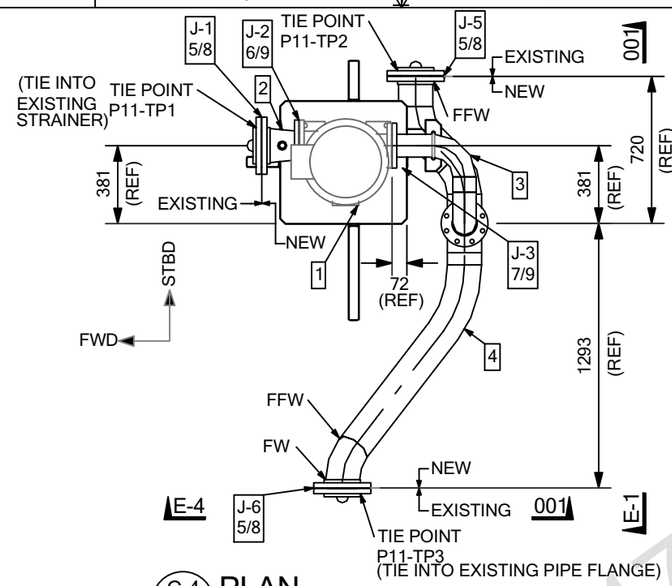
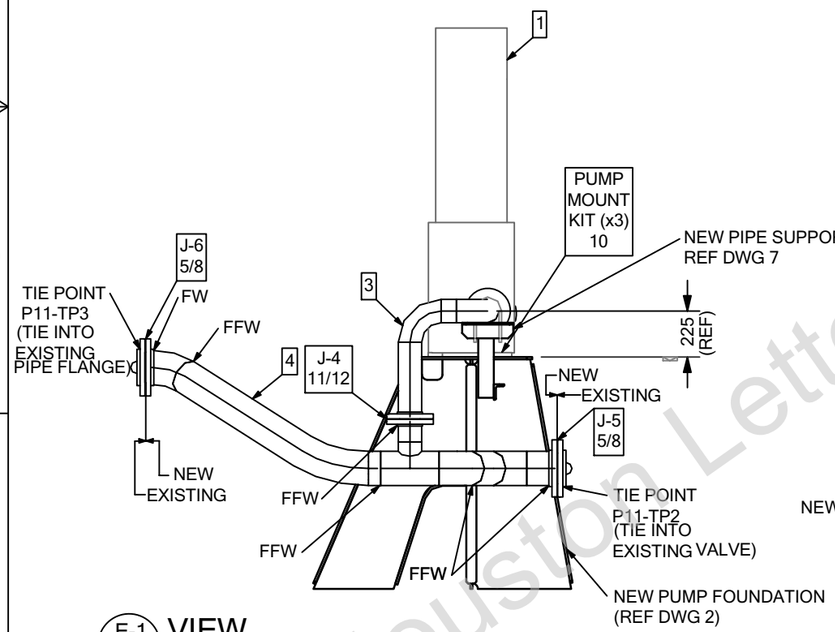
NOTES:
1. ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED.
2. WELDING AND FITUP:
   - REF. FIELD WPS SM-FC-11-0001 (BUTT WELDS) & SM-FC-11-9002 (FLANGE JOINTS & SOCKET WELDS).
   - ALL EDGES OF SURFACES OR PARTS TO BE JOINED BY WELDING SHALL BE CLEANED OF ALL GALVANIZING MATERIAL PRIOR TO WELDING.
3. MECHANICAL JOINTS LABELED AS J-# SEQUENTIALLY.
4. WHERE FIELD WELD (FW) IS INDICATED ADJACENT FITTING IS SHIPPED LOOSE FOR FITUP ON SITE. WHERE FIELD FIT WELD (FFW) INDICATED ADJACENT FITTING IS SHIPPED LOOSE AND ADJACENT PIPE LENGTH IS +100mm LONGER THAN DESIGN LENGTH TO ALLOW FOR FITUP ON SITE.
5. REFER TO THE MANUFACTURE'S (HAMWORTHY) MANUAL NoSUSU4674-001 No. SUS= 03396-007 FOR ADDITIONAL INFORMATION.
6. PUMPS ARE SUPPLIED WITH BSP CONNECTIONS, ADAPTER FITTINGS FROM BSP TO NPT SUPPLIED FOR FUTURE BY YARD.
7. ONCE PUMP IS SET IN FINAL POSITION, TEMPLATE AND MATCH DRILL TOP PLATE TO SUIT FINAL BOLT HOLE LOCATIONS.
8. ALL MISSING MATERIAL REF. NUMBERS TO BE UPDATED BY CDCI IF NEEDED.

