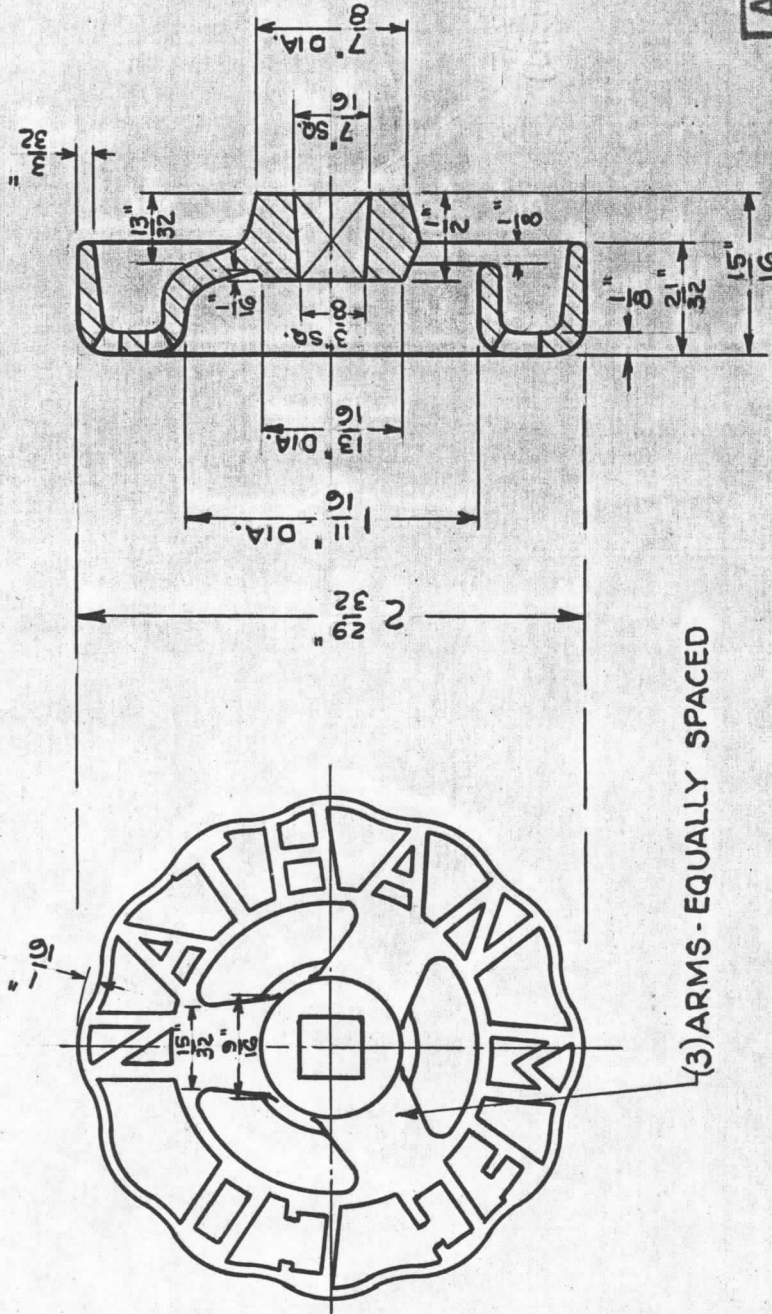


DATE

ESTIMATE No

FOUNDRY ESTIMATE

CASTINGS PER MOULD	
WEIGHT PER MOULD	
WEIGHT EACH	
MOULDING METHOD	
CORE MAKING EQUIPMENT	
COST PER CORE	
MOULDING	
" OVERHEAD	
CORE MAKING	
" OVERHEAD	
SPECIAL HANDLING	
TOTAL COST PER MOULD	
COST PER POUND	



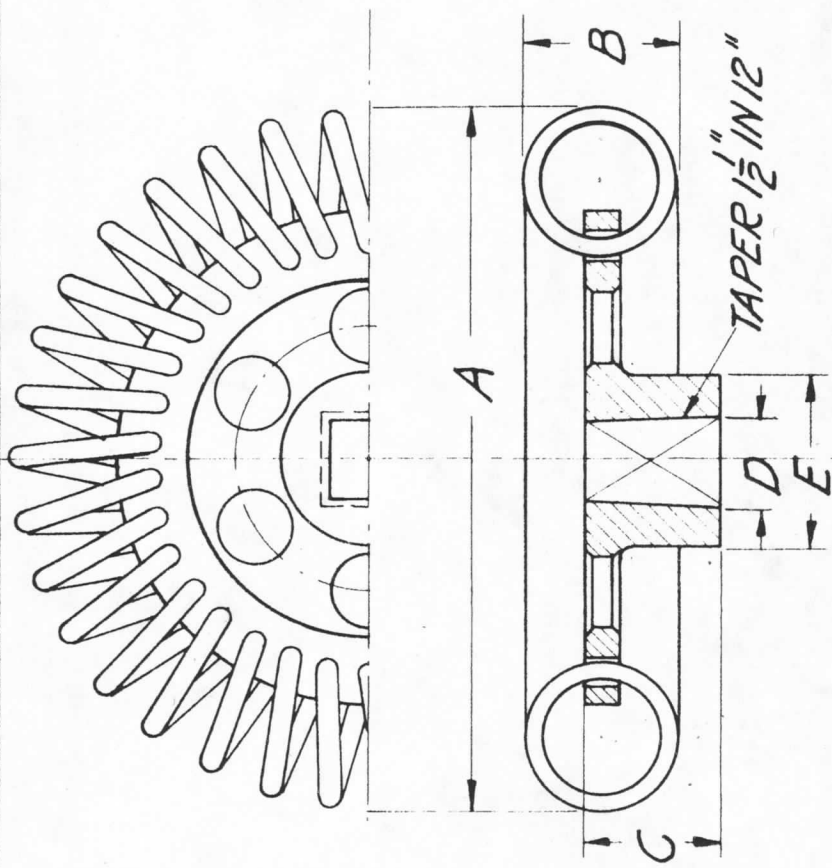
ACTIVE

PURCHASE

NATHAN M'F'G CO. NEW YORK		MATT'L MALL. IRON		WEIGHT ROUGH		WEIGHT FINISHED	
GENERAL USE		H-5307		H-5307		H-5307	
SUPERSEDES DWG. H-5307-C		DATED 11-7-34		DRAWN 11-23-51 EW		DWG. NO. H-5307	
SCALE FULL SIZE		TRACED 11-23-51 EW		CHECKED 11-30-51 EW		DATE NOV. 23, 1951	
FINISH		DATE		BY		CH'K'D	
f - ORDINARY MACHINE		11-23-51		EW		ON	
ff - FINE MACHINE							
TOLERANCE UNLESS OTHERWISE SPECIFIED		REVISIONS		DATE		BY	
DECIMALS: +.005"							
FRACTIONS: +1/64"							
ANGLES: ±1° 0'							

