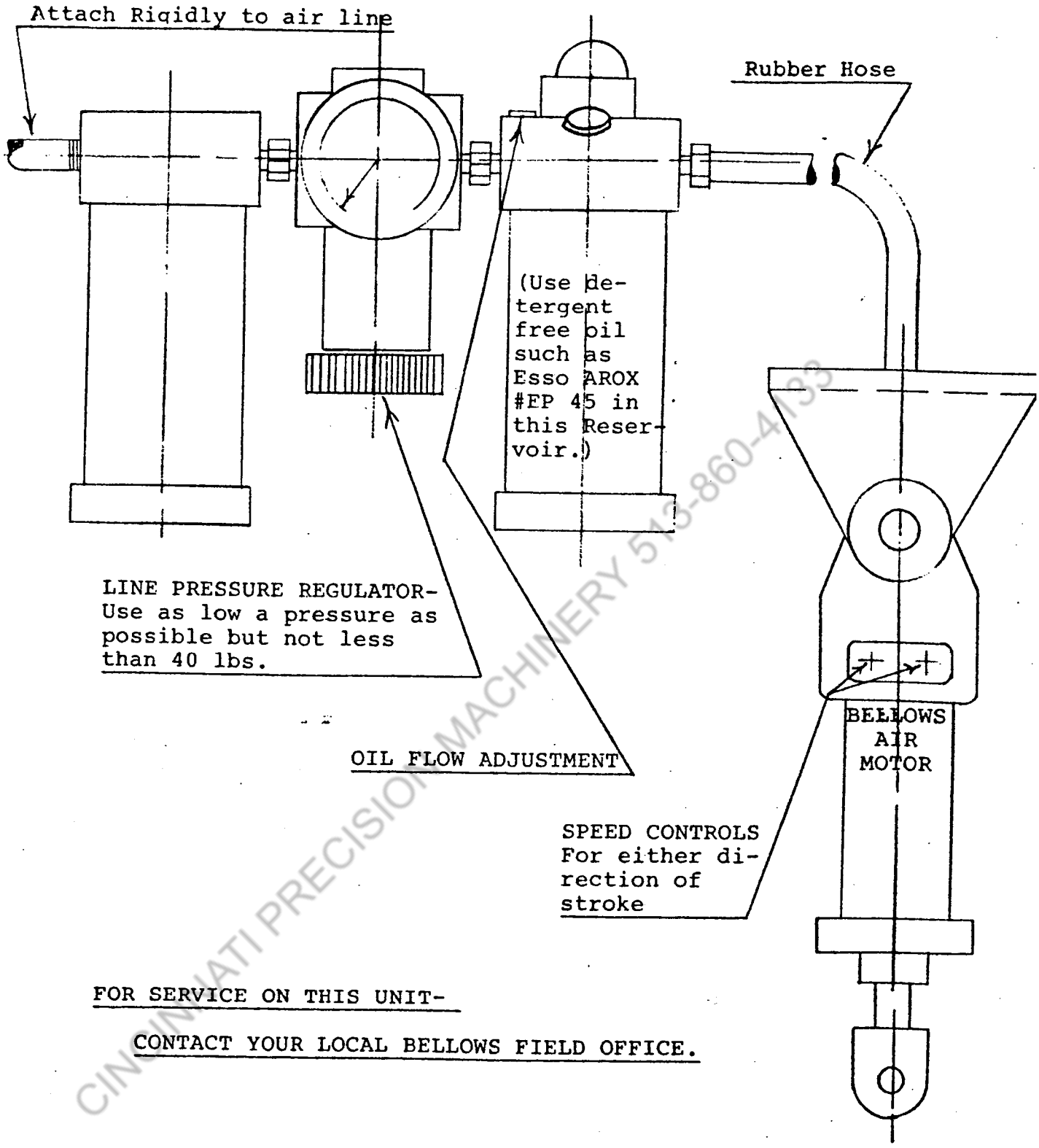
QUANTITY	PART NAME
1	Clutch Lever
1	Solenoid Bracket
1	Gear Guard
1	Pivot Bar
1	Connecting Rod
1	Pivot for Clutch Lever
1	Connecting Link Pin
1	Throwout Pivot Link
2	Clutch Lever Connecting Links
2	Lever Pivot Bar Spacers
1	Pin for Solenoid
2	Clutch Lever Spacers
1	General Electric Solenoid #CR9503-206B Pull type. (Specify voltage)
1	Square D Foot Switch Class 9002 Type AW-14
10'	14 Ga. - 3 Wire Portable Cord 600 Volt
1	Pivot Link Pin
1	Solenoid Cover
1	Connecting Rod Spring
1	Spring Collar
1	Pedal Guard

