

GENERAL NOTES

- 14. MANUFACTURE, INSTALLATION, AND TESTING OF SECURING AND JET ENGINE RUN-UP FITTINGS...
15. AREAS SUBJECT TO DEVELOPMENT OR AREAS WHERE DEVIATIONS FROM THIS DRAWING ARE PERMITTED...
16. FITTING FABRICATION, WELDING, AND INSPECTION SHALL BE IN ACCORDANCE WITH S9074-AR-GIB-010/278...
17. THE NUMBER AND LETTER IN PARENTHESIS () UNDER A VIEW DENOTES THE VIEW FROM WHICH IT WAS TAKEN.
18. ABREVIATIONS ARE IN ACCORDANCE WITH ANS/ASME Y14.38 AND MIL-STD-25 EXCEPT AS OTHERWISE NOTED.
19. REPAIR DECK COVERING IN WAY OF SECURING FITTING INSTALLATION IN ACCORDANCE WITH NAVSEA STANDARD ITEM 009-32, TABLE 2.
20. FOR NEW INSTALLATIONS AND REPLACEMENTS, FITTINGS TYPE VI, VII, AND XIII REQUIRE FULL PENETRATION WELDS WHEN INSTALLED IN BALLISTIC DECK.
21. ENGINE RUN-UP ATTACHMENT FITTING (PC 38) IS DESIGNED TO BE COMPATIBLE WITH THE XIII ENGINE RUN-UP FITTING.
22. TYPE XIII FITTINGS SHALL BE SPECIFIED FOR ALL ENGINE RUN-UP FITTING INSTALLATIONS.
23. FOR ALUMINUM DECKING, THE USE OF SECURING FITTING TYPE XVII SHALL BE USED FOR NEW AND REPLACEMENT INSTALLATIONS IN LIEU OF TYPE II, III, AND XIV.
24. PAINTING SHALL BE IN ACCORDANCE WITH NAVSEA STANDARD ITEM 009-32, TABLE 2, AND AS NOTED ON THIS DRAWING.
25. THE DRAIN HOLES SHOWN IN TYPE XIII, TYPE XVII, AND TYPE XVIII FITTINGS ARE REQUIRED FOR FITTINGS INSTALLED IN AIRCRAFT ELEVATOR PLATFORMS ONLY.
26. THE TEMPERATURE AT THE ALUMINUM/TITANIUM AND TITANIUM/STEEL BOND ASSEMBLY OR INSTALLATION WELDING.
27. REPLACEMENT OF CROSSBARS IN TYPE XVII AND TYPE XVIII FITTINGS AFTER INSTALLATION MAY RESULT IN DAMAGE TO THE TRIMETALLIC TRANSITION COLLAR.
28. AFTER THE BONDING PROCESS, THE TRIMETALLIC BILLET SHALL BE SLICED INTO 3/4" +1/16" -0" THICK DISCS.
29. TYPE I, II, III, VI, VII, VIII, XIII, AND XIV AIRCRAFT SECURING FITTINGS SHALL BE AS SHOWN HEREON OR AS MANUFACTURED BY PECK & HALE, INC., 180 DIVISION AVENUE, WEST SAUVILLE, NY 11796, CAGE 94653, PHONE (631) 589-2510 (WWW.PECKHALE.COM) REF 3, OR PASCAGOULA NAVAL ENGINEERING WORKS, INC., 3614 FREEDOM ST., PASCAGOULA, MS 38967-5156, PHONE (228) 769-7081, CAGE 52891 (WWW.PEMCO-INC.COM) REF 2.
30. NEW SHIP CONSTRUCTION AND SHIP ALTERATIONS SHALL PROVIDE APPROPRIATE STRUCTURE TO MEET THE PULL TEST LOADS IN THE INSTALLATION TEST NOTES SPECIFIED IN THIS DRAWING FOR THE FITTING CALLED FOR.
31. TYPE I, II, III, VI, VII, VIII, XIII, AND XIV AIRCRAFT SECURING FITTINGS SHALL BE AS SHOWN HEREON OR AS MANUFACTURED BY PECK & HALE, INC., 180 DIVISION AVENUE, WEST SAUVILLE, NY 11796, CAGE 94653, PHONE (631) 589-2510 (WWW.PECKHALE.COM) REF 3, OR PASCAGOULA NAVAL ENGINEERING WORKS, INC., 3614 FREEDOM ST., PASCAGOULA, MS 38967-5156, PHONE (228) 769-7081, CAGE 52891 (WWW.PEMCO-INC.COM) REF 2.
32. ALL BULKHEAD MOUNTED HIGHPOINT SECURING FITTINGS SHALL BE INSTALLED TESTED IN ACCORDANCE WITH NAVAIRWARCENACDYLK/DWG 520765 (FOR USMC H-3), 627860 (FOR USN H-608/F/H/R RAST CAPABLE HELICOPTERS), AND 627861 (FOR USN MH-60S HELICOPTERS).
33. ALL DECK MOUNTED HIGH POINT SECURING FITTINGS SHALL BE INSTALLED TESTED LAW T-6 OF THIS DRAWING.
34. ALL SECURING FITTINGS WITH BOLTED INSTALLATIONS SHALL BE GROUNDED TO THE SHIP'S STRUCTURE IN ACCORDANCE WITH MIL-STD-1310, CLASS C, AND MIL-DTL-24749 (DOES NOT APPLY TO TYPE XIII FITTINGS).
35. GENERAL INFO, PARTS LIST, TESTING INFO, NOTES, HOOK DET, INSTALLATION INFO, TYPE XIII, XVII, & XVIII FTG, INSTALLATION INFO, TYPE VI & VII FTG, INSTALLATION INFO, TYPE I, II, III, & XIV FTG, FABRICATION INFO, TYPE XVII & XVIII FTG, FABRICATION INFO, TYPE VII FTG, FABRICATION INFO, TYPE VIII FTG, FABRICATION INFO, TYPE IX & VIII FTG, FABRICATION INFO, TYPE VI & III FTG, FABRICATION INFO, TYPE I FTG, TITLE SHEET, PARTS LIST, GEN INFO

TABLE F-5 SPECIAL WELDING INSTRUCTIONS. Table with columns: MATERIAL TO MATERIAL, DIMPLED DECK CROSSBAR (PC 12), ASTM A332, GR 4130, CROSSBAR (PC 2 & 25), ASTM A332, GR 4130, TYPE INSTALLATION, TYPE, CROSSBAR, NON-BALLISTIC STEEL DECK, ALUMINUM DECK PLANKING (BOLTED), ALUMINUM DECK PLATING (BOLTED), BALLISTIC (1 TO 2 THK DK PLATING), BALLISTIC (1 THK OR LESS DK PLATING), BALLISTIC OR NON-BALLISTIC DIMPLED DECK, ENGINE RUN-UP FITTING (WELDED), ENGINE RUN-UP FITTING (BOLTED), NON-BALLISTIC STEEL DECK (SEE GN 10), ALUMINUM DECK PLATING (WELDED), ALUMINUM DECK PLATING (WELDED).

TABLE E-5 AIRCRAFT SECURING FITTING "TYPE-USE" INDEX. Table with columns: TYPE, CROSSBAR, TYPE INSTALLATION, FAB DET, INSTL DET, GN (ALL - 1, 2, 3, 4, 5, 6, 11, 22), FABRICATION, INSTALLATION, TEST.

REVISIONS. Table with columns: ZONE/REV, DESCRIPTION, REVISIONS, DATE, APPROVED. Includes revision 1: DRAWING REDRAWN TO SUIT LATEST FLEET REQUIREMENTS. UPDATED THE COMMERCIAL, FEDERAL, OR MILITARY SPECIFICATIONS, PUBLICATIONS, AND STANDARD TYPE DRAWINGS REQUIRED FOR MATERIAL ACQUISITION, AND FABRICATION, INSTALLATION, AND TESTING.

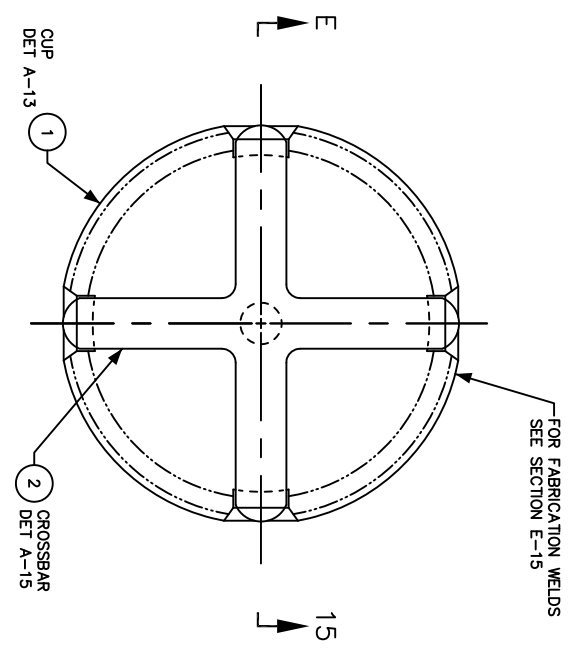
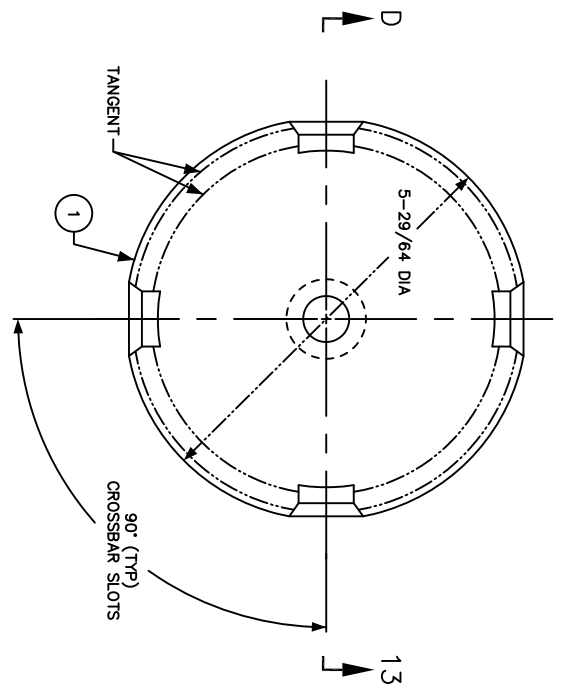
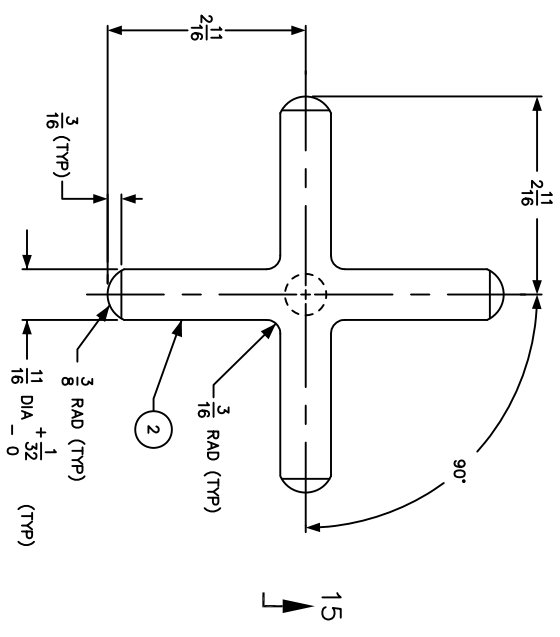
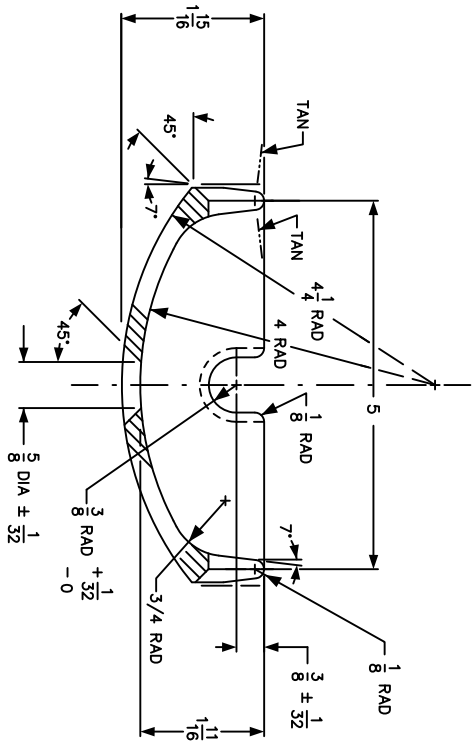
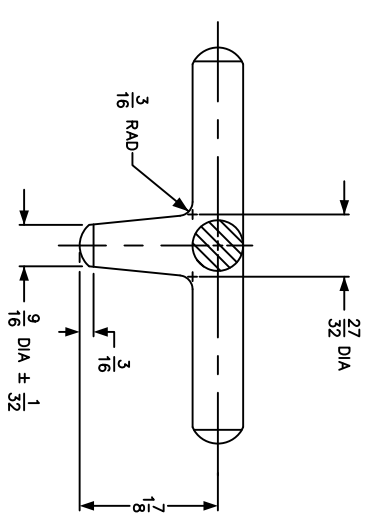
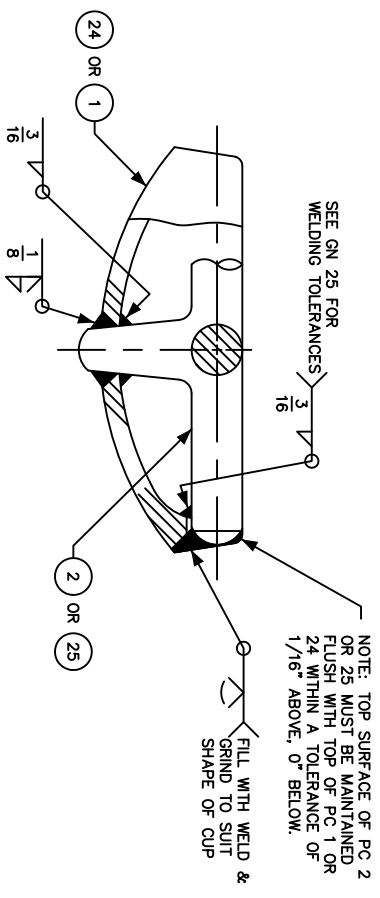
TABLE OF CONTENTS. Table with columns: SHEET NO., DESCRIPTION, NO.

GENERAL INFORMATION. Includes: PREPARING ACTIVITY, SIGNATURE, DATE, TOLERANCES ARE IN ACCORDANCE WITH UNLESS OTHERWISE INDICATED ON DRAWING, LEAD ENGINEER, DRAWING NO., SIZE CODE, DATE, APPROVED FOR COMMANDER, SCALE, SHEET 1 OF 16.

PARTS LIST. Table with columns: QTY, DESCRIPTION, QUANTITIES ARE FOR ONE SECURING FITTING ASSEMBLY (COMPLETE), PARTS LIST, MTL, MTL SPEC, REMARKS.

FABRICATION NOTES

- F-1. HEAT TREAT, QUENCH, AND TEMPER COMPLETED CROSSBARS AND CROSSBAR ASSEMBLIES SHOWN BELOW TO 30 TO 33 HRC. ASSEMBLY WELDS SHALL BE MAGNETIC PARTICLE TESTED AFTER TEMPERING. (SEE TEST NOTE T-1).
 - A. CROSSBAR AND CUP ASSEMBLY (PC 1 & 2). (PC 10 & 2).
 - B. CROSSBAR & 24 OR 1 (PC 24 & 25).
 - C. CROSSBAR, PC 2 OR 25 (FOR REPLACEMENT OF CROSSBAR ONLY).
- HEAT TREATMENT NOTES: MINIMUM TEMPERING TEMPERATURE IS 975 F. HARDNESS SHALL BE CHECKED ON THE CROSSBAR, DIRECTLY ON ROCKWELL "C" SCALE. REMOVAL OF DECARBURIZED LAYER TO A MAXIMUM DEPTH OF APPROXIMATELY .025" IS PERMITTED PRIOR TO HARDNESS TESTING. FORGINGS AND HEAT TREATMENT PROCESS SHALL BE CONTROLLED TO RESULT IN NO MORE THAN .010" TOTAL DECARBURIZATION AND APPROXIMATELY .03" PARTIAL DECARBURIZATION.
- F-2. COMPLETED ASSEMBLIES FOR WELDED APPLICATIONS SHALL BE SANDBLASTED AND PRIMER COATED WITH COATING IN ACCORDANCE WITH MIL-PRF-23236 TYPE V, CLASS 7, GRADE C AFTER FABRICATION. THE PURCHASER MAY OPT TO WAIVE THE APPLICATION OF THE PRIMER COATING IN THE PURCHASE SPECIFICATION. SEE INSTALLATION NOTES FOR FINAL PAINTING.
 - F-3. COMPLETED ASSEMBLIES FOR BOLTED APPLICATIONS SHALL BE SANDBLASTED, PRIMER COATED, AND TOP COATED AFTER FABRICATION. COATS SHALL HAVE A TOTAL DRY FILM THICKNESS OF 8 MILS OF COATING IN ACCORDANCE WITH MIL-PRF-23236 TYPE V, CLASS 7, GRADE C. AFTER DETERMINING INTENDED LOCATION OF ASSEMBLIES, APPLY TOP COAT TO MATCH THE SURROUNDING AREA.
 - F-4. FIT-UP OF THE TRIMETALLIC TRANSITION COLLAR (PC 26 OR 31) TO THE FITTING CUP (PC 24) IS CRITICAL. A CLEARANCE BETWEEN CUP O.D. AND TRIMETALLIC COLLAR I.D. SHALL NOT BE GREATER THAN 1/16" SINCE IT MAY DAMAGE THE EXPLOSIVE BONDS OF THE TRIMETALLIC TRANSITION COLLAR DURING ASSEMBLY.
 - F-5. FIT-UP OF THE DECK APRON (PC 30 OR 35) TO THE TRIMETALLIC TRANSITION COLLAR O.D. AND APRON I.D. SHALL NOT BE GREATER THAN 1/16". SINCE IT MAY DAMAGE THE EXPLOSIVE BONDS OF THE TRIMETALLIC TRANSITION COLLAR DURING ASSEMBLY.
 - F-6. FULL PENETRATION WELD IN PC 39 (AFTER ASSEMBLY WITH PC 38) PER SQT 4570 OF 80 CLASS. WELD SHALL BE POST HEAT TREATED TO 550 F AND POST HEAT SLOW COOLED AFTER WELDING UNLESS ASSEMBLY GOS DIRECTLY TO HEAT TREAT.
 - F-7. LONG LINK AND ATTACHMENT FITTING ASSEMBLY (PC 38, 39, AND 40) SHALL BE HEAT TREATED, QUENCHED, AND TEMPERED AFTER ASSEMBLY WELDING TO 36 TO 39 HRC. FULL PENETRATION ASSEMBLY WELD IN PC 39 SHALL BE MAGNETIC PARTICLE TESTED AFTER TEMPERING (SEE TEST NOTE T-5). COMPLETE ASSEMBLY SHALL BE SANDBLASTED AND COATED WITH AN INORGANIC ZINC COMPOUND CONFORMING TO CLASS III OF MIL-PRF-23236 AFTER ALL HEATING AND INSPECTION PROCEDURES ARE COMPLETE.
 - F-8. SHOULD THE INSTALLING ACTIVITY REQUIRE A TYPE XVII OR XVIII FITTING TO BE SUSTAINED WITH AN APRON DUE TO INTERFERENCE WITH AN EXISTING TIGHT STRUCTURE, APPROVAL SHALL BE OBTAINED FROM NAVSEA. APPROVAL SHALL BE GRANTED ON A CASE-BY-CASE BASIS.



