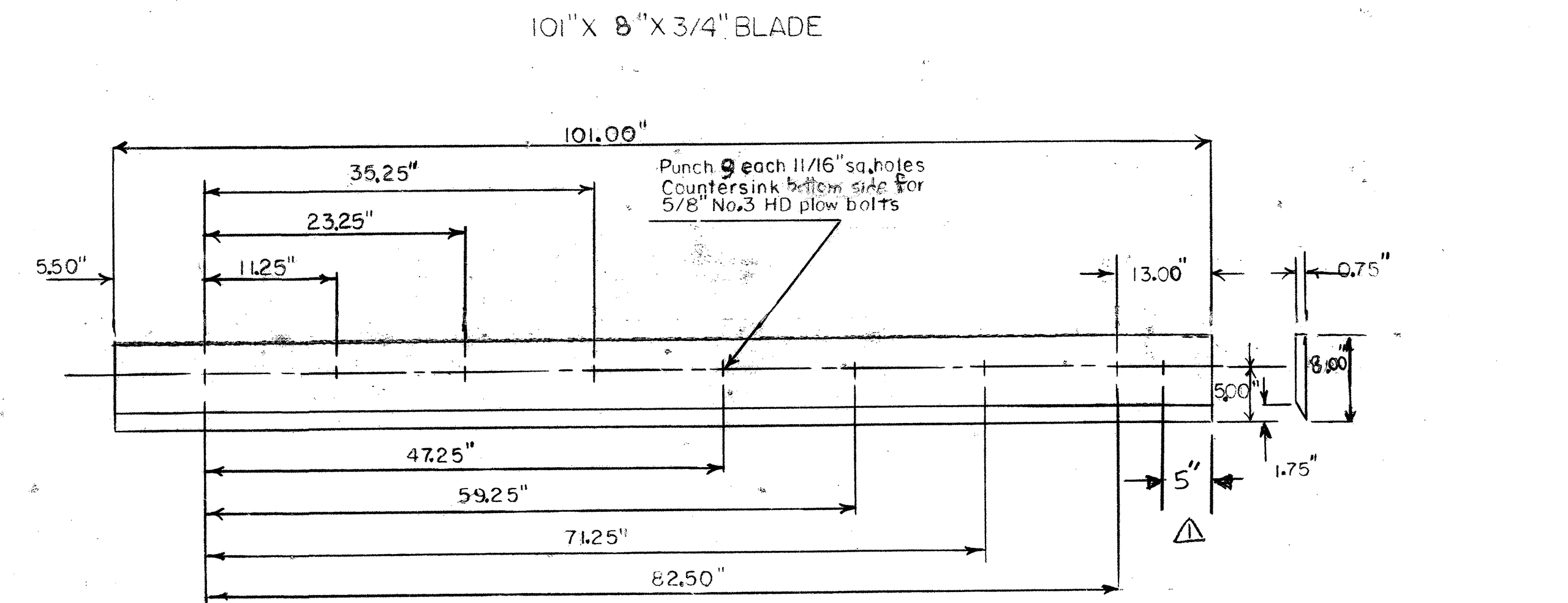
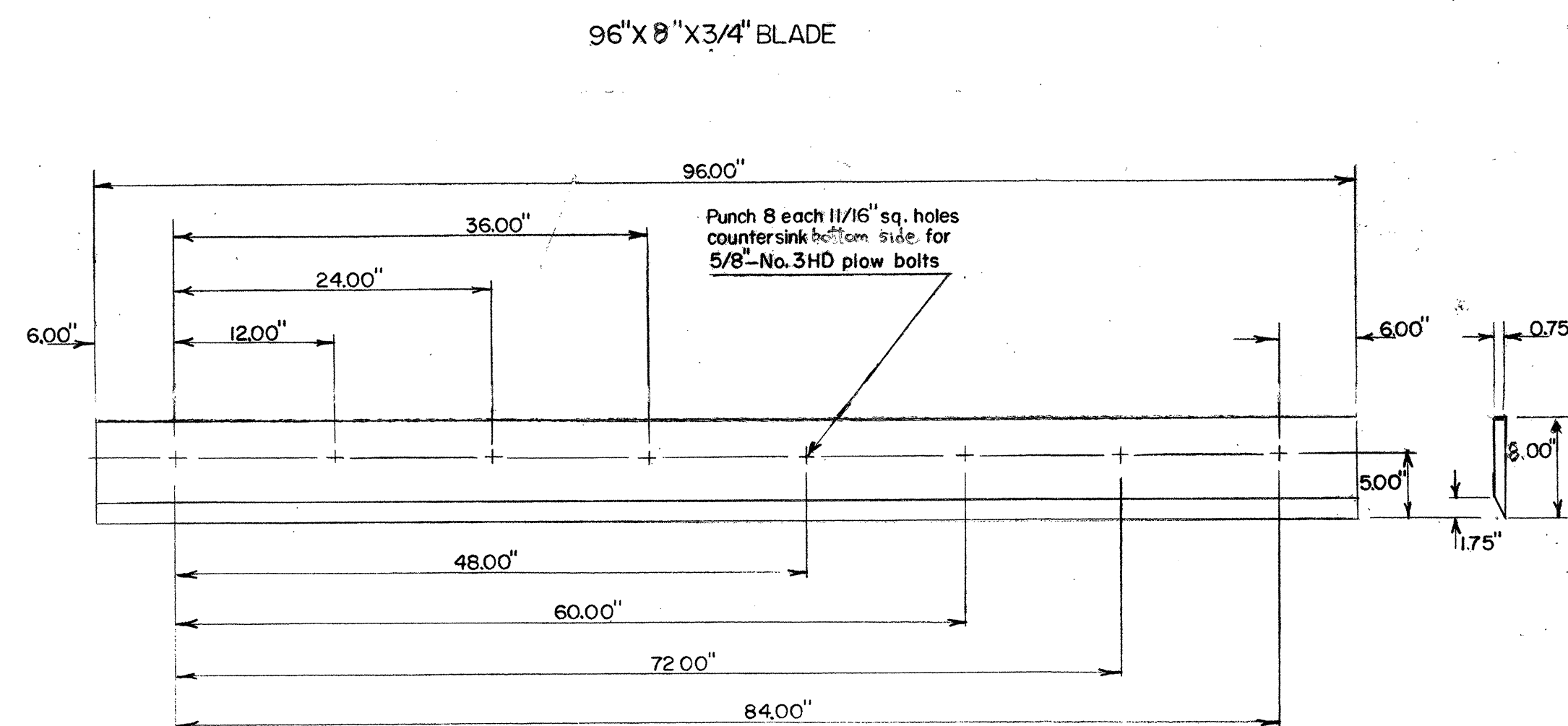
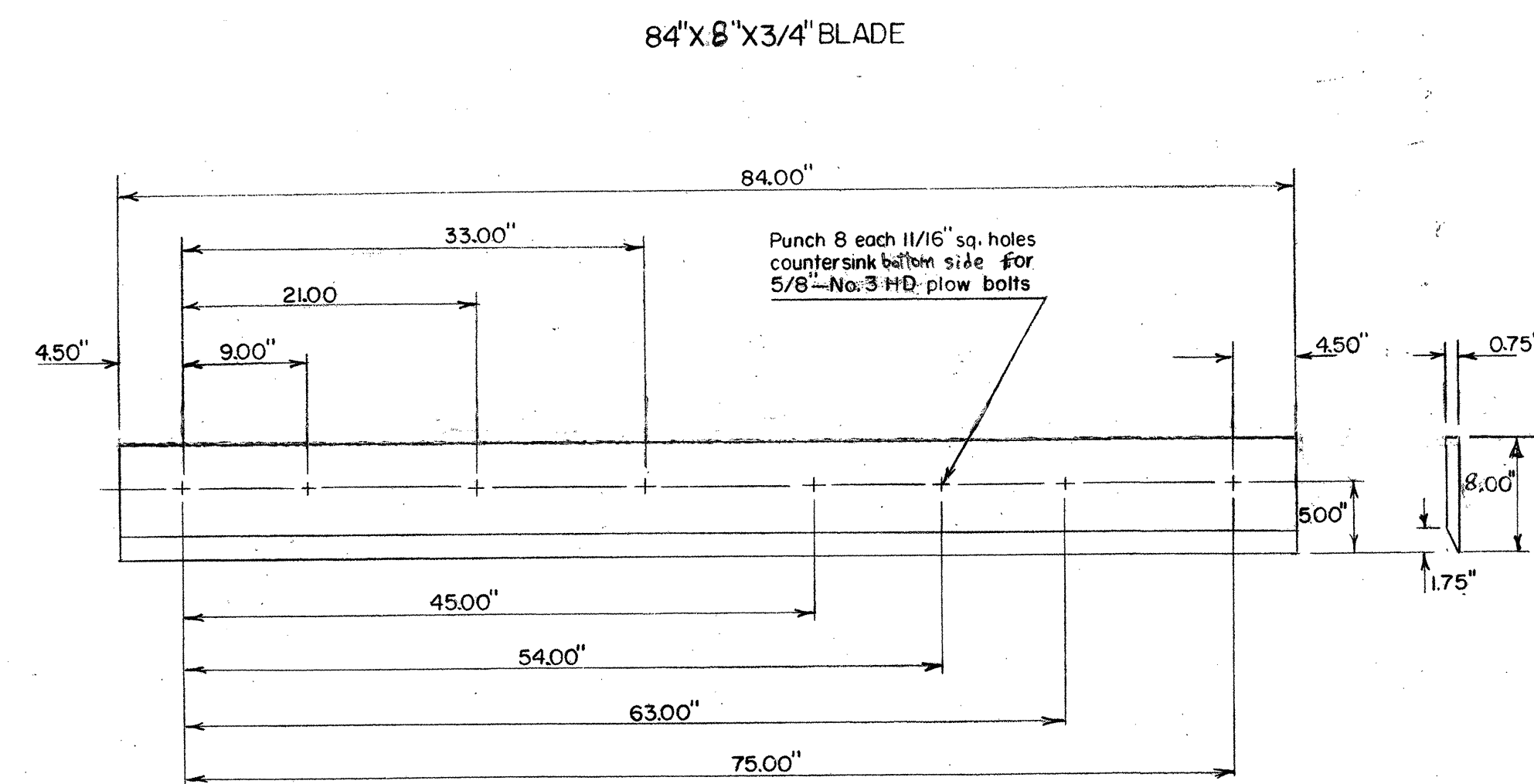
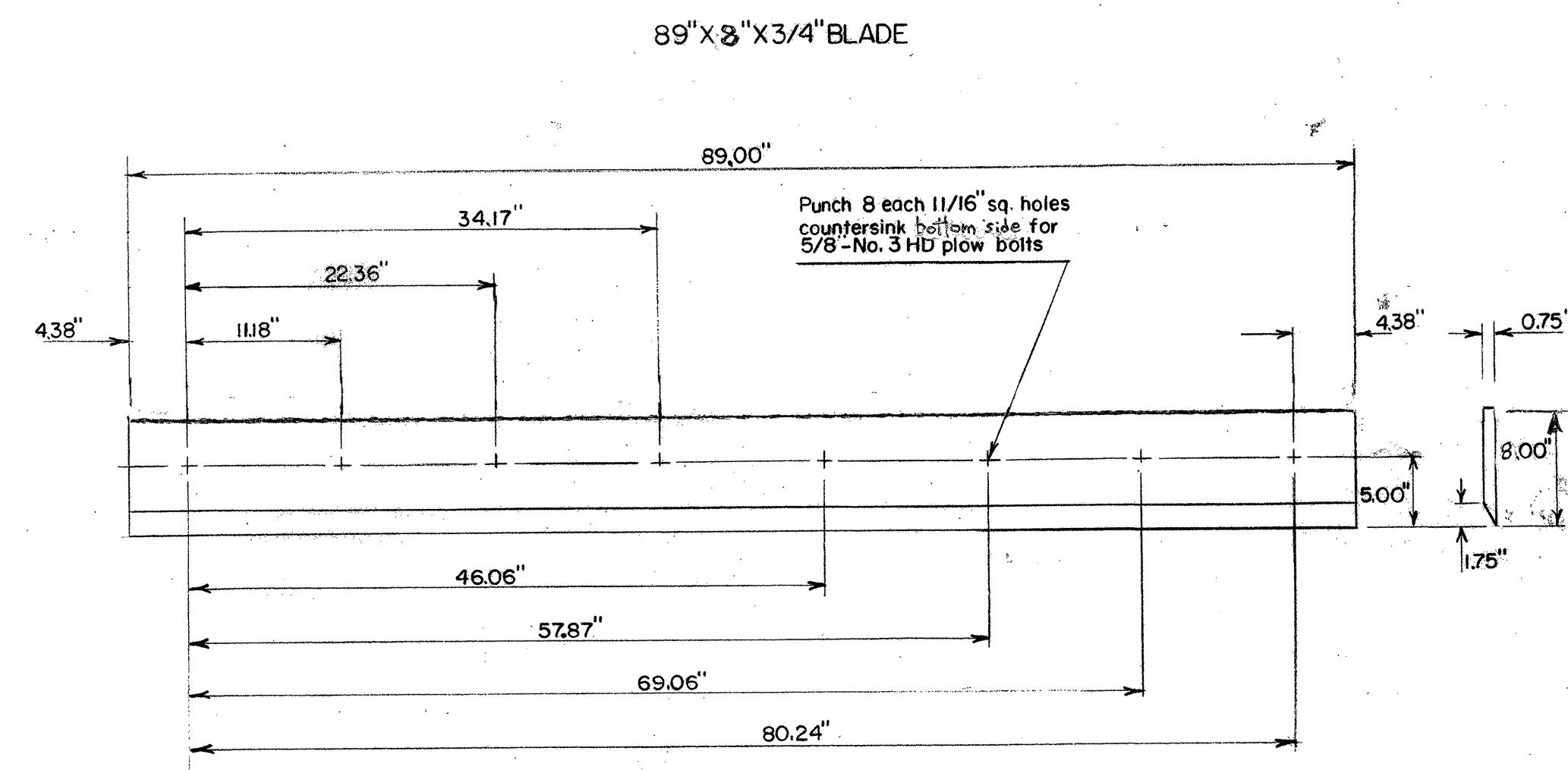
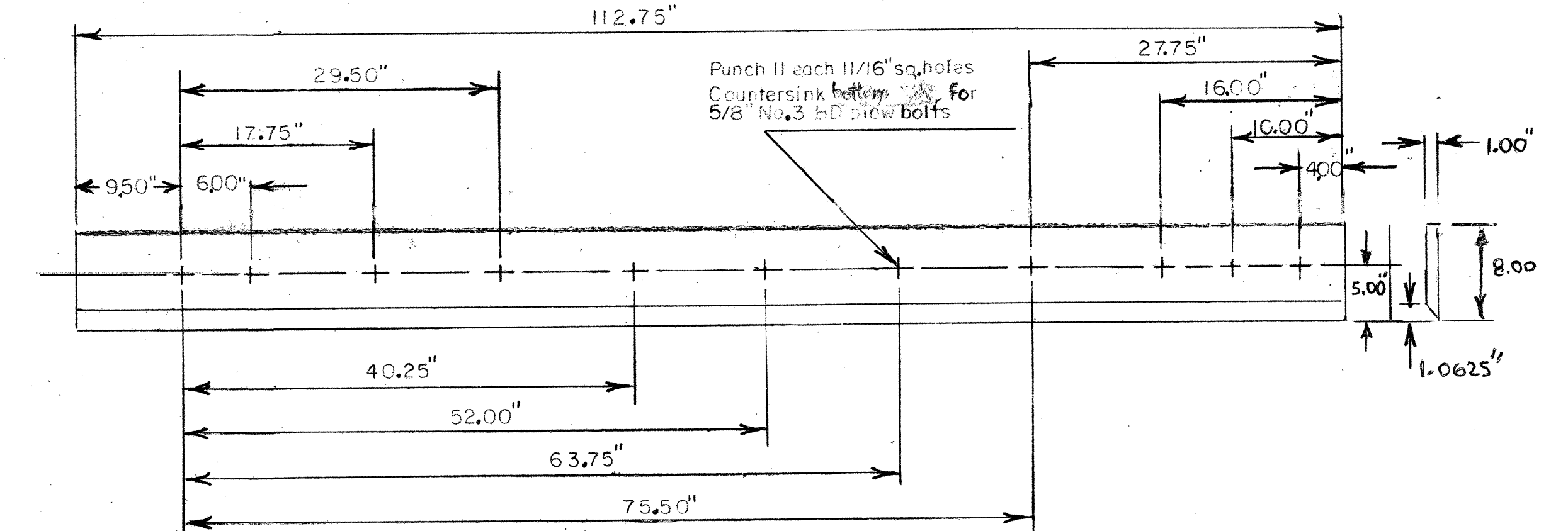




112.75" X 8" X 1" BLADE
 for
 TROJAN SIDE DUMP FRONT-END LOADERS

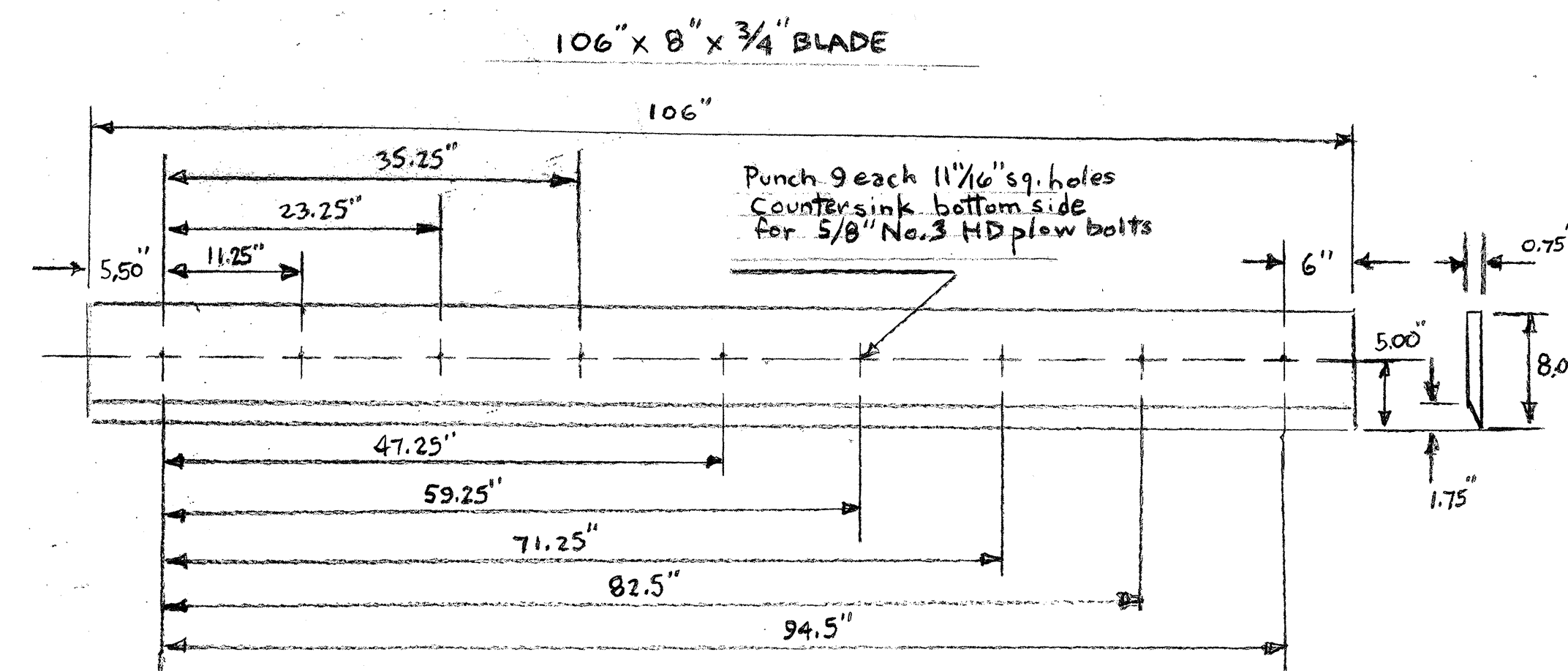


SPECIFICATION:

Material used in these blades must conform to the following chemical analysis and physical properties:

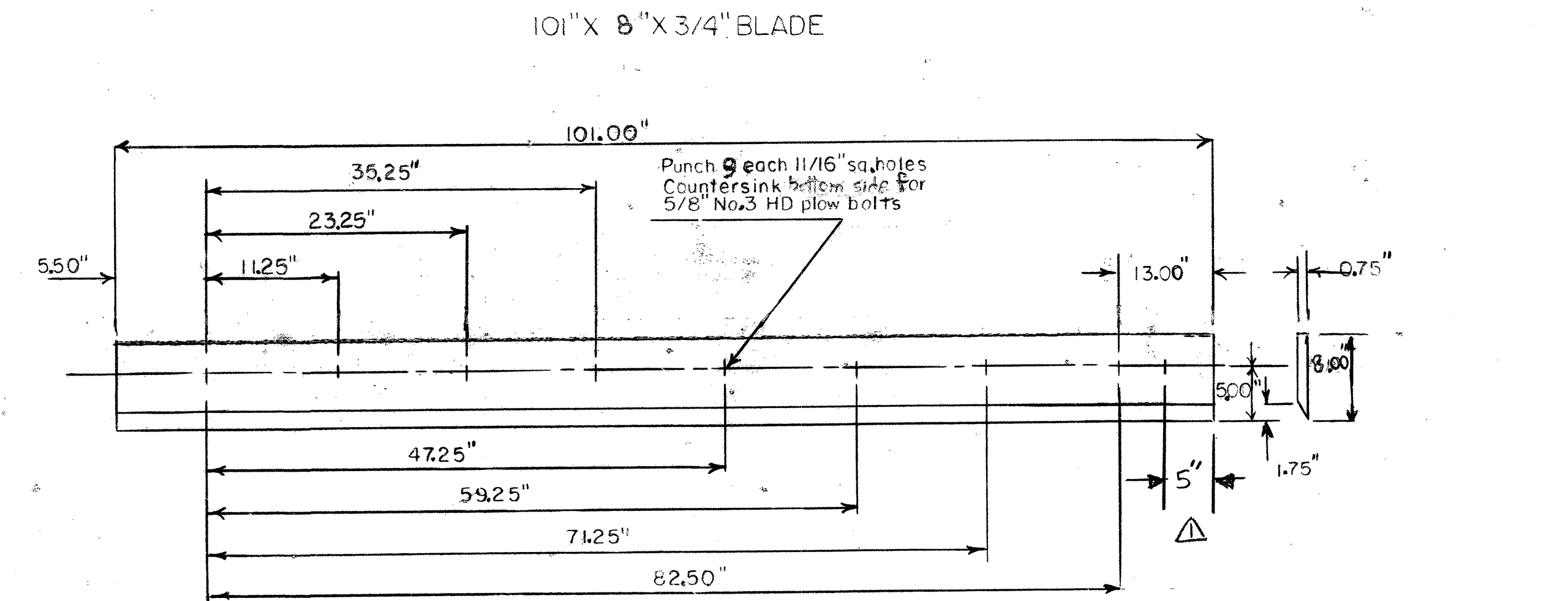
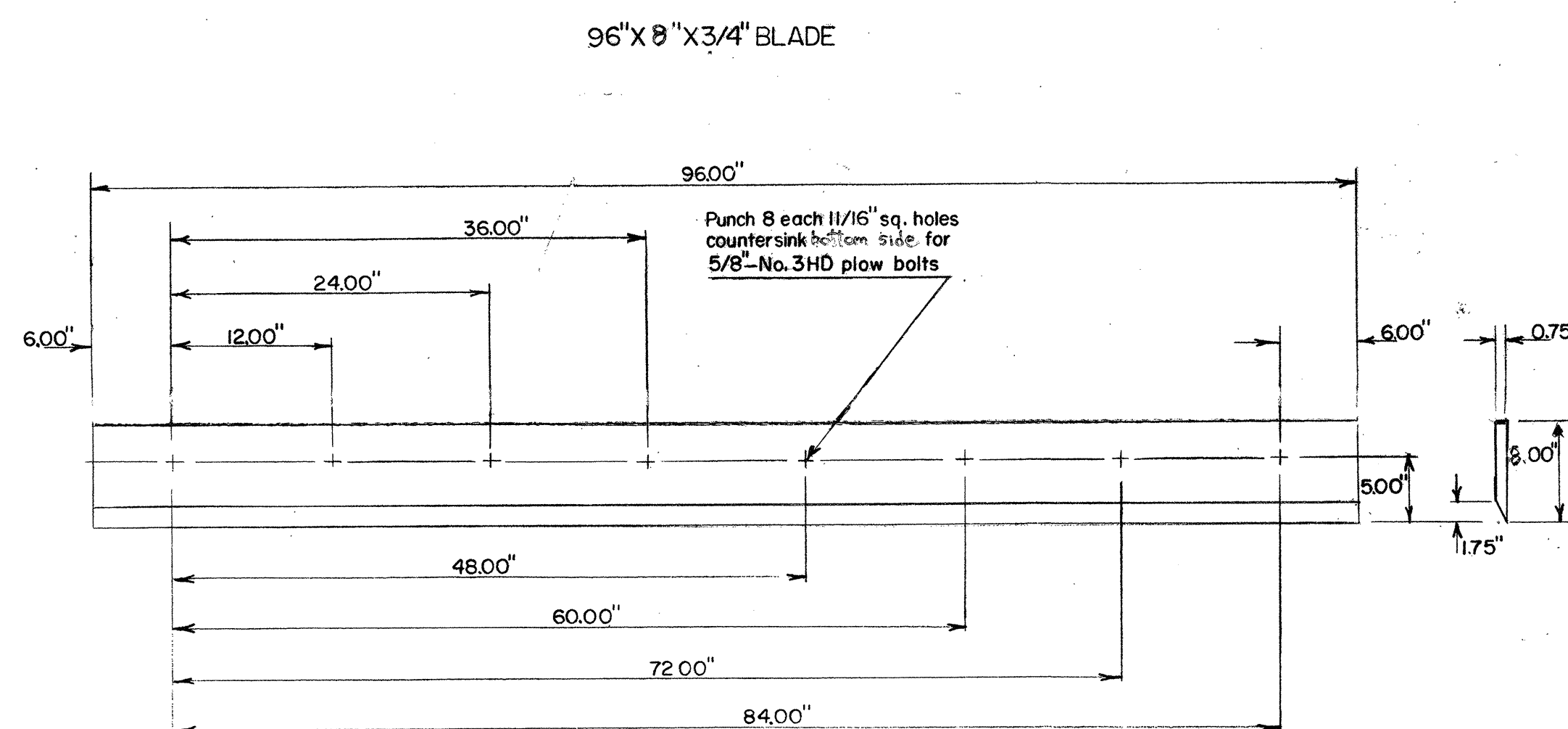
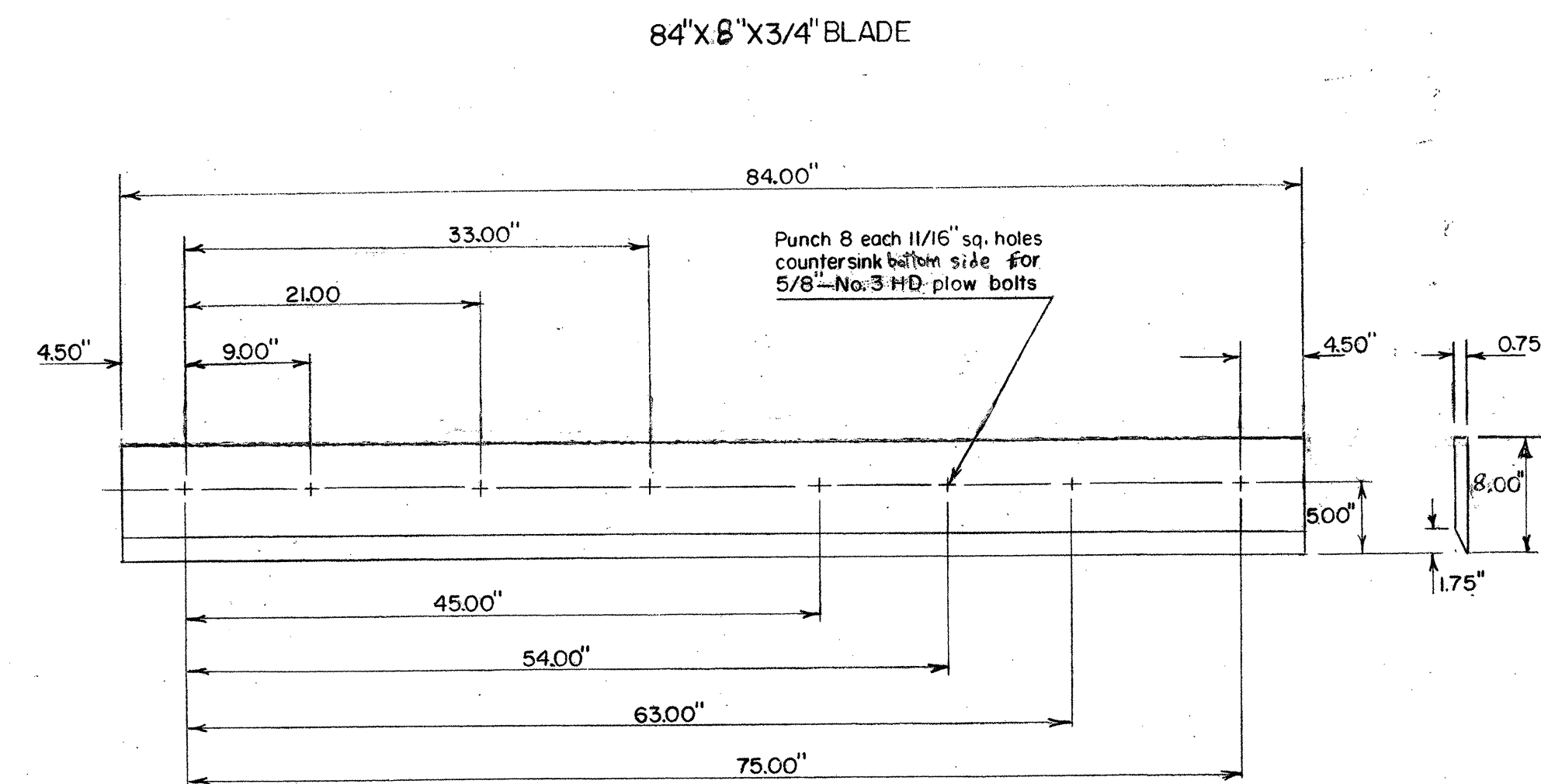
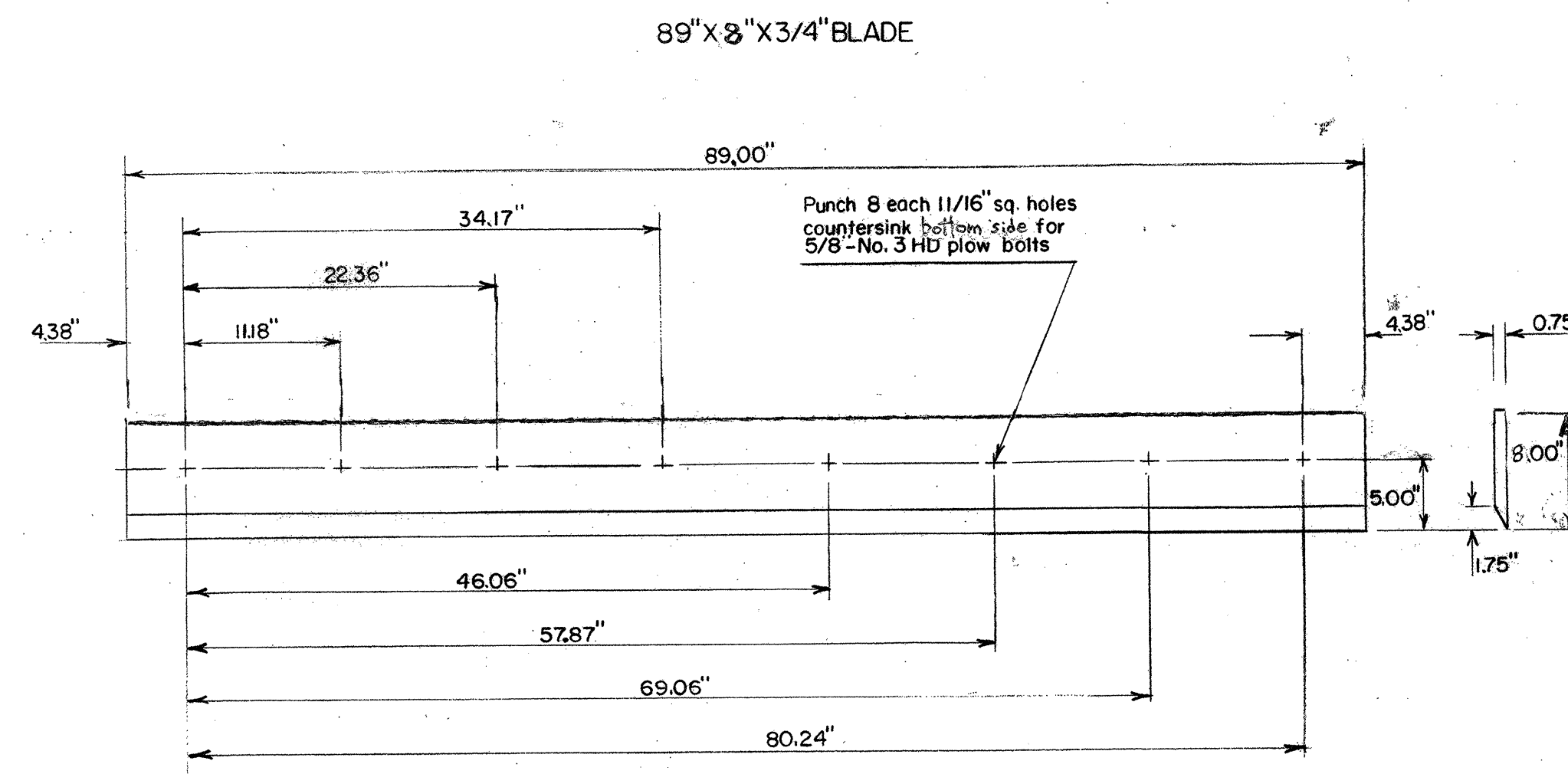
Carbon	.38 Min.	.43 Max.
Manganese	.75 Min.	1.00 Max.
Sulphur		.04 Max.
Phosphorous		.04 Max.
Silicon	.20 Min.	.35 Max.
Chromium	.80 Min.	1.10 Max.
Molybdenum	.15 Min.	.25 Max.
Brinell Hardness:	350 - 450	

NOTE: A certificate of analysis is to be furnished with blades when delivered.

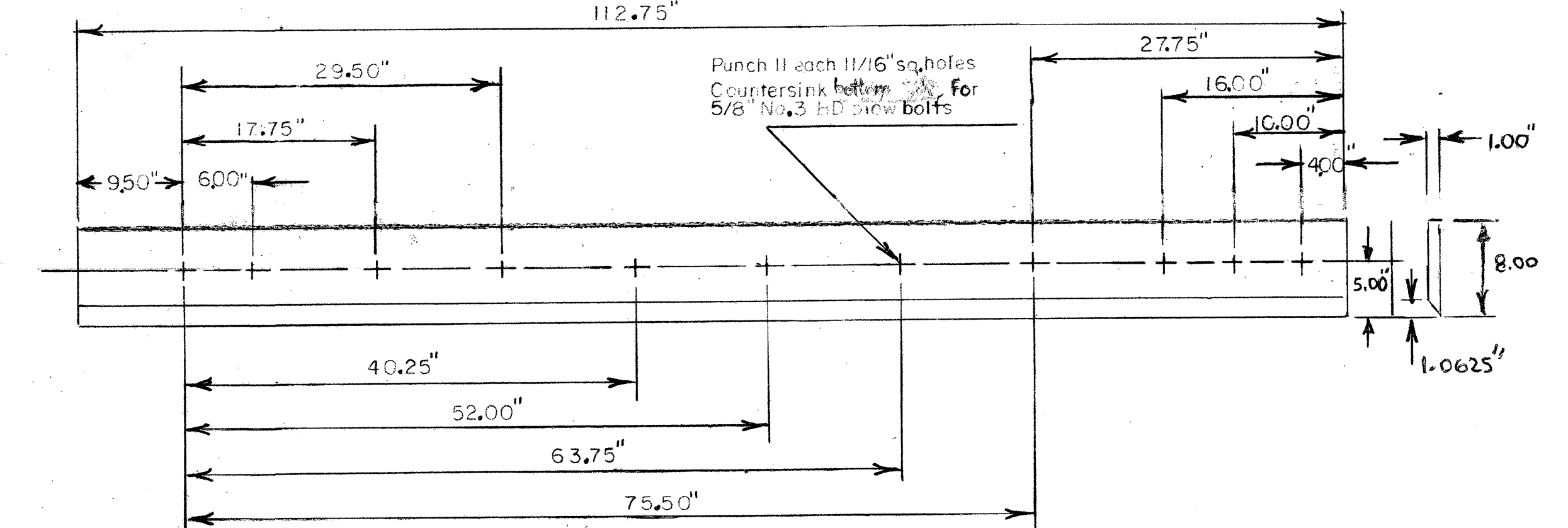


NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF MAINTENANCE AND CONSTRUCTION BUREAU OF EQUIPMENT			
8" BLADES for ARTICULATING LOADERS			
SUBMITTED BY <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	SCALE 3/32"=1"	DWG. NO. 3-113
APPROVED BY <i>[Signature]</i>	JOB NO. <i>[Signature]</i>	DATE 10-22-97	
REV. DATE BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
1 2/24/98 JB	ADDED 9TH HOLE		

REVISION
 Drawn by
 Checked by



112.75" X 8" X 1" BLADE
for
TROJAN SIDE DUMP FRONT-END LOADERS

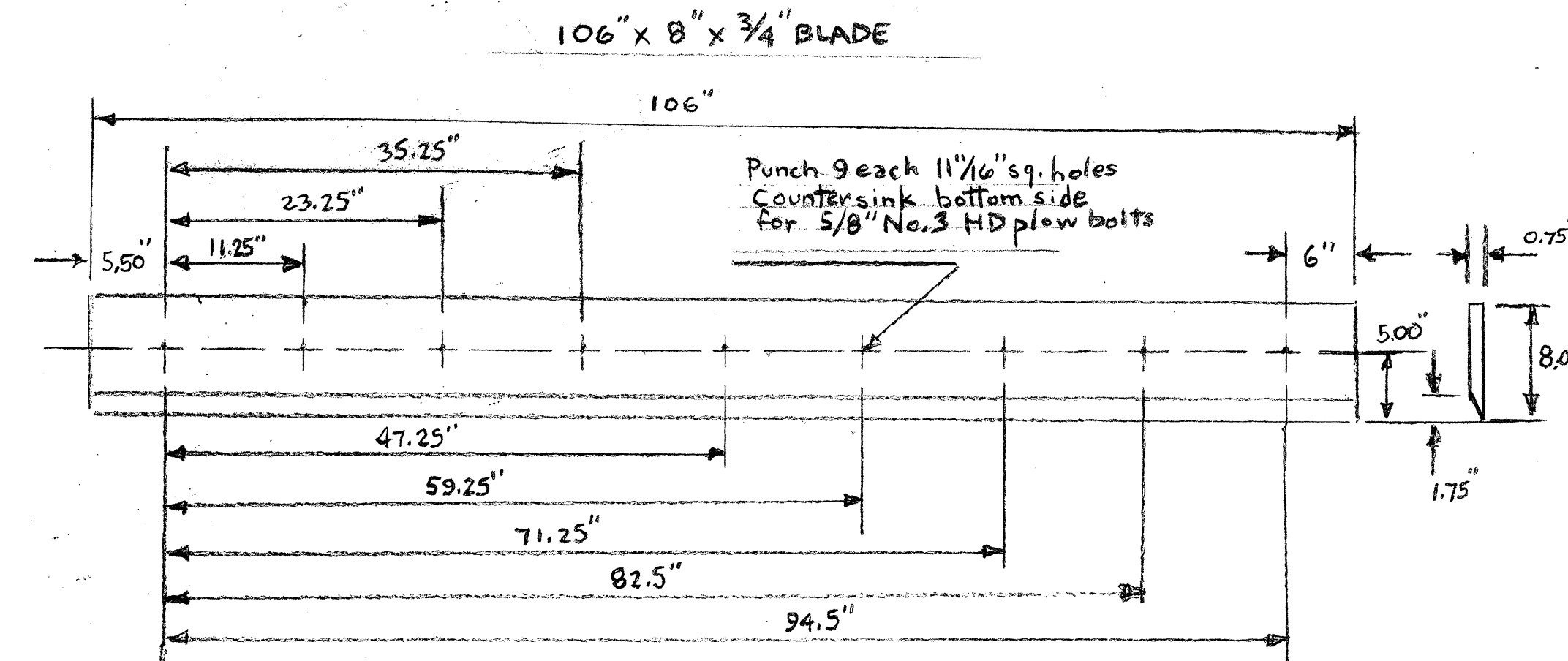


SPECIFICATION:

Material used in these blades must conform to the following chemical analysis and physical properties:

Carbon	.38 Min.	.43 Max.
Manganese	.75 Min.	1.00 Max.
Sulphur		.04 Max.
Phosphorous		.04 Max.
Silicon	.20 Min.	.35 Max.
Chromium	.80 Min.	1.10 Max.
Molybdenum	.15 Min.	.25 Max.
Brinell Hardness:	350 - 450	

NOTE: A certificate of analysis is to be furnished with blades when delivered.



REVISION	Drawn by	Checked by

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF MAINTENANCE AND CONSTRUCTION BUREAU OF EQUIPMENT			
8" BLADES for ARTICULATING LOADERS			
SUBMITTED BY [Signature]	DRAWN BY [Signature]	SCALE 3/32"=1"	DWG. NO. 3-113
APPROVED BY [Signature]	JOB NO. [Blank]	DATE 10-22-97	
REV	DATE	BY	REMARKS
1	8/20/98	JJB	ADDED 9TH HOLE
ORDER REQUEST NO.		APPLICABLE SNOW PLOWS	

T-0085 (24DPP01035)
 Drawing 3-114
 Price Line 22

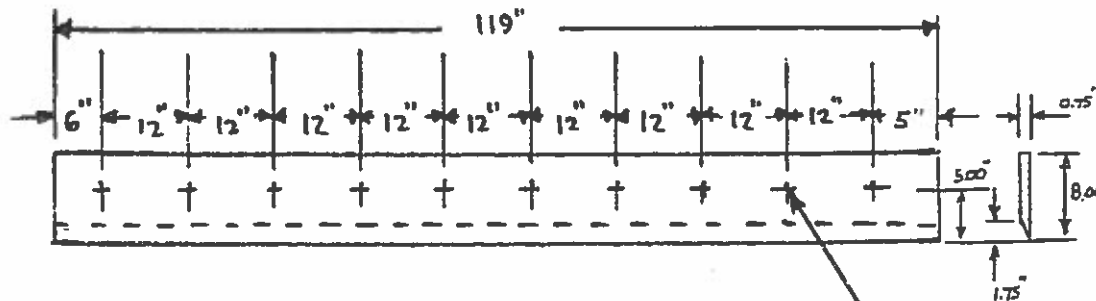
119" x 8" x 3/4" BLADE for 2.75 YARD VME SIDE DUMP LOADER

SPECIFICATION:

Material used in these blades must conform to the following chemical analysis and physical properties:

Carbon	.38 Min.	.43 Max.
Manganese	.75 Min.	1.00 Max.
Sulphur		.04 Max.
Phosphorous		.04 Max.
Silicon	.20 Min.	.35 Max.
Chromium	.80 Min.	1.10 Max.
Molybdenum	.15 Min.	.25 Max.
Brimell Hardness:	350-450	

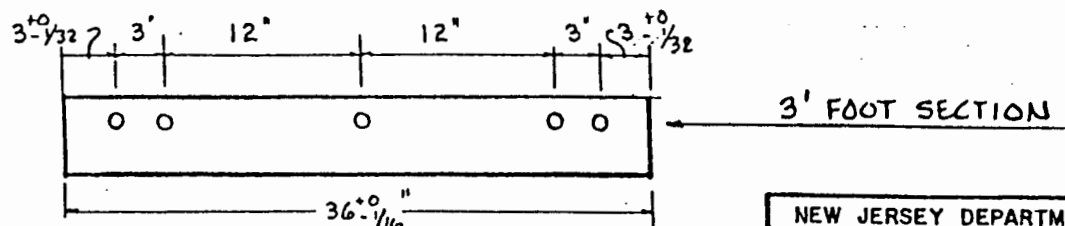
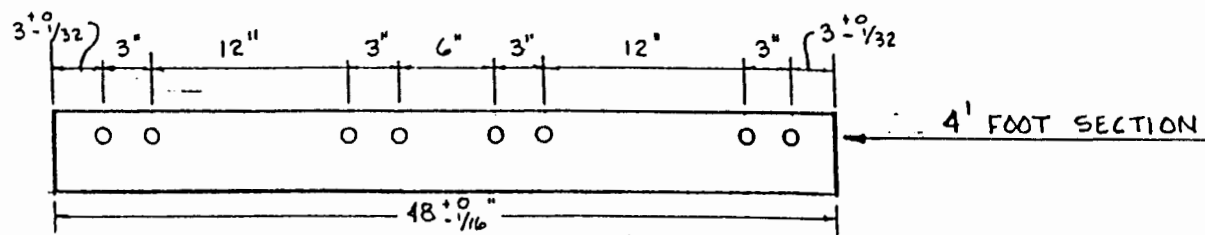
NOTE: A certificate of analysis is to be furnished with blades when delivered.



Punch 10 each 11/16 sq. holes
 Countersink bottom side for
 5/8" No. 3 HD Flow Bolts

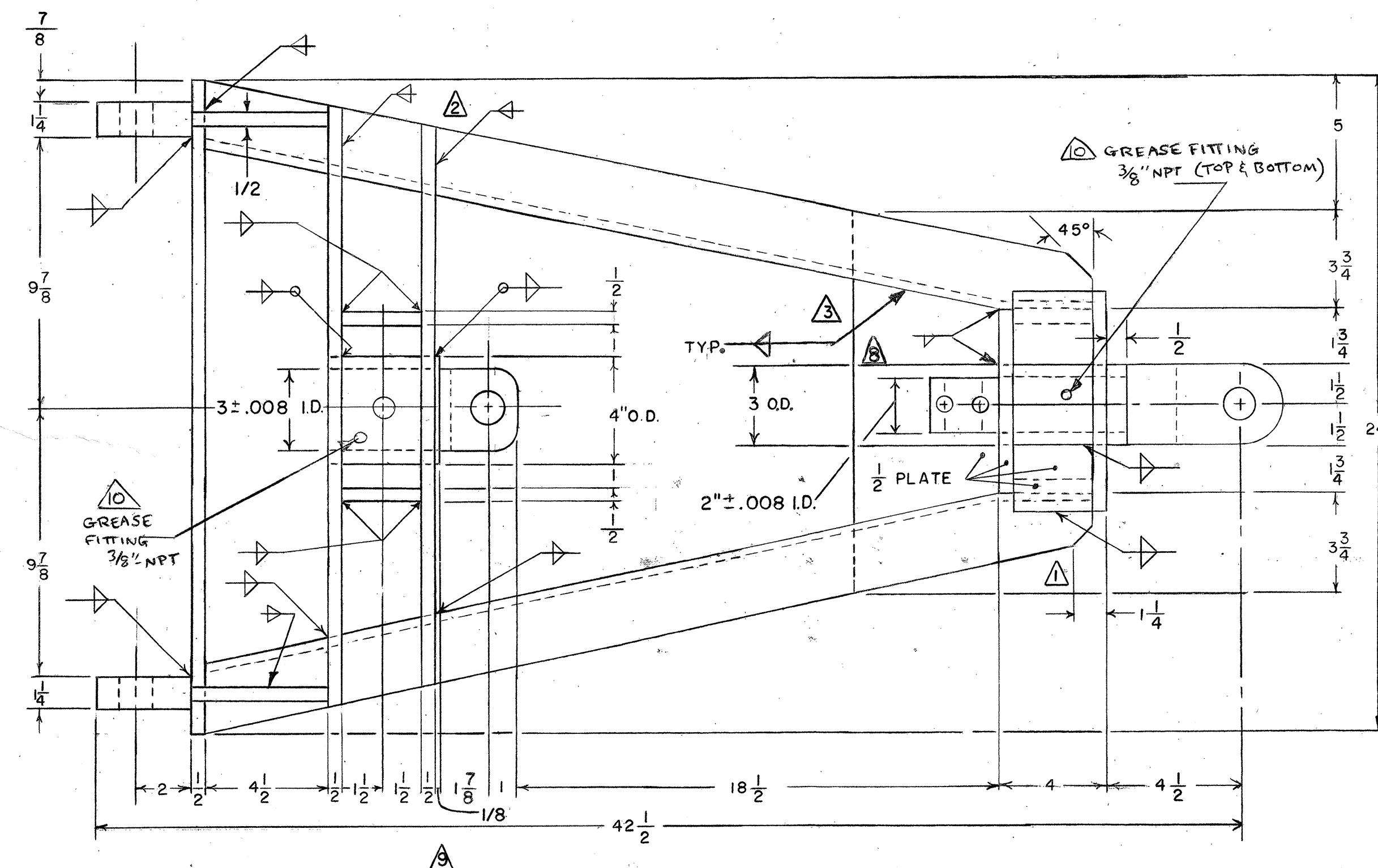
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF MAINTENANCE AND CONSTRUCTION BUREAU OF EQUIPMENT			
				8" BLADES for ARTICULATING LOADERS			
SUBMITTED BY		DRAWN BY		SCALE		DWG. NO.	
J. H. Brown		J. H. Brown		3/32"=1"		3-114	
APPROVED BY		JOB NO.		DATE			
J. H. Brown				11/16/99			
REV DATE BY							

- 1045 STEEL AISI-SAE _____
- MANUFACTURERS' NAME TO BE STAMPED ON EACH END OF EACH SECTION, _____
- CARBIDE INSERT _____
- SEE SPECS["] IN CONTRACT= FOR CARBIDE INSERTS



Dwg By:	Checked By:	Appr'd By:
---------	-------------	------------

- NOTES:
1. ALL WELDS TO BE CONTINUOUS
 2. EYE BAR AND LATCH PIN SWIVEL FOUND IN GREATER DETAIL ON DWG. NO. 4-154.

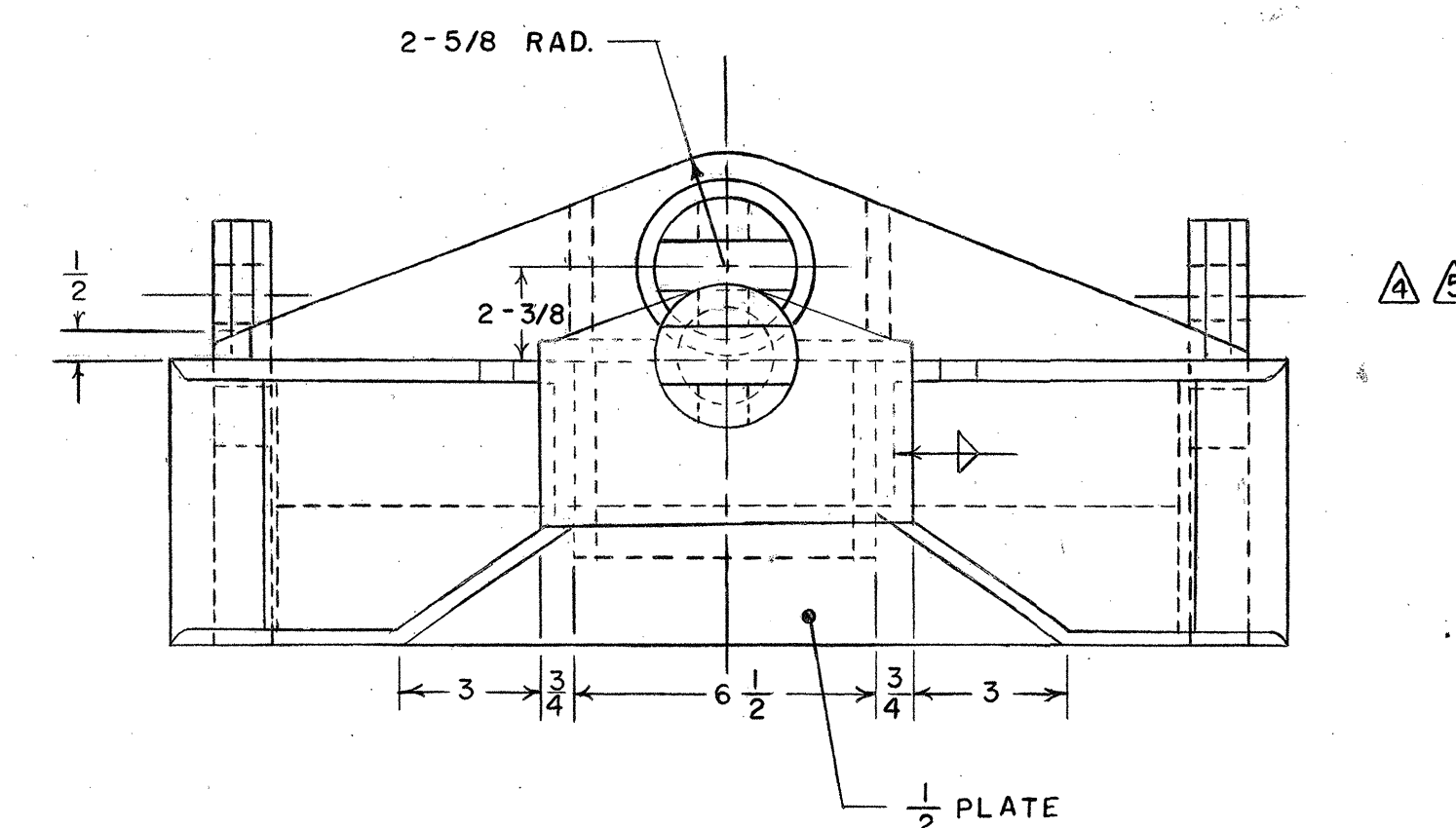
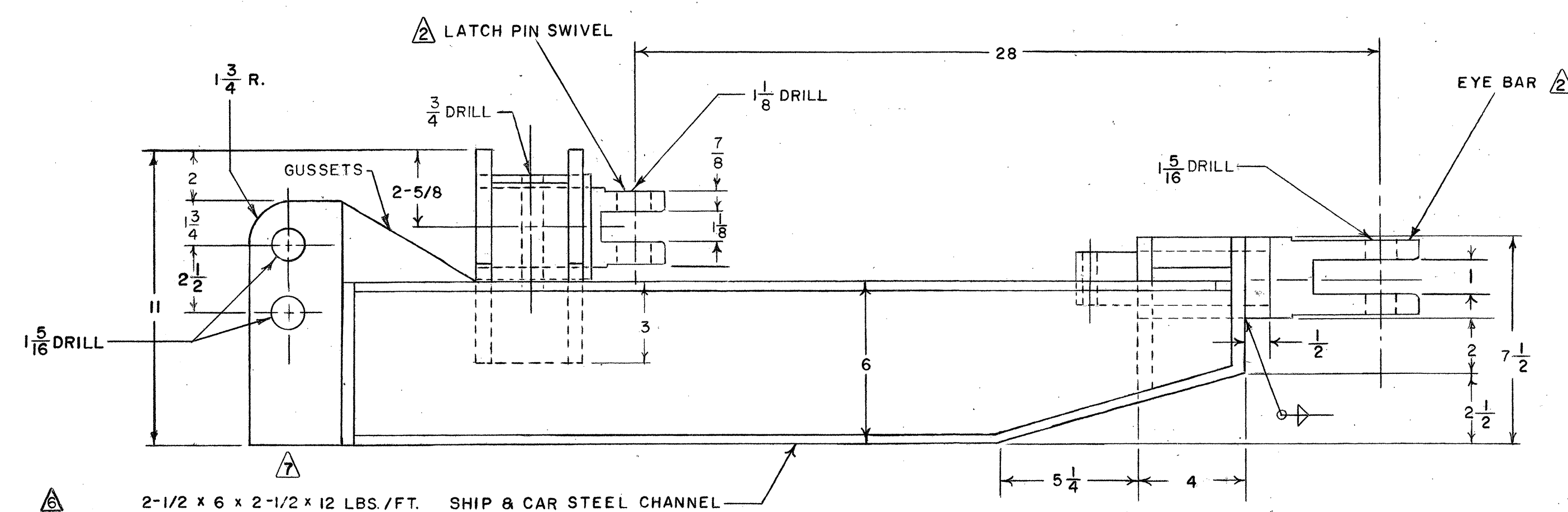


MAT'L:

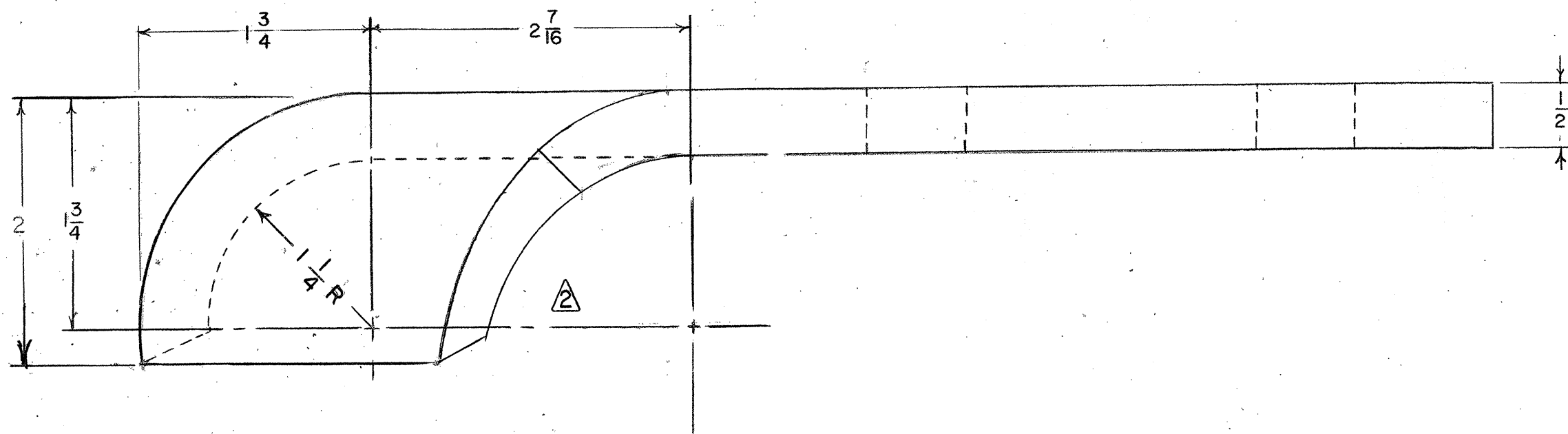
CHANNEL _____ SHIP & CAR STEEL CHANNEL

PLATE _____ HOT ROLLED STRUCTURAL STEEL QUALITY

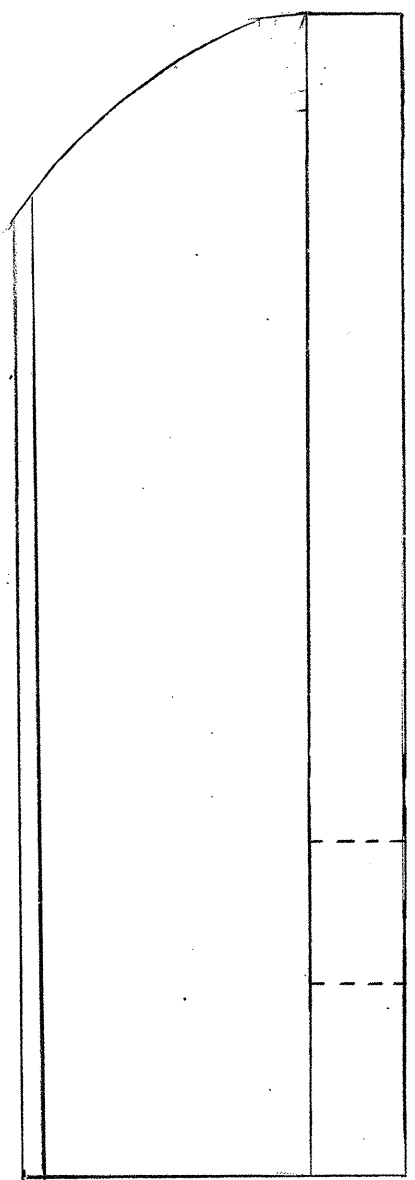
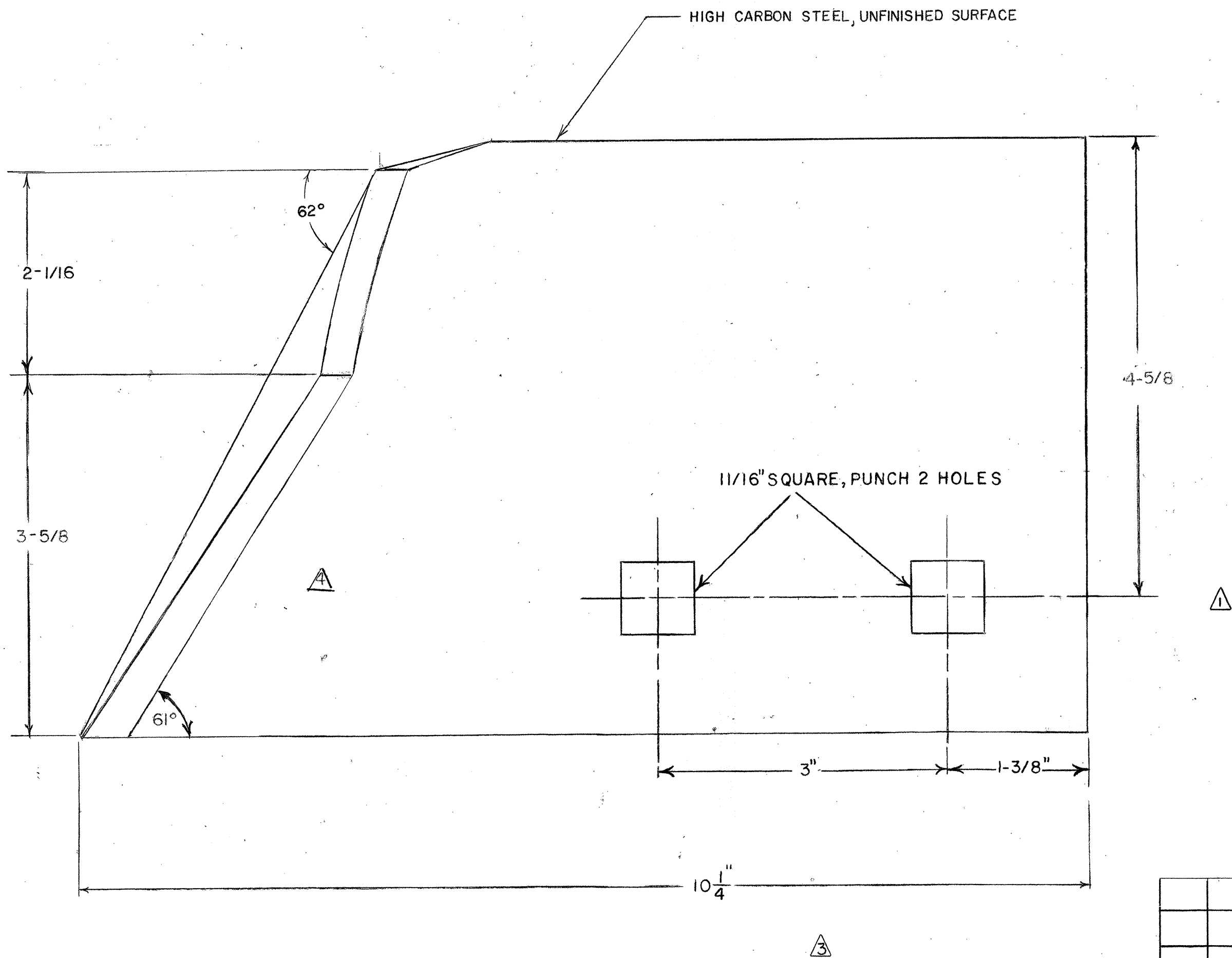
TUBING _____ COLD DRAWN SEAMLESS CARBON STEEL



10	9/1/95	JWB	ADDED 3 GREASE FITTINGS						
9	4/2/87	A.P.S	SHORTEN LATCH PIN SWIVEL RECEIVER						
8	3-5-66	JWB	ADD WELD SYMBOLS			NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
7	8-1-77	A.P.S.	ADD HOLE, RADIUS, & DIMS.						
6	3-5-76	A.P.S.	CHG. NOM. OF CHANNEL						
5	12-17-75	A.P.S.	REDUCE HEIGHT OF REAR 1/2" PLATE & CHG. POS. OF GUSSETS			LARGE SNOW PLOW PUSH BAR			
4	9-11-75	A.P.S.	CLARIFY REAR SECTION OF P.B. & CHG. DIMS.	77- GHE- 0024	O-R. 11.25-(24,42)-(13,18)-1 MOD.				
3	8-26-75	A.P.S	CHANGE FRONT SECTION OF P.B.	76- GHE- 0009	M. R 10- 32- 15- 1 MOD.				
2	11-25-74	A.P.S	ADDED- NO.'S TO NOTES, NOTE 2, TYPE OF MAT'L, WELDS, PART NAMES, NO SCALE.	75- GHE- 0049	M.R. 11- 36- 15- 1				
1	10-29-74	A.P.S.	MADE ADDITIONS TO FRONT SECTION OF PUSH BAR	75- GHE- 0045	O-R. 12.75-(32,53)-(14.75,22.75)-1	SUBMITTED BY- <i>A. J. Cervinka Jr.</i>	DRAWN BY- A. J. CERVINKA Jr.	SCALE- NONE	DWG. NO. 1076 4-132
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOW	APPROVED BY- <i>F. Despart</i>	JOB NO. <i>W</i>	DATE- OCTOBER 23, 1973	



MATL:
HIGH CARBON STEEL

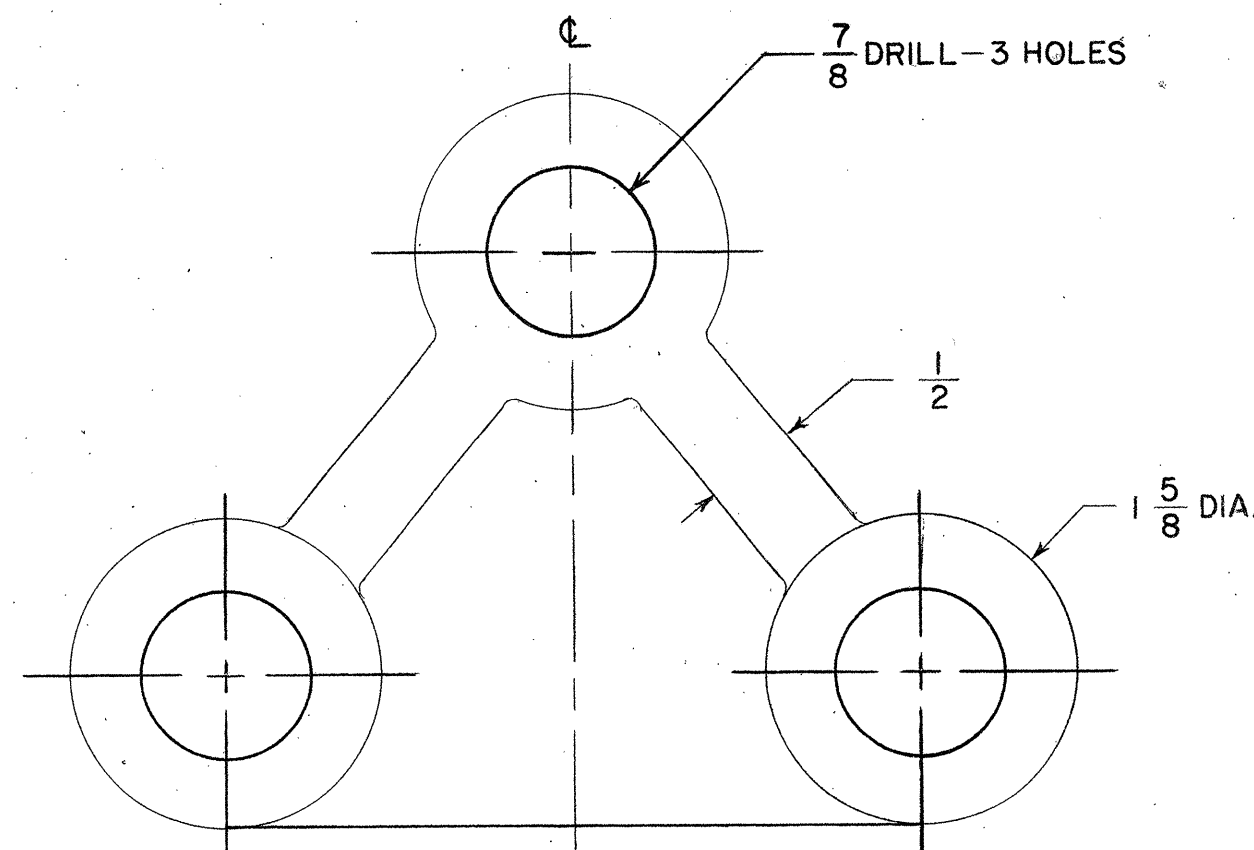
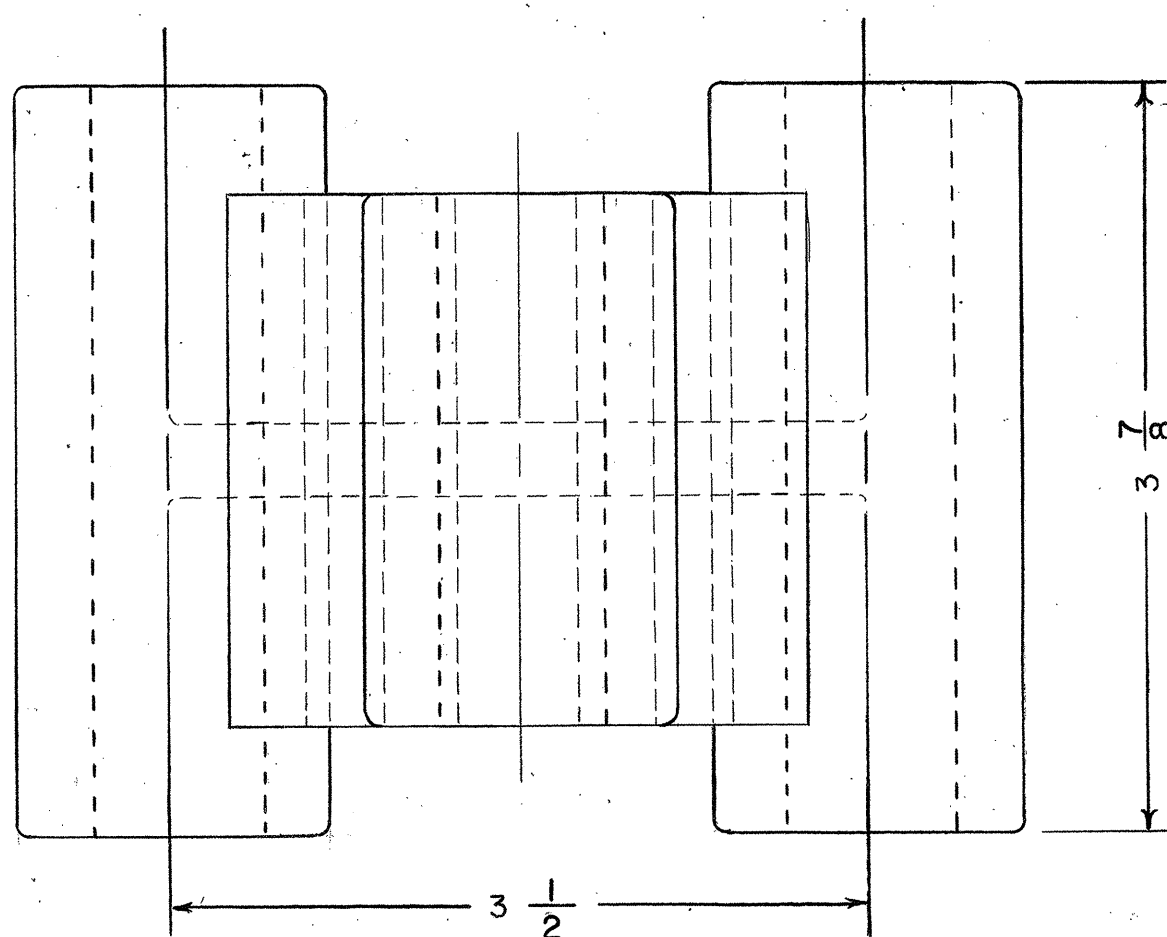


NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT				CURB BUMPER GUARD			
4	9/1/90	JWB	MODIFY LEFT END				
7/27/76	SB	CHANGE HOLES DIMENSIONS	77-GHE-0024				
12/17/74	APS	REVISE TOP VIEW	75-GHE-0049	O-R. 11.25 - (24,42) - (13,18) - 1MOD.	SUBMITTED BY <i>A. J. Cervinka Jr.</i>	DRAWN BY A. J. CERVINKA JR.	SCALE FULL SCALE
12/17/74	APS	CHANGE HOLE LOCATION	75-GHE-0045	O-R. 12.75 - (32,53) - (14.75, 22.75) - 1	APPROVED BY <i>J. J. Cervinka</i>	JOB NO. <i>107.7</i>	DATE OCTOBER 25, 1973
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS	DWG. NO. 107.7 4-133	

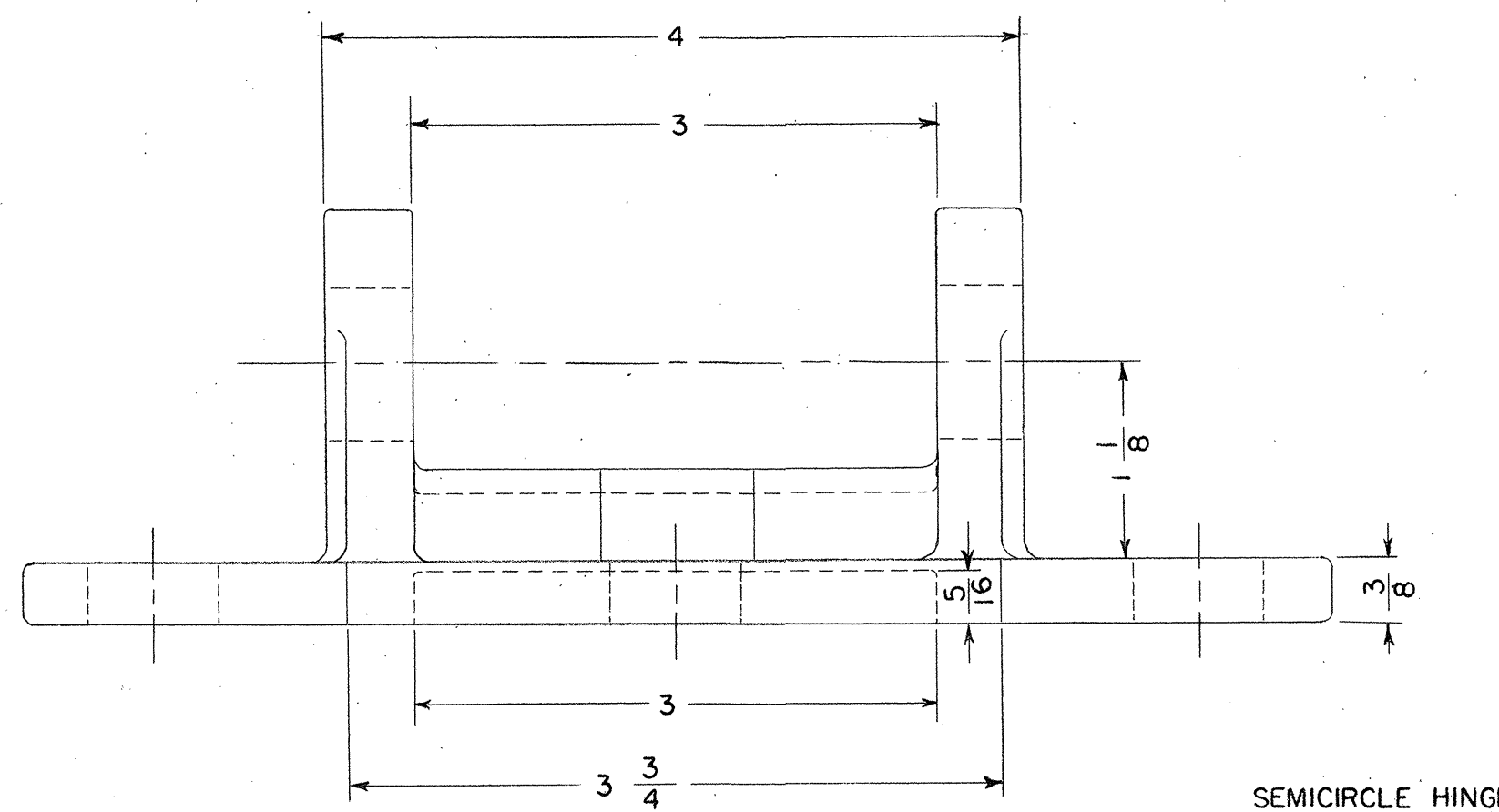
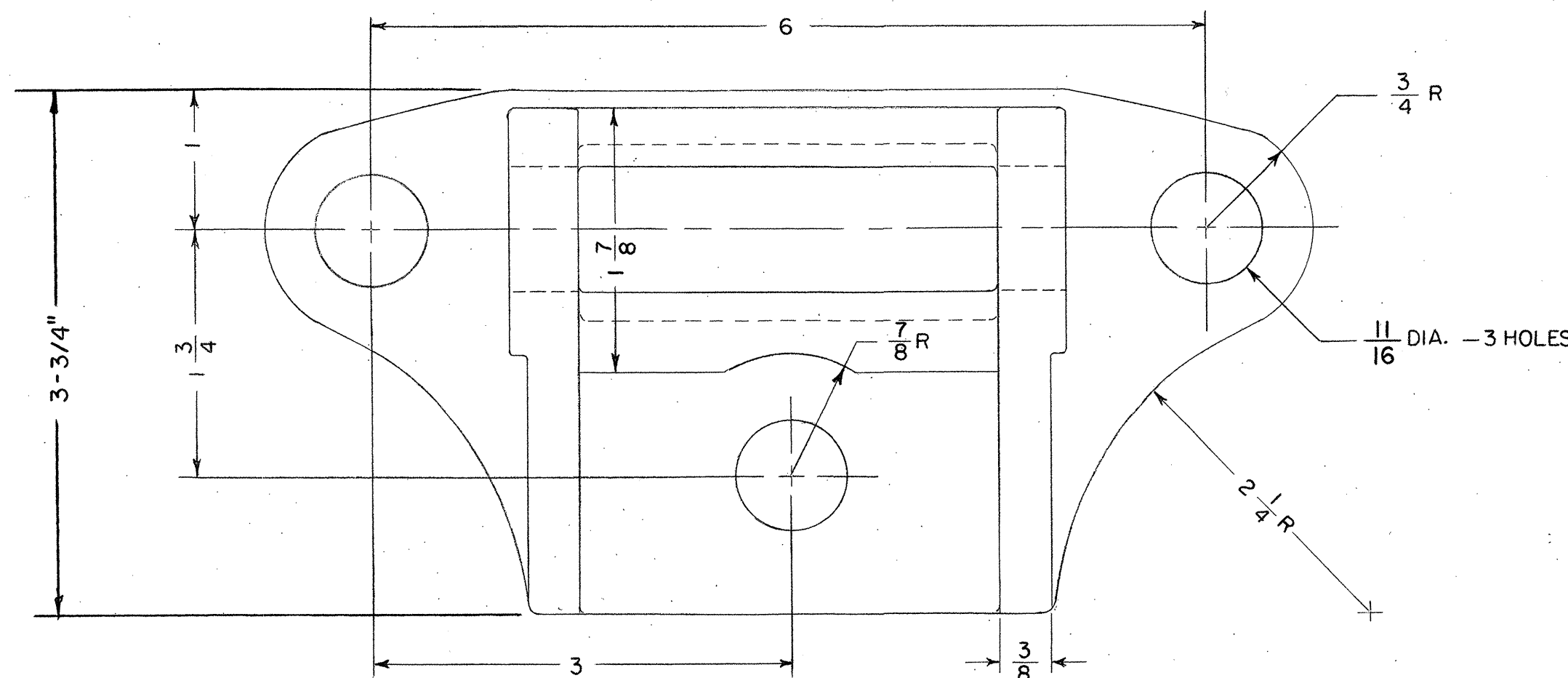
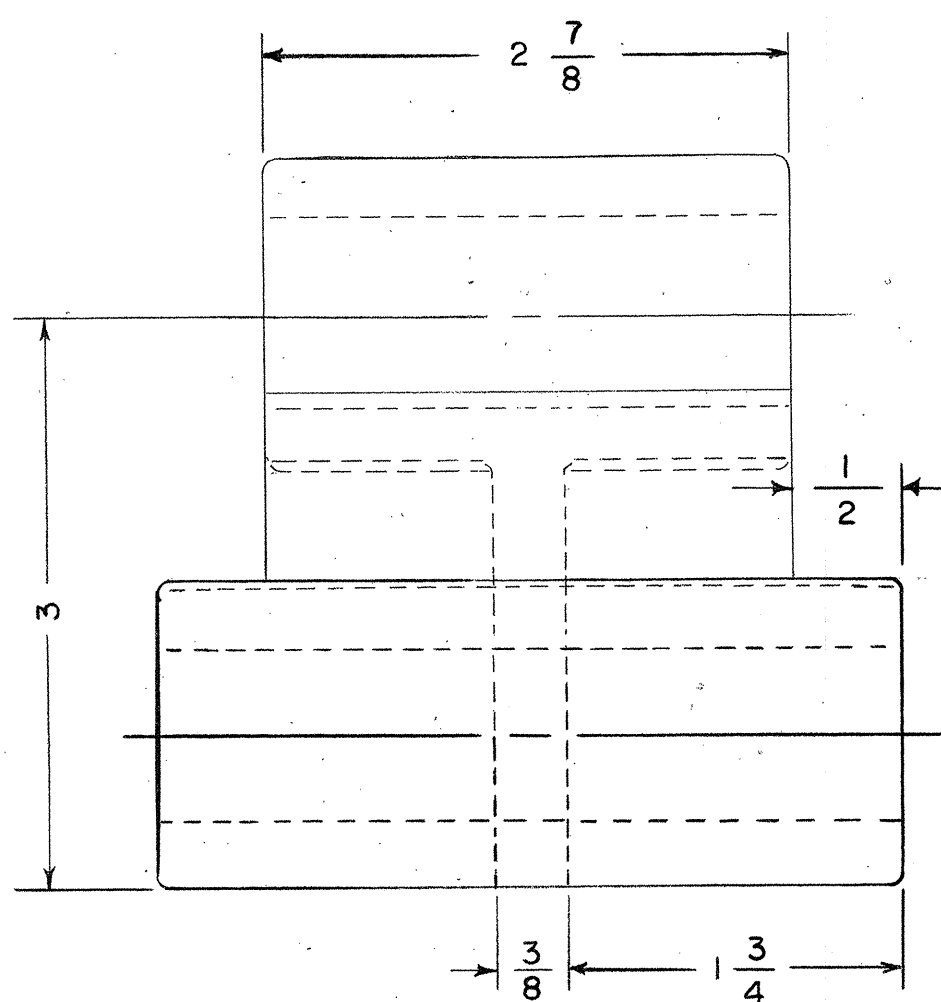
REVISION	Drawn by	Checked by

NOTES

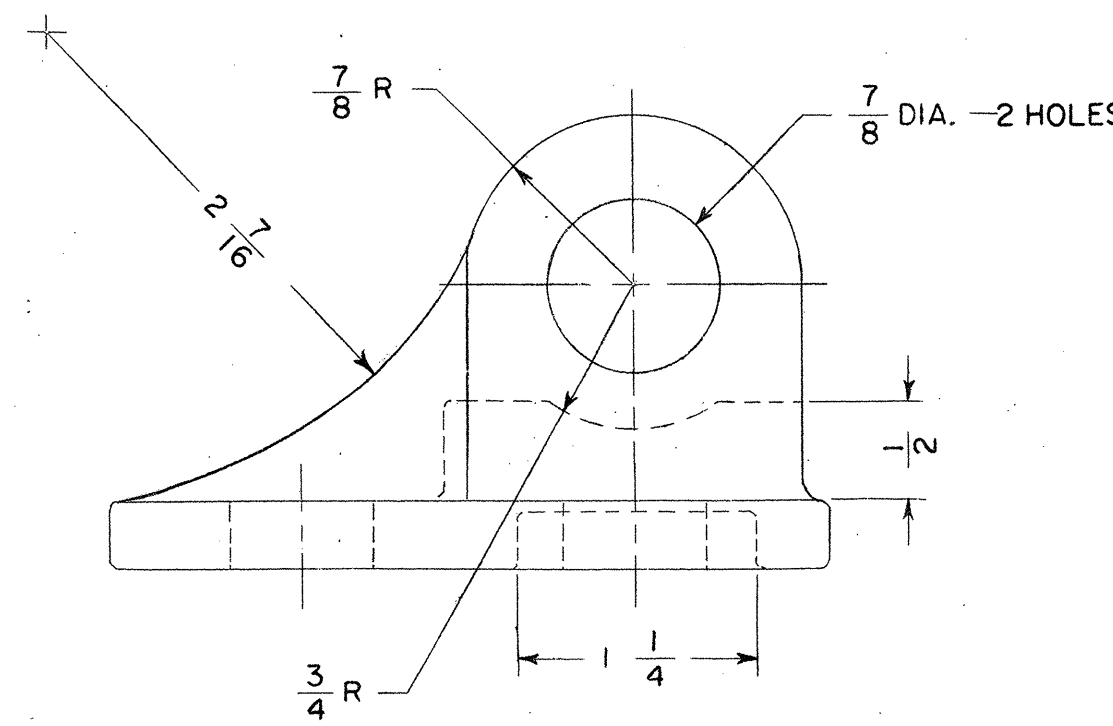
1. MATERIAL IS CAST STEEL.
2. $\frac{1}{8}$ " ROUNDS AND FILLETS.
3. SEMICIRCLE HINGE TO BE MOUNTED TO SEMICIRCLE W/ $\frac{5}{8}$ " X $1\frac{7}{8}$ " RIVETS, OR $\frac{5}{8}$ " FINE THREADED BOLTS, NUTS, & LOCKWASHERS W/ 1" LONG TACK WELDS.
4. FASTEN MOLDBOARD HINGE TO MOLDBOARD W/ $\frac{3}{4}$ ", 10 UNC BOLTS, NUTS, AND LOCKWASHERS.