(The following items are eliminated from Basic Machine Parts List - Sect. IVA, and Safety Clutch Parts Diagram).

Index	Part
F	Treadle
42	Spacers
16	Conn. Links
15	Treadle Springs
17	Conn. Link Pins
21	Gear Guard

SAFETY CLUTCH

Index	Part
F	Bell Crank



FOR SERVICE ON THIS UNIT-

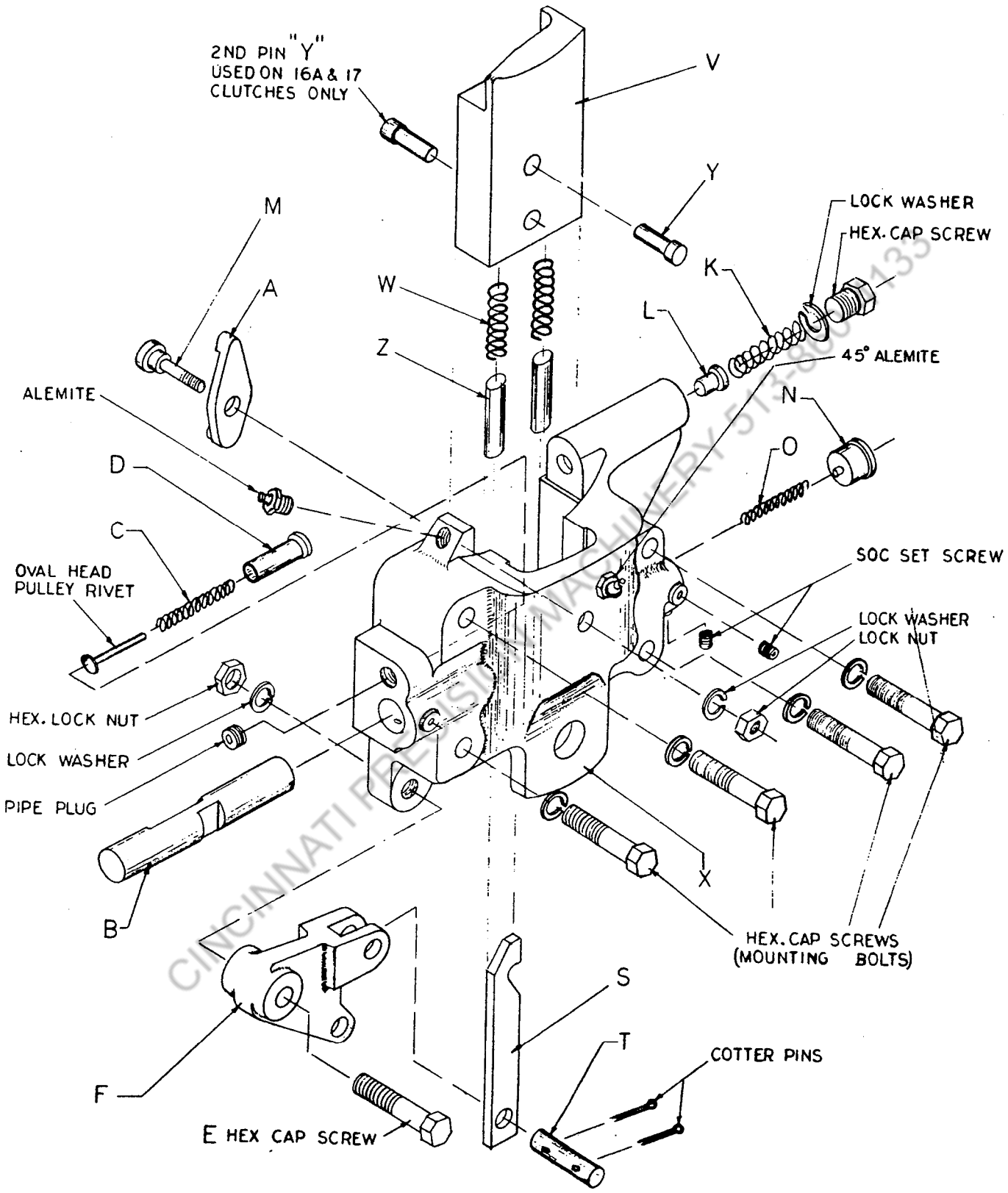
CONTACT YOUR LOCAL BELLOWS FIELD OFFICE.

