

THE NEW

# Daimler

**CITY**

**FLEETLINE**



**INTER - CITY**



**MOTORWAY**



**FLEETLINE**

*rear-engined, capacity-planned for peak profit*

## THE ONLY BUS WITH ALL THESE FEATURES



A new standard in operating efficiency. Maximum seating—capacity up to 78—combined with low overall height (13ft. 4in.). Only one vehicle required for both high and low bridge operations. Flat floors with central gangways in upper and lower saloons. Driver controlled forward entrance with wide step-free platform. Mechanical layout designed for maximum efficiency and easy maintenance.

The low height frame permits a minimum height step-free entrance platform AHEAD of the front axle. This platform is in the full view of the driver whose controls can be arranged for left- or right-hand drive to meet overseas requirements. Dropped axles at front and rear enable a completely flat floor and straight through gangway to be used throughout the length of the passenger compartment.

The most meticulous attention to detail has resulted in a chassis of low total weight without sacrificing the immense strength and long life that is so essential for this type of service. Wheels and tyres are completely interchangeable and the light tyre loading on all wheels makes this chassis especially suitable for high speed operation. The superior weight distribution, combined with widely spaced long, variable, rate springs, provides a degree of stability and comfort far in advance of current standards. These are some of the features of the new Daimler Fleetline which incorporates all the knowledge and experience gained from the operation of Daimler buses throughout the world, and which offers a combination of features unobtainable in any other single design.

The power unit is mounted transversely across the rear of the chassis, and with the combined gearbox and right angle drive unit, is carried in an easily detachable subframe. The rear of the subframe forms a stout bumper to minimise accidental damage. Of special interest to small operators is the fact that individual units can be removed without disturbing the rest of the installation. The 150 b.h.p. Gardner 6LX 10.4 litre oil engine is renowned throughout the world for its extreme reliability and constant high efficiency under all conditions. With a combination of high power output and low specific fuel consumption unequalled by any other engine in current production, the 6LX engine is a natural choice for the Fleetline. In unit with the engine is the new Daimler fluid flywheel and "Daimatic 4" speed epicyclic gearbox which also incorporates the right angle drive to the dropped axle. This layout completely eliminates the need for a separate angle drive unit and is a feature to be found only on the Fleetline chassis. The flexible mounting of these units together with the thorough soundproofing of the bulkhead between engine compartment and saloon, results in a standard of silence and freedom from vibration unattainable with any other layout. The body has been designed to take full advantage of all the special features offered by the Fleetline chassis. As a result, it is now possible to offer—for the first time—a full 78 seater vehicle with an overall height of 13ft. 4in., suitable for BOTH high and low bridge operation and featuring flat floors in both saloons. The interior layout has been specially studied to provide maximum safety and freedom of movement for both passengers and crew. The wide, minimum height, step-free platform with driver controlled folding doors leads direct to the lower saloon or to the upper saloon via a wide stairway and upper landing. In both saloons, the floors are flat throughout their length and full height centre gangways are provided.

From every viewpoint, whether it be performance for tight schedules, economy for off peak periods or sheer carrying capacity for rush hour conditions, the Fleetline shows itself to be a natural choice for city, inter-city and motorway operation.

**Daimler** FLEETLINE

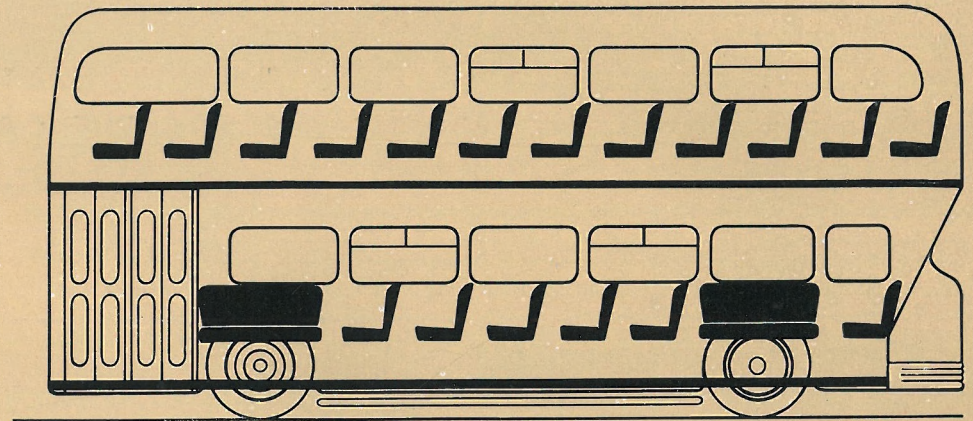
# Daimler

## FLEETLINE



**The ideal passenger  
vehicle for...  
City, Inter-City and  
Motorway traffic**

The driver, who controls the folding power operated doors, has an unimpeded view of the wide platform, thus ensuring maximum passenger protection. The wide doors and platform speed loading and unloading by encouraging a simultaneous flow of passengers to both upper and lower saloons. These features allow the conductor to concentrate on fare collection.



