

SLIP ROLL FORMERS 416, 417, 418



NO. 416

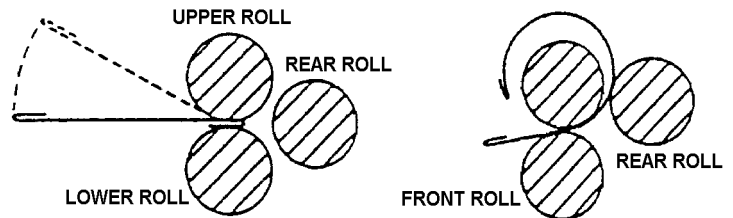
These machines are available in three different sizes. All three models offer the standard front roll drive. These units may be mounted directly to a sturdy work bench or to an optional fabricated pedestal, designed specifically for each unit.

MODEL	416	417	418
Capacity.....ga.	16	16-18	18
Max Length.....ins.	36	42	48
Roll Diameter.....ins.	3	3	3
Shipping Weight Boxed..lbs.	720	750	793

INSTRUCTIONS

CAUTION: Be sure that the machine is securely bolted onto the pedestal or to the customer supplied bench. Pedestal or work bench should be bolted to the floor.

- Adjust the Lower Roll to grip the metal firmly and evenly but without straining the machine. The Lower Roll is adjusted up or down with the two lower Adjusting Screws .
- Adjust the Rear Roll to form the metal up as it travels through the rollers. The Rear Roll is adjusted up or down with the two rear Adjusting Screws . Be sure the Rear Roll is parallel with the Lower Roll. If the rolls are not parallel, the formed metal will be conical in shape instead of cylindrical.
- Feed the stock to the rolls only from the front.
- As the front rolls grip the stock, lift the rear end of the metal upward. This will help reduce the flat spot on the leading edge of the sheet and will also cause the leading edge to pass over the rear roll readily.
- The diameter of the formed cylinder is determined by the position of the Rear Roll. To increase the diameter of a cylinder, lower the Rear Roll by turning the two rear Adjusting Screws counter clockwise. To reduce the diameter of a formed cylinder, raise the Rear Roll by turning the two rear Adjusting Screws clockwise. The two rear Adjusting Screws should be turned an equal number of turns in order to keep the Rear Roll parallel with the front gripping rolls.
- To remove a cylindrical piece without distorting it, lift up the Locking Handle , raise the Right Hand Housing Cap and turn the Cam Handle down. This raises the outboard end of the Upper Roll and allows the formed cylinder to be slipped off of the Upper Roll.
- The Lower Roll and the Rear Roll have grooves of varying widths in one end. These are for the purpose of accommodating a wired edge when forming a shape or when forming wire into a ring.



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SLIP ROLL FORMERS 416, 417, 418

Forming Machines, or Slip Roll formers, are intended for rolling sheet metal or forming cylinders of various diameters.

The two pinch rolls feed the sheet against the rear roll, curving the sheet and forming the cylinder. The rear or forming roll can be adjusted by screws on the rear of left and right end housings, varying the diameter of the required cylinder. Pinch rolls can be adjusted for stock thickness by screws on the front end of the housings.

The capacity ratings of **PEXTO** forming machines are based on forming mild steel, fully annealed, the full length of the rolls and are considered as standard by the sheet metal trade for forming rolls of a specified diameter and length. Definite capacities, however, depend upon the diameter and length of the cylinder to be formed and the number of passes through the rolls to obtain a given diameter. Stiffness of material and uniformity desired are also factors. When a forming machine is overloaded, the immediate result will be deflection in the center of the rolls, resulting in cylinders bulged in the center.

Three inch diameter forming rolls have longitudinal grooves in the rear forming roll to assist in starting the sheet. Forming rolls 3" in diameter and larger have all three rolls driven as standard. Three roll drive for rolls under 3" in diameter at extra cost.

In order to reduce the number of rear roll adjustments when sheets are of light gauge, proceed as follows:

1. Insert the sheet between two pinch rolls.
2. Bend the sheet upwards and slightly around the top roll.
3. Continue to pass the sheet through the machine.

This will also reduce the flat spot on the leading edge of the sheet.

The right-hand housing is provided with a hinged journal cap and lifting latch. After the cylinder is formed, the latch is lifted and the lever is pressed down. This raises the top roll and the cylinder can be slipped off the roll without distortion.

Forming machines are provided with grooves in the right end of the lower and rear rolls to allow for forming cylinders with a wired edge.

WARNING: Before operating, machines **must** be bolted to the work bench. If the floor stand has been provided, machine must be bolted to the floor stand with bolts provided. Stand **must** be securely lagged to the floor.

