

Data Panel

Price : £425.

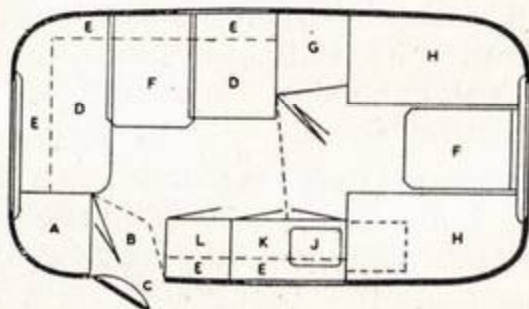
Dimensions : Body length 12ft. ; shipping 14ft. ; interior 11ft. 10in. Width overall 6ft. 5in. Height overall 7ft. 10in. ; max. headroom 6ft. 5in. Floor height 16in. Weight ex works 10½ cwt. ; nose weight 70lb.

Undergear : Tubular steel chassis, Watling design and built, welded. Backbone 3in. diameter, other members 1½in. and 1in. diam. ; depth 6½in. Independent suspension, wishbone Metalastik bearings ; Armstrong combined units, enclosed coil spring and hydraulic damper. Stub axles by Axles Ltd. Three-stud wheels. Girling ML 8in. side-pull brakes, cable operated. Pirelli tyres Extraflex tubeless 5.20-15. Brockhouse coupling. Harrison Junior screw jockey wheel and four brace-operated legs.

Normally a diagram of the chassis is included in this data panel, but the novelty and interest of the Carola's chassis is such that we felt we could not do justice to it in the small space available here, and sent technical artist Bun Rolfe to the works to do a detailed perspective drawing, which appears on page 114.

Body construction : Polyester-glass shell by Wemyss Woodhouse Ltd. ; two halves joined vertically, bolted and resin-bonded. One polyester-glass framing member, transverse hoop, tophat. Insulation ½in. foamed polyurethane plastic, sprayed PVC ; no inside panelling. Moulded wheel arches. Floor ¾in. resin-bonded Douglas fir plywood, treated Cuprinol, covered Hardura or other PVC-faced felt. Moulded door 2lin., mean height 5ft. 1in. Four Hardall windows, aluminium frames, rounded bottom corners, opening to horizontal on telescopic stays, two drawbolts at sides ; two end 36 x 18in., two sides 30 x 18 in. Two lantern lights, aluminium frame, 11½ x 3in.

Equipment : Dinette double bed 6ft. 2in. x 3ft. 9in. Three/four-seater dinette double 6ft. 2in. x 4ft. Top access lockers. Foamed polyurethane mattresses 4in. Furniture painted green and white. Wardrobe 18 x 23in. Kitchen unit 4ft. 3in. x 16in., Formica working tops ; Argyll hotplate ; polyester-glass sink unit 34 x 14in. ; cupboard below, cutlery drawer, work slide. Toilet 22 x 22in. closed, including porch 43 x 22in. Special Elsan closet £6 extra. Two hook-on tables 30 x 24in., honeycomb-cored. Roof lockers front and sides. Two bijou gas lights. Inside stowage gas cylinder. Mirror 10 x 8 in. Midget side lights ; combined rear and brake lights and reflectors (can be used also as indicators) ; illuminated number plate.



Layout : A toilet, taking in porch B ; C well tidy on door ; D,D three/four-seater dinette double bed ; E locker ; F table ; G wardrobe ; H,H dinette double bed ; J sink ; K working top ; L hotplate.

Towing car for test : Standard Ten, 948 ccs, 1957, 19¾ cwt. approx., including two persons.

Makers : Watling Joinery Works, Park Street, Herts.

WATLING CAROLA

THE van which is the subject of this month's test report is made in small quantities, and so far much of the output has gone into the hire fleet which the manufacturers run. Few have passed into private hands. In design, however, it is one of the most original since the trailer caravan appeared, and when it was launched last autumn we promptly arranged for a trial as soon as we could carry it out with a car appropriate to the size and weight of the van.

A four- or five-berth layout with toilet room in 12ft. That is one achievement of the Carola. Then it is moulded in polyester-glass in two halves which are taken out of the same mould and joined together in a new way.

The chassis is unique for Britain, being made of steel tube on the

lines of racing cars, and it has a new method of independent suspension using coil springs and shock absorbers. The insulation also is quite new, consisting of a foamed plastic (polyurethane) stuck to the body mouldings with no inner panelling. Thanks in part to these novel features, the weight has been got down to well below the yardstick figure of 1 cwt. per foot of length.

Watling Joinery, manufacturers of the Carola, are a small firm, associated with Self-Drive Caravans Ltd., the mobile hire service, and having links with the former business of Car Trailers Ltd.