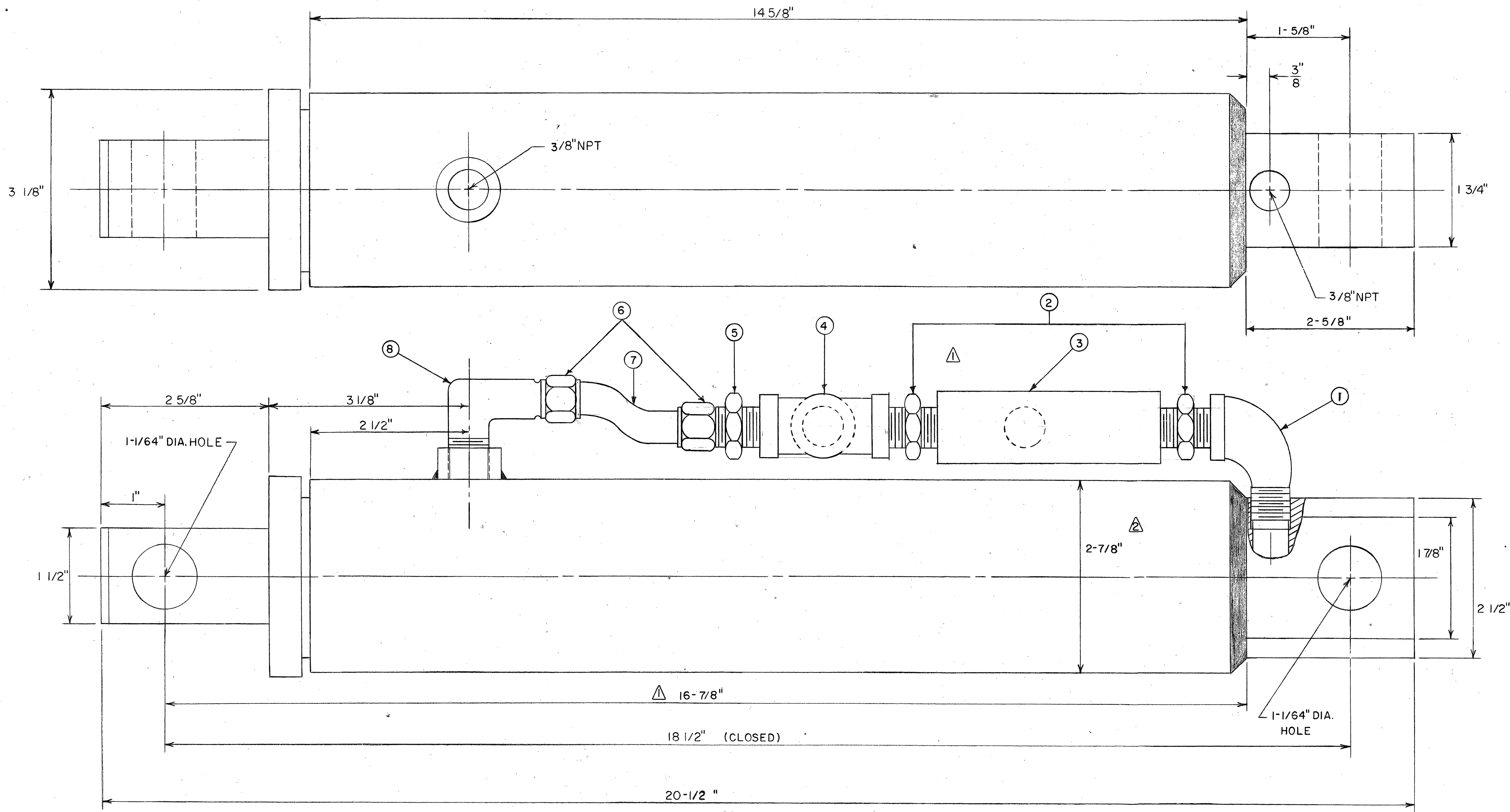
MOLDBOARD HINGE



SEMICIRCLE HINGE



				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				MOLDBOARD HINGE AND SEMICIRCLE HINGE			
				SUBMITTED BY <i>A. J. ...</i>	DRAWN BY K. ERICK	SCALE FULL SCALE	DWG NO. 1079
				APPROVED BY <i>F. ...</i>	JOB NO.	DATE NOV 8, 1973	4-135
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOW		
3-1-84		S.J.D.	MOD. ATTACHMENT METHOD	76-GHE-0009	M.R. 10-32-15-1 MOD. M.R. 11-36-15-1		



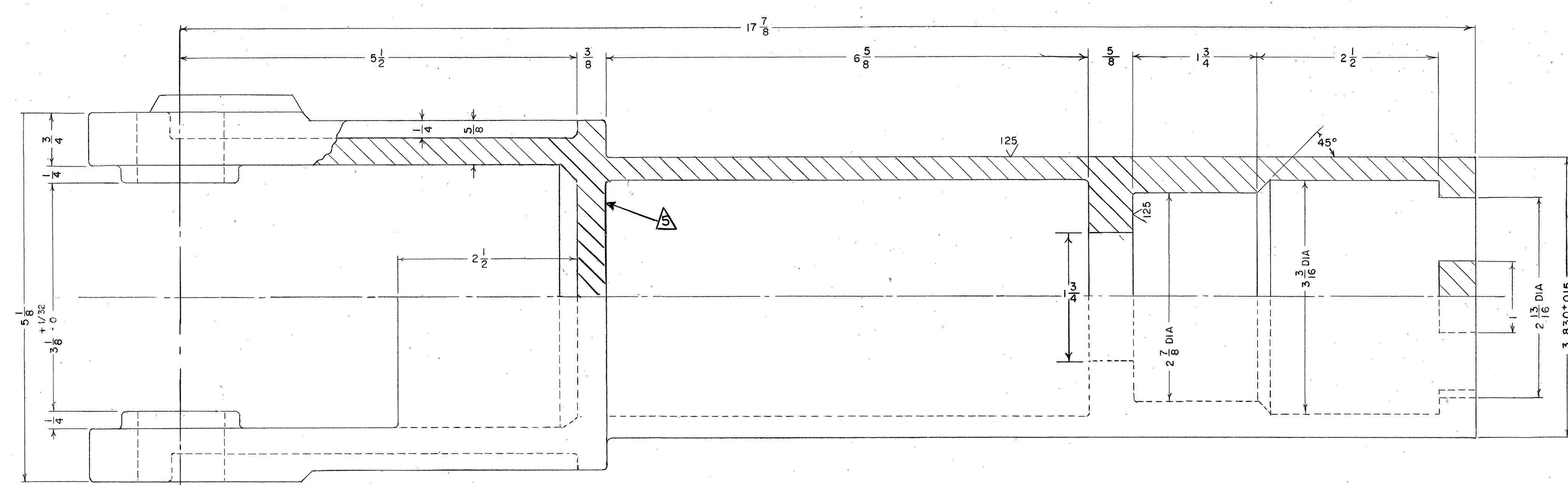
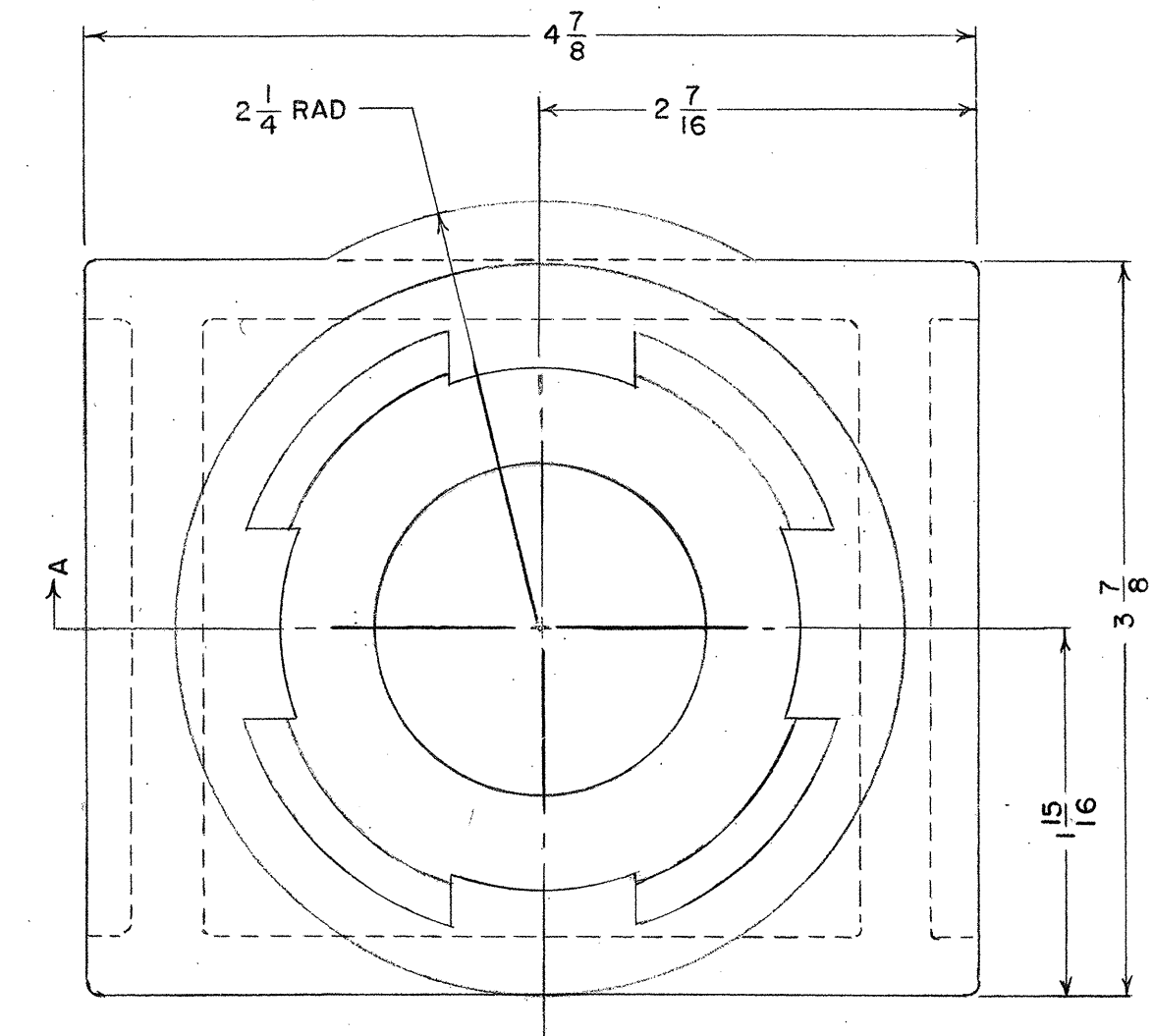
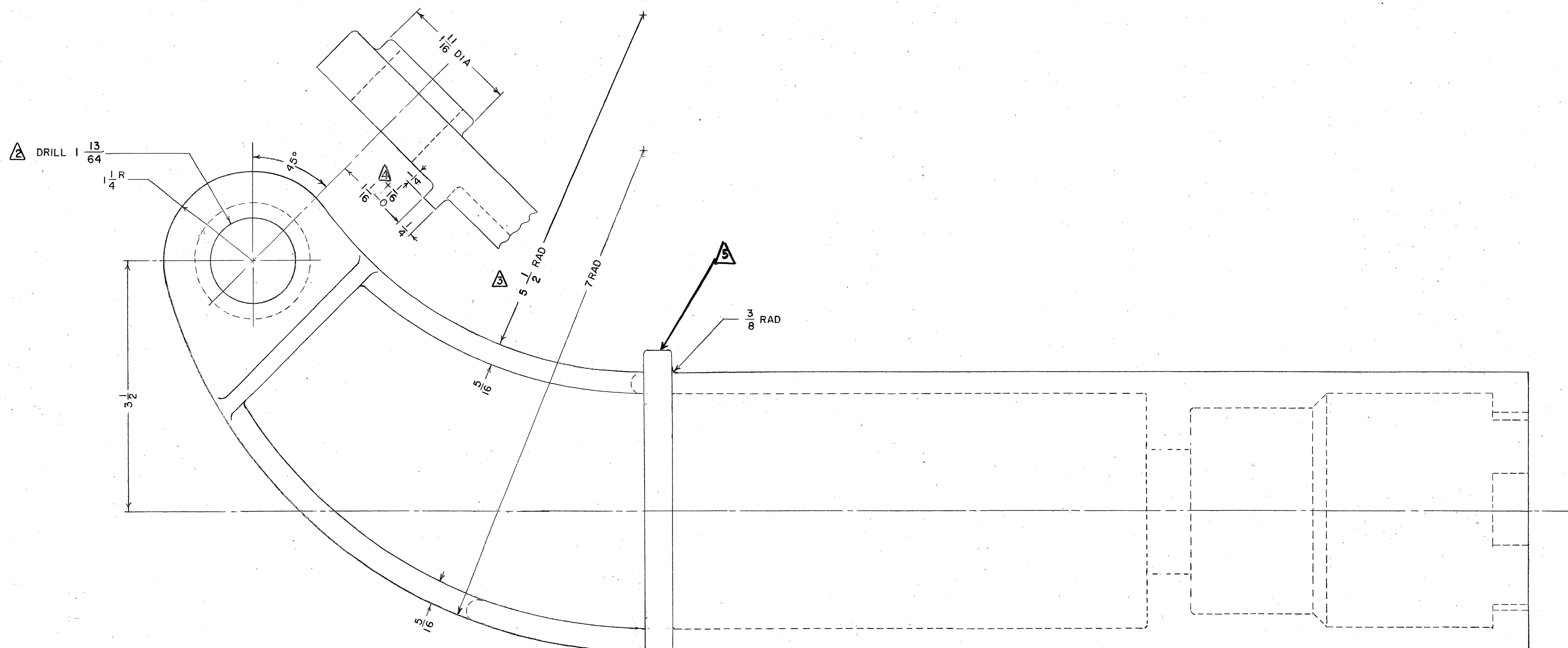
NOTES

1. ROD TO BE CHROME PLATED.
2. SIDEVIEW INDICATES THE NECESSARY HYDRAULIC FITTINGS TO BE INSTALLED.
3. FOR CLARIFICATION OF CYLINDER TOP VIEW, HYDRAULIC FITTINGS HAVE BEEN OMITTED.
4. ALL HYDRAULIC COMPONENTS TO HAVE A MINIMUM WORKING PRESSURE OF 2000 PSI.
5. CYLINDER TO HAVE 10" STROKE, AND 2-1/2" BORE.

ITEM	PART	SIZE	QTY
(1)	STREET ELBOW	3/8" NPT, STEEL	1
(2)	NIPPLE	" " "	2
(3)	PILOT OPERATED CHECK VALVE	SEE APPLICABLE N.J.D. O.T. HYDRAULIC DWG.	1
(4)	TEE	3/8" NPT, STEEL	1
(5)	MALE CONNECTOR TUBE TO MALE	" " "	1
(6)	TUBE END NUTS W/ SLEEVES	TO FIT TUBE	2
(7)	TUBING, ENDS FLARED	5/8" O.D. STN. STL.	1
(8)	MALE ELBOW TUBE TO MALE N.P.T.	3/8" N.P.T. STEEL	1

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
DOUBLE ACTING CYLINDER WITH 10" STROKE			
SUBMITTED BY: <i>[Signature]</i>		DRAWN BY: STEVE TOTH	SCALE: FULL SIZE
APPROVED BY: <i>[Signature]</i>		JOB NO.: NONE	DATE: FEB 11, 1974
DWG NO. 1089 4-140			

6-18-75	K.F.M.	CHANGED O.D. OF CYLINDER	77- GHE -0017	APPLICABLE SNOW PLOWS
4-24-75	APS	ADDED HYDRAULIC COMPONENTS. CHANGED LINE ADDED NOTE 5		
REV	DATE	BY	REMARKS	



SECTION AA

NOTE
ALL FILLETS & ROUNDS 1/4" UNLESS OTHERWISE SPECIFIED

VENDOR REF. GOOD ROADS NO. 62100636
MATERIAL CAST STEEL

REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
54-95	JWB	CLOSED PLATE - NO HOLE			
93-85	JWB	ADDED TOLERANCES			
9-8-75	A.P.S.	CHANGE INNER RADIUS	76-GHE-0009		O-R. 11.25-(24,42)-(13,18)-1 MOD.
4-17-75	A.P.S.	CHANGE SIZE OF AXLE HOLE	75-GHE-0049		M.R. 10-32-15-1 MOD.
11-22-74	A.P.S.	REMOVED DWG 1 OF 4, ADDITION TO DWG. NO.	75-GHE-0045		M.R. 11-36-15-1
					O-R. 12.75-(32,53)-(14.75,22.75)-1

TOLERANCE OF
DIMENSION NOT
OTHERWISE SPECIFIED
DEC. ± 0.015
FRAC. ± 1/16
ANG. ± 5°

NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

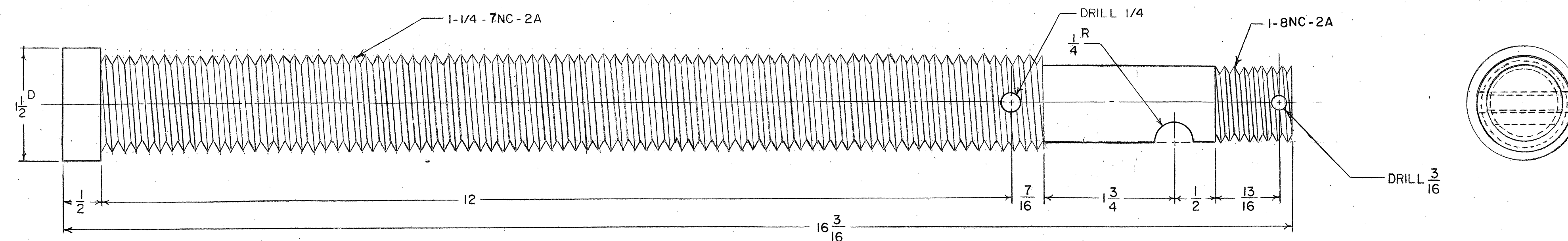
CASTER ASSEMBLY

SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
<i>X. Williams</i>	A. J. CERVINKA Jr.	FULL SIZE	1093 4-144
APPROVED BY	JOB NO	DATE	
<i>F. S. S. S.</i>		MARCH 5, 1974	

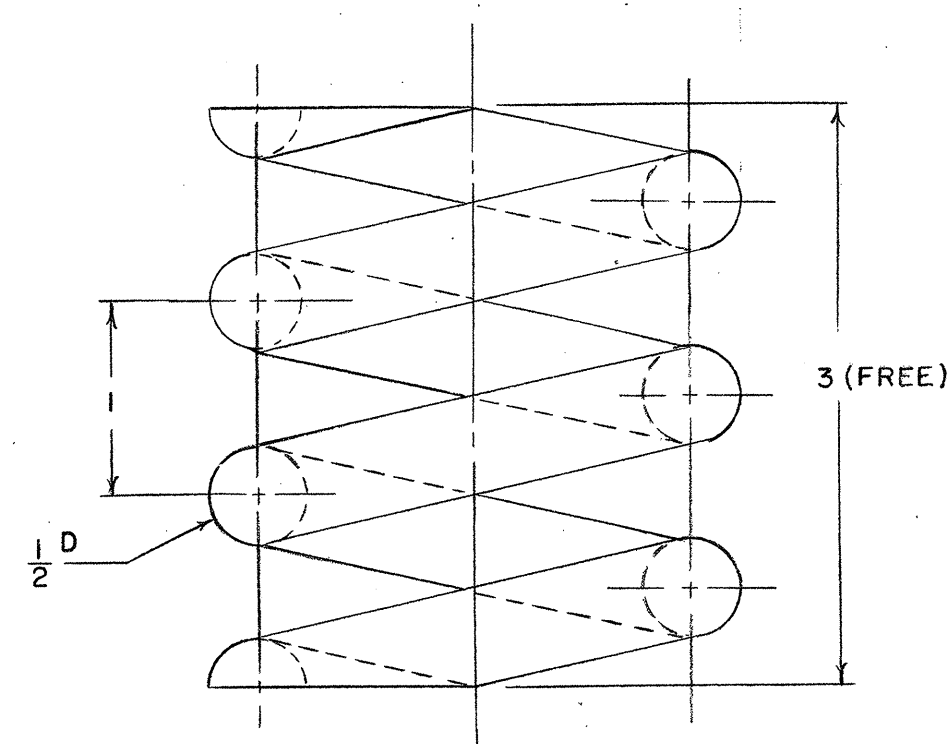
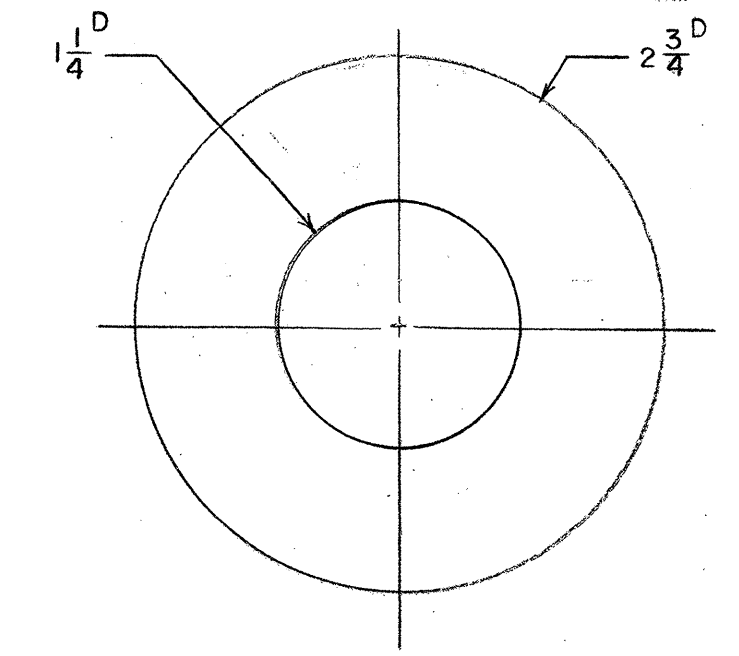
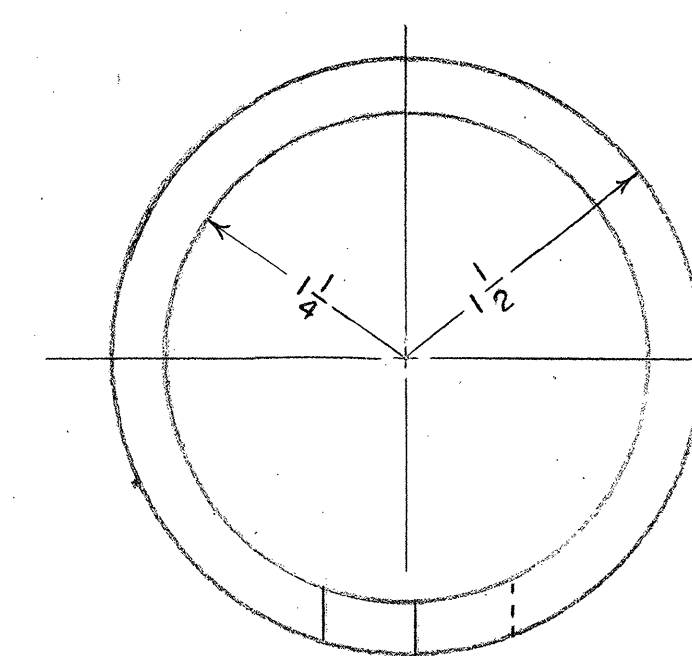
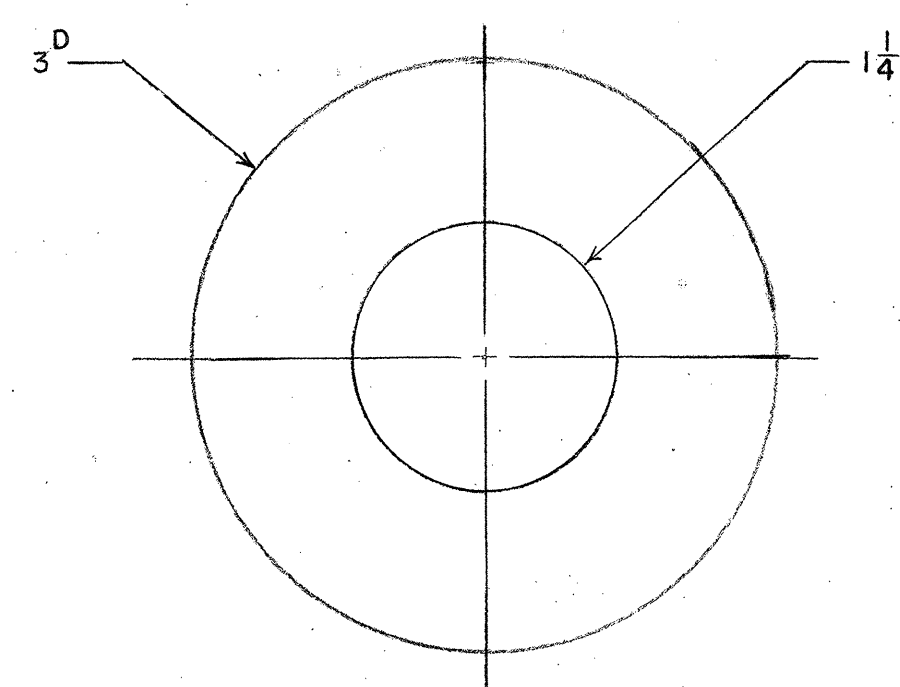
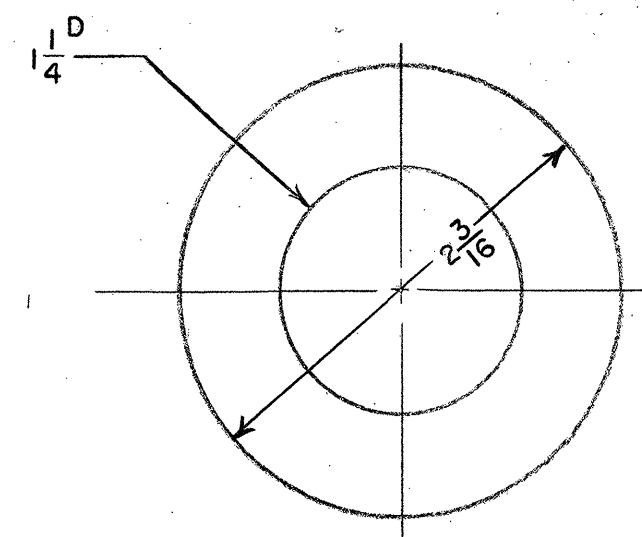
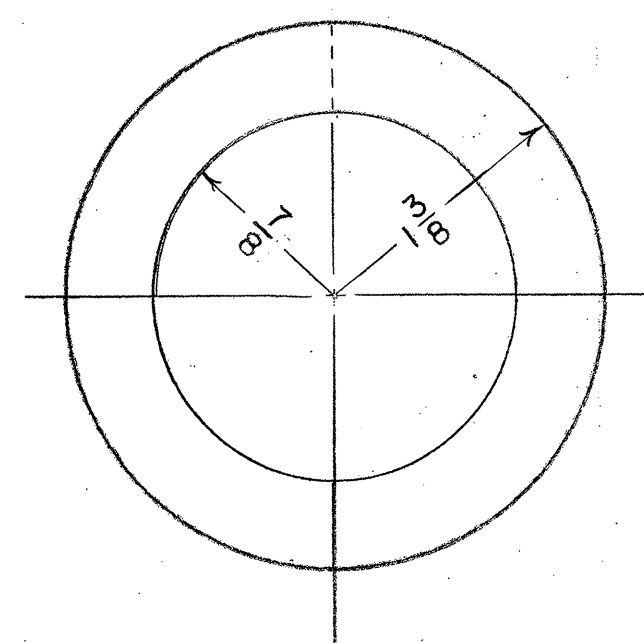
REVISION
Drawn by
Checked by

T-0085 (24DPP01035)
Drawing 4-144-2
Price Lines 32, 59, 61, 69 and 79

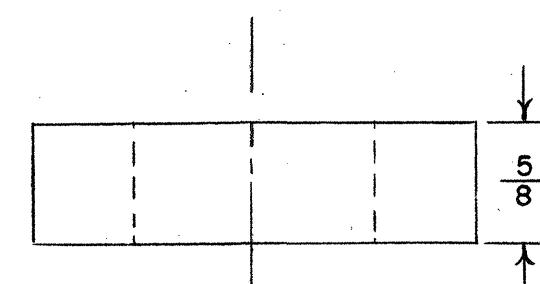
State of New Jersey Procurement Bureau



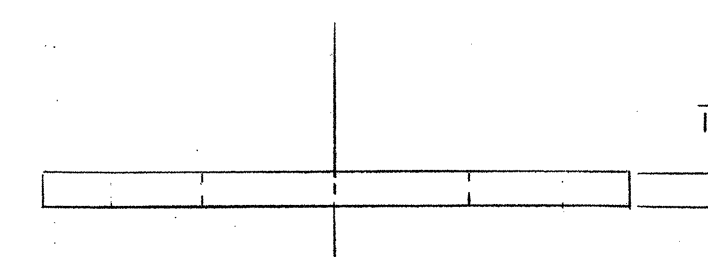
ADJUSTING BOLT
NO. 62100642
MAT'L: COLD FINISHED,
MEDIUM CARBON STEEL
HEAT TREATED



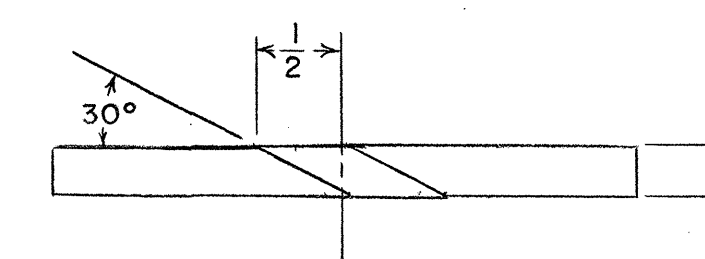
SPRING
NO. 62100637
MAT'L: SPRING STEEL



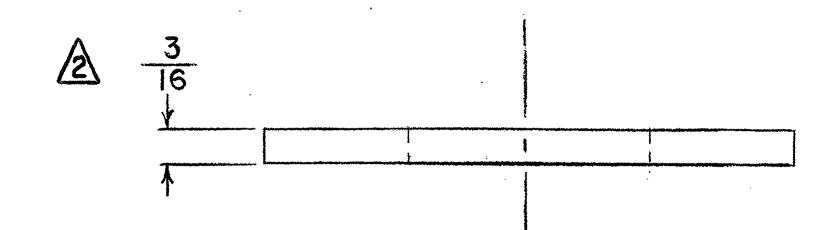
THRUST BEARING
NO. 62100637
TIMKEN NO. T-126, OR
APPROVED EQUAL



BEARING WASHER
STD. STEEL WASHER



RETAINING RING
NO. 62100638
MAT'L: SPRING STEEL

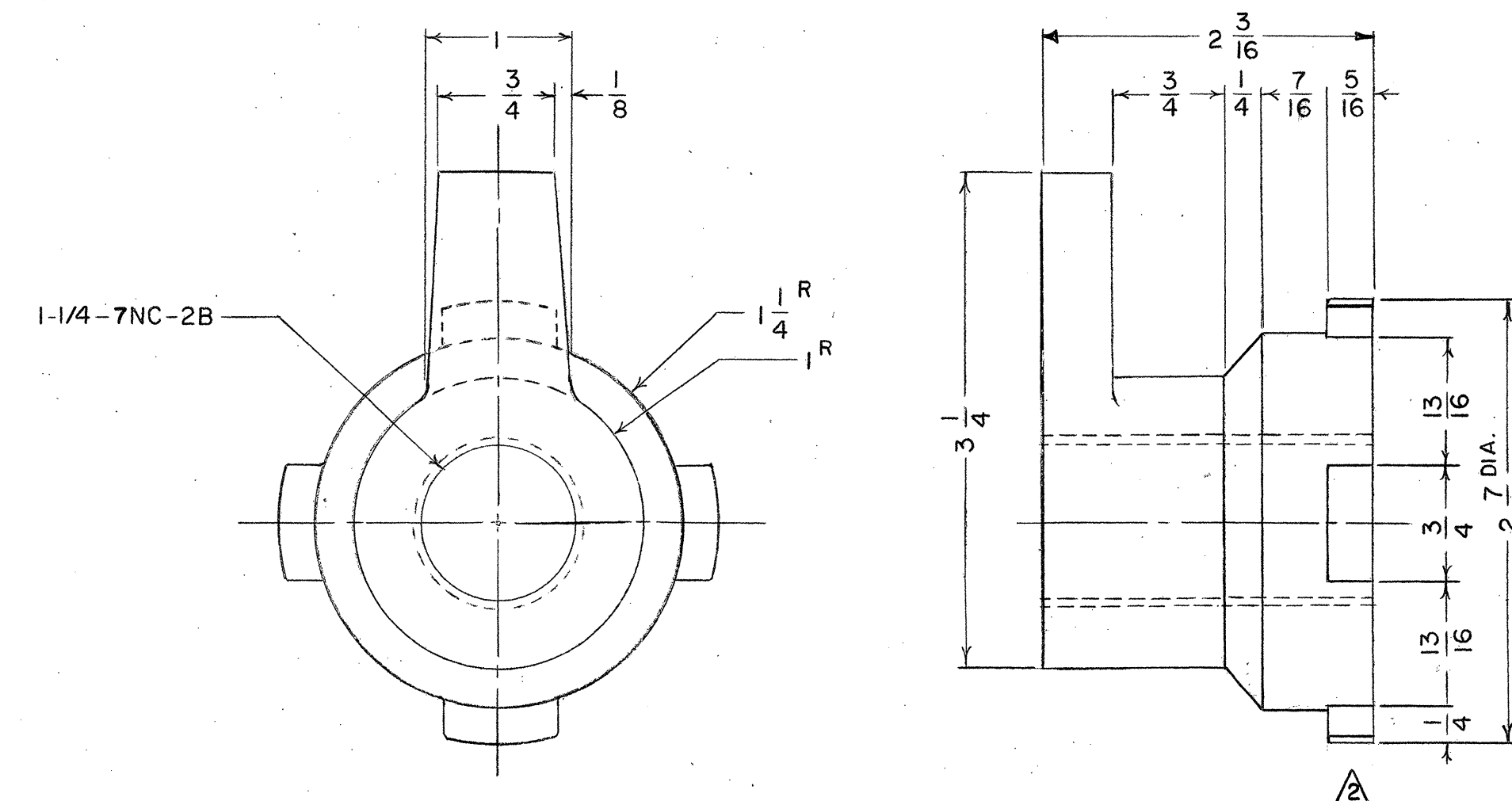


WASHER
STD. STEEL WASHER

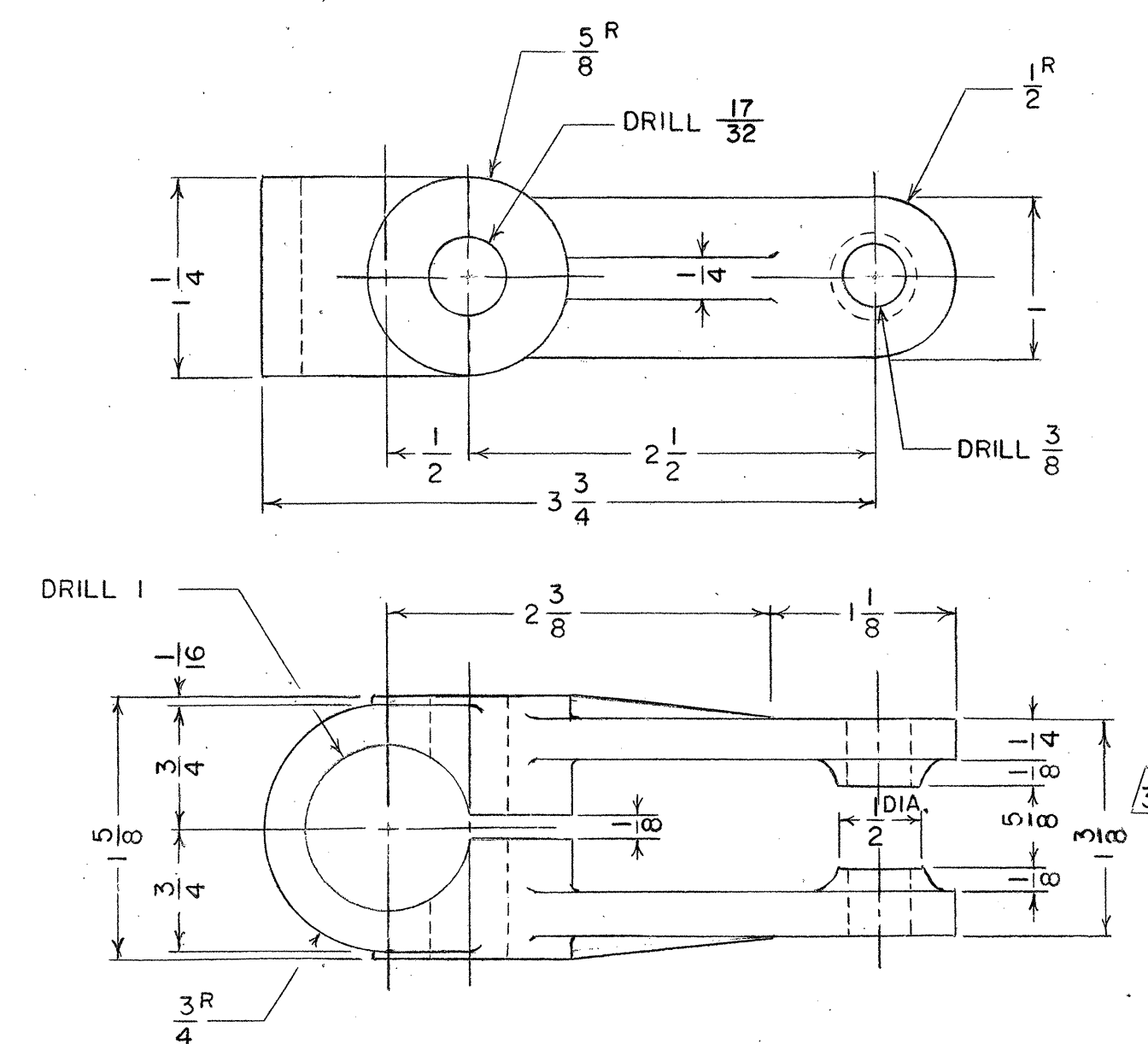
REVISION				NEW JERSEY DEPARTMENT OF TRANSPORTATION			
REV	DATE	BY	REMARKS	DIVISION OF CONSTRUCTION AND MAINTENANCE			
				BUREAU OF EQUIPMENT			
				CASTER ASSEMBLY			
				O-R. 11.25-(24,42)-(13,18)-1 MOD.			
				76-GHE-0009 M.R. 10-32-15-1 MOD.			
				75-GHE-0049 M.R. 11-36-15-1			
				75-GHE-0045 O-R. 12.75-(32,53)-(14,75,22,75)-1			
				ORDER REQUEST NO. APPLICABLE SNOW PLOWS			
				SUBMITTED BY			
				DRAWN BY			
				DATE			
				JOB NO.			
				SCALE			
				1" = 1"			
				DWG. NO.			
				1093			
				4-144			
				2			

VENDOR REF. GOOD ROADS

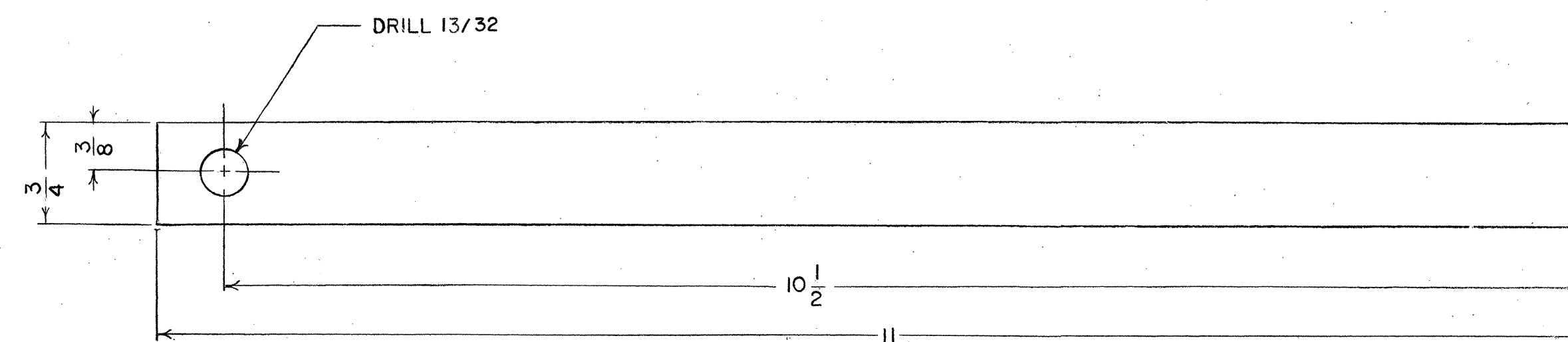
Drawn by
Checked by



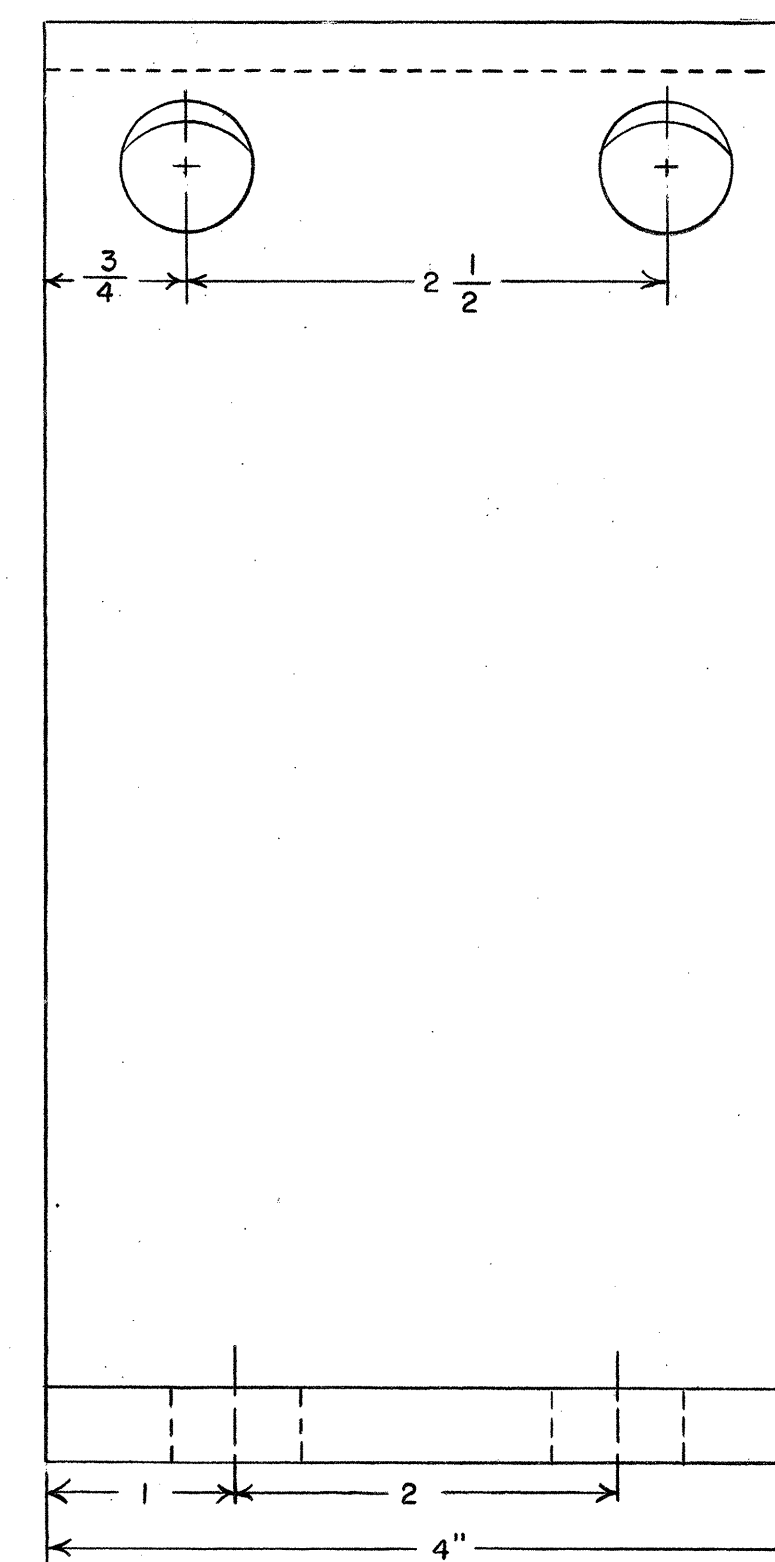
CASTER NUT
MAT'L: CAST STEEL



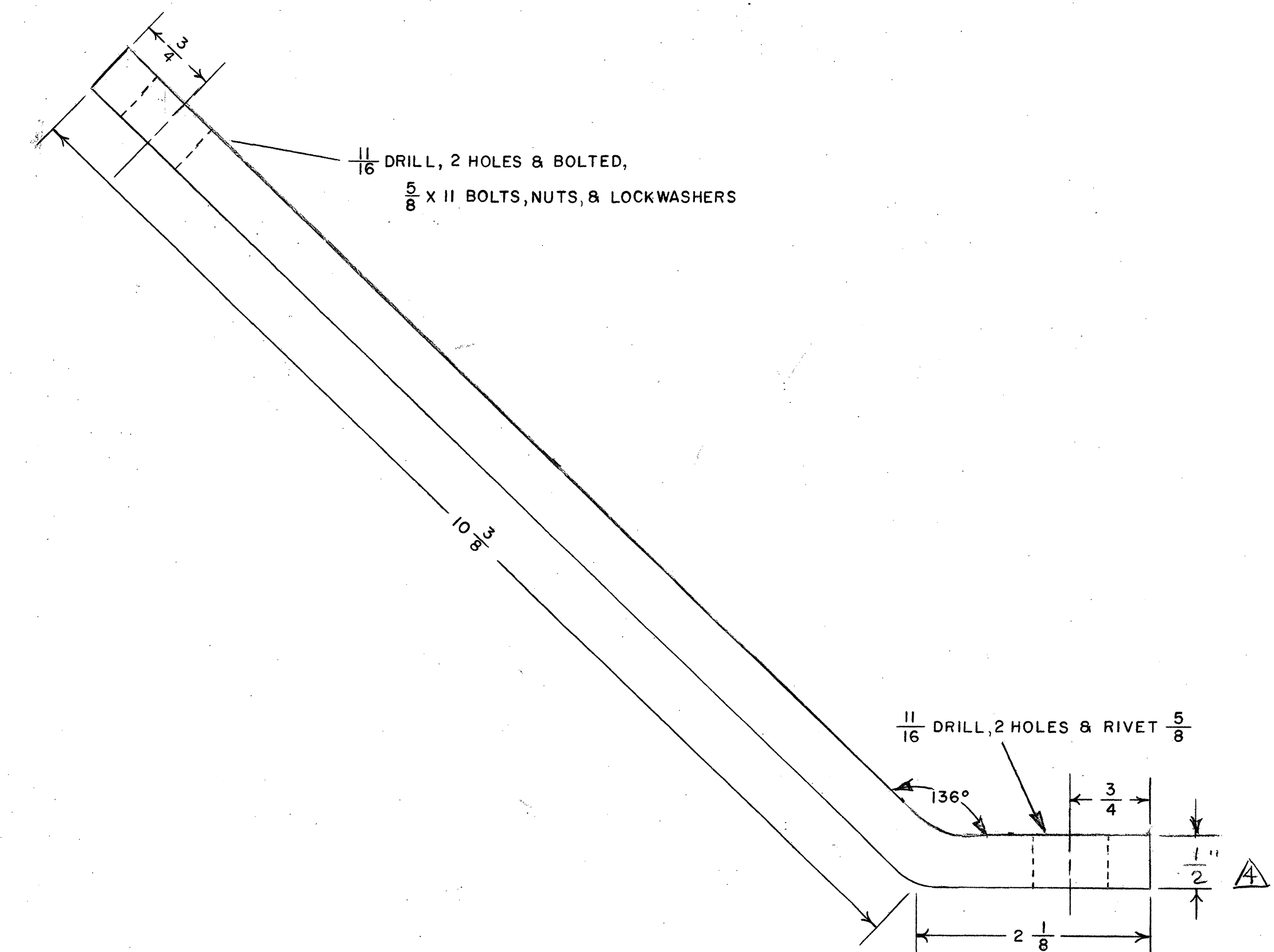
ADJUSTING BOLT FORK
MAT'L: CAST STEEL



HANDLE
MAT'L: HOT ROLLED STEEL



CASTER HOUSING BRACE
MAT'L: STRUCTURAL STEEL



NOTE
HOLE LOCATION TO BE VARIFIED WITH POSITION OF CASTER HOUSING ON SEMICIRCLE & HOLES ON FRONT ANGLE OF SEMICIRCLE

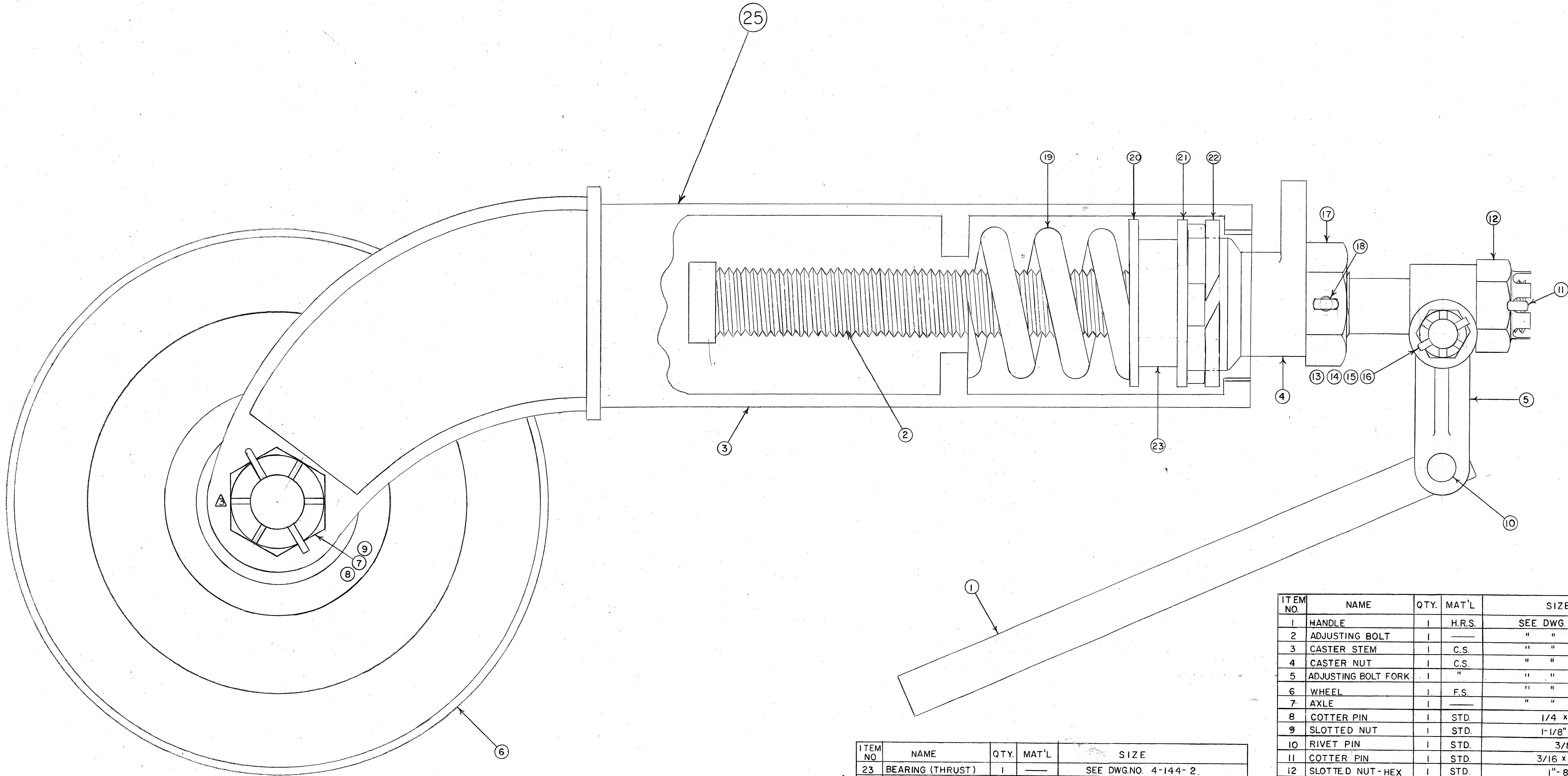
NOTES
1. ALL FILLETS 1/8

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION & MAINTENANCE BUREAU OF EQUIPMENT			
CASTER ASSEMBLY			
REV	DATE	BY	REMARKS
1	9-1-95	JWB	INCREASE THICKNESS FROM 3/8
2	9-3-85	JWB	CHANGE DIMENSION OF OPENING
3	9-9-75	APS	CLARIFY SIDE VIEW OF CASTER NUT
4	11-21-74	APS	ADDED TYPE OF STEEL TO HANDLE AND CASTER HOUSING BRACE.
ORDER REQUEST NO.		APPLICABLE SNOW PLOWS	
SUBMITTED BY		DRAWN BY	
APPROVED BY		JOB NO.	
DATE		SCALE	
MARCH 1, 1974		FULL	
DWG. NO.		1093	
4-144		3	

REVISION
Drawn by
Checked by

VENDOR REF GOOD ROADS

1. CASTER NUT NO. 62100477
2. HANDLE NO. 62100151
3. ADJUSTING BOLT FORK NO. 62100640
4. CASTER HOUSING BRACE NO. 62100657



ITEM NO.	NAME	QTY.	MAT'L	SIZE
23	BEARING (THRUST)	1	---	SEE DWG. NO. 4-144-2
24				
25	COMPLETE CASTER ASSEMBLY - 2 REQ'D FOR EA. SNOW PLOW ASSY.			

ITEM NO.	NAME	QTY.	MAT'L	SIZE
1	HANDLE	1	H.R.S.	SEE DWG. NO. 4-144-3
2	ADJUSTING BOLT	1	---	" " " 4-144-2
3	CASTER STEM	1	C.S.	" " " 4-144-1
4	CASTER NUT	1	C.S.	" " " 4-144-3
5	ADJUSTING BOLT FORK	1	"	" " " 4-144-3
6	WHEEL	1	F.S.	" " " 4-155
7	AXLE	1	---	" " " 4-121
8	COTTER PIN	1	STD.	1/4 x 2
9	SLOTTED NUT	1	STD.	1-1/8" x 12 UNF
10	RIVET PIN	1	STD.	3/8
11	COTTER PIN	1	STD.	3/16 x 2
12	SLOTTED NUT - HEX	1	STD.	1"- 8NC
13	BOLT - HEX HD.	1	STD.	1/2" x 20 UNF
14	WASHER	1	STD.	1/2
15	SLOTTED NUT - HEX	1	STD.	1/2" x 20 UNF
16	COTTER PIN	1	STD.	1/8" x 1-1/4"
17	HEX NUT	1	STD.	1-1/4" x 7 NC
18	COTTER PIN	1	STD.	1/4"
19	SPRING	1	SPG. STL	SEE DWG. NO. 4-144-2
20	BEARING WASHER	1	STD.	" " " 4-144-2
21	WASHER	1	STD.	" " " 4-144-2
22	RETAINING RING	1	SPG. STL	" " " 4-144-2

REV.	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
9-5-75	APS.		INSTALL AXLE PROPERLY	76-GHE-0009	M.R. 11-25-(24,42)-(13,18)-1 MOD.
4-29-75	APS.		DELETE ITEM 24	75-GHE-0049	M.R. 11-36-15-1
11-21-74	APS.		ADDED DWG NO'S TO ITEM CHART	75-GHE-0045	O-R. 12.75-(32,53)-(14,75,22,75)-1

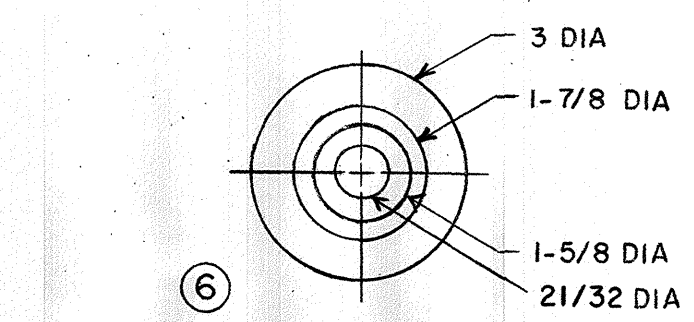
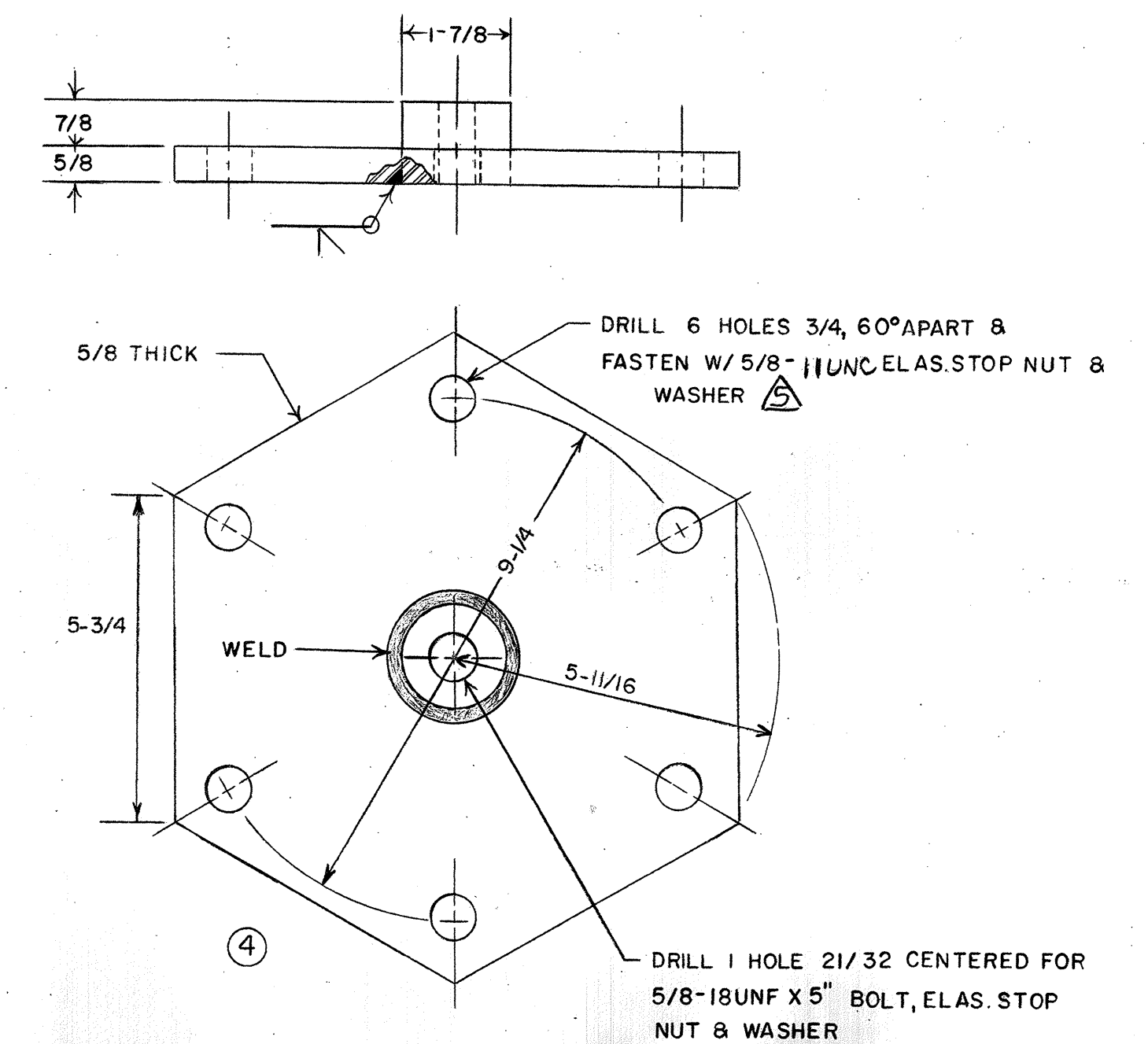
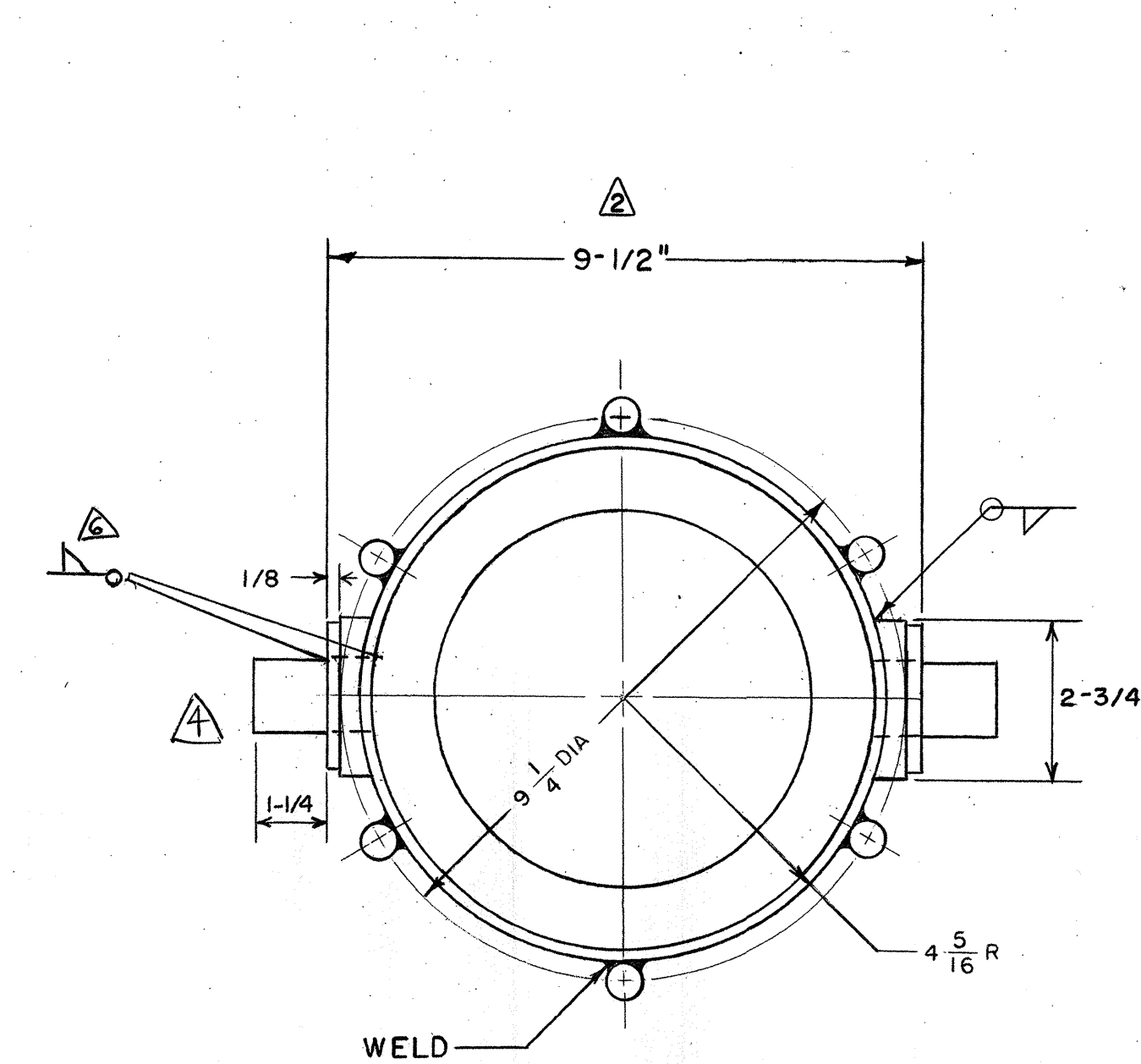
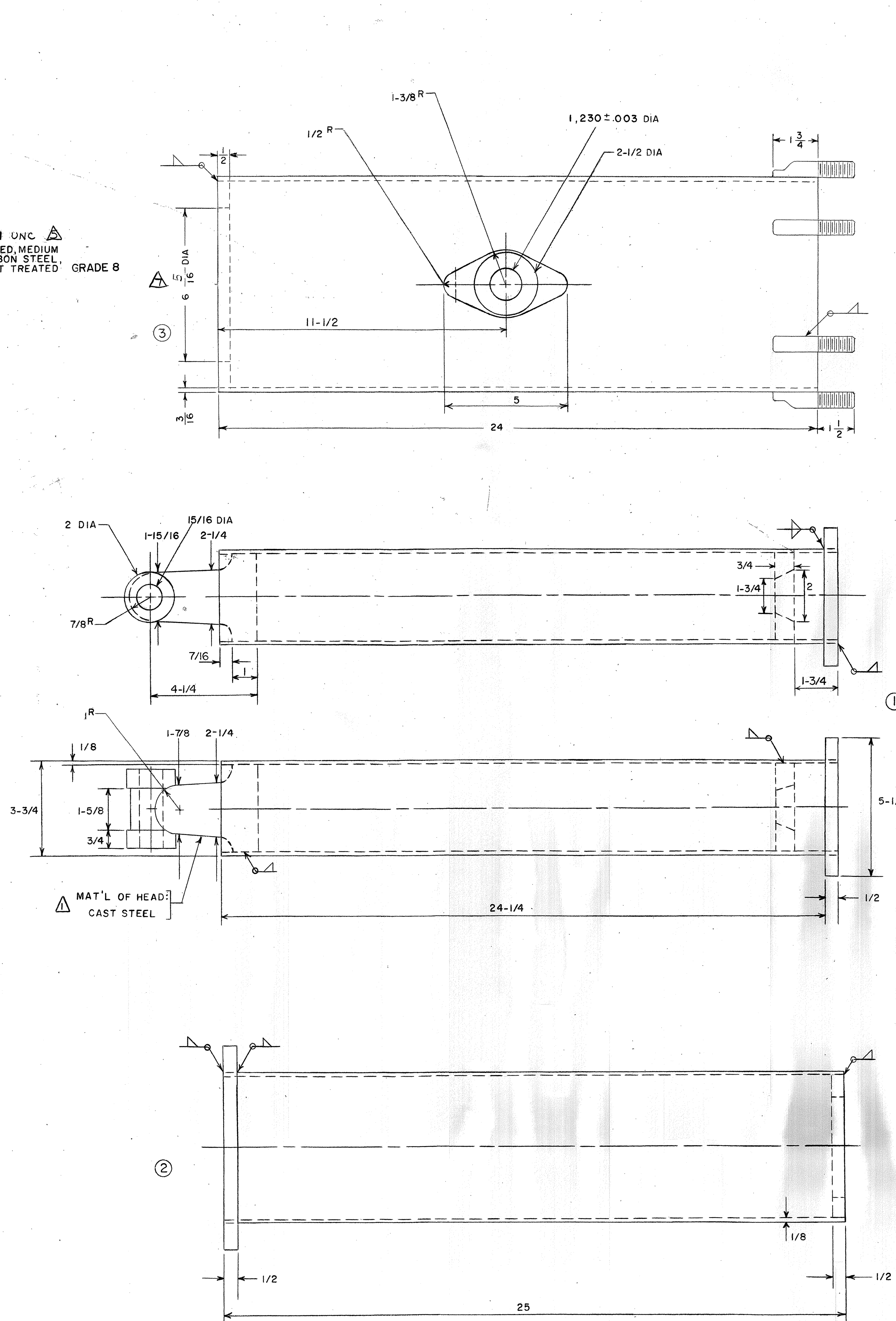
NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
CASTER ASSEMBLY			
SUBMITTED BY	DRAWN BY	DATE	DWG. NO.
APPROVED BY	JOB NO.	SCALE	1" = 1"

REVISION	Drawn by	Checked by

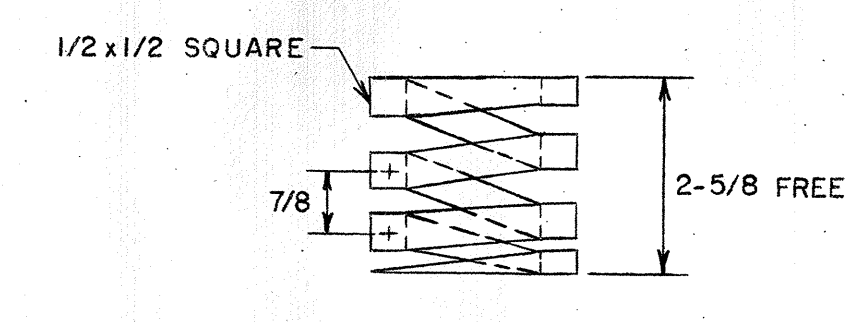
T-0085 (24DPP01035)
Drawing 4-145-1
Price Lines 86, 87, 88, 91 and 92

State of New Jersey Procurement Bureau

NOTE: 6 STUDS EQ. SP. $\frac{5}{8}$ - 11 UNC
MAT'L: COLD FINISHED MEDIUM CARBON STEEL, HEAT TREATED GRADE 8



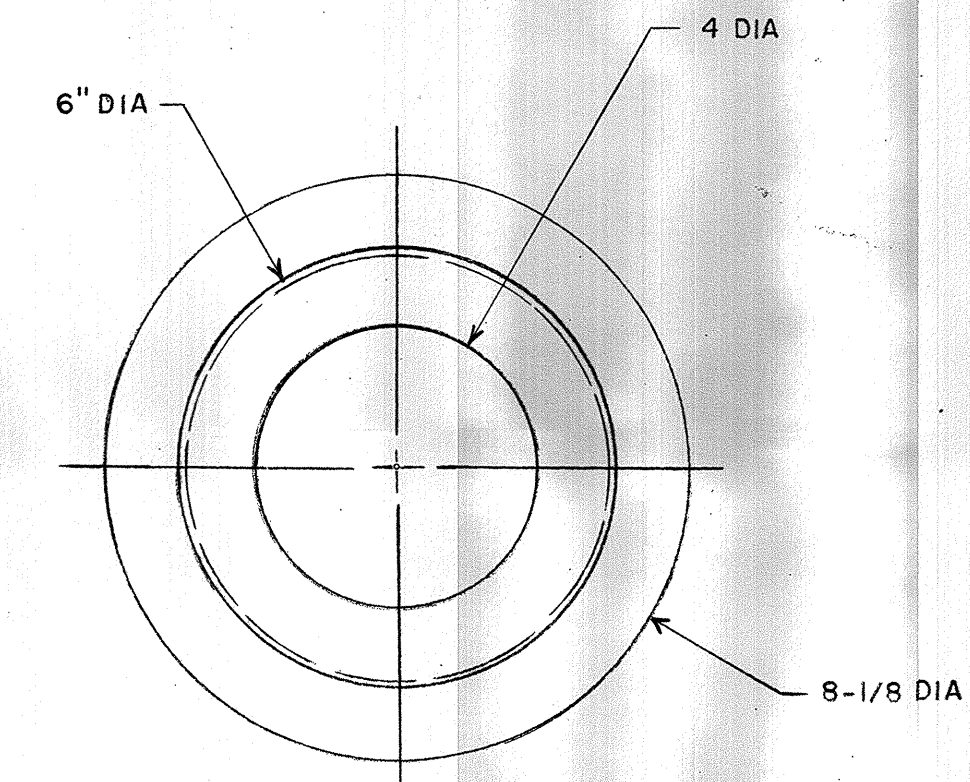
MAT'L: CAST STEEL



MAT'L: SPRING STEEL

UNLESS OTHERWISE SPECIFIED ELSEWHERE ON THIS DRAWING, THE FOLLOWING MAT'L TO BE USED
TUBING COLD DRAWN SEAMLESS CARBON STEEL
PLATE HOT ROLLED STRUCTURAL STEEL QUALITY
ROUND STOCK COLD FINISHED MEDIUM CARBON STEEL

ITEM NO.	NAME
①	CENTER TUBE ASSEMBLY
②	TUBING ASSEMBLY
③	OUTSIDE TUBE ASSEMBLY
④	COVER PLATE ASSEMBLY
⑤	RECOIL SPRING
⑥	SPRING BOSS

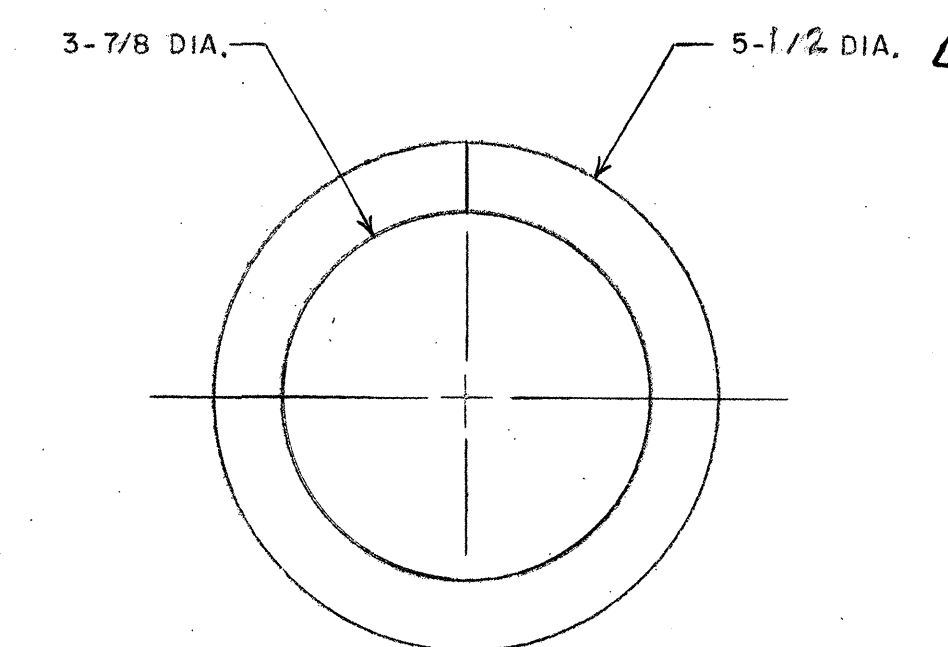
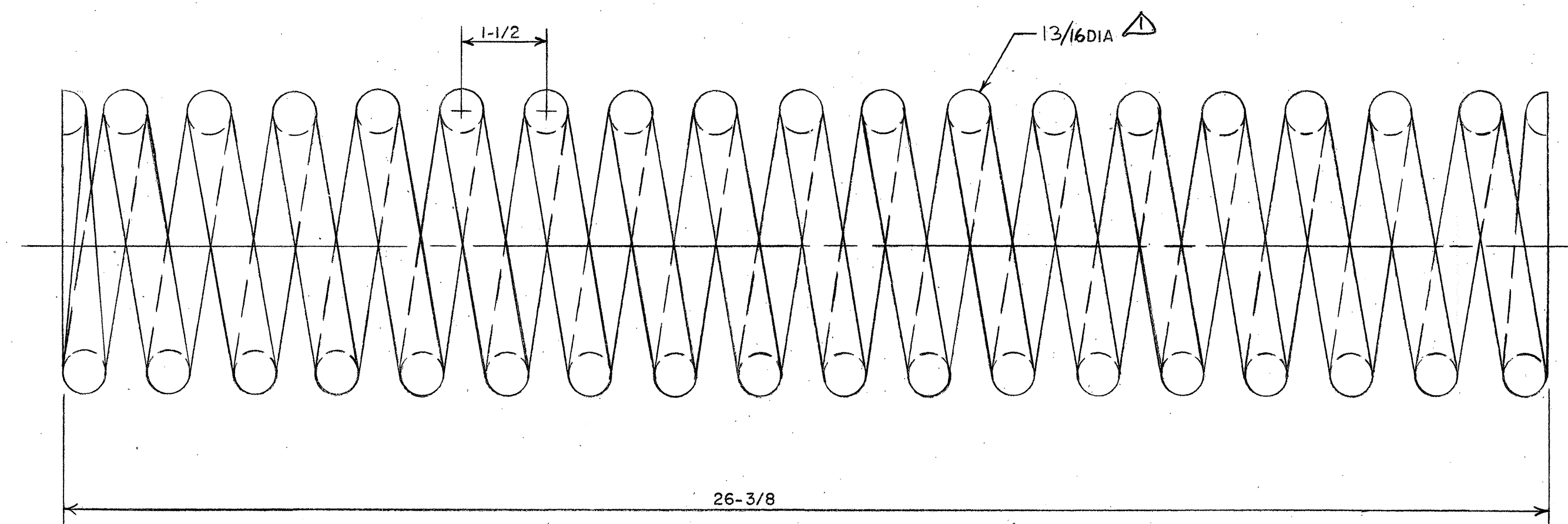
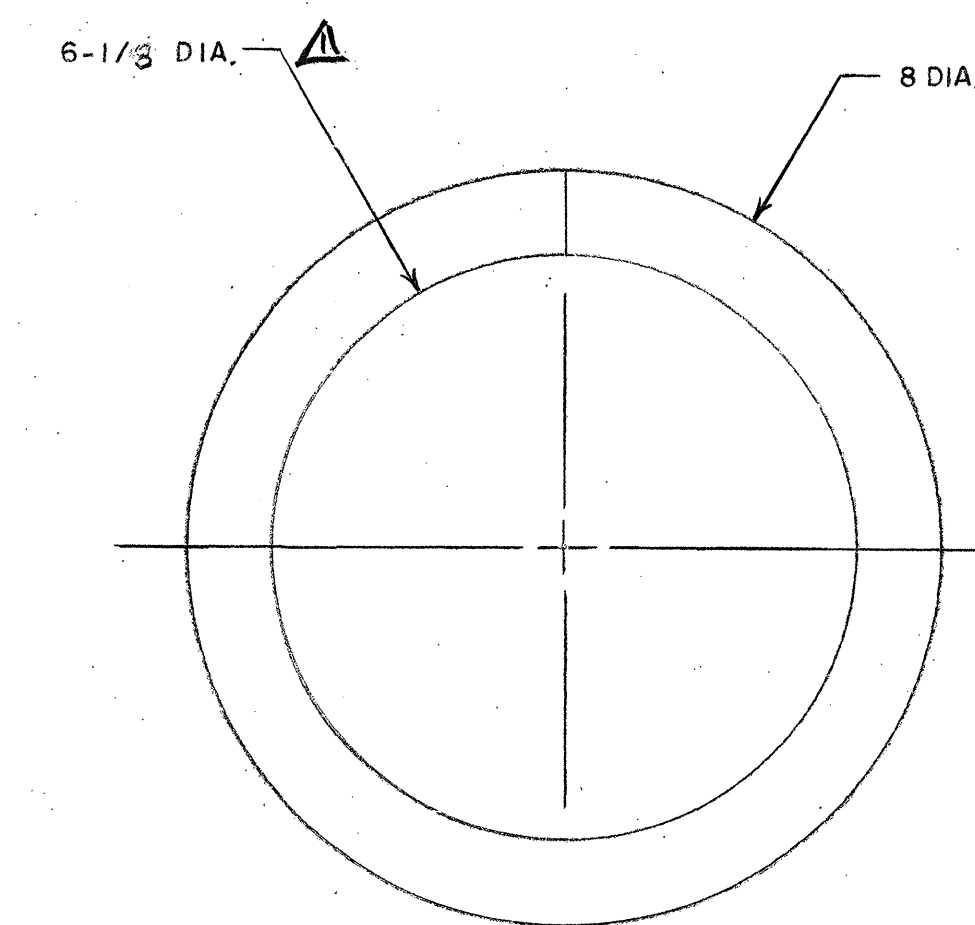
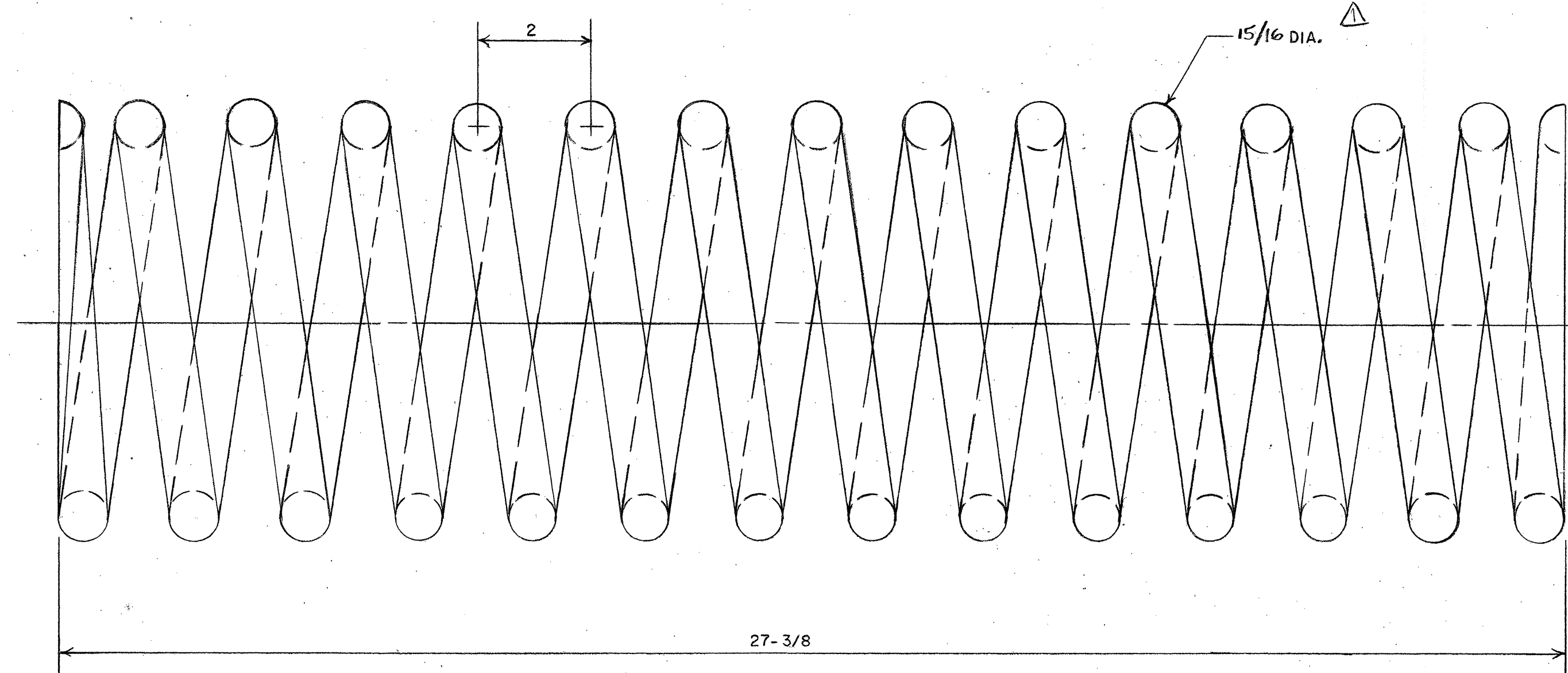


NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
TRIP SPRING ASSEMBLY			
SUBMITTED BY:	DRAWN BY:	SCALE:	DWG NO.
APPROVED BY:	STEVE TOH	3/8" = 1"	1094
DATE:	JOB NO:	DATE:	4-145-1
11-25-74 A.P.S.	75-GHE-0045	MARCH 5, 1974	
REV	DATE	BY	ORDER REQUEST

REVISION
Drawn by
Checked by

T-0085 (24DPP01035)
Drawing 4-145-2
Price Lines 86, 89, and 90

State of New Jersey Procurement Bureau



NOTES:
1. ENDS OF SPRINGS TO BE TAPERED, GROUND AND SQUARED

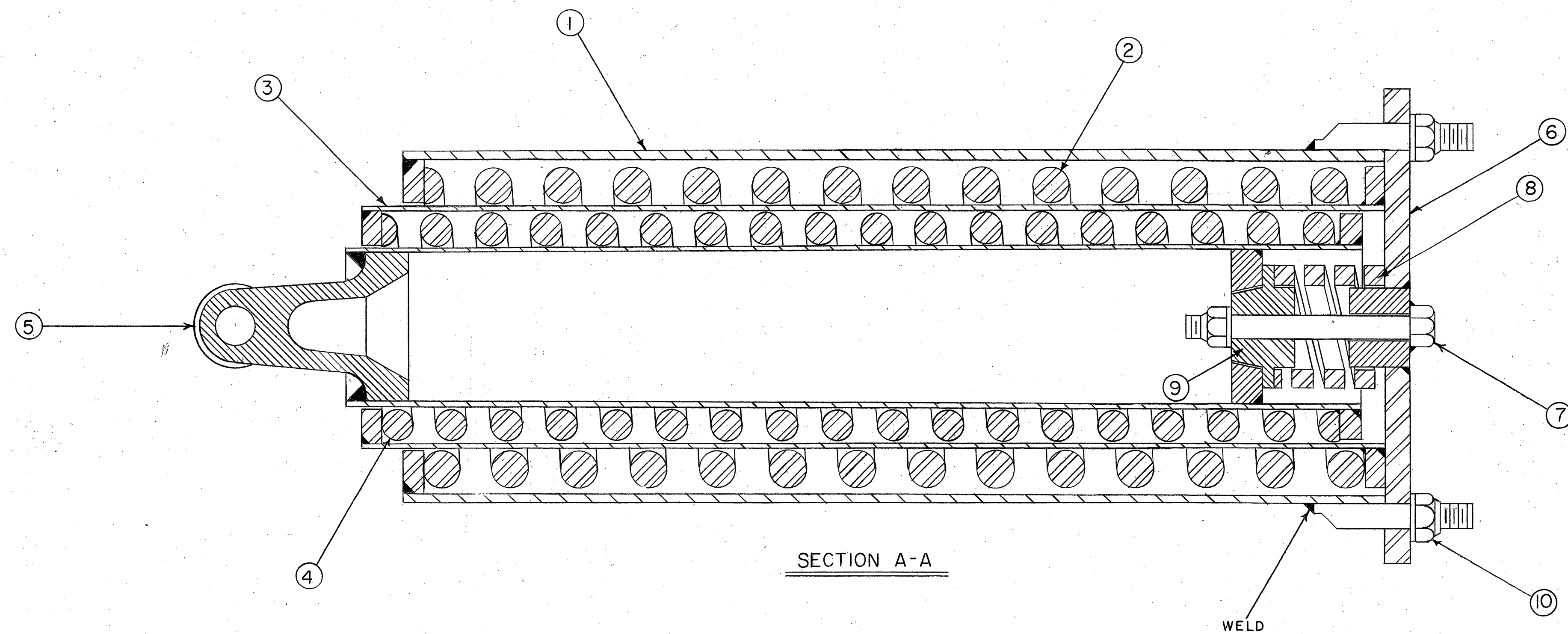
MAT'L
ALLOY SPRING STEEL-S160H-HOT WOUND
TO BE MANUFACTURED TO ASTM SPEC.
A-125 LR MAT'L EQUAL OR GREATER
THAN ASTM-A689, A-29 AND A-304

REVISION	Drawn by	Checked by

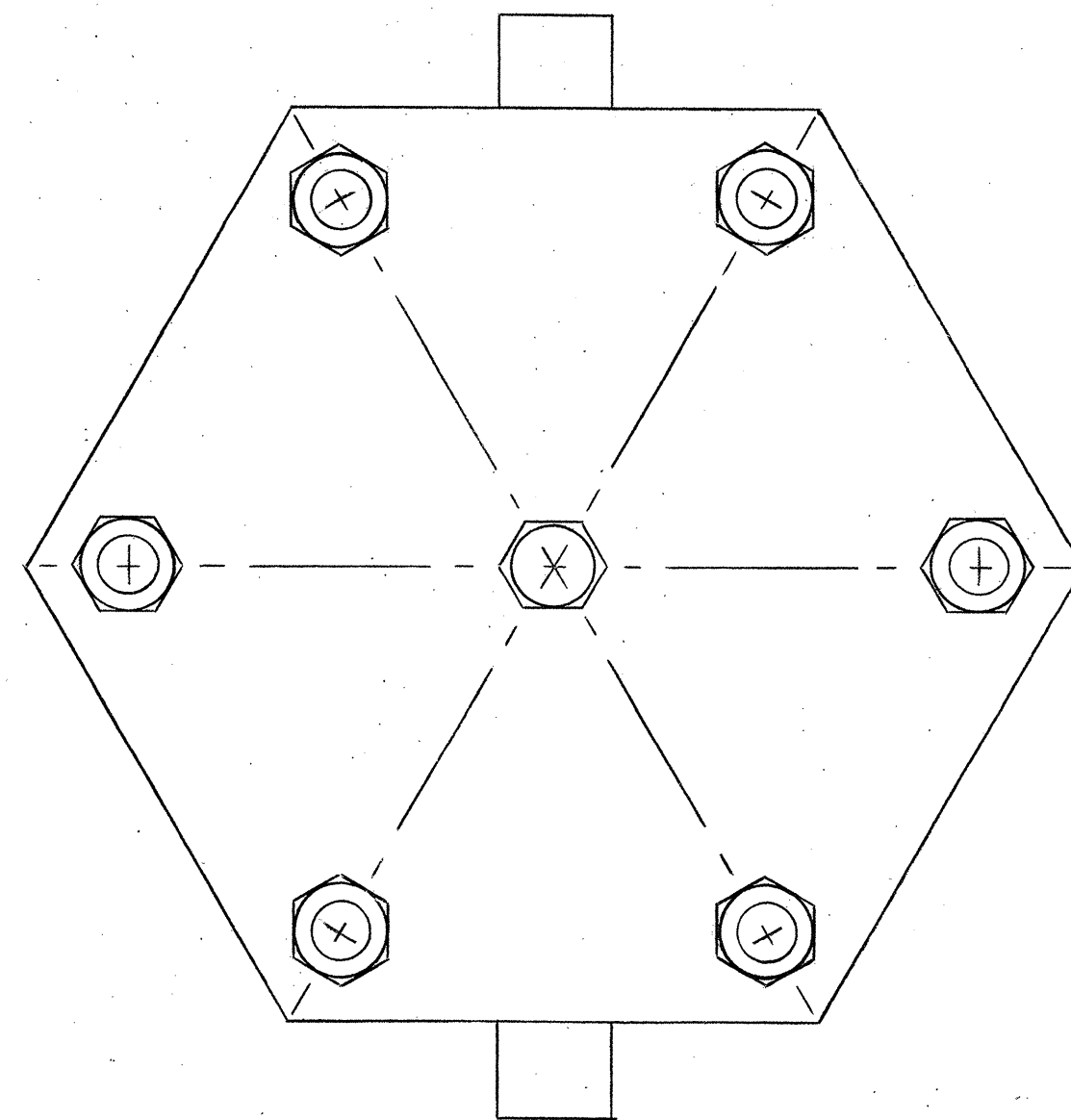
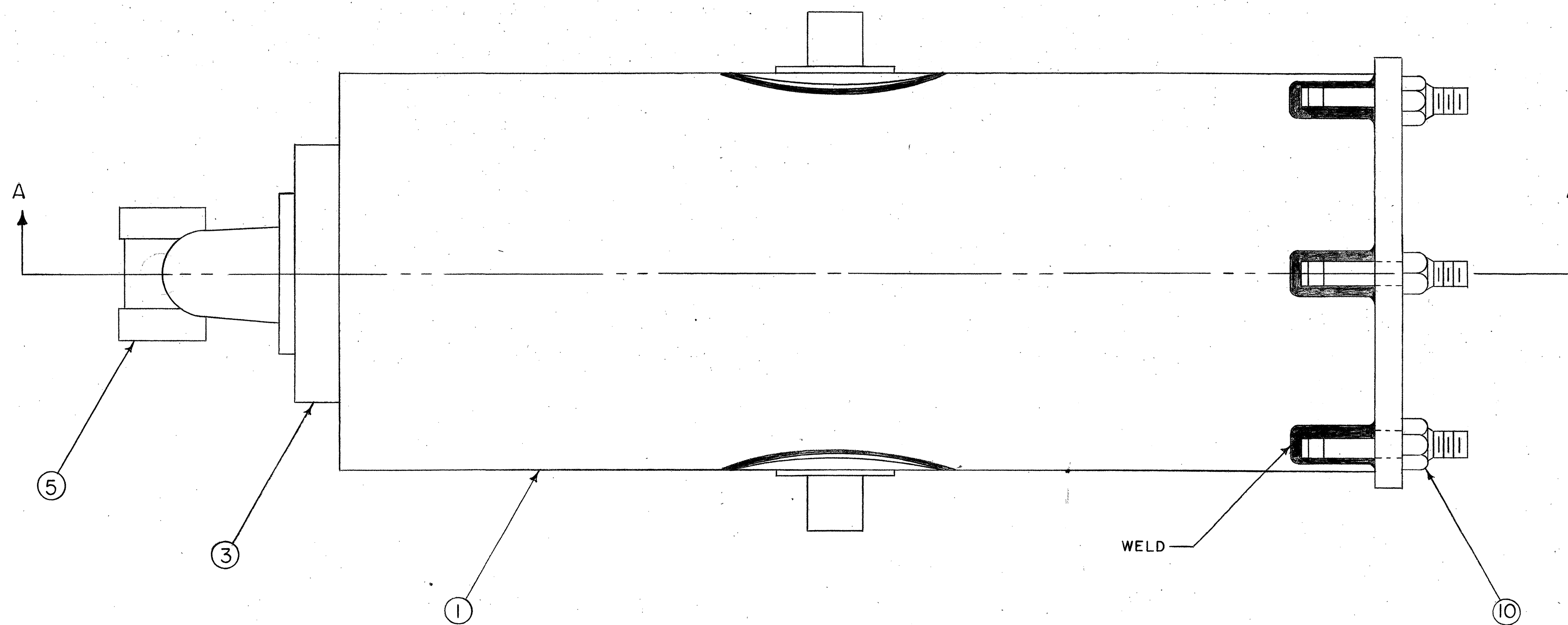
NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT					
TRIP SPRING ASSEMBLY					
SUBMITTED BY:		DRAWN BY:		SCALE:	DWG. NO.
APPROVED BY:		JOB NO.:		DATE:	1094
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
1	11-21-74	JWB	CHANGED ROD DIAMETER	77-GHE-0024	
				75-GHE-0049	
				75-GHE-0045	OR, 12,75-(32,53)-(14,75,22,75)-1
MARCH 8, 1974					

T-0085 (24DPP01035)
Drawing 4-145-3
Price Line 86

State of New Jersey Procurement Bureau

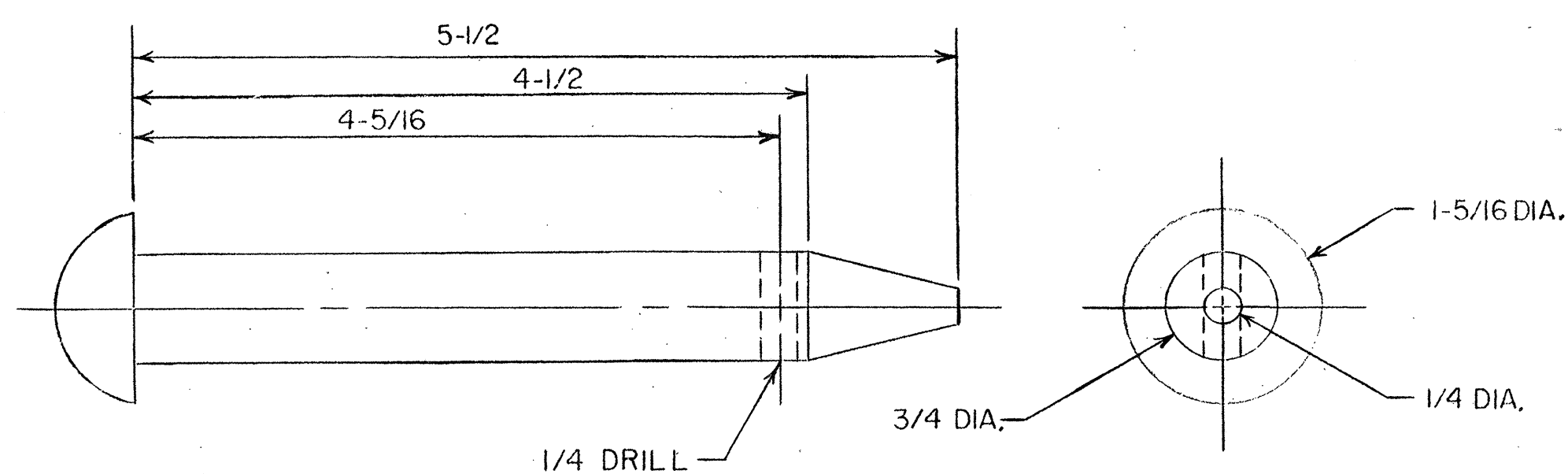


ITEM	NAME	QTY	DWG. NO.
①	OUTSIDE TUBE ASSEMBLY	1	4-145-1, ITEM ③
②	OUTSIDE SPRING	1	4-145-2
③	TUBING ASSEMBLY	1	4-145-1, ITEM ②
④	INSIDE SPRING	1	4-145-2
⑤	CENTER TUBE ASSEMBLY	1	4-145-1, ITEM ①
⑥	COVER PLATE ASSEMBLY	1	4-145-1, ITEM ④
⑦	5/8" X 18UNF X 5" BOLT	1	
⑧	RECOIL SPRING	1	4-145-1, ITEM ⑤
⑨	SPRING BOSS	1	4-145-1, ITEM ⑥
⑩	5/8" X 18UNF ELAS. STOP NUT & WASHER	7 EA.	

