

METROLINER

**COACH
RANGE**

BRITISH—ENGINEERED BY

M C W

METROLINER

People are becoming ever more mobile. Not only are they accustomed to commuting even greater distances, they travel more widely in pursuance of business and leisure activities and longer distances for holidays. In the latter connection travel has increasingly become part of the holiday rather than a means to an end.

As a result of this increased activity, people's awareness and level of expectation for their chosen mode of transport be it road, rail or air, are considerably increased. Modern coaching has more than held its own in this competitive area where the necessary hardware has come sharply into focus.

The Metroliner range is finding favour with operators in terms of style and luxury, which combined with structural integrity, simplicity of operation and low maintenance represents excellent value for money.

The 1985 restyled 12 metre single deck Metroliner incorporates the best of British engineering and involves the total integration of body and chassis from one supplier, thus ensuring the compatibility of design.

The design concept is based on the traditional separate chassis and body structure all manufactured by MCW, thus providing the considerable advantage of single sourcing and ensuring that all services and systems are correctly integrated.

Power and transmission units are available in various combinations to give the operator the optimum choice to suit the level of operation required.

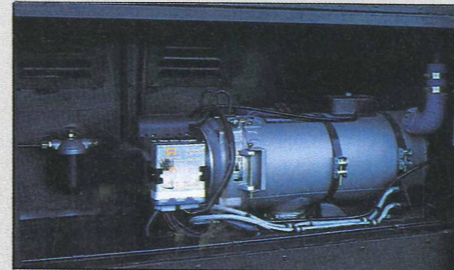
The standard six cylinder vertical rear mounted turbo charged diesel engine rated at either 250 or 290 bhp is available with manual, semi or fully

automatic torque convertor gearboxes, all of which are available with either separate or integral retarders. Dual air pressure brakes are standard.

Coach work featuring timeless and thoroughly contemporary styling is based on steel tubular frame construction with stretched on zinc steel coated panels and resin bonded glass fibre front and rear panels. Direct bonded side windows, give an overall clean and distinguished appearance to the vehicle.

Underfloor through luggage lockers with a capacity of approximately 7.5 cu. metres, powered plug door, one piece front windscreen, robust continental style fittings result in a vehicle achieving the highest specification standards combined with styling which will not date.

With the Metroliner the facilities for both the driver and passenger have been of prime consideration resulting in a fully equipped driver environment with ergonomically positioned controls, ensuring a pleasing and low fatigue cockpit combined with high safety.



Driving is almost effortless with superb handling and high visibility to provide an unsurpassed standard of excellence.

Passengers enjoy superior air suspension ride quality in a quiet environment allied to a luxury

interior based on a wide range of trim options and seating configurations from 57 fixed to 53 recliners. New design of parcel racks featuring safety edges and enhanced trim specifications incorporate overhead consoles with adjustable individual forced air outlets, individual reading lamps and radio speakers. Supplementary heating systems are available along with a host of other options including toilets, vending and video to ensure the Metroliner is unsurpassed in its class.



METRO HI-LINER

To meet the added luxury, performance and long distance touring requirements of the modern coach, M.C.W. have introduced the Metro Hi-Liner. This model incorporates many of the advanced design features, including the classical styling, of the low floor Metroliner, but is enhanced in several important aspects.

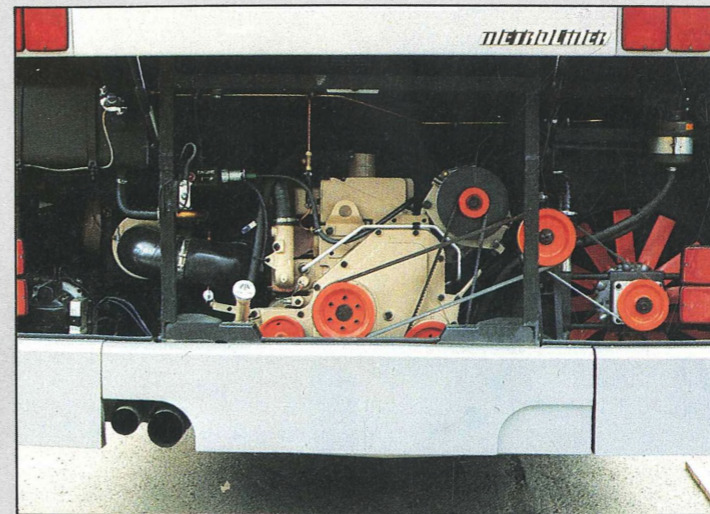
The Hi-liner is a full lightweight integral structure, providing a high floor line and enhanced luggage capacity (10 cubic metres) appropriate to continental type touring and equivalent operations, demanding superb comfort, high performance and thoroughly contemporary styling.

