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DETHLEFFS CARAVAN INSTRUCTION'S FOR USE

Congratulation's and our compliment's on your choice.

You have bought a Dethleffs caravan,a top Quality product,wich people will envy on camping site's all over Europe. The longest standing experience in caravan production,wich is over 50 year's,has been utilised to make Dethleffs caravans somthing special,without comparison. The interior fittings,wich are both costly and sturdy,attractive but thoroughly practical,are mounted on a chassis with maximum drive-ability.Dethleffs models are suited to every use-on long journey's on good or bad roads,indeed even there where are no roads,or as stationary home in the country-side,by the sea or inthe mountains as a mobile ski-hut. With this caravan you also have a guarantee of many happy relaxed journey's.We present you with these instruction's so that your enjoyment is long-lived.All technical probléms and details can be found in the caravan-manual or in the lo-book. The manufacturer's mark is situated at the front on the right hand side by the door. The chassis number is at the front of the right hand spar of the tow bar and on the axle.

Dethleffs caravan model :.....  
Chassis number :.....  
Date of ownership :.....  
Caravan key number :.....  
Gaslocker key number :.....

We retain the right to make alteration's to the details and illustration's in this handbook.

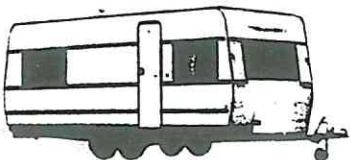
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Tip's for the first buyer

1)Registration of the caravan

According to Para.18 of the StVZO,caravans may only be used on public highway's if the driver has an licence and if the caravan has been issued with a registration number by the authorised body.

2)Registration number.

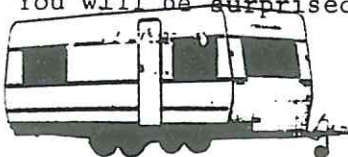
Registration number's must be applied for at the local registration office and the log-book shown.

3)Caravan Tax

The caravan is taxed in accordance with the maximum weight.

4)Caravan insurance.

You will be surprised at how little an insurance premium for a caravan cost's.It



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only cover's damage caused when the caravan is unhitched. Any other damage is covered by the car insurance. The cost of insurance depends on the normal insurance prices at any one time. It is recommended that you insure your caravan with the same company as insured your car. Another point to remember: take out a kasko insurance at least for the length of the long holiday's, especially if going abroad. And good luck, because our customer service department has seen a lot of tanned, but sad faces. A 4-week kasko premium is not very expensive, and it's our opinion that the feeling of safety it gives, helps you to enjoy your holiday more.

5) M.O.T.

According to Para. 29 StVZO, caravan's must go through the M.O.T. every two year's, just like a car. At the same time, the gas supply must be checked for leak's and issued with a certificate. This is required by the T.R.F. (Technical Rules for Gas Appliances in Vehicles) and is for your own safety.

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Illustration: Cosy atmosphere in Dethleffs caravan.

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#### Preparing for the first journey.

In order to tow a caravan, your car needs a tow bracket. Please note that the diameter of the coupling ball should be 50 mm and the distance between the hart of the coupling ball and the ground should measure approx. 350 mm when the caravan is loaded. For the coupling a 7 point plug is needed, wich contains connections for all battery-powered fittings in the caravan. Remind your electrician that the lead for the interior lighting of the caravan must be taken directly from the battery, so that the interior lighting works even when the car's ignition and light's are switched off. A separate light must be built in to the car's dashboard in order to check the indicator on the caravan.

For your own safety it is law that you have a mirror on either side of the car, so that you can see any traffic following and can adjust your dtiving to the situation.

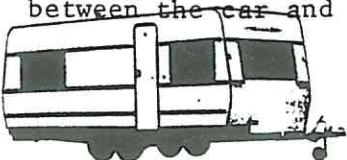
Please have your towing bracket inspected by an M.O.T. reistered garage and noted in the log book. This should be done within a week, or otherwise you are liable to be fined and the insurance company will not pay for failures

Hitching (example)

1) Wind up the corner leg's. By pushing the car or caravan, position the couplingball under the caravan coupling .

2) Attach the rip-cable to the car. Do not hang over the couplingball, but attach wherever suitable.

3) Press the releasing handle (I) with your thumb or lift the safety clip forward's and place onto the couplingball. The use of the jockeywheel when hitching is of great assistance. With slight pressure e.g. the weight of your own body, the connection will close automatically. At the same time, The releasing handle will slip in for extra safety, or the safety clip must be pressed down so that the connection between the car and the caravan is reliable.



