

Leyland ATLANTEAN

78-SEATER Double-Deck Bus with REAR-ENGINED 0/600 Diesel

WIDE FRONT ENTRANCE WITH POWER DOORS OPERATED BY DRIVER



NO-STEP LOW FLOOR



SEMI-INTEGRAL CONSTRUCTION



FULLY-AUTOMATIC OR SEMI-AUTOMATIC GEAR CHANGE AND 2 PEDAL CONTROL



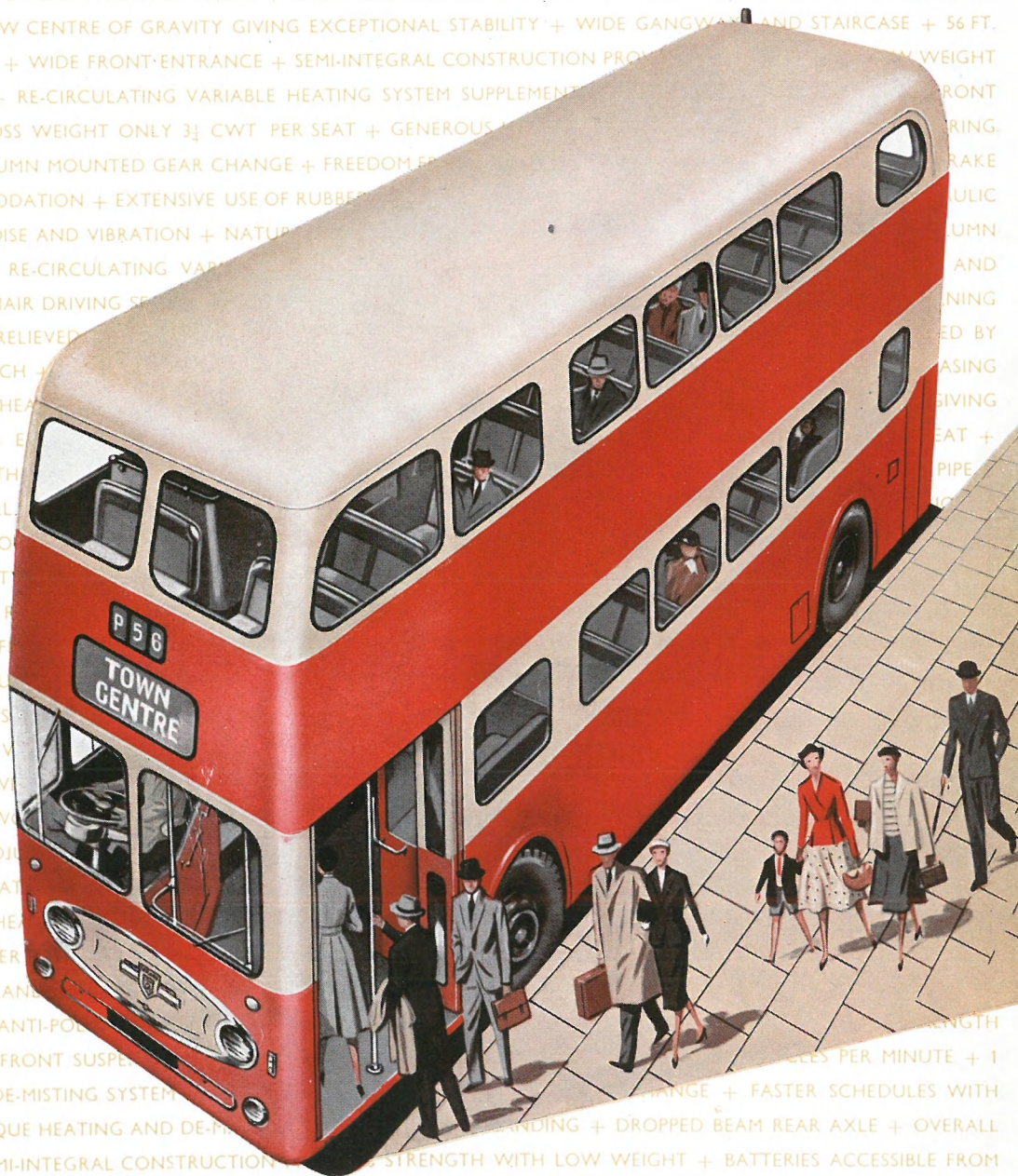
EASY-RIDE INDEPENDENT FRONT SUSPENSION



UNSURPASSED DRIVING COMFORT



OVERALL HEIGHT ONLY 13 ft. 2 1/4 in.



Takes "Rush-Loads" in its stride



78-SEATER Rear-Engined

ATLANTEAN

A LOGICAL DEVELOPMENT TO MEET —

- ☆ MODERN TRAFFIC CONDITIONS
- ☆ INFLATIONARY STANDING CHARGES
- ☆ INCREASING PROBLEM OF ALTERNATING PEAK AND VALLEY LOADS OF SHORT DURATION

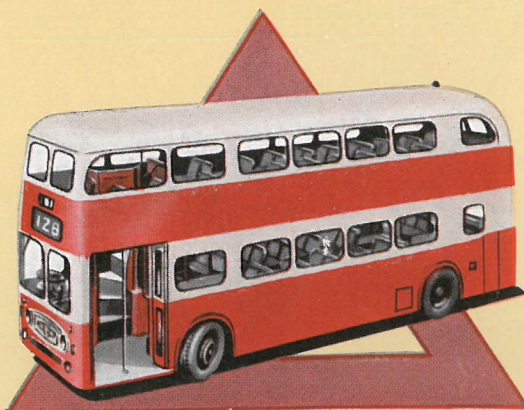
The Atlantean calls for a readjustment of ideas in public transportation . . . introduces a bold new conception in vehicle design for the mass movement of people . . . invites an easier approach to traffic schedules, reducing the need for fleet reinforcement at peak hours. For this new modern 30 ft. vehicle will carry 78 seated passengers with equal speed and economy in fuel and with far better manoeuvrability than a normal 27 ft. long double-deck bus.

It offers comfort in entering . . . in seating . . . in riding, on top or bottom deck . . . comfort not only for passengers, but for driver and conductor as well. Its new layout and design, with wide front entrance and power doors under direct vision of the driver, entirely dispels any doubt of 100 per cent fare collection even on a bus of this size. Freed from platform duties, the conductor can concentrate on fare payments alone. . . . Factors that ease his job are the 7-step staircase, wide landings and central gangways, and the unsurpassed smooth riding of the bus.

Evolved and styled as a complete semi-integral unit by Leyland engineers, the Atlantean combines strength and rigidity with a low unladen weight of only some 7 $\frac{3}{4}$ tons—equivalent to approximately 3 $\frac{1}{4}$ cwt. gross weight per seat. Powered by the famous 125 h.p. 0/600 Leyland diesel, acknowledged in the old and New World for its low fuel consumption and longevity, the bus has an extremely favourable power/weight ratio that contributes in a large measure to its low running costs, quick acceleration, and fast schedule capabilities.

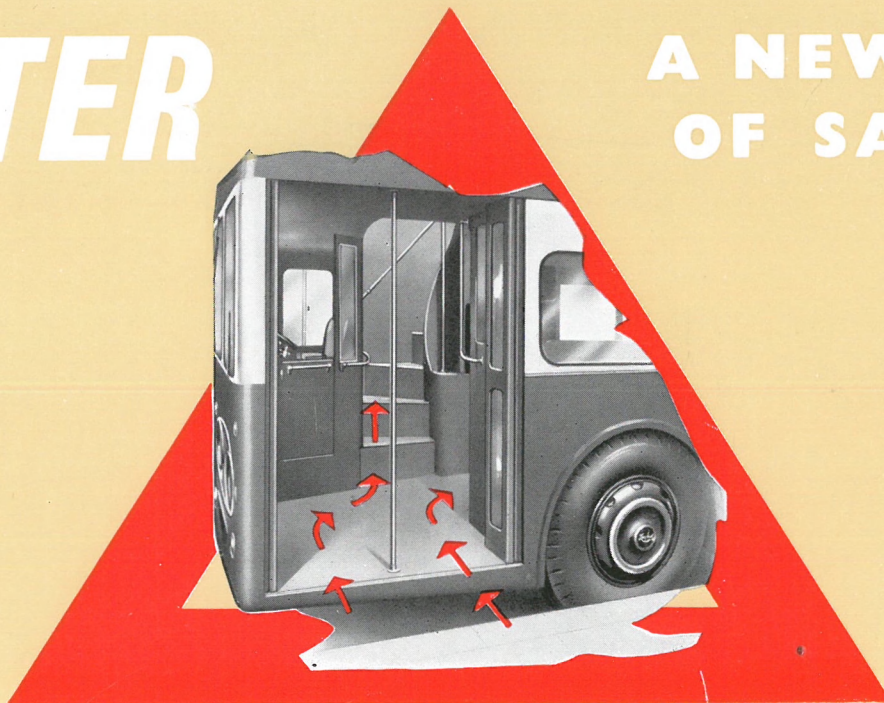
The development of the Atlantean is based on sound operating experience . . . its units have been tested extensively over two years and have covered thousands of miles with complete reliability in the actual service of a number of transport concerns.

