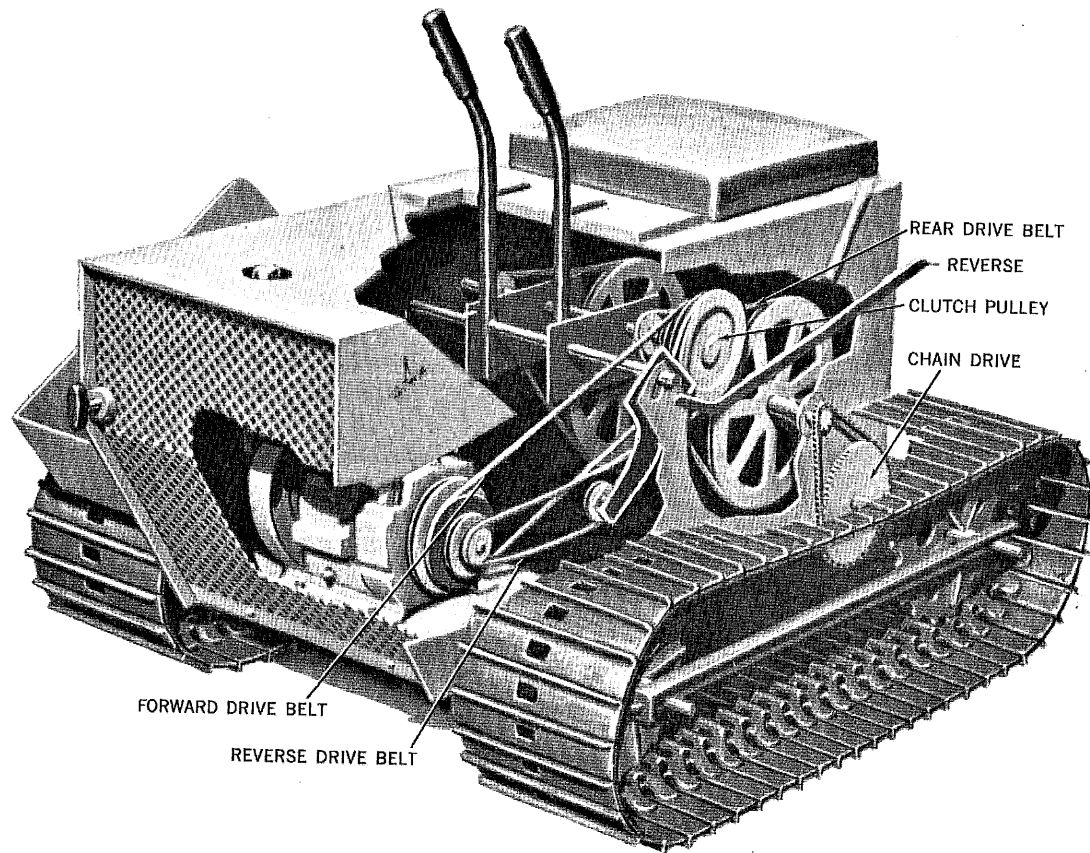


Plans - Assembly Manual

MD34 Mini-Dozer



Those assembling the MD34B KIT:

The following drawings are provided to help you identify quickly the various parts which you will be called upon to assemble in the following step by step instructions.

The Parts List which follows should be closely checked against the parts you received in your MD34B KIT. After going through the items carefully, please notify us immediately of any shortages.

Those building a Mini-Dozer from locally secured materials:

The following drawings will provide you with accurate detailed dimensions for all parts necessary in the construction of your own Mini-Dozer. The Parts List which follows lists the parts of the Mini-Dozer which we will supply you if you don't wish to fabricate them yourself. Prices are given on all the items we can supply.

PARTS LIST for MINI-DOZER MD34

PRICE

PART NO.

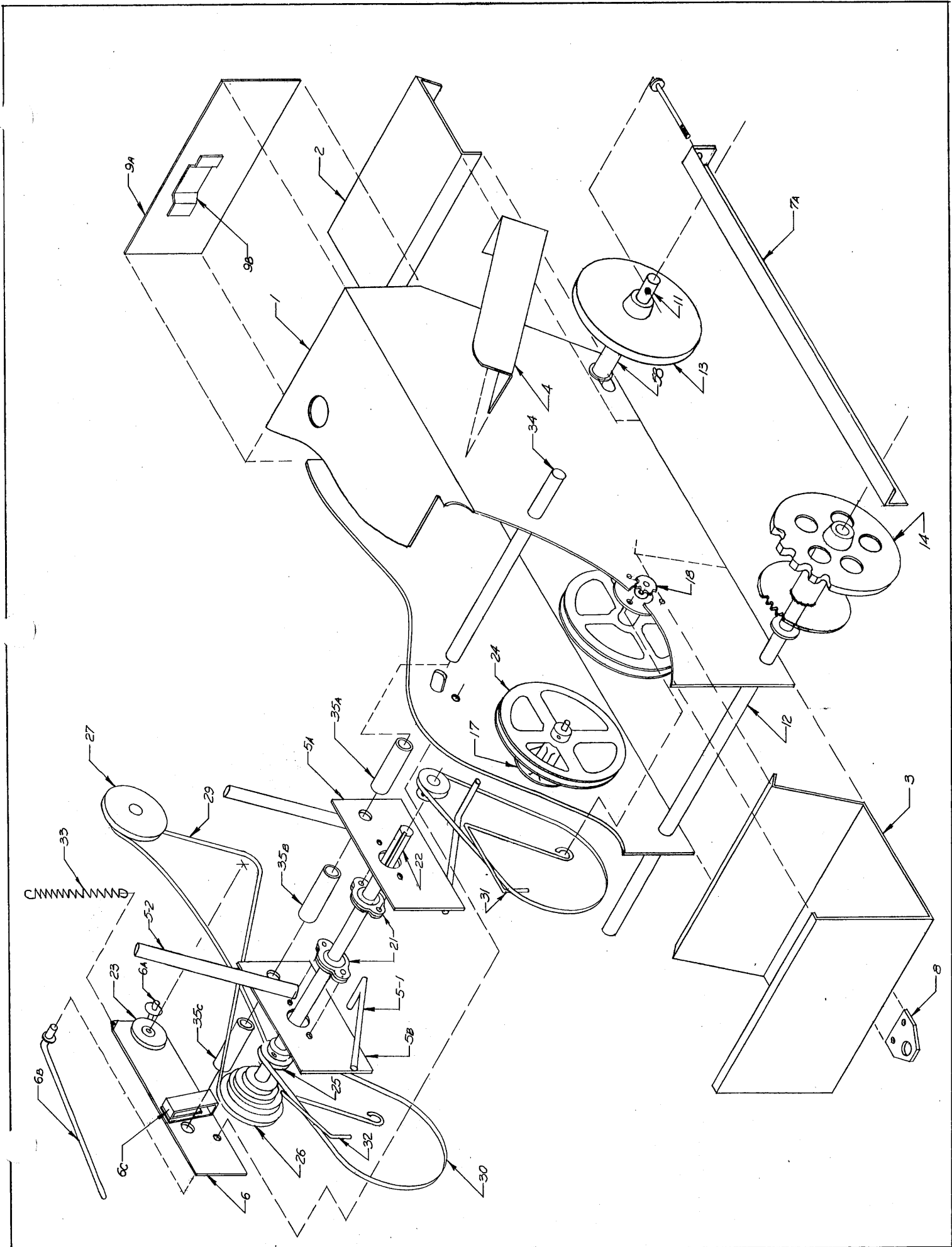
MD34-AX	Body Assembly; complete with Motor Mount, Rear Pan, Footwells, and Reversing Plate & Handle welded in place	\$87.50
5A	Right Clutch; complete with Brake Finger and Handle welded in place	6.95
5B	Left Clutch; complete with Brake Finger and Handle welded in place	6.95
7A	Right Track Expander	8.75
7B	Left Track Expander	8.75
8	Drawbar	2.80
9	Front Plate	3.50
11	Front Axle 7/8" dia. x 37"	6.95
12	Rear Axle 7/8" dia. x 37"	5.25
13	Front Idler Wheel (2)	13.95 each
14	Rear Drive Wheel (2)	29.95 each
15	Lawn Track (2) ** See Description Below	34.95 each
16	Dozer Track (2)	34.95 each
17	Flange Bearing (2)	6.95 each.
18	Sprocket & Shaft (2)	4.20 each
19	Roller Chain #40 (2)	6.36 each
20	Connector Link #40 (2)	.35 each
21	Self-aligning Bearings w/mountings 5/8 bore (2)	4.95 each
22	Power Shaft	3.15
23	Idler Pulley 3" dia. 3/8 bore	2.10
24	Pulley "A" 14" dia. x 5/8 bore (2)	5.00 each
25	Pulley "A" 2-1/2" dia. x 5/8 bore (2)	1.95 each
26	Pulley "A" four step 6,5,4,3" dia. x 5/8 bore	3.50
27	Pulley "A" four step 6,5,4,3" dia. x 3/4 bore	3.50
28	Belt "A" 49" Goodyear Special #XIV2-752	2.95
29	Belt "O" 50" Goodyear Special #XIV2-753	2.74
30	Belt "A" 50" Goodyear Special #3L500 (2)	1.95 each
31	Right Belt Guide	2.10
32	Left Belt Guide	2.10
33	Spring 10 x 1/2"	.72
34	Pivot Rod	1.98
35A	Spacer 4-14/16"	.75
35B	Spacer 6"	.75
35C	Spacer 4-11/16"	.75
36	Throttle Wire Control	1.57
37	Handgrip 4 x 7/8" ID (2)	.50 each
38	Handgrip 3 x 5/8" ID	.42

