United States Patent

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[54] **OUTBOARD MOTOR SHROUD**
6 Claims, 5 Drawing Figs.

[52] **U.S. Cl.** **115/17,** 123/195
[51] **Int. Cl.** **B63h 21/26**
[50] **Field of Search** ..... 115/17; 123/198 E, 195 P, 195.0; 180/69, 69.1, 69.01

[56] **References Cited**

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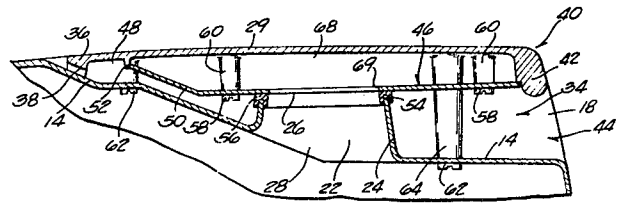
ABSTRACT: Disclosed herein is a shroud for the engine or power head of a marine propulsion device, which shroud has a rearwardly sloping channel provided with an upstanding annular flange defining an air inlet throat. A cover located over a recessed wall portion and spaced from the inlet throat cooperates with the channel to define a passage which is open both forwardly and rearwardly for supplying air to the inlet throat. An intermediate apertured partition separates the passage into upper and lower passage portions. The apertures in the partition permit air to communicate from the lower passage portion to the upper passage, but prevent spray and rain from entering the inlet throat. A rearwardly sloping wall in the channel affords rearward drainage of water through the lower passage portion. The rear edge of the cover is provided with an enlarged smooth, arcuate edge which forms a grip or handle for tilting the propulsion unit.



