(12) UK Patent Application (19) GB (11) 2 050 957 A

(21) Application No **7925341**
(22) Date of filing **20 Jul 1979**
(30) Priority data
(31) **21791U**
(32) **11 Jun 1979**
(33) **Italy (IT)**
(43) Application published
14 Jan 1981
(51) **INT CL³**
B63B 7/08
(52) Domestic classification
B7A ED
(56) Documents cited
GB 1362677
GB 1159947
GB 826301
GB 634798
(58) Field of search
B7A
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(54) **Pneumatic keel for an inflatable boat**

(57) A pneumatic keel for an inflatable boat has a front section which is shaped to the curve of the forebody of the boat (when both are viewed in side elevation) so that it can be inflated to a pressure of about 0.4 - 0.5 atmospheres, its cross section when inflated being substantially circular.

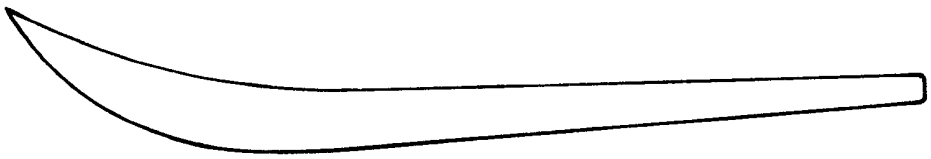


FIG. 5

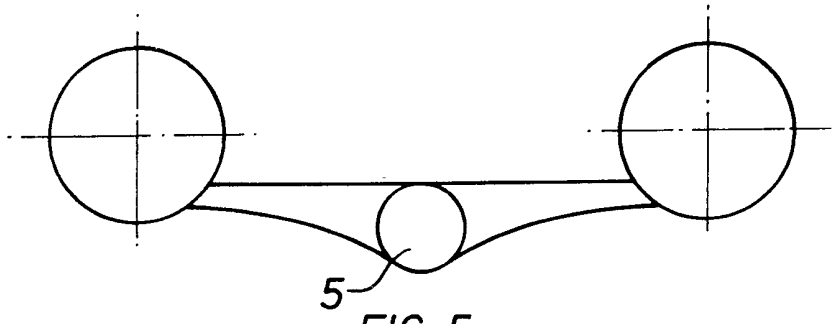


FIG. 5

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The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