39	Key 3/16 x 1-1/8" (Power Shaft)
40	Key 3/16 x 1-1/2" (Flange Bearing)
41	Key 3/16 x 1-7/8" (Engine)
42	Key 3/16 x 3-5/8" (Power Shaft)
43	Snap Ring 7/8" (4)
44	Snap Ring 5/8" (2) fluted, (2) "C" type
45	Washer WI 7/8" (14)
46	Washer WI 3/8" (2)
47	Washer WI 5/16" (14)
48	Washer WI 1/4" (4)
49	Cap Screw 5/16-18 x 1-1/2" (2)
50	Cap Screw 5/16-18 x 1-1/4" (4)
51	Cap Screw 5/16-18 x 3/4" (4)
52	Cap Screw 5/16-18 x 3" (2)
53	Cap Screw 1/4-20 x 3/4" (4)
54	Nut 5/16-18 (14)
55	Nut 1/4-20 (4)
56	Lock Washer 5/16" (12)
57	Lock Washer 1/4" (4)
58	Spacer (2)
59	Cotter Pin 1/8 x 1" (2)
60	Allen Wrenches for assembly (2)

** MD34B KIT comes with two Tracks with the style of Shoe (Lawn or Dozer) you select. Tracks are complete with two lengths of #55K1 Track Chain, set of Shoes and all necessary nuts, bolts and lock washers for attaching the Shoes to the Track Chain.

- #62 Track Chain #55K1 less Shoes & Bolts (2)\$7.15 each
- #63 Engine, Tecumseh-Power Products 4 cycle 6hp\$77.95

All prices quoted are FOB Cedarburg, Wisc.



Assembly Instructions for MD34 Mini-Dozer

1. Slide in Rear Axle #12 from either side of Body. Slide on three 7/8" Washers #45 on each end and follow with each Drive Wheel #14.
2. Slide Front Axle #11 through the forward slots in the Body. On each end slide on in order 7/8" Washer #45, Pipe Spacer #58, and 7/8" Washer #45. Next slide on Front Idler Wheels #13 on each end.
3. Slide Track Expanders #7A and #7B over the ends of Front and Rear Axles as per assembly drawing. Slide 7/8" Washer #45 over each of the four axle ends and secure with "C-type" 7/8" Snap Rings #43. Insert Cap Screw #52 through the hole in end of Expander and through hole in Front Axle. On ends of Cap Screws put two nuts with lock washer between. Leave bolts loose.
4. Insert end of Sprocket and Shaft #18 into Flange Bearing #17 using a fluted 5/8" Snap Ring to keep Shaft from backing out. Mount 14" Pulley #24 on end of Shaft using Key #40 provided. Make sure the "flush side" of Pulley is against Snap Ring and tighten the Pulley set screw. See Photo #1 for completed assemblies.
5. Mount above Flange assemblies (with oilers up) against inside of Body wall using two Cap Screws #50 and two Washers #47 on bottom holes and one Cap Screw #49 and Washer #47 in remaining top hole next to oiler. Loosely tighten Nuts #54 and Lock Washers #56 on only the #50 Bolts.
6. On each side, wrap length of Roller Chain #19 around Sprocket #18 and Drive Wheel #14. Attach Connector Links #20. Draw up on above Pulley and Flange assembly and tighten the two Cap Screws #50 on each side.
7. Attach Spring #33 with Cotter Pins #59 from hole in bent end of Reversing Plate #6 to the 5/8" hole in the top left of the Body. Press Pulley #23 on Bracket #6A per Assembly Drawing. Keep Pulley edge 9/16" from face of Plate #6.
8. Assemble Self-aligning Bearings #21 on the inside wall of Clutch Plate #5A and #5B. Assemble with Cap Screw #53 using two Washers #48 between each of the two halves of the Bearing Housings. Use Nuts and Lock Washers provided.
9. Slide Power Shaft #22 (long slot to the left) into the holes of Bearings #21 keeping Bearing Collars to the inside and collar set screws loose. Insert Key #42 into long left slot and Key #39 into right slot.
10. Slide Pulleys #25 (with hubs to the inside) on each end of the Power Shaft. Slide on Pulley #26 with 3 inch-step flush against Pulley #25. Tighten Pulley #26 set screws when its hub end is flush with end of Power Shaft. Make sure that Pulley #25 on left side is tight against face of Pulley #26 and tighten set screw. Place Pulley #25 on right side so its "face" end is flush with end of Power Shaft - tighten set screw. See Photo #2 for completed assembly.
11. Take above Clutch Plate and Power Shaft assembly and insert in Body through engine compartment allowing handles to protrude through hole in top of Body. From right side slide in Pivot Rod #34 using Spacers #35A, B&C in the order shown in the assembly drawing. Finally pass the end of the Pivot Rod through the 3/4" hole in Reversing Plate #6 and engage it in the 5/8" slot in the Body's left wall.
12. Loop each Belt #30 around Pulley #24 and its companion Pulley #25. Check to see that the front loop of the belt is between Brake Finger #5-1 and the front inside edge of Rear Pan #3.
13. Partially slide out the left end of Pivot Rod #34 and loop Belts #28 and #29 around Step Pulley #26. Then reinsert Rod through the centers of these Belts with the Rod's end going back into the 3/4" hole in the Reversing Plate and 5/8" Body slot. Center Pivot Rod and insert 5/8" Snap Rings on each side.

14. Center Power Shaft so hubs of Pulley #25 are equi-distant from outside face of their respective Clutch Plate. Lock set screws in Bearings #21 to hold Power Shaft in centered position.
15. Mount Step Pulley #27 on Engine with the edge of the 6 inch-step about 1/4" from the engine case - use Key #41 provided.
16. Remove the two lower bolts holding the gas tank straps taught. Take Front Plate #9 and press it against gas tank keeping Tab #9B above tank's rib and at the same time looping the tank straps around the ends of Tab #9B. Replace bolts in strap and draw up slightly.
17. Slide Engine in front compartment keeping gas tank forward. Insert Cap Screws #51 with Washers #47 from bottom of Engine Mount #2 and with lock washer and nuts loosely tighten down the Engine.
18. Loop one end of Belt #28 around the 4 inch-step of Pulley #26 and the other end around the 5 inch-step of Pulley #27. Make sure lower side of Belt #28 rides above Belt Release #2A. With Plate #6 in the up or rest position, pull forward on Engine until Belt #28 is taught, then tighten engine bolts. Take Belt #29 and loop one end of it around the 6 inch-step of Pulley #26. Pull the other end of this Belt taught and give it a 180° twist to the Right and place this end around the 3 inch-step of Pulley #27. Loop the lower side of Belt #29 under Idler Pulley #23 and over the end of Idler Bracket #6A. Insert Belt in Guide #6C.
19. Center Front Plate #9 and tighten lower bolts on tank straps making sure that the ends of Tab #9B are tight against the face of the gas tank and are under the tank strap.
20. Mount Throttle Control #36 in hole in front of operator's seat using 3/8" ID washer top and bottom with lock nut below. Connect wire end to Engine.
21. Install Handgrips #37 on Handles #5-2; and Handgrip #38 on Reversing Handle #6B.
22. Loop the Track Chain around the Front and Rear Wheels #13 and #14 so that in forward travel the teeth of the Drive Wheel are always pushing against the back of the hook connecting each link rather than pushing against the open side of the hook.
23. With both Track Chains in place, draw up on the two Bolts #52 to tighten the Chains - then lock in place with remaining lock washer and nut.
24. Now begin bolting the Track Shoes on to the Drive Chain using the 1/4" carriage bolts, lock washers and nuts provided. Note: Shoes must be kept square with an imaginary line running from the Front Wheel to the Rear Wheel always check this alignment as you are putting on the Shoes so that the final Track will run true. The Lawn Shoes must be bolted on with the bent ends always pointing to the inside of the track. The Dozer Shoes must be bolted on so that the short rib of the Shoe is always to the outside and the long side of the "L" points to the rear when it's on the ground.
25. Install Belt Guides #31 and #32 as shown in assembly drawing. Use Washer #47 on each side of Guide and secure with lock washer and nut. The positioning of these Guides is somewhat arbitrary; therefore they are made of soft wire so you may alter them to keep the Belts #30 in line. Note: the Guide should never be allowed to touch the top of Belts #30. This Belt when slackened should always be able to "belly-up" and the Guide should only keep the Belt from going left or right.