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4) Wind up the lockeywheel (3) to the prescribed groove. Release the clamb(4) pull up the jockeywheel and re-close the clamb.

5) Plug the 7 point plug into the socket in the car and make safe by closing the safety cover. The connecting cable should not be too tight, but should also not drag on the ground.

6) Release the handbrake

When unhitching, reverse the procedure.

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Locking and unlocking.

Dethleffs caravans are protected by an especially clever locking system.

The door can be locked or unlocked from the inside or the outside. The door can be locked on the inside with the locking handle, from the outside with the key. The lock's can be turned to the left or right.

Storing and loading.

The permitted trailerweight for your car and the maximum gross weight of your caravan must be considered before loading. The load must not exceed the difference between the ex-works weight of the caravan and the permitted gross weight, nor may the grossweight exceed the permitted trailer weight for your car. The lower the centre of gravity, the better the caravan holds the road. This means that heavy articles should not be stowed in the high lockers, but as low as possible in the middle of the caravan. Blankets and pillows are of great use in preventing articles from moving during the journey.

Every Dethleffs caravan is extremely good on the road. In order that this remains so when the caravan is loaded, we recommend that heavy articles e.g. awnig, inflatable boat etc. should not be stowed forward nor at the rear, but on the floor over the axle of the caravan so that the centre of gravity remains in the middle. Two separate centre's of gravity or loading too heavily at the rear results in swaying movement's, N.B. Where there are two axle's distribute the load over both..

Diagram: Wrong-Right-Wrong.

The maximum gross weight must be in accordance with the law. In order to achieve the right towball weight, the load must be srowed correspondingly in the front of and behind the centr-axle. Another possibility would be to load the jockeywheel and the gas bottle's inside the caravan. Remember not to load the two sides of the caravan unevenly. One could be tempted to stow the heavy things on the side where the kitchen is.

The correct tyre pressure.

The right tyre pressure is indispensable for good driving and suspension. As with a car, the correct tyre pressure for a caravan depend's on the weight of the load. If the caravan has been stationary for a length of time it is very necessary to check the air pressure and refill. If the tyre's or wheels need to be replaced, the new ones must have the same code and wheel number as originally used.

Tyre's	Max.Weight	Rec.Tyre Pressure
155SR13	470kg.	2.6bar
165SR13	525kg.	2.6bar



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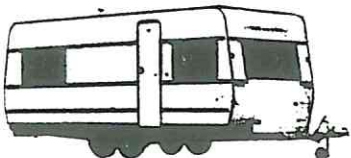
Tyre's	Max.Weight	Rec.Tyre Pressure
175SR13	585KG.	2.6bar
185SR14	660KG.	2.6bar
185SR14rf	735KG.	2.7bar

We recommend increasing the tyre-pressure of your car by 0.1 -0.2 bars more than stated by the manufacturer's if fully loaded.

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Point's to check(it worth it )

- 1)Are all door's and lockers closed properly, is the sliding-door fastened and is everything properly stowed?
  - 2)Are all window's, roof-lights and bottom ventilator's closed and, if applicable, also locked?
  - 3)Are all sources of fire put out?
  - 4)before beginning the journey, the table's should be laid between the beds and the cushions properly fitted. This will lower the centre of gravity, the table support's will not be overweighted and the front table can not fly up in the case of sudden braking.
  - 5)The ceiling-lights must be removed in order to prevent any damage during the journey.
  - 6)All corner legs must be completely wound up so that they are not broken during the journey. This is done by putting the weight on the jockey wheel and winding up both front legs. Then unwind the jockey wheel until the rear legs are only under slight pressure and then wind these up.
  - 7)We advise you to remove the ice-cube's from the refrigerator to prevent them from melting and causing a flood.
  - 7b)Secure the refrigerator door with the safety bar.
  - 8)Close the valves on the gas bottles and make the gas bottles secure.
  - 9)Is the tyre-pressure on the car and caravan correct?
  - 10)Is the coupling on the towbar well lubricated?
  - 11)Are the wheel wedges in their proper place?
  - 12)Have you checked that the caravan is properly hitched by rocking and lifting? If the rear of the car moves with the towbar then it is properly hitched.
  - 13)Is the jockey wheel wound up as far as possible?
  - 14)Have you released the stationary brake and connected the ripcable?
  - 15)Have you plugged in the 7point plug in the car and checked the light's?
  - 16)If you have a stabiliser have you fixed it on your car?
  - 17)have you unplugged the main's electric from your caravan?
  - 18)Are the inside and outside mirror's on the car in the correct position's?
  - 19)The caravan must be locked.
- N.B. Keep a reserve key in a place outside of the caravan, perhaps in the car which is normally in the near vicinity.
- 20)Do you have your driving licence, log book and insurance documents?



