

Fairey Atalanta Repairs, Maintenance and Associated Matters

Section One Towing and Transporting

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The basics - Legislation, The Car and Loading

The licensing limits for drivers towing have changed a number of times since 1997 so drivers should check their own driving license categories before towing.

The bare hull of an Atalanta 26 weighs about two tons. The lightest trailer than can carry an Atalanta is about 700kgs and most would be more. With very few items added, the mast for example, the total weight will be about three tons. If any inventory items are carried the total weight could be approaching the maximum of a 50mm ball hitch of 3,500kgs. This weight can be towed by many larger 4 x 4 and light commercial vehicles. It would be beneficial in the interest of safety to weigh the boat and trailer on a public weigh bridge. This weighing should include not only the total weight but also the nose weight of the trailer separately by uncoupling the towing vehicle and weighing the weight at the tow hitch placing it on an axle stand of the same height as the vehicle tow hitch. The location of public weigh bridges is given on the Gov.uk website.

The following restrictions have to be considered together with the drivers license limits.

1. The towing weight that the vehicle is capable of, the details will be in the vehicle hand book.
2. The train weight which is the total weight of the vehicle, its load and the towed weight this will also be in the vehicle hand book..
3. The coupling. A 50mm ball hitch is cleared to tow 3,500 kgs but not all towing brackets are. This is particularly the case with a towing bracket that also includes a drawbar pin. The weight limits that relate to the bracket will be stamped on it together with the Maximum Nose Weight

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(That is the weight that the trailer draw bar exerts on the tow ball). On more modern tow brackets will also be stamped the Maximum towing force ie the force that can be pulled.

4. The legislation relating to the tow vehicle and trailer i.e. lighting, braking, overhang, emergency braking stop etc.

It should be noted that published weight limits relate to the maximum allowable weight not the actual weights.

The boat should not be used as a cargo trailer. Inventory items should be carried in the towing vehicle to balance the weight between it and the trailer with due regard being given to evenly loading the towing vehicle whilst taking into account the nose weight of the trailer.

In order to ensure that the trailer does not oscillate and become dynamically unstable when towed there must be weight on the tow hitch up to and near the published max nose weight. The load must be distributed on the trailer so that the weight is taken evenly on the wheels and with as little weight as possible behind the wheels.

Some vehicles specify different tyre pressures depending upon the load being carried, check the vehicle data before loading and towing.

Care needs to be taken not to over stress local areas of the boat when lashing it to the trailer. Lashings should be positioned over existing hard points of the boat i.e. the stem head fitting and the horse rail bases. Industrial ratchet straps should be used but with caution and not be over tightened.

The Trailer

In order to minimize the stress to the hull it is recommended that a trailer to Fairey drawings C24595, 24580 and A24418 is used. (Note:-These are the drawings held by RM Trailers and do not all correspond to the drawings listed on the Atalanta Owners Assoc website) This design has cradles that take the weight to avoid localized stress to the hull. In particular it has provision to lower the keels into cradles thus removing their weight from the hull when loaded.

RM Trailers Ltd of New Alresford Hants SO24 9QF can fabricate a trailer to meet these specifications.

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If a general purpose boat trailer is used any adjustable rollers or side supports should be positioned so that they are directly under the bulkheads and other structurally strong parts of the hull. In particular a method should be adopted so that once loaded the keels can be lowered onto the structure of the trailer so as to remove the dynamic stresses that will occur whilst driving that could be transferred to the structure of the boat. Ensure that these keel supports are on the rigid part of the trailer chassis and not the suspension. These supports should be in the centre of the keels so that the whole weight is taken off the pivot mechanism in the boat. It may be beneficial to remove the up stop blocks at the aft end of the boat's keel boxes to allow the keels to be fully retracted.

