



# Leyland Leopard





# Leopard...





# Technical Data

## Quality features make Leopard the premium touring coach

Leopard is a purpose-built passenger service vehicle with particular care taken in the design and specification to put the chassis in the forefront of the premium league. Consider the following features:

## Dependable power smoothly delivered

The 680 in-line diesel engine is Leyland's well established 11 litre unit moderately rated at 125.5 or 130.7 kW (168 or 175 bhp) according to bus or coach operation; it is a long life unit running considerably understressed at these ratings. The ratings also correspond to exceptionally economical running: 'Commercial Motor' road testers commented "... a very creditable 11 mpg ..." on predominantly motorway running "... a cruising speed of 70 mph was easily achieved ..." (CM 1.4.77). This consumption was recorded on a fully laden vehicle with the equivalent of a full complement of passengers. It is four stroke direct injection unit with spheroidal cavity combustion chambers in the piston crowns. A nitrided crankshaft ensures long life; regrinds are not normally necessary before 250,000 miles. Philosophy behind the design and build of the complete engine is to

achieve extended intervals between major overhauls.

Cylinders and crankcase are cast integrally as a monobloc iron unit while the cylinder head is in two separate identical halves each covering three cylinders. Polished alloy-steel connecting rods have aluminium-tin big-end bearings running on a torsionally balanced seven bearing crankshaft. And specially developed engine mountings reduce vibration to a minimum.

Gross torque developed is 644 Nm (475 lbf ft) at 1300 rev/min giving a wide usable power band with

comfortable reserves of accelerative performance and gradient ability. Above all the power output of the Leyland 680 engine gives the right characteristics for high performance over long distances. A basically straightforward engine design, it doesn't require a specialist to service it.

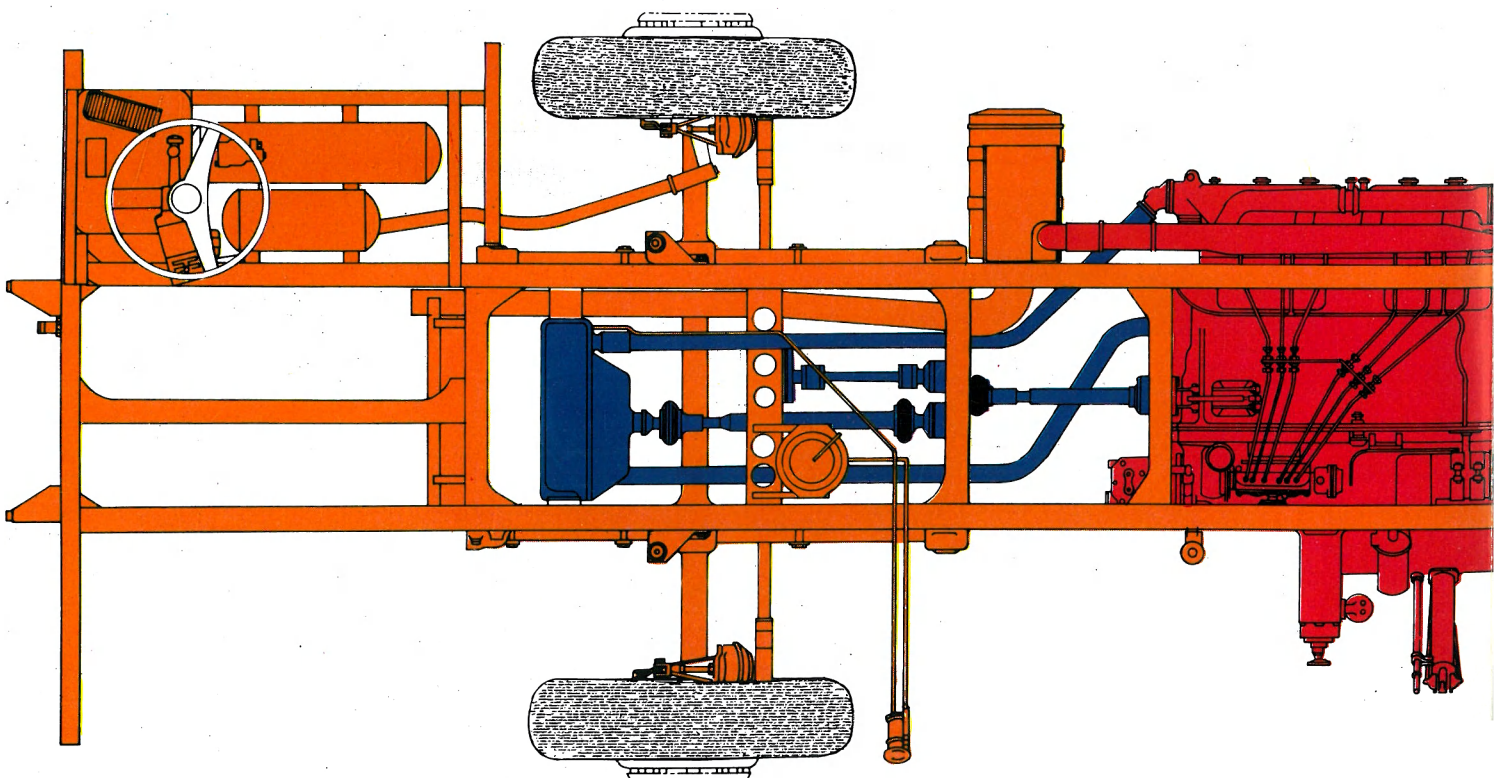
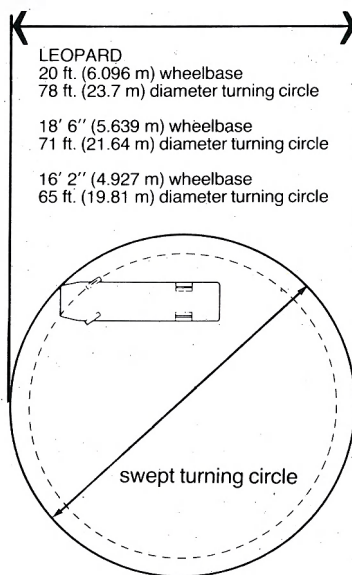
## Transmission