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20. Do all the passengers have their passports ?

21. If it's a winter holiday, have you emptied the water tank ?

Page 14. Pleasure on the Road.

Driving with a Caravan.

Towing a caravan is not as difficult as it looks, particularly as the Dethleff's caravan is so easy to tow, thanks to its shape, position of the centre of gravity and the chassis. After only a couple of miles you will already notice that you need not be afraid of towing. At a normal speed, the caravan runs quite smoothly and you will soon even be able to tow in narrow lanes.

The maximum speed for a car with caravan is 50 m. p. h. This law is for your own safety. Therefore we recommend that you do not exceed this speed even abroad where the speed limit may be higher.

The use of a an extended wing mirror will be of great assistance to the driver. Riding in the caravan is not only unpleasant, it is also forbidden. The height of your caravan can sometimes be a danger to garage signs etc. if you are not fully aware that you are towing a well-proportioned home on wheels !

Overtaking.

When towing, you need more distance to overtake than when driving only a car. By looking in the mirrors, before overtaking, make sure that the other lane really is free and indicate adequately.

When you are ready to overtake, change down a gear and accelerate as much as your combination will allow. When overtaking lorries and busses avoid driving too close as the tailwind affects the caravan. As soon as the caravan has passed the vehicle you are overtaking, change up a gear.

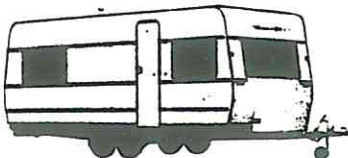
Page 16. Swaying and Skidding.

If, inspite of careful loading and correct tyre-pressure, wind causes the caravan to sway or it skids on ice, you should do the following:-  
When the caravan swings back, brake. Never try to steer against it.

Breakdown Aid.

Before you start, it is comforting to know that tyre damage is very rare in caravans. But you never know !

- a. In the case of a puncture, drive off the road and make sure of your safety by placing warning signs, lanterns or lamps a reasonable distance away. Switch on your warning lights.
- b. Our puncture spray is a practical solution to all punctures on cars or caravans. Simultaneously it closes and reflatates the tyre and a tyre



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change is no longer necessary. Obtainable from our dealers, exact instructions are on the can.

- c. Should you have to change the wheel, we recommend jacking up the caravan with a special jack, available at our dealers. Use wetges for the other wheels.
  - d. Change the wheel as you would on a car.
- Please check the wheel nuts after 5 and 50 km.

Page 18. Reversing and Parking.

Don't allow yourself to be put off. Reversing with a caravan is easy if you know that everything is done back-to-front. And you can make parking easier by finding a big enough space and being prepared to go by foot, by public transport or taxi, or even unhitching and taking your own car to reach your destination.

Reversing.

Try never to reverse without someone to help you.

Every Dethleff's caravan has an automatic reversing mechanism which means there is no need to get out of the car to put on the recoil buffer on the tow bar. The locking lever is still there, but only to be used if you must reverse on soft ground e.g. sand, grass or snow.

Page 20. Parking.

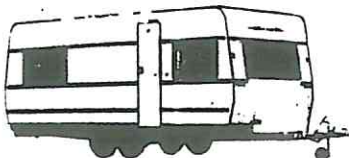
1. Firstly, make sure that the car and caravan are in a straight line, and that the car wheels are straight. Now drive back until you reach the point where you have to turn.
2. Turn the steering wheel to the right and reverse slowly. The car will swing to the right and the caravan to the left.
3. After backing in the caravan, stop the car and turn the steering wheel back to the left.
4. Now reverse, slowly releasing the steering wheel and letting the curve become straighter, until you reach the required position.

Arrival at the Camping Site.

Whenever possible, avoid looking for a space for your caravan alone. Let the site attendant direct you. If the way is really complicated, you can even let him drive you there, as he will know the way. Get as near to your space as possible. Then let the jockey wheel on to the ground by loosening the clamp screw and finally putting the clamp screw into the stop position. Unhitch the caravan as in the instructions and unwind the jockey wheel.