Vehicle tyres are usually changed when the tread wears down to a specific limit. This is most unlikely to be the case with trailer tyres as they will inevitably cover less distance in their service life as well as not having camber, caster or toe in/out angles. Trailer tyres will deteriorate with age due to often carrying high loading, be subject to uv light when not in use and exposure to the weather whilst stationary. It is wise to change trailer tyres after a period of time rather than wear. As an example it is recommended by the Caravan Club that caravan tyres are changed after only seven years. (Despite following the advice given in the following paragraph the author's trailer tyres structurally failed after sixteen years)

To avoid damage and extend the life of both the tyres and the trailer's suspension when not in use, and particularly when the boat is loaded, the trailer should be jacked up and supported on axle stands or blocks. The weight should be taken on the trailer chassis so that no weight is taken on either the tyres or the trailer suspension.

It is unlikely that the towing vehicle jack will be suitable to jack up the trailer in the event of a puncture or other failure. A suitable hydraulic bottle jack should be carried which is then available to jack the trailer up to support it on axle stands.

The cost of a bottle jack, axle stands and of routine tyres replacements has to be compared to the cost of a recovery or the possible consequential costs and damage caused by an accident.

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A suitable hydraulic bottle jack and axle stands. Note the cradle welded to the jack to spread the load which reduces the chance of damage to the trailer and to centre the jack and trailer structure.

When stored for any length of time trailer brakes should be left off to reduce the chance of the brakes shoes rusting onto the surface of their drums. This also releases the tension in the brake cables and springs and prolongs their service life.

Unless on a long or high trailer it may be necessary to avoid damage to the rudder blade that it is removed from the stock during towing.

Carriage on a flat bed.

An Atalanta is designed to be stable resting on the two keels and the aft skeg so can be carried on a flat bed lorry or trailer. Fairey Plan B31072 gives details for carriage for an Atalanta 31 Owners would need to locally manufacture suitable chocks for the carriage of other Fairey boats.

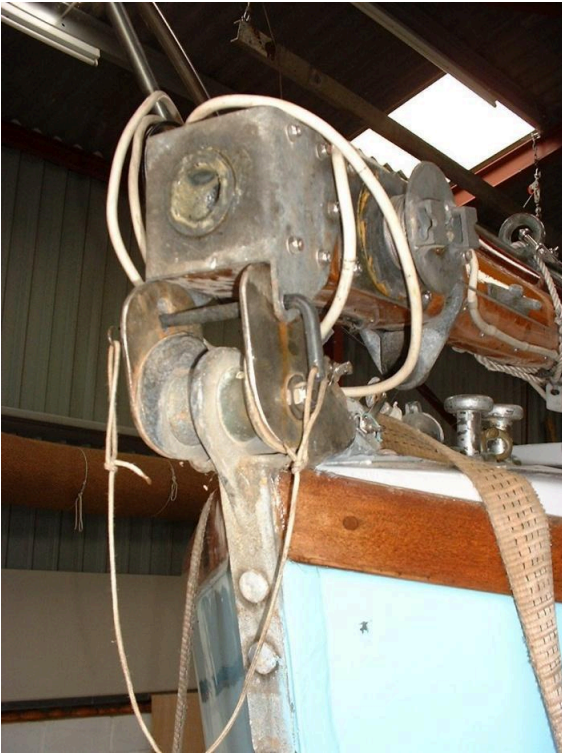
Carriage of the mast.

When stepped the mast is designed and built to take compression loads with lateral forces taken by the rigging. A mast, particularly a wooden, mast will be damaged if not adequately supported during transit when loaded horizontally. Laying it across, for instance, the pushpit and pulpit will be inadequate support and will not only damage the mast but also the push pit and pulpit and possible the toe rail they are mounted on. Any owner who intends to make either long or regular road journeys would be advised to make permanent structures to support the

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mast. The pictures below show possible mountings. For short or irregular journeys the weight of the mast can be spread over the blister top using suitable cushions or padding to spread the weight and then temporary supports added at the ends. The securing method should ensure that any vibration is damped out as this can cause disproportionate damage to the mast.

Below are some pictures showing various options to facilitate the carriage of the mast.



Cheek pieces added to the stem head fitting to allow secure fitting of the heel of the mast whilst also taking its weight.



A block made to fit over the strong point of the mast step to be one of the weight bearing supports for the mast.

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*An A frame support for the mast.
Note the load spreading boards on
the cockpit floor. The frame behind
is to start of the construction for a
replacement for this A fame.*

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A secure cradle to carry the mast mounted on the strong points of the horse rail.