"IMPERIAL" TRACING CLOTH

USED ON



OUR SHOP NO. 5.	40330	40692	40328	39969	40100	40693	40056	40694
SIZE OF VALVES	1" & 3/8"	1" & 3/8"	1" & 3/8"	1" & 3/8"	1" & 3/8"	1" & 3/8"	1" & 3/8"	1" & 3/8"
A	2 3/16"	2 3/8"	2 5/8"	2 13/16"	3 1/4"	3 1/2"	4"	4 1/2"
B	19/32"	19/32"	5/8"	11/16"	13/16"	13/16"	7/8"	7/8"
C	3/8"	1/2"	9/16"	5/8"	5/8"	11/16"	11/16"	3/4"
D	1/4"	9/32"	5/16"	3/8"	13/32"	7/16"	17/32"	9/16"
E	17/32"	9/16"	21/32"	23/32"	3/4"	13/16"	15/16"	1"

NATHAN M'FG CO., N. Y., GENERAL INFORMATION

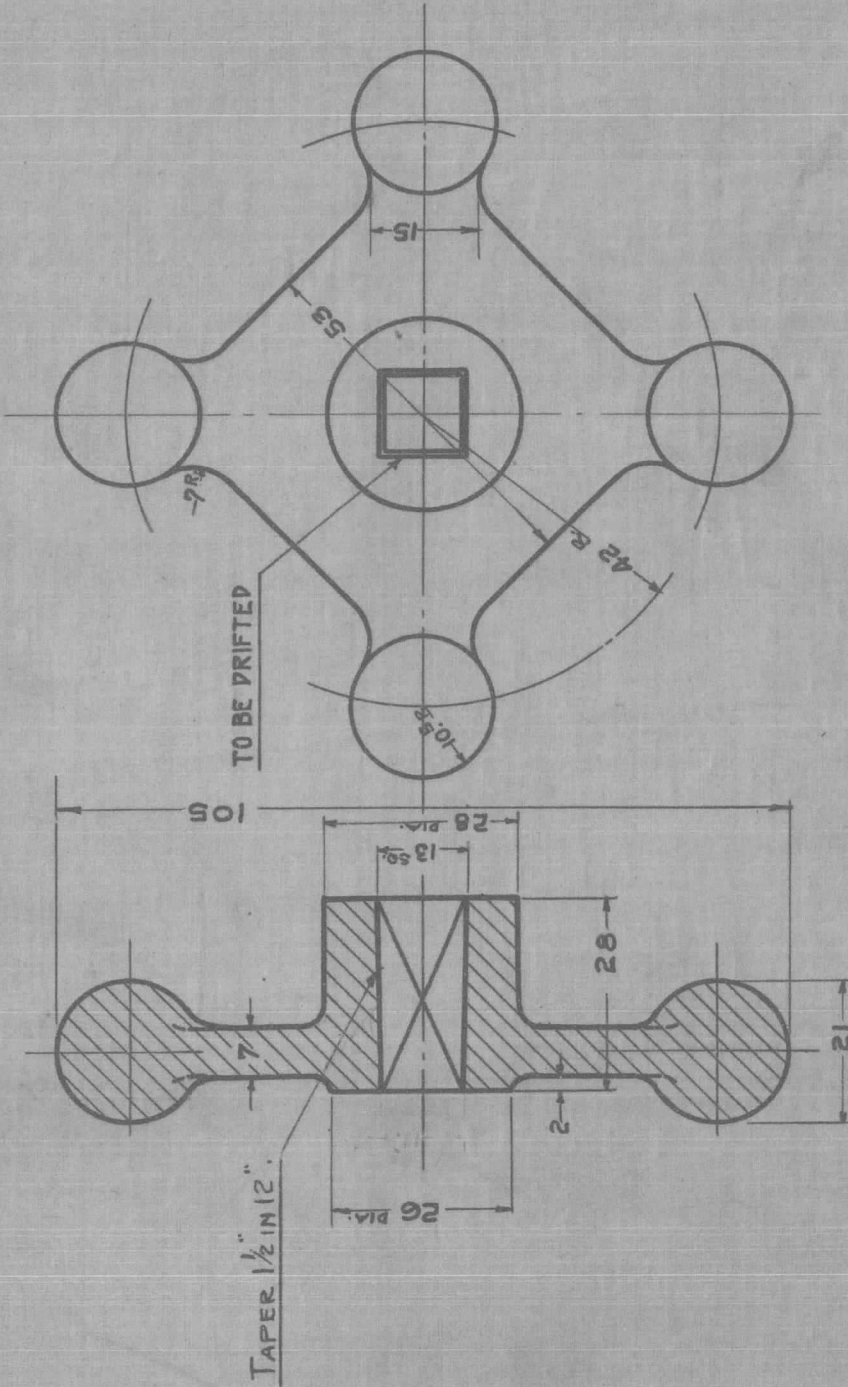
MAT'L	PATT.	WOOD	MET.
FINISH	PAINT	NICKEL	POLISH
SUPERSEDED OR 'G			
DRAWN	4-10-26		
TRACED	4-10-26		
PREPARED	4-10-26		

STANDARD WIRE
HANDWHEELS

COMMERCIAL SIZES

ME-611-3

USED ON
ST. VAL., #10-12 MON. INV. (SPECIAL)

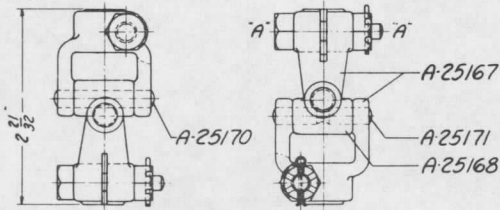
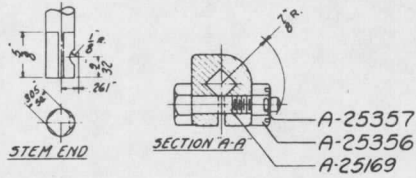


