
GROUP 33A

**FRONT
SUSPENSION**

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GENERAL DESCRIPTION

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A MacPherson strut independent suspension-type suspension is used for the front suspension. Aggressive use of special components that include Mitsubishi Motor's own inverted struts and forged aluminum parts reduces weight to create a suspension that gives superior performance made with competition use in mind.

FEATURES (COMPARED TO THE LANCER)

Inverted struts

Use of inverted struts ensures smooth shock absorber action even during high speed cornering that places high lateral G-force on the suspension.

Coil springs

The coil spring rate was optimized and high-response spring material is used to achieve high durability and reduce weight.

Lower arm assembly

Use of forged aluminum reduces load on the coil springs and produces nimble suspension action. In addition, outer casings and stoppers on the front bushings (A-point) and pillow ball bushings in the rear (G-point) improves the feeling of stiffness and stroke. Increased size of the ball on the ball joints at the knuckle connection (B-point) also improve reliability.

Stabilizer

A change to pillow ball joints for the stabilizer link improves stabilizer efficiency to deliver a high level of stability.

Crossmember

A reinforcing bar (front axle crossmember bar) that connects the left and right lower arm mounts (A-points) increases lateral rigidity. This improves steering feel and adds extra stiffness when cornering.

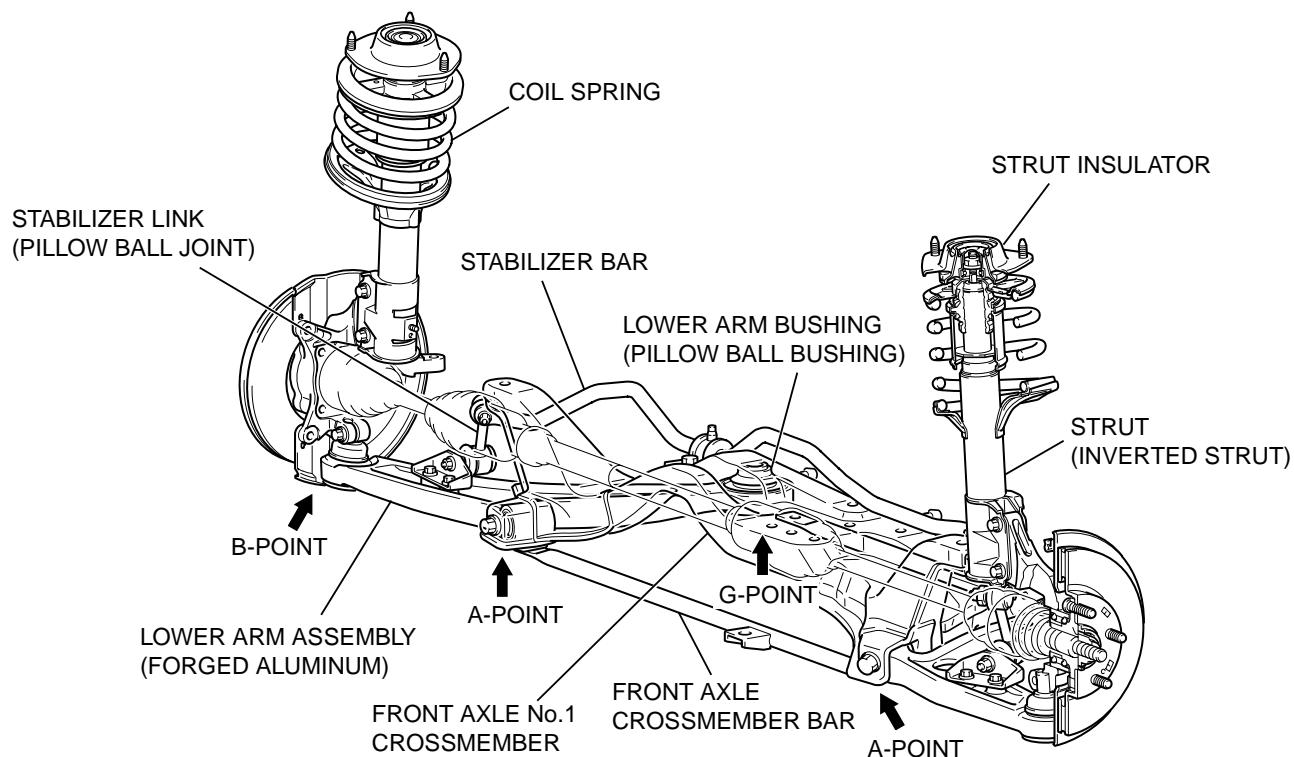
Strut insulator

Input from the strut has been changed from a separation pattern to a unified one and the use of a metal bearing achieves greater rigidity, durability, and lower friction.

