

Press Release



2014 Toyota Geneva Motor Show: New AYGO - Specifications

Geneva, Switzerland -

ENGINE	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Type	1.0 VVT-i	1.0 VVT-i	1.0 VVT-i
Fuel Type	Petrol	Petrol	Petrol
Valve mechanism	4-valve DOHC	4-valve DOHC	4-valve DOHC
Displacement (cm ³)	998	998	998
Bore x Stroke (mm)	71 x 84	71 x 84	71 x 84
Compression ratio (:1)	11.5	11.5	11.5
Max. power (DIN hp) kW/rpm	(69) 51 / 6,000	(69) 51 / 6,000	(69) 51 / 6,000
Max. torque (Nm/rpm)	95 / 4,300	95 / 4,300	95 / 4,300
BRAKES	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Front	Disc – 247mm x 20 mm	Disc – 247mm x 20 mm	Disc – 247mm x 20 mm
Rear	Drum – 200 mm (inner diameter)	Drum – 200 mm (inner diameter)	Drum – 200 mm (inner diameter)
SUSPENSION	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Front	MacPherson strut	MacPherson strut	MacPherson strut
Rear	Torsion beam	Torsion beam	Torsion beam
TRANSMISSION	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Type	M/T	MMT	M/T

PERFORMANCE	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Max. speed (km/h)	160	160	160
0-100 km/h (sec)	14.2	15.5	14.3
FUEL CONSUMPTION (subject to final homologation)	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Combined (l/100 km)	4.1	4.2	Below 3.9
Fuel tank capacity (l)	35	35	35
CO2 EMISSIONS (subject to final homologation)	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Combined (g/km)	95	97	88
VEHICLE WEIGHT	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Curb weight (kg)	840 - 890	855 - 910	860 – 905
Gross vehicle weight (kg)	1,240	1,240	1,240
EXTERIOR DIMENSIONS	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Length (mm)	3,455	3,455	3,455
Width (mm)	1,615	1,615	1,615
Height (mm)	1,460	1,460	1,460
Front overhang (mm)	675	675	675
Rear overhang (mm)	440	440	440
Wheelbase (mm)	2,340	2,340	2,340
Drag coefficient (Cd)	0.29	0.29	0.28
Wheel size (inch)	14" or 15"	14" or 15"	14" or 15"
Tyre size	165/65R14 or 165/60R15	165/65R14 or 165/60R15	165/65R14 or 165/60R15
INTERIOR DIMENSIONS	New AYGO	New AYGO (with x-shift)	New AYGO (Eco version)
Interior length*	1,630*	1,630*	1,630*
Interior width	1,250 (3 door) 1,300 (5 door)	1,250 (3 door) 1,300 (5 door)	1,250 (3 door) 1,300 (5 door)
Interior height	1,205 (normal) 1,155 (canvas top)	1,205 (normal) 1,155 (canvas top)	1,205 (normal) 1,155 (canvas top)
Couple distance	806	806	806
Luggage space (liter)	168	168	168

* from accelerator pedal to the rear seat hip point

A CLEVER AND CHARACTERFUL ENGINE

No other group of motorists is as loyal to the petrol engine as the A-segment, where it is chosen by 85% of customers. With its comprehensively revised version of Toyota's award-winning 3-cylinder engine, new AYGO provides the ideal balance of response and efficiency that they're looking for.

"We wanted to improve performance, as well as economy," explains Chief Engineer Terai. "In the A-segment, running costs are paramount -customers don't want to spend a fortune on fuel bills. But at the same time, we didn't want to resort to costly technology to reduce consumption, as this would have driven the vehicle price up too much. So our challenge was to come up with relatively simple yet clever ways to achieve our targets."

That explains why the list of improvements to the 998 cc unit is a long one.

First, the combustion character of the engine was improved. The compression ratio has been increased from 11.0:1 to 11.5:1. The combustion chamber now benefits from better cooling, and a high tumble intake port ensures an optimal air/fuel mix in the cylinder. The Variable Valve Timing programme has also been optimised.

Next, friction losses were reduced through the adoption of a low friction timing chain with an auto-tensioner. Diamond-like Carbon (DLC) valve lifters and a twin-tank oil pan further contribute to reduced internal resistance.

And finally, what was already one of the lightest engines of its type was made even lighter by fitting a cylinder head with a built-in exhaust manifold.

The engine now develops greater power and torque – 51kW (69 DIN hp) at 6,000 rpm and 95 Nm at 4,300 rpm. 85 Nm of torque is available from as little as 2,000 rpm.

New AYGO comes in both standard and Eco-versions. The latter benefits from a longer 4th and 5th gear, low Rolling Resistance Coefficient.

The standard version achieves a drop in fuel consumption from 4.4 to 4.1 l/100km, which translates into a 7 g/km* drop in CO2 emissions to just 95g/km*. The Eco unit does even better, with fuel economy of below 3.9 l/100 km* and CO2 emissions of 88 g/km*.

Through all of these improvements, close attention was paid to maintaining the engine's sprightly character. It will still rev happily to high speeds and, though sound insulation has been improved, its sporty sound-signature is still there when pushed hard.

Finally, extensive work was done on the aerodynamics of the car, to further enhance efficiency. This includes the optimisation of airflow around the bodywork to reduce air resistance, the use of front and rear spoilers, floor undercovers and rear spats to control the underfloor airflow, and the adoption of a four-way duct to optimise airflow to the engine bay.

As a result, the drag coefficient of new AYGO has been reduced from Cd 0.30 to Cd 0.29, with a further reduction to Cd 0.28 for the Eco variant.

X-SHIFT

The x-shift transmission is available as an option on new AYGO. This vastly improved automated manual transmission has a fully automatic shift mode and no clutch pedal, using computer control to synchronize engine, clutch and transaxle for quick and precise shifting.

The transmission's gear ratios have been revised for a better balance of driving pleasure and fuel economy.

Selecting E (Easy Mode), M (Manual) or R (Reverse) allows the car to 'creep' like a conventional automatic. In E mode, the system selects a suitable gear according to the accelerator pedal, vehicle speed and driving conditions. New AYGO's x-shift is equipped with the kick-down function standard to automatic transmissions. Moreover, it is

possible to override the system temporarily by using the steering wheel-mounted paddles.

Selecting M mode allows the driver to manually change gear via either the shift lever itself or with the paddle switches.

When equipped with x-shift, new AYGO returns fuel consumption of 4.2 l/100 km* and generates CO2 emissions of only 97 g/km*.

* Subject to final homologation.

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