

Efforts of the Automotive Business Unit

Subaru's Capabilities... We Are Dedicated to Providing Each Individual Customer with the Best Automobile Experience Possible

Subaru's Development Philosophy: To develop products which give customers an exciting drive by synthesizing driving performance, safety and environmental friendliness at a high level.

Subaru is continuing to develop products combining world class performance, safety and environmental friendliness at a high level to achieve "a prosperous society where automobiles, people, society and the environment are in harmony". To this end, we use our unique advanced technology to realize the principles of safety and rationality that forms Subaru's design philosophy as an aircraft manufacturer while considering the environment at all stages of our business.

FHI's Fundamental Philosophy for Manufacturing Automobiles

Subaru's goal is to manufacture high performance automobiles which are "safe, comfortable, and pleasurable to drive."

The Legacy, Impreza and Forester, which have fused the necessary elements of performance, comfort, safety and environmental friendliness at a high level by adopting the Subaru Boxer, Subaru's unique horizontally-opposed engines, and Symmetrical AWD; the Subaru R1 and R2, which together have raised the bar in terms of automobile

driving and environmental performance by realizing the best fuel economy and efficiency in their class; the Samba, optimized to provide superb functionality for everyday life; and the Stella, our newest mini car....All our automobiles embody our long-held and successful design philosophy as an aircraft manufacturer.

In order that each individual customer may share the happiness of automobile ownership, we will continue to develop and provide products

combining performance, safety and environmental friendliness at a high level.

Subaru's Development Philosophy



To develop products which give customers an exciting drive by synthesizing driving performance, safety and environmental friendliness at a high level.

Subaru's Originality

[SUBARU BOXER]

The horizontally-opposed engine is a rarity anywhere in the world. Subaru believes that this engine is an ideal power unit. The engine has symmetrically arranged pistons whereby the momentum of each piston is counterbalanced by the movement of the corresponding piston on the opposite side. For this reason, the engine offers superior rotational balance for quick response and a smooth feel right to the top of its rpm range. The engine is also lightweight and compact. Its low profile when mounted lowers a vehicle's center of gravity, enabling freer cornering. Offering not only high performance, but also ideal for vehicle balance, the horizontally-opposed engine is truly a Subaru original that achieves our goal of top performance without waste.



6 cylinder piston

"SYMMETRICAL AWD"

Subaru, in its quest to provide pleasurable driving, continues to stick to four-wheel drives (4WDs) as its core driving system, and has enhanced the potency of the drive system by using a unique 4WD layout consisting of the horizontally-opposed engine and a symmetrical power train. The superior weight balance, thanks to the low profile of the horizontally-opposed engine, and the layout, which arranges heavy items such as the engine and transmission around the center of the vehicle, together maximize 4WD performance providing superb driving performance even under difficult conditions. The simple layout allows for a linear response when steering, provides comfortable and safe driving at high speed thanks to high forward stability, and retains stability even in poor weather, together making for an ideal arrangement of suspension and body frame and contributing to an overall increase in vehicle performance. Symmetrical AWD (All Wheel Drive) is the realization of Subaru's aspirations for 4WDs, an ideal which defies description.



Powertrain

"A Body Combining Lightness and High Rigidity"

High body rigidity is necessary for improving collision safety performance and comfort. However, if the vehicle weight increases as a result of the increased rigidity, acceleration performance and fuel economy will decline and braking performance and running stability will also be negatively affected. In order to synthesize the competing elements of lightness and high rigidity at a high level and realize a superior balance of safety, environmental performance and comfort, we at Subaru have been working to develop the chassis by bringing together our advanced technologies. We use numerous materials contributing to weight reduction and high rigidity, such as aluminum, for the front hood and rear gate, and tailored blanks, in which specially arranged high tension steel sheets and other kinds of steel sheets are welded and press formed, and construct a highly rigid body/chassis with a simple design. Weight reduction and engine efficiency provide both a pleasurable driving experience and fuel economy. High rigidity allows for collision safety and secure running stability. To realize ideal performance by resolving the apparent contradiction of "lightness and high rigidity," we at Subaru will continue to work to overcome any challenges.



The new ring-shaped reinforcement structure