Note the completely flat floor in both upper and lower saloons.



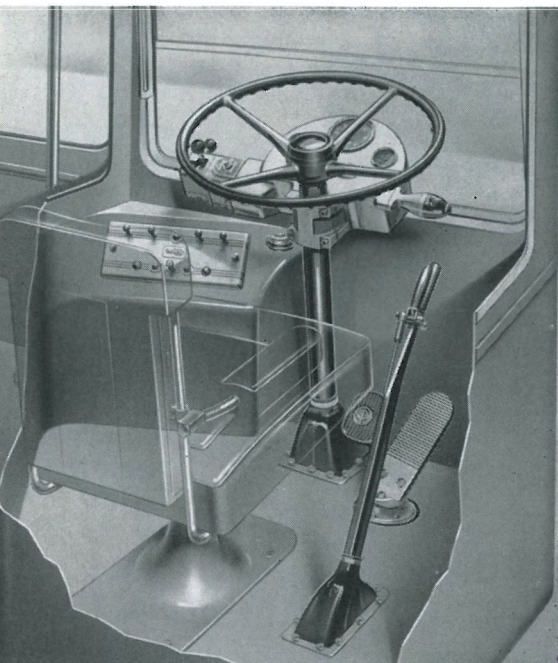
The short wheelbase combined with low weight on the front axle provides light steering, excellent manoeuvrability and a good turning circle.

# THE **Daimler** FLEETLINE CHASSIS



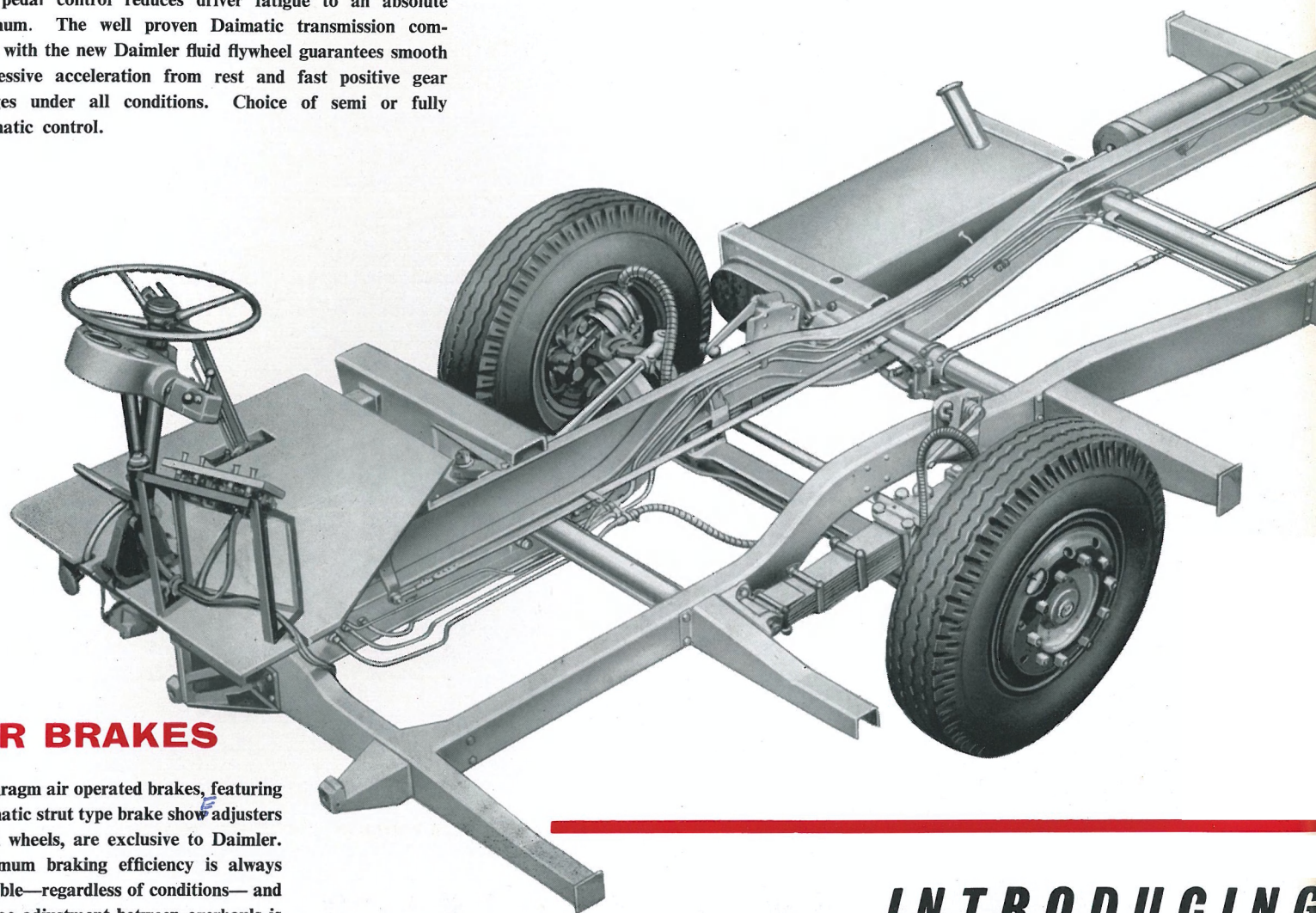
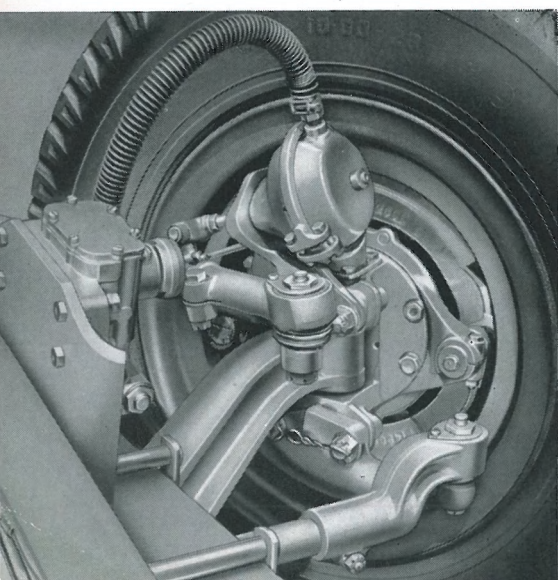
## **TWO PEDAL CONTROL**

