

NAME

MOTOR SHIPS

NAME

ISE MARU

7E

| 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 and Gears ^{1,2} | | | | | | | | | | | | |
| Connecting Rods, Top ends and Guides ³ | | | | | | | | | | | | |
| Crankpins and Bearings ⁴ | | | | | | | | | | | | |
| Journals and Bearings ⁵ | | | | | | | | | | | | |
| Compressors on Main Engine ^{6,9} | | | | | | | | | | | | |
| Scavenge Pumps or Blowers ¹¹⁻¹⁶ | | | | | | | | | | | | |
| Supercharger ¹⁷ | | | | | | | | | | | | |
| Clutch or Hydraulic Coupling ²¹ | | | | | | | | | | | | |
| Magnetic Coupling ⁷ | | | | | | | | | | | | |
| Thrust ²³ | | | | | | | | | | | | |
| Holding Down Bolts & Chocks ²⁵ | | | | | | | | | | | | |
| Main Engine Driven Pumps ³⁰ | | | | | | | | | | | | |

ELECTRIC PROPULSION

PORT

STARBOARD

| | | |
|------------------------------------|--|--|
| Generators ^a | | |
| Exciters ^b | | |
| Air Coolers ^c | | |
| Motors ^d | | |
| Air Coolers ^e | | |
| Control Gear ^f | | |
| Insulation Resistance ^g | | |
| Insulating Oil Test ^h | | |
| Overspeed Governors ⁱ | | |

AUXILIARY ELECTRICAL EQUIPMENT

| | |
|--|--|
| Generators ^j | |
| Motors ^m | |
| Switchboards ⁿ | |
| Circuit Breakers ^o | |
| Cables ^p | |
| Insulation Resistance ^q | |
| Steering Gear ^r | |
| Navigation Light Indicators ^s | |

| 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 and Gears ^{1,2} | 8.60 | | | 8.60 | 10/59 | | | 10/59 | 8.60 | | | |
| Connecting Rods, Top ends and Guides ³ | 8.60 | | | 8.60 | 10/59 | | | 10/59 | 8.60 | | | |
| Crankpins and Bearings ⁴ | 8.60 | | | 8.60 | 10/59 | | | 10/59 | 8.60 | | | |
| Journals and Bearings ⁵ | 8.60 | | | 8.60 | 10/59 | | | 10/59 | 8.60 | | | |

| | | | | | | | | | | | | |
|--|-------|------|--|--|-------|--|--|-------|------|------|-------|--|
| Compressors on Main Engine ^{6,9} | | | | | | | | | | | | |
| Scavenge Pumps or Blowers ¹¹⁻¹⁶ | | 8.60 | | | 10/59 | | | 10/59 | 8.60 | 8.60 | 10/59 | |
| Supercharger ¹⁷ | | | | | | | | | | | | |
| Clutch or Hydraulic Coupling ²¹ | | | | | | | | | | | | |
| Magnetic Coupling ⁷ | | | | | | | | | | | | |
| Thrust ²³ | 10/59 | | | | | | | | | | | |
| Holding Down Bolts & Chocks ²⁵ | | | | | | | | | | | | |
| Main Engine Driven Pumps ³⁰ | | 8.60 | | | | | | | | | | |

| | | | |
|--------------------------------------|-----------------------|----------------------------|--------------------------------|
| Bilge (1) | Ballast (1) + bilge | Fuel Transfer (2) | Fuel Service |
| Cyl. Cooling SW (2) | Piston Cooling FW (2) | Lub. Oil (3) | Fuel Valve Cooling (2) |
| Feed (2) | Cond. Circulating | F.W. Coolers ³⁵ | Lub. Oil Coolers ³⁶ |
| Other Pumps having Bilge Connections | | | |

| | | |
|---|---------------------------------------|---------------------------------|
| Bilge, Ballast and O.F. Lines ³⁷ | | |
| Other Piping Arrgts. and Fittings ³⁸ | | |
| Condenser ³⁹ | Evaporator ⁴⁰ | Propellers and Sea Connections |
| Oil Fuel Tanks ⁴¹ | Safety Valves ⁴² | Steam Pipes Over 3in. Bore |
| Steering Machy. ⁴³ | Windlass ⁴⁴ | Oil Burning Arrgts. |
| Indep. Air Compressors ⁴⁵ | | Fire Ext. Arrgts. ⁴⁶ |
| Main Air Receivers ⁴⁷ | Auxiliary Air Receivers ⁴⁸ | Comp. Coolers |

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|-------------------|-------|-------|--------|
| AUXILIARY ENGINES | P | S. In | S. Out |
| 2 @ 330 KVA | 10/59 | 8.60 | |
| 1 @ 100 KVA | | | |