DETAIL A-15
11/16 DIA CROSSBAR
SCALE: FULL SIZE
(A-10)(A-26)(A-34)

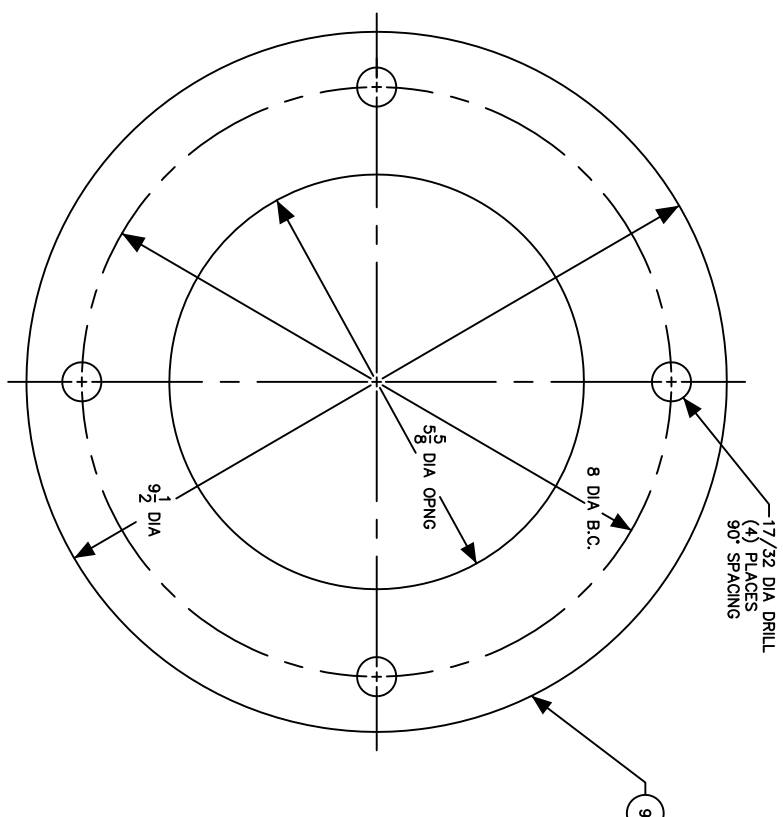
DETAIL A-13
TYPE I CUP
SCALE: FULL SIZE
(A-10)

DETAIL A-10
TYPE I SECURING FITTING
SCALE: FULL SIZE

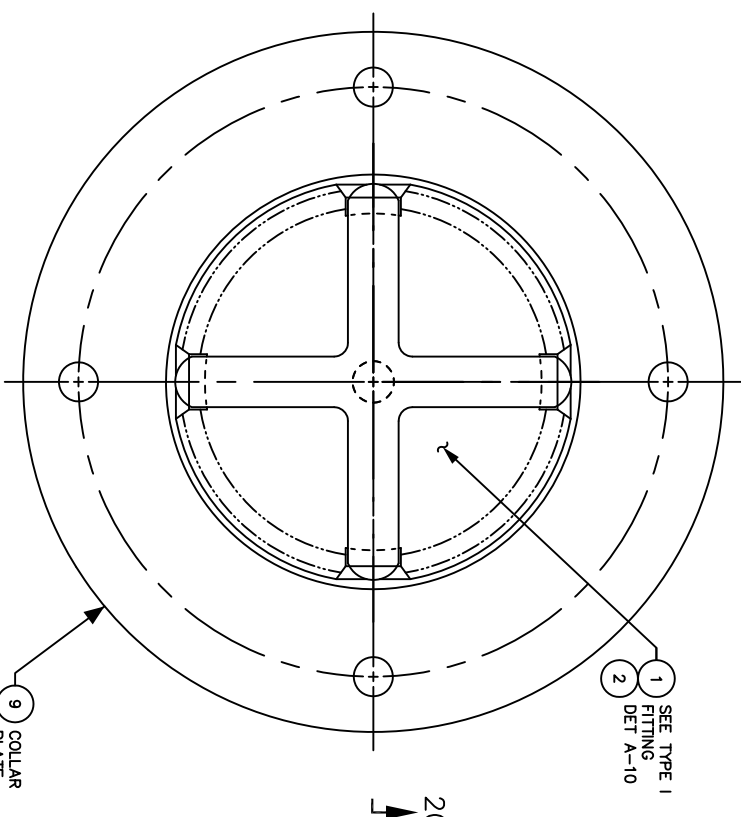
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				F 53711
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				MASS (WEIGHT) -
				SHEET 2

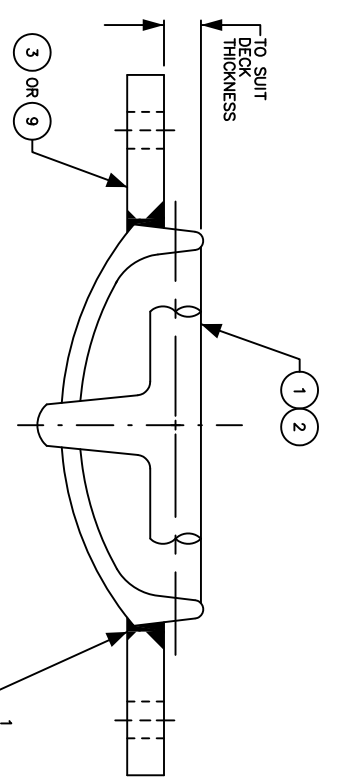
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NAVAL SEA SYSTEMS COMMAND
NAVAL SEA SYSTEMS COMMAND
NAVAL SEA SYSTEMS COMMAND



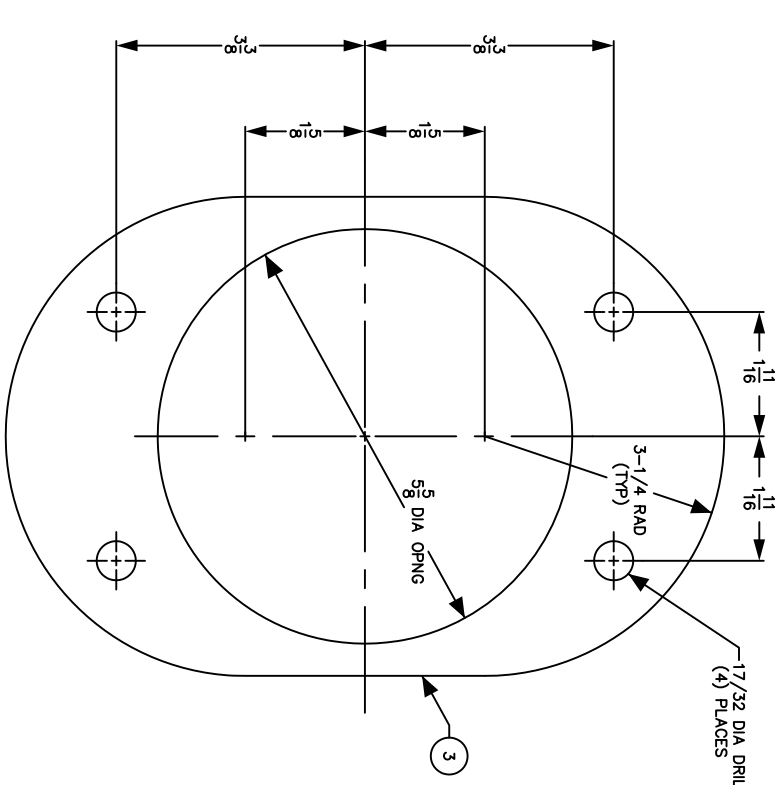
DETAIL D-23
TYPE III COLLAR PLATE
SCALE: FULL SIZE
(A-23)



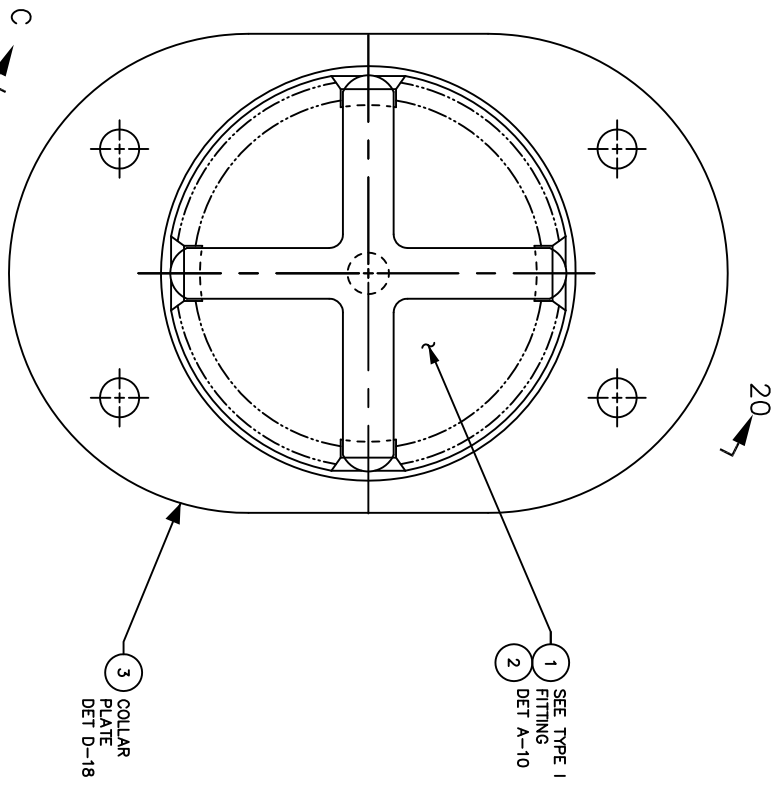
DETAIL A-23
TYPE III SECURING FITTING
SCALE: FULL SIZE



SECTION C-20
TYPE II OR III FITTING FABRICATION WELDING
SCALE: FULL SIZE
(A-18)(A-23)



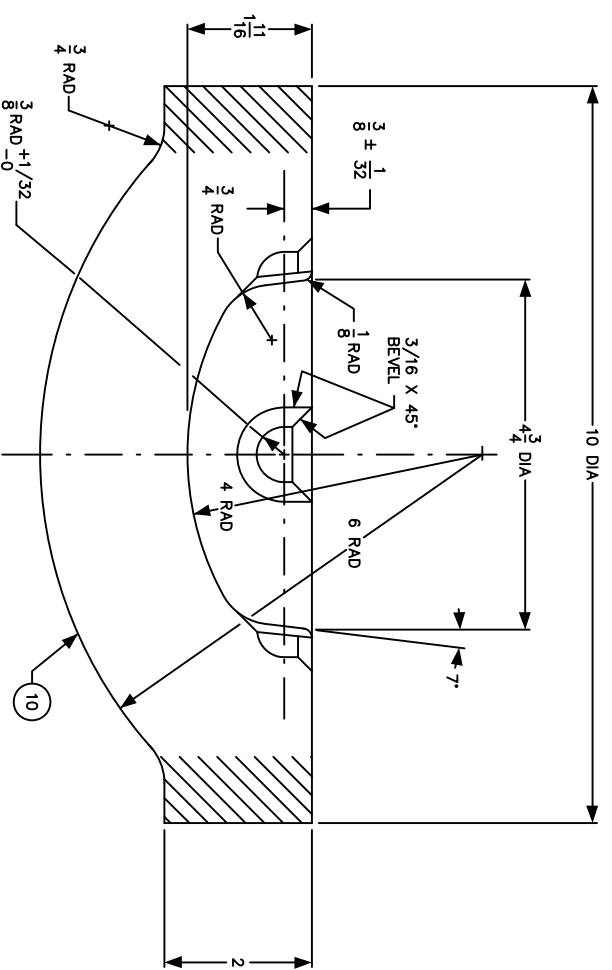
DETAIL D-18
TYPE II COLLAR PLATE
SCALE: FULL SIZE
(A-18)



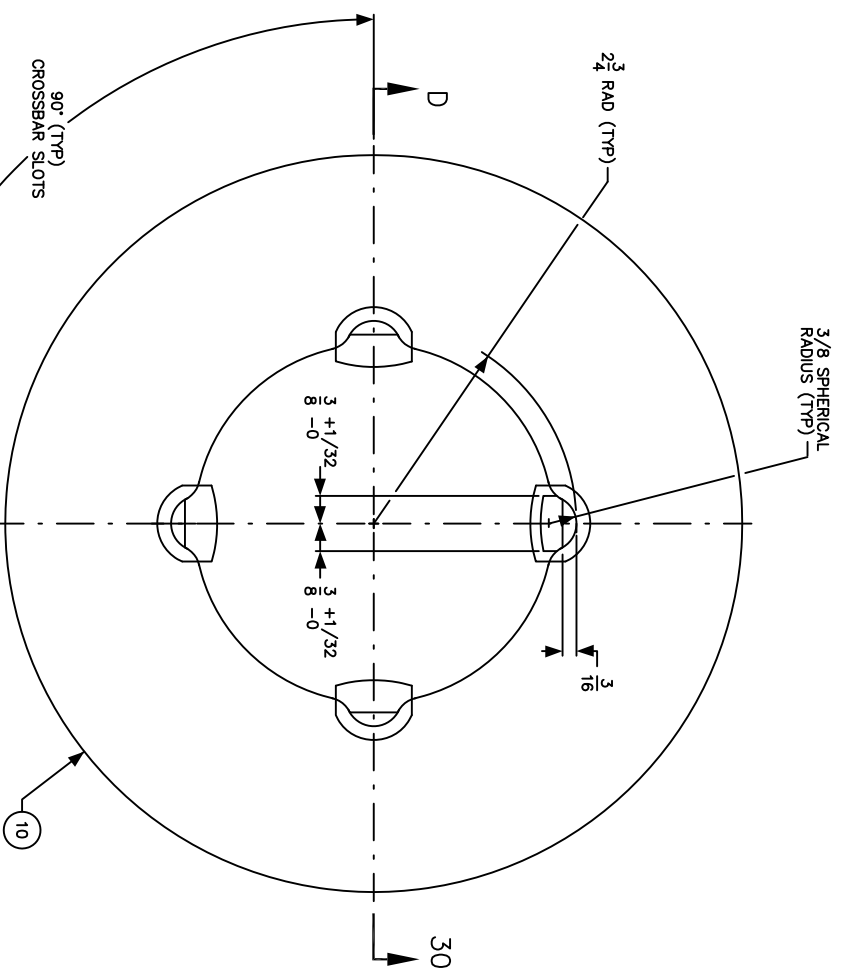
DETAIL A-18
TYPE II SECURING FITTING
SCALE: FULL SIZE

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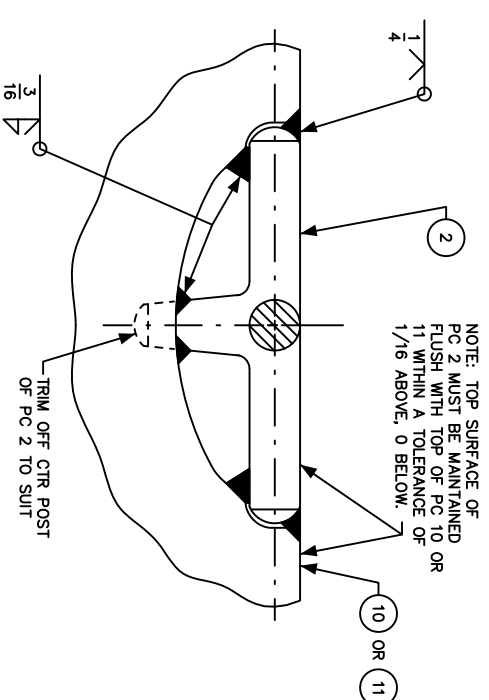
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UNLESS NOTED OTHERWISE	SCALE: AS NOTED	MASS (WEIGHT)	-	SHEET 3



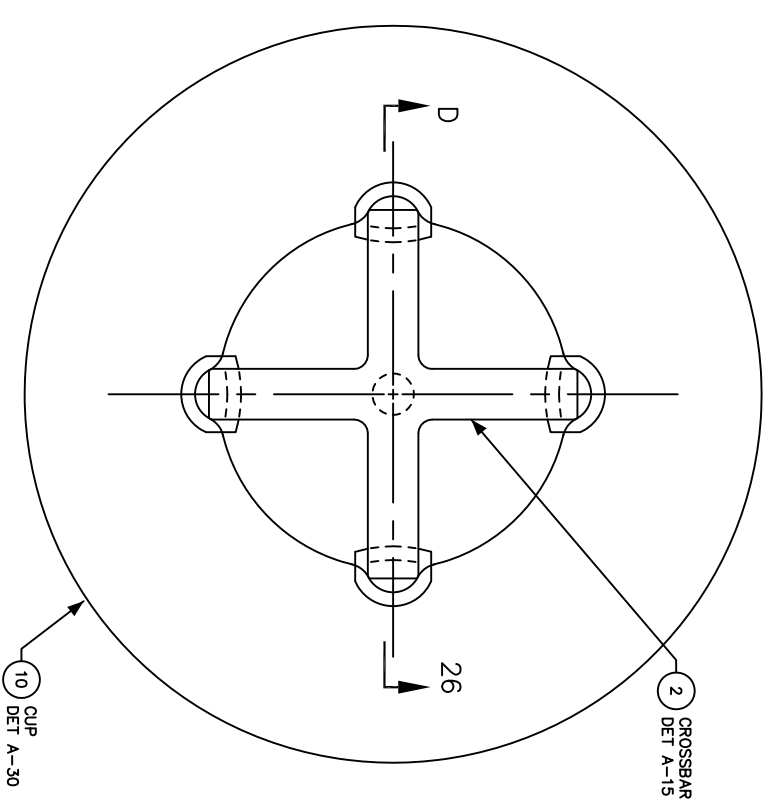
SECTION D-30
TYPE M CUP
SCALE: FULL SIZE
(A-30)



DETAIL A-30
PLAN VIEW
TYPE M CUP
SCALE: FULL SIZE
(A-26)



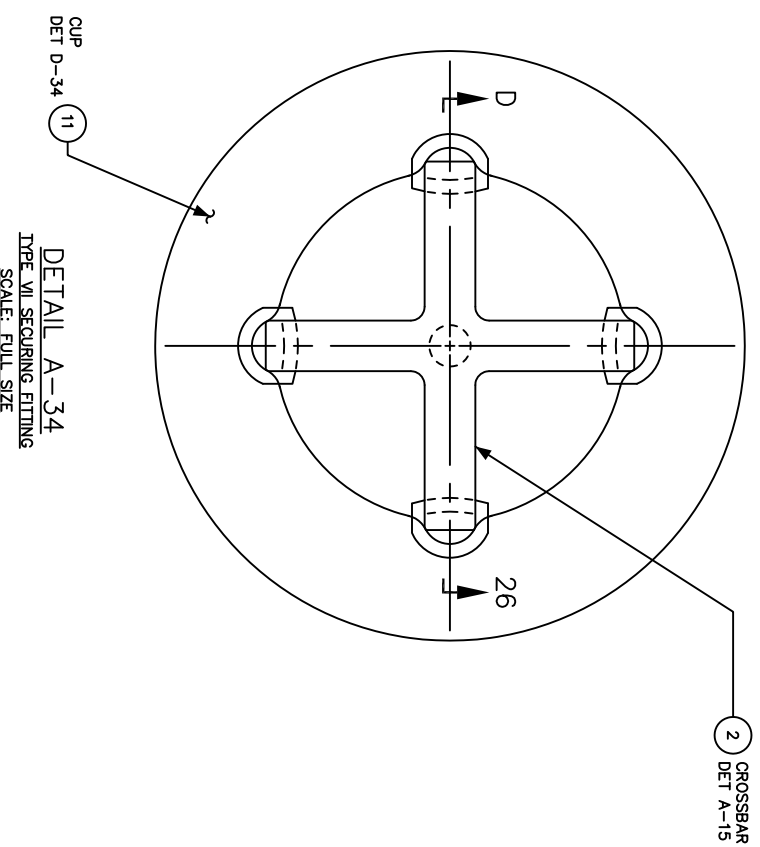
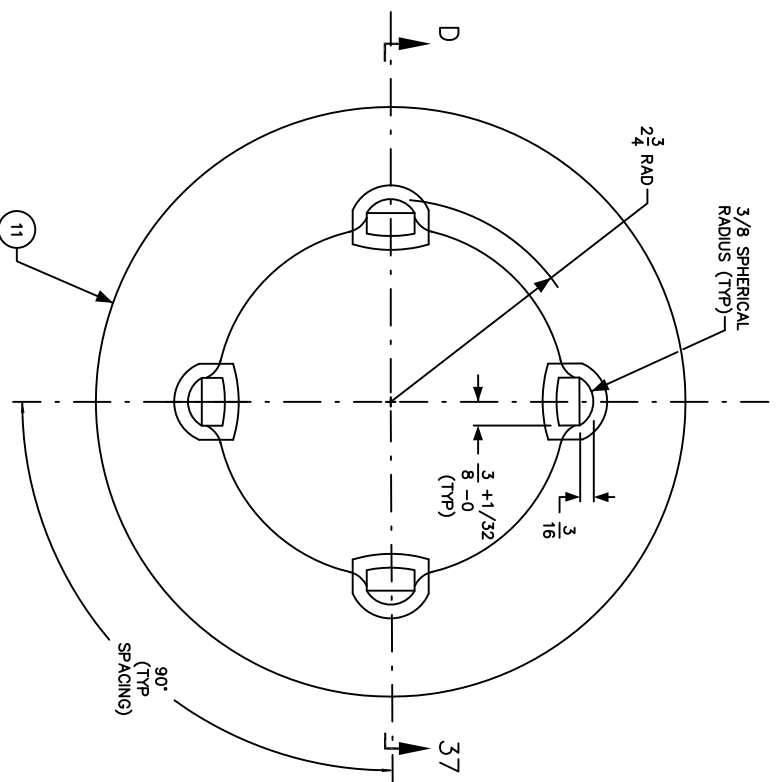
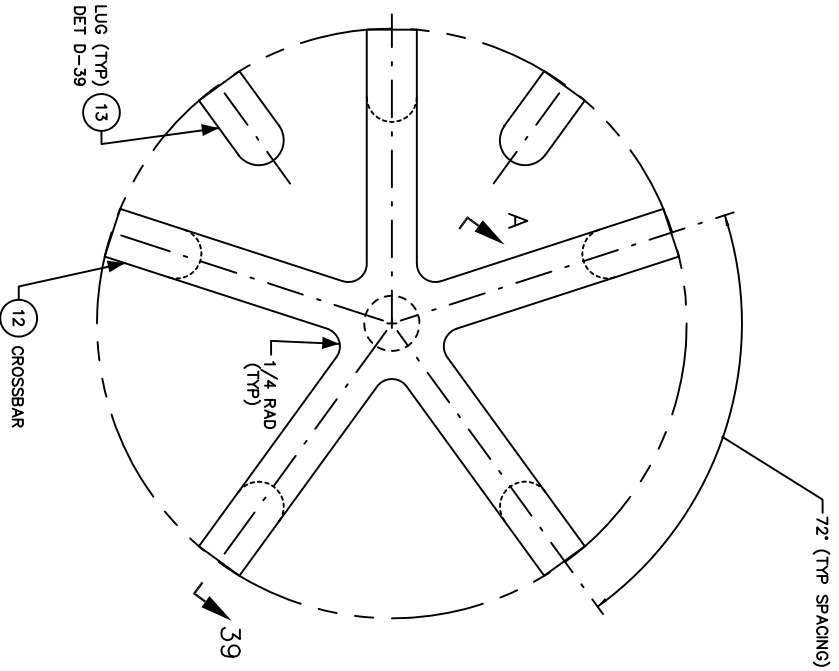
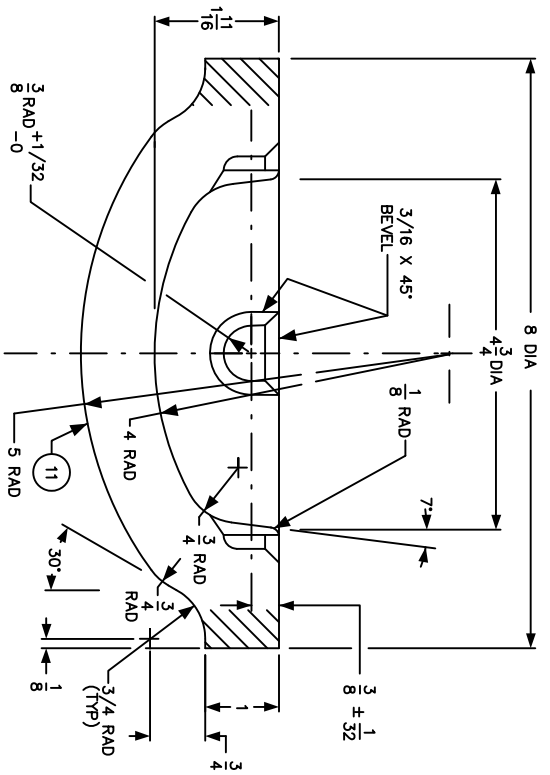
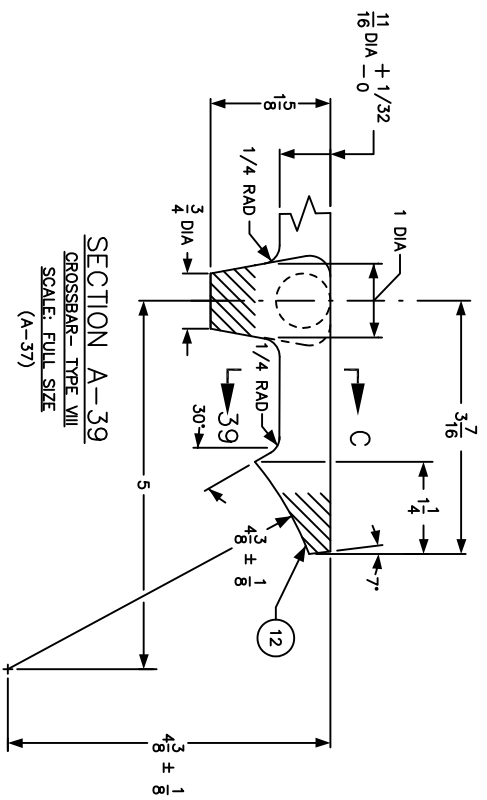
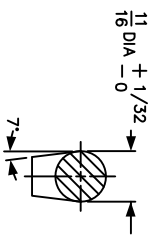
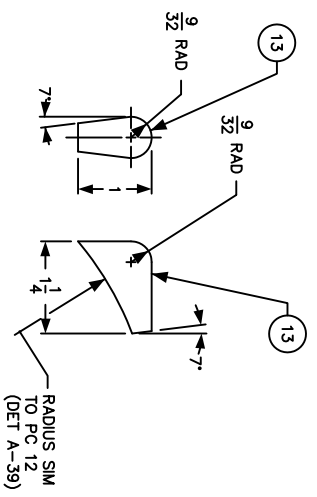
SECTION D-26
SCALE: FULL SIZE
(A-26)(A-34)