ACTIVE

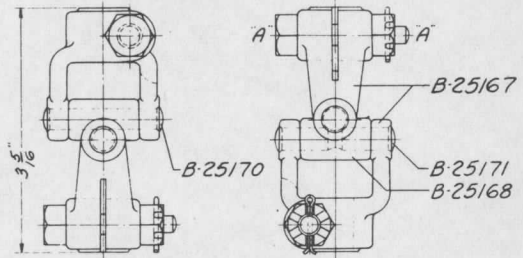
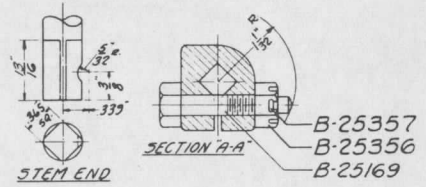
NATHAN MFG CO. N. Y.		GENERAL INFORMATION.			
MATERIAL	MALL. IRON	PATTERN	NEW	WOOD	X MET.
FINISH	AS MARKED	PAINT	NICKEL	POLISH	DIPPED
SUPERSEEDING DRWG NO.					
DRAWN	5-10-12	H.E.			
TRACED	"	H.E.			
CHECKED	5-10-12	H.E.			
APPROVED	"	H.E.			
					MAY 10, 1912

HAND WHEEL

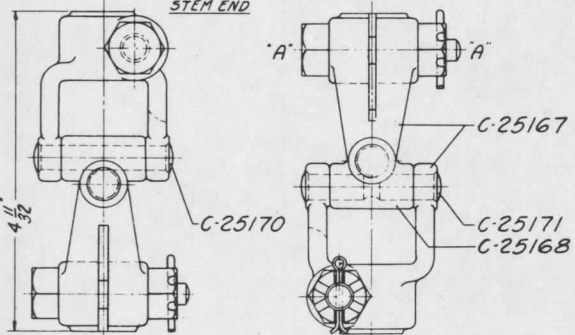
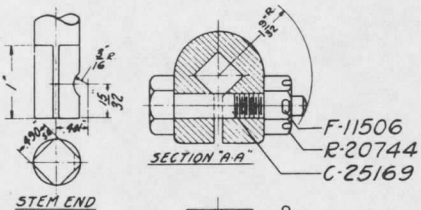
K 14248



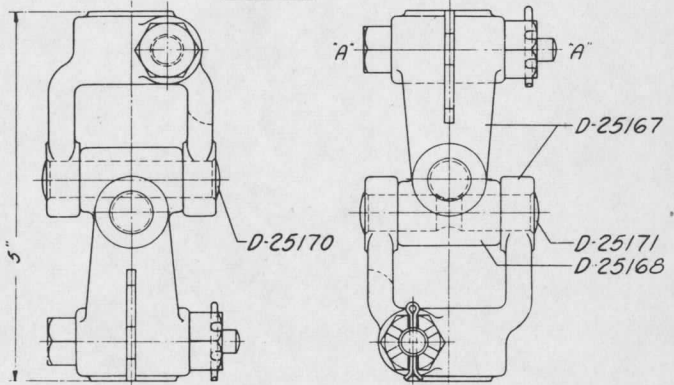
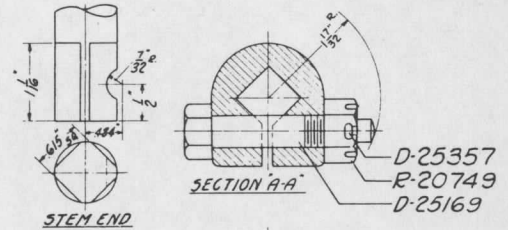
N°0



N°1



N°2



N°3

NAMES AND NUMBERS OF PARTS FOR REFERENCE
WHEN ORDERING REPAIRS

	SIZE N°0	SIZE N°1	SIZE N°2	SIZE N°3
STEM PIECE	A-25167	B-25167	C-25167	D-25167
CENTER PIECE	A-25168	B-25168	C-25168	D-25168
BOLTS	A-25169	B-25169	C-25169	D-25169
PIN (STRAIGHT)	A-25170	B-25170	C-25170	D-25170
PIN (UNDERCUT)	A-25171	B-25171	C-25171	D-25171
SLOTTED NUT	A-25356	B-25356	R-20744	R-20749
COTTER PIN	A-25357	B-25357	F-11506	D-25357

SCALE - FULL SIZE

NATHAN MFG CO. NEW YORK, N.Y.

TYPE "N"
UNIVERSAL JOINTS

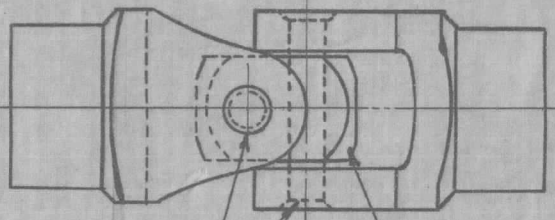
REV. C - SLOTTED NUTS USED AND BOLTS
REVISED. TURNING RADIUS FOR M10
JOINT W/AS 27.32" # 3138
REV. B - TURNING RADIUS ADDED 7-25-38
REV. A - JOINT N°3 ADDED 10-29-34

3337	A	B	C				
MAY 17, 1933							

ME-640-5

OPENING TOP.	OPENING BOTTOM.	CARD.	FIRST ORDER N ^o	QUANTITY.	DUE.	ORIG. REC'D
STYLE #1.	STYLE #1.	11137.				
STYLE #1.	STYLE #2.	11138.				
STYLE #2.	STYLE #2.	11139.	14583 OF 1912	1.	AT ONCE.	12-30-11

TOP.

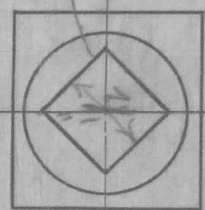


BOTTOM.

SHOP N^o **D-168.**

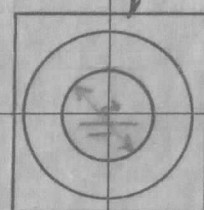
SHOP N^o **D-166.**

STYLE #1.



K14334

STYLE #2.



SHOP N^o **36383.**
A.L.CO. PATT. 10047.

