



New LANCER EVOLUTION VIII

– Japan domestic version –



Since its debut in 1992, the LANCER EVOLUTION series has evolved through participation in the World Rally Championship and other leading motorsport events around the world. The latest version, the LANCER EVOLUTION VIII, was launched in February 2003. This version marks the LANCER EVOLUTION's introduction in North America, where it will be a flagship model for the revitalized Mitsubishi Motors Corporation (MMC).

1. Targets

With the LANCER EVOLUTION VIII, know-how gained in motorsport competitions was fed back into the development process to bring the design even closer to perfection. New technologies and new interior and exterior styling features were adopted in pursuit of a car that looks and feels even faster and more refined.

2. Features

(1) Interior and exterior: a new fusion of style and functionality

The front bumper and hood reflect the new MMC design identity in forms that were airflow-optimized for better aerodynamics and cooling performance. And the rear spoiler, whose shape evokes the perpendicular lines of jet-fighter wings, is made entirely of light, rigid carbon-fiber-reinforced plastic – a world first on a production four-door sedan. These new features combine a sharper, aggressive look with functionality needed for motorsport success.

In the cabin, dark titanium-finish panels and carbon-fiber "EVOLUTION" emblems give enhanced style and presence. At the same time, functionality is enhanced by new features including a small, spherical, leather-covered shift knob whose size, shape, and hardness were optimized for easy operation in high-G conditions and to minimize the risk of hand damage during high-

intensity sports driving.

(2) World-class performance for a 2.0-liter sedan

The engine is based on the 2.0-liter turbocharged engine of the LANCER EVOLUTION VII. Increased boost pressure at mid-range engine speeds (3,000 – 5,000 rpm) yields higher maximum torque. Also, a newly developed six-speed manual transmission with 2nd – 4th ratios similar to those of the previously used close-ratio transmission provides a gear range that accommodates a wide range of driving conditions by permitting both superior acceleration and superior high-speed performance. And to accommodate the higher engine torque and improve reliability, the water pump has an increased capacity and the pistons, connecting rods, transmission, propeller shaft, and other parts of the powertrain incorporate strength-increasing measures.

(3) Extended handling limits and higher ride quality

MMC's unique all-wheel-control technologies (these maximize tire performance by actively controlling each wheel's driving and braking forces to match tire loading, which constantly varies with longitudinal and lateral load shifts and changes in road-surface conditions) were further improved for the LANCER EVOLUTION VIII: A newly developed Super Active Yaw Control system transfers twice the previous amount of torque between the left and right wheels and thus generates bigger yaw moments, which translate into extended cornering limits. In addition, increased limited-slip-differential effectiveness yields increased traction during high-G cornering maneuvers, resulting in increased motorsport competitiveness.

Higher body rigidity is yielded by reinforcements in areas including the front and rear suspension mountings and the base of each center pillar and by more extensive spot welds. In the suspension system, higher rigidity is yielded by newly shaped rear-axle-hub mounting bolts. Also, improved damping response yielded by thicker rods in the rear shock absorbers combines with reduced unsprung weight yielded by lighter



aluminum wheels, resulting in extended performance limits and improved ride quality.

(4) Performance-enhancing aerodynamics with optimal front/rear lift balance

Openings in the front bumper were eliminated wherever possible, leaving only those essential for cooling, and the air outlet in the hood was made larger for more efficient airflow. These design revisions together minimize air resistance and front lift. Also, the engine undercover was revised (with an airdam added at the front and a venturi section added in the center) to generate more downforce and an increased flow of cooling

air to the powertrain. Further, the rear spoiler is, thanks to the adoption of carbon-fiber-reinforced plastic, stiffer and thinner with a more effective wing section that generates more downforce without increasing drag. The new aerodynamic features all promote handling stability during high-speed driving.

(5) Reduced weight

In the GSR variant, the weight increase resulting from adoption of the six-speed manual transmission is offset by weight reductions in areas including the engine, drive-shaft, exhaust manifold, and body; the vehicle is approximately the same weight as the corresponding LANCER EVOLUTION VII variant with the same equipment and fuel load. The RS variant, which has a five-speed manual transmission, is approximately 20 kg lighter than the corresponding LANCER EVOLUTION VII variant with the same equipment and fuel load.

3. Major specifications

Major specifications of LANCER EVOLUTION VIII are shown in the following table.

Specifications		Model		LANCER EVOLUTION VIII	
				Mitsubishi GH-CT9A	
				Full-time 4WD	
				6 M/T (GSR, RS)	5 M/T (RS)
Seating capacity		(persons)		5	
Dimensions	Overall length		(mm)		4,490
	Overall width		(mm)		1,770
	Overall height		(mm)		1,450
	Wheelbase		(mm)		2,625
	Tread	Front	(mm)	1,515	1,500
		Rear	(mm)	1,515	1,500
Ground clearance		(mm)		140	
Engine	Model		4G63 Turbo		
	Displacement		(cc)		1,997
	Valve mechanism and number of cylinders		DOHC; 16-valve; four cylinders		
	Maximum output		{kW (PS)/min ⁻¹ Net}		206 (280)/6,500
	Maximum torque		{Nm (kgf-m)/min ⁻¹ Net}		392 (40.0)/3,500
	Fuel supply system		ECI-MULTI (electronically controlled fuel injection)		
Running equipment	Steering		Rack and pinion (power-assisted)		
	Suspension	Front	MacPherson-strut		
		Rear	Multi-link		
	Brakes	Front	Ventilated discs (17-inch)	Ventilated discs (15-inch)	
		Rear	Ventilated discs (16-inch)	Ventilated discs (15-inch)	
	Tires		235/45ZR17		205/65R15

([C & D Product Dev. Project], Car Research & Dev. Office, MMC : Kato, Fujii, Kometani)