### CHOICE OF MOTOR CARAVAN

This leaflet is prepared as a Club service and is believed correct at the date of printing. Please raise any queries with the Club's Information Department.

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## What Type of Motor Caravan?

A motor caravan is either adapted from a series-production panel van or car (conversion), or is designed and built on a commercial vehicle chassis, with or without a production driving cab (coachbuilt). The accommodation section is predominately fixed or can be dismountable. Thus there are many different types of motor caravan on the market, so the choice can be bewildering. European Standards are in existence for health and safety in the design and manufacture of habitation areas, as well as for electrical systems, payloads and ventilation. The majority of motor caravans built in the UK probably have NCC (National Caravan Council) certification for their habitation area, to show that they have been inspected to ensure that they comply with these standards and other requirements defined by the NCC scheme. Some UK vehicles and many imported models do not have this certification.

The main categories of motor caravan can be described as follows:-

#### **Conversions**

## Fixed Roof



Photograph kindly supplied by Cascade Conversions

Perhaps the most restrictive of motor caravans, the roof height is that of the standard panel van and does not permit standing headroom. Generally a two berth at most, additional space can be created by using an awning on the side or rear of the vehicle.

Facilities and insulation are usually minimal with the exception of a few conversions aimed at the away from home businessman, rather than the average caravanner, which can be incredibly luxurious and expensive. Their raison d'être is low overall height, allowing most of them to enter multi-storey car parks and domestic garages. Naturally they are also the cheapest type of conversion but many people add a fixed or elevating roof to them at a later date.

## Elevating Roof



Photograph kindly supplied by Nick Harding

Some are designed to be under 6'6''(1.98 metres) - the height of a normal height barrier. Basically the same as the fixed roof in terms of layout, but with the benefit of 'standing' headroom once the vehicle is stationary and the roof raised. On the road, the vehicle, like the fixed roof, can get under some height barriers that can pose problems for taller motor caravans, although check your measurements as the roof section does add a few inches to the basic van height. Some elevating roof models offer extra sleeping accommodation in the roof section, generally canvas bunks and mainly suitable for children or lightweight/small adults. Some roof 'bellows' are flexible plastic, some are insulated board or metal. Plastic is prone to condensation overnight unless well ventilated

High Top



This consists of a permanently raised roof in place of the base vehicle's original roof (usually extending over the cab and usually plastic, though sometimes the van maker's optional steel high roof is used (e.g. Auto-Sleeper Duetto on the latest Ford Transit) giving adequate standing headroom generally between 6'6" and 6'9"(1.98 and 2.06 metres). Some high tops have fitted shower rooms, while in others the rear portion can be sectioned off to provide a toilet/shower room. More insulation may be

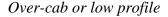
provided in the roof section although body insulation remains fairly basic, sometimes with plastic double-glazed windows in the van body.

Micro-motor caravans and car-derived van conversions



These are smaller motor caravans for those who perhaps need a dual purpose vehicle for day to day motoring and weekend retreats. Space is limited but can always be augmented with an awning. Small engines may give greater fuel economy, though at the expense of performance in some. Fixed or elevating roof models are available, together with small coachbuilts, on the Peugeot Partner, Fiat Doblo and Fiat Scudo base vans. Car derived van conversions include the Peugeot Expert (806), Fiat Scudo (Ulysse), Citroen Dispatch (Synergie) and Nemo and the VW Caddy Maxi. Both the Citroen Berlingo/Peugeot Partner/Fiat Doblo and Renault Kangoo base vans have no saloon car equivalent (though the Kangoo is closely related to the Renault Clio) but are nonetheless very pleasant and car-like to drive. The diesel engine options offer remarkable economy potential.

#### Coachbuilts







A complete body section is built on to a chassis and cab, generally utilising the bonded construction favoured by trailer caravan manufacturers, which gives strength and rigidity and also offers a higher level of insulation than straightforward van conversions. Alternatively, glass fibre reinforced plastic can be used for the complete shell or for roofs and end panels to allow rounded shapes. With more space inside the interior, coachbuilts can offer the type of facilities associated with a trailer caravan, including a permanent washroom/toilet compartment, and from two to six berth sleeping accommodation. Over-cab coachbuilts, sometimes referred to as Lutons, generally provide an extra double berth in the over-cab area, but the low-profile style, which has only storage cupboards above the roof cab, is becoming increasingly popular here with couples, as handling and fuel consumption are slightly better. A continental low-profile coachbuilt is sometimes seen with an elevating roof section over the main body.

