

経歴 Rev.

0

## ENGINE SPECIFICATIONS

|              |                            |
|--------------|----------------------------|
| Engine Model | Engine series 2CA1(Tier-4) |
|              | Model No. 2CA1-AZP01       |
| Customer     | EXPORT                     |
| Application  | General power              |
| Drawing No.  | C1-1020-000-0              |

| Symbol | Date                      | Revision Record                                      | Issue No. |
|--------|---------------------------|--|-----------|
| 0      | 6 <sup>th</sup> Nov. 2008 | For confirmation of prototype engine specifications. |           |
|        |                           |  |           |
|        |                           |  |           |
|        |                           |  |           |

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## Engine Specifications

Model No. 2CA1-AZP01

Rev.

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|                                 |  |
|---------------------------------|--|
| Engine Model                    | Model No. 2CA1-AZP01                                       |
| Application                     | General power  |
| Approved exhaust emission cert. | EPA, ARB-OR : Tier-4                                       |
| Engine type                     | Four cycle, water cooled, In-line, Indirect injection type |
| No. of cylinders-bore x stroke  | 2 - 70.0 mm x 74.0 mm                                      |
| Total piston displacement       | 0.57 L   |
| Compression ratio               | 23.4 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               | : 9.8 kW / 3600 min <sup>-1</sup>                         |
| Maximum Torque             | : 30.1 Nm / approx. 2600 min <sup>-1</sup>                |
| Fuel consumption at rated. | : 323 g/kw.h or less                                      |
| No load max. speed         | : 3815 ± 25 min <sup>-1</sup>                             |
| Low idle speed             | : 1300 ± 25 min <sup>-1</sup>                             |
| Type of fuel               | : Diesel fuel only ( JPN:JIS-NO.2, US:ASTM-2D, EU:EN590 ) |
| Engine dry weight          | : Approx. 84 kg   |
| Dimensions                 | : L 444.0 x W 457.0 x H 533.0 ( With cooling fan )        |
| Firing order               | : 1 - 2 - 1   |
| Rotating direction         | : Clockwise viewed from cooling fan                       |

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## Fuel system

|                       |                                |
|-----------------------|--------------------------------|
| Fuel injection pump   | Bosch in-Line                  |
| 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 : 2.2 L min : 1.2 L                 |
| Oil pressure(reference) | 3.5 kgf/cm <sup>2</sup> at rated output |

## Cooling system

|                  |  |
|------------------|--|
| Heat exchanger   | None   |
| Coolant pressure | max. 0.9 kgf/cm <sup>2</sup>                             |
| Cooling fan      | Dia. 290 - 6 - puller, crank pulley/fan pulley = 110/100 |
| Cooling water    | 0.6 L (engine only)                                      |

## Air cleaner

None

## Breather system

Closed type

## Starting aid system

Glow plug

## Starter

12V - 1.1kW

## Generator

12V - 40A

## Allowable inclination angle

Longitudinal : 30(25), Lateral : 30(25)  
intermitted, (continuous)

