SUBARU

PRESS INFORMATION

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# FHI to add 2 models to the Robin EX Series general-purpose engines

Fuji Heavy Industries Ltd. (FHI), the maker of Subaru automobiles, will begin mass-producing and selling the EX40 and EX35 as the top-of-the-range models of the general-purpose overhead camshaft (OHC) engine Robin EX Series in February next year. The Series has been received well as a power source for small construction machinery or power generators, compressors and small agricultural machinery.

The EX Series has sold approximately 1.7 million units both at home and abroad to date since it hit the market in December 2001. With four models ranging in displacement from 126 cc to 265 cc available, the series has been rated highly by users because it has achieved both outstanding low-emission environmental performance and user-friendliness, such as low noise and easy start-up operation, with the traditionally reputed durability and reliability kept intact.

The EX40 and EX 35, which will be added to the Series this time, will shore up the lineup to enhance the Series' signature environmental- and user- friendliness and excellent mountability even further, while achieving the top-of-the-class output as well.

FHI operates the general-purpose engine business in its Industrial Machinery Company. Its engines have won high-level reliability of users from all over the world. Thanks to its rich lineup, they are used as power sources for a wide variety of applications from small construction and agricultural machinery, which builds social infrastructure, to recreational equipment for people's affluent lives. With these new additions, the company aims to become a global general engine manufacturer who can flexibly and promptly respond to the diverse needs of customers through enhanced product lineup.


EX40 front

EX40 rear

**Features of the EX40 and EX35**

1. High output

Thanks to the adoption of a cam profile exclusively for intake and exhaust and the optimization of the shape of the intake/exhaust port and the shape of the combustion chamber, the top-of-the-class-level maximum output of 10.3 kW/14.0 ps (the EX40 gross output) is achieved.

2. Environmental considerations

The EX40 and EX35 meet the Tier 3 emission standards by the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA) by employing the dorm-shaped combustion chamber thanks to the OHC valve narrow-angle layout, without using a special catalyst.

Moreover, the adoption of the OHC mechanism and the correction of cooling balance achieved the minimization of the cylinder deformation, which results in less oil consumption as well as higher combustion efficiency, thereby improving fuel economy.

3. User friendliness

User friendliness is embodied in various aspects: 1) a newly developed resinous air cleaner has lowered the noise level by 2 dB* from the conventional model; 2) optimized combustion chamber design has improved ignition characteristics; 3) optimized decompression timing has achieved the top-of-the-class light recoil operation and surefire startability.

*5-meter radiating area average value when attaching a tail screen

4. Superb mountability

The adoption of an inclined cylinder has achieved a lightweight and compact design. Vibrations have been reduced by cutting down on the weight of parts and improving rotation balance to increase mountability on operating machinery. In addition, compatibility is ensured by keeping the same engine mount and center height as the current models.

**Summary of specifications**

| Model name | EX40 | EX35 |
|---|---|---|
| Type | Air-cooled 4-cycle single cylinder OHC gasoline engine | |
| Displacement (cc) | 404 | |
| Gross maximum output [kW (ps)/rpm] | 10.3(14.0)/3600 | 8.8(12.0)/3600 |
| Constant rated output [kW (ps)/rpm] | 7.0(9.5)/3600 | 6.3(8.5)/3600 |
| Maximum torque [Nm (kgf-m)/rpm] | 27(2.7)/2400 | 26(2.6)/2400 |
| Overall length (mm) | 389 | |
| Overall width (mm) | 450 | |
| Overall height (mm) | 443 | |
| Dry weight (kg) | 33 | |

**About Fuji Heavy Industries Ltd.**

Fuji Heavy Industries Ltd. (FHI), the maker of Subaru automobiles, is a leading manufacturer in Japan with a long history of technological innovations that dates back to its origin as an aircraft company. While the automotive business is a main business pillar, FHI's Aerospace, Industrial Products and Eco Technologies divisions offer a diverse range of products from general-purpose engines, power generators, and sanitation trucks to small airplanes, crucial components for passenger aircrafts, and wind-powered electricity generating systems. Recognized internationally for its AWD (all-wheel drive) technology and Horizontally-Opposed engines in Subaru, FHI is also spearheading the development of environmentally friendly products and is committed to contributing to global environmental preservation.

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