INTERCHANGEABLE PARTS LIST --- 416, 417, 418

ITEM NO.	PAGE NO.	PART NO.	PART NAME
1	Pg. 5	767490180	L. H. Housing
2	Pg. 6	767170022	Rocking Box
3	Pg. 5	767160041	Rocking Box Pin
4	Pg. 6	767650045	Pivot Point Screw
5	Pg. 6	767030036	Lifting Lever
6	Pg. 7	767380024	Gear
7	Pg. 6	649023006	Check Nut
8	Pg. 9	767220046*	L. H. Housing Cover
8	Pg. 9	767220179*	L. H. Housing Cover
9	Pg. 6	767380032	Connecting Gears
10	Pg. 6	767380031	Compensating Gears
11	Pg. 6	767680034	Upper Comp. Gear Stud
12	Pg. 6	767680035	Lower Comp. Gear Stud
13	Pg. 6	600123929	#23 Woodruff Keys
14	Pg. 9	767680049	Intermediate Pinion Stud
15	Pg. 5	767260053	Collar
16	Pg. 9	767210047	Hand Crank
17	Pg. 9	767210051	Stale
18	Pg. 9	767460052	Handle
19	Pg. 6, 8	767170023	Boxes
20	Pg. 6	767240025	Links
21	Pg. 5	767650175	Front Adjusting Screws
22	Pg. 6	767380033	3rd Roll Drive Idler
22A	Pg. 6	767680042	3rd Roll Drive Idler Shaft
23	Pg. 5	767650173	Rear Adjusting Screws
24	Pg. 7	767380050	Drive Pinion
26		767380048	Intermediate Idler Pinion (not shown)
27	Pg. 9	767220037	Cover Disc
28	Pg. 9	767220028	Cover Plate
29		767160043	Pin for Lifting Lever (not shown)
30	Pg. 8	767210027	Lifting Cam
31	Pg. 8	767210029	Handle Socket Cam
32	Pg. 8	767460040	Lifting Handle
33	Pg. 8	See Item 36	Locking Handle Screw
34	Pg. 8	267940025	R. H. Housing Assy.
35	Pg. 8	See Item 36	Pin
36	Pg. 8	267990006	Locking Handle Assy.
37	Pg. 8	See Item 34	R. H. Housing Cap
38		767630044	Spacer (not shown)

* 767220046 Older than 1983

* 767220179 Newer than 1983

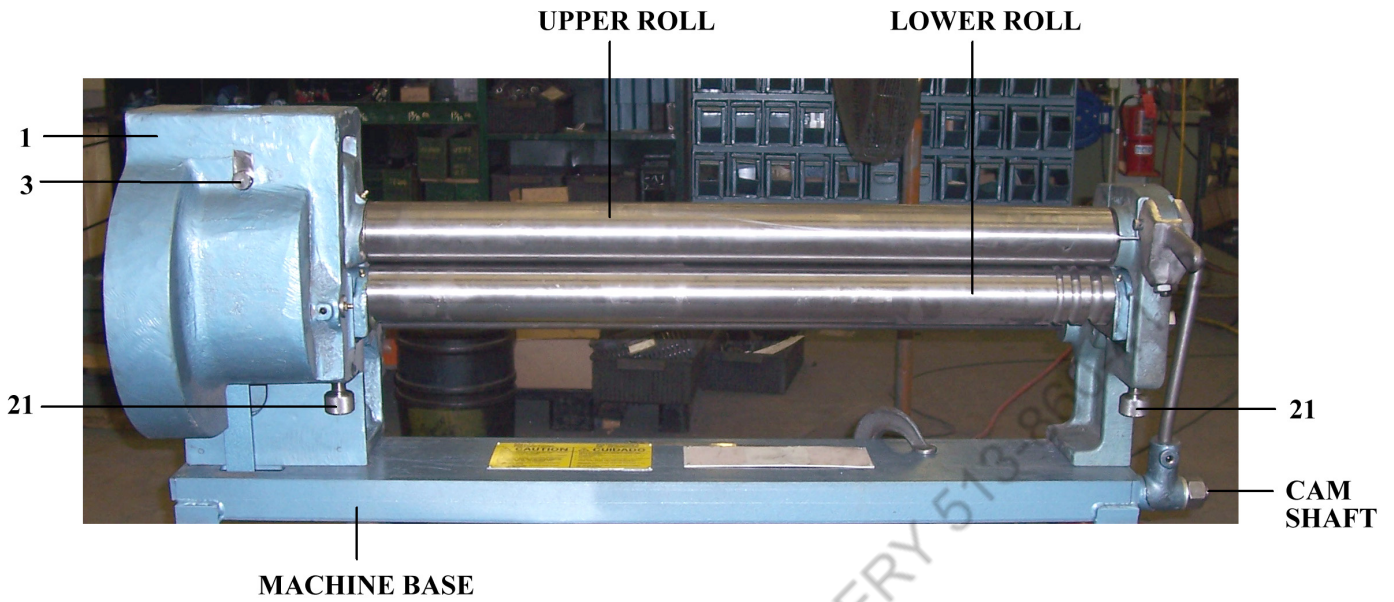
INDIVIDUAL PARTS LIST --- 416, 417, 418

MACH.	ROLLS			DRIVE SHAFT	CAM SHAFT	MACHINE BASE
	Upper	Lower	Rear			
416E	767630007	767630009	767630011	767680003	767680005	767060001
417E	(11273)	(11276)	(11279)	(11282)	(11285)	(11288)
418E	767630008	767630010	767630012	767680004	767680006	767060002

