

IRIZAR - i6 HDH 12.37 SCANIA K450



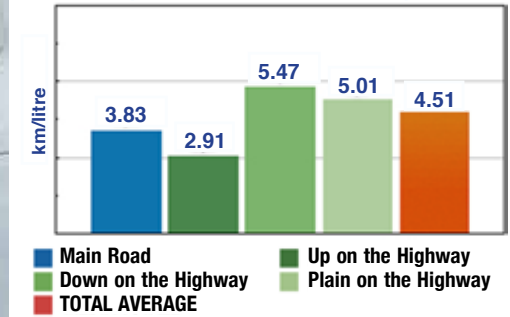
DIMENSIONS

Lenght mm	12,200
Width mm	2,550
Height mm	3,934
Wheelbase mm	6,070
Front Overhang mm	2,710
Rear Overhang mm	3,420
Luggage m ³	10
Turning Circle mm	22,500
Fuel Tank litres	400
AdBlue Tank litres	80
Test Weight kg	18,360

Routes	km	km/h	km/litre
Main Road	43.4	62.0	3.83
Highway (up)	40.5	73.6	2.91
Highway (down)	52.2	68.1	5.47
Highway (plain)	206.3	93.1	5.01
TOTAL	342.4	81.5	4.51



FUEL CONSUMPTION



TEST

THE BEST WITH SCANIA

It is a matter of fact that Euro VI engines decrease consumption. The only evidence we collected thus far come from test drives with Mercedes and Setra vehicles only, given that other manufacturers have been postponing the availability of their vehicles for independent tests. However, the ice was finally broken when Irizar Italia made its i6 12.37 with Scania 450 K EB4x2NI chassis available to BusToCoach. It's a high decker vehicle measuring 12.2 metres in length, with Scania Euro VI engine with 450 horsepower combined with Opticruise Scania 12-speed automated gearbox. Confirmation that fuel consumption decreased compared to Euro V was accurate.

PASSENGERS

Seats n.	53+1+1
Internal Height mm	2,086
Aisle Height mm	1,500
Aisle Width mm	385
Entrances Width mm	590
Raks Volume m ³	1.25

Comfort

Seats type	Irizar
A.C.	Hispacold
Heater	convectors
Roof Hatches	manual
Glazing	double
Audio/Video	Actia
Toilette	yes

Simple elegance

The vehicle fits 53 Irizar reclining passenger seats with leather inserts on the sides and for the headrests, with fold-down armrests, rear handlebar, footrest and two-point seat belt. The open overhead luggage rack is elegant, with an external handrail that incorporates two-intensity LED white lighting. On top of the luggage rack there is the slit for air conditioning distribution that is delivered from the closable vents in the service set of the personal equipment (spaced out with the speakers), which also includes LED lights with touch-screen power buttons.

Heating is delivered by floor convectors powered by the Spheros Thermo 300 housed behind the compartment door at the rear right hand side. Same location for the new in coiled steel cable

system for the suspension of the AC compressor. There are two flat screen monitors, one of which is fitted into the front body (with a digital clock) above the driver's seat while the second is located on the ri-

ght overhead compartment, above the staircase that leads to the toilet at the centre of the vehicle. The driver makes use of an air suspension Isri seat with leather upholstery, side window with partial defroster and electric

blind, electric split sunshade and manual curtain on the front door. The driving instruments embedded in the Scania dashboard provide excellent readability. To the right there are the buttons to control the frame. ●



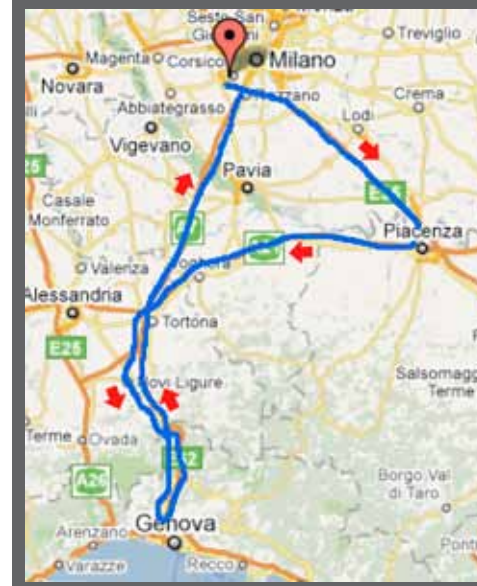
DRIVER

Platform Height mm	980
Cockpit Width mm	900
Cockpit Depth mm	1,500
Cockpit Height mm	2,300
Adjustment Seat mm	250

Equipments

Seat type	Isri 6860
Window	electric
Sunshade	double, electric
Blinds (left)	manual
Fridge	yes

THE TEST ROUTE



The Irizar i6 covered 342 kilometres from Milan to Genoa and back, consuming on average one litre of diesel fuel every 4.51 km (including the equivalent AdBlue amount) and traveling at an average speed of 81.5 km/h.

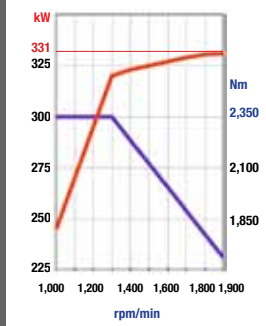
Nobody disputes that Scania engines have always been characterised by low consumption. On touring coaches they have always exceeded the all-important 4 km/litre benchmark, thus ranking among top competitors headed by Setra.

