



FHI Introduces the SUBARU “BOXER Sports Car Architecture” as the World Premiere

Tokyo, March 1, 2011 - Fuji Heavy Industries Ltd. (FHI) unveiled the SUBARU “BOXER Sports Car Architecture” today at the 81st Geneva International Motor Show (Press day: March 1 and 2; Open to the public from March 3 through 13 in Switzerland).



BOXER Sports Car Architecture

Behind the new level of driving excitement that the “Rear-Wheel drive (RWD) Sports Car”, which is currently under joint development with Toyota Motor Corporation, delivers is Subaru’s new platform technology concept: the “BOXER Sports Car Architecture”. Built around Subaru’s core technology – the Horizontally-Opposed Boxer engine, a new platform was developed in order to extract the maximum performance potential required of the RWD Sports Car.

The RWD Sports Car is a new generation sports car being developed with an ambition of Subaru and Toyota to provide driving pleasure to a wider range of customers. Thanks to its “front-engine, rear-wheel drive layout”, further lowered centre of gravity, compact and lightweight body, it delivers a new level of driving excitement with very unique crisp handling. The car will be the only front-engine, rear-wheel drive mass-produced sports car powered by a horizontally-opposed engine in the world, by making full use of an engineering masterpiece fusing Subaru’s sports car expertise with Boxer engine performance and Toyota’s experiences with rear-wheel drive sports cars. The Subaru Rear-Wheel Drive Sports Car, as Subaru’s first mass-produced front-engine, rear-wheel drive model, is expected to be produced first in spring 2012.

<Features of “BOXER Sports Car Architecture”>

- Subaru Boxer engine -

At the heart of this Technology Exhibit is Subaru Boxer engine. It is its lightweight, compact and low centre of gravity that lends itself to the level of driving excitement that Subaru is aiming for, and is without a doubt the most suitable engine for the RWD Sports Car. The Subaru Boxer engine can be constructed of aluminium owing to its compact and rigid engine design, making for a much lighter power unit. Its low centre of gravity provides a high level of driving stability and remarkable handling. Since the piston’s opposing movements inherently counteract each other, no balance shaft is needed. This cancels out excess vibrations and gives the engine a sprightly, sporty feel at virtually any engine speed.

In the BOXER Sports Car Architecture, Subaru's Boxer engine, which originally features a low centre of gravity, is even lowered and set back further towards the centre of the chassis. This feature also offers a low-profile sports car silhouette with its lowered engine hood design, resulting in a lowered driving position. All these elements deliver excellent drivability, stability as well as pure handling delight.

- Optimised Chassis Layout for the RWD Sports Car -

Another important factor that enables the RWD Sports Car to deliver driving performance befitting of a Subaru is its chassis. Rather than simply developing a frame and body that focuses purely on speed, development has been conducted to produce a chassis that delivers Subaru's authentic driving characteristics: a sporty driving experience, an overall enjoyable ride, and stable drivability with driver confidence. The BOXER Sports Car Architecture does not depend solely on engine power output – instead it maximises the potential of this newly developed chassis to achieve the fundamental characteristics of a rear-wheel drive sports car by delivering sporty performance as driver and vehicle work in unison, as well as providing agile response afforded by its short wheel base.

When compared to other Subaru AWD models, the engine now sits even lower and further back in the engine bay. A lower centre of gravity, now located further toward the middle of the chassis itself, delivers a remarkable, natural feel when cornering. A short front overhang, matched with a shorter rear overhang reduces any yaw moment of inertia generated, and provides a higher level of stability and control, and handling performance of a pure sports car.

The RWD Sports Car's platform technology adds a completely new package to complement Subaru's existing AWD platform. This package will open Subaru's renowned on-road performance to a broader range of customers. At the heart of this drivability lies Subaru's engineering philosophy that constantly provides enjoyment and peace of mind. The "BOXER Sports Car Architecture" is a technical masterpiece that has been designed so that drivers can fully enjoy Subaru's new approach to driving pleasure, with the full knowledge that they are constantly supported with the sense of confidence that only a Subaru can provide.

<Major Specifications of "BOXER Sports Car Architecture">

Body size (Overall: Length x Width x Height): 4,200 x 1,770 x 1,270 mm

Wheelbase: 2,570 mm

Engine: 2.0-liter naturally-aspirated four cylinder Horizontally-Opposed Boxer engine

Tire size: 215/45R17