With its low overall height, only 13 ft. 2 $\frac{3}{4}$ in. laden . . . exceptional stability resulting from a low centre of gravity and new springing . . . high manoeuvrability . . . and with the usual Leyland dependability . . . the Atlantean is without doubt a logical and practical answer to the traffic problems of city and inter-urban transport under present-day congested road conditions.



ENTER

A NEW ERA OF SAFETY



with the ENCLOSED FRONT ENTRANCE

ELIMINATES PLATFORM ACCIDENTS

Statistics show that the use of doors are the greatest single factor in preventing platform accidents on double-deck buses. Power doors on the Atlantean are under the sole control of the driver—passengers cannot board or leave the bus when it is moving.

ENTRANCE UNDER DRIVER'S DIRECT VISION

Comfortably seated alongside the entrance platform, the driver has a direct view over a waist-high screen of the doors and the passengers entering or leaving the bus—another safety factor of inestimable value.

SAFER 7-STEP STAIRCASE

Only 7 wide easily-negotiated steps lead to the upper Saloon, where a spacious landing facilitates movement. The staircase has a well-planned layout that promotes safety and security by being enclosed on both sides.

WIDE DOORS—QUICKER LOADING

Jack-knife doors fold back completely on each side, providing a very wide entrance with high headroom and no steps—speeds up loading and unloading.

DUAL-FLOW PASSENGER STREAM

Layout of the platform and positioning of the staircase and lower saloon entrance induces a natural two-stream flow of passengers for the upper and the lower saloons.

CONDUCTOR CONCENTRATES ON FARE COLLECTION

As the driver takes charge of power doors, the conductor is free to concentrate on fare collection—a task facilitated

by the general seating layout and central gangways of the bus. The conductor has a personal locker and can also be provided with a tip-up seat.

NO-STEP LEVEL FLOOR

From the spacious loading platform there is no step to the lower saloon. With the bus laden, gangway height from ground is only 17 $\frac{3}{8}$ in., platform 14 in.—resulting in effortless boarding . . . quicker loading . . . faster schedules.

STANDARDISES TERMINAL LAYOUT

The front-entrance Atlantean standardises terminal layout when used with a mixed fleet of single-decker buses—practically all modern single-deckers have front entrances.

UNSURPASSED DRIVER'S COMFORT

The driver has every comfort . . . no distracting engine noise . . . fully-adjustable seat with hinged arm-rests . . . separate compartment, heated and with de-misted screens . . . semi- or fully-automatic gearchange with 2-pedal control . . . in fact “arm-chair” driving in every sense of the word.

STABLE AND SAFE

Safety when cornering is assured by the low centre of gravity, independent front suspension, and inherent stability of the high-level mounting of the rear springs. The bus can be driven on full lock at speed with perfect safety.

ATLANTEAN

*2-PEDAL CONTROL DOUBLE-DECKER
with the well-known Leyland 0/600 Diesel at the Rear*



THE ECONOMY OF A LIGHTWEIGHT BUS with ability to move Peak Hour Traffic

Advantages from every point of view

REDUCTION IN COST PER PASSENGER MILE

The advanced design of the 78-seater Atlantean and the use of semi-integral construction, results in an appreciable saving in weight. This low vehicle weight of some 7½ tons, plus the high seating capacity and the proved economy of the 0/600 diesel, brings the cost per passenger mile to an extremely attractive low figure. In fact the Atlantean is at least as cheap to run as a normal double-decker and yet has the extra seats available for peak hour periods.

GREATER COMFORT FOR PASSENGERS

The modern lines and comfort of the Atlantean make an immediate appeal to the travelling public. Its low height inspires confidence . . . its low, wide platform, level floor, and broad 7-step staircase and spacious landing allow complete freedom of movement.

In motion the vehicle provides luxury riding . . . undisturbed by engine noise . . . a smooth ride without pitching or rolling . . . superb springing with constant periodicity irrespective of the load . . . the latest in heating and ventilation . . . without doubt a new conception of public transportation. Luggage is accommodated in an 11½ cu. ft. locker at the foot of the stairs—handy for passengers in both saloons.

QUICKER SCHEDULES—GREATER MANOEUVRABILITY

As loading and unloading is quicker through the wide front entrance—a natural two-stream flow divides passengers to both saloons—fast schedules can be maintained. Helpful, too, in congested traffic is the greater

manoeuvrability and stability of the Atlantean, enabling it to thread its way quickly through city traffic—helping to maintain fast speeds and schedules. Although 30 ft. long, the Atlantean has a smaller turning circle than a 27 ft. long normal double-decker.