37660

MI-9U-6

NATHAN WITS CO. N. Y. - GENERAL INFORMATION.

MATERIAL	PATTERN	WOOD	RELI.
FINISH		POLISH	DIPPED

SUPERSEEDING DRG NO.

DRAWN	12-31-12	WV
TRACED	12-31-12	WV
CHECKED	1-2-13	WV

APPROVED 1-3-13 *WV*

UNIVERSAL JOINT,
ALCO. ROGERS WORKS CARD N^o
11137-11139.

DEC. 31-1912.

STANDARD PRACTICE FOR THE USE OF SOFT COPPER TUBING

ACTUAL O. D. INCHES	FOR AIR BRAKE, AIR CONDITIONING AND MISCELLANEOUS PURPOSES		FOR LUBRICATOR STEAM LINES AND SATURATED STEAM UP TO 450°F.		FOR LUBRICATOR STEAM LINES AND SATURATED STEAM	
	BALDWIN LOCO. WKS. STANDARD		BALDWIN LOCO. WKS. STANDARD		AMERICAN LOCO. WKS. STANDARD	
	WALL THICKNESS	CALCULATED BURST. PRES.	WALL THICKNESS	CALCULATED BURST. PRES.	WALL THICKNESS	CALCULATED BURST. PRES.
1/4"	#21(.032") B.W.G.	7680	#16(.065") B.W.G.	15600	#18(.049") B.W.G.	—
3/8"	#21(.032") B.W.G.	5120	#16(.065") B.W.G.	10400	#16(.065") B.W.G.	10400
1/2"	#18(.049") B.W.G.	5880	#14(.083") B.W.G.	9970	#14(.083") B.W.G.	9970
9/16"	—	—	—	—	#14(.083") B.W.G.	—
5/8"	#18(.049") B.W.G.	4700	#14(.083") B.W.G.	7970	#14(.083") B.W.G.	7970
11/16"	—	—	—	—	#13(.095") B.W.G.	—
3/4"	#18(.049") B.W.G.	3920	#13(.095") B.W.G.	7590	#13(.095") B.W.G.	7590
7/8"	#16(.065") B.W.G.	4460	#13(.095") B.W.G.	6520	#13(.095") B.W.G.	6520
1"	—	—	#12(.109") B.W.G.	6540	#12(.109") B.W.G.	6540
-1/8"	#16(.065") B.W.G.	3470	—	—	—	—
-3/16"	—	—	—	—	#13(.095") B.W.G.	—
-1/4"	—	—	#12(.109") B.W.G.	5230	#12(.109") B.W.G.	5230
-3/8"	#16(.065") B.W.G.	3110	—	—	—	—
-1/2"	—	—	#11(.120") B.W.G.	4700	#12(.109") B.W.G.	—
-5/8"	#15(.072") B.W.G.	2660	—	—	—	—
-3/4"	—	—	#11(.120") B.W.G.	4120	#11(.120") B.W.G.	4120
2"	—	—	#11(.120") B.W.G.	3600	#11(.120") B.W.G.	3600
2-1/4"	—	—	#10(.134") B.W.G.	3600	#11(.120") B.W.G.	—
2-1/2"	—	—	#10(.134") B.W.G.	3240	#10(.134") B.W.G.	3240
2-3/4"	—	—	#9(.148") B.W.G.	3230	#10(.134") B.W.G.	—
3"	—	—	#9(.148") B.W.G.	2960	#10(.134") B.W.G.	—
3-1/4"	—	—	#8(.165") B.W.G.	3050	#9(.148") B.W.G.	—
3-1/2"	—	—	#8(.165") B.W.G.	2830	#9(.148") B.W.G.	—

MI-60-7

LOCOMOTIVE BOILER DROP PLUGS

SIZE	DROP PLUG SHOP No.	INSERT SHOP No.	BOILER PRESSURE	WEIGHT No.	BOILER PRESSURE	WEIGHT Nos.
#1 1½" DIA.	41773	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#2 1⅝" DIA.	41774	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#3 1¾" DIA.	41775	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#4 1⅞" DIA.	41776	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#5 2" DIA.	41777	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#6 2¼" DIA.	42054	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#7 2½" DIA.	42055	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
#8 2⅝" DIA.	42056	42510-5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2

STATIONARY BOILER DROP PLUGS

OUTSIDE BOILER DROP PLUGS

SIZE	DROP PLUG SHOP No.	INSERT SHOP No.	BOILER PRESSURE	WEIGHT No.	BOILER PRESSURE	WEIGHT Nos.
½" PIPE	D-25295	D-25298 3/8" DIA.	UP TO 250 LBS	#3	255-300 LBS	#3 & #4
¾" PIPE	E-25295	E-25298 ½" DIA.	UP TO 250 LBS	#5	255-300 LBS	#5 & #6
1" PIPE	F-25295	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
1¼" PIPE	G-25295	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
1½" PIPE	H-25295	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2

INSIDE BOILER DROP PLUGS

SIZE	DROP PLUG SHOP No.	INSERT SHOP No.	BOILER PRESSURE	WEIGHT No.	BOILER PRESSURE	WEIGHT Nos.
½" PIPE	D-25296	D-25298 3/8" DIA.	UP TO 250 LBS	#3	255-300 LBS	#3 & #4
¾" PIPE	E-25296	E-25298 ½" DIA.	UP TO 250 LBS	#5	255-300 LBS	#5 & #6
1" PIPE	F-25296	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
1¼" PIPE	G-25296	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2
1½" PIPE	H-25296	42510 5/8" DIA.	UP TO 250 LBS	#1	255-300 LBS	#1 & #2

TUBE DROP PLUGS

SIZE	DROP PLUG SHOP No.	INSERT SHOP No.	BOILER PRESSURE	WEIGHT No.	BOILER PRESSURE	WEIGHT Nos.
3/8" PIPE	C-25297	C-25298 5/16" DIA.	UP TO 250 LBS	#7	255-300 LBS	#7 & #8
½" PIPE	D-25297	D-25298 3/8" DIA.	UP TO 250 LBS	#3	255-300 LBS	#3 & #4

DROPPING TEMPERATURE RANGE

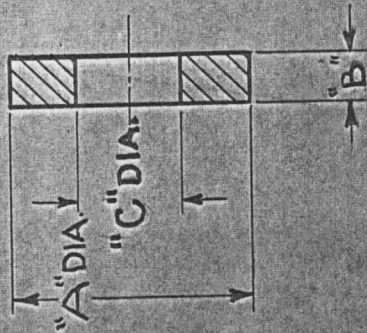
UP TO 250 LBS. PRESSURE 550°F - 575°F
 255-300 LBS. PRESSURE 575°F - 600°F

FOR ALL SPECIAL PLUGS USING INSERT No.