If you own a double-axle caravan, remember that it can not be manoeuvred on the spot, but needs more room.

When you have reached your final position by moving the caravan manually unwind the jockey wheel until the caravan is horizontal. Any uneven ground which could result in a sideways tilt, can be balanced out,



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either by putting blocks under the wheel, or by removing some earth. Only when the caravan is fully horizontal in both directions can the corner legs be unwound until they stand firm on the ground without, however, affecting the suspension. Put on the handbrake. Never try to even out differences in height with the jockey legs as this could cause damage. A tilt to the side is not good for the refrigerator.

Page 20/21. Winter Camping.

- a. When heating, make sure that the air flow is satisfactory. This prevents the formation of condensation.

Before an experienced camper settles down in the winter, he opens all lockers, windows and doors and heats the caravan right through. This prevents condensation right from the beginning. If you want to be absolutely sure, have an Airmix system installed (series from Exclusiv.)

- b. Before setting off in winter, empty the water tank to prevent it from freezing up.

Tips for Stationary Use.

- a. While stationary, the handbrake must be on and the wedges pushed under the wheels. However, during the winter it is advisable only to use wedges as the brake could freeze up and be difficult to release again.
- b. The heating will consume the oxygen from underneath the caravan and therefore good circulation is needed. This means, for instance, clearing the snow from around the caravan.

Converting for the Night.

In all Dethleff's caravans the table must be put at an angle of 45° in order to make the beds. Then push the table leg together and fold away. Lay the table on the ridges on the sides of the bed boxes and place the cushions over the whole surface. If, in the length berth model, you require two single beds you only have to remove the cushions from behind. Models with circular seating have either a folding table or a screw top table.

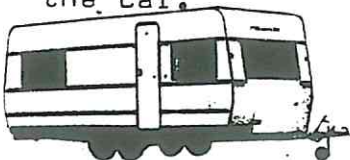
To convert back to day usage, reverse the process. Take care when putting up the table that the table support is in the proper position.

Please note that during the night condensation can also form under the cushions. Staining can be avoided by airing for a short time.

Page 22/23. Energy Supplies.

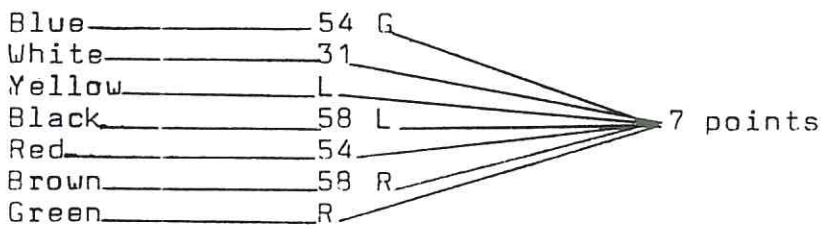
Battery and Mains.

Your Dethleff's caravan is provided with a complete DC12V and mains system. The DC connection is made with a 7 point plug to the battery. The diagram (see right) of DC12V will give you information about every electrical point and the switch scheme for the 7 point Europe socket in the car.



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Please be very careful that this system is used in your car. We recommend that you make a note of the wiring in the cable as this could avoid problems should you ever need to install a new connection.



N.B. The direct lead 54 G from the 7 point socket in the car to the battery must measure at least 2.5 sq.mm. The exterior socket connects to the mains supply. It has two IOA (Fine) fuses on the inside. These fuses must never be replaced with fuses of a higher voltage.

Please note that the electrical appliances connected to the exterior socket should never exceed 1000 Watts together.

While using a 220 V. extension lead take care that you connect it to the external socket in the caravan before you insert the plug into the live socket. When removing the extension lead, reverse the process. This means that you need never hold a live wire. A cable reel is very useful.

For reasons of weight and durability it should be plastic.

#### Some Lighting Techniques.

In your caravan it is possible to have duggling lights or a twilight atmosphere, just as you wish. Combination and mains lighting give you a wide choice. The Schuko-plugs in the wall light fittings are 220 V. Remember to use only the Soffitten light bulbs which are provided ex works.

Remove the ceiling lamps before every journey. To expose the connection, push back the cable cover, disconnect and then remove the lamp.

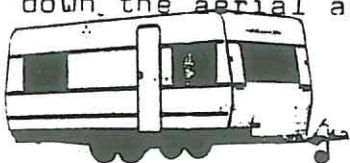
#### Page 26. Television Aerial.

