AUXILIARY MOTOR MOUNTING BRACKET

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2. 3,462,102

ABSTRACT OF THE DISCLOSURE

A mounting bracket for an auxiliary outboard motor and having a motor mounting block supported by parallelogrammatic support means for vertical movements in a plane parallel to the transom of a boat to which it is attached and having cross bracing to withstand oblique racking forces effected by steering movements of the motor and motor means on the block to preclude accidental displacement of the motor clamp.

My present invention relates to the broad field of boats and more particularly to an auxiliary outboard motor mounting bracket designed to be affixed to the transom of a boat and support an outboard motor rearwardly of the boat, and is an improvement over my Patent No. 2,645,837 of June 30, 1953.

More particularly it is a mounting bracket for an auxiliary outboard motor and having a motor mounting block supported by parallelogrammatic support means for vertical movements in a plane parallel to the transom of a boat to which it is attached and having cross bracing to withstand oblique racking forces exerted by steering movements of the motor and motor means on the block to preclude accidental displacement of the motor clamp.

It is an object of the invention to provide a motor mounting bracket which has a mounting block adapted to be supported on the transom of a conventional boat by means of parallelogrammatic support means constructed and arranged to maintain the block, and thus the motor attached thereto, in a substantially vertical position; i.e., one that is parallel to the plane of the transom.

A further object of the invention lies in the provision of a motor adapted to be secured to the transom of a boat and to receive an outboard motor which is provided with cross bracing designed to reinforce the brackets against oblique racking forces exerted by steering movements of the motor mounted thereon.

Yet another object of the invention lies in providing the motor mounting bracket aforesaid with a mounting block having a horizontal head along its upper edge thus defining a shoulder adapted to confine an outboard motor clamp from accidental displacement from the block.

These and other objects of the present invention will become apparent during the course of the following description when considered in conjunction with the accompanying drawings wherein a preferred form of the invention is disclosed and in which;

FIGURE 1 is a top plan view of my improved motor mounting bracket;

FIGURE 2 is a longitudinal vertical section taken substantially on the planes indicated by the lines 2—2; and

FIGURE 3 is a vertical elevational view of the mounting block substantially as indicated by line 3—3 of FIGURE 2.

Referring more particularly to the drawings, it will be seen that I have provided a motor mounting block 10 of sufficient width to accommodate the conventional clamp of an outboard motor (not shown) which conventionally has a pair of clamping feet adapted to impinge upon the front face 11 of the mounting block 10 substantially at locations indicated by the dot and dash circles 12—12.

Along the top marginal edge of the block 10, on the face 11, I provide a horizontally extending head 13 which defines a shoulder 14 constituting means for confining the clamping members of an outboard motor from accidental displacement from the mounting block 10.

The mounting block is drilled at selected locations and rivets 15 extend therethrough and secure the mounting block to a mounting plate 16 which is deformed at 17 to increase its rigidity. The plate 16 has forwardly extending parallel flanges 18 to which upper and lower parallel arms 19 and 20 are pivotally secured by means of bolts 21 and lock nuts 22. At their forward ends, the arms 19 and 20 are pivotally secured to the flanges 23 of a pair of laterally spaced, vertically extending angle members 24 and the pivotal connections are accomplished by means of bolts 21 and lock nuts 22 in the manner described with respect to flanges 18.

It will be noted that the lengths of the arms 19 and 20 are equal and the spacing of the bolts 21 vertically along the flanges 18 and 23 are also equal. Therefore, at each lateral side, a parallelogram is defined so that the plate 16 and thus the block 10 may be vertically adjusted and yet always remain parallel to the plane coincident to the flanges 25 of the angle members 24. It is thus clearly seen that I have provided a parallelogrammatic support means 15—25 which is adapted to support the mounting block with respect to the transom of a boat. The members 24—25 may be secured with flanges 25—25 in face to face engagement with a boat transom using conventional bolts which can extend through the apertures 26 formed in the flanges 25. Thus the block 10 may move vertically and remain in parallelism with respect to the transom (not shown) to which the support means 15—25 is secured.

Since the bracket is designed to support an outboard motor by means of which the boat is propelled, any steering movements of the motor cause oblique racking forces to be applied to the support means. This causes excessive wear and even deformation of the parts in the previously patented structure, and I therefore have provided cross braces 27—27 which have their ends welded to the lower arms 20. The braces 27—27 therefore rigidly interconnect the lower arms and transmit racking pressures to points adjacent to one or the other of the angle members 24 thus permitting the use of lighter weight material and yet providing a stronger bracket.

Each of the arms 20 is provided with a coincident series of alternating notches with teeth 28 along its lower edge and cooperating mating dogs 29—29 are pivotally secured at 30 to the flanges 23. Hereinafore, a single dog has been employed, but again, the weight of the motor and the reaction forces to the thrust causes racking forces in the mounting bracket, again causing excessive wear and in some instances deformation. Therefore, I have added a second dog and by means of interconnecting rod 31 rigidly secure the dogs for simultaneous movement so that thereby the bracket is selectively supported at both lateral side parallelogramms with the mounting block in a selected vertical position. This avoids any weight caused oblique racking forces in the mounting bracket.

Springs 32—32 are secured to the bar 31 at their rearward ends and at their forward ends are anchored in integral eyes 33 formed from the flanges 25 of the angle members 24.

To provide clearance for the uppermost bolt and nut 21—22 of the flanges 18, I chamfer or angle the mounting block 10 at 34.
Having thus described my invention, I desire to secure by Letters Patent of the United States the following:

1. In an auxiliary outboard motor mounting bracket, having:
   spaced angle members having coplanar flanges adapted to be secured on the rearward face of a boat transom; vertically spaced upper and lower pairs of parallel arms pivoted at their forward ends to said angle members and extending rearwardly therefrom;
a mounting plate having forwardly bent flanges at its lateral marginal edges constituting attaching means; the rearward ends of said arms being pivotally attached to said last-named flanges, whereby to form a parallelogram wherein the said plate may be moved vertically and maintained in parallel relationship to said first-named coplanar flanges; and
a block secured on the forward face of said plate;
the improvement, comprising:
   said block having an integral projecting bead on its forwardly directed face extending for the full length of said block at its upper marginal edge portion;
the lower pair of said arms having cross-bracing welded therebetween to resist racking forces on a substantially horizontal plane;
each said lower arm having a series of teeth along its lower edge coincident to the other;

4. a pair of dogs each pivoted one to each said first-named angle member and disposed to coact with the teeth of one said lower arm to support said plate at both sides;
a rod interconnecting said dogs for coincident pivotal movement; and resilient means biasing said dogs into engagement with said teeth, whereby to releasably support said plate at manually selected elevations.

2. The invention in accordance with claim 1 and further characterized by:
rivets extending through said block at said bead and secured to said plate to reinforce said bead.

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