

Fuji Heavy Industries Introduces All-New Subaru Impreza

Tokyo, June 5, 2007 – Fuji Heavy Industries Ltd. (FHI), the maker of Subaru automobiles, today announced the introduction of its new-generation Subaru Impreza series in Japan. The all-new Impreza went on sale nationwide through Subaru dealerships today.

Developed around the concept of new and more refined designs for comfort plus performance, the third-generation Impreza features streamlined “5-door packaging”, while it offers a rewarding and safe ride enhanced by Subaru Symmetrical AWD (All-Wheel Drive) with the Horizontally-Opposed engine and the newly developed chassis. The all-new Impreza intends to be a new global car that incorporates three core values: sophisticated styling; useful and convenient packaging; and a rewarding and trustworthy ride.

The new Impreza has been developed under the theme, “Providing a fascinating Subaru distinctive value.” In accordance with Subaru’s philosophy, the core mechanism of Subaru Symmetrical AWD (All-Wheel Drive) with a Boxer engine continues to provide an enjoyable ride with fun to drive handling for the driver, as it integrates performance with advanced safety and environmental considerations.

Since its debut in 1992, the Impreza has earned worldwide popularity for its agile and sporty performance, compactness, convenience, and utility.

[*Impreza* is a coined word, deriving from an Italian word, *impresa*, meaning an emblem or aphorism. The car has upheld the badge, or image, of a sporty, young and agile car based on Subaru core technologies. Impreza is also associated with *impression* and FHI wants this car to project a strong and fresh impression.]



Impreza 15S



Impreza S-GT

Impreza's Development Philosophy

Three key words were selected to develop the new Impreza, based on the concept of new and more refined designs for comfort. While advancing a sporty, safe and reliable drive that the Impreza series have consistently delivered, FHI has pursued to incorporate much higher levels of comfort and quality in the new model than any in its category offers.

- Sporty – achieving sophisticated design with its individual look, as well as an enjoyable ride with easy handling for the driver
- Casual – providing a stress-free comfortable ride under any driving conditions, as well as convenient and easy-to-use features
- Compact – securing ample, comfortable interior space in a compact body through streamlined packaging

Model Variations

- The Impreza 15S is the basic model built for handling and performance in harmony with fuel efficiency and environmental considerations.
- The Impreza 20S is the standard model featured more powerful engine performance, while providing outstanding stability supported by Symmetrical AWD.
- The Impreza S-GT is the Grand Touring model, offering a sporty drive with powerful turbo-charged engine performance.

Major Features

1. Packaging

- By shortening the rear overhang, a streamlined flowing form is obtained while roominess is also secured through the vehicle's extended height, width and wheelbase.
- The all-new double-wishbone rear suspension makes room for a wider and deeper luggage compartment, improving the utility of the car. The wide and flat load floor can accommodate two Tour size golf bags or five carry-on bags.
- The driver's seat lifter and tilt steering that allow flexible adjustments for drivers are equipped as standard on all models. Telescopic steering is also equipped on the S-GT model while an option on the 15S and 20S models.
- The height of the front wipers is lowered to achieve better visibility over the front hood for the driver.
- Rear quarter glasses and rear gate glass shape is designed for the better, safety visibility.
- Larger door openings afford improved ingress and egress, and the rear doors open 75 degrees to allow for better rear seat access.

2. Design

a) Exterior design

- A flowing line from the tip of the front hood through the rear window, as well as the short rear overhang, highlight the agility of the car.
- Sweeping character lines on both sides and well calculated panel curves reflect light and shadow in harmony.
- Impreza's sporty image is stressed in all models by projected front fenders and rear quarters; standard roof-mounted spoilers that house LED brake lights; and LED rear combination lamps that comprise brake lights, directional lights and back lights.
- The 3-dimensional design of the projector headlamps expresses functionality.
- Nine exterior colors are available.

b) Interior design

- Aluminum-look insets in the center panels through door trim add a sporty feel and airiness to the car.
- The vehicle information display, which constantly shows outside temperature, average mileage and time on the digital clock, as well as a navigation screen and audio display, are placed nearer the top of the dashboard for improved visibility and functionality.
- New urethane materials are used in the front seat cushions to better absorb vibrations during a ride. The driver's seat incorporates newly developed seatback springs that support the driver's back and hips to help maintain a comfortable driving position.
- When the ignition key is turned on, the needles of three meters in the instrument panel swing up to their maximums and quickly fall back to their original positions – A Subaru tradition that - gives a boost of excitement for the driver starting the car. The instrumental panel also comes with an Info-Eco Indicator that lights up when running on low fuel consumption to encourage mileage-conscious driving.
- Two interior colors are offered on the 15S and 20S models: an ivory tone that accentuates openness and light; and off-black, which highlights both sportiness and elegance.

