



## Exhibition Outline of the 42nd Tokyo Motor Show 2011

Tokyo, November 30, 2011 - Fuji Heavy Industries Ltd. (FHI) , the maker of Subaru automobiles, announced its presentation at the 42nd Tokyo Motor Show 2011. It will focus on "Enjoyment and Peace of Mind" which is the core value provided to the customers through the Subaru automobile experience, the foundation being Subaru's global brand statement "Confidence in Motion".

"Confidence in Motion" is materialized in the concept car "SUBARU ADVANCED TOURER CONCEPT" which achieved its main goal to become a "Revolutionary Sports Tourer". Also showcased will be the "All-New SUBARU IMPREZA" and the "SUBARU BRZ" - the latter a rear-wheel drive sports car currently under joint development with Toyota Motor Corporation carrying the Horizontally-Opposed Boxer engine. The exhibition will also feature Subaru's original and latest technologies.



SUBARU ADVANCED TOURER CONCEPT

### Main Exhibits

◆SUBARU ADVANCED TOURER CONCEPT (Concept car)



#### 1. Concept

Exquisitely balancing the enjoyment of driving with environmental friendliness, the car, under its product concept of "Revolutionary Sports Tourer", embodies Subaru's theme of "Confidence in Motion".

This C-segment class car was developed as a new-generation sports wagon providing both superior driving performance and utility. It features an innovative exterior design not found in conventional wagon models and expert wagon utility Subaru has cultivated over the years.

The well established sports power unit, the Horizontally-Opposed Subaru Boxer engine, is now with direct fuel injection. This highlight mixed with Subaru's downsizing concept and original Hybrid Electric Vehicle (HEV) expertise has enabled Subaru to make considerable progress on its unique Symmetrical All-Wheel Drive (AWD) technology. An even sportier driveability and advanced environmental friendliness are both attainable in this new concept car.

## 2. Design and Packaging

### < Exterior Design >

- Subaru's brand statement "Confidence in Motion" is portrayed in the outward design as well. The dynamic yet sleek look promises an enthusiastic drive, while the cabin offers all the usability of a C-segment wagon.
- A flowing line on the side surfaces augments the stylish design calling to mind a coupe style car.

### < Interior Design >

- In pursuit of Subaru's human-centered philosophy, all passengers are assured a safe and pleasant ride in a comfortable and quality interior.
- An entire roof made of glass adds to the spacious feel. Various textures such as wood and metal are incorporated into the inside layout to produce ample ambiance.
- A large monitor is built into the steering wheel allowing access to maps, television and internet services. Information will be available at hand to support contemporary lifestyles even in the car.

## 3. Mechanisms

### (1) Next-Generation Power Unit System

- Downsized direct fuel injection turbo engine -
  - The downsized direct fuel injection turbo engine is one of the principal technologies that will guide Subaru's engine strategy in the future. Not only is acceleration quick and smooth with the new-generation Horizontally-Opposed engine, it is environmentally friendly. The direct fuel injection system which injects necessary amounts of fuel into the cylinders at appropriate moments, and a turbo system which efficiently supplies large amounts of air into the cylinders, along with the downsizing of current turbo engine displacements (2,500cc and 2,000cc) to 1,600cc drastically improve combustion efficiency at practical driving-speed range compared to the existing turbo engine.
- High torque compatible Lineartronic (CVT)-
  - Lineartronic is Subaru's continuously variable transmission device designed for the new era. It is the world's first longitudinally-mounted chain drive CVT to be utilized in mass-produced AWD passenger cars. For the concept car, the Lineartronic was refined to satisfy the high-power output turbo engine.
- Hybrid system -
  - Subaru's original hybrid system has been developed to harmonize with the Symmetrical AWD technology, another one of its specialties, and to further enhance its appeal. A single motor system was employed for its simple structure and light weight.
  - This system has an Electric Vehicle (EV) mode which allows AWD motion using only the motor at start-ups and low-speed drives. When decelerating, the regenerating mechanism uses the motor as a power generator.

### (2) EyeSight

Subaru's advanced driving assist system EyeSight (Version 2) , well received since its release in May 2010, has made further progress. The recognition range of the stereo camera has expanded considerably, both in width and depth.

<Major Specifications>

Length x Width x Height:	4,580 x 1,840 x 1,430mm
Engine type:	1.6 liter Horizontally-Opposed direct fuel injection turbo engine
Transmission type:	High torque compatible Lineartronic
Drive train:	Symmetrical All-Wheel Drive with hybrid system
Battery type:	Lithium-ion battery



1. Concept

Based on its product concept of "Pure Handling Delight", at its core is the Horizontally-Opposed engine known for its light weight, compactness, and low center of gravity. That combined with Subaru's rear-wheel drive platform, the SUBARU BRZ seeks a new level of lowness in center of gravity, one of the lowest in the world, and offers excellent handling performance. It is a sports car that can provide a pure handling delight experience to anyone behind the wheel.

2. Mechanisms

Founded on the third generation Horizontally-Opposed engine, the SUBARU BRZ carries a new 2.0 liter Horizontally-Opposed 4-cylinder engine which was specially designed to fulfill the desired factors of a sports car. Specifically, the bore and stroke are set in a square formation of 86 x 86mm and combined with Toyota's direct fuel injection technology (D-4S), thus allowing higher output and more environmental friendliness - the ideal for a new age sports car.

<Major Specifications>

Length x Width x Height:	4,240 x 1,775 x 1,300mm
Wheelbase:	2,570mm
Engine type:	2.0 liter Horizontally-Opposed direct fuel injection engine
Transmission type:	6MT/E-6AT
Drive train:	Rear-wheel drive
Suspension:	front - strut rear - double wishbone



Concept

The product concept is "Redefining Value, Redefining Class". In addition to incorporating the latest model Horizontally-Opposed Boxer engine and the newly developed Lineartronic (CVT), every aspect of the basic structure was reviewed and modified. The modifications include the reduction of overall weight, advances in aerodynamics and rolling resistance, etc. Significant progress was made in its environmental friendliness, most of all fuel efficiency.

Furthermore, special attention was paid to the further refinement of fun-to-drive characteristics which is an essential role of the vehicle. Plus, the new IMPREZA offers a spacious and comfortable cabin with high-quality feel, without increasing its body size.

### <Major Specifications>

Body types:	5-door/4-door
Length x Width x Height (5-door):	4,415 x 1,740 x 1,465mm
Engine types:	1.6/2.0 liter third generation Horizontally-Opposed engine
Transmission type:	Lineartronic (CVT)

### ◆S206

Subaru Tecnica International Inc.\* , which manages all of Subaru's motorsport activities, put in their years of engineering expertise into the original tune-up of 4-door SUBARU IMPREZA WRX STI. S206 is a STI complete model that has been refined to ultimate maneuverability, stability and handling performance.

\* : Subaru Tecnica International Inc. (STI; President Hiroyuki Karamatsu; located in Mitaka, Tokyo)

### List of Exhibits

- SUBARU ADVANCED TOURER CONCEPT (world premiere; concept car)
- SUBARU BRZ (world premiere; display model)
- SUBARU IMPREZA SPORT / IMPREZA G4 (Japan premiere; information release date -November 30; production model)
- S206 (production model)
- SUBARU LEGACY B4 2.5GT EyeSight S Package - Premium Leather Selection (display model)
- SUBARU EXIGA 2.5i spec. B EyeSight (display model)
- SUBARU FORESTER 2.0XS typeS (display model)
- SUBARU LEGACY OUTBACK 2.5i EyeSight EX Edition (production model)
- New generation Boxer engine lineup (technology exhibit)

### 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.