This premier model of the MCW range is also powered with the Cummins turbocharged diesel engine at either 250 or 290 bhp, with similar options on transmissions. These units are mounted in line at the rear for ease of access and general maintenance. All routine servicing points are readily accessible.

The driver has a superb environment with an instrument and controls console epitomising the high standards of the Metroliner single deck. Every care has been taken with all aspects of the driver's area in MCW coaches to achieve a fresh, pleasant and efficient environment in which to work. The cockpit area of the Hi-Liner reflects the premier class of the range.

The Hi-Liner coach uses the same materials, production techniques and exterior finish as the low-line coach, but features a two-piece tinted laminated windscreen and optionally incorporates a continental plug door and steps on the right hand side, in addition to the standard plug door.

The fully trimmed interior of the standard version takes up to 57 luxury coach seats, dependent on specification, and is offered with tinted windows and comes with a high level of standard equipment and fittings designed to match the needs of the most discriminating passengers. The



vehicle equipment can also be further enhanced by a variety of optional equipment, including toilet, continental door, vending machines, in-coach entertainment, a variety of transmission choices, air conditioning and so on. This permits interior



specification to be matched to a superlative extent to operational requirements.

The Metro Hi-Liner represents a truly unsurpassed standard of excellence for both passengers and driver—both will appreciate the ambience and up-market limousine characteristics of the Hi-Liner coach thus ensuring satisfaction of a very high order.



MCW

METROLINER 2-DECK

The 12-metre, 3 axle, 2-deck Metroliner coach, derived from the proven Metrobus 3-axle chassis, enables luxury travel to be provided at the lowest economic cost. Up to 86 seated passengers can be accommodated if the rear enclosed luggage area is not required. Even with provision of a 10.125 cubic metres interior luggage compartment, 82 seats can be utilised. The economic operating benefits possible with these high passenger loads can be considerable.

A variety of alternative interior layouts are available to suit most types of operation from high capacity express routes to top flight executive type services featuring all the luxuries, video, vending machines, toilets, tables and so on—exactly what

would be expected from a product of premier quality.

The 2-deck Metroliner has a chassis underframe with integrated steel body structure with stretched steel exterior panelling and bonded windows. The engine used is the versatile rear-mounted Cummins diesel, developing 290 bhp, driving through a Voith automatic gearbox.

The driver has the benefit of fully comprehensive controls and dashboard layout, to ensure fatigue-free driving, even under the most arduous of circumstances. He and the passengers also benefit from superlative ride and handling characteristics through the air suspension and excellent on the

road performance which renders possible precise timing of scheduled high speed journeys.

A notable characteristic of the Metroliner 2-deck is the generous headroom on both decks, made possible by its 4.23 metres overall height. Mechanical units, proven in arduous service, are designed for cost cutting, long life and trouble-free operation, with ease of access for efficient servicing and maintenance when eventually required. The unique combination of M.C.W. and established manufacturers of major units ensures a comprehensive spread of service and spare parts throughout the life of the vehicle.