Alignment

A wider track and optimization of roll center height improves cornering response throughout the range from initial response through to the cornering limit.

CONSTRUCTION DIAGRAM



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SPECIFICATIONS

SUSPENSION SYSTEM

ITEM	SPECIFICATION
Suspension method	MacPherson strut with coil springs

WHEEL ALIGNMENT

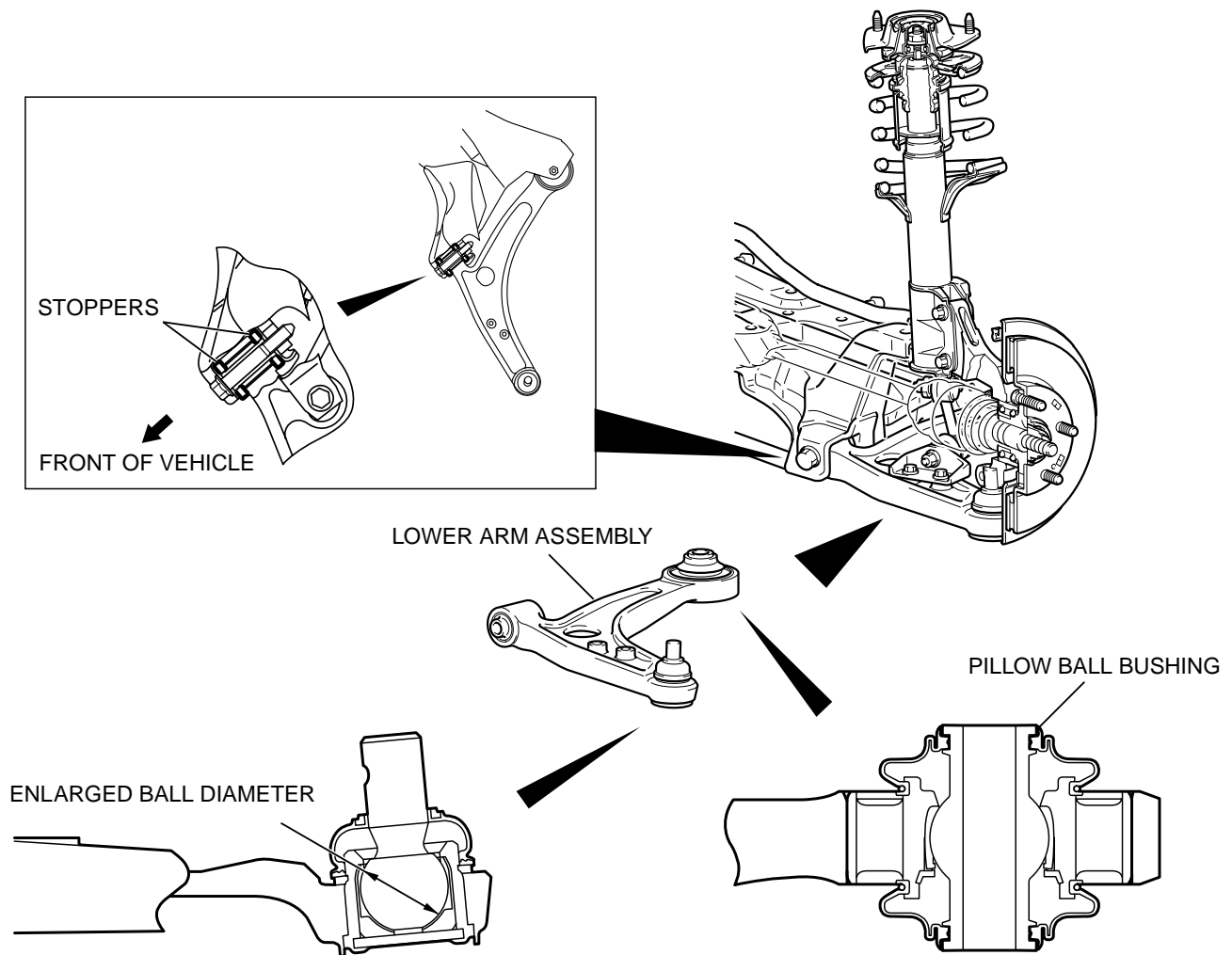
ITEM	LANCER EVOLUTION	LANCER
Camber	-1°00' <Default factory setting> (-2°00' adjustment possible)	0°00'
Caster	3°55'	2°50'
Kingpin inclination	13°45'	12°35'
Toe-in mm (in)	0 (0)	1 (0.04)