DETAIL A-26
TYPE M SECURING FITTING
SCALE: FULL SIZE

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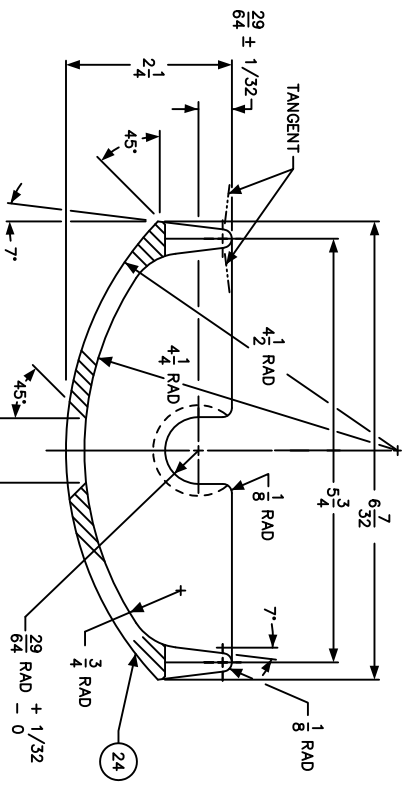
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SCALE: AS NOTED MASS (WEIGHT) - SHEET 4			



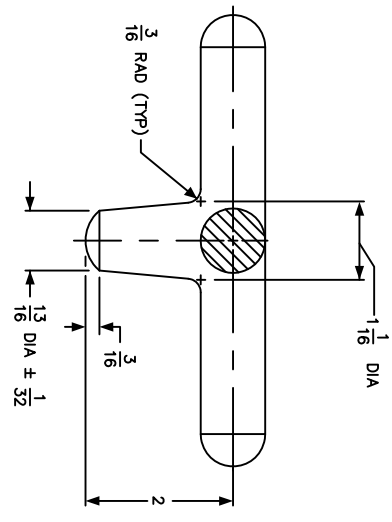
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APPROVED BY	ESSEMS	SCALE	AS NOTED
REV	N	REASON	

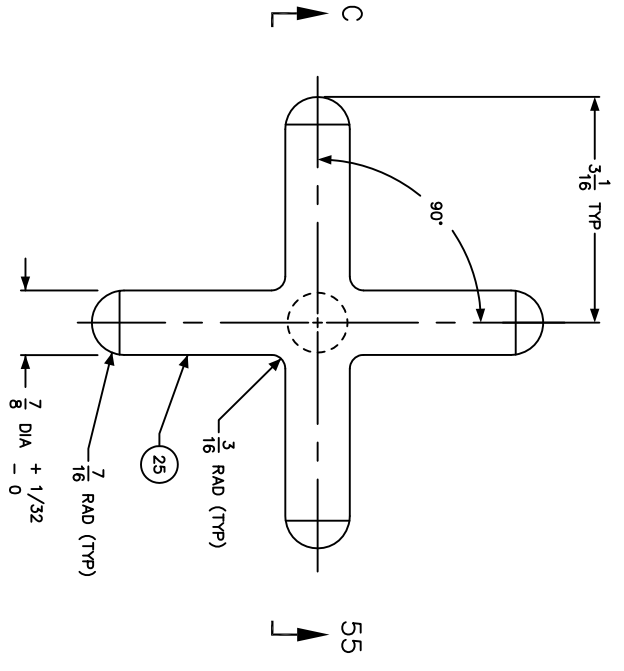
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NAVAL SEA SYSTEMS COMMAND



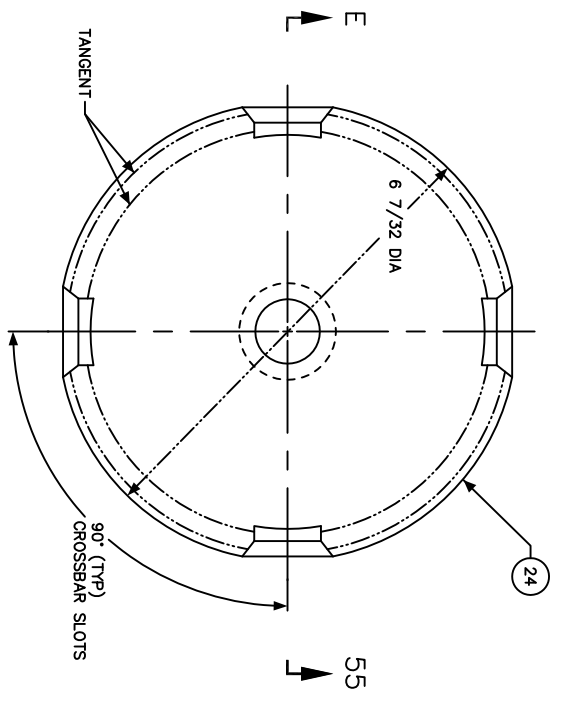
SECTION E-55
SCALE: FULL SIZE
(D-53)



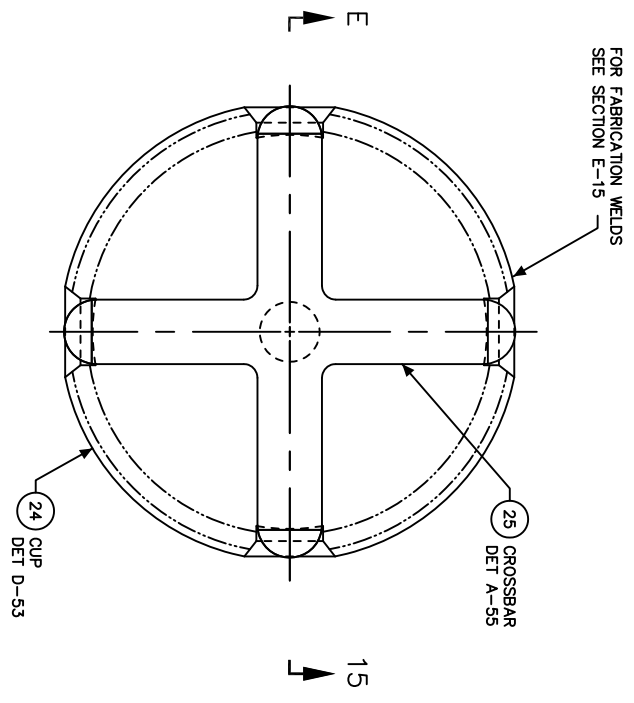
SECTION C-55
SCALE: FULL SIZE
(A-53)



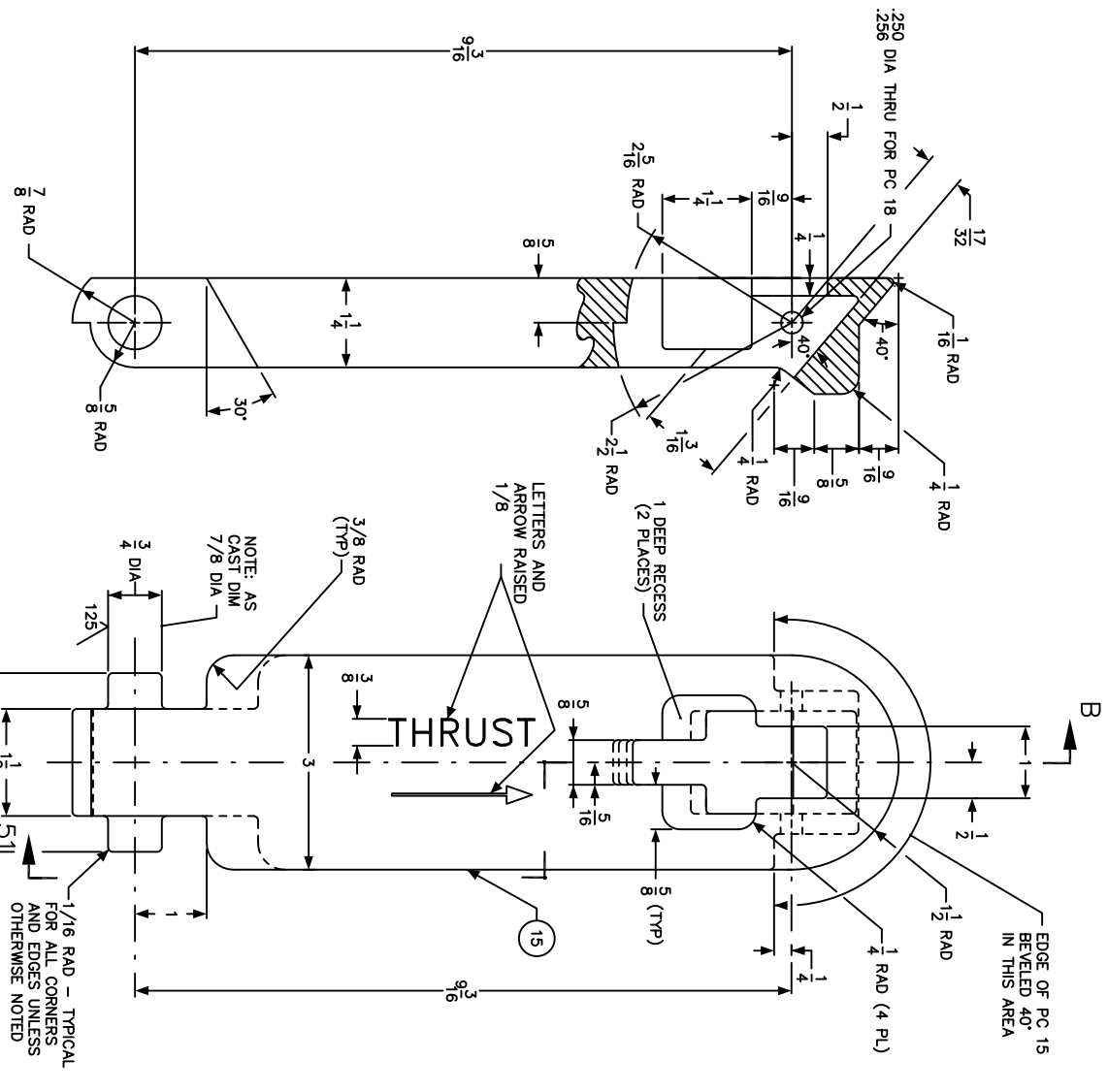
DETAIL A-55
7/8 DIA CROSSBAR
SCALE: FULL SIZE
(A-53)



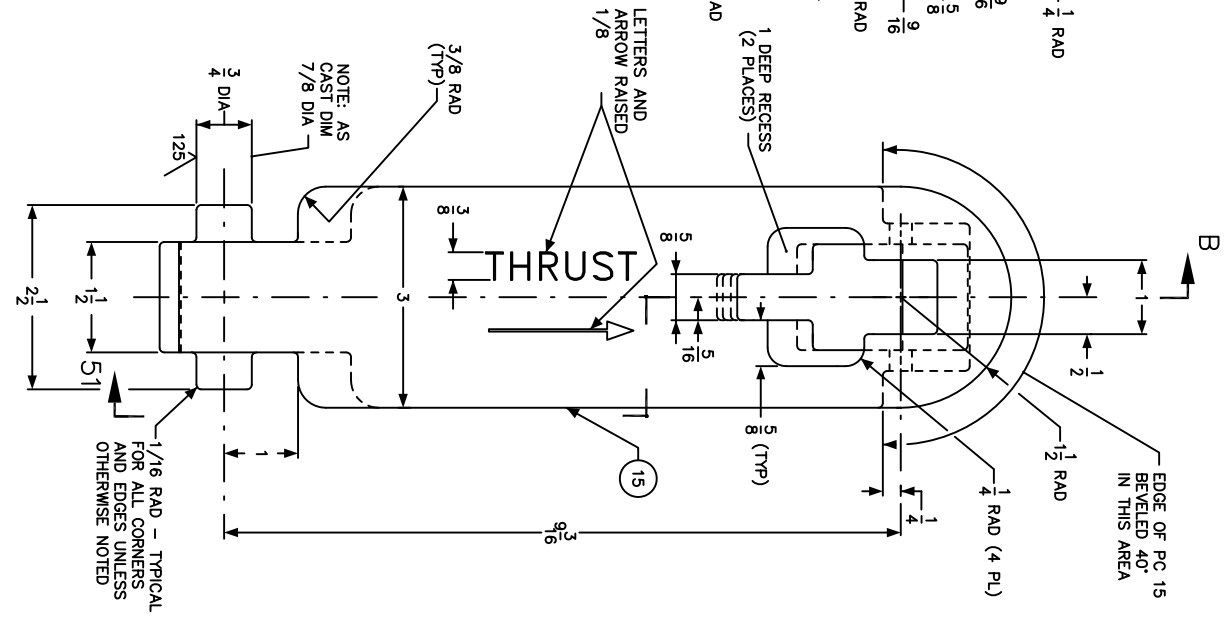
DETAIL D-53
TYPE XIV CUP - 7/8 DIA CROSSBAR
SCALE: FULL SIZE
(A-53)



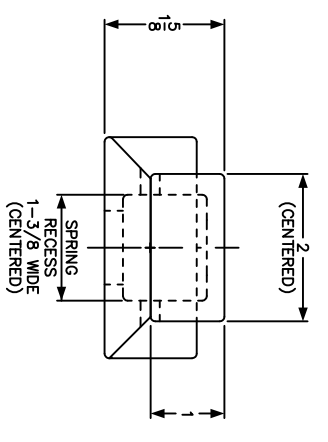
DETAIL A-53
TYPE XIV SECURING FITTING
SCALE: FULL SIZE



SECTION B-51
SCALE: FULL SIZE
(A-50)



DETAIL A-50
COVER
SCALE: FULL SIZE
(A-42)



FABRICATION INFORMATION

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56 55 54 53 52 51 50 49

A B C D E F

64

63

62

61

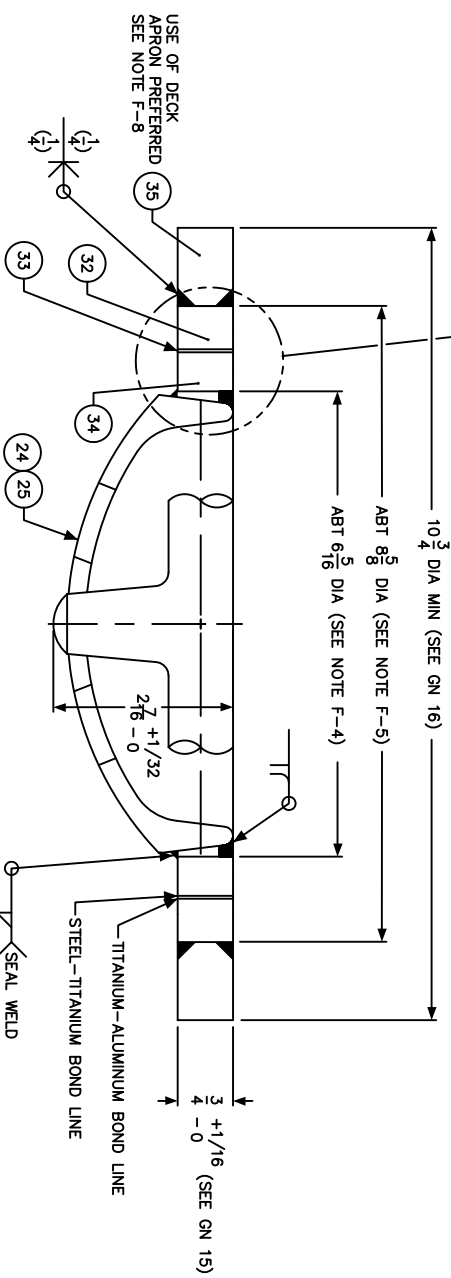
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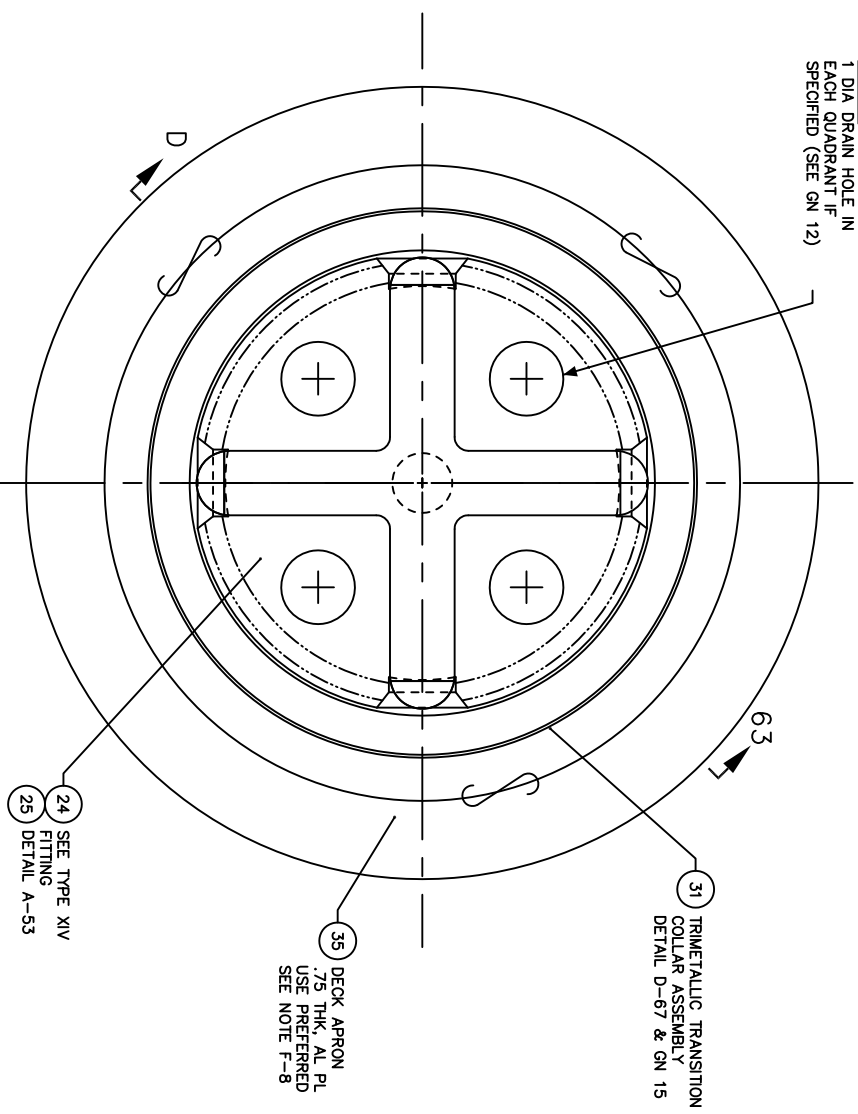
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TRIMETALLIC TRANSITION COLLAR
PC 31 - FOR FABRICATION
SEE DET D-67 & GN 15



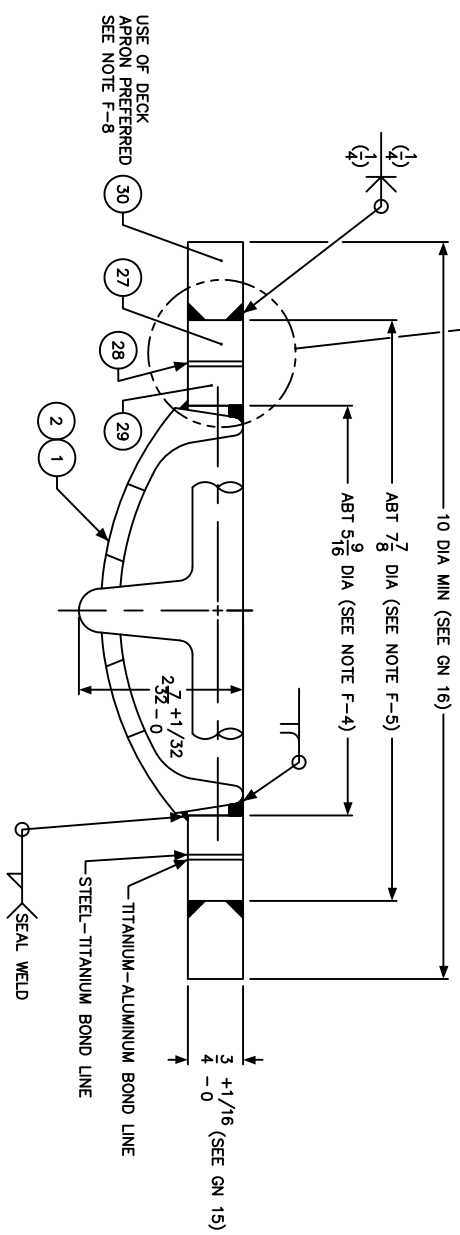
SECTION D-63
TYPE XVII FITTING FABRICATION WELDING
SCALE: FULL SIZE
(A-63)

OPTION:
1 DIA DRAIN HOLE IN
EACH QUADRANT IF
SPECIFIED (SEE GN 12)