The body, moulded for them by the specialist plastics firm of Wemyss Woodhouse, is divided into two along a central vertical plane. The halves are moulded

Halt on the Aylesbury-Banbury road. The van's lines admirably suit those of the Standard Ten, and the reduction in wind resistance was noticeable.





Exploring the Cotswolds near Edge Hill, Oxon. This is the village of Ratley.

by the hand lay-up technique, and are joined by inwardly directed flanges bonded with the polyester resin and bolted together at close intervals so that body racking stresses are not borne wholly by the resin bond.

Side windows are staggered to suit the layout, which is cleverly designed so that though the body halves are identical each side window falls in the right place. The door is cut out of the moulding used for the near side, and then put back with a flange.

Admiration is aroused by the shape and the clean moulding. All corners are rounded in plan and elevation. Apart from the flat portions of the sides necessary to carry the windows, every part has subtle double curves, giving shapeliness, successful combination of good interior space with minimum wind resistance, and a maximum strength for weight. A lantern roof strengthens the body and extends

downward at the ends to house bay windows. It is an object lesson in how to use this material.

Because the shape contributes so much to the rigidity, no inside panelling is needed, and the only framing is in two hoops of tophat section moulded in polyester-glass.

Insulation is provided, as mentioned, by foamed plastic tailored to fit the shell and given a durable skin to withstand rubbing and allow washing. In the van tested, last of the first series, the face was a skin of PVC plastic bonded to the foam before erection. When sticking a thick material into a curved shell some kinking is inevitable, and the result is a rather amateurish appearance, but in the vans now in production there is yet another technical novelty—a washable face of plastic sprayed on the foam in situ, and giving a clean appearance.

Interesting and unorthodox throughout, the chassis has a

The Caravan

central tubular backbone and four bowstring girder cross-members, i.e., shaped like a violin bow, with a scientifically designed system of lighter tubes trussing the backbone and providing a platform for the body.

Suspension loads are taken by a thick steel cross-member of tophat section. The wheels are carried on wishbones extending from the backbone. They pivot on Metalastik bearings, of rubber bonded to both metal surfaces. Movement is absorbed by torsion of the rubber, and the bearings are silent and require no maintenance.

Armstrong combined coil spring and shock absorber units as fitted to midget cars are fitted, and will carry a total weight of nearly 14 cwt. A talking point for the tourist bound for Spanish or Yugo-Slav roads is that a spare coil and damper unit takes up little space and adds little weight.

Turning to the interior we find technical interest in foamed plastic mattresses, which allow a large saving in weight, polyester-glass sink, weight-saving honeycomb core in the tables, and floor-covering of felt faced with PVC plastic, tougher than linoleum, and warm and resilient as carpet but easier to clean.

Larger vans shamed

Putting many larger vans to shame, this small four-berth has both double beds 6ft. 2in. long and respectively 50 and 48 in. wide. Both are dinette type, the forward normally a three-seater, to clear the centre of the van. The wardrobe is rather small but holds more than one might think. The toilet room, taking in the porch when in use, is something of a compromise, like all those in 12ft. four-berths.



That is to say, it is not very private, since it is impossible to give a really solid partition. It serves well enough for people prepared to accept a camping standard. The closet (£6 extra) is a special shortened version of the Elsan non-splash model.

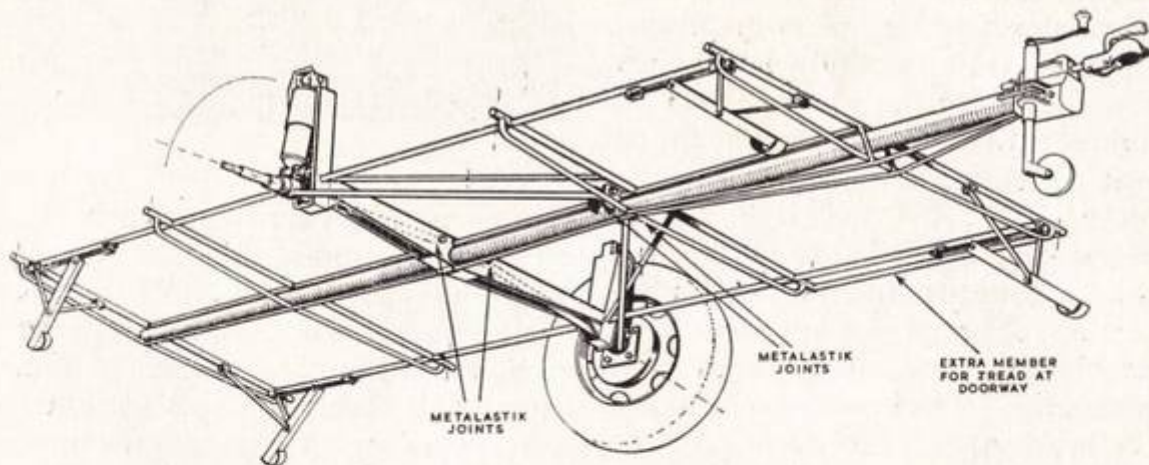
Below freezing point

The kitchen is well planned, and has quite a lot of Formica, including the sink cover which folds sideways so that there is working space both sides of the sink. There is even a Formica-topped slide, though we personally would sacrifice that for a rack over the Argyll hotplate.