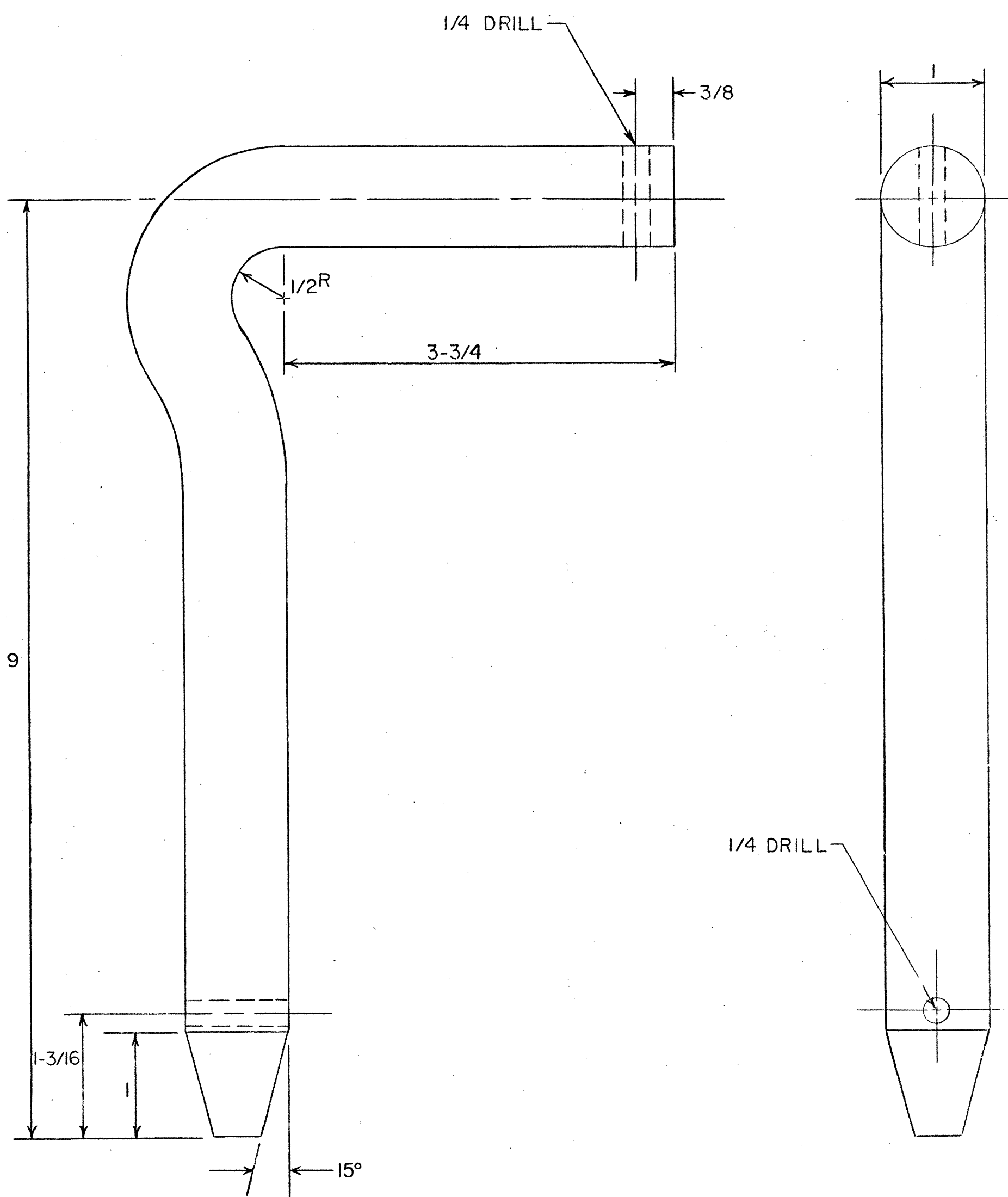
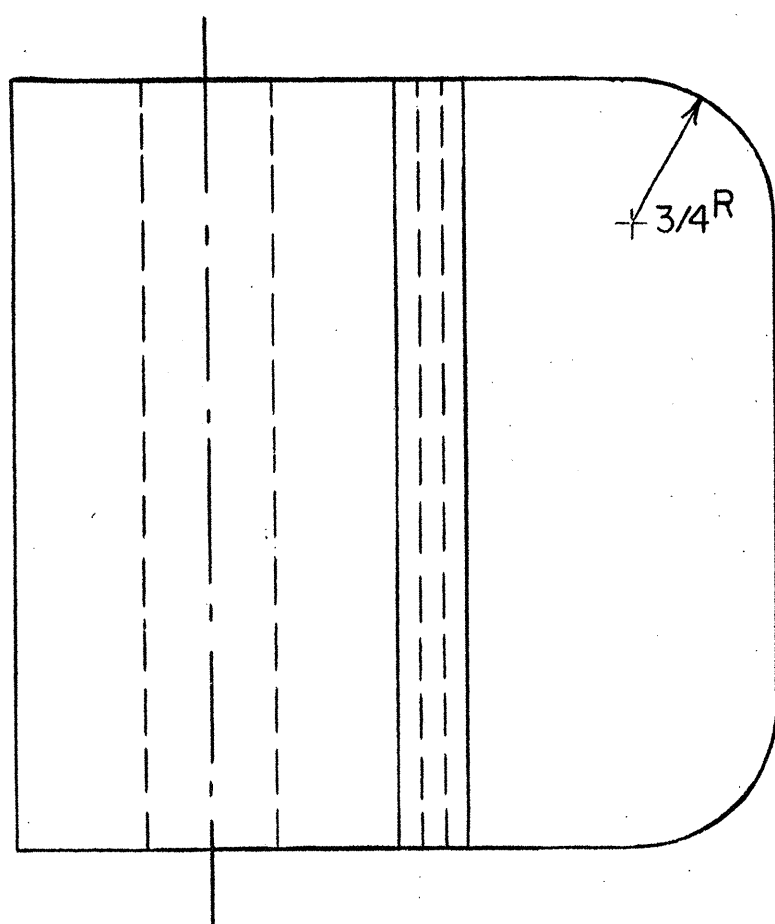
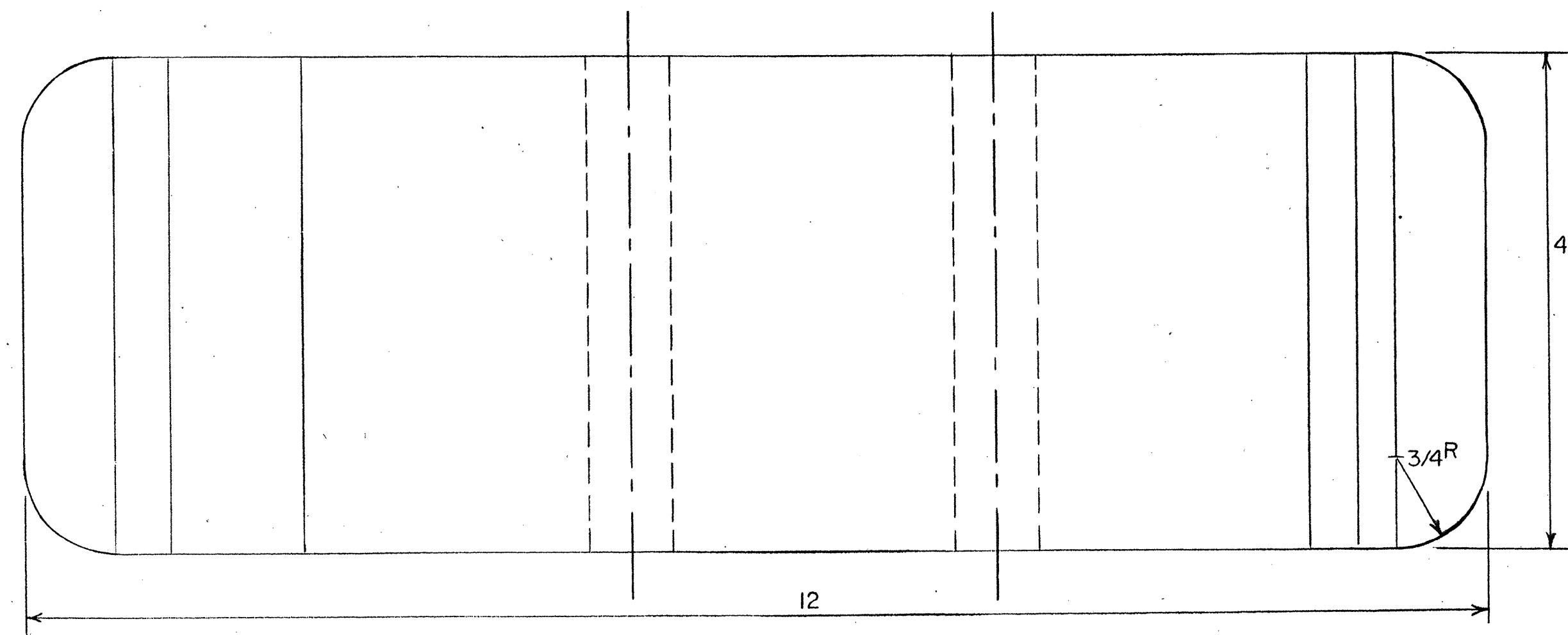


NOTES
1. SECTION LINING DOES NOT REPRESENT TYPE OF MATERIAL, ONLY CLARIFICATION BETWEEN PARTS.
2. MATERIAL SPECIFIED ON DWG. NO. 4-145-1 & 4-145-2.
3. DO NOT SCALE.

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				TRIP SPRING ASSEMBLY			
				SUBMITTED BY <i>Steve Luth</i>	DRAWN BY A. P. SMITH	SCALE NONE	DWG. NO. 4-145-3
				APPROVED BY <i>J. B. Smith</i>	JOB NO.	DATE NOV 11, 1974	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOW		
				77- GHE- 0024			
				75- GHE- 0049	0-R.12.75-(32,53)-(1475, 2275)-1		



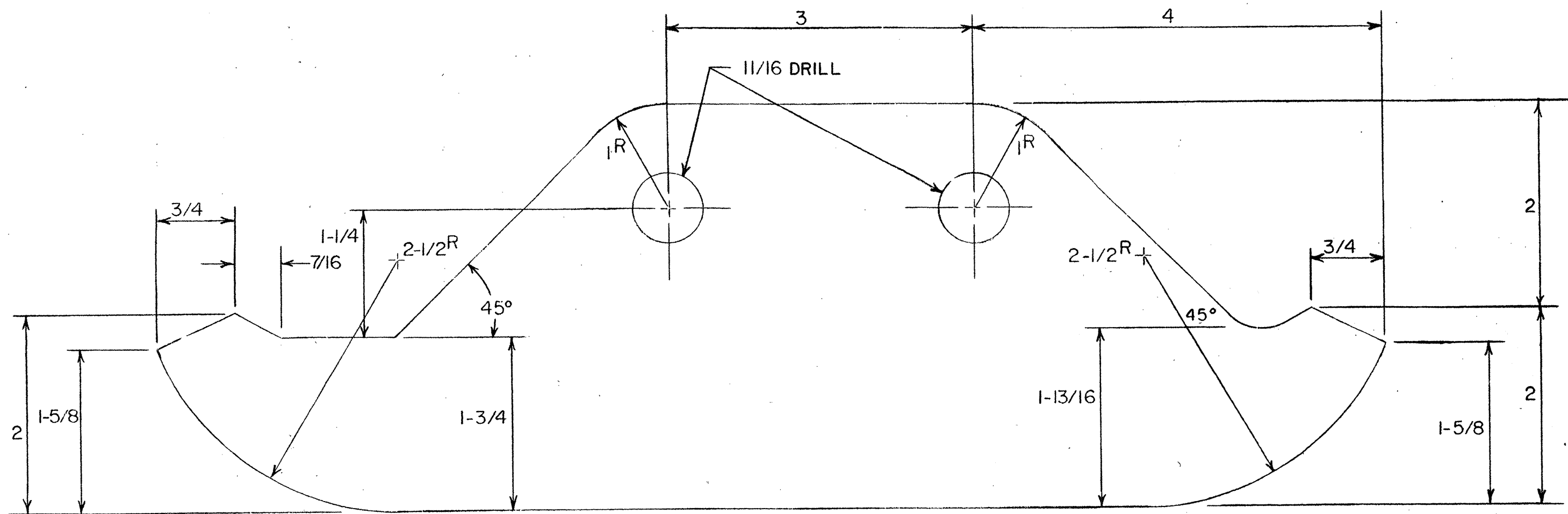
HINGE PIN & LIFT ARM CHAIN RIVET PIN
BT. HEAD RIVET 3/4 DIA x 5-1/2 LG
MAT'L: HRS
62100240



LOCKING PIN 62100501 MATL: MILD STEEL
1" DIA. x 13" LG

NOTES

- 1 DRILLED HOLES (11/16) IN SHOE MUST BE DRILLED STRAIGHT AND PARALLEL.
- 2 SHOE TO BE CONNECTED TO MOLDBOARD ANGLE BY 2-5/8" x 6" LG BOLTS W/ LOCKWASHERS & NUTS.
- 3 1/4" COTTER PIN TO BE PLACED THRU HINGE PIN AND L.A.C. RIVET PIN AFTER INSTALLATION
- 4 SHOE USED ONLY ON MODEL (S) O-R 12.75-(32,53)-(14.75,22.75)-1 & O-R 11.25-(24,42)-(13,18)-1 MOD.
- 5 1/4" COTTER PIN TO BE INSERTED THRU LOWER 1/4" HOLE OF LOCKING PIN AFTER INSTALLATION

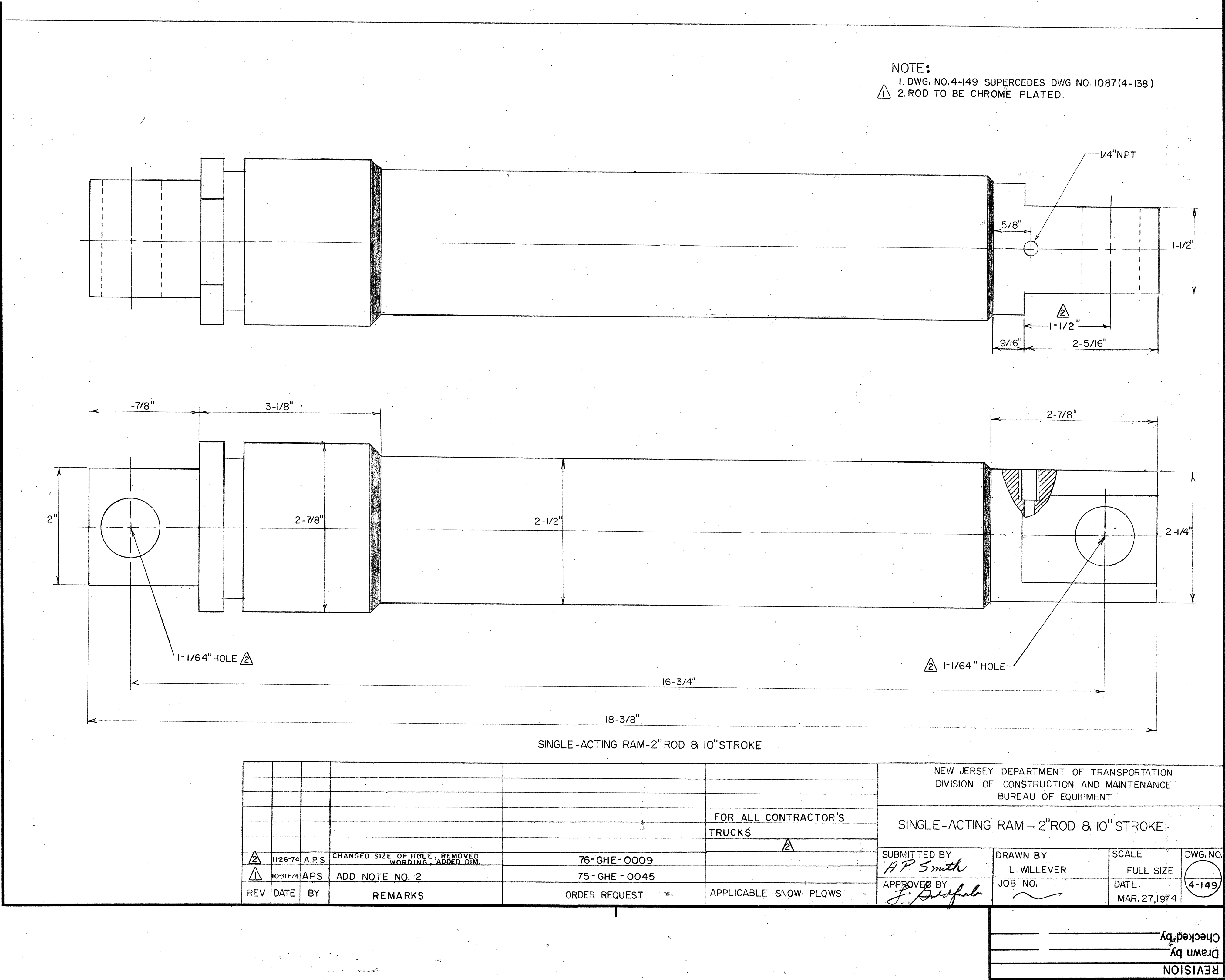


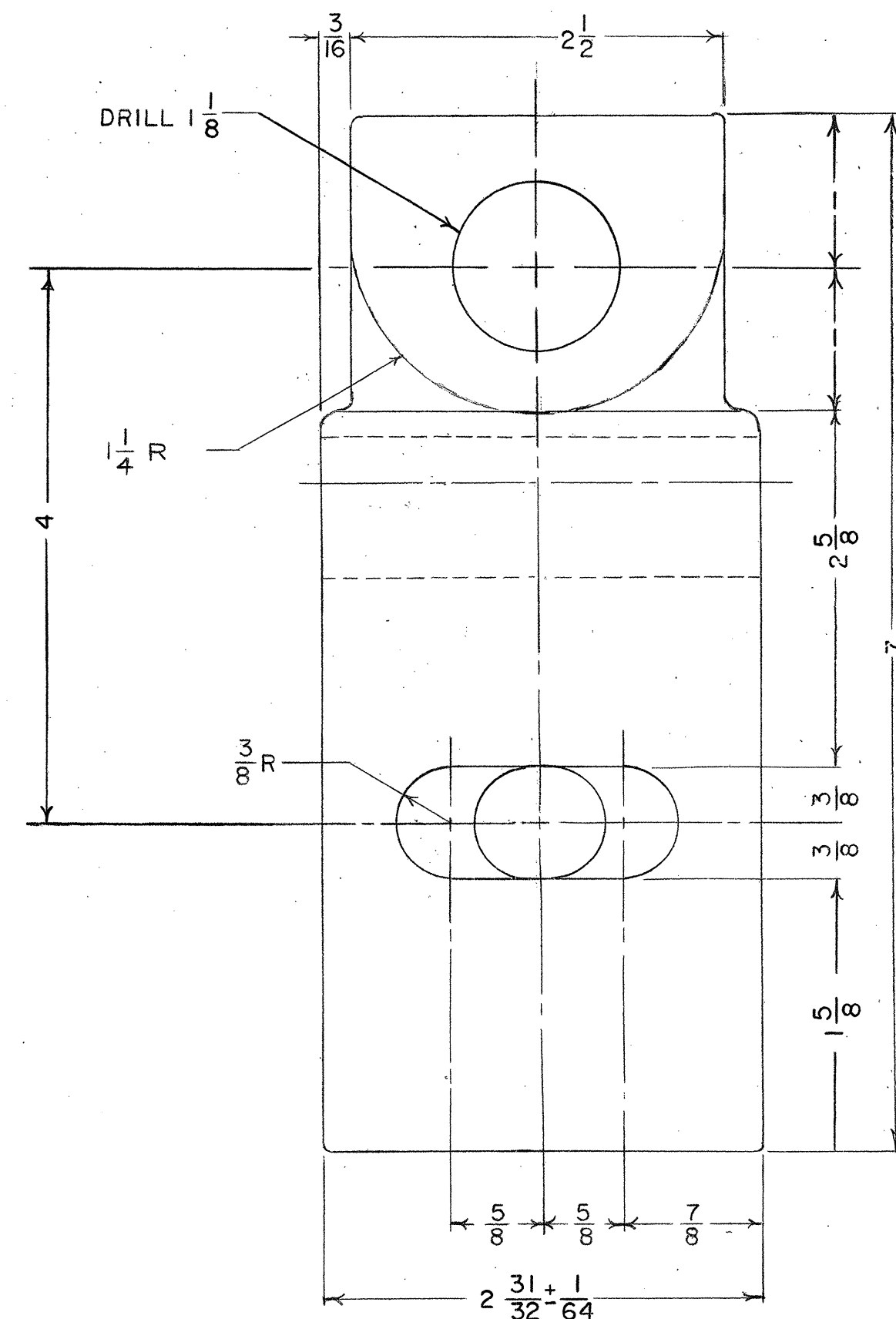
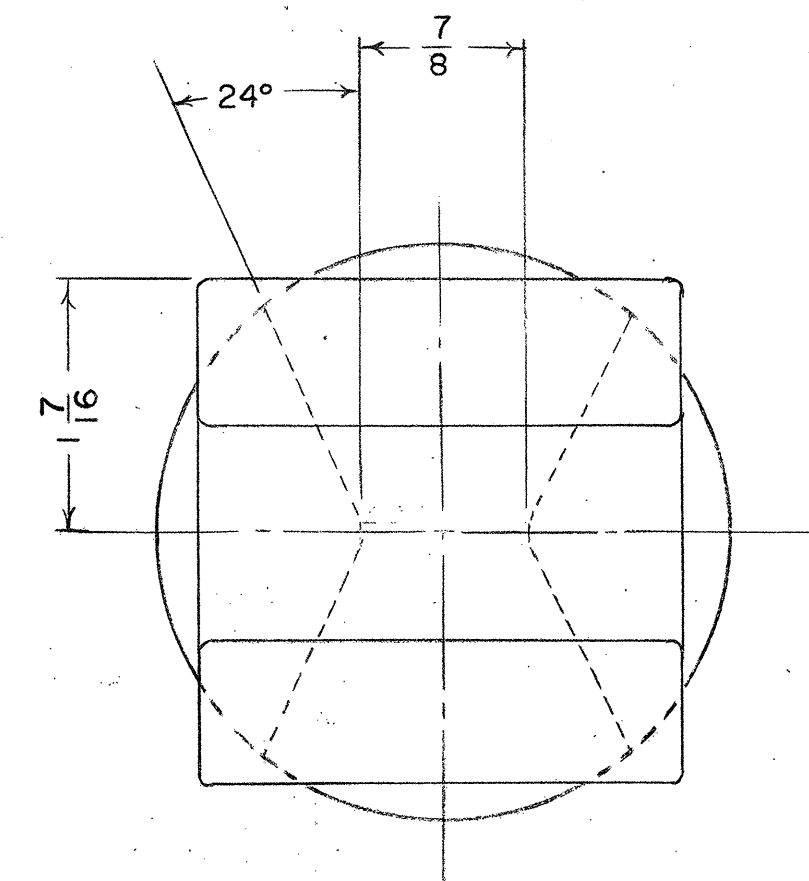
SHOE 62100794 MATL: CAST IRON

VENDOR REFERENCE GOOD ROADS

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
SHOE, LOCKING PIN, AND RIVET PIN			
77-GHE-0024	O-R 11.25-(24,42)-(13,18)-1 MOD.	SUBMITTED BY:	DRAWN BY:
76-GHE-0009	M.R. 10-32-15-1 MOD.	APPROVED BY:	STEVE TOTH
75-GHE-0049	M.R. 11-36-15-1	J. R. Smith	JOB NO.:
75-GHE-0045	O-R 12.75-(32,53)-(14.75,22.75)-1	APPROVED BY:	DATE:
REV	DATE	BY	REMARKS
5-26-74	AP.S.	CHANGED NOTE NO. 4	ORDER REQUEST NO.
			APPLICABLE SNOW PLOWS
			SCALE: FULL SIZE
			DWG. NO. 1096
			4-147

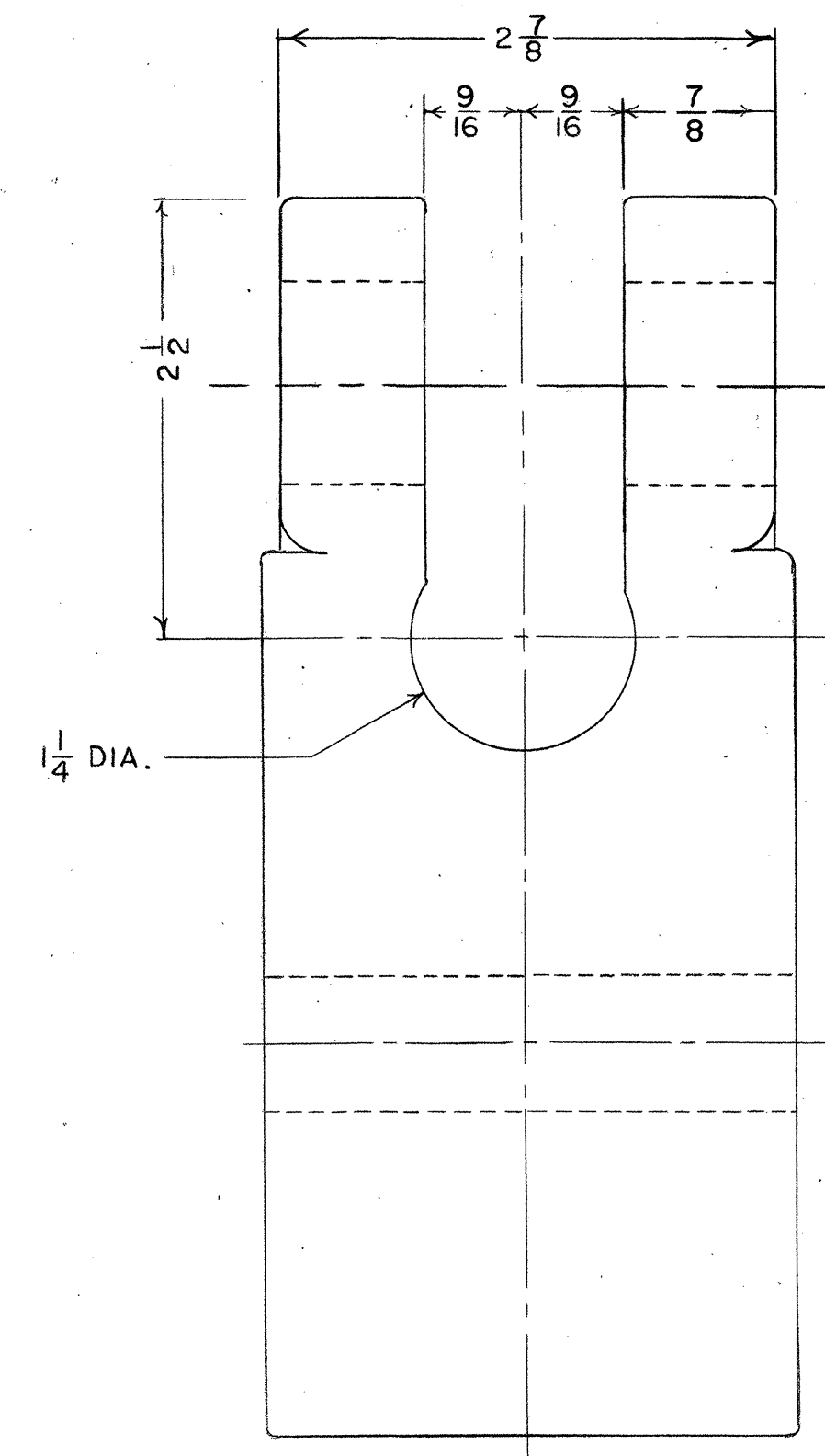
REVISION
Drawn by
Checked by





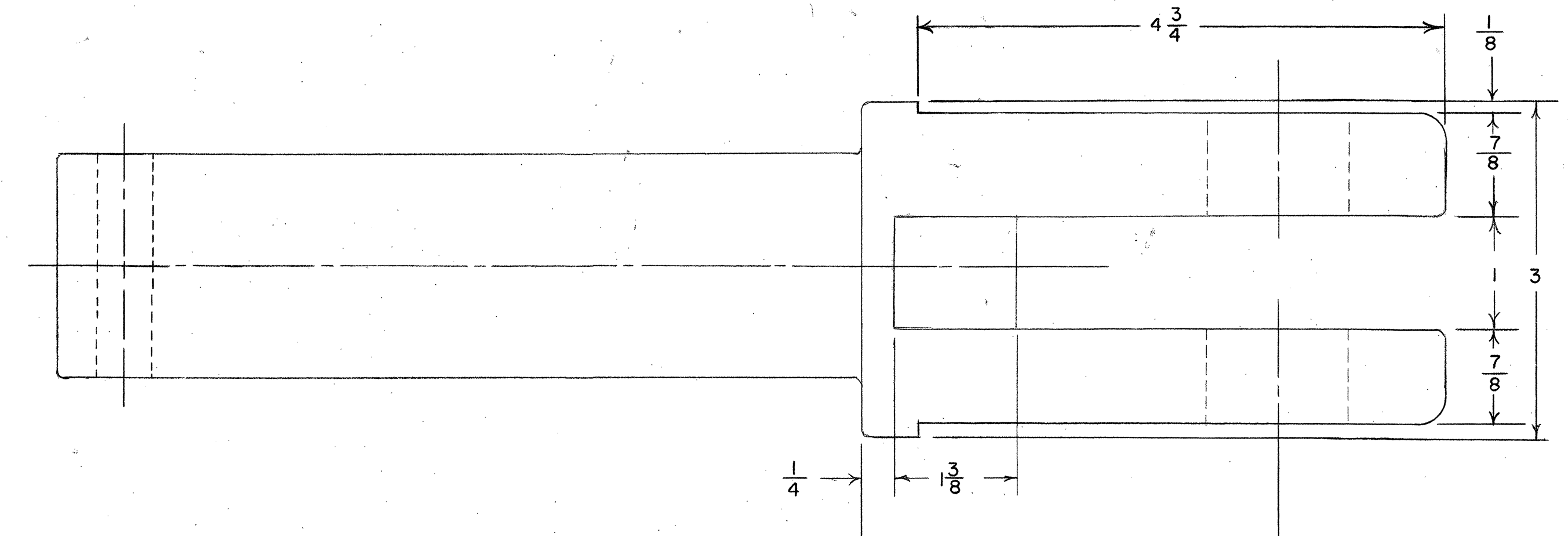
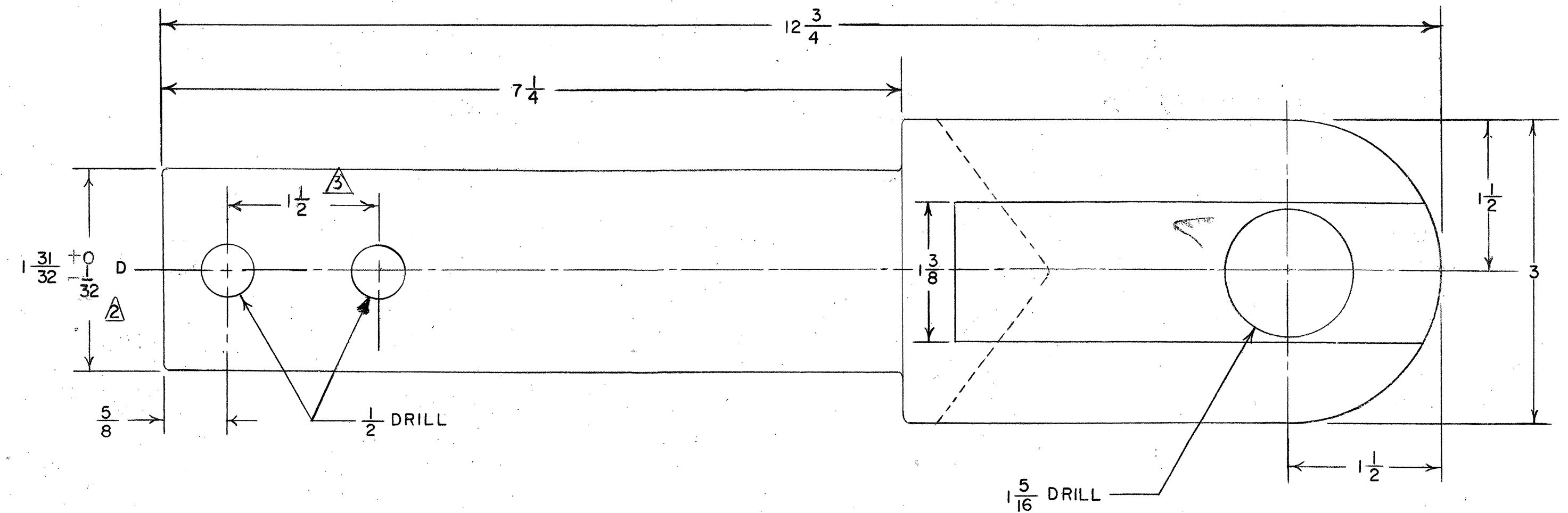
LATCH PIN SWIVEL

MAT'L: CAST STEEL



NOTES

- 1 EYE BAR HELD INTO POSITION IN PUSH BAR BY 1/2" COTTER PIN.
- 2 LATCH PIN SWIVEL TO BE HELD INTO POSITION IN PUSH BAR BY 5/8" - 11 UNC BOLT, NUT, & LOCKWASHER.



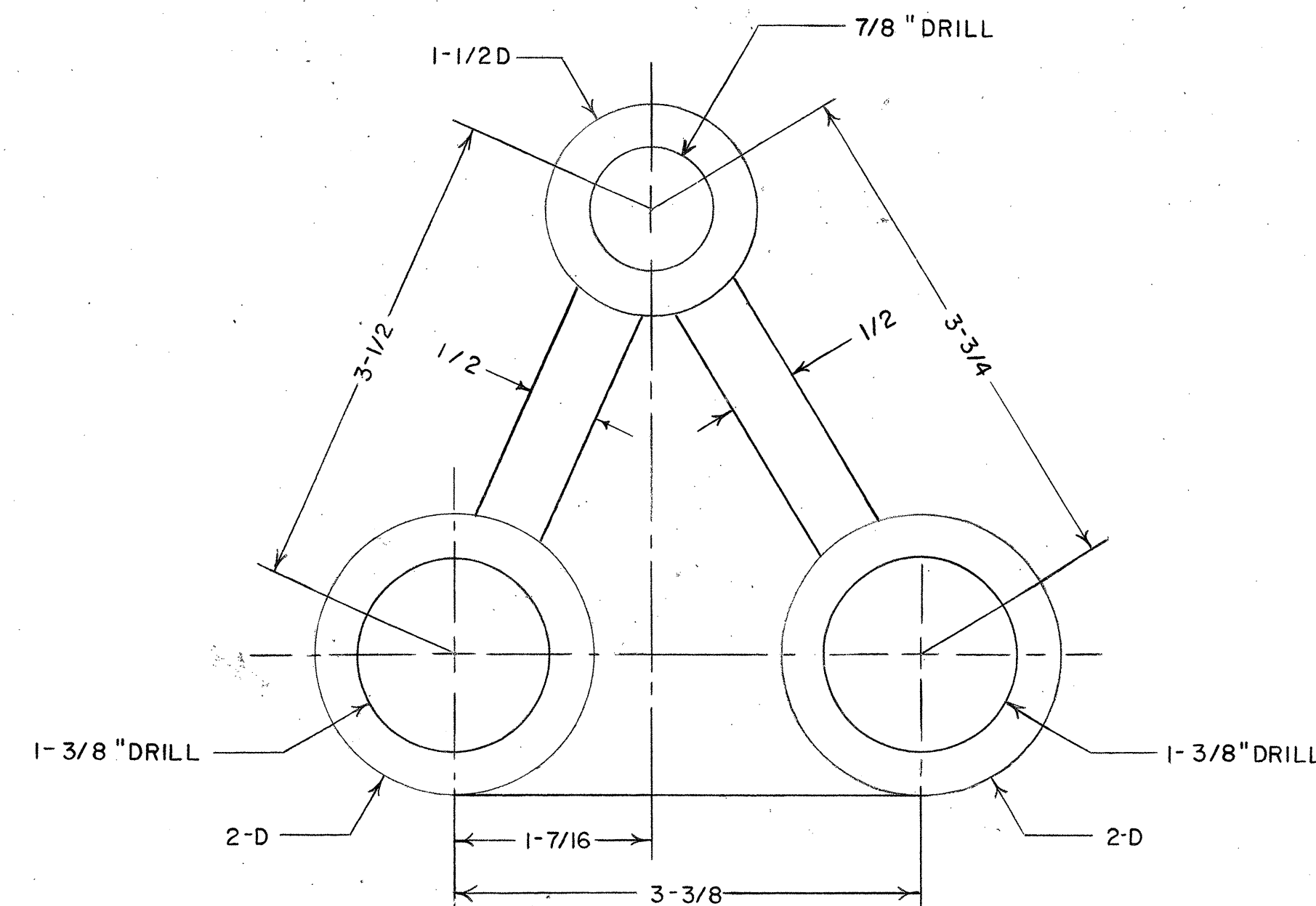
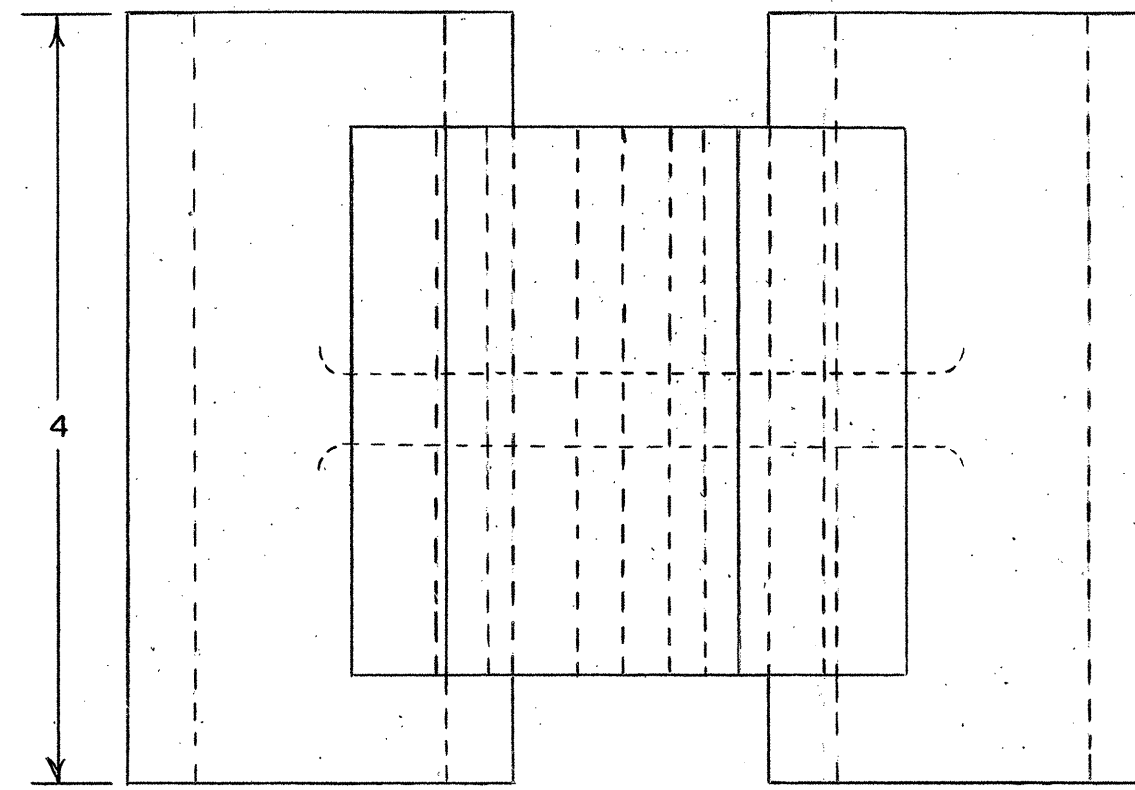
EYE BAR

MAT'L: CAST STEEL
MAT'L: STEEL WELDMENT

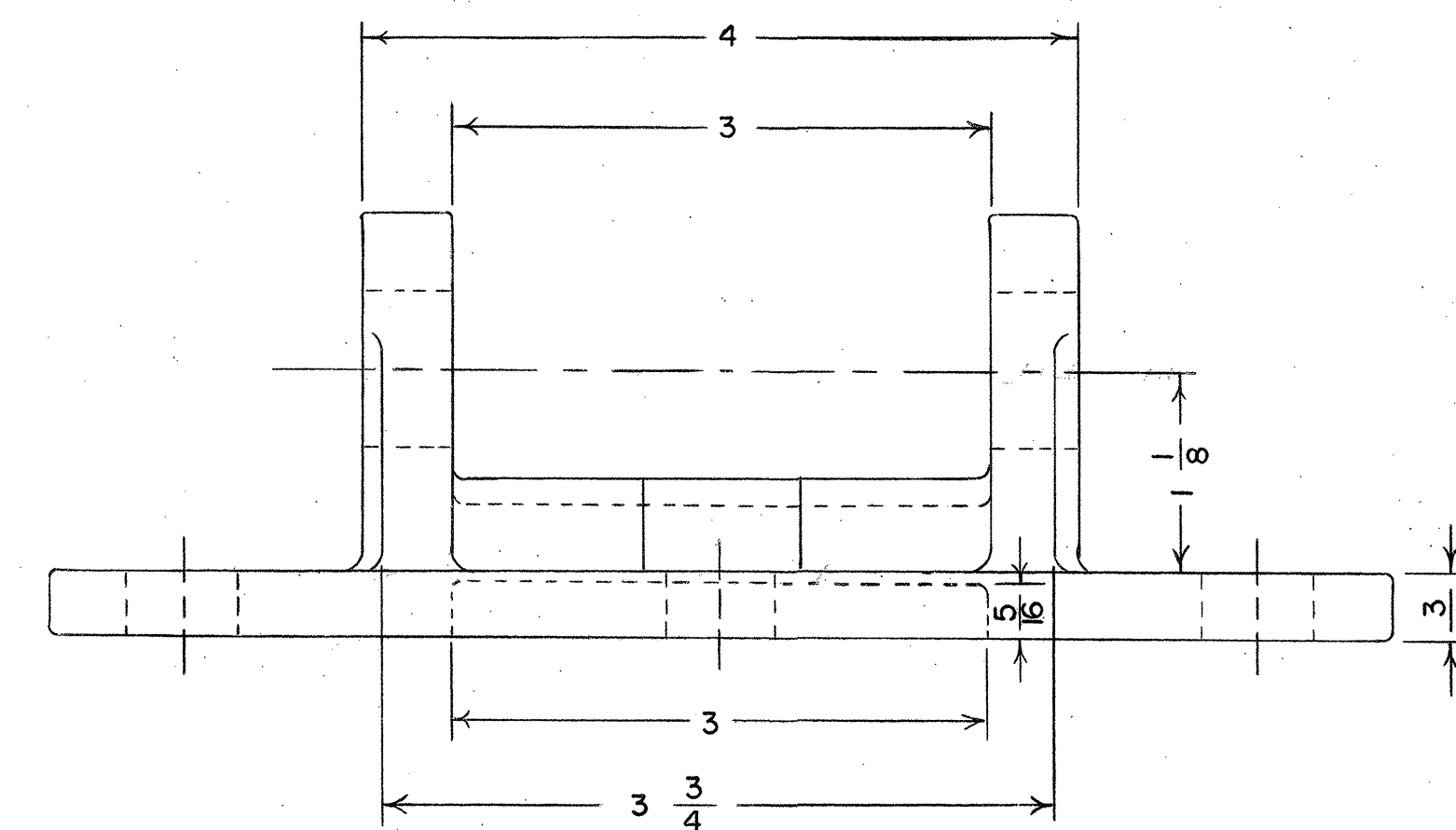
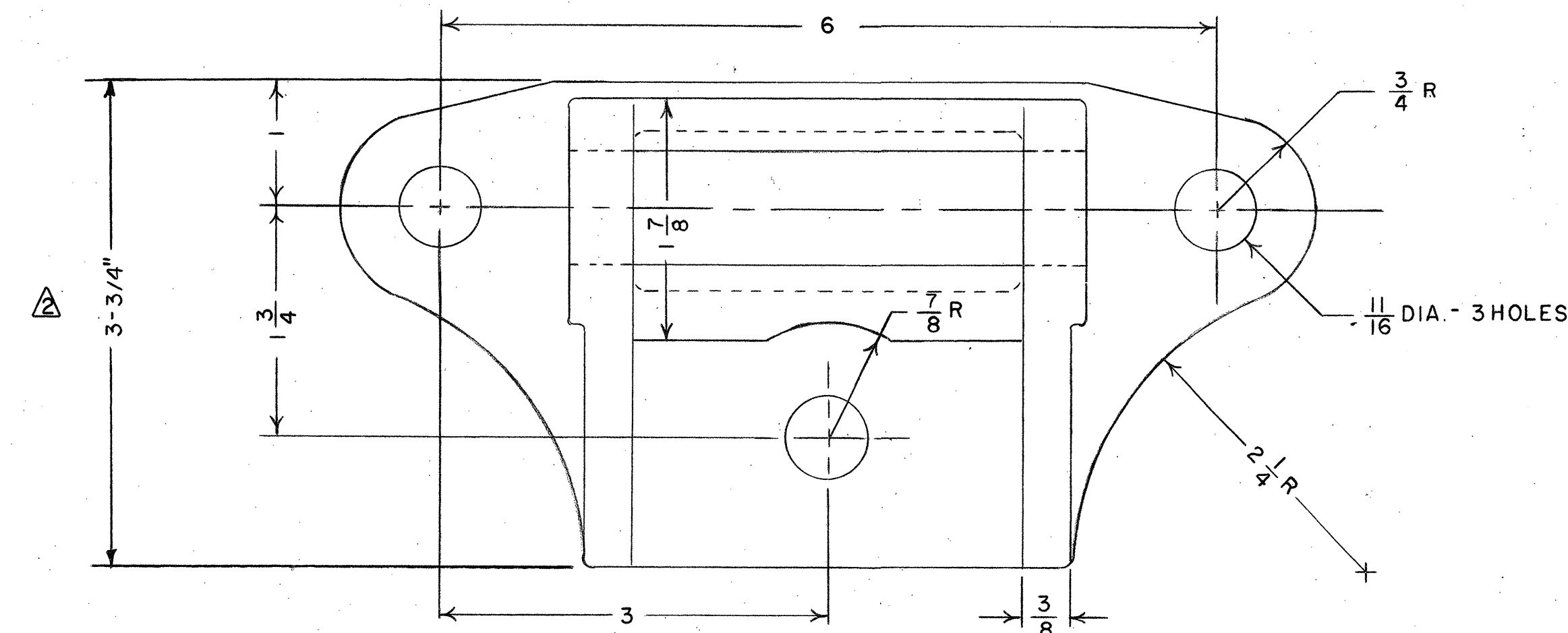
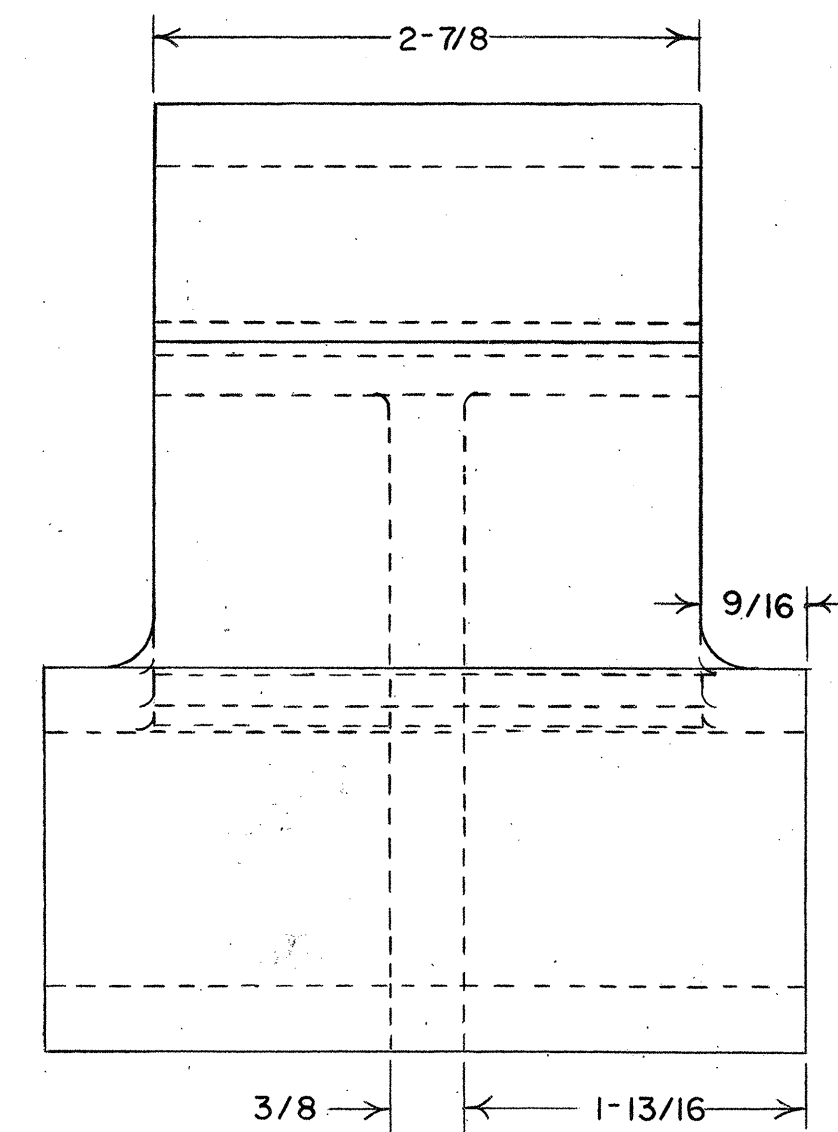
REVISION				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
1	3-23-01	JWB	DELETED CAST STEEL	77-GHE-0024	O-R. 11.25-(24,42)-(13,18)-1 MOD.	SUBMITTED BY	DWG. NO.
2	8-24-92	JWB	ADDED SECOND HOLE	76-GHE-0009	M.R. 10-32-15-1 MOD.	DRAWN BY	4-154
3	4-11-85	JWB	CHANGE TOLERANCE	75-GHE-0049	M.R. 11-36-15-1	APPROVED BY	
4	11-25-74	A.P.S.	ADDED TYPE OF MAT'L	75-GHE-0045	O-R. 12.75-(32,53)-(14,75,22,75)-1	JOB NO.	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS	DATE	

NOTES

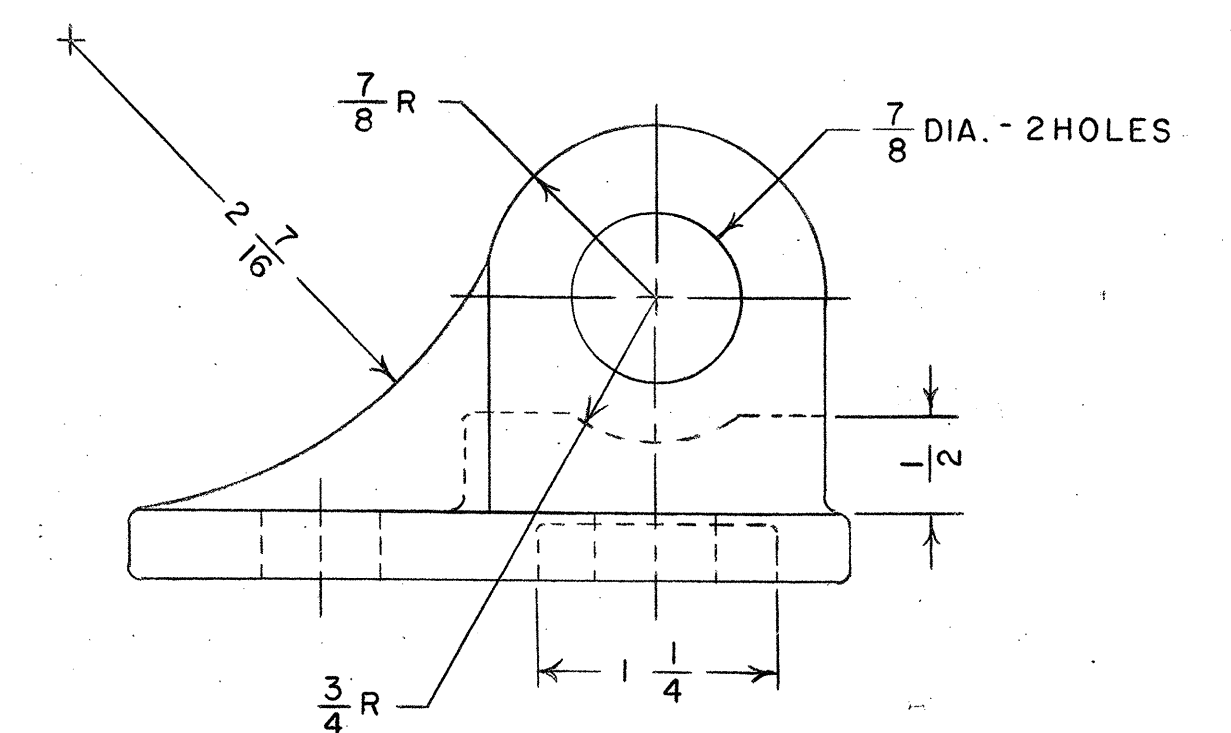
1. MATERIAL TO BE CAST STEEL.
2. SEMICIRCLE HINGE TO BE MOUNTED TO SEMICIRCLE WITH 5/8" RIVETS OR 5/8" FINE THREADED BOLTS, NUTS & LOCKWASHERS, WITH 1" LONG TACK WELDS
3. ROUNDS AND FILLETS TO BE 1/8".
4. FASTEN MOLDBOARD HINGE TO MOLDBOARD W/ 1-1/4" X 7 UNC X 6-1/2" BOLTS, NUTS, AND LOCKWASHERS, 2 OF EA. PER HINGE.



MOLDBOARD HINGE

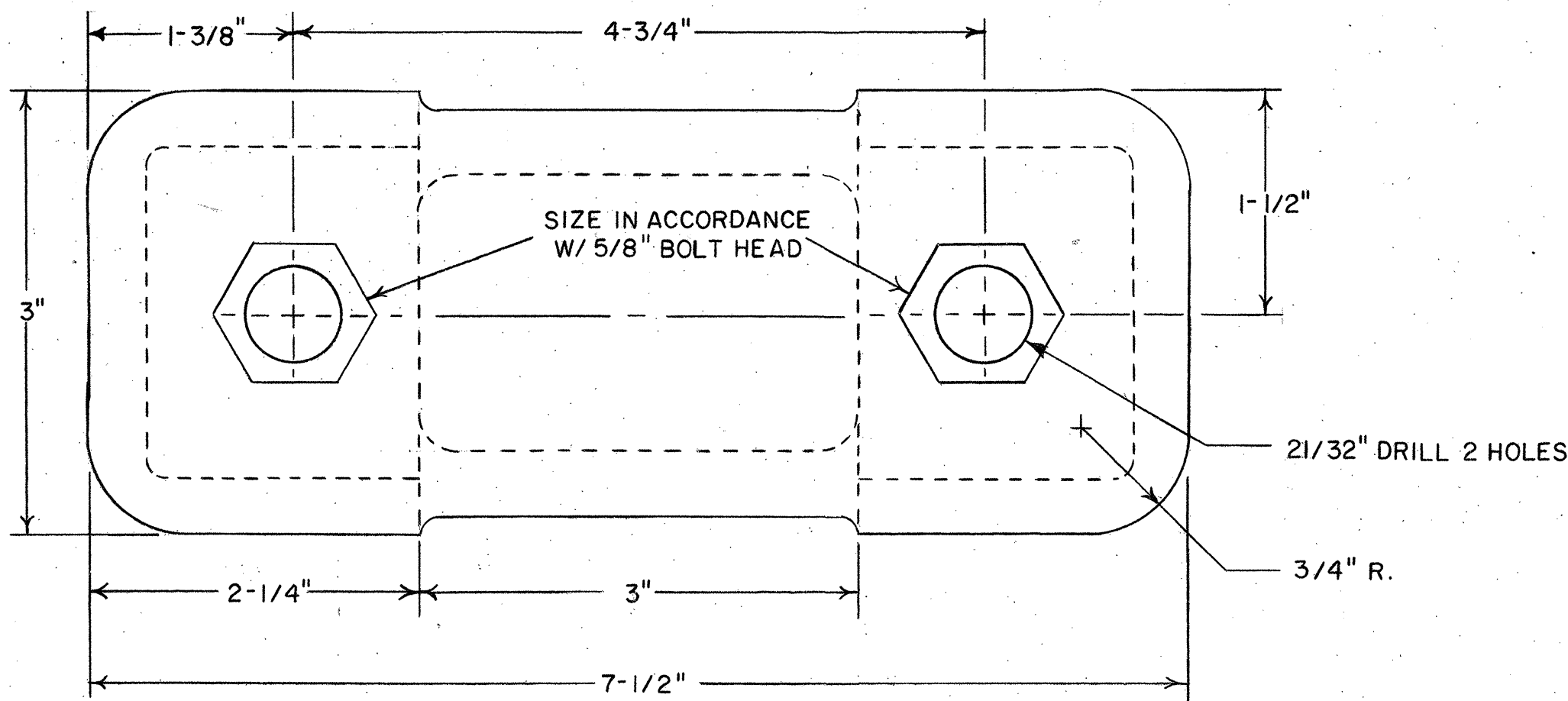
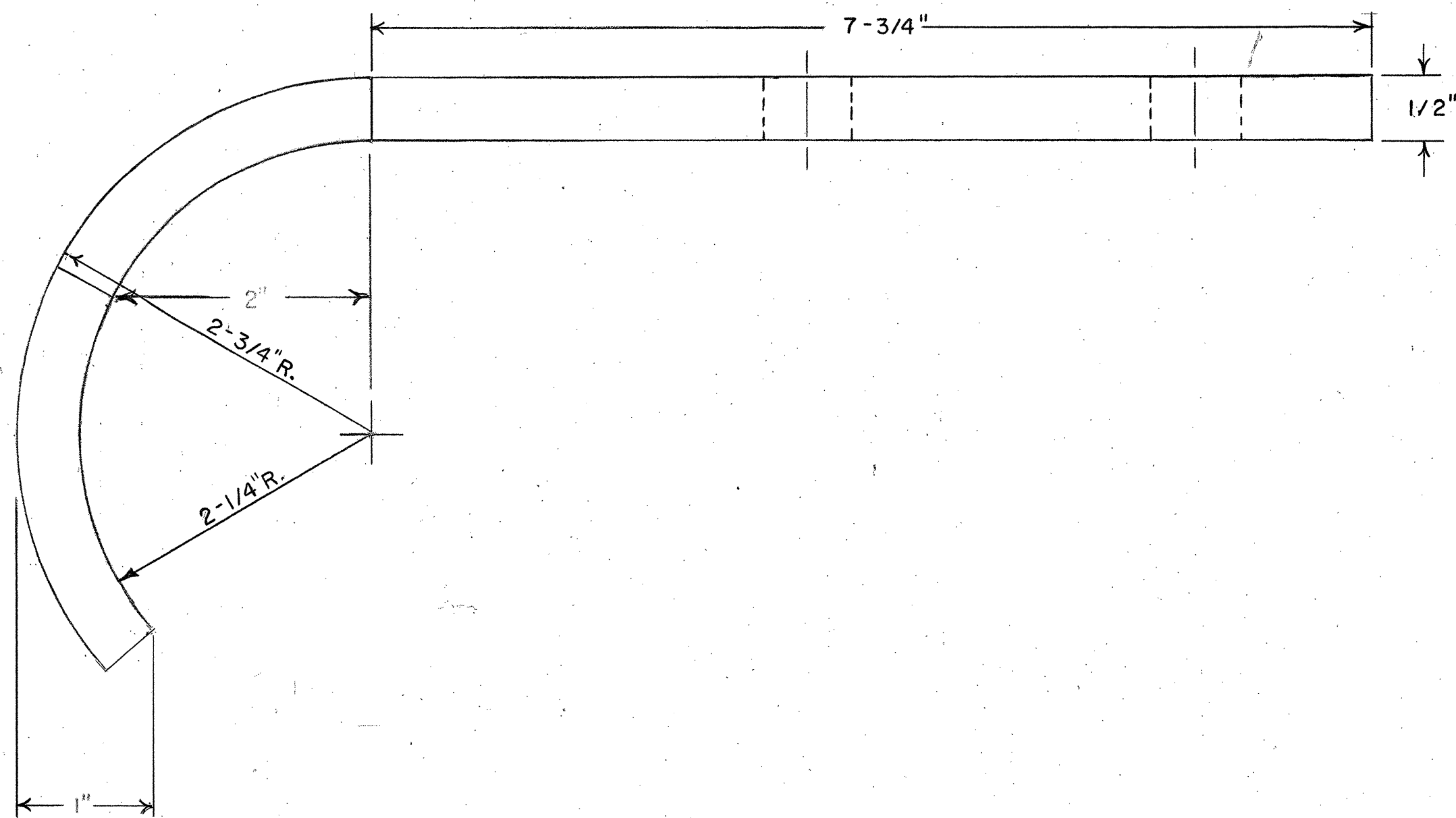


SEMICIRCLE HINGE

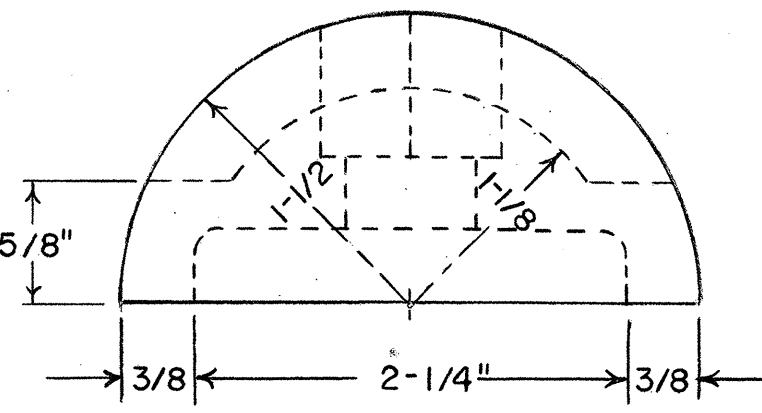
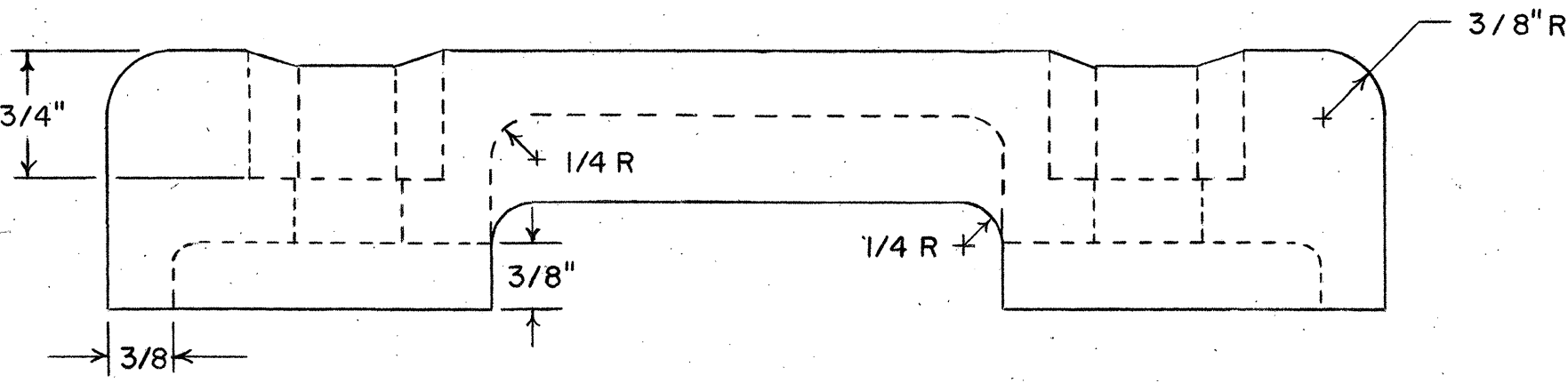
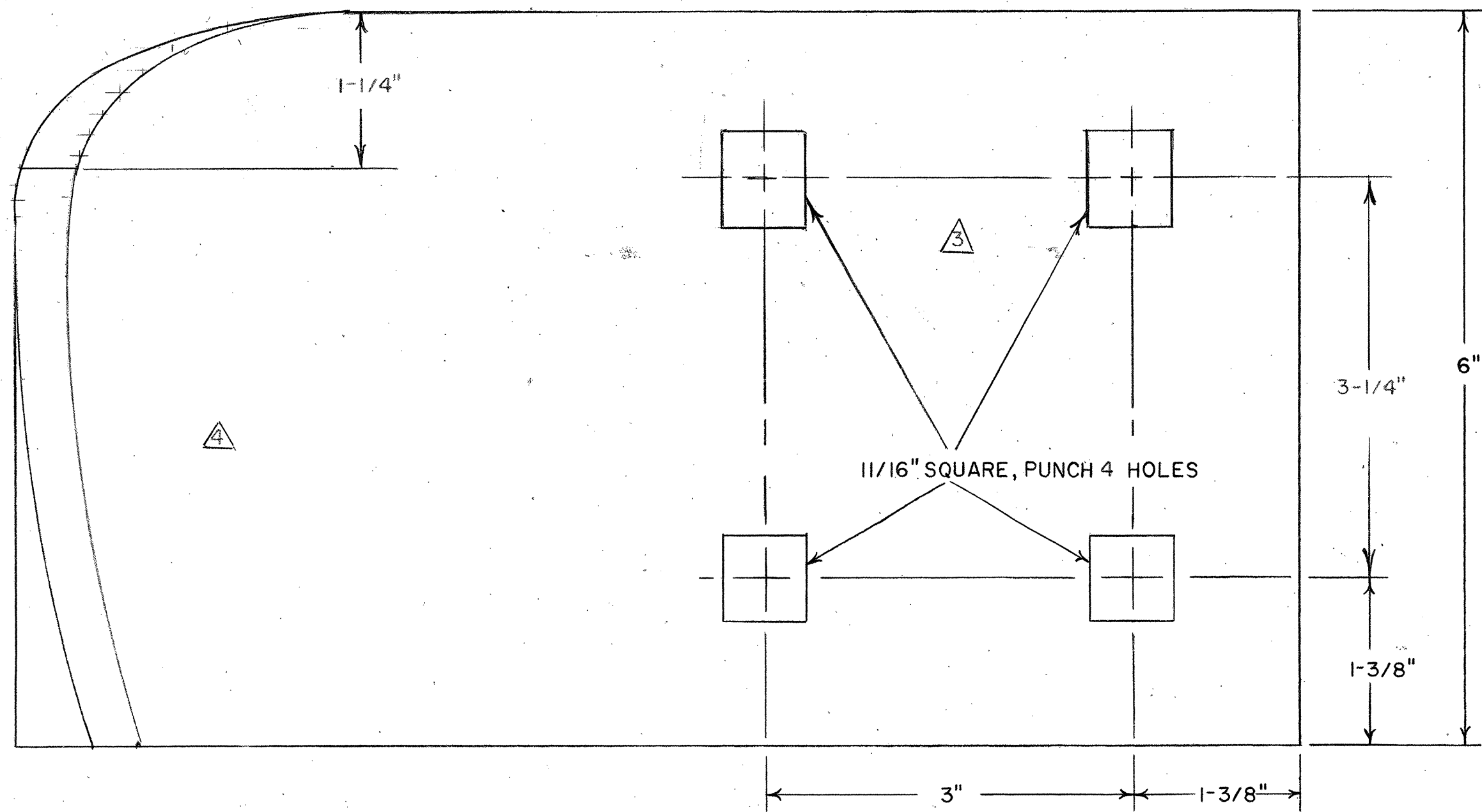


REVISION
Drawn by
Checked by

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
MOLDBOARD AND SEMICIRCLE HINGES			
2-84 S.J.D.	ADDED WORDS TO NO. 2	77-GHE-0024	SUBMITTED BY
4-9-76 A.P.S.	CHG. NOTE NO. 2	75-GHE-0049	DRAWN BY
4-22-75 A.P.S.	ADDED DIM.	0-R.11.25-(24,42)-(13,18)-1 MOD.	A.P. SMITH
4-15-75 A.P.S.	ADDED NOTE NO. 4	0-R12.75-(32,53)-(14.75,22.75)-1	APPROVED BY
REV	DATE	BY	REMARKS
			ORDER REQUEST NO.
			APPLICABLE SNOW PLOWS
			DATE
			JULY 18, 1974
			DWG. NO.
			4-156



- NOTES
1. UNLESS OTHERWISE SPECIFIED, FILLETS AND ROUNDS ARE TO HAVE 1/8" R.
 2. ALL SHARP EDGES AND BURRS TO BE REMOVED.
 3. FASTEN CURB BUMPERS TO MOLDBOARD W/ 5/8" X 11 UNC BOLTS, NUTS, AND LOCKWASHERS.
 4. FASTEN WRAP AROUND TO MOLDBOARD W/ 5/8" X 11 UNC X 2-1/2" CARRIAGE BOLTS, NUTS, LOCKWASHERS.



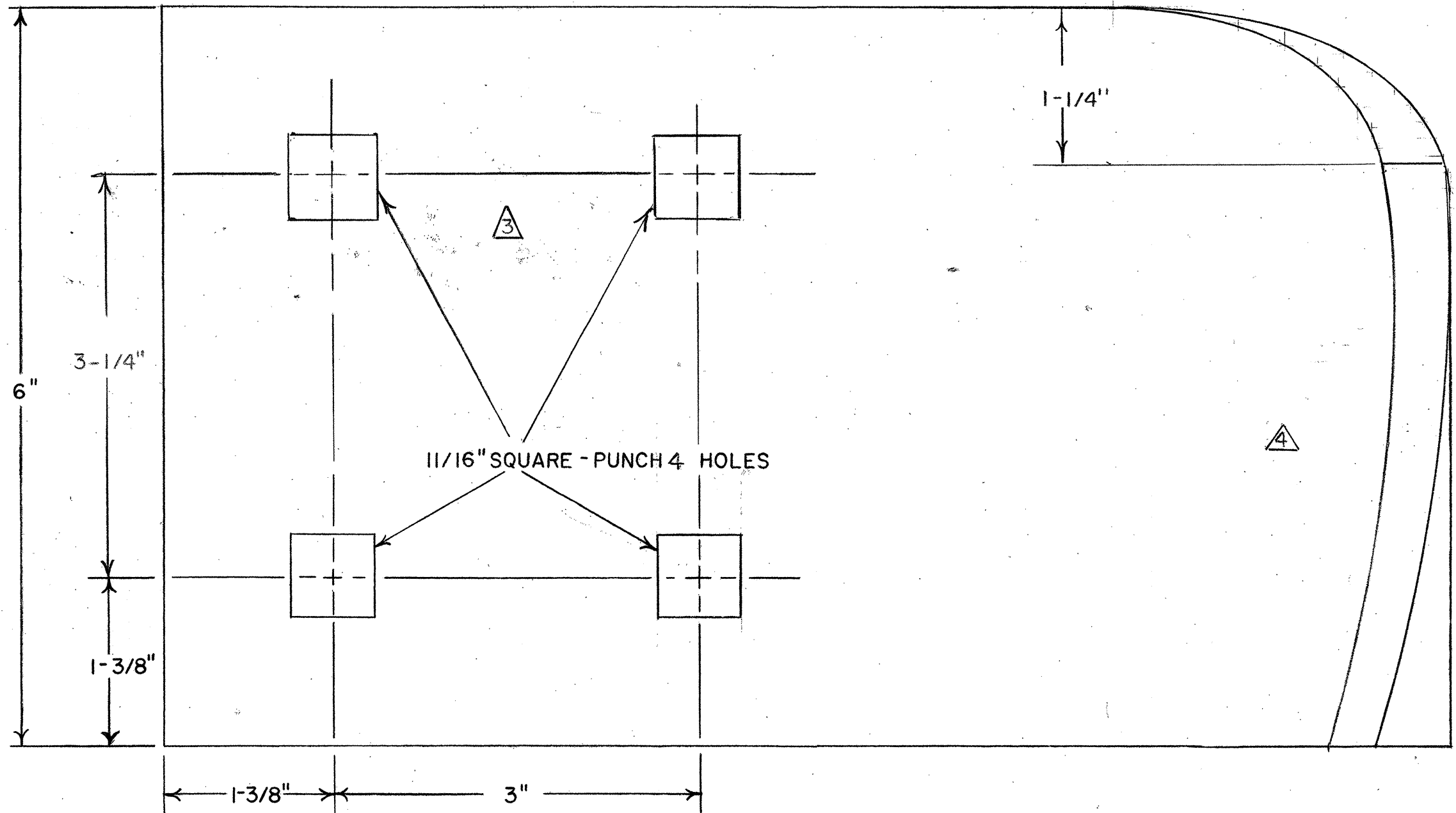
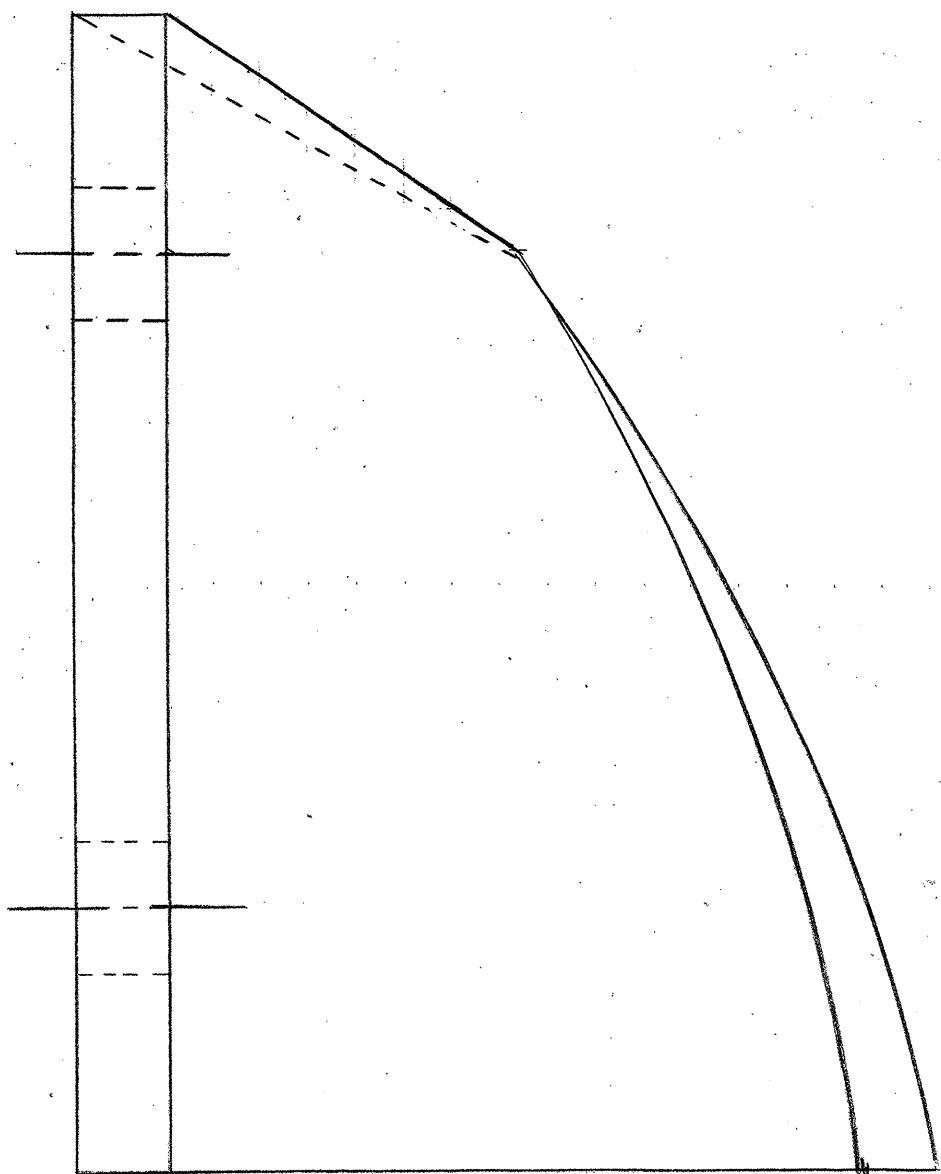
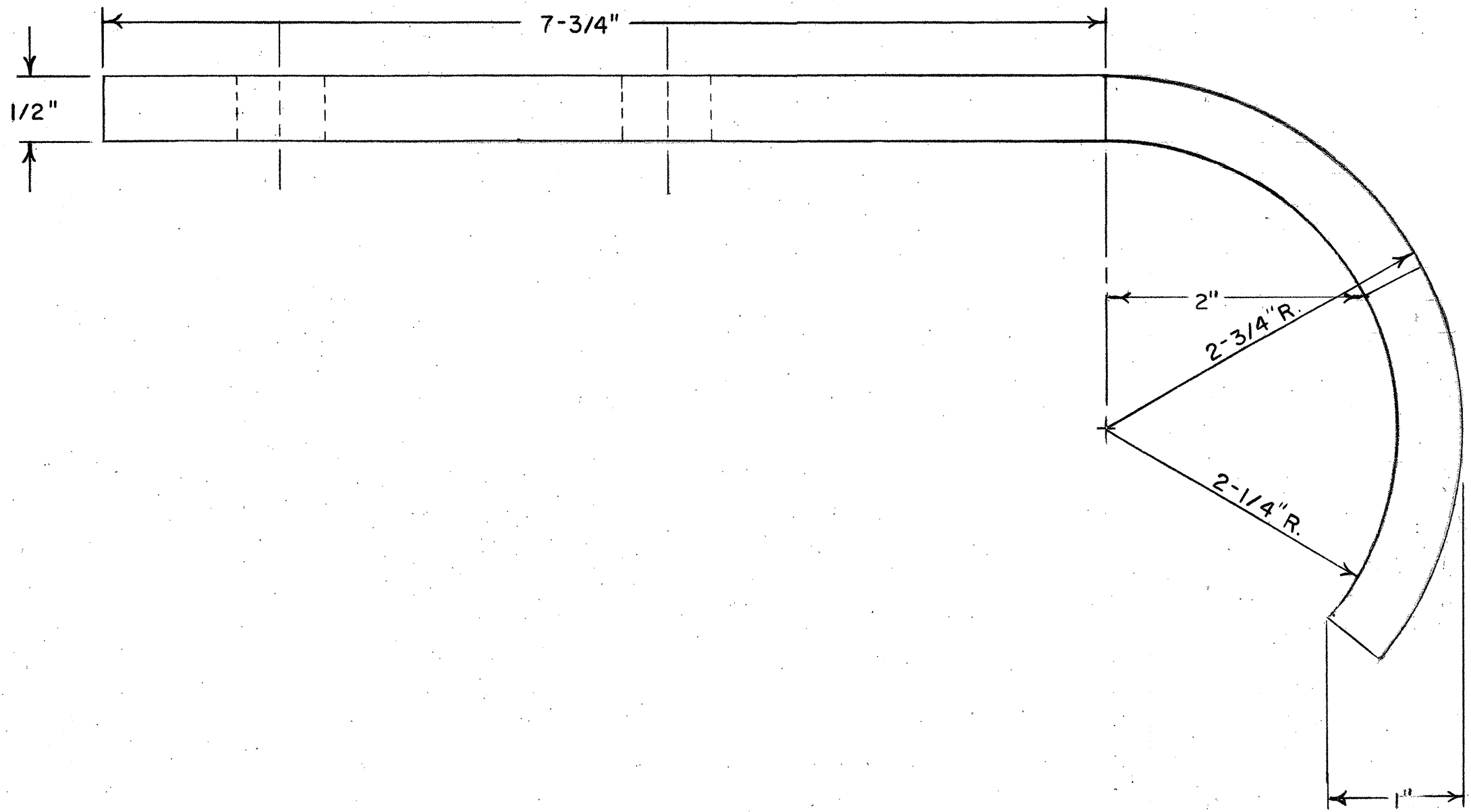
WRAP AROUND - RIGHT SIDE
MATL: HIGH CARBON STEEL

CURB BUMPER
MATL: CAST STEEL
MATL: STEEL WELDMENT

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				WRAP AROUND - RIGHT SIDE & CURB BUMPER			
				SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
				APPROVED BY	JOB. NO.	DATE	4-158
REV	DATE	BY	REMARKS	76-GHE-0009 APPLICABLE SNOW PLOWS			
1	3-23-71	JWB	DELETED CAST STEEL	M.R. 10-32-15-1 MOD.			
2	9/1/80	JWB	MODIFY LEFT END	M.R. 11-36-15-1			
3	9/4/80	JWB	ADD 2 TOP HOLES				
4	7/1/86	APS	ADD TO NOTE 4				
5	2-9-76	APS	ADD INCH MARKS				

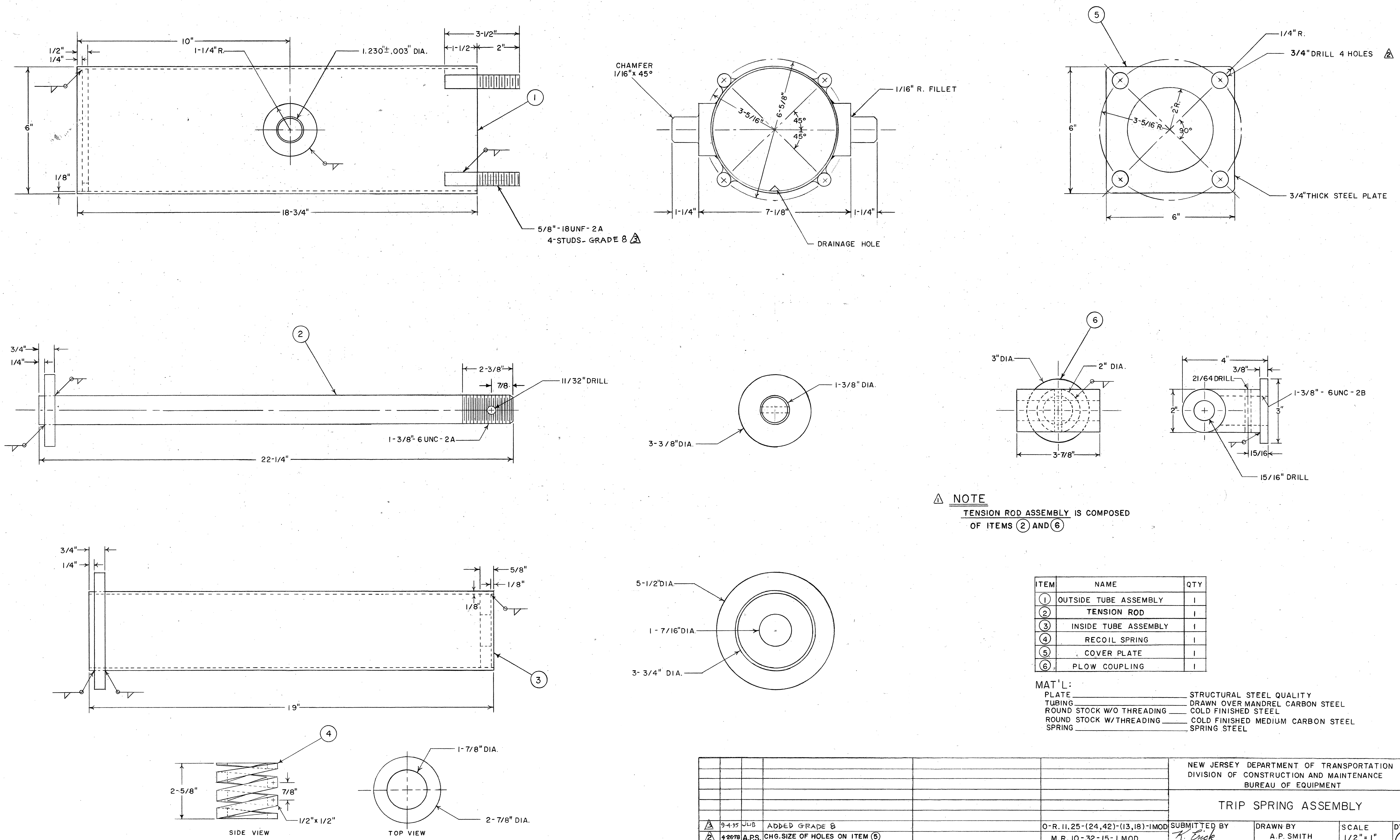
NOTES

1. SHARP EDGES AND BURRS TO BE REMOVED.
2. FASTEN WRAP AROUND TO MOLDBOARD W/ 5/8" x 11UNC x 2-1/2" CARRIAGE BOLTS, NUTS, AND LOCKWASHERS.