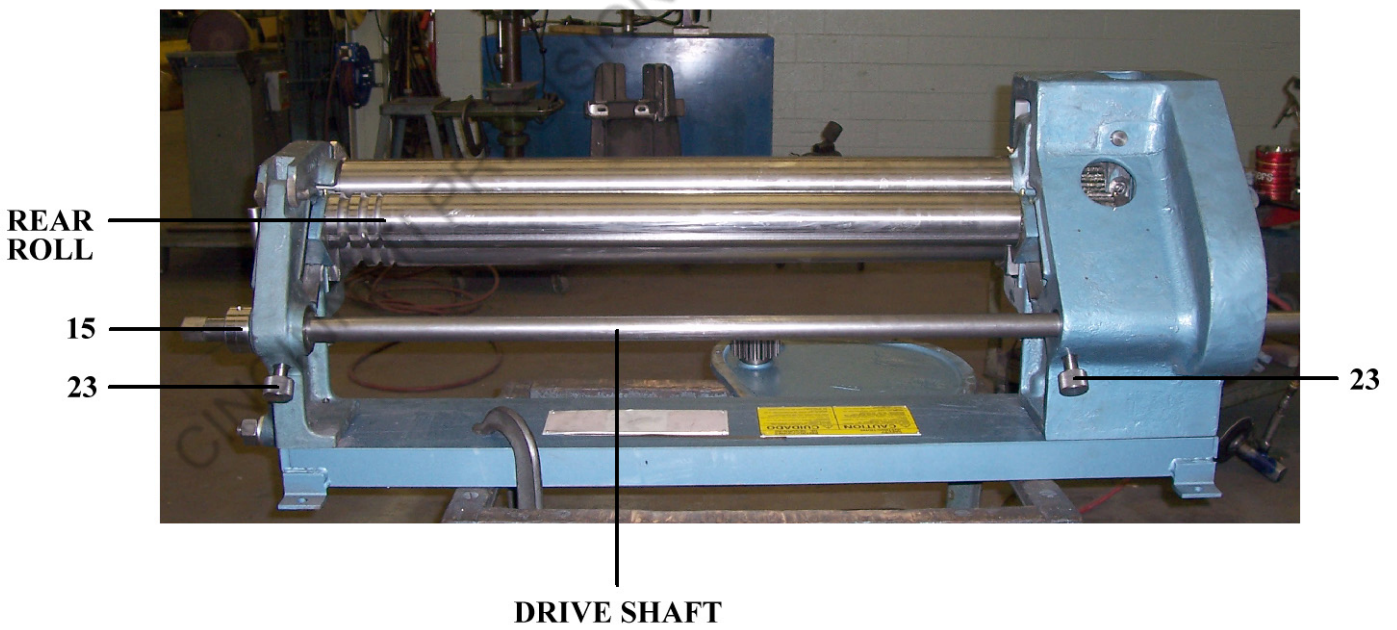
When ordering Replacement Parts always give Model Number, Letter and Serial Number.