Two pedal control reduces driver fatigue to an absolute minimum. The well proven Daimatic transmission combined with the new Daimler fluid flywheel guarantees smooth progressive acceleration from rest and fast positive gear changes under all conditions. Choice of semi or fully automatic control.

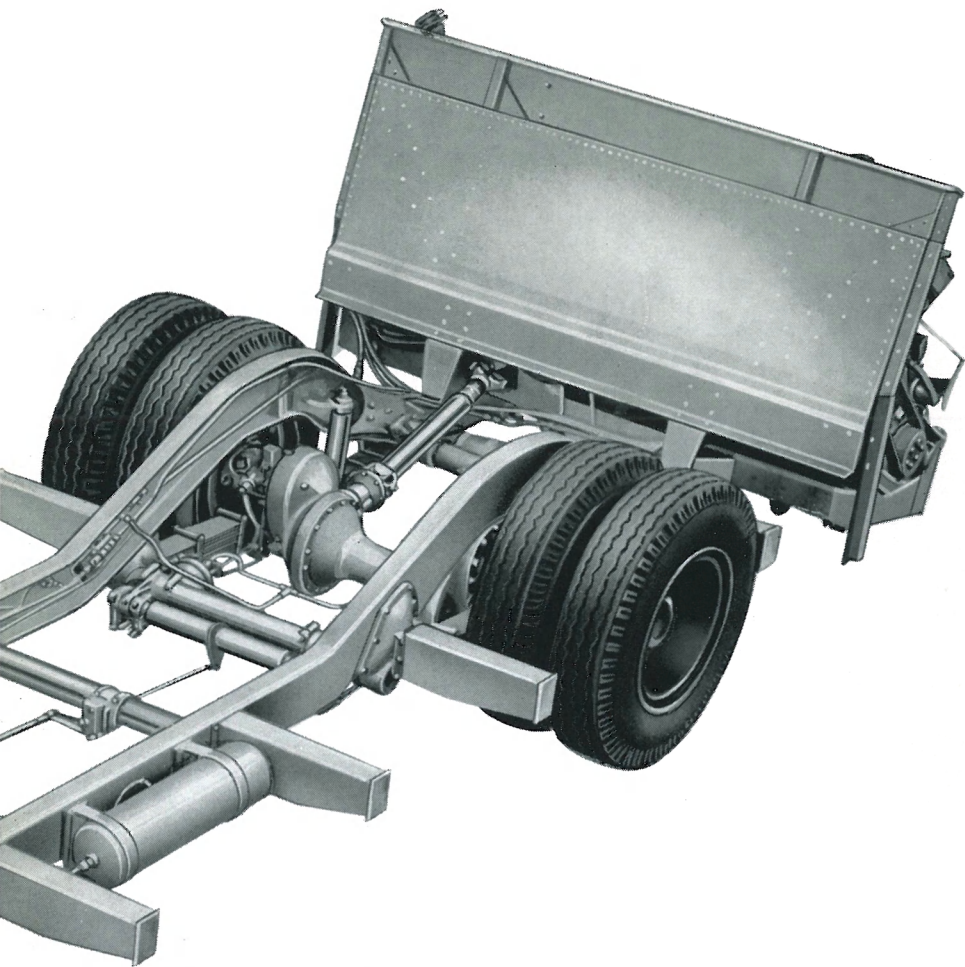


## **AIR BRAKES**

Diaphragm air operated brakes, featuring automatic strut type brake shoe adjusters on all wheels, are exclusive to Daimler. Maximum braking efficiency is always available—regardless of conditions—and all shoe adjustment between overhauls is eliminated.

