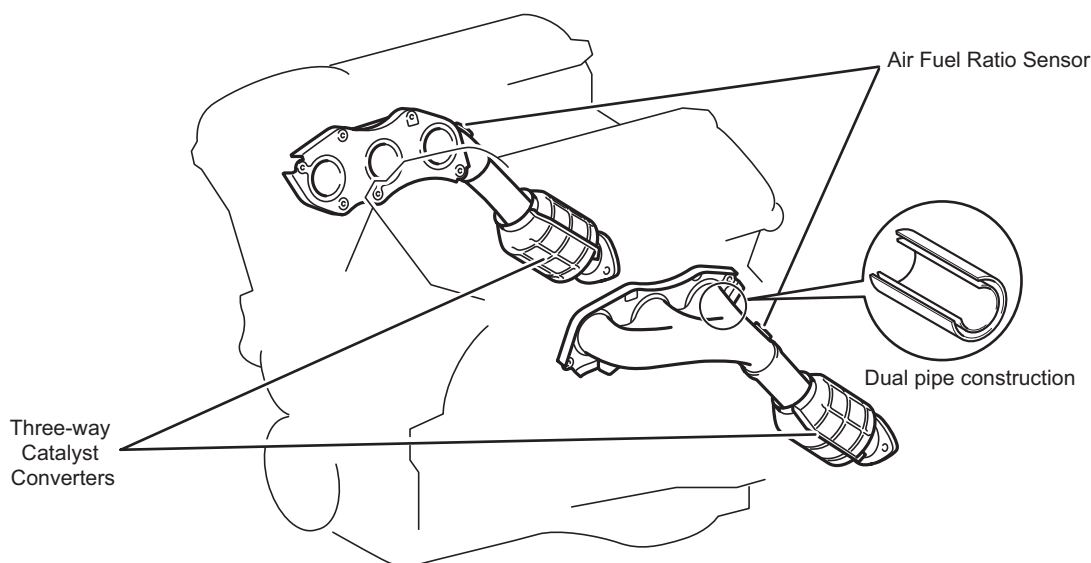


Exhaust Manifold

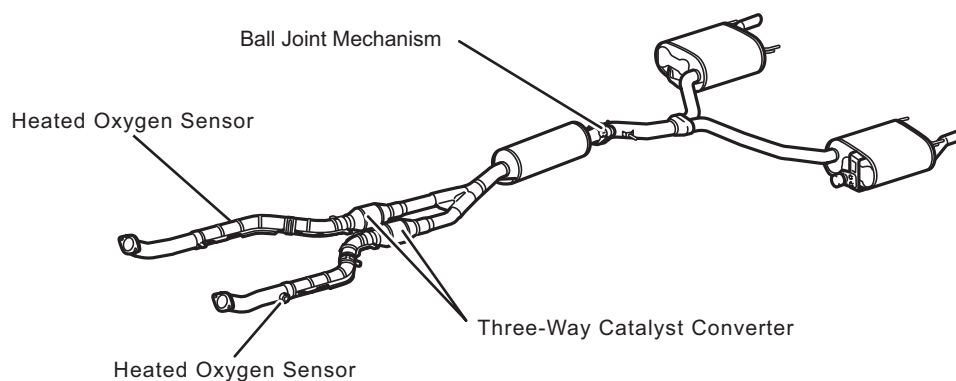
- The exhaust manifolds are made of dual pipe construction stainless steel to reduce noise and enhance heat resistance. Also, they accelerate the warm-up of the catalysts immediately after the engine is started, thus reducing exhaust emissions.
- Built into each exhaust manifold, the three-way catalyst converter consists of an ultra thin-wall, high-cell density ceramic catalyst in which precious metals are optimally used. It accelerates the warm-up of the catalytic converter, thus improving exhaust emission performance immediately after the engine is started.
- The flow of the exhaust gases has been optimized and the exhaust gas pressure loss has been reduced to produce a higher power output.