LUBRICATION:

At this time fill the Engine crankcase as per your engine manual - all future engine servicing should be done in accordance with the engine manual furnished.

With light household oil lubricate the oilers in each of the four Track Wheels and the oiler in each of the Flange Bearings #17. Repeat this oiling periodically to renew the Oilite Bearings' oil supply.

The Idler Pulley #23 and Bearings #21 are sealed ball bearings and are lubricated for life.

OPERATION:

The Mini-Dozer is quite basic in its operation and, therefore, is very easy to learn to drive. The Control Handles each control a separate track. Pushing down on the Handles causes the Track to move forward. Releasing the Handles slows the Track while pulling back on the Handles provides a positive brake against forward movement. Turns are accomplished by alternating the Push-Pull motion to the direction you wish to turn.

Reverse is accomplished by starting with the Handles in the released or neutral position. By pulling up on the Reverse Handle located on the left of the Mini-Dozer and then pushing forward on the two Control Handles the tractor moves to the rear. To stop reverse travel, release the Control Handles and then release the Reverse Handle. Note: always do these operations slowly and smoothly.

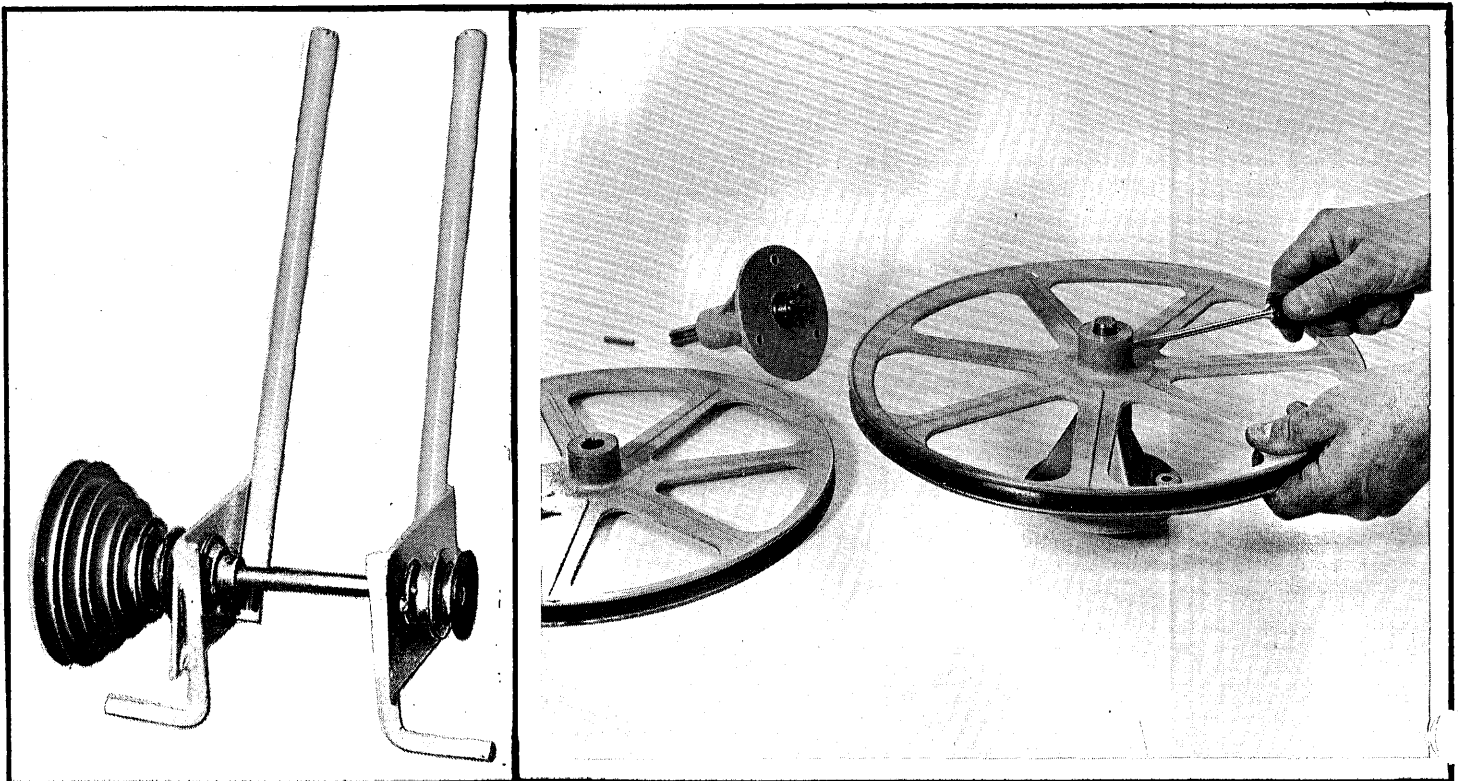
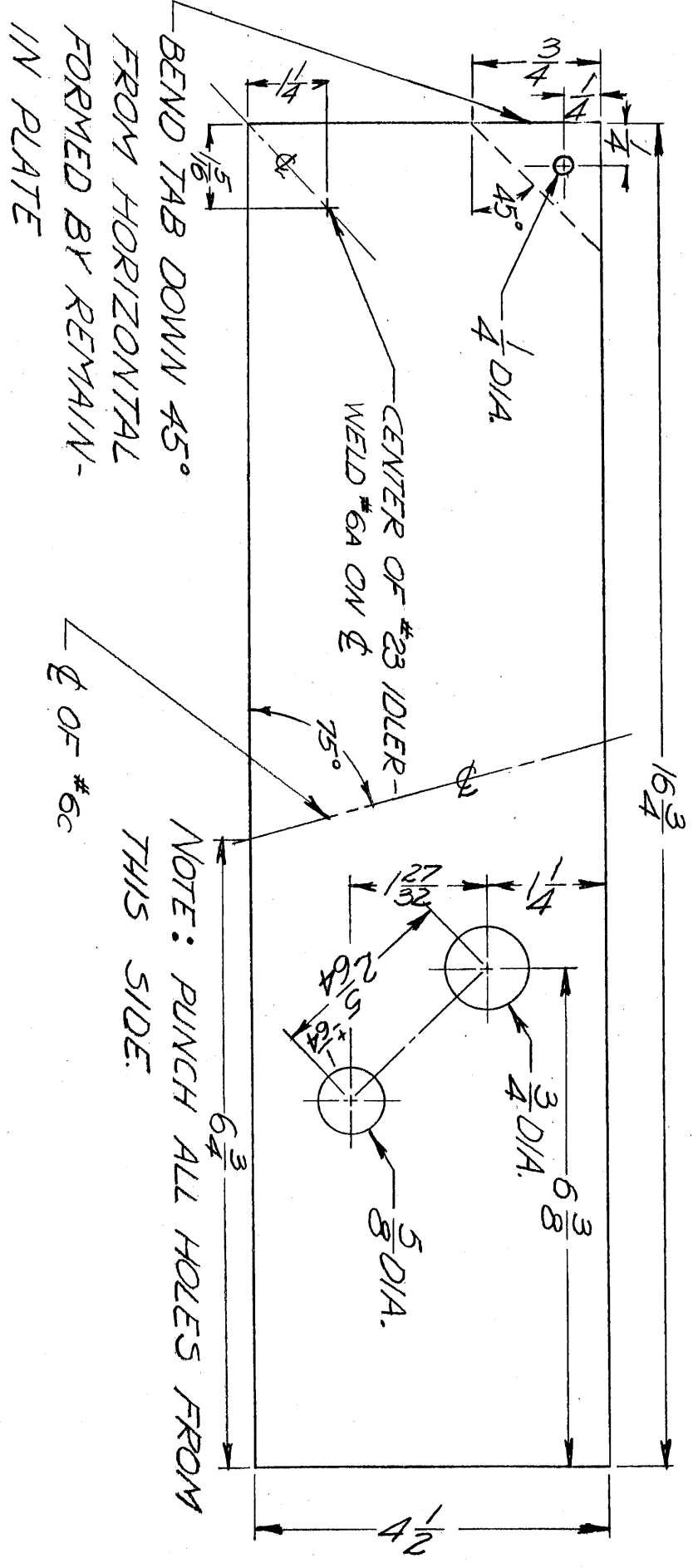


