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# Subaru Introduces All-New Impreza at New York Auto Show

- All-new package with a more comfortable and spacious interior while having the same body size as previous models
- The third generation Boxer engine and the new Lineartronic (CVT) enable vast improvements in fuel efficiency and exhaust performance as well as allowing both enjoyment and peace of mind.



Subaru Impreza (U.S. Specifications)

Tokyo, April 21, 2011 – Fuji Heavy Industries Ltd. (FHI), the manufacturer of Subaru automobiles, today announced the world premiere of the all-new Subaru Impreza 4-door and 5-door models (U.S. specifications) at the 2011 New York International Auto Show (Press days: April 20 and 21, Open to public: April 22 through May 1). FHI plans to introduce the new Impreza to the U.S. market this year as its first model to provide customers with "Enjoyment and Peace of Mind" through Subaru's new "Confidence in Motion" brand statement.

This fourth generation new Impreza was developed under the concept of "Redefining Value, Redefining Class". The comfort that the Impreza has built up since its debut in 1992 has been even further refined, while taking advantage of the superior reliability, handling, and safety features of the Subaru original Symmetrical AWD (All-Wheel Drive) system and the Subaru Boxer engine. Keeping up with changes in market expectations, Subaru has developed the new Impreza as a high-quality global car.

During the development process, we focused on improving environmental friendliness and adapting to changes in customer's values. Specifically, Subaru improved fuel efficiency and exhaust performance, utilizing the third generation Boxer engine and the new Lineartronic transmission; enhanced the "Fun to Drive" experience for more enjoyable and agile driving; and created a roomier interior space with improved comfort and quality, but without an overall increase in size. The new Impreza was indeed developed to provide customers with "unprecedented value" beyond existing segments or classes.

[Note: Information provided in this release is based on U.S. specifications.]

# **Packaging / Utility**

This vehicle has been designed with an interior that provides even more comfort to all passengers while having the same body size as previous models.

- The bottom end of the A-pillar has been extended 200 mm toward the front and the wheelbase enlarged by 25 mm. The redesigned door structure widens the interior and increases shoulder and elbow space without altering the vehicle overall length and width. Extra foot room is added to the rear seats.
- The door opening dimensions have been enlarged to vastly improve the ease of entering and exiting of the vehicle.
- The vehicle is equipped with a lowered instrument panel and window sills, and the front quarter windows have been moved forward in order to improve the driver's field of vision and sense of spaciousness.
- The 4-door model has enough trunk space to accommodate four golf bags. The vehicle interior can be widely extended through to the trunk with 60:40 split folding rear seats installed as standard.
- The 5-door model has enough cargo capacity to accommodate three golf bags or a large baby stroller. The tail end of the roof has been redesigned and the floor lowered and flattened to improve storage capacity of the trunk and the 60:40 split folding rear seats make this space easily accessible.

# **Exterior design**

With a "Smart & Classy" design concept, the dignified appearance of this vehicle delivers a feeling of refinement. Its rich expressive design shows off its high quality.

- Perfect styling that exhibits its dominant road presence, spaciousness and ease of use without an overall increase in size.
- Equipped with a hexagon grille with spread wings in the center, hawk eye headlights, and wheel arches that characterize the abilities of AWD models. These design features emphasize the unique identity of Subaru vehicles.
- A stylish profile that gives the impression of a spacious interior has been achieved due to the forward placement of the A-pillar and the extended wheelbase. In the 4-door model, the distinctive C-pillar design gives the vehicle both a sleek coupe-like styling and the presence of a trunk.

# **Interior design**

Along with the roomy and comfortable interior, a stylish design has been selected to bring out the best qualities of the chosen materials and give passengers a feeling of quality.

- The instrument panel is styled horizontally which gives a more roomy feeling.
- Passengers are surrounded by comfort, from the quality materials used in each part to the high quality apparent from the touch of the soft materials.
- A sporty three-spoke steering wheel is used and the classy steering wheel switches are designed to be an

optimum size for easy operation as well as being nice to the touch.

• For a greater sense of security, the top of the front seat backrests is 60 mm higher than previous models and both the driver's and passenger seats have a higher hip point than before. This improves the field of view and gives more natural seating comfort. The rear seats also have a hip point that is set higher than previous models in order to improve spaciousness.

#### Engine and transmission

The third generation Subaru Boxer engine, which was introduced last year with a totally new design, is installed in all models. Along with the usual merits that horizontally-opposed engines inherently possess, this engine has improved fuel efficiency and exhaust performance. Together with the adoption of the new Lineartronic (CVT), a lightweight body, and excellent aerodynamic performance, this vehicle has reached the top class<sup>\*1</sup> of fuel consumption among AWD vehicles in the US.