Because we know how difficult it is to have a television aerial installed in a finished caravan, we have produced our Exclusiv series with aerials included.

You will find the closed aerial pole in the wardrobe. It can be extended by loosening the screw and pushing the pole out. The reception is not necessarily improved by lengthening the pole.)

To receive the required broadcast, turn or extend the pole until you have a good picture. When changing channels, it could prove necessary to position the aerial.

VHF (FIII) and UHF (FIV/V) can be received. The aerial plug and the mains point are to be found in the television cupboard. Before a journey, take down the aerial and secure the closed pole with the screw. The bottom



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must be correctly slotted into the floor.

#### The Doorbell.

Like all high-class homes the Dethleff's Exclusiv has, of course, a door bell. This bell runs on 1,5V Monocells. To change the batteries, remove the plastic cover under the light switch beside the door.

If the caravan will not be used for some time, it is advisable to remove the batteries. If not, it could be good fun for "bell-ringers".

#### Page 26/28. The Gas Supply.

The gas system for every Dethleff's caravan is installed by skilled specialists and should be checked for leaks every two years by an authorised person. The connection of the gas bottle to the supply pipes should only be done with a reduction valve DIN4814 with the valves of 500 mm. WS1,5 KGLH. and a connecting pipe with tapping screw. Propane and butane or a mixture of both gasses can be used for this system. During the journey the valves on the bottles must without fail be closed.

Make sure that the gas locker is always locked so that nobody can open it without permission.

Every gas appliance in the caravan is equipped with a safety valve which should be closed when not in use. (If the knob faces across the pipe the valve is closed. If it faces along the pipe the valve is open.)

The distributor block is in the kitchen locker under the cooker.

If you notice a smell of gas or an unusually high gas consumption, turn all gas appliances off and close the valves on all bottles. Find out the cause as quickly as possible and have it dealt with. It is an advantage to have a Duomatic installed, which automatically switches from the empty to the full gas bottle and thereby ensures an uninterrupted use of, for instance, the heater.

With a suitable Manometer you can also check for leaks. (To do this you need a 30 cm. and an 80 cm. gas pipe.)

Where there is gas lighting, the proper air circulation must be provided.

#### Securing the Gas Bottles.

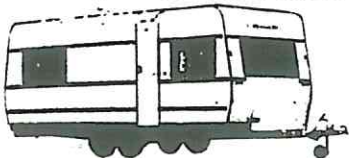
We have built a special bracket into the caravan to facilitate the securing of the gas bottles. When the bottles are in the bracket, they must be strapped in.

#### Air conditioning for Your Comfort.

#### Freshening the Air.

In a Dethleff's caravan, fresh air is guaranteed.

Well thought-out ventilation provides continual circulation and also helps to protect against the formation of condensation. Dethleff's



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caravans have an excellent ventilation system. Circulation of the air results from the ventilators in the seating and in the roof. These ventilators should always be open, even in winter, to make sure of a steady circulation.

We recommend that the sky-light and one or two windows be fully opened while you are cooking. This also applies to winter as it helps to prevent condensation. The roof and other ventilators must be left open while you are cooking.

#### Heating.

Your Dethleff's caravan puts 3,000 or 5,000 heat units at your disposal respectively. You wouldn't feel the cold even at the North Pole!

#### a. Lighting.

Open the bottles and the quick-closing valve on the gas pipe.

b. Turn on the temperature switch and press it in.

c. Press the ignition button repeatedly until the flame lights. Not necessary with an automatic lighting mechanism.

d. Press the temperature switch for a further 10-20 seconds until the safety ignition has caught.

#### Regulating.

a. Set the required temperature at the left.

b. The heater thermostat regulates the gas flow.

c. To turn off: turn the knob to "0" and close the quick-closing valve.

d. If only a low temperature is required, turn the knob slightly towards "0". If it is turned too far, it can be affected by the wind.

In addition to the heating, we have installed a warm air system in the Jubilar and the Beduin. With this system the already heated air is distributed through pipes to the adjustable ventilators throughout the caravan.

This way, you can adjust the temperature in the various rooms of your caravan-during the day heat the living area and in the evening the bedroom, just as you wish.

The strength of the air current can be regulated with the handle at the side of the heater. The warm air can be directed to all parts of the caravan through the jets on the warm air pipes. The necessary warm air is sucked away directly from the top of the heater. If the air flow drops or the motor sound increases, the ventilation wheel needs cleaning.

To do this, remove the cover of the heater and clean the wheel with a brush or a vacuum-cleaner. The hot air system needs a 220 V. point.

