



MAN Lion's Intercity

The premiere

- **Vehicle specially made for the intercity bus segment**
- **Redesigned based on the tried and tested MAN modular concept**
- **High flexibility of use (school buses and intercity traffic)**
- **Top MAN quality from the Ankara plant**
- **One of the safest in its class**
- **More powerful but also more economical D08 engine**
- **Optimum design of passenger area and driver's seat**

MAN Lion's Intercity is aimed at customers in the large European standard intercity bus segment. The vehicle is well-appointed for intercity travel and shuttle transport as well as use as a robust school bus. This distinguishes the high-floor bus, which is available in 12 and 13 m length versions, from the Lion's Regio. A highly efficient 290 hp D08 common rail engine powers the two-axle bus. Depending on which seating option is selected, the Lion's Intercity has a maximum of 55 seats (59 for Lion's Intercity C) and a maximum of two wheelchair spaces and one wheelchair lift. The new Lion's Intercity combines first-class comfort with high functionality, and outstanding safety with MAN's top quality. The vehicle not only sets standards with its striking, aerodynamically optimised design and excellent driving characteristics, but also especially with its efficient fuel consumption and the low life-cycle costs.

Redesigned based on the tried and tested MAN modular concept

MAN Lion's Intercity has been redeveloped from scratch based on the tried and tested MAN modular concept in order to meet customer needs in the standard intercity segment. Overall operating costs were the focus here. As a result, great emphasis was placed on weight-saving design, ease of service and repair as well as low fuel consumption from the MAN D08 common rail engine with 290 hp.

The MAN Group is one of Europe's leading industrial players in transport-related engineering, with revenue of approximately €14.3 billion in 2014. As a supplier of trucks, buses, diesel engines, turbomachinery, and special gear units, MAN employs approximately 55,900 people worldwide. Its business areas hold leading positions in their respective markets.

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MAN Lion's Intercity: optimum equipment

The MAN Lion's Intercity has been optimised in all aspects for use as an intercity bus and a school bus and has a practical design which makes it clearly recognisable as a member of the MAN bus family.

The driver's workspace, which was developed for public transport use for the Lion's Intercity, is outstandingly easy to operate and generously dimensioned. The extensive range of customisations for each type of use comprises:

- Particularly large number of storage and stowage compartments
- Ergonomic driver's seat with various adjustment options and heating
- Multi Media Coach (MMC) with navigation
- Multi-function steering wheel
- 12- and 24-V socket
- Heated exterior mirrors
- Electrically operated driver's sunblind
- Radio remote control for door 1
- Refrigerator at front with 41 litre capacity
- Space and connections for pay window/ticket printer
- Additional folders at driver's seat
- Courier's seat
- Fog lights
- Heated exterior mirror
- Rear-view camera
- Observation camera for door 2

Daytime driving lights are provided as standard

The passenger area can be optimally fitted out for the specific use intended with air-conditioning system and curtains. The windows have double glazing as an option. There are separate controls for the heating and air conditioning in the driver workspace and the passenger area. The vehicle comes with vent windows as standard, a high-performance rooftop air-conditioning unit is available as an option. The vehicle has a fan heating system as standard, convection heating is available as an option.

The vehicle provides space for 55 people sitting and 29 standing (Lion's Intercity), and 59 sitting and 25 standing (Lion's Intercity C). The seats mounted on the platforms are Intercity Lite models (supplied from Kiel). The Lion's Intercity has a maximum of 15/14 (left/right) seats, the Lion's Intercity C a maximum of 16/15.



The flexible modular system allows customers to configure optimum vehicles according to the relevant deployment characteristics, e.g. fully seated or with removable platform to provide space for up to two wheelchairs or standing passengers. The removable platform also allows a pram to be carried.

The bus is easy to access through two pneumatic, outward-opening single-glazed doors; door 2 can optionally be single or double. The doors are activated by sensor or optionally by radio remote control. Three steps make exiting and entering easy and safe, especially designed for using the vehicle as a school bus. A lifting platform at door 2 also allows wheelchair access to the vehicle. The passenger area is bright and generously proportioned. The aisle floor rises slightly at the back with steps in front of the last rows of seats.