## Fuel injection timing

FID 21

## Engine color

Black

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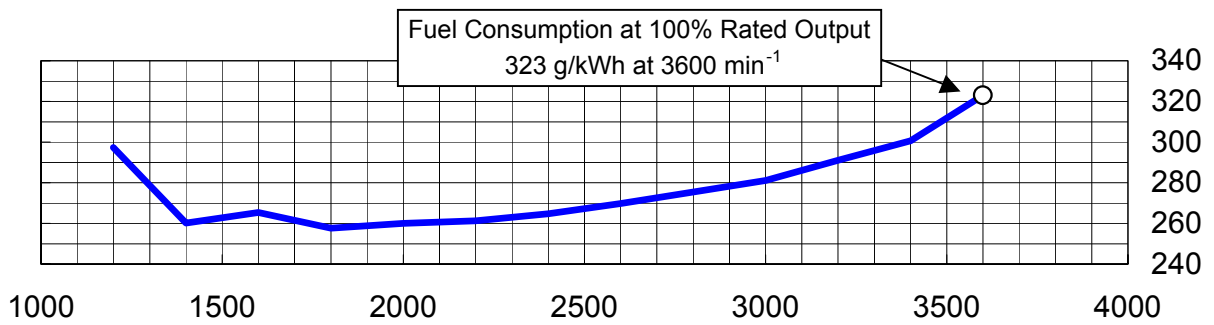
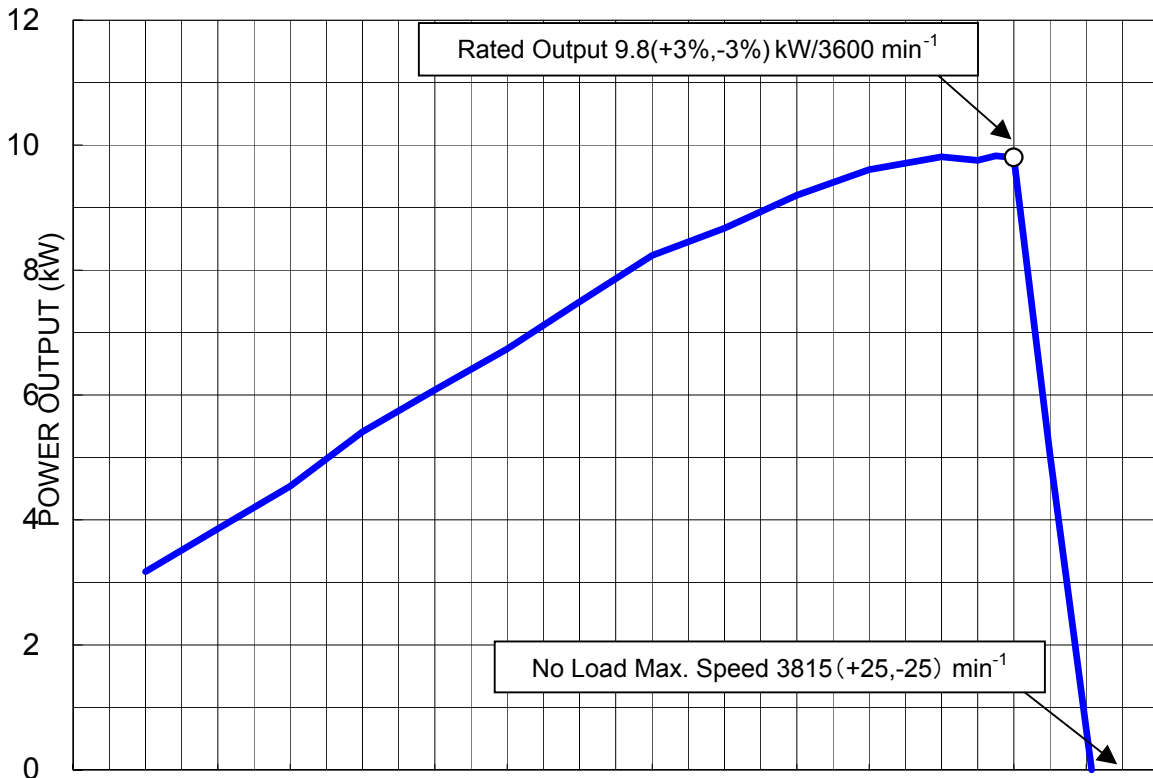
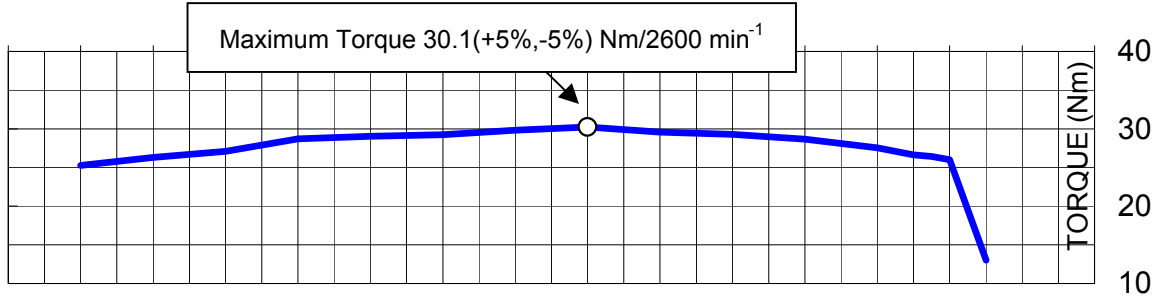
Loose parts

| No. | Parts No.    | Item                   | Qty | Remarks |
|-----|--------------|------------------------|-----|---------|
| 1   | Z29942-07760 | Label,Fuel oil caution | 1   |         |
| 2   | 586400-6330  | Gasket, silencer       | 1   |         |
| 3   | 586400-0240  | Pump, fuel feed        | 1   |         |
| 4   | 586400-8170  | Separator assy, water  | 1   |         |
| 5   | 586400-0550  | Diode                  | 1   |         |
| 6   | 586400-0560  | Relay assy, glow       | 1   |         |
| 7   | 586400-8120  | Timer, glow            | 1   |         |
| 8   | 586400-2190  | Timer, section 1       | 1   |         |

**ISUZU**

**2CA1-AZP01(Tier-4)  
PERFORMANCE CURVE**

| Conditions             | Rating  |
|------------------------|---|
| Atmospheric conditions | Standard: JIS D0006 (NET)<br>Standard: SAE J1349 NET (with Fan) |
| Break-in time          | 0.1hr   |
| Fan speed ratio        | 110/100=1.1   |
| Cooling fan            | With (Dia.290-Puller)   |
| Air cleaner            | With  |
| Alternator             | With  |
| Exh. silencer          | With  |



ENGINE SPEED (min<sup>-1</sup>)

## Engine specifications Revision chart

Customer : EXPORT

Engine Model : 2CA1-AZP01

Application : General power

| <b>Rev. No.</b> | <b>IS No.</b> | <b>Date</b>  | <b>Page</b> | <b>Item</b>   | <b>Previous</b> | <b>Current</b> | <b>Description<br/>(Reason of change)</b> |
|-----------------|---------------|--------------|-------------|---|-----------------|----------------|---|
| 0               | IS-08-185-0   | 6th Nov. '08 |             | For confirmation of prototype engine specifications |                 |                |   |
|                 |               |              |             |   |                 |                |   |