## A-Class



Practically custom-built from the chassis up, these American-style homes on wheels are definitely for the year-round, long distance motor caravanner. Costing around £45,000 upwards (new), any amount of equipment can be included for a truly luxurious home from home. Main benefits: the wider cab normally accommodates a drop-down roof bed which can be left made up ready for use, and the cab seats usually swivel to form part of the lounge area when on site. Space utilisation is, therefore, better. A new trend is the compact A-Class, with an identical footprint to a large panel van conversion, but much more internal space and flexibility. For example: Pilote City Van.

#### **Dismountable**



Consisting of a coachbuilt body which fits on to the back of a pick-up truck, these motor caravans offer considerable flexibility. The body may be left on site in much the same way as a trailer caravan thus retaining the pitch and freeing the pick-up for day to day motoring, although it is probably not that quick a job to mount and dismount the living section. Space is often limited, although the family can travel in the caravan section, but the advantages of this system often outweigh the lack of living space for those who have to make do with just one family vehicle. Several pick-up trucks are available with a 'crew cab' which offers additional passenger seating, but this comes at the expense of pick-up bed - and therefore caravan - body length.

### Which one?

The choice of motor caravan is usually limited by the depth of one's pocket, but practical limitations must also be considered. Asking yourself the following questions may help:-

**Q.** Will the motor caravan have to double as a car, being used daily for shopping, taking the children to school etc.?

- **A.** If so, bear in mind height restrictions in car parks, fuel consumption (see Appendix A), ease of manoeuvring in tight spots and perhaps look at the fixed or elevating roof models, micro and car-derived van conversions and dismountables.
- **Q.** Is there a garage or car port you wish to store the motor caravan in?
- A. Again, with an overall height of about 9'0"(2.75 metres) upwards the coachbuilt conversion may present a parking problem. Fixed roof versions tend to be about 6'5" and the micros and car-derived conversions from 5'9" to 6'3"(1.52 to 1.90 metres) but double check the height of the particular model you wish to buy.
- **Q.** Do you prefer sites that offer full facilities or secluded fields?
- A. If the former, then the lack of the more luxurious fittings and space for toilet/shower need not be a problem. But to be completely self contained the greater freedom offered by the coachbuilt or A-class conversions must be considered. One word of caution, not every site has a conveniently placed manhole suitable for discharging waste tanks, although the vast majority of Club Sites have this facility (see Sites Directory). Therefore you may need to transfer waste using a conventional waste receptacle or bucket (preferably lidded!) Consider also that if you are very dependent on mains electricity this may require a generator when site hook-ups are not available (e.g. on most CLs): generator noise can be unsociable.
- **Q.** Will you be summer campers, or year round stalwarts?
- A. Remember insulation in the more simple conversions is often minimal. If winter warmth is required, pay particular attention to the body construction and the form of heating provided. In-board tanks are worth considering with pipe runs protected from possible freezing. These facilities will generally only be found in the larger coachbuilt or A-class motor caravans.

In the European standard it says regarding thermal insulation: 'Thermal insulation will be classified using three grades, the manufacturer must calculate the average 'U' value for the product and this will determine the grade. The NCC Certificate of Approval will clearly indicate the grade to which the product will be certificated. Those manufacturers seeking grade 3 classification (the highest) will need to ensure the water system will still operate when the outside temperature is -15 degrees C'.

- **Q.** Off road use: would 4 wheel drive be an advantage?
- A. Having both axles driven may get you out of trouble and gives extra grip and security on the road as well. However, it is an expensive extra and increases fuel consumption. Principal RHD chassis/transmission with 4WD option is the VW Transporter, although not all manufacturers will offer this option on their models.

- **Q** Payload is there sufficient?
- A. Ask for the motor caravan's kerb weight and gross vehicle weight, so you can work out the payload available, if not stated. Check that the kerb weight includes 75 kg for the driver and allows for full tanks of fuel and water. Each potential passenger needs 75 kg allowance, plus at least 100 kg per two persons for personal clothing and food etc., more for comfort. Remember to add on to the kerb weight any 'extras' fitted, e.g. oven, refrigerator etc. For every additional person, add a minimum of 25 kg.