COIL SPRING

ITEM	LANCER EVOLUTION	LANCER (SPORT)
Wire diameter mm (in)	14 (0.6)	14 (0.6)
Average diameter mm (in)	155 (6.1)	160 (6.3)
Free length mm (in)	286 (11.3)	363 (14.3)

LOWER ARM

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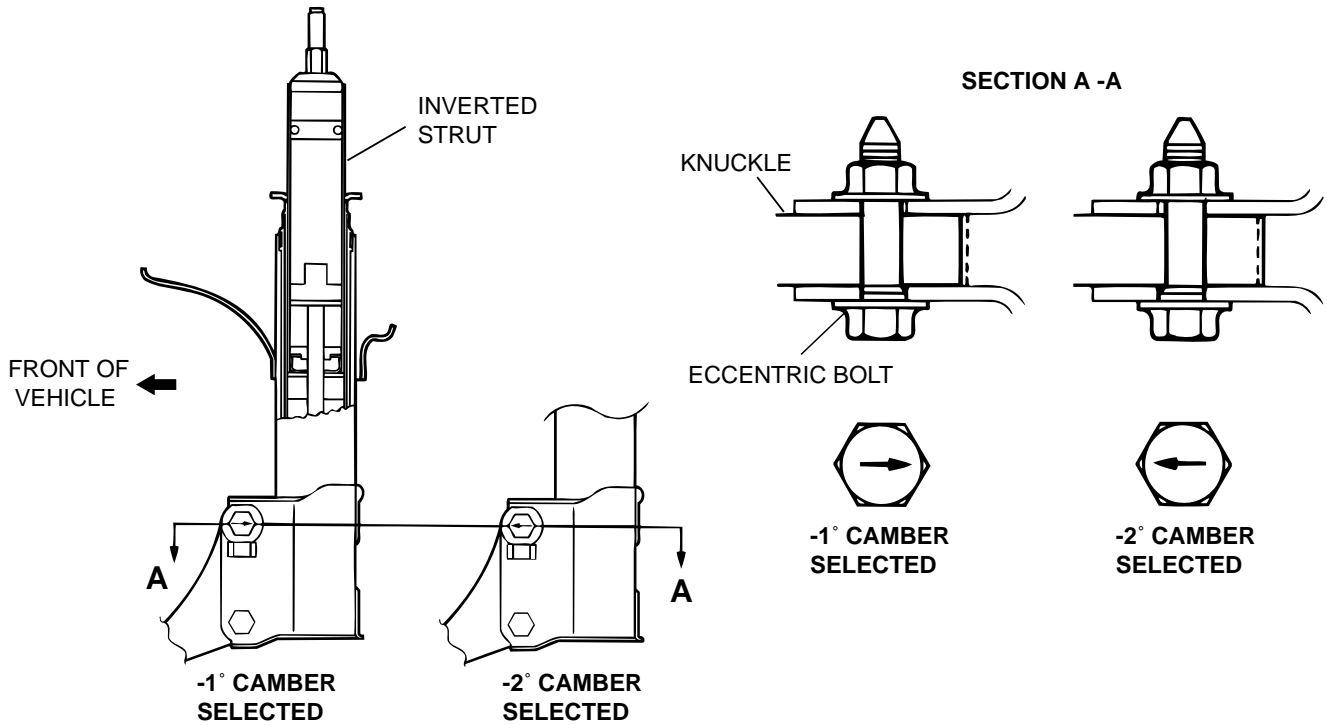


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Use of forged aluminum reduces load on the coil springs and produces nimble suspension action. In addition, outer casings and stoppers on the front bushings and pillow ball bushings in the rear improves the feeling of stiffness and stroke. Increased size of the ball on the ball joints at the knuckle connection also improve reliability.

STRUT ASSEMBLY

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An inverted strut layout (with the cylinder at the top and the piston at the bottom) is used. This layout offers superior rigidity and consequently improved camber stiffness. Further, either of two camber angles can be selected in accordance with operating conditions. The camber angle is determined by the alignment of an eccentric bolt at the top of the joint

between the strut assembly and knuckle. Vehicles leave the factory with a camber angle of -1 degree angle selected. (An arrow on the eccentric bolt is pointing toward the inside of the vehicle.) For a camber angle of -2 degree angle, the bolt must be positioned with its arrow pointing toward the outside of the vehicle.

NOTES