WRAP AROUND-LEFT SIDE
MATL: HIGH CARBON STEEL

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				WRAP AROUND-LEFT SIDE			
4	9/1/90	JWB	MODIFY RIGHT END				
3	9/4/90	JWB	ADD 2 TOP HOLES				
2	7-1-88	APS	ADD TO NOTE 2				
1	2-9-76	APS	ADD INCH MARKS				
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS	SUBMITTED BY A.P. SMITH	DWG. NO. 4-159
				76-6HE-0009	M.R. 10-32-15-1 MOD. M.R. 11-36-15-1	APPROVED BY J. Goldfarb	SCALE FULL
						JOB NO.	DATE NOV 15, 1974



NOTE
TENSION ROD ASSEMBLY IS COMPOSED
OF ITEMS 2 AND 6

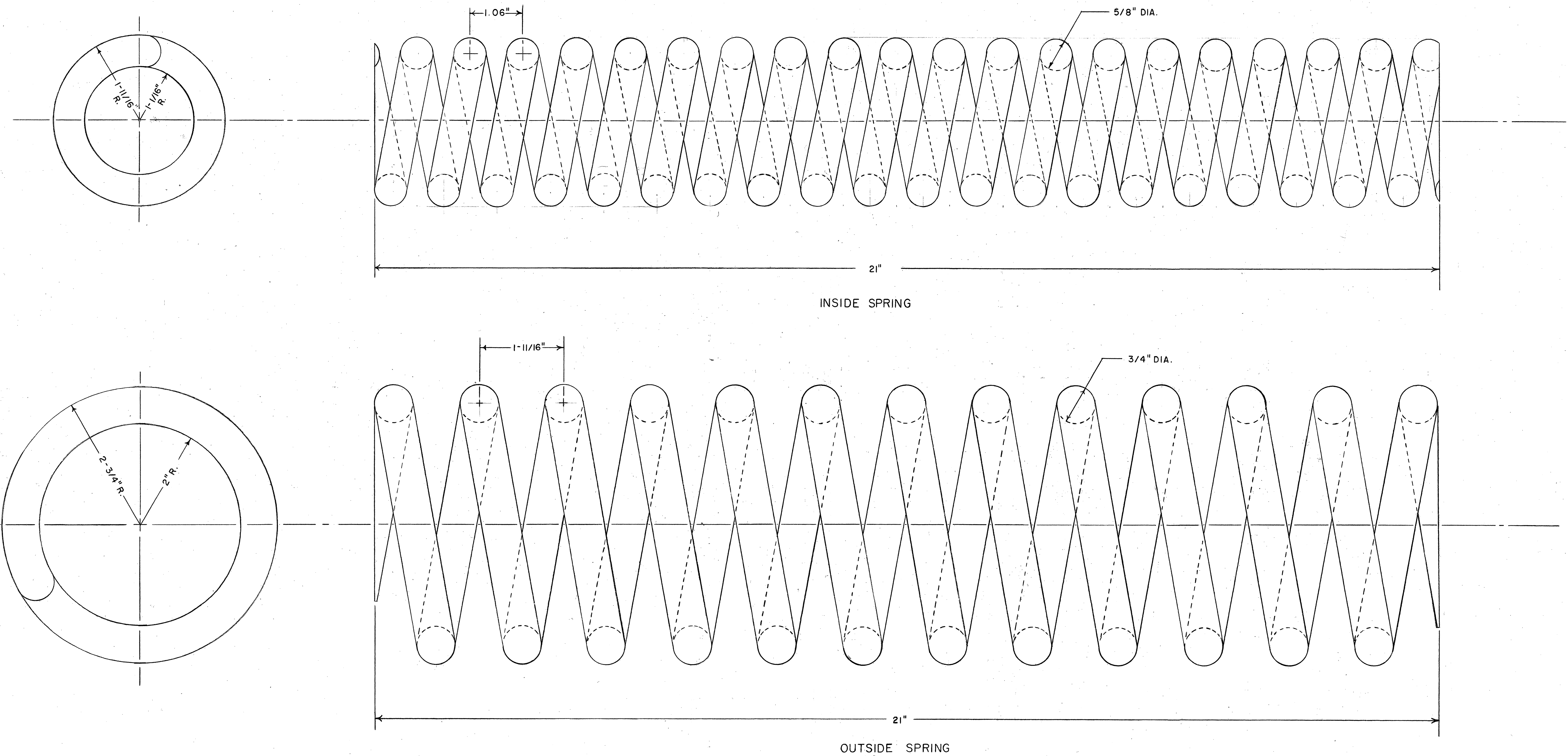
ITEM	NAME	QTY
1	OUTSIDE TUBE ASSEMBLY	1
2	TENSION ROD	1
3	INSIDE TUBE ASSEMBLY	1
4	RECOIL SPRING	1
5	COVER PLATE	1
6	PLOW COUPLING	1

MAT'L:
PLATE _____ STRUCTURAL STEEL QUALITY
TUBING _____ DRAWN OVER MANDREL CARBON STEEL
ROUND STOCK W/O THREADING _____ COLD FINISHED STEEL
ROUND STOCK W/THREADING _____ COLD FINISHED MEDIUM CARBON STEEL
SPRING _____ SPRING STEEL

						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						TRIP SPRING ASSEMBLY			
△	9-4-95	JLB	ADDED GRADE 8		O-R. 11.25-(24,42)-(13,18)-1MOD	SUBMITTED BY <i>R. Erick</i>	DRAWN BY A.P. SMITH	SCALE 1/2"= 1"	4-160 -1
△	4-26-78	A.P.S.	CHG. SIZE OF HOLES ON ITEM ⑤		M.R. 10-32-15-1 MOD.	APPROVED BY <i>F. Gierke</i>	JOB NO. _____	DATE DEC 3, 1974	
△	2-7-77	A.P.S.	ADD'NOTE', CHG. NAME OF ITEM ②	76-GHE-0009	M.R. 11-36-15-1				
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS				

24DPP01035
Drawing 4-160-2
Price Lines 74, 76 and 93

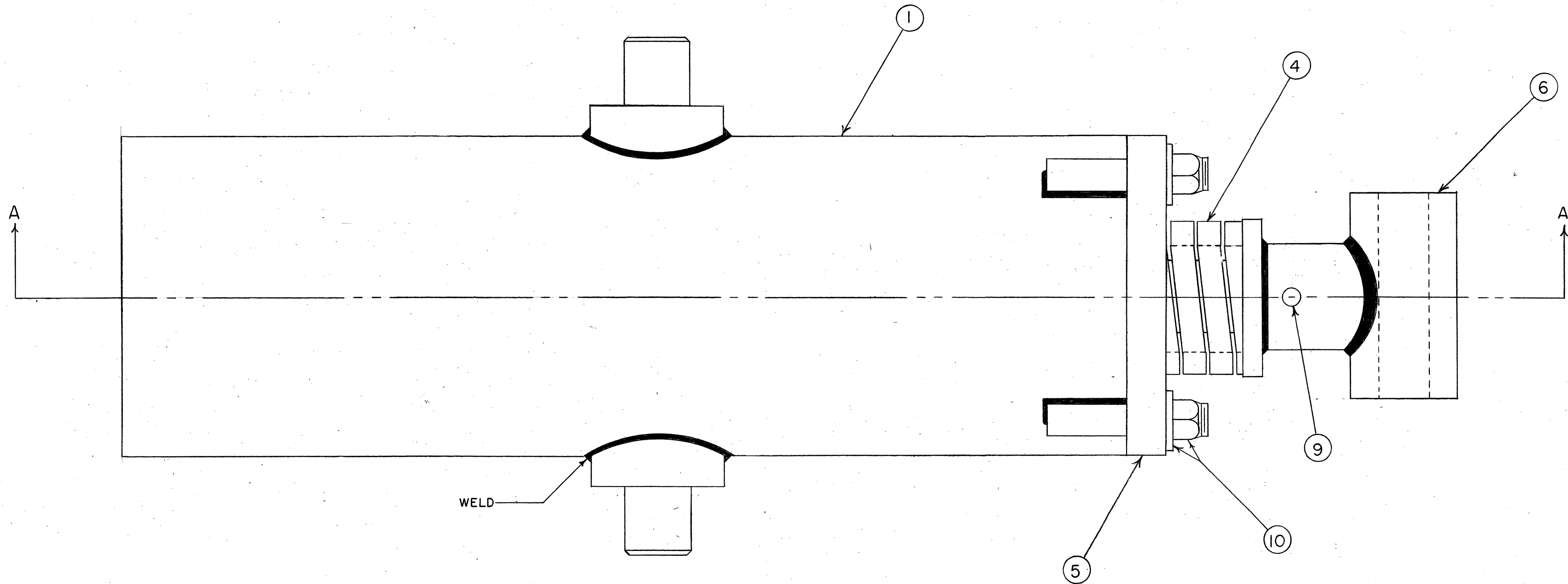
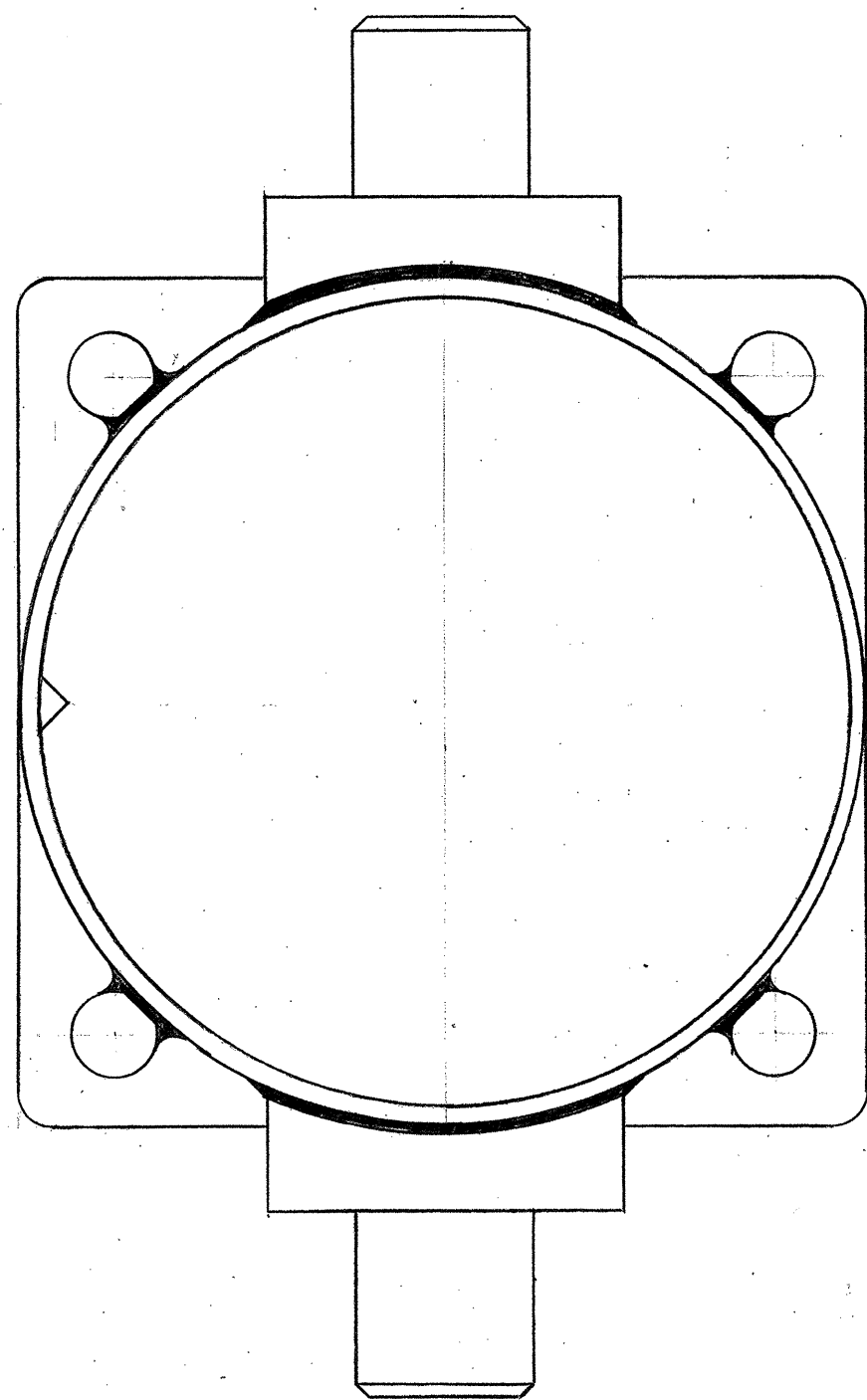
State of New Jersey Procurement Bureau



NOTES
1. ENDS OF SPRINGS TO BE TAPERED, GROUND AND SQUARED

MATL:
ALLOY SPRING STEEL-5160H-HOT WOUND,
TO BE MANUFACTURED TO ASTM SPEC
A-125 LR MAT'L EQUAL OR GREATER
THAN ASTM-A689, A-29 AND A-304

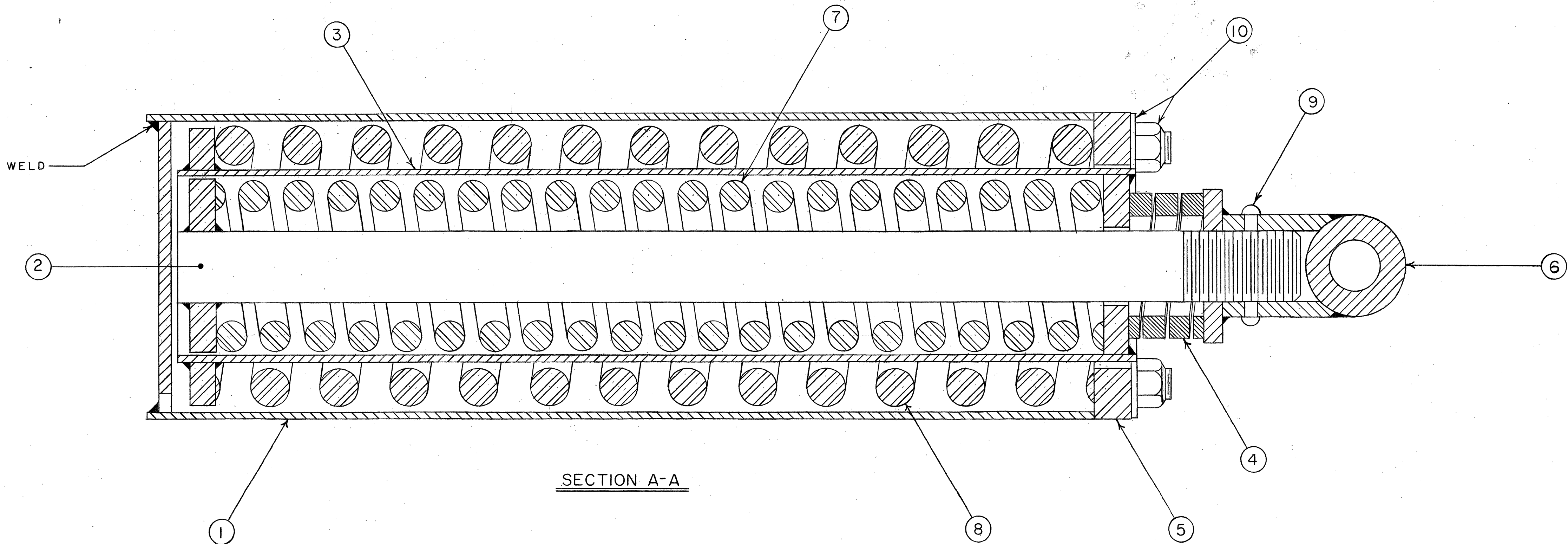
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ITEM	NAME	QTY.	DWG. NO.
①	OUTSIDE TUBE ASSEMBLY	1	4-160-1, ITEM ①
②	TENSION ROD	1	4-160-1, ITEM ②
③	INSIDE TUBE ASSEMBLY	1	4-160-1, ITEM ③
④	RECOIL SPRING	1	4-160-1, ITEM ④
⑤	COVER PLATE	1	4-160-1, ITEM ⑤
⑥	PLOW COUPLING	1	4-160-1, ITEM ⑥
⑦	INSIDE SPRING	1	4-160-2
⑧	OUTSIDE SPRING	1	4-160-2
⑨	5/16" B.H. RIVET	1	STD.
⑩	5/8" X 18UNF ELAS. STOP NUT & WASHER	4 EA.	STD.

NOTES

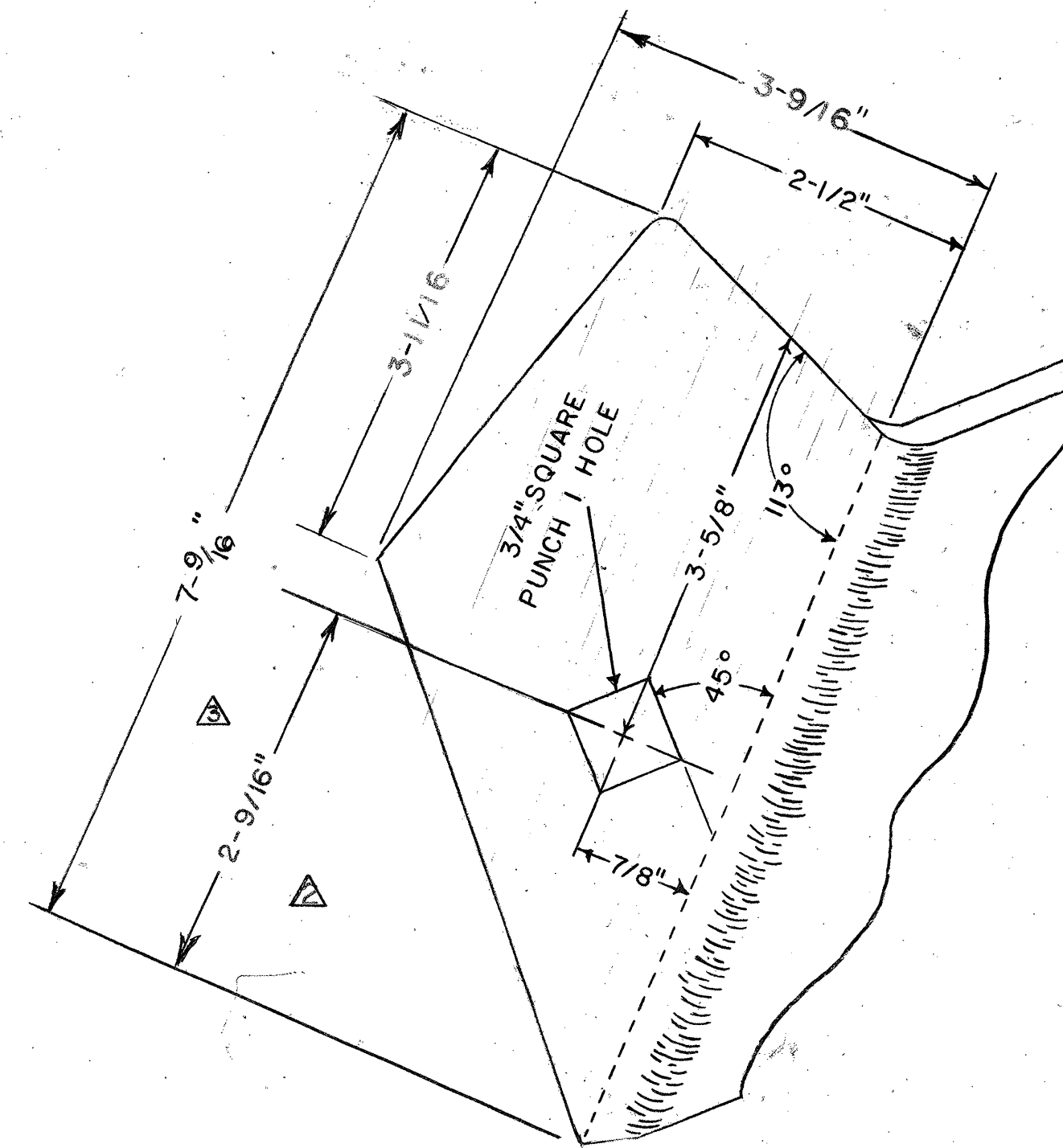
1. SECTION LINING DOES NOT REPRESENT TYPE OF MATERIAL, ONLY CLARIFICATION BETWEEN PARTS.
2. MATERIAL SPECIFIED ON DWG. NO. 4-160-1 & 4-160-2.
3. DO NOT SCALE.
4. FASTEN PLOW COUPLING TO MOLDBOARD W/ 7/8", 9UNC BOLT, NUT, AND LOCKWASHER.



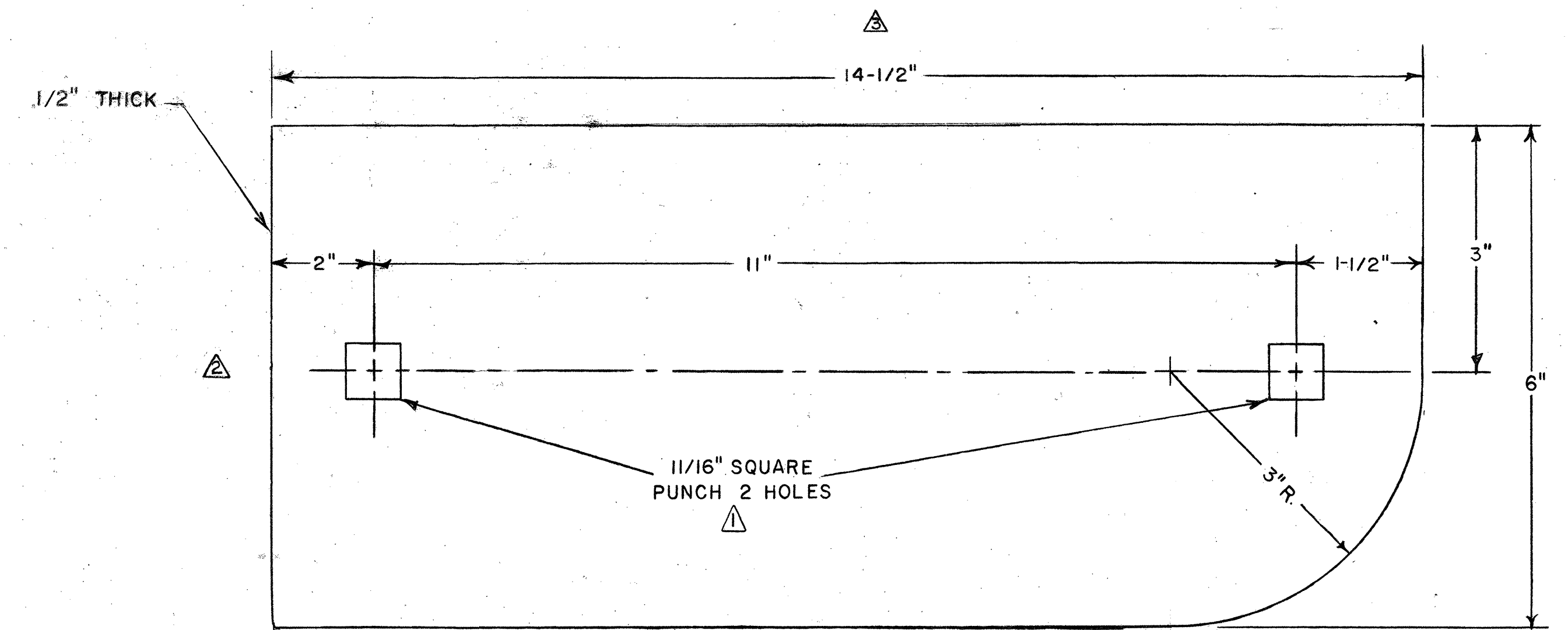
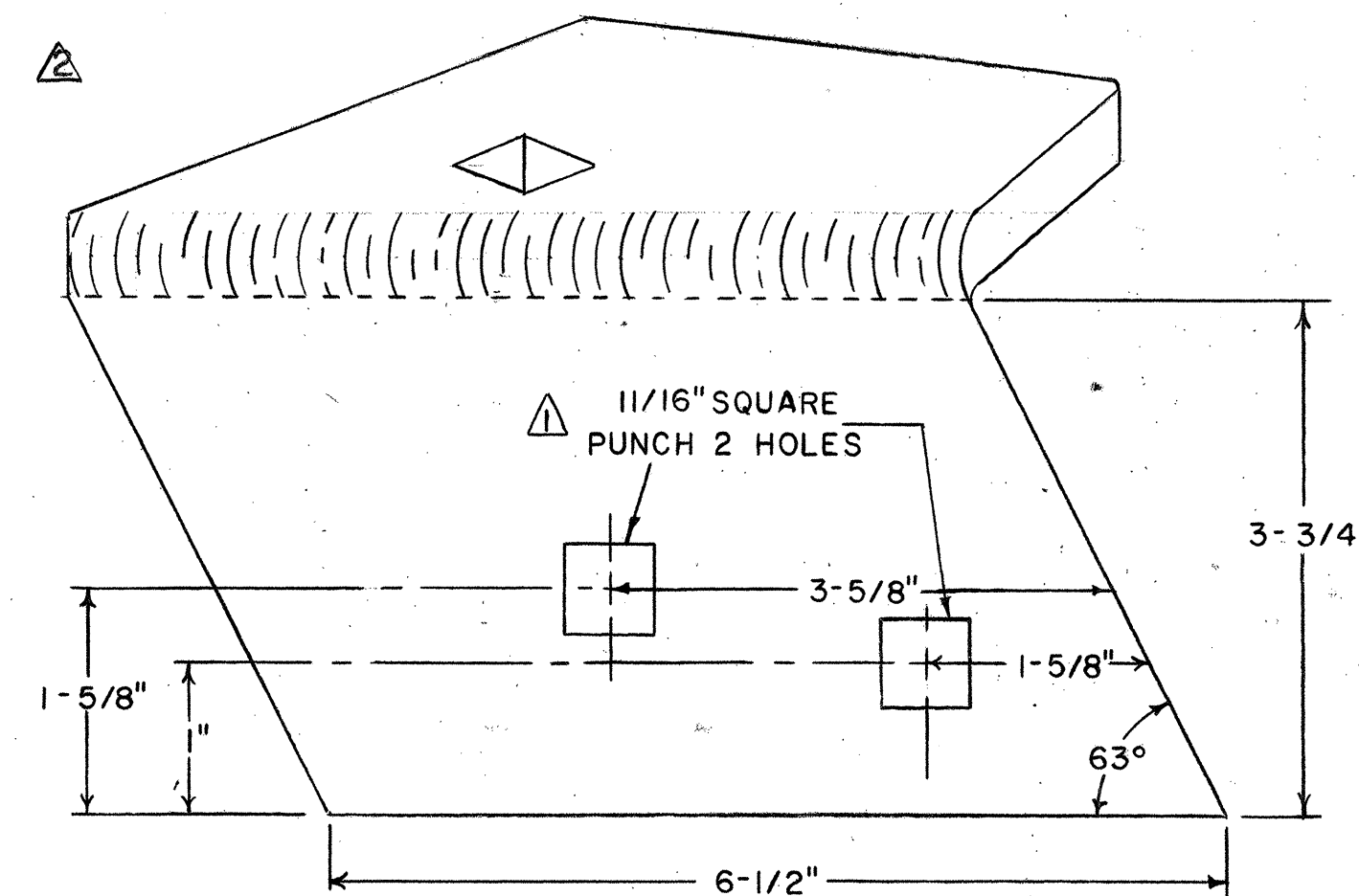
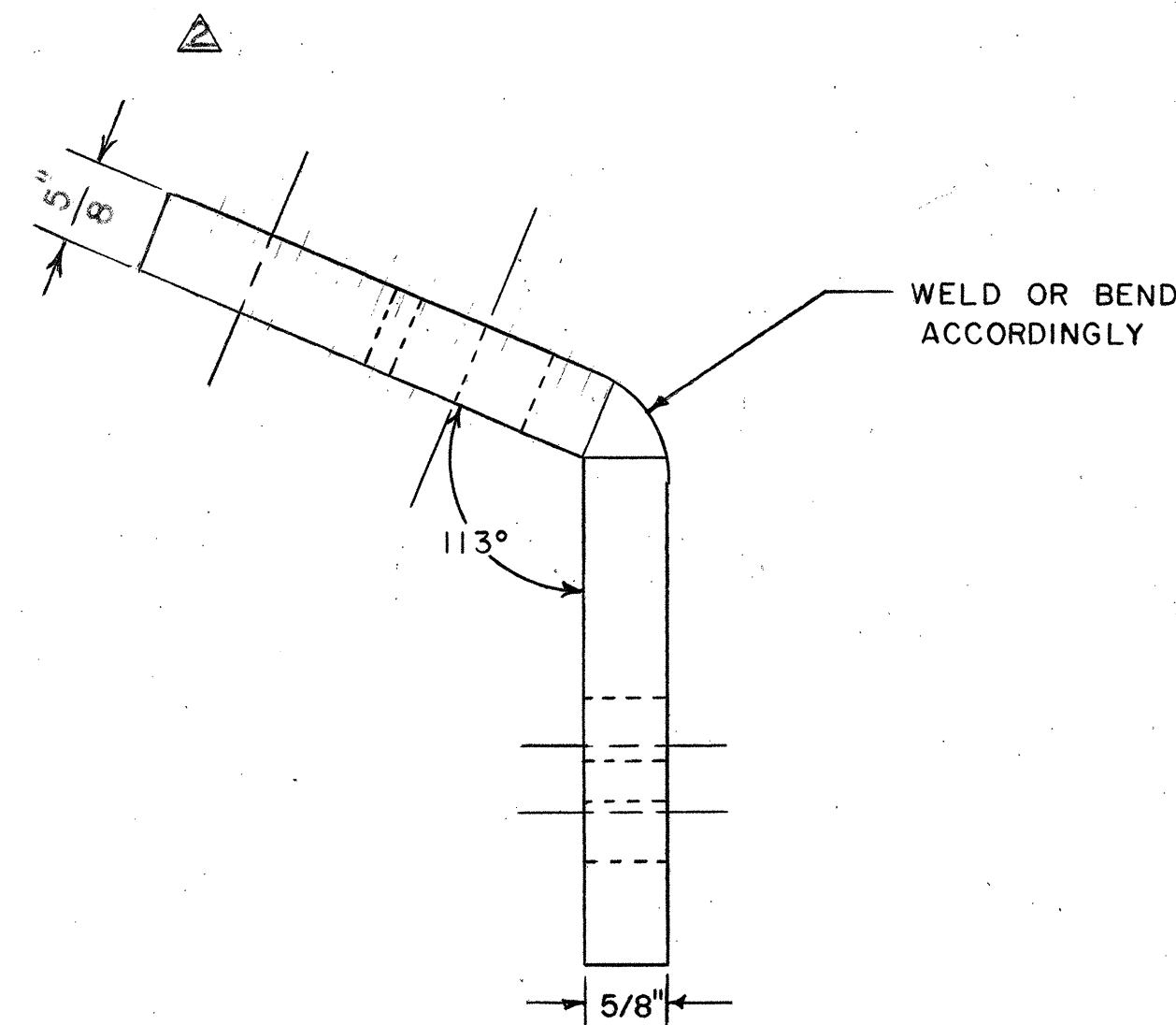
NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
TRIP SPRING ASSEMBLY			
SUBMITTED BY <i>[Signature]</i>		DRAWN BY A.P. SMITH	
APPROVED BY <i>[Signature]</i>		JOB NO. _____	
DATE DEC 13, 1974		SCALE NONE	
DWG NO. 4-160-3			

REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
2-7-77	A.P.S.	CHG. NAME OF ITEM ②	76-GHE-0009		

O-R. II. 25-(24,42)-(13,18)-1 MOD.	
M.R. 10-32-15-1 MOD.	
M.R. 11-36-15-1	



INNER NOSE PIECE
SCALE: 3/4" = 1"
MAT'L: HIGH CARBON STEEL



OUTER NOSE PIECE
SCALE: 3/4" = 1"
MAT'L: HIGH CARBON STEEL

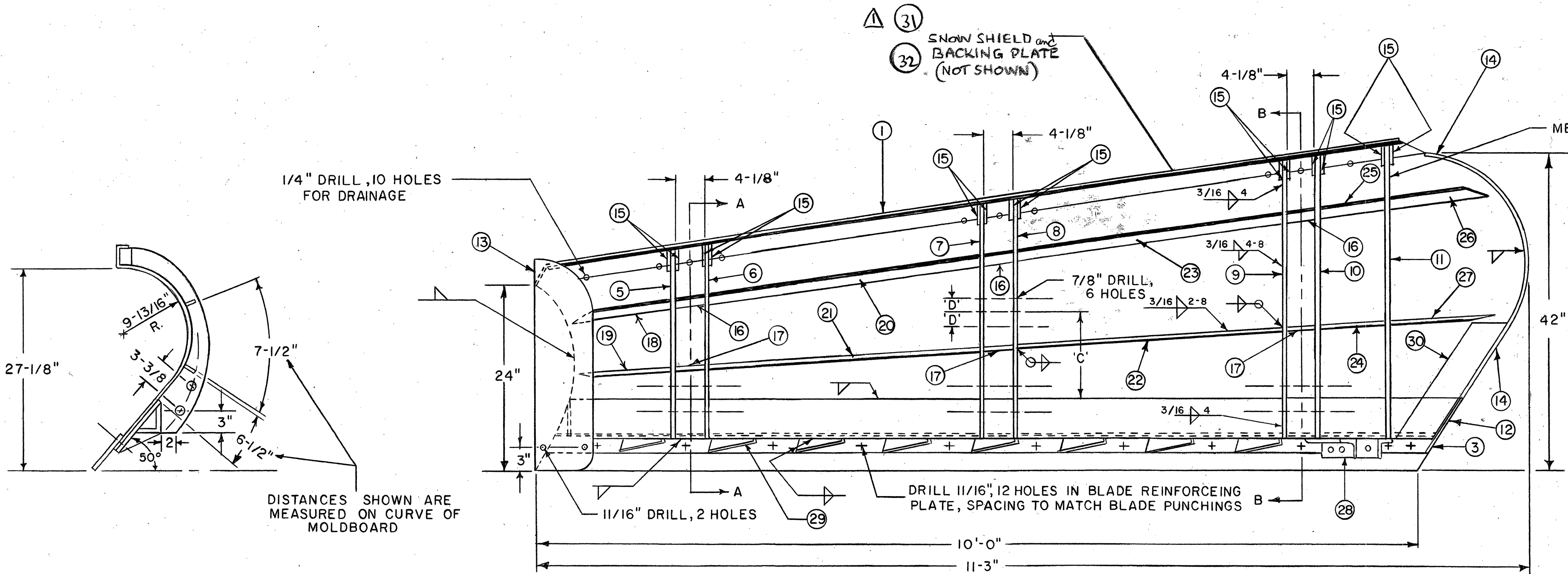
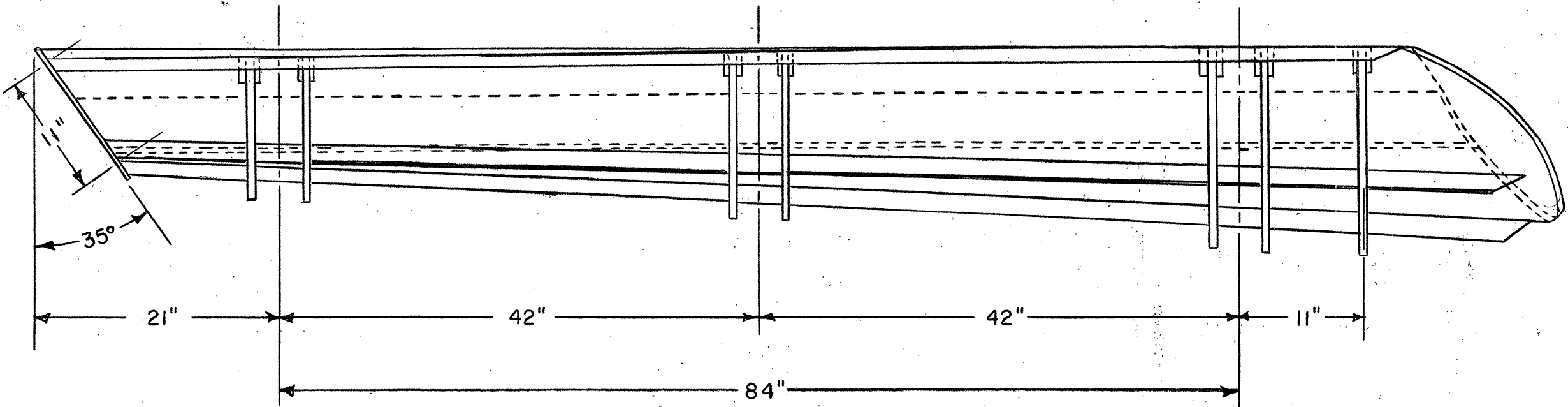
NOTES

1. REMOVE ALL SHARP EDGES AND BURRS.
2. ALL WELDS (IF USED) TO BE CONTINUOUS.
3. FASTEN INNER AND OUTER NOSE PIECE TO MOLDBOARD END PLATE WITH TWO 5/8" X 11 UNC X 2-1/2" CARRIAGE BOLTS, NUTS, AND LOCK WASHERS.

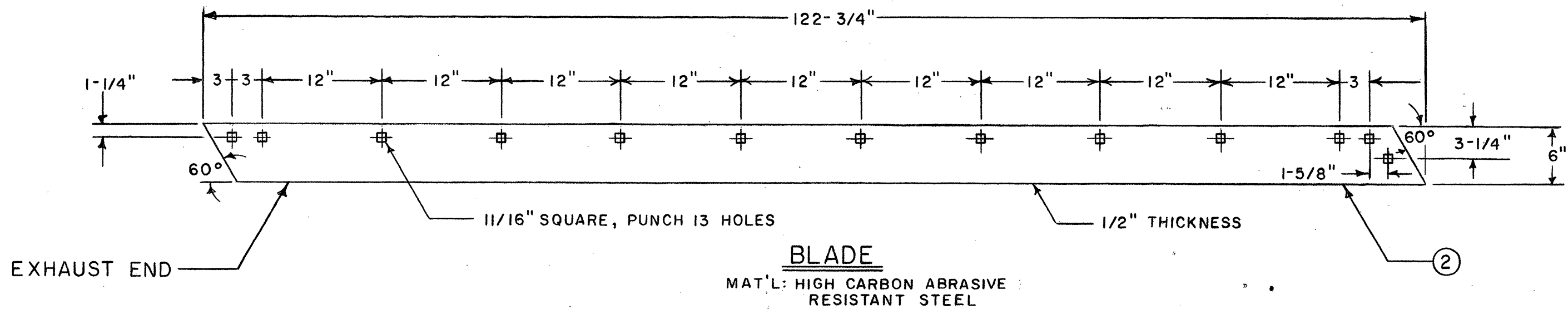
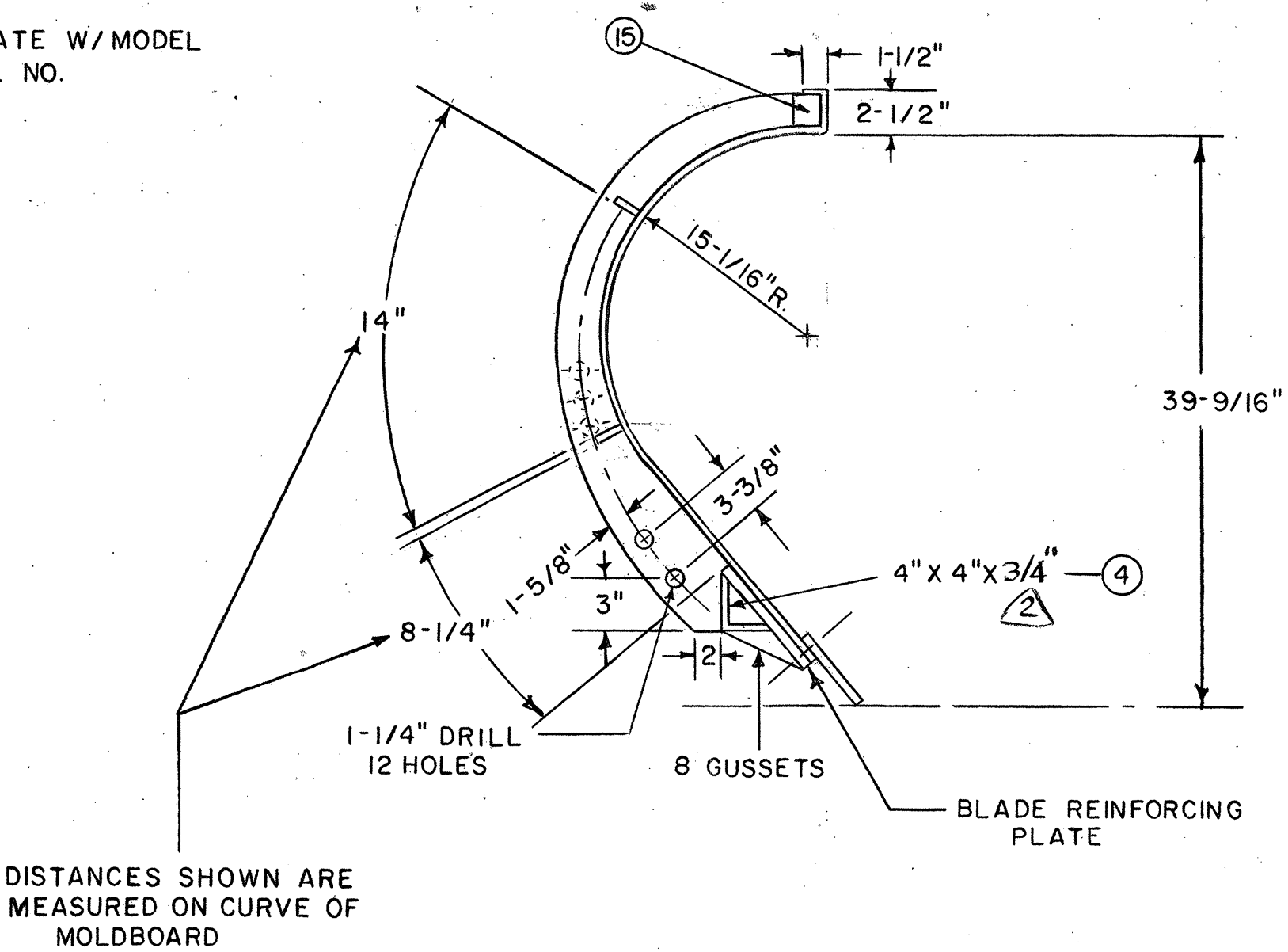
						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						INNER & OUTER NOSE PIECE			
2-28-84	E.J.D.	CHANGE OF DIMENSION				SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
9-9-82	J.W.B.	DELETED LIFTING EYE				<i>Quillman</i>	A.P. SMITH	3/4" = 1"	4-164
12-12-79	A.P.S.	CHG. SIZE OF PUNCHED HOLES				APPROVED BY	JOB. NO.	DATE	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS	<i>F. Ralston</i>		FEB 11, 1975	

NOTES

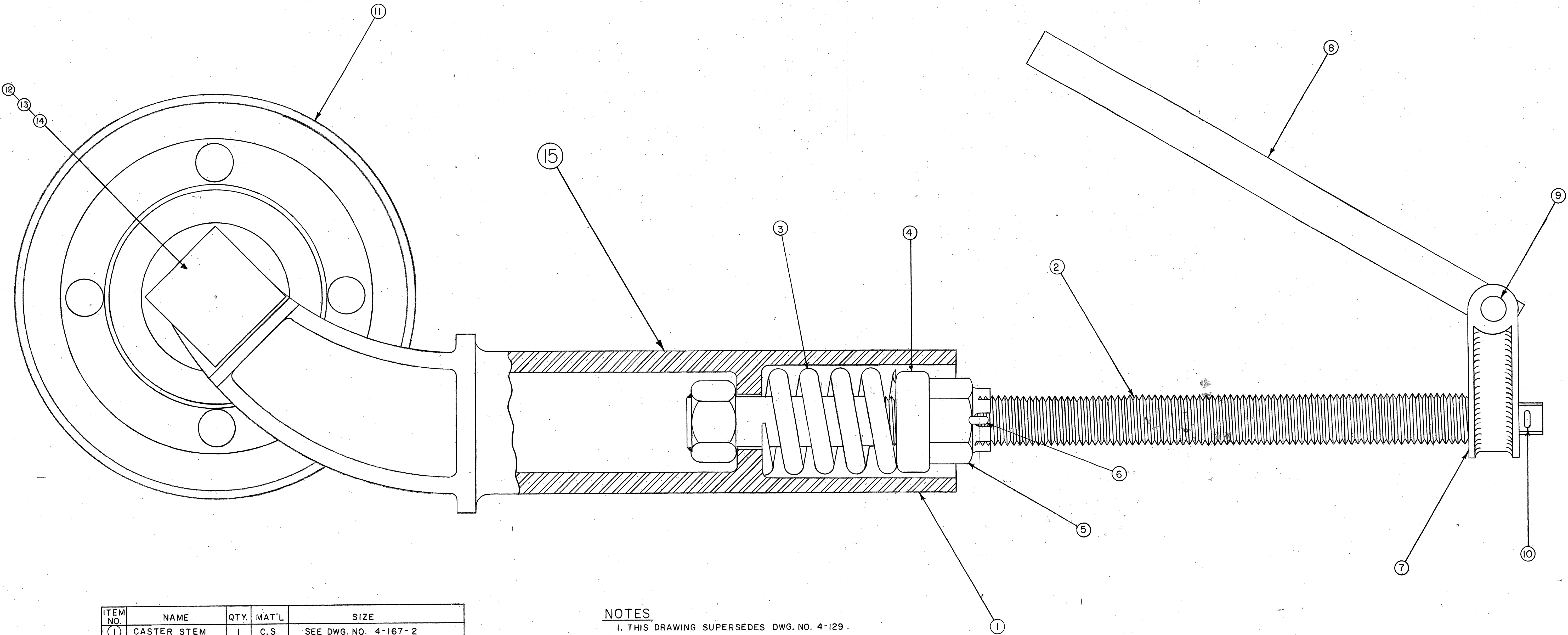
1. ALL VERTICAL RIBS TO HAVE 3/16" FILLET WELDS, 4" LENGTH, 8" PITCH STARTING AT THE TOP AND BOTTOM OF EACH RIB ON BOTH SIDES AND STAGGERED INTERMITTENTLY THEREAFTER IN BETWEEN. (SEE 5TH RIB)
2. ALL HORIZONTAL RIBS TO BE SECURELY WELDED AT EACH END, 3/16" FILLET WELD, 2" LENGTH 8" PITCH. (SEE HORIZONTAL RIB ITEM NO. 22)
3. ANGLE-BLADE REINFORCING PLATE ASSY. TO HAVE 1/4" FILLET WELD 4" LENGTH, 12" PITCH.
4. UNLESS OTHERWISE NOTED ALL OTHER WELDS TO BE CONTINUOUS 3/16" FILLET.
5. BLADE TO BE FASTEN TO BLADE REINFORCING PLATE W/ 5/8" X 11 UNC X 2" CARRIAGE BOLTS, NUTS, LOCKWASHERS. LAST 2 BOLTS OF EACH END TO BE 2-1/2" LONG.
6. SHOE ANGLES TO BE ANGLED 35° FROM THE STRAIGHT POSITION, DRILL TWO 11/16" HOLES IN EACH TO ACCOMMODATE SHOE (DWG. NO. 4-147).
7. MOLDBOARD SKIN MUST EXTEND TO BOTTOM EDGE OF BLADE REINFORCING PLATE. TACK WELD ONLY.
8. DIMENSION "D" TO BE 2" C. TO C.
9. DIMENSION "C" TO BE 13" MEASURED ON BACK CURVE OF MOLDBOARD.
10. HORIZONTAL HOLE LOCATION IN MOLDBOARD END PLATE TO BE DETERMINED AT TIME OF INSTALLATION OF INNER AND OUTER NOSE PIECE.
11. INSTALL SNOW SHIELD ON TOP FRONT EDGE OF MOLDBOARD, SEE DWG. NO. 4-170 FOR DETAILED DWG. OF SNOW SHIELD.



ITEM	NAME	QTY.	MAT'L	SIZE	REMARKS
(1)	MOLDBOARD SKIN	1	H.R.S.	10 GAUGE	
(2)	BLADE	1			SEE LOWER L.H. CORNER
(3)	BLADE REINFORCING PLATE	1	STR. STL.	9" X 10'-6" X 1/2"	
(4)	ANGLE	1	" "	4" X 4" X 3/4" X 10'-6"	
(5)	1ST VERTICAL RIB	1	H.R.S.	1/2" X 9-13/16" R. X LG. REQ'D	
(6)	2ND " "	1	H.R.S.	1/2" X 10" R. " "	
(7)	3RD " "	1	H.R.S.	1/2" X 12-1/2" R. " "	
(8)	4TH " "	1	H.R.S.	1/2" X 12-5/8" R. " "	
(9)	5TH " "	1	H.R.S.	1/2" X 14-7/16" R. " "	
(10)	6TH " "	1	H.R.S.	1/2" X 15-11/16" R. " "	
(11)	7TH " "	1	H.R.S.	1/2" X 16-1/4" R. " "	
(12)	BOXING PLATE & GUSSET	1	H.R.S.	1/4" X 9" X 3"	
(13)	END PLATE	1	H.R.S.	1/4" X 13-5/8" X 27-1/4"	
(14)	ROD	1	H.R.S.	1/2" DIA. X 66"	
(15)	FLAT PLATE	14	H.R.S.	3/8" X 1-1/2" X 2-1/4"	
(16)	SHORT HORIZ. RIB	3	H.R.S.	1/4" X 2" X 4-1/4"	
(17)	" " "	3	H.R.S.	1/4" X 2" X 4-1/4"	
(18)	HORIZ. RIB	1	H.R.S.	1/4" X 2" X 14-1/8"	
(19)	" " "	1	H.R.S.	1/4" X 2" X 13-1/8"	
(20)	" " "	1	H.R.S.	1/4" X 2" X 37-1/8"	
(21)	" " "	1	H.R.S.	1/4" X 2" X 37-1/8"	
(22)	" " "	1	H.R.S.	1/4" X 2" X 37-1/8"	
(23)	" " "	1	H.R.S.	1/4" X 2" X 37-1/8"	
(24)	" " "	1	H.R.S.	1/4" X 2" X 8-5/8"	
(25)	" " "	1	H.R.S.	1/4" X 2" X 8-5/8"	
(26)	" " "	1	H.R.S.	1/4" X 2" X 14-1/2"	
(27)	" " "	1	H.R.S.	1/4" X 2" X 14-1/2"	
(28)	SHOE ANGLES	2	STR. STL.	3" X 3" X 1/2" X LENGTH REQ'D	
(29)	GUSSETS	8	H.R.S.	1/2" X 4" X 4"	CUT & SHAPED ACCORDINGLY
(30)	REINFORCING PLATE	1	H.R.S.	3/8" X 4" X 22"	
(31)	SNOW SHIELD	1	RUBBER BELTING	120" X 12" X 3/8"	
(32)	BACKING PLATE	1	H.R.S.	120" X 2" X 1/4"	



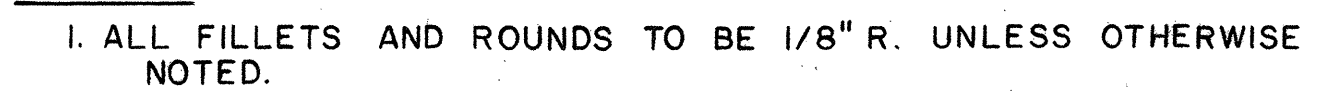
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				SNOW PLOW			
				MODEL NO. O-R. 11.25-(24,42)-(13,18)-1 MOD.			
				SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
					A. P. SMITH	3/32" = 1"	4-166
				APPROVED BY	JOB NO.	DATE	
						APRIL 8, 1975	
				O-R. 11.25-(24,42)-(13,18)-1 MOD.			
				APPLICABLE SNOW PLOW			
REV.	DATE	BY	REMARKS	ORDER REQUEST NO.			
11-16-99	JWB		INCREASED FROM 1/2" TO 3/4" THICK				
11-14-99	JWB		ADDED SNOWSHIELD & BACKING PLATE				



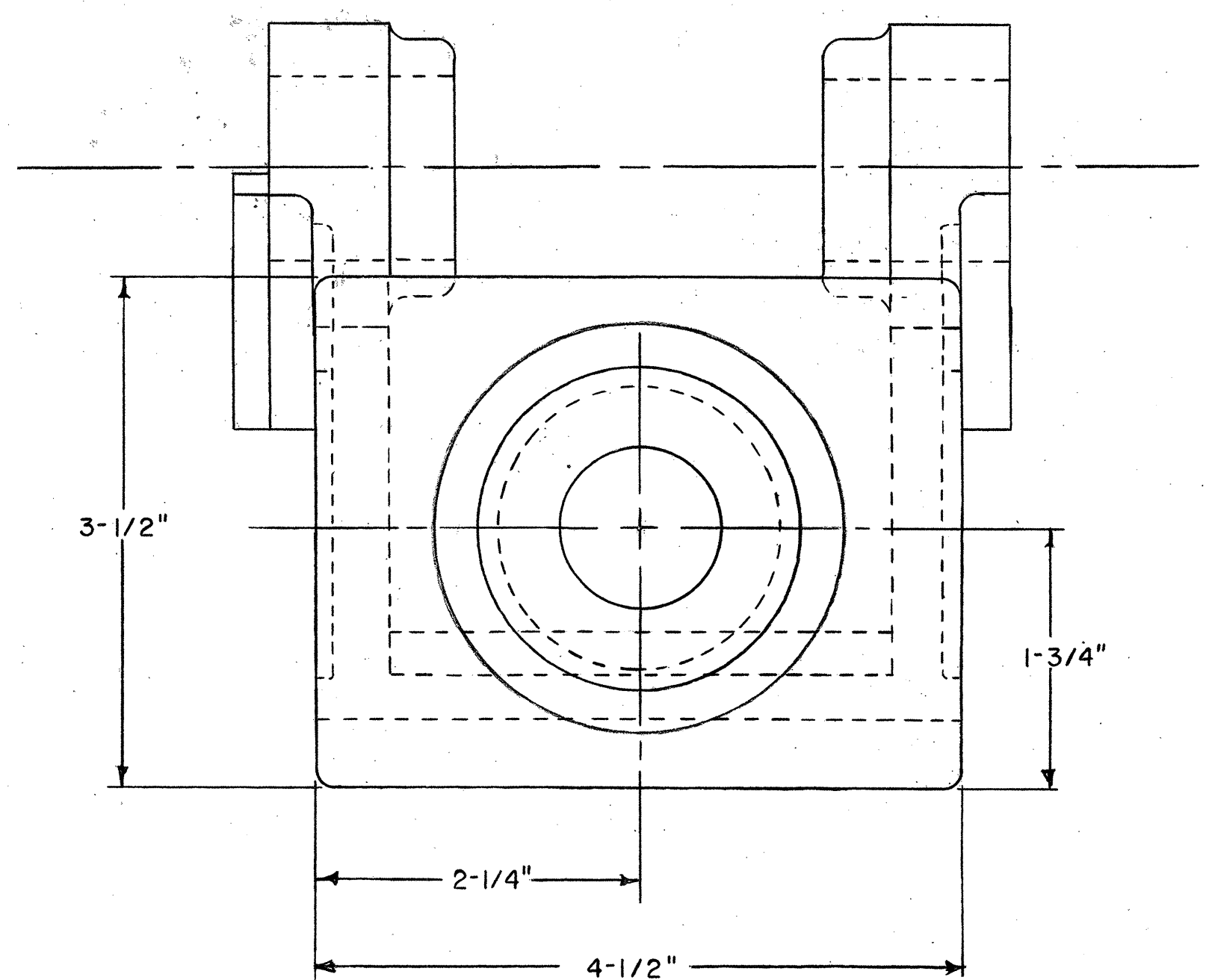
ITEM NO.	NAME	QTY.	MAT'L	SIZE
(1)	CASTER STEM	1	C.S.	SEE DWG. NO. 4-167-2
(2)	ADJUSTING BOLT	1	"	" " " 4-167-3
(3)	SPRING	1	SPR.STL	" " " 4-167-3
(4)	BEARING	1	"	" " " 4-167-3
(5)	CASTLE HEX NUT	1	STD.	1" X 8UNC
(6)	COTTER PIN	1	STD.	3/16" X 1-1/2"
(7)	FORK	1	C.S.	SEE DWG. NO. 4-167-3
(8)	HANDLE	1	H.R.S.	" " " 4-167-3
(9)	RIVET	1	STD.	3/8" X 1-5/8"
(10)	COTTER PIN	1	STD.	1/4" X 1-1/4"
(11)	WHEEL W/ BEARING	1	"	SEE DWG. NO. 4-125
(12)	AXLE	1	"	" " " 4-121
(13)	SLOTTED HEX NUT	1	STD.	1-1/8" X 12 UNF
(14)	COTTER PIN	1	STD.	1/4" X 2-1/2"
(15)	COMPLETE CASTER ASSEMBLY			

NOTES
1. THIS DRAWING SUPERSEDES DWG. NO. 4-129.

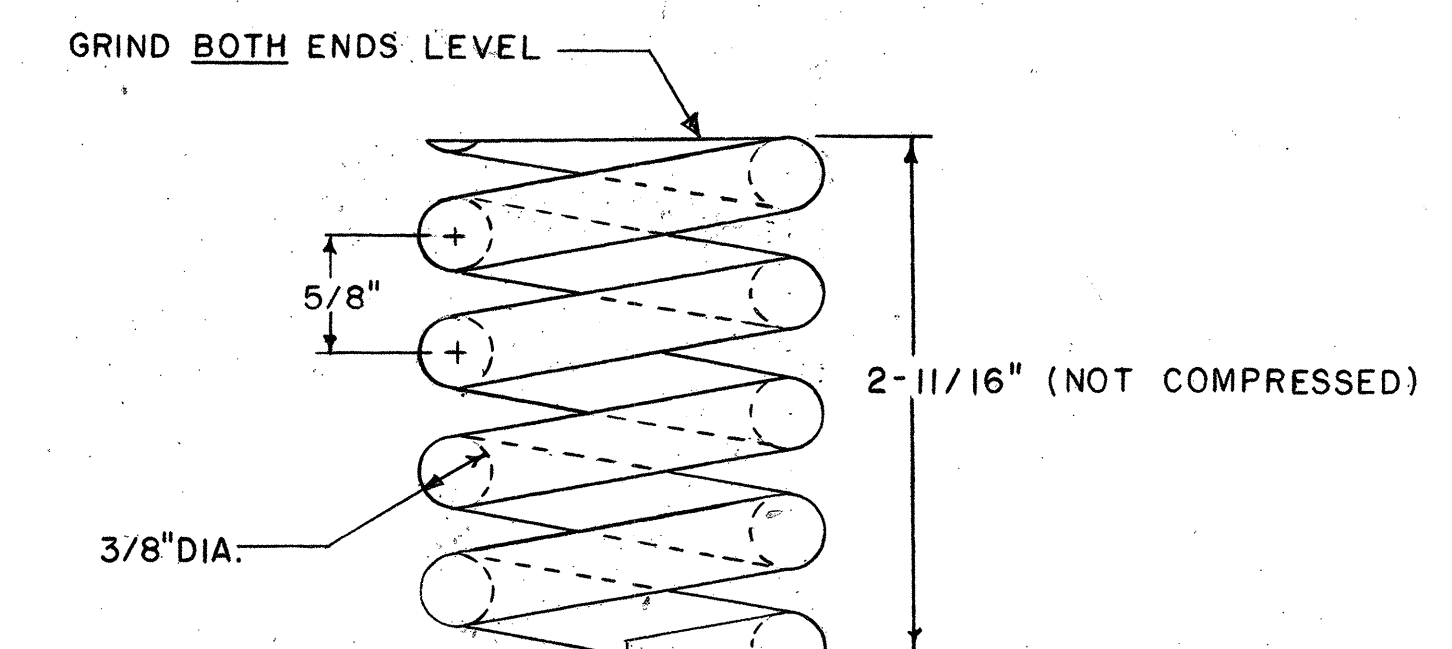
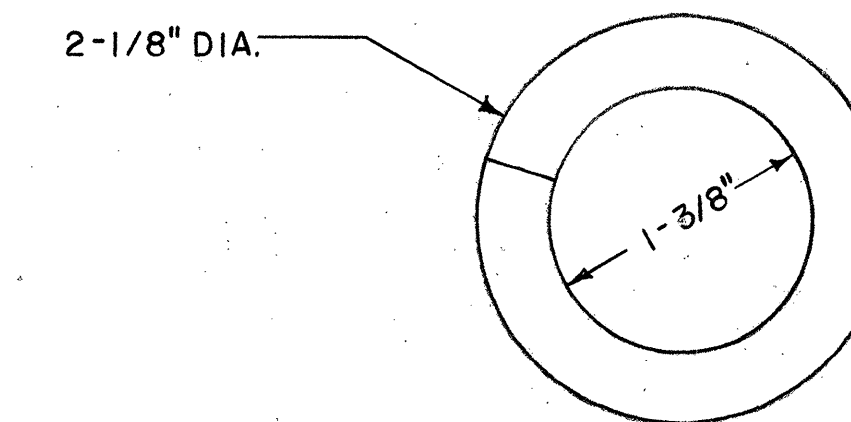
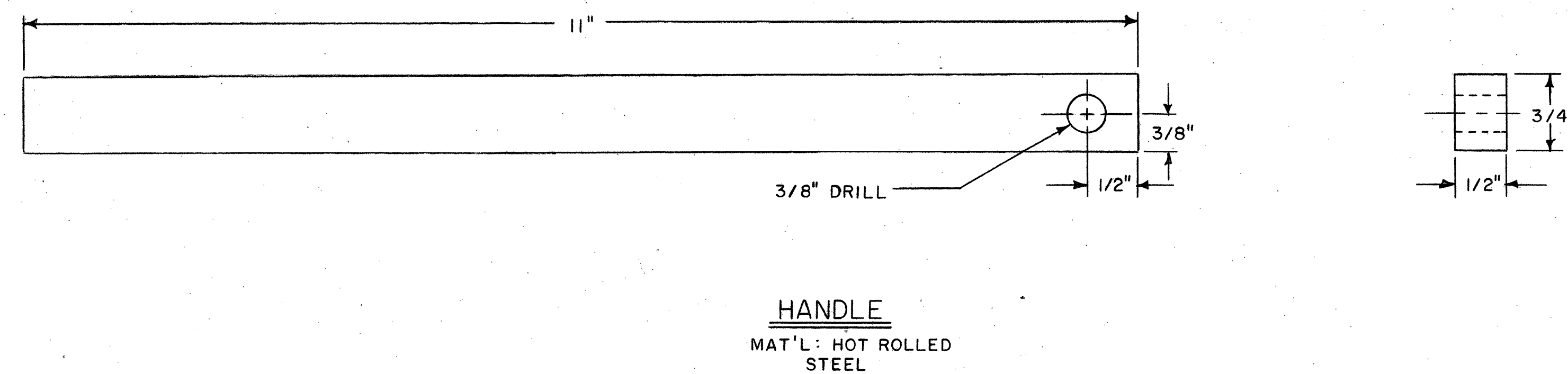
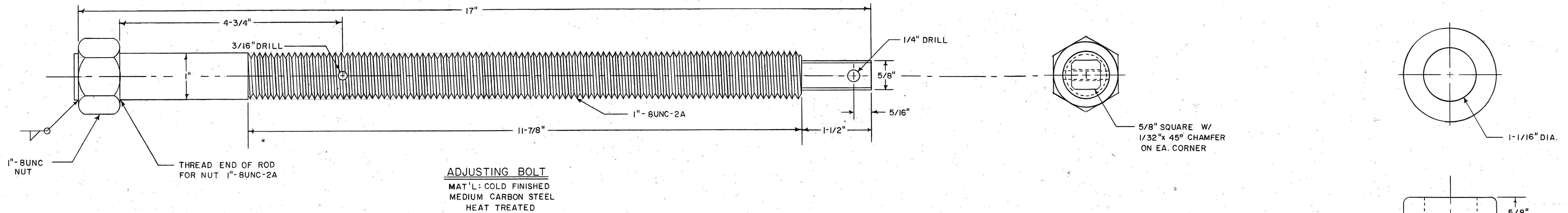
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT							
				CASTER ASSEMBLY							
				SUBMITTED BY <i>[Signature]</i>		DRAWN BY A.P. SMITH		SCALE NONE		DWG. NO. 4-167-1	
				APPROVED BY <i>[Signature]</i>		JOB NO. <i>[Signature]</i>		DATE APRIL 3, 1975			
REV		DATE		BY		REMARKS		ORDER REQUEST NO.		APPLICABLE SNOW PLOWS	
2-2377		A.P.S.		CHG. TYPE OF HEX NUT				M.R. 10-32-15-1		O-R. 11.25-(24,42)-(13,18)-1	



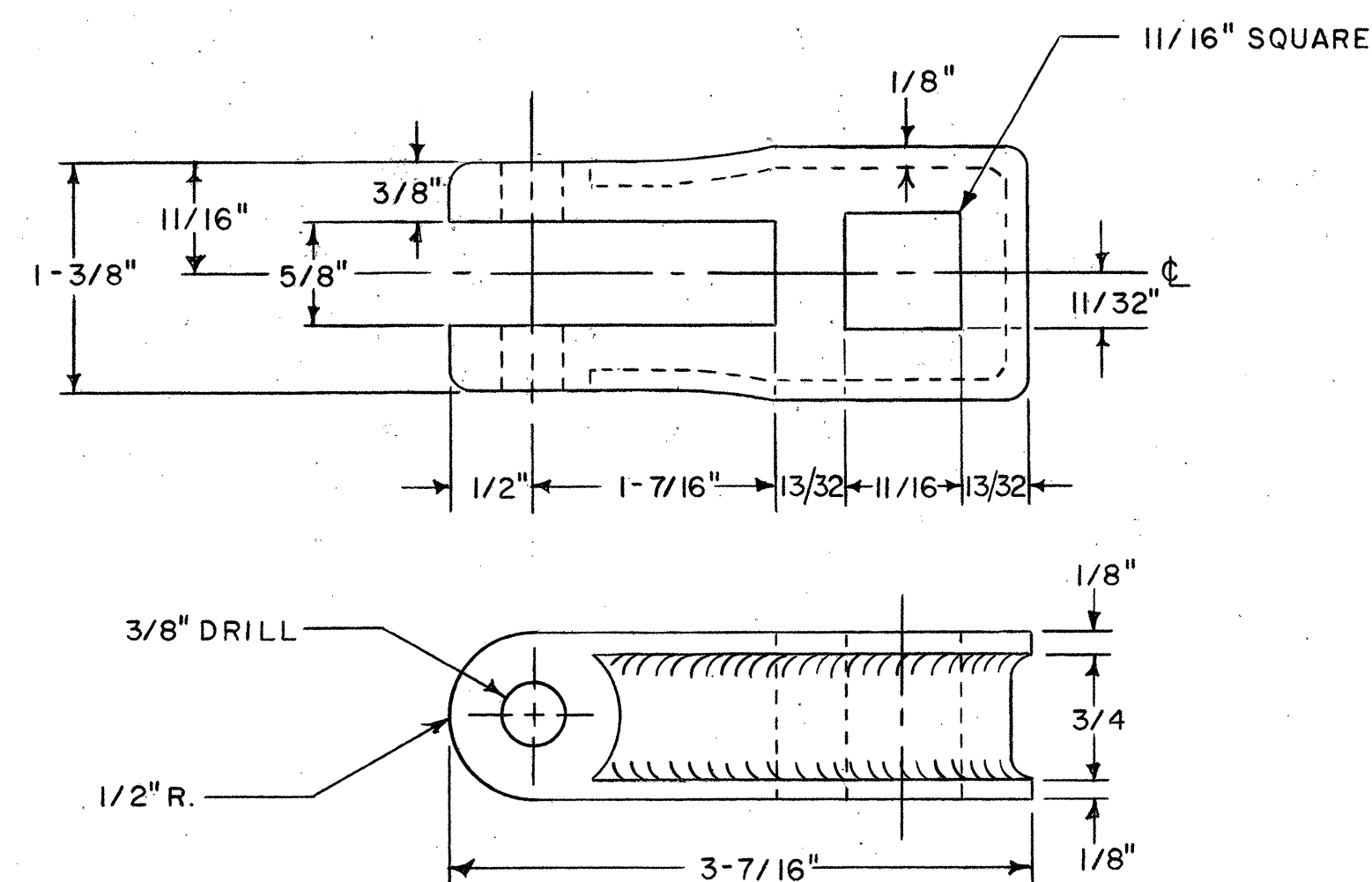
CASTER STEM
MAT'L: CAST STEEL



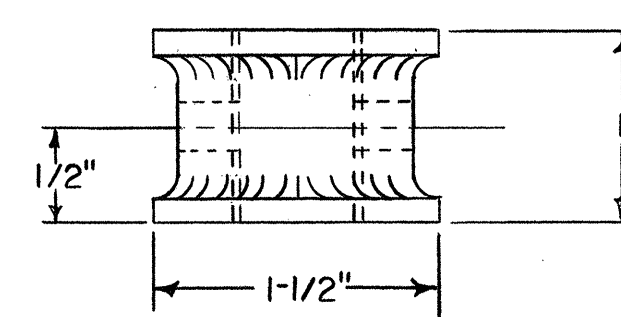
						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						CASTER ASSEMBLY			
	3-8-86	JWB	CHG. DIMENSION			SUBMITTED BY <i>Harden</i>	DRAWN BY A.P. SMITH	SCALE FULL	DWG. NO. 4-167 -2
	3-8-85	JWB	CHG. TOLERANCE						
	3-9-82	JWB	CHG. TOLERANCES		M.R. 10 - 32 - 15 - 1				
	3-8-76	APS	CHG. TOLERANCES		0-R. 11.25 - (24,42) - (13,18) - 1	APPROVED BY <i>J. [signature]</i>	JOB NO. <i>~~~~~</i>	DATE APRIL 1, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS				



SPRING
MAT'L: SPRING STEEL



FORK
MAT'L: CAST STEEL



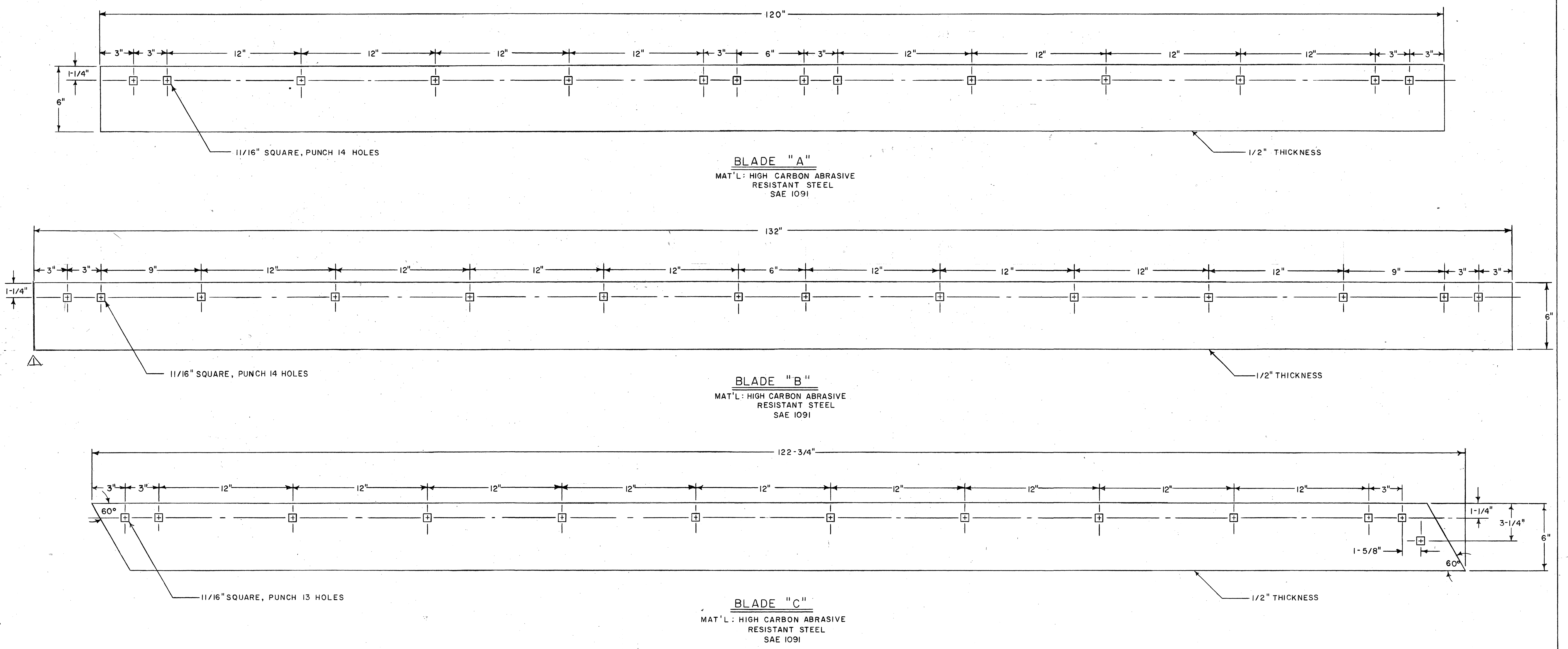
NOTES

1. ALL FILLETS AND ROUNDS UNLESS OTHERWISE SPECIFIED
TO BE 1/8" R.

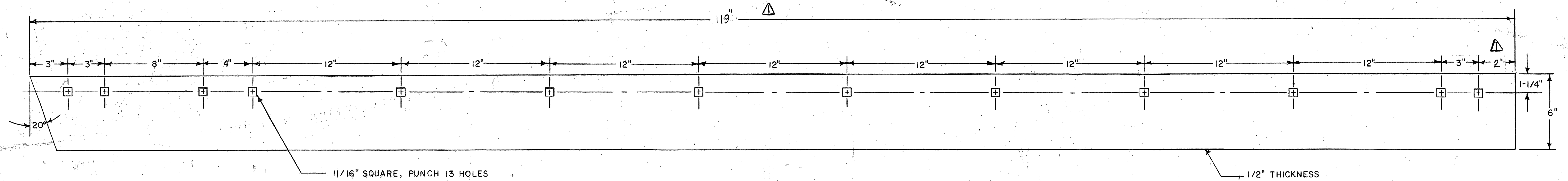
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				CASTER ASSEMBLY			
				SUBMITTED BY <i>W. Wilson</i>	DRAWN BY A.P. SMITH	SCALE FULL	DWG. NO. 4-167-3
				APPROVED BY <i>J. G. Gelfand</i>	JOB. NO.	DATE	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS		
					M.R. 10-32-15-1		
					O-R. 11.25-(24,42)-(13,18)-1		

24DPP01035
Drawing 4-168
Price Lines 1, 2, 3 and 4

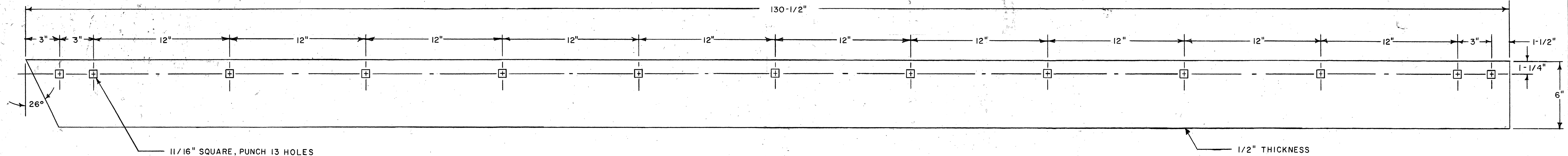
State of New Jersey Procurement Bureau



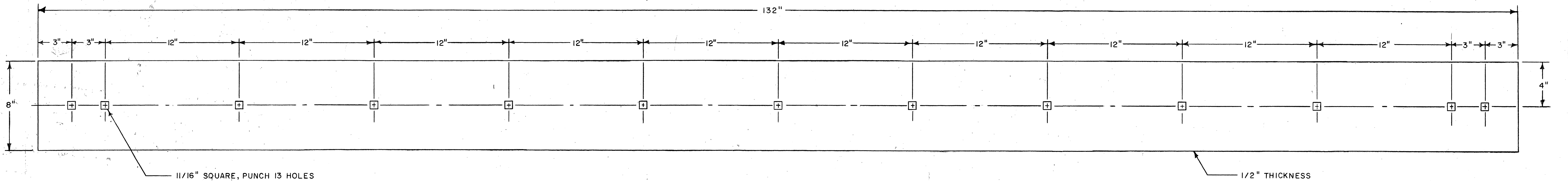
					NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
					SNOW PLOW BLADES			
					SUBMITTED BY <i>R. J. Wilkerson</i>	DRAWN BY A. P. SMITH	SCALE 1/4" = 1"	DWG. NO. 4-168
					APPROVED BY	JOB NO.	DATE APRIL 8, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS			
1	9-1-75	JWS	DELETED CUTS AT LOWER ENDS					



BLADE "D"
MAT'L: HIGH CARBON ABRASIVE
RESISTANT STEEL
SAE 1091

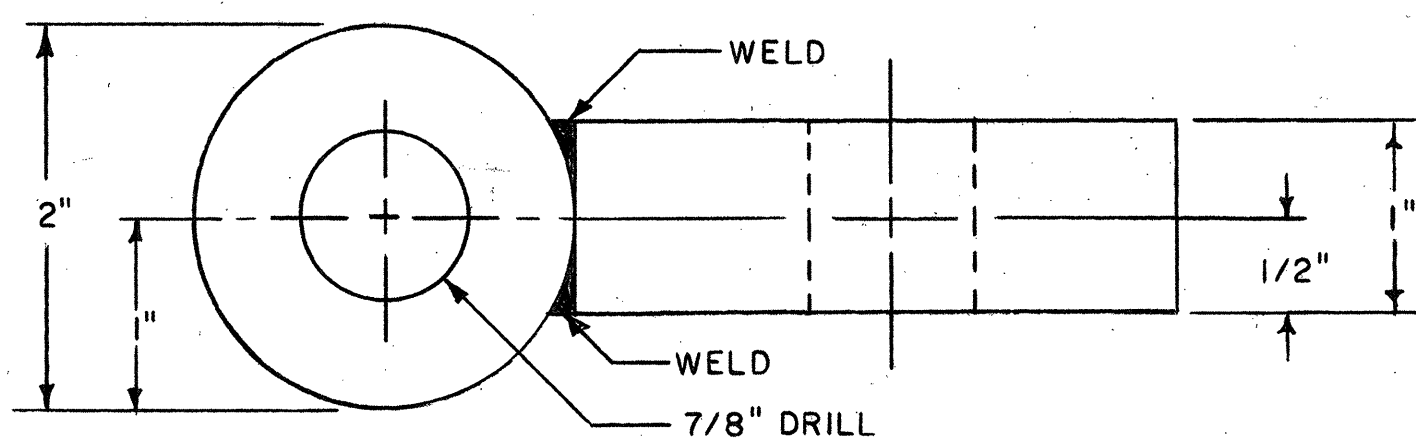
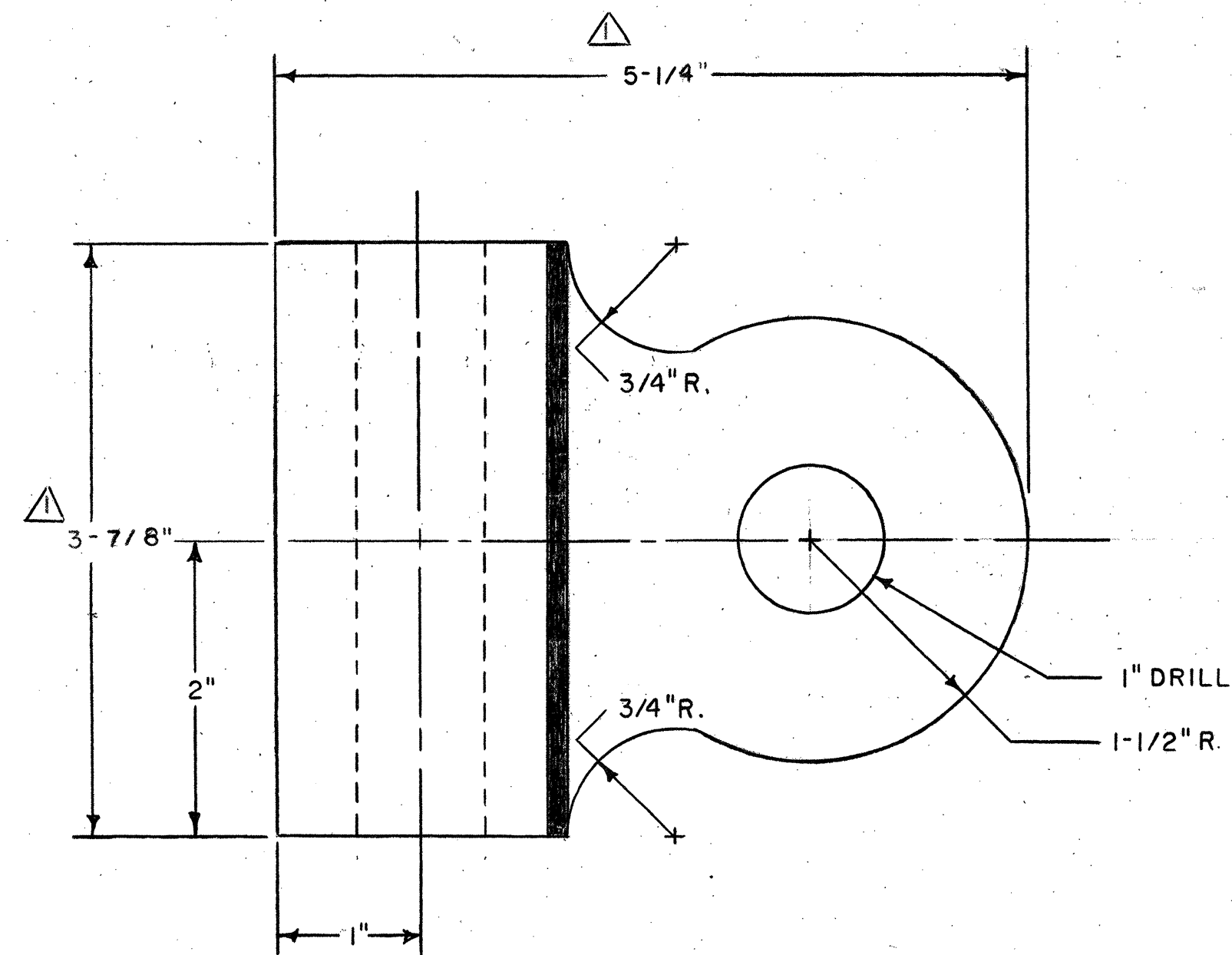


BLADE "E"
MAT'L: HIGH CARBON ABRASIVE
RESISTANT STEEL
SAE 1091

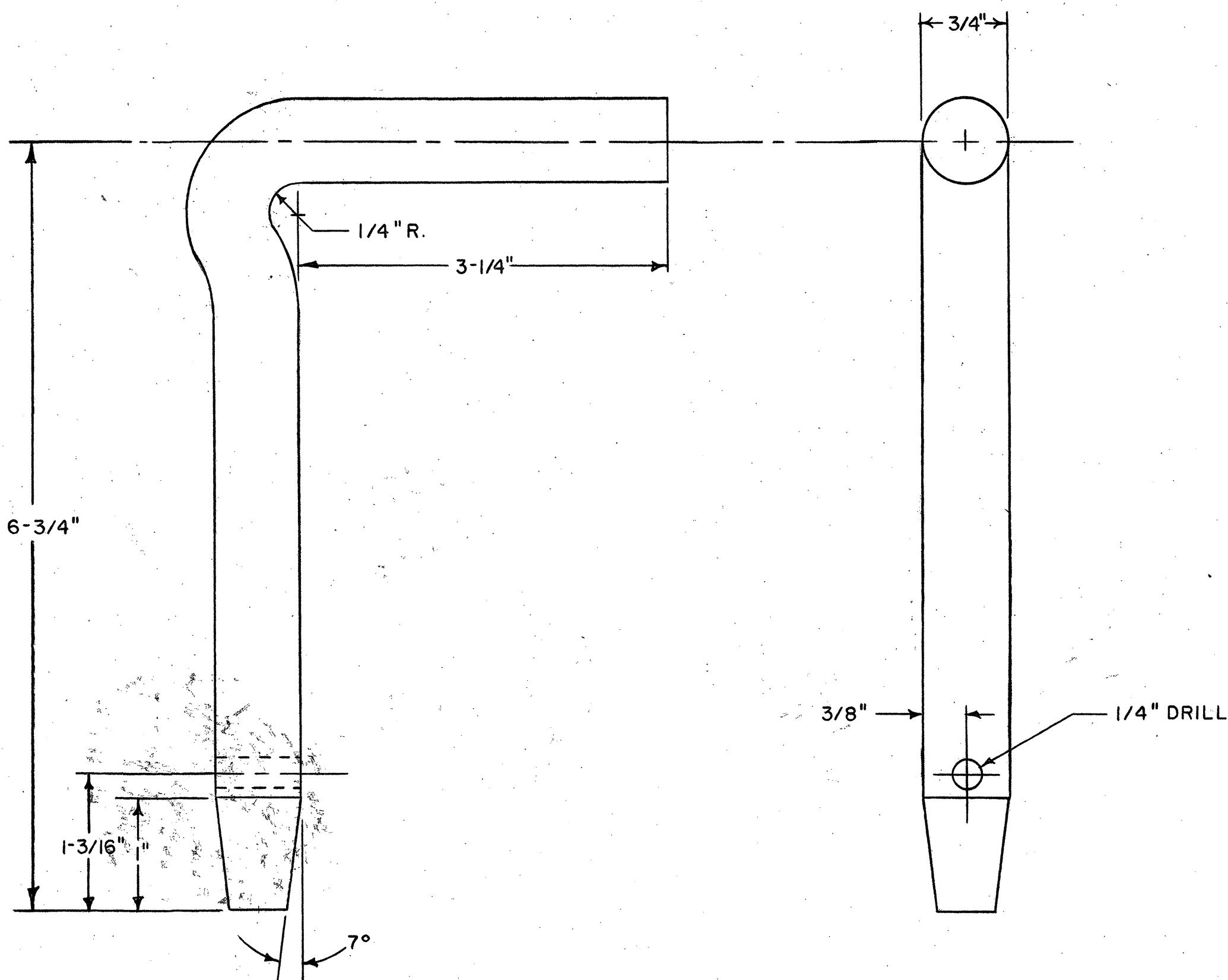


BLADE "F"
MAT'L: HIGH CARBON ABRASIVE
RESISTANT STEEL
SAE 1091

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				SNOW PLOW BLADES			
				SUBMITTED BY <i>H. Williams</i>		DRAWN BY A. P. SMITH	
				APPROVED BY <i>J. S. Smith</i>		JOB NO. _____	
				DATE APRIL 10, 1975		SCALE 1/4" = 1"	
				DWG. NO. 4-169			
1	9-9-91	JWB	CHANGED LENGTH & END SPACING	ORDER REQUEST NO.		APPLICABLE SNOW PLOWS	



SWIVEL BLOCK
MAT'L: HOT ROLLED STEEL

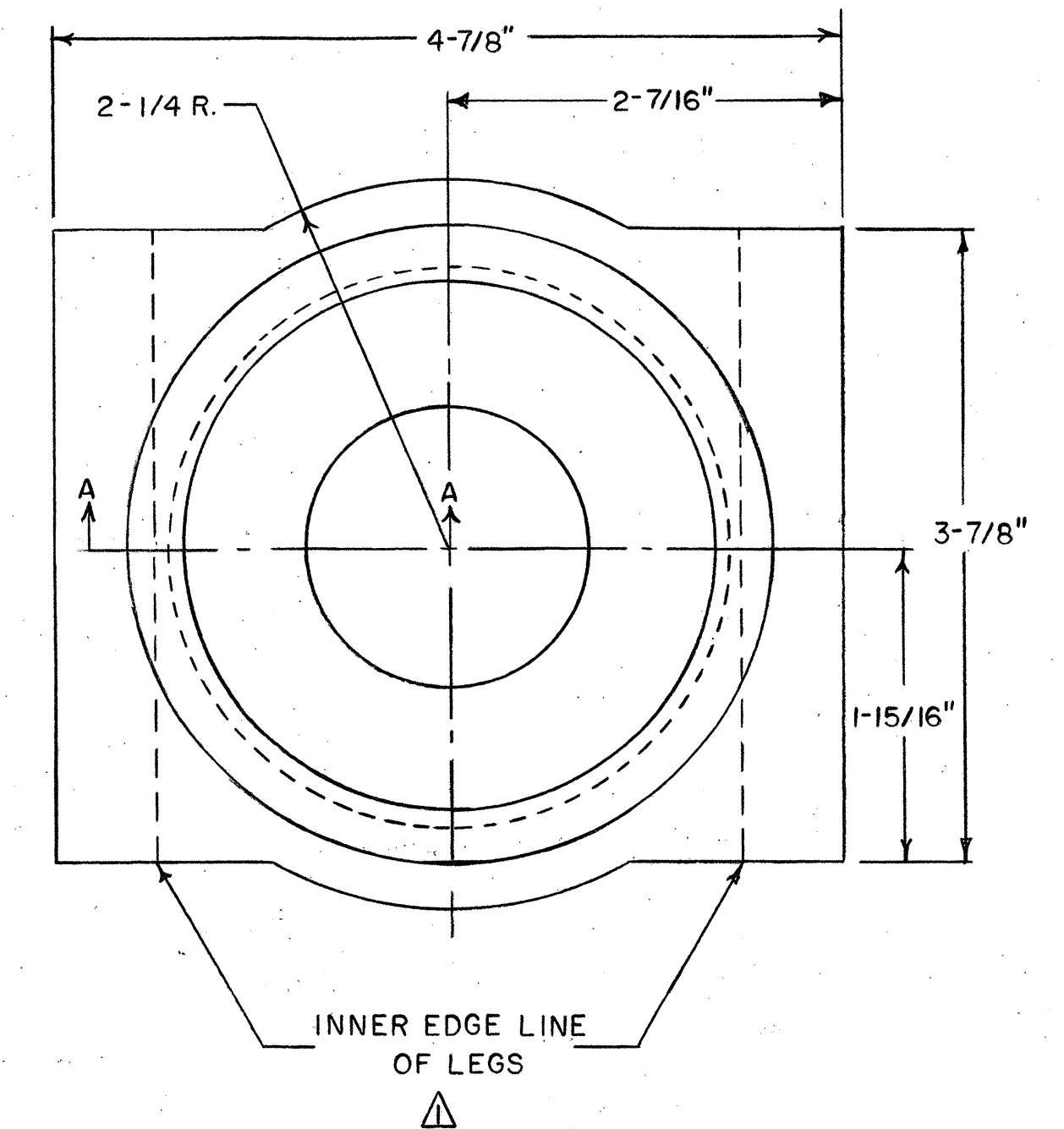
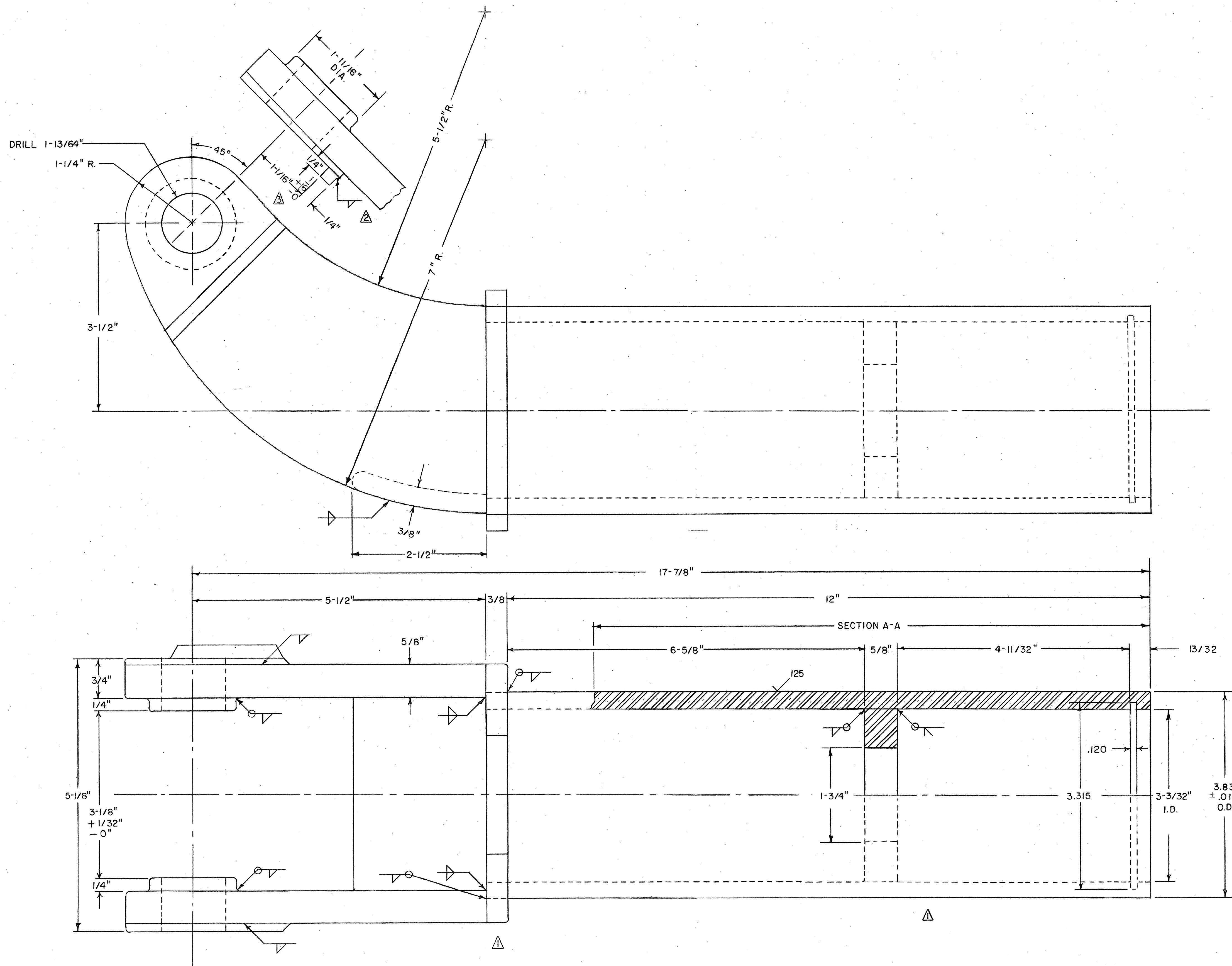


LOCKING PIN
MAT'L: HOT ROLLED STEEL

NOTES

1. SWIVEL BLOCK TO BE CONNECTED TO MOLDBOARD WITH 3/4" X 10 UNC X 6-1/2" BOLT, NUT, & LOCKWASHER.
2. 1/4" COTTER PIN TO BE INSERTED THRU LOWER 1/4" HOLE OF LOCKING PIN AFTER INSTALLATION.

