



PALMER JOHNSON 150



NORDHAVN 86



NORTHERN MARINE 151

ABT·TRAC®

440

DIGITAL STABILIZERS



The user panel is a touch-screen LCD with large text and graphic keys. All important information is displayed on the Home screen. Low profile and small size (4" x 4.75") allow for easy mounting.

TRAC Digital Stabilizers dramatically improve ride comfort in any sea-state or wave angle. TRAC's 3-term control detects vessel motion and instantly adjusts fin position to counteract roll.

The TRAC exclusive touch-screen LCD user panel is simple and intuitive to operate. With one-touch activation, TRAC automatically adjusts for changes in sea-state, wave angle, and vessel speed.

TRAC's exclusive Fin and Winglet are computer optimized to generate more anti-roll force and less drag than conventional fins.

TRAC actuators feature a unique fail-safe capability that mechanically locks the fins when required. No more lifting floorboards or trips to the bilge to "pin the fins".

TRAC Stabilizers are built for heavy-duty service. Load bearing components are intentionally oversized. Double sealed shaft housings require no maintenance between haulouts. Our unique inboard hull flange mounting system speeds installation and eliminates costly, dry rot prone, wooden blocks.

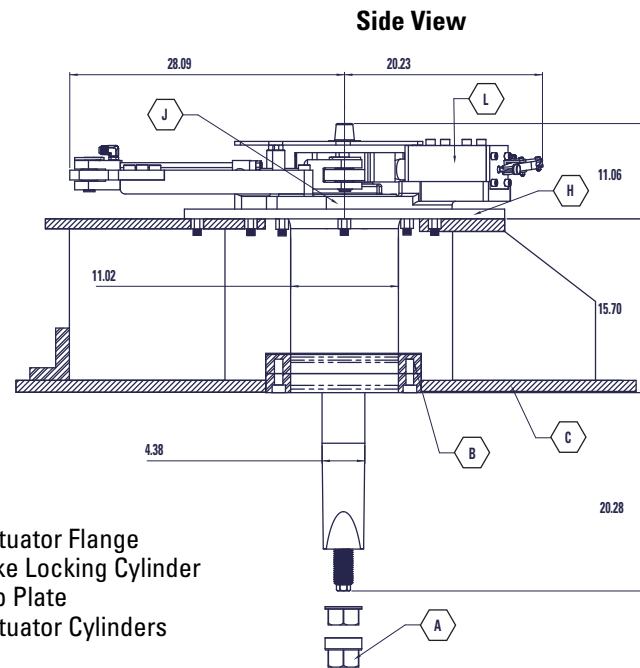
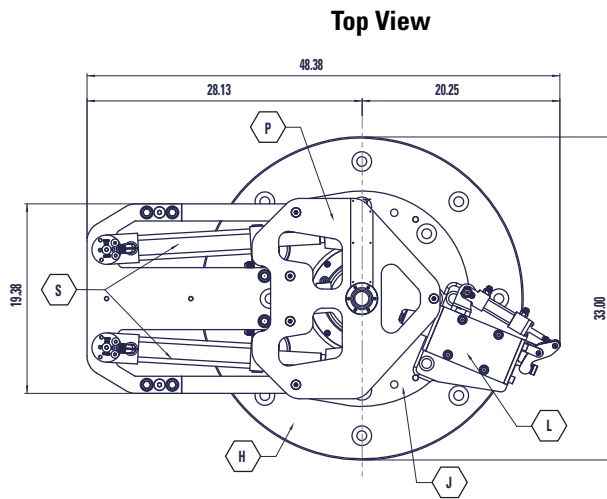
TRAC systems are extensively documented and delivered ready-to-install. Key assemblies are factory tested, and cabling is custom fabricated for every vessel. Expert support is always available from factory technicians and through our global service network.

TRAC Digital Stabilizers are installed as standard equipment by more of the world's top yacht builders than any other brand. For exceptional performance, highest quality, and unmatched support, choose TRAC.

Taking Care Of You Every Step Of The Way.

