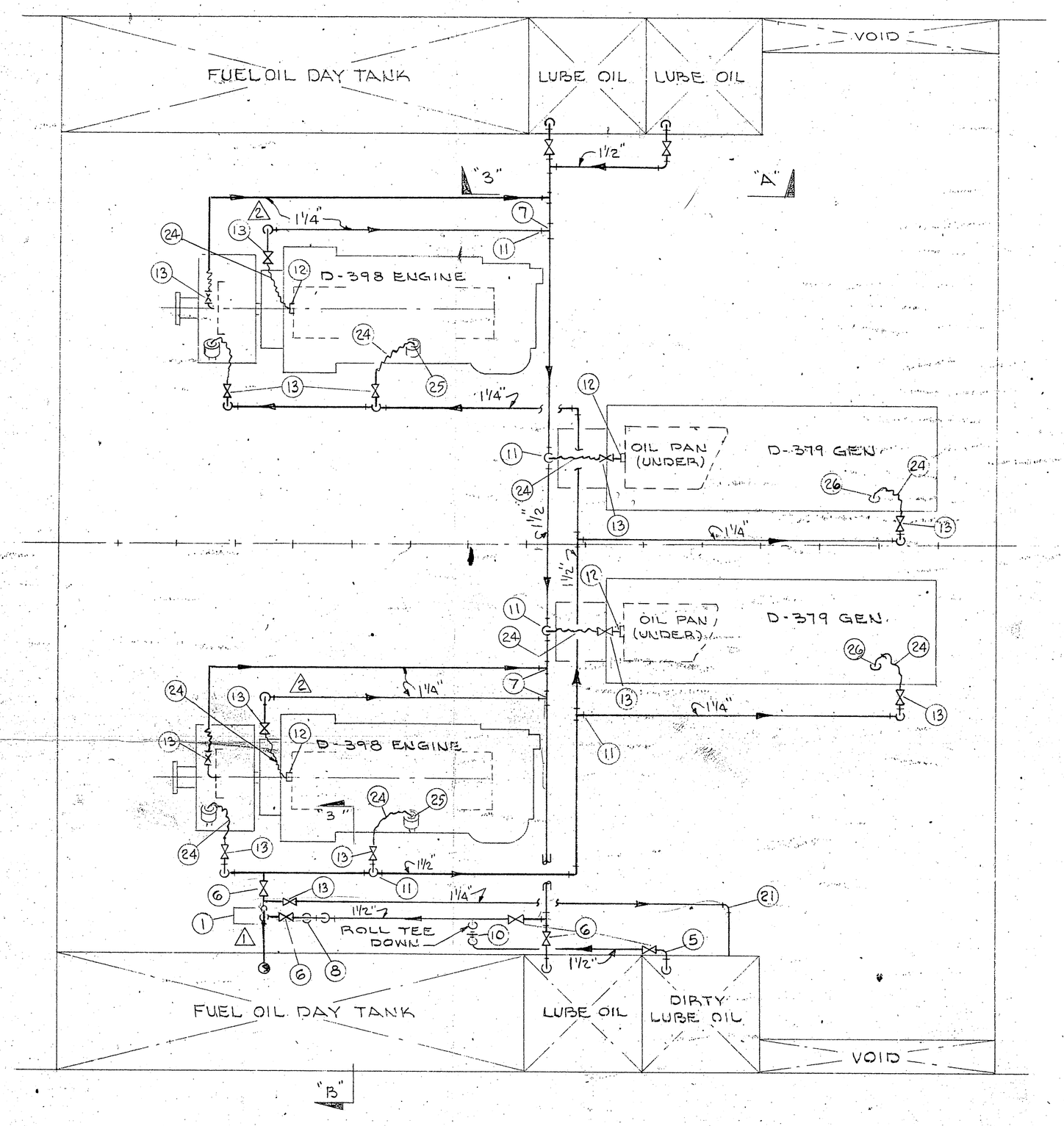
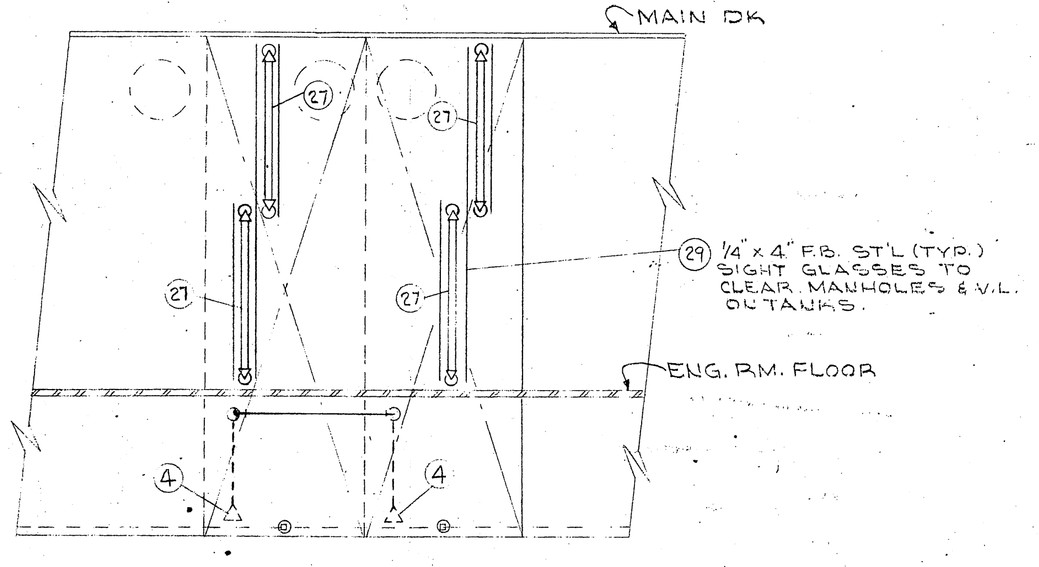
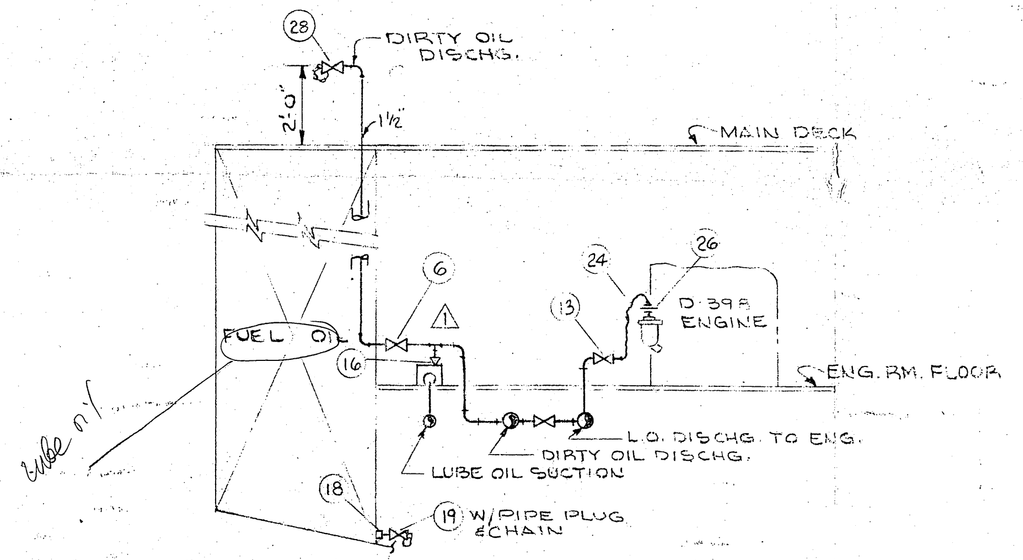