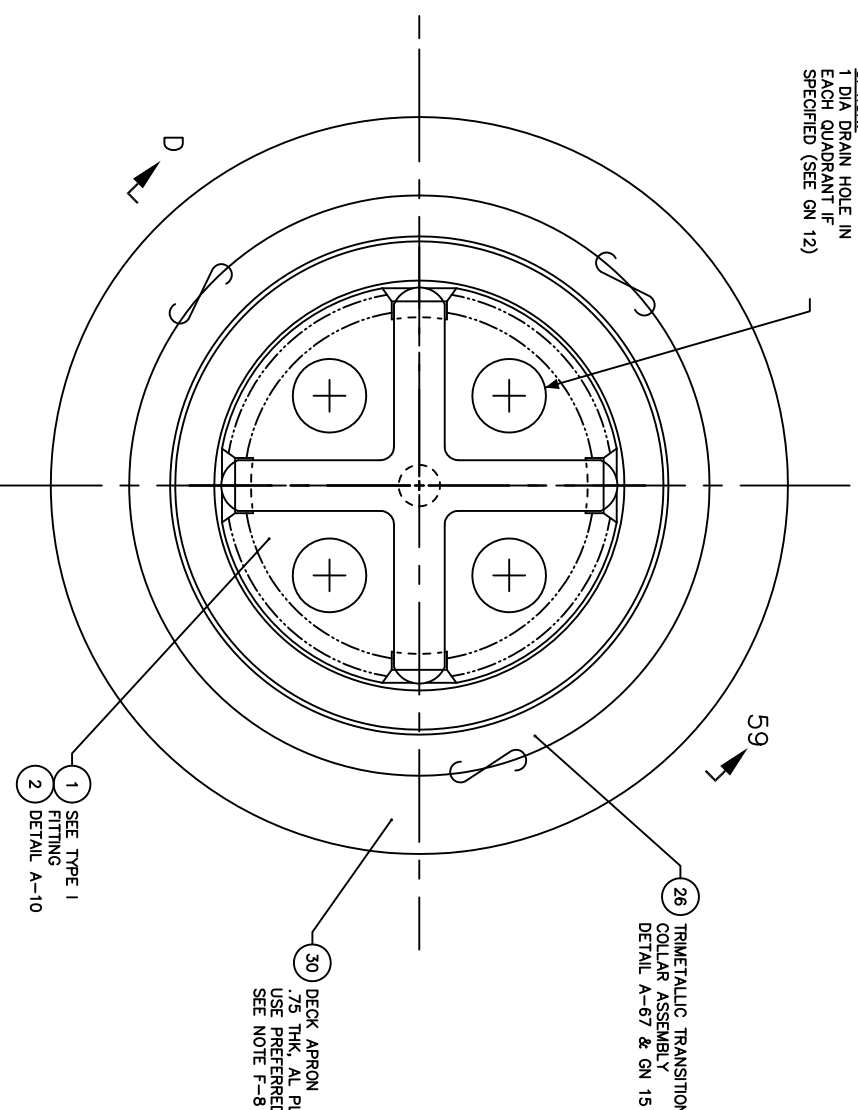
DETAIL A-63
TYPE XVII SECURING FITTING
SCALE: FULL SIZE

TRIMETALLIC TRANSITION COLLAR
PC 26 - FOR FABRICATION
SEE DET A-67 & GN 15



SECTION D-59
TYPE XVII FITTING FABRICATION WELDING
SCALE: FULL SIZE
(A-59)

OPTION:
1 DIA DRAIN HOLE IN
EACH QUADRANT IF
SPECIFIED (SEE GN 12)



DETAIL A-59
TYPE XVII SECURING FITTING
SCALE: FULL SIZE

FABRICATION INFORMATION

NAVY	ESN	DR	NO
53711	803	1916300	P
REVISIONS			
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2			

64

63

62

61

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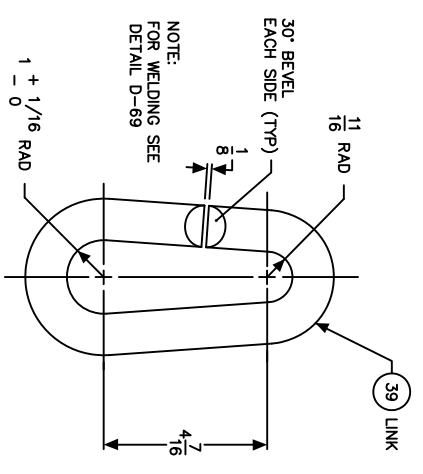
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C

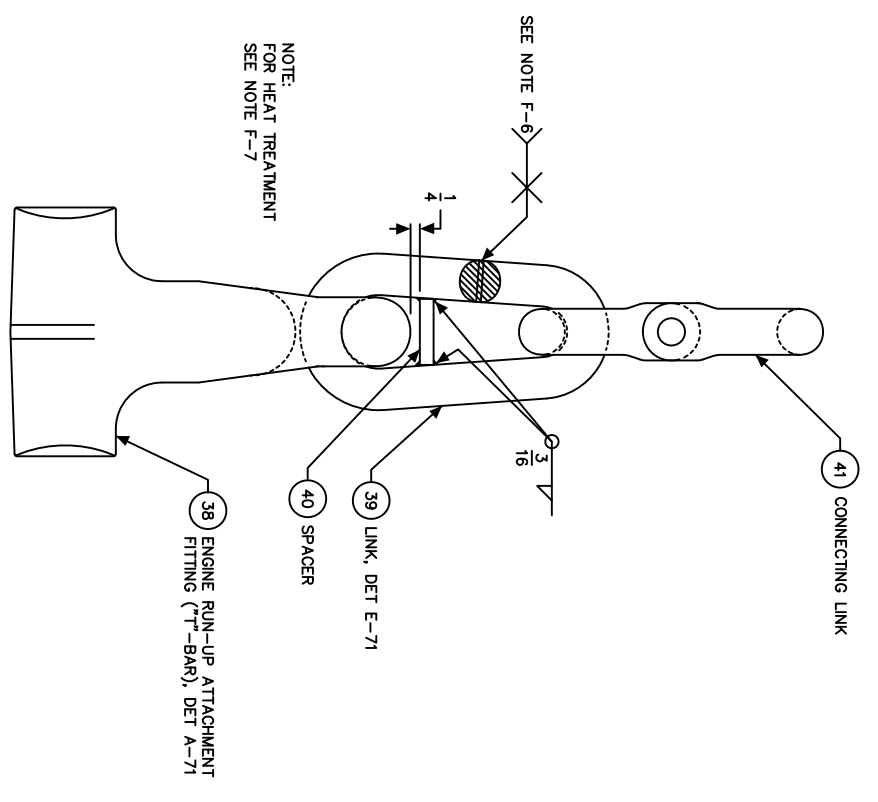
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E

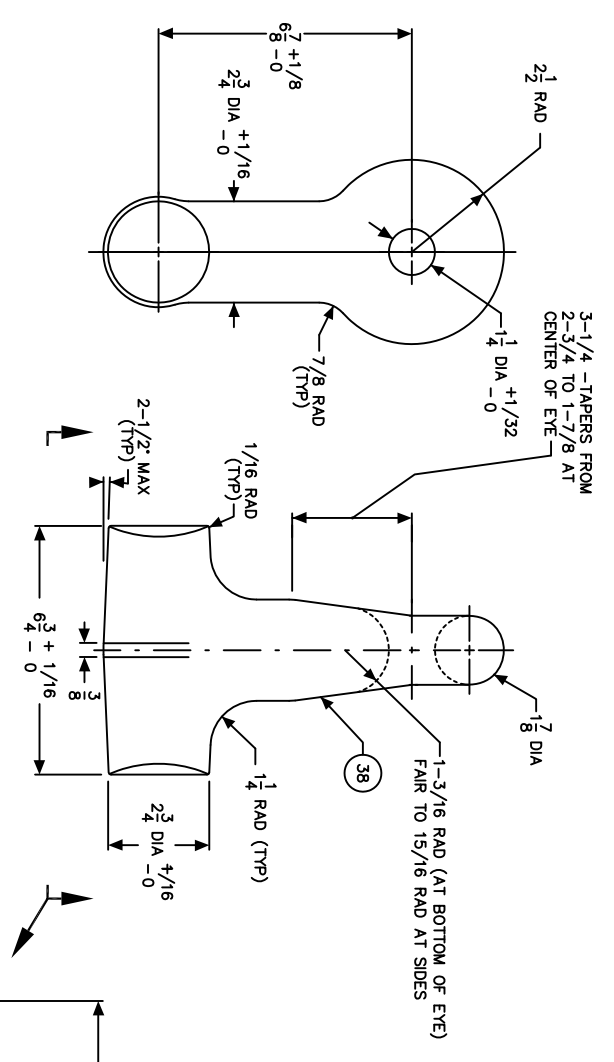
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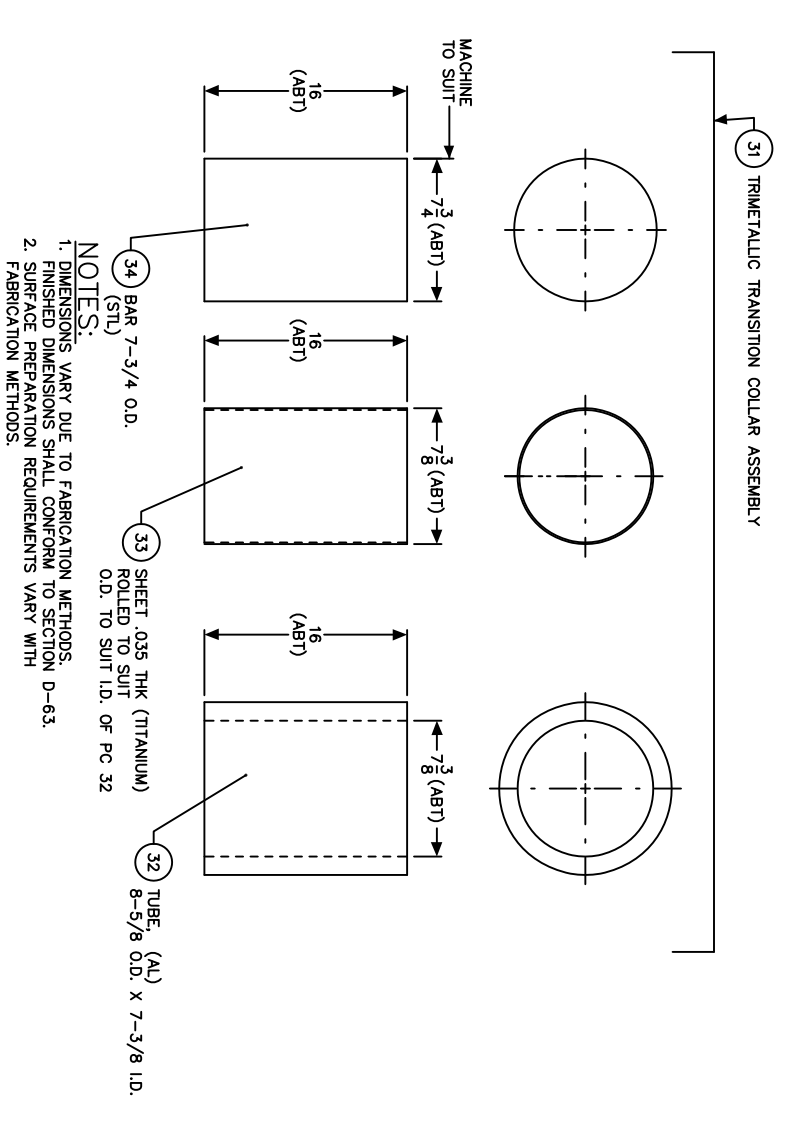
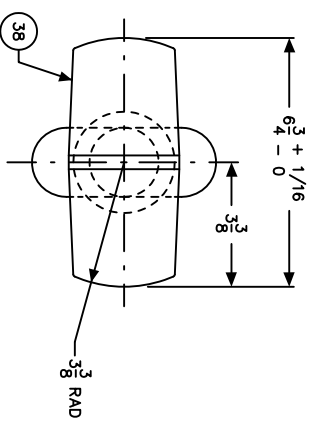
DETAIL E-71
LINK
SCALE: 6 = 1'-0
(0-69)



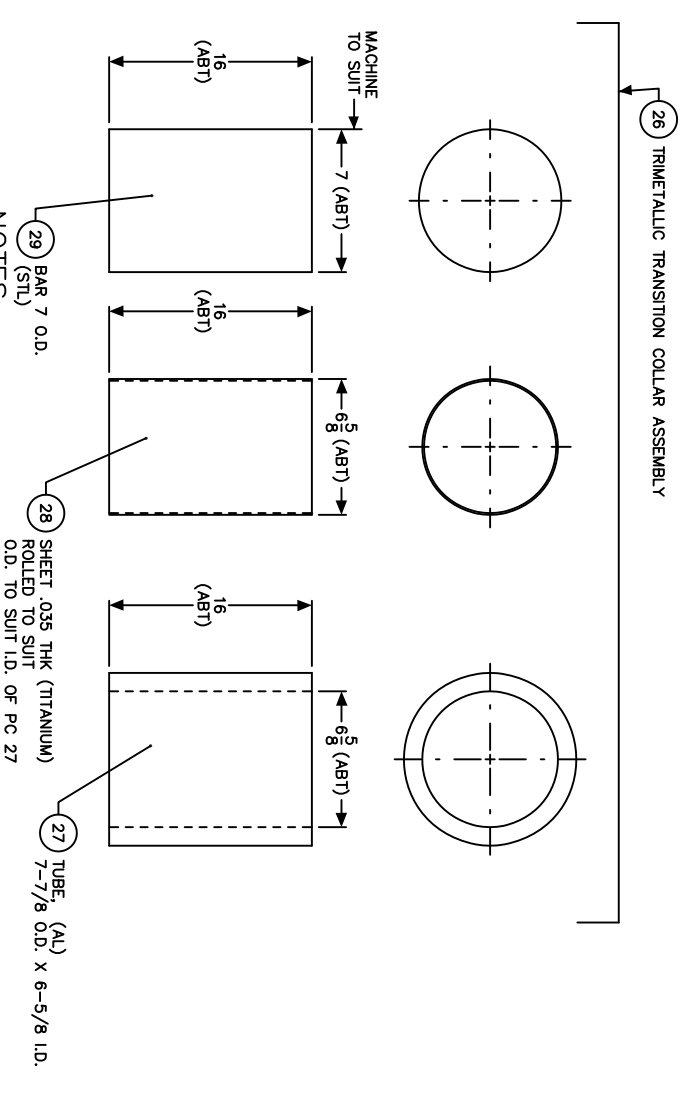
DETAIL D-69
ENGINE RUN-UP ATTACHMENT
FITTING ASSEMBLY (T-T-BAR)
SCALE: 6 = 1'-0



DETAIL A-71
ENGINE RUN-UP
ATTACHMENT FITTING (T-T-BAR)
SCALE: 6 = 1'-0
(0-69)



DETAIL D-67
TRIMETALLIC BULET COMPONENTS
FOR TYPE XVII FITTING
SCALE: NONE



DETAIL A-67
TRIMETALLIC BULET COMPONENTS
FOR TYPE XVII FITTING
SCALE: NONE

- NOTES:**
1. DIMENSIONS VARY DUE TO FABRICATION METHODS. FINISHED DIMENSIONS SHALL CONFORM TO SECTION D-59.
 2. SURFACE PREPARATION REQUIREMENTS VARY WITH FABRICATION METHODS.

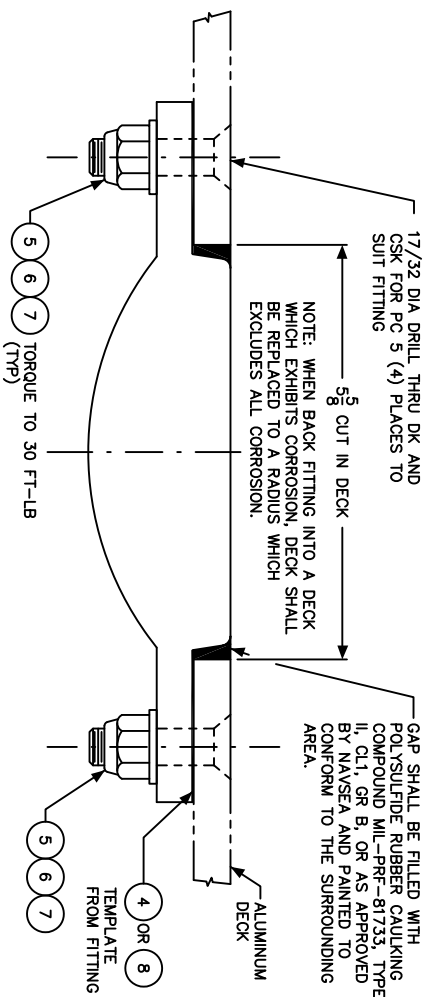
FABRICATION INFORMATION

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F	N	N

SCALE: AS NOTED MASS (WEIGHT) - SHEET 9

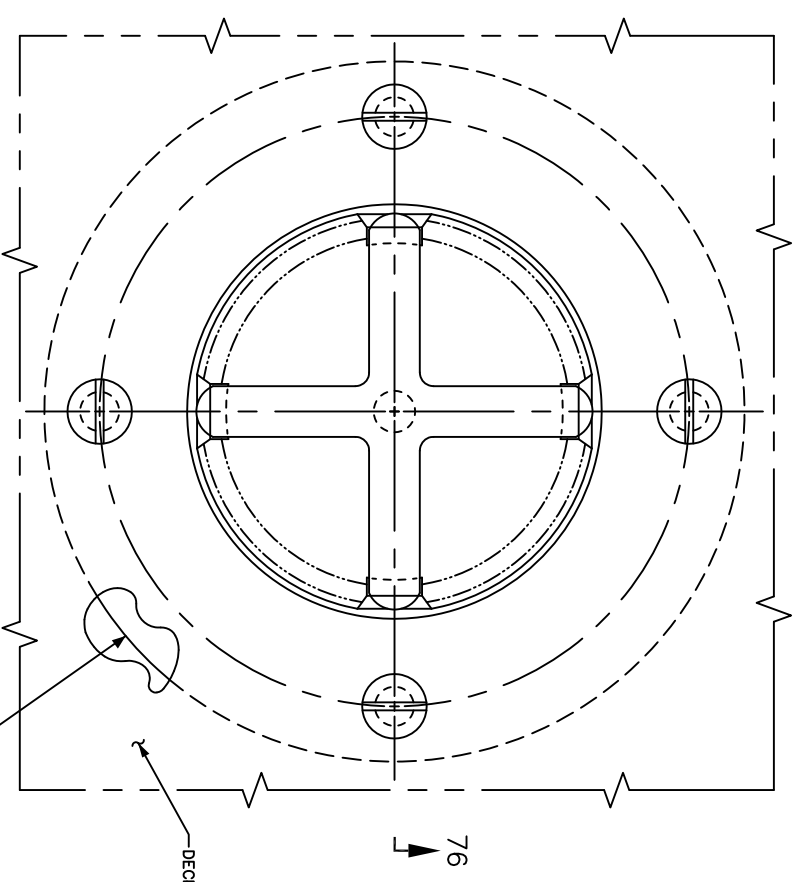
INSTALLATION NOTES

- 1- THE ARRANGEMENT AND LOCATION OF THE FITTINGS SHALL BE BASED ON THE REQUIREMENTS OF THE SHIP'S DETAIL SPECIFICATIONS AND FLEET REQUIREMENTS.
- 1a- INSTALLING ACTIVITY SHALL VERIFY THAT STRENGTH OF DECK AT EACH SELECTED TYPE XIII ENGINE RUN-UP FITTING SITE IS ADEQUATE FOR TEST LOADS AS SPECIFIED IN NOTE 1-8 (SAFETY FACTOR SHALL BE 2 BASED ON YIELD STRENGTH OF MATERIAL). ADDITIONAL DECK STIFFENING OR REINFORCEMENT SHALL BE SPECIFIED ON INSTALLATION DRAWINGS AS REQUIRED.
- 1b- INSTALLING ACTIVITY SHALL VERIFY THAT STRENGTH OF DECK AT EACH SELECTED FITTING SITE IS ADEQUATE FOR TEST LOADS AS SPECIFIED IN NOTE 1-6 (SAFETY FACTOR SHALL BE 1.1 MINIMUM BASED ON YIELD STRENGTH OF MATERIAL). ADDITIONAL DECK STIFFENING OR REINFORCEMENT SHALL BE SPECIFIED ON INSTALLATION DRAWINGS AS REQUIRED.
- 1c- PRIOR TO INSTALLATION IN THE DECK, THE INSTALLING ACTIVITY SHALL ENSURE PROPER FIT OF THE TD-1 HOOK IN 100 PERCENT OF 4 BAR FITTINGS IN ACCORDANCE WITH TEST NOTE 1-1D.
- 1-2d- ALL NEW CONSTRUCTION AND REPLACEMENT 4 BAR FITTINGS SHALL BE ALIGNED WITH CROSS BARS FORE/AFT, PORT/STARBOARD.
- 1-3- AFTER INSTALLATION OF WELDED ASSEMBLIES IN DECK, COAT ASSEMBLIES WITH TWO COATS OF A COATING IN ACCORDANCE WITH MIL-PRF-23236 TYPE III CLASSIFIED TO TOTAL DRY FILM THICKNESS OF 8 MILS (INCLUDING INSTALLED SUPPLEMENTARY WELD BEADS AS REQUIRED). APPLY TOP COAT TO METAL SURFACES AFTER INSTALLATION CAN ADVERSELY AFFECT HOOK FITMENT. DRY FILM THICKNESS READINGS SHALL BE TAKEN WHERE EXCESSIVE COATING IS SUSPECTED.
- 1-4- PRIOR TO INSTALLATION OF BOLTED ASSEMBLIES, FAYING SURFACES BETWEEN ATTACHMENT SCREWS AND ALUMINUM DECK PLATING AND EXPOSED CUTOUT EDGES SHALL BE COATED AS FOLLOWS:
 - A. MECHANICALLY CLEAN TO REMOVE CORROSION OR IMPURITIES.
 - B. APPLY TWO COATS OF COATING IN ACCORDANCE WITH MILS OF 8 MILS.
 - C. APPLY TOP COAT TO MATCH SURROUNDING AREA AS REQUIRED.
- 1-5- BOLTED ASSEMBLIES SHALL BE INSTALLED IN THE ALUMINUM DECK BETWEEN 36 AND 48 HOURS AFTER COATING OUTLINED IN 1-4. AFTER INSTALLATION, VISUAL INSPECTION OF THE COATING AROUND EACH MACHINE SCREW SHALL BE MADE. IF HAZARDOUS CRACKS ARE VISIBLE, THE COATING SHALL BE CLEANED AND A NEW LAYER OF TOP COAT SHALL BE APPLIED. IF LARGE CRACKS ARE EVIDENT, THE COATING SHALL BE CLEANED AND CAULKING COMPOUND MIL-PRF-81733, TYPE II, CL 1, OR B, OR AS APPROVED BY NAVSEA SHALL BE APPLIED, FOLLOWED BY A LAYER OF TOP COAT.
- 1-6- FIT-UP OF THE EXISTING ALUMINUM DECK TO THE DECK APRON OF TYPE XIII OR XIV FITTINGS IS REQUIRED. CLEARANCE BETWEEN THE APRON OLD AND THE EXISTING ALUMINUM DECK 1D SHALL NOT BE GREATER THAN 1/16" AND EXCEEDING THIS CLEARANCE MAY DAMAGE THE EXPLOSIVE BONDS OF THE TRIMETALLIC TRANSITION COLLAR DURING INSTALLATION.
- 1-7- HIGHEST POINT OF ALL CROSSBARS, CUPS, AND FITTING ASSEMBLIES SHALL BE FLUSH WITH THE DECK +1/16", -1/32".