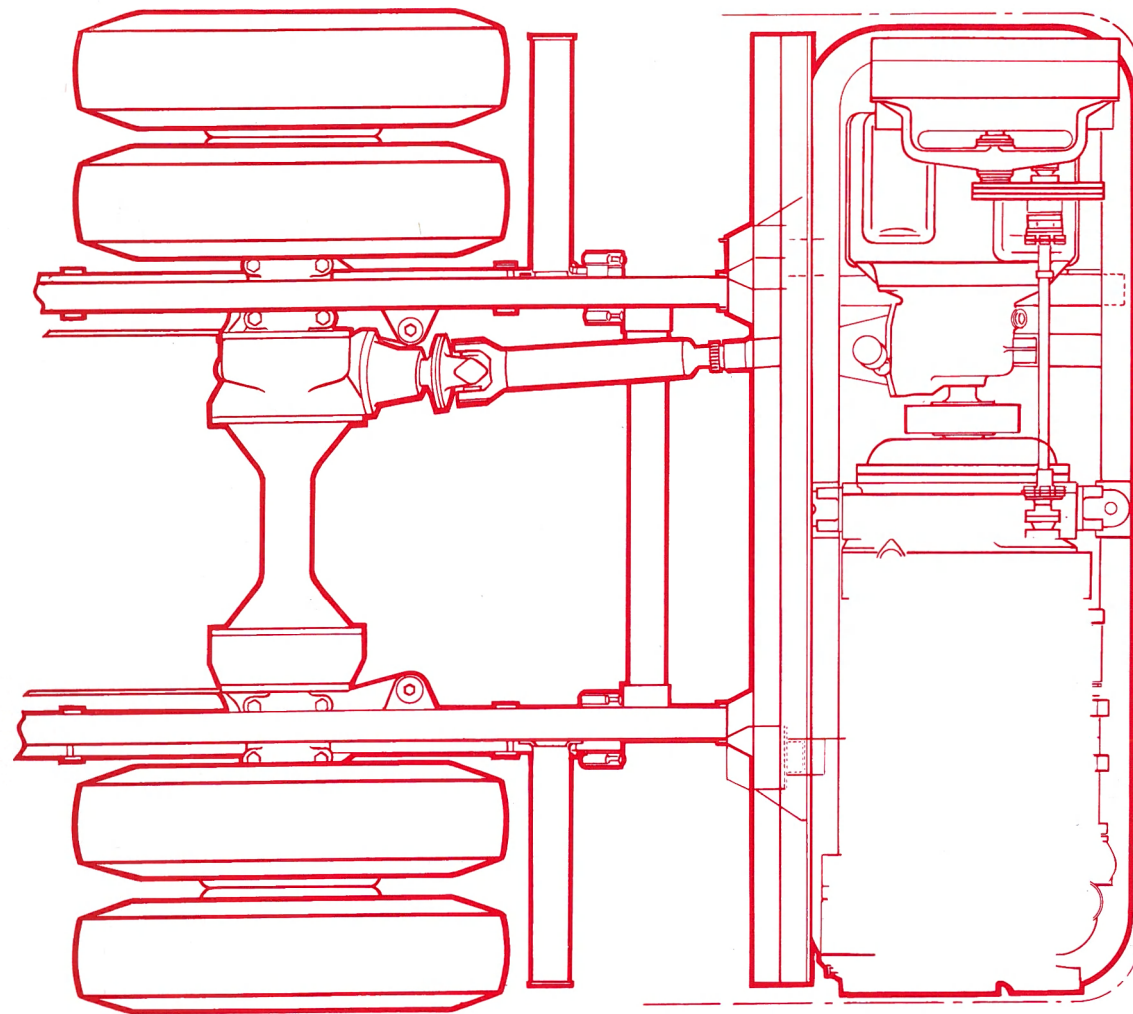


**INTRODUCING**



## CHASSIS DETAILS

Low frame height permits the fitting of a body suitable for both high and low bridge operation. Dropped axles provide low step-free floors and platform. Long, flexible, variable rate springs, with wide spring bases for maximum passenger comfort, allied to extreme stability irrespective of load. World famous Gardner engine for high performance with economy, long life and low weight. Engine and ancillary components mounted on separate subframe for easy removal. Individual units can be removed separately. Right angle drive direct from gearbox to axle for maximum efficiency. Drive unit integral with gearbox—a Daimler exclusive. Low weight factor allied to immense strength and long life. Superb weight distribution and light tyre loading for high speed motorway operation. Fully automatic brake shoe adjustment on all wheels for maximum efficiency. Interchangeable wheels and tyres. Left- or right-hand drive available to meet overseas requirements.