A set of instructions is provided for every gas heater, with a guarantee and the name of the customer services.

Please do not forget to read the instructions for the gas heater!

If you should find while camping on a hill-side, or other windy places,



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that your heater goes out repeatedly, try to buy an extension for the chimney from the caravan dealer or the heating engineer. Dethleff's caravans over 5.8m. have an automatic ignition which re-lights the flame. Should it be blown out by the wind. Before the cold season starts you should renew the Mignon 1.5 V. batteries in the ignition. To do this: take off the cover of the heater, take out the battery holder and insert the batteries according to the diagram on the inside of the holder.

We have also included an Airmix in the Exclusiv which can be ordered at an increased price for other models. The handle on the wardrobe provides a smooth mixture of indoor and outdoor air. The red dot means indoor air, the blue dot means outdoor air and between the dots, the various mixtures.

If you are heating do not put the Airmix onto pure outdoor air, so that some indoor air can also be sucked in.

The Airmix can also be used in the summer as an air conditioner. Switch on the warm air system blower and switch the Airmix to fresh air (blue dot).

In this way, you will achieve full ventilation.

#### Woman's Talk in the Kitchen.

- The kitchens in Dethleff's caravans are so well-equipped that even mothers most in need of a holiday really enjoy them.

#### The Cooker.

In all Dethleff's caravans the kitchen has a cabinet with a work surface.

The cover on the cooker can be put up to catch any spitting fat etc. To use the cooker: open the main tap on the gas bottle and the valve on the cooker. Press in the knob for the burner and turn until perpendicular and light with a match. Hold the knob in for 10-20 seconds and then adjust to the required heat. If the flame unintentionally goes out, the safety valve closes automatically. No gas can escape. On the three-burner cooker, the back burner should only be used for keeping things warm.

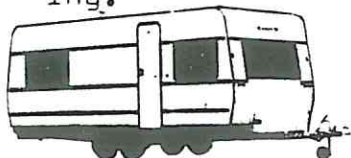
N.B. During use of open flames i.e. cooker or gas lamps, the sky-light and kitchen window must be open so that there is a satisfactory provision of oxygen. The cooker must never be used as a heater.

#### The Refrigerator.

Your Dethleff's caravan is also equipped with a refrigerator which can be run on 12 V., 220 V., or gas.

Please remember that, during hot weather, this refrigerator will not chill as well as a household refrigerator.

N.B. The refrigerator may only be run on 12 V. if the dynamo is working.



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This is only allowed if the connecting cable (battery/plug) on the car measures 2.5 sq.mm. as in the caravan. It is of the greatest importance that the refrigerator is not run on gas and electricity simultaneously. Equally important is that the refrigerator should be perfectly horizontal. During the journey the refrigerator must not be run on gas. If it is not to be used for a time, you must empty the icecube trays and leave the door open to prevent odour. You will receive a guarantee, set of instructions and a list of customer services with your caravan. Please always follow the manufacturer's instructions for your caravan and your pleasure will last longer.

The ventilation slats on the outside of the caravan should never be closed, even in the winter.

#### Sink and Hand-Basin.

The stainless steel sink has a mixer tap with a switch to turn on the water flow. The kitchen has water supplied from a tank in the toilet or in the kitchen, which can be taken out to refill. The water pump in the tank runs on 12 V. DC. The necessary block batteries are kept in a special holder beside the water tank. As soon as the tap on the hand-basin in the toilet is turned on the water starts flowing.

N.B. The pump must not be allowed to run dry.

Batteries are available from the dealer.

#### Candlelamp.

In the models which are fitted with a candlelamp, you must remember that it should be taken down for use. It is only attached to the valance for safety during the journey.

#### The Toilet.

Some models have a chemical toilet which offers you the same as the W.C. at home. The bowl is completely closed to avoid unpleasant odours. The diagram shows how the toilet functions. To begin with, fill the upper bowl with water, open the cover with the handle and pour a decomposing agent, which can be obtained from a camping accessory dealer, into the lower bowl. Before use, pump a little water into the bowl with the bellows pump.

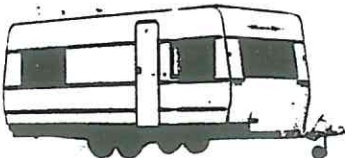
The toilet must be emptied when the water is used up. For further information please see the accompanying instructions for the toilet.