PHOTO #2

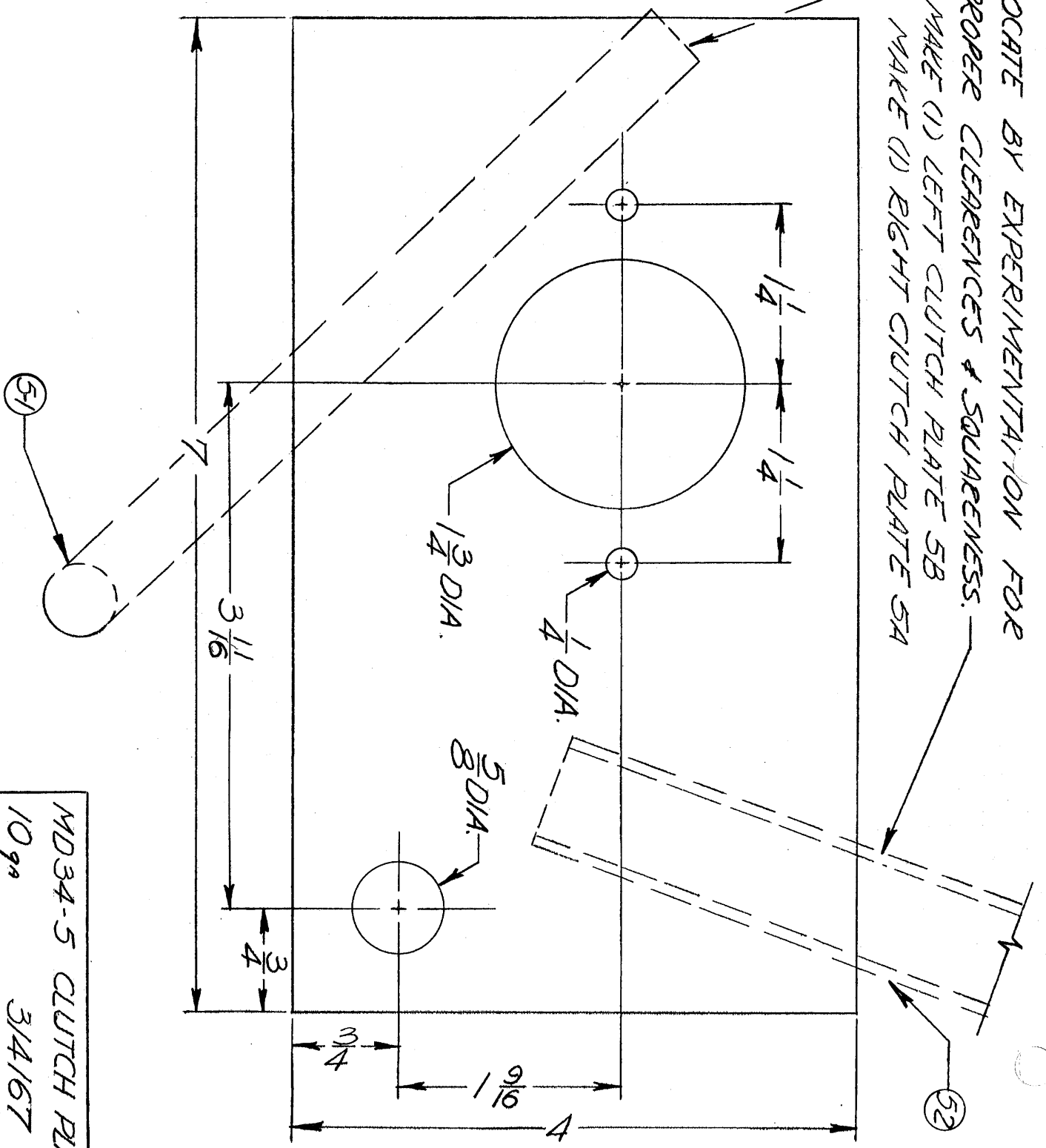
PHOTO #1



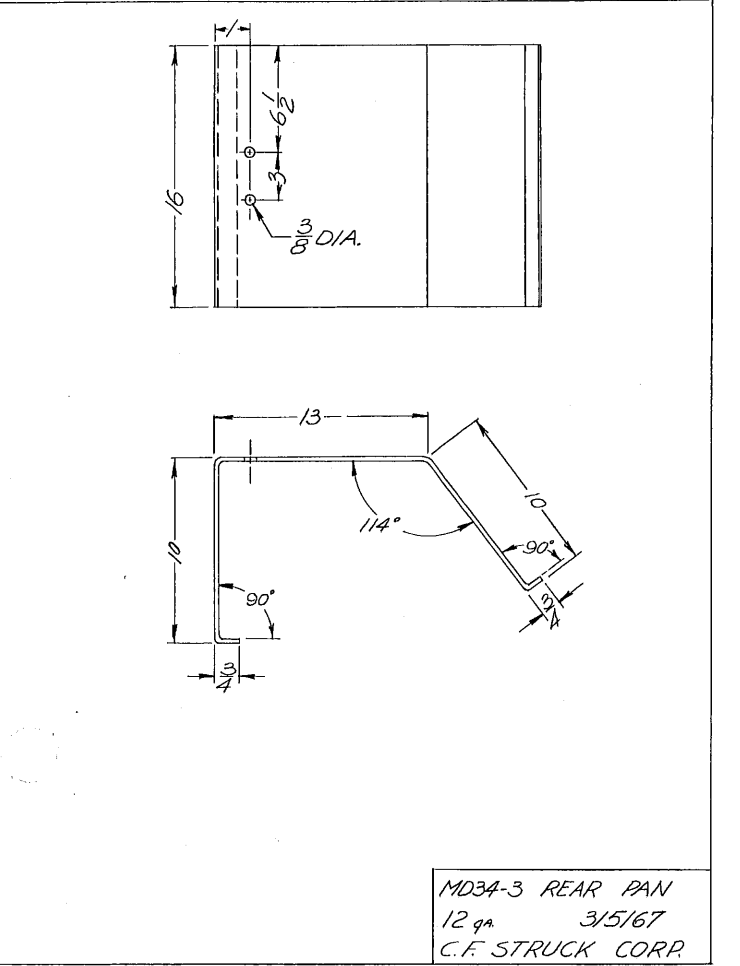
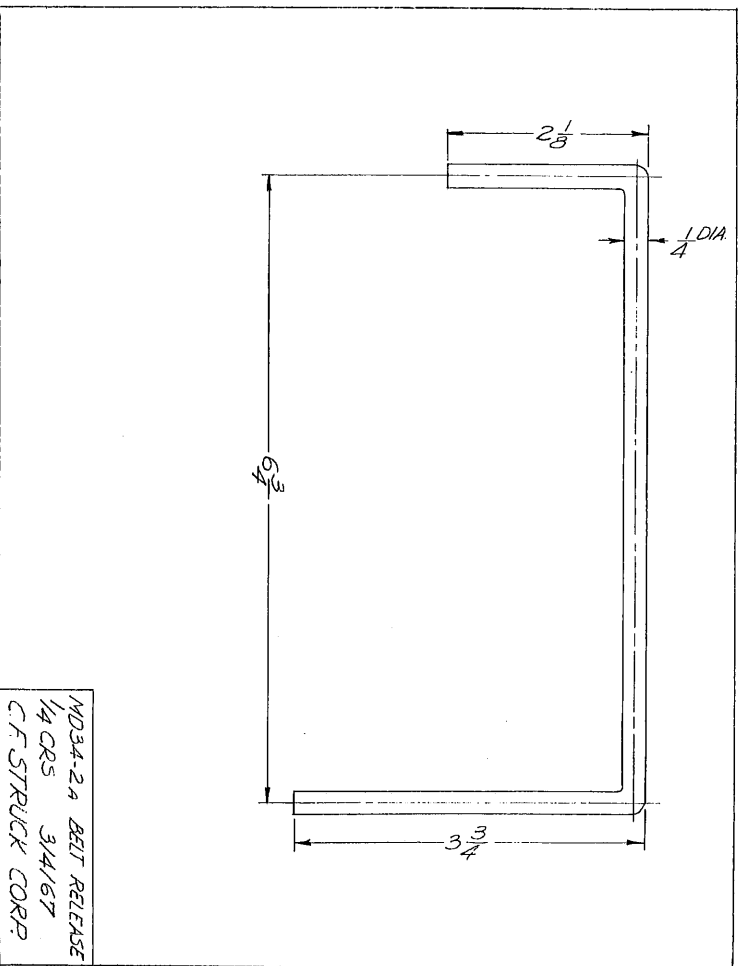
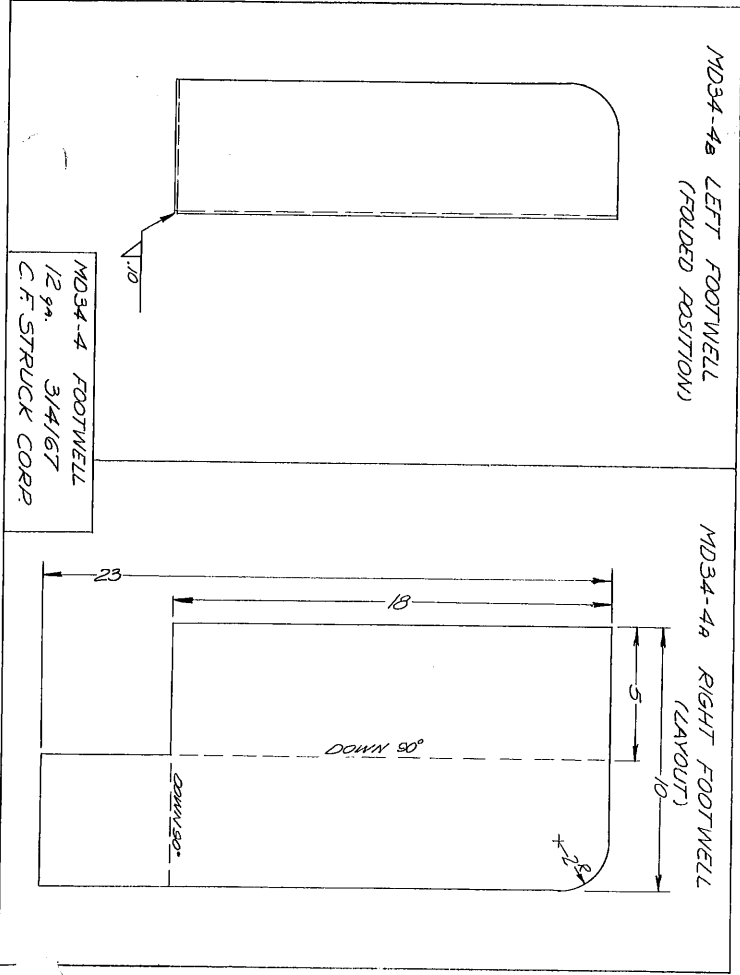
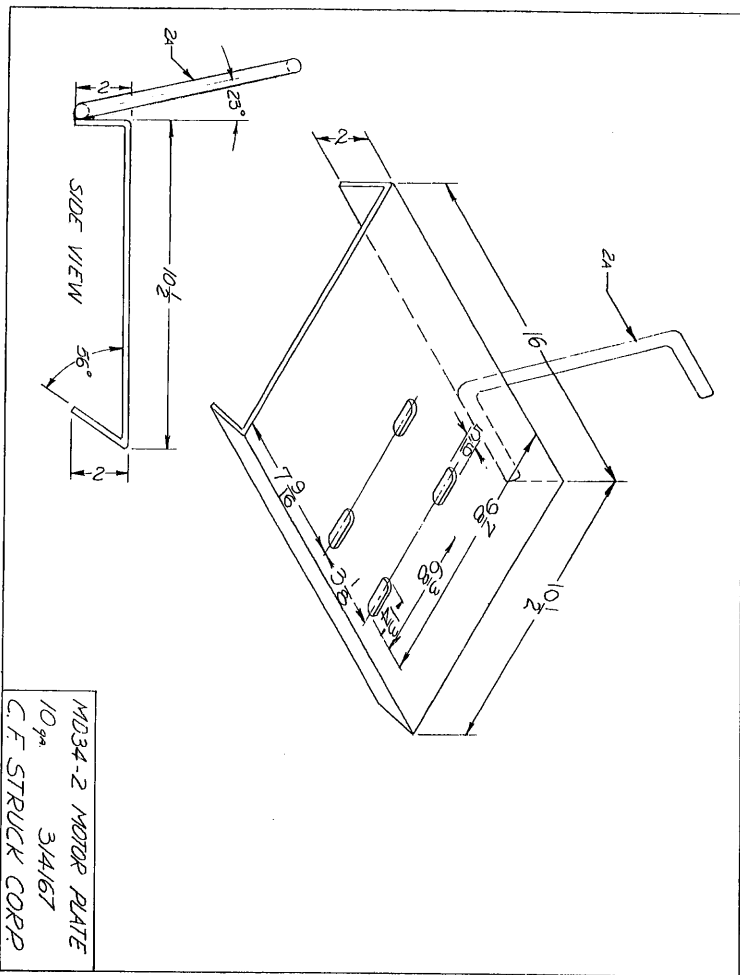
BEND TAB DOWN 45°
FROM HORIZONTAL
FORMED BY REMAIN-