CINCINNATI PRECISION MACHINERY 513-660-4173

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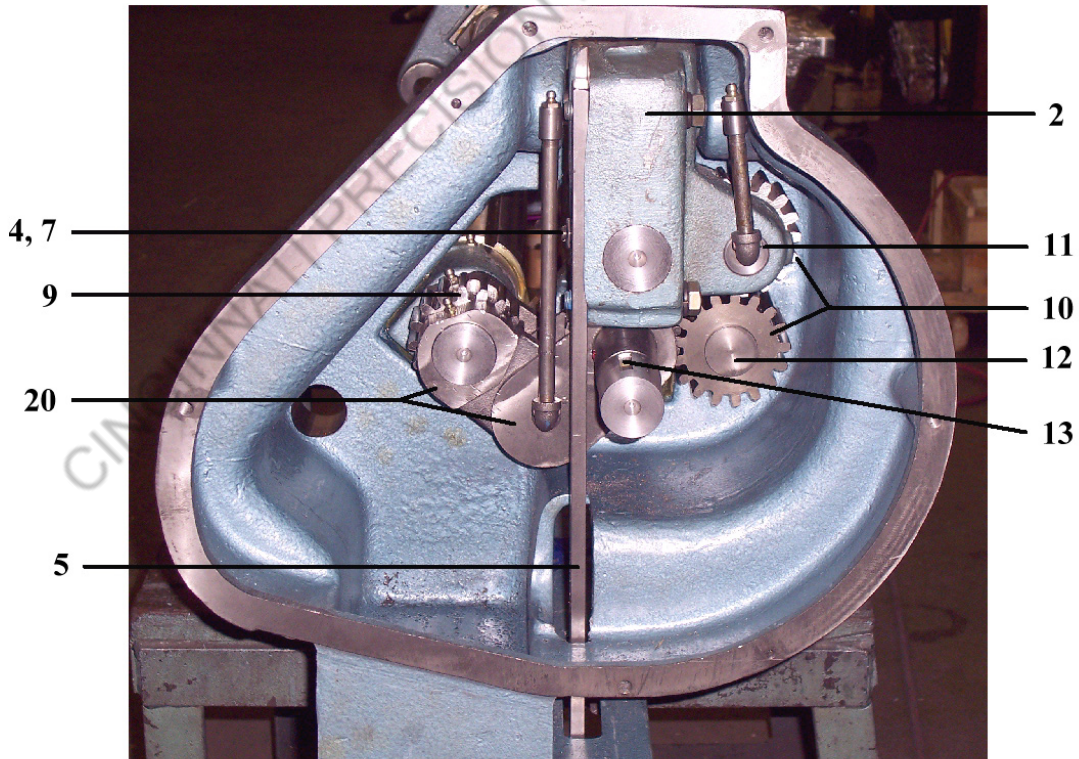
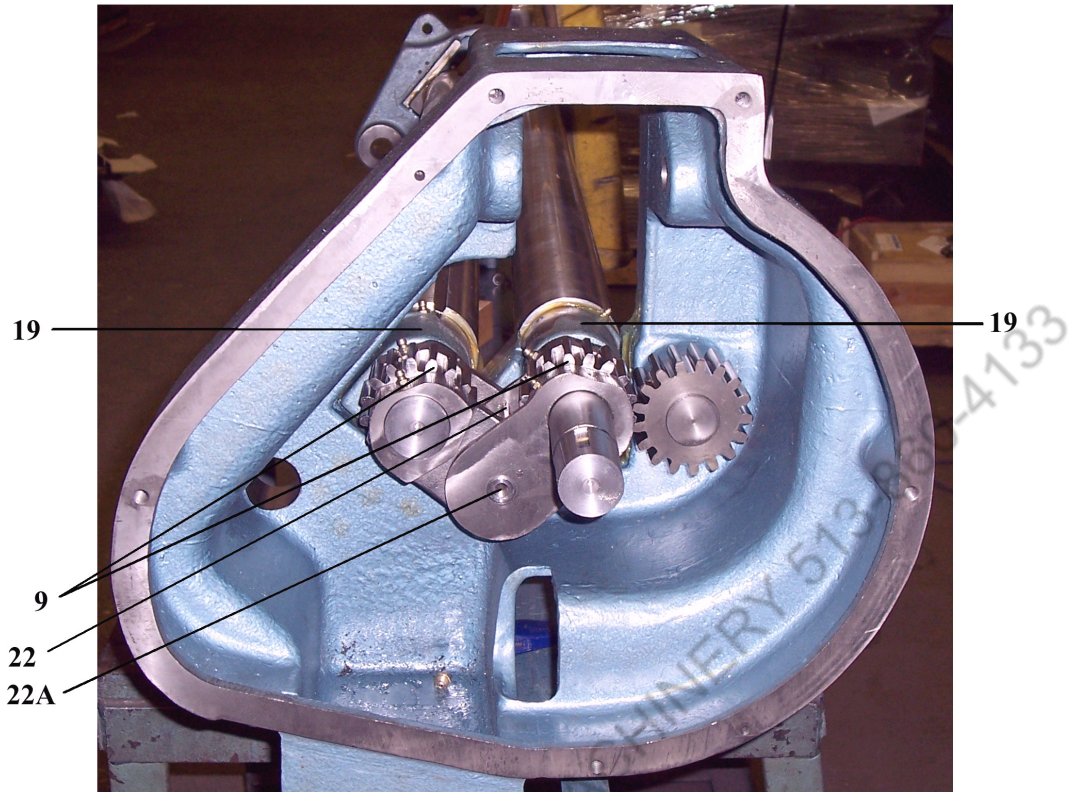


FRONT VIEW
(Partially Assembled)