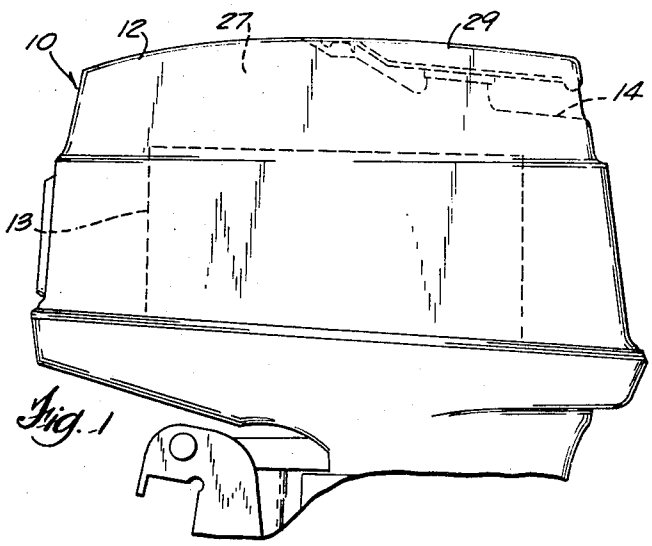


Fig. 1

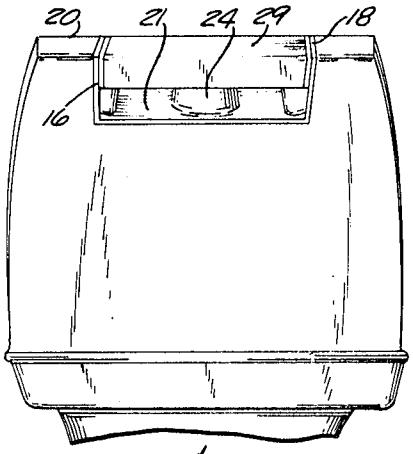


Fig. 2

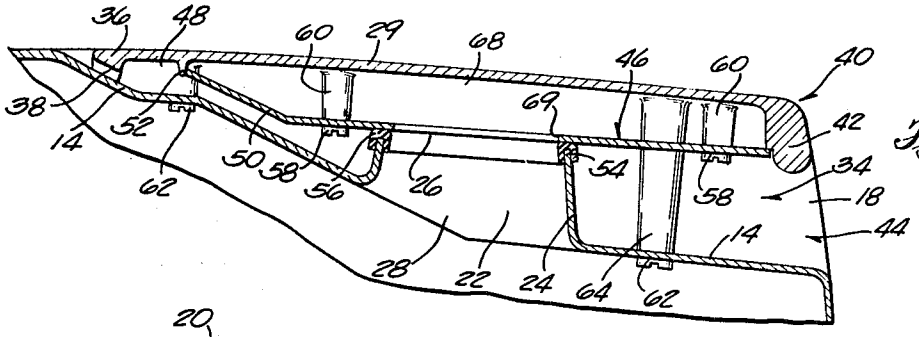


Fig. 3

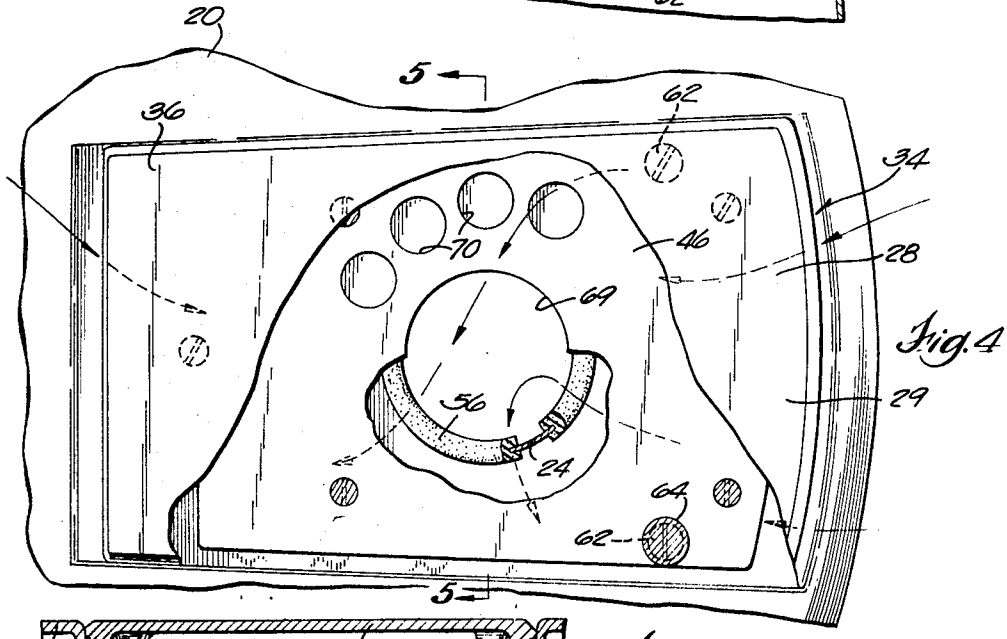


Fig. 4

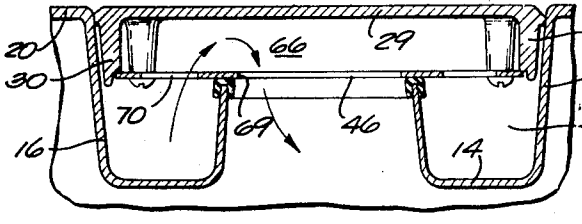


Fig. 5

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OUTBOARD MOTOR SHROUD

SUMMARY OF THE INVENTION

The invention provides a shroud for enclosing the power head of a marine propulsion device. The shroud is provided with a passage to supply air to the engine carburetor and a rearwardly located handle to facilitate tilting of the propulsion device about a tilt axis.

More specifically, the shroud includes an upwardly open and rearwardly sloping channel with an upstanding inlet throat in the channel which communicates with the engine carburetor. The shroud further includes wall means in the form of a cover which encloses the channel and is spaced above the air inlet throat. The cover cooperates with the rearwardly sloping channel to define a passage which has a forwardly and upwardly located opening and a rearwardly located opening. The rear edge of the cover is provided with an enlarged smooth, arcuate edge which, in part, defines the rearward opening, and forms a grip or handle for tilting the propulsion unit. The rearwardly located opening permits the entry of fingers to facilitate gripping the handle.