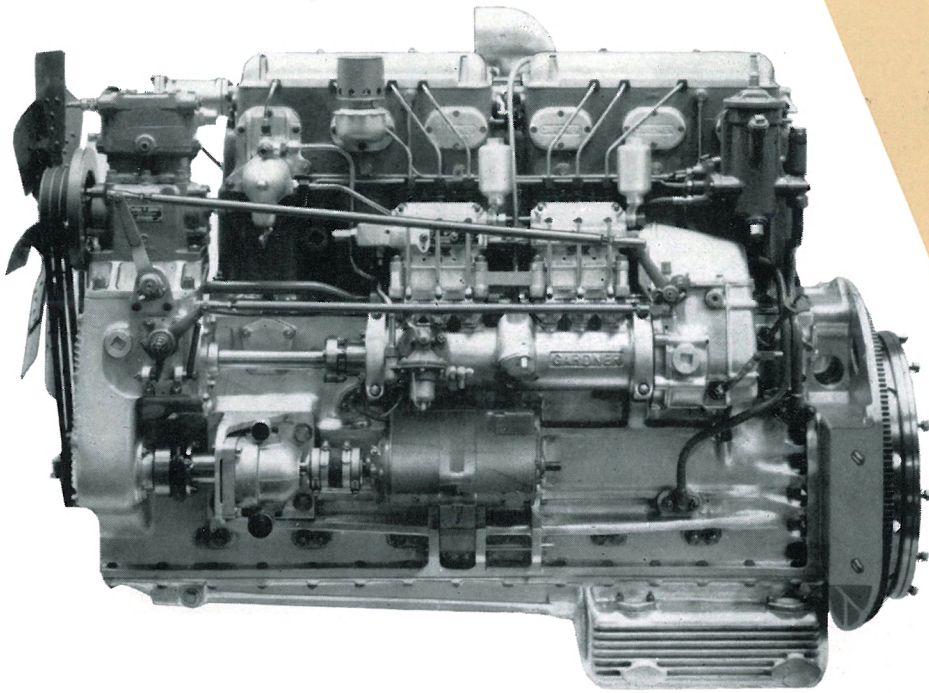
## REAR ENGINE DRIVE

This illustration shows, in greater details, the arrangement of the engine-gearbox assembly and the right angle drive to the dropped axle. The four speed Daimatic gearbox also contains the right angle drive assembly, thus eliminating the need for a separate drive unit. This is an exclusive Daimler feature.