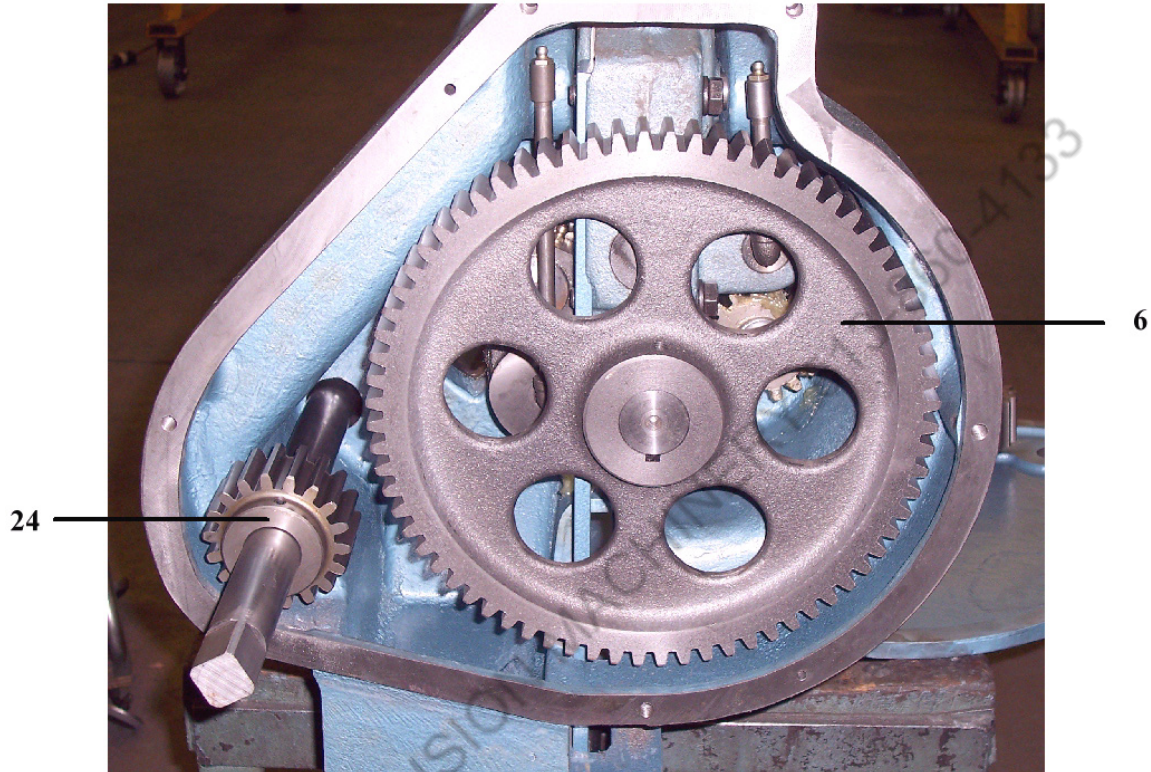
BACK VIEW
(Partially Assembled)

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**END VIEWS
(Partially Assembled)**

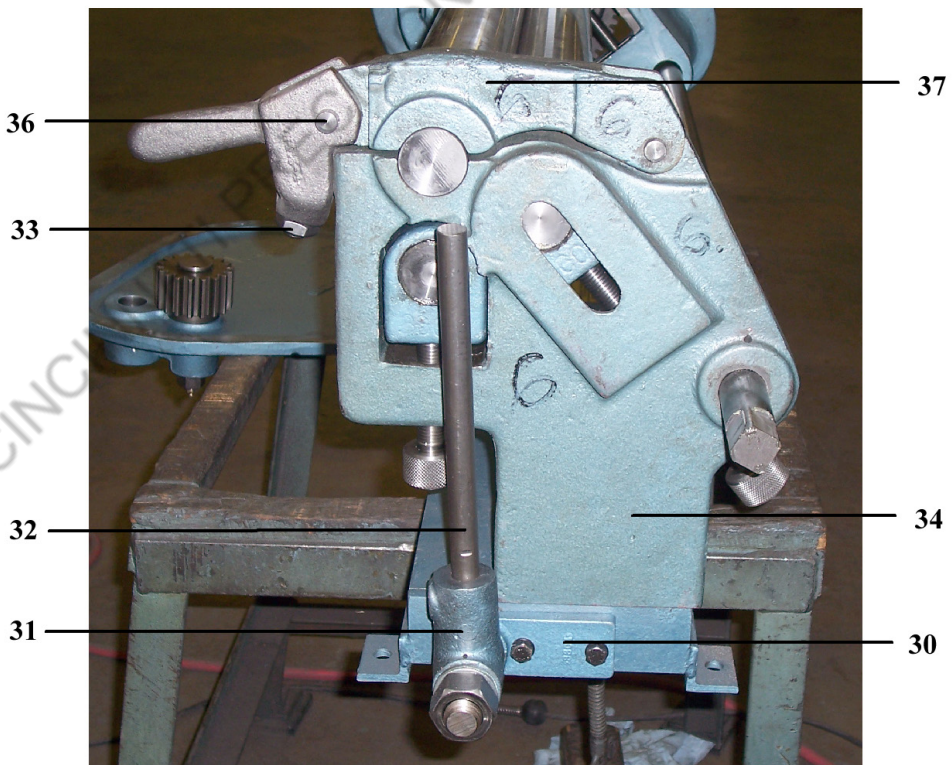
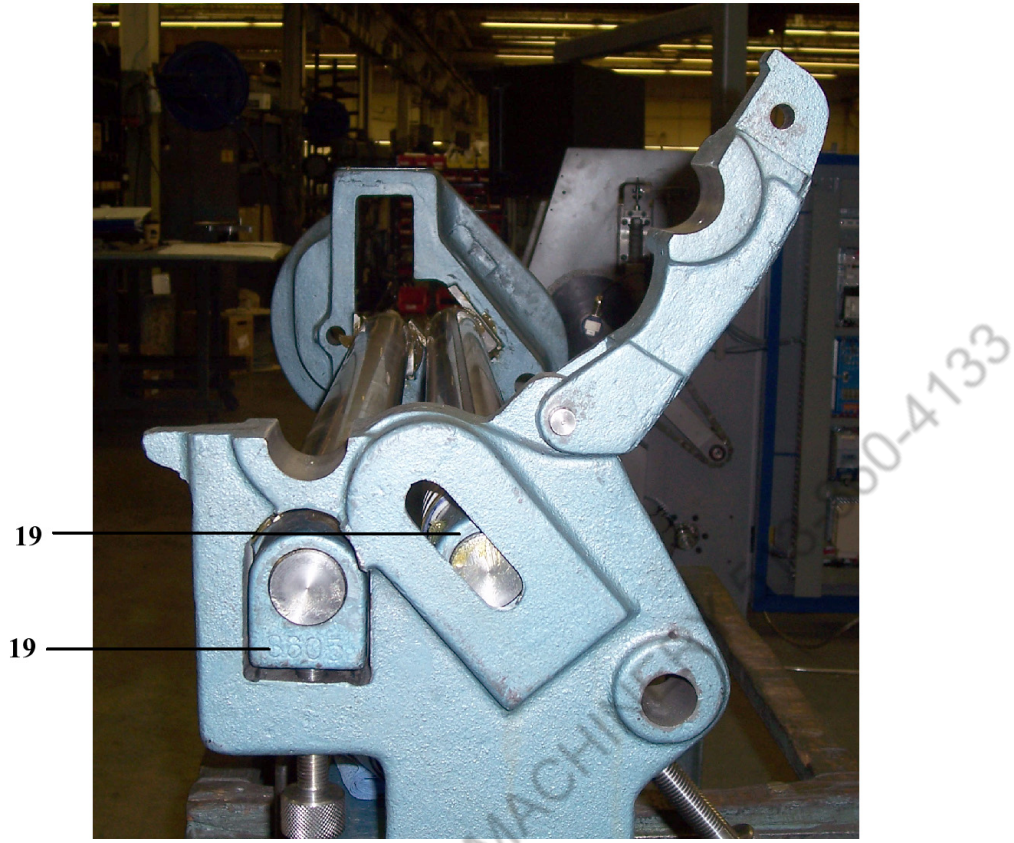
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**END VIEW
(Partially Assembled)**