We spent two nights in the van, in extremely cold weather. Using the powerful Aladdin paraffin-burning radiator (output 9000 BTUs/hr), we were able to keep at least two windows open with outside temperatures below freezing point. The walls felt cold, for the foamed plastic, though its insulation efficiency is one of the highest, is only half an inch thick, but we judged it to be better than a double panelled wall with air cavity; and this is a holiday van. At no time, even with maximum fogg which made the windows and frames steam, was there condensation on the PVC face.

The soft inner face also makes for good acoustic insulation, and the van is both quiet and pleasant to chat in.

In the test van one bed had foamed plastic mattresses, the other foamed rubber, which allowed us



The unconventional chassis, specially drawn for THE CARAVAN by Bun Rolfe. It is welded up from steel tube, and has a novel independent wishbone suspension using combined coil springs and damper units.

to compare them. The writer, whose personal padding is poor, found the rubber the more comfortable, but the saving in weight of the plastic is startling; "feather-weight" is scarcely an exaggeration.

The painted finish of the furniture is not up to the standard one expects at the price, but it is sound and practical. Seat locker fronts are raked back to increase floor space and stop heel marks. A well for odds and ends is moulded on to the inside of the door. Head-room reaches the excellent maximum of 6ft. 5in. and top ventilation is good. The gas lights are well placed for the tables, not so well for the kitchen. A Bottogas Dumpy cylinder (extra) is firmly positioned under the cooker.

If some way could be found of stowing the forward table, that would give more space when needed. The test van was going into the hire fleet, and a hire van should have a towel rail, even though most buyers are left to fit their own. The curtains were pleasing enough but with the very modern design of the van we would have liked a courageously modern fabric.

A fifth berth, if it is wanted, is

provided by a canvas stretcher over the rear dinette.

So much space was needed to describe this fascinating model that the towing performance must be given more briefly than it deserves. The test was carried out with the Standard Ten with automatic clutch reported on last month. It may be summed up by saying that the two made an admirably balanced outfit, with a lively performance which gave real driving pleasure.

In the speed test acceleration was astonishing for an engine of under 1000 ccs, pulling the equivalent of about nine extra passengers, not to mention a body larger than the car's. All-out speed was 48 mph, with no trace of snaking.

In braking tests no particularly good results were expected, since the car brakes felt spongy and were obviously unbalanced. First surprise was when the car, running solo, returned ninety per cent, even though it slewed round about forty degrees and only one wheel showed a skid mark. Then, with the van on, efficiencies between sixty-five and seventy-two per cent were recorded, again with some loss of direction. Adjustment of the van brakes was not very convenient.

Some 160 miles of road work followed. The outfit was delightful to handle, stable at all speeds, confident on corners, responsive not only to intelligent use of the gears but even when pulling in top at about 20 mph. It would have been a revelation to motorists with no experience of towing, who think of caravans as clumsy burdens.

Headroom and view of the road in the car were good. The transmission and heater were noisy. The two-pedal control improves the gear work of all but the most skilful drivers, and we made a faultless re-start on Sunrising Hill, Warwickshire (roadside sign reads "1 in 6½"). Its only weakness appears to be in reversing gingerly. It is almost impossible to creep, and this is an occasional handicap for the caravanner.

Petrol consumption for the whole test was approximately 38

mpg, which is the best figure we have ever achieved with a caravan. This too indicates a very well-designed body shape.

It was disappointing that no view-through was obtained with the Standard, but the van makers say it is with a Morris Minor.

Finally, a good mark must go to Watling Joinery for a published weight which is accurate. Our test van weighed 11¼ cwt. Allowing for the gas cylinder, closet, and one bed with rubber instead of plastic mattress, we arrive at a weight in standard form certainly not more than the catalogued 10½ cwt.

That this van comes from a small and little known maker should not obscure its significance. We are not inviting anyone to copy it when we advise some of the larger makers to take a respectful look at it. It will be a useful corrective to any resting on laurels.

Looking to rear. On the wall, right, will be seen rests for the fifth stretcher bed.

Looking forward. The toilet room extends across the porch to the kitchen unit.

