Rev.
1

# ENGINE SPECIFICATIONS

| | | |
|---|---|---|
| Engine Model | Engine series | 3CE1(Stage 3A / Interim Tier4) |
| | Model No. | 3CE1-BDZP4 |
| Customer | EXPORT | |
| Application | General power | |
| Drawing No. | C1-1024-003-0 | |

| Symbol | Date | Revision Record | Issue No. |
|---|---|---|---|
| 0 | 6th August 2008 | For confirmation of volume engine specifications. | |
| 1 | 8th Jan. 2009 | Revision | |
| | | | |
| | | | |

| ISUZU MOTORS LIMITED<br>Powertrain Business Dept. | Approval | Check | Issue |
|---|---|---|---|
| | S.Nogami | H.Harada | K.Ogawa |
| | S.Nogami<br>Group Leader | H.Harada<br>Manager | K.Ogawa |

# Engine Specifications

Model No. 3CE1-BDZP4

Rev. 1

| | |
|---|---|
| Engine Model | Model No. 3CE1-BDZP4 |
| Application | General power |
| Approved exhaust emission cert. | EPA, ARB-OR Tier-3 (Intermidiate Tier4), EC stage3 |
| Engine type | Four cycle, Water cooled, In-line, Direct injection type |
| No. of cylinders-bore x stroke | 3 - 88.0 mm x 90.0 mm |
| Total piston displacement | 1.642 L |
| Compression ratio | 19 to 1 |

| Engine performance | Rating |
|---|---|
| Test conditions | Standard atmospheric condition |
| Conforming standard<br>JPN;JIS D0006-1<br>US;SAEJ1349<br>EU;ISO15550 | With AC generator and cooling fan<br>With air cleaner and exh. silencer |

| | | |
|---|---|---|
| Rated Output | : 27.2 kW / 3000 $min^{-1}$ | 1 |
| Maximum Torque | : 103.5 Nm / approx. 1800 $min^{-1}$ | 1 |
| Fuel consumption at rated | : 261 g/kw.h | 1 |
| No load max. speed | : 3210±25 $min^{-1}$ | |
| Low idle speed | : 900±25 $min^{-1}$ | |
| Type of fuel | : Diesel fuel only ( JPN:JIS-NO.2, US:ASTM-2D, EU:EN590 ) | |
| Engine dry weight | : Approx. 165 kg | |
| Dimensions | : L 582.0 x W 528.0 x H 682.0 ( With cooling fan ) | |
| Firing order | : 1 - 3 - 2 - 1 | |
| Rotating direction | : Clockwise viewed from cooling fan | |

# Engine Specifications

Model No. 3CE1-BDZP4

Rev. 1

| | |
|---|---|
| **Fuel system** | |
| Fuel injection pump | Distributortype |
| Fuel injection nozzle | Hole type |
| Fuel filter | Paper element type |
| Governor type | Centrifugal-all speed governor |
| **Lubrication system** | |
| Lubricating system | Forced feed type |
| Oil grade | API class CD, SAE grade 10W30 |
| Lubricating pump | Trochoid pump type |
| Oil filter | Paper element |
| Oil capacity | max : 6.7 L min : 3.9 L |
| Oil pressure(reference) | 4.0 $kgf/cm^2$ at rated output<br>0.6 $kgf/cm^2$ at low idle |
| **Cooling system** | |
| Heat exchanger | None |
| Coolant pressure | max. 0.9 $kgf/cm^2$ |
| Cooling fan | Dia.360 - 6 blades - Pusher, crank pulley/fan pulley = 110/110 |
| Coolant capacity | 2.0 L (engine only) |
| Air cleaner | None |
| Breather system | Closed type |
| Starting aid | Glow plug |
| Starter | 12V - 1.7kW |
| Generator | 12V - 40A |
| Allowable inclination angle | Longitudinal : 30(25) deg, Lateral : 30(25) deg<br>intermitted, (continuous) |
| Fuel injection timing | FIR 5 (±1.0) |
| Engine color | Black |

