

MARCO POLO BOATS, INC.
1911 SMALLBROOK DRIVE
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Marco Polo Boats, Inc.
Gear Assembly Testing Program

Thank you for your interest in Marco Polo Boats, Inc. (MPB), testing program for its gear assembly.

The gear assembly is a submerged gearing system intended for human powered (typically pedaled) or electric powered input. The unique feature of the component is its output increase ratios of 1:5, 1:7, 1:25, or 1:49 (depending on the model) in a compact design.

MPB seeks experienced small boat builders and human powered boat enthusiasts to test prototypes in real-use conditions so that data on durability and performance can be verified before production.

The sixty day testing period will begin on June 1, 2010. Units will be shipped to selected applicants free of charge and returned back to MPB on July 31 postage paid by MPB.

If a tester completes all of the testing protocols and complies with the required nondisclosure/noncompete agreement, he or she will receive free of charge a gear assembly as soon as commercial production begins. Please note that all prototype gear ratios may not be available in production runs, depending on test results.

Applicants must have the following experience/capabilities and comply with the following nondisclosure/noncompete agreement and testing protocol:

1. You must have a boat ready to fit the gear assembly onto on June 1, 2010. Since the unit is submerged and typically placed towards the stern, a multihull boat would be easiest to work with. However, any hull type is acceptable as long as you can attach an input shaft to the unit.

Applicants should attach a photo of their boat to their application.

2. MPB will supply the gear assembly, which consists of a tubular assembly nominally 4" in diameter and from 7"-10" long, not including the shaft protrusions. Also included is a clamp with a 3" extension to allow for attachment to your skeg.

The applicant must supply his or her own propeller and extension shaft which connects to your power device (pedals, electric motor, etc.). Depending on the angle of attachment, you may need to supply your own universal joint(s).

3. Finalists must sign a nondisclosure/noncompete agreement. All data and opinions of the drive deriving from this prototype test remain confidential between the tester and MPB. We require this in order for us to make any necessary changes to the design or manufacturing of the units before they reach the marketplace. We do not wish the marketplace to be confused between the prototype and the production versions.

In addition, the noncompete clause protects MPB from testers creating their own versions for use or sale.

If you represent an organization or business, the agreement must extend to everyone involved in your organization.

Finally, the unit is sealed, and the tester must agree not to attempt to open the casing.

4. The testing protocol involves data collection over 100 hours of in-water use during an eight week period. You will be required to log testing times, use conditions, usability opinions, performance, and durability. Data forms will be supplied to you.

If a drive should fail for whatever reason during the test period, MPB will pay to have the damaged drive returned and will replace it for the remainder of the test period.

MPB reserves the right to alter the testing protocol during the test period, but not to exceed the 100 hour testing requirement. It may be that important test issues arise during the test period, and we wish to be responsive to, and collect, new, potentially useful information.

General Information about the Gear Assembly and the Testing Program

The gear assembly is a new concept for human powered and electric powered small boats. It is a submersible gear assembly which attaches directly to a propeller. The prototype versions are being tested in four increaser ratios and two maximum torque ratings.

The markets for the drive are OEMs of small water craft and Do-It-Yourself boat builders (DYI). The hoped-for promise of the drive is to provide inexpensive, efficient, and environmentally positive propulsion for the leisure, rental, and human powered performance markets.

Optimum input for the drives are 50 to 100 rpm. This range is ideally suited for human pedaling, with the lower rpm convenient for the leisure user, and the upper range for the performance user. With increaser ratios of 5, 7, 25, and 49, one can see the potential for small boat propulsion.

The 1:7 and 1:49 drives are rated at 157 lb.-in. maximum torque, and the 1:5 and 1:25 drives are rated at 200 lb.-in. maximum torque. The 1:5 and 1:7 gear ratios have an efficiency of 98%, and the 1:25 & 1:49 have an efficiency of 95%.

Based on applicant experience and perceived ability to complete the testing protocol, MPB will make available prototypes accordingly:

Human Powered Category

Ratio	Number of Units	Max. Torque
1:5	4	200 lb.-in.
1:7	4	157 lb.-in.
1:25	2	200 lb.-in.
1:49	2	157 lb.-in.

Electric Motor Powered

Ratio	Number of Units	Max. Torque
1:5	2	200 lb.-in.
1:7	2	157 lb.-in.

Application

Please send an email to testprogram@marcopoloboats.com with a statement of your interest in the program and your experience and abilities regarding testing of the PlanetDrive. Please include any internet links, photos of your boat, and other relevant information.

Decisions will be made by May 15, and agreements signed within seven days.

Thank you.