3. Powertrain

a) 1.5-liter DOHC engine (15S) and 2.0-liter SOHC engine (20S)

- The *equal length/constant pulsation independent exhaust system* substantially elevates exhaust efficiency through reduced interference between cylinders, which helps deliver optimal torque in various ranges of speed.
- The Active Valve Control System (AVCS) hydraulically controls timing in the intake valves and helps to increase combustion efficiency and improve low-end torque on the 15S.
- Various parts of engine employs friction-reducing technologies, including lowered load in the valve springs, mirror-surface machining, and molybdenum coating on the valve lifters. Fuel economy and emission reduction are greatly improved on the 15S.

b) 2.0-liter turbo engine (S-GT)

- The Dual Active Valve Control System (Dual AVCS) hydraulically controls timing in both the intake and exhaust valves, which helps increase combustion efficiency and improve low-end torque, and ensures linearly responsive acceleration to depressed pedal movement.
- The *equal length/constant pulsation independent exhaust system* substantially elevates exhaust efficiency through reduced interference between cylinders, which helps deliver optimal torque in various ranges of speed.
- A tumble generated valve (TGV) has been installed in the intake manifold, boosting combustion efficiency by controlling the intake flow. It improves efficiency particularly at the time of engine ignition.
- Also adopted is a secondary air system that forces air into the exhaust port to burn out any gasoline remaining in it. The system helps eliminate harmful substances when the powertrain is still cool, and it promotes early activation of a catalytic converter.
- A new compact turbine boasts quicker response. After optimization of the shape of its turbine housing, the turbo unit has been greatly improved to deliver ideal output from low speed to high speed ranges.
- A liquid-filled engine mount has been applied to reduce noise levels and improve ride comfort. The weight of the engine mount bracket has been reduced by utilizing plastic material.

c) Transmissions/AWD (All-Wheel Drive) system

- Automatic transmissions have been modified for faster, more accurate, responsive shifts, while fuel economy is improved through reduced friction. AT models come with SPORTSHIFT* mode in which a driver can enjoy manually changing gears.

* SPORTSHIFT is the registered trademark of Prodrive. Ltd.

- By choosing the AT Select lever and ECO Switch in the AT models, 3 modes of driving are available: Eco; Sport; and Manual.
- The *N Control System* on AT models automatically shifts the transmission back to neutral from driving positions after the brake pedal is depressed for some time, as when waiting at a traffic light.
- The Active Torque Split AWD system is mounted on AT models. MT models come with the center differential AWD system with viscous LSD (limited slip differential).

4. Chassis / Body

- The lower center of gravity, enabled by the Boxer engine, has been enhanced by mounting the engine front 22 mm lower on the chassis, thereby further improving stability.
- The strut-type front suspension is supported by newly designed front cross members. Employing box-shaped steel tubing, the new cross members further support the suspension, as well as improve crash worthiness.

- Thanks to these high-strength cross members, subframe parts have been largely eliminated, making the front floor section much lighter and enabling better handling and improved maneuverability.
- The newly designed double-wishbone rear suspension effectively absorbs shocks from road surfaces, ensuring high levels of ride comfort and agile handling as well as effectively lowering noise levels.
- The brake system employs tie rods for the brake booster, ensuring steady braking and control.
- *The hill-start assist function* maintains the braking function one second after the brake pedal is released in case of starting a car on a hilly road. (Available on the S-GT MT model with Vehicle Dynamics Control, VDC)
- Streamlined body construction and the extensive use of high-tensile steel, including 590 MPa-level steel for major body frames, the new Impreza has achieved both high body rigidity and a weight reduction of 20 kg.

