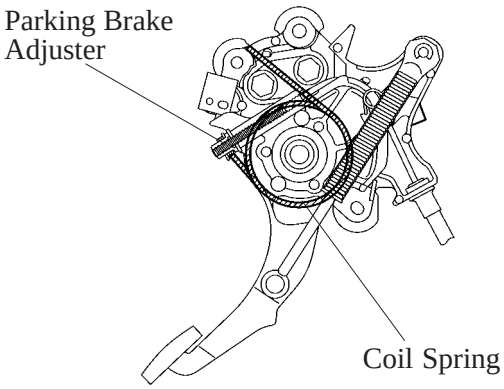
■PARKING BRAKE

1. Parking Brake Pedal

General

- The parking brake pedal's lock mechanism has been changed to a coil spring and drum friction type in place of the pawl and sector gear meshing type that was used on the previous model. Also, the pedal return absorber has been discontinued.
- The parking brake adjust mechanism has been relocated from under the floor to the parking brake pedal aseembly to improve serviceability.



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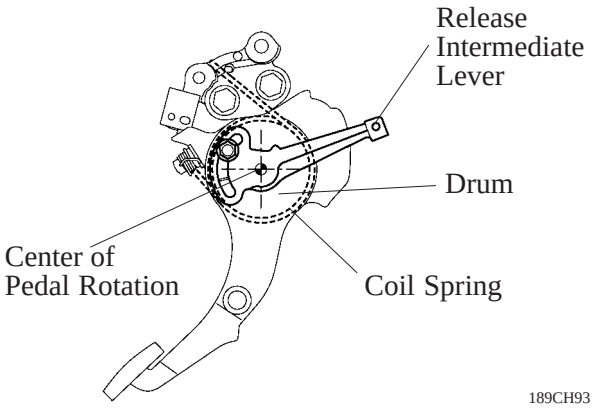
Lock Mechanism

1) Construction

The lock mechanism consists of a drum that is integrated with the pedal, a coil spring with one end fixed to the bracket, an intermediate release lever, etc.



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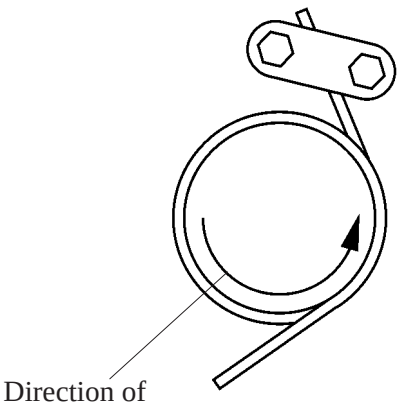
2) Operation

a. During Applying

The contact between the drum and the coil spring is slight because the direction of the drum rotation is opposite to the direction in which the coil spring is wound. This allows the drum to rotates smoothly.



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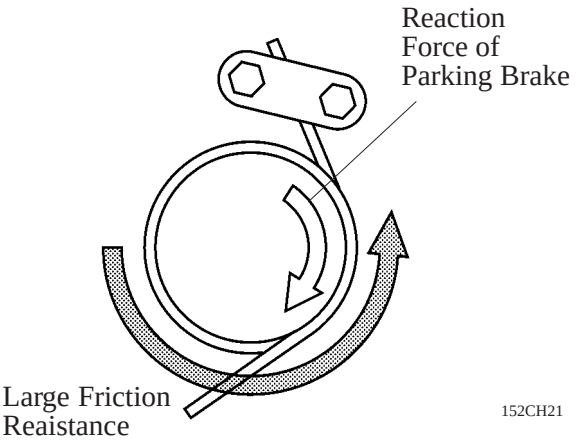
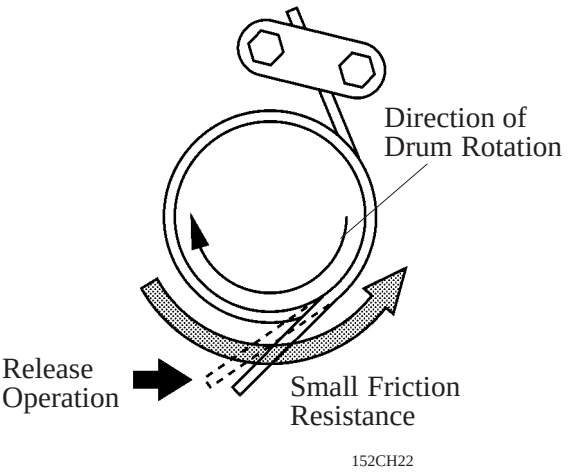
b. Lock State

The reaction force of the parking brake applies a force to the drum in the releasing direction. Because that force has the same direction as the direction in which the coil spring is wound, it creates a tighter contact between the drum and the coil spring. As a result, a large friction resistance is generated between the drum and coil spring. This friction resistance causes the pedal to lock.



c. During Releasing

When the release lever is operated to push and expand the free end of the coil spring, the contact between the drum and the coil spring loosens. Then, the friction resistance between the drum and the coil spring decreases, which releases the lock and allows the drum to rotate.
At this time, the friction resistance between the drum and coil spring is not completely eliminated and restrains the pedal return speed (to create a dampening effect).