#### A Chassis-as Safe as Houses.

The Dethleff's chassis is made in accordance with the European laws and the requirements of modern-day driving.

#### Automatic Brake with Automatic Reversing Mechanism.

This has for some time been considered normal for caravans. It is so called because it operates if the caravan gains on the car, for instan-



15)

ce, when slowing down or driving down a hill.

As soon as the speed of both vehicles is once again equal, the brake-shoes in the drums on the wheels are automatically released.

#### The Automatic Reversing Mechanism.

This mechanism makes it possible for the brake to differentiate the direction of any pressure on it. If the caravan is gaining on the car, the brake operates fully, but if the car is reversing, the automatic reversing mechanism releases the brake. It also functions with the fully operating automatic brake. The automatic brake can be blocked while reversing by the use of the turning handle. This could prove necessary on very soft ground.

#### The Safety Wire.

This is a device which is practically never used. It consists of a wire which is attached on one end to a ring around the hand-brake and on the other end is attached to the car by means of a loop.

If you should have failed to hitch properly and the combination separates, the safety wire pulls on the hand-brake, thus blocking the caravan and then the ring disengages on the caravan end.

#### Cranked-axle technique.

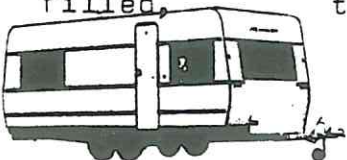
Dethleff's caravans, as you would expect of this class, are fitted with a new axle which, to a large extent, intercepts independent movements of the caravan. The cross movements of the sprung caravan construction revolve around one point which is called the centre of moment. Newly-developed diagonal spring elements move the centre of moment upwards which, during pressure on the springs, results in a change in the camber which then becomes negative. When driving around bends pressure of the wheels is perpendicular on the tyres. The pull to the side, which affects the tow bar, is therefore less and eases off more quickly than with former axle types. The couplinghead only carries out revolving movements, not cross movements. The newly-developed axle on your Dethleff's caravan reduces the uncontrolled independent movements to a minimum. Formerly caravans are often difficult to control on uneven ground, on sharp bends and in cross winds.

You are safer with your Dethleff's!

#### Maintaining and Checking the Chassis.

We would like your caravan to serve you well and wish you many happy hours.

To achieve this, it needs proper attention and regular maintenance. Please check that the wheel nuts are secure after the first 50 Km. Servicing is to be carried out after the first 500 km. and then every 2500 km. If you travel less, then at least twice a year. (If not fulfilled, the guarantee becomes invalid.)



16)

During the first two hours driving, operate the brake frequently so that the brake linings can adjust to the brake drums. Drive carefully and brake.

1) Lubrication.

Oil the nipples on the reversing mechanism and all mobile parts of the supports e.g. bolts and joints on the hand brake, joints and winding handle.

2) Check that the wheel nuts are secure.

Unscrew or pull off the hub-caps, renew the grease and screw on or press on the hub-caps.

3a) Check the Wheelbearings.

Jack up the caravan and release the hand brake. See whether the wheels revolve without any play to the side. If there is notable play or the wheels wobble, the bearings must be adjusted.

3b) Adjustment.

To adjust the bearings they are pulled into place until the hub is slightly blocked. Then the axle nut must be turned 1/12 of a revolution to the next safety catch. In order to prevent any further rotation the splint must be placed immediately into the slit on the axle nut and the end of the splint extended. Lastly, fill the hub-cap 3/4 full with grease and replace.

Don't forget the splint!

Please always follow the instructions provided by the manufacturers of the chassis.

4) Adjusting and checking the brakes.

Wear and tear on the brake linings on the wheels must be compensated for by adjusting the brake-shoes. To do this, the caravan must be jacked up and the brake released. The adjustable nuts on the brake discs must be tightened (turn to the right) and then loosened until the pair of wheels begins to run freely. Check that the braking effects is balanced and correct any differences. Adjust the level at which the automatic braking mechanism operates. Check the safety wire for damage. Check the recoil buffer for smooth operation. Check the position of the siphon.

5) Check the assembly and fixing of swing arm.

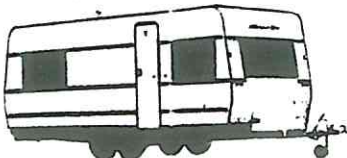
6) Check the lights.

7) See that the screws on the automatic brake are tight enough.

8) Check the support fastenings.

9) Check the underseal.

We recommend that the axle and the automatic brake be serviced by an expert or at a well-equipped garage.