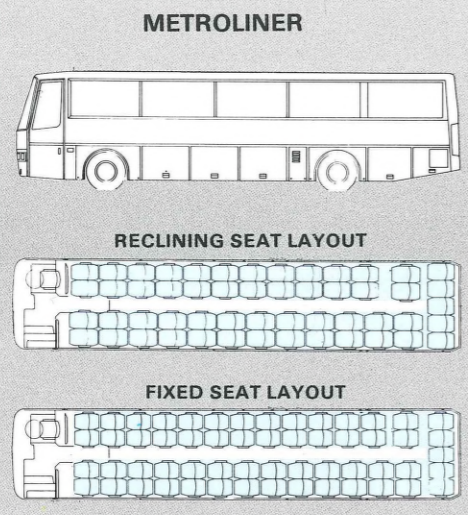
The exterior and interior fittings and appointments and the range of optional extras available on the 2-deck Metroliner, are fully commensurate with the best standards achieved on deluxe single deck coaches, whilst Metroliner's overall appearance is impressive and highly prestigious, capable of forming the flagship of any operator's fleet.



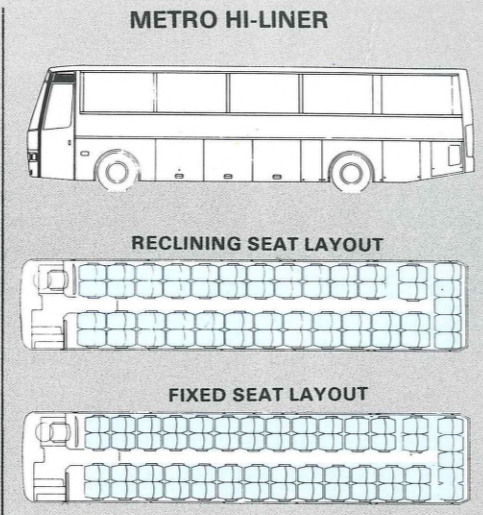
STANDARD SPECIFICATIONS



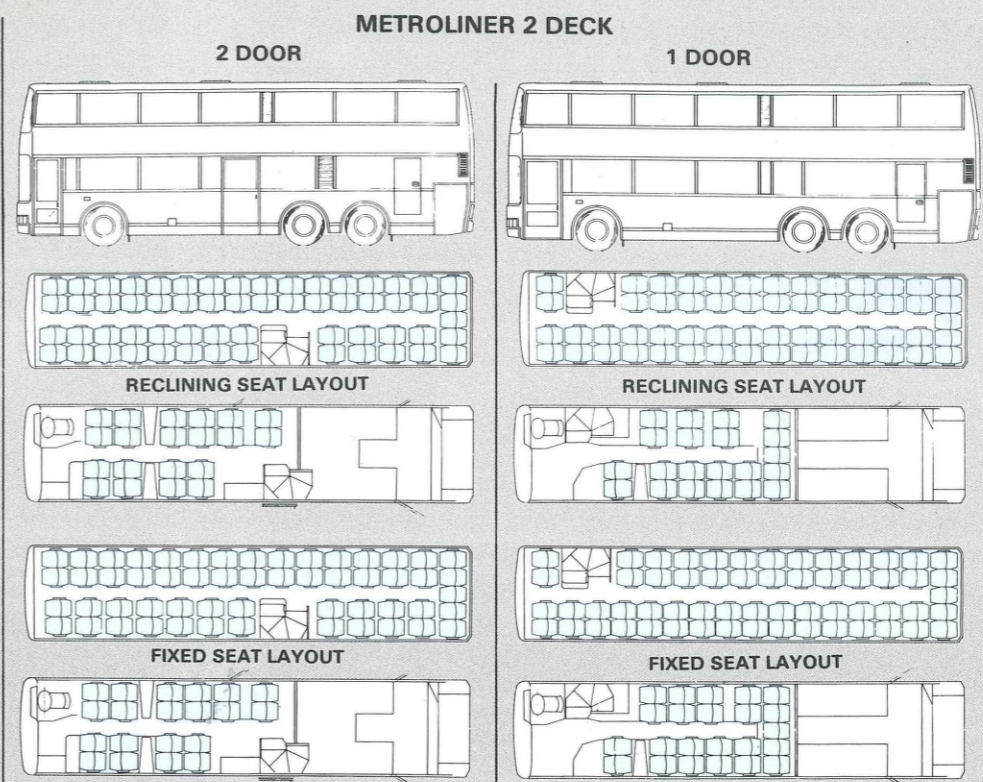
Overall Length
Width
Height
Wheelbase
Front Overhang
Rear Overhang
Swept Turning Circle
Standard Seating
Fixed
Recline
Total Locker Capacity
Type of Engine
Output
Max. Torque
Transmission
Steering
Fuel Tank Capacity
Suspension
Brakes
Tyres
Tachograph
Alternator
Entrance Door
Body Insulation
Interior Trim
Wipers
Heating
Front Windscreen
Side Windows
Forced Ventilation
Staircase
Gross Vehicle Weight



