

SPECIFICATIONS OF THE GEN-SETS

Particulars	Generator 1	Generator 2	Generator 3	Generator 4
Engines				
Manufacturer	SEMT Pielstick	SEMT Pielstick	SEMT Pielstick	SEMT Pielstick
Model	18PC2V	18PC2V	18PC2V	18PC2V
Engine No.	1D-1389-1	1D-1389-2	1D-1853-1	1D-1484
Year of Manufacture	Zero Hour 2008	Zero Hour 2008	Zero Hour 2008	Zero Hour 2008
Maximum Continuous Rating	8462 PS x 500 rpm Metric	8462 PS x 500 rpm Metric	8462 PS x 500 rpm Metric	8462 PS x 500 rpm Metric
No. of Cylinders	18	18	18	18
Break Mean Effective Pressure (Kg/cm ²)	14.64	14.64	14.64	14.64
Maximum Combustion Pressure (Kg/cm ²)	95	95	95	95
Max Output (kW)	6000	6000	6000	6000
Speed at Max output (rpm)	500	500	500	500
Weight (tons)	120	120	120	120
Fuel	Bi-fuel (HFO & Gas) Dual Fuel (Diesel & HFO)	Bi-fuel (HFO & Gas) Dual Fuel (Diesel & HFO)	Bi-fuel (HFO & Gas) Dual Fuel (Diesel & HFO)	Bi-fuel (HFO & Gas) Dual Fuel (Diesel & HFO)
Turbo Charger	IHI-BBC VTR 400N	IHI-BBC VTR 400N	IHI-BBC VTR 400N	IHI-BBC VTR 400N
Air Cooler	Kawasaki GEA	Kawasaki GEA	Kawasaki GEA	Kawasaki GEA
Governor	Woodward UG40D with digital retrofit	Woodward UG40D with digital retrofit	Woodward UG40D with digital retrofit	Woodward UG40D with digital retrofit
Injector and Injector Pumps (18 nos/engine)	Dierel kiki	Dierel kiki	Dierel kiki	Dierel kiki
Water Jacket for Cylinder	18	18	18	18
Alternators				
Manufacturer	Meidensha	Meidensha	Meidensha	Meidensha
Model of Alternator	E-AF	E-AF	E-AF	E-AF
Max Output (kVA)	7500	7500	7500	7500
Voltage (kV)	11	11	11	11
Current (A)	394	394	394	394
Frequency (HZ)	50	50	50	50
Speed (RPM)	500	500	500	500

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Exciter with Retrofit Arrangement				
Rating	65kVA	65kVA	65kVA	65kVA
RPM	500	500	500	500
Transformers				
Manufacturer	Minel-Trafo Mladenovse	-	Minel-Trafo Mladenovse	-
Rating (V/V)	440/11000	-	440/11000	-
Type	P-7980	-	P-7980	-
Fuel Oil Purifiers				
Manufacturer	Alfa Laval	Alfa Laval	Alfa Laval	Alfa Laval
Model	MOPX207SGT14-50	MOPX207SGT14-50	MOPX207SGT14-50	MOPX207SGT14-50
Warm Wheel Shaft (rpm)	1420 - 1500	1420 - 1500	1420 - 1500	1420 - 1500
Revolution Counter (rpm)	118 - 125	118 - 125	118 - 125	118 - 125
Weight (ex. Motor)(Kg)	850	850	850	850
Fuel Oil Transfer Pump				
Capacity (m ³ /hr)	7.5 m ³ /hr	7.5 m ³ /hr	7.5 m ³ /hr	7.5 m ³ /hr
Fuel Oil Booster Pump				
Make	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.
Motor	2.2 KW / 415 V	2.2 KW / 415 V	2.2 KW / 415 V	2.2 KW / 415 V
Capacity	3 m ³ /hr	3 m ³ /hr	3 m ³ /hr	3 m ³ /hr
Heavy Fuel Oil Water Heater				
Make	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.	Taigo Kogyo Co. Ltd.
Fuel Oil Heater with Control Board & Fuel Skid				
Electric Capacity	50 KW	50 KW	50 KW	50 KW

