

Appendix XV

Z-Drive Report

Diagram of a Z-drive, graph of torque vs. contact area, and summary of failures may be requested from the UNOLS office.

Z-Drive Population in the U.S. Oceanographic Fleet

<i>Knorr, Melville</i>	3 each
<i>Thompson, Revelle, Atlantis, Brown</i>	2 each
TAGS 60, 61, 62, 63, 64, 65	3 each

Failures to Date

	<u>Probable Cause</u>
<i>Thompson - lower units</i> (Port and Starboard)	Manufacture/Grounding
<i>Melville - lower unit</i>	Manufacture

<i>Melville</i> - lower unit	Manufacture
<i>Knorr</i> - lower - Port (Derated to 70% torque by ABS)	Unknown
<i>Thompson</i> - upper gear box	Unknown

Z-Drive
Knorr

Upgrade of :

- **Lower gears**
- **Lower thrust bearing**

Next Shipyard (March - April '98):

- **Replace lower gears**
- **Replace all bearings**
- **Inspect upper gears**
- **Replace all bearings**

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