

## Section 11

### Trailers and Trailing

*(Editor: some of the following material has been extracted from the Sea Wych Owners Manual, but the principles applying to this 19ft bilge keeled boat apply equally to the Leisure 17)*

#### **Why Trail?**

The two principal reasons for trailing are that it brings new sailing areas within reach, and that boat storage and handling costs may be avoided. However, successful trailing requires careful consideration of several factors, whether you are just moving the boat a mile or so home, or to a distant launch site. The most important of these are:

- the condition of the trailer and its associated kit
- satisfying the many and frequently changing legal requirements
- insurance
- the suitability of the towing vehicle
- driving skills

Proper attention to all these factors will enable you to avoid the unthinkable consequences of a 3/4 ton of boat parting from its trailer, or the trailer becoming detached from the towing vehicle. Some advice and useful links are provided below to help you keep safe and legal, but this is far from comprehensive.

#### **Trailer's Condition**

Many boat trailers are in bad condition as a result either, of being submerged in salt water in order to launch and recover the boat, or age. If there's a lot of rust (even if an attempt has been made to disguise it with paint, the badly pitted surface will indicate rust) then the insides of the steel box sections will be a lot worse, and the strength of the frame will be in question. Salt, in , and into the brake drums. Brakes are often seized up. If you can move the top of the road wheels in and out by any amount, then the wheel bearings are worn. So, you must ask yourself: 'is the trailer in good enough condition for the load and the stresses and strains it'll have to bear on the road?'. Then there's the trailer's gear, including equipment needed to launch and recover the boat on a slipway. The winch, chocks, blocks, strops, ratchet straps, ropes, spare wheel, spare bearings, grease gun, tools, jacks, a ladder, lighting board, spare bulbs, WD40, etc will be just as

[Autotow](#)

If buying, attempt to see the trailer with the vessel in place. If the wheels appear to be leaning in at the top and out at the front, there's a good chance the rubber suspension units have lost their firmness, probably because the vessel has been left in place for some time, or because the units are of insufficient strength.

#### **Legal Requirements**

The legal requirements are long and detailed, because they cover all types of trailers, but many regulations will not apply in particular instances. Other rules apply to all trailers and towing vehicles. The regulations cover everything from maximum loads to lighting, and from weight ratios between car and trailer to permitted speeds. Not only are there lots of regulations, but they are frequently updated. They're not optional either, and you can be prosecuted for infringement. To add to the fun, you can bet your life - if you still have it to bet with after an accident - that your insurance company will use any contravention of the rules to reject your claim. One of the less obvious issues is that of your driving licence. The weight you can drive/tow depends on when you passed your driving test. The legal limit changed in 1997, and again in January [Govt Guidance](#) . This site also states maximum width and length of trailers, but this shouldn't be a constraint where the L17 is concerned.

[Trailing](#) .

### ***Insurance***

Do both vehicle and boat insurances cover you when trailing? The effects of a boat coming off its trailer, e.g. because a wheel comes adrift, are largely the same, whether trailing a few yards or many miles. In general the boat insurance should pay for damage to your boat, and the vehicle insurance should pay for damage caused by the boat and trailer combination. However, insurance companies are always in the lookout for opportunities to avoid paying out on a claim, so it's best to take great care not to allow an incident to happen in the first place.

### ***Suitability of Towing Vehicle***

Your vehicle's handbook should show the max weight the vehicle is capable of towing. But an overriding factor is the ratio between the fully laden boat and trailer, and the vehicle's kerb weight. The rule of thumb is that this should not exceed 85% for a braked trailer. The handbook should also state the max nose weight that the vehicle can take. This is the weight exerted by the fully laden rig on the tow ball of the vehicle. The Caravan Club lists max nose weight for Nose Weights (pages 15-18). It may be necessary to adjust the position of the boat on the trailer to achieve the desired nose weight. Excessive nose weight has the effect of trying to lift the front wheels of the towing vehicle, which can result in a dangerous reduction in the effectiveness of the steering. Members should be aware that the maximum towing weights recorded on the internet or in the manufacturer's handbook for a particular make and model of vehicle are often 'nominal' for the breed. For modern vehicles, the exact values for your particular vehicle can be found on the manufacturer's plate attached to your vehicle. The difference from the nominal value might just allow you the few extra kg you need to make your packing complete.