12000mm
2500mm
3170mm
6300mm
2400mm
3300mm
22950mm
57
53
7.5 cu/m
Cummins L10 6 Cyl. Turbo Charged Diesel
250 bhp — 2100 rpm
750 lb ft — 1300 rpm
ZF S6—90
ZF Powered
420 litres (92 gall)
Air
Dual Air
11R — 22.5 16 Ply
2 Man Electronic
115 amp
Powered Plug
Roof & Sides
Soft Trim
2 speed Electric
Ducted Underfloor
One Piece Tinted
Curved Tinted
Parcel Racks & Floor Ducts
16160 kgs



12000mm
2500mm
3360mm
6300mm
2400mm
3300mm
22950mm
57
53
10.2 cu/m
Cummins L10 6 Cyl. Turbo Charged Diesel
250 bhp — 2100 rpm
750 lb ft — 1300 rpm
ZF S6—90
ZF Powered
420 litres (92 gall)
Air
Dual Air
275/80R x 22.5
2 Man Electronic
115 amp
Powered Plug
Roof & Sides
Soft Trim
2 speed Electric
Ducted Underfloor
Two Piece Tinted Split Horizontally
Curved Tinted
Parcel Racks & Floor Ducts
16160 kgs



11920mm
2500mm
4230mm
To Rear Axle 6850mm
2260mm
2810mm
23950mm
79
75
10.125cu/m
Cummins L10 6 Cyl. Turbo Charged Diesel
290 bhp — 2200 rpm
840 lb ft — 1400 rpm
Voith 854G Automatic with Integral retarder
ZF Powered
500 litres (110 gall)
Air
Dual Air
Front 295/80R 22.5 x 16 ply
Rear & Tag 275/80R 22.5 x 16 ply
2 Man Electronic
115 amp
2 Doors
Entrance/Exit Powered Plug
Roof & Sides
Soft Trim
2 speed Electric LD only
Ducted Underfloor
Upper & Lower 2 piece Tinted
Lower Deck Flat Tinted
Upper Deck Curved Tinted
Parcel Racks & Floor Ducts
Rearward ascending behind Centre Door N/S
22660 Kgs

11920mm
2500mm
4230mm
To Rear Axle 6850mm
2260mm
2810mm
23950mm
82
78
10.125cu/m
Cummins L10 6 Cyl. Turbo Charged Diesel
290 bhp — 2200 rpm
840 lb ft — 1400 rpm
Voith 854G Automatic with Integral retarder
ZF Powered
500 litres (110 gall)
Air
Dual Air
Front 295/80R 22.5 x 16 ply
Rear & Tag 275/80R 22.5 x 16 ply
2 Man Electronic
115 amp
Front Door only Powered Plug
Roof & Sides
Soft Trim
2 speed Electric LD only
Ducted Underfloor
Upper & Lower 2 piece Tinted
Lower Deck Flat Tinted
Upper Deck Curved Tinted
Parcel Racks & Floor Ducts
Rearward ascending behind Driver O/S
22660 kgs

OPTIONS

A full range of optional equipment is available for all models which include the following:

