



| ITEM | CAPACITY | HEAD | MOTOR |
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| TRANSFER PUMP | 170 GPM. | 30 PSIG. | 15 H.P. |
| STANDBY TRANS. P. | 170 GPM. | 30 PSIG. | 15 H.P. |

| ITEM | DESCRIPTION | REMARKS |
|------|--|---------|
| 1 | LOCKED OPEN | |
| 2 | ANGLE VALVE | |
| 3 | GLOBE VALVE | |
| 4 | CHECK VALVE | |
| 5 | SHUT-CLOSING VALVE (W/ST. CLOSING) | |
| 6 | SPRING LOADED DRAIN VALVE | |
| 7 | RELIEF VALVE | |
| 8 | VALVE TO BE LOCKED CLOSED | |
| 9 | TRANSFER PUMP | |
| 10 | PRESSURE GAUGE TO BE FITTED WITH SHUT-OFF COCK | |
| 11 | FLEXIBLE CONNECTION | |
| 12 | STRAINER | |
| 13 | SIGHT FLOW INDICATOR | |
| 14 | SCREW DOWN NON-RETURN VALVE | |
| 15 | HANDPUMP | |
| 16 | EXTENDED SPINDLE | |
| 17 | DUPLEX FILTER | |

NOTES

- PURIFIERS AND OIL FUEL TRANSFER PUMPS TO BE FITTED WITH EMERGENCY STOP SWITCHES OUTSIDE MACHINERY SPACE. SOLENOID VALVE IN PURIFIER FEED LINE TO BE OPERATED FROM SAME STATION.
- ALL TANKS TO BE FITTED WITH "METRITAPES" GAUGES READOUT TO BE SITUATED ADJACENT TO OIL FUEL TRANSFER PUMPS. TANKS TO BE FITTED WITH SOUNDING PIPES. SOUNDING PIPES TERMINATING IN MACHINERY SPACES TO BE FITTED WITH SELF-CLOSING COCKS.
- PORT AND STARBOARD SETTLING TANKS, DAY TANKS, DAY TANK AND BOILER OIL TANK TO BE FITTED WITH "SEE-THRU" GAUGE GLASSES.
- FUEL OIL SYSTEM TO COMPLY WITH CHAPTER '5' OF LLOYD'S RULES AND C.S.I. REGULATIONS.
- BUNKERING STATION FLANGES TO COMPLY WITH ARCTIC POLLUTION REGULATIONS.
- DAY TANK TO BE FITTED WITH HIGH AND LOW LEVEL ALARMS.
- EMERGENCY GENERATOR FUEL OIL TANK TO BE FITTED WITH DIRECT SUCCTION AND LOW LEVEL ALARM TO L.S.I. FILLING OVER FLOW AND VENT LINES TO AND FROM TANK TO BE ELECTRICALLY TRIPPED.
- ALL GLOBE AND ANGLE VALVES TO BE FLANGED.
- FOR FUEL OIL SERVICE DIAGRAM REF. 68-2100-2
- FLEXIBLE CONNECTIONS ARE TO BE OF AN APPROVED TYPE (LLOYD'S & C.S.I.)
- SIGHT GLASS TO BE OF AN APPROVED FIRE SAFE TYPE (C.S.I.)
- CONTACT MAKERS TO BE FITTED IN DAY TANK SHALL OPERATE AUTOMATICALLY THE SELECTED TRANSFER PUMP, WHICH SHALL CUT IN WHEN TANK IS APPROX. 50% AND CUT OUT WHEN TANK IS 90% FULL.

MATERIAL

PIPE - ASTM-A-53-73.7 SEAMLESS 60" O.D. 1/4" BORE AND UNDER SCHED. 80. OVER 14" SCHED. 40.

ALL BULKHEAD PIECES TO BE THREE FLANGED SPOOL PIECES. FLANGES - 150" A.S.A. SLIP-ON F.B. STEEL EX. HEAVY PIPE.

ALL TRANSFER AND OTHER LOW PRESSURE OIL LINES TO HAVE FLANGED JOINTS SUITABLE FOR PRESSURES OF 100 P.S.I. GASKETS 1/4" CRANE HYDROIL.