ABT·TRAC®

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- A. Fin Nut
- B. Hull Flange Assembly
- C. Augmented Hull Thickness (Note 1)
- E. Platform Flange and Gussets (Note 2)
- H. Companion Flange

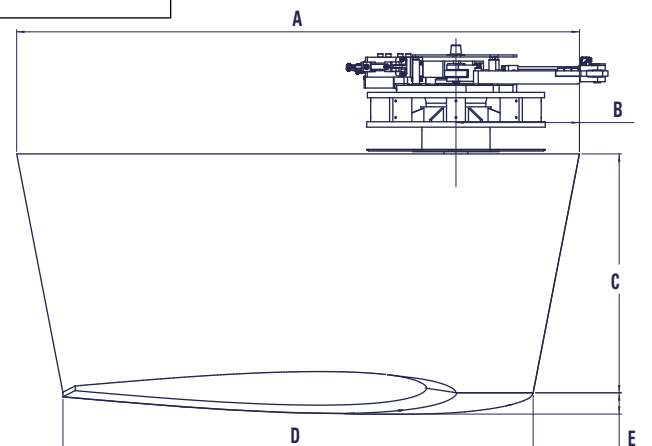
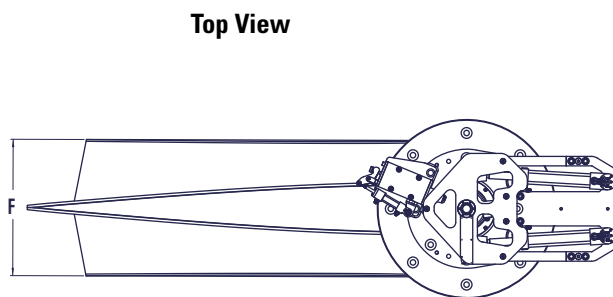
- J. Actuator Flange
- L. Yoke Locking Cylinder
- P. Top Plate
- S. Actuator Cylinders

Notes:

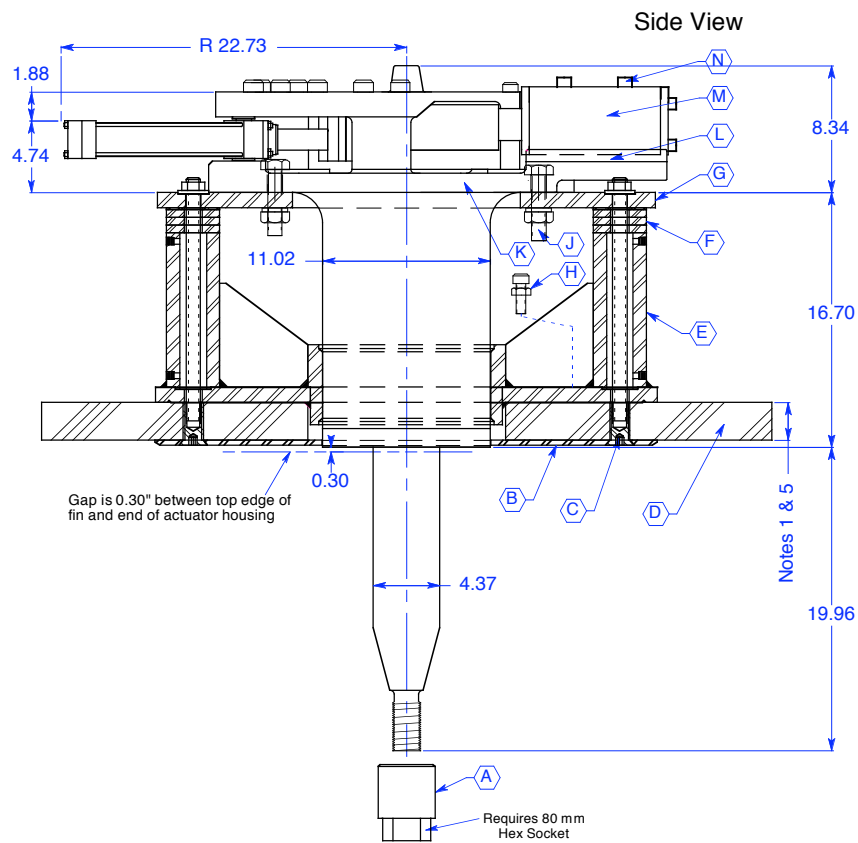
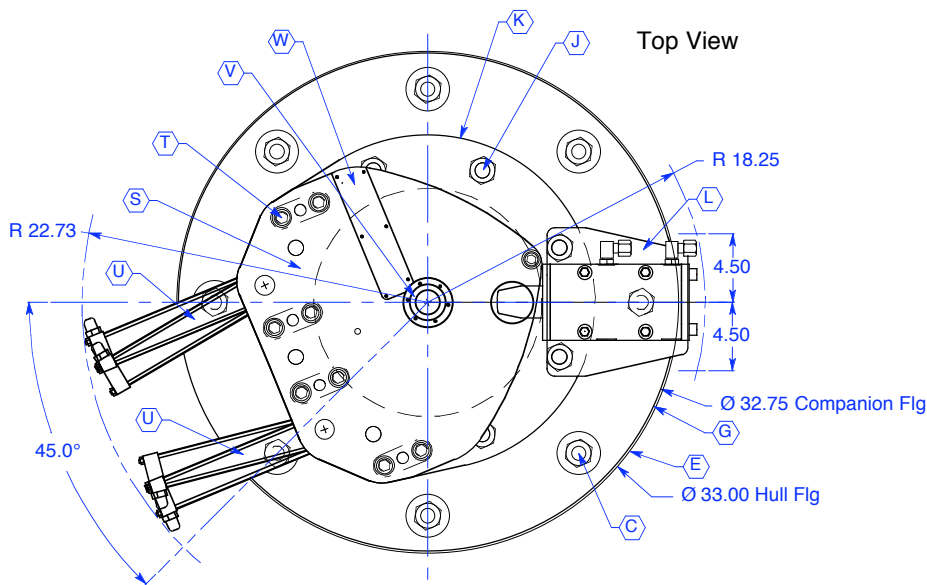
1. It is the responsibility of the installer to determine what reinforcement measures should be taken to properly strengthen the hull for withstanding forces that may be encountered if the fin or the fin shaft strikes an immovable object while the vessel is underway. Recommendations made by Arcturus Marine are to be used as starting guidelines only.
2. Platform Flange with integrated gussets, hull framing and stringers, are provided by the customer according to the naval architect's specifications. For steel hull vessels the platform may be omitted when gussets are welded directly to the Actuator Companion Flange.