IN PLATE

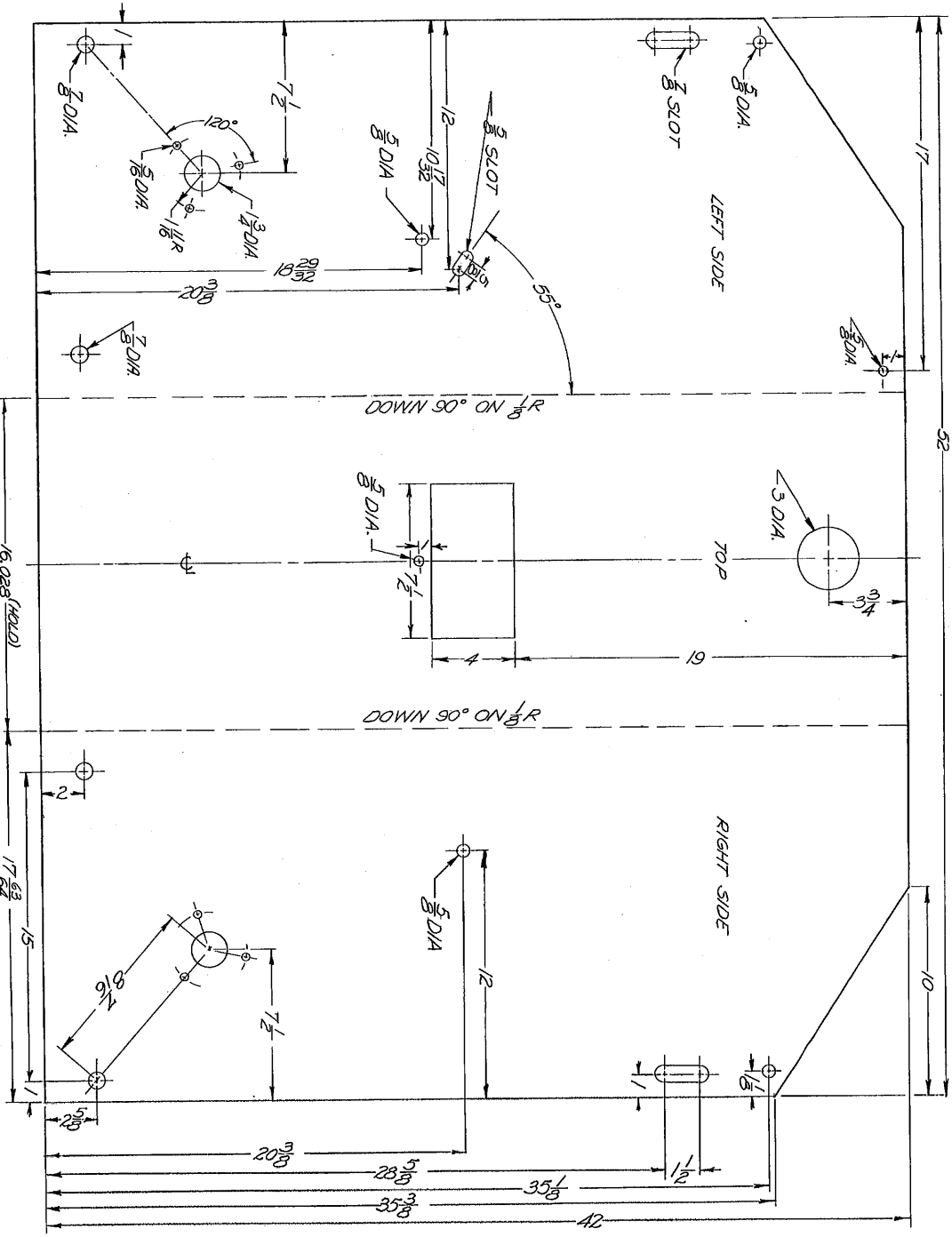
MD34-6 REVERSE PLATE
7⁹⁹
3/4/67
C.F. STRUCK (RR)

LOCATE BY EXPERIMENTATION FOR PROPER CLEARANCES & SQUARENESS.
 MAKE (1) LEFT CLUTCH PLATE 5B
 MAKE (1) RIGHT CLUTCH PLATE 5A



MD34-5 CLUTCH PLATE
 10⁹⁰ 3/4/67
 C.F. STRUCK CORP.