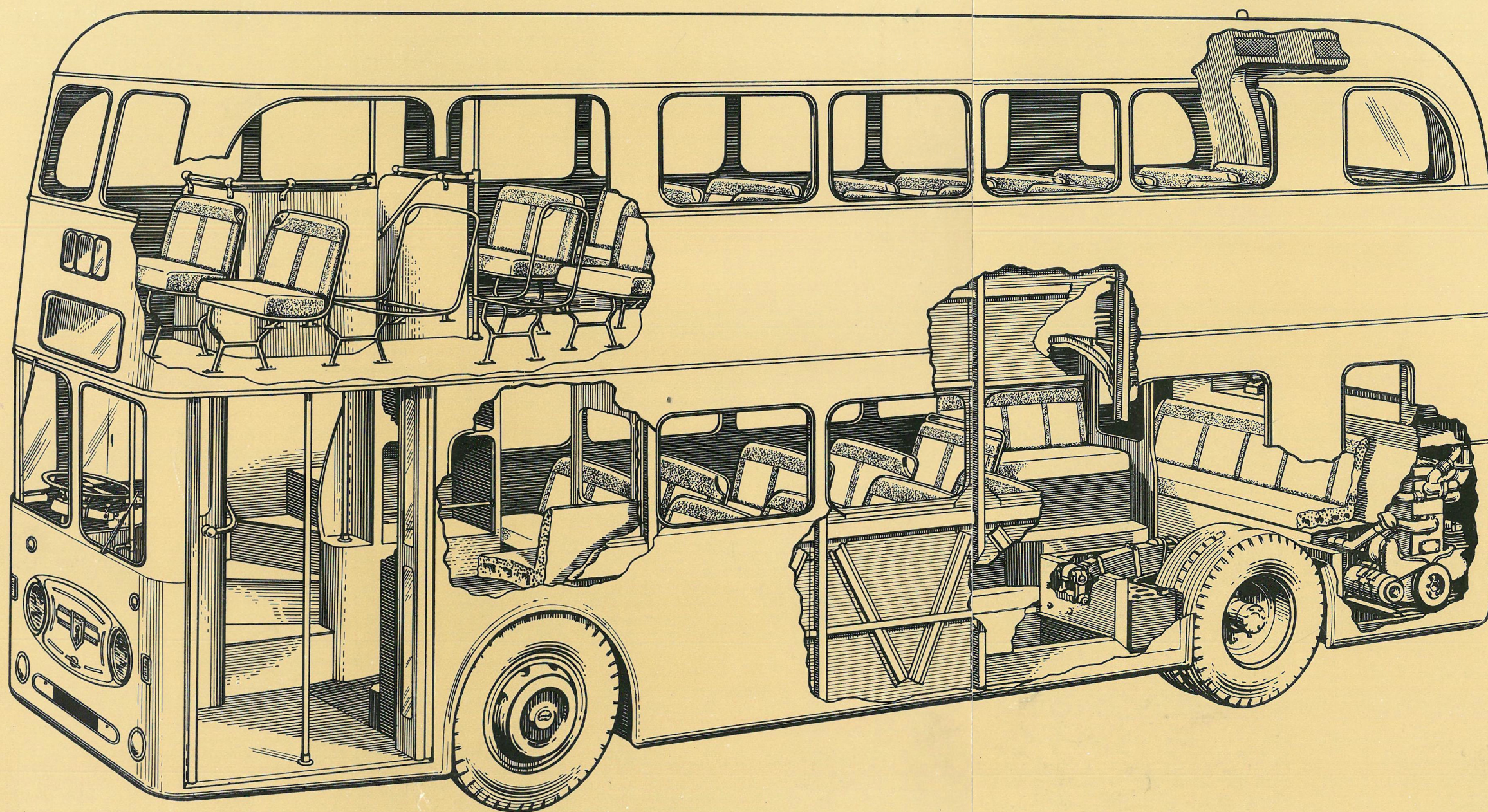
AMENITIES FOR UNIFORMED STAFF

From the viewpoint of the driver and conductor, the Atlantean has much to offer . . . absence of engine noise reduces strain . . . smooth riding makes the day's work less tiring. Driver's amenities include armchair driving . . . wide-angle visibility through de-misted screens . . . 2-pedal control . . . and manual controls and instruments well placed in a most attractive and practical manner. A tip-up seat can be provided for the conductor.

EASIER MAINTENANCE AND SERVICING

Mechanical units throughout have been designed to reduce drastically the man hours needed for maintenance and servicing. The engine is mounted at a good working height, and this unit and its auxiliaries as well as the gearbox and transmission can be fully exposed to view by removing the detachable doors and panels around the engine compartment. If necessary, the whole unit can be easily withdrawn by means of a fork lift truck. Electrical equipment, and the air diaphragm chambers and hydraulic master cylinders for the brakes, are concentrated at the front of the vehicle for easy access. Rubber bushes requiring no attention whatever are used extensively throughout the vehicle. The heating system is trouble-free and has no separate rotating parts.

✓40



The Atlantean is of semi-integral all-metal construction, designed as a complete unit by Leyland. It embodies a light frame sufficiently robust to carry the running units, but requiring the additional rigidity of the body to carry a full load. Body pillars are permanently attached to the chassis. The design allows a free choice of body layout with the advantages of strength and rigidity, low level floor, central gangways, and low overall height, but with normal height within the saloons. There are 34 seats in the lower and 44 in the upper saloon. With the rear-mounted engine, weight distribution is ideal, with the ratio of 1 to 2 resulting in equal tyre loading and light steering.

A lively performance for city and inter-urban services is assured by employing the 125 h.p. 0/600 Leyland diesel. Springing arrangements, providing constant periodicity whatever the load and eliminating rolling and pitching, is undoubtedly far in advance of present day standards. Other running units include independent front suspension with adjustable torsion bar springing; a well-tested dropped beam rear axle with double reduction; powerful air-hydraulic brakes consisting of two independent systems for the front and the rear wheels; and 2-pedal control with a simple electric gear change lever for the Pneumo-Cyclic gearbox mounted on the steering column. Gear selection is effected without any pedal move-

ment, merely by moving a miniature lever. If required, a fully-automatic gear change can be fitted. This is arranged so that gears can still be selected by the driver if he desires.

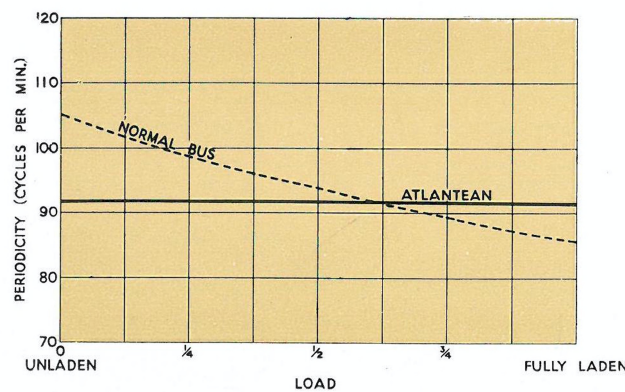
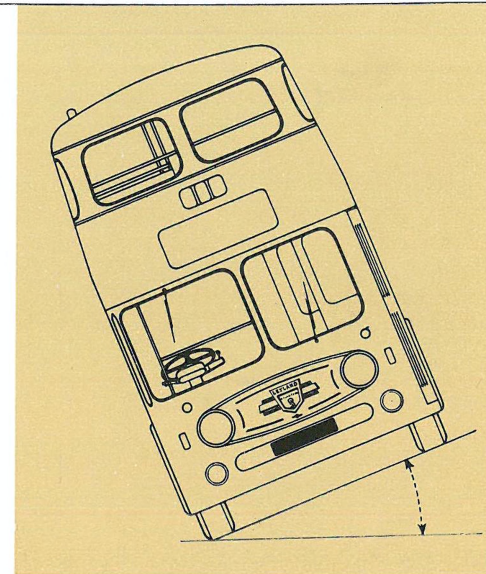
Amongst the big advances in passenger comfort introduced by the Atlantean, is an entirely new and most effective system of heating, ventilating and de-misting which dispenses with the need for opening windows. The system utilises air, heated by the engine radiator, and circulated through the bus by the engine fan. By means of a single lever, the conductor can re-circulate the air in the bus, introduce fresh air, heated or otherwise, or use a combination of these in any degree that is required.

★ *Low Overall Height*
 ★ *Low No-Step Floor* ★ *Low Unladen Weight*

but with a New High Standard of Comfort for
 Passengers and Crew

REMARKABLE STABILITY

Even when fully laden, the bus has a remarkably safe tilting angle. It is rock-steady when cornering at speed due to its low centre of gravity and the high mounting of the rear springs.



SPRINGING IS CONSTANT—WHATEVER THE LOAD

An exceptionally high standard of riding comfort has been achieved by adopting a new design of rear suspension which employs variable rate springs that give a constant frequency irrespective of the load. Medical evidence shows that the periodicity chosen provides the most desirable ride.

Both leaf springs and trailing links are rubber-mounted and provide a "Watts" linkage which gives almost vertical movement of the axle from bump to rebound. As the axle is mounted off-centre on the spring, the fixed rear portions of the spring leaves are always stressed in tension, resulting in no reversal of stresses and therefore longer life.

HANDY LUGGAGE STORAGE

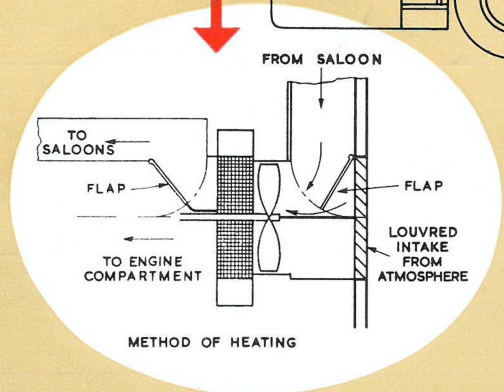
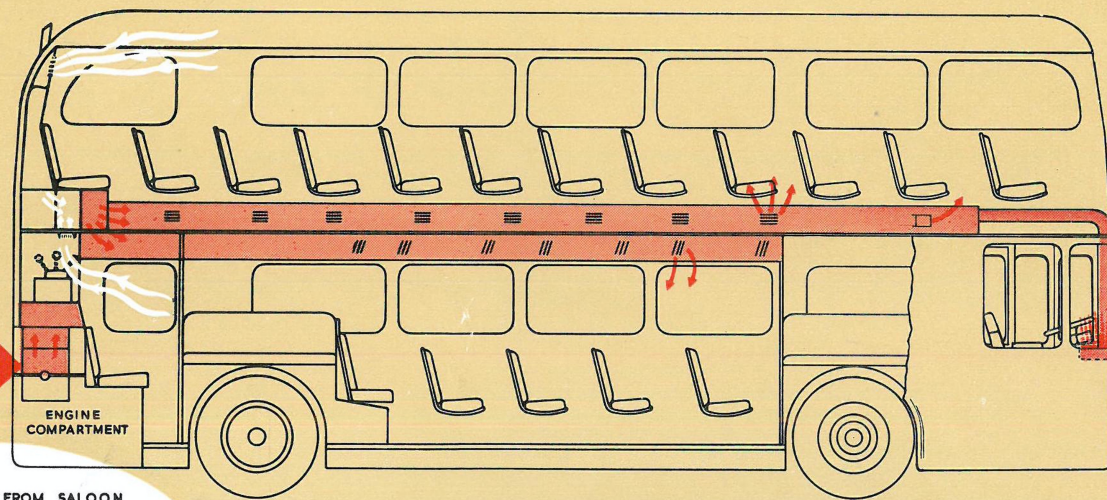


Accommodation for 11½ cu. ft. of luggage is adjacent to the stairway—handy for upper and lower saloon passengers. Above it is a spacious locker for the conductor's personal belongings.