A partition located intermediate the cover and a rearwardly sloping wall in the channel separates the passage into upper and lower passage portions. The partition prevents rain and spray from entering the inlet throat. Apertures in the partition permit air to flow from the lower passage to the upper passage. The rearwardly sloping wall in the lower passage portion affords rearward drainage of water.

It is an object of the invention to provide a shroud for the power head or engine of a marine propulsion device, which shroud is provided with an upwardly and forwardly open air inlet passage for supplying air to the engine carburetor, said passage being defined, in part, by a rearwardly sloping wall portion which affords rearward drainage of water entering the passage.

It is a further object of the invention to provide a shroud for a marine propulsion device which includes a passage which is open both forwardly and rearwardly for supplying air to the engine carburetor, which rearwardly open passage assists in providing a rearwardly located handle to facilitate tilting movement of the propulsion device about a tilt axis.

It is a further object of the invention to provide a shroud for the power head of a marine propulsion device, which shroud has a forwardly and upwardly located opening for supplying air to the engine carburetor and which includes a rearwardly sloping wall portion with an upstanding air inlet throat to afford rearward drainage of water entering the opening and to prevent entry of water into the carburetor.

Further objects and advantages of the invention will become apparent from the following description and accompanying drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of a marine propulsion device embodying the shroud of the invention,

FIG. 2 is a rear view of the marine propulsion device shown in FIG. 1.

FIG. 3 is an enlarged fragmentary sectional view of the shroud shown in FIG. 1.

FIG. 4 is an enlarged plane view with portions broken away of the shroud shown in FIGS. 1 and 3.

FIG. 5 is a sectional view taken along line 5—5 of FIG. 4.

DETAILED DESCRIPTION

In the drawings, FIG. 1 shows a marine propulsion device which is generally designated 10, and which includes a shroud 12 which encloses the engine power head 13. In accordance with the invention, the shroud 12 includes first wall means which define a rearwardly sloping upwardly open channel. As disclosed, the first wall means include a rearwardly sloping floor or wall 14 (FIGS. 1 and 3) and upstanding walls 16 and 18 which extend upwardly from wall 14 and merge with a laterally outwardly extending upper surface or wall 20 (FIGS. 2 and 5). The walls 14, 16 and 18 define a channel 21.

The shroud 12 also includes means defining an upstanding inlet throat or duct 22 (FIG. 3). As disclosed, such means is in the form of an annular flange 24 which projects upwardly from the channel floor 14 to define an upper opening 26. The annular flange also defines a lower opening 28 which communicates with the interior 27 of the shroud 12 to supply air to the engine carburetors.

The invention also includes second wall means on said shroud which cooperate with the first wall means to define a passage around the inlet throat 22 and to cover the upper opening 26. As disclosed, the second wall means includes an upper wall portion or cover 29 which is provided with downturned flanges 30 and 32 (FIG. 5) which are located inwardly of the wall portions 16 and 18, and interfit with the wall portions 16 and 18 to form a passage which is generally designated 34 and which is open at both its forward and rearward ends.

More specifically, the forward end 36 of the cover 29 (FIGS. 3 and 4) is spaced from the wall portion 14 to provide a forwardly located passage opening 38. The rearward edge 40 of the wall or cover 29 defines, in part, a rearwardly located passage opening 44 and is provided with an enlarged smooth wall portion 42 which forms a grip or handle for tilting the propulsion device. The spacing of the wall portion 42 from the wall portion 14 provides the rearwardly located passage opening 44 and also permits entry of fingers to facilitate gripping of the handle or wall portion 42.