ELECTRO - AIR CLUTCH LUBRI-UNIT

FIGURE 9

PEXTO SAFETY CLUTCH

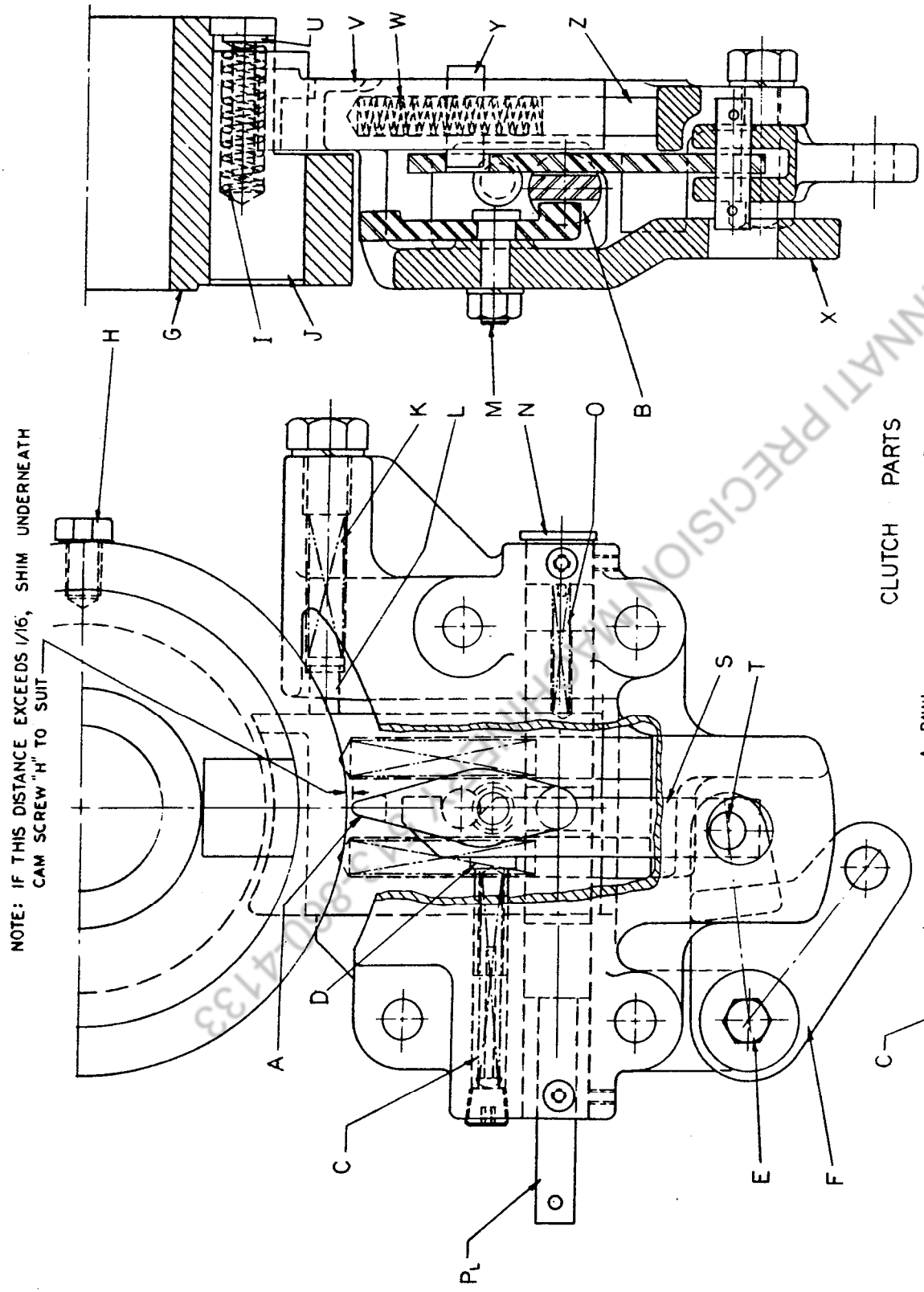
PARTS IDENTIFICATION CHART



When ordering Replacement Parts always give Model Number, Letter and Serial Number.

PEXTO SAFETY CLUTCH

PARTS IDENTIFICATION CHART



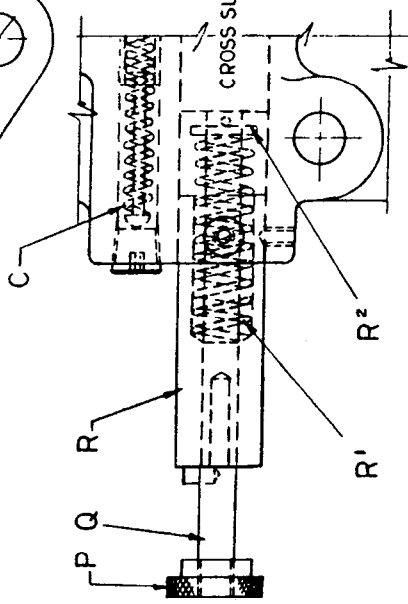
CLUTCH PARTS

A- PAWL
B- CROSS SLIDE
C- CONN. LINK SPRING
D- CUP-CONN. LINK SPRING
E- PIVOT BOLT
F- BELL CRANK
G- CLUTCH BLOCK
H- CAM SCREW
I- CLUTCH PIN SPRING
J- CLUTCH PIN
K- BACKING SPRING
L- BACKING PIN
M- PAWL PIVOT STUD
N- CROSS SLIDE SPRING PLUG
O- CROSS SLIDE SPRING
P, PLUNGER
P CYCLE ROD NUT
Q CYCLE CONTROL ROD
R CYCLE ROD BEARING
R1 CYCLE ROD SPRING
R2 CYCLE ROD WASHER
S CONN. LINK
T BELL CRANK PIN
U CLUTCH PIN SPRING SEAT
V THROWOUT
W THROWOUT SPRING
X CLUTCH BRACKET
Y THROWOUT PIN
Z THROWOUT SPRING PIN