- Automatic Lubrication
- Air Dryer
- SAB Adjusters
- Voith Retarder
- 290 bhp Engine (standard on 2 Deck)
- Voith Automatic Transmission with Integral Retarder (standard on 2 Deck)
- Low Coolant Warning
- Anti-Skid Braking
- Suspension Raising Device
- Road Speed Governor
- Variety of Radio Equipment
- Video
- Marker Lights
- Heated Mirrors
- Webasto Supplementary Heating
- Electronic or Manual Destination
- Alternative Seating Layouts
- Courier Seat
- Central Locking to Side Lockers (Single Deck models only)
- Parallel Motion Side Lockers (Single Deck models only)
- Lift up or Sliding Roof Vents
- Curtains
- Window Blinds
- Driver's Locker
- Full Moquette Trim
- Carpet
- Toll Window
- Kerb Window
- Toilet
- Vending
- Metallic Paint
- 200 Amp/Hour Batteries
- Illuminated Rear Panel
- Air Conditioning
- Driver's Bunk
- Double Glazing (Hi-Deck only)
- Detachable Tables & Lamps

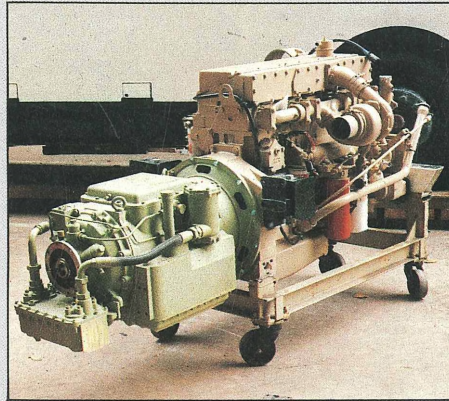
We reserve the right to alter specifications without prior notice.

ENGINEERING EXCELLENCE

MCW was formed over 50 years ago, by the amalgamation of two existing companies, both involved with the transport industry, Metropolitan Cammell and Wagon Company (Bus division) and Weymann Motor Bodies. Since that time the company has worked very closely with operators to achieve vehicles that are both durable and are of low cost. Consultation and collaboration with operators are even more necessary today than previously, and MCW's development of vehicle designs, which match their operational needs, form a highly practical response to the economic necessity of achieving long-term, maintenance-free vehicles with reduced down time.

All MCW's buses and coaches are of advanced design, using the most modern materials and the best contemporary manufacturing techniques available. Recent investment in manufacturing equipment and facilities ensures that high-quality precision-made components have a high degree of interchangeability.

Combined with use of the best available premier quality major mechanical units and systems, produced by companies of international standing, MCW's product range provides reliability, durability and operational economy, ride and handling, safety and passenger comfort to the highest standards.



The latest production technology is employed with particular regard to integration of body structures and panel fasteners, thus ensuring the consistent manufacture of the highest quality standards, with specific benefits in the simplification of replacement should accident damage occur.



ANTI-CORROSION PROTECTION

Pre-Treatment

When purchasing a Metroliner vehicle a customer is not only buying a vehicle of outstanding structural integrity and advanced styling, but a design which incorporates a high degree of anti-corrosive treatment giving a lasting protection whilst maintaining that 'new look' for many years and in return protecting the investment and enhancing the resaleable value.

MCW use the latest materials and technology in forming the specification for pre-treatment and the protective measures against corrosion are applied throughout the manufacturing process.

These materials include the application of Epoxy primers baked on to give a hard and durable coating. The total tubular structure is injected with closed cell fire retardant foam to eliminate oxidation and assist in achieving the overall low noise levels of the passenger environment.

The total underside of the vehicle is undersealed and powder Epoxy coating is applied to all vulnerable 'add on' components. The latest acrylic paints are used to give a high class yet long lasting durable surface finish to the vehicle.

Metroliner — a range of excellence in every sense of the word.