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT					
SWIVEL BLOCK & LOCKING PIN					
SUBMITTED BY		DRAWN BY		SCALE	DWG. NO.
J. Williams		A. P. SMITH		FULL	4-173
APPROVED BY		JOB NO.		DATE	
J. Williams				MAY 8, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS
1	6-25-68	JWB	CHANGED DIMENSIONS		
				0-R. 11.25-(24,42)-(13,18)-1	
				M.R. 10-32-15-1	



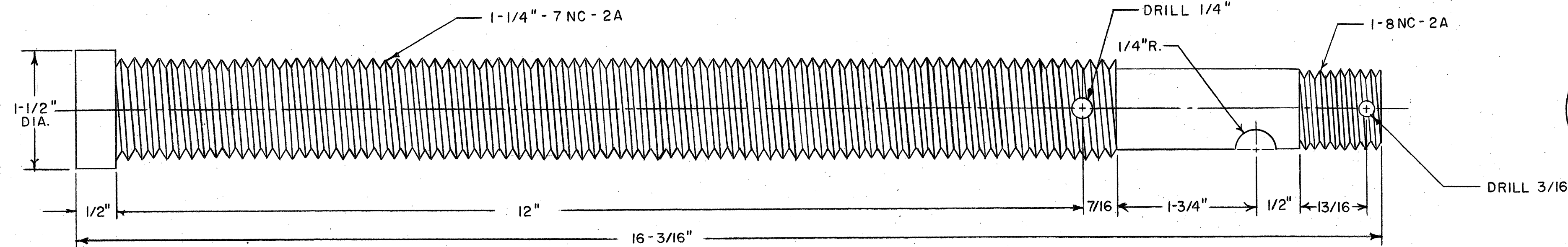
- NOTES
1. ALL WELDS TO BE CONTINUOUS.
 2. REMOVE ALL BURRS AND SHARP EDGES.
 3. DO NOT SCALE.

CASTER STEM

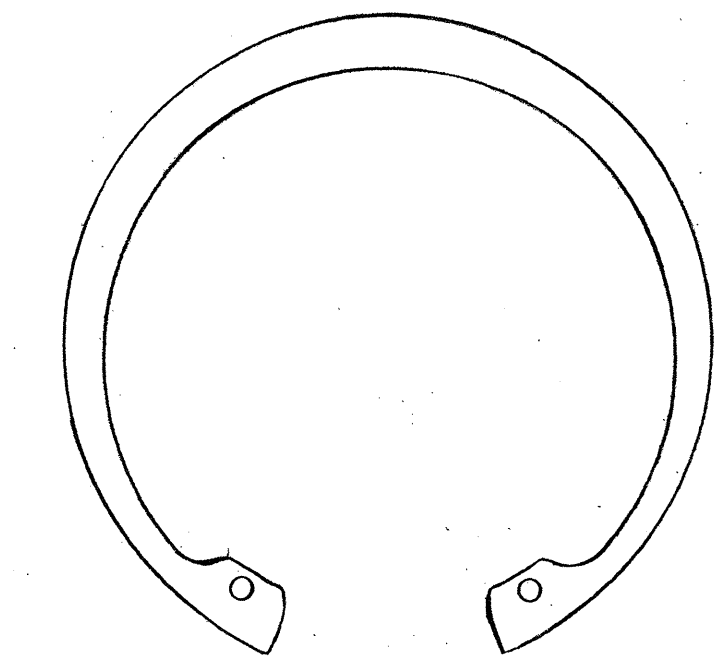
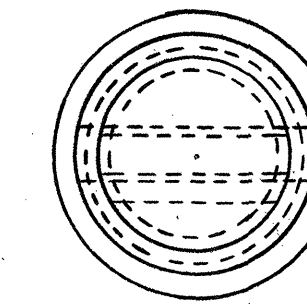
MAT'L:

PLATE _____ STRUCTURAL STEEL QUALITY
TUBING _____ COLD DRAWN SEAMLESS CARBON STEEL

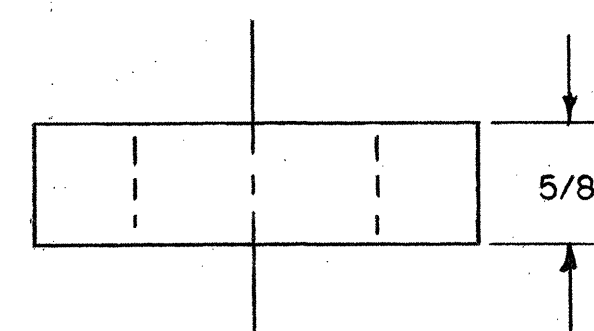
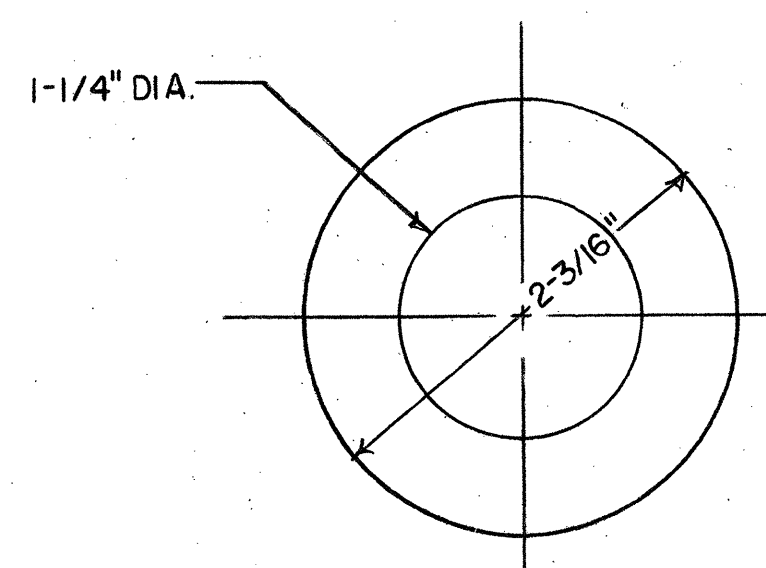
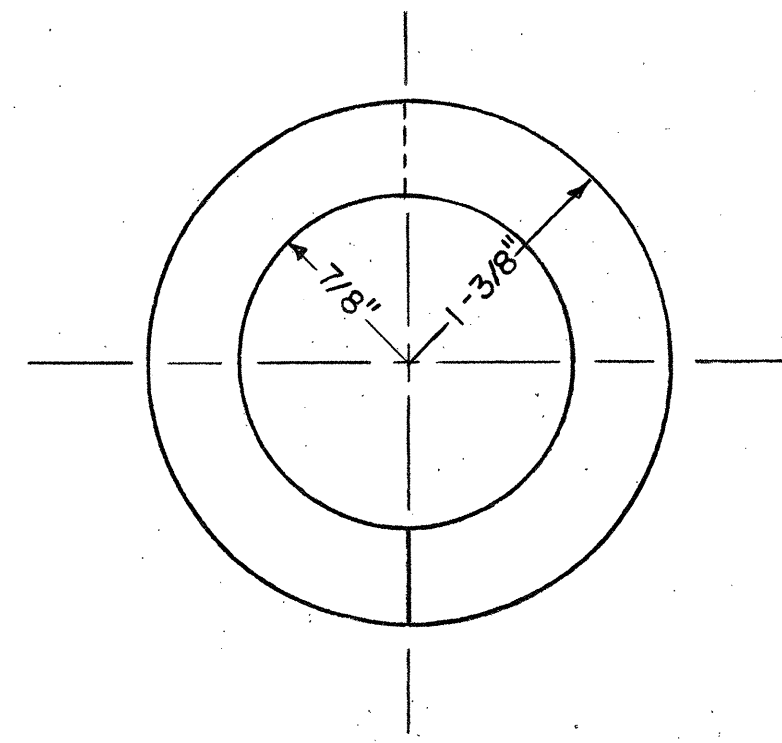
						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT				
						CASTER ASSEMBLY (FABRICATION)				
					O-R. 11.25-(24,42)-(13,18)-1 MOD.	SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.	
					M.R. 10-32-15-1 MOD.	<i>X2 Wellman</i>	A.P. SMITH	FULL	4-182	
					M.R. 11-36-15-1	APPROVED BY	JOB NO.	DATE		
					O-R.12.75-(32,53)-(14.75,22.75)-1	<i>J. Gelfarb</i>	<i>[Signature]</i>	AUG. 29, 1975		
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS					
3	9-3-85	JWB	ADDED TOLERANCES							
2	12-1575	A.P.S.	CHG. WELD SYM.							
1	11/14/75	APS	CLARIFY 3/8" PLATE AREA	77-GHE-0024						



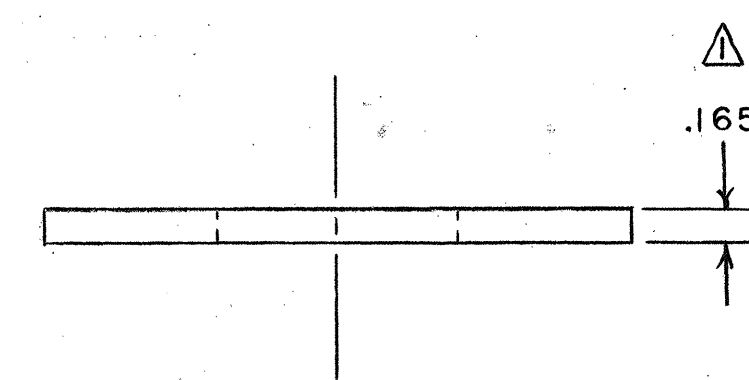
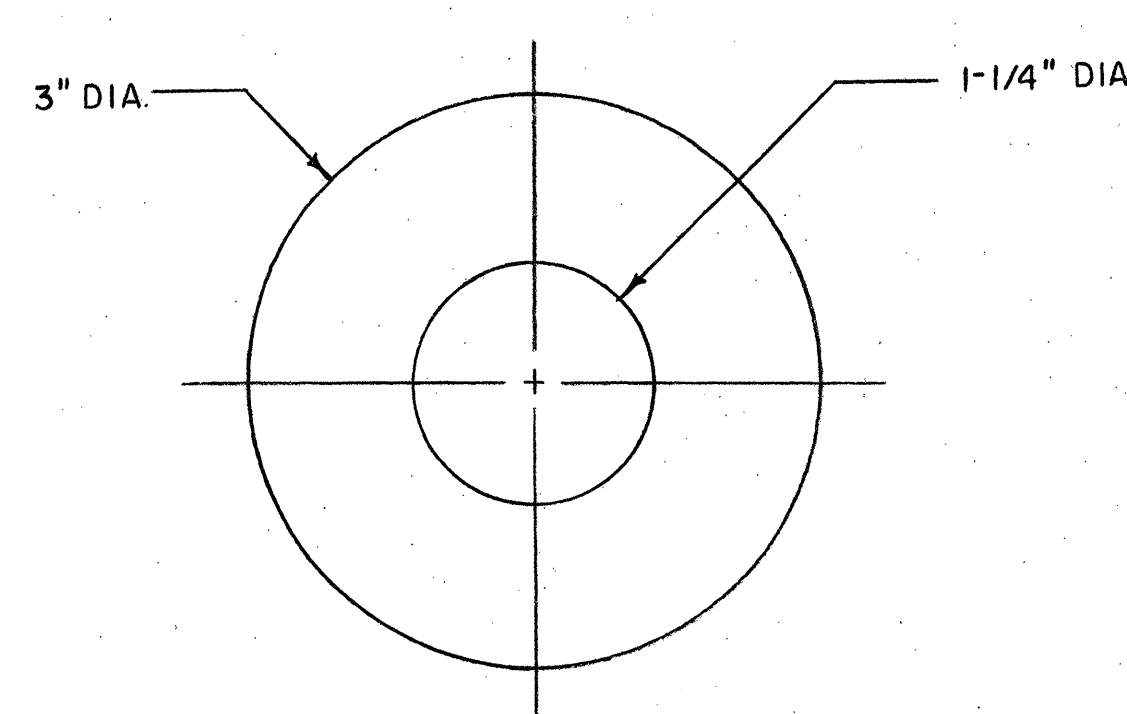
ADJUSTING BOLT
MAT'L: COLD FINISHED,
MEDIUM CARBON STEEL
HEAT TREATED



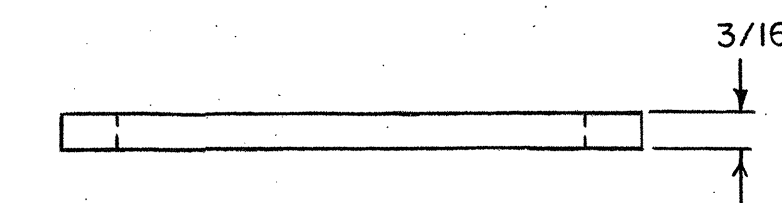
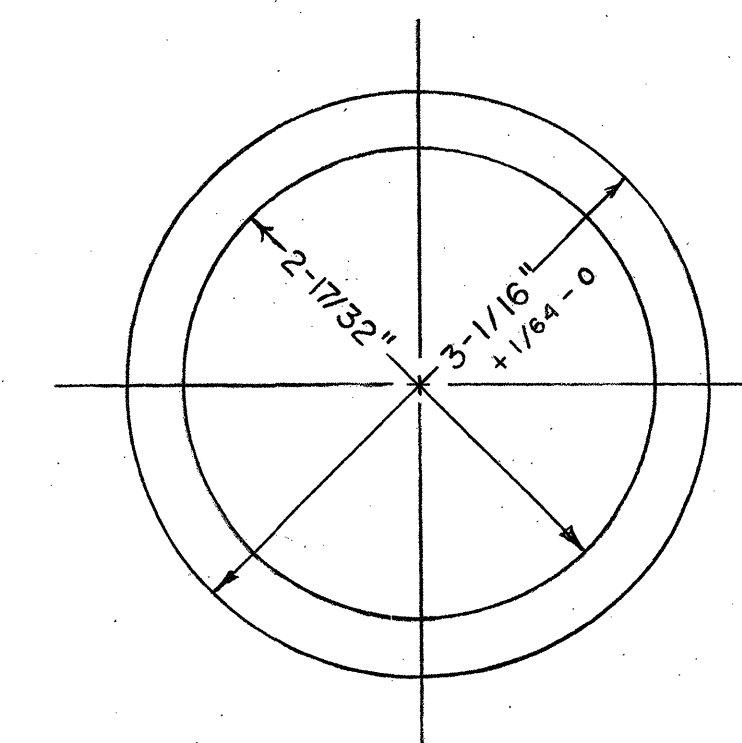
RETAINING RING
TRUARC NO. N5000-312



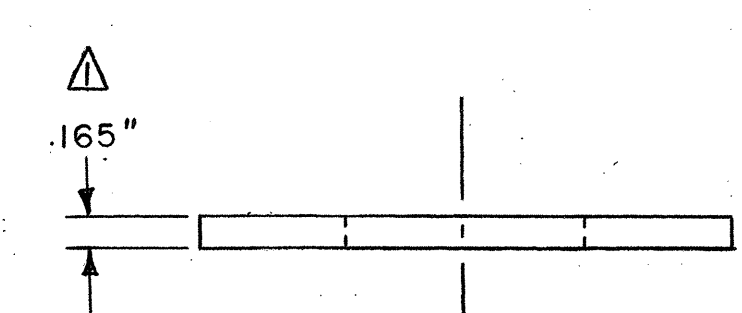
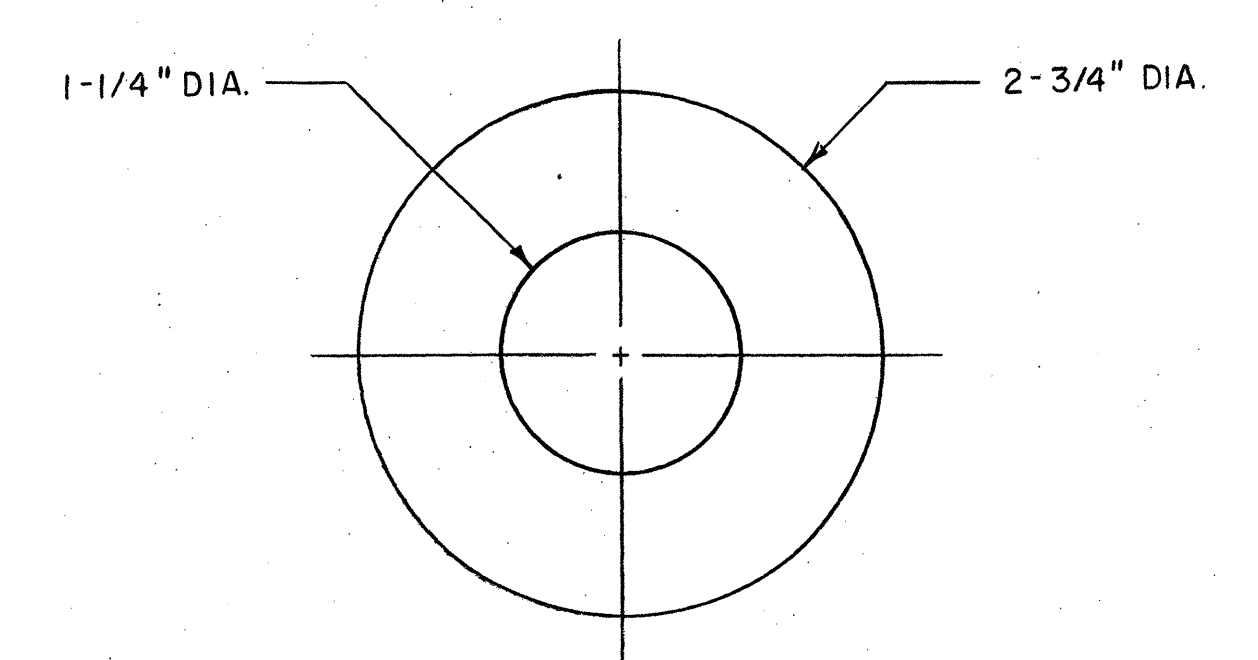
THRUST BEARING
TIMKEN NO. T-126, OR
APPROVED EQUAL



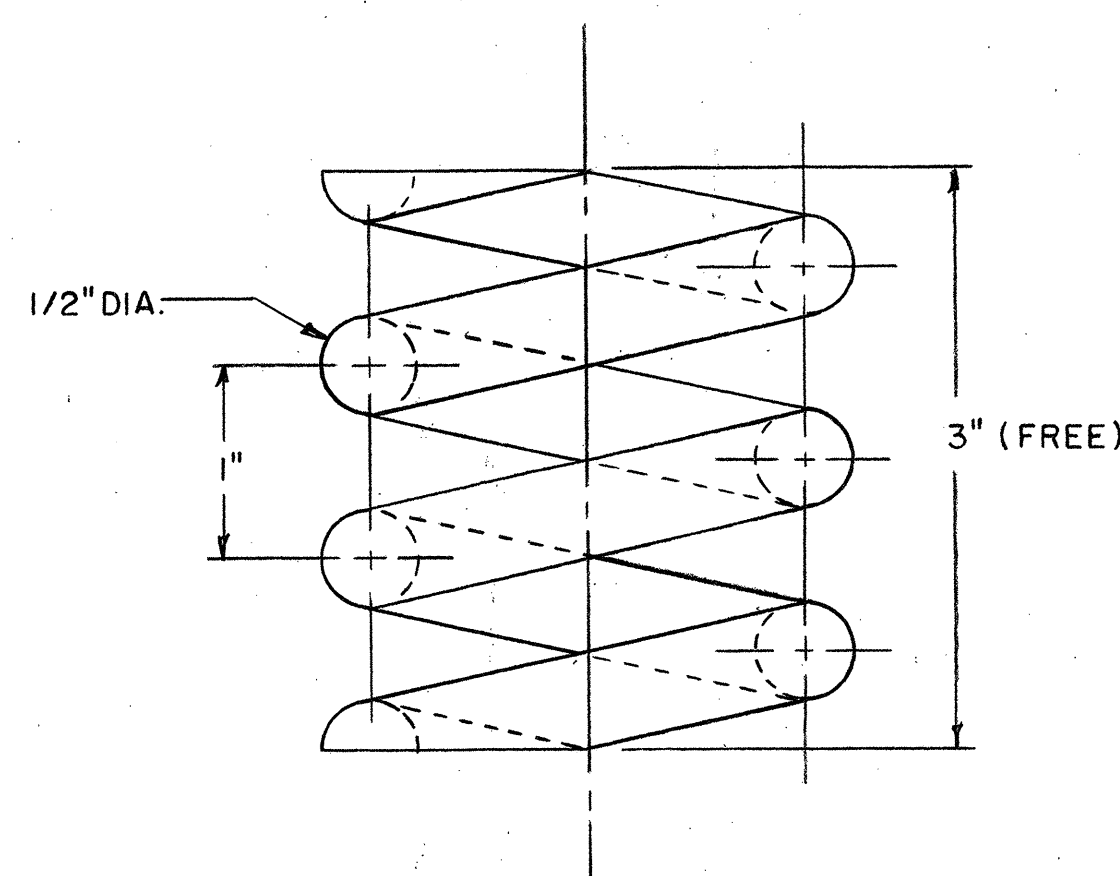
BEARING WASHER
STD. STEEL WASHER



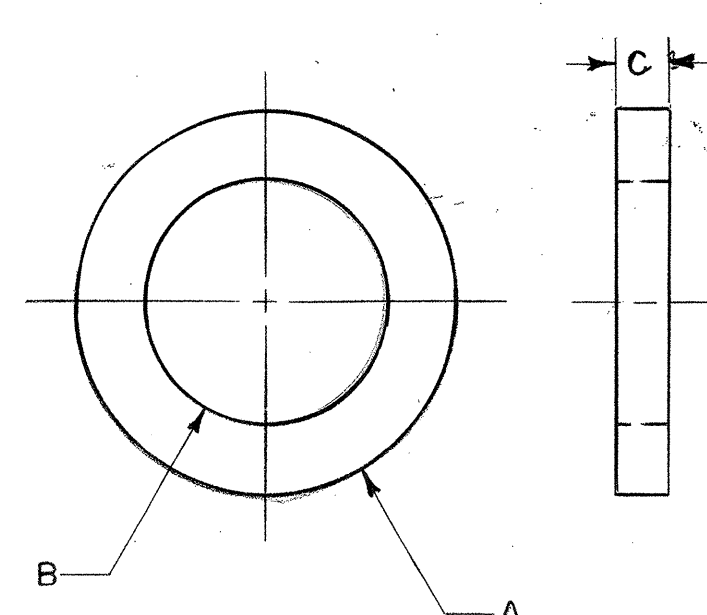
SPACER
MAT'L: HOT ROLLED
STEEL



WASHER
STD. STEEL WASHER



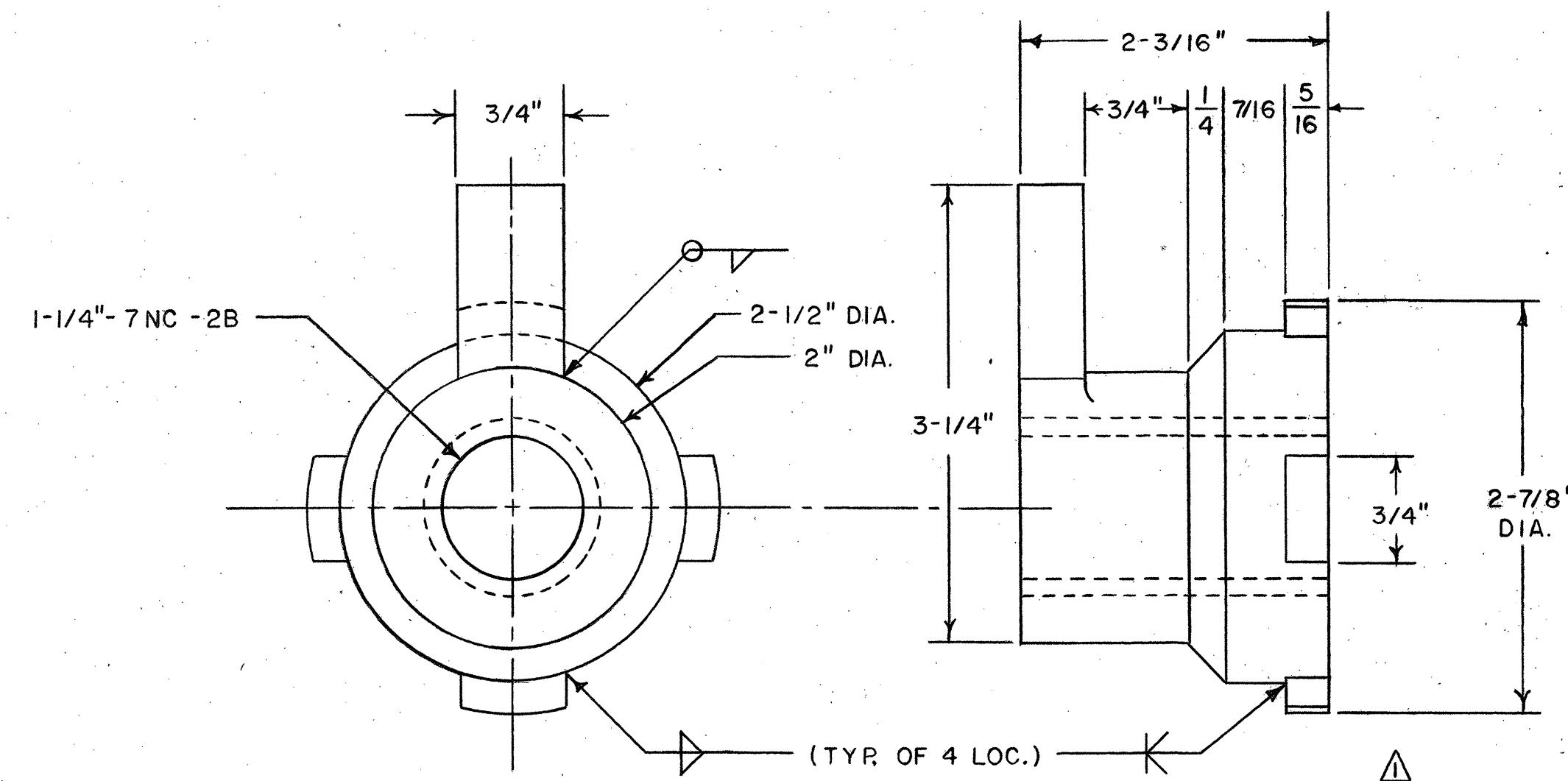
SPRING
MAT'L: SPRING STEEL



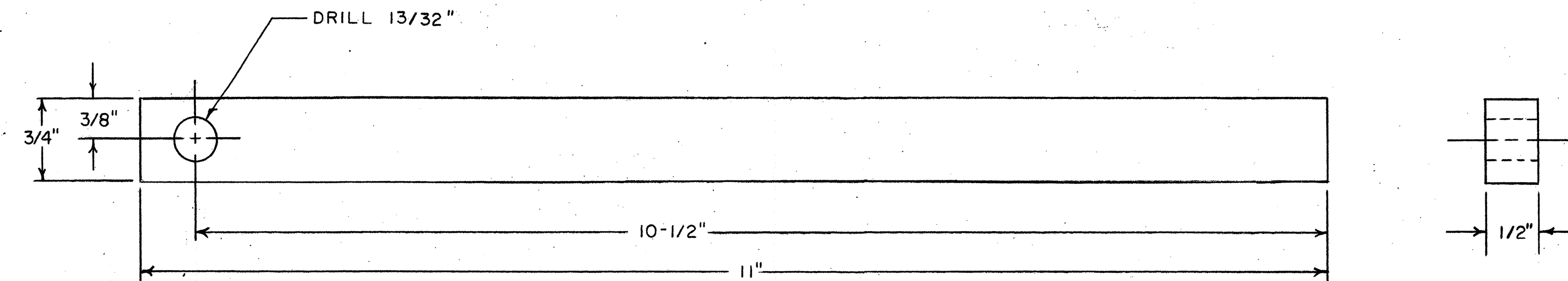
SNOWPLOW WHEEL SPACERS
MAT'L: SAE 1040 STEEL

PART NO.	A	B	C
WBS 125	2" O.D.	1-3/16" I.D.	1/8"
WBS 250	2" O.D.	1-3/16" I.D.	1/4"
WBS 500	2" O.D.	1-3/16" I.D.	1/2"
WBS 625	2" O.D.	1-3/16" I.D.	5/8"

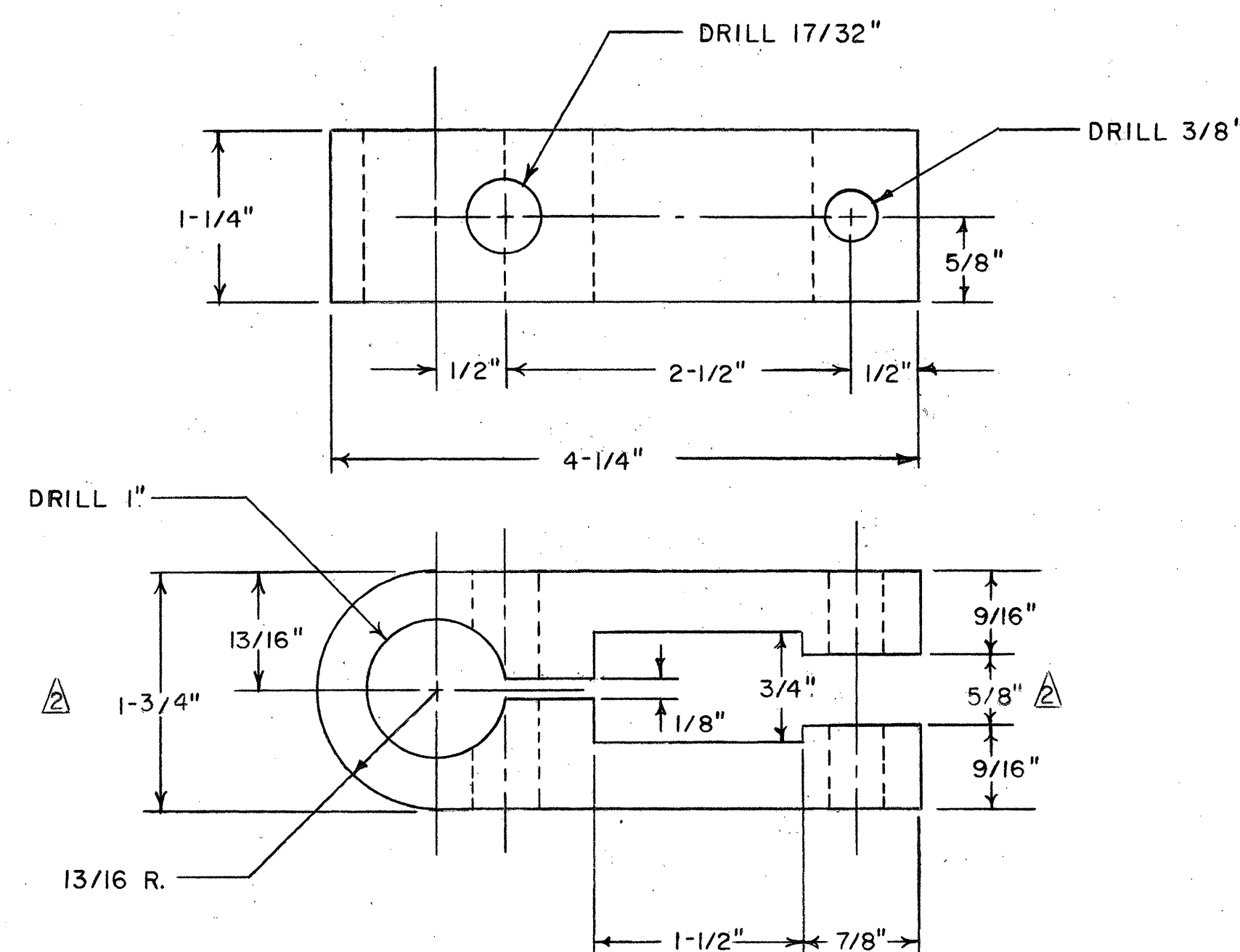
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				CASTER ASSEMBLY (FABRICATION)			
				O-R. 11.25-(24,42)-(13,18)-1 MOD.			
				M.R. 10-32-15-1 MOD.			
				M.R. 11-36-15-1			
				O-R. 12.75-(32,53)-(14.75,22.75)-1			
				APPROVED BY <i>J. G. Gifford</i>			
				JOB NO. <i>4-182-2</i>			
				DATE SEPT 4, 1975			
				DWG. NO. <i>4-182-2</i>			



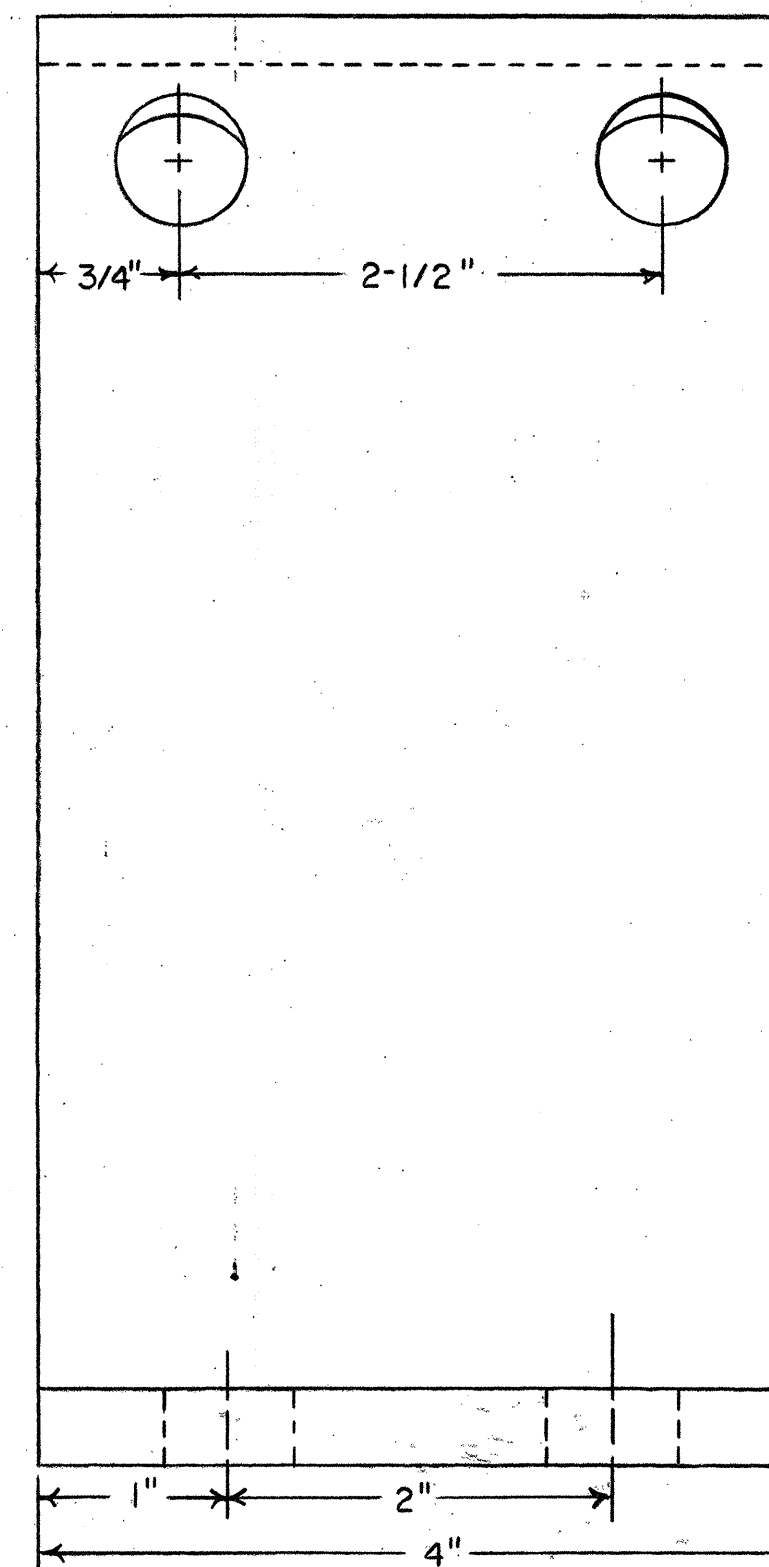
CASTER NUT
MAT'L: MEDIUM CARBON STEEL



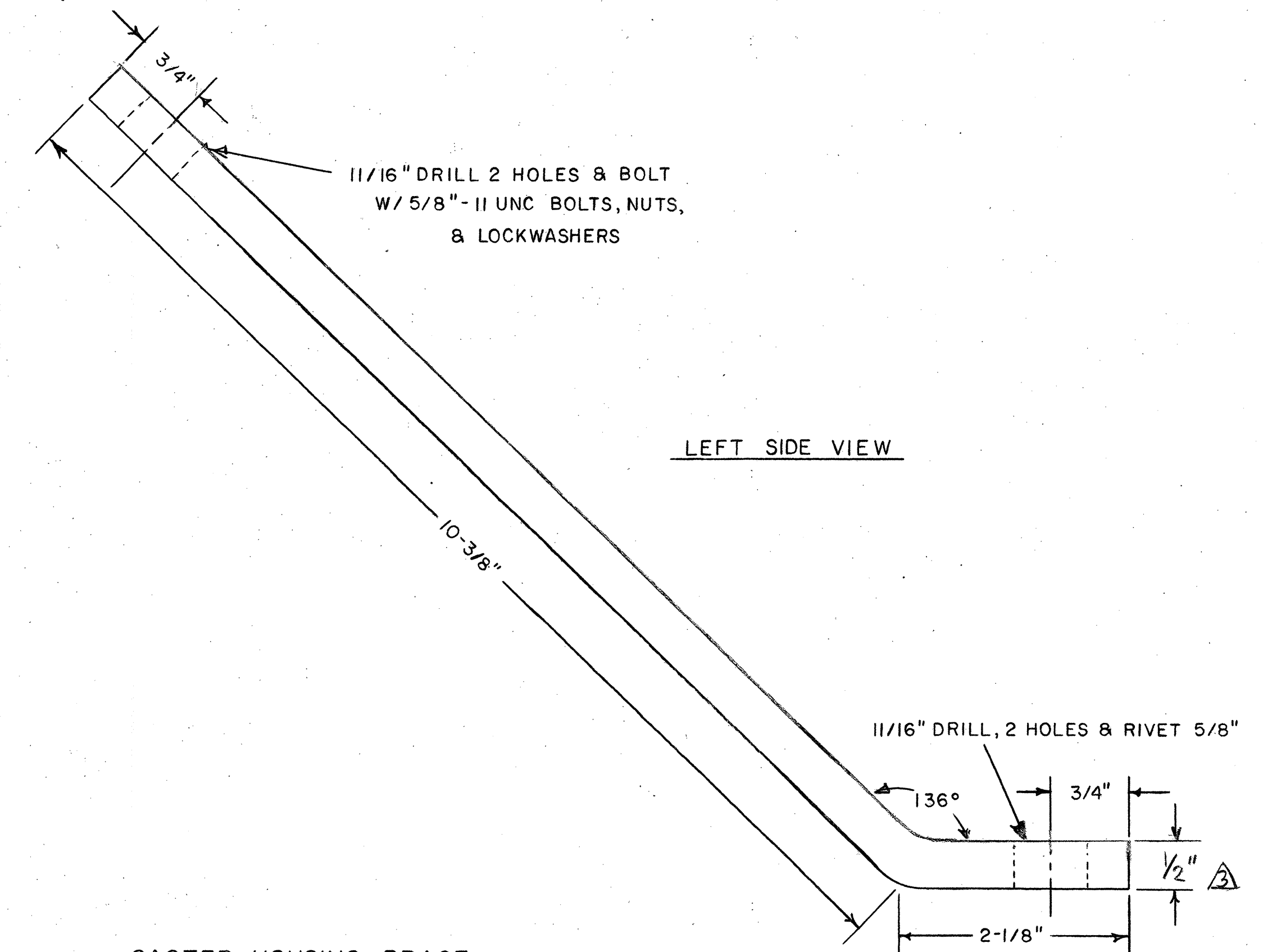
HANDLE
MAT'L: HOT ROLLED STEEL



ADJUSTING BOLT FORK
MAT'L: MEDIUM CARBON STEEL

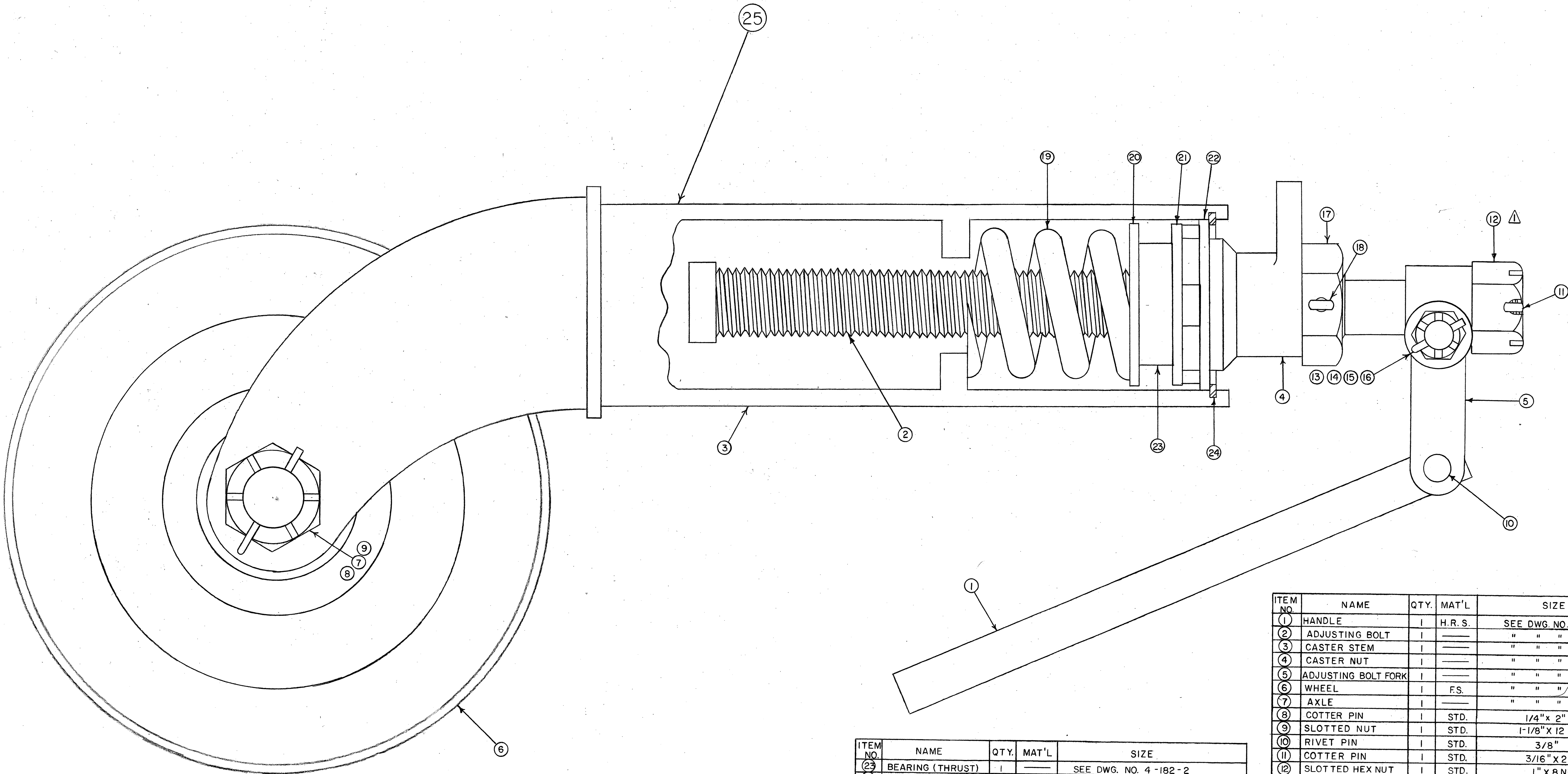


CASTER HOUSING BRACE
MAT'L: STRUCTURAL STEEL



LEFT SIDE VIEW

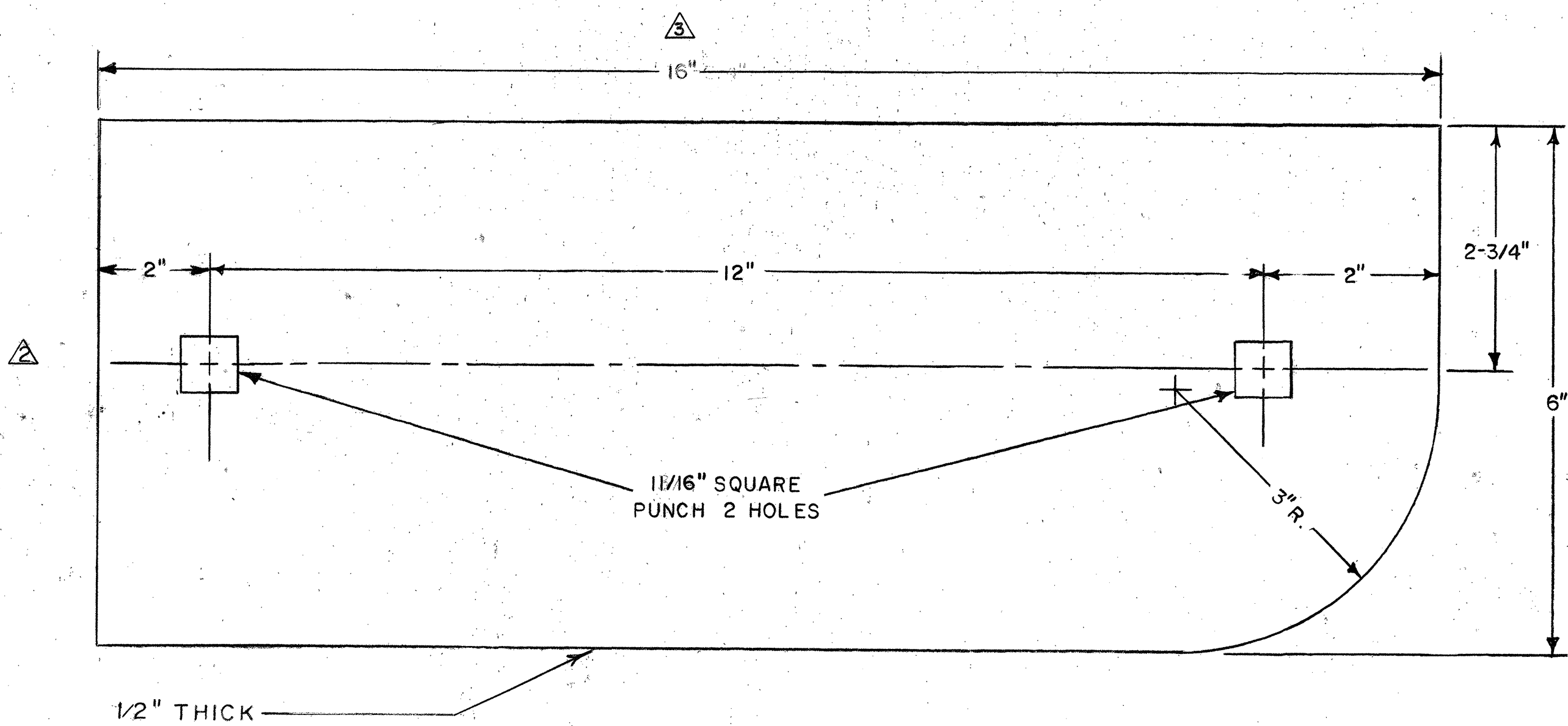
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				CASTER ASSEMBLY (FABRICATION)			
				SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
					A.P. SMITH	FULL	4-182-3
				APPROVED BY	JOB NO.	DATE	
						SEPT. 5, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS		
1		JWB	INCREASE THICKNESS TO 1/2"		O-R.11.25-(24,42)-(13,18)-1 MOD.		
2		JWB	CHANGE DIMENSION OF OPENING		M.R.10-32-15-1 MOD.		
3		A.P.S.	REMOVE DIMS. & ADD DIA.'S	77- GHE- 0024	M.R. 11-36-15-1		
4					O-R.12.75-(32,53)-(14.75,22.75)-1		



ITEM NO.	NAME	QTY.	MAT'L	SIZE
(23)	BEARING (THRUST)	1	—	SEE DWG. NO. 4-182-2
(24)	RETAINING RING	1	—	" " " 4-182-2
(25)	COMPLETE CASTER ASSEMBLY - 2 REQ'D FOR EA. SNOW PLOW ASSY.			

ITEM NO.	NAME	QTY.	MAT'L	SIZE
(1)	HANDLE	1	H.R.S.	SEE DWG. NO. 4-182-3
(2)	ADJUSTING BOLT	1	—	" " " 4-182-2
(3)	CASTER STEM	1	—	" " " 4-182-1
(4)	CASTER NUT	1	—	" " " 4-182-3
(5)	ADJUSTING BOLT FORK	1	—	" " " 4-182-3
(6)	WHEEL	1	F.S.	" " " 4-155
(7)	AXLE	1	—	" " " 4-121
(8)	COTTER PIN	1	STD.	1/4" x 2"
(9)	SLOTTED NUT	1	STD.	1-1/8" x 12 UNF
(10)	RIVET PIN	1	STD.	3/8"
(11)	COTTER PIN	1	STD.	3/16" x 2"
(12)	SLOTTED HEX NUT	1	STD.	1" x 8 NC
(13)	BOLT - HEX HD.	1	STD.	1/2" x 20 UNF
(14)	WASHER	1	STD.	1/2"
(15)	SLOTTED HEX NUT	1	STD.	1/2" x 20 UNF
(16)	COTTER PIN	1	STD.	1/8" x 1-1/4"
(17)	HEX NUT	1	STD.	1-1/4" x 7 NC
(18)	COTTER PIN	1	STD.	1/4"
(19)	SPRING	1	SPG. STL.	SEE DWG. NO. 4-182-2
(20)	BEARING WASHER	1	STD.	" " " 4-182-2
(21)	WASHER	1	STD.	" " " 4-182-2
(22)	SPACER	1	H.R.S.	" " " 4-182-2

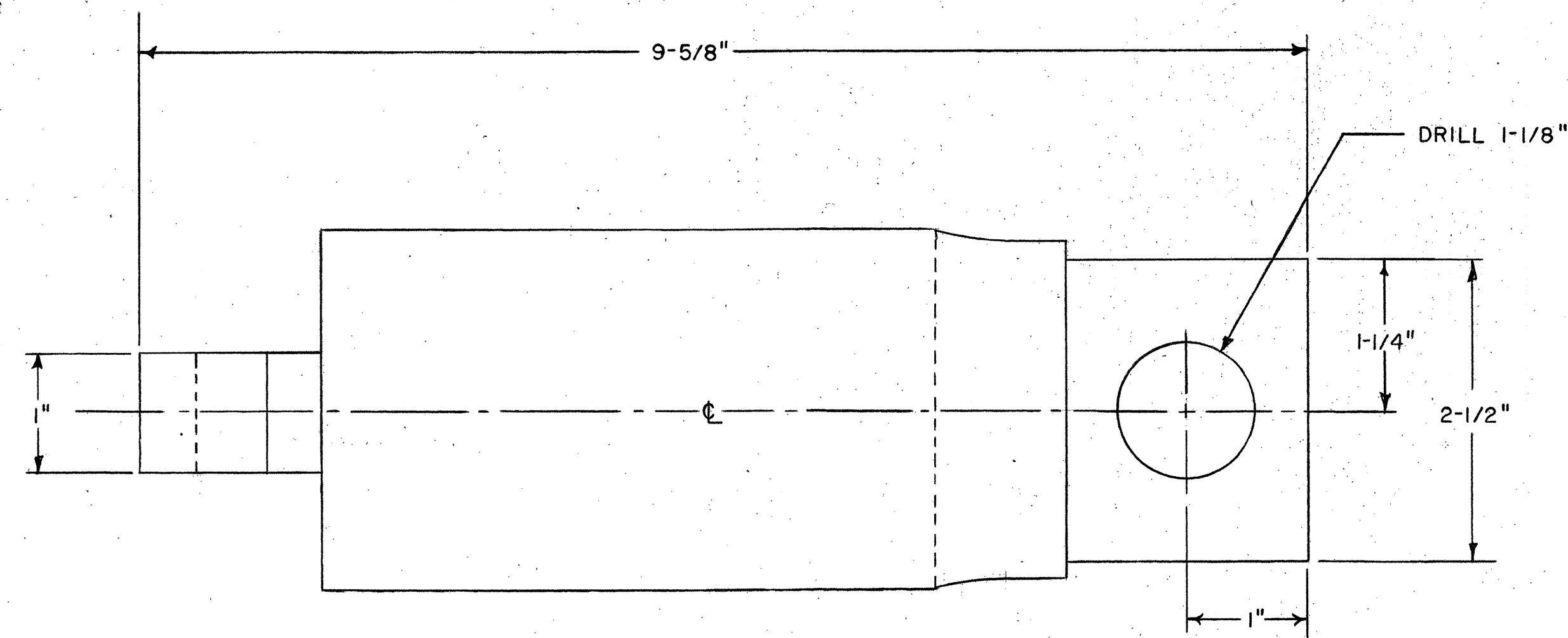
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				CASTER ASSEMBLY (FABRICATION)			
				O-R. 11.25-(24,42)-(13,15)-1 MOD.			
				M.R. 10-32-15-1 MOD.			
				M.R. 11-36-15-1			
				O-R. 12.75-(32,53)-(14.75,22.75)-1			
8-9-77 A.R.S. CHG. SHAPE OF ITEM (2)				77-GHE-0024		SUBMITTED BY H. Wellman	
REV DATE BY				REMARKS		APPROVED BY J. Goldfate	
				ORDER REQUEST NO.		DRAWN BY A.P. SMITH	
				APPLICABLE SNOW PLOW		SCALE FULL	
						DATE SEPT 2, 1975	
						DWG. NO. 4-182-4	



OUTER NOSE PIECE
SCALE: 3/4"=1"
MAT'L: HIGH CARBON STEEL

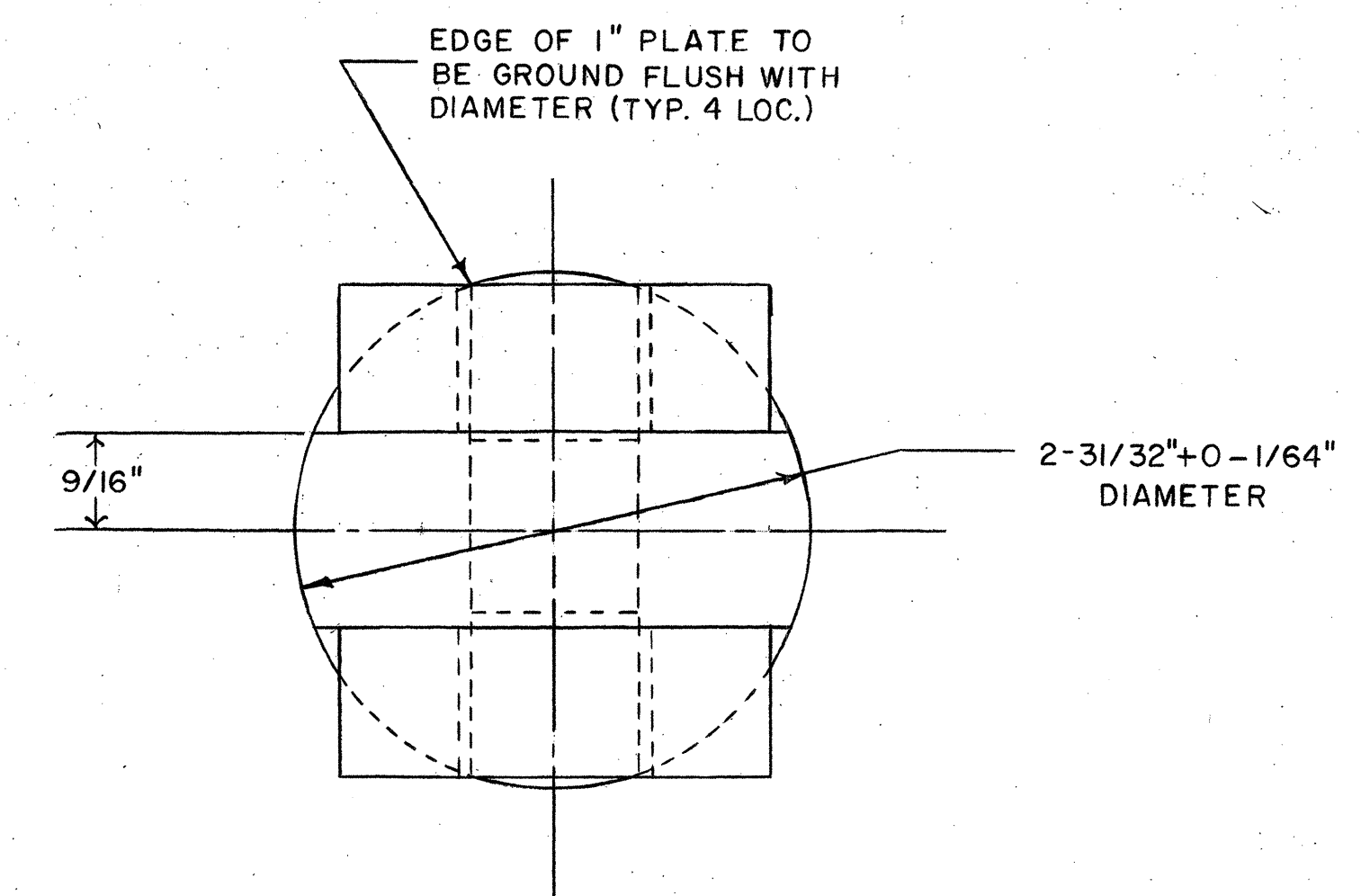
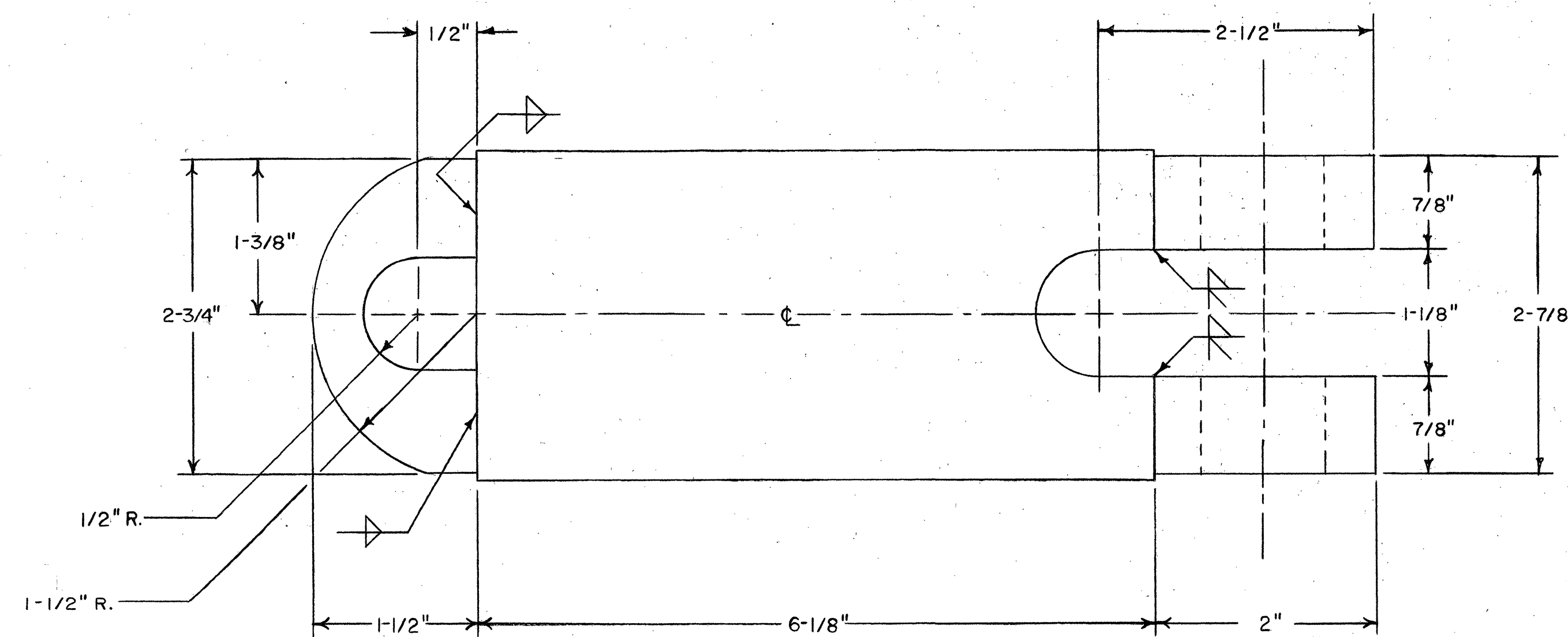
NOTES
1. REMOVE ALL SHARP EDGES AND BURRS.

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				OUTER NOSE PIECE			
△	2-27-64	E.J.D.	CHANGE OF DIMENSION	SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
△	9-9-62	JWB.	DELETED LIFTING EYE	<i>R. Wilson</i>	A.P. SMITH	3/4"=1"	4-183
△	12-12-75	A.P.S.	CHG. SIZE OF PUNCHED HOLES	APPROVED BY	JOB NO.	DATE	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS		



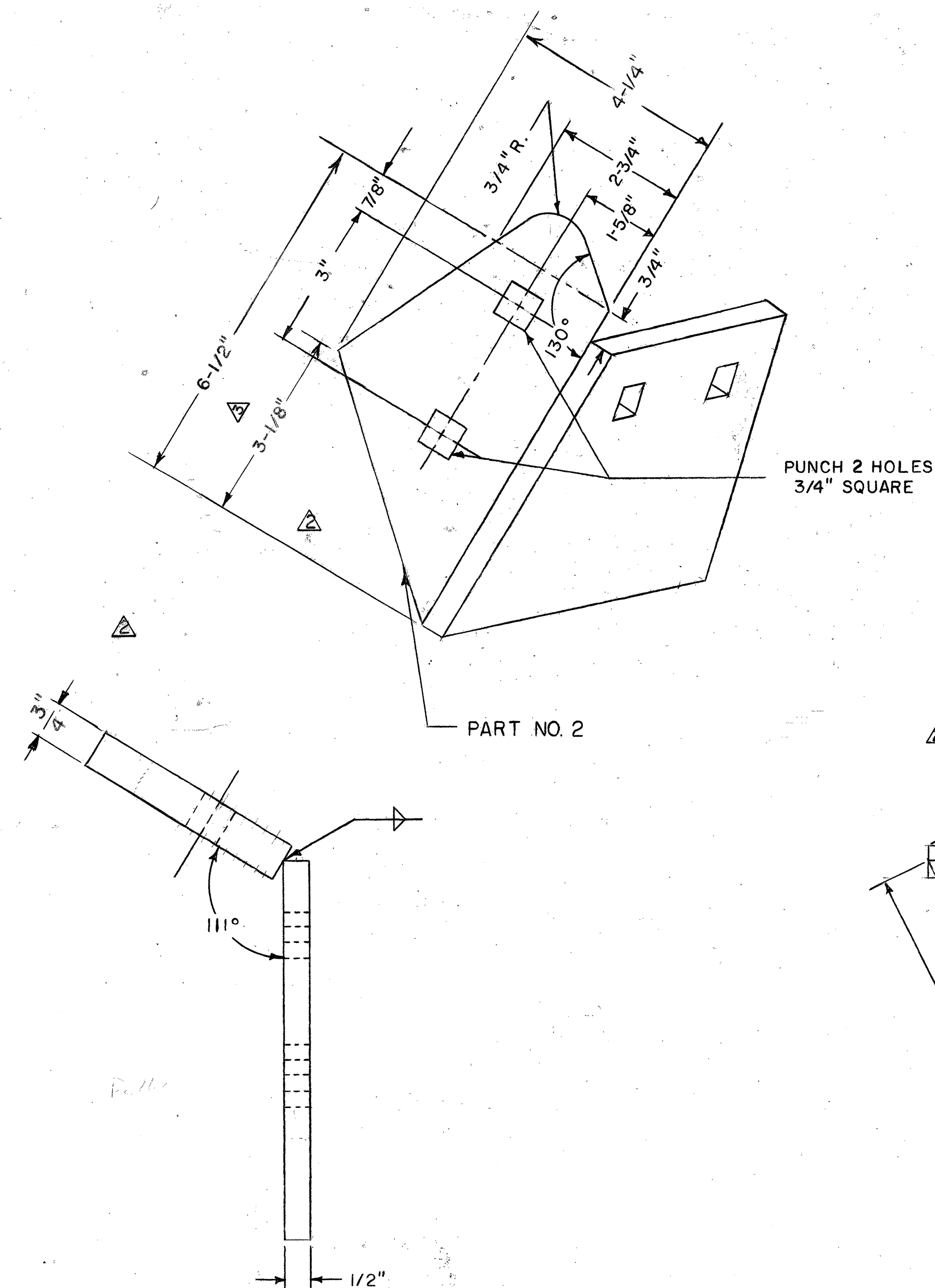
NOTES

1. REMOVE ALL SHARP EDGES AND BURRS.
2. ALL WELDS TO BE CONTINUOUS.

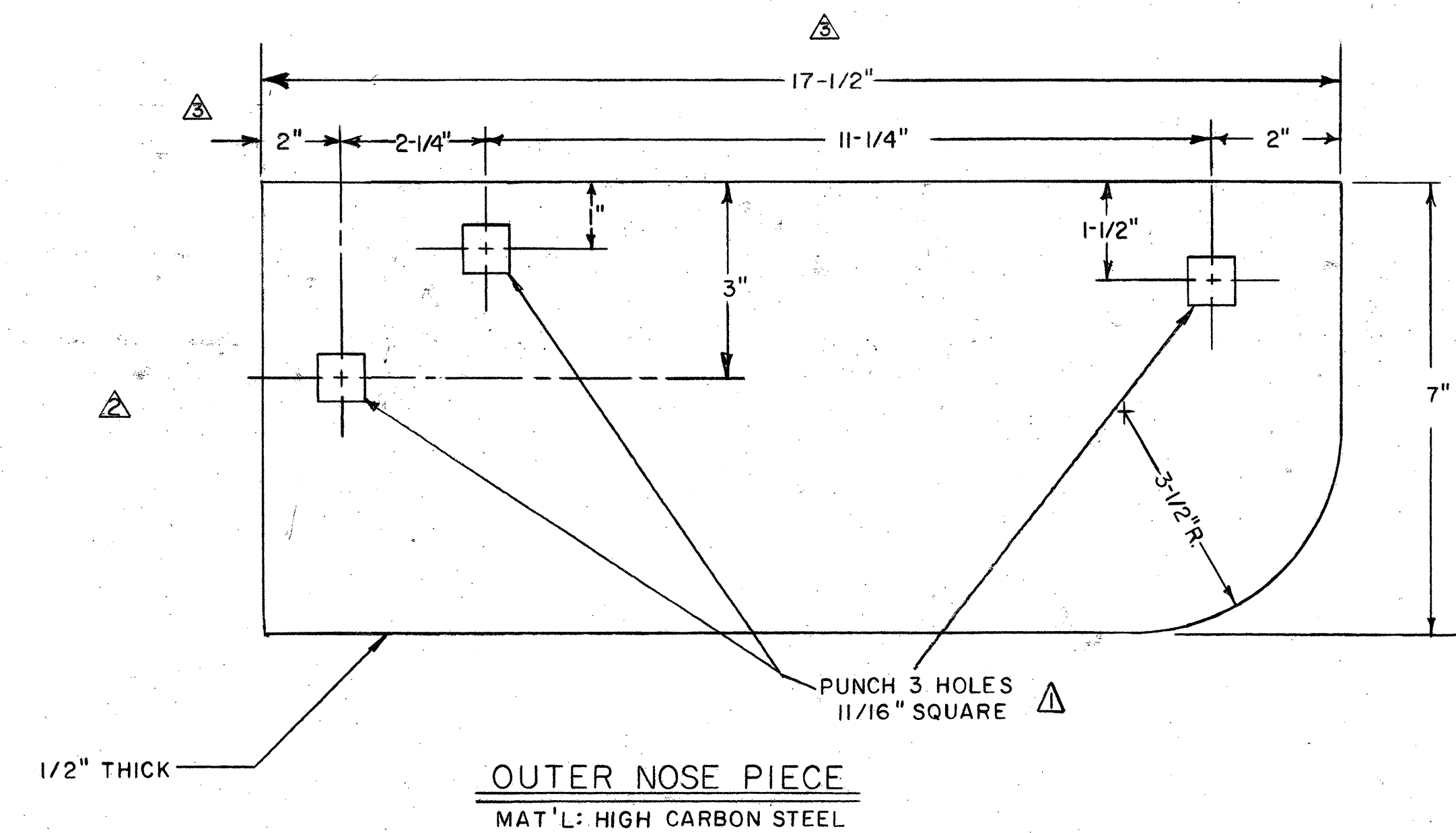
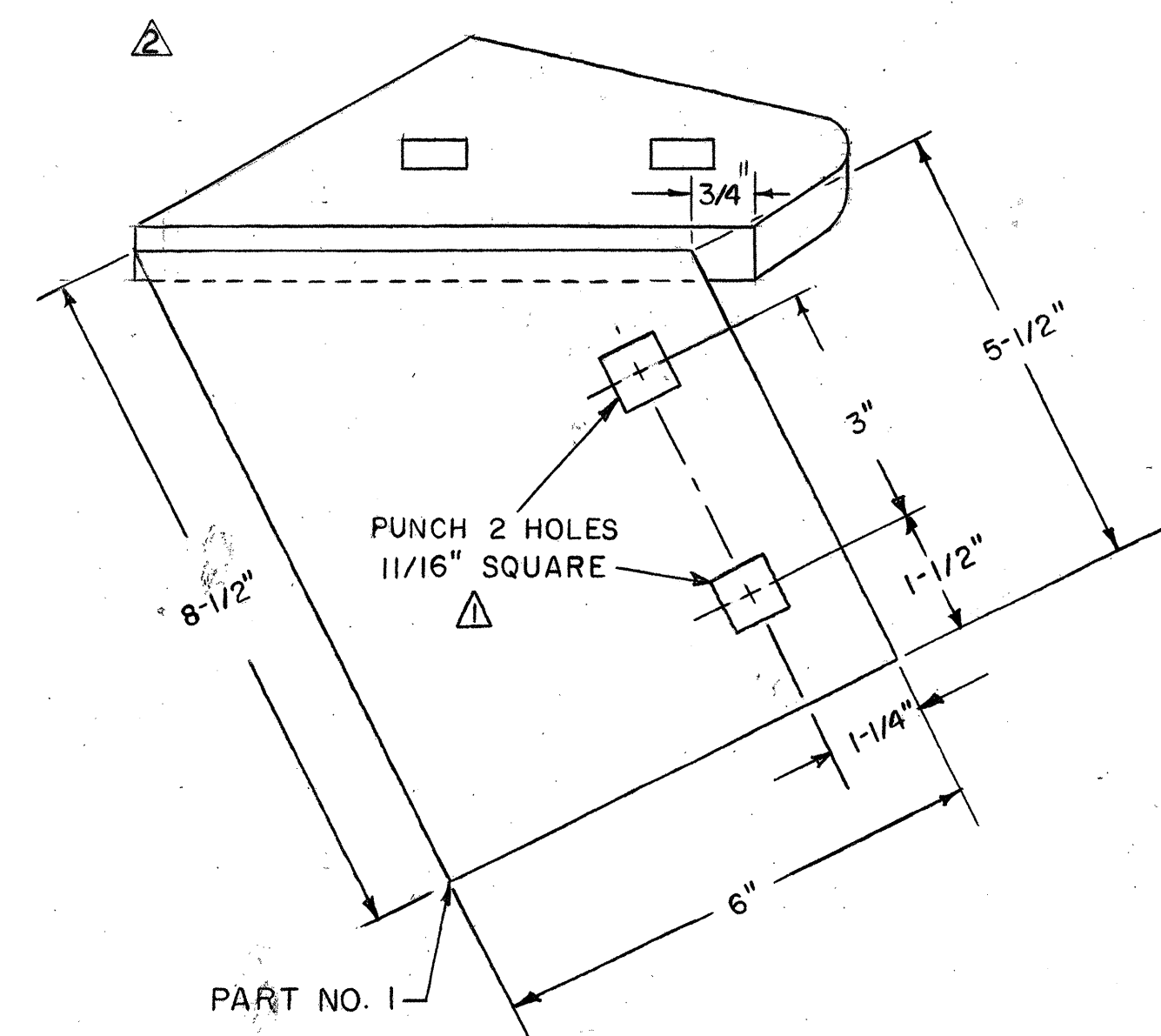


LATCH PIN SWIVEL
MATL: HOT ROLLED STEEL

					NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
					LATCH PIN SWIVEL			
					SUBMITTED BY <i>Sheldon</i>	DRAWN BY A.P. SMITH	SCALE FULL	DWG. NO. 4-184
					APPROVED BY	JOB NO. <i>11111</i>	DATE DEC 11, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS			



INNER NOSE PIECE
MAT'L: HIGH CARBON STEEL



NOTES

1. THIS DRAWING SUPERSEDES DWG. NO. 4-134.
2. REMOVE ALL BURRS AND SHARP EDGES.
3. ALL WELDS TO BE CONTINUOUS.
4. INNER NOSE PIECE - PLANE OF MEASURED ANGLE TO BE PERPENDICULAR TO PLANE OF PART 1 AND PART 2.
5. FASTEN INNER & OUTER NOSE PIECE TO MOLDBOARD END PLATE W/ 5/8" x 11 UNC BOLTS, ONE 2" LG, TWO 2-1/2" LG.

