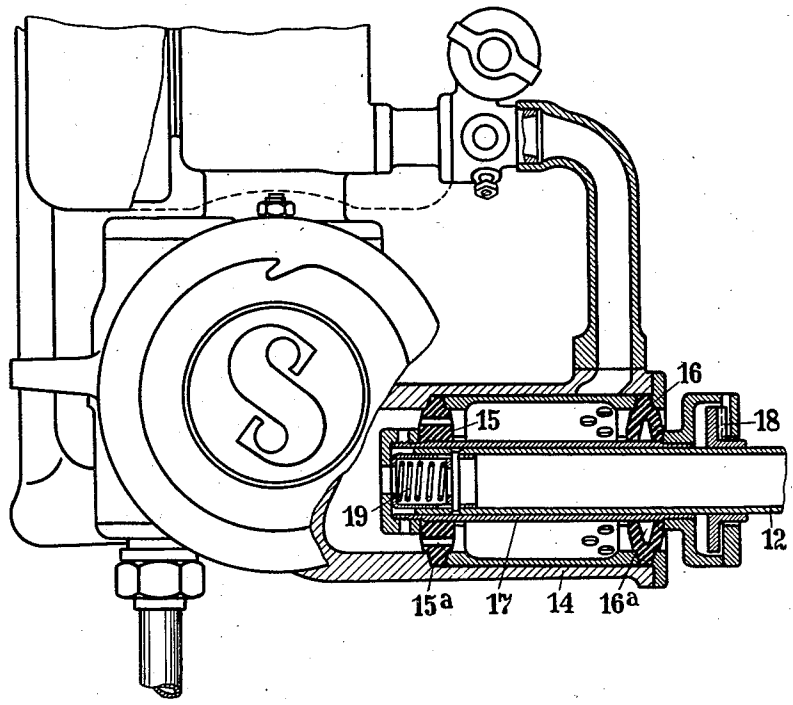
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ELASTIC FASTENING APPLIANCE FOR OUTBOARD MOTORS

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ELASTIC FASTENING APPLIANCE FOR OUTBOARD MOTORS

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4 Claims. (Cl. 248—4)

The invention relates to the suspension of the driving motor outside the boat by the intermediary of elastic means for anti-vibration effect.

The object of the invention is so to construct the appliance connecting the motor to the boat as to prevent transmission of shocks or vibrations arising with the working of the motor and propeller to the boat. Nevertheless the connection between the driving engine and the boat shall be effective and continuously maintained and particularly any undue relative displacement of the engine and the boat from their right connection is to be avoided, the reaction of the propeller must be transmitted to the boat without any sensible loss. On the other hand, the advantage of suppression of vibrations so troublesome to the user of light boats is always aimed at.

To attain this object, the attachment of the motor aggregate to the boat is performed with the interposition of elastic means which permit of the motor oscillating in a slight degree in respect to the boat so as to damp the shocks or vibrations which could be transmitted to the boat by a rigid connection. The elastic intermediary members may be located at any suitable points of the fastening attachment of the motor aggregate, which attachment may also conveniently be combined with arrangements by which the propeller can be swung out of the water or the boat steered by means of the motor.

Another object of the invention is a special arrangement of interposing the elastic members between the boat and the motor in a most simple manner giving the user the possibility of controlling the driving engine positively.

This will be accomplished by the elastic bodies inserted between rigid portions of the means carrying the motor aggregate on the boat in such a manner that they are firmly held in place or gripped, the impulse of the propeller continuously and uniformly acting being safely transmitted to the boat, whereas sudden or rapid but short changes of the condition, such as shocks and vibrations are absorbed by the buffeting bodies. For instance this purpose can be fulfilled by means of rubber bodies, but in some instances springs or the like which are yieldable in one of more directions may also be inserted.

One embodiment of the elastic connection for the purpose referred to is represented in the drawing forming a part of this specification, and showing a plan view partly in section.

In the form shown, there is provided a hollow cylindrical cross beam or carrier 12 adapted to be attached to a suitable part of a boat such as the washboard, and supporting a motor unit. The connection between the motor unit and the carrier 12 includes a bearing sleeve 17 encircling the carrier 12 and movable lengthwise therealong. Between said sleeve 17 and the carrier 12 is a bayonet joint coupling 18, one element of said coupling being connected to the carrier 12, the other element being threaded onto one end of the sleeve 17. Forming part of the motor unit and encircling the sleeve 17 is a housing 14.

Firmly embracing the outside of the sleeve 17 is a pair of annular cushioning rings or members 15 and 16 axially spaced along said sleeve and having their outer peripheries engaged between shoulders formed on the housing 14 and shoulders formed by the ends of an interconnecting tubular member as shown. In order to impart greater resiliency to the cushioning rings or members 15 and 16, said rings are formed with recesses such as the recess 15*a* or the recess 16*a*.

The elements of the bayonet joint clutch 18 are held in interengaging relationship by a spring 19.

The cushioning rings 15 and 16 will take up the shocks and vibrations in all directions, so that they effectively resist both radial and axial strains and vibrations. These cushioning members may be of various dimensions and may be reenforced and stiffened by suitable linings, as well known with tires. These members may be made of any suitable resilient material such as cork, felt, asbestos fabric, porous substance and the like.

What I claim is—

1. In a device for attaching an outboard motor unit to a boat, a cylindrical carrier for the motor unit, a bearing sleeve for said carrier, a bayonet joint clutch between said carrier and said sleeve, a pair of annular cushioning members of rubber embracing said sleeve and spaced a substantial distance apart along said bearing sleeve, and means for securing the peripheries of said cushioning members to said motor unit and for housing said peripheries, said means presenting metallic shoulders firmly engaging opposite ends of each of said cushioning members near their peripheries, the portions of said cushioning members between said shoulders and said bearing sleeve being free to vibrate laterally, whereby said cushioning members effectively resist both radial and axial strains and vibrations.

2. In combination, an outboard motor unit, a cylindrical carrier for said motor unit, a bearing sleeve axially movable on said carrier, a clutch having one element secured to said carrier and

the other element secured to said sleeve, spring means for urging said sleeve axially with respect to said carrier to effect cooperative interengagement between said clutch elements, and a pair of annular cushioning members disposed between said motor unit and said sleeve encircling said sleeve and spaced a substantial distance apart along said sleeve, the outer peripheries of said cushioning members being secured to said motor unit, and said cushioning members being free to vibrate laterally whereby greater resiliency is imparted to the connection between said motor unit and said cylindrical carrier.

3. In combination, an outboard motor unit, a carrier for said motor unit, and a connection between said carrier and said motor unit for securing said motor unit against rotation with respect to said carrier, and including a clutch of the type in which two coupling clutch elements may be engaged or disengaged by the relative axial movement of said elements, and cushioning members of resilient material for imparting greater resiliency to said connection.

4. In a device for attaching an outboard motor unit to a boat, a cylindrical carrier for the motor unit, a connection between said carrier and said motor unit for securing said motor unit against rotation with respect to said carrier, and including a clutch and cushioning members of resilient material for imparting greater resiliency to said connection, and spring means for urging the elements of said clutch into cooperative engagement.

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