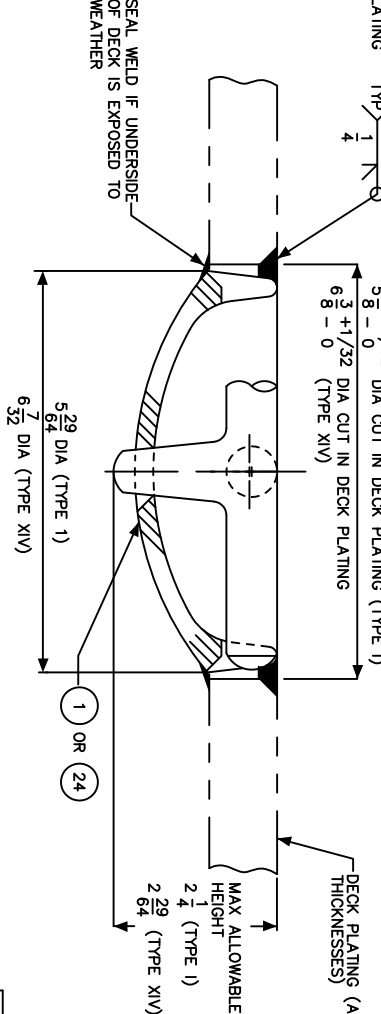


SECTION E-76
ALUMINUM DECK
TYPE II OR TYPE III FITTING INSTALLATION DETAIL
SCALE: NONE
(A-79)(0-79)

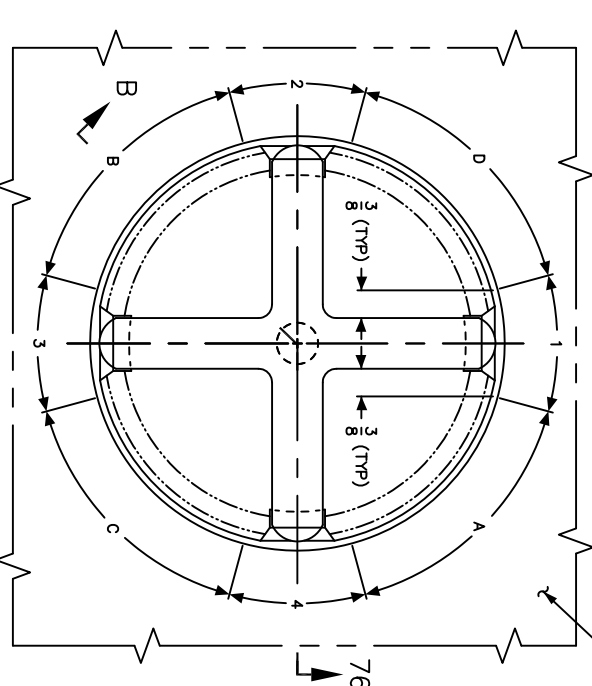
NOTE: FOR WELDING PROCEDURES SEE GN 3, 7, & TABLE F-5



KEY PLAN D-79
TYPE III SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE



SECTION B-76
TYPE I OR XIV FITTING INSTALLATION WELDS
SCALE: NONE
(A-76)



WELDING SEQUENCE FOR ALL WELD PASSES: (LIGHTLY PEEN ALL BUT FINAL PASS - TOP WELD ONLY)

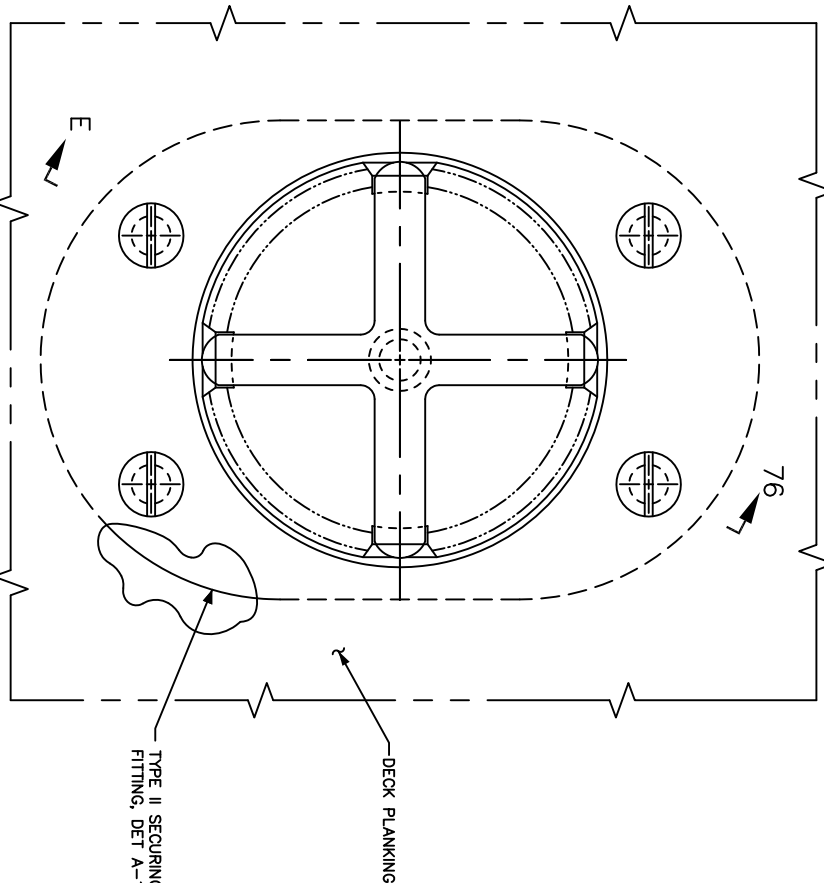
STEP 1 - WELD SECTIONS A, B, C, & D

STEP 2 - SEAL WELD ALL AROUND BOTTOM IF REQUIRED (SEE DET B-76)

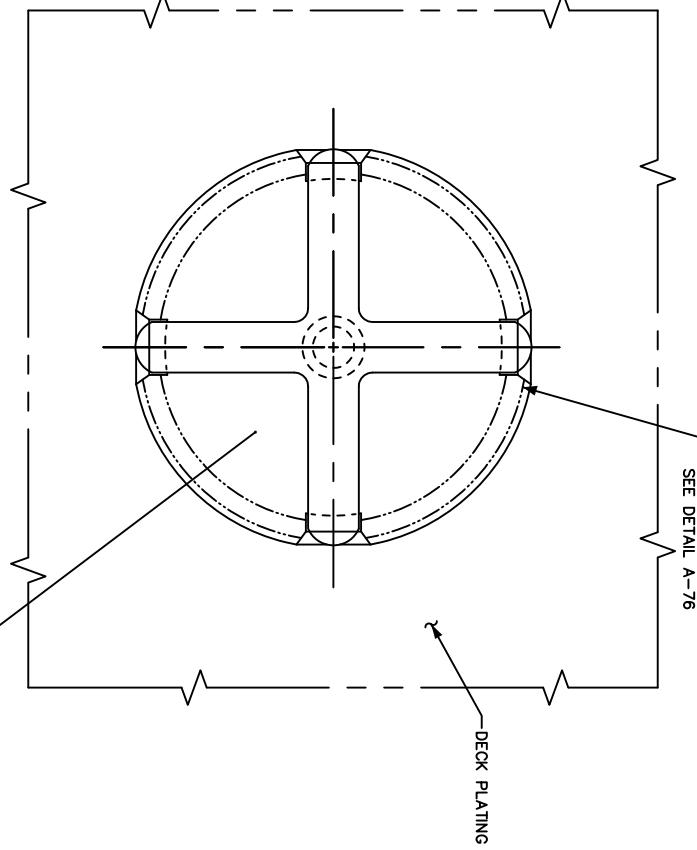
STEP 3 - AFTER COOLING, WELD SECTIONS 1, 2, 3, & 4

NOTE: FITTING IS TO BE PREHEATED 200-300 F. FITTING TEMPERATURE IS NOT TO EXCEED 500 F DURING INSTALLATION WELDING.

DETAIL A-76
TYPE I & TYPE XIV FITTING INSTALLATION WELDING SEQUENCE
SCALE: FULL SIZE



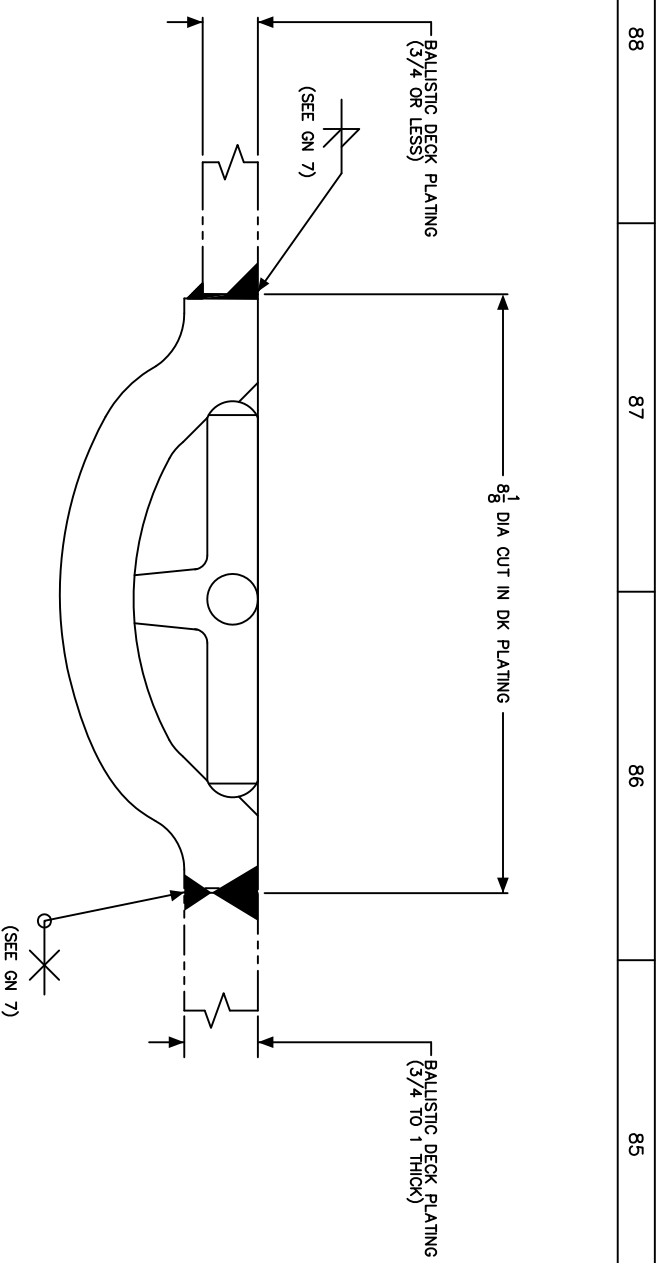
KEY PLAN A-79
TYPE II SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE



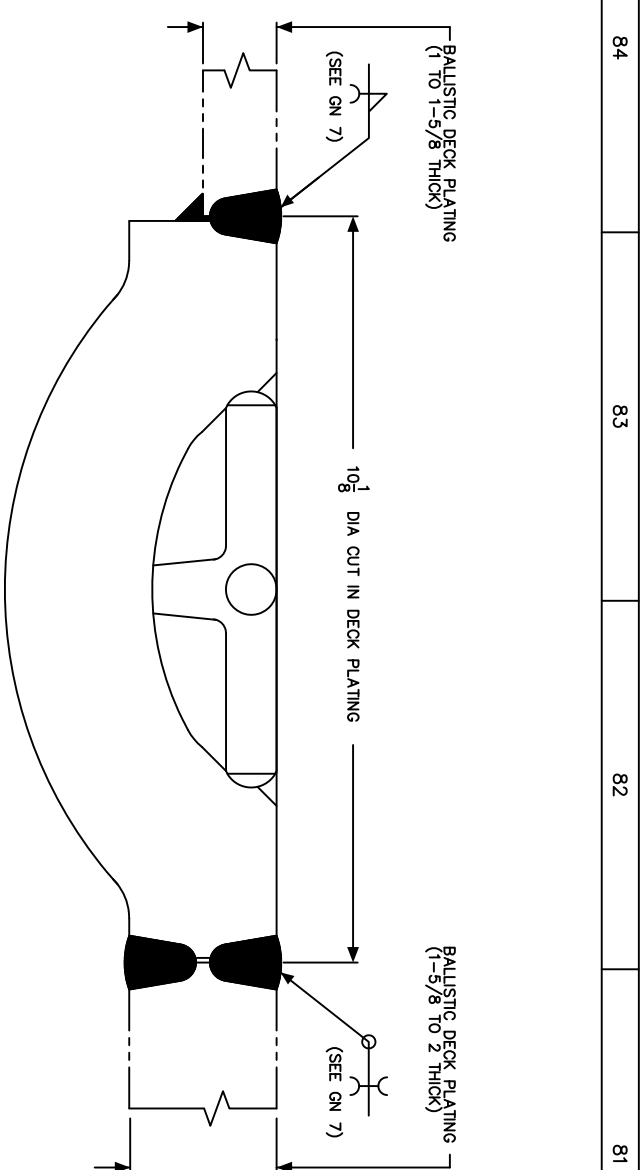
KEY PLAN A-74
TYPE I OR XIV SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE

INSTALLATION INFORMATION

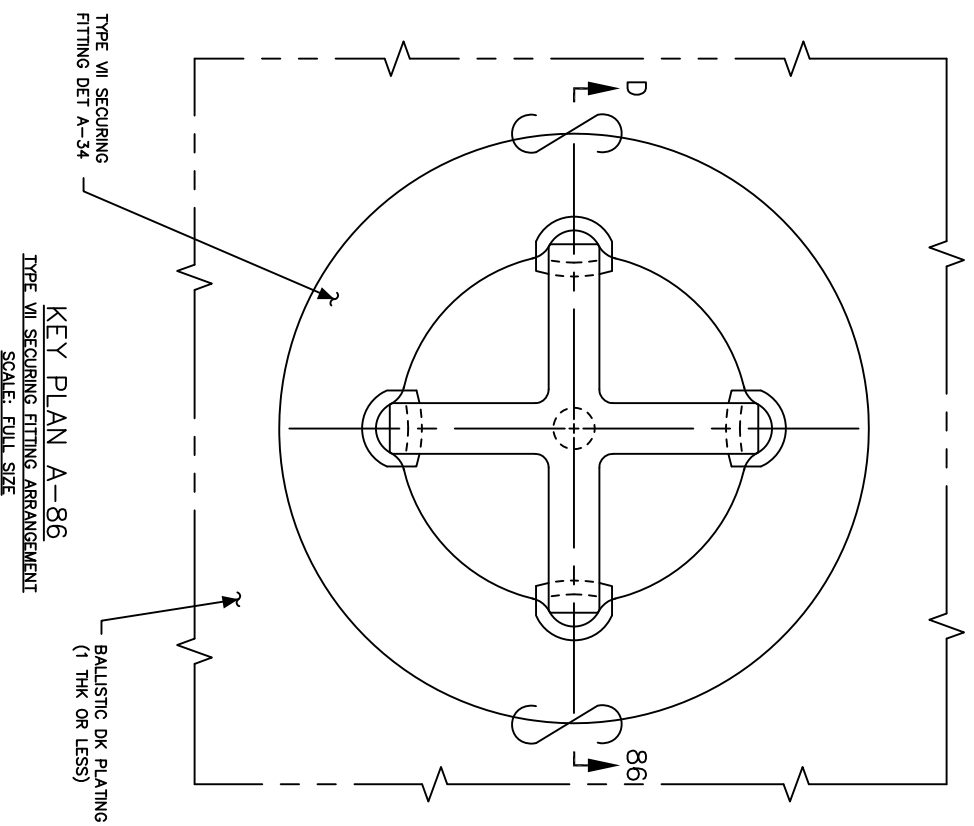
REVISIONS	DATE	BY	CHKD
1	1916300	803	F
2			
3			
4			
5			
6			
7			
8			
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10			



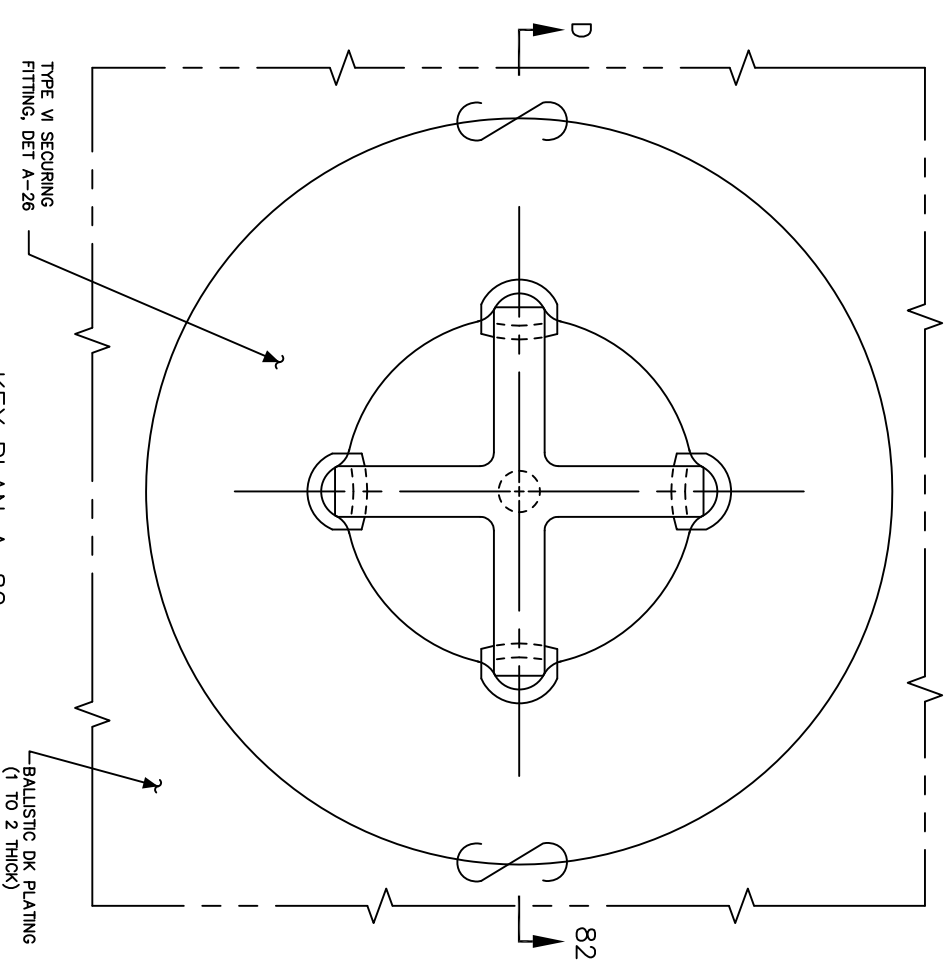
SECTION D-86
TYPE VII SECURING FITTING INSTALLATION WELD
SCALE: FULL SIZE
(A-86)



SECTION D-82
TYPE VI SECURING FITTING INSTALLATION WELD
SCALE: FULL SIZE
(A-82)



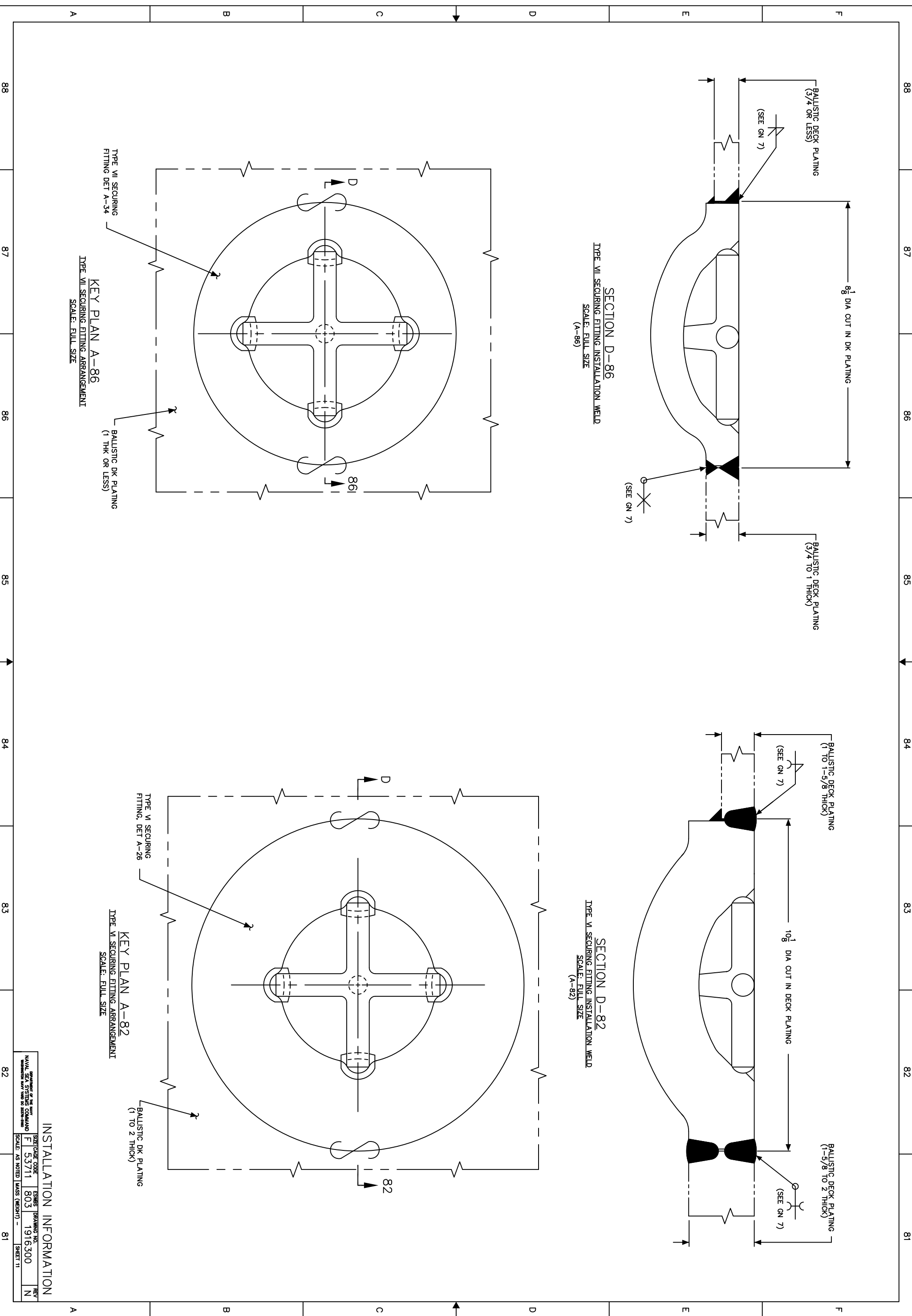
KEY PLAN A-86
TYPE VII SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE

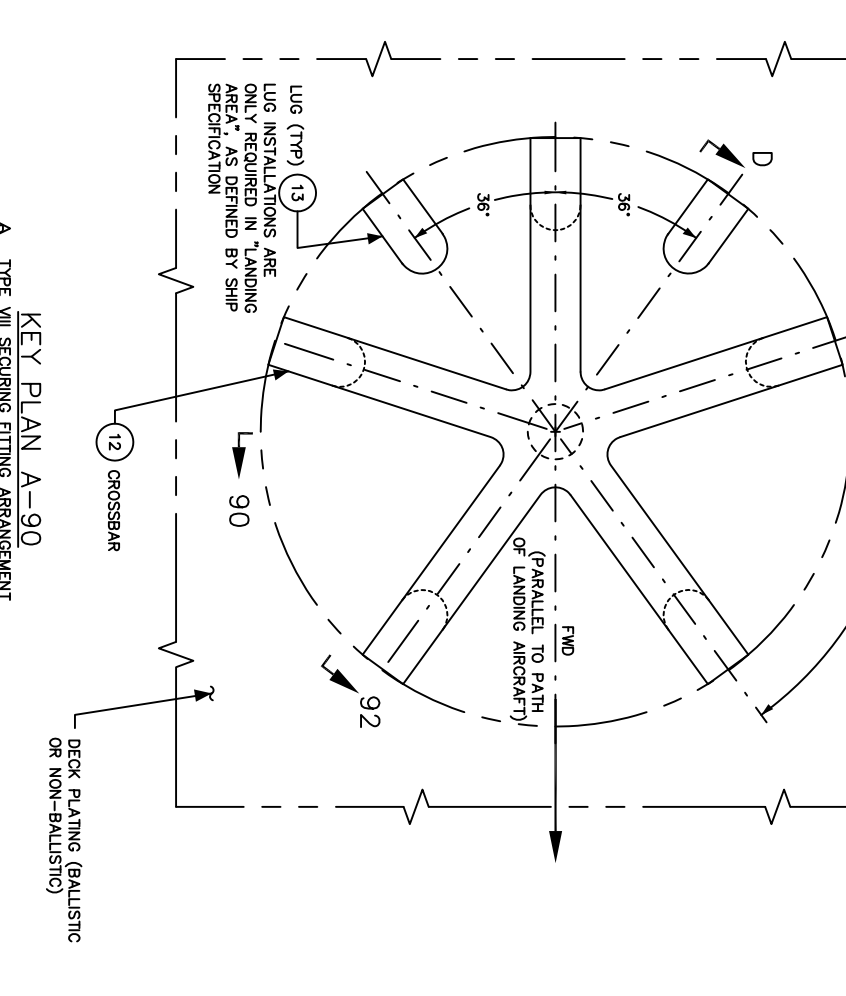
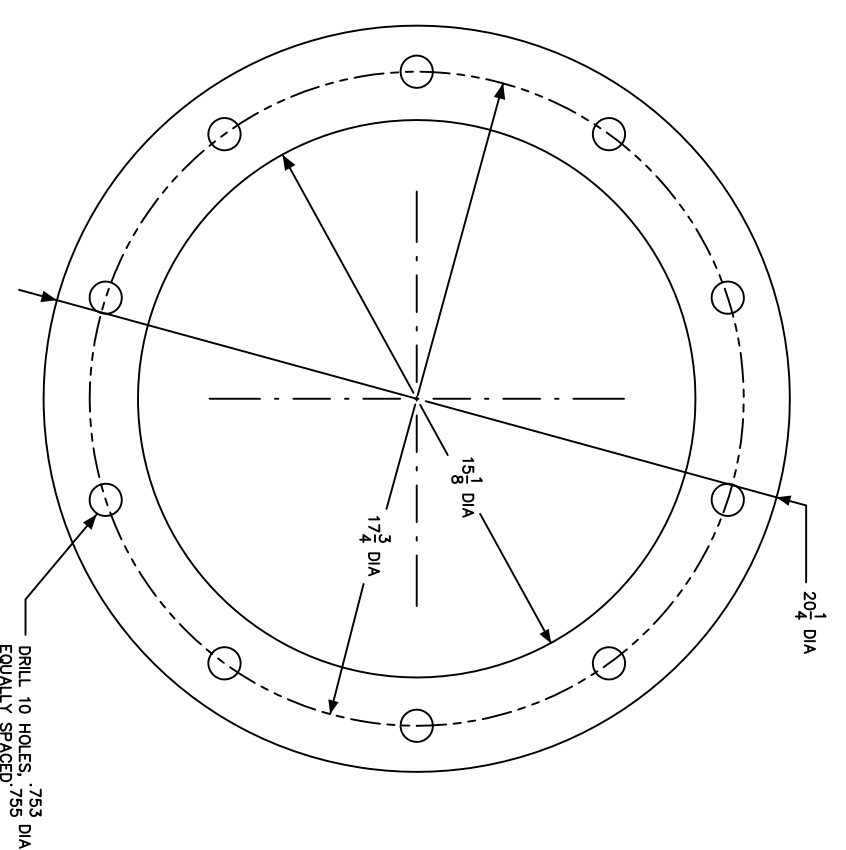
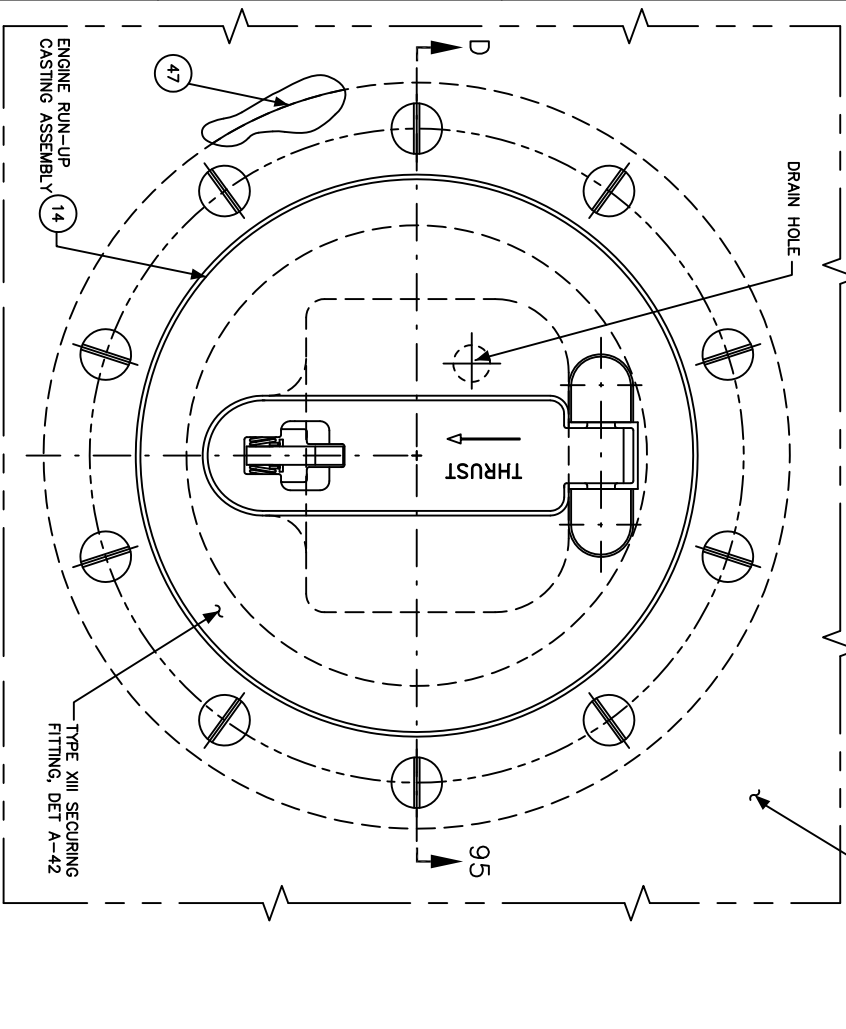
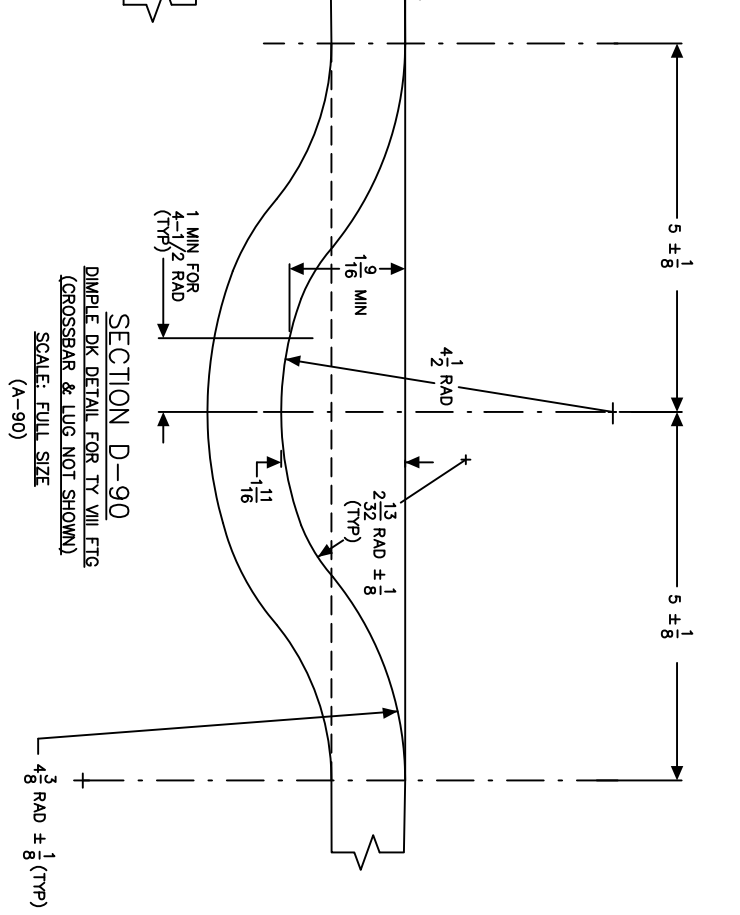
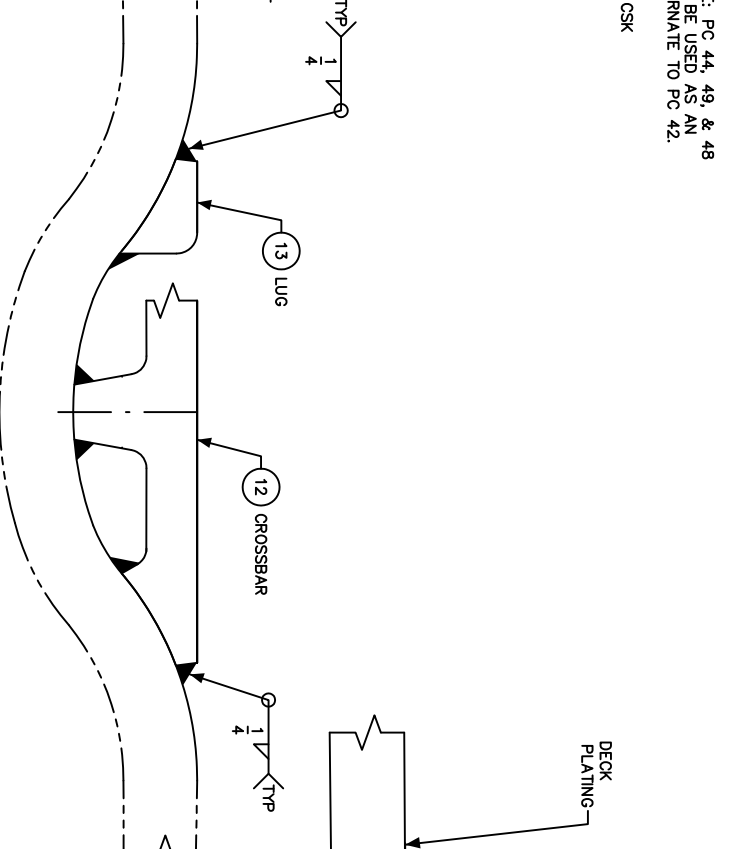
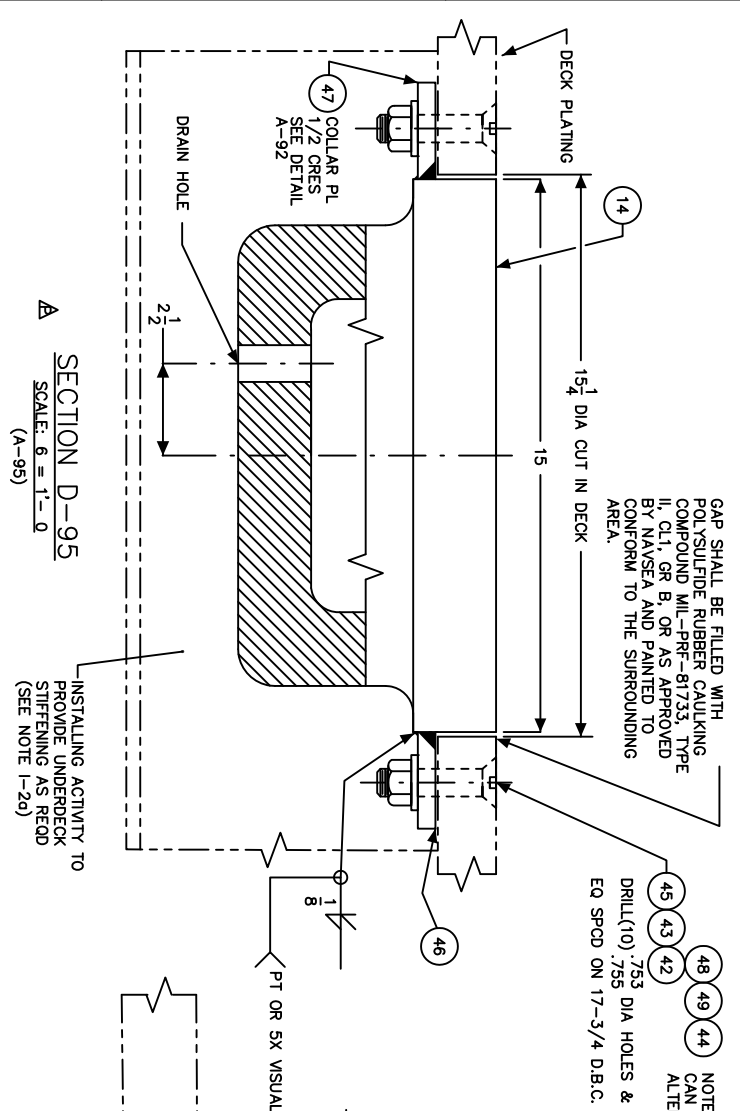


KEY PLAN A-82
TYPE VI SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE

INSTALLATION INFORMATION

MEMBER OF THE NAVY	SIZE CODE	ESNOS	DRAWING NO.
NAVAL SEA SYSTEMS COMMAND	F 53711	803	1916300
UNLESS NOTED OTHERWISE	SCALE: AS NOTED	UNLESS NOTED	SHEET 11





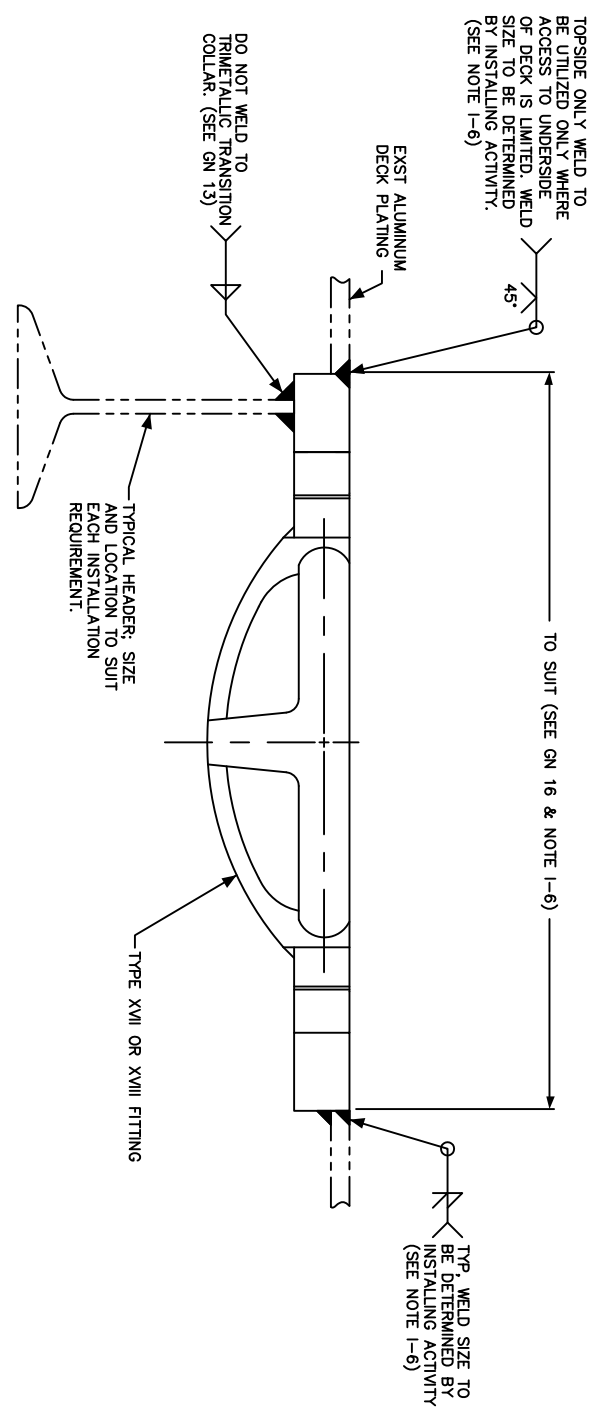
KEY PLAN A-95
TYPE XIII SECURING FITTING ARRANGEMENT
SCALE: 6 = 1'-0

DETAIL A-92
COLLAR PLATE
SCALE: 6 = 1'-0
(A-95)

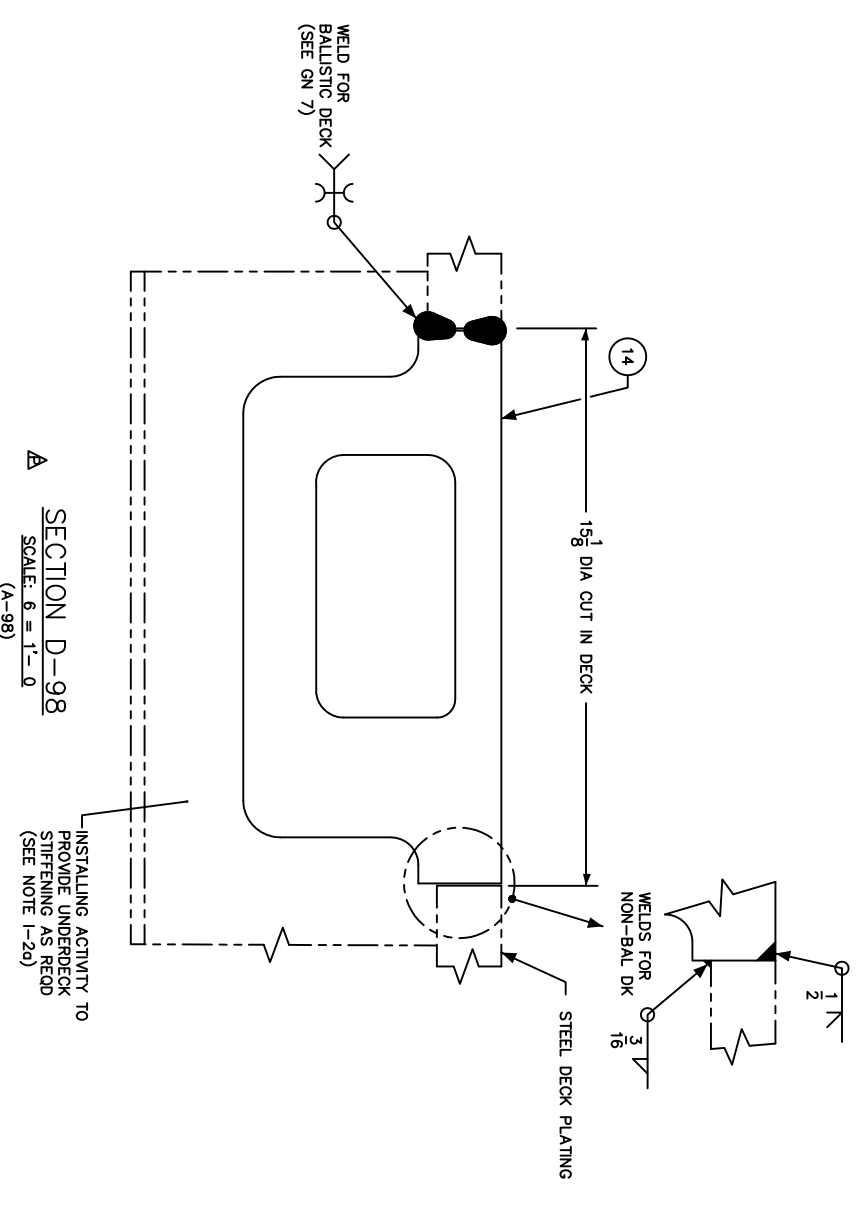
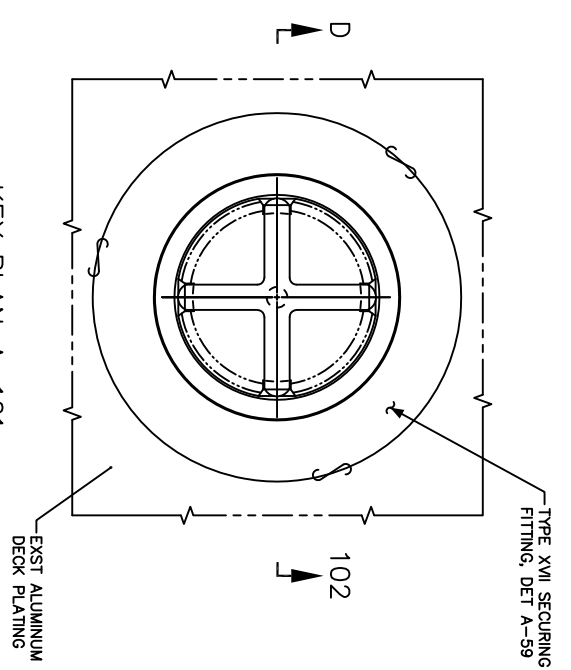
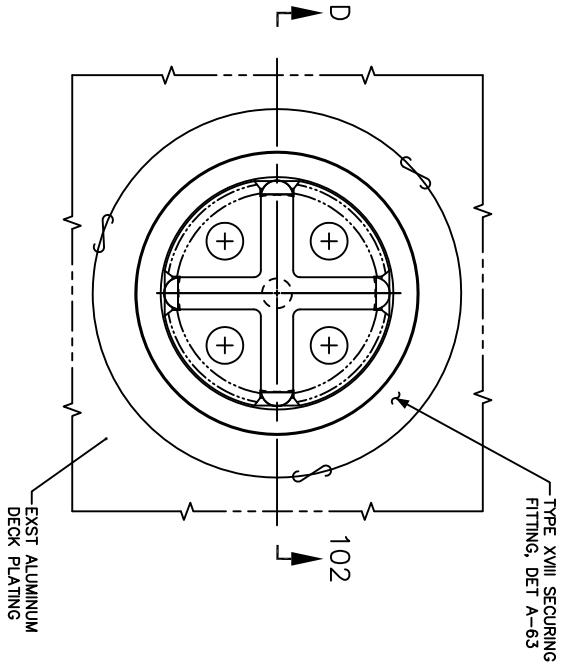
KEY PLAN A-90
TYPE VIII SECURING FITTING ARRANGEMENT
SCALE: FULL SIZE

