

| ELECTRIC PROPULSION | PORT | STARBOARD |
|-------------------------------|------|-----------|
| GENERATORS | | |
| EXCITERS | | |
| AIR COOLERS | | |
| MOTORS | | |
| AIR COOLERS | | |
| CONTROL GEAR | | |
| INSULATION RESISTANCE | | |
| INSULATING OIL TEST | | |
| OVERSPEED GOVERNORS | | |
| | | |
| MAGNETIC COUPLINGS & AIR CAPS | | |

MINIMUM NUMBER OF GENERATORS REQUIRED FOR ESSENTIAL SERVICES

MOTOR SHIP SURVEYS

| PORT MAIN ENGINE | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No. 8 | No. 9 | No. 10 | No. 11 | No. 12 |
|------------------------------------------|----------------------------|--------------|--------------|----------|----------------|-------|-------|-------|-------|--------|--------|--------|
| CYLINDERS, PISTONS, RODS, VALVES & GEARS | | | | | | | | | | | | |
| CONNECTING RODS, TOP ENDS & GUIDES | | | | | | | | | | | | |
| CRANKPINS & BEARINGS | | | | | | | | | | | | |
| JOURNALS & BEARINGS | | | | | | | | | | | | |
| SCAVENGE PUMPS | | | | | | | | | | | | |
| SCAVENGE BLOWERS | COMPRESSORS ON MAIN ENGINE | | | | COMPR. COOLERS | | | | | | | |
| SUPERCHARGER | CLUTCH OR COUPLING | | | | GEARING | | | | | | | |
| THRUST | INTERMEDIATE SHAFTING | | | | | | | | | | | |
| HOLDING DOWN BOLTS & CHOCKS | CRANKCASE RELIEF DEVICES | | | | ENGINE TEST | | | | | | | |
| MAIN ENGINE DRIVEN PUMPS | BILGE | S.W. COOLING | F.W. COOLING | LUB. OIL | FUEL | | | | | | | |

AUXILIARY ELECTRICAL EQUIPMENT

| | |
|------------------|------------------------|
| GENERATORS | CABLES |
| MOTORS | INSULATION RESISTANCE |
| SWITCHBOARDS | STEERING |
| CIRCUIT BREAKERS | NAV. LIGHT. INDICATORS |

AUXILIARY ENGINES

| NUMBER & DESCRIPTION | PORT SIDE E.R. | | | |
|------------------------------------------|--------------------|--------------------|-----------------|--|
| | F. In. 230kw (N°1) | F. Out 230kw (N°2) | AFT 230kw (N°3) | |
| 3- 5cyl each 230kw. | | | | |
| INDEPENDENT PUMPS FOR AUX. ENGINES (PS.) | SW (1) | F.W (1) | | |

Name **HODAKASAN MARU** **7E**

| STARBOARD MAIN ENGINE | No. 1 | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No. 8 | No. 9 | No. 10 | No. 11 | No. 12 |
|---------------------------------------------------|------------------------------------------|--------------------------|------------------------------------|---------------------------------------------|----------------|-------|-------|-------|-------|--------|--------|--------|
| CYLINDERS, PISTONS, RODS, VALVES & GEARS | | | | | | | | | | | | |
| CONNECTING RODS, TOP ENDS & GUIDES | | | | | | | | | | | | |
| CRANKPINS & BEARINGS | | | | | | | | | | | | |
| JOURNALS & BEARINGS | | | | | | | | | | | | |
| SCAVENGE PUMPS | | | | | | | | | | | | |
| (3) ENHGAZ F.W. 9/64 (N°1/15) SCAVENGE BLOWERS | COMPRESSORS ON MAIN ENGINE | | | | COMPR. COOLERS | | | | | | | |
| SUPERCHARGER | CLUTCH OR COUPLING | | | | GEARING | | | | | | | |
| THRUST | INTERMEDIATE SHAFTING | | | | | | | | | | | |
| HOLDING DOWN BOLTS & CHOCKS | CRANKCASE RELIEF DEVICES | | | | ENGINE TEST | | | | | | | |
| MAIN ENGINE DRIVEN PUMPS | BILGE/SANITARY (2) | S.W. COOLING | F.W. COOLING | LUB. OIL | FUEL | | | | | | | |
| INDEPENDENT PUMPS | BILGE (1) PS | BALLAST (1) PSA | FUEL TRANSFER (1) SS | CIRCULATING SURCHARGE VALVE COOLING (1) IN. | | | | | | | | |
| | S.W. COOLING (1) SS 9/64. | F.W. COOLING (1) SS | LUB. OIL (2) SS IN. | FUEL VALVE COOLING (PS OUT) (1) | | | | | | | | |
| | STAND-BY SW/FW (1) SS. | GENERAL SERVICE (1) PSA. | F.W. COOLERS (1) | LUB. OIL COOLERS (1) | | | | | | | | |
| | FEED (2) SS. | | | | | | | | | | | |
| | OUT. 9/64. | | | | | | | | | | | |
| FORCED CIRCULATION PUMPS (2) IN | OTHER PUMPS WITH BILGE CONNECTIONS | | DISTILLER (1) | | | | | | | | | |
| BILGE, BALLAST & O.F. LINES | EVAPORATOR SAFETY VALVES | | PROPELLERS SEA CONNECTIONS 9-64. | | | | | | | | | |
| OTHER PIPING ARRGTs. & FITTINGS | (1) CONDENSER | | YES STEEL STEAM PIPES OVER 3" BORE | | | | | | | | | |
| (4) OIL FUEL TANKS | HEATERS (2) OIL BURNING SYSTEM PUMPS (2) | | STARTING AIR PIPES | | | | | | | | | |
| STEERING MACHINERY | WINDLASS | | FIRE EXT. SYSTEM | | | | | | | | | |
| (2) A.D. (SS.) INDEP. AIR COMPRESSORS (1) HAND :- | OUT. | | COMPR. COOLERS | | | | | | | | | |
| MAIN AIR RECEIVERS (2) SS. | OUT. | | AUXILIARY AIR RECEIVERS (1) PS | | | | | | | | | |