



**Assembly Parts**

A. Fin Nut*	K. Lock Assembly Platform	Ta. Sensor Cable Cover Screw
B. Actuator Shaft Stud	L. Yoke Locking Cylinder	
C. Weld-in Hull Assembly (WHA) (Note 2)	M. Locking Housing	
Ca. Bolt-on Hull Insert	Ma. Locking Housing Bolt	
Cb. Weld-in Hull Insert	N. Clevis Pin	
Cc. WHA Bolt	O. Yoke Clamping Bolt	
D. Platform Flange (Note 4)	P. Top Plate	
E. Augmented Hull Thickness (Note 1)	Pa. Top Plate Screw	
F. Hull Flange Gusset (Note 3)	R. Actuator Cylinder	
G. Hull Framing (Note 3)	S. Position Sensor Cover	
H. Actuator Flange Bolt	Sa. Position Sensor Cover Screw	
J. Actuator Flange (Note 4)	T. Sensor Cable Cover	

**Assembly Fasteners**

Part	Description	Qty	Size # or inch	Install Torque ft-lb / (Nm)	Install with Coating**
A	Fin Nut *	1	1 - 14 UNS	320 / (434)	Loctite 262
Cc	WHA Bolt	8	1/2 -13	50 / (68)	M
H	Actuator Flange Bolt	8	5/8 - 11	140 / (190)	M
Ma	Locking Housing Bolt	4	7/16 - 14	50 / (68)	M
N	Clevis Pin	1	--	--	N
O	Yoke Clamping Bolt	1	3/4 - 16	420 / (571)	H
Pa	Top Plate Screw	6	3/8 - 16	34 / (46)	M
Sa	Sensor Cover Screw	6	10 - 32NF	1.0 / (1.4)	--
Ta	Cable Cover Screw	6	6 - 32NF	0.4 / (0.5)	--

\* Nut requires 1.625" Hex Socket

\*\* M = Medium strength thread lock compound; H = High Strength thread lock compound. Install torques shown here require coating on threads and also, as lubricant, under bolt head or nut, whichever is turned; N = Never-Seez anti seize compound or equivalent.

\*\*\* One 0.5" dowel pin at each of two main top plate legs. Install with Never-Seez

**NOTES:**

- It is the responsibility of the installer to determine what reinforcement measures should be taken to properly strengthen the hull for withstanding forces that may be encountered if the fin or the fin shaft strikes an immovable object while the vessel is under way. Recommendations made by American Bow Thruster are to be used as starting guidelines only. American Bow Thruster is NOT a naval architecture firm and is NOT qualified to advise on structural matters. American Bow Thruster strongly recommends that you seek the advice of a naval architect familiar with your make of vessel.
- See inset "Detail B" for Hull Flange Assembly details.
- The Platform Flange with its integrated gussets, hull framing and stringers, are provided by the customer according to the naval architect's specifications.
- Actuator Flange Bolts are provided by the customer according to the thickness of the platform flange. Fasteners should include grade 8 bolts with nuts and flat washers.
- Assembly fasteners illustrated and listed on this page should be installed with indicated coating applied to threads and to head or nut sliding surfaces and torqued to values given.
- Install outboard plane of Weld-in Hull Insert to be flush with outside plane of hull at centerlines through flange. Install Actuator to have outboard end of Seal Housing flush with or slightly extending (0.00" / +0.125") from outboard plane of Weld-in Hull Insert.
- Actuator specifications and dimensions are subject to change without prior notice. Do not use this print for final installation without contacting the factory for certified dimensions.

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REVISED	BK	SPECIFICATION SHEET - ACTUATOR SIZE 250		
DRAWN	BK	Parts & Dimensions for Steel Hull Installation All Dimensions are inches unless noted		
CHECKED	BK			
ISSUED	10/16/2013	SCALE: N.T.S.	SHEET: 1 OF 1	REV: A