SPACIOUS STAIRCASE LANDING

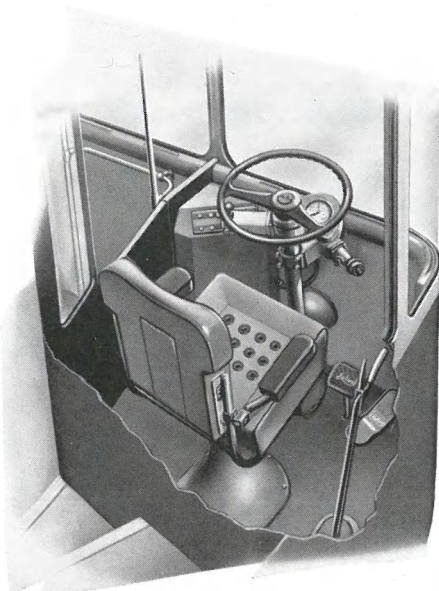


Only 7 wide-tread steps, one less than on a normal bus, lead from the large entrance platform to a spacious landing in the upper saloon—providing more room to move and so quickening loading and unloading.



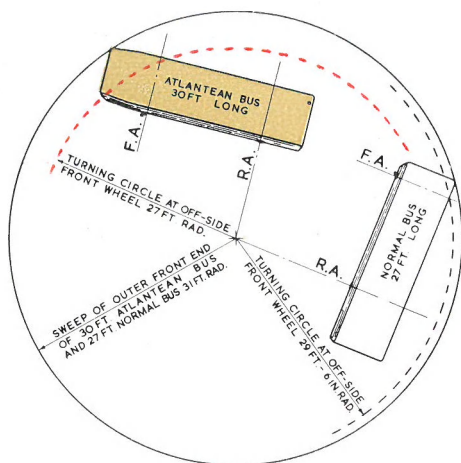
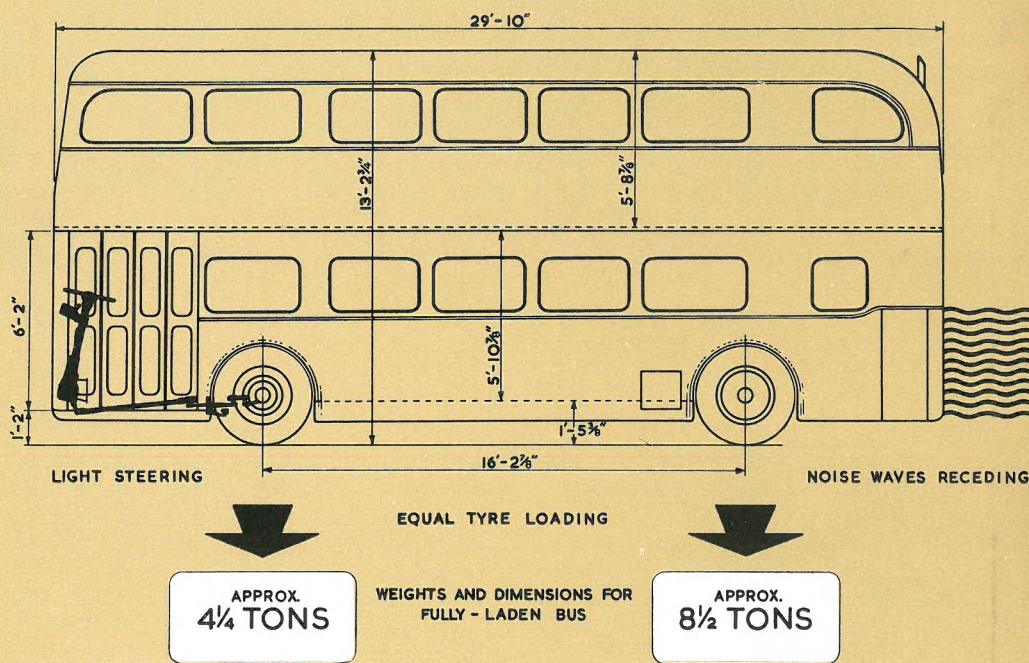
REVOLUTIONARY ENGINE-POWERED HEATING SYSTEM

A new system of Leyland design for the heating, ventilating and de-misting provides a rapid change of air without draughts, vented windows being unnecessary. For heating and de-misting, the engine fan forces air through the radiator and along ducts into the saloons and onto the windscreen. By means of inter-connected flaps, it is possible to use only fresh air in the system or to re-circulate the warm air, or to use both in a varying combination. For ventilation purposes, the air can be extracted from the saloons and released to the atmosphere.



ARMCHAIR DRIVING

Comfortably seated in a fully-adjustable armchair, the driver has a wide angle of vision over the roadway, through de-misted screens, and also of the entrance platform and power-doors which he operates. As the power unit is mounted at the rear, the driver is undisturbed by engine noise.

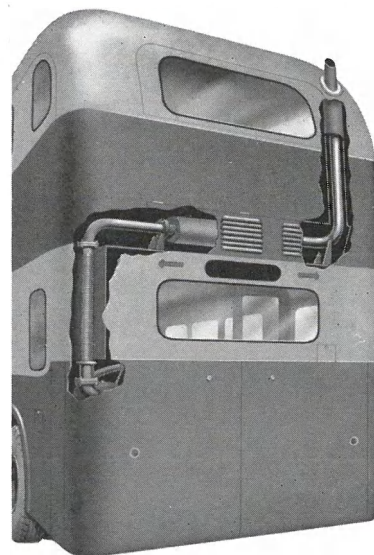


EXCEPTIONAL MANOEUVRABILITY

Although 30 ft. long the Atlantean has a turning sweep of only 62 ft., as small as that of a normal 27 ft. long bus. This exceptional manoeuvrability enables the Atlantean to negotiate sharp corners with ease and to thread its way through busy city traffic.

ANTI-POLLUTION ROOF-HEIGHT EXHAUST

Exhaust fumes are discharged at roof height well above the pedestrian and traffic stream. This system has the full approval of Ministry officials and takes a lead in the anti-pollution campaign which is daily gaining impetus.



EFFORTLESS ELECTRIC CHANGE-SPEED

An attractive panel on the steering column carries the small electric change-speed lever, and an electric speedometer with segments showing the gear to engage for the various road speeds. Also mounted here are the horn, headlamp and trafficator switches, and air-pressure and water-temperature lights. When fully-automatic gear change is fitted, this lever is left in 4th speed position for automatic control, but gears can be selected in the normal manner if desired.