### ***Driving Skills***

It is difficult to offer any specific advice, other than to take things much more slowly than when Towing Techniques is a video of some of the basic handling skills.

### ***Bow or Stern First***

The original Cobramold trailer was designed to carry the boat stern first. It is assumed that this was the same trailer as later sold by Brinecraft for £850, and it also seems likely that the trailer was intended only for dry launching; the absence of docking arms and the difficulty of reversing the boat onto the trailer would seem to preclude wet recovery.

### ***Trailer Design***

The weight of an L17 is quoted in the brochure as 670 Kg, but this is its unequipped weight. When kitted out ready to trail, a L17 is likely to weigh nearly 800Kg. To this has to be added the weight of the trailer, maybe 300Kg, to determine the total weight of the towed package. So whether you are building your own (it appears that that a home-built trailer can be legal, and does not require to be plated), the figure to be borne in mind is something around 1100Kg. Bear this load also in mind when checking/buying tyres; these have a max loading which should be . In general, car tyres are usually designed to take 437 kg per tyre, whereas van tyres will carry 670 kg per tyre, so if yours is a two wheeled trailer, make sure it's got 670kg tyres. One question which frequently arises is the dimension of the footprint of the keels. The reported figures vary between 51" and 54" outside edge to outside edge, and 3ft long. If the keel support channels on your trailer are too close, the boat won't fit! It's better to err on the generous side, which makes recovery of the boat easier; the 'gaps' can always be packed with pieces of timber before trailing. If you plan to recover 'wet', the value of substantial docking arms and bow post cannot be overstated, particularly in the final stages of man-handling the boat into its correct s should be marked with a bold band of paint, or distinctive tape, showing the depth at which the boat should float just above the keel channels.

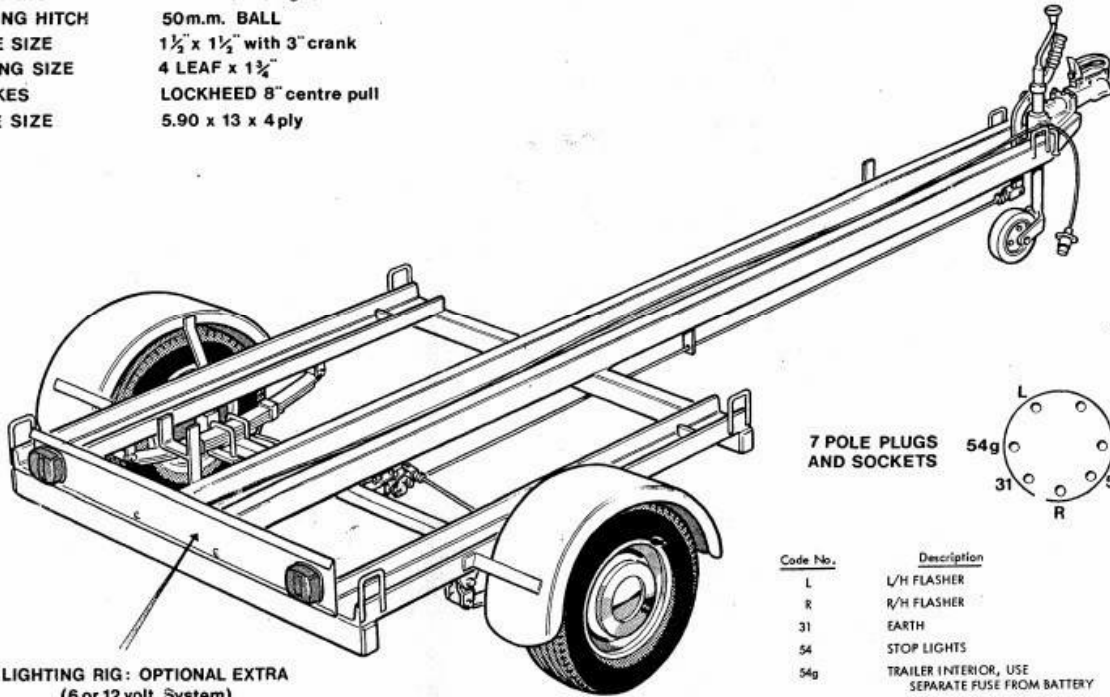
There are several links further below dealing with trailer design, and immediately below is a picture of the original Cobramold trailer. This is included largely for academic interest.....