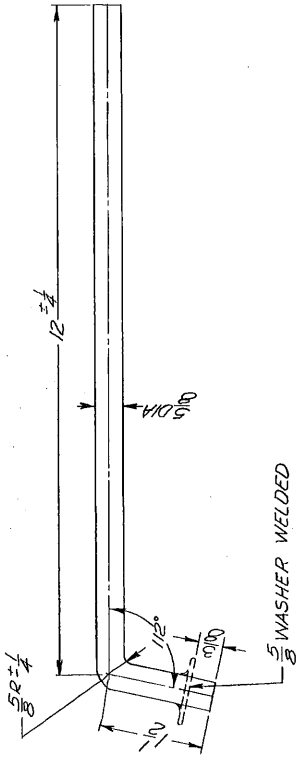




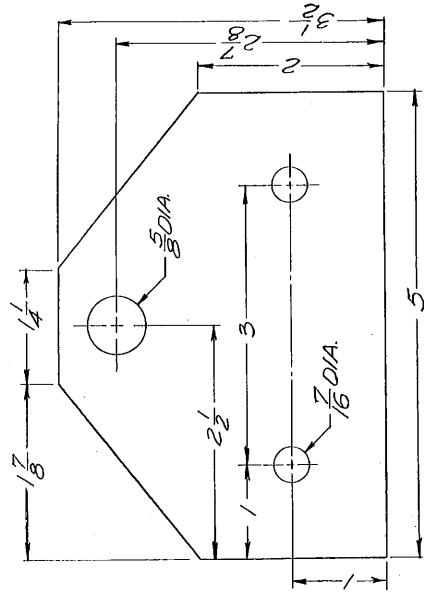
NOTE: LEGS MUST BE EQUAL IN LENGTH. COMMON HOLES & SLOTS MUST LINE UP AFTER FORMING.

END VIEW AFTER FOLDING

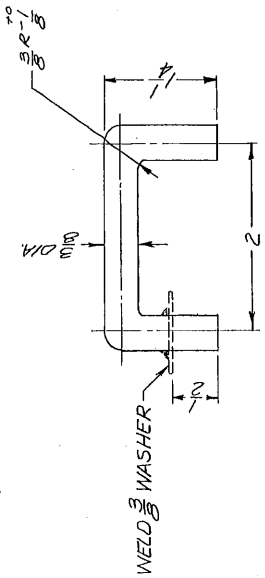
MD34-1 BODY 1294
 MARCH 4, 1967
 C. F. STRUCK CORP
 CEDARBURG WISCONSIN



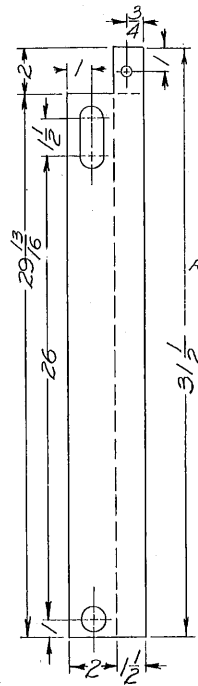
MD34-6a HANDLE
 5/8 CRS 3/4/67
 C.F. STRUCK CORP.



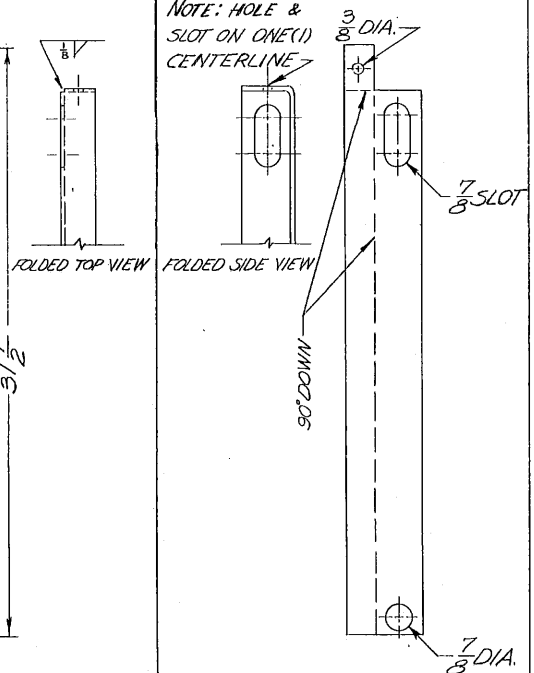
MD34-8 DRAWBAR
 7 ga. 3/4/67
 C.F. STRUCK CORP.



MD34-6a IDLER BRACKET
 5/8 CRS 3/4/67
 C.F. STRUCK CORP.

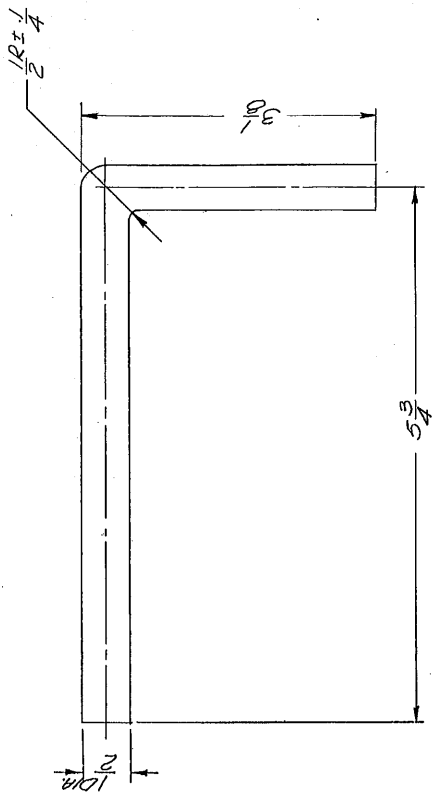


RIGHT EXPANDER
 MD34-7A

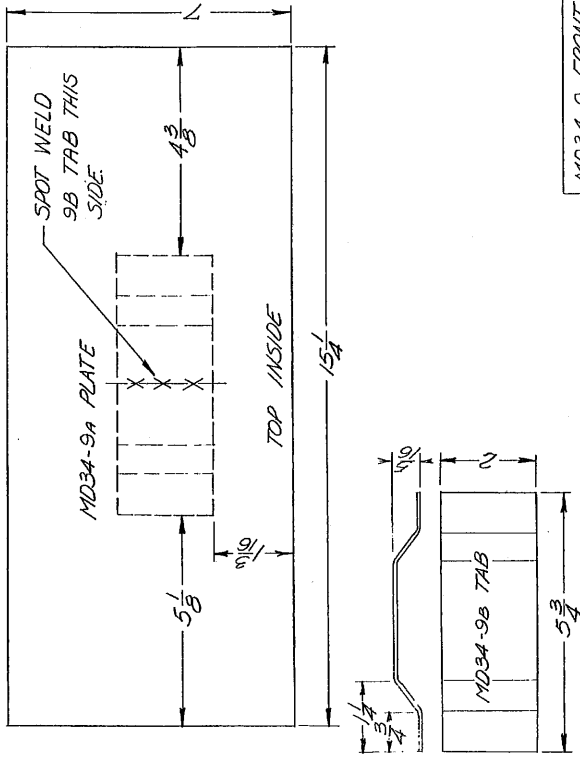


LEFT EXPANDER
 MD34-7B

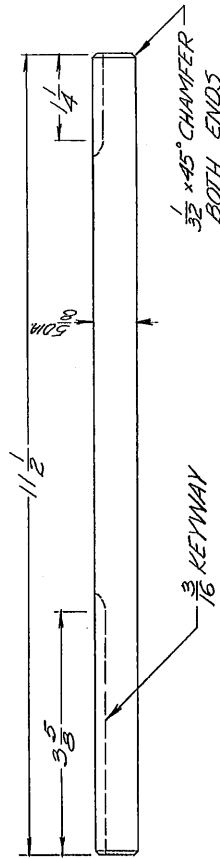
MD34-7 TRACK EXPANDER
 10 ga. 3/4/67
 C.F. STRUCK CORP.