CLUTCH	SHEAR
14A	USED ON 12U4
"	" 14U6
15A	" 10U4
"	" 10U6
"	" 14U10
16A	" 10U10
17	" 4120

WHEN ORDERING BE SURE TO SPECIFY MODEL & SERIAL NUMBER OF SHEAR

SEE OTHER SIDE FOR CLUTCH PARTS ILLUSTRATIONS



ALTERNATE ASSEMBLY
CYCLE CONTROL-"WORKHORSE" SERIES SHEARS

Fig. 7

65434	3441012131772	3416G
65434	3441012199287	MBB4181
65434	3441012378890	BP420
65434	3441012775951	U218
65434	3441012926162	167080416
65434	3441012926162	416
65434	3441013608777	154070055
65434	3441013873118	390E
65434	3442012808459	149000600
65434	3443007238283	231
65434	3443012312016	300270080
65434	3443012312017	300270096
65434	3443012312018	300270125
65434	3443012312019	P8
65434	3445001418154	142
65434	3445001514443	152J
65434	3445002390706	0236
65434	3445002398717	0325
65434	3445002432663	137
65434	3445002444526	3
65434	3445002444527	310
65434	3445002548650	38
65434	3445002559944	535
65434	3445002630079	6M14
65434	3445002630081	G648
65434	3445002630083	G352
65434	3445002630089	6152B
65434	3445002946467	G52
65434	3445004837050	350700079
65434	3445004909620	299 .
65434	3445008776081	BG7242
65434	3445009791612	455
65434	3445010127152	HS6-1/2
65434	3445010147412	5212
65434	3445010738447	152K
65434	3445010901760	350700193
65434	3445011413803	131012180
65434	3445011413803	218
65434	3445011784627	A6226
65434	3445011784628	A6225
65434	3445011784629	A60227
65434	3445011784630	A60226
65434	3445011784680	PS-66
65434	3445012303845	A05724
65434	3445012523361	900
65434	3445012759735	132050680
65434	3445012759735	MOD 68-SER 1386-11-62