# Engine Specifications

Model No. 3CE1-BDZP4

Rev. 1

Loose parts

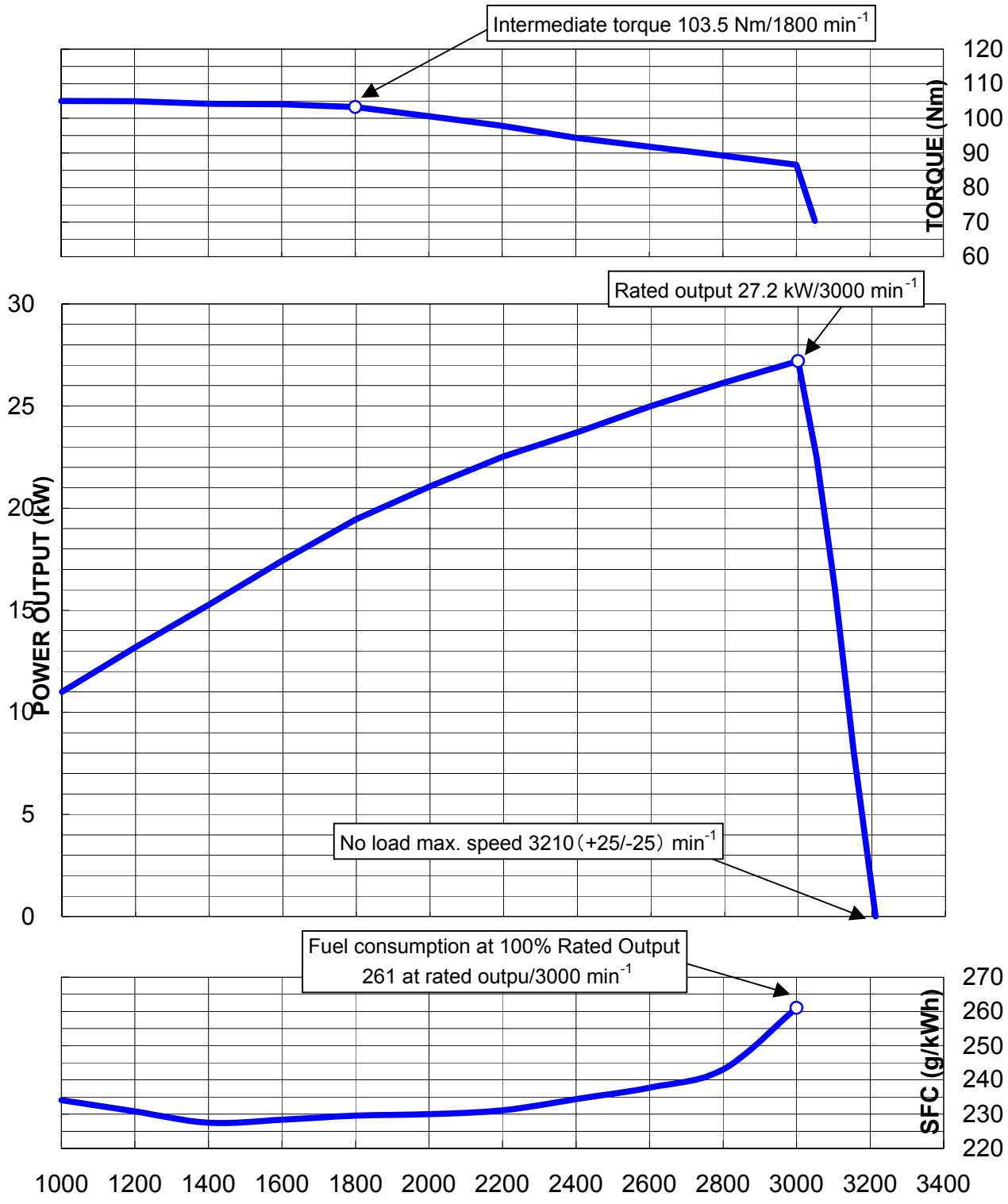
| No. | Parts No. | Item | Qty | Remarks |
|---|---|---|---|---|
| 1 | 586400-1420 | Gasket, silencer | 1 | |
| 2 | 586400-0560 | Relay assy, glow | 1 | |
| 3 | 586400-2190 | Timer 1 sec | 1 | |
| 4 | 586400-1240 | Timer, glow plug | 1 | |
| 5 | 586400-0550 | Diode | 1 | |
| 6 | 586400-0240 | Pump, feed pump | 1 | |
| 7 | 586400-0830 | Water separator | 1 | |
| 8 | Z14110-07760 | LABEL, FUEL OIL CAUT | 1 | |

| No. IS-08-191-1 | Rev.1 |
|---|---|

ISUZU

# 3CE1-BDZP4 ( Interim Tier-4 ) ENGINE PERFORMANCE CURVE

| Conditions | Rating |
|---|---|
| Atmospheric conditions | Standard: JIS D0006 |
| | Standard: SAE 1349 NET |
| Fan speed ratio | 110/110=1.0 |
| Cooling fan | With ( Dia.360 Pusher ) |
| Air cleaner | With ( 5 inch) |
| Alternator | With ( No load ) |
| Exh. Silencer | With ( Isuzu Standard ) |



# Engine specifications Revision chart

Customer : EXPORT

Engine Model : 3CE1-BDZP4 Application : General power

| Rev. No. | IS No. | Date | Page | Item | Previous | Current | Description (Reason of change) |
|---|---|---|---|---|---|---|---|
| 0 | IS-08-191-0 | 6 August '08 | Specifications for volume production | | | | |
| 1 | IS-08-191-1 | 8 Jan. '09 | Revision | | | | |
| | | | P2 | Rated Output | 26.9 kW / 3000 min-1 | 27.2 kW / 3000 min-1 | Correction |
| | | | P2 | Maximum Torque | 103 Nm / approx. 1800 min-1 | 103.5 Nm / approx. 1800 min-1 | Correction |
| | | | P2 | Fuel consumption at rated | 263 g/kw.h | 261 g/kw.h | Correction |
| | | | P5 | Performance curve | As above | As above | Correction |