

MOTOR SHIPS

NAME

NAME *mv. TEN-EL 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}							Compr. Coolers ¹⁰					
Scavenge Pumps or Blowers ^{11,16}												
Supercharger ¹⁷												
Clutch or Hydraulic Coupling ²¹							Gearing ²²					
Magnetic Coupling ⁷							Air Gap ⁶					
Thrust ²³							Intermediate Shafting ²⁴					
Holding Down Bolts & Chocks ²⁵							Crankcase Relief Devices ²¹					
Main Engine Driven Pumps ³⁰	Bilge		S.W. Cooling		F.W. Cooling		Lub. Oil		Fuel			Engine Tested

ELECTRIC PROPULSION

PORT

STARBOARD

Generators ²⁶		
Exciters ²⁷		
Air Coolers ²⁸		
Motors ²⁹		
Air Coolers ³¹		
Control Gear ³²		
Insulation Resistance ³³		
Insulating Oil Test ³⁴		
Overspeed Governors ³⁵		

AUXILIARY ELECTRICAL EQUIPMENT

Generators ³⁶	
Motors ³⁷	
Switchboards ³⁸	
Circuit Breakers ³⁹	
Cables ⁴⁰	
Insulation Resistance ⁴¹	
Steering Gear ⁴²	Navigation Light Indicators ⁴³

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}	10/61				10/60	10/61	10/60					
Connecting Rods, Top ends and Guides ³	10/61				10/60	10/61	10/60					
Crankpins and Bearings ⁴	10/61				10/60	10/61	10/60					
Journals and Bearings ⁵	10/61	10/60					10/60	10/61				
Compressors on Main Engine ^{6,9}							Compr. Coolers ¹⁰					
Scavenge Pumps or Blowers ^{11,16}	10/61	10/60		10/60	10/61							
Supercharger ¹⁷												
Clutch or Hydraulic Coupling ²¹							Gearing ²²					
Magnetic Coupling ⁷							Air Gap ⁶					
Thrust ²³							Intermediate Shafting ²⁴					
Holding Down Bolts & Chocks ²⁵							Crankcase Relief Devices ²¹					
Main Engine Driven Pumps ³⁰	Bilge		S.W. Cooling		F.W. Cooling		Lub. Oil (by chain)		Fuel (Injection)			Engine Tested
Bilge (1) + G.S.	10/61		Ballast/Bilge (1)		STEER-10/60		Fuel Transfer (2) (F & A.)		Fuel Service (1) (2 Bonnet)			
Independent Pumps ³¹	S.W. Cooling (1 steam driven) (1 by common oil motor) PORT (C.L.)-10/60-10/61		F.W. Cooling (1 steam driven) (1 by common oil motor) STEER 10/59 PORT (C.L.) 10/60.		Lub. Oil (1)		Fuel Valve Cooling (1)					
Feed (2) for O.F. line.	Inco-10/60		PORT OIL MOTOR-10/60.		Cond. Circulating		F.W. Coolers ³⁵ (2)		Lub. Oil Coolers ³⁶ (2)			
Other Pumps having Bilge Connections												
Bilge, Ballast and O.F. Lines ³⁷												
Other Piping Arrgts. and Fittings ³⁸												
Condenser ³⁹ (1)	10/61		Evaporator ⁴⁰ Safety Valves ⁴¹				Propellers and Sea Connections					
Oil Fuel Tanks ⁴² (2)												
Steering Machy. ⁴³												
Indep. Air (2 by comp)	STEER Inco-10/60		STEER OUT-10/61				Fire Ext. Arrgts. ⁴⁶					
Compressors ⁴⁴ (1 by hand)												
Main (2)	STEER Inco-10/60.		Auxiliary Air (1 aux.) Receivers ⁴⁵ (1 emergency)				Comp. Coolers					
Auxiliary Air Receivers ⁴⁵												
AUXILIARY ENGINES	S. IN.		S. OUT.									
2 - Sept. - 100 Kw. each.	10/60 10/61		10/61									