* = SPEC OUT 137 FOR Model 0236

Ph52 152 Blade

PEXTO SAFETY CLUTCH

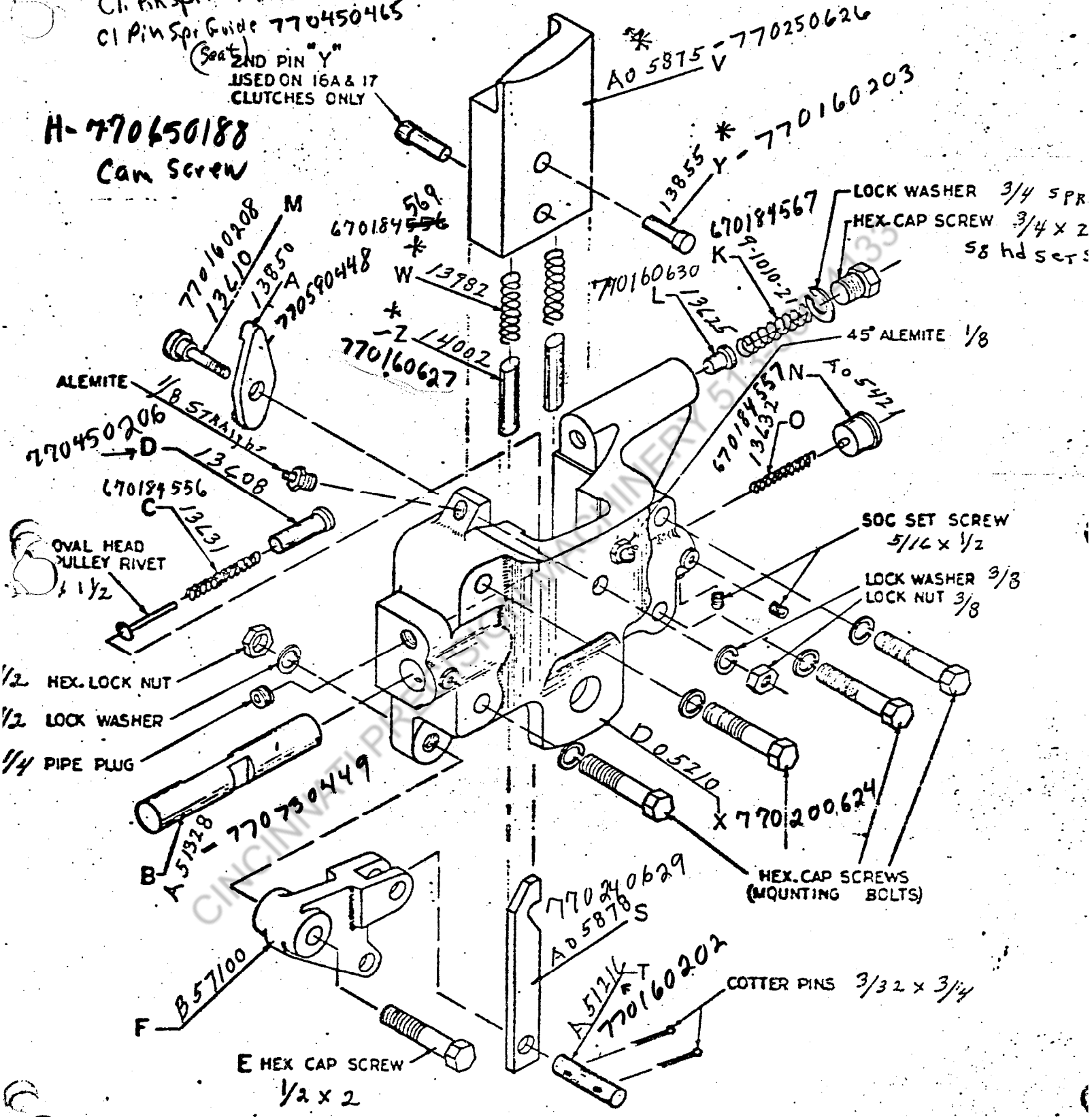
PARTS IDENTIFICATION CHART

* IF A05875 IS SOLD ALSO
2 13855 PINS
2 13982 SPRINGS
2 14002 " PIN

Cl. Pin-770250601
Cl. Pinspr.-670184550
Cl Pin Spr Guide 770450465
(Seat)
2ND PIN "Y"
USED ON 16A & 17
CLUTCHES ONLY