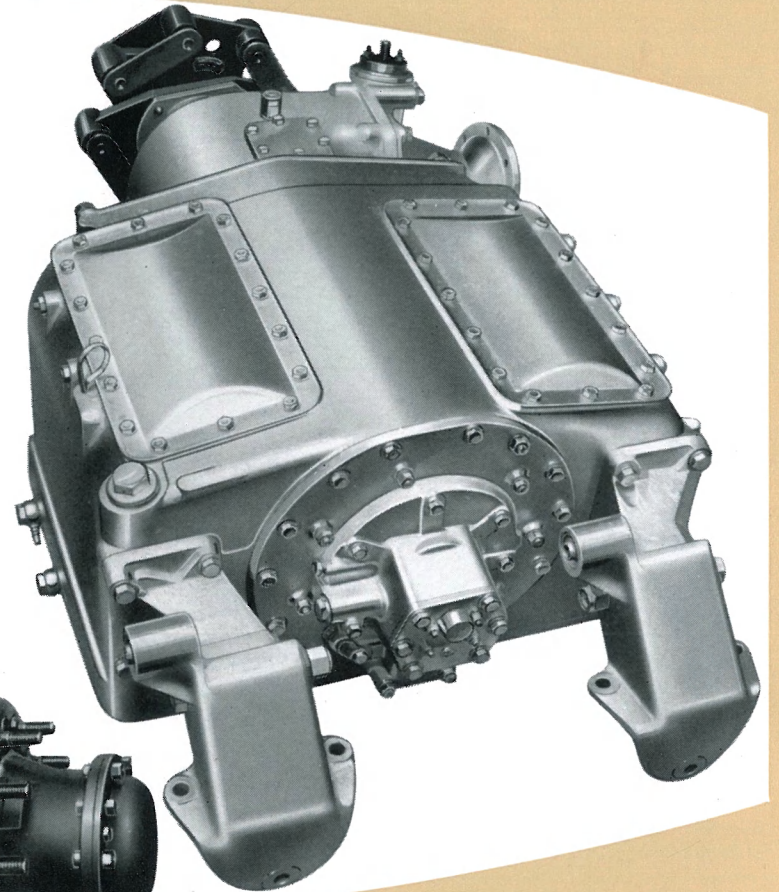
**A NEW ERA IN BUS DESIGN**

## Power unit removal and installation speeds maintenance

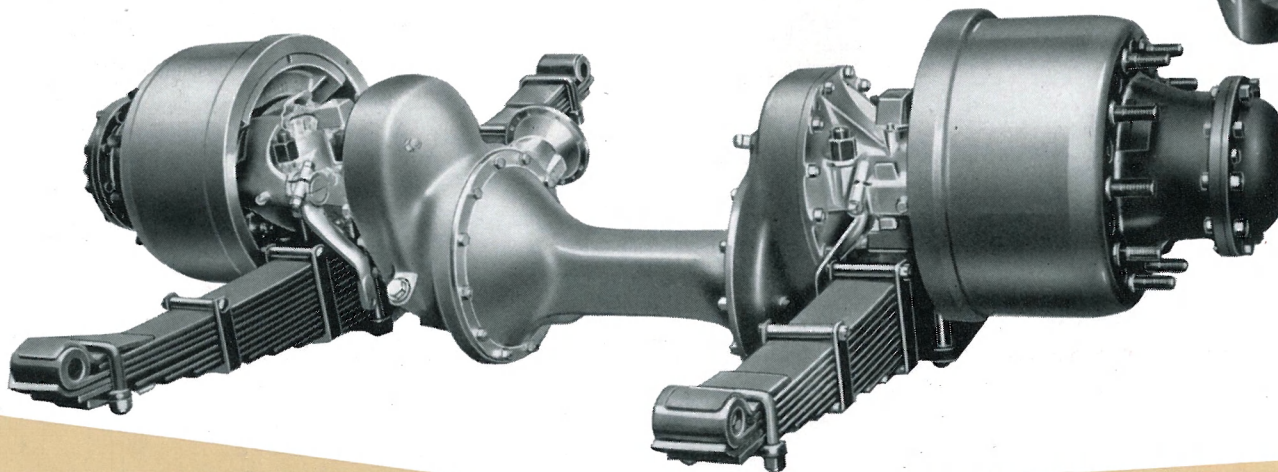
The world famous Gardner 6LX engine is fitted as standard equipment in the Fleetline chassis. With a capacity of 10.4 litres, this unit develops 150 b.h.p. and provides outstanding performance with extreme fuel economy under maximum load conditions. The very high power to weight ratio factor of this unit is a major contribution towards the excellent weight distribution of the Fleetline chassis.



The Daimatic epicyclic gearbox provides four forward speeds and reverse, and is operated by electro-pneumatic controls. Coupled to the new Daimler fluid flywheel, it provides smooth acceleration from rest and fast positive gear changes. Note how the right angle drive forms an integral part of this unit.



A two stage reduction dropped axle is used to lower the input shaft below the hub centre line, and this permits a completely flat floor to be fitted in the lower saloon. The axle design together with the right angle drive allows a wide range of ratios to be fitted to meet individual operator's requirements.