NOTICE

- Do not disassemble the portions other than the parking brake cable and the parking brake switch because the parking brake pedal assembly contains a precision-fitted mechanism.
- The parking brake pedal locks due to the friction resistance that is created by the drum and coil spring. As such, make sure that the drum and coil spring are not exposed to oil other than that which is provided.

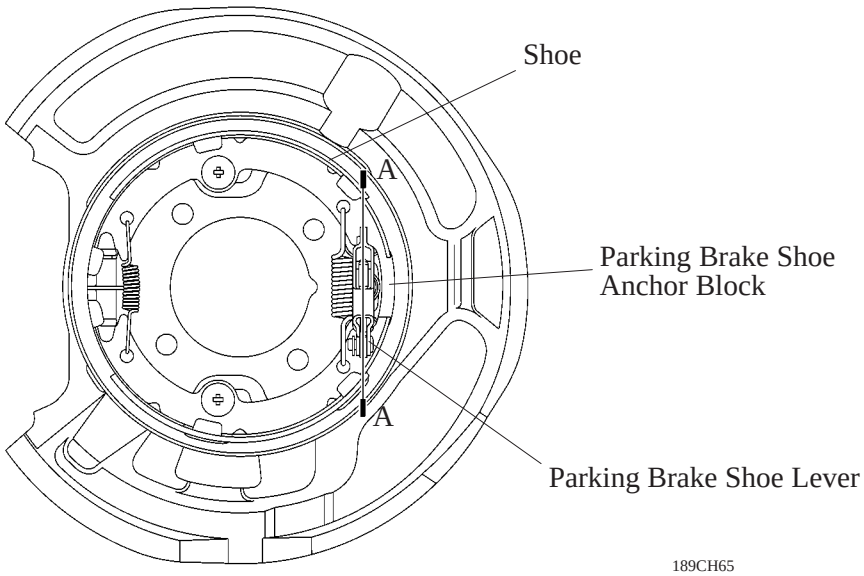
2. Parking Brake

General

A toggle lever type duo-servo brake mechanism has been adopted for the parking brake to simplify the constituent parts and to achieve weight reduction.

Construction and Operation

This parking brake mainly consists of parking brake shoe lever, parking brake shoe anchor block, shoe. When the parking brake is operated, it pulls on the cable, and this causes the parking brake shoe lever to expand the shoes via fulcrums “A” and “B”.



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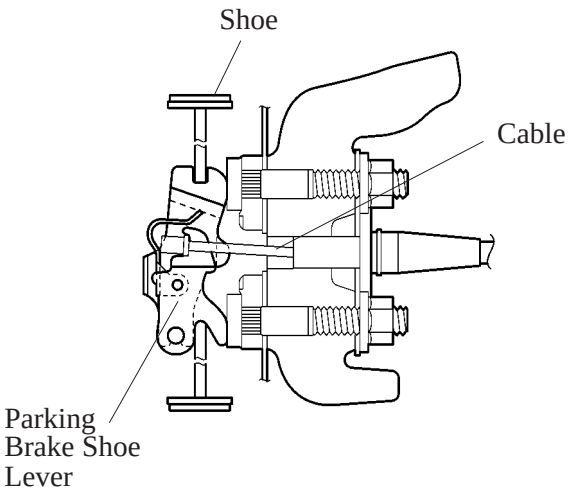
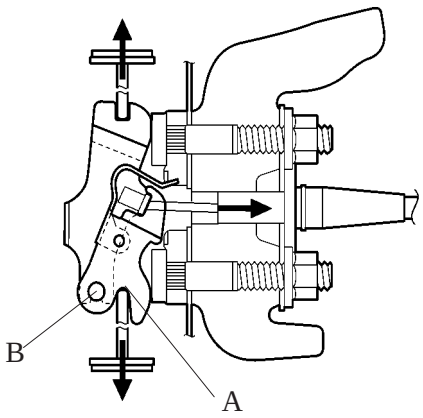
▶ A – A Cross Section ◀



Before Operation 189CH66



During Operation 189CH67

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