5. Safety

- Advancing the Ring-Shaped Reinforcement Frame Body Structure, the new Impreza has realized high levels of safety and crash worthiness through effectively absorbing and dispersing crash impact in frontal, side, or rear impact crashes.
- The new Impreza also boasts low-impact features for pedestrians and other vehicles in collisions.
- All models are equipped with dual SRS airbags, while side SRS airbags and curtain airbags are optional.
- A collapsible safety pedal is available on all models to reduce the risk of foot injuries in accidents.
- VDC is available as an option on the S-GT models.

6. Environmental friendly features

- The 1.5-liter DOHC engine and 2.0-liter SOHC engine have achieved a reduction of an additional 75% of emissions from the levels of the 2005 exhaust emission regulations set forth by Japan's Ministry of Land, Infrastructure and Transport. The 2.0-liter turbo engine has reduced 50% of its emissions from the 2005 emission levels. In addition, the fuel efficiency of the Impreza 15S 2WD/4AT models (>1270 kg in weight) and the AWD/5MT models is at least 20% better than the level called for by Japan's 2010 standards. The 2WD/5MT and AWD/4AT models also achieved fuel efficiency levels that are 10% better than the 2010 standards. These vehicles qualify for incentives under the Japanese government's Green Taxation System.*

* Green Taxation gives tax breaks to consumers when they buy fuel-efficient, low-emission vehicles.

- The Impreza utilizes interior materials and glues that release much smaller amounts of VOCs (volatile organic compounds). Such VOCs as formaldehyde and toluene, which are believed to cause irritation in the nose and throat, have been largely reduced. VOCs in paints have also been substantially cut down.
- All models come with the Info-ECO mode, and the Info-Eco Indicator on the instrumentation lights up when running on low fuel consumption, encouraging mileage-conscious driving.

7. Comfort and convenience

a) Air conditioning

- Despite increasing its maximum air output by 10% above the prior model's level, the AC unit is quieter with lowered airflow and operating noise through the adoption of a sub-cooling type condenser that allows efficient use of the compressor and refrigerant and reduces air resistance inside the unit.
- The new AC unit is designed to consume less energy, contributing to better fuel economy.
- All models come with a rear heater duct.

b) Audio and navigation systems

1) An audio system that combines a CD player and an AM/FM tuner is optional on the Impreza 15S. With selected electronic devices and newly developed speakers, the unit delivers improved audio quality, and enables fine-tuning to meet the acoustic conditions inside the car.

2) The combined audio system of CD player and AM/FM tuner, compatible with MP3 and WMA formats, is optional on the 20S. It features not only improved audio quality and fine-tuning to meet acoustic conditions, but it also includes a function that cancels vibration and echo from the doors. In addition, it also comes with an automatic audio volume control that adjusts the volume to a comfortable level set by the driver, and which automatically changes its output at different speeds. An auxiliary outlet is a feature on the center console for easy connection of mobile devices.

3) A HDD navigation system with audio capability (compatible with Subaru G-Book Alpha telematics service) is optional on all models.

[Navigation system]

- With its optimized software and large-capacity HDD of 40 GB, the system processes 3D screen scroll and directional information searching much faster and more easily than did earlier systems.
- The system features a 7-inch wide VGA LC screen with LED backlighting, allowing clear and detailed images.

[Audio system]

- The system has adopted Audyssey MultEQ* technology that corrects in-car sound distortion and offers the best sound quality in any seat.

- Reducing noise and distortion to a minimum in order to replay music and sound that is closer to their original recordings, the system also provides fine-tuning capabilities.

* Audyssey MultEQ is the trademark of Audyssey Laboratories, Inc.

[Other features]

- In addition to playing CDs and DVDs, the system is compatible with DVD±R/RW and CD-R/RW, as well as MP3 and WMA.
- An auxiliary outlet is a feature on the center console for easy connection of mobile audio devices and video cameras.

c) Other

- All models are equipped with the anti-theft alarm system. The immobilizer is standard on the S-GT, and optional on the 15S and 20S.
- The hood damper is standard on all models.
- A keyless entry system with a push-bottom starter is optional on all models.

Sales target for the Impreza series in Japan

2,500 units per month

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.