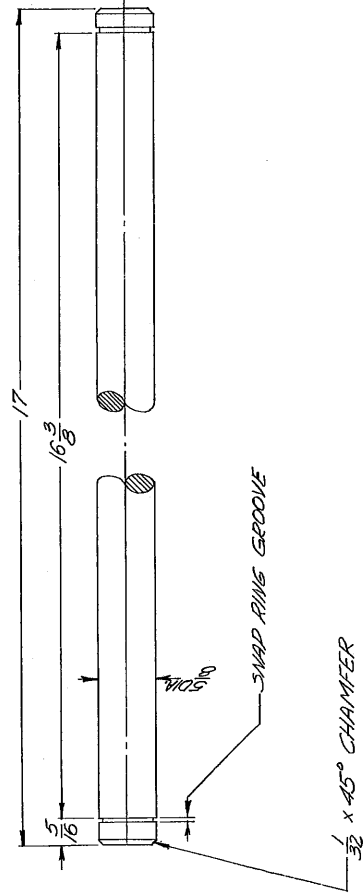
MD34-5-1 BRAKE FINGER
1/2 CRS 3/4/67
C.F. STRUCK CORP.



MD34-9 FRONT PLATE
1/4 CR 3/4/67
C.F. STRUCK CORP.

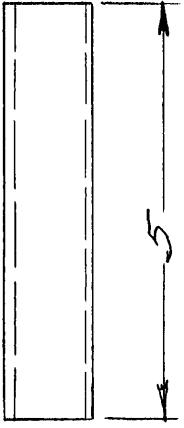
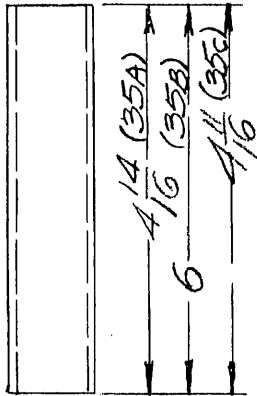


MD34-22 SHAFT
3/8 CRS-1018 3/4/64
C.F. STRUCK CORP.

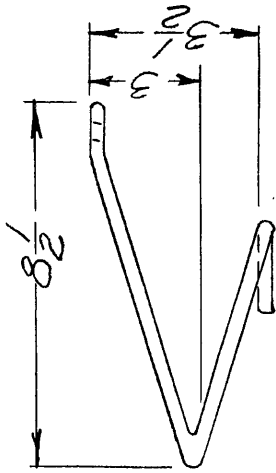


MD34-34 PIVOT ROD
3/8 1018 3/4/67
C.F. STRUCK CORP.

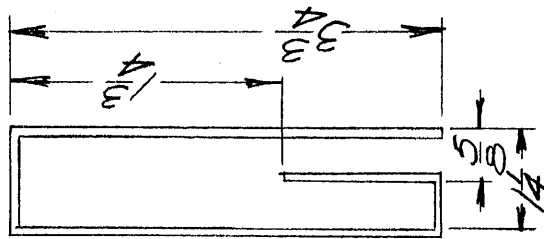
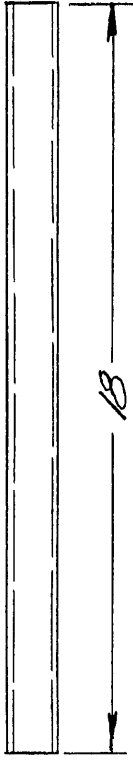
SPACER - $\frac{3}{4}$ BIP



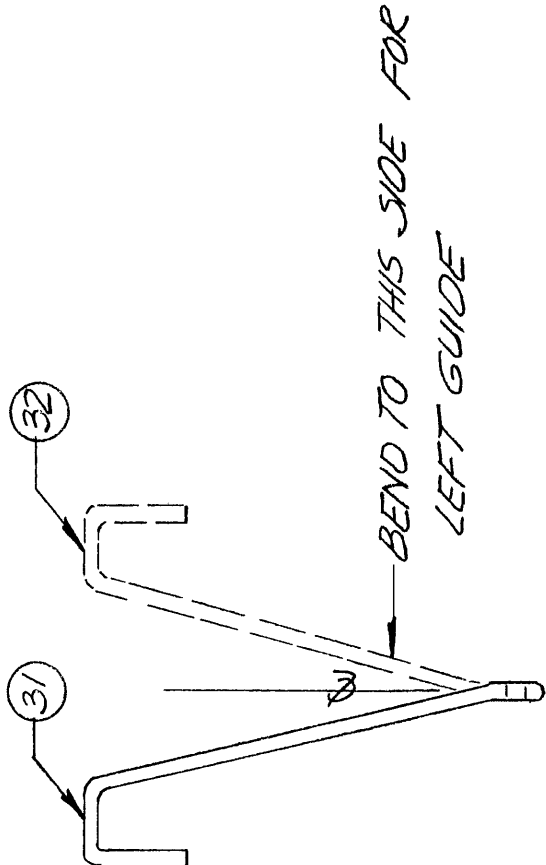
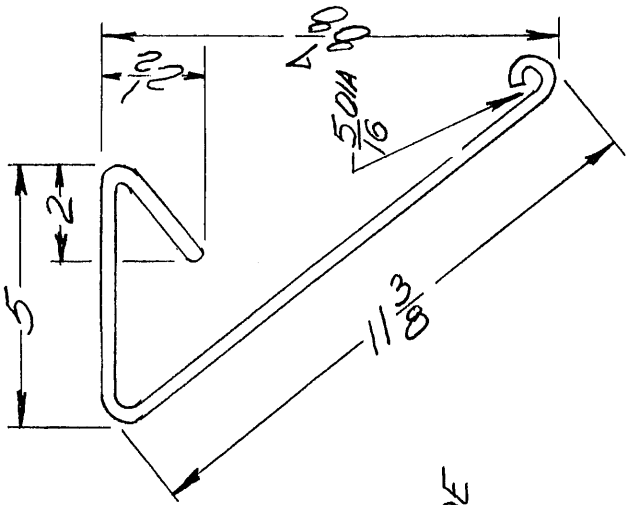
58 SPACER - 1 BIP (2)



52 HANDLE - $\frac{1}{2}$ BIP (2)

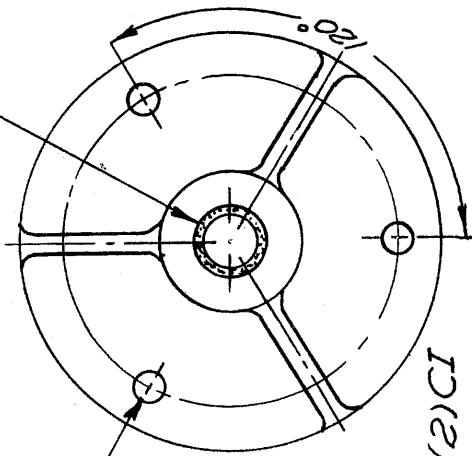


6C BELT GUIDE
 $\frac{1}{2} \times \frac{1}{8}$ HRS



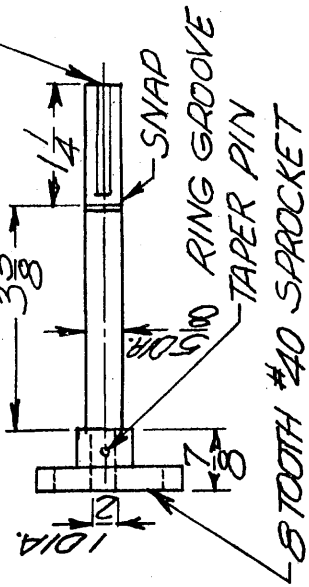
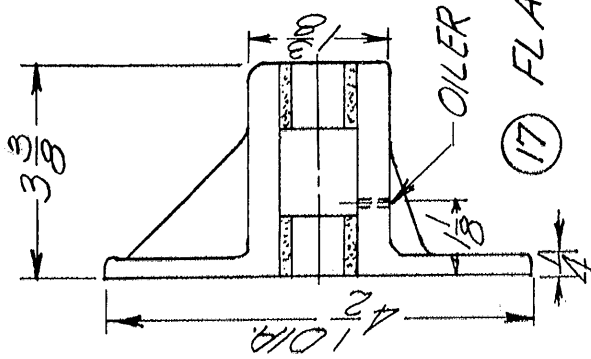
BELT GUIDE - MAKE
LEFT 32 & RIGHT 31

$\frac{3}{4}$ REAM & PRESS FIT
 $\frac{3}{4}$ OD x $\frac{5}{8}$ ID x 1 OILITE
 BUSHING $\frac{3}{16}$ KEYWAY



$\frac{5}{16}$ -18 DRILL AND
 TAP 3 HOLES ON
 $3\frac{1}{2}$ DIA.