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Fuel Oil Booster Pump				
Capacity	3 m ³ /hr	3 m ³ /hr	3 m ³ /hr	3 m ³ /hr
Motor	2.2 KW / 415 V	2.2 KW / 415 V	2.2 KW / 415 V	2.2 KW / 415 V
rpm	100	100	100	100
Lube Oil System				
Lube Oil Purifier				
Manufacturer	Alfa Laval	Alfa Laval	Alfa Laval	Alfa Laval
Model	MAPX207SGT14-50	MAPX207SGT14-50	MAPX207SGT14-50	MAPX207SGT14-50
Warm Wheel Shaft (rpm)	1420 - 1500	1420 - 1500	1420 - 1500	1420 - 1500
Revolution Counter (rpm)	118 - 125	118 - 125	118 - 125	118 - 125
Weight (ex. Motor)(Kg)	1150	1150	1150	1150
Lub Oil Pump Capacity	120 m ³ /hr	120 m ³ /hr	120 m ³ /hr	120 m ³ /hr
LO Filter				
Capacity	12 m ³ /hr x 30 μ	12 m ³ /hr x 30 μ	12 m ³ /hr x 30 μ	12 m ³ /hr x 30 μ
Lube Oil Centrifugal Filter Unit				
Capacity	3900 l/hr x 4 sets	3900 l/hr x 4 sets	3900 l/hr x 4 sets	3900 l/hr x 4 sets
Lub Oil Drain Tank including all nozzles				
Capacity	1 m ³	1 m ³	1 m ³	1 m ³
Lub Oil Cooler	1 unit	1 unit	1 unit	1 unit
Turbo Blower (attached with engine)	1 unit	1 unit	1 unit	1 unit
Turbo Charger Lubricating Unit (attached with engine)	1 unit	1 unit	1 unit	1 unit
a) LO Filter for Turbo Charger				
b) LO pump for Turbo Charger				
c) LO Tank for Turbo Charger				
Rocker Arm LO Pump	1 unit	1 unit	1 unit	1 unit
Capacity: 390l/hr				

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Rocker Arm LO Tank	1 unit	1 unit	1 unit	1 unit
Engine Turnion Motor (attached with engine)	1 unit	1 unit	1 unit	1 unit
Governor with Motor & Engine	1 No	1 No	1 No	1 No
Trip Facility at Low LO Pressure				
Motor Capacity: 25kW				
Lub Oil Priming Pump				
Capacity	20 m ³ /hr	20 m ³ /hr	20 m ³ /hr	20 m ³ /hr
Valves - Stelited				
Globe Valves - 2" (NB 50)	6 Nos	6 Nos	6 Nos	6 Nos
Globe Valves - 1" (NB 25)	4 Nos	4 Nos	4 Nos	4 Nos
Globe Valves - 4" (NB 100)	4 Nos	4 Nos	4 Nos	4 Nos
Non Return Valve 2" (NB 50)	2 Nos	2 Nos	2 Nos	2 Nos
Non Return Valve 4" (NB 100)	1 No	1 No	1 No	1 No
Non Return Valve 6" (NB 150)	1 No	1 No	1 No	1 No
Pre. Regulating Valve 2" (NB 50)	1 No	1 No	1 No	1 No
Sluice Valve 6" (NB 150)	1 No	1 No	1 No	1 No
Thermometers	6 Nos	6 Nos	6 Nos	6 Nos
Raw Water Pump with Motor				
Capacity	345 m ³ /hr x 30 M	345 m ³ /hr x 30 M	345 m ³ /hr x30 M	345 m ³ /hr x 30 M
Air & Exhaust System				
Intake Air Filters & Noise Controllers (2 nos)				
Make	Vilene - Japan	Vilene - Japan	Vilene - Japan	Vilene - Japan
Air Expn. Joint EX 1 & EX 2 (nos)	2	2	2	2
Starting Air Automatic Stop Valve				
Screen Filter (nos)	2	2	2	2
Air Inlet Pipe				
Air Compressor Motor Driven				
Capacity	25 m ³ /hr x 21 kg/cm ²	25 m ³ /hr x 21 kg/cm ²	25 m ³ /hr x 21 kg/cm ²	25 m ³ /hr x 21 kg/cm ²