REVIEWED
Details of this review are as indicated in the ABS letter
ABS
WITH ABS AMENDMENTS ON PAGES N/A
WITH ABS COMMENTS #s P-009

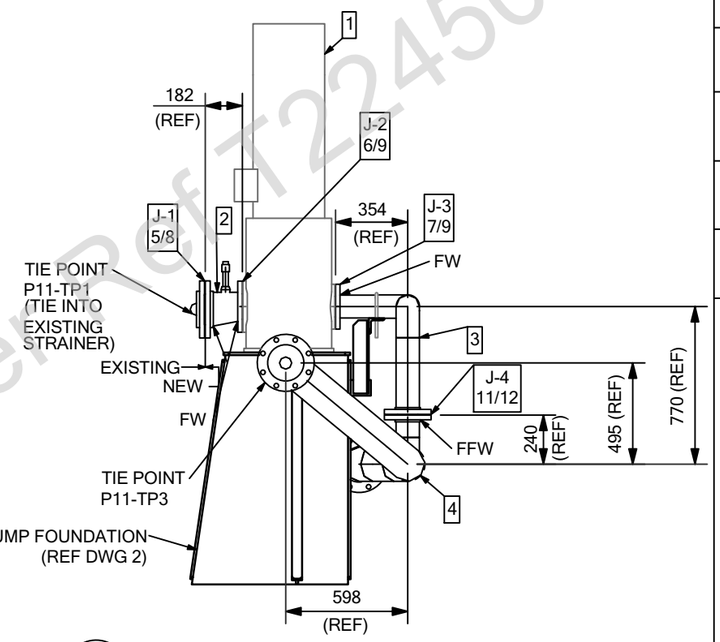
REVIEWED
on behalf of the government of the vessel's registry as indicated in ABS letter
ABS