To prevent water which enters the passage openings 38 or 44 from entering the inlet throat 22, the invention includes third wall means. As disclosed, the third wall means is in the form of an intermediate partition 46 which spans the distance between the downturned flanges 30 and 32 (FIG. 5) and extends forwardly from the handle 42 to a point spaced from the forward opening 38. The partition 46 includes a forwardly located upturned portion 50 which is in abutting engagement with a downturned flange 52 on the cover 29.

The partition 46 can be located either above the upper end of the annular flange 24 or can fit around the annular flange below the upper edge thereof. In the disclosed construction, the partition is located above the upper edge 54 of the annular flange 24 (FIG. 3) and separated from the upper flange edge 54 by a seal or gasket 56 which minimizes vibration of the partition 46. The partition 46 is secured to the cover 29 by bolts 58 which extend through apertures in the partition and are threadably received in bosses 60 which depend from the cover 29. The cover 29 can be secured to the wall 14 by bolts 62 which extend through apertures in wall 14 and are threadably received in bosses 64 (FIG. 3) which depend from the cover 29 and extend through the partition 46.

The partition 46 separates the passage 34 into upper and lower passage portions, respectively 66 and 68, and is provided with an aperture 69 located over the opening 26 in the inlet throat 22 to afford communication between the upper passage portion 66 with the inlet throat 22. A plurality of apertures 70 in the partition 46 afford communication of air entering the lower passage portion 68 with the upper passage portion 66 and, hence, with the inlet throat 22. The rearwardly sloping wall 14 provides rearward drainage of water through the passage opening 44. The upstanding flange 24 and the partition 46 prevent entry of water into the inlet throat 22.

Various of the features of the invention are set forth in the following claims.

What is claimed is:

1. A marine propulsion device comprising an engine shroud, first wall means on said shroud for defining a rearwardly sloping upwardly open channel, means defining an inlet throat in said channel upstanding from said first wall means and including an upper opening, said inlet throat being adapted to communicate with the engine carburetor, second wall means on said shroud cooperating with said first wall means to define a passage around said inlet throat and to cover said upper opening, said passage having forward and rearward openings located on opposite sides of said throat to supply air to said inlet throat.

2. A marine propulsion device in accordance with claim 1 wherein said second wall means also defines a rearwardly located handle adjacent said rearward passage opening for tilting the propulsion device about a tilt axis.

3. A marine propulsion device in accordance with claim 1 including third wall means for defining a partition located within said passage, said third wall means cooperating with said first and second wall means to define upper and lower passage portions, said upper passage being in communication with said inlet throat, said lower passage portion affording rearward drainage of water entering said forwardly located passage opening, and apertures in said partition to afford airflow from said lower passage to said upper passage for flow to said inlet throat.

4. A shroud for a marine propulsion device, said shroud comprising wall portions defining an upwardly open channel having a rearwardly sloping floor, an inlet throat extending upwardly from said channel floor, a cover over said channel and said inlet throat, said cover cooperating with said channel to provide a passage for supplying air to said inlet throat, said passage extending in opposite directions from said throat and having openings located forwardly and rearwardly with respect to said throat.

5. A shroud in accordance with claim 4, wherein said cover has an enlarged rearwardly located end to provide a handle for tilting the marine propulsion device.

6. A marine propulsion device comprising an engine shroud, first wall means on said shroud for defining a rearwardly sloping upwardly open channel, means defining an inlet throat in said channel upstanding from said first wall means and including an upper opening, said inlet throat being adapted to communicate with the engine carburetor, second wall means on said shroud cooperating with said first wall means to define a passage around said inlet throat and to cover said upper opening, said passage having forwardly and rearwardly located openings to supply air to said inlet throat, said second wall means also defining a rearwardly located handle adjacent said rearward passage opening for tilting the propulsion unit about a tilt axis, and third wall means defining a partition cooperating with said first and second wall means to define upper and lower passage portions, said upper passage portion being in communication with said inlet throat, said lower passage portion affording rearward drainage of water entering said forwardly located passage opening, and apertures in said partition to afford airflow from said lower passage to said upper passage for flow to said inlet throat.