Joshua Eaton, *Engineer, UNOLS East Coast Winch Pool*

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Maximum Capability Document

Seamac 207EH

This document has been prepared in accordance with Appendices A & B from the UNOLS RVSS. This machine is primarily used for 0.25 tension members, with a 5,000 lbf breaking strength. Per Appendix A, the machine in its' current configuration is limited to a Factor of Safety (FS) of 5.0 on the tension member due to the lack of cable monitoring system. The FS on the tension member could be lowered if a monitored over-boarding block is employed in accordance with Appendix A. Per Appendix B this machine is rated for "Lifting & Towing - Mid Water" as currently configured due to the lack of load limiting equipment; this strictly limits tension member deployed length to 75% of water depth. This machine could be rated for "Lifting and Towing - Deep Water" with if proper load limiting equipment were employed per Appendix B.

System Characterizations

Empty Weight	1,500	lbf
Maximum Weight	2,500	lbf
Maximum Pull at Bottom Layer / SWT	1,200	lbf
Maximum Continuous Allowed Structure Load / DLT	3,800	lbf
Maximum Speed at Bottom Layer	40	m/min
Maximum Oil Operating Temperature	180	F
Power Requirements	3 Phase 480VAC 60 Hz 20 Amp Circuit	

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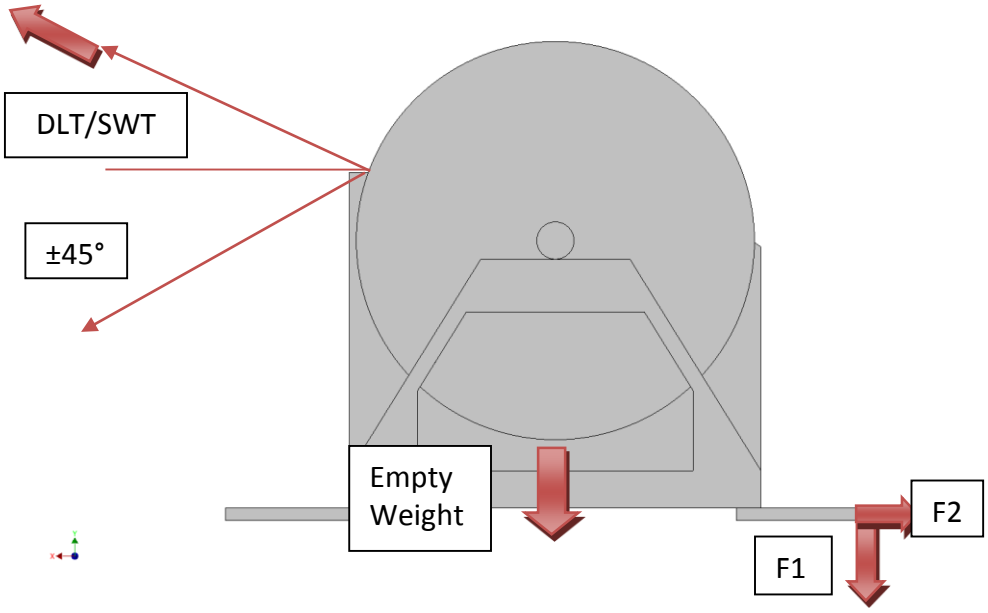
Free Body Diagram



	Reaction At MPT	Reaction At DLT
F1	115 lbf	1,500 lbf
F2	115 lbf	675 lbf

Forces are maximum forces per bolt, at SWT & DLT, for a 4 bolt hold down pattern (Rows spaced at 48”). Analysis is good for a vertical fleet angle of ±45° and a horizontal fleet angle of ±8°.