★ *Modern to look at* ★ *Ideal to drive*
plus more passenger miles per gallon

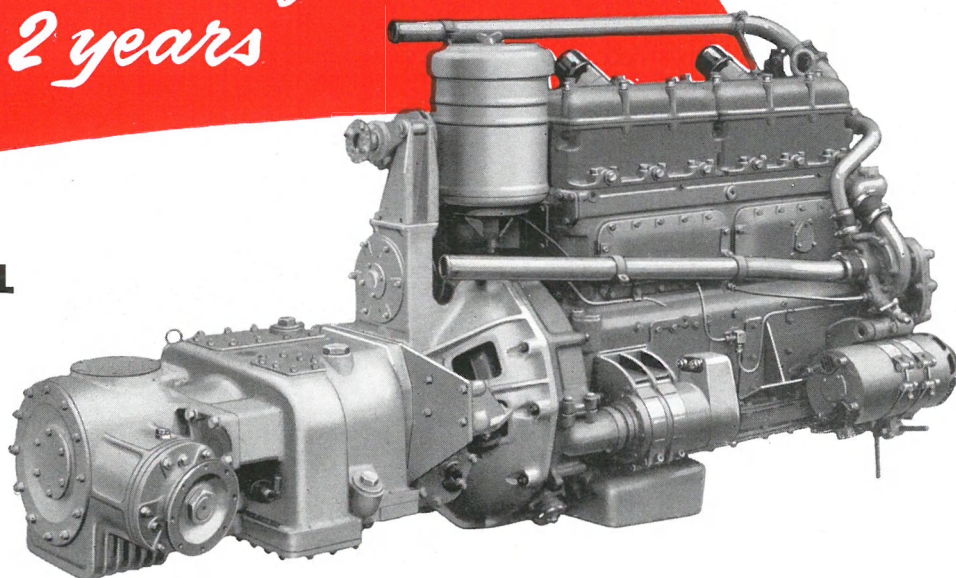
A CHASSIS DESIGN OF NEW CONCEPTION

Extensively tested for more than 2 years

FAMOUS 0/600 DIESEL

The standard power unit of the Atlantean is the well-known Leyland 0/600 diesel that develops 125 b.h.p. and a torque as high as 410 lb. ft. This unit has gained an unrivalled world-wide reputation for efficiency, economy and long life. It is a four-stroke direct-injection engine with a toroidal-cavity combustion chamber in the piston crowns—a combination which is unsurpassed for high thermal efficiency, cold starting, smoke-free combustion and exceptionally low fuel consumption.

It is a carefully balanced unit with very hard wearing surfaces and is of a design that lends itself to speedy maintenance for minor and major overhauls. This power unit has given excellent results in city service at home and abroad, often approaching 300,000 miles before overhaul becomes necessary.



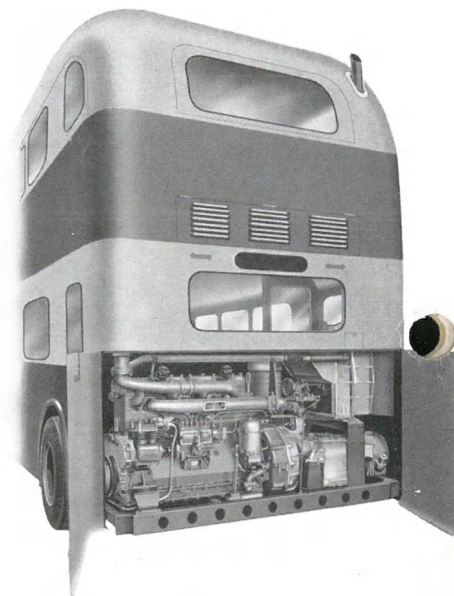
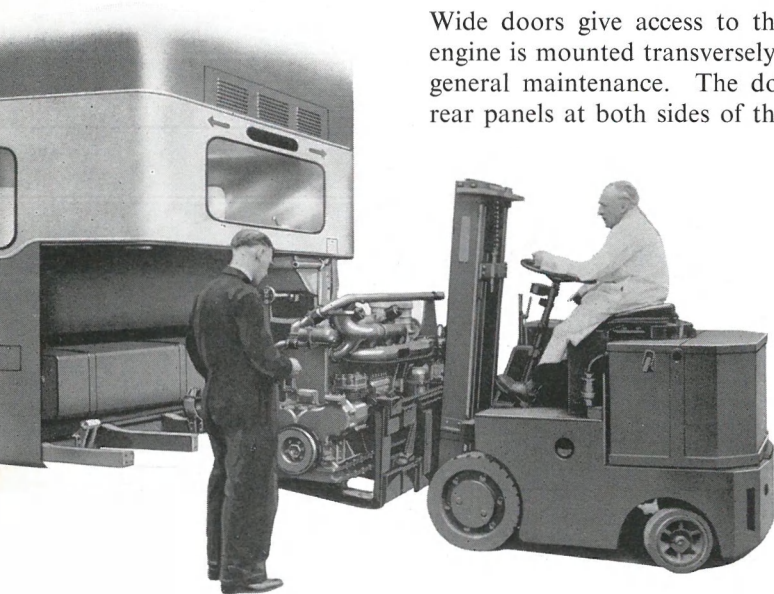
When fitted in the Atlantean, it is unit constructed with centrifugal clutch or fluid coupling, Pneumo-Cyclic gearbox and angle drive. Its refinements include even greater attention to air, fuel and oil filtration. The lubrication system incorporates a centrifugal filter that cannot become clogged and requires cleaning less frequently. Four-stage filtration including renewable paper elements are employed in the fuel system. Air, feeding the engine and the air compressor, is cleansed by an outside oil bath cleaner of high efficiency.

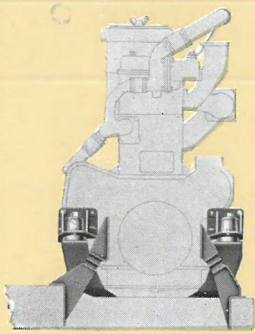
REMOVAL AND INSTALLATION IS A SIMPLE OPERATION

Wide doors give access to the engine compartment where the engine is mounted transversely and at a good working height for general maintenance. The doors, their hinged pillars, and the rear panels at both sides of the bus, can be removed if required

to expose completely the engine and its auxiliaries. The frame rear crossmember can also be removed, enabling the engine to be taken out speedily and easily with a fork lift truck.

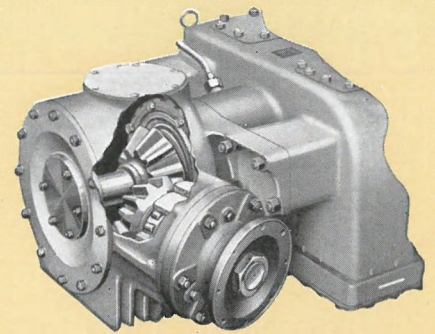
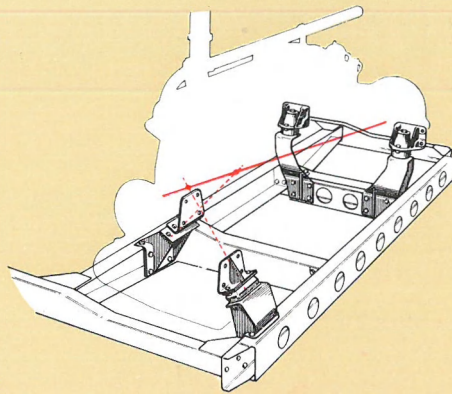
The installation of the engine at the rear has the advantage of providing the ideal weight distribution of 1 to 2 and therefore equal tyre loading and easier steering. It also ensures quieter travel for passengers, as engine and transmission noise recedes from the bus.





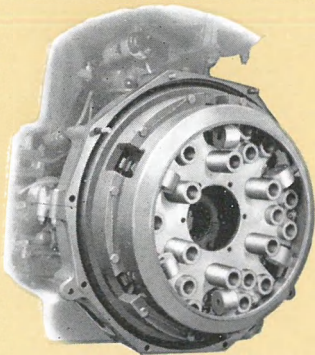
FLEXIBLE ENGINE MOUNTINGS

The engine unit is carried on two sandwich and two cone-shaped rubber mountings. They are so angled as to constrain the unit to oscillate about its axis of least inertia. This results in smooth running with only negligible vibration transferred to the chassis frame.