						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						INNER & OUTER NOSE PIECE			
7-1-86	APS	ADD NOTE				SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
2-27-84	E.J.D.	CHANGE OF DIMENSION				<i>A.P. Smith</i>	A. P. SMITH	1/2" = 1"	4-186
9-9-82	J.W.B.	DELETED LIFTING EYE				APPROVED BY	JOB NO.	DATE	
12-12-75	APS	CHG. SIZE OF PUNCHED HOLE				<i>[Signature]</i>		NOV 21, 1975	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS				

24DPP01035

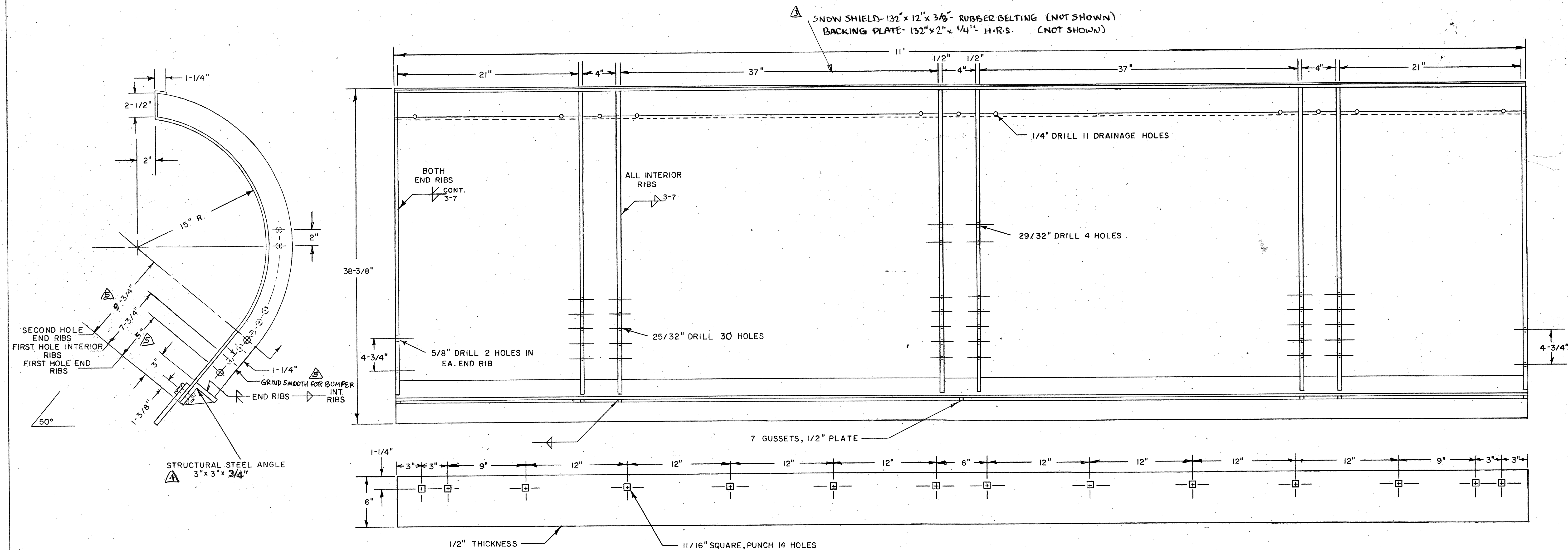
Drawing 4-188

Price Line 158

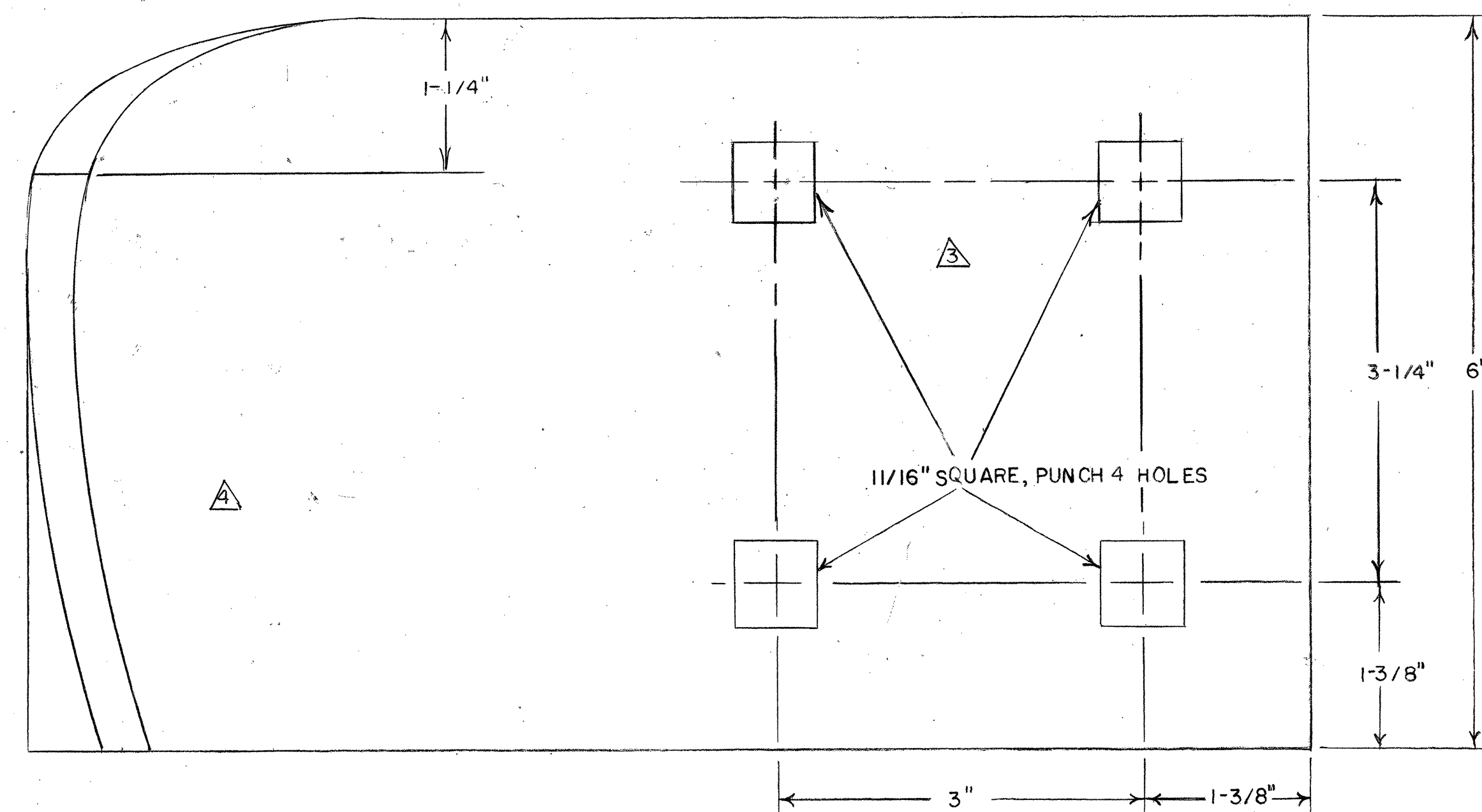
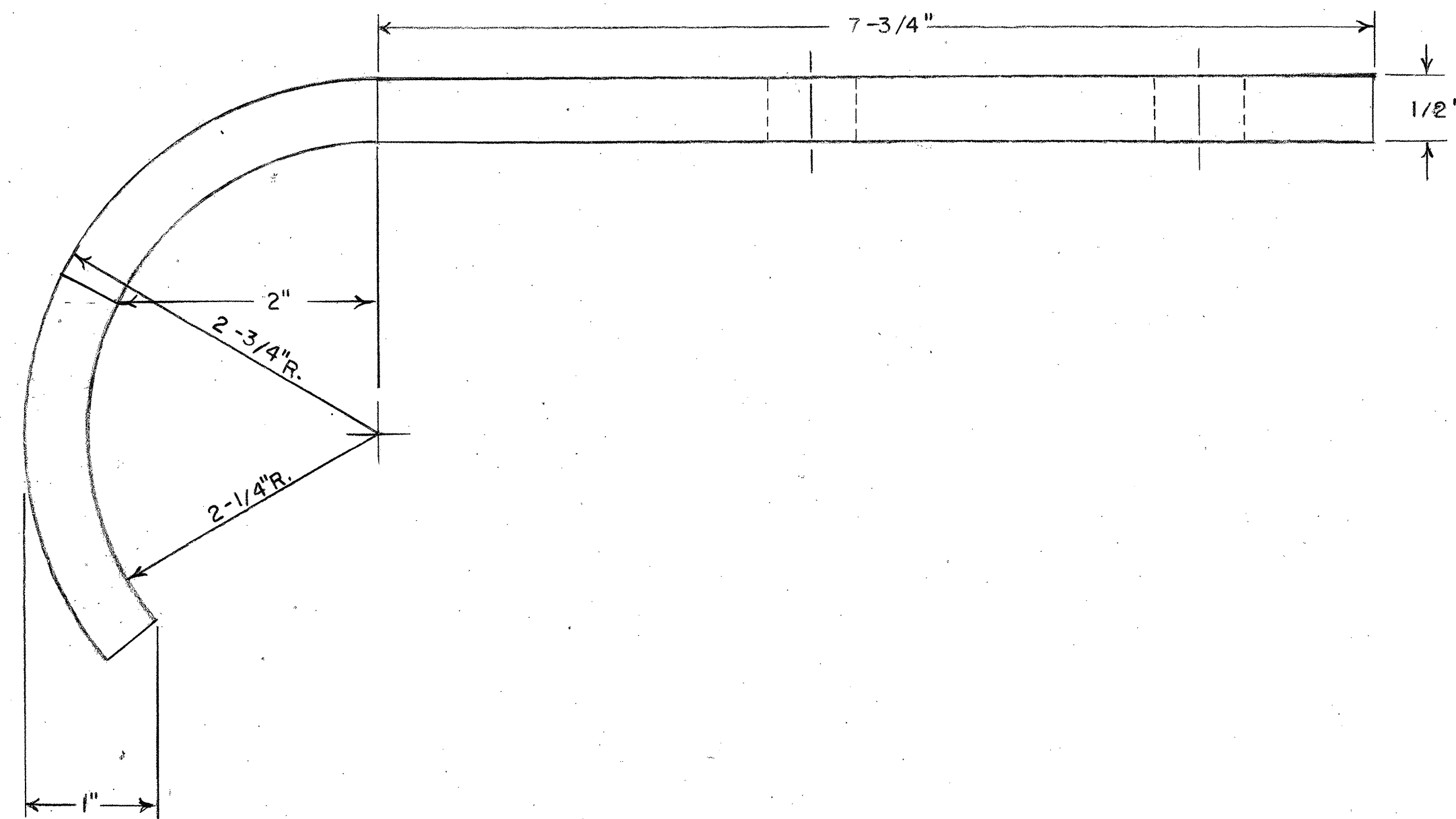
State of New Jersey Procurement Bureau

NOTES

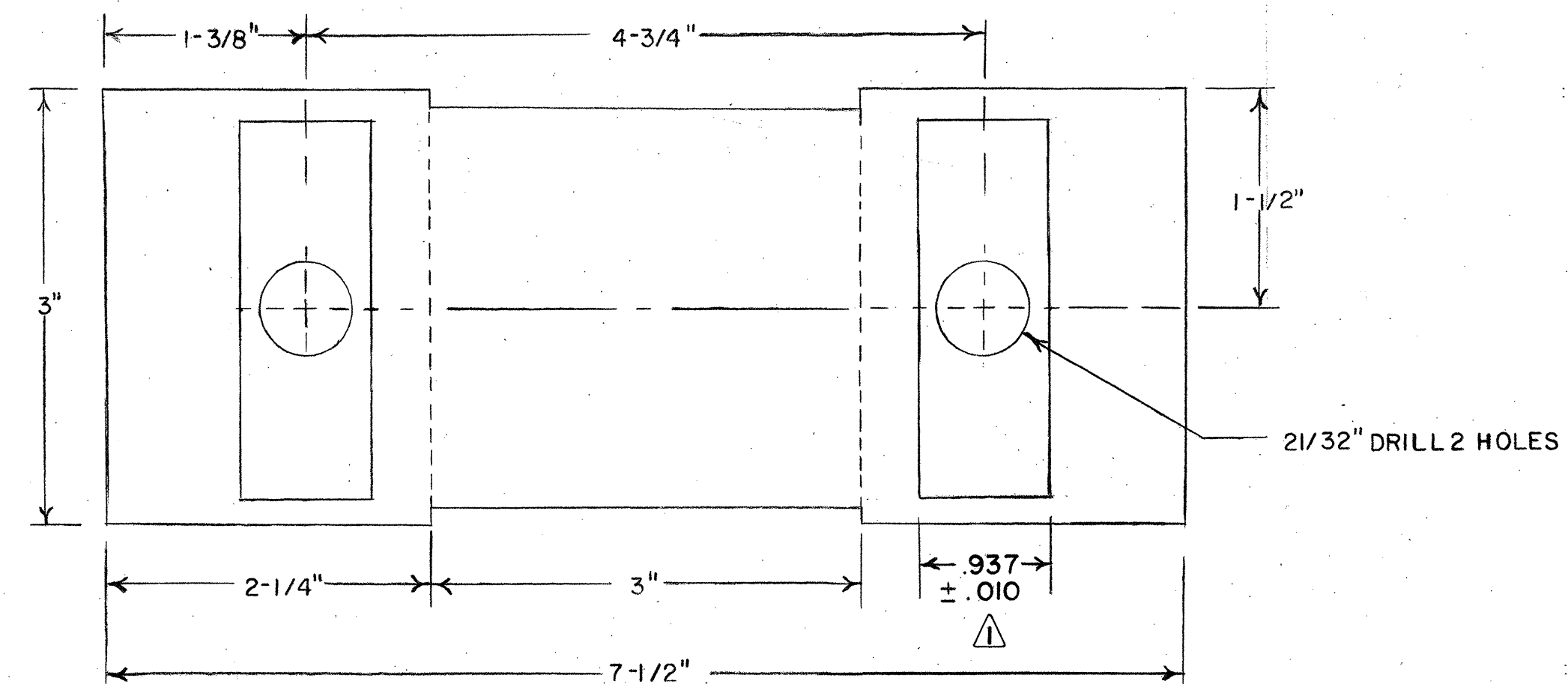
1. THIS DRAWING SUPERSEDES DWG. NO. 4-126.
2. ALL VERTICAL RIBS 1/2" x 2-1/2" STRUCTURAL STEEL QUALITY PLATE.
3. MOLDBOARD SKIN TO BE 3/16" STRUCTURAL STEEL QUALITY PLATE, SMOOTH ROLLED OR BRAKE FORMED.
4. MOLDBOARD SKIN TO EXTEND TO BOTTOM EDGE OF FRONT ANGLE, SKIN EDGE - TACK WELD ONLY.
5. BLADE TO BE HIGH CARBON ABRASIVE RESISTANT STEEL.
6. FOR CARBIDE EDGE (BLADE) SEE N.J.D.O.T. BUR. OF EQUIP. DWG. NO. 4-113.
7. BLADE TO BE ATTACHED TO MOLDBOARD W/ 5/8" x 11 UNC x 2" CARRIAGE BOLTS, NUTS & LOCKWASHERS (N/A LAST 2 BOLTS ON EACH SIDE).
8. BOLT HOLES IN RIBS FOR ATTACHING MOLDBOARD HINGE TO BE SPACED APART 1-3/4".
9. ALL WELDS TO BE 3/16" MIN.
10. HOLES IN BOTTOM BLADE ANGLE TO BE DRILLED 5/8" DIA.
11. SNOW SHIELD TO BE ATTACHED WITH 1/2" BOLTS AND NUTS



				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				SNOW PLOW MODEL M.R. 11-36-15-1			
SUBMITTED BY		DRAWN BY		SCALE		DWG. NO.	
A. P. SMITH		A. P. SMITH		3/16" = 1"		4-188	
APPROVED BY		JOB NO.		DATE			
J. Kelleher				JAN. 6, 1976			
REV	DATE	BY	REMARKS	ORDER REQUEST NO.		APPLICABLE SNOW PLOWS	
3-26-01	JWB		CHANGED DIMENSIONS & ADDED GRIND SMOOTH				
11-16-99	JWB		ANGLE INCREASED FROM 1/2" TO 3/4"				
11-16-99	JWB		ADD SNOW SHIELD				
4-22-07	A.P.S.		ADD NOTE NO. 10				
7-1-86	A.P.S.		ADD TO NOTE 7, CHG. BOTTOM ANGLE				

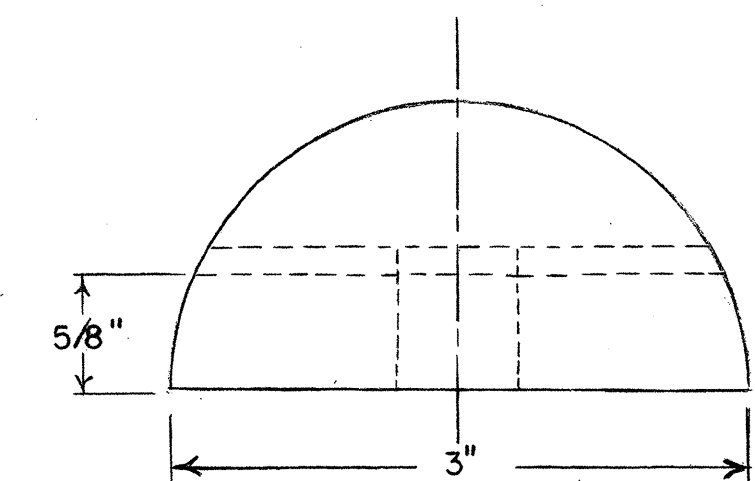
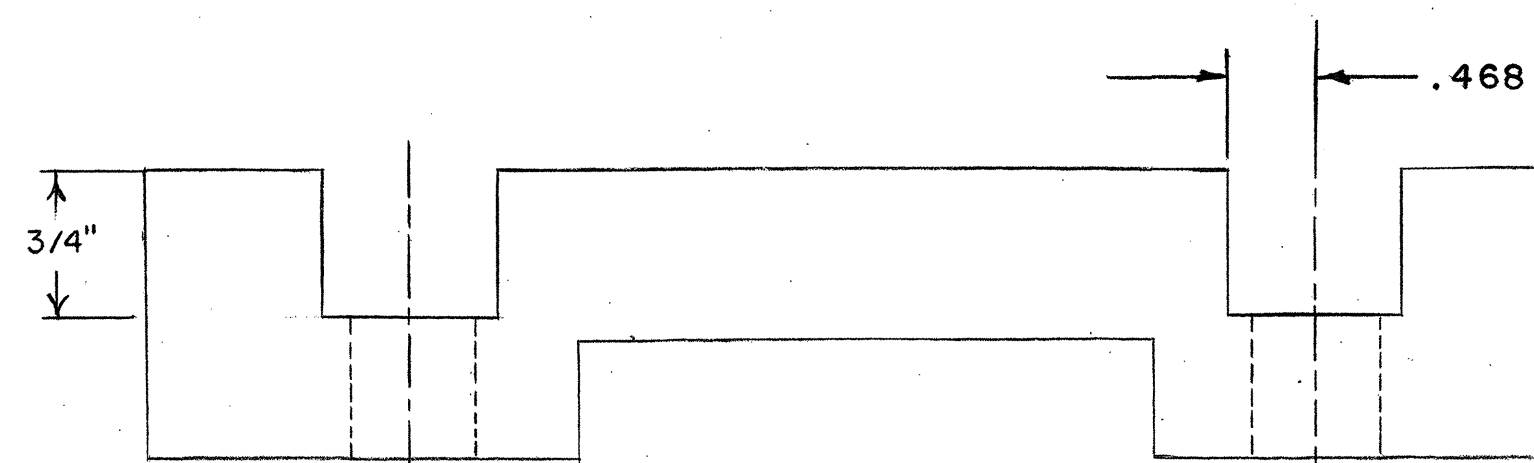


WRAP AROUND - RIGHT SIDE
MATL: HIGH CARBON STEEL



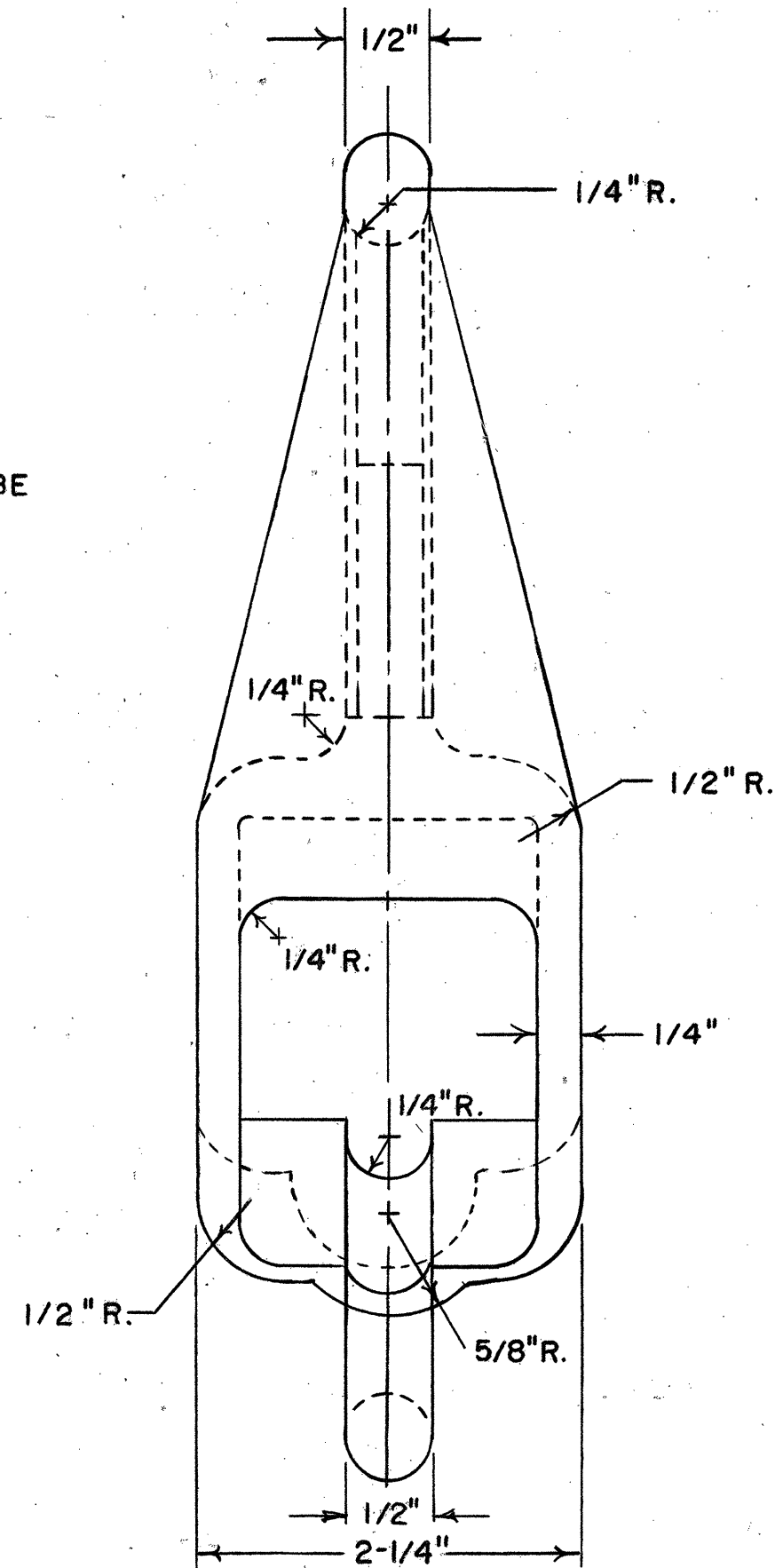
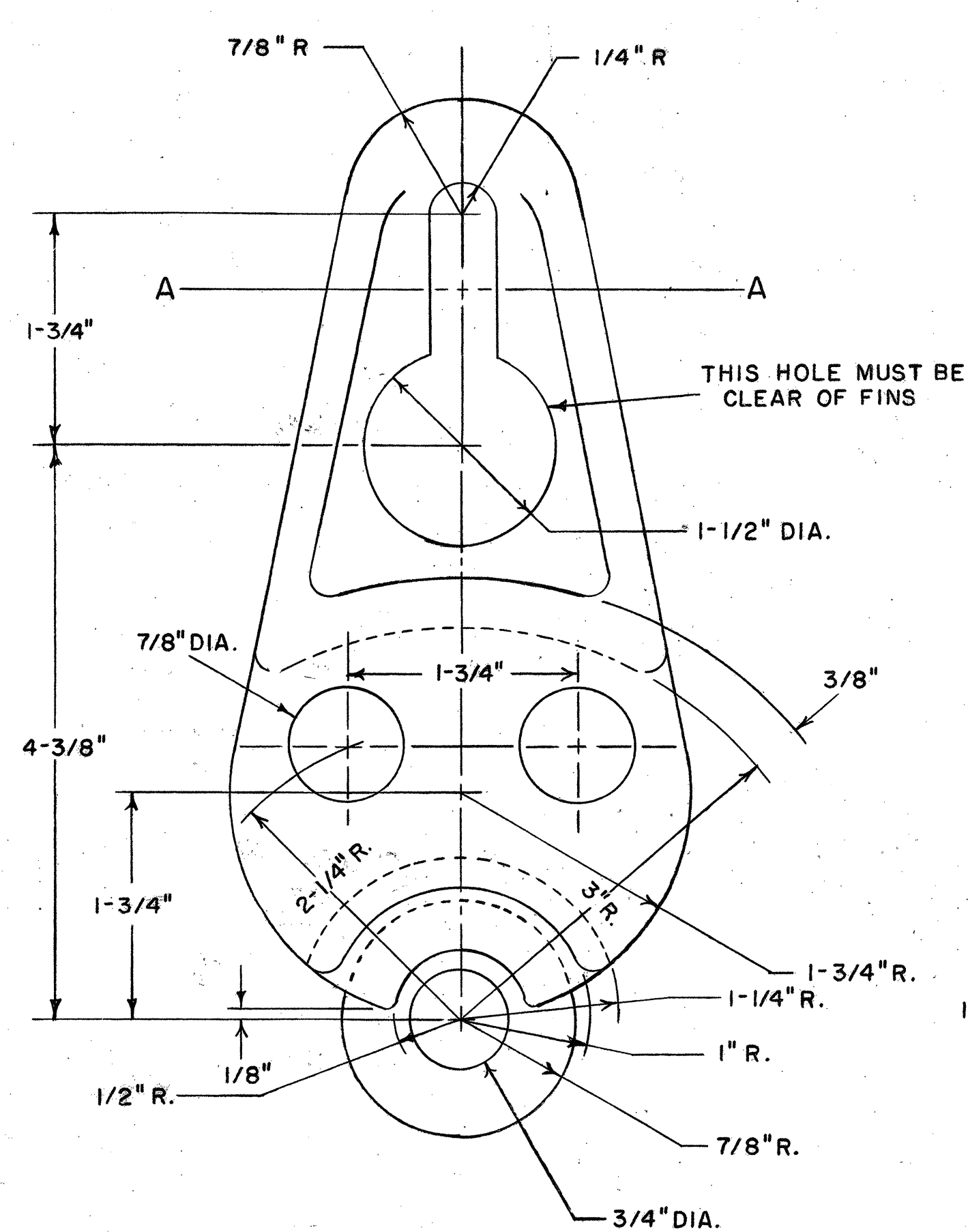
NOTES

1. ALL SHARPEGES AND BURRS TO BE REMOVED.
2. FASTEN CURB BUMPERS TO MOLDBOARD W/ 5/8" X 11 UNC BOLTS, NUTS AND LOCKWASHERS.
3. FASTEN WRAP AROUND TO MOLDBOARD W/ 5/8" X 11 UNC X 2-1/2" CARRIAGE BOLTS, NUTS, LOCKWASHERS.

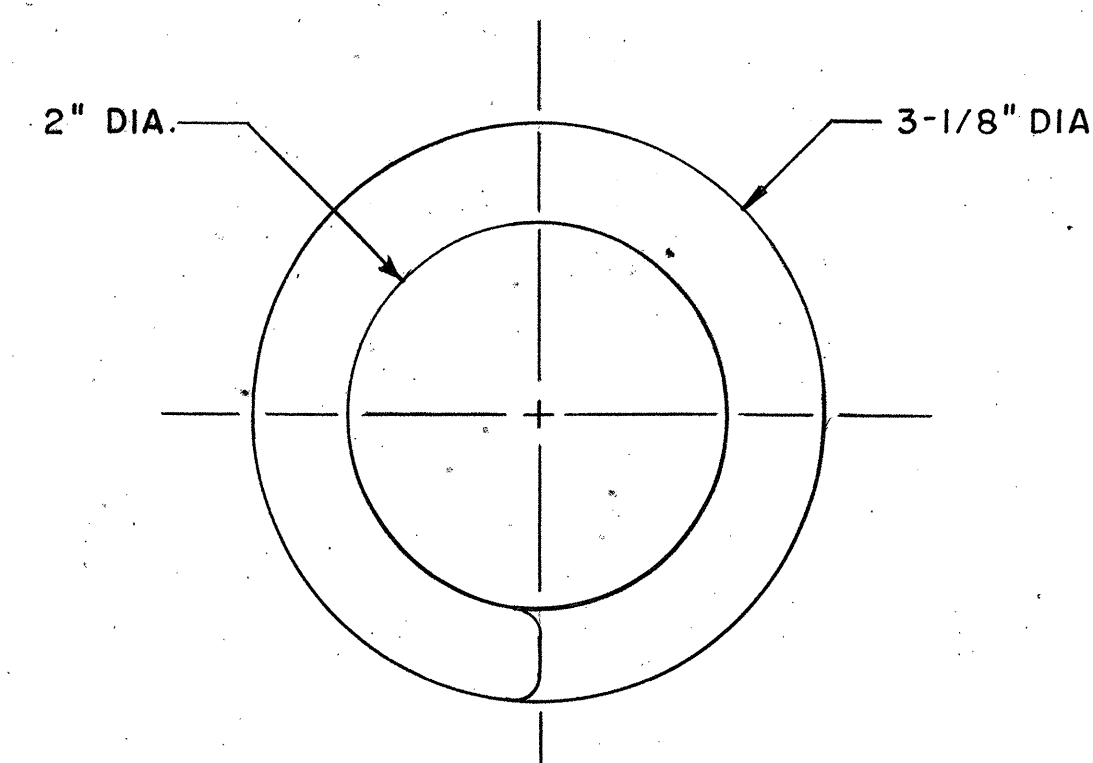
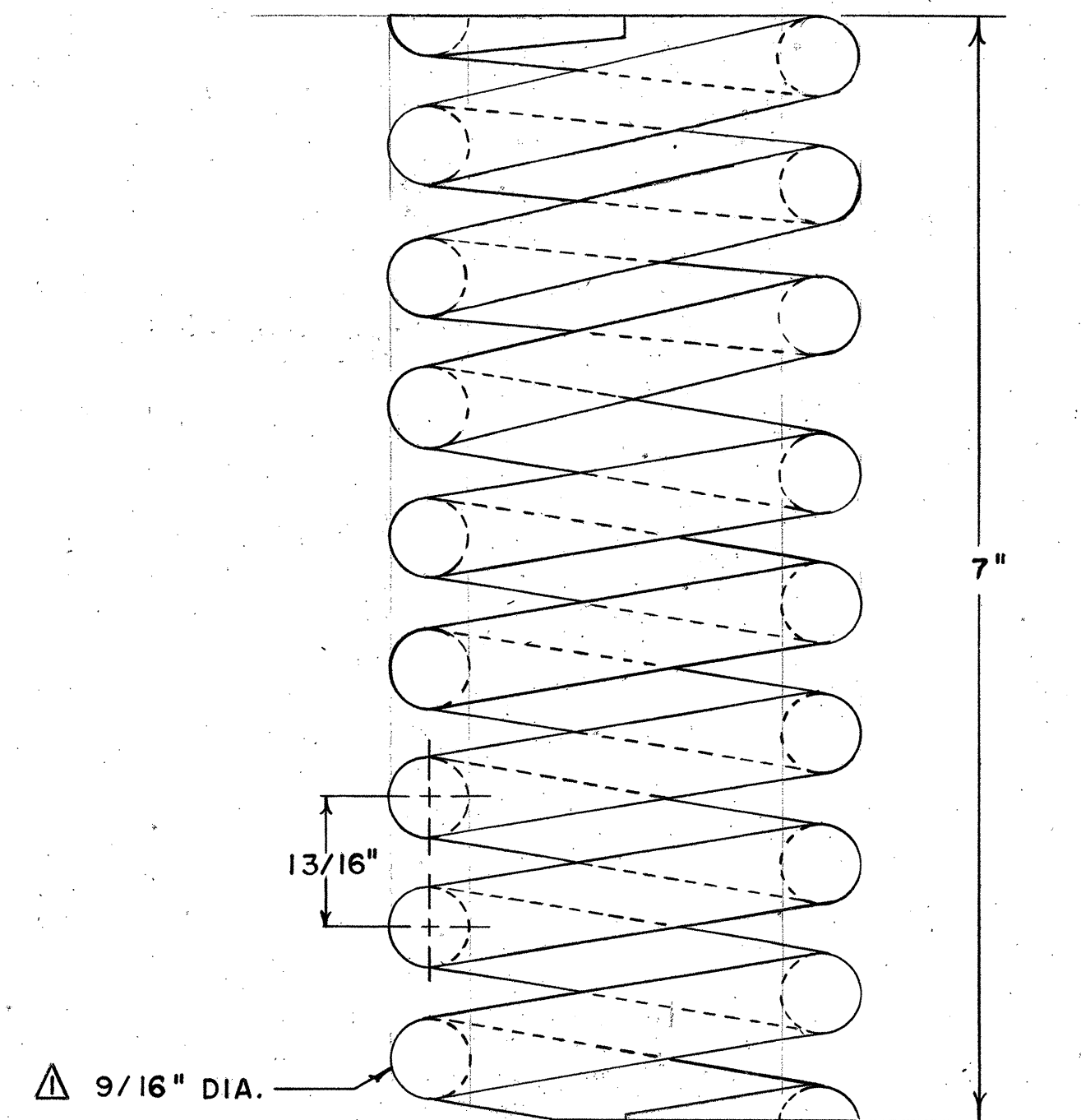
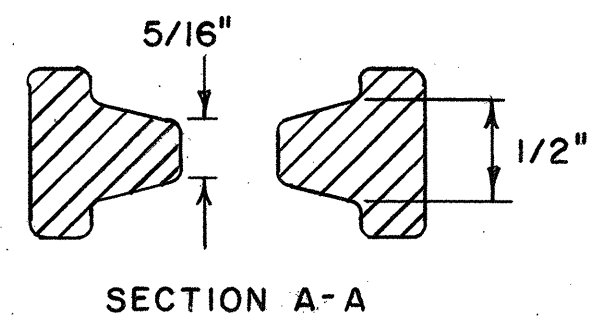


CURB BUMPER
MATL: MEDIUM CARBON STEEL

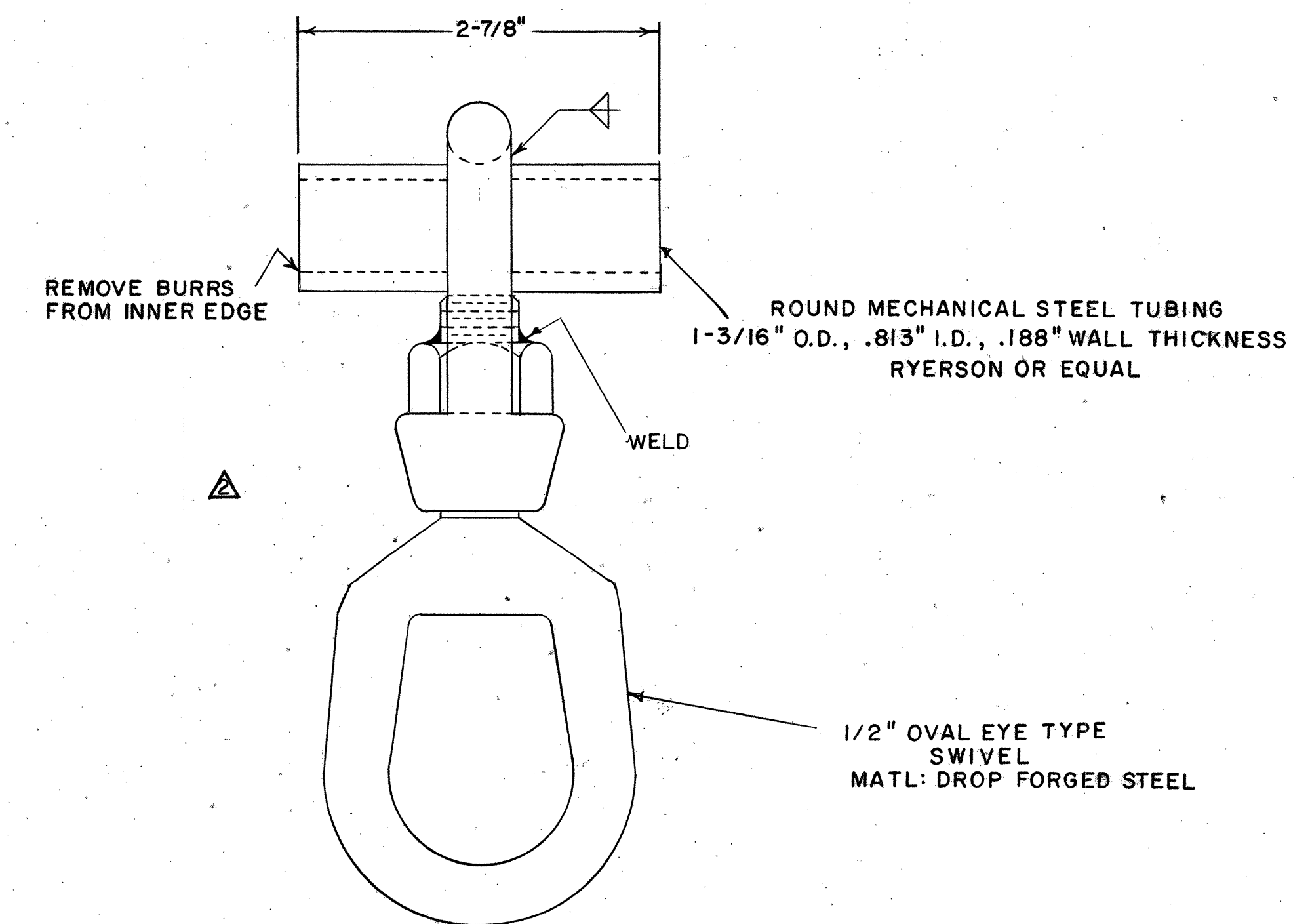
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				WRAP AROUND - RIGHT SIDE CURB BUMPER			
4	9/11/80	JWB	MODIFY LEFT END		SUBMITTED BY	DRAWN BY	SCALE
3	9/4/80	JWB	ADD 2 TOP HOLES		<i>C. P. Smith</i>	SATISH BAHL	FULL
2	7/1/86	APS	ADD TO NOTE 3	M.R. 10-32-15-1 MOD.	APPROVED BY	JOB NO.	DATE
1	4-1-77	APS	CHG. TOLERANCES	M.R. 11-36-15-1			JULY 26, 1976
REV.	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS		



CHAIN BLOCK
MATL: CAST STEEL
SCALE: FULL SIZE



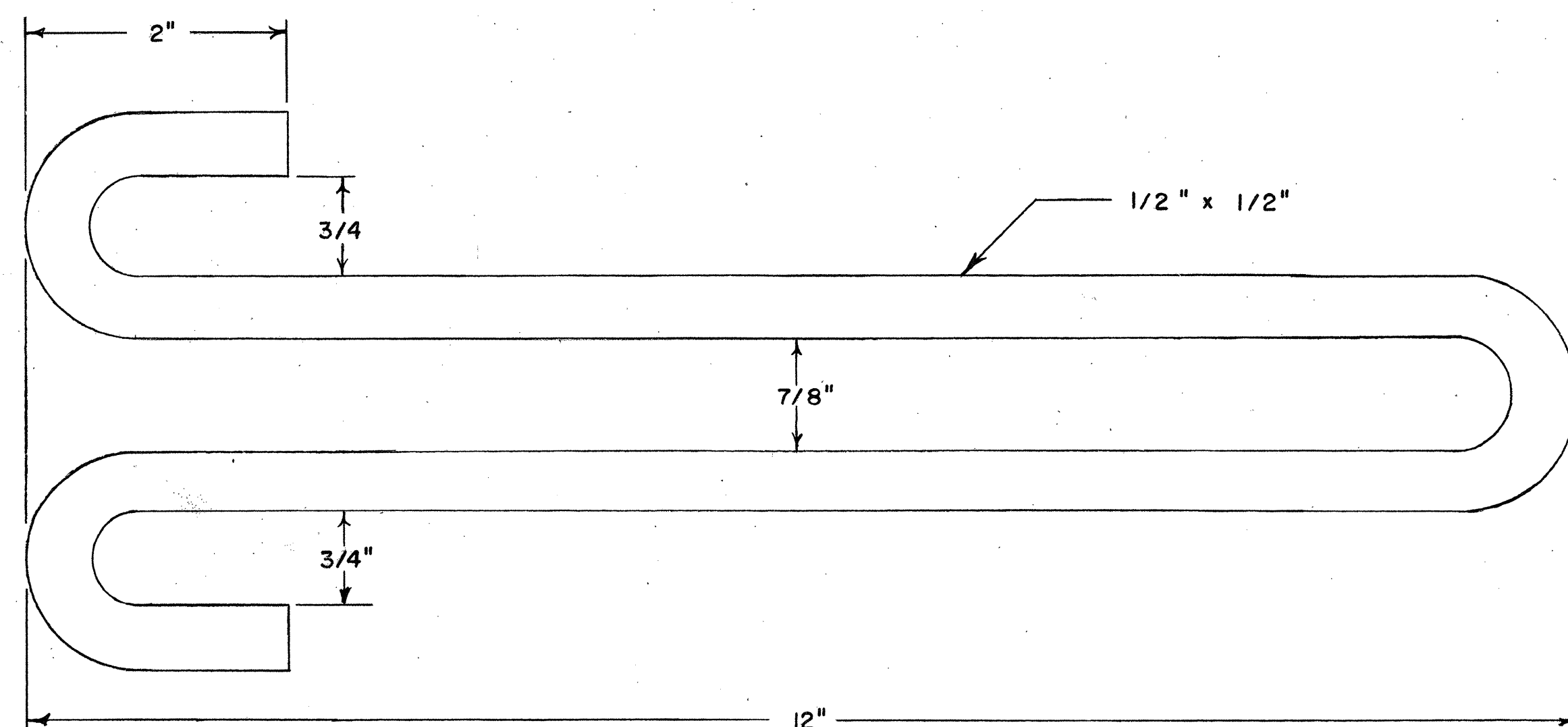
SPRING
MATL: SPRING STEEL
SCALE: FULL SIZE



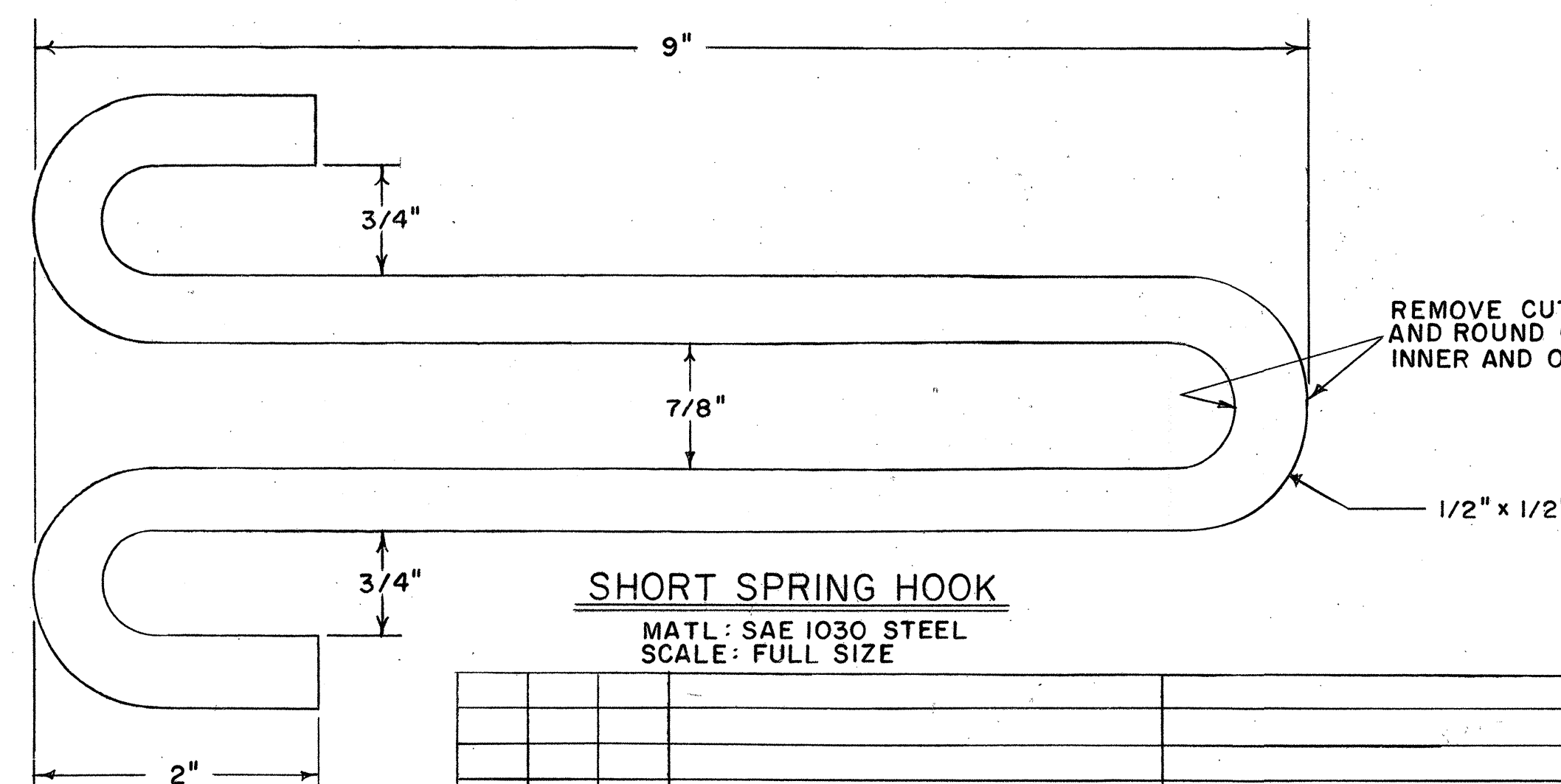
PIPE WELDMENT
SCALE: NONE

NOTES

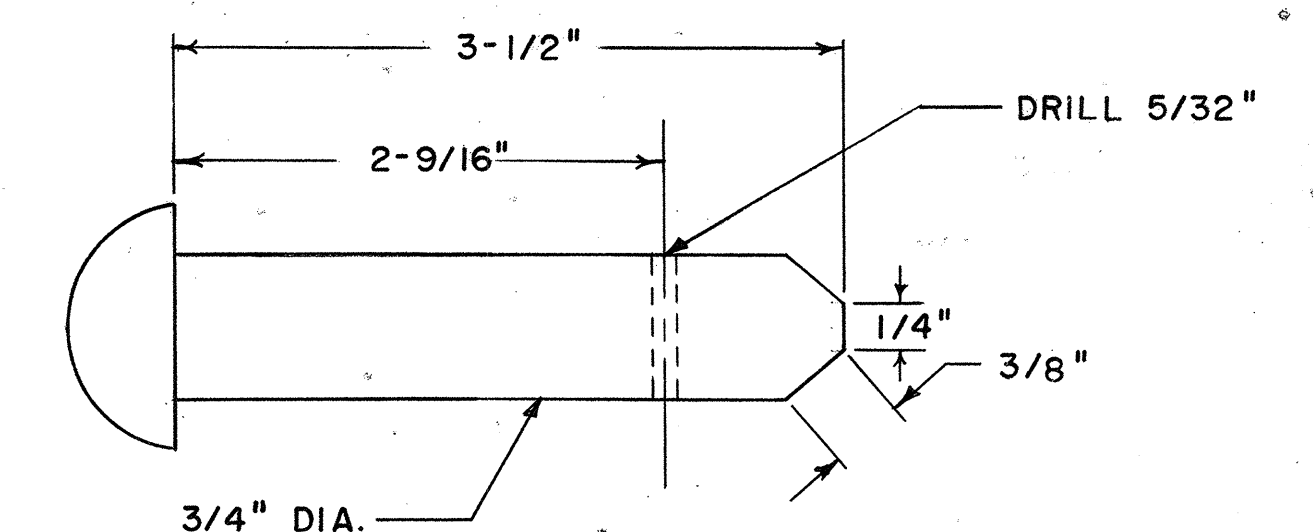
1. REMOVE ALL BURRS.
2. CONSULT AGENCY FOR CHAIN BLOCK SAMPLE IF FULL MATERIAL COMPOSITION AND/OR TYPE MANUFACTURING PROCESS IS DESIRED FOR STRENGTH PURPOSES.
3. SPRING HOOKS ARE TO BE FLAME CUT FROM 1/2" PLATE STEEL.



LONG SPRING HOOK
MATL: SAE 1030 STEEL
SCALE: FULL SIZE

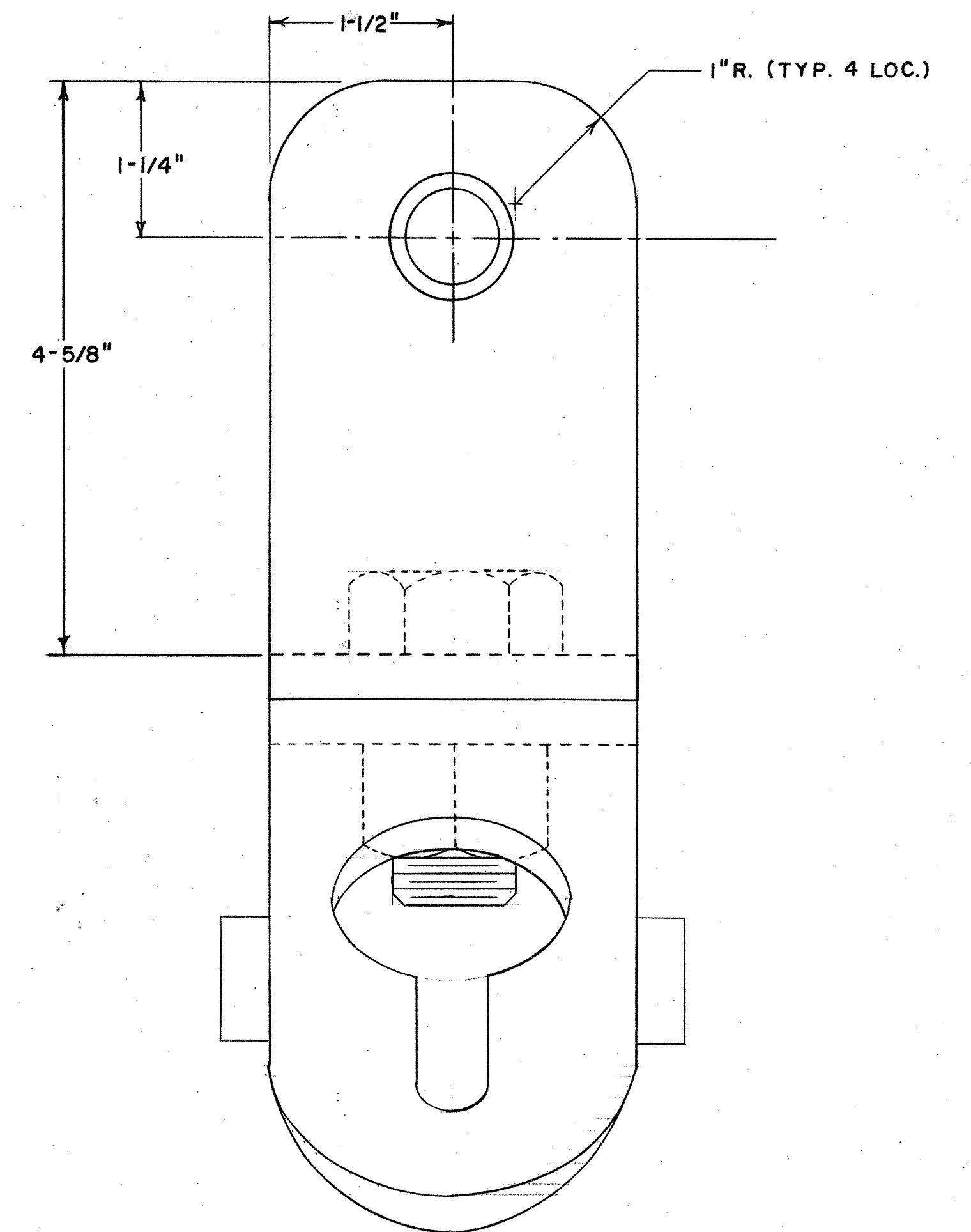
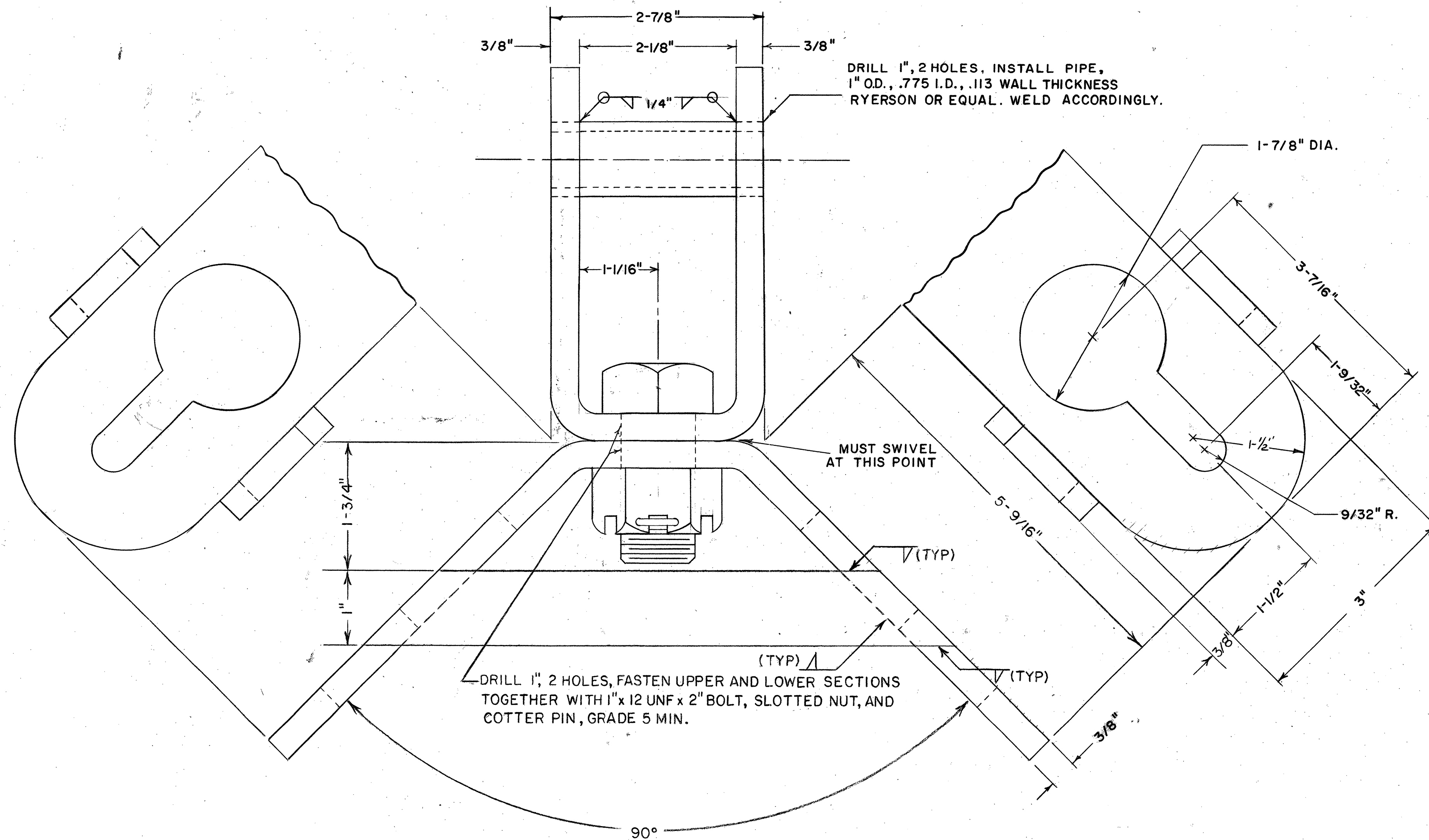


SHORT SPRING HOOK
MATL: SAE 1030 STEEL
SCALE: FULL SIZE



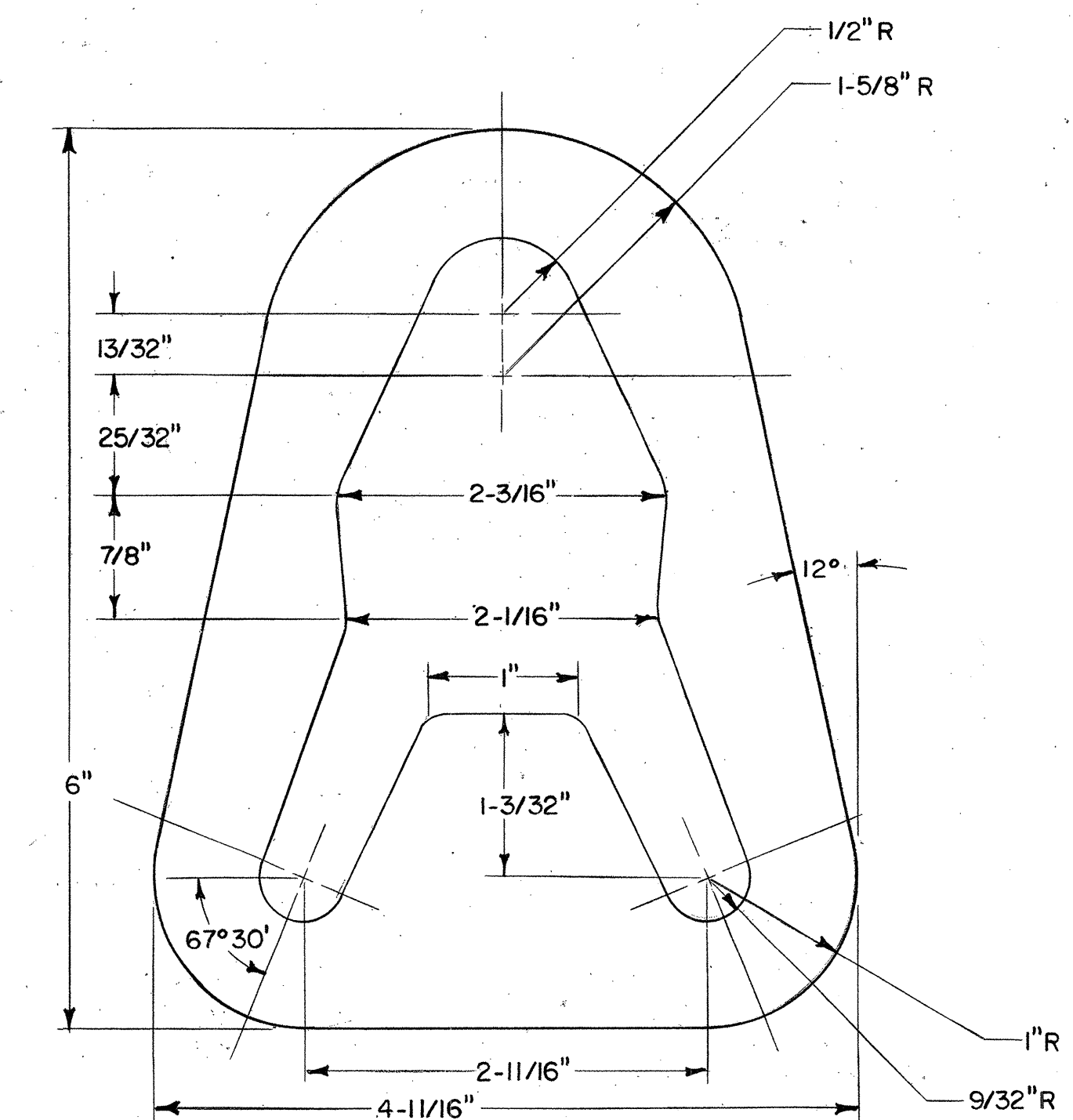
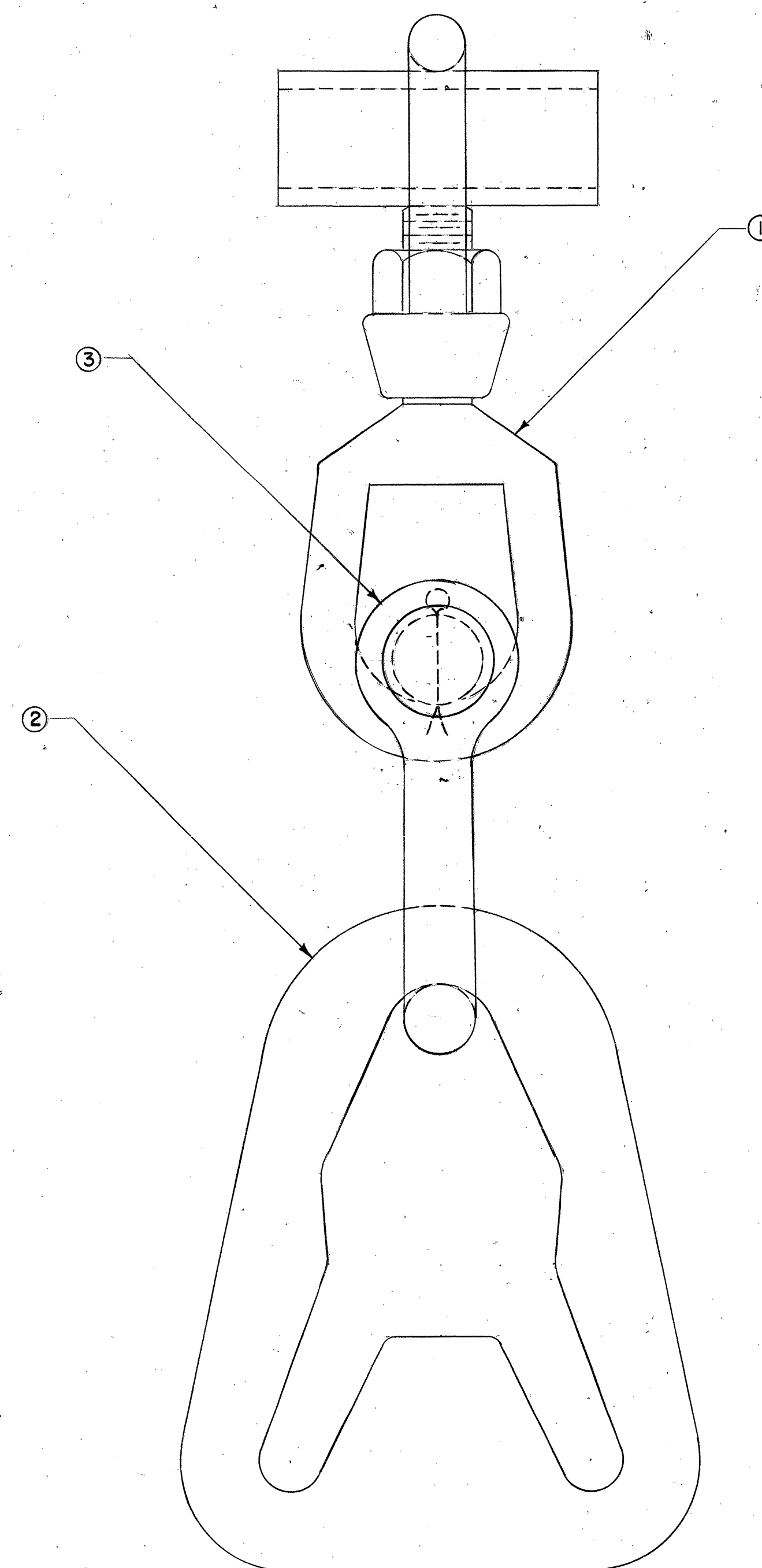
RIVET PIN
MATL: STEEL
SCALE: FULL SIZE

				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				SNOW PLOW LIFTING CHAINS			
SUBMITTED BY:		DRAWN BY:		SCALE:	DWG. NO.		
APPROVED BY:		JOB NO.:		DATE:	4-192-2		
REV		DATE	BY	REMARKS	ORDER REQUEST NO.		APPLICABLE SNOW PLOW
12-88		D.L.	ADD WELD				
9-9-77		A.P.S.	CHG. SPRING WIRE DIA.				



SWIVEL BRACKET
MAT'L: MEDIUM CARBON STEEL

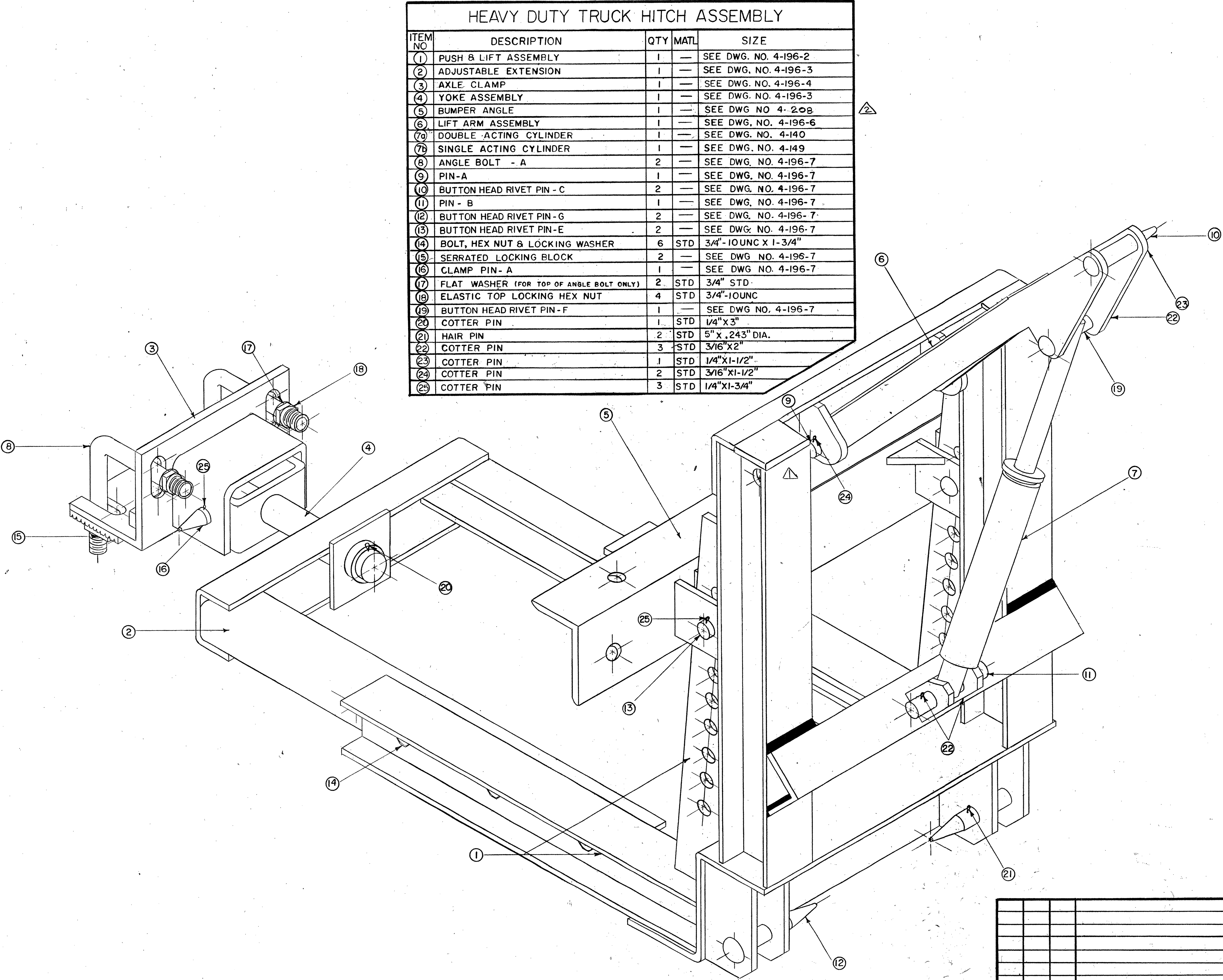
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				SNOW PLOW LIFTING CHAINS			
				SUBMITTED BY: <i>J. Williams</i>	DRAWN BY: A. P. SMITH	SCALE: FULL	DWG. NO. 4-192-3
				APPROVED BY:	JOB NO.	DATE: APR 13, 1977	
1	9/84	JWB	ADDED 1" x 3/8" SUPPORT	ORDER REQUEST NO.	APPLICABLE SNOW PLOW		
REV	DATE	BY	REMARKS				



PEAR SHAPED CONNECTOR
MAT'L: 1/2" HOT ROLLED STRUCTURAL STEEL

SNOW. PLOW LIFTING CHAINS CONNECTOR ASSEMBLY				
ITEM NO.	DESCRIPTION	QTY	MAT'L	SIZE
①	PIPE WELDMENT	1	—	SEE DWG. NO. 4-192-2
②	PEAR SHAPED CONNECTOR	1	—	SEE DWG. ABOVE
③	ANCHOR SHACKLE W/ LOOSE PIN	1	STD	5/8" SHACKLE W/ 3/4" PIN

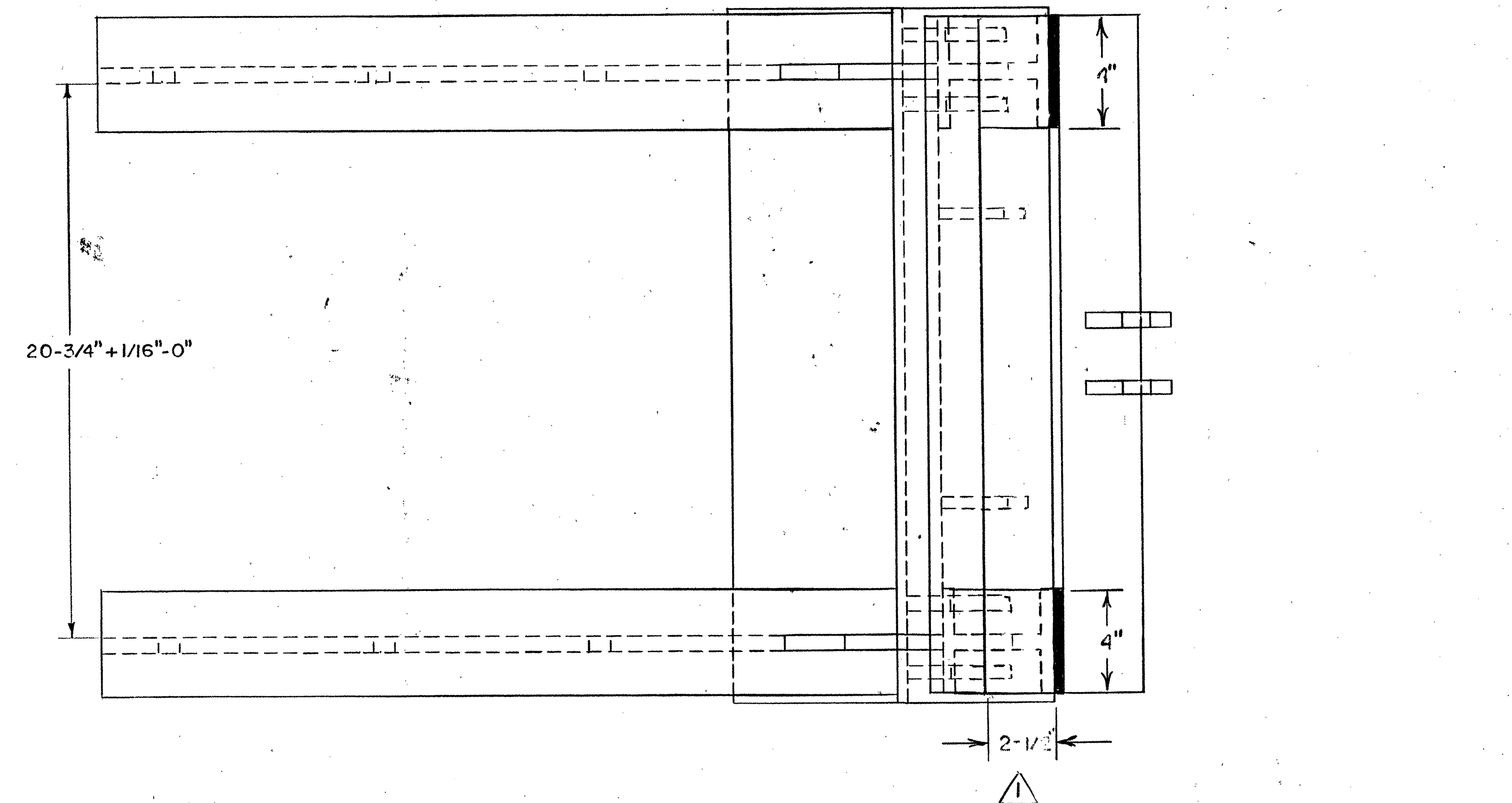
						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						SNOW PLOW LIFTING CHAINS CONNECTOR ASSY.			
						SUBMITTED BY: A. P. SMITH	DRAWN BY: D. LEUNG	SCALE: FULL	DWG. NO.: (4-192) -4-
						APPROVED BY:	JOB NO. 	DATE: 10-19-82	
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOW				



HEAVY DUTY TRUCK HITCH ASSEMBLY				
ITEM NO	DESCRIPTION	QTY	MATL	SIZE
1	PUSH & LIFT ASSEMBLY	1	—	SEE DWG. NO. 4-196-2
2	ADJUSTABLE EXTENSION	1	—	SEE DWG. NO. 4-196-3
3	AXLE CLAMP	1	—	SEE DWG. NO. 4-196-4
4	YOKE ASSEMBLY	1	—	SEE DWG. NO. 4-196-3
5	BUMPER ANGLE	1	—	SEE DWG NO 4-208
6	LIFT ARM ASSEMBLY	1	—	SEE DWG. NO. 4-196-6
7	DOUBLE ACTING CYLINDER	1	—	SEE DWG. NO. 4-140
8	SINGLE ACTING CYLINDER	1	—	SEE DWG. NO. 4-149
9	ANGLE BOLT - A	2	—	SEE DWG. NO. 4-196-7
10	PIN - A	1	—	SEE DWG. NO. 4-196-7
11	BUTTON HEAD RIVET PIN - C	2	—	SEE DWG. NO. 4-196-7
12	PIN - B	1	—	SEE DWG. NO. 4-196-7
13	BUTTON HEAD RIVET PIN - G	2	—	SEE DWG. NO. 4-196-7
14	BUTTON HEAD RIVET PIN - E	2	—	SEE DWG. NO. 4-196-7
15	BOLT, HEX NUT & LOCKING WASHER	6	STD	3/4"-10UNC X 1-3/4"
16	SERRATED LOCKING BLOCK	2	—	SEE DWG. NO. 4-196-7
17	CLAMP PIN - A	1	—	SEE DWG. NO. 4-196-7
18	FLAT WASHER (FOR TOP OF ANGLE BOLT ONLY)	2	STD	3/4" STD
19	ELASTIC TOP LOCKING HEX NUT	4	STD	3/4"-10UNC
20	BUTTON HEAD RIVET PIN - F	1	—	SEE DWG NO. 4-196-7
21	COTTER PIN	1	STD	1/4" X 3"
22	HAIR PIN	2	STD	5" X .243" DIA.
23	COTTER PIN	3	STD	3/16" X 2"
24	COTTER PIN	1	STD	1/4" X 1-1/2"
25	COTTER PIN	2	STD	3/16" X 1-1/2"
26	COTTER PIN	3	STD	1/4" X 1-3/4"

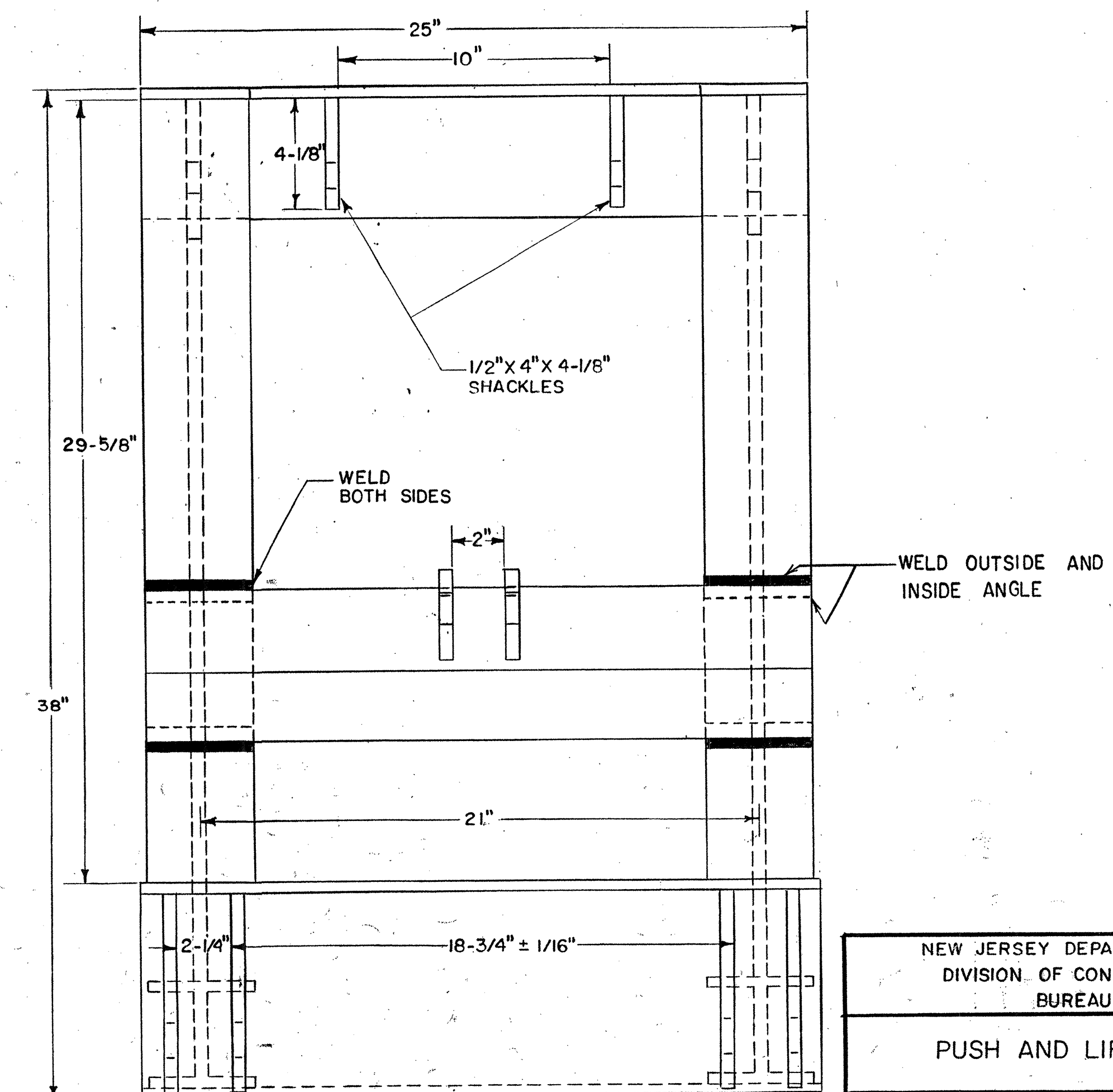
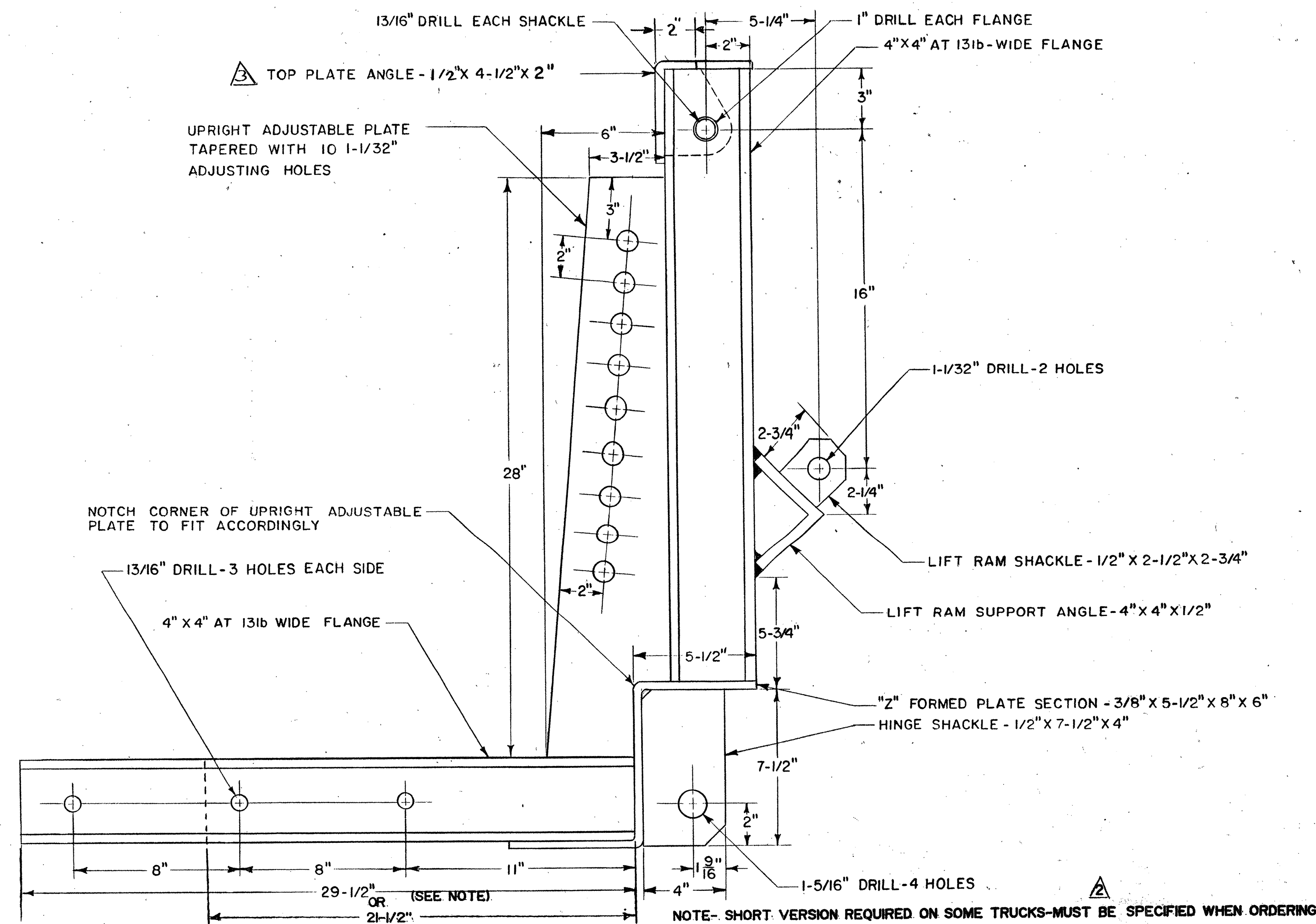
NOTES:
1. SEE DWG 4-196-5 FOR BUMPER
ANGLE HOLE LOCATION AND MOUNTING.
2. ALL BOLTS AND NUTS (ASSEMBLY AND MOUNTING)
TO BE GRADE 5 MINIMUM.