42510	UP TO 250 LBS. PRESSURE	WEIGHT #1
	255-300 " "	" #1 & #2
C-25298	UP TO 250 " "	" #7
	255-300 " "	" #7 & #8
D-25298	UP TO 250 " "	" #3
	255-300 " "	" #3 & #4
E-25298	UP TO 250 " "	" #5
	255-300 " "	" #5 & #6

NATHAN M'FG. CO.
MARCH 30, 1945.

MI-60-8



* NOTE:- GASKETS TO LINE 4 CAN BE MADE FROM THOSE TO LINE 1. SELECT OR TURN TO "BEFORE KNURLING" DIA., AND KNURL TO FINAL DIA. SHOWN.

ACTIVE

PURCHASED

C	D	BEFORE KNURLING	AFTER KNURLING	WORK CODE	LINE
17/32	1/4	1/4	—	STANDARD	1
17/32	1/4	1/4	—	SPECIAL	2
17/32	1/4	1/4	—	SPECIAL	3
17/32	.250"	1.252"	1.258"	4000 INJECTOR	4*
.531 ^{±.001}	1/4	1.248"	1.252"	WC-SA-44	5

VULCABESTON (COLT MFG. CO.)
 ANCHORITE ANCHOR PACKING CO.
 GARLOCK No. 7751
 VULCABESTON (COLT MFG. CO.)
 VULCABESTON (COLT MFG. CO.)

ORIGINALY USED ON

NATHAN M'FG CO. NEW YORK

SCALE FULL

FINISH 8-21-51 EC
 3-1-48 WY

DATE BY CH'D

SYN

REVISIONS

TOLERANCE UNLESS OTHERWISE SPECIFIED
 DECIMALS: +.005" FRACTIONS: +1/64" ANGLES: +1° 0'

f - ORDINARY MACHINE
 ff - GRIND
 ff - LAP OR POLISH

MAT'L SEE TABLE

WEIGHT ROUGH

WEIGHT FINISHED

SUPERSEDES DWG.

TITLE GASKET

DATED

DRAWN 3-1-48 WY

TRACED 3-1-48 WY

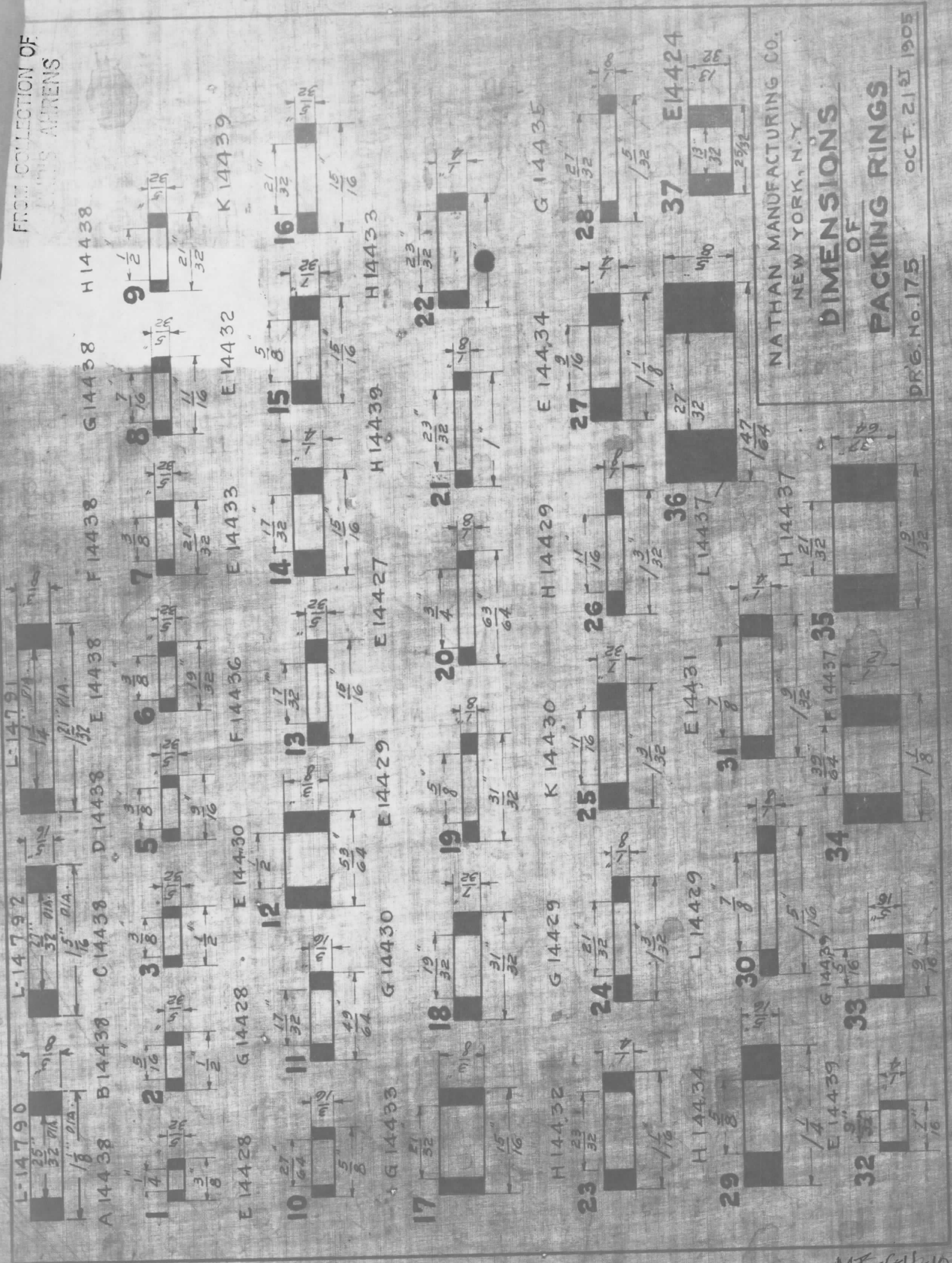
CHECKED 3-2-48 WY

APPR'D

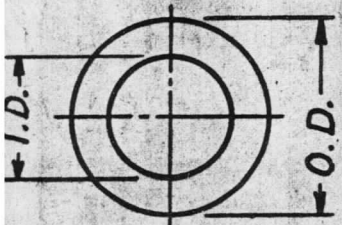
DWG. NO. 40316

DATE MAR. 1, 1948

6-07-48



NATHAN MANUFACTURING CO.
 NEW YORK, N.Y.
DIMENSIONS
 OF
PACKING RINGS
 DR'G. No. 175
 OCT. 21ST 1905



NOTE: SPECIAL WASHERS MADE BY N.M.F.G. CO. HAVING MATERIAL SPECIFIED AS "BR. ROD" - USE ASTM B-16 BRASS ROD.