— ENGINE LUBE OIL PIPING —
3/8" = 1'-0"



— SECTION "3-A" —
3/8" = 1'-0"



— SECTION "3-B" —
N.T.S.

— GENERAL NOTES —

1. ALL PIPING SHALL BE DIRECT AS POSSIBLE.
2. ALL SCR'D FITTINGS ARE TO BE 150# M.I. BLK. ASTM A-47
3. ALL PIPING TO BE SCH. 40 BLK. SML'S ASTM A-53 GR. B
4. VALVE HANDWHEELS SHALL HAVE BRASS OR BRONZE TAGS IDENTIFYING THE USE OF THAT VALVE.
5. ALL PIPE SHALL BE ADEQUATELY PROTECTED AND SUPPORTED.
6. PIPE TO BE THOROUGHLY CLEANED AFTER INSTALLATION & BEFORE FUNCTION TEST.
7. SEE DWG. P-2 FOR LUBE OIL TANK VENTS, FILL & SOUNDING.
8. ALL PIPING AND VALVES SHALL BE MARKED SHOWING ITS SERVICE & PARTICULAR LIQUID.
9. ALL PIPING SHALL BE COLOR CODED IN ACCORDANCE WITH NATIONAL COLOR CODE & SHALL INDICATE DIRECTION OF FLOW.