The optional luggage compartments are available in two versions: with a solid bottom (as with the coach) or a perforated bottom for greater transparency so you are less likely to leave your luggage behind. The luggage area including luggage compartments is 5.2 m³ (Lion's Intercity) or 6.4 m³ (Lion's Intercity C) with lids opened by swinging handles making it easily accessible. The bus has three luggage compartment lids on the left and two on the right.

Optimally suited for the tough working day

The quality of materials, manufacturing and processing on the Lion's Intercity of course conforms to MAN's high quality requirements: high-value, long-life plastics with pleasant haptics; surfaces that are tough but easy to maintain and UV resistant (to stop them becoming brittle or fading); solid welds; close-fitting with small, uniform clearances; solid welds and connections to withstand high and frequent loads; optimum corrosion protection by Cathode Dip Painting (CDP). The production site for the Lion's Intercity, the MAN plant in Ankara, MAN's largest European bus plant, hosts the most advanced CDP unit in all of MAN's European plants.

One of the safest in its class

Efficiency, flexibility and above all safety - these are the characteristics that make the new Lion's Intercity stand out. For use as a school bus, with children on board, a high level of safety is the highest priority.



- Compared against its direct competitors, the Lion's Intercity is the only model in this segment to already satisfy standard ECE R66.02, which will enter into force in 2017 and which governs structural robustness in buses and roll-over testing. The newly designed, high-strength steel vehicle skeleton incorporates multiple ring spars. They provide the requisite stability for the body and are key to ensuring that crash energy can be effectively absorbed in the event that the vehicle should roll.
- Safe to operate due to the ergonomic cockpit, where even less experienced drivers will quickly find themselves at home.
- 2-point seatbelts for all seats as standard
- Grab stanchions and handles on seats as standard
- Fire insulation between engine and passenger compartments effectively inhibits the spread of a fire from its source in the engine compartment.
- Fire alarm system as standard (in engine and luggage compartments)
- The fire extinguishing system in the engine compartment actively combats fires as they occur.
- Roof hatches as emergency exits as standard; screen-printed glass to attenuate solar radiation. They can optionally be operated manually or electrically.

The scope of the safety equipment on the Lion's Intercity is noticeably wider than that of its competitors: MAN's Emergency Brake Assist (EBA) (optional); Electronic Braking System (EBS) (standard) with Anti-lock Braking System (ABS), Traction Control System (ASR) and Brake Assist (BA). Electronic Stability Programme (ESP) (standard) consisting of Dynamic Stability Programme (DSP) and Roll-over Protection (ROP). Emergency brake signal/emergency brake indicators and the Tyre Pressure Monitoring system (TPM) and reverse warning signal when reverse gear is engaged are available as options.



MAN Lion's Intercity: The savings star

We have taken action across the board to ensure that the vehicle is as lightweight as possible. Additional weight has been added to the vehicle to make the skeleton compliant with the ECE R66.02 requirements. However, by using more lightweight components, the Lion's Intercity is not the heaviest in its class.

Simply using the lightweight D08 series 6-cylinder engine makes a substantial contribution to the impressive payload. And the new and particularly efficient air-conditioning reduces the weight by 65 kg. By using six aluminium wheels instead of steel wheels (twin tyres on the rear axle), just under 100 kg has been cut from the overall weight. In addition, better thermal conductivity has also helped to increase the service life of the brakes and suspension.

The Lion's Intercity uses a number of highly effective fuel-saving measures: The automatic Idle Shutdown engine switch-off function minimises exhaust gas and CO₂ emissions as well as noise emissions when the vehicle is stationary for long periods. The two-stage compressor, which does not supply air constantly at full operating capacity operates efficiently and frugally. It automatically switches to idling mode if not required. The vehicle's sophisticated aerodynamic design, with an arched, slightly inclined panoramic windscreen, provides less purchase for cross-winds. Air flows are optimally diverted from the rear trailing edge. This reduces the wind resistance factor to CW 0.4 which has a beneficial effect on consumption.