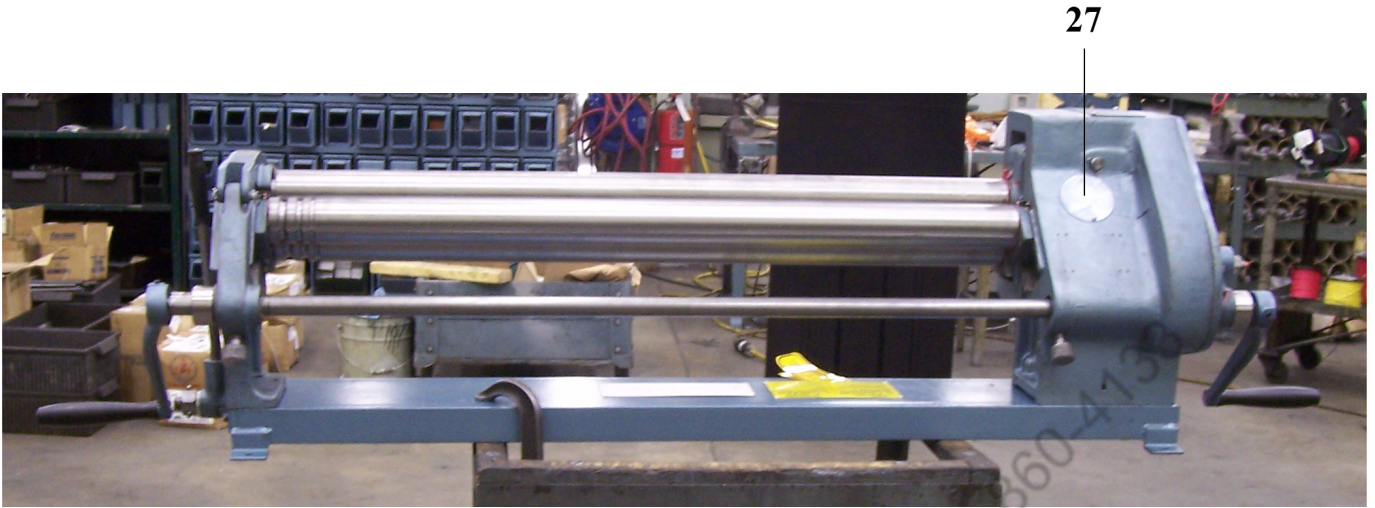
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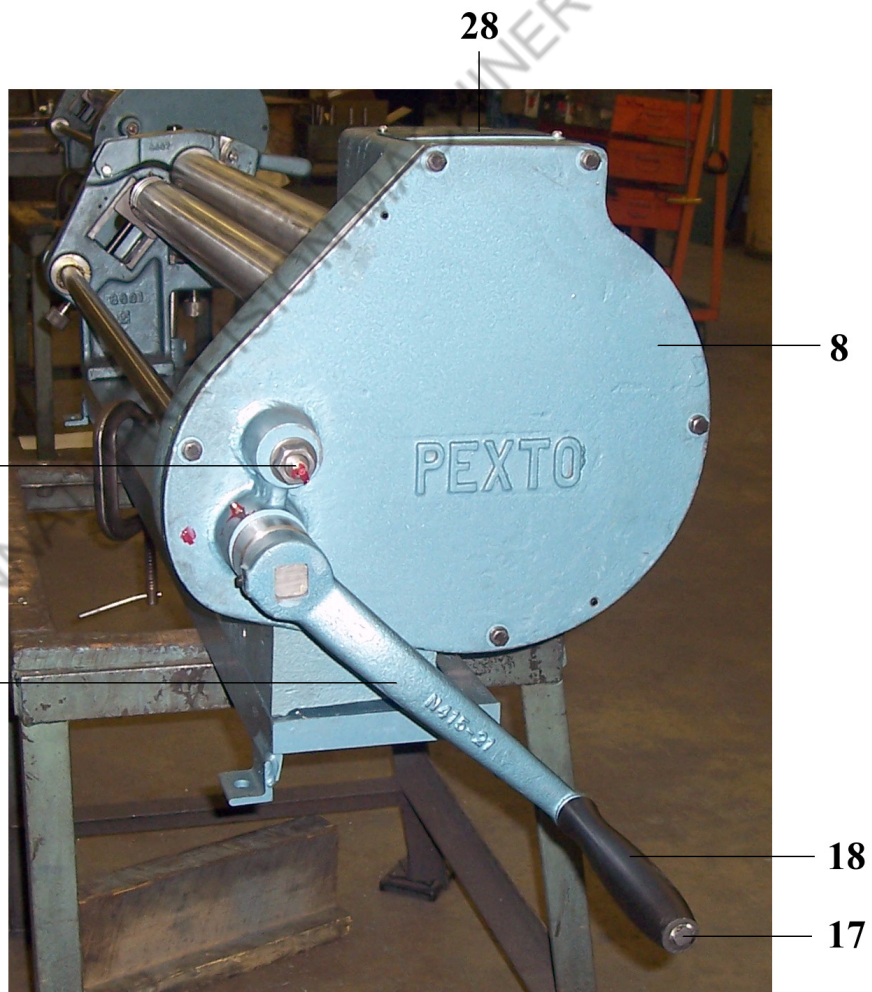


