Claims

1. A nozzle shaft ~~(20)~~ for pivotable propeller nozzles ~~(100)~~ with stationary propeller for watercraft, particularly pivotable Kort nozzles, ~~characterized in that~~wherein the nozzle shaft ~~(20)~~ is realized in the form of a hollow body, particularly in the form of a hollow cylinder, and ~~preferably~~ has a constant diameter over its entire length in the axial direction, ~~and~~ in that wherein the nozzle shaft ~~(20)~~ has a diameter between 60 cm and 150 cm, preferably between 75 cm and 125 cm, particularly between 90 cm and 110 cm, and~~/or in~~
wherein~~that~~ the wall thickness of the nozzle shaft ~~(20)~~ lies between 1 cm and 10 cm, preferably 2 cm and 8 cm, particularly 3 cm and 5 cm.

2. The nozzle shaft according to Claim 1, ~~characterized in that~~ wherein the nozzle shaft ~~(20)~~ is manufactured of steel.

3. The nozzle shaft according to Claim 1 or 2, ~~characterized in that~~ wherein a pivot drive ~~(40)~~ for the nozzle shaft ~~(20)~~, particularly a blade-type drive unit, is at least partially arranged in the interior of the nozzle shaft ~~(20)~~, particularly in an end region of the nozzle shaft ~~(20)~~, wherein the outside dimensions of the pivot drive ~~(40)~~ preferably correspond essentially to the inside dimensions of the hollow body.

4. The nozzle shaft according to one of the preceding claims, ~~characterized in~~ wherein that connecting means, particularly an arbor ~~(24)~~, are provided on an end region of the nozzle shaft ~~(20)~~ in order to produce a connection with a pivot drive ~~(40)~~ for pivoting the nozzle shaft ~~(20)~~, particularly a blade-type drive unit, wherein the connecting means preferably are detachably connected to the nozzle shaft ~~(20)~~.

5. The nozzle shaft according to Claim 4, ~~characterized in that~~ wherein the connecting means comprise an axial bearing ~~(22)~~, particularly a mounting flange ~~(22)~~, for axially supporting the nozzle shaft ~~(20)~~.

6. The nozzle shaft according to one of the preceding claims, ~~characterized in that~~ wherein the nozzle shaft ~~(20)~~ has a larger diameter than massive nozzle shafts of propeller nozzles, particularly a diameter that is at least twice as large.

7. A propeller nozzle for watercraft, particularly a Kort nozzle, with a stationary propeller ~~(30)~~ and a nozzle ring ~~(10)~~ that shrouds the propeller ~~(30)~~ and can be pivoted by means of a nozzle shaft ~~(20)~~, ~~characterized in that~~wherein the nozzle shaft ~~(20)~~ is realized in the form of a hollow body, particularly in the form of a cylindrical pipe, ~~in~~
wherein~~that~~ an end region ~~(20a)~~ of the nozzle shaft ~~(20)~~ that faces the nozzle ring ~~(10)~~ is rigidly connected to the nozzle ring ~~(10), particularly~~ by means of welding~~,~~ and ~~in~~
wherein~~that~~ the end region ~~(20a)~~ of the nozzle shaft ~~(20)~~ that faces the nozzle ring ~~(10)~~ is inserted into the wall of the nozzle ring ~~(10)~~ and preferably abuts on the inner wall ~~(13a)~~ of the nozzle ring ~~(10)~~ with its end face ~~(20c)~~.

8. The propeller nozzle according to Claim 7, ~~characterized in that~~ wherein the propeller nozzle ~~(100)~~ is supported by means of the nozzle shaft ~~(20)~~ only and does not feature any other support.

9. The propeller nozzle according to one of Claims 7 or 8, ~~characterized in that~~ wherein at least two openings are provided in the wall of the nozzle ring ~~(10)~~ and essentially arranged opposite of one another.

10. The propeller nozzle according to one of Claims 7 to 9, ~~characterized in that~~ wherein the nozzle shaft ~~(20)~~ is at least sectionally arranged and supported in a trunk pipe ~~(21)~~, wherein the region of the nozzle shaft ~~(20)~~ that faces the nozzle ring ~~(10)~~ preferably protrudes over the trunk pipe ~~(21)~~.

11. The propeller nozzle according to one of Claims 7 to 10, ~~characterized in that~~ wherein the nozzle shaft ~~(20)~~ is realized in accordance with one of Claims 1 to 6.

12. A watercraft, ~~characterized in that~~wherein it comprises a propeller nozzle ~~(100)~~ according to one of Claims 7 to 11.