THICK

LINE NO.	QTY	DR. ROD	SH. BR.	THICKNESS	O.D.	I.D.	REMARKS	SUPERSEDES DR'G. NO.	MAT'L.	THICKNESS	O.D.	LINE NO.
32864	1	SH. BR.	#14 B&S (0641)	5/16"	1"							25
33084	1	SH. BR.	1/8"	9/32"	1"							24
L-20756	3	BE. ROD	3 M	17/64" DR.	1"							23
33755	1	SH. BR.	1/16"	1/4"	1"							22
F-684	15	SH. BR.	#12 B&S (0808)	15 M	24 M							21
B-2012	8.94	SH. BR.	#11 B&S (0907)	8.94 M	24 M							20
F-15180	1	BR. ROD	1/8"	11/32"	15/16"							19
E-755	14	SH. BR.	#12 B&S (0808)	14 M	23 M							18
30518	1	SH. BR.	1/16"	11/32"	7/8"							17
F-25193	1	SH. BR.	1/16"	1/4"	7/8"							16
H-648	11	SH. BR.	#12 B&S (0808)	11 M	22 M							15
F-648	10	SH. BR.	#12 B&S (0808)	10 M	22 M							14
C-20749	9	SH. BR.	#33 B.W.G. (008)	9/16"	13/16"							13
40738	7	BR. ROD	1/8"	7/16"	3/4"							12
32960	11	BR. ROD	1/8"	27/64"	23/32"							11
L-9517	11	SH. BR.	#14 B&S (0641)	11 M	5/8"							10
D-21406	3	SH. BR.	1/32"	3/8"	5/8"							9
L-9210	8.5	SH. BR.	#11 B&S (0907)	8.5 M	12 M							8
D-15180	7	BR. ROD	1/16"	#9 (196) DR.	15/32"							7
E-9517	6	BRASS TUBE	1/16"	.321"	7/16"							6
H-9158	6.5	SH. BR.	#14 B&S (0641)	6.5 M	10 M							5
B-25098	4	BR. ROD	1/16"	#12 (189) DR.	3/8"							4
D-9158	5.5	SH. BR.	#14 B&S (0641)	5.5 M	8.5 M							3
B-15180	2	BR. ROD	1/16"	#31 (120) DR.	7/32"							2
---	1	BR. ROD	3/16"	21/32"	1-1/32"							1
SUPERSEDES DR'G. NO.												LINE NO.
REMARKS												
ORIGINALY USED ON												
NATHAN M'FG CO. NEW YORK												
SEE TABLE & NOTE #1.												
WEIGHT FINISHED												
TITILE												
SUPERSEDES DWG. C-20951												
DATED 2-17-48												
DRAWN 7-6-51												
TRACED " " "												
CHECKED 1-10-52												
APPR'D												
DWG. NO. C-20951												
DATE JULY 6, 1951.												
SCALE												
GENERAL USE												
FROM COLLECTION OF CHRIS APRENS												
FINISH												
10-28-60 L S												
5-25-54 L S												
7-9-53 L S												
7-6-51 L S												
DATE BY												
TOLERANCE UNLESS OTHERWISE SPECIFIED												
DECIMALS: +.005" FRACTIONS: +1/64" ANGLES: +1° 0'												
DECIMALS: -.005" FRACTIONS: -1/64" ANGLES: -1° 0'												
f - ORDINARY MACHINE												
ff - FINE MACHINE												
fff - LAP OR POLISH												
REVISIONS												
D LINE 40 ADDED												
C LINE 33: 15/16" WAS 24.5 M, 1/32" WAS 34 M												
B LINE 39 ADDED												
A DR'G. RETRACED, TABLES & LINES NOS. ADDED.												

PLAIN WASHERS (BRASS & COPPER)

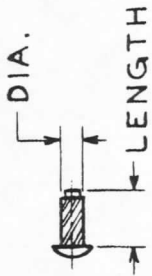
C-20951

DATE JULY 6, 1951.

FROM COLLECTION OF
CHRIS AHRENS

SYN.	DESCRIPTION	CORNER RADIUS	WIDTH	O. D.	BORE	I.M.M. (.039")	.688"	40MM (1.5748")	17MM (.6693")	S.203 E.203 K	NEW DEPARTURE	LINE NO.	NATHAN MFG. CO. NEW YORK				
													WEIGHT ROUGH	WEIGHT FINISHED			
REVISIONS													MATERIAL PURCHASE	SUPERSEDES DWG. TITLE			
TOLERANCE UNLESS OTHERWISE SPECIFIED																	
DECIMALS: +.0025 - .0025 FRACTIONS: + 1/64 - 1/16 ANGLES: ± 1° 0' - 1° 0'																	
C	BEARING SPECIFICATIONS FOR LINE NOS. 1 & 2 REVERSED																
B	ORDERING REF. REVISED																
A	DRG. MADE FOR LINE 1 & LINES 2 & 3 ADDED																

MI-GU-18



FROM COLLECTION OF
CHRIS AHRENS

CADMIUM PLATED	#51(.067")DRILL	.073"	1/8"	#0	4
CADMIUM PLATED	#37(.104")DRILL	.114"	1/4"	#4	3
CADMIUM PLATED	#37(.104")DRILL	.114"	3/16"	#4	2
CADMIUM PLATED	#37(.104")DRILL	.114"	5/16"	#4	1
FINISH	RECOMMENDED HOLE SIZE	SCREW DIA.	LENGTH	SCREW No.	LINE No.