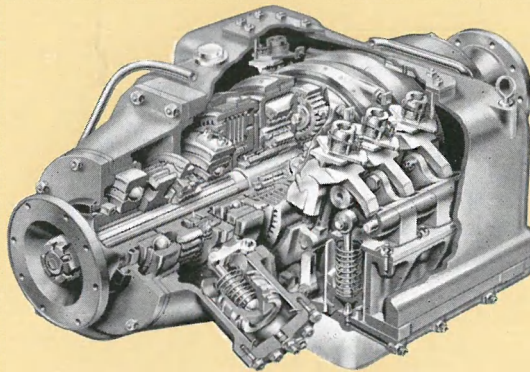
SILENT ANGLE DRIVE

Designed for silent running, the sturdy angle drive consists of spiral bevel gears with a high transmission efficiency. Angle 72 degrees ; ratio 1.065 to 1.



CENTRIFUGAL CLUTCH

The centrifugal force of 6 pivoted weights smoothly engages the Leyland clutch at 500 r.p.m. Drive is 100% positive.



PNEUMO-CYCLIC GEARBOX

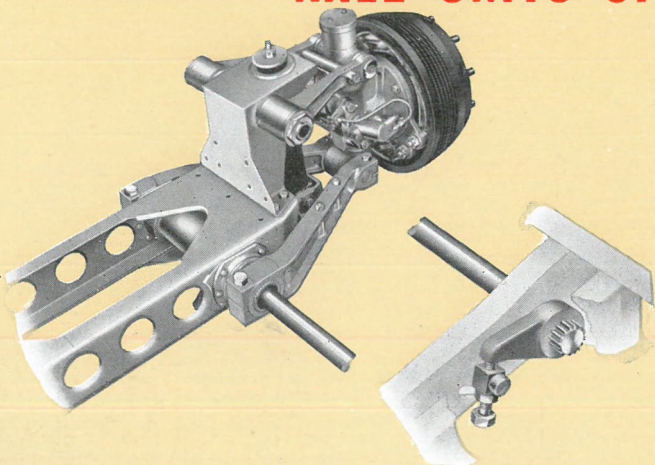
Gear change with this epicyclic 4-speed box is made quickly, smoothly and silently. Ensures continuity of drive, faster average speeds and greater comfort for passengers. Supplied semi- or fully-automatic.



BATTERY REMOVAL

The 174 amp. hr. batteries, carried in enclosed cradles, are easily accessible from the exterior of the bus.

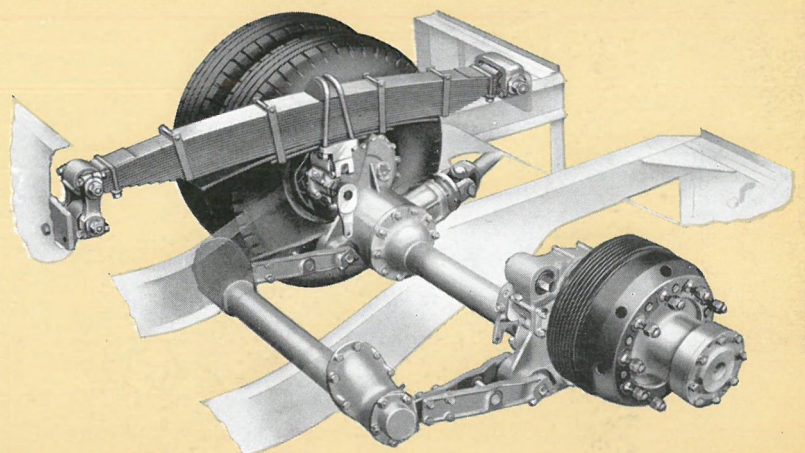
AXLE UNITS OF ADVANCED DESIGN



The Leyland designed front axle has independent suspension with double unequal length wishbones mounted in rubber. Lower wishbones actuate 3 3/8 in. dia. hydraulic shock absorbers, and twin torsion bars—shot-peened to lengthen life—which are easily adjusted in the trunnions that anchor them to the chassis. These are supplemented by rubber springs of a variable rate that come into action at about half laden condition. This combination of springing media results in a very comfortable ride and good steering qualities.

Oil lubricated bronze bushes take journal loads on the king pins, and Timken bearings take the thrust loads.

The rear axle is of the double-reduction type, first stage being a spiral bevel crown wheel with 4-star differential. Fully-floating shafts take the drive through a low beam to twin helical gears which raise the drive to the centre line of the wheels. Three alternative helical gear ratios can be supplied to provide maximum speeds of 34 to 45 m.p.h. As the axle is mounted off-centre on the spring, the fixed rear portions of the spring leaves are always stressed in tension resulting in no reversal of stresses and therefore longer life.



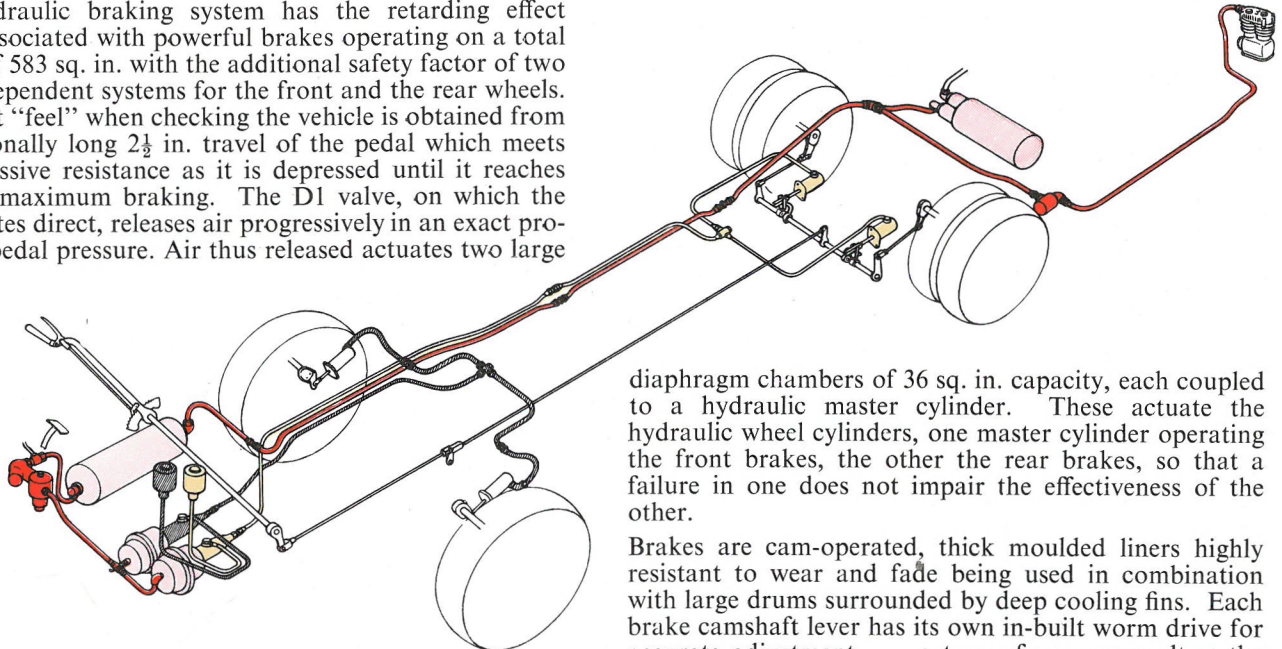
UNITS DESIGNED FOR LONGER WORKING LIFE

Maintenance times cut - Costs reduced

SAFETY SYSTEM OF POWERFUL BRAKING

A combination of Air and Hydraulics

The air-hydraulic braking system has the retarding effect normally associated with powerful brakes operating on a total liner area of 583 sq. in. with the additional safety factor of two entirely independent systems for the front and the rear wheels. An excellent "feel" when checking the vehicle is obtained from the exceptionally long 2½ in. travel of the pedal which meets with progressive resistance as it is depressed until it reaches 160 lb. for maximum braking. The D1 valve, on which the pedal operates direct, releases air progressively in an exact proportion to pedal pressure. Air thus released actuates two large