This time around the comparison with the manufacturer from Ulm is yet again due. That is because, on the one hand, the S 515 HD is the only two-axle Euro VI vehicle tested by BusToCoach so far, but also because there are only 300 metres difference to match the distance covered with one litre of diesel fuel (on average 4.82 km/litre for the Setra).

However, it is necessary to point out a few differences between the vehicles. The Setra for the test drive was as HD (3,770 mm maximum height) and had a ballast of 17,700 kilograms.



ENGINE



SCANIA DC13 124 450

Displacement cc 12,740
 Bore/Stroke mm 130/160
 Geometry vertical 6 in line
 Position back
 Power 450 cv(331 kW)/1,900 rpm
 Torque Nm 2,350/1,000-1,350 rpm
 Injection Common rail with XPI
 Compression Ratio 18:1
 Oil Tank litres 43
 Pollution Class Euro VI
 Gas Treatment Egr+Scr+Filter
 Life test vehicle km 2,566

TYRES

Michelin Coach 295/80 R 22.5 154/149M

SUSPENSIONS

Full pneumatic with level's electronic control. First axle with independent wheels.

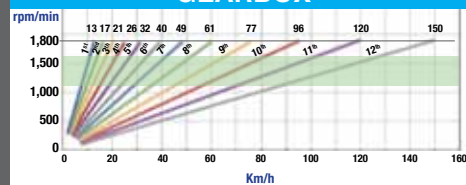
BRAKES

Full disc brakes. Electronically controlled EBS5 pneumatic system with ABS, ASR and Scania R3500 hydraulic retarder.

SAFETY

Optional: ESP, Adaptive Cruise control (ACC), Emergency braking system (AEBS), Lane Assistant (LDWS), Tyre Pressure Monitoring System (TPM).

GEARBOX



TRANSMISSION

The tested vehicle has the automated Scania Opticruise GRS0895R with twelve speeds, with Scania hydraulic retarder.

Transmission Ratio 3.07
 Acceleration 0-100 km/h sec. 37.4

10 hp more

With the transition to Euro VI, the 12.7-litre Scania engine is now called DC13 124 and improves performance by increasing to 450 horsepower (321 kW) and 2,350 Nm of maximum torque. The injection system is the same, with four valves per cylinder, common-rail with XPI of 2,400-bar and variable geometry turbine.

The reduction of polluting emissions is achieved through a combination of exhaust gas recirculation (EGR), diesel particulate filter (DPF) and catalyst (SCR) with AdBlue injection. This is also the obligatory solution for Scania buses, which up to Euro V were able to do without SCR.

The same engine is also available in the 410 horsepower version (302 kW), which meets Euro VI simply with the SCR catalyst, without the need for EGR. Just like it is expected of



the new 13-litre 450 hp engine introduced this year at the IAA in Hannover, initially intended for use on trucks.

In any case, the gearbox is the 12-speed automated Scania Opticruise, with selectable dri-

ving modes economy, standard and power (to maximise engine performance). It was recently optimised both in terms of components and software, in addition to the integrated hydraulic retarder it can be combined with

the assistance function for uphill starts and ACC (Adaptive Cruise Control).

The axles are also by Scania. The ADA 1300 on the rear and the independent wheels AMI 700 on the front.

Instead, the Irizar i6 was a HDH (3,934 mm in height) with a ballast of 18,360 kilograms. Therefore, more height and weight played a role, albeit minor, to the disadvantage of fuel consumption for the Irizar/Scania vehicle.

At the same time, however, the superior height is what allows the Irizar i6 to provide 10 cubic metres of storage space underneath the floor, functional for long distance touring services (while the Setra S 515 HD offers only 8.1)

Also, under the hood, there is a good supply of horsepower thanks to the 13-litre 450 hp Scania engine (the Euro V version had 440), as well as driving comfort provided by the latest version of the Opticruise automated gearbox with further improved performance and shifting smoothness.

For the rest, the i6 does not lack at all in passenger comfort, combined with practical features while leaving the task of providing the top touring service features to the Irizar PB models.

The transition to Euro VI thus confirms the qualities of the Irizar i6. Indeed, it goes even further in terms of operating costs.



COACH: 2-AXLES COMPARED

Model	km/h	km/litre	Index
Irizar i6 HDH 12.37 E6	81.5	4.51	9.19
Setra S 515 HD E6	81.2	4.82	9.78
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/luglio_2013_setra_en.pdf			
Temsa Safari HD 13 E5	75.3	3.82	7.19
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/aprile_2012_temsa_en.pdf			
Setra S 416 GT-HD/2 E5	76.9	4.57	8.79
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/06.03.2012_setra_en.pdf			
Mercedes Tourismo RHD	78.1	4.05	7.91
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/15.01.2012_mercedes_en.pdf			
Irishbus Magelys Pro 12.8	78.4	4.01	7.86
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/15.01.2012_irishbusprova_en.pdf			
VDL Futura FHD2 129/410	76.9	4.09	7.86
http://www.bustocoach.com/sites/default/files/wfm_upload/newsletter_pdf/10.11.2011_vdl_en.pdf			

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