NATHAN M'F'G CO. NEW YORK

MAT'L PURCHASE-PARKER-KALONTYPE "U"

PATT. SUPERSEDES DWG. D-21059 DATED 4-8-48

WEIGHT ROUGH TITLE DRIVE SCREWS

WEIGHT FINISHED

DRAWN 9-1-53 LS

TRACED " " " "

CHECKED " " " "

APPRD " " " "

DWG. NO. E-21059

DATE SEPT. 1, 1953.

ORIGINALLY USED ON

GENERAL USE

SCALE

DATE 5-17-61 LS

DATE 12-16-53 LS

DATE 9-1-53 LS

BY UNK'D

FINISH

J - ORDINARY MACHINE Jff - GRIND

Ji - FINE MACHINE Jfff - LAP OR POLISH

SYMBOLS

REVISIONS

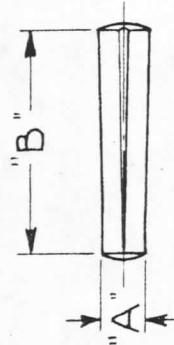
A REDRAWN, TABLES & LINE 2 ADDED.

TOLERANCE UNLESS OTHERWISE SPECIFIED

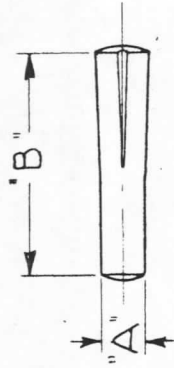
DECIMALS: +.005" FRACTIONS: +1/64" ANGLES: +1° 0'

SYMBOLS

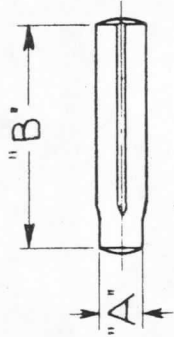
IMPERIAL** TRACING CLOTH



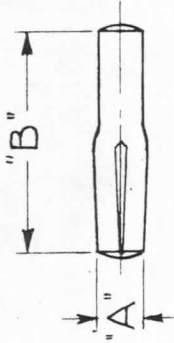
TYPE 1



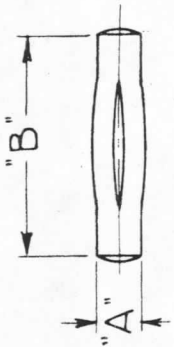
TYPE 2



TYPE 3



TYPE 4



TYPE 5

FROM COLLECTION OF
CHRIS APPENS

D-21140	ZINC PLATED	STEEL	7/8"	1/16"	1	10
H-23033	ZINC PLATED	STEEL	3/4"	1/16"	1	9
H-23025	ZINC PLATED	STEEL	3/4"	7/64"	1	8
B-25077	ZINC PLATED	STEEL	5/8"	7/64"	1	7
S-20924	ZINC PLATED	STEEL	5/8"	3/32"	5	6
S-20915	ZINC PLATED	STEEL	7/8"	5/32"	3	5
S-20913	ZINC PLATED	STEEL	5/8"	3/32"	3	4
S-20907	ZINC PLATED	STEEL	3/8"	5/32"	4	3
D-20812	ZINC PLATED	STEEL	2"	1/4"	5	2
—	ZINC PLATED	STEEL	1/4"	1/8"	5	1
SUPERSEDES DRAWING	FINISH	MATERIAL	"B" (LENGTH)	"A" (NOM. DIA.)	TYPE LINE	

ORIGINALLY USED ON

NATHAN M'FG CO. NEW YORK

GENERAL USE

PURCHASE - GROOV-PIN CORP. - OR EQUAL

SYN	REVISIONS	DATE	BY	CHK'D	FINISH
	D LINES 8, 9 & 10 ADDED	6-3-54	LS	ON	
	C LINE #7 ADDED.	5-13-53	EW		
	B REDRAWN & LINES #3 TO #6 INC. ADDED.	3-17-53	EW		

TOLERANCE UNLESS OTHERWISE SPECIFIED
DECIMALS: +.005" FRACTIONS: +1/64" ANGLES: +1° 0'

— ORDINARY MACHINE
— FINE MACHINE

SCALE

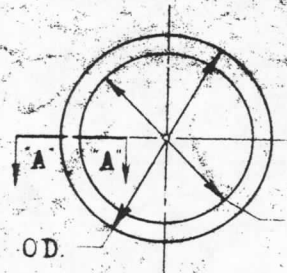
MAT'L	STEEL	WEIGHT ROUGH	
PATT.		WEIGHT FINISHED	
SUPERSEDES DWG.	E-21083-A	TITLE	GROOV-PIN
DATED	9-4-52	DWG. NO.	E-21083
DRAWN	3-17-53 EW	DATE	MARCH 17, 1953
TRACED			
CHECKED			
APPR'D			

FROM COLLECTION OF
CHRIS APRENS

OF CROSS SECTION MUST
EQUAL "W"

P-1

7-1/2	1/4	6227-70	70
7-1/4	1/4	6227-69	69
7	1/4	6227-68	68
6-3/4	1/4	6227-67	67
6-1/2	1/4	6227-66	66
6-1/4	1/4	6227-65	65
6	1/4	6227-64	64
5-7/8	1/4	6227-63	63
5-3/4	1/4	6227-62	62
5-5/8	1/4	6227-61	61



ENLARGED VIEW
OF SECTION "A-A"

5-1/2	1/4	6227-60	60
5-3/8	1/4	6227-59	59
5-1/4	1/4	6227-58	58
5-1/8	1/4	6227-57	57
5	1/4	6227-56	56
4-7/8	1/4	6227-55	55
4-3/4	1/4	6227-54	54
4-5/8	1/4	6227-53	53
4-1/2	3/16	6227-52	52
4-3/8	3/16	6227-51	51
4-1/4	3/16	6227-50	50
4-1/8	3/16	6227-49	49
4	3/16	6227-48	48
3-7/8	3/16	6227-47	47
3-3/4	3/16	6227-46	46
3-5/8	3/16	6227-45	45
3-1/2	3/16	6227-44	44
3-3/8	3/16	6227-43	43
3-1/4	3/16	6227-42	42
3-1/8	3/16	6227-41	41
3	3/16	6227-40	40
2-7/8	3/16	6227-39	39
2-3/4	3/16	6227-38	38
2-5/8	3/16	6227-37	37
2-1/2	3/16	6227-36	36
2-3/8	3/16	6227-35	35
2-1/4	3/16	6227-34	34
2-1/8	3/16	6227-33	33
2	3/16	6227-32	32
1-7/8	3/16	6227-31	31