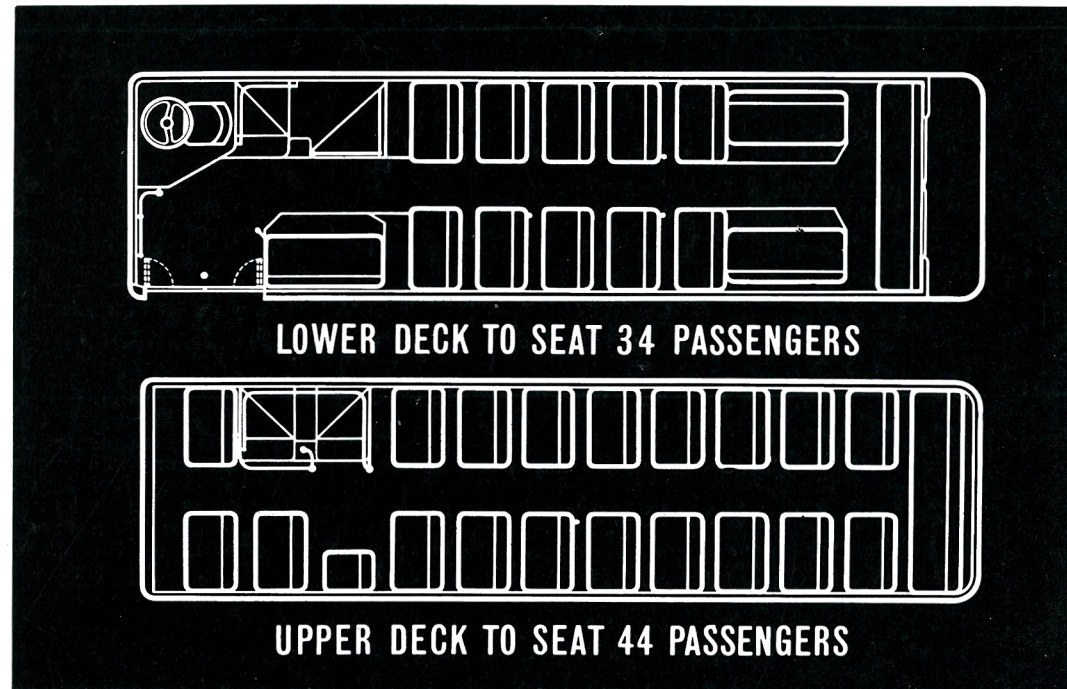
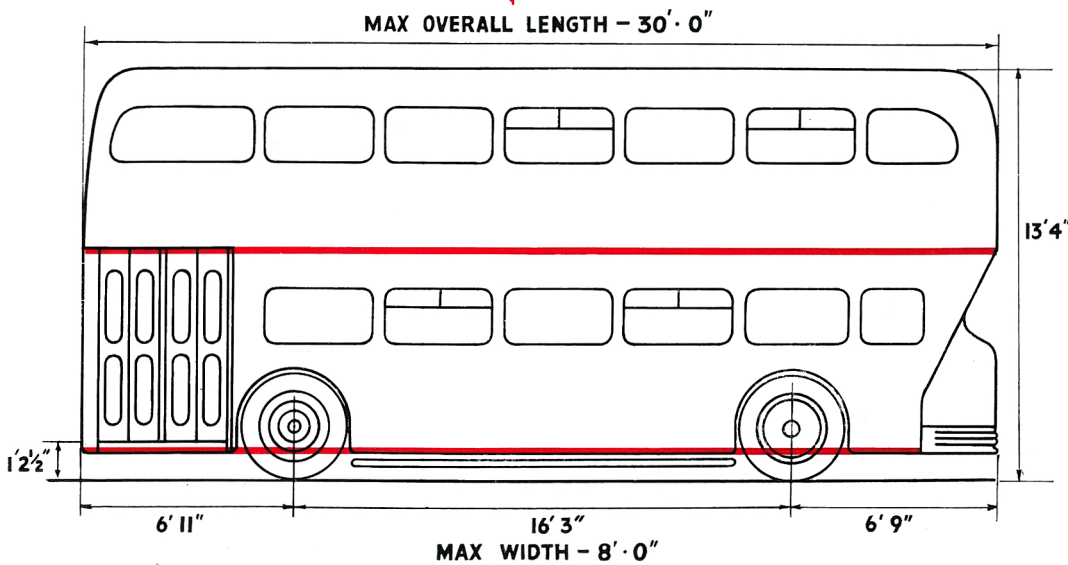
**CAPACITY PLANNED**

**78** seater

for both high & low  
bridge body styles

The advanced design of the Fleetline chassis permits the fitting of a body offering a combination of features unobtainable in any other single vehicle. Planned to accommodate 78 seats within an overall height of 13ft. 4in., this bus can be used for both high and low bridge operations.

The minimum height step free platform, wide staircase and upper landing, combine with the centre gangways and flat floors in both saloons to produce a layout unequalled for freedom of movement for passengers and crew.



# S P E C I F I C A T I O N

## GENERAL DESCRIPTION

The Daimler Fleetline Chassis has a wheelbase of 16ft. 3in. and is designed for a low front entrance, single step, double deck bus with driver-controlled platform. Seating capacity of 78 within the overall dimensions of 30ft. long by 8ft. wide by 13ft. 4in. high. The two-stage drop axle permits an extremely low floor and gangway on the lower deck. A centre gangway is used in both upper and lower decks. A detachable subframe mounted at the rear contains the engine, fluid flywheel, gearbox, right angle drive, radiator and fan. The chassis is fitted with the "Daimatic" electro-pneumatic gearbox, giving two-pedal control, and high efficiency air brakes with automatic adjusters.

## ENGINE

The outstanding high efficiency Gardner 6LX engine is mounted transversely at the rear. This is a 6-cylinder, 4-stroke, vertical diesel engine with bore 4.75in., stroke 6in., displacement 10.45 litres, giving maximum b.h.p. 150 at 1700 r.p.m. and maximum torque 485 lb. ft. at 1050 r.p.m. Minimum specific fuel consumption is .330 lb./b.h.p./hr. representing a remarkable overall thermal efficiency of 39.75%. The engine weighs 1600 lb. giving wt./power ratio of 10.7 lb./h.p., which is exceptionally low for this type of unit.

## ENGINE SUBFRAME

The complete self-contained power pack is carried on a large pressing forming a subframe which is bolted at the rear end of the chassis and is easily detachable. Individual engine and transmission units on the subframe can also be removed with the subframe *in situ*. The rearmost flange of the subframe has increased depth to form a stout bumper member, to reduce rear end damage.