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
HEAVY DUTY TRUCK HITCH ASSEMBLY			
9-95	JWB	CHANGE DRAWING NO.	SUBMITTED BY: A. P. SMITH
8-24-92	JWB	ADDED REINFORCEMENT	APPROVED BY:
REV	DATE	BY	REMARKS
			DRAWN BY: D. LEUNG
			SCALE:
			JOB NO.
			DATE: 9-20-82
			DWG. NO. 4-196



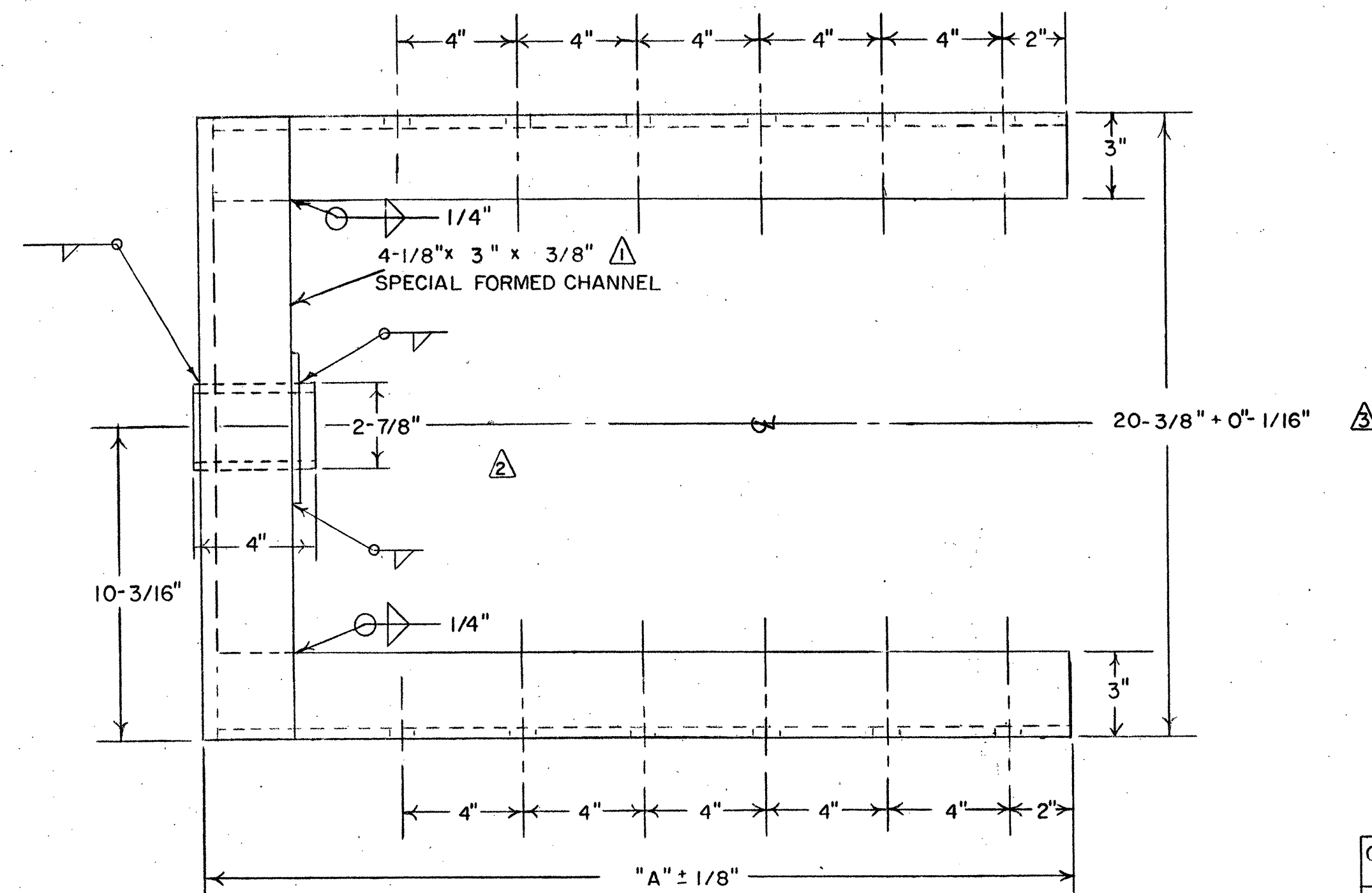
MAT'L:
WIDE FLANGE ——— STRUCTURAL STEEL
PLATE ——— HOT ROLLED STRUCTURAL STEEL QUALITY

NOTES:
1. COMPLETE ASSEMBLY TO BE WELDED TOGETHER

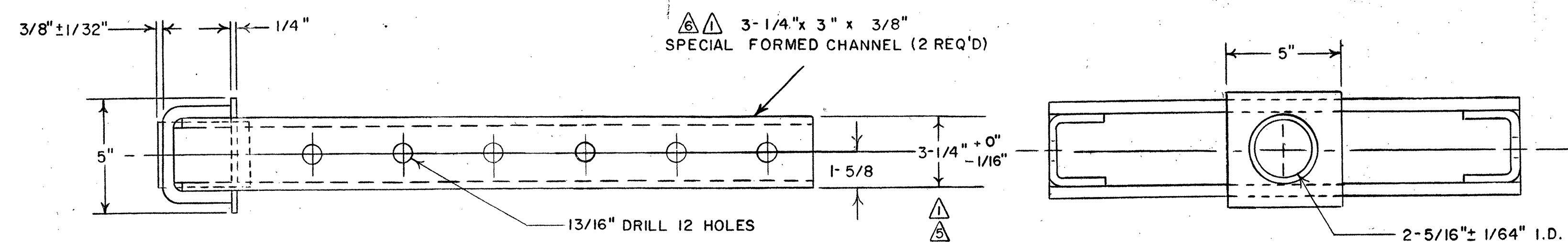


NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
PUSH AND LIFT ASSEMBLY			
SUBMITTED BY: A. P. SMITH	DRAWN BY: D. LEUNG	SCALE: 1/4" = 1"	DWG NO. 4-196-2
APPROVED BY:	JOB NO.	DATE: 9-27-82	

REV	DATE	BY	REMARKS	ORDER REQUEST NO	APPLICABLE SNOW PLOWS
1	9-95	JG	INCREASE FROM 3/4" TO 1/2"		FITS ALL NJDOT SNOW PLOWS
2	9-92	JB	ADDED SHORT VERSION		
3	9-92	JB	ADDED REINFORCEMENTS		



GROUP NO.	A
1	28-1/2
2	38-1/2
3	52-1/2
4	20-1/2



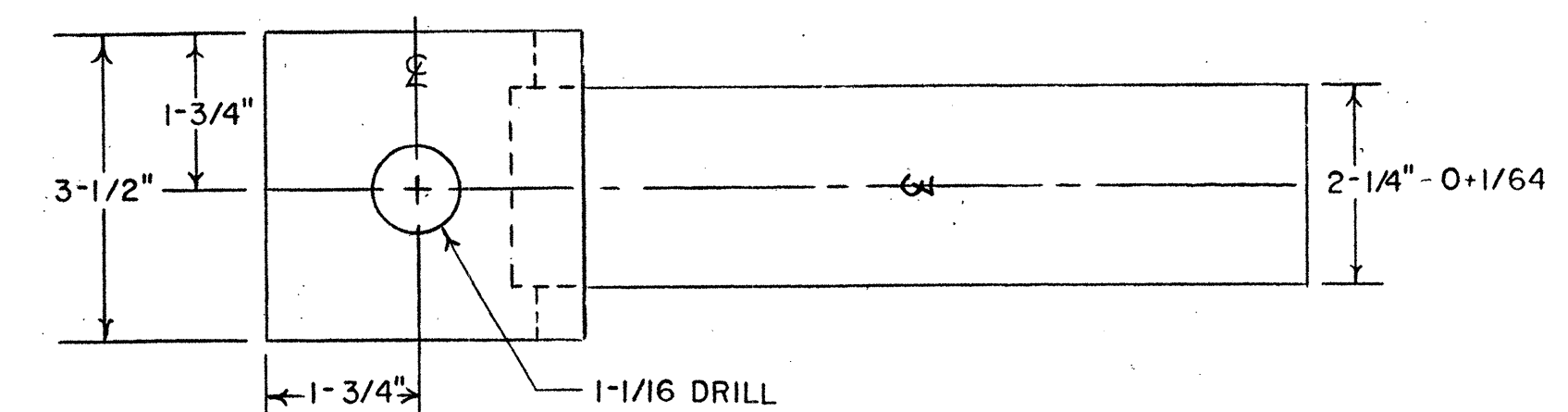
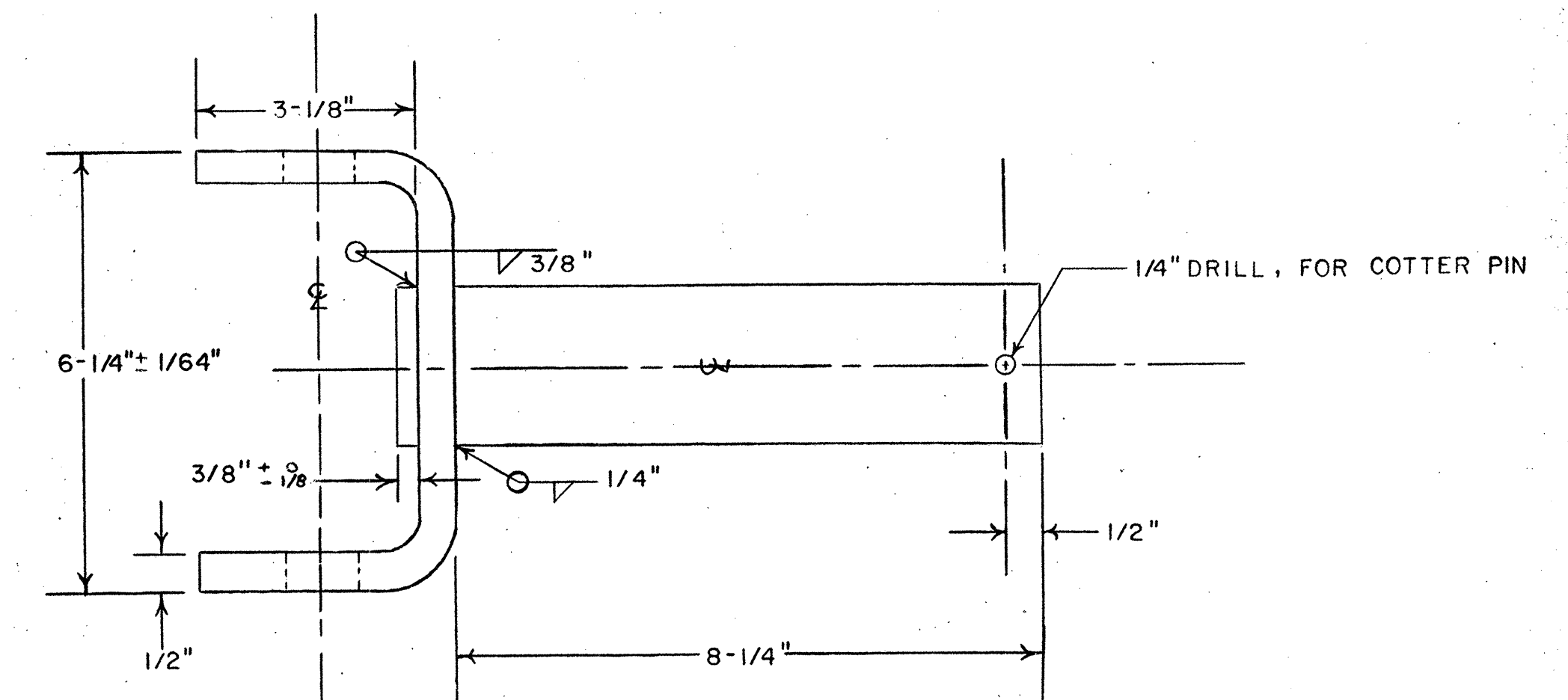
△ ADJUSTABLE EXTENSION
SCALE 1/4"=1"

MAT'L:

TUBING — COLD DRAWN SEAMLESS CARBON STEEL
 △ 1/4" PLATE — STRUCTURAL STEEL QUALITY
 CHANNEL — GENERAL PURPOSE STEEL

NOTES

- 1 MATERIAL TO BE AS SPECIFIED.
- 2 ADJUSTABLE EXTENSION AND YOKE ASSEMBLY TO BE PIECED TOGETHER WITH CONTINUOUS WELDS.
- △ 3 LENGTH OF ADJUSTABLE EXTENSION WILL BE STATED IN SPECIFICATIONS.
- 4 YOKE ASSEMBLY MUST SLIDE FREELY IN SLEEVE OF ADJUSTABLE EXTENSION.
- 5 DO NOT SCALE DRAWING.

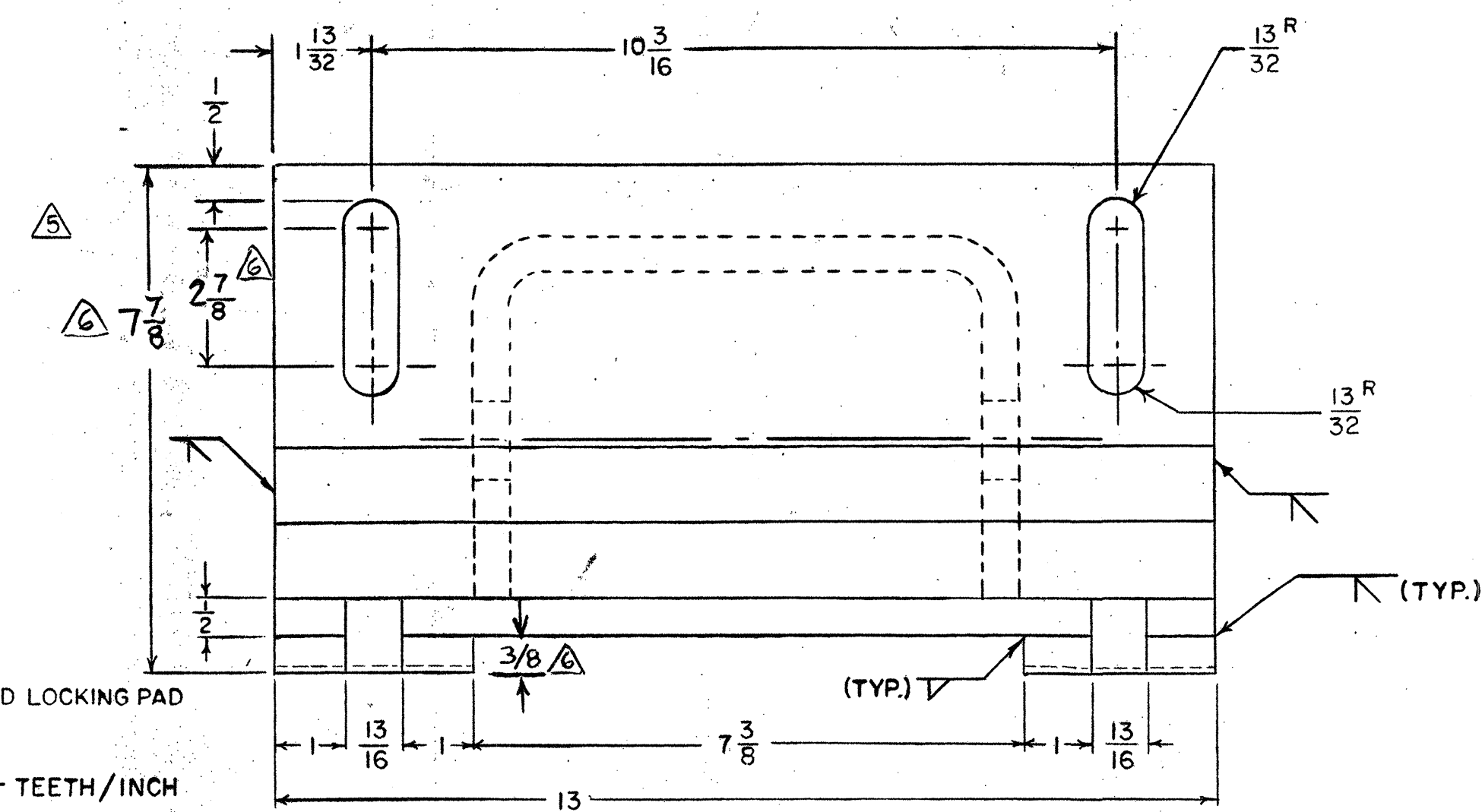
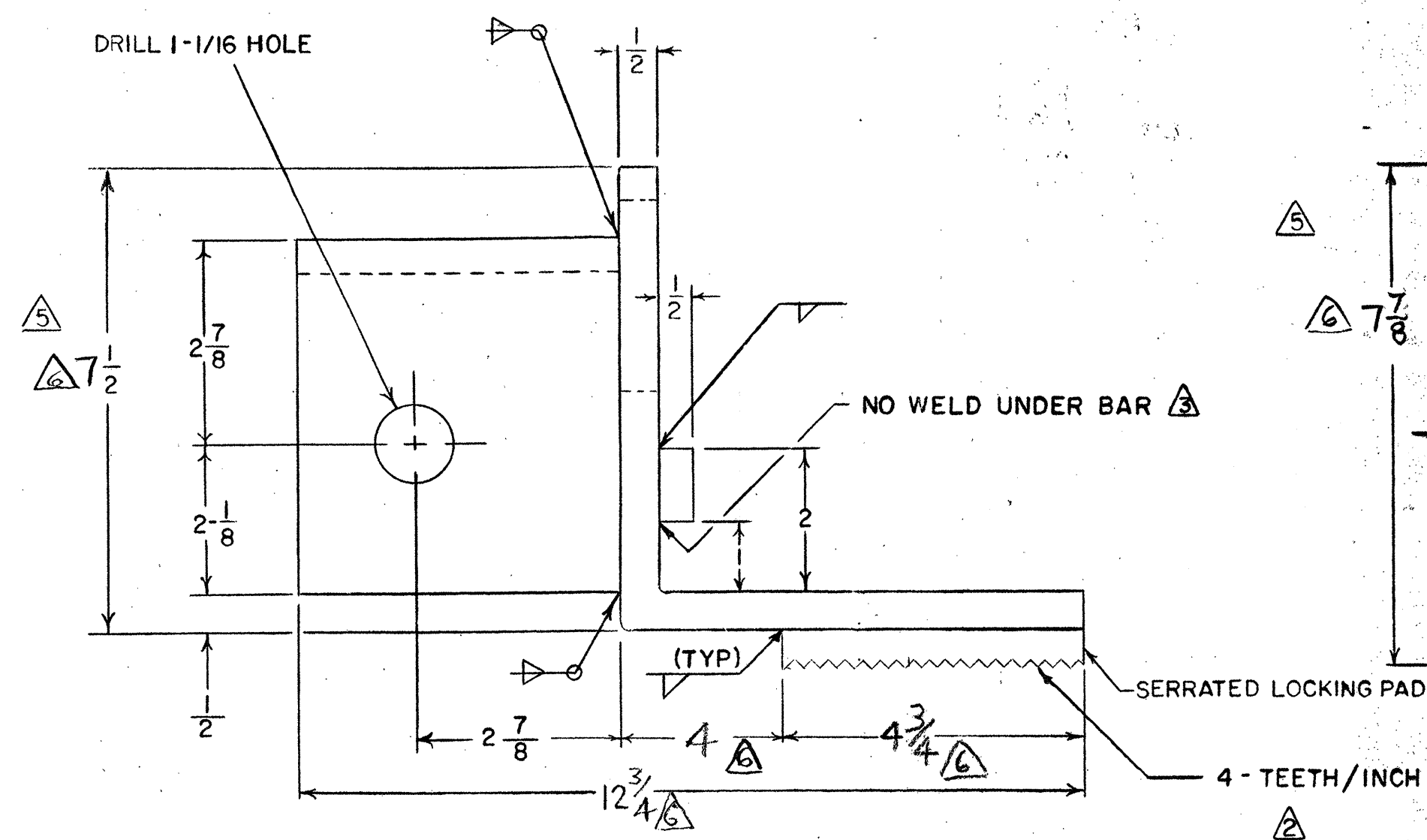
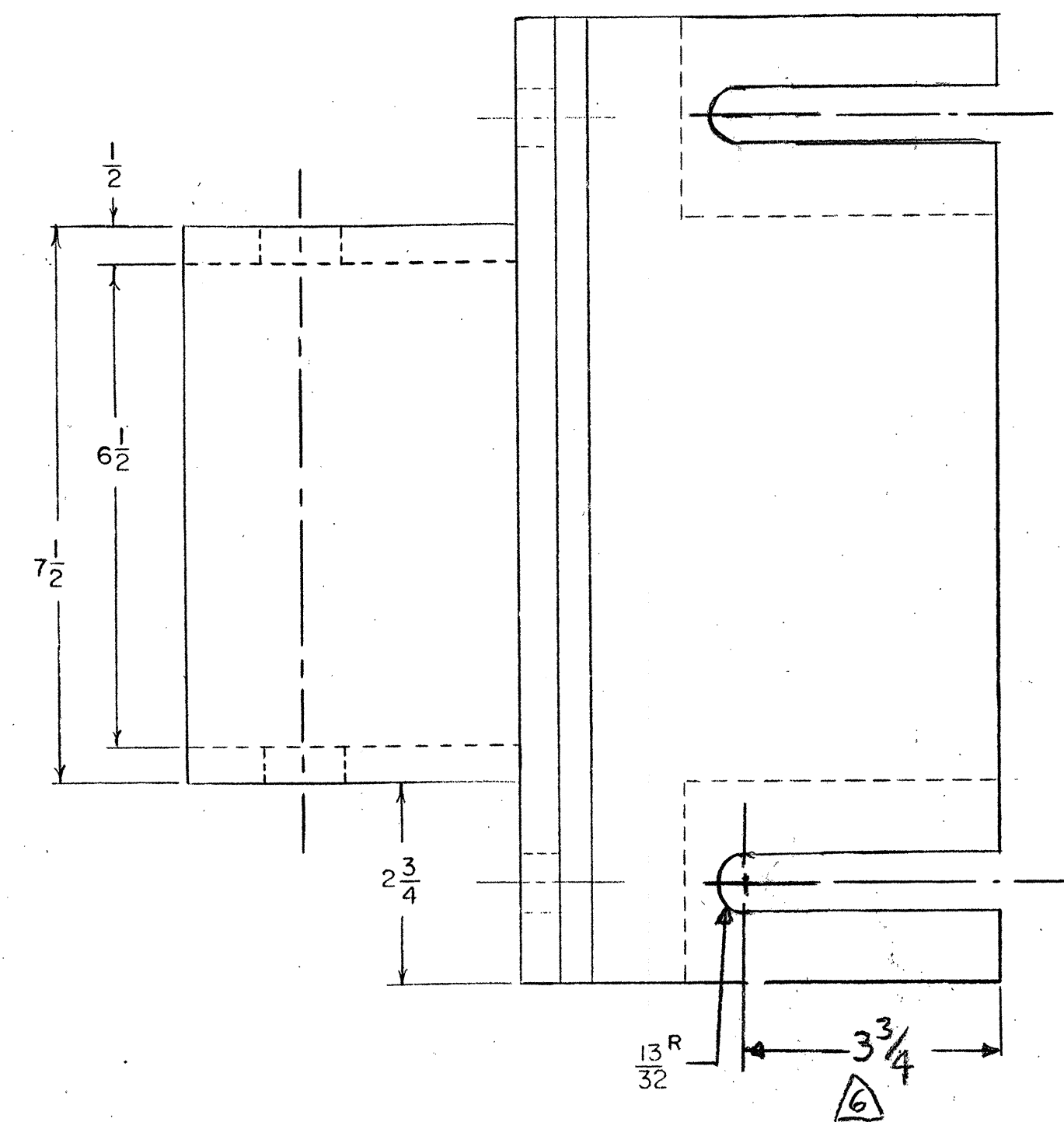


YOKE ASSEMBLY
FOR ADJUSTABLE HITCH
SCALE: 1/2"=1"

MAT'L:

ROUND STOCK — COLD FINISHED CARBON STEEL
 1/2" PLATE — GENERAL PURPOSE STEEL PLATE

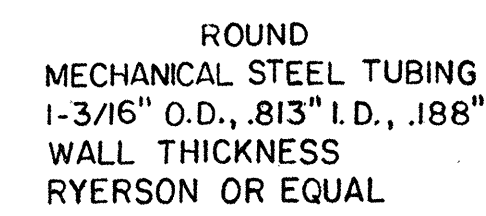
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS	NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
9-92	jwb		ADDED GROUP 4 DIMENSION			ADJUSTABLE EXTENSION AND YOKE ASSEMBLY			
12-28-82	D.L.		CHG. DWG. NO. FROM 4-153			SUBMITTED BY			
3-8-76	A.P.S.		CHG. NOMIN. OF CHANNEL			DRAWN BY			
3-2-76	A.P.S.		ADD TOLERANCES			A.P. SMITH			
7-17-75	K.E.M.		CHANGED NOTE 3			SCALE			
3-12-75	A.P.S.		CHANGED TOLERANCES	77-GHE-0017		AS NOTED			
1-22-74	A.P.S.		CHANGED NAME OF REAR AXLE SUPPORT BEAM TO EXISTING NAME. CHANGED NOTES 1, 2, 3, 8, 4. ADDED WELDS & TYPE OF MAT'L. ADDED NOTE 5.	76-GHE-0009	FITS ALL NJDOT SNOW PLOWS	DATE			
9-20-74	APS		CHANGED DEPTH & WIDTH OF CHANNEL	75-GHE-0049		APR. 9, 1974			
				75-GHE-0045		DWG. NO.			
						4-196-3			



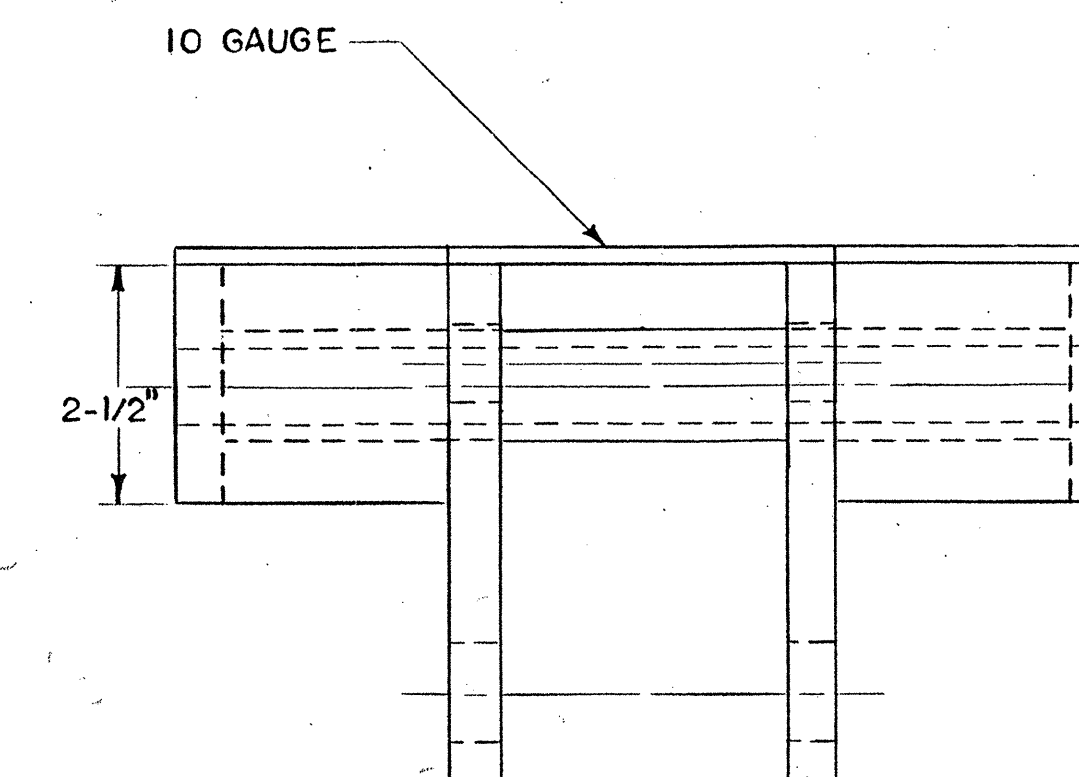
REVISION
Drawn by
Checked by

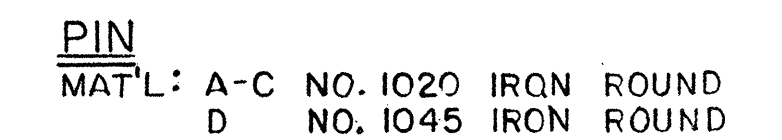
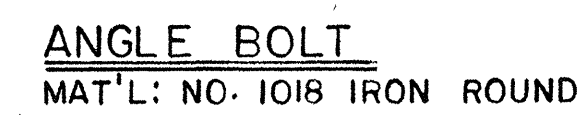
				NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
				AXLE CLAMP			
10-21-96	JWB	CHG. DIMENSIONS					
5-20-84	JWB	CHG. HEIGHT. OF CLAMP					
12-28-82	D.L.	CHG. DWG. NO. FROM 4-136	77-GHE-0017				
12-21-76	A.P.S.	CHG. WELD SYM., ADD NOTE	76-GHE-0009	FITS ALL N.J.DOT SNOW PLOWS	SUBMITTED BY <i>A. J. Cervinka Jr.</i>	DRAWN BY A. J. CERVINKA Jr.	SCALE 1/2" = 1"
11-13-75	A.P.S.	ADDED NO. OF TEETH/INCH	75-GHE-0049		APPROVED BY <i>J. Cervinka</i>	JOB NO. <i>4-196-4</i>	DATE DECEMBER 6, 1973
11-25-74	A.P.S.	ADDED TYPE OF MAT'L & WELDS.	75-GHE-0045				
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS		

State of New Jersey Procurement Bureau

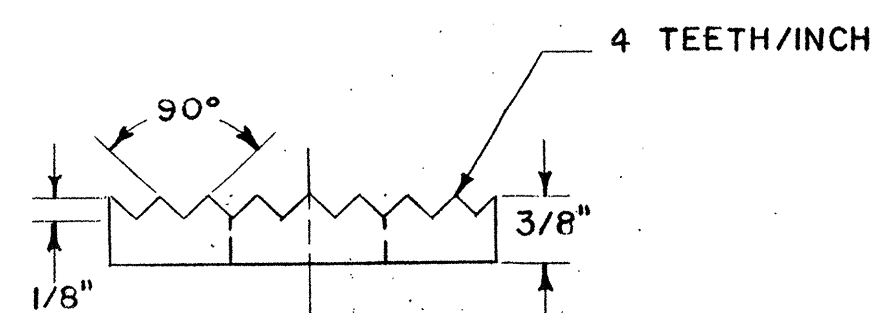
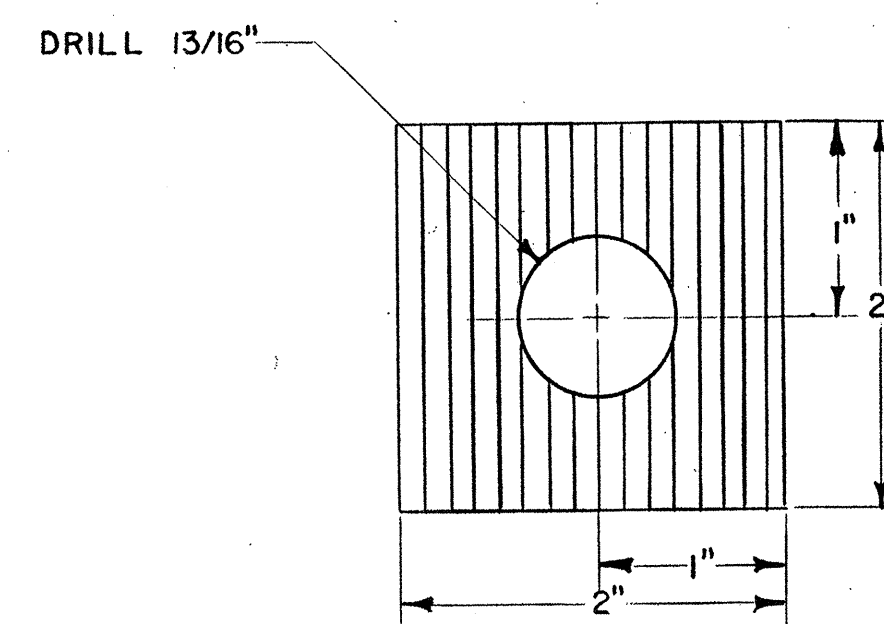


NOTES:
I. COMPLETE ASSEMBLY TO BE WELDED TOGETHER

[illegible]

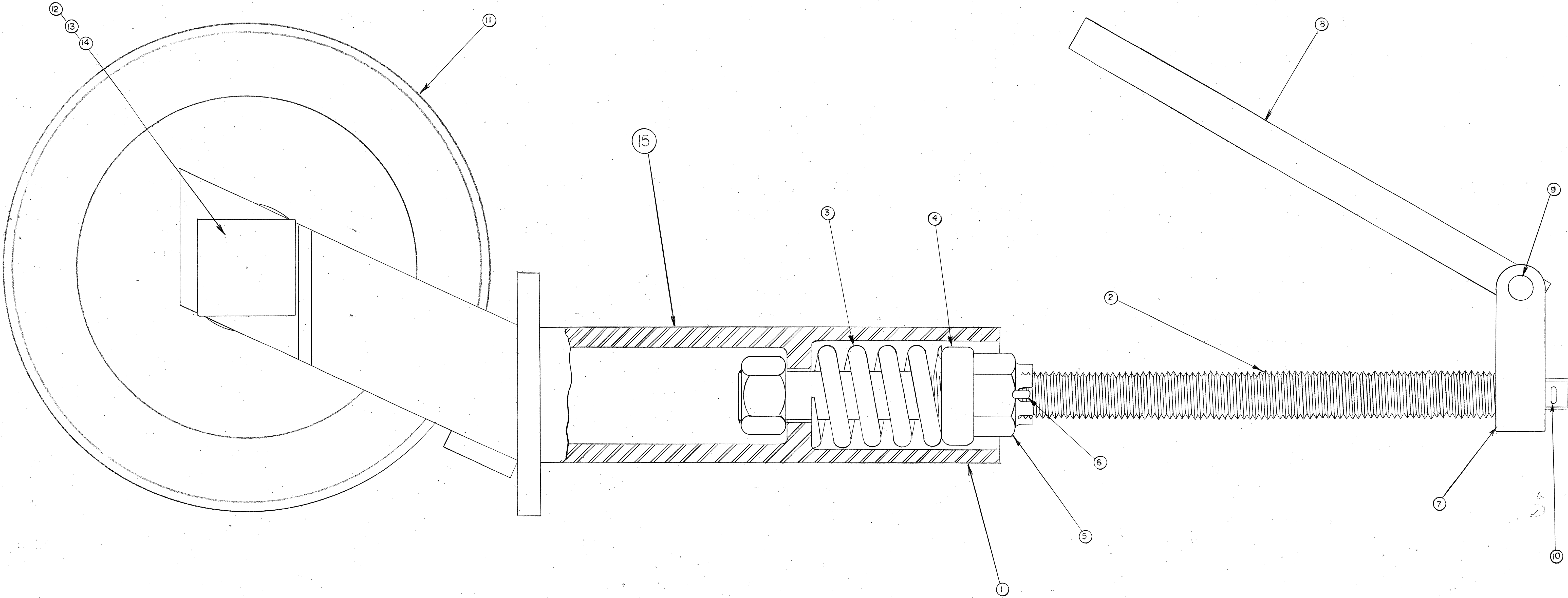


BUTTON HEAD RIVET PIN	DIA.	LENGTH	DIM. C	DIM. D	CHAMFER E 6°	DIM. F	REMARKS
A	3/4"	3-1/2"	2-9/16"	5/32"	19/64" X 50°	1/4"	
B	1/2"	2-1/2"	2-1/16"	5/32"	3/64" X 20°	1/4"	
C	3/4"	5-1/2"	4-5/16"	1/4"	15/16" X 75°	1/4"	
D	1"	3"	2-1/2"	17/64"	7/32" X 60°	3/4"	
E	1"	4"	3-1/2"	17/64"	7/32" X 60°	3/4"	
F	1"	5"	4-5/8"	13/64"	9/64" X 50°	3/4"	
G	1-1/4"	7"	4-3/16"	17/64"	2-1/8" X 80°	1/2"	

[illegible][illegible][illegible]

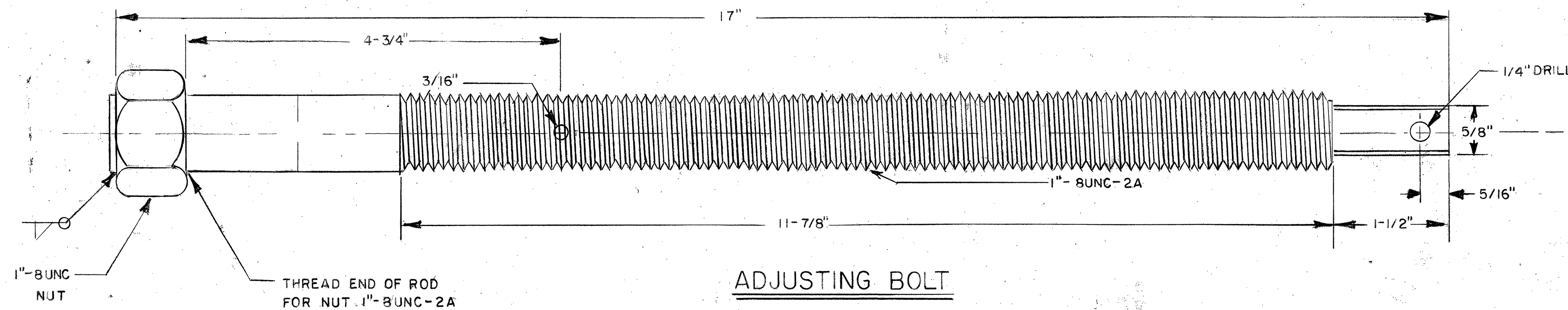
SERRATED LOCKING BLOCK
MAT'L: HOT ROLLED STEEL

						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT					
						MISC. TRUCK HITCH ELEMENTS					
						SUBMITTED BY: A. P. SMITH		DRAWN BY: D. LEUNG		SCALE:	DWG. NO.
						APPROVED BY:		JOB NO.		DATE: 10-4-82	4-196 7
REV	DATE	BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOW						



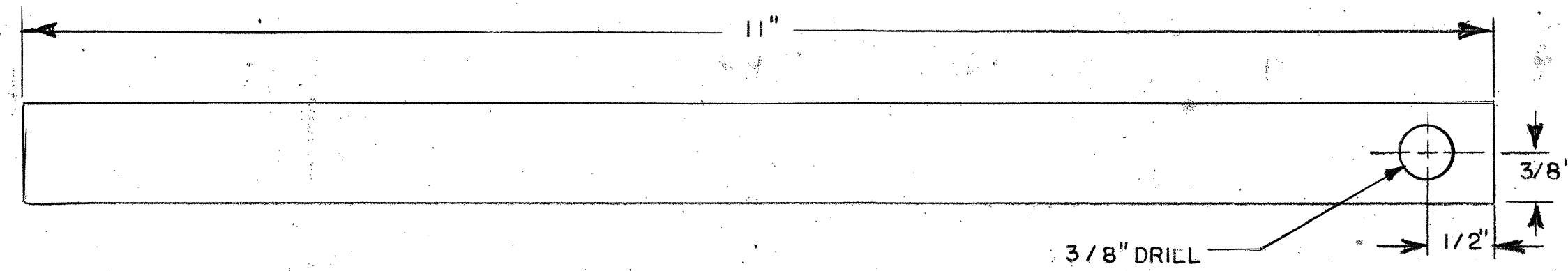
ITEM NO.	NAME	QTY	MAT'L	SIZE
(1)	CASTER STEM	1		SEE DWG. NO. 4-197-3
(2)	ADJUSTING BOLT	1	H.R.S.	" " " 4-197-2
(3)	SPRING	1	SPR. STL.	" " " 4-197-2
(4)	BEARING	1		" " " 4-197-2
(5)	CASTLE HEX NUT	1	STD.	1" X 8 UNC
(6)	COTTER PIN	1	STD.	3/16" X 1-1/2"
(7)	FORK	1	C.R. STL.	SEE DWG. NO. 4-197-2
(8)	HANDLE	1	H.R. STL.	" " " 4-197-2
(9)	RIVET	1	STD.	3/8" X 1-5/8"
(10)	COTTER PIN	1	STD.	1/4" X 1-1/4"
(11)	WHEEL W/BEARING	1		SEE DWG. NO. 4-198
(12)	AXLE	1		SEE DWG. NO. 4-121
(13)	SLOTTED HEX NUT	1	STD.	1-1/8" X 12 UNF
(14)	COTTER PIN	1	STD.	1/4" X 2-1/2"
(15)	COMPLETE CASTER ASSEMBLY			

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
CASTER ASSEMBLY			
SUBMITTED BY	DRAWN BY J.W. BOWMAN	SCALE NONE	DWG. NO. 4-197-1
APPROVED BY	JOB NO.	DATE JUNE 19, 1963	



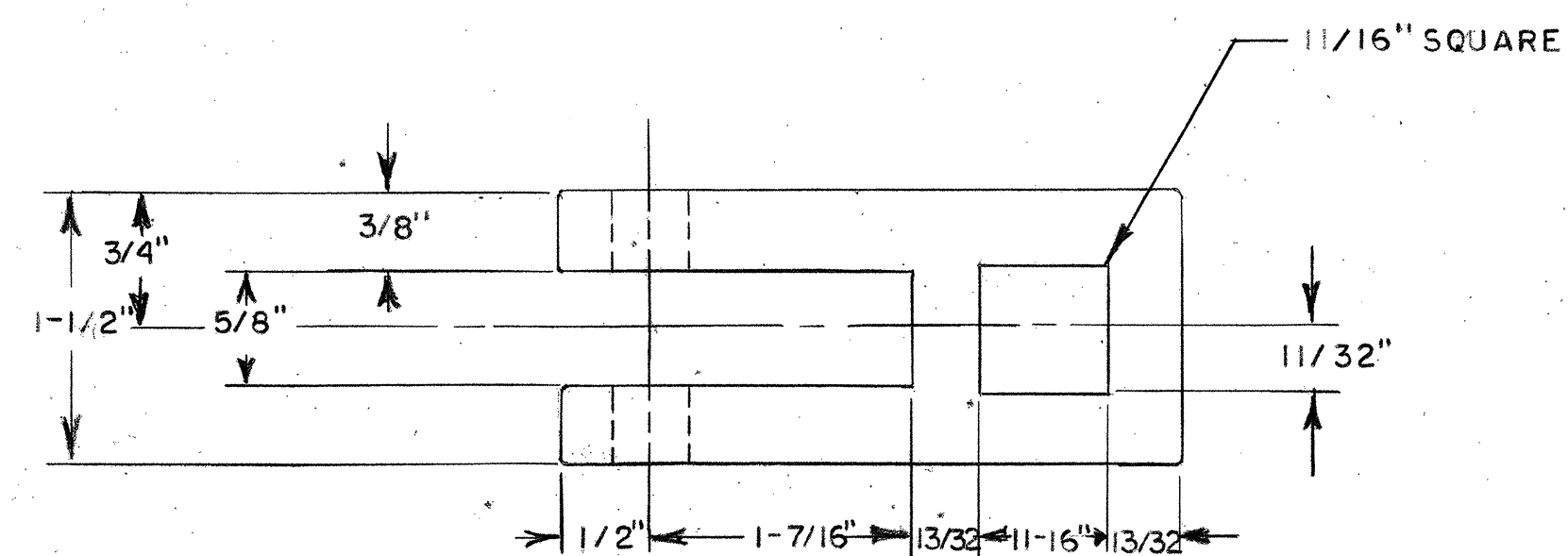
ADJUSTING BOLT

MATERIAL: COLD FINISHED
MEDIUM CARBON STEEL
HEAT TREATED



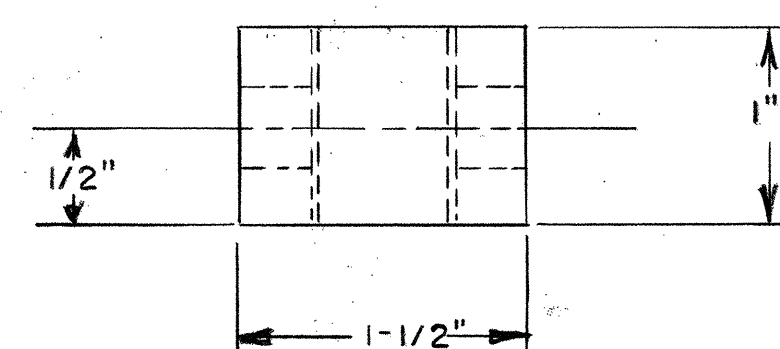
HANDLE

MATERIAL: HOT ROLLED STEEL



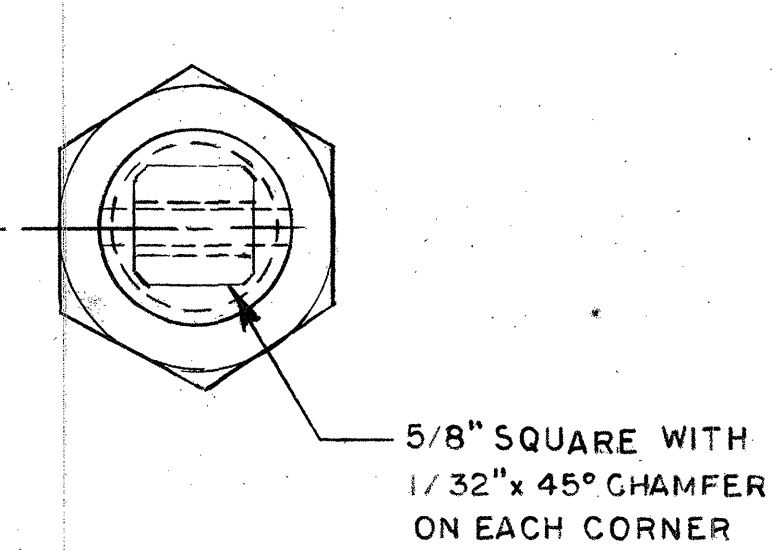
FORK

MATERIAL: COLD FINISHED
MEDIUM CARBON STEEL



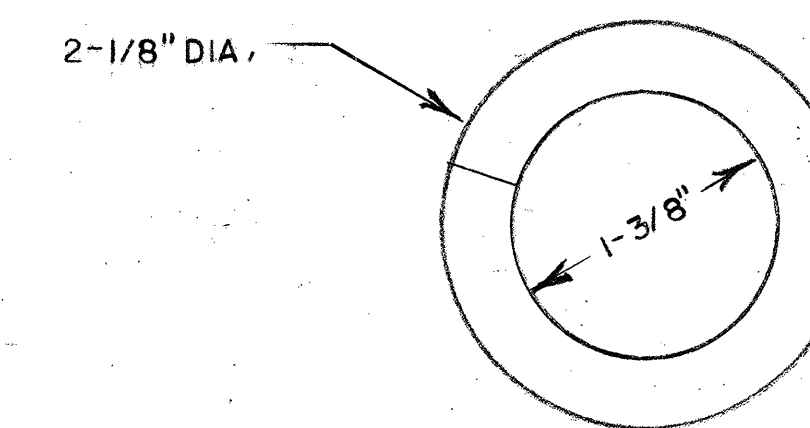
NOTES

1. ALL FILLETS AND ROUNDS UNLESS OTHERWISE
SPECIFIED TO BE 1/8" R.



BEARING

MATERIAL: COLD FINISHED
MEDIUM CARBON STEEL

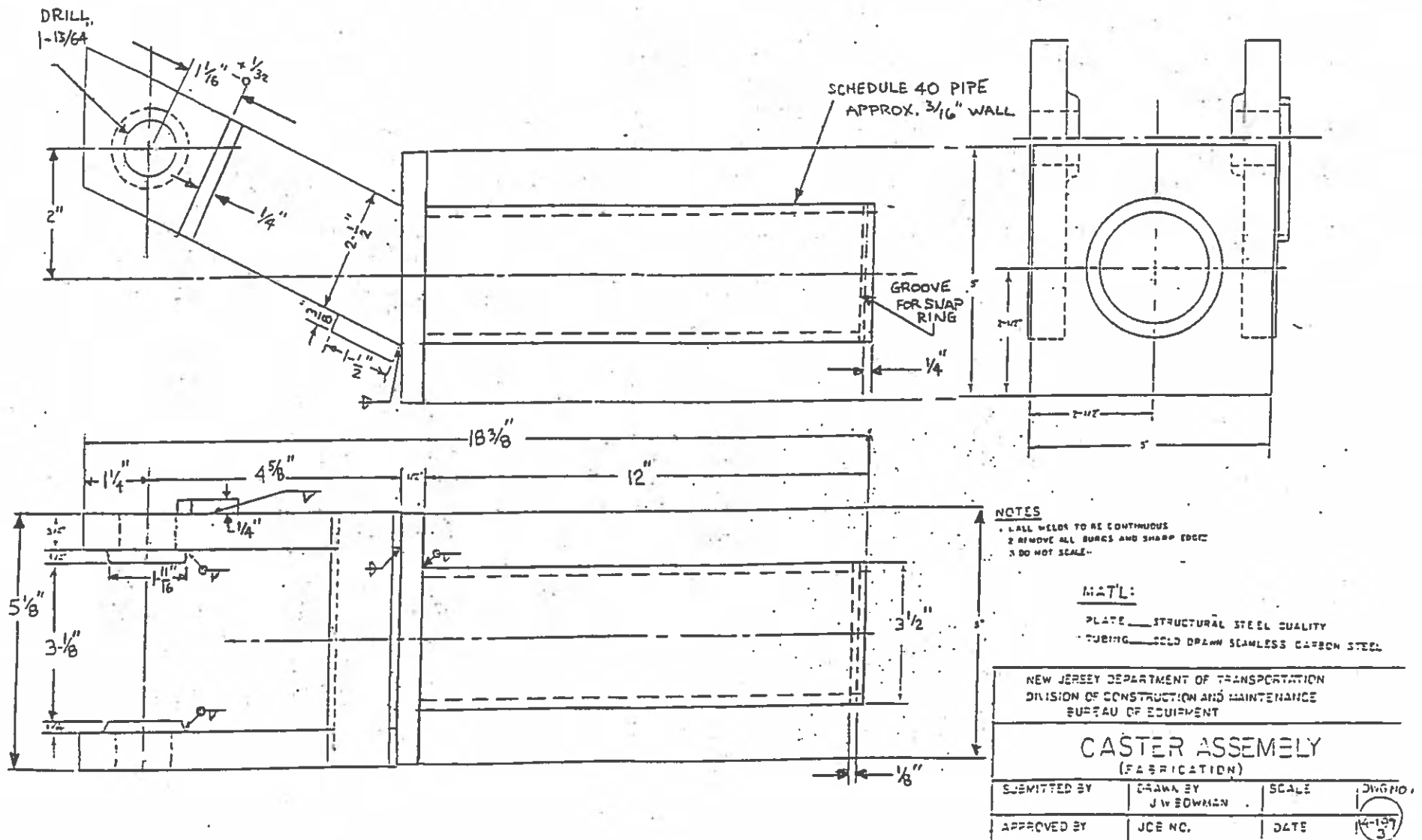


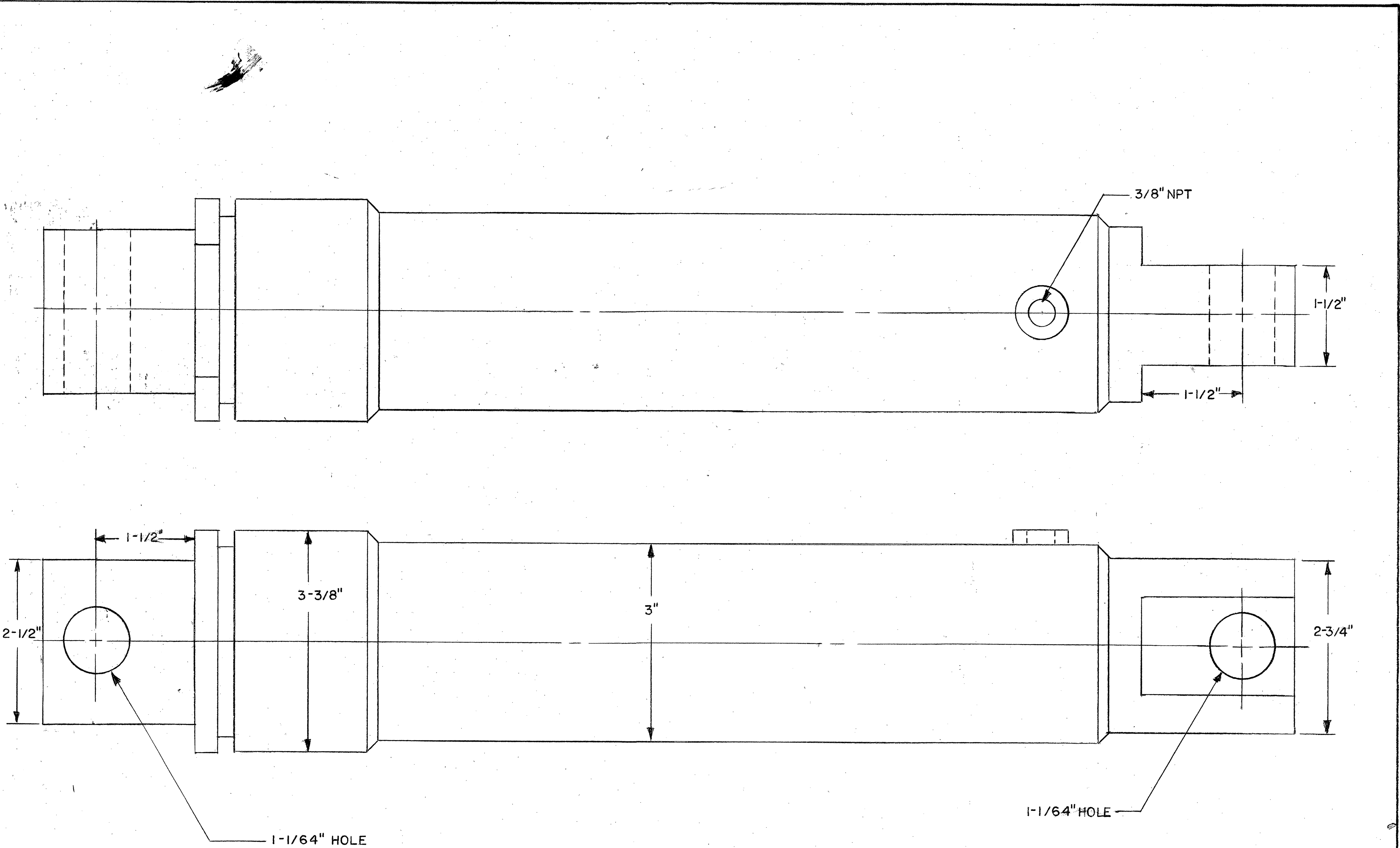
GRIND BOTH ENDS LEVEL

SPRING

MATERIAL: SPRING STEEL

NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
CASTER ASSEMBLY			
SUBMITTED BY	DRAWN BY JW BOWMAN	SCALE FULL	DWG NO. 4-197-2
APPROVED BY	JOB NO.	DATE JUNE 15, 1983	



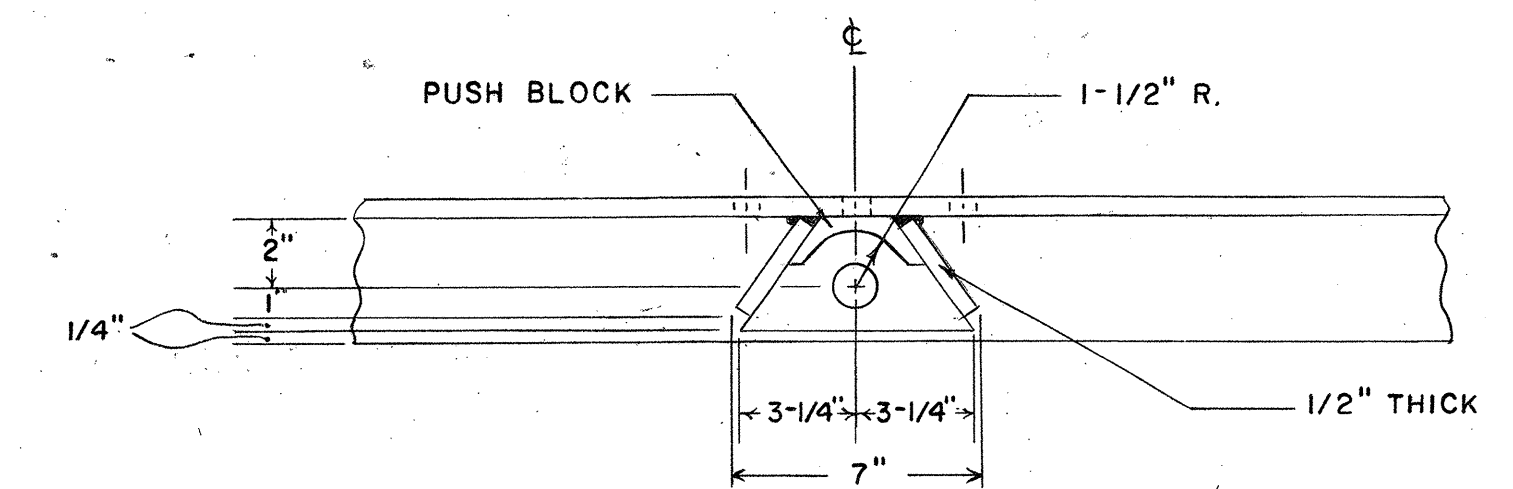


NOTE:
1, CYLINDER TO PROVIDE 10" STROKE
2, ROD TO BE CHROME PLATED
3, MONARCH CS-250 W/MODIFICATIONS SHOWN

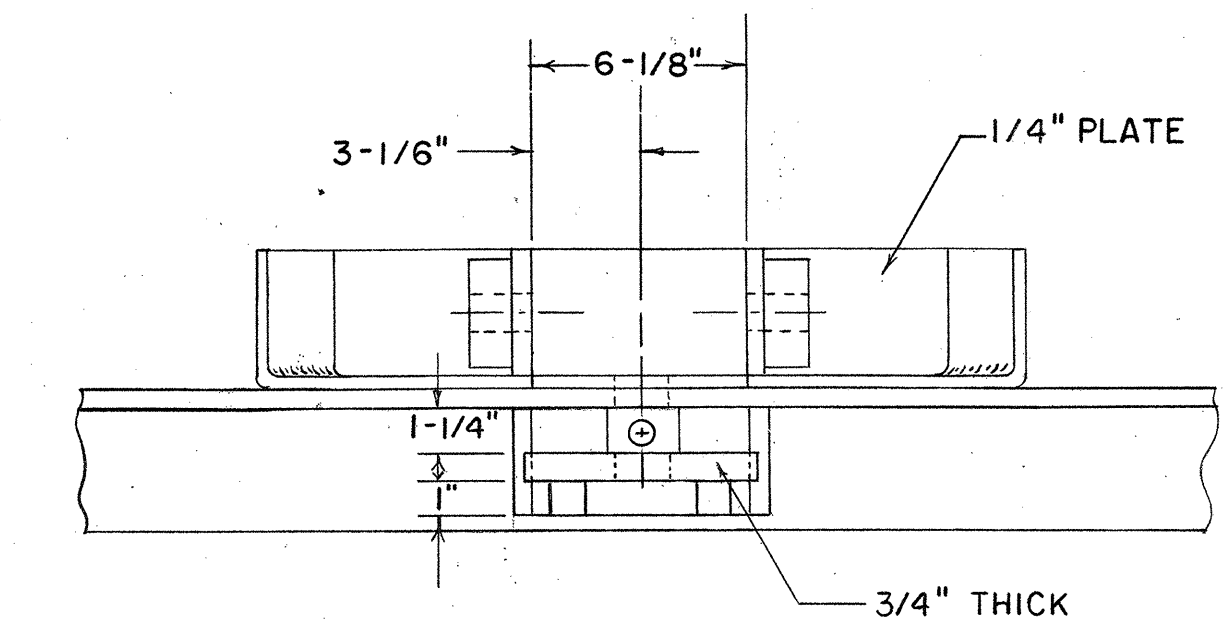
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

SINGLE - ACTING RAM - 2 1/2" ROD & 10" STROKE

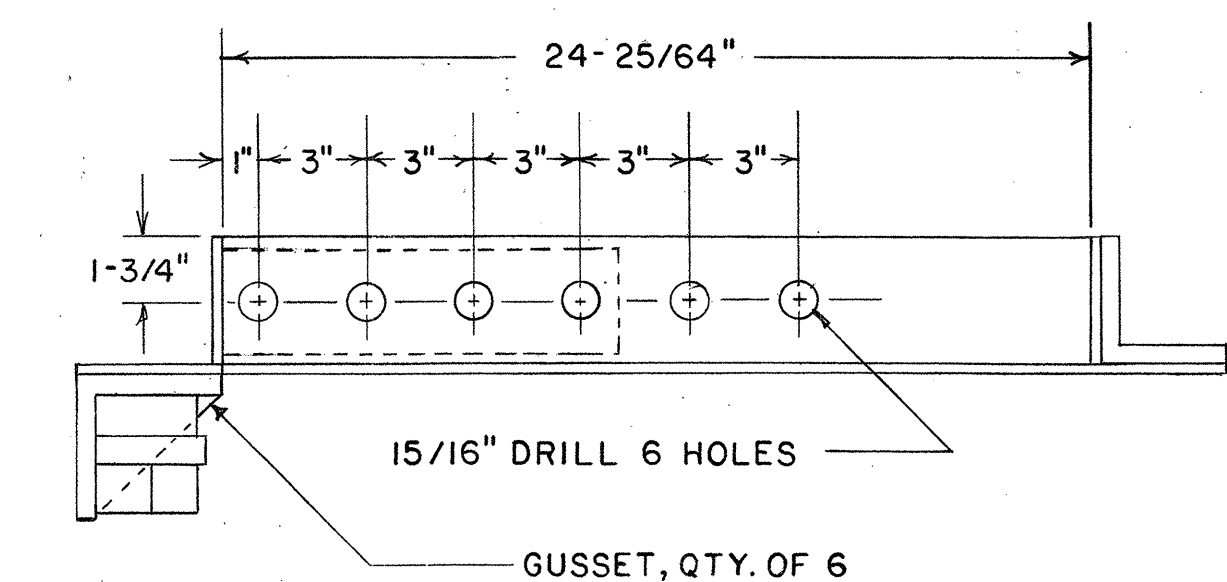
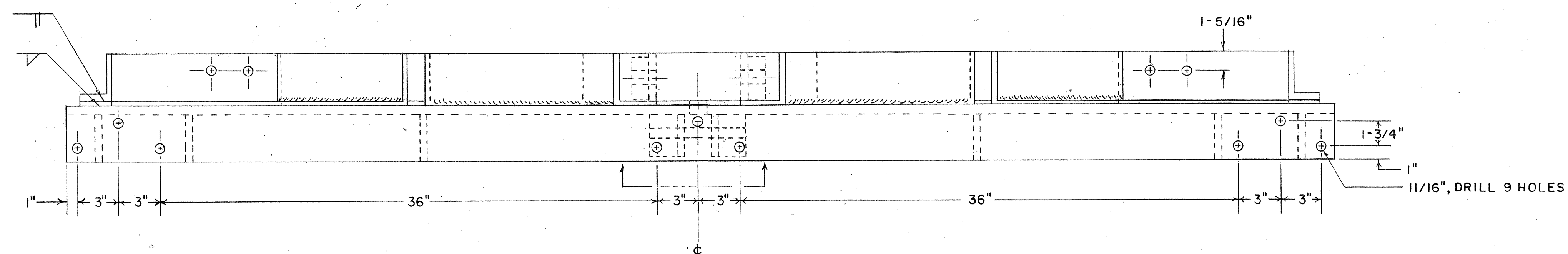
SUBMITTED BY - J.W. BOWMAN	DRAWN BY - J.W. BOWMAN	SCALE - NONE	DWG. NO 4-202
APPROVED BY -	JOB NO. - NONE	DATE - 10-12-84	



BOTTOM VIEW



SECTION B - B

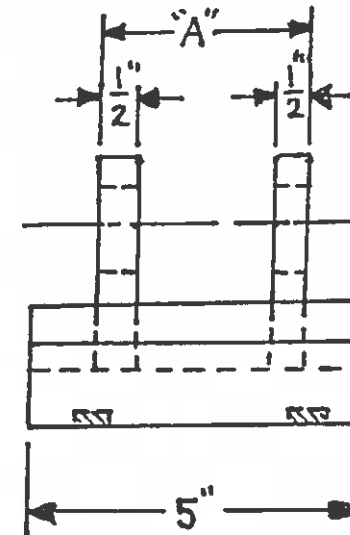


SECTION A-A

NOTES:

1. HOLES TO BE DRILLED WHEREVER CASTER HOUSING BRACKET MAY FALL.
2. CONNECT EYE BAR OF PUSH BAR TO SEMICIRCLE WITH 1-1/4" - 12 UNF x 5" LG. BOLT, SLOTTED NUT AND COTTER PIN.
3. ALL 1/4" AND 1/2" PLATE TO BE STRUCTURAL STEEL QUALITY, CUT AND SHAPED TO SIZE AND WELDED TO FRAME.
4. BOLTS AND NUTS TO BE MINIMUM GRADE 5 CORROSION RESISTANT.
5. SPACER BLOCKS TO BE 3"x1-1/4"x11" STRUCTURAL STEEL QUALITY W/HOLES CENTERED LENGTHWISE. BLOCKS NOT TO BE WELDED TO FRAME, USE ONLY ON O-R. 12.75 - (32,53) - (14.75, 22.75) - I MODEL.
6. EYE BAR MUST BE CAPABLE OF ANGLING AT LEAST 82° WHEN ATTACHED TO PUSH BLOCK SECTION.
7. GUSSETS TO BE WELDED INTO PLACE W/FILLET WELDS.
8. ALL WELDS TO BE CONTINUOUS.

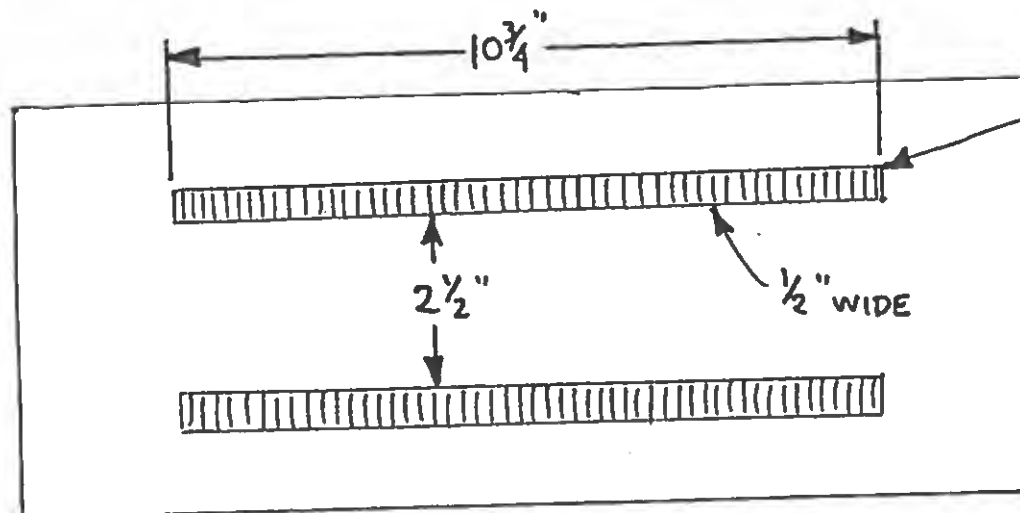
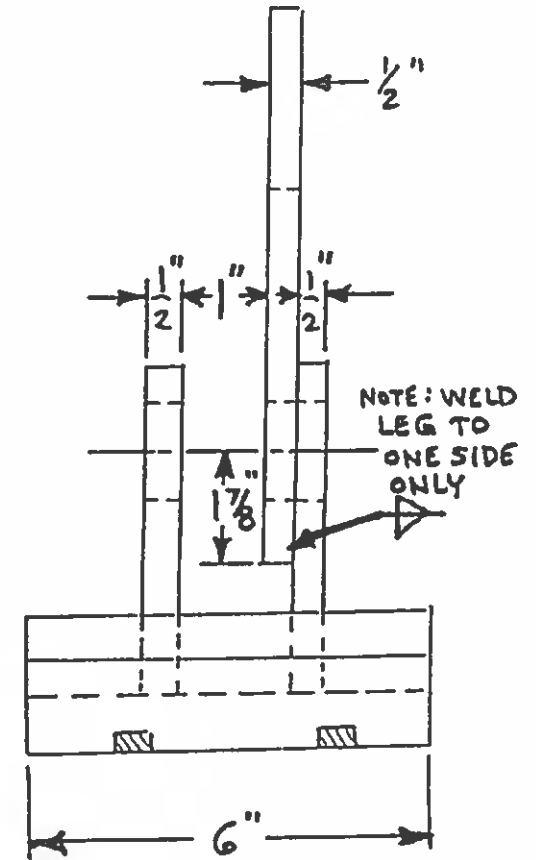
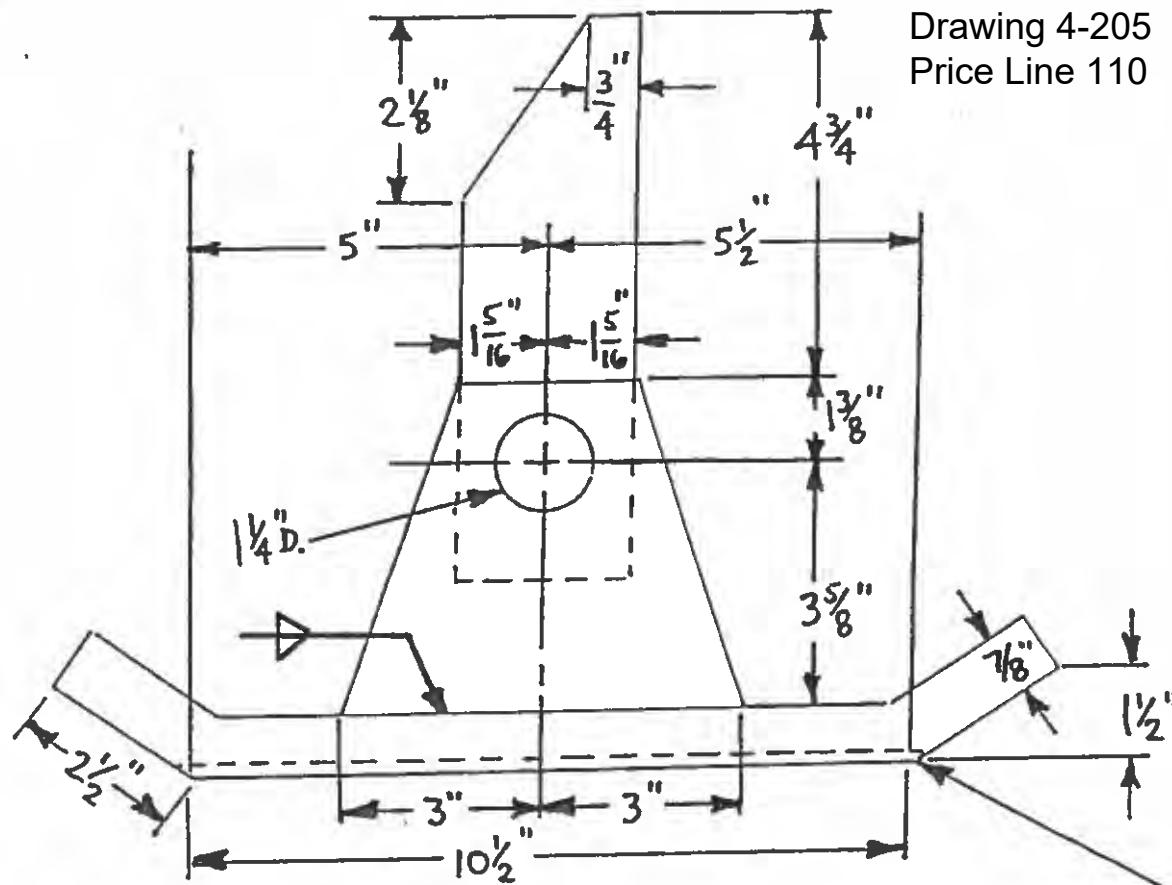
					NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
					LARGE SEMICIRCLE			
△	9/4/95	JWB	ADDED GUSSETS	O-R. II.25-(24,42)-(13,18)-I MOD.	SUBMITTED BY-	DRAWN BY- A.P. SMITH	SCALE- 3/16" = 1"	
△	9/1/87	APS	ADD WELD	M.R.10 - 32 - 15-I MOD.				
△	4/2/87	APS	ADD NOTE & HIDDEN LINE	M.R.II - 36 - 15-I	APPROVED BY-	JOB NO. _____	DATE- MARCH 6,1985	
△	10/85	A.P.S.	ADD DIM.	O-R.12.75 -(32,53)-(14.75,22.75)-I				
REV	DATE	BY	REMARKS	APPLICABLE SNOW PLOWS				



DIM. "A"	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$
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SNOW PLOW SHOE

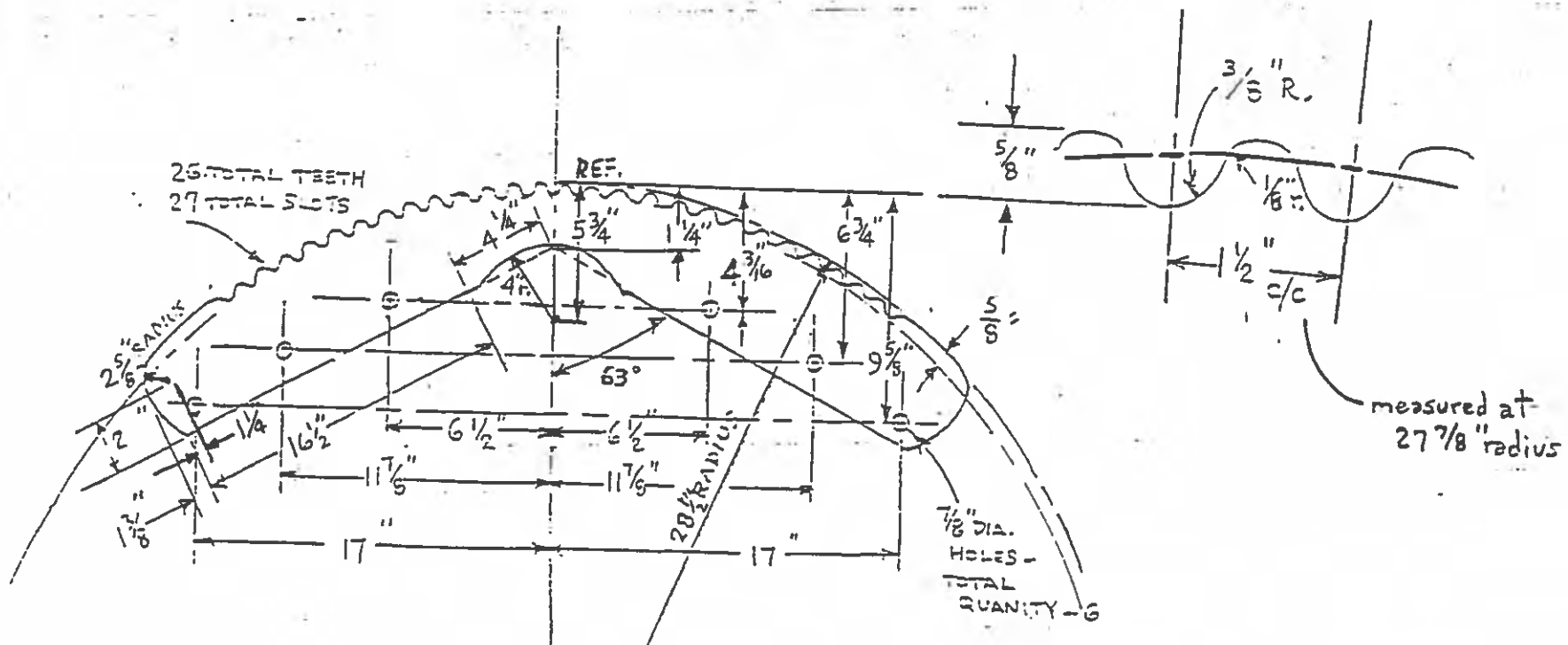
DRAWN BY: John B. ... | DWG. NO.: 4-204



NOTE: TUNGSTEN CARBIDE TO BE 3/8" THICK, RECESSED INTO BOTTOM OF SHOE - NO EXPOSED EDGES
 SEE SPECS IN CONTRACT FOR CARBIDE INSERTS

NEW JERSEY DEPT. OF TRANSPORTATION	
6" SNOW PLOW SHOE : with EXTENDED LEG	
DRAWN BY: J. BOWMAN	DWG. NO.: 4-205
SCALE: 3/8" = 1"	DATE: 4/30/90

24DPP01035
 Drawing 4-207-A
 Price Line 120



NOTE: CALL N.J.D.O.T.
 for TEMPLATE

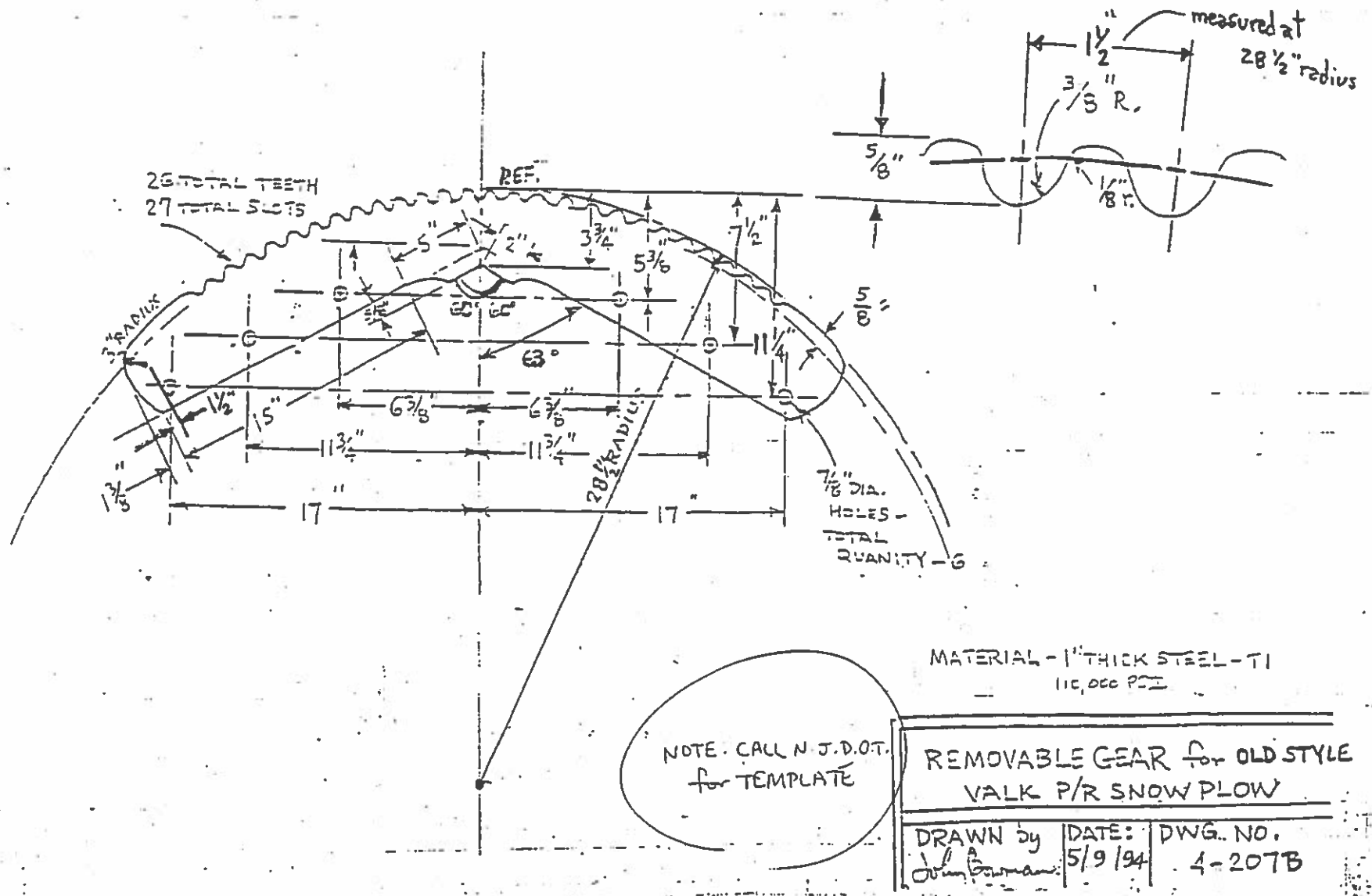
MATERIAL - 1" THICK STEEL - T1
 110,000 PSI

REMOVABLE GEAR for WR 1137 VALK P/R SNOW PLOW		
DRAWN by John Gorman	DATE: 5/9/94	DWG. NO. 4-207A

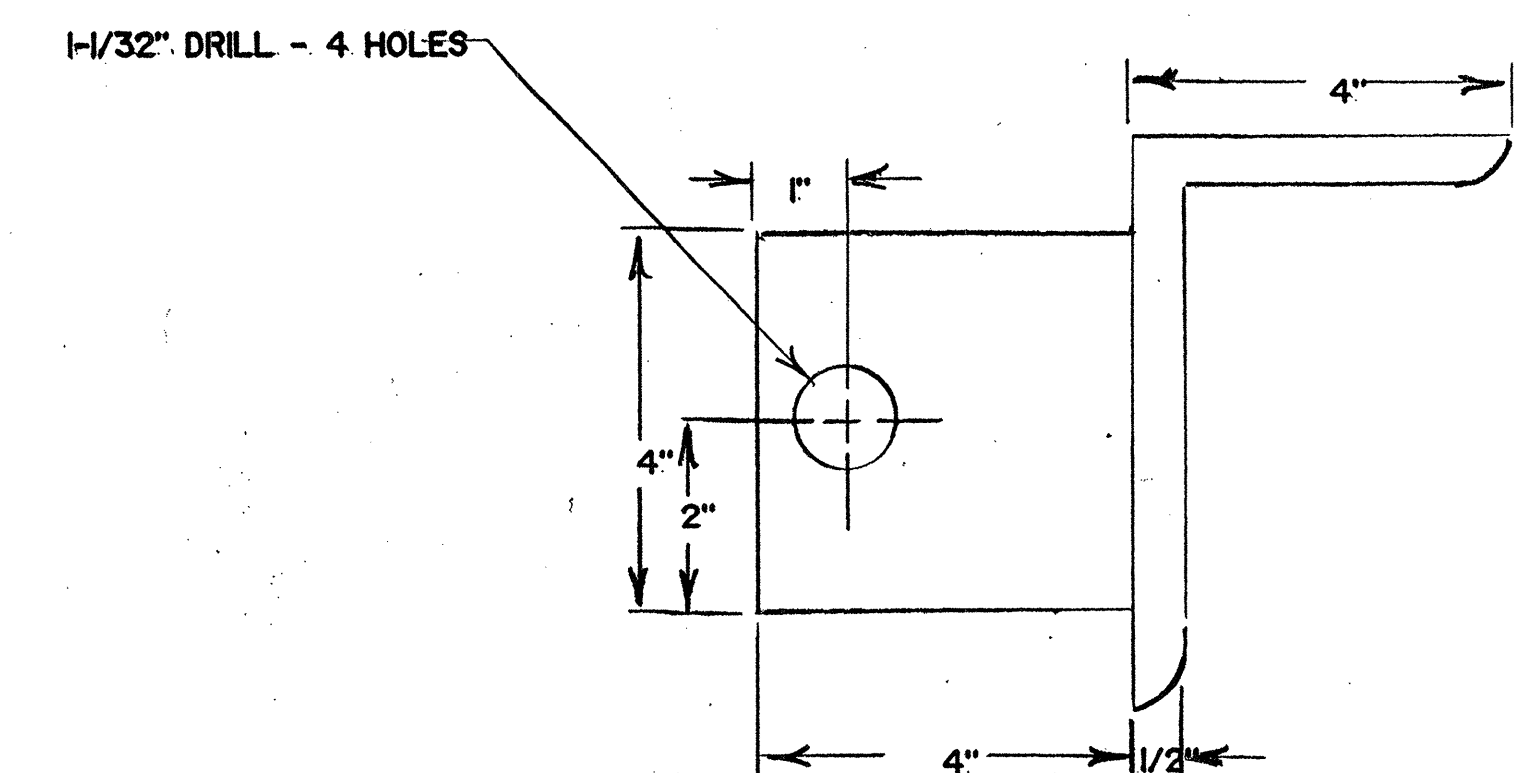
24DPP01035

Drawing 4-207-B

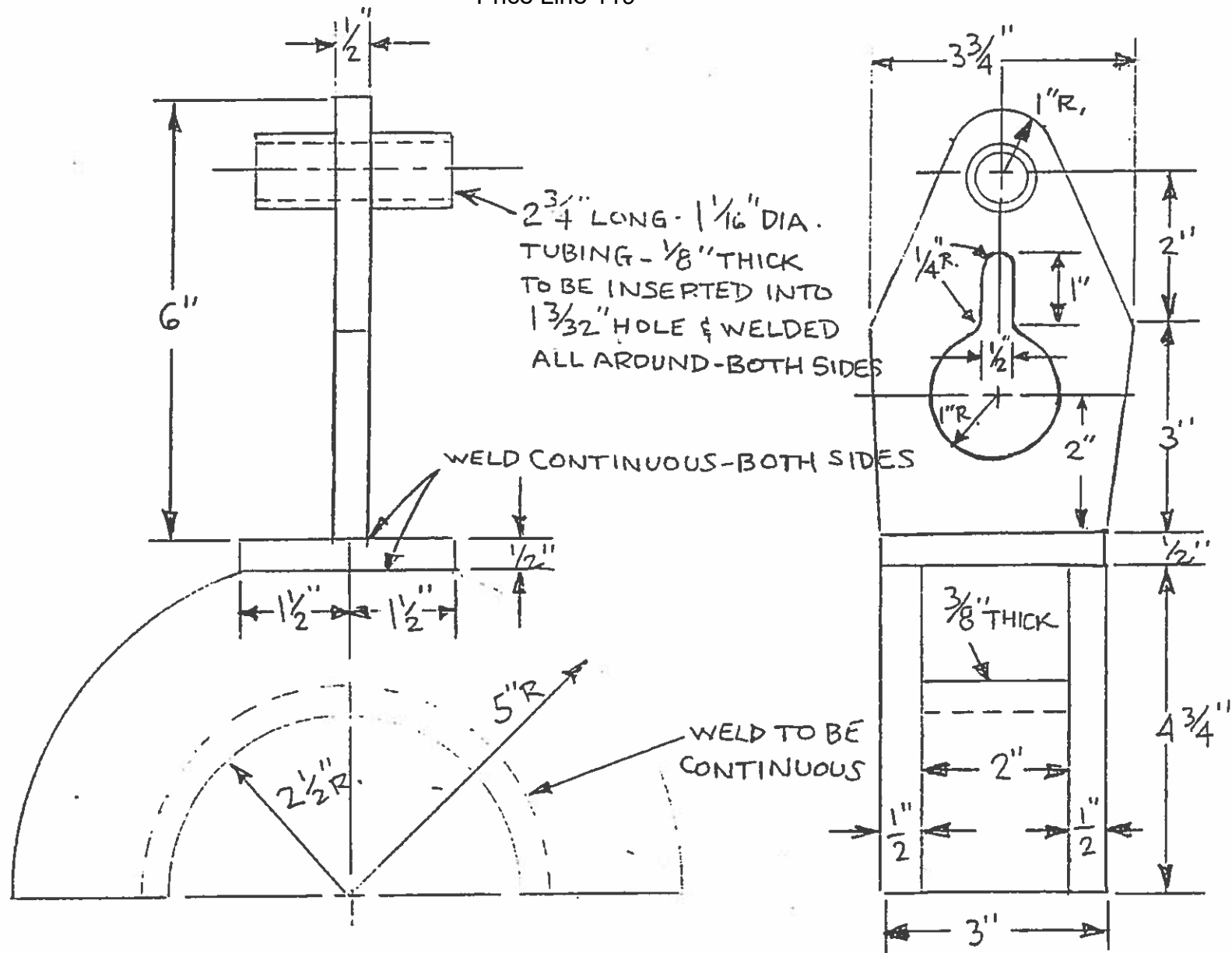
Price Line 120



State of New Jersey Procurement Bureau

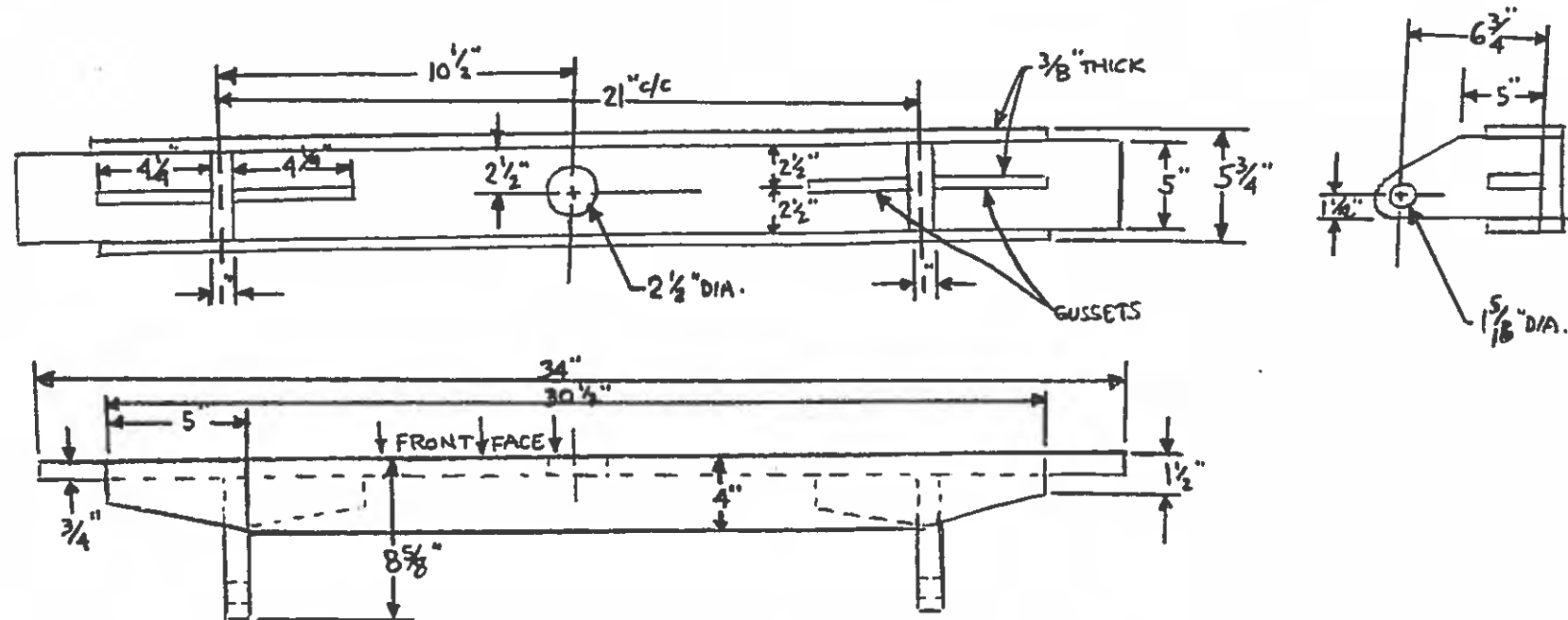


						NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
						CONTRACTOR'S BUMPER ANGLE			
						SUBMITTED BY: J W BOWMAN	DRAWN BY: J W BOWMAN	SCALE: 1/2"=1'	DWG. NO. 4-208
REV	DATE	BY	REMARKS	ORDER REQUEST NO	APPLICABLE PLOWS	APPROVED BY:	JOB NO.	DATE: 9-6-91	



REV		REV.		JWB	NEW JERSEY DEPT. OF TRAN
2		1	DELETE CHAIN	4-209	LIFT CHAIN BLOCK-
	ADDED HOLE		HOLE, ADD WELDING	SCALE 1/2" = 1"	POWER REVERSING PLOW

24DPP01035
Drawing 4-211
Price Line 114



NOTE: ALL WELDS TO BE ALL-AROUND, CONTINUOUS
EXCEPT NO WELDS ON FRONT FACE

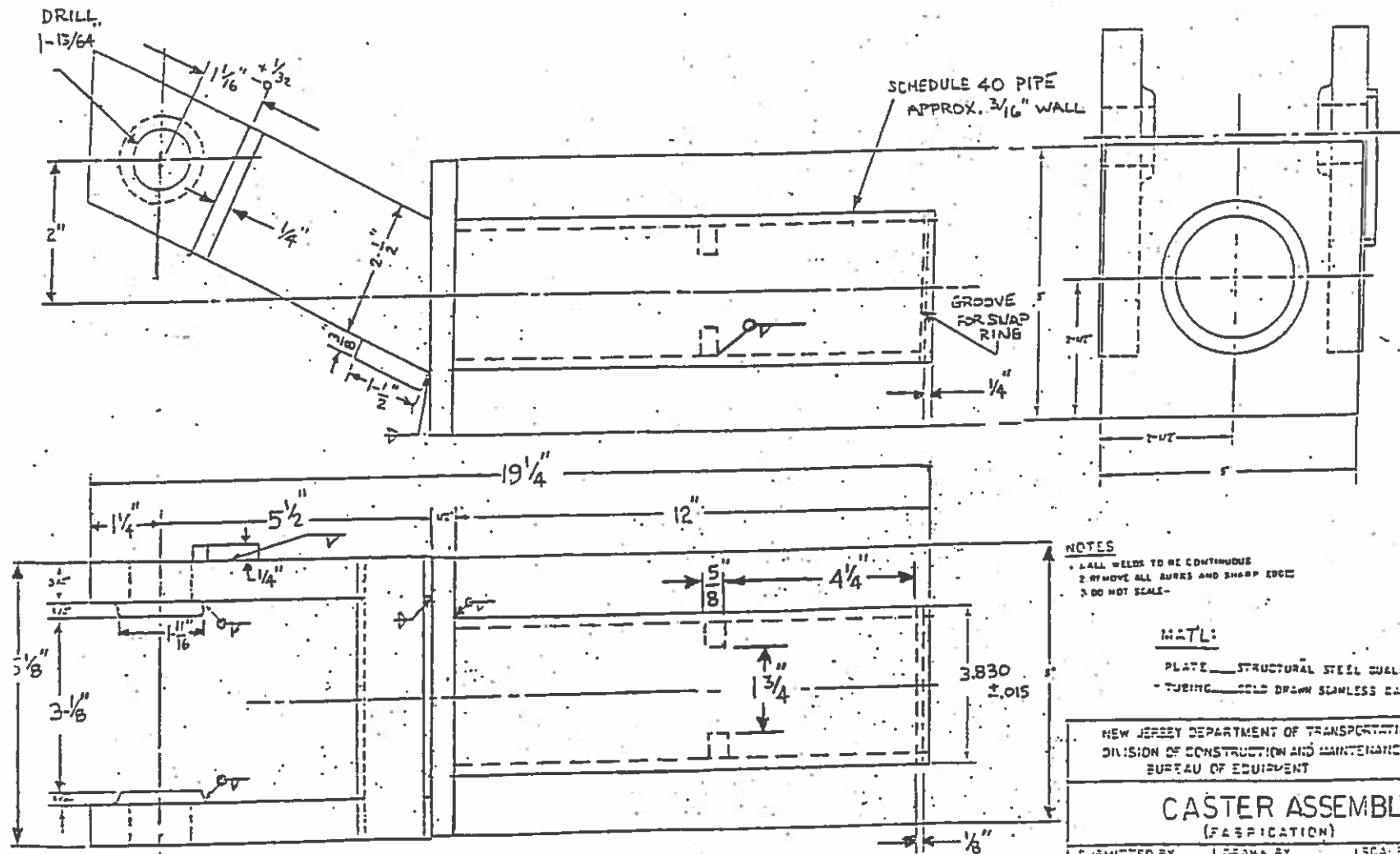
MATERIAL: HOT ROLLED
STRUCTURAL STEEL

NEW JERSEY DEPARTMENT OF TRANSPORTATION		
OSCILLATING DRIVE BAR POWER-REVERSING		
DRAWN by JWB	DATE: 5/9/94	DWG. NO 4-211

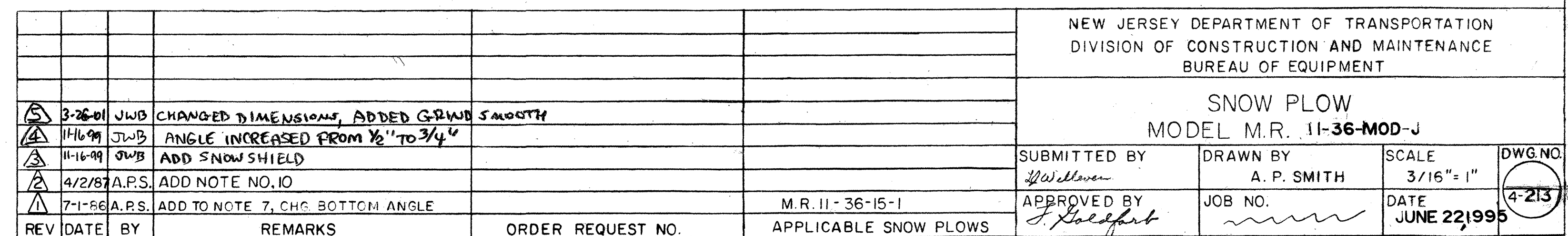
24DPP01035

Drawing 4-212

Price Line 125



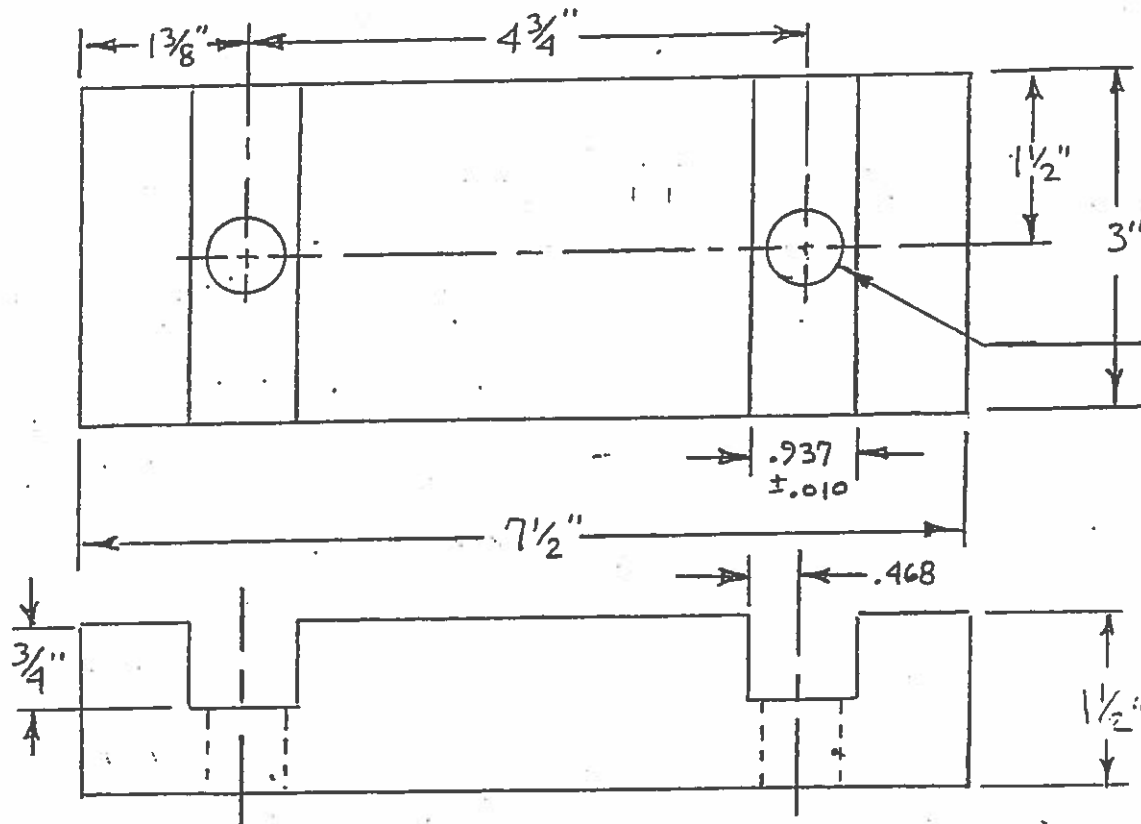
1. THIS DRAWING SUPERSEDES DWG. NO. 4-126.
2. ALL VERTICAL RIBS 1/2"x2-1/2" STRUCTURAL STEEL QUALITY PLATE.
3. MOLDBOARD SKIN TO BE 3/16" STRUCTURAL STEEL QUALITY PLATE, SMOOTH ROLLED OR BRAKE FORMED.
4. MOLDBOARD SKIN TO EXTEND TO BOTTOM EDGE OF FRONT ANGLE, SKIN EDGE - TACK WELD ONLY.
5. BLADE TO BE HIGH CARBON ABRASIVE RESISTANT STEEL.
6. FLARE FOR CARBIDE EDGE (BLADE) SEE N.J.D.O.T. BUR. OF EQUIP. DWG. NO. 4-113.
7. BLADE TO BE ATTACHED TO MOLDBOARD W/5/8"x11 UNC x 2" CARRIAGE BOLTS, NUTS & LOCKWASHERS (N/A LAST 2 BOLTS ON EACH SIDE).
8. BOLT HOLES IN RIBS FOR ATTACHING MOLDBOARD HINGE TO BE SPACED APART 1-3/4".
9. ALL WELDS TO BE 3/16" MIN.
10. HOLES IN BOTTOM BLADE ANGLE TO BE DRILLED 5/8" DIA.
11. 14 GUSSETS: 2"x2-1/4"x3/16" STEEL WELDED TO RIBS
12. DRILL FIVE (5) HOLES - 9/16" DIA TO MATE WITH SNOW SHIELD
13. SNOW SHIELD TO BE ATTACHED WITH 1/2" BOLTS and NUTS





- NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

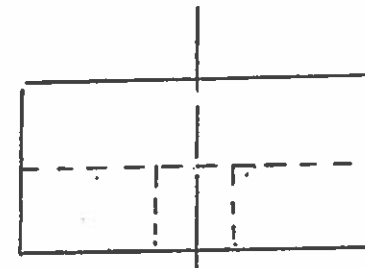
REV 2			SUBMITTED BY <i>[Signature]</i>	DRAWN BY <i>JWB</i>	SCALE NONE	DWG. NO. 9-214
REV 1			APPROVED BY	JOB NO.	DATE 9/1/95	



NOTES

1. ALL SHARP EDGES AND BURRS TO BE REMOVED.
2. FASTEN CURB BUMPERS TO MOLDBOARD W/ $5/8"$ X 11 UNC BOLTS, NUTS AND LOCKWASHERS.
3. FASTEN WRAP AROUND TO MOLDBOARD W/ $5/8"$ X 11 UNC X $2\frac{1}{2}"$ CARRIAGE BOLTS, NUTS, LOCKWASHERS.

