

# PRODUCT PROFILE

|  |                            |
|--|----------------------------|
| <b>Engine Performance</b>                                    |                            |
| Model  | <b>BF8M1015CP-LA G2</b>    |
| Power  | <b>448-490 kW</b>          |
| No. of cylinder  | 8                          |
| Control system   | Mechanical / Electronic    |
| Aspiration mode  | Turbocharged               |
| Inter-cooling method   | CAC                        |
| Cylinder type  | One-cylinder-one-head      |
| Displacement   | 15.874 L                   |
| Cylinder arrangement   | V-form 90° angle           |
| <b>Rotation Speed</b>  |                            |
| Speed rotation   | 1500 rpm; 50 Hz            |
| Effective pressure   | 24.6 bar                   |
| Max exhaust gas temperature                                  | 600°C                      |
| Charge air temperature                                       | 215°C                      |
| Inlet air (25°C/1000mbar)                                    | 2002 m <sup>3</sup> /h     |
| Emission   | 2400 kg/h                  |
| <b>Engine Data</b>   |                            |
| Dry weight   | 1060 kg                    |
| Max engine width   | 920.5 mm                   |
| Max engine length  | 1142.3 mm                  |
| Bore   | 132 mm                     |
| Stroke   | 145 mm                     |
| Compression ratio  | 16.5                       |
| Rotation direction (view from flywheel)                      | Anti-clockwise             |
| Flywheel housing   | SAE 1                      |
| Flywheel   | 14"                        |
| No. of flywheel teeth  | 167                        |
| Engine support   | Rigid bracing              |
| Battery voltage  | 24 V                       |
| Starter rated power  | 9 kW                       |
| Generator capacity   | 55 A                       |
| Generator volatage   | 28.5 V                     |
| Max exhaust backpressure                                     | 50 mbar                    |
| Max allowable air inlet resistance                           | 50 mbar                    |
| Turbocharger inlet size                                      | 150 mm                     |
| Turbocharger exhaust flange connect bolt                     | 2-4 x M10                  |
| Turbocharger exhaust flange inner diameter size              | 117 mm                     |
| <b>Lubrication System</b>                                    |                            |
| Min oil pressure at 1500 rpm (oil temp 90°C)                 | ≥ 3 bar                    |
| Min oil pressure at 600 rpm (oil temp 90°C)                  | ≥ 1 bar                    |
| Oil temperature of normal operation                          | < 130°C                    |
| Oil consumption rate   | < 0.3% of fuel consumption |
| Oil pan  | Flywheel side              |
| Oil pan inclination  | 22.5°                      |
| Initial oil filling  | 48 L                       |
| Oil filter element type                                      | Disposable filter          |
| No. of oil filter element                                    | 1                          |
| <b>Cooling System</b>  |                            |
| Engine coolant capacity                                      | 21 L                       |
| Water-pump flow  | 347 L/min                  |
| Water-pump pressure  | 1.25 bar                   |
| Allowable pressure loss of cooling system (include pipeline) | ≤ 0.35 bar                 |
| Heat carry off by coolant                                    | 237 kW                     |
| In & outlet coolant size                                     | 70 mm                      |
| Temperature of switch on two thermostats respectively        | 79/87°C                    |
| Temperature of switch on two thermostats totally             | 94/102°C                   |
| Max allowable operating temperature                          | 103°C                      |
| Temperature difference between inlet and outlet coolant      | ≤ 8°C                      |
| Inter-cooler cooling power                                   | 124 kW                     |
| Charge air outlet size                                       | 127 mm                     |
| Fan  | Exhaust type               |
| Fan connection   | Gear drive + coupler       |
| Fan diameter   | 980 mm                     |
| Fan power consumption  | ≤ 14.1 kW                  |
| Fan transmission ratio                                       | 0.96                       |
| <b>Fuel System</b>   |                            |
| Cylinder ignition sequence                                   | 1-8-4-5-7-3-6-2            |
| Idle speed   | 600±50 rpm                 |
| Low-pressure pump oil load capacity                          | 190 L/h                    |
| Fuel filter element type                                     | Disposable filter          |
| No of the fuel filter element                                | 2                          |