BOLTS AND NUTS - CARBON STEEL A.S.T.M. 307-597 GRADE 1" PIPES TO BE CLEANED TO REMOVE SLAG AND RUST BY PICKLING OR SANDBLASTING.

VALVES - TO BE 125" A.S.A. FR. RIGID VALVES WITH BRONZE BODY AND TRIM C.S.A. 3107-1258.

TEST PRESSURE (SEE LLOYD'S)

FUEL OIL SERVICE SYSTEM - 50 P.S.I., FUEL OIL FILLING AND TRANSFER SYSTEM - 2 x MAX. WORKING PRESSURE OF 30 P.S.I.

| ALTERATIONS | | | | | | REFERENCES | | |
|-------------|------|---|---------|------|-------|------------|-------|----------|
| REV. | ZONE | DESCRIPTION | DATE | APP. | OWNER | NO. | TITLE | DRG. NO. |
| A | | USE ORIENTED QUICK-CLOSING VALVES SEE P. 24. CHANGE OF L.S.I. DISCHARGE LINE TO DAY TANK FROM L.S.I. FILLING OVER FLOW LLOYD'S LETTER - JULY 25th 1980. | 25/8/80 | JS | | | | |
| | | INCINERATOR MANUALLY OPERATED TO SHUT DOWN DURING EMERGENCY AND VALVE ADDED | | | | | | |
| | | DECCA L.S.I. INSTRUMENTING. | 26/8/80 | | | | | |
| | | 2.5 L. APPROVED - EXTENDED SPINDLE | | | | | | |
| | | ADDED EMERGENCY GENERATOR FUEL TANK OUTLET VALVE DELETED | 24/8/80 | | | | | |
| | | EXCHANGE WARDING 0.75" INCHES TO 0.75" INCHES SECTION FROM 0.75" INCHES TO 0.75" INCHES SECTION FROM 0.75" INCHES TO 0.75" INCHES | 24/8/80 | | | | | |
| | | 7/8" DOUBLE BOTTOM FUEL TANK VALVES DELETED PER M.O.T. JULY 25th | 24/8/80 | | | | | |
| | | AIR EXHAUSTOR 0.75" INCHES TO 0.75" INCHES FUEL TANK | 24/8/80 | | | | | |
| | | 1.00" 100% DAY TANK EXHAUSTOR 0.75" INCHES AIR EXHAUSTOR 0.75" INCHES 1/2" VALVE 0.75" INCHES TO 1" INCHES | 24/8/80 | | | | | |
| B | | VALVE OF 4" DELETED FROM EMERGENCY GENERATOR SUPPLY LINE | 16/8/80 | | | | | |
| | | VALVE OF 4" DELETED FROM EMERGENCY LINE TO BOILER FROM DAY TANK (VALVE DUPLICATED) | 16/8/80 | | | | | |
| | | VALVE OF 4" DELETED FROM EMERGENCY GENERATOR HAND PUMP SUPPLY LINE (VALVE DUPLICATED) | 26/8/80 | | | | | |
| | | CHECK VALVES OF 0.5" (2 nos) DELETED FROM BOILER AND EMERGENCY F.O. TANKS DRAIN LINES | 17/8/80 | | | | | |
| | | 2.5 L. APPROVED TO SHUT EXHAUSTOR DURING EMERGENCY | 24/8/80 | | | | | |
| | | GARBAGE INCINERATOR VALVE OF 0.5" INCHES | | | | | | |
| C | | PIPE NUMBERS ADDED | 26/8/80 | | | | | |
| D | | SUCTION 4" DISCH LINES ADDED TO 2" MANIFOLDS OF 2" OF 30" TO SUIT AIRST DWS | 26/8/80 | | | | | |
| E | | PRESS GAUGE (0.5" STD) FOR FILL STATION DELETED | 26/8/80 | | | | | |
| F | | AS FITTED | 26/8/80 | | | | | |
| G | | AS FITTED | 26/8/80 | | | | | |
| H | | AS FITTED | 26/8/80 | | | | | |

PRINT ISSUE

| GROUP | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| OWNER (6.6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |