|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Measurement card for Finnstraum** | | | | Date: | |
| **Machine name** | **Measurement condition** | **Work Parameters** | **RHs** | **RPM** | **Remarks** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Batch 1** | | | | | |
| **Cargo Heating Pumps** | | | | | |
| Cargo Heating Pump No.1 | During normal operation |  |  | 1760 |  |
| El.Motor Cargo Heating Pump No.1 | During normal operation |  |  | 1750 |  |
| Cargo Heating Pump No.2 | During normal operation |  |  | 1760 |  |
| El.Motor Cargo Heating Pump No.2 | During normal operation |  |  | 1750 |  |
| **Tank Drying Unit** | | | | | |
| El.Motor Tank Drying Unit | During normal operation |  |  | 3545 |  |
| **Bow Thrusters** | | | | | |
| Bow Thruster | Expected load: 50% |  |  | 1186 |  |
| El.Motor Bow Thruster | Expected load: 50% |  |  | 1186 |  |
| **Sludge Pump** | | | | | |
| Sludge Pump | During normal operation |  |  | 1160 |  |
| El.Motor Sludge pump | During normal operation |  |  | 1160 |  |
| **ME LO pump attached** | | | | | |
| ME LO Pump attached | During normal operation |  |  |  |  |
| **Reduction Gear ME** | | | | | |
| Reduction Gear ME | 80% load ME, sea going, loaded vessel |  |  | 500 |  |
| **Emergency Generator** | | | | | |
| Emergency Generator | 1800 rpm, 0 KW load on generator |  |  | 1800 |  |
| **Shaft Generator** | | | | | |
| Shaft Generator | 400 KW load generator, seagoing, loaded vessel |  |  | 1200 |  |
| **FO Separator Feed Pumps** | | | | | |
| FO Separator Feed Pump No.1 | During normal operation |  |  | 2190 |  |
| El.Motor FO separator feed pump No.1 | During normal operation |  |  | 2190 |  |
| FO Separator Feed Pump No.2 | During normal operation |  |  | 2190 |  |
| El.Motor FO separator feed pump No.2 | During normal operation |  |  | 2190 |  |
| **DO Separator Pump** | | | | | |
| DO Separator Pump | During normal operation |  |  |  |  |
| El.Motor DO Separator feed pump | During normal operation |  |  |  |  |
| **FO Booster Pumps** | | | | | |
| FO Booster Pump No.1 ME | During normal operation |  |  | 3474 |  |
| El.Motor ME booster pump No.1 | During normal operation |  |  | 3474 |  |
| FO Booster Pump No.2 ME | During normal operation |  |  | 3474 |  |
| El.Motor ME booster pump No.2 | During normal operation |  |  | 3474 |  |
| **FO Feed Pumps** | | | | | |
| FO Feed Pump No.1 ME | During normal operation |  |  | 3470 |  |
| El.Motor ME feed pump No.1 | During normal operation |  |  | 3470 |  |
| FO Feed Pump No.2 ME | During normal operation |  |  | 3470 |  |
| El.Motor ME feed pump No.2 | During normal operation |  |  | 3470 |  |
| **ME Pump LO Separator** | | | | | |
| Pump LO Separator ME | During normal operation |  |  | 1210 |  |
| El.Motor ME LO Separator feed pump | During normal operation |  |  | 1210 |  |
| **AE Pump LO Separator** | | | | | |
| Pump LO Separator AE | During normal operation |  |  | 790 |  |
| El.Motor AE LO Separator feed pump | During normal operation |  |  | 790 |  |
| **ME Prelubricating Pump** | | | | | |
| ME Prelubricating Pump | During normal operation |  |  |  |  |
| El.Motor ME Prelube pump | During normal operation |  |  |  |  |
| **ME LO Stand By Pump** | | | | | |
| ME LO Stand By Pump | During normal operation |  |  | 1770 |  |
| El.Motor ME LO Stand By Pump | During normal operation |  |  | 1770 |  |
| **St. by Gear Oil Pump** | | | | | |
| St. by Gear Oil Pump | During normal operation |  |  | 1765 |  |
| El.Motor Gear oil stand by pump | During normal operation |  |  | 1765 |  |
| **SW Cooling Pumps** | | | | | |
| SW Cooling Pump No.1 | During normal operation |  |  | 1760 |  |
| El.Motor SW Cooling Pump No.1 | During normal operation |  |  | 1760 |  |
| SW Cooling Pump No.2 | During normal operation |  |  | 1760 |  |
| El.Motor SW cooling pump No.2 | During normal operation |  |  | 1760 |  |
| **ME HT/LT Cooling Water Pumps** | | | | | |
| ME HT Cooling Water Pump | During normal operation |  |  | 1755 |  |
| El.Motor ME HT Cooling Water Pump | During normal operation |  |  | 1755 |  |
| ME LT Cooling Water Pump | During normal operation |  |  | 1755 |  |