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3784

**LEISURE 17 TRAILER**

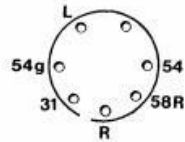
COBRAMOLD LTD Twenty First Street Stansted Airport Essex. CM  
Phone: Bishops Cleeve 870851 & 870852

- DIMENSIONS 156" L x 72" W x 24" H
- UNLADEN WEIGHT 400 lbs. (198 Kgs)
- CARRYING CAPACITY 17 cwt. (865 Kgs)
- TOWING HITCH 50m.m. BALL
- AXLE SIZE 1½" x 1½" with 3" crank
- SPRING SIZE 4 LEAF x 1½"
- BRAKES LOCKHEED 8" centre pull
- TYRE SIZE 5.90 x 13 x 4 ply



LIGHTING RIG: OPTIONAL EXTRA  
(6 or 12 volt System)

7 POLE PLUGS AND SOCKETS



Code No.	Description	Cable Colour
L	L/H FLASHER	YELLOW
R	R/H FLASHER	GREEN
31	EARTH	WHITE
54	STOP LIGHTS	RED
54g	TRAILER INTERIOR, USE SEPARATE FUSE FROM BATTERY	BLUE
58R	TAIL LIGHT R/H, & NUMBER PLATE LAMP.	BROWN

The image below is of a custom, commercially built trailer for a 19ft Sea Wych (the author's).



Note the:

- (adjustable) docking arms
- two bow rests. The shorter bow rest could be adjusted vertically, and the longer moved fore and aft. U-bolts provided the means of locking the adjustable arms and taller bow rest.
- keel channels are right angled steel, rather than 'U' section.

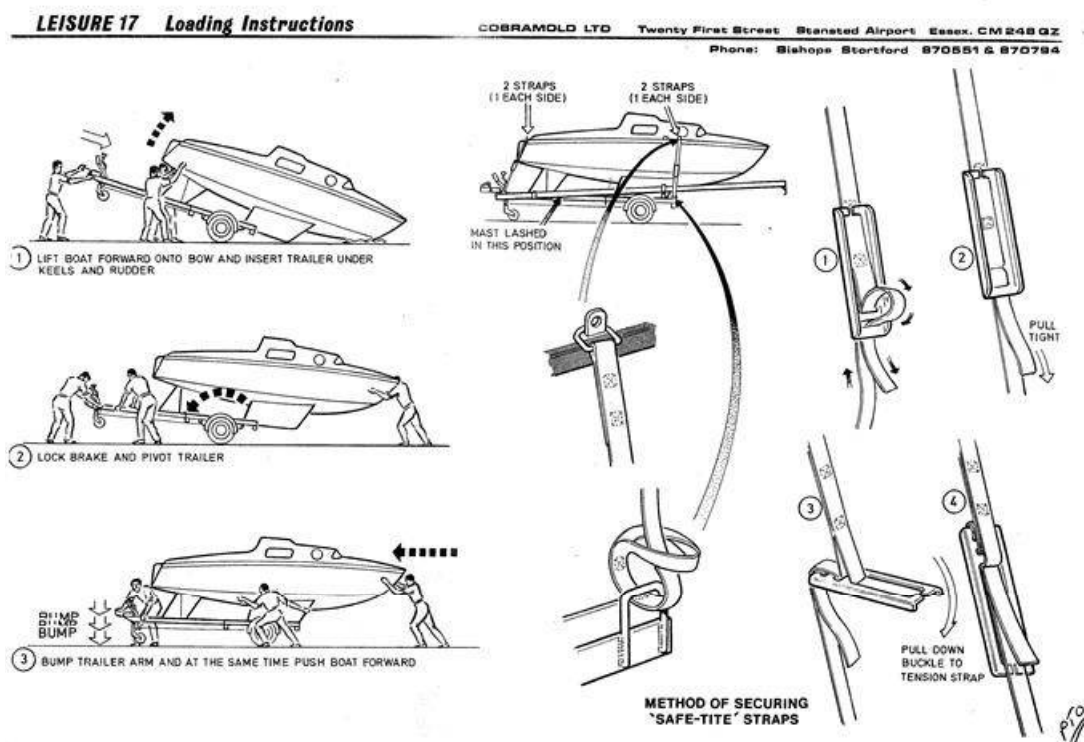
Note also the four wheels! Not only for safety, should one become detached, but smaller wheels could be used which lowered the whole rig. The downsides of a four-wheeled outfit is that it is difficult to manoeuvre by hand, and one can only launch 'wet', hence four sets of drums and bearings to wash out and re-grease. It is shown simply to give ideas to budding trailer builders/modifiers.