**END VIEWS
(Partially Assembled)**

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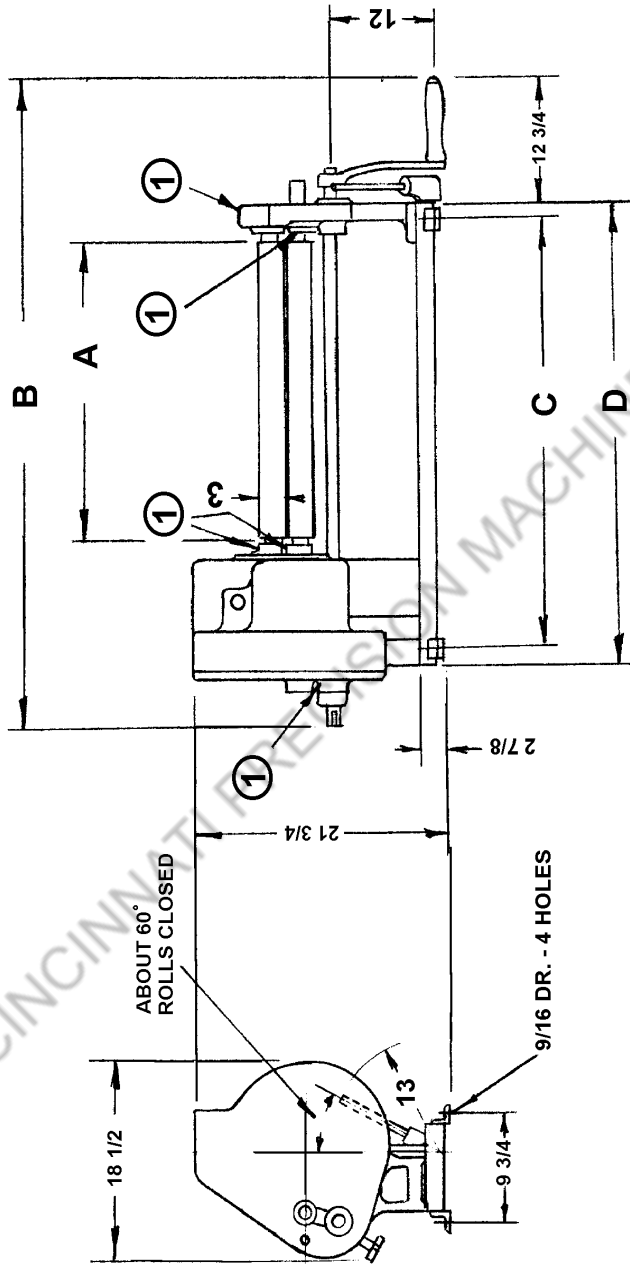