Motor caravans manufactured to the European Standards use different terminology for their definition of weights. Manufacturers have to quote the mass of the vehicle in running order and the available user payload. These two figures added together will give the vehicle's Maximum Technically Permitted Laden Mass (MTPLM). This is the gross weight of the vehicle and must not be exceeded.

- **Q** Engine Options petrol, diesel or turbo diesel
- A Generally, only the small car-derived new motor caravans are now offered with a petrol engine option, and all new turbo diesels must now meet the higher emissions standards of Euro V.

Whilst the diesel or turbo diesel engine initially costs more, if you intend to cover a considerable mileage, especially abroad where diesel prices may be much lower, you could soon recover the initial extra expenditure (refer to Appendix A for fuel consumption figures). Diesel engines can also expect a longer life and generally have less complex, if more frequent, service requirements. They also tend to hold their value better and are easier to resell.

Petrol engines can often be converted to operate from LPG, half the price of petrol. Coachbuilt vehicles lend themselves best as the extra tank can usually be located under the floor.

- **Q** Motor caravan or trailer caravan?
- A There are a good number of advantages for motor caravan owners speed limits generally the same as for cars without trailers, fairly easy driving with no worries about instability, cheaper ferry charges if going abroad, perhaps a greater sense of 'go anywhere' freedom and pioneering spirit. There are disadvantages too, the possible loss of a pitch when out for the day, limited access to town parking, the inability to 'pop down the shops' when members of the family are still sleeping (although you could carry a folding cycle or small motorbike!), and sometimes higher motorway or bridge/tunnel tolls.
- Q Which vehicles are exempt from or subject to the London Low-Emission Zone (LEZ) charge?
- A The rules on this are quite complex. The Transport for London (Tfl) website (www.tfl.gov.uk/roadusers/lez) and phone service (0845 607 0009) enable the

status of specific vehicles to be checked (based on DVLA records, identified by a vehicle's number plate), and are the best sources of detailed advice. You can also refer to the documentation supplied with the vehicle. However, this latter option is fraught with difficulties, as manufacturers are not good at publishing the necessary information.

Until 3 January 2012 only vehicles over 3500kgs gross vehicle weight are included. To be exempt from the £100 daily charge, which is imposed 24 hours a day, these vehicles have to comply with Euro III until January 2012, when the standard is raised to Euro IV. Vehicles classed as not meeting the current Euro III standards are those registered as new before 1 October 2001. Those that will not meet the new Euro IV standards are those vehicles registered as new before 1 October 2006.

From 3 January 2012 motor caravans with a gross vehicle weight over 2500kgs to 3500kgs are affected by the LEZ for the first time. Such vehicles need to meet a minimum emission standard of Euro III to avoid the daily charge. This generally means vehicles registered as new before 1 January 2002 will face a daily charge, if not modified.

- **Q** Are any Club Sites within the LEZ?
- A Crystal Palace and Abbey Wood sites are within the Zone. Alderstead Heath and Wyatts Covert are not within the zone, although both are quite close to the boundary, so care should be taken when planning arrival and departure routes.

# **Summary**

At the end of the day there is a lot to consider, but remember to have a good look around at all the options available, and if you still cannot decide, why not hire one out for a week or two before taking the plunge, then you will know for sure what facilities you need, and what you can live without. Some dealers even refund all, or part of, the hire charges if you subsequently decide to buy from them.