INSTALLATION INFORMATION

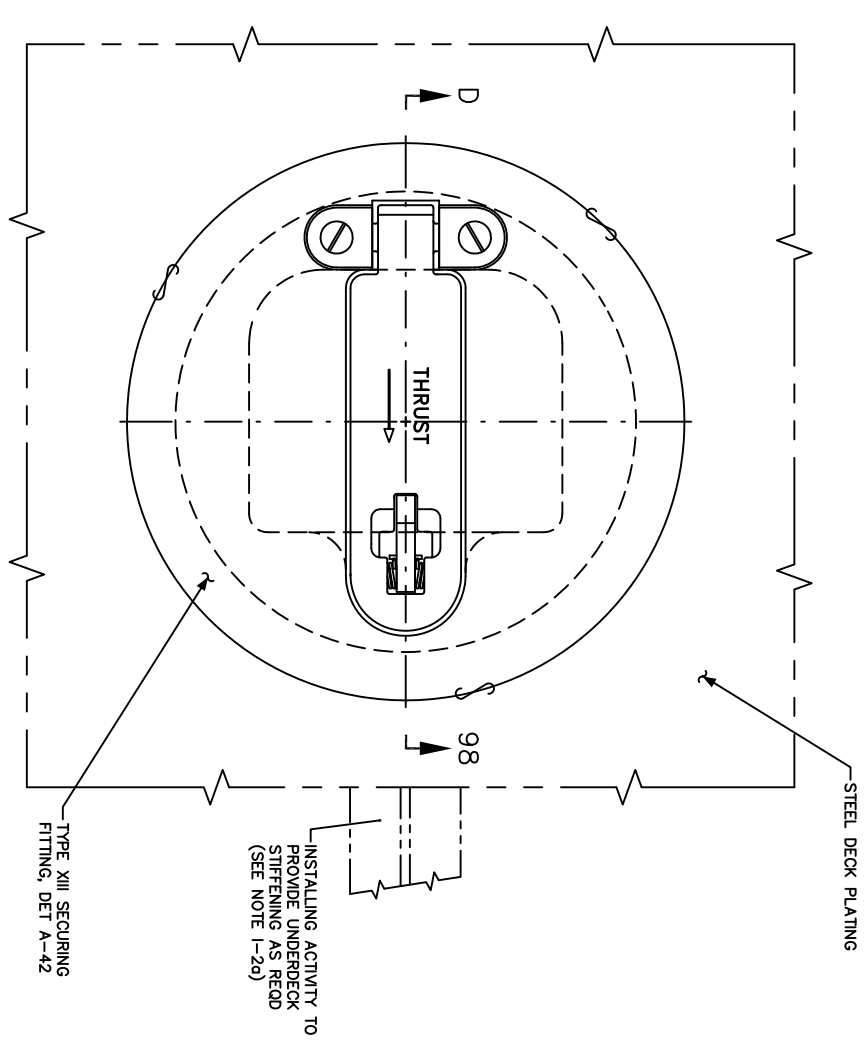
NAVY	ESN	REV
NAVAL SEA SYSTEMS COMMAND	53711	803
1916300		P
SCALE: AS NOTED	UNLESS (WEIGHT) -	SHEET 12



SECTION D-102
TYPE XVII OR XVIII FITTING INSTALLATION
SCALE: FULL SIZE
(A-101)(A-103)



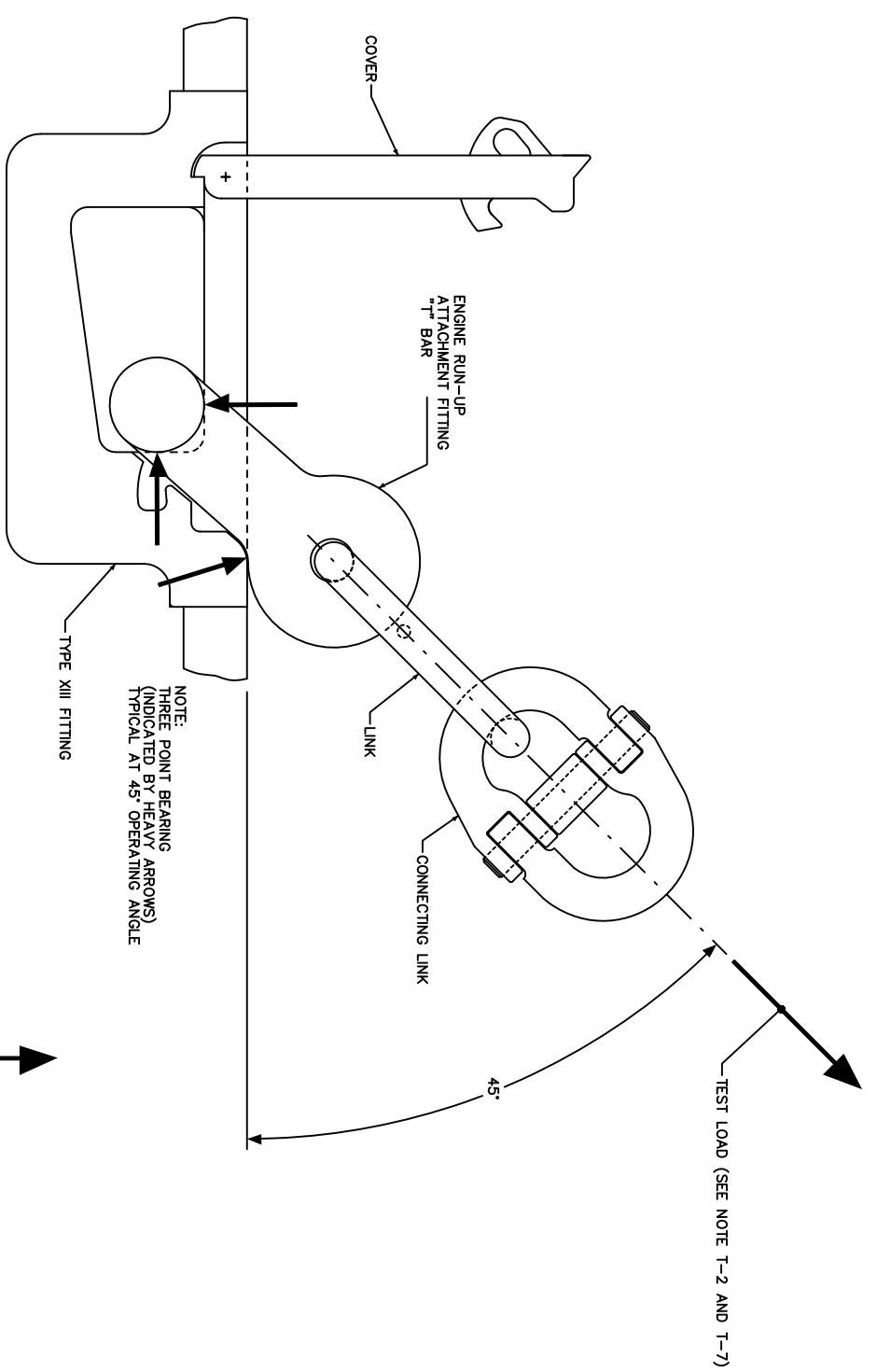
SECTION D-98
SCALE: 6 = 1'-0'
(A-98)



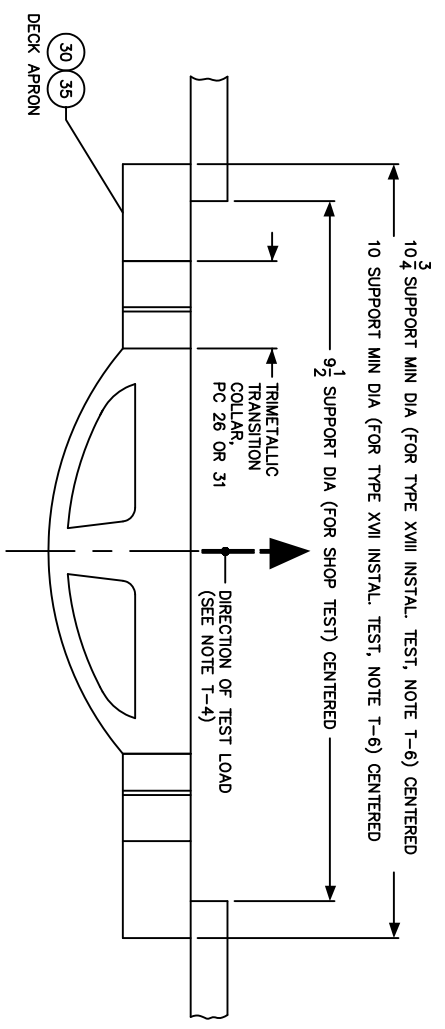
KEY PLAN A-98
TYPE XIII SECURING FITTING ARRANGEMENT
SCALE: 6 = 1'-0'

INSTALLATION INFORMATION

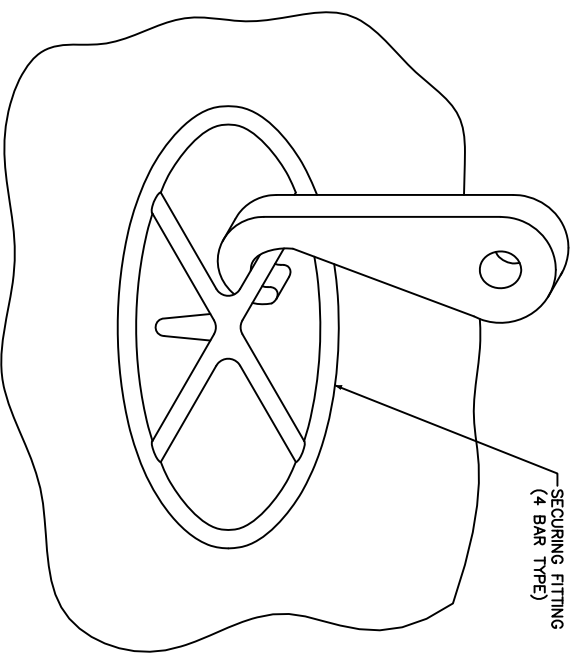
MEMBER OF THE NAVY	SIZE CODE	ESNOS	DRAWING NO.
NAVAL SEA SYSTEMS COMMAND	F	53711	803
WASHINGTON NAVY YARD 3030-3040	SCALE: AS NOTED	UNASS (WEIGHT)	REV
			P



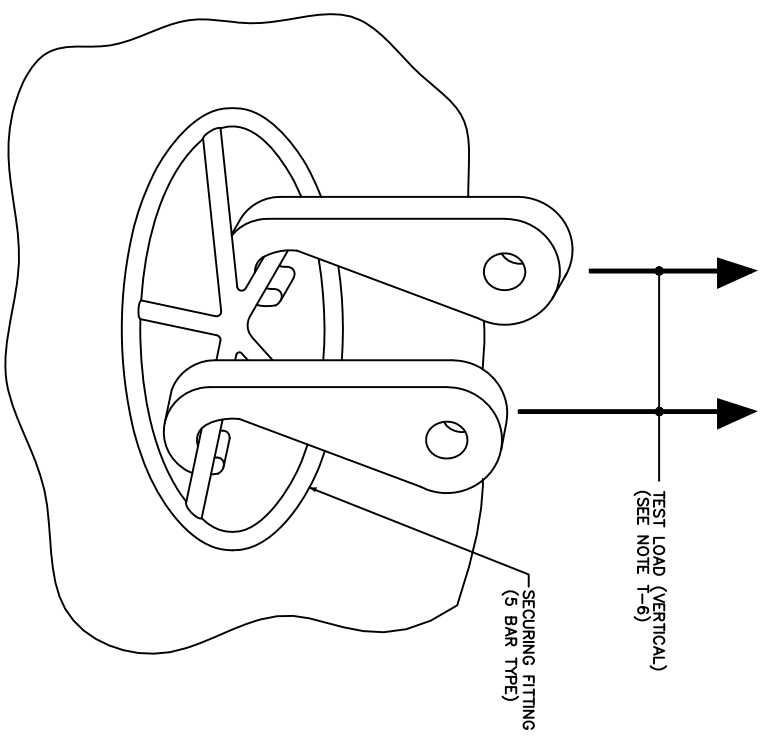
DETAIL C-111
 AIRCRAFT SECURING FITTING TYPE XIII
 TEST ARRANGEMENT
 SCALE: NONE



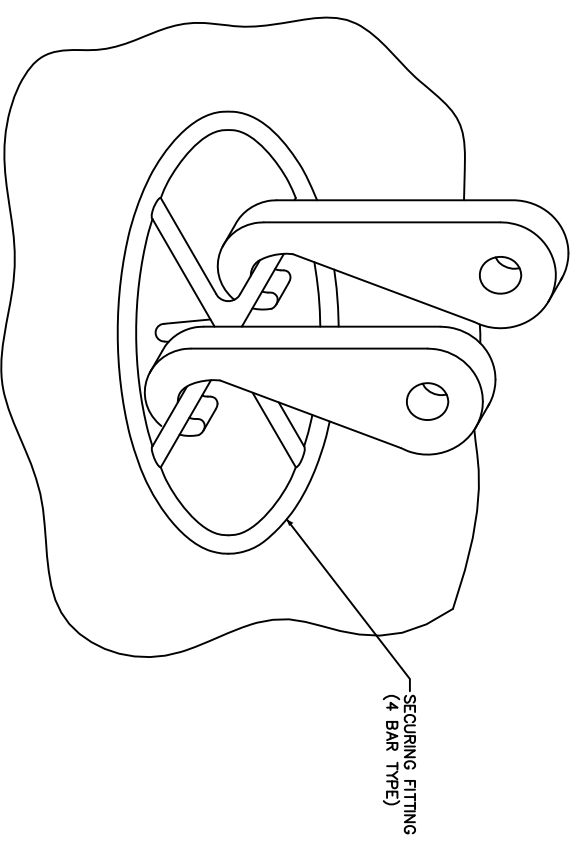
DETAIL A-111
 SHOP TEST OF TYPE XVII OR TYPE XVIII FITTING
 SCALE: NONE



DETAIL A-108
 AIRCRAFT SECURING FITTING (4 BAR TYPE)
 WITH SINGLE HOOK TEST RIG ARRANGEMENT
 SCALE: NONE



DETAIL D-106
 AIRCRAFT SECURING FITTING (5 BAR TYPE)
 WITH DOUBLE HOOK TEST RIG ARRANGEMENT
 SCALE: NONE



DETAIL A-106
 AIRCRAFT SECURING FITTING (4 BAR TYPE)
 WITH DOUBLE HOOK TEST RIG ARRANGEMENT
 SCALE: NONE

TESTING INFORMATION

MEMBER OF THE NAVY	SIZE CODE	ESNOS	DRAWING NO.
NAVAL SEA SYSTEMS COMMAND	F 53711	803	1916300
UNLESS NOTED OTHERWISE	SCALE: AS NOTED	MASS (WEIGHT) -	SHEET 14

TEST NOTES

NOTE: DIMPLE DECK TYPE (5 BAR) FITTINGS ARE NOT SHOP TESTED.

T-1. SHOP TEST - CROSSBAR TYPE (4 BAR) FITTINGS

- A. ALL NEW BATCHES OF CROSSBAR TYPE BAR FITTINGS SHALL BE SHOP TESTED (NOBUIL INSPECTION) OF MIL-STD-1916.
- B. TEST FOR CROSS BAR TYPE FITTINGS SHALL CONSIST OF A 25,000-LB PULL APPLIED PERPENDICULAR TO THE AXIS OF THE ARM AT AN ANGLE OF 90 DEGREES TO THE HORIZONTAL TO EACH ARM OF THE FITTING CROSSBAR. THE LOAD SHALL BE APPLIED AS NEAR AS POSSIBLE TO THE WELDS SECURING THE ARMS OF THE CROSSBAR TO THE CUP. THE CROSS-SECTION OF THE HOOK SHALL BE IDENTIFIED BY THE CUP. THE CROSS-SECTION OF THE HOOK SHALL BE IDENTIFIED BY THE CUP. THE CROSS-SECTION OF THE HOOK SHALL BE IDENTIFIED BY THE CUP. THE CROSS-SECTION OF THE HOOK SHALL BE IDENTIFIED BY THE CUP.
- C. THE WELDS OF ALL CROSSBAR TYPE FITTINGS SHOP TESTED SHALL BE MAGNETIC PARTICLE TESTED IN ACCORDANCE WITH 19074-AS-GIB-010/271, ACCEPTED IN ACCORDANCE WITH MIL-STD-2035, CLASS 1. IF THE TOTAL DEFECTS IDENTIFIED BY WELD INSPECTION AND/OR VISUAL DAMAGE RESULTING FROM LOAD TESTING EXCEED LEVEL III, AND 1.0 (NORMAL INSPECTION) OF MIL-STD-1916, THE ENTIRE BATCH SHALL BE INDIVIDUALLY REPEATED AND ONLY THOSE FITTINGS PASSING BOTH STORES AND MAGNETIC PARTICLE TEST WILL BE ACCEPTED FOR WELD TOLERANCES. SEE GENERAL NOTE 25.
- D. 100 PERCENT OF CROSSBAR TYPE FITTINGS SHALL BE TESTED TO ENSURE PROPER FIT OF THE TD-1 HOOK (SEE REF 1) ON EACH CROSSBAR IN THE HOOK JOINT UP ORIENTATION OR BOTH INSERTION DIRECTIONS. THE INNER RADIUS OF THE HOOK THROAT SHALL BE IN CONTACT WITH THE CROSSBAR AND THE OUTER RADIUS OF THE HOOK SHALL NOT BE WEDGED AGAINST THE FITTING CUP. THIS SHALL BE THE CASE FOR ALL HOOK CHAIN ANGLES FROM VERTICAL TO A MINIMUM OF 45 DEGREES OF VERTICAL.

T-2. SHOP TEST - ENGINE RUN-UP FITTINGS, TYPE XIII

- A. 100 PERCENT OF TYPE XIII ENGINE RUN-UP FITTINGS SHALL BE TESTED AS FOLLOWS:
 - (1) TEST SHALL CONSIST OF A 106,250-LB PULL APPLIED AT AN ANGLE OF 45 DEGREES TO THE HORIZONTAL AND 15 DEGREES RIGHT OR LEFT OF THE HORIZONTAL CENTERLINE OF THE SLOT IN THE FITTING TOP. LOAD SHALL BE APPLIED IN THE DIRECTION INDICATED BY THE ARROW LOCATED ON THE TOP OF THE HINGED FITTING COVER. APPLICATION OF LOADS SHALL BE ACCOMPISHED BY USE OF AN ENGINE RUN-UP ATTACHMENT FITTING ("T"-BAR). ANY PERMANENT DEFORMATION EXCEEDING .03" WILL BE CONSIDERED CAUSE FOR REJECTION OF THE FITTING.
 - (2) NOT IN ACCORDANCE WITH GENERAL NOTE 19.

T-3. SHOP TEST - TRIMETALLIC TRANSITION COLLAR BILLETS

- A. SHOP TESTED AS FOLLOWS:
 - (1) A 1/8 THICK COLLAR SHALL BE CUT FROM EACH BILLET AFTER FINISHING TO THE DIMENSION SHOWN IN FIG. 1. A RIGHT ANGLE TO THE COLLAR SHALL BE CONSIDERED CAUSE FOR REJECTION OF ALL COLLARS CUT FROM THAT BILLET.
 - (2) EACH COLLAR SHALL BE LIQUID PENETRANT TESTED (TOP AND BOTTOM) IN ACCORDANCE WITH 19074-AS-GIB-010/271 AND ACCEPTED IN ACCORDANCE WITH MIL-STD-2035, CLASS 2.