\*1: Achieved 36 miles per gallon during highway driving according to Subaru in-house data.

- Engine displacement: 1,995 cc
- Max. Horsepower/Max. Torque: 148 hp @ 6,200 rpm / 145 lb ft @ 4,200 rpm
- Transmission: Lineartronic (CVT) / 5-Speed Manual

#### 2.0-liter DOHC Engine

- A new design was implemented with a bore/stroke ratio that is more advantageous for fuel efficiency. The stroke has been lengthened without altering the overall engine width when compared with the previous generation.
- The adoption of a compact combustion chamber, cooled EGR<sup>\*2</sup>, and the optimization of intake ports and valves has also improved combustion efficiency.

\*2: Exhaust Gas Recirculation

- In regards to specifications for the existing 2.5-liter engines, the catalyst has been reduced by approximately 30% while maintaining the same exhaust gas cleaning performance.
- Both environmental friendliness and regular-use mid-low range torque have been improved due to the adoption of a longer stroke and dual AVCS<sup>\*3</sup>. This engine offers better accelerating performance than the existing 2.5-liter engine, and its superior response gives the driver a feeling of instant acceleration, especially when the accelerator is lightly depressed.

\*3: Active Valve Control System

#### The new Lineartronic

• Making use of the inherent advantages of Chain-driven CVT (Continuously Variable Transmission) such as lightness, compactness, superior fuel efficiency, and a wide ratio coverage, Subaru has successfully developed a new CVT for the new Impreza for improved environmental friendliness and drivability.

• A paddle shifting 6-speed manual mode with excellent shifting response is included that can provide a thrilling driving experience that even exceeds sports AT vehicles.

# 5-Speed Manual

• Both driving quality and environmental friendliness are achieved through gear ratio optimization.

# Chassis

This chassis provides steady handling performance with a linear response and driveability with a secure feeling while absorbing any road surface irregularities. Improvements in the rigidity of certain important areas and setting optimization allow both comfortable driving and lively handling. In all, this design achieves top-level danger avoidance performance.

- Highly responsive front and rear damper valves are used to improve overall vehicle response. Vibrations are also kept under control with a highly rigid cross member design, allowing improved driving stability and comfort.
- A strut-type front suspension has been adopted and the stabilizer diameter is also increased to improve driving stability.
- Double wishbone rear suspension is used and the lateral link external bush has been changed to a pillow ball type in order to improve stability when traveling in a straight line.
- In the North American market for the first time, Subaru has developed pinion-assist type electric power steering. As well as improving fuel efficiency, this smooth motor control allows a natural steering feel.
- All models are equipped with newly designed low rolling resistance tires as standard.
- Manual transmission models come equipped with incline start assist where braking force is maintained even after releasing the brake pedal in order to aid hill starting.

# Body

- In order to improve vehicle response to the driver's input and provide a sense of firm vehicular control, certain key points have undergone stiffening and the use of an improved grade of high-tensile steel plates has increased.
- Stiffeners have been added to the rear sub-frame. It ensures greater resistance to twisting, which also contributes to better steering tracking.
- Insulators are arranged optimally to offer excellent noise reduction.

# Safety

- Top-level forward visibility in this class has been achieved, and blind angles also reduced thanks to the use of narrower pillars for the partition windows on the front doors and the attachment of the side mirrors directly to the door panels.
- Along with a redesigned frame, high-tensile steel plates are effectively used to lower weight. The new body design increases collision safety from any direction.

- The front hood and bulkhead are specially designed to have an impact absorbing structure in order to protect pedestrians. This high impact absorption ability has been achieved without sacrificing rigidity.
- In addition to SRS driver's/passenger's airbags, SRS side airbags and SRS curtain airbags, SRS driver's knee airbag are installed as standard in all models. Along with an optimized airbag sensor layout, a sensor is added inside the front doors. This conforms to new North American side-impact collision regulations.
- VDC (Vehicle Dynamics Control) is installed in all models as standard. Its intervention timing has been optimized and it has incorporated control logic that demonstrates effectiveness in danger avoidance situations. This provides both an enjoyable driving experience and the world's leading danger avoidance performance. The new Impreza also incorporates a brake assist function into the VDC system.
- A brake override control system has been adopted.

#### Major Specifications: (U.S. Specs.)

[Note: Specifications are preliminary and subject to change.] Overall Length x Width x Height (mm): 4,580 (4-door), 4,415 (5-door) x 1,740 x 1,465 Wheelbase (mm): 2,645 Track Front/Rear: 1,510/1,515 Vehicle Weight (kg): 1,320 (2.0i 4-door/5-door 5MT model) Seating Capacity: 5

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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