C-4 / 001 PLAN
LOOKING DOWN ON TANKTOP @ FR164
SCALE 1:30



E-1 / 001 VIEW
LOOKING FWD ON TANKTOP @ FR164
SCALE 1:30



E-4 / 001 VIEW
LOOKING STBD ON TANKTOP @ FR164
SCALE 1:30

BILL OF MATERIALS

NO	DESCRIPTION	QTY	UNIT	MATERIAL REF
1	PUMP P-11 GENERAL SERVICE & FIRE SYSTEM	1	EA	E0006-5
2	PIPE SPOOL 81311-SPL-0001-001	1	EA	NA
3	PIPE SPOOL 81311-SPL-0002-001	1	EA	NA
4	PIPE SPOOL 81311-SPL-0003-001	1	EA	NA
5	6" GASKET B16.21 CL150 FF 3mm THK DURLON 8300	3	EA	2639-E0006-13.19
6	5" ISOLATION KIT EN 1092-1 PN16 3mm THK DURLON IGUARD 8500 TYPE E	1	KIT	2639-E0006-13.15
7	4" ISOLATION KIT EN 1092-1 PN16 3mm THK DURLON IGUARD 8500 TYPE E	1	KIT	2639-E0006-13.14
8	3/4"x4 1/4"LG HEX BOLT B18.2.1 ASTM A193 GR 5, ZINC PLATED C/W HVY HEX NUT B18.2.2 ASTM A194 GR 5 ZINC PLATED	24	EA	
9	M16x85mm LG HEX BOLT EN1515-4 EN ISO 898-1 GR 5 ZINC PLATED C/W HVY HEX NUT EN 20898-2 GR 5 ZINC PLATED	16	EA	
10	M20x65mm LG HEX BOLT ASME B18.2.3.5M ASTM A449 TYPE 1 GR 5 ZINC PLATED C/W HVY HEX NUT ASME B18.2.4.1M ASTM A536 GR 5 ZINC PLATED AND 2 FLAT WASHERS ASME B18.22M ASTM F844 GR 5 ZINC PLATED	3	EA	
11	4" GASKET ANSI B16.21 CL150 FF 3mm THK DURLON 8300	1	EA	2639-E0006-13.17
12	5/8"x3-3/4" LG HEX BOLT B18.2.1 ASTM A193 GR 5, ZINC PLATED C/W HVY HEX NUT B18.2.2 ASTM A194 GR 5 ZINC PLATED	8	EA	
13	ADAPTER THRD 3/4"BSPP(M)x3/4"NPT(F) HEX, ASME B1.20.3, 316 SS, C/W SEAL RINGS (MCMASTER CARR P/N 4822T352 OR EQ.)	2	EA	
14	ADAPTER THRD 3/8"BSPP(M)x3/8"NPT(F) HEX, ASME B1.20.3, 316 SS, C/W SEAL RINGS (MCMASTER CARR P/N 4822T344 OR EQ.)	1	EA	
15	PLUG PIPE THRD 3/4"NPT SQR HEAD HEX, ANSI/MSS SP-114, ASTM A351, 316 SS, MCMASTER CARR P/N 4452K125 OR EQ.)	2	EA	
16	PLUG PIPE THRD 3/8"NPT SQR HEAD HEX, ANSI/MSS SP-114, ASTM A351, 316 SS, MCMASTER CARR P/N 4452K123 OR EQ.)	1	EA	

DESCRIPTION OF ITEMS 13 THRU 16 UPDATED. VIEWS UPDATED TO SHOW PIPE SUPPORTS. ADDITION OF REF DWG 6.
3

REV	DATE (YY/MM/DD)	DESCRIPTION	DWN	CHK	APP
3	2022-04-12	RE-ISSUED FOR CONSTRUCTION	BM	RS	TB
2	2022-03-25	RE-ISSUED FOR CONSTRUCTION	MB	RS	TB
1	2022-03-08	RE-ISSUED FOR CONSTRUCTION	JD	RS	TB
0	2022-03-02	ISSUED FOR CONSTRUCTION	BM	RS	TB

REVISION HISTORY

NO.	DRAWING NO.	DRAWING TITLE	REV
6	2639-AMS-E06-26311-PS-0001-001	PUMP No. 11 PIPE SUPPORTS FABRICATION AND INSTALLATION	0
5	2639-AMS-E06-81311-SPL-0003-001	GENERAL SERVICE & FIRE SYS. PIPE SPOOL NO.3	1
4	2639-AMS-E06-81311-SPL-0002-001	GENERAL SERVICE & FIRE SYS. PIPE SPOOL NO.2	1
3	2639-AMS-E06-81311-SPL-0001-001	GENERAL SERVICE & FIRE SYS. PIPE SPOOL NO.1	1
2	2639-AMS-E06-26311-RN-0001-001	GENERAL SERVICE & FIRE SYS. PUMP NO.11 FND RENEWAL	1
1	2639-AMS-E06-81311-RM-0001-001	GENERAL SERVICE & FIRE SYSTEM PUMP NO.11 REMOVAL	0

REFERENCE DRAWINGS

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AMS Adaptive Marine Solutions Inc.

CLIENT DAVIE

DRAWING TITLE:
GENERAL SERVICE & FIRE SYSTEM
PUMP No. 11 INSTALLATION

PROJECT NO.:	JOB SPEC. NO.:	DATE (YY/MM/DD):
2639	E06	2022-04-12
DRAWN BY:	CHECKED BY:	APPROVED BY:
BM	RS	TB

DRAWING NO.: 2639-AMS-E06-81311-IN-0001-001 REV. 3

Secure ARS Houston Letter Ref # 2245047 Dated 25-MAY-2022