PARTS AND SERVICE

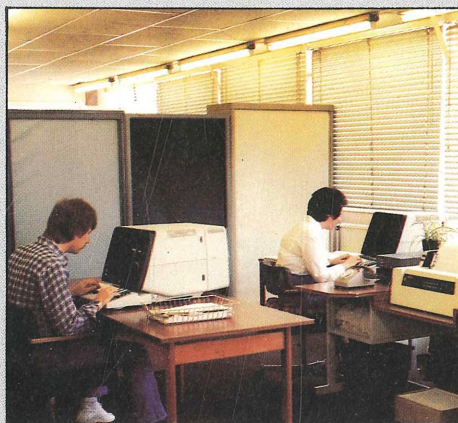
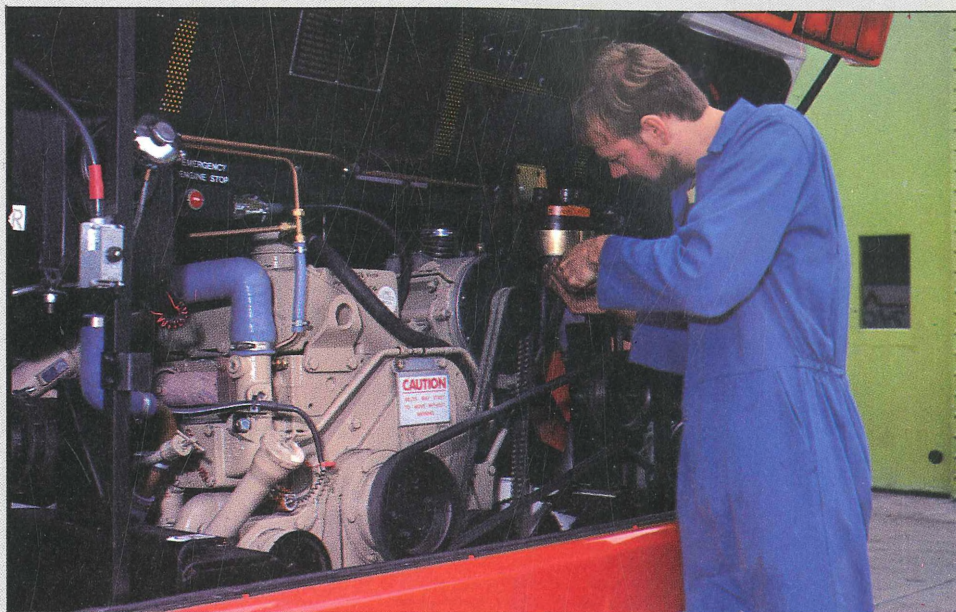
The MCW parts operation under the banner of METROPART carries a parts inventory that covers both current and earlier models. A comprehensive, computerised operation gives 24 hour service for urgent off the road requirements and parts demand patterns are monitored continually to ensure optimum availability.

DATALINE a remote computerised information and ordering system, enables customers to directly access the METROPART computer files from their offices to check on part prices and availability, and to enter and process orders. DATALINE also enables immediate access to Service Bulletins and provides a parts news and general information service to customers.

In conjunction with the METROPART organisation the other aspect of an efficient back-up service is the Service team. They together reinforce MCW's objective to minimise down-time through product reliability coupled with durability, and have created a back-up that is the envy of many a manufacturer.

Regional service engineers, who are linked by radio in the UK and located with major operators overseas, provide advice and assistance to customers of MCW vehicles.

The service engineers draw



support from Service fitters, a specialised team who are available on call to customers, and a team of specialised engineering technical investigators, who are available to analyse and resolve any unusual problems operators might encounter.

Regular visits to customers by Service personnel and related Service engineering staff, are part of MCW's Service support routine, thereby assuring the customer of technical problem resolution through formalised procedures, with design staff being involved when necessary.

For fleet users, courses and training programmes are available

at the customer's premises and at MCW headquarters in Birmingham. A variety of courses and training programmes are continuously available covering operation and vehicle unit and systems overhaul, whilst specialised courses can be tailored to individual customers requirements.

An expanding network of fully accredited MCW repair agents ensure that operators of MCW vehicles are never far from expert assistance. Each accredited repairer maintains a stock of genuine MCW parts and has access through the DATALINE computer system to the full range of parts stocked at MCW headquarters in Birmingham. These accredited repairers have the capability to undertake a wide range of tasks including bodywork repairs, re-paint and full overhaul facilities for all chassis equipment including the Cummins engine, Voith transmission and retarder and GKN axles.

A breakdown and vehicle recovery service co-ordinated through the MCW 24 hour a day Freephone service compliment these extensive workshop resources.





MCW
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