Gearbox on Leopard is the highly successful Leyland Pneumocyclic unit with clutchless semi-automatic control and five speed close ratio gearing as standard.

Gear change is electro-pneumatic with the switch mounted on the steering column or on a pedestal to the driver's left. Alternatively, direct air operation is available. Other alternatives include 5-speed wide ratio box and G2 auto-control

## Auto-transmission option

The fully-automatic option allows particularly smooth gearshifting; engine and gearbox speeds are synchronised during gearchanging by a throttle dip valve for upchanges and by allowing a pause in neutral during downchanges. Automatic power reduction at the point of shift ensures exceptional smoothness. There is a two pattern gear shift programme for either performance or economy running, selectable from a performance level switch beneath the accelerator pedal.





## Cooling

The cooling system also bristles with premium features including the Leyland no-loss venting system.

The radiator is a detachable tube design with copper feed pipes and an integral cast aluminium cowl.

The fan is shaft-driven from a transfer gearbox at higher than engine speed and there are options available of thermostatic drive coupling and a coolant level indicator. In the clean air zone forward of the radiator an extended air intake feeds air through to a large cyclonic filter.

## Braking

It's a dual line system, of course, with a dual reservoir for front and rear brakes; this and the auxiliary reservoir are mounted safely under the driver's floor and feed the diaphragm actuators via stainless steel air lines. The foot valve is also safely positioned behind the front crossmember. There is a gear driven and water-cooled air compressor with oil pressure fed bearings and air intake silencer/filter; an ethyl alcohol brake line antifreeze device is featured and a wet tank condenser unit keeps the system water free. Fail safe spring parking brakes are an important safety feature as are automatic slack adjusters on the main service brakes. And the foundation brake system is commonised with that of the Leyland National single deck bus and the Atlantean double decker, a considerable service advantage in mixed fleets.

## Premium features

Hinged filler cap for fuel, winch-type spare wheel carrier, steel channel wiring-harness protection, front-end suspension dampers, propellor shaft grease shields, fuel sedimentation valve, solenoid operated engine stop, twin wind-tone horns ... the list goes on ...

In total it adds up to a premium quality specification that puts Leopard firmly ahead of the competition.