1.6 1/2

H-770450188
Cam Screw

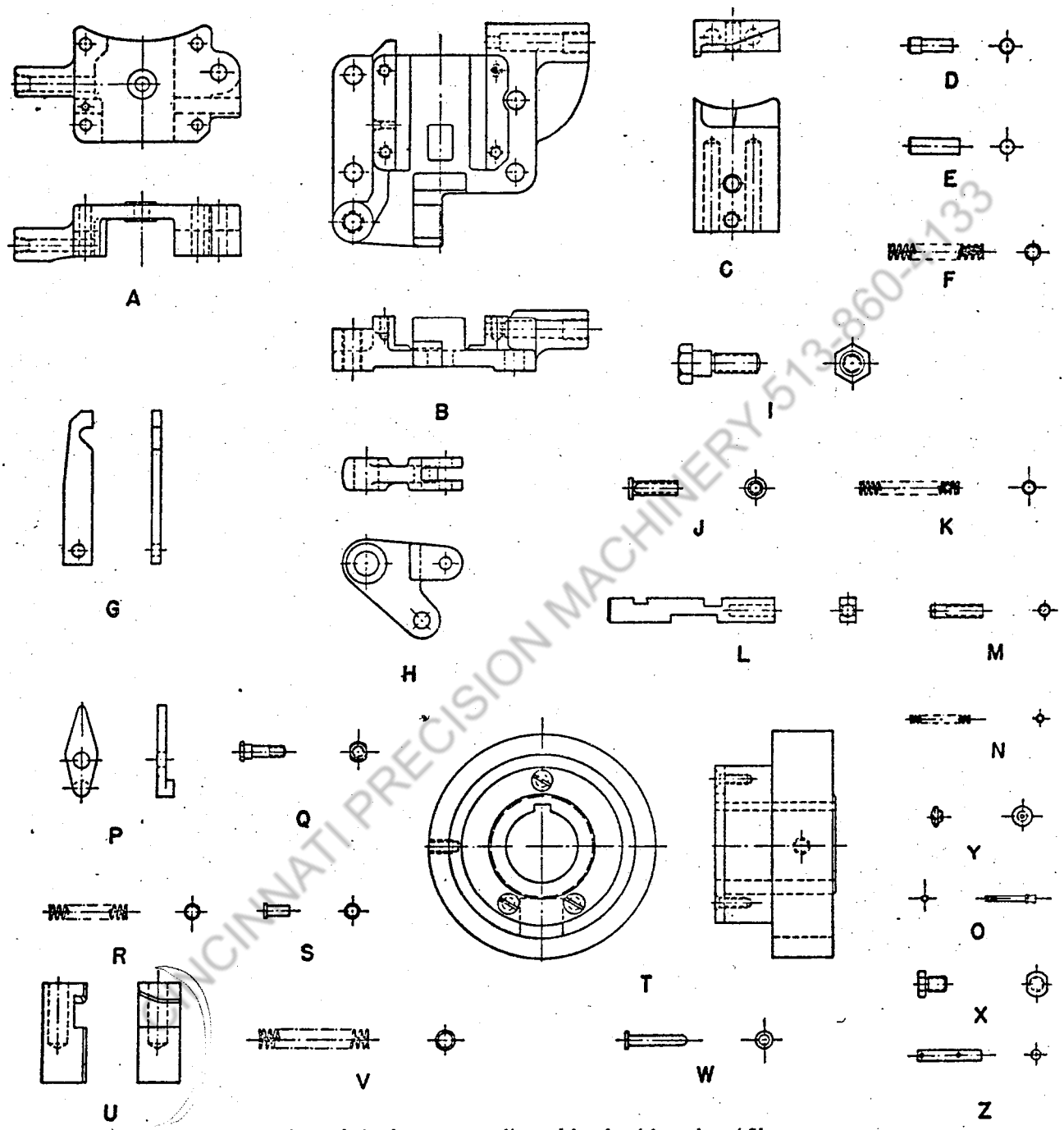


When ordering Replacement Parts always give Model Number, Letter and Serial Number.

THE PECK, STOW & WILCOX CO.
— Since 1785 —
Southington, Connecticut

(Parts list—Over)

PEXTO CLUTCH PARTS



When ordering be sure to specify model and serial number of Shear.

The Peck, Stow & Wilcox Co. — Since 1785 — Southington, Connecticut, U. S. A.

10410
1048

10410

16½ - THROWOUT ASSY.

REF. FIG. 7

ITEM	OLD NO.	NEW NO.	PART NAME
A	13850	770590448	Pawl
B	A-51328	770730449	Cross Slide
C	13631	670184556	Conn. Link Spring
D	13608	770450206	Conn. Link Spring Cup
E	WS-67	601012279	Pivot Bolt, 1/2-13 X 2"
F	B-57100	770030625	XXXXXXXXX Throwout Lever
K	711356	670184567	Backing Spring
L	13625	770160630	Backing Pin
M	13610	770160208	Pawl Pivot Stud
N	A-5421	770570204	Cross Slide Spring Plug
O	13632	670184557	Cross Slide Spring
S	A-5878	770240629	Connecting Link
T	A-51216	770160202	Bell Crank Pin
V	A-5875	770250626	Throwout