BILL OF MATERIAL

ITEM NO.	QTY	SIZE	DESCRIPTION	COST ITEM	PO NO.	VEND	DATE REQ'D YARD	DATE REC'D
1	1		DEMING PUMP FIG. #4353 UNIT 132 23GPM	354				
2	132'	1½"	PIPE BLK. SML'S SCH. 40 ASTM A-53 GR. B					
3	90'	1¼"	PIPE BLK. SML'S SCH. 40 ASTM A-53 GR. B					
4	4	3"x1½"	CONC. RED. BLE-TSE ASTM A 234					
5	14	1½"	90° ELBOW LR. SCR'D M.I. 150# ASTM A-47					
6	8	1½"	GATE VALVE 150# BRZ. SCR'D CRANE #431-UP.					
7	14	1½"	TEE, SCR'D M.I. 150# ASTM A-47					
8	1	1½"	STRAINER 125# C.I. SCR'D KRAISSL MOD. 772-115					
9	16	1½"	PIPE NIPPLE X 4" LG. ASTM A-53 GR. B					
10	1	1½"	UNION SCR'D M.I. 150# ASTM A-47					
11	6	1½"x1¼"	BUSHING HEX HEAD M.I.					
12	6	2"x1¼"	BUSHING HEX HEAD M.I.					
13	11	1¼"	GATE VALVE 150# BRZ. SCR'D CRANE #431-UP					
14	2	1¼"	PIPE NIPPLE X 4" LG. ASTM A-53 GR. B					
15	16	½"	COUPLING F.S. 3000# SCR'D					
16	1	1½"x1"	CONC. SWAGE SCH 80 TBE					
17	2	1½"	45° ELBOW, SCR'D M.I. 150# ASTM A-47					
18	4	1"	PIPE COUPLING F.S. 3000# SCR'D					
19	4	1"	GATE VALVE 150# BRZ. SCR'D CRANE #431-UP.					
20	4	1"	PIPE NIPPLE X 3" LG ASTM A-53 GR. B					
21	10	1¼"	90° ELBOW LR. SCR'D 150# M.I. ASTM A-47					
22	4	1½"x1¼"	BUSHING HEX HEAD					
23	1	1¼"	TEE, SCR'D 150# M.I. ASTM A-47					
24	12	1¼"	AEROQUIP HOSE #1503-20-36					
25	24	1¼"	AEROQUIP HOSE FITTING #4412-420-20-20S					
26	12	1¼"	UNION 150# M.I. MALE THD. ONE END & FEMALE THD. OTHER					
27	8	½"	SIGHT GLASS CONSOLI-DATED BR. #30-204 x 48" LG.					
2	1	1½"	BAT. HOSE, GATE VALVE CRANE #431					
29	64'	¼"x 4"	FLAT BAR, ST'L					

OCT 30 1973

SYM	DESCRIPTION	DATE	BY
2	REV. CHG'D DIRTY LO. SUCT. TO AFT. OF ENGINE & AS BUILT	9-19-73	JSS CALL
1	REV. SECT. 3B-3 CHG'D PIPE RUN FROM OUTSIDE TO INSIDE OF F.O. TK	8-23-73	JSS CALL

REVISIONS

H.O. 8-20-73

APPROVALS

ABS* A 8-11-73 FCC
USCG
USPHS

U.S. NAVAL SHIP SYSTEMS COMMAND
WASHINGTON D.C. 20360

OCEANOGRAPHIC RESEARCH SHIP
AGOR (UTILITY) GLASS

HALTER MARINE SERVICES, INC.
P.O. BOX 29266 NEW ORLEANS, LA. 70129

LUBE OIL PIPING

SCALE-	AS SHOWN	DATE	3-21-73	HALTER DWG. NO.
DRAWN BY-	F. THEOBOLD	CK'D BY	JOWERS	P-12
HALTER HULL NO.	375, 376	HALTER JOB NO.	2187-88	
NAVSHIPS NO.	AGOR 21-211-001			REV: 2

5 00045

GYRE180