## Chassis frame

Leopard has a parallel sided flat top chassis frame which presents an unobstructed level surface to the

bodybuilder. Over the length of the engine/transmission bay and extending out to the full wheelbase the Leopard chassis is flitched by a deep channel. On the two longer wheelbase versions of the chassis ample space is provided for building luggage compartments into the body sides and at the back end of the chassis space is available for a capacious rear-compartment. Various locations are possible for mounting the fuel tank below the top surface of the frame.

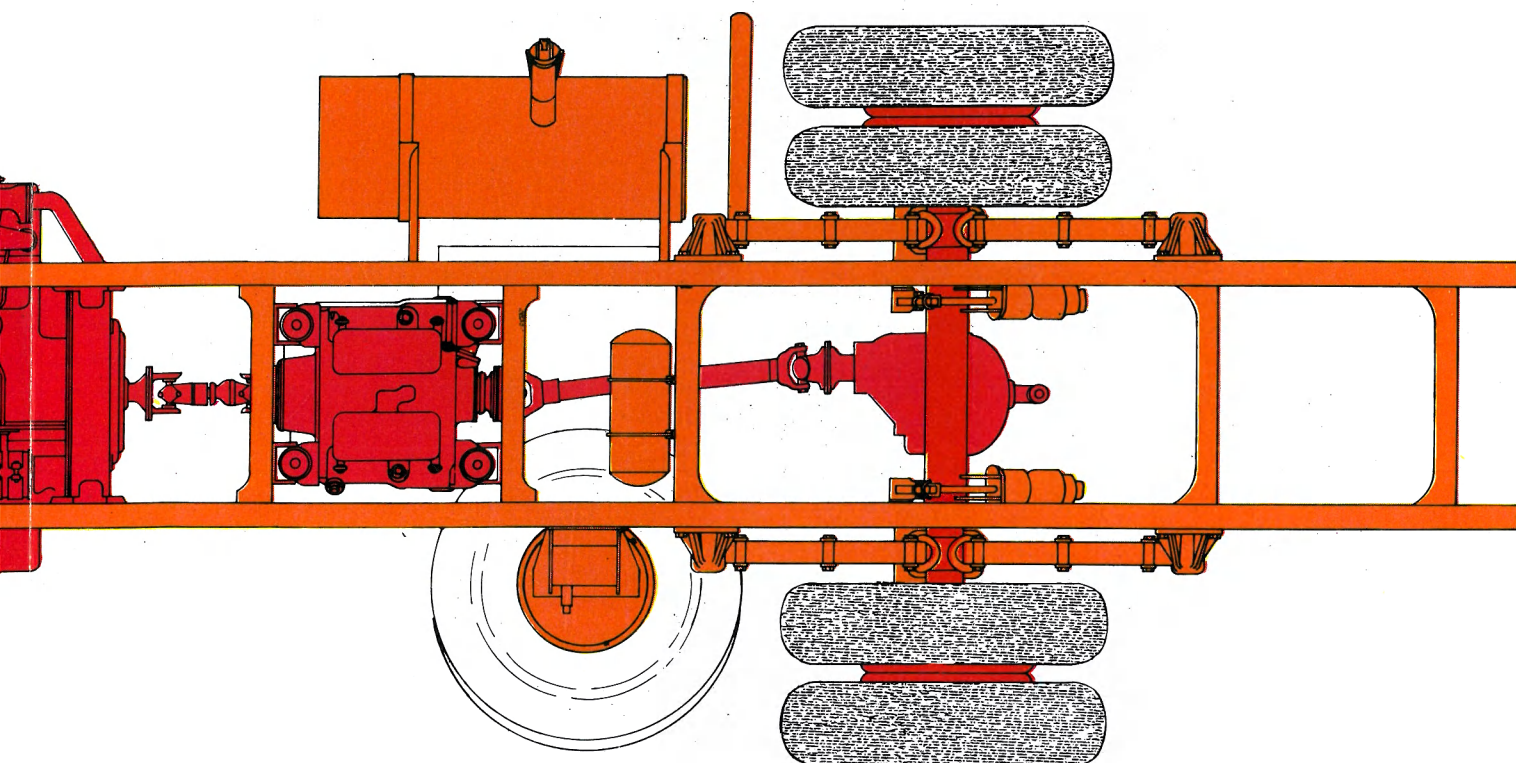
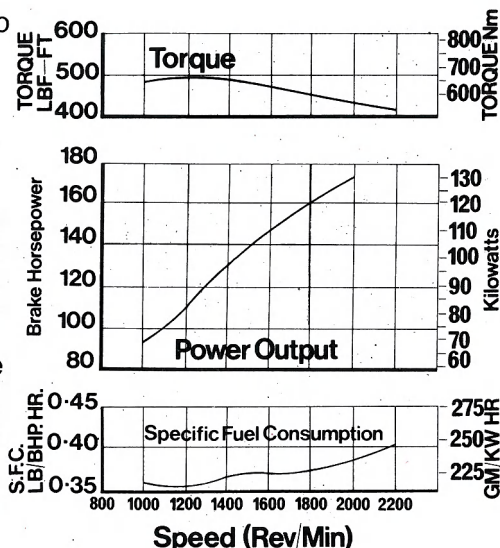
## Auxiliary drives