| El.Motor LT Cooling Water Pump | During normal operation |  |  | 1755 |  |
| **Gear Cooling Pumps** | | | | | |
| Gear Cooling Pump No. 1 | During normal operation |  |  | 2830 |  |
| El.Motor Gear Cooling Pump No. 1 | During normal operation |  |  | 2830 |  |
| Gear Cooling Pump No. 2 | During normal operation |  |  | 2830 |  |
| El.Motor Gear Cooling Pump No. 2 | During normal operation |  |  | 2830 |  |
| **Ballast Pumps** | | | | | |
| Ballast Pump No.1 | 200 bar main hydraulic pressure, full speed on pump from sea to sea |  |  | 1576 |  |
| Hydr. Motor of Ballast Pump No.1 | 200 bar main hydraulic pressure, full speed on pump from sea to sea |  |  | 1576 |  |
| Ballast Pump No.2 | 200 bar main hydraulic pressure, full speed on pump from sea to sea |  |  | 1576 |  |
| Hydr. Motor of Ballast Pump No.2 | 200 bar main hydraulic pressure, full speed on pump from sea to sea |  |  | 1576 |  |
| **Fire Foam Pump** | | | | | |
| Fire Foam Pump | During normal operation |  |  | 3535 |  |
| El.Motor Fire Foam Pump | During normal operation |  |  | 3535 |  |
| **General Service Fire Pump** | | | | | |
| General Service Fire Pump | During normal operation |  |  | 3572 |  |
| El.Motor General service fire pump | During normal operation |  |  | 3572 |  |
| **Emergency Fire Pump** | | | | | |
| Emergency Fire Pump | During normal operation |  |  | 3505 |  |
| El.Motor Emergency Fire Pump | During normal operation |  |  | 3505 |  |
| **Batch 2** | | | | | |
| **Auxilliary Engines** | | | | | |
| Generator Aux.Eng.1, P | Expected minimum load: 45% |  |  | 1800 |  |
| Generator Aux.Eng.2, C | Expected minimum load: 45% |  |  | 1800 |  |
| Generator Aux.Eng.3, SB | Expected minimum load: 45% |  |  | 1800 |  |
| **Transfer Pumps** | | | | | |
| FO Transfer Pump | During normal operation |  |  | 1745 |  |
| El.Motor FO Transfer Pump | During normal operation |  |  | 1745 |  |
| DO Transfer Pump | During normal operation |  |  | 1745 |  |
| El.Motor DO Transfer Pump | During normal operation |  |  | 1745 |  |
| **Boiler FO Pumps** | | | | | |
| FO Pump No.1 Boiler | During normal operation |  |  | 3340 |  |
| El.Motor Boiler FO Pump No.1 | During normal operation |  |  | 3340 |  |
| FO Pump No.2 Boiler | During normal operation |  |  | 3340 |  |
| El.Motor FO Pump No.2 Boiler | During normal operation |  |  | 3340 |  |
| **LO Transfer Pump** | | | | | |
| LO Transfer Pump | During normal operation |  |  |  |  |
| El.Motor LO Transfer Pump | During normal operation |  |  |  |  |
| **AE SW Cooling Pumps** | | | | | |
| SW Cooling Pump AE No.2 | Normal operation at port, ME stopped |  |  | 3465 |  |
| El.Motor SW Cooling Pump AE No.2 | Normal operation at port, ME stopped |  |  | 3465 |  |
| SW Cooling Pump AE No.3 | Normal operation at port, ME stopped |  |  | 3465 |  |
| El.Motor SW Cooling Pump AE No.3 | Normal operation at port, ME stopped |  |  | 3465 |  |
| **ME Preheater Circulation Pump** | | | | | |
| Circulation Pump Preheater ME | During normal operation |  |  |  |  |
| El.Motor Circulation Pump Preheater ME | During normal operation |  |  |  |  |
| **Starting Air Compressors** | | | | | |
| Starting Air Compressor No.1 | Normal operation at port, ME stopped |  |  | 1740 |  |
| El.Motor Starting Air Compressor No.1 | Normal operation at port, ME stopped |  |  | 1740 |  |
| Starting Air Compressor No.2 | Normal operation at port, ME stopped |  |  | 1740 |  |
| El.Motor Starting Air Compressor No.2 | Normal operation at port, ME stopped |  |  | 1740 |  |
| **Service Air Compressors** | | | | | |
| Service Air Compressor No.1 | Normal operation loaded |  |  | 3560 |  |
| El.Motor Service air compressor No.1 | Normal operation loaded |  |  | 3560 |  |
| Service Air Compressor No.2 | Normal operation loaded |  |  | 3560 |  |
| El.Motor Service air compressor No.2 | Normal operation loaded |  |  | 3560 |  |
| **Boiler Feed Water Pumps** | | | | | |
| Boiler Feed Water Pump No.1 | During normal operation |  |  |  |  |
| El.Motor Boiler Feed Water Pump No. 1 | During normal operation |  |  |  |  |
| Boiler Feed Water Pump No.2 | During normal operation |  |  |  |  |
| El.Motor Boiler Feed Water Pump No. 2 | During normal operation |  |  |  |  |
| **Exhaust Gas Boiler Feed Pumps** | | | | | |
| Exhaust Gas Boiler Feed Pump No. 1 | During normal operation |  |  | 3450 |  |
| El.Motor Exhaust Gas Boiler Feed Pump No. 1 | During normal operation |  |  | 3450 |  |
| Exhaust Gas Boiler Feed Pump No. 2 | During normal operation |  |  | 3450 |  |
| El.Motor Exhaust Gas Boiler Feed Pump No. 2 | During normal operation |  |  | 3450 |  |
| **Bilge Pump** | | | | | |
| Bilge Pump | At port, ME stopped, suction and delivery from/to bilge holding tank |  |  | 1755 |  |
| El.Motor Bilge pump | At port, ME stopped, suction and delivery from/to bilge holding tank |  |  | 1755 |  |
| **Hydr. Power Packs** | | | | | |
| Hydr. Power Pack No.1 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| El.Motor Hydr. Power Pack No.1 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| Hydr. Power Pack No.2 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| El.Motor Hydr. Power Pack No.2 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| Hydr. Power Pack No.3 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| El.Motor Hydr. Power Pack No.3 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| Hydr. Power Pack No.4 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| El.Motor Hydr. Power Pack No.4 | 200 bar main pressure, in port. 1 power pack and 1 ballast pump in use |  |  | 1775 |  |
| **Batch 3** | | | | | |
| **Steering Gear Hydraulic Pumps** | | | | | |
| El.Motor Steering Gear Hydraulic Pump No. 1 | 100% load-port/ stb In port |  |  | 1775 |  |
| El.Motor Steering Gear Hydraulic Pump No. 2 | 100% load-port/ stb In port |  |  | 1750 |  |
| **Bow Thruster Servo Aggregate** | | | | | |
| Bow Thruster Servo Aggregate | Expected load: 50% |  |  | 1430 |  |
| El.Motor Bow Thruster Servo Aggregate | Expected load: 50% |  |  | 1430 |  |
| **Provision Ref. Compressors** | | | | | |
| Provision Ref. Compressor No.1 | During normal operation |  |  | 1730 |  |
| El.Motor Ref. provision compressor No.1 | During normal operation |  |  | 1730 |  |
| Provision Ref. Compressor No.2 | During normal operation |  |  | 1730 |  |
| El.Motor Ref. provision compressor No.2 | During normal operation |  |  | 1730 |  |
| **Air condition compressors** | | | | | |
| Air condition compressor No. 1 | During normal operation |  |  | 1620 |  |
| El.Motor Air condition compressor No.1 | During normal operation |  |  | 1750 |  |
| Air Condition Compressor No.2 | During normal operation |  |  | 1620 |  |
| El.Motor Air condition compressor No.2 | During normal operation |  |  | 1750 |  |
| **ER supply fans** | | | | | |
| El.Motor ER supply fan S-5 | Normal operation, full speed |  |  | 1765 |  |
| El.Motor ER supply fan S-6 | Normal operation, full speed |  |  | 1765 |  |
| **Bow Thruster Room Supply Fan** | | | | | |
| El.Motor Bow Thruster Room Supply Fan | During normal operation |  |  | 3420 |  |
| **Exhaust fan Ballast Pump Room** | | | | | |
| El.Motor Exhaust fan Ballast Pump Room | During normal operation |  |  | 1752 |  |
| **Exhaust fans trunk** | | | | | |
| El.Motor Exhaust fan trunk E-7 | During normal operation |  |  | 1780 |  |
| El.Motor Exhaust fan trunk E-8 | During normal operation |  |  | 1780 |  |
| **Boiler fan** | | | | | |
| El.Motor Boiler fan | During normal operation |  |  | 2935 |  |
| **FO Separators** | | | | | |
| FO Separator No.1 | During normal operation |  |  | 8400 |  |
| El.Motor FO Separator No.1 | During normal operation |  |  | 3430 |  |
| FO Separator No.2 | During normal operation |  |  | 8400 |  |
| El.Motor FO Separator No.2 | During normal operation |  |  | 3430 |  |
| **LO Separator ME** | | | | | |
| LO Separator ME | During normal operation |  |  | 5148 |  |
| El.Motor ME LO Separator | During normal operation |  |  | 1740 |  |
| **LO Separator AE** | | | | | |
| LO Separator AE | Under full load, 30min after starting and after flushing separator |  |  | 5148 |  |
| El.Motor LO Separator AE | Under full load, 30min after starting and after flushing separator |  |  | 1740 |  |