## FRAME

The two main side members are channel section pressings  $\frac{7}{8}$ in. thick with 3in. flanges and maximum web height of  $9\frac{3}{8}$ in. Six flanged tubular cross members are secured by fitted bolts. Substantial outrigger brackets are fitted with flanged ends for easy body attachment. The frame design allows either right- or left-hand drive to be readily available.

## FRONT AXLE

"H" section steel stamping with chromium plated taper mounted swivel pins. Anti-friction material is used for the swivel axle bushes and also to take the swivel pin end thrust. The wheel hubs are mounted on two opposed taper roller bearings which can be adjusted by a vernier locknut.

## REAR AXLE

A two-stage drop down reduction axle is fitted. The first stage is by spiral bevel pinion and wheel positioned to the right-hand side of the chassis, and drives through a large 4 bevel pinion differential unit. The second stage is by straight spur gears mounted on lipped roller race bearings. The construction of the whole unit permits a low unobstructed gangway on the lower deck. The overall reduction of the axle unit is 5.3 to 1.

## TRANSMISSION (2 Pedal Control)

No clutch or gear change pedal is required with the "Daimatic" electro-pneumatic gearbox which is of the compound epicyclic type used in conjunction with a fluid flywheel. Control is by means of an electric finger-tip switch mounted on the steering column. A trailing link coupling with rubber bushes connects the gearbox to the fluid flywheel to allow the units to be independently mounted. A fully automatic gear change is available. Gearbox ratios are :-top, direct ; 3rd, 1.56 ; 2nd, 2.35 ; 1st, 4.15 ; reverse, 4.87. A sturdy right angle drive consisting of silent, high efficiency spiral bevels takes the drive to the rear axle through a short open tubular prop. shaft. The drive is integral with the gearbox casing and has its own lubrication. The complete unit is independently mounted at four points in the subframe. Four alternative drive ratios are available :-1.136 ; 1.09 ; 0.956 ; 0.870, which in conjunction with the standard axle ratio give overall ratios of 6.03 ; 5.75 ; 5.06 ; 4.61.

## RADIATOR

Cast aluminium radiator flexibly mounted above gearbox casing with 22in. diameter fan running in specially designed cowl. System pressurised to 4 lb./sq. in., and connections are provided for saloon heater pipes.

## BRAKES

Bendix Westinghouse air pressure system fed by 10 cu. ft. compressor, with separate reservoirs for brakes and auxiliaries. Activation is by diaphragm air pressure cylinders controlled through foot operated control valve. Automatic adjusters are fitted. Brake liners are  $\frac{3}{8}$ in. thick anti-fade moulded material. Footbrake friction area is 733 sq. in., handbrake 460 sq. in.

## SUSPENSION

Semi-elliptic inverted camber silico-manganese leaf springs are fitted all round. They are all 4in. wide dual rate at the front, constant rate at the rear. Case-hardened chromium plated interchangeable shackle pins can be rotated for increased life. Telescopic shock absorbers are mounted at the rear and lever type shock absorbers at the front.

## STEERING

<sup>DAIMLER WORM & NUT</sup>  
~~Marles cam-and-double-roller~~ steering gear operates a two-piece drag line supported mid-way by a relay lever. Steering box ratio is 28.5, resulting in  $6\frac{3}{4}$  turns of the 21in. steering wheel. Swept turning circle is 68ft.

## WHEELS AND TYRES

All wheels and tyres are interchangeable. The three piece 7.50 x 20in. wheels have 6.3in. offset and standard tyres are 10.00-20 12-ply. <sup>14 ply</sup>

## FUEL TANK

A 35-gallon tank is fitted on outriggers behind the front axle. Nylon piping is used for feed and return lines.

## CHASSIS LUBRICATION

By hook-on type grease nipples. Automatic lubrication can be supplied at extra cost and feeds automatically through nylon piping.

## ELECTRICAL

C.A.V. 24-volt lighting and starting. A.C. or D.C. system available. Switchboard contains chassis lighting controls, dynamo indicator lamps, oil pressure light, compressed air warning light. Instrument panel mounted on steering column contains electric speedometer, air pressure gauges, change speed control switch, horn, headlamp dip switch.

## ACCELERATOR CONTROL

A hydraulic system connects the accelerator pedal to the engine controls.

## MISCELLANEOUS

The chassis and components are finished with aluminium paint on a red oxide primer base. The chassis is fully wired and includes electrical equipment, reinforced fibreglass engine compartment covers and a substantial bulkhead forward of the engine.

## CONDITIONS OF SALE

Daimler Bus and Coach Chassis are offered subject to the "Conditions of Business" set out in the Company's Purchase Agreement Form. The right is reserved to alter any detail of price, specification or equipment, without notice.

HEAD OFFICE AND WORKS : TRANSPORT VEHICLES (DAIMLER) LTD., COVENTRY, ENGLAND