Quality build of the Leopard is also indicative in the alternator and large radiator fan being driven by shafts extending from a step-up gearbox, which in turn is driven by a cushioned propellor shaft connected to the front of the engine crankshaft. The water pump is driven by helical gearing, while long-life positive drives are used for other auxiliaries.

## Steering/Suspension

The power assisted steering is another valuable item available for drivers; swept turning circle varies from 21.64 to 23.7 m (71-78 ft) according to wheelbase. And operators will appreciate the wide choice of rear axle ratios, four on coach models and five on the PSU5C.2R bus. This allows close matching of the vehicle to route requirements.

Suspension on Leopard is on long semi-elliptic leaf springs well proven to provide exceptionally smooth ride with good roadholding.





# the multi-purpose high performer

Leopard is the premium coach with a built-in flexibility that allows it to operate in a variety of roles such as high speed express coach, touring coach or stage-carriage public service vehicle. With its high powered and unstressed engine and semi-automatic gearbox it is highly regarded by coach operators and as exemplified by any dealer's stock list it is the coach which really holds its value as a used vehicle. Three coach chassis variants are available to suit 10, 11 and 12 metre bodies. They are well established designs which have been continuously developed to outstanding levels of reliability. A well-planned underfloor engine configuration ensures balanced handling and gives that simplicity of layout which ensures ease of maintenance. Noise and vibration are also kept below and well away from the passenger area and this together with a smooth ride ensures a pleasant and relaxed passenger environment. Smooth and flexible power flows from a five-speed semi-automatic fluid-coupling gearbox, with an

optional ratio spread for meeting the widest choice of operating conditions. This gearbox has been proved not just on normal coach operations but also in arduous coach and bus service. It is an ideal unit for a coach because the light instant finger tip control lets the driver give the maximum concentration to the road ahead. Choice of suspension on the long wheelbase version allows vehicle gross weights up to 16 ton so that the chassis may be specified to match loading conditions up to the legal maximum. And a high torque engine and powerful braking, including fail-safe spring parking units, ensure generous reserves of performance. Leopard's established position in home markets is complemented, too, in overseas markets. In Australia and New Zealand, around the Caribbean, in Scandinavia and

the Low Countries, in Eire and Portugal, Leopards are seen in considerable numbers. Demanding operating terrains and climatic conditions in some of these territories give Leopard the history of dependability for which the marque is famous.





# Leyland Parts & Service



The well established Leopard model has outstandingly good spare parts availability and comprehensive service back-up is available. Leyland bus service engineers are always readily available to help out on any problems.



**Leyland  
Truck & Bus**

British Leyland UK Limited,  
Leyland Truck and Bus,  
Leyland, Preston PR5 1SN, England.  
Telephone: (Leyland) 07744 21400.  
Telex: 67655.

British Leyland UK Limited (the Company) reserves the right to change the material, specification, dimensions or design of the vehicles shown, described or referred to herein at any time and without prior notice. Every reasonable effort is made to ensure that the Company's publications are up to date but nothing shown, described or referred to herein should be regarded as an infallible guide to the materials, specifications, dimensions, design, price or availability of any particular vehicle, nor does this publication constitute an offer for the sale of any particular vehicle. Please note that Leyland Distributors and Dealers are not agents of the Company and have no right or authority whatsoever to bind the Company in any way or to assume on its behalf any obligation express or implied.