### ***Launching/Recovery***

There are several techniques for this, but they fall into one of two types, dry or wet – in terms of whether the trailer stays dry or not. Dry launching is the better method, because water, particularly salt water, has a harmful effect upon steel. But you can only use this method in tidal situations, where you can wait for the incoming tide to float the boat - or leave the boat if you are recovering. If you do have to put the trailer in the water, there are three important points:

- let the bearings cool down before immersion. This reduces the amount of water sucked into the bearings
- as soon as the trailer is out of the water, hose it thoroughly, particularly the insides of the box sections, with fresh water
- strip and re-grease the bearings with a 'waterproof' grease.

Below is the Cobramold method for dry loading.



It should be borne in mind that this was probably the method laid down for three strong factory workers who did the job several times a month to load a very basic L17 hull onto trailers brought onto site by L17 purchasers or distributors. It might not work so well for novice owners with a fully loaded L17 on a windswept hard on a dark and rainy October evening. Ladies and more elderly owners might even find it difficult just raising the front of the trailer that high. Using boat lifts is expensive, but not as expensive as a hernia operation.

**Safety**

When wet launching or recovering for the first time, be aware that you can end up spending more time than expected in water which, at the beginning and close of the season, can be quite cold. Dress accordingly, and have spare clothes available. Once the vessel is out of the water, you'll still have work to do. When dry launching, be aware what damage those keels and the jockey wheel can do to your toes. Wearing steel toe-capped boots should not be considered pansy. Also, don't forget what's above your head, and shortly to be lowered. A hard hat wouldn't be out of place.

*[Ed: The following describes a method of dry launching and recovery of a Sea Wych. This was OK for this boat because she had a removable rudder and no skeg. Some adaptation would be necessary for the L17. Particularly note the ingenious method of keeping the leverage point close to the points of greatest resistance ie the bottom of the keels, which also enabled the winch to be mounted low down.]*

"We have used this ('dry' launching) method now for more than three years, and probably launch and recover Sea Wyches more than most. The main advantage of launching dry is that it saves an awful lot of corrosion on wheels, brakes, bearings, etc, not to mention the trailer framework. To assist in this method, having a winch fitted to the trailer is a great asset; we have a two-gear winch, with ratios of 5:1 and 10:1 and a capacity of 2000 lbs. The winch is fitted between the bow support and the tow hitch. The cable is then run to a steel angle bar, which spans across the backs of the keels, with suitable pressure pads to prevent damage. To launch the boat dry, you should place on the ground behind the trailer, two large wooden blocks approximately 4" - 6" thick, by one foot square, in a position so that when the boat plus the trailer is tilted up, the keels will slide nicely down centrally on the blocks.

When sliding, (sometimes joggling), the boat off the trailer, it is advisable to slacken the winch off slowly, letting it take the strain. Once in this position, with the back of the keels on the blocks and the bow up in the air, you then hold the transom down on the ground, disconnect the winch and remove the trailer. Now you release the transom of the boat until the front of the keels touch the ground. Lift the transom up and remove blocks, and lower stern down again. On average, you will have one to two hours before the boat is floating, assuming you removed the boat at the water's edge on a rising tide. This allows ample time to rig the boat, etc. To recover the boat you just reverse this procedure, using the winch to pull the boat onto the trailer. On average, launching or recovering the boat this way takes about five minutes with 2 – 3 people or more, without getting your feet wet."

### ***Reference Libra***

Design

Launch and Recover

Loading Trailer

Modification to Bow-first

Recover Bilge Keeler

### ***Forum Items*** (to 22 Jan 14

Bow First

Bow or Stern First

Bow or Stern First 2

Bow or Stern Forward

Docking Arms

Dry Launch or Recovery

Dry Launch or Recovery 2

Flatbed Trailer

Modifications

Recommendations

Spares

Stern First Recovery

Towing Weight

Design

Recovery Wet

Tyre Loading

Weight Measured

Weight of Rig

Wet Launch/Recovery

**END**