

TECHNICAL BULLETIN 04

PRODUCT: T200-THRUSTER-R1-RP and T200-THRUSTER-BROV2-SPARE-R1-RP

SUBJECT: Premature bearing wear out on thrusters with white (as opposed to dark grey) bearings.

SUMMARY: In an effort to reduce the need to bore out slightly mismatched grey bearings, Blue Robotics began investigating alternate bearing material for the T200 in the summer of 2019. This was intended to improve the quality and consistency of the T200 thruster.

Testing included running the test thrusters in water with heavy sediment and pulsing the thruster backwards and forwards in increments of 6 hours at a time to replicate the operational conditions of a thruster mounted on an ROV.

No bearing wear was observed and the decision was made to install them on retail thrusters.

In mid-November, Blue Robotics was informed by a customer who had an early batch of thrusters with white bearings installed that they were wearing out after many hours of continuous use.

Independent testing was conducted and it was discovered that after about 70 hours of continuous use, white bearings would deform and wear out.

Although these white bearings should not be an issue for the majority of customers operating ROVs where a thruster is not running continuously for multiple hours, it may present an issue for vehicles that are.

IDENTIFICATION: Blue Robotics recommends disassembling all thrusters in orders shipped between October-December 2019 and inspecting to see if they have white or grey bearings installed.



Figure 1. Worn white bearings on a T200 with a green epoxy stator.



Figure 2. Worn white bearings



Figure 3. White bearing on a potted thruster stator.

CUSTOMER ACTION: If you have an affected thruster, please use the below contact information to begin the RMA process and receive replacement grey bearings.



Figure 4. Original grey bearings.

BLUE ROBOTICS ACTION: Blue Robotics removed the remaining affected thruster stock from inventory in mid December and replaced the white bearings with the original grey bearings. All thruster shipped since then have been corrected and should not experience this issue.

CONTACT:
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