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Air Vessel				
Capacity	2 m ³ /hr x 21 kg/cm ²	2 m ³ /hr x 21 kg/cm ²	2 m ³ /hr x 21 kg/cm ²	2 m ³ /hr x 21 kg/cm ²
Exhaust Gas Silencer - Acoustic and NOX	1	1	1	1
Air Inlet & Exhaust Pipe Support Structures	1 lot	1 lot	1 lot	1 lot
Silencer Support				
Intake Air Pipe Support				
Fresh Water System				
1) Fresh Water Coller for Injector Colling Unit				
a) F.W. Tank for Injector cooing				
- Capacity	250 Lts	250 Lts	250 Lts	250 Lts
- Total Weight (including all nozzles)	216.7 Kgs	216.7 Kgs	216.7 Kgs	216.7 Kgs
b) F.W. Cooler for Injector Cooling				
- Capacity	5 m ³ /hr	5 m ³ /hr	5 m ³ /hr	5 m ³ /hr
2) Fresh Water Pump				
Make	Heishin Pump Works - Japan	Heishin Pump Works - Japan	Heishin Pump Works - Japan	Heishin Pump Works - Japan
Capacity	225 m ³ /hr	225 m ³ /hr	225 m ³ /hr	225 m ³ /hr
3) Fresh Water Cooler				
Make	Taiko Kogyo Co. Ltd - Japan	Taiko Kogyo Co. Ltd - Japan	Taiko Kogyo Co. Ltd - Japan	Taiko Kogyo Co. Ltd - Japan
4) Valves				
a) Globe Valves 1" (NB 25)	30	30	30	30
Globe Valves 2" (NB 50)	9	9	9	9
Globe Valves 5" (NB 125)	3	3	3	3
b) Safety Valve 1" (NB 25)	10	10	10	10
c) Temp Regulating Valve 8" (NB 200)	2	2	2	2
d) Sluice Valve 8" (NB 200)	6	6	6	6
e) 15mm Hose Valve	2	2	2	2
AVR Panel				

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Make	Meidensha	Meidensha	Meidensha	Meidensha
Type	BCAE-FFJEM-E	BCAE-FFJEM-E	BCAE-FFJEM-E	BCAE-FFJEM-E
Rating	11 kV, 50 Hz	11 kV, 50 Hz	11 kV, 50 Hz	11 kV, 50 Hz
AUX Control Panel				
Make	Meidensha	Meidensha	Meidensha	Meidensha
Rating	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph
Alarm Panel - Annunciation and Trip				
Make	Meidensha	Meidensha	Meidensha	Meidensha
Type	BCAE-FF	BCAE-FF	BCAE-FF	BCAE-FF
Rating	110V DC	110V DC	110V DC	110V DC
Control Desk Panel				
Make	Meidensha	Meidensha	Meidensha	Meidensha
Rating	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph	500 A, 415 V, 3 Ph
Gas Filter & Scrubber with Bifuel Arrangement	Skid mounted (gas)	Skid mounted (gas)	Skid mounted (gas)	Skid mounted (gas)
Running Hours	Zero Hour	Zero Hour	Zero Hour	Zero Hour
Replacement Items				
Main Bearing Shell Top	18	18	18	18
Main Bearing Shell Bottom	18	18	18	18
Big End Top Half Bearing	36	36	36	36
Big End Bottom Half Bearing	36	36	36	36
Connecting Rod Bolts	144	144	144	144
Piston Top Ring	36	36	36	36
Piston Scraper Rings	72	72	72	72
Cylinder Liner	72	72	72	72
Fuel Injection Pump (complete)	24	24	24	24
Fuel Injector (complete)	20	20	20	20
Inlet Valve	72	72	72	72
Exhaust Valve	72	72	72	72
Complete Inlet Valve Assembly	40	40	40	40

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Complete Exhaust Valve Assembly	72	72	72	72
Indicator Cocks	36	36	36	36
Push Rod	12	12	12	12
Cylinder Head Gasket	36	36	36	36
Cylinder Head Complete	8	8	8	8
Woodward Governor	6	6	6	6
Exhaust Gas Manifold	2	2	2	2
Exhaust Pipe Expansion Joints	6	6	6	6
Thermometer 0-100 deg cent	40	40	40	40
Pedestal Bearing	4	4	4	4
Timing Gears	4	4	4	4
Rock Arm Lifting Pump	2	2	2	2
Crank Shaft Balance	4	4	4	4