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Exhaust Pipe

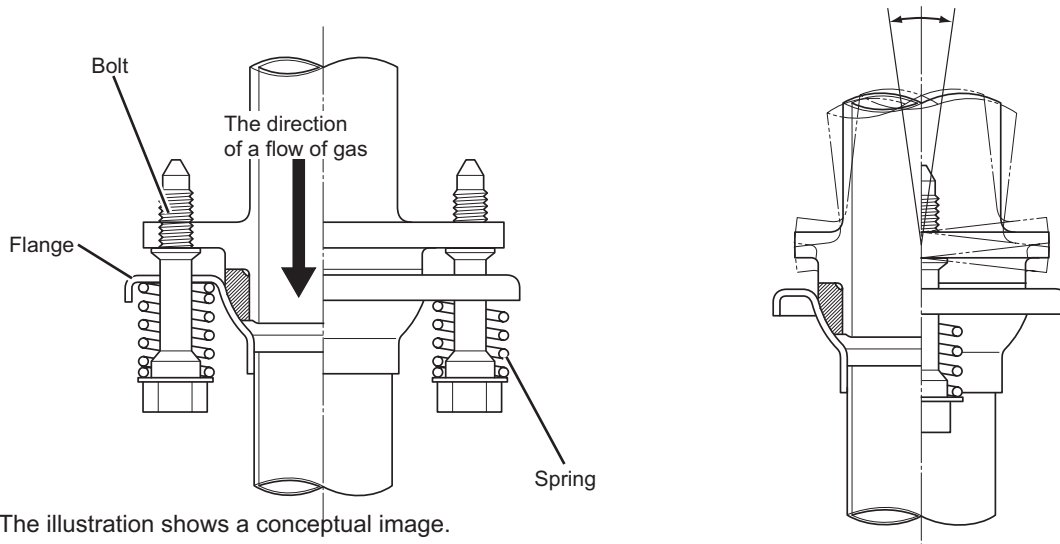
- Long, dual construction exhaust pipes are used from the exhaust manifolds to the front pipe junction. By optimizing the lengths of the exhaust pipes and utilizing the fluctuation of the exhaust pressure, exhaust gases are discharged effectively to improve the torque in the low-to medium-speed range.
- Ball joint mechanism is used to join the front pipe to the tail pipe in order to reduce the droning sound and vibration in the cabin and reduce weight. The ball joint mechanism consists of a spherical flange, and a bolt and a spring to support the sealing area of the gasket. The ball joint (the spherical areas of the flange and the gasket) absorbs the vibration of the engine as well as the vibration of the exhaust pipe in order to reduce the droning sound and vibration in the cabin.



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Ball Joint Mechanism

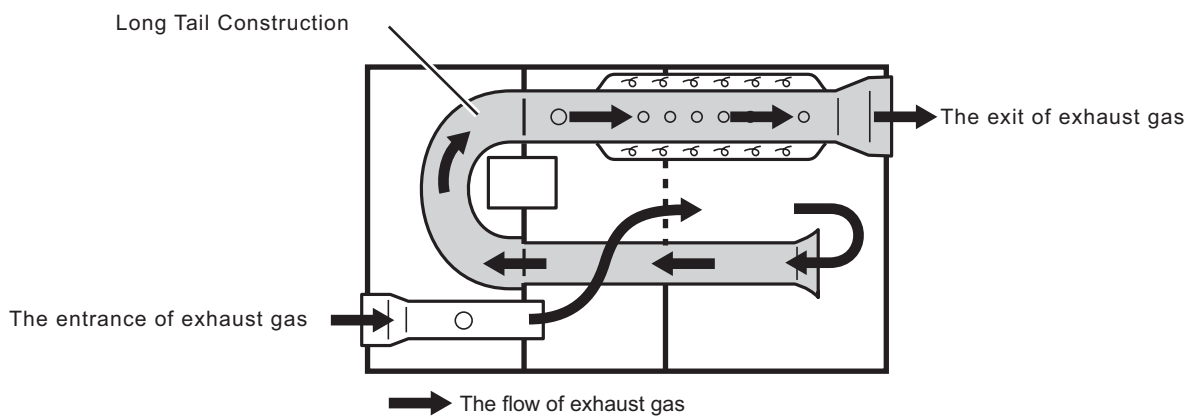
- The ball joint mechanism consists of a spherical flange, a bolt, and a spring to support the sealing area of the gasket. This is more compact than a flexible pipe, and can be installed in an optimal position to counter vibrations.
- The ball joint (the spherical areas of the flange and the gasket) absorbs the vibration of the engine as well as the vibration of the exhaust pipe in order to reduce the droning sound and vibration in the cabin.



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Muffler

- Dual main mufflers are provided to reduce back pressure, which improves the power output of the engine. A long tail construction is used inside the main muffler to suppress the low-frequency exhaust sounds, thus reducing the sounds in the cabin.



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Three Way Catalytic Converter

- An ultra thin-wall, high cell density ceramic catalyst with an optimized amount of precious metals held is placed directly below each exhaust manifold and in each front pipe. These catalysts ensure a high level of warm-up performance immediately after the engine is started, thus reducing exhaust emissions and complying with the Step-IV European Tailpipe Emission Regulations.