T-4. SHOP TEST - TYPE XVII AND TYPE XVIII FITTINGS

- A. TYPE XVII AND TYPE XVIII SECURING FITTINGS SHALL BE TESTED AS FOLLOWS:
 - (1) SELECT FITTINGS IN ACCORDANCE WITH SAMPLING PLAN SHOWN IN DETAIL E-114.
 - (2) USING HOOKS AND SUPPORTS SIMILAR TO DETAIL A-1106 AND A-1111, APPLY A VERTICAL PULL OF 32,000 LBS EQUALLY DIVIDED BETWEEN TWO NON-ADJACENT CROSSBAR ARMS (16,000 LBS PER ARM) FOR A PERIOD OF 3 MINUTES. REPEAT WITH THE LOAD APPLIED TO THE REMAINING CROSSBAR ARMS. ANY VISIBLE PERMANENT DEFORMATION OR DAMAGE TO THE FITTING SHALL BE CONSIDERED CAUSE FOR REJECTION OF THE FITTING.
 - (3) AFTER LOAD TESTING, THE WELDMENT OF THE CUP TO THE TRIMETALLIC TRANSITION COLLAR SHALL BE MAGNETIC PARTICLE TESTED (TOPSIDE ONLY) IN ACCORDANCE WITH 19074-AS-GIB-010/271 AND ACCEPTED/REJECTED IN ACCORDANCE WITH MIL-STD-2035, CLASS 2.
 - (4) WITH MIL-STD-2035, CLASS 2, DIMENSIONS OF THE FITTING TO THE TRIMETALLIC TRANSITION COLLAR, THE TRANSITION COLLAR SHALL BE LIQUID PENETRANT TESTED (TOP AND BOTTOM) IN ACCORDANCE WITH 19074-AS-GIB-010/271 AND ACCEPTED/REJECTED IN ACCORDANCE WITH MIL-STD-2035, CLASS 2.
 - (5) IF THE TOTAL NUMBER OF REJECTED FITTINGS IS GREATER THAN "R" AS DETERMINED BY THE SAMPLING PLAN DETAIL, ALL FITTINGS IN THE BATCH SHALL BE TESTED.
 - (6) DEFECTIVE WELDS MAY BE REPAIRED AND THE FITTING USED FOR SHIPBOARD INSTALLATION; THE BOND AREAS OF THE TRANSITION COLLAR CANNOT BE REPAIRED. ANY FITTING WHICH REQUIRES WELD REPAIR SHALL BE COUNTED AS A REJECTED FITTING (R) AND REJECTED.

T-5. SHOP TEST - ENGINE RUN-UP ATTACHMENT FITTINGS ("T"-BAR)

- A. 100 PERCENT OF ENGINE RUN-UP ATTACHMENT FITTINGS (PC 38, 39, 40, AND 41) SHALL BE TESTED AS FOLLOWS:
 - (1) TEST SHALL CONSIST OF A 106,250-LB PULL APPLIED TO THE CONNECTING LINK FOR A PERIOD OF 3 MINUTES. LOAD SHALL BE EQUALLY DIVIDED BETWEEN THE TWO ARMS OF THE FITTING TO SIMULATE "IN SERVICE" LOADING. PERMANENT DEFORMATION EXCEEDING .03" WILL BE CONSIDERED CAUSE FOR REJECTION OF THE FITTING.
 - (2) AFTER LOAD TESTING, THE FITTING "T" (PC 38) AND LONG LINK (PC 39) SHALL BE MAGNETIC PARTICLE TESTED IN ACCORDANCE WITH 19074-AS-GIB-010/271, AND ACCEPTED IN ACCORDANCE WITH MIL-STD-2035, CLASS 1. REJECTED ASSEMBLIES SHALL BE REPAIRED, HEAT TREATED, AND RETESTED OR DISCARDED.

- (3) UPON SATISFACTORY COMPLETION OF TESTING, THE TEST LOAD, THE TESTING ACTIVITY, AND THE TEST DATE SHALL BE DIE STAMPED ON THE FITTING WITH 1/8" LETTERS.

T-6. INSTALLATION TEST - CROSSBAR TYPE (4 BAR) SECURING FITTINGS (NEW CONSTRUCTION SHIPS AND REPLACEMENT FITTINGS)

- A. FOR ALL INSTALLED SECURING FITTINGS USED FOR AIRCRAFT TIEDOWN, PROOF (PULL) TEST TO FITTINGS FOR INSTALLATIONS IN EXCESS OF 100 FITTINGS AND 10 PERCENT OF ALL FITTINGS FOR INSTALLATIONS IN EXCESS OF 100 FITTINGS. PROOF TESTING SHALL UTILIZE A TEST HOOK WITH A CROSS-SECTION SIMILAR TO SECTION B-113. FITTINGS SHALL BE TESTED REPRESENTATIVELY THROUGHOUT EACH OF THE FOLLOWING AREAS: HANGARS, TRAVERSING AREAS, RAMPS, LANDING AREAS, FLIGHT DECKS, ELEVATORS, AND ANY OTHER AREAS REQUIRING SECURING FITTINGS.
- (1) USING HOOKS SIMILAR TO DET A-106 OR D-106, APPLY A VERTICAL PULL OF 32,000 LBS EQUALLY DIVIDED BETWEEN TWO NON-ADJACENT CROSSBAR ARMS (16,000 LBS PER ARM) FOR A PERIOD OF 1 MINUTE TO STABILIZE THE TEST RIG RELAX THE LOAD AND SET ZERO. THEN REAPPLY THE SAME LOAD FOR 3 MINUTES AND RELEASE. ANY FITTING WITH PERMANENT DEFORMATION GREATER THAN .03" SHALL BE CONSIDERED DEFECTIVE. REPEAT WITH THE LOAD APPLIED TO THE REMAINING CROSSBAR ARMS. SEE NOTE BELOW.
- (o) FOR DECK STRUCTURE THAT WILL NOT PERMIT TEST PULLS OF THIS MAGNITUDE, EACH CROSSBAR ARM SHALL BE SUBJECTED TO SEPARATELY APPLIED VERTICAL PULL OF 16,000 LBS. SUCH INSTALLATIONS SHALL THEN BE LIMITED TO ONE TIEDOWN ATTACHMENT PER DECK FITTINGS. APPROVAL OF THIS EXCEPTION SHALL BE GRANTED BY NAVSEA.
- (b) 100 PERCENT OF TYPE XVII AND XVIII FITTINGS INSTALLED WITHOUT DECK APRONS (SEE NOTE F-8) SHALL BE PULL TESTED IN ACCORDANCE WITH NOTE T-6A(1).
- (o) FOR INTEGRAL CROSSBAR TYPE XIV FITTINGS (REFERENCES 2, 3, AND GN 23) ONLY, TWO NON-ADJACENT CROSSBAR ARMS PER FITTING ARE REQUIRED TO BE PULL TESTED.

NOTE: THE INSTALLATION TEST RIG SHALL TEST THE FITTING-TO-DECK WELD. THE BASE OF THE TEST RIG (ANY PARTS PUSHING DOWN AGAINST THE DECK) SHALL BE LOCATED OUTSIDE AND ADJACENT TO THE FITTING'S LARGEST DIAMETER (INCLUDING THE WELD AND INCLUDING APRON DIAMETER, IF APPLICABLE).

- (2) NOT IN ACCORDANCE WITH NOTE T-9.
- (3) AFTER LOAD TESTING, TYPE XVII AND XVIII FITTING TRIMETALLIC TRANSITION COLLARS SHALL BE LIQUID PENETRANT (LP) TESTED IN ACCORDANCE WITH NOTE T-4A(4) (TOPSIDE ONLY). IN ADDITION, THE COLLAR-TO-DECK WELD SHALL ALSO BE LP TESTED. VISUAL INSPECTION TO 5X MAGNIFICATION MAY NOT BE SUBSTITUTED FOR LIQUID PENETRANT TESTING IN THIS CASE.
- (4) WHEN A DEFECTIVE FITTING IS ENCOUNTERED, IT SHALL BE REPAIRED OR REPLACED. THE FITTING SHALL THEN BE RETESTED, AND AN ADDITIONAL SAMPLE SIZE SHALL BE TESTED. THE PROCESS SHALL BE REPEATED UNTIL NO DEFECTS ARE FOUND IN A SAMPLE SIZE OR ALL FITTINGS HAVE BEEN TESTED. EXCEPTION: ANY TYPE XVII AND TYPE XVIII FITTINGS THAT ARE FOUND TO BE DEFECTIVE SHALL NOT BE REPAIRED. INSTEAD, THE FITTINGS SHALL BE REPLACED AS A SINGLE UNIT COMPRISING OF CUP, CROSSBAR, TRIMETALLIC TRANSITION COLLAR, AND APRON (PREFERRED); SEE NOTE F-8).

T-7. INSTALLATION TEST - DIMPLE DECK TYPE (5 BAR) SECURING FITTINGS (NEW CONSTRUCTION AND REPLACEMENT FITTINGS) AND CROSSBAR TYPE (4 BAR) SECURING FITTINGS WITH REPLACED CROSSBARS ONLY

- A. 100 PERCENT OF THE FITTINGS SHALL BE PROOF TESTED WITH A TEST HOOK HAVING A CROSS-SECTION SIMILAR TO SECTION B-113.
 - (1) PULL TEST IN ACCORDANCE WITH NOTE T-6A(1).
 - (2) NOT IN ACCORDANCE WITH NOTE T-9.
 - (3) WHEN A DEFECTIVE FITTING IS ENCOUNTERED, IT MAY BE REPAIRED OR REPLACED. THE FITTING SHALL THEN BE RETESTED.

T-8. INSTALLATION TEST - TYPE XIII LEFT ENGINE RUN-UP FITTINGS (NEW CONSTRUCTION SHIPS AND REPLACEMENT FITTINGS)

- A. 100 PERCENT OF THE FITTINGS SHALL BE TESTED WITH AN ENGINE RUN-UP ATTACHMENT FITTING ("T"-BAR) AS FOLLOWS:
 - (1) APPLY A 97,750-LB PULL AT AN ANGLE OF 45 DEGREES ABOVE THE HORIZONTAL AND IN THE DIRECTION OF THE ARROW LOCATED ON THE HINGED FITTING COVER. THE LOAD SHALL BE HELD FOR 3 MINUTES. EXCEPTION: FITTINGS ON LHA/D SHALL BE TESTED WITH A 55,000-LB PULL.
 - (2) ANY PERMANENT DEFORMATION EXCEEDING .03" IN FITTING OR .06" IN DECK STRUCTURE WILL BE CONSIDERED CAUSE FOR REJECTION.
 - (3) NOT IN ACCORDANCE WITH NOTE T-9.
 - (4) WHEN A DEFECTIVE FITTING OR DECK INSTALLATION IS ENCOUNTERED, IT SHALL BE REPAIRED OR REPLACED. THE FITTING SHALL THEN BE RETESTED.

T-9. NONDESTRUCTIVE TESTS

- A. FOR NOT ASSOCIATED WITH SHOP TESTS, SEE NOTES T-1C, T-2A(2), T-3A(2), T-4A(3), T-4A(4), AND T-5A(2).
 - (1) INSTALLATION WELDS OF ALL FITTINGS SUBJECTED TO INSTALLATION TESTS SHALL BE MAGNETIC PARTICLE OR LIQUID PENETRANT TESTED FOLLOWING LOAD TESTS IN ACCORDANCE WITH 19074-AS-GIB-010/271 (ACCEPTANCE PER MIL-STD-2035, CLASS 1).

NOTE: VISUAL INSPECTION TO 5X MAGNIFICATION MAY BE SUBSTITUTED FOR MAGNETIC PARTICLE OR LIQUID PENETRANT TEST. MAGNIFIED VISUAL INSPECTION MAY NOT BE SUBSTITUTED FOR MAGNETIC PARTICLE OR LIQUID PENETRANT TESTING IN THE CASE WHERE CROSSBARS HAVE BEEN REPLACED WITHOUT REPLACING THE ENTIRE FITTING.

T-10. INSPECTION TEST - 4 BAR AND 5 BAR SECURING FITTINGS ON EXISTING SHIPS

- A. 100 PERCENT OF THE SECURING FITTINGS USED FOR AIRCRAFT TIEDOWN SHALL BE TESTED USING A GO/NO-GO GAUGE IN ACCORDANCE WITH MRC BVW N (LATEST REVISION).
 - (1) WHEN A DEFECTIVE FITTING IS FOUND, IT SHALL BE REPAIRED OR REPLACED (SEE GENERAL NOTE 14) AND TESTED IN ACCORDANCE WITH T-1D AND T-7 OR T-6.

T-11. INSPECTION TEST - TYPE XIII LEFT ENGINE RUN-UP FITTINGS ON EXISTING SHIPS

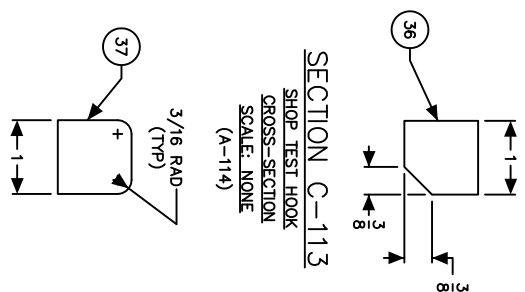
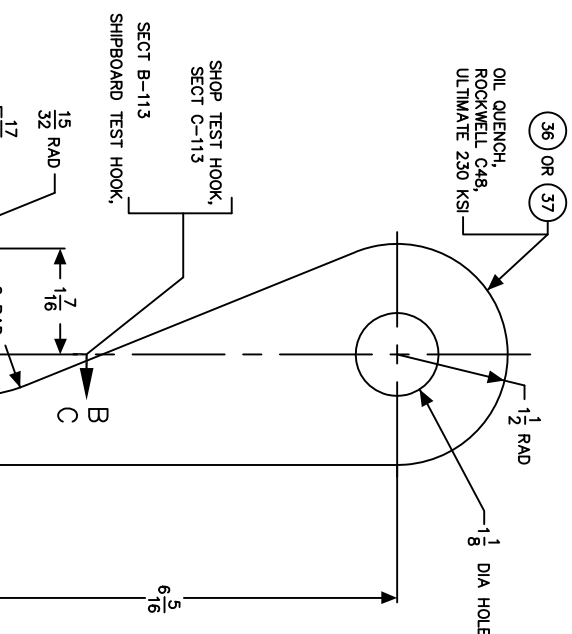
- A. EACH FITTING SHALL BE TESTED IN ACCORDANCE WITH MRC BVW N (LATEST REVISION).
 - (1) WHEN A DEFECTIVE FITTING IS FOUND, IT SHALL BE REPAIRED OR REPLACED AND PULL TESTED IN ACCORDANCE WITH NOTE T-8.

BATCH SIZE	SAMPLE SIZE	R
0-5	ALL	0
6-24	5	0
25-49	8	0
50-69	13	0
70-89	17	0
90-119	20	1
120-149	26	1
150-214	32	2
215-280	41	2

DETAIL E-114
SAMPLING PLAN FOR SHOP TEST OF TYPE XVII & XVIII FITTINGS
SCALE: NONE

1. EACH BATCH SHALL, AS FAR AS IS PRACTICABLE, CONSIST OF FITTINGS MANUFACTURED OR INSTALLED UNDER THE SAME CONDITIONS, AT ESSENTIALLY THE SAME TIME, AND HAVING THE SAME INTENDED USE.
2. A SAMPLE OF FITTINGS (BASED ON THE BATCH SIZE) SHALL BE RANDOMLY SELECTED FOR TESTING IN ACCORDANCE WITH NOTE T-4.
3. THE VALUE OF "R" (REJECTED FITTINGS) DOES NOT APPLY THAT A REJECTED FITTING IS ACCEPTABLE WITHOUT REPAIRS. ALL REJECTED FITTINGS SHALL BE REPAIRED AND RETESTED OR REPLACED.

NOTE:
PRIOR TO SHIPBOARD PULL TESTING, THE ASSEMBLED TEST EQUIPMENT SHALL UNDERGO A ONE TIME TEST LOAD 1.25 TIMES THE RATED MAX PULL LOAD. EXAMINATION OF THE RIG SHALL SHOW NO DEFORMATION OR CRACKS.



DETAIL A-114
TEST HOOK
SCALE: FULL SIZE

TESTING INFORMATION

NAVY SEA SYSTEMS COMMAND	ESSEES DRAWING NO.	REV
53711	803	P
53711	1916300	

128	127	126	125	124	123	122	121
						REVISIONS	APPROVED
						DESCRIPTION	DATE
						F7	(7) REVISED GN 3, 6, 7, 8, 10, 11, 13, 14, 15, 18, 22, AND 23.
						C5	(8) ADDED GN 1.B, 26, AND 27.
						F9	(9) REVISED FABRICATION NOTES F-1, F-2, F-3, AND F-7.
						F14	(10) ADDED NOTE TO SECTION E-15.
						A45	(11) CHANGED SECTION A-45 TO REFERENCE CORRECT DETAIL.
						D45	(12) CHANGED DETAIL D-45 TO REFERENCE CORRECT DETAIL.
						E57	(13) ADDED TOLERANCES TO DIMENSION IN SECTION D-59.
						E61	(14) ADDED TOLERANCES TO DIMENSION IN SECTION D-63.
						F74	(15) ADDED INSTALLATION NOTES I-24 AND I-7.
						F74	(16) REVISED INSTALLATION NOTES I-3, I-4, AND I-5.
						A76	(17) REVISED WELDING SEQUENCE NOTES IN DETAIL A-76.
						E76	(18) REVISED SECTION E-76 NOTE TO INCLUDE CORRECT SPEC.
						A90	(19) REVISED KEY PLAN A-90 TO SHOW FWD DIRECTION.
						A92	(20) ADDED DETAIL A-92 TO INCORPORATE TYPE XIII BOLTED.
						A95	(21) ADDED DETAIL A-95 TO INCORPORATE TYPE XIII BOLTED.
						D95	(22) ADDED SECTION D-95 TO INCORPORATE TYPE XIII BOLTED.
						D98	(23) ADDED NOTE TO SECTION D-98.
						A114	(24) REVISED DETAIL A-114 TO REFERENCE CORRECT SECTIONS.
						F119	(25) REVISED TEST NOTES T-1, T-6, T-7, T-8, T-10, AND T-11.
						A121	(26) ADDED SHEET 16.
						A121	(27) CONTINUED PARTS LIST ON A-121.
						A121	(28) EDITED PC 35.
						F121	(29) ADDED PC 42, 43, 44, 45, 46, AND 47.
							(30) CONTINUED REVISIONS BLOCK ON F-121.
							(31) UPDATED ASTM AND MIL-SPEC REFERENCES.
							STANDARDS IMPROVEMENT BOARD APPROVAL DTD 07/02/13 PER SEA 05 TECHNICAL STANDARDS BRANCH EMAIL DATED 07/02/13.

PC NO.	DESCRIPTION	DRAWING ZONE	MATL	MATL SPEC	QTY	UNIT	REMARKS
49	ACTIVATOR PRIMER	D-95	-	ASTM D5363	1	GRADE T, FOR USE ONLY WITH PC 44	
48	ANAEROBIC SEALING COMPOUND	D-95	-	ASTM D5363	1	AN0231 FOR USE ONLY WITH PC 44	
47	COLLAR-C/F 1/2 THK PL (20-1/4 O.D. X 15-1/8 I.D.)	A-92	ORES	ASTM A240/A240M	1	TYPE 304, PASSIVATED	
46	GASKET-C/F 1/16 THK SHEET (20-1/4 O.D. X 15-1/4 I.D.)	D-95	RUBBER	MIL-PRF-900	1		
45	SCREW FLAT HD MACH, 3/4-10 UNC-2A, LG=10 SUIT	D-95	ORES	FF-S-92	10	MS 16219, TYPE 304	
44	NUT, HEX, 3/4-10 UNC-3B	D-95	ORES	SAE J2855	10	F594G3812-ND, TYPE 304, PASSIVATED. ALTERNATIVELY USE PC 42	
43	WASHER, FLAT, 3/4 DIA	D-95	ORES	SAE J2855	10	J2855FAN0750S1P	
42	NUT, HEX, SFLG, 3/4-10 UNC-3B	D-95	ORES	MSM25027	10	MS17830-12C, TYPE 304, 44, 45, & 49	
41	CONNECTING LINK, 1 SIZE	D-69	FORGED STL	RR-C-271	8.6	GR 21	
40	SPACER, 3/8 DIA ROD, 1-13/16 LG	D-69	STL	ASTM A108	8.6	GR 1018	
39	LONG LINK, 1-1/8 DIA STOCK	E-71	FORGED STL	SAE-AMS-6415	5.0	GR 4340	
38	ENGINE RING-UP ATTACHMENT FITTING	A-71	FORGED STL	SAE-AMS-6415	25.0	25.0/50.0GR 4340	
37	TEST HOOK, SHIPBOARD TEST	A-114	STL	ANS 4340	5.21	5.21	
36	TEST HOOK, SHIPBOARD TEST	A-114	STL	ANS 4340	5.21	5.21	
35	DECK APRON PLATE, 750 THK X 10-3/4 O.D.	A-63	AL	ASTM B928/B928M	2.3	2.3 ALY 5456, H116, GN 16	
34	BAR, ROUND, 7-3/4 DIA, SIZE TO SUIT FAB PROCESS	D-67	STL	ASTM A576	-	GR 1018, GN 15	
33	SHEET, .035 THK, SIZE TO SUIT FAB PROCESS	D-67	TITANIUM	ASTM B265	-	GR 1, GN 15	
32	TUBE, SIZE TO SUIT FAB PROCESS	D-67	AL	ASTM B210	-	ALY 1100, TEM F, GN 15	
31	TRIANGULAR TRANSITION COLLAR ASSY (PC 32, 33, & 34)	D-67	STL/TI/AL	ASTM B210	3.5	3.5 GN 15	
30	DECK APRON PLATE, 750 THK X 10 O.D.	A-59	AL	ASTM B928/B928M	2.1	2.1 ALY 5456, H116, GN 16	
29	BAR, ROUND, 7 DIA, SIZE TO SUIT FAB PROCESS	A-67	STL	ASTM A576	-	GR 1018, GN 15	
28	SHEET, .035 THK, SIZE TO SUIT FAB PROCESS	A-67	TITANIUM	ASTM B265	-	GR 1, GN 15	
27	TUBE, SIZE TO SUIT FAB PROCESS	A-67	AL	ASTM B210	-	ALY 1100, TEM O, GN 15	
26	TUBE, SIZE TO SUIT FAB PROCESS	A-67	AL	ASTM B241/B241M	-	ALY 1100, TEM O, GN 15	
25	TUBE, SIZE TO SUIT FAB PROCESS	A-67	AL	ASTM B209	-	ALY 1100, TEM O, GN 15	

PARTS LIST							
QUANTITIES ARE FOR ONE SECURING FITTING ASSEMBLY (COMPLETE)							
GENERAL INFORMATION							
SIZE CODE	803	ESNOS	1916300	DRINKING NO.	803	REV	P
NAVAL SEA SYSTEMS COMMAND	53711	SCALE: AS NOTED	UNSS (MESH)	SHEET 16			