(17) FLANGE BEARING (2) CI



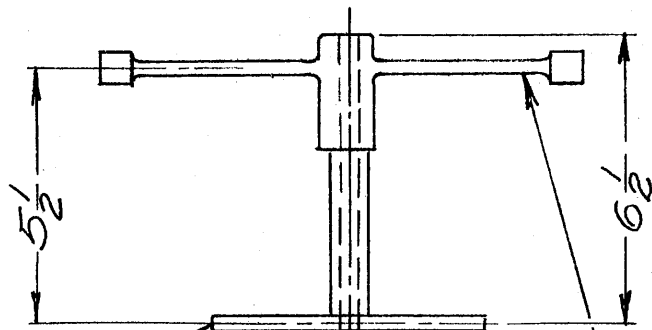
(18) SHAFT & SPROCKET UNIT

54 TOOTH #40
 CHAIN PLATE
 TYPE SPROCKET

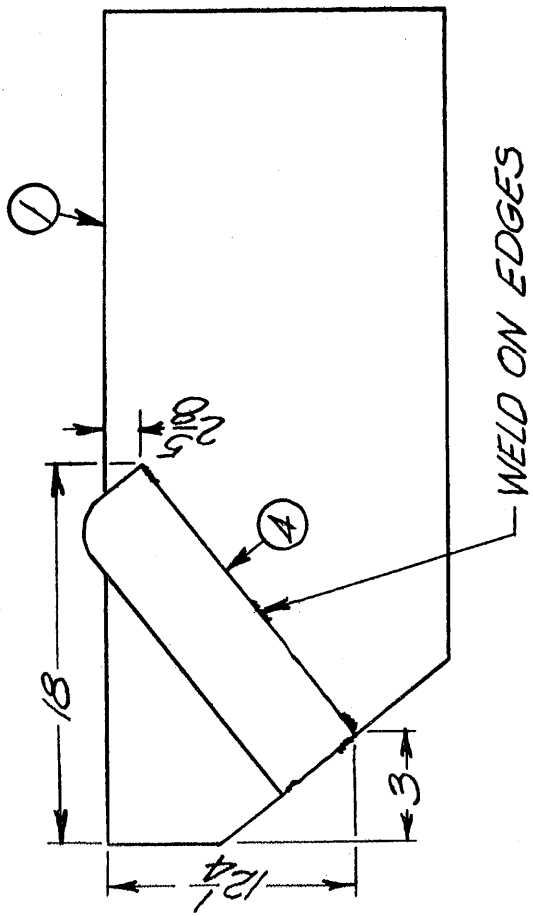
SPROCKETS ARE
 BUTT-WELDED
 TO $1\frac{5}{16}$ OD x 1 ID
 TUBE & FITTED
 WITH $\frac{3}{16}$ ID BUSHINGS

22 TOOTH #55
 AGRICULTURAL
 CHAIN SPROCKET

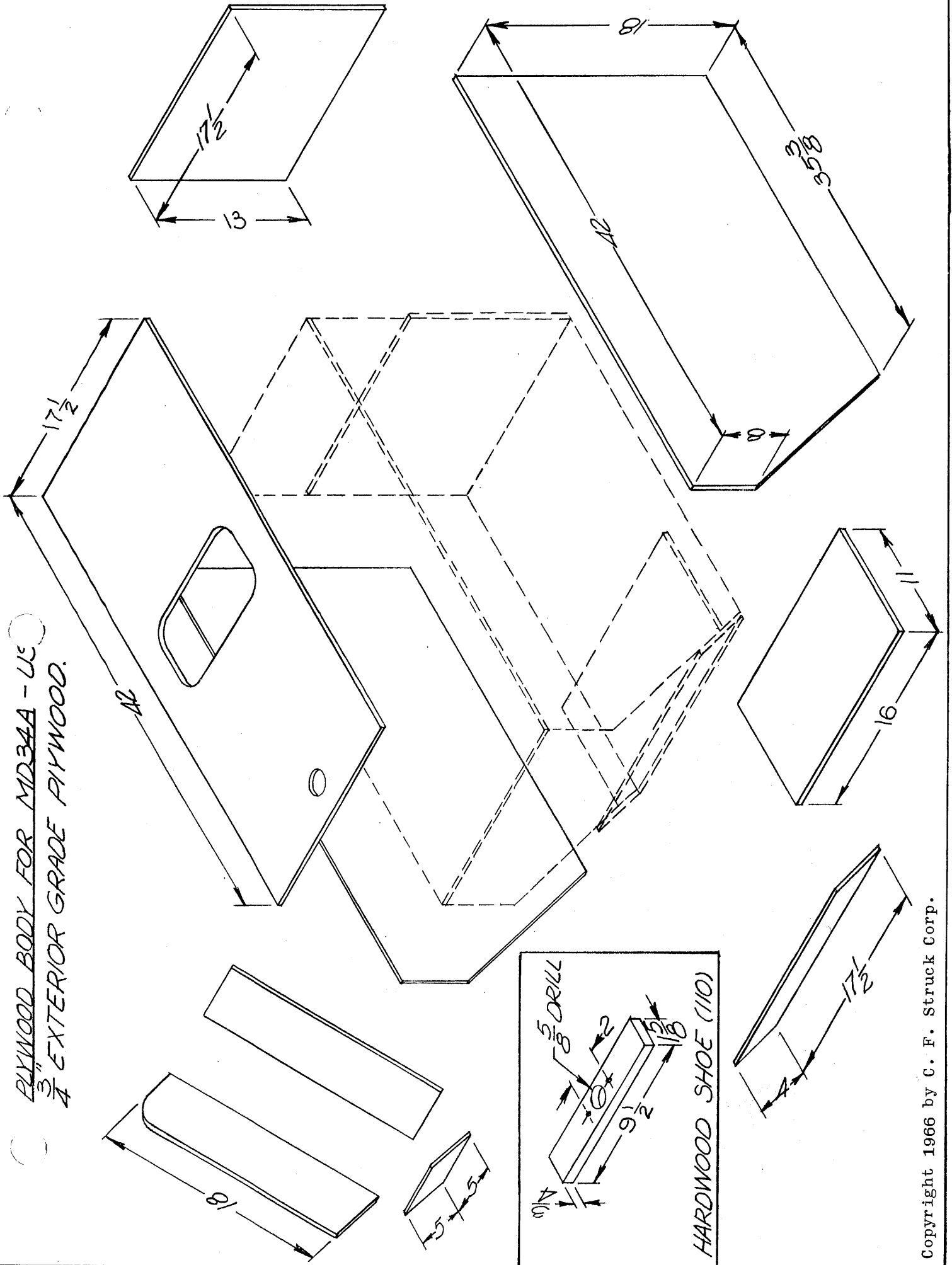
(14) FIVE WHEEL UNIT (2)



LOCATION OF FOOTWELL #4



PLYWOOD BODY FOR MD34A - US
 $\frac{3}{4}$ " EXTERIOR GRADE PLYWOOD.



Plywood Body for Mini-Dozer - MD34A

By constructing the Body of your Mini-Dozer of 3/4" plywood great savings in construction costs can be realized.

The Body being of basically uncluttered design greatly enhances the success and simplicity of an all plywood body. The complete Body is made of 3/4" exterior grade plywood. It can easily be shaped by a hand or small power saber saw.

The enclosed drawing of the Plywood Body design contains only the basic dimensions as it has been found that most people wish to modify the Body's design to suit their own specific uses.

The interior mechanism and control handles can be likewise made of plywood as long as the positioning of parts is the same as their steel counterparts. For the greatest life of these parts it is recommended to make them of steel as described and illustrated on the enclosed drawings.

Further dimensioning of the sides of the Plywood Body can be duplicated from those for the steel Body as their positioning is identical.

The Hardwood Shoes illustrated on this drawing are also easily made and prove very effective. By making these shoes of varying thickness a serrated type Track will result which will greatly enhance the Mini-Dozer's traction. Each Shoe is bolted to the lengths of #55K1 Agricultural Chain with 1/4" carriage bolts.