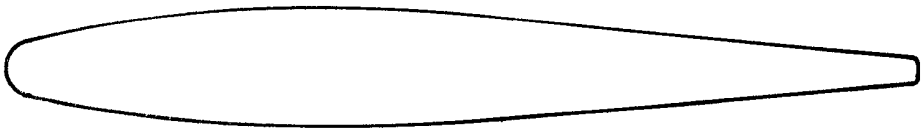


FIG. 1

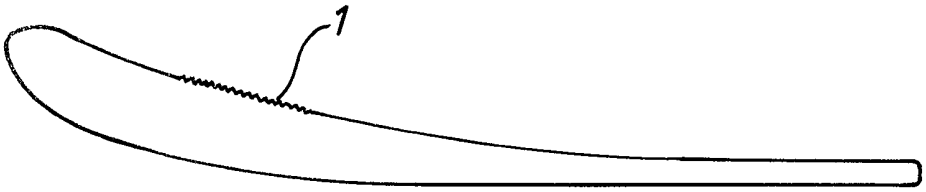


FIG. 2

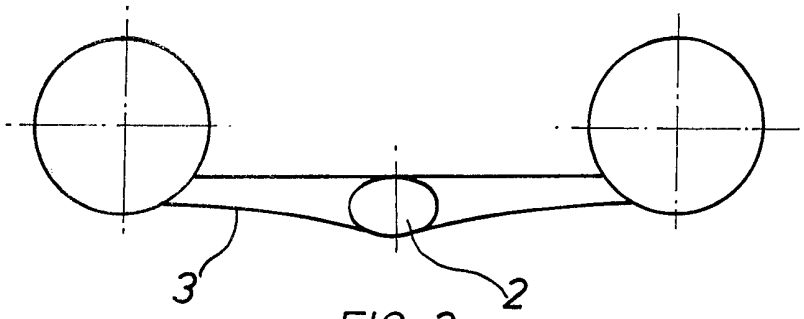


FIG. 3

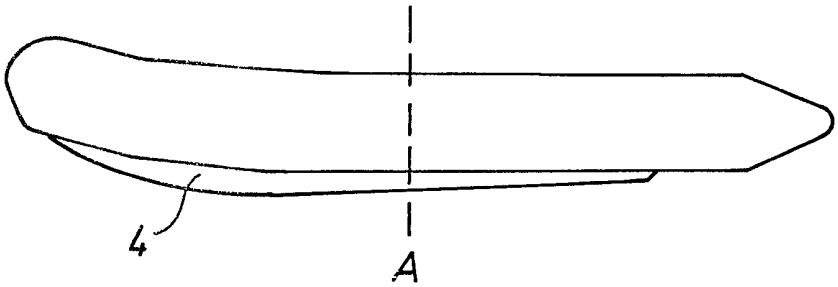


FIG. 4

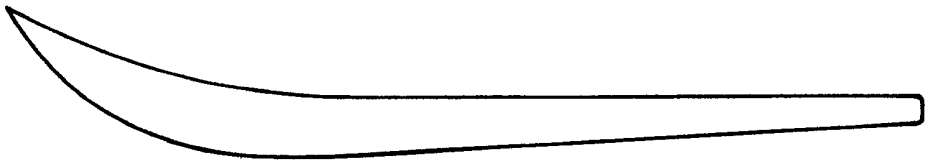


FIG. 5

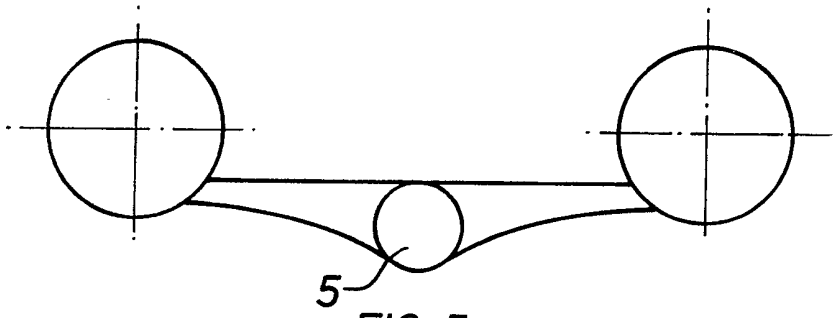


FIG. 5

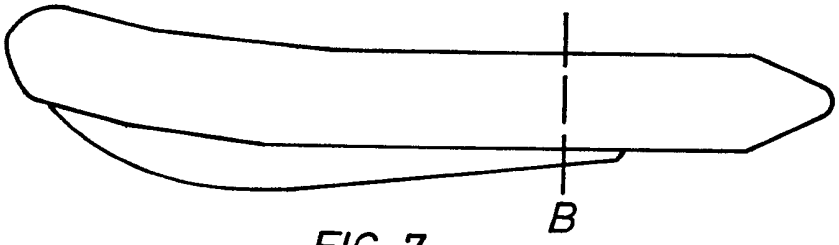


FIG. 7

SPECIFICATION

Pneumatic keel for an inflatable boat

This invention relates to pneumatic keels for inflatable boats.

Pneumatic keels for inflatable boats are known. When viewed in side elevation, these known keels are straight (see Figure 1 of the accompanying drawing). In order to match the curved shape of the bows of the inflatable boat, these keels must also curve when inflated, whereupon wrinkles form in the upper section (see 1 in Figure 2). Because this curving is necessary, the known pneumatic keels can be inflated only to a low pressure, for example to a pressure of about 0.2 atmospheres gauge.. When inflated, these known keels are flat in shape (see 2 in Figure 3). As a result of this low inflation pressure of the pneumatic keel 2, the bottom of the boat also remains fairly flat (see 3 in Figure 3). Because of the flat keel, (see 4 in Figure 4) the front gliding point of the boat is approximately in the middle of the boat at relatively high speeds (at A in Figure 4), so that there is a large friction surface between the boat and the surface of the water. Disadvantages in navigation can result from this, especially at relatively high speeds, such as the front of the boat being raised up, the longitudinal battens breaking and the parts which serve to move the boat springing out of their seats.

According to the present invention we provide a pneumatic keel for an inflatable boat, in which the front section of the keel is structured according to the curved shape of the boat, the keel being inflated to a pressure of about 0.4—0.5 atmospheres gauge, and its cross-section when inflated assuming a round shape.

Reference is now made to Figures 5 to 7 of the accompanying drawings.

The keel shown in Figures 5 to 7 avoids these disadvantages of known pneumatic keels and improves the planing of the boat at relatively high speeds. The front section of the keel, when inflated and in side elevation, is shaped into a point curving upwards, corresponding to the curved form of the bows of the inflatable boat, as is shown in Figure 5. This structuring of the keel makes it possible to inflate the pneumatic keel to a pressure of 0.4—0.5 atmospheres gauge, the cross-section of the keel, when inflated, assuming a circular shape, (see 5 in Figure 6). Inflation to a higher pressure is made possible by the structuring of the keel, and as a result the effect of the keel is improved and the front planing point at relatively high speeds is at 3 in Figure 7, so that the friction surface between the boat and the water is smaller and higher speeds can be achieved.

CLAIMS

1. A pneumatic keel for an inflatable boat, in which the front section of the keel is structured according to the curved shape of the boat, the keel being inflated to a pressure of about 0.4—0.5 atmospheres gauge, and its cross-section when inflated assuming a round shape.

2. A pneumatic keel for an inflatable boat substantially as herein described with reference to and as shown in Figures 5, 6 and 7 of the accompanying drawings.

Printed for Her Majesty's Stationery Office by Croydon Printing Company Limited, Croydon Surrey, 1980.
Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.