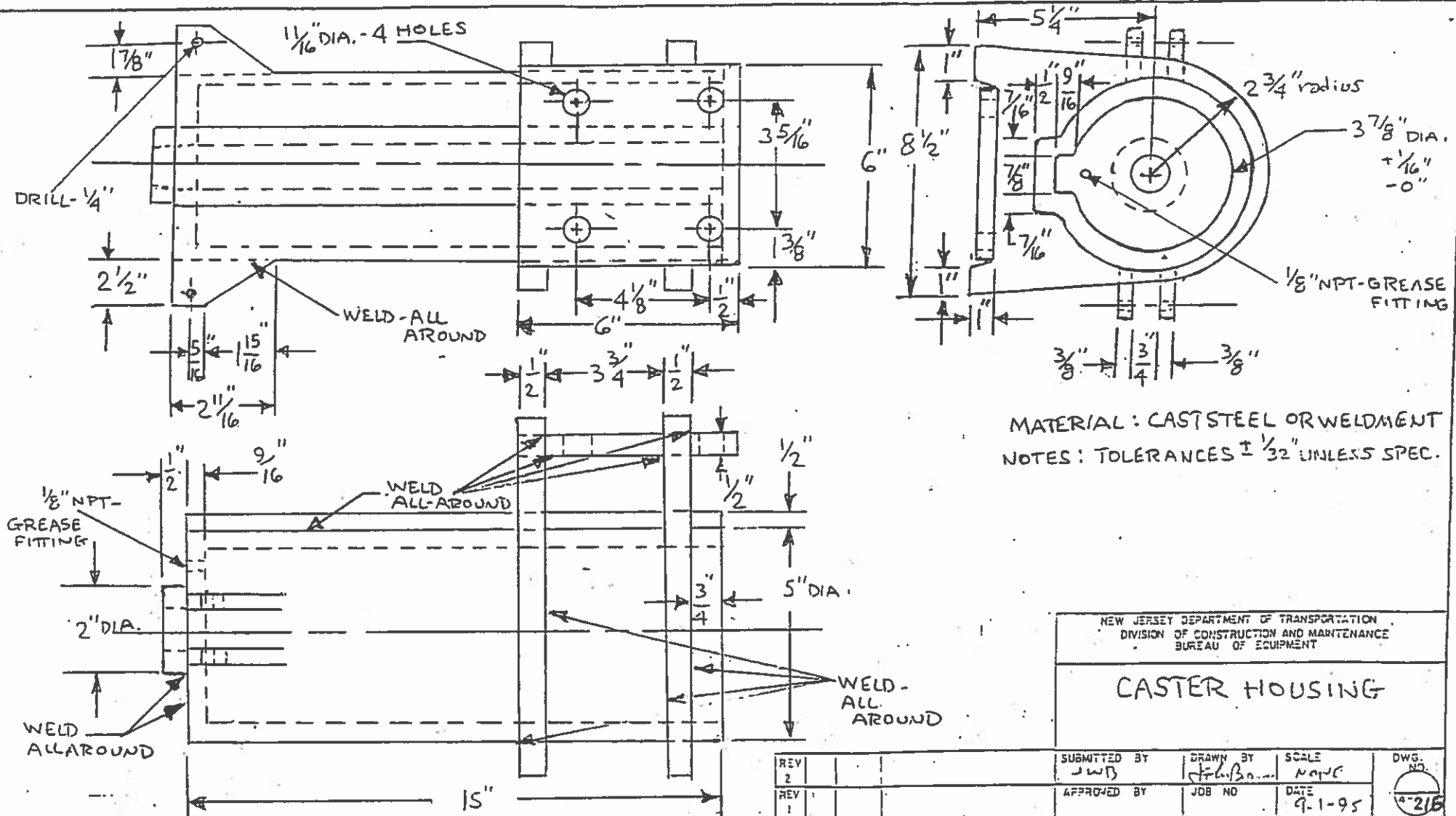
MATERIAL: MEDIUM CARBON STEEL



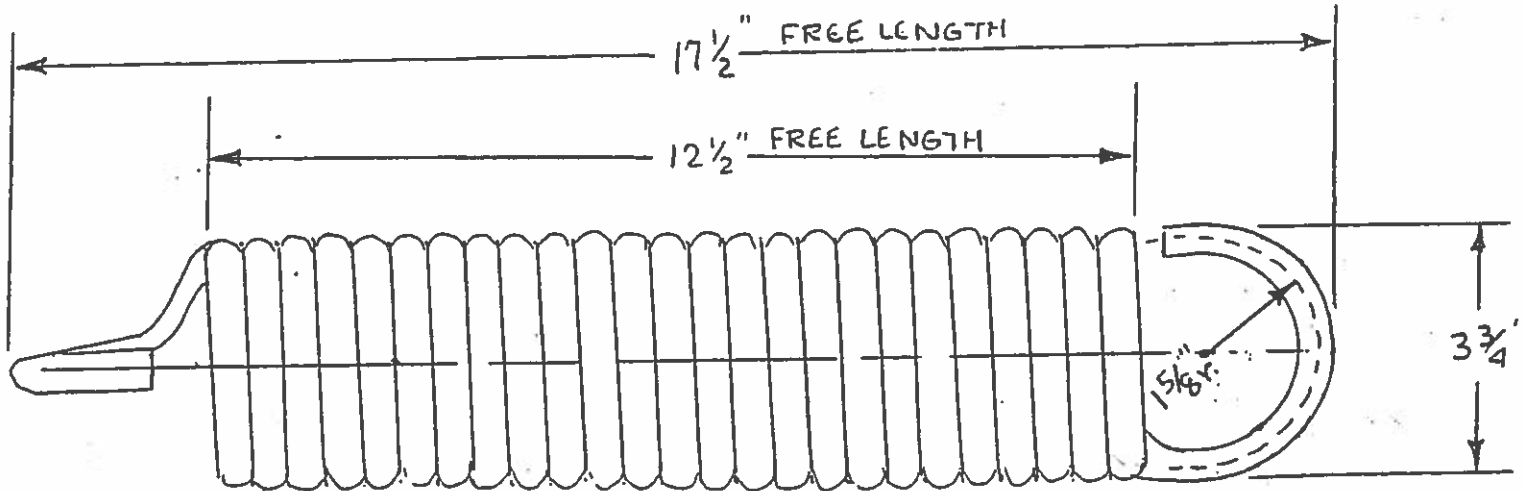
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

CURB BUMPER

REV 2		SUBMITTED BY <i>John Brown</i>	DRAWN BY <i>dwg</i>	SCALE NONE	DWG. NO. 4-215
REV 1		APPROVED BY	JOB NO	DATE 9/1/95	



24DPP01035
Drawing 4-217
Price Line 128



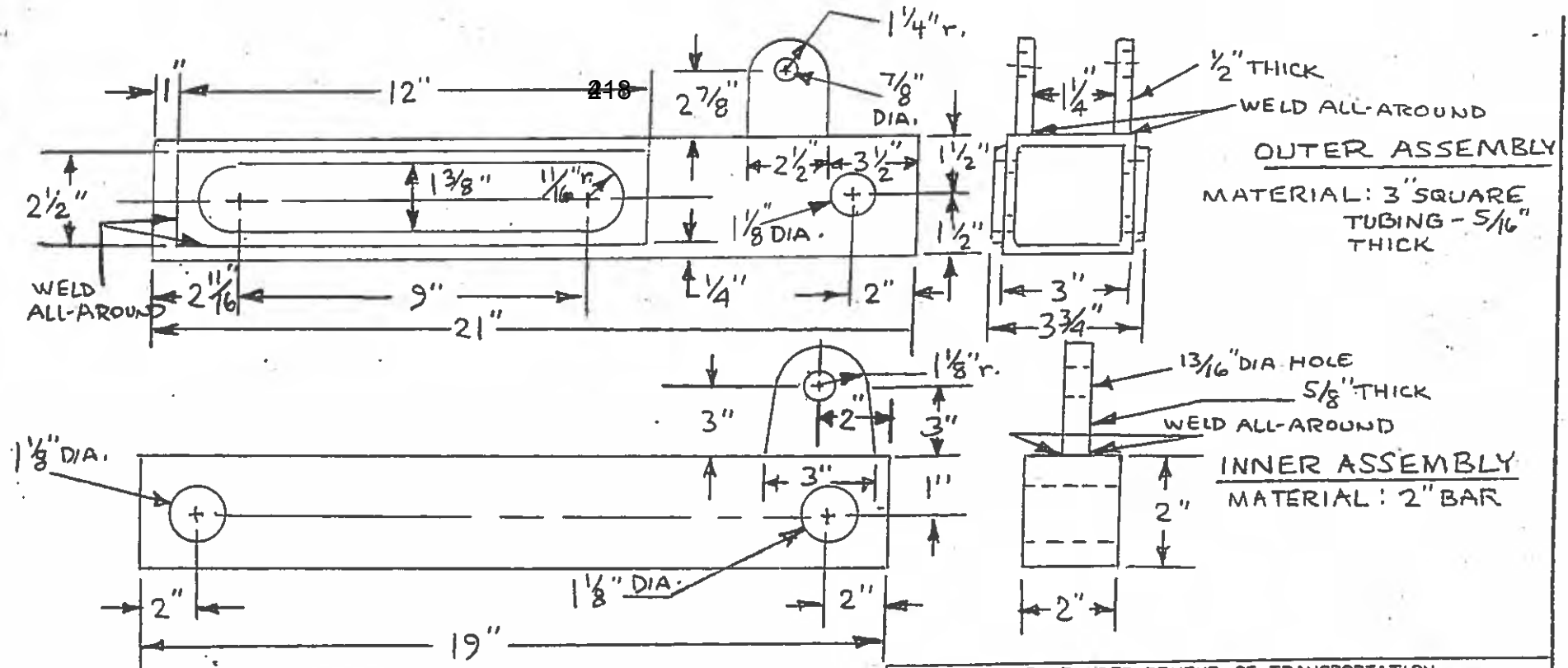
NO. OF COILS: 25
DIA. OF WIRE: 1/2"

MATERIAL: ASTM-A229 STEEL WIRE,
OIL TEMPERED

NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

EXTERNAL COIL
TRIP SPRING

REV			SUBMITTED BY	DRAWN BY	SCALE	DWG.
2			J BOWMAN	JWB	NONE	4-217
REV			APPROVED BY	JOB NO	DATE	
1					8-31-95	



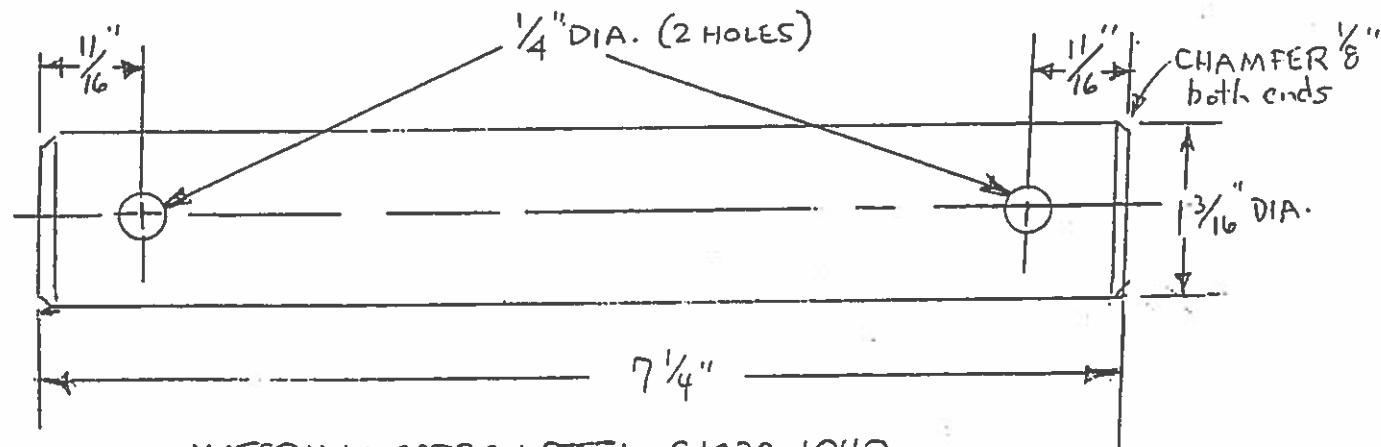
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

TRIP LIMITER- INNER & OUTER

REV 2				SUBMITTED BY <i>John Brown</i>	DRAWN BY <i>EWB</i>	SCALE NONE	DWG. NO. 4-218
REV 1				APPROVED BY	JOB NO	DATE 8-31-95	

24DPP01035
Drawing 4-219
Price Line 123

State of New Jersey Procurement Bureau

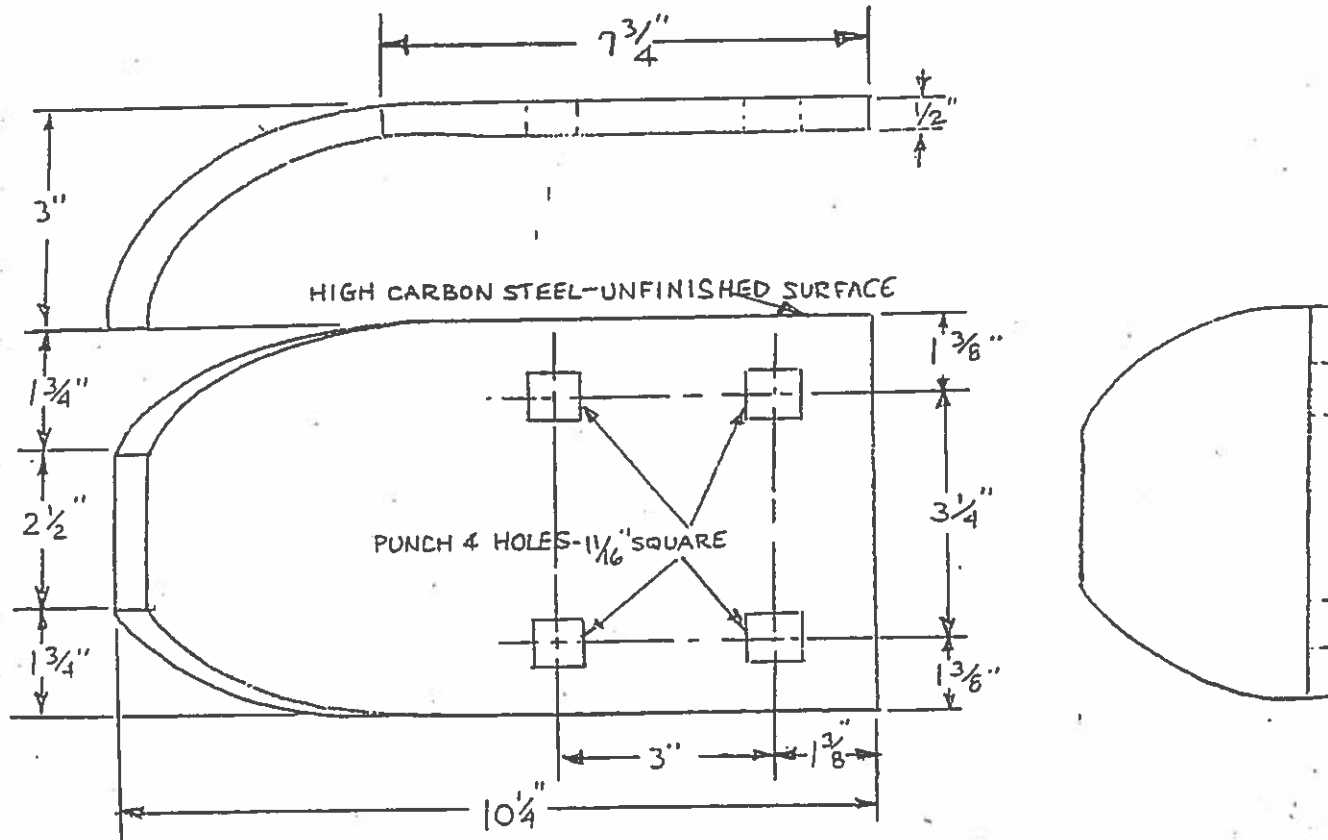


MATERIAL: CARBON STEEL C1020-1040

NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

AXLE-PIN TYPE

REV 2				SUBMITTED BY <i>John (Lynn)</i>	DRAWN BY <i>JWB</i>	SCALE FULL	DWG. NO.
REV 1				APPROVED BY	JOB NO	DATE 9-1-95	4-219



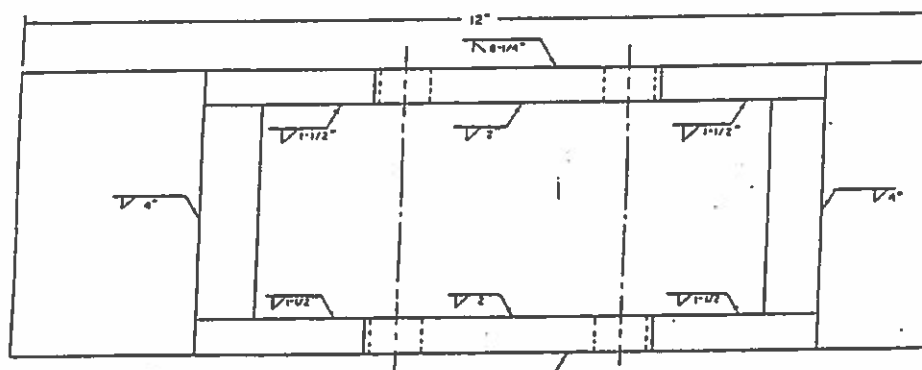
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

UNIVERSAL WRAP AROUND

REV			SUBMITTED BY	DRAWN BY	SCALE	DWG.
2			John Brown	JWB	NONE	4-220
REV			APPROVED BY	JOB NO	DATE	
1					8-71-95	

24DPP01035
 Drawing 4-221
 Price Line 27 and 140

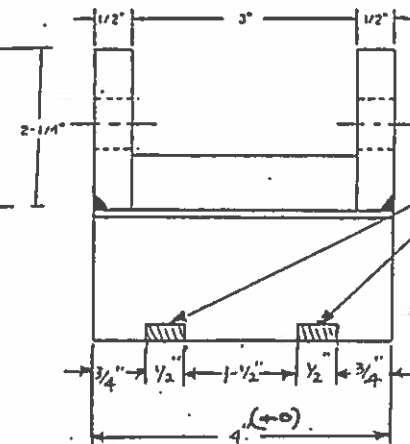
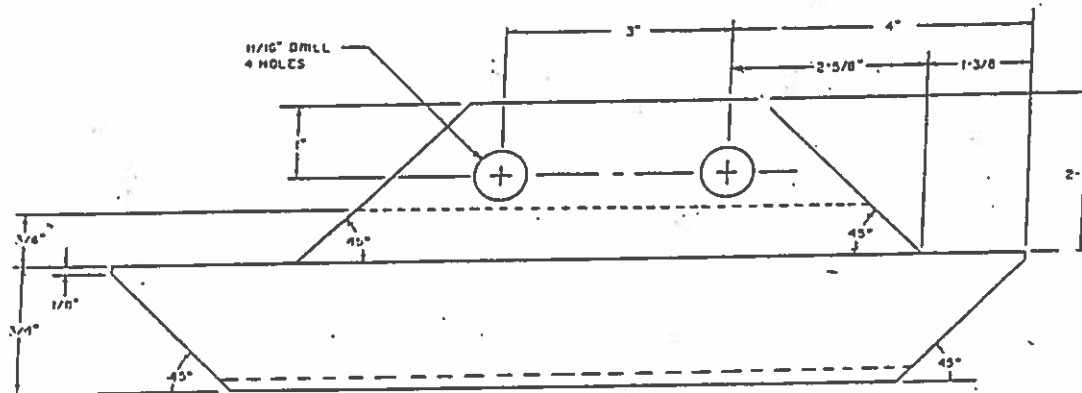
State of New Jersey Procurement Bureau



NOTES

1. ALL MAT'L TO BE MEDIUM CARBON STEEL.
2. ALL WELDS TO BE 3/16" WITH LENGTH AS NOTED.
3. DRILLED HOLES (11/16") IN SHOE MUST BE DRILLED STRAIGHT AND PARALLEL.
4. SHOE TO BE CONNECTED TO MOLDBOARD ANGLE BY TWO (2) 5/8" x 6" LG. BOLTS WITH LOCKWASHERS & NUTS.

R 3/16" - NOTE: EAR TO BE BEVELLED & WELDED
 SO THAT THERE IS NO WELD
 EXPOSED WELD EXCEEDING 4" MAXIMUM WIDTH

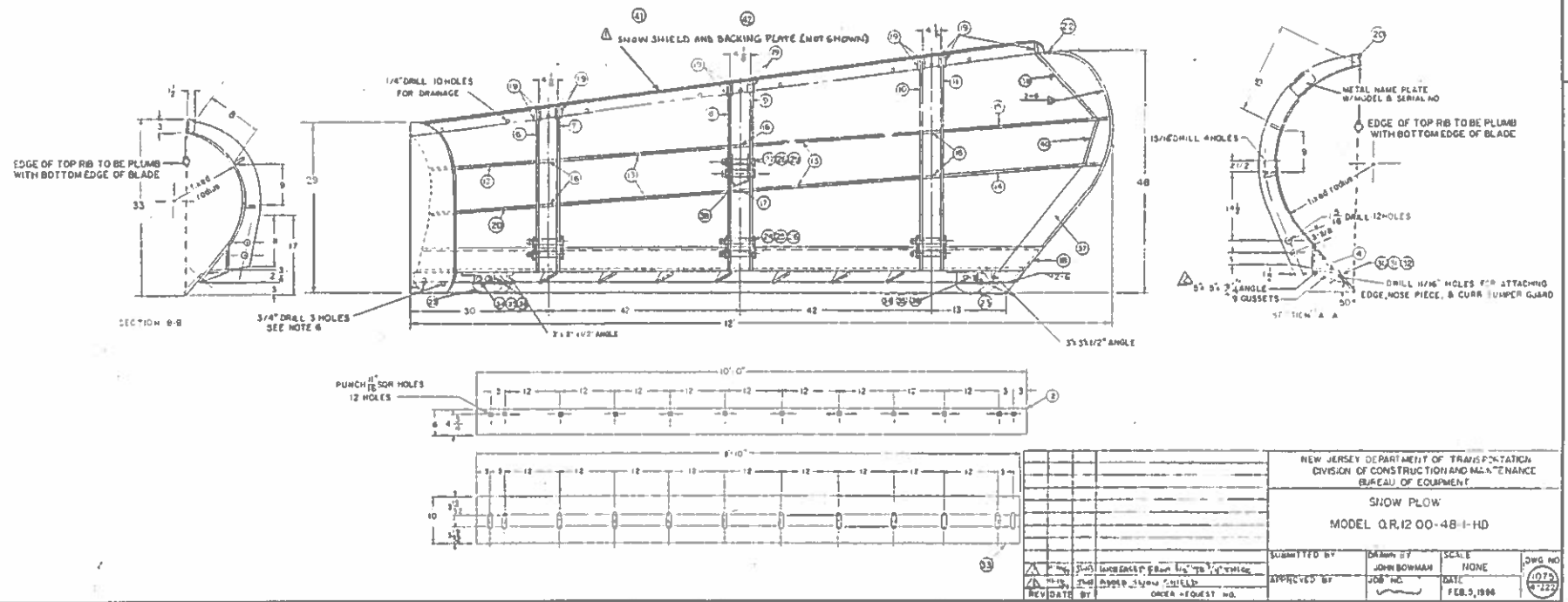


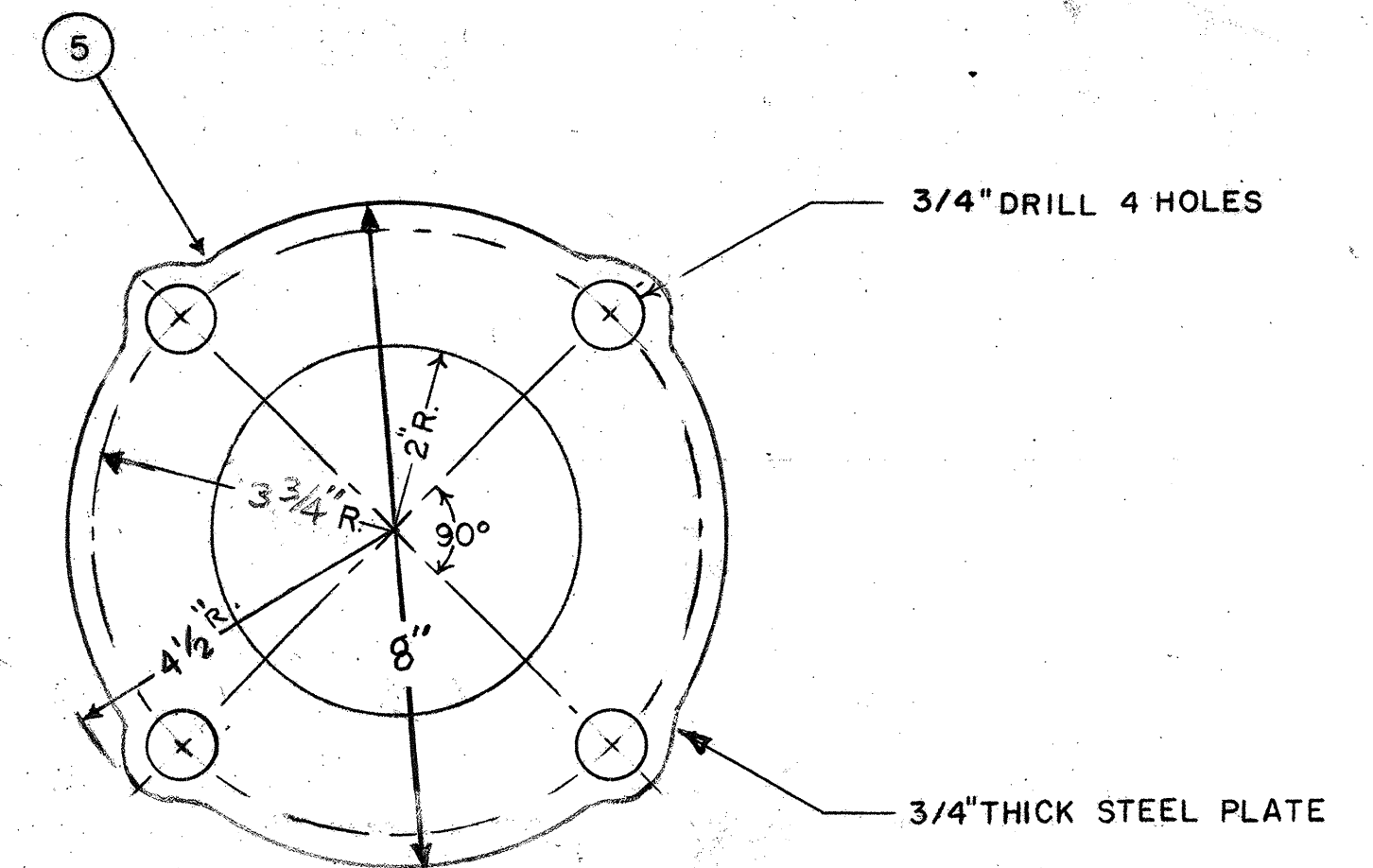
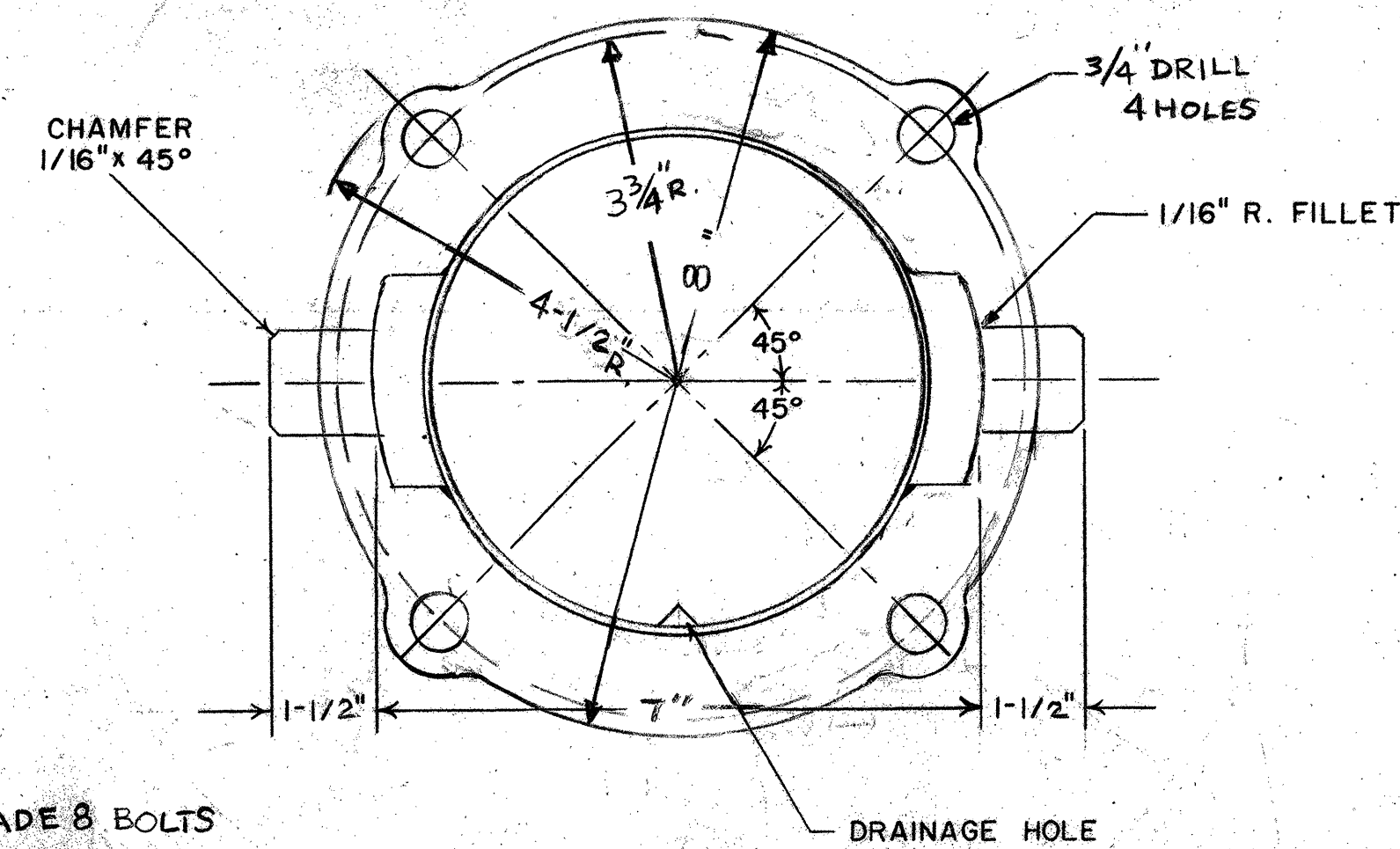
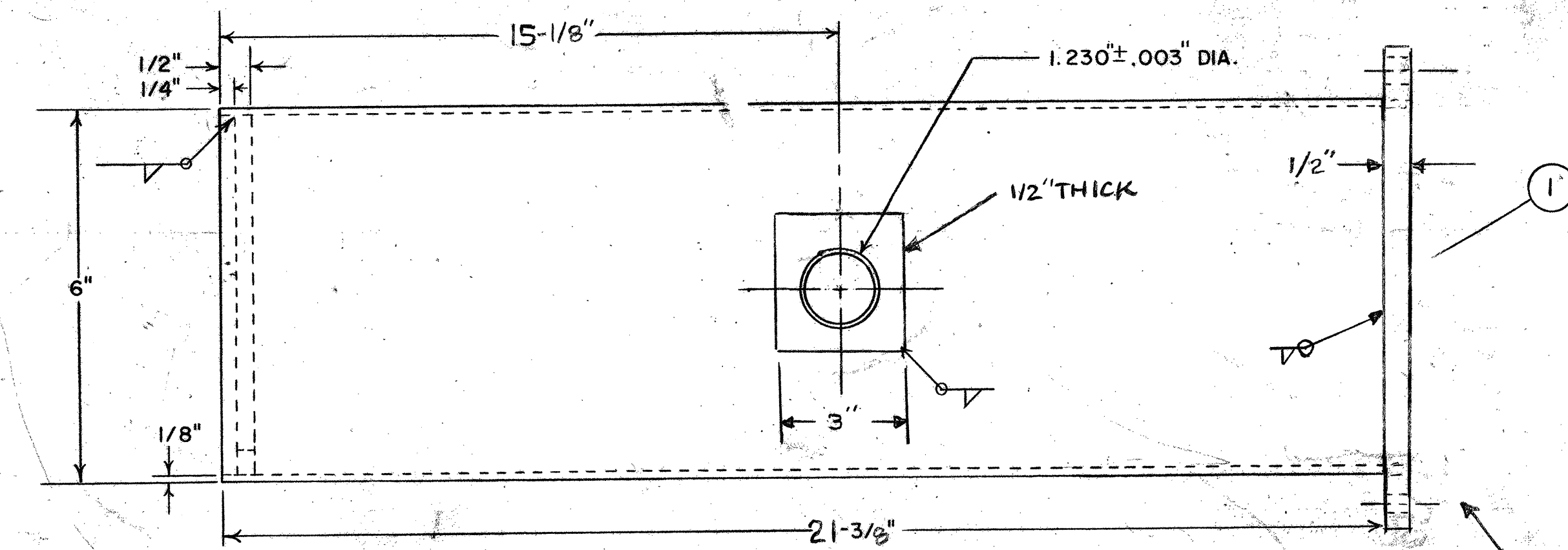
TUNGSTEN CARBIDE TO BE 3/8" THICK,
 RECESSED INTO BOTTOM OF SHOES,
 NO EXPOSED EDGES.
 SEE CONTRACT FOR SPECS ON
 CARBIDE INSERTS

NEW JERSEY DEPARTMENT OF TRANSPORTATION
 DIVISION OF CONSTRUCTION AND MAINTENANCE
 BUREAU OF EQUIPMENT

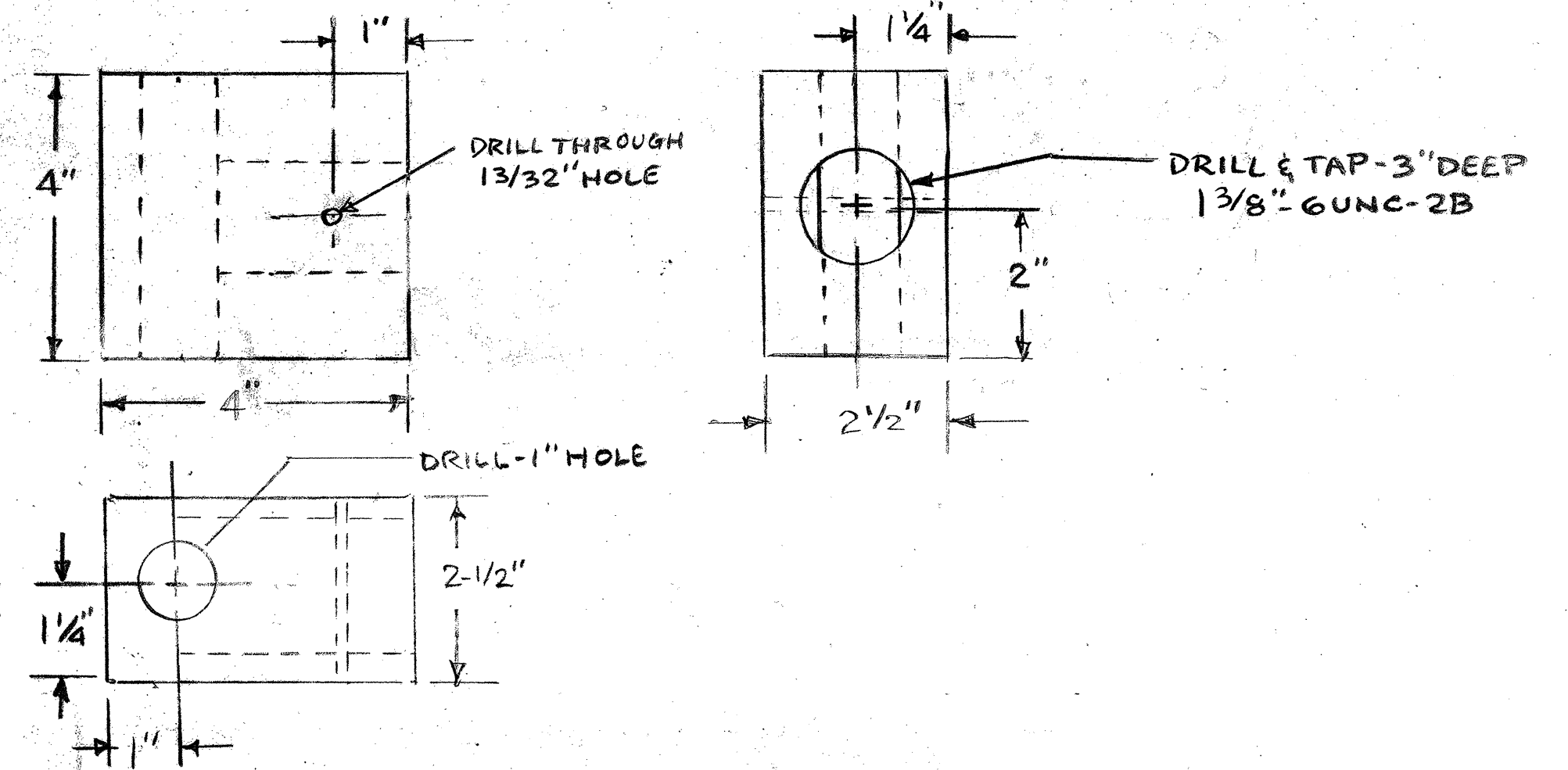
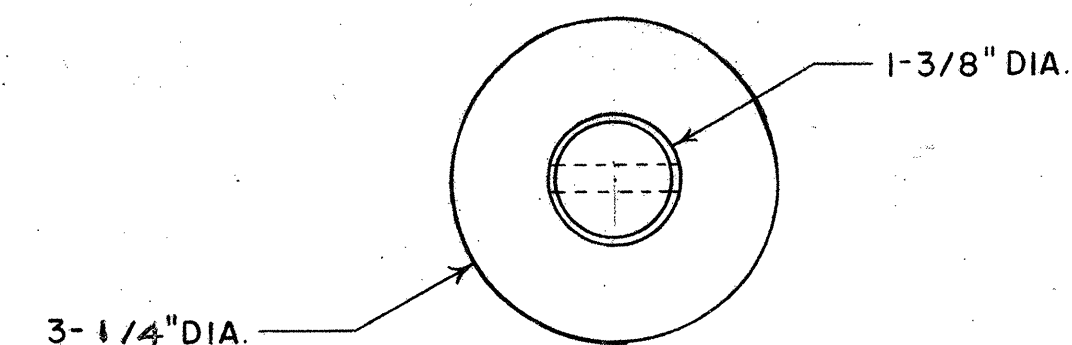
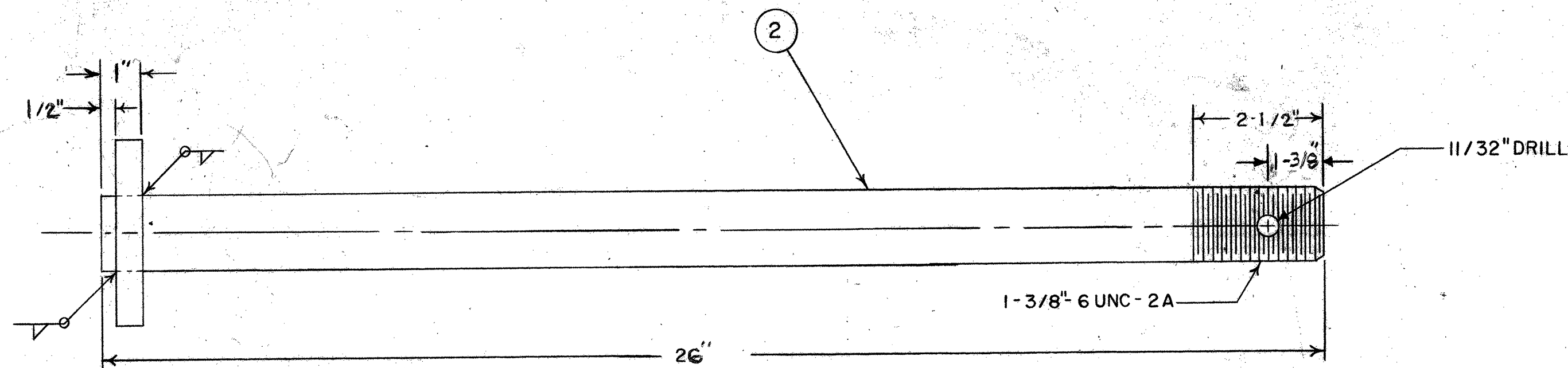
MOLDBOARD SHOE with
 TUNGSTEN CARBIDE INSERTS

REV	2			SUBMITTED BY	DRAWN BY	SCALE	DWG.
REV	1	3-23-91	ADDED WELD NOTE	APPROVED BY	JOB NO.	DATE	4-221
						2-14-96	

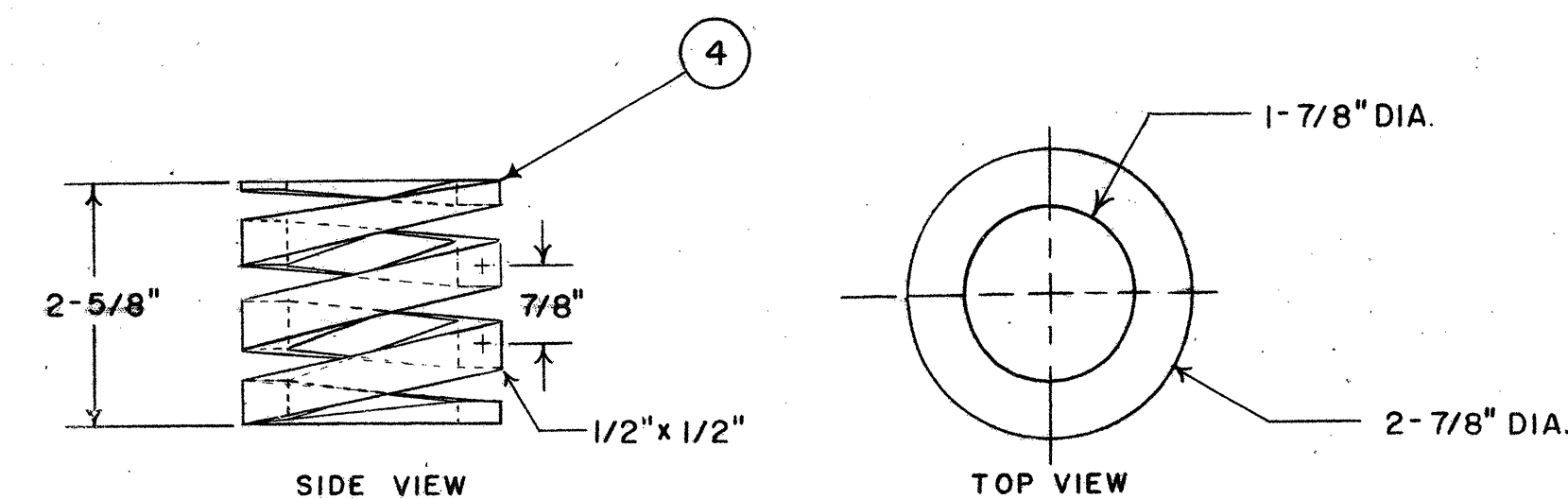
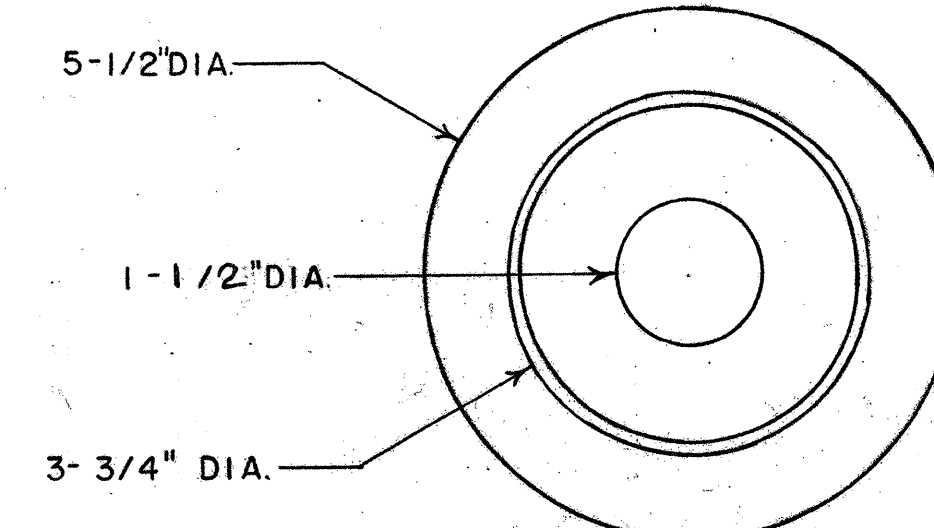
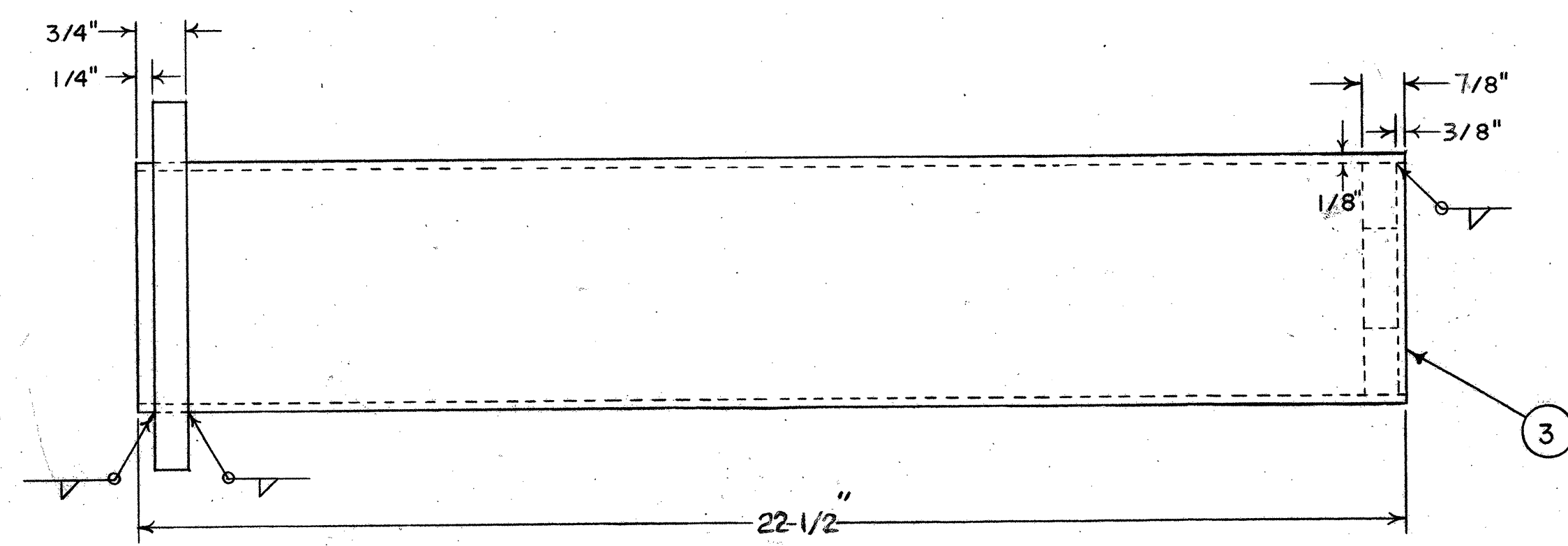




USE 5/8"-18UNC-2A
QTY-4- GRADE 8 BOLTS



NOTE
TENSION ROD ASSEMBLY IS COMPOSED
OF ITEMS (2) AND (6)



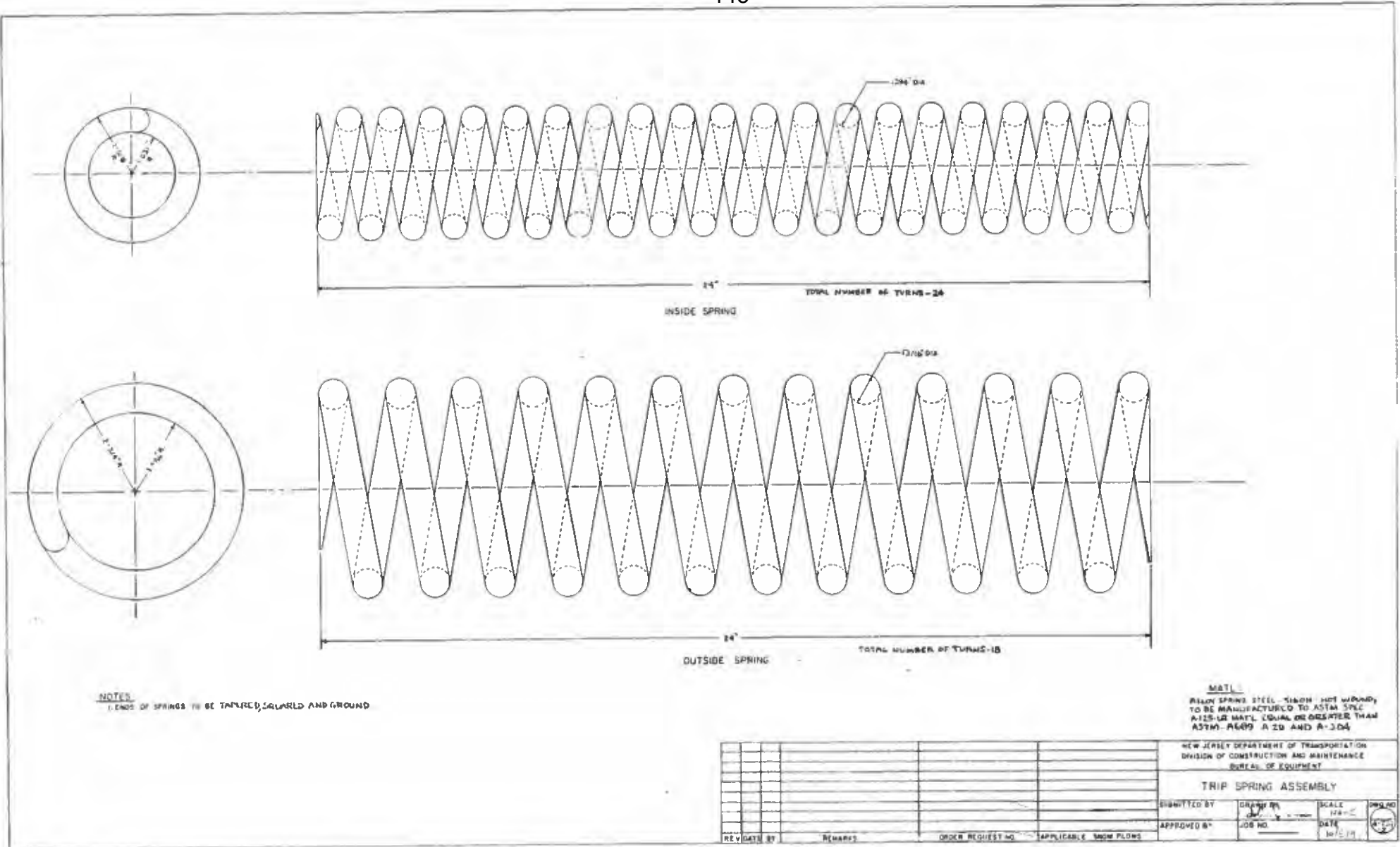
ITEM	NAME	QTY
①	OUTSIDE TUBE ASSEMBLY	1
②	TENSION ROD	1
③	INSIDE TUBE ASSEMBLY	1
④	RECOIL SPRING	1
⑤	COVER PLATE	1
⑥	FLOW COUPLING	1

MAT'L:
PLATE _____ STRUCTURAL STEEL QUALITY
TUBING _____ DRAWN OVER MANDREL CARBON STEEL
ROUND STOCK W/O THREADING _____ COLD FINISHED STEEL
ROUND STOCK W/THREADING _____ COLD FINISHED MEDIUM CARBON STEEL
SPRING _____ SPRING STEEL

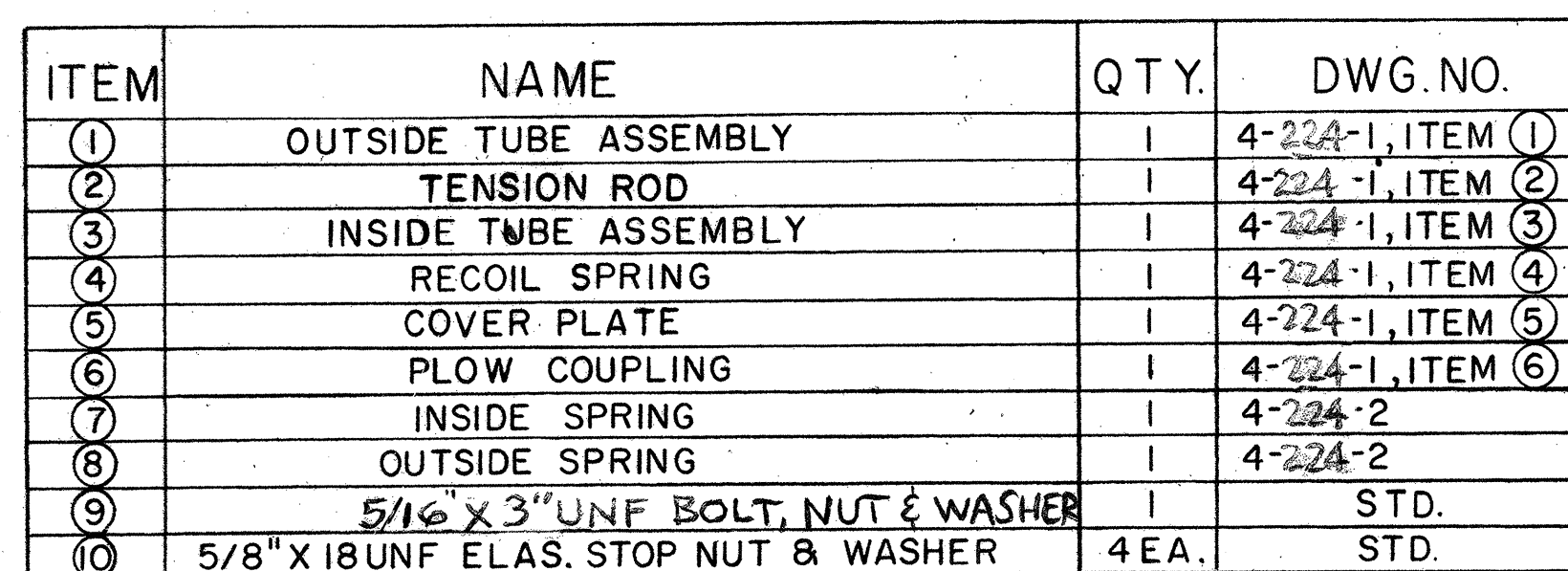
NEW JERSEY DEPARTMENT OF TRANSPORTATION DIVISION OF CONSTRUCTION AND MAINTENANCE BUREAU OF EQUIPMENT			
TRIP SPRING ASSEMBLY			
SUBMITTED BY	DRAWN BY	SCALE	DWG. NO.
APPROVED BY	JOB NO.	DATE	4-224-1
REV. DATE BY	REMARKS	ORDER REQUEST NO.	APPLICABLE SNOW PLOWS

24DPP01035
 Drawing 4-224-2
 Price Line 143, 144 and
 145

State of New Jersey Procurement Bureau

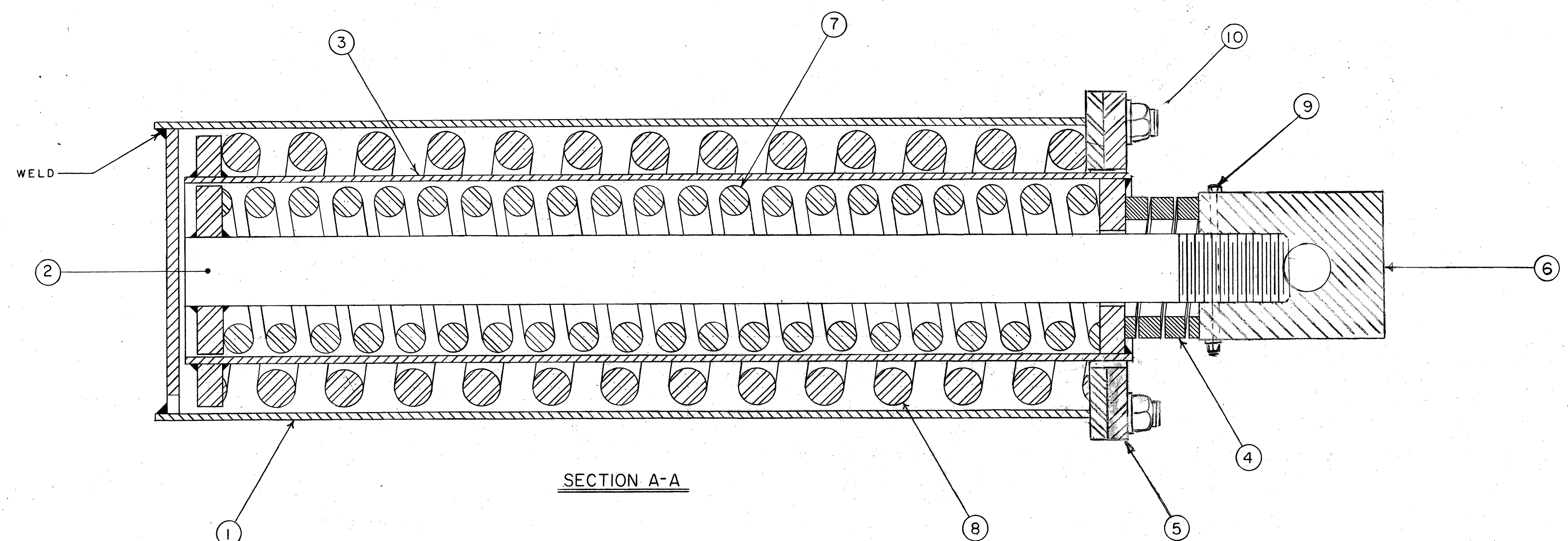


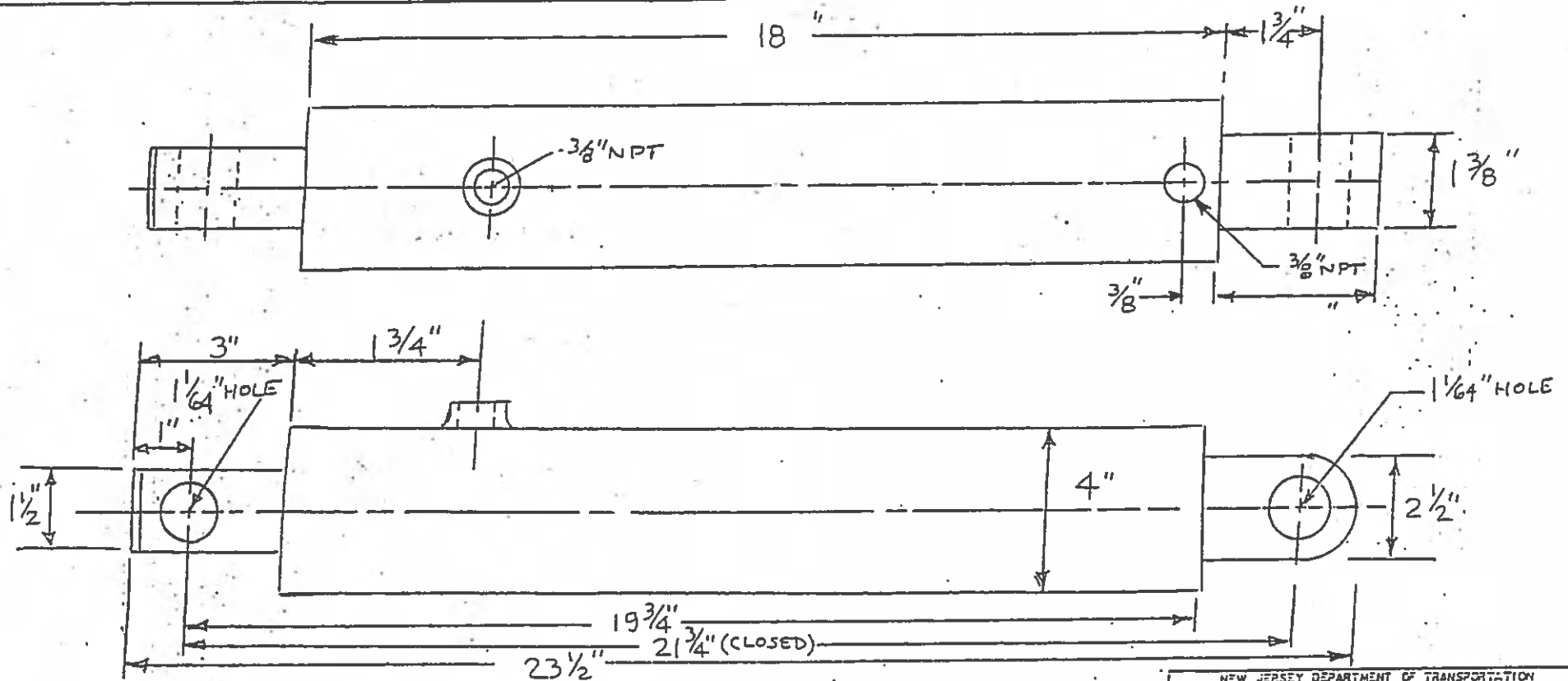
State of New Jersey Procurement Bureau



NOTES

1. SECTION LINING DOES NOT REPRESENT TYPE OF MATERIAL, ONLY CLARIFICATION BETWEEN PARTS.
2. MATERIAL SPECIFIED ON DWG. NO. 4-224-1 & 4-224-2.
3. DO NOT SCALE.
4. FASTEN FLOW COUPLING TO MOLDBOARD W/7/8", 9UNC BOLT, NUT, AND LOCKWASHER.

[illegible]



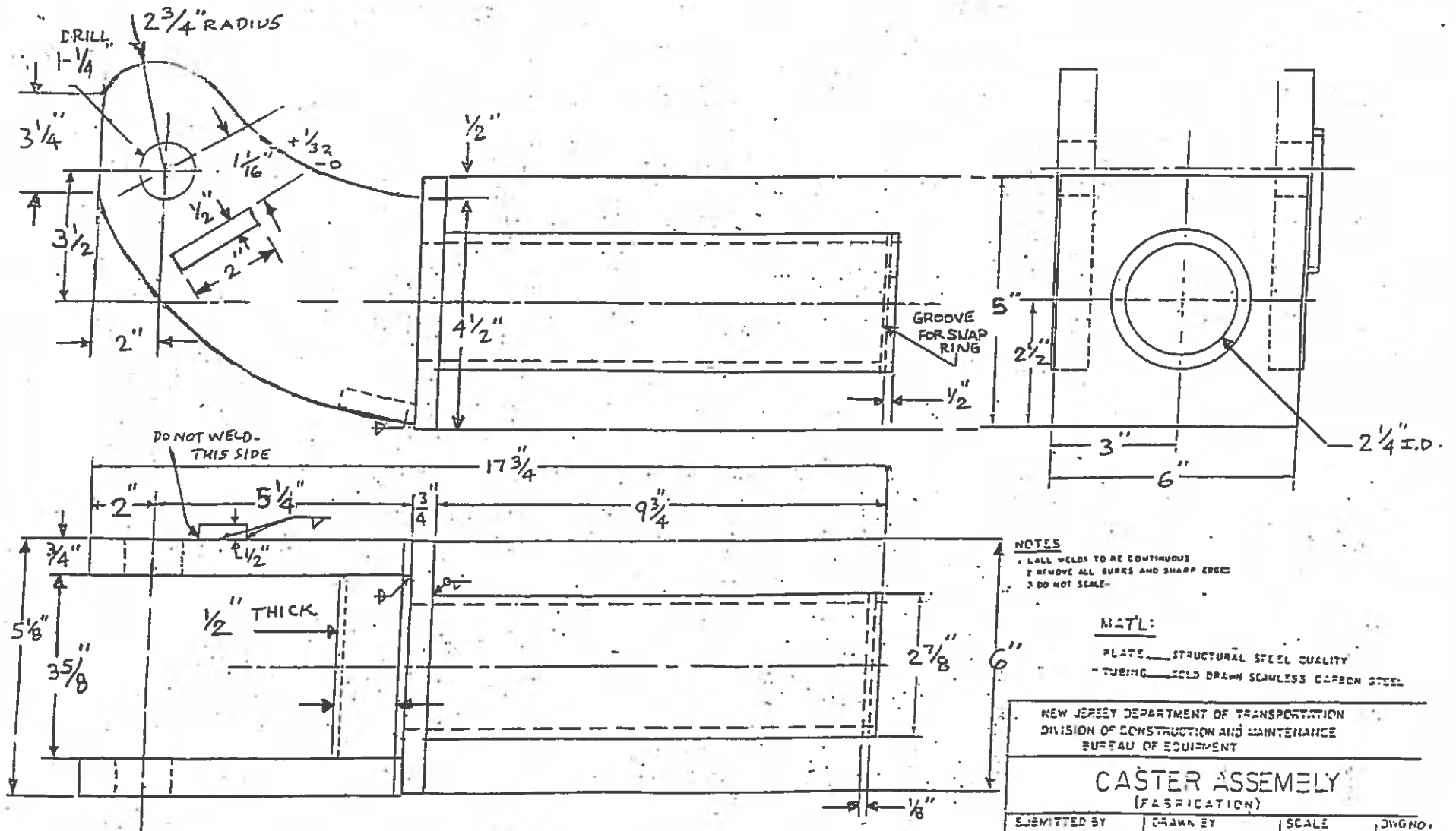
NOTES

1. ROD TO BE CHROME PLATED
2. MINIMUM WORKING PRESSURE - 2500 PSI
3. CYLINDER TO HAVE 12" STROKE AND 3 1/2" BORE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

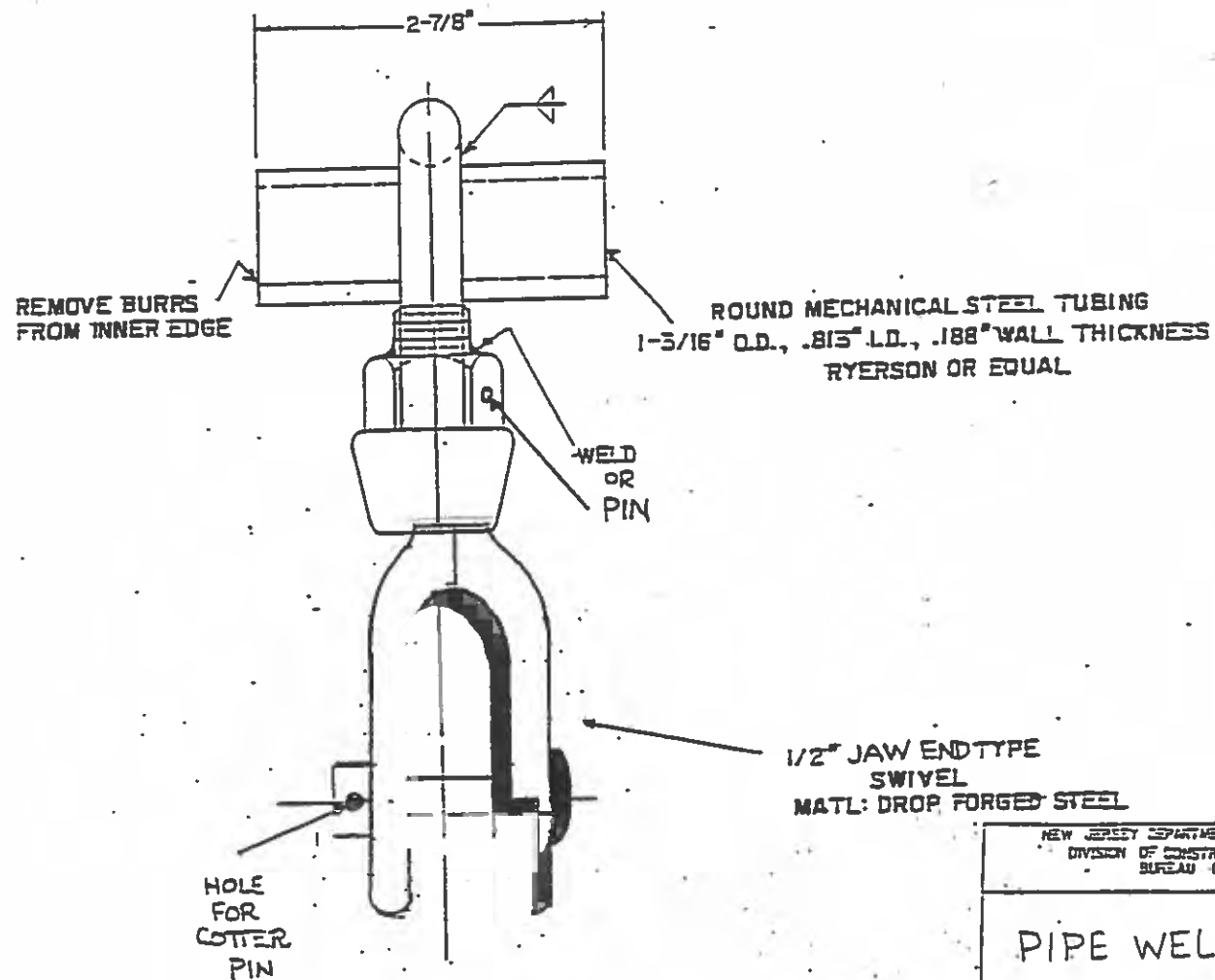
4" DOUBLE ACTING
CYLINDER.

REV 2		SUBMITTED BY <i>[Signature]</i>	DRAWN BY JWB	SCALE NONE	DWG. NO. 22
REV 1		APPROVED BY	JOB NO.	DATE 10/97	



24DPP01035
Drawing 4-227
Price Line 154

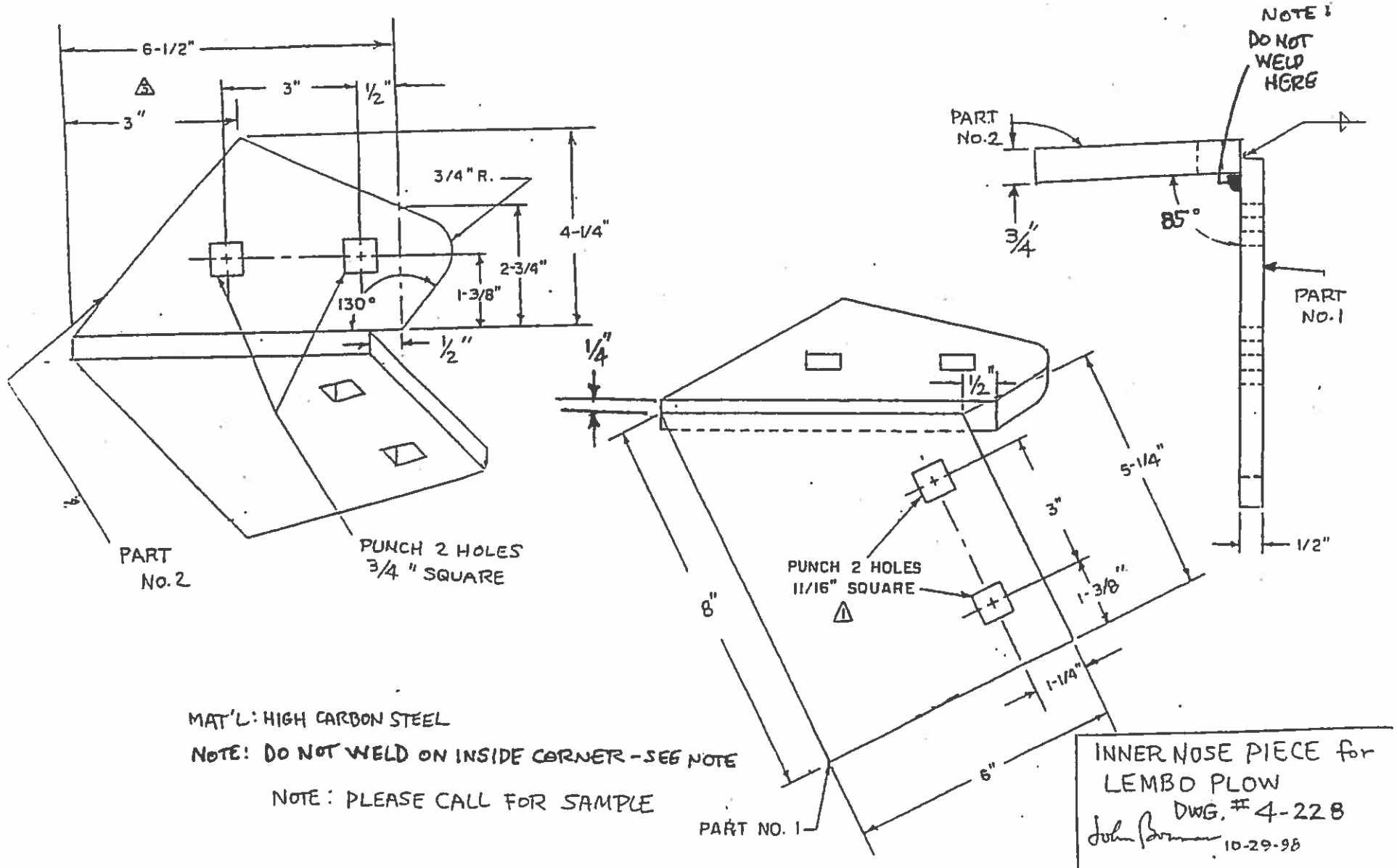
State of New Jersey Procurement Bureau

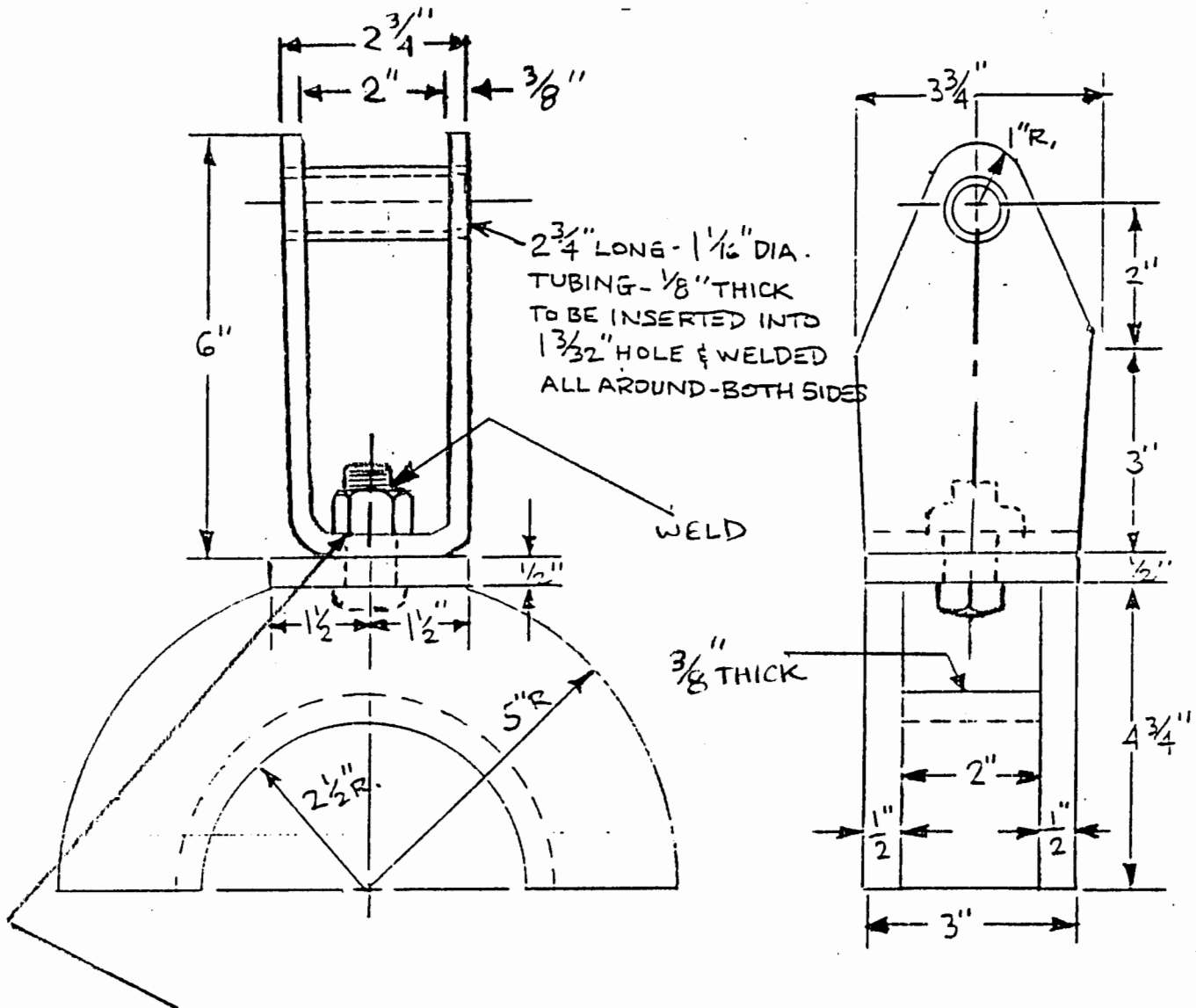


NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION AND MAINTENANCE
BUREAU OF EQUIPMENT

PIPE WELDMENT

REV	2			SUBMITTED BY	JOHN	DRAWN BY	JB	SCALE	NONE	DWG. NO.	4-227
REV	1			APPROVED BY		JOB NO.		DATE	8-19-98		





DRILL $1"$, 2 HOLES, FASTEN UPPER & LOWER SECTIONS TOGETHER WITH $1" \times 12 UNF \times 2"$ BOLT & NUT AND WELD

NEW JERSEY DEPT. OF TRANSPORTATION

SWIVEL CHAIN BLOCK-for P.R. PLOWS

DRAWN BY:

John Brown

DATE:

OCT. 20, 2000

DWG NO.

4-230