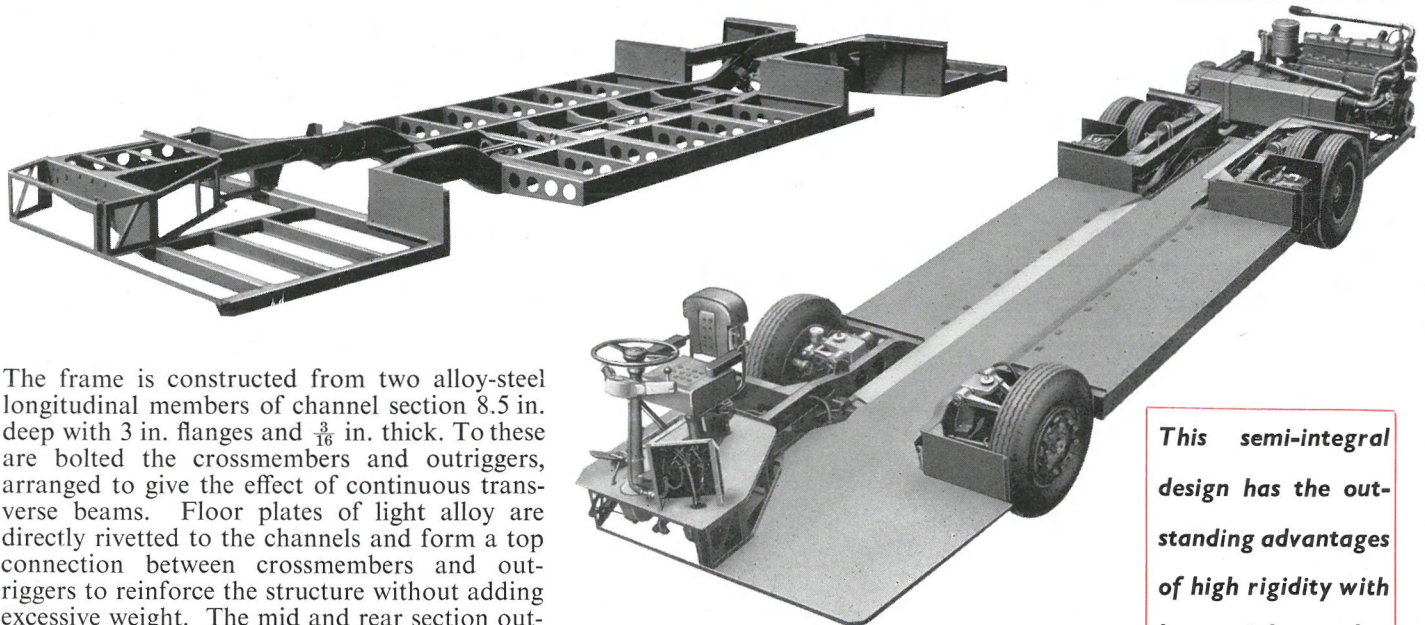


diaphragm chambers of 36 sq. in. capacity, each coupled to a hydraulic master cylinder. These actuate the hydraulic wheel cylinders, one master cylinder operating the front brakes, the other the rear brakes, so that a failure in one does not impair the effectiveness of the other.

Brakes are cam-operated, thick moulded liners highly resistant to wear and fade being used in combination with large drums surrounded by deep cooling fins. Each brake camshaft lever has its own in-built worm drive for accurate adjustment . . . a turn of a spanner alters the relative position between camshaft and lever.

The trailing pawl handbrake grips on close-pitched ratchet teeth ; linkage incorporates a lost motion device to avoid interference with the hydraulic brake cylinders. Friction in the system is reduced by using self-aligning roller bearings—pre-packed with grease.

FABRICATED FRAME OF GREAT STRENGTH AND LIGHTNESS



The frame is constructed from two alloy-steel longitudinal members of channel section 8.5 in. deep with 3 in. flanges and $\frac{3}{16}$ in. thick. To these are bolted the crossmembers and outriggers, arranged to give the effect of continuous transverse beams. Floor plates of light alloy are directly rivetted to the channels and form a top connection between crossmembers and outriggers to reinforce the structure without adding excessive weight. The mid and rear section outriggers are braced at their extremities by longitudinal members.

As the vehicle is of semi-integral construction with the body pillars permanently connected to the chassis outriggers, the body assists the frame to carry the full load, although the chassis itself is sufficiently strong to run under its own power.

This semi-integral design has the outstanding advantages of high rigidity with low weight, and a free choice of body layout.

ATLANTEAN**CHASSIS SPECIFICATION**

0/600 DIESEL. Six-cylinder direct-injection engine; bore and stroke 4.8 in. x 5.5 in.; cubic capacity 597 cu. in. (9.8 litres); 125 b.h.p. at 1,800 r.p.m., torque 410 lb. ft. at 900 r.p.m.; compression ratio 15.75 to 1; rigid monobloc iron casting for cylinder and crankcase; renewable pre-finished dry liners; nitride-hardened crankshaft with seven journals; indium-coated pre-finished strip bearings for main and big-ends; vibration damper; chromium-flashed "Stellite"-faced valves; "Stellite"-faced valve seats; polished alloy-steel connecting rods drilled to supply an intermittent oil squirt to the thrust side of the cylinder bore; toroidal-cavity low-expansion aluminium-alloy pistons with fully-floating gudgeon pins; three compression rings (top ring chromium plated); two oil-control rings; decompressor gear operating on exhaust valves; helical-toothed timing gears; gear-type lubricating pump with full pressure supply to main, big-end, and camshaft bearings; intermittent oil feed to rocker gear; large capacity centrifugal oil filter; oil pressure warning light on instrument panel; mounted with clutch, gearbox, and angle drive as a unit on four flexible rubber mountings.

4-HOLE INJECTORS. Leyland 4-hole injectors; C.A.V. injection pump, fed by diaphragm lift pump from 35-gallon fuel tank with electric gauge; four independent filters, including renewable double element paper filters, along fuel supply line; engine governor operated by vacuum; extra large oil-bath air cleaner.

THERMOSTATIC COOLING. Directional flow through block and head by self-adjusting water pump; thermostatically controlled circulation; cast aluminium radiator with Morris stack mounted on bridge over gearbox; 6-bladed fan, gear and belt driven from gearbox.

HEATING, VENTILATING AND DE-MISTING. Built-in system utilising upper portion of engine radiator and also engine fan; special cowlings with moveable interconnected flaps control the amount of air re-circulated in the bus or admit heated fresh air, or a variable combination of both. Can also be controlled for air extraction only for ventilation purposes.

CENTRIFUGAL CLUTCH. Single dry plate; 16½ in. dia.; action by centrifugal force on 6 radially-disposed pivoted weights; engagement starts at approx. 500 r.p.m. and pressure increases with speed up to approx. 850 r.p.m., after which no additional pressure is applied to the driving faces; 4-stage simple and positive adjustment; ⅝ in. moulded liners; flexible centre.

FLUID COUPLING (Alternative). 18 in. dia. fluid coupling; three-gallon fluid capacity; designed for minimum drag torque.

PNEUMO-CYCLIC GEARBOX. Air shift semi-automatic box of the compound epicyclic type; four speeds: top, direct; 3rd, 1.54; 2nd, 2.43; 1st, 4.28 to 1; reverse, 5.97 to 1. Separate oil pump with external filter. Electric change speed mounted on steering column operates air valves for gearshift by solenoids; fitted with safety devices. Also available is fully-automatic gearbox which can be over-ridden by manual control.

ANGLE DRIVE. Drive consists of pair of spiral bevel gears, ratio 1.065 to 1; flange mounted to output side of gearbox; transmission angle, 72°. Short Hardy Spicer open tubular propeller shaft to rear axle; 1,600 series needle-roller universal joints.

INDEPENDENTLY SPRUNG FRONT AXLE. Double wishbone independent suspension; two torsion bars, anchored in adjustable trunnions, are actuated by lower wishbones mounted on splined tubes fitted in rubber bushes to fabricated beam; upper wishbones mounted on rubber bushes to beam and king pin; rubber springs of variable rate become effective when bus is half laden; 3⅝ in. dia. telescopic hydraulic shock absorbers actuated by lower wishbones; king pin journal loads taken by bronze bushes fed by oil reservoir; thrust loads taken by Timken bearings; king pin connected to lower wishbones by screwed bushes.