W	13982	670184569	Throwout Spring
X	D-5210	770200624	Clutch Bracket
Y	A-51301	770160203	Throwout Pin
Z	14002	770160627	Throwout Spring Pin
	XXXXXXX	XXXXXXXXX	XXXXXXXXXXXXXX
	A-6017	770080628	Plunger Bushing
	WS-1991	600134001	Alemite Fitting, 1/8 Str.
	WS-1990-1	600134003	Alemite Fitting, 45°
	812425	600144121	Pipe Plug, 1/4" Soc. Hd.
	WS-1335	649023007	Check Nut, 1/2-13
	812385	600000061	Pulley Rivet, 3/16 X 1-1/2
	WS-1526	600073514	Cotter Pin, 3/32 X 3/4
	WS-1729	679033105	Lock Washer, 3/8
	WS-1354	643023005	Hex. Nut, 3/8-16
	WS-1731	679033107	Lock Washer, 1/2
	810055	633012414	Hex. Cap Screw, 3/4-10 X 2"
	WS-1735	679033110	Lock Washer, 3/4
	WS-831	621012128	Soc. Hd. Set Screw, 5/16X1/2
	812400	600144122	Pipe Plug, 1/8"
	WS-1338	649023010	Nut, Hex Jam, 3/4-10
	A57132	770250601	Clutch Pin (Clutch Dog)
	711440	670154550	Clutch Pin Spring

Complete

Cam Screw 770450146

211940043 # 876.00

J-3 Quill (wheel) Pin 770160632

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