At lower speeds in urban traffic, air resistance plays only a small role. However, at higher speeds of up to 100 km/h in intercity traffic, it has a significant impact on increasing fuel consumption. MAN combats this with aerodynamics refined in many wind tunnel tests and simulations.

One target during the development of the Lion's Intercity was to avoid high repair and workshop costs and to reduce vehicle down times. All maintenance points on the bus are therefore easily accessible, making servicing and repair work easier. Daily checks and where required topping up of engine oil and coolant can be carried out in just a few operations. The servicing points can be located easily. The compact construction of the D08 engine, generously proportioned side flaps and angled floor panel provide improved access to the engine compartment. The three-piece front panel and the three-piece rear bumper mean that, in the event of an accident, it may only be necessary to repair or replace the damaged section rather than the entire front section. This saves time and costs. The large, wide-



opening middle section of the front panel makes it easy to remove the spare wheel; the front lights are also easily accessible. This means that the lights can be changed quickly.

Chassis / gearbox / service fluids

Service fluids

- Tank capacity: 300 litres of diesel / 35 litres of AdBlue
- The diesel tank is located at the front right in front of the front axle, the AdBlue tank at the rear right behind the second axle.
- Screenwash: Capacity: 12 litres
- Coolant: Capacity: 50 litres
- Oil and coolant status are displayed electronically on the dashboard.

Gearbox

- Gearbox: ZF 6S 1901 with Intarder (6-gear manual, standard), ZF EcoLife with the Topodyn topography-sensitive shift strategy and retarder (6-gear automatic, optional), Voith DIWA with Sensotop topography-sensitive shift strategy and retarder (4-gear automatic, optional)
- 4-gear gearbox is recommended in city traffic, the 6-gear gearbox for intercity traffic at higher speeds.

Chassis

- Front axle (type): Independent wheel suspension; VOS-08-B-01
- Rear axle (type): Hypoid axle; HY-1350-B-03 (narrow spring track)
- Axle drive ratios: $i=4.56$ (manual gearbox), $i=5.67$ (automatic gearbox)
- Air suspension allows automatic levelling (kneeling) (optional).



Service package to the highest MAN standards

MAN Solutions provides the following comprehensive package: Finance, leasing and insurance to meet customer requirements; service contracts, Mobile24, MAN original parts, Bus TopService. MAN Telematics, MAN Communication, MAN ProfiDrive® and NEOPLAN Academy, as well as MAN Fleet Management provide seamless, efficient operation of the vehicle. MAN TopUsed and MAN Rental offer top quality used and lease vehicles.

Technical data at a glance

Technical data	Lion's Intercity	Lion's Intercity C
Length (mm)	12,280	13,050
Width (mm):	2,550	2,550
Height including air-conditioning system (mm):	3,400	3,400
Height without air-conditioning system (mm):	3,175	3,175
Wheelbase (mm):	6,000	6,774
Number of axles:	2	2
Luggage volume (m³):	5.2	6.4
Max. seats:	55	59
Engine:	MAN D0836 LOH, 6-cyl. in-line engine (Euro 6 and 5)	MAN D0836 LOH, 6-cyl. in-line engine (Euro 6 and 5)
Type:	stationary	stationary
Power (kW/hp):	213/290 at 2,300 min ⁻¹	213/290 at 2,300 min ⁻¹
Max. torque (Nm):	1.100 at 1,200-1,750 min ⁻¹	1100 at 1,200-1,750 min ⁻¹
Capacity (l):	6.9	6.9
Gearbox:	6-speed manually operated gearbox 4-speed automatic gearbox 6-speed automatic gearbox	6-speed manually operated gearbox 4-speed automatic gearbox 6-speed automatic gearbox
Total permitted weight (kg):	19,500	19,500