REAR AXLE WITH CONSTANT SPRINGING. Double reduction rear axle with spiral bevel crown wheel and 4-star differential off-set near off-side wheel; unit supported by taper-roller bearings; renewable thrust washers behind differential pinions and axle shaft bevel wheels; fully-floating axle shafts in low beam carry drive through helical gear train to road wheels; bevel gear ratio 2.3 to 1; alternative helical reduction gears giving overall ratios of 5.635, 4.91, and 4.312 to 1. Rear springs treated with Molybdenum Disulphide and high mounted on rubber bushes on top of axle casing provide variable spring rate with constant periodicity of 92 c.p.m.; leaf springs and rubber mounted trailing links provide "Watts" linkage to ensure vertical movement of axle; off-centre spring mounting to the axle casing ensures fixed rear portion of spring is continually in tension, precluding reversal of stresses and so lengthening life.

DOUBLE ROLLER STEERING. Marles cam-and-double-roller steering gear; operates divided track rod; arrangement ensures absence of steering interference by wheel movement; 20 in. dia. two-spoke wheel; box ratio, 28.5 to 1; swept circle 62 ft.; turning circle 54 ft.

AIR-HYDRAULIC BRAKES. Footbrake air-hydraulic with separate systems for front and rear axles; two reservoirs for brakes and auxiliaries fed by 10 cu. ft. compressor; pedal-actuated D1 control valve releases air to two independent diaphragm chambers, each 36 sq. in. area and coupled to two separate hydraulic master cylinders; one master cylinder operates wheel cylinders for front brakes, the other operating rear brakes; Bendix-Westinghouse slack adjusters; cam-operated brakes; 5 in. wide ¾ in. thick liners in 15½ in. dia. drums at front; 6 in. wide ½ in. thick liners in 16¾ in. dia. drums at rear; anti-fade moulded liners; footbrake 583 sq. in.; mechanical handbrake 340 sq. in.

WHEELS AND TYRES. Three-piece 7.00 in. x 20 in. wheels with 6 in. offset; standard tyres 9.00—20 12-ply; provision for 10.00—20 tyres.

FABRICATED FRAME. Two alloy-steel channel section main members 8½ x 3 x ⅝ in.; bolted crossmembers and outriggers; alloy floor plates rivetted to channel members, crossmembers and outriggers, reinforce structure; mid and rear section outriggers braced at extremities by longitudinals; frame arranged for semi-integral construction with body.

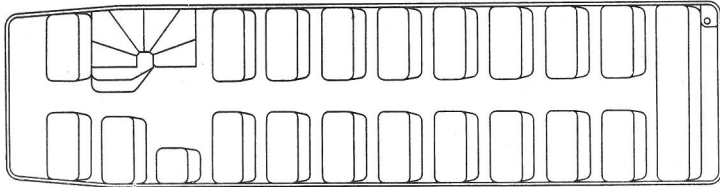
24-VOLT ELECTRICAL SYSTEM. C.A.V. equipment; 24-volt lighting and starting; compensated voltage 7 in. dynamo, 1,320 watts output; axial starter motor; switchboard containing lighting controls, indicator lamps for dynamo charging, oil pressure, direction indicators, interconnected relays and buzzer warning for low air pressure and high engine temperature, horn relays, and thermal cut-out for change-speed control circuit. Steering-column mounted instrument panel carries electric speedometer, air pressure and engine temperature indicator lights; change speed control; and horn, headlamp, and trafficator switches. Equipment for fitting by bodybuilder includes flange-mounted block-lens headlamp with pre-focussed bulbs, fog-lamps, sidelamps and flashing trafficators. Batteries of 174 amp. hr. capacity of C.A.V., Exide or Oldham manufacture.

VEHICLE DATA. Overall length 29 ft. 10 in.; width 7 ft. 10 in.; unladen height 13 ft. 5 in.; laden height 13 ft. 2⅝ in.; wheelbase 16 ft. 3 in.; platform step height, laden, 14 in.; gangway height of lower saloon, laden, 17⅝ in.; approx. unladen weight with oil and water, 7⅝ tons; approx. gross weight, 78 passengers, driver and conductor, 12⅝ tons; approx. gross front axle loading, 4½ tons; approx. gross rear axle loading, 8½ tons; lower saloon seats 34; upper saloon seats 44; total seating 78.

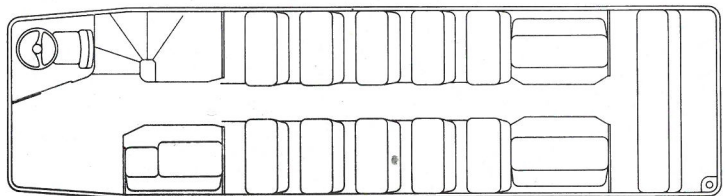
LEYLAND STYLED SEMI-INTEGRAL BODY

Unit planned with Chassis

UPPER SALOON



LOWER SALOON



Atlantean Low-Floor Double-Deck Bus Body 30ft. x 8ft.

CONSTRUCTION.—Body is of all-metal construction, consisting of light steel and alloy members with cross-braced aluminium-alloy stress panels rivetted on the inside, the whole being built integrally with Leyland underframe; additional lateral strength given by half partitions behind wheelboxes, behind the driver, and at entrance door; four of these partitions are glazed in toughened glass; exterior panels easily replaceable in event of damage.

FLOORS.—Upper and lower saloon floors are of substantial aluminium-alloy sheets reinforced by suitable stiffeners; coved at body sides for easy cleaning and covered with hard-wearing "Dulon"; wearing strips fitted where necessary; underside of floor under-sealed to protect it from corrosion.

PLATFORM AND STAIRCASE.—Two-stream front-entrance platform only 14 in. high (laden) gives access without steps to lower saloon; 7-step staircase immediately behind driver; treads with "Positive-Grip-Pattern" plates, edged with Ferodo-aluminium nosing; solid fluted aluminium risers; space under staircase utilised for luggage compartment and conductor's locker.

DOORS.—Entrance doors are of the double jack-knife type, glazed to their full depth; operated by control conveniently placed near driver, within his full vision; emergency switch outside bus; emergency doors provided at rear end of upper saloon, and on offside behind rear wheels in lower saloon.

WINDOWS.—All windows are fixed, rubber glazed and flush-finished for easy cleaning and replacement; upper saloon front windows fitted with hinged ventilators.

SEATING.—Seating for 78 passengers, 34 in lower, and 44 in upper saloon; upper saloon seats all arranged in normal transverse manner with centre gangway and 5-passenger seat at rear; in lower saloon, longitudinal 3-passenger seats over front near-side and two rear wheelarches, other seats transverse with 5-passenger seat at rear;

lightweight frames and stainless steel rop rails and grabs; Dunlop-illo fillings, upholstered in moquette.

GANGWAYS.—Wide gangways are centrally situated in both saloons which have normal headroom.

DRIVER'S COMPARTMENT.—Access to driver's compartment is from main platform through half door in waist high partition; wide angle visibility; corner pillar eliminated; screens fully demisted; fully adjustable pedestal seat with hinged arms, upholstered in hide.

HEATING AND VENTILATION.—Insulated ducting for heating extends from engine radiator to upper and lower saloons to distribute warm air through louvres; air for ventilating drawn from both saloons by engine fan; fresh air admitted at front of vehicle; one control lever mounted in lower saloon.

ENGINE COMPARTMENT.—Engine cowl adequately insulated; wide rear doors for servicing; doors and engine compartment side panels quickly detachable.

BATTERIES.—Batteries carried in enclosed carriers forward of rear wheels, access from exterior through detachable panels in body sides.

EXHAUST SYSTEM.—Exhaust pipe can be taken up through rear corner of body with outlet above rear dome panel.

DESTINATION INDICATOR.—Front and rear destination boxes, each with twin blinds and illuminated by 6 lamps; sight sizes 3 ft. 6½ in. x 1 ft. 1½ in.

INTERIOR LIGHTING.—Open reflector lamps of the recessed type in cove panels and in roof over platform.

INTERIOR FINISH.—Windows with pressed metal finishes; no corners to hold dirt; stove enamelled to customer's choice of colour.

NOTE.—Leyland Motors Ltd. reserve the right to alter the specification of this vehicle without notice.

Leyland Motors
-Ltd.-

SALES DIVISION: HANOVER HOUSE, HANOVER SQUARE, LONDON, W.1.

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