# APPENDIX A MOTOR CARAVAN FUEL CONSUMPTION FIGURES

MODEL	BASE VEHICLE	ACTUAL M'VAN AVERAGE	TESTED BY CARAVAN CLUB MAGAZINE
Autocruise CH Starspirit (Low profile coachbuilt)	Peugeot Boxer 320 Al-Ko 2.5 D	26.9	1997
Autocruise Pioneer Renoir (Low profile coachbuilt)	Peugeot 2.2 HDi	25.2	2005
Autocruise Pulse (elevating roof)	Citroen Dispatch/Fiat Scudo 2.0 common rail 16v TD	32.4	2009
Autohomes Explorer (coachbuilt)	VW Transporter 2.4D	28	1994
Autosleeper Montana (high top)	Mercedes Vito 113 2.0 16v petrol/cat	24.8	1997
Autosleeper Nuevo (low profile coachbuilt)	Peugeot Boxer SWB 2.0 HDI	27.4	2002
Autosleeper Luxor EB (A-class)	Peugeot Boxer 350L 2.8 Hdi 127bhp	20.9	2003
Autosleeper Amethyst (coachbuilt)	Ford Transit 2.4 high- pressure direct injection turbodiesel	25.4	2005
Autosleeper Nuevo II EK (low profile coachbuilt)	Peugeot Boxer 2.2 HDi 130bhp	26.2	2009
Autotrail Apache (coachbuilt)	Peugeot Boxer 2.5 TD	28.3	1998
Autotrail Scout (coachbuilt)	Mercedes Sprinter 2.9 TD Auto	20	2000
Autotrail Mohican (coachbuilt)	Mercedes Sprinter 316 2.7Cdi Sprintshift 6 Auto	18.9	2001
Autotrail Tracker (coachbuilt)	Fiat Scudo Al-Ko 1.9 TD	26.2	2000
Autotrail Excel 600S (compact coachbuilt)	Fiat Ducato 2.2 Multijet 16v TD	23.7	2009
Benimar Aereo Anthus (Low profile coachbuilt)	Fiat Ducato Maxi 2.9 Tdi	22.2	2001
Benimar Aereo 6000CD-L (Low profile coachbuilt)	Fiat Ducato Maxi 2.8 JTD	23.9	2002
Bilbo Weekender (elevating roof)	VW Transporter 1.9 TD	31	1995
Bilbo Nektar 2 SWB (elevating roof)	VW Transporter 2.5 Tdi 88bhp	28	2000
Bilbo Nexa (elevating roof)	VW T5 1.9 Tdi	34.2	2004
Bilbo Lezan (high top)	VW Transporter T5 2.5 TDi PD	30	2007
Bilbo Nexa SWB (elevating roof)	VW Transporter T5 Kombi 2.5 TD 174bhp	33.3	2009
Ci Cusona 500 (coachbuilt)	Ford Transit 2.2 DOHC Euro 4 TD	21.9	2009
Coachmen RV Company Concord 275DS (coachbuilt)	Ford E450 Super Duty V10 6.8 petrol	11.6	2007
Compass Cruiser 750 (coachbuilt)	Peugeot Boxer 2.5 TD	22.85	2001
Compass Avantgarde 180 (coachbuilt)	Peugeot Boxer 2.2 HDi 100bhp	21.7	2007

MODEL	BASE VEHICLE	ACTUAL M'VAN AVERAGE	TESTED BY CARAVAN CLUB MAGAZINE
Concorde Compact (high top)	Fiat Ducato 2.3 common- rail turbo diesel	33.0	2004
Danbury Dynamic (micro-van)	Fiat Doblo 1.2 petrol MPI	40.3	2006
Design Developments Tirol (Car derived)	Fiat Scudo 1.9TD	36.4	1999
Design Developments La Parisienne (Car derived)	Citroen Berlingo 2.0 Hdi 90bhp	48.7 (official combined figure)	2003
Dethleffs Globevan 1 (coachbuilt_	Ford Transit 2.2 TDCi	33	2007
Devon Discovery (high top)	Ford Transit 2.5D	33	1996
Devon Acapulco (high top)	Toyota Hi-Ace 2.4D	29.5	2000
Devon Sapphire (fixed roof)	Mercedes Sprinter 2.1 common-rail TD	25.3	2008
Elddis Autoquest Elite 350D (coachbuilt)	Peugeot Boxer 2.5D	24	1995
Elddis Autostratus rg (coachbuilt)	Peugeot Boxer 2.8 Hdi common-rail turbodiesel	23.5	2004
Elddis Aspire 240 (coachbuilt)	Peugeot Boxer 2.2 HDi 130bhp	27.4	2011
Granduca base 56N (coachbuilt)	Fiat Ducato 1.9 TD	25	1995
Herald Aragon II (coachbuilt)	Ford Transit 2.5 D automatic	22	1994
Horizons Unlimited Cavarno (high top)	Ford Transit 2.2 common-rail turbo diesel	28.9	2006
Horizons Unlimited Cavarno Plus (high top)	Ford Transit 2.2 TDCi	28.5	2010
Hymercamp Swing 544 (coachbuilt)	Fiat Ducato 14 2.8 common-rail turbo diesel	20.3	2002
IH Motor Campers Oregon (high top)	Fiat Ducato 2.8 TD	26	2005
Johns Cross Conversions Hijetta (elevating roof)	Daihatsu Hijet 993 cc petrol	35	1997
J C L Columbus Micro-van	Daihatsu HiJet 1300cc	28-34	1999
J C L Kangoo Roo Micro-van	Renault Kangoo 1.9D	51	1998
La Strada Regent (high top)	Mercedes Sprinter 316 2.7Cdi	26	2000
Laika Ecovip h680 (A Class)	Fiat Ducato 2.8 JTD common-rail diesel	22.7	2005
Machzone Ecu (coachbuilt)	Renault Trafic 2.0 petrol	20	1994
Marquis Mirage 5000SE (A-Class)	Peugeot Boxer 2.8 HDi	23.5	2004
Marquis County Suffolk (coachbuilt)	Mercedes Sprinter 2.1 common-rail diesel 129bhp	21	2008