**BACK VIEW
(Completely Assembled)**



**END VIEW
(Completely Assembled)**

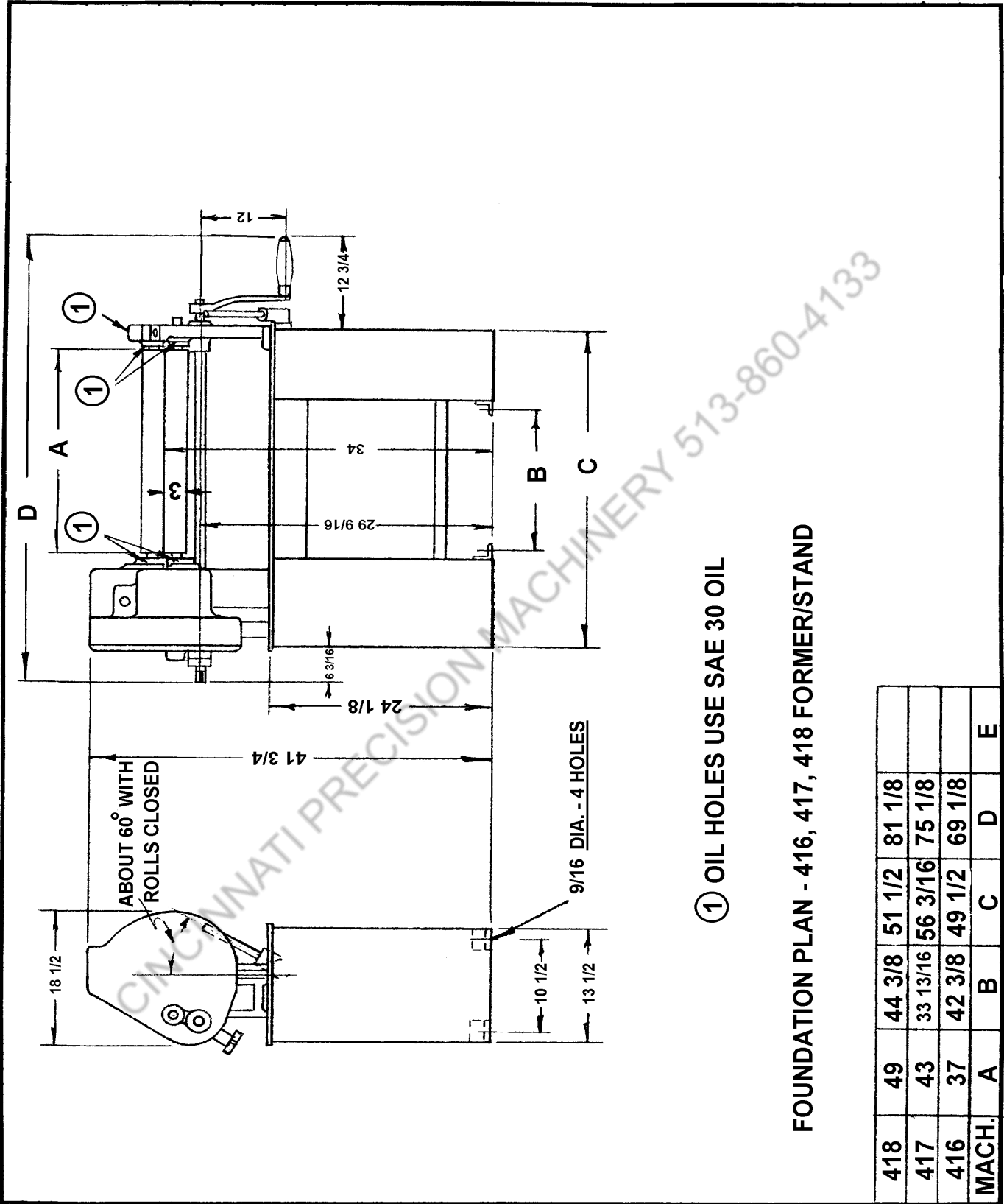
FOUNDATION PLAN - 416, 417, 418 FORMER



① OIL HOLES - USE SAE30 OIL

EQUIPMENT COMPLIES WITH
REQUIREMENTS OF FEDERAL
SPECIFICATION 00-F-5896

	A	B	C	D	WEIGHT LBS.
418	49	81 1/8	59 11/16	62 3/16	
417	43	75 1/8	53 11/16	56 3/16	
416	37	69 1/8	47 11/16	50 3/16	700
MACH.	A	B	C	D	



① OIL HOLES USE SAE 30 OIL

FOUNDATION PLAN - 416, 417, 418 FORMER/STAND

418	49	44 3/8	51 1/2	81 1/8	
417	43	33 13/16	56 3/16	75 1/8	
416	37	42 3/8	49 1/2	69 1/8	
MACH.	A	B	C	D	E