17)

The mobile parts of the clamp and the jockey wheel should always be well lubricated. During the journey the jockey wheel must always be facing backwards and made fast. Alternatively, the wheel can be folded away and removed after hitching by loosening the screw on the clamp.

#### Caring for the Apple of Your Eye.

We have made the Dethleff's caravans as nice as possible. Whether it remains so is up to you.

#### Exterior.

##### Aluminium.

The exterior surfaces are lastingly protected from the weather by glazed aluminium sheets. Wash your caravan with plenty of water and polish it with a window leather.

To make sure that it keeps its shiny polish and to make cleaning easier, we recommend waxing it once or twice a year. The exterior aluminium parts are eloxidised and do not require any special care.

##### Windows.

To clean the windows use plenty of water and wipe with a soft cloth. Up to 10% lye can also be used which not only helps to clean but prevents static building up on the window panes.

Deep scratches are extremely difficult to remove, but small scratches can be removed by rubbing with silver polish. As all plastics, acrylic glass should not come into contact with chemicals or such things as paint-thinner, insect-spray, acetone etc.

##### Under the Floor.

The floor is protected against damp and stones by underseal. According to the length of use, it is advisable to renew this protection every two to four years. The jockey legs are very susceptible to weather influences near to the ground. Because of this, they should be rust-proofed twice a year. The screw-threads must be greased. This should also be done before driving on salted roads in wintertime.

#### Interior.

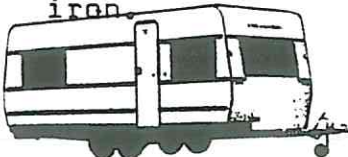
##### The Carpet.

The floor carpeting is of the same quality as in the home and should be treated similarly. The manufacturer recommends using a cloth soaked in Trichloorethyleen. A stain can be made worse by using too much water.

##### Upholstery.

Nomad: the covers are made of 45% Acetate and 32% Viscose and should be washed at 30° only.

Beduin: the acrylic covers should also be washed at 30° only. Do not iron.



18)

Jubilar: These covers are made of 50% Poly-acryl, 38% Viscose, 7% Acetate and 5% Poly-propylen. They should be chemically cleaned; it is not possible to or iron them.

Net curtains may be washed at 30° and pressed with a cool iron. Other curtains may be washed at 30°. Do not spin. Press with a cool iron.

Use water sparingly while cleaning the interior as this could damage the cushions. The covers have zips to make removal easier. If the stains are very stubborn, we recommend chemical cleaning.

#### Ceiling.

Use any normal washing powder. Any left-over stains can be removed with a sponge.

#### Kitchen.

The stainless steel kitchen fittings are best cleaned with "Wiener Kalk" or any other suitable agent. Use a mild cleaner for the plastic hand-basin in the toilet. The kitchen surfaces can also be cleaned with a normal liquid cleaner for plastics.

• The table-tops etc. can be cleaned with a damp cloth.

The kitchen and sink can be cleaned with normal household cleaners.

N.B. Use of scourers containing sand results in scratches and grooves.

#### Through the Winter.

Basically, your caravan does not need to be protected from the winter weather, in a garage or otherwise.

Before parking, the jockey legs and the mobile parts of the automatic brake must be greased. The automatic brake and the jockey wheel should be covered with the tow bar cover obtainable from the series of accessories-and not only during the winter! The tow bar cover is open underneath to prevent the formation of condensation.

Do not pull on the hand brake of the caravan, but use the wedges to stop it from moving.

The ventilators must be half-opened and all doors (wardrobe, kitchen, lockers) must be left open. Do not leave the cushions against the wall, but stand them on end and, if possible, remove the covers.

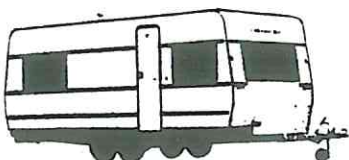
Whenever possible, the caravan should be well aired and heated every six weeks.

#### Useful Accessories.

##### Sunblinds.

Fixing sunblinds to the tinted double windows protects you and the interior fittings from the sun.

##### Awnings.



19)

There are two types of awning with which the living area of your Dethleff's caravan can be extended.

Car Mirrors.

There are varying types of mirror on the market to improve vision to the rear when towing. There are mirrors which can be put onto the normal car mirrors, to clamp on or screw onto the bonnet and lastly, a set of two which are attached to the roof like a roof rack and which look like antlers.