MODEL	BASE VEHICLE	ACTUAL M'VAN AVERAGE	TESTED BY CARAVAN CLUB MAGAZINE
McLouis Tandy 650 (coachbuilt)	Fiat 3.0 160 Multijet Power Euro IV 157bhp	25	2008
Mobilvetta Kimu 101 (Over-cab)	3.0 common-rail turbodiesel	22.1	2006
Murvi Morello (high top)	Fiat Ducato 2.5 TD	28	1996
Murvi Morocco (high top)	Fiat Ducato 3.0 Multijet	24.2	2010
Niesmann & Bischoff Arto 74LE GB	Fiat/Iveco Multijet 3.0 diesel	19.9	2010
(A-Class)  Nu Venture Un Rio (compact coachbuilt)	Citroen Dispatch 2.0 common-rail 16v TD	29.4	2008
Pilote Galaxy (A class)	Peugeot Boxer 320 2.5 TD	23.2	1997
Pilote Galaxy (A class)	Fiat Ducato 2.8Tdi	30.9	1999
Pilote CityVan CV60H (compact A class)	Fiat Camping Car 2.3 common-rail 16V turbodiesel	25.8	2008
Reimo Amalfi (elevating roof)	Renault Trafic 1.9 common-rail diesel	36.0	2004
Robel Delmun 620HD (coachbuilt)	VW 2.0 0 104PS turbodiesel	251	2005
Romahome Duo Micro-van	Citroen Berlingo 1.9D	38.6	1999
Romahome Duo Outlook (micro-van)	Citroen Berlingo Hdi common-rail diesel	38.4	2002
Swift Mondial (high top)	Peugeot Boxer 2.5D	27	1996
Swift Royale 540 (coachbuilt)	Talbot Express 2.5 TD	29	1993
Swift Sundance (coachbuilt)	Fiat Ducato 1.9 TD	23.9	1997
Swift Ace Genova (coachbuilt)	Fiat Ducato 2.0 JTD common-rail turbo diesel	25.3	2005
Swift Kon-Tiki 645 (coachbuilt)	Fiat 2.3 Mutijet 130 bhp	19.9	2007
Swift Sundance 620FB (coachbuilt)	Fiat Ducato 2.2 common-rail turbo diesel	19.8	2010
Timberland Freedom II (high top)	Fiat Ducato 2.8 JTD common-rail turbo diesel	24.5	2005
Timberland Endeavour XII (high top)	Renault Master 2.5dCi 120	28.2	2006
Vivanti V4S (coachbuilt)	Peugeot 2.0 Hdi 85bhp	23.2	2003
Volkswagen California (elevating roof)	VW 2.5 TDI PD	27.7	2006
Volkswagen California (elevating roof)	VW 2.0 twin turbo common-rail diesel	34	2010
Wheelhome Skamper (micro-van)	Fiat 1.3 Multijet turbo diesel 75bhp	50	2010
Wingamm Oasi 610 (coachbuilt)	Fiat 2.3 Mutijet 130 bhp	24.5	2007

### APPENDIX B

Other Caravan Club information leaflets of possible interest to motor caravanners include:-

Sanitation

Mains electrical installations in trailer caravans and motor caravans

Things to take

Motor caravan hire

Portable televisions

Vehicle security

Disabilities and special requirements

Top twenty motor caravanning questions answered

Water matters

Drivers' licences

Fire alert

LPG

Refrigerators

Also, various road test reports on motor caravans are available on The Club's website

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