1.725 ± .010	.210 ± .005	2-1/8"	1-3/4"	3/16"	6227-30	30
1.600 ± .010	.210 ± .005	2"	1-5/8"	3/16"	6227-29	29
1.475 ± .010	.210 ± .005	1-7/8"	1-1/2"	3/16"	6227-28	28
1.484 ± .006	.139 ± .004	1-3/4"	1-1/2"	1/8"	6227-27	27
1.421 ± .006	.139 ± .004	1-11/16"	1-7/16"	1/8"	6227-26	26
1.359 ± .006	.139 ± .004	1-5/8"	1-3/8"	1/8"	6227-25	25
1.296 ± .006	.139 ± .004	1-9/16"	1-5/16"	1/8"	6227-24	24
1.234 ± .006	.139 ± .004	1-1/2"	1-1/4"	1/8"	6227-23	23
1.171 ± .006	.139 ± .004	1-7/16"	1-3/16"	1/8"	6227-22	22
1.109 ± .006	.139 ± .004	1-3/8"	1-1/8"	1/8"	6227-21	21
1.046 ± .006	.139 ± .004	1-5/16"	1-1/16"	1/8"	6227-20	20
.984 ± .006	.139 ± .004	1-1/4"	1"	1/8"	6227-19	19
.921 ± .006	.139 ± .004	1-3/16"	15/16"	1/8"	6227-18	18
.859 ± .006	.139 ± .004	1-1/8"	7/8"	1/8"	6227-17	17
.796 ± .006	.139 ± .004	1-1/16"	13/16"	1/8"	6227-16	16
.734 ± .006	.139 ± .004	1"	3/4"	1/8"	6227-15	15
.737 ± .005	.103 ± .003	15/16"	3/4"	3/32"	6227-14	14
.674 ± .005	.103 ± .003	7/8"	11/16"	3/32"	6227-13	13
.612 ± .005	.103 ± .003	13/16"	5/8"	3/32"	6227-12	12
.549 ± .005	.103 ± .003	3/4"	9/16"	3/32"	6227-11	11
.487 ± .005	.103 ± .003	11/16"	1/2"	3/32"	6227-10	10
.424 ± .005	.103 ± .003	5/8"	7/16"	3/32"	6227-9	9
.362 ± .005	.103 ± .003	9/16"	3/8"	3/32"	6227-8	8
.364 ± .005	.070 ± .003	1/2"	3/8"	1/16"	6227-7	7
.301 ± .005	.070 ± .003	7/16"	5/16"	1/16"	6227-6	6
.239 ± .005	.070 ± .003	3/8"	1/4"	1/16"	6227-5	5
.208 ± .005	.070 ± .003	11/32"	7/32"	1/16"	6227-4	4
.176 ± .005	.070 ± .003	5/16"	3/16"	1/16"	6227-3	3
.145 ± .005	.070 ± .003	9/32"	5/32"	1/16"	6227-2	2
.114 ± .006	.070 ± .003	1/4"	1/8"	1/16"	6227-1	1

I.D.	W	DIMEN. TO AN SPEC.	LINE NO.	I.D.	"W"	O.D.	I.D.	W	DIMEN. TO AN SPEC.	LINE NO.	
ACTUAL				NOMINAL							

E-21084 PG-1

ORIGINALLY USED ON: GENERAL USE HYD. SERVICES - 40 TO + 225°F

NATHAN MFG. CO. NEW YORK

MATL: PARKER COMPOUND #5427 OR EQUAL

WEIGHT: WEIGHT ROUGH, WEIGHT FINISHED

DATE: SUPERSEDES DWG: DATED:

BY: O-RING COMMERCIAL

E-21084



"C" - DRILL DIA. 1/16"



THE S.S. NATIONAL FORM

095
D & #
20

Line No.	Supersedes Dr'g.	Plating	Mat'l.	"D"	"C"	"B"	"A" - Th'd's.	WEIGHT	
								ROUGH	FINISHED
20			Steel			2"	3/8" - 16		
19			Steel			7/16"	#10 (.190") - 24		
18			Steel			2-3/4"	5/16" - 18		
17			Steel			2"	5/16" - 18		
16			Steel			1/2"	#8 (.164") - 32		
15			Steel			1/8"	#10 (.190") - 24		
14			Steel			3/8"	#8 (.164") - 32		
13			Steel			2/8"	#14 (.242") - 24		
12			Brass			5/16"	#8 (.164") - 32		
11			Steel			5/16"	#8 (.164") - 32		
10			Brass			7/8"	#12 (.216") - 24		
9			Steel			1-5/16"	#12 (.216") - 24		
8			Steel			1"	#12 (.216") - 24		
7			Steel			1-3/4"	#12 (.216") - 24		
6			Steel			1-3/4"	#12 (.216") - 24		
5			Steel			1-1/2"	#12 (.216") - 24		
4			Steel			1-1/4"	#12 (.216") - 24		
3			Steel			1-3/16"	#12 (.216") - 24		
2			Steel			1-1/4"	#12 (.216") - 24		
1			STAINLESS STEEL			3/8"	#6 (.138") - 32		

Remarks

- E Line 20 added
- F Make from X-1207-6" added to line 9
- D Line 19 added
- C Line 18 added
- B LINE 17 ADDED
- A Dr'g. retraced, lines 1 to 16 added

ORIGINALY USED ON
GENERAL USE
GENERAL COLLECTION OF
CHRIS ALBERTS

NATHAN MFG. CO. NEW YORK
PURCHASE (SEE TABLE)
SUPERSEDES DWG. NO. X-1207
DATED 2-30-37
PATT. NO. X-1207
TITLE FILLISTER HEAD MACHINE SCREWS
W.C. NO. X-1207
DATE MAY 12, 1930

REVISIONS
TOLERANCE UNLESS OTHERWISE SPECIFIED:
DECIMALS: .005, FRACTIONS: 1/32"
ANGLES: ± 1/2°

FINISH
1 - ORDINARY MACHINE
2 - FINE MACHINE
3 - LAP OR POLISH

SCALE

Line No.