# R & D MARINE LTD.

Rope Cutter

- **Unique design to stop ropes jamming between the cutlass bearing and rope cutter**
- **Smooth cutting action which avoids vibrations or shock commonly associated with scissor style cutters**
- **Radial and axial holes in the cutter allow water to flow through the cutlass bearing**
- **Minimal interference to water flow and propeller performance**
- **Made of 316 Stainless Steel**
- **No moving parts to service or fail**
- **Installs in minutes with minimum of tools**
- **Includes bolts, hexagon wrenches, drill, thread lock and full fitting instructions**

Cutter Part Number	Shaft Diameter Range	Cutlass Housing Range	Blade Diameter	Fitting Width A	Minimum Gap B	Overall Width C
400-001 Size 1	20 - 25mm 0.75 - 1"	39 - 47mm 1.54 - 1.85"	80mm 3.15"	17mm 0.67"	23mm 0.9"	25mm 1.00"
400-002 Size 2	20 - 32mm 0.75 - 1.25"	47 - 57mm 1.85 - 2.25"	90mm 3.54"	17mm 0.67"	23mm 0.9"	25mm 1.00"
400-003 Size 3	30 - 40mm 1.19 - 1.63"	57 - 70mm 2.24 - 2.76"	105mm 4.13"	17mm 0.67"	23mm 0.9"	25mm 1.00"
400-004 Size 4	35 - 50mm 1.38 - 2.00"	70 - 89mm 2.76 - 3.50"	125mm 4.92"	17mm 0.67"	23mm 0.9"	25mm 1.00"
400-005 Size 5	45 - 76mm 1.77 - 3.00"	89 - 124mm 3.50 - 4.88"	155mm 6.10"	17mm 0.67"	23mm 0.9"	25mm 1.00"

How to Order the R & D Rope Cutter
1. Measure the shaft diameter to determine the cutter model for your application.
   This needs to be carried out accurately.
   Several imperial sizes are very close to metric sizes.
2. Measure the cutlass bearing housing diameter.
3. Measure the space available for fitting the cutter.
   Compare the available space with the minimum gap on the information sheet.

The cutter needs to be installed on a parallel piece of shaft.
Check to ensure that any propeller fitting taper will not affect the installation.
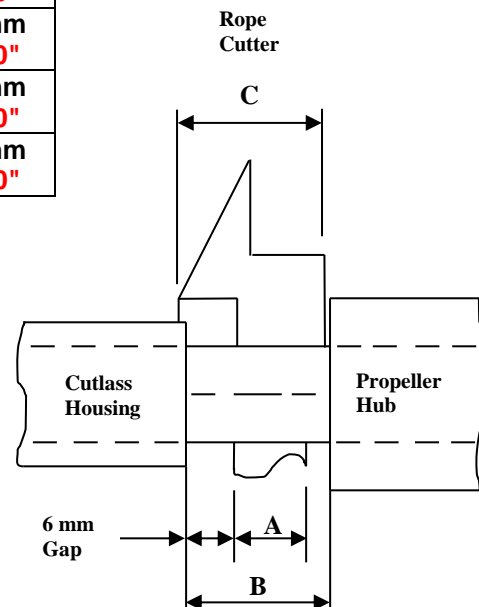
1 Shaft Diameter (Measure with Vernier Caliper)
    Port _____   Starboard _____

2 Cutlass Housing Diameter
    Port _____   Starboard _____

3 Space between propeller and stern bearing
    Port _____   Starboard _____

Rope Cutter

C

Cutlass Housing

Propeller Hub

6 mm Gap

A

B

How to install the R & D Rope cutter

1. Fit the cutter on the shaft between the propeller and stern bearing housing. The recessed side to be facing the cutlass bearing housing, do not tighten the clamp screws.

2. Slide the cutter up the shaft towards the cutlass bearing housing as far as it will go.
If the correct size has been ordered, the recess will slide over the stern bearing housing by approximately 8mm.

3. Holding the cutter in this position, mark the cutlass bearing housing

4. Using the 6mm hexagon wrench supplied as a gauge, slide the cutter back towards the propeller approximately 6mm. Clamp the cutter to the shaft.

5. With the 6.5mm drill supplied and a pistol drill, insert into the plain hole in the side of the cutter and dimple the shaft to a depth of 3mm.

6. Remove the cutter from the shaft and clear away all the debris from the drilling operation.

7. With the 4mm hexagon wrench provided, remove the set screw and apply thread lock (supplied) screw in the set screw until it protrudes 1mm into the bore.

8. Locate the half with the protruding set screw onto the shaft, ensure the set screw locates into the dimple previously drilled in the shaft.

9 Assemble the other half of the cutter onto the shaft, apply thread lock to the screws before inserting into the cutter, making sure the set screw remains located in the shaft.

10. Tighten the two half's onto the shaft.

11. Tighten the set screw.
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Safety Note
The edges of the rope cutter are extremely sharp and great care must be taken when fitting.
After fitting all crew members, divers, swimmers and others in close proximity must be made aware a cutting device is fitted to the propeller shaft.

Designs are subject to constant review and improvement therefore we reserve the right to amend any dimension or detail specified or illustrated in this publication without notice and without incurring any obligation to provide such modification to products previously delivered.

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