FIN	A		B		C		D		E		F	
SIZE	Inch	(cm)	Inch	(cm)	Inch	(cm)	Inch	(cm)	Inch	(cm)	Inch	(cm)
12.0x	79.1	(200.9)	17.2	(43.7)	33.9	(86.1)	65.0	(165.1)	2.8	(7.1)	29.4	(74.7)
16.0	66.1	(167.9)	15.9	(40.4)	38.6	(98.0)	50.0	(127.0)	2.1	(5.3)	22.6	(57.4)
16.0x	88.0	(223.5)	21.2	(53.79)	38.6	(98.0)	72.0	(182.9)	3.7	(9.5)	22.6	(57.8)
20.0	75.4	(191.5)	18.1	(46.0)	44.0	(111.8)	57.0	(144.8)	2.4	(6.1)	25.7	(65.3)
20.0x	100.6	(255.5)	24.1	(61.3)	44.0	(111.8)	82.2	(208.8)	4.5	(11.4)	25.8	(65.7)
26.0	85.9	(218.2)	20.6	(52.3)	50.3	(127.8)	65.0	(165.1)	2.7	(6.9)	29.4	(74.7)

Fins designated with an "X" suffix are extended chord fins for use in Stabilization At Rest (STAR™) systems.



Dimensions shown for reference only and are subject to change. Do not use for installation.



Assembly Parts

A. Fin Nut *	M. Yoke Locking Cylinder
B. Hull Doubler Plate (Note 2)	N. Locking Cylinder Screw
C. Hull Flange Bolt (Note 3)	R. Yoke Clamping Screw
D. Augmented hull thickness (Notes 1 & 5)	S. Top Plate
E. Inboard Hull Flange (Note 4)	T. Top Plate Screw
F. Hull Flange Spacer (Note 5)	U. Actuator Cylinder
G. Companion Flange	V. Position Sensor Cover
H. Hull Flange Jacking Screw (Note 6)	W. Sensor Cable Cover
J. Actuator Flange Bolt	
K. Actuator Flange	
L. Lock Cylinder Platform	

Assembly Fasteners

Part	Description	Qty	Size	Install Torque ft-lb / (Nm)	Install with Coating ***
A.	Fin Nut *	1	M48 -5.0	1000 / (1356)	Loctite® 262
C.	Hull Flange Bolt	8	M24 -3.0	250 / (339)	3M® 5200
H.	Flange Jacking Screw	3	M16 -20	--	--
J.	Actuator Flange Bolt	8	M24 -3.0	400 / (542)	H
N.	Locking Cylinder Screw	4	M16 -2.0	180 / (244)	M
R.	Yoke Clamping Screw	1	1" -14	500 / (678)	H
T.	Top Plate Screw ****	8	M20 -2.5	95 / (129)	M
T.	Top Plate Screw	1	M16 -2.0	70 / (95)	M
V.	Sensor Cover Screw	6	M5 -0.8	1.5 / (2.0)	--
W.	Cable Cover Screw	6	M3 -0.5	0.3 / (0.4)	--

* Requires 80 mm hex socket.

*** M = Medium strength thread lock compound; H = High Strength thread lock compound.
Installation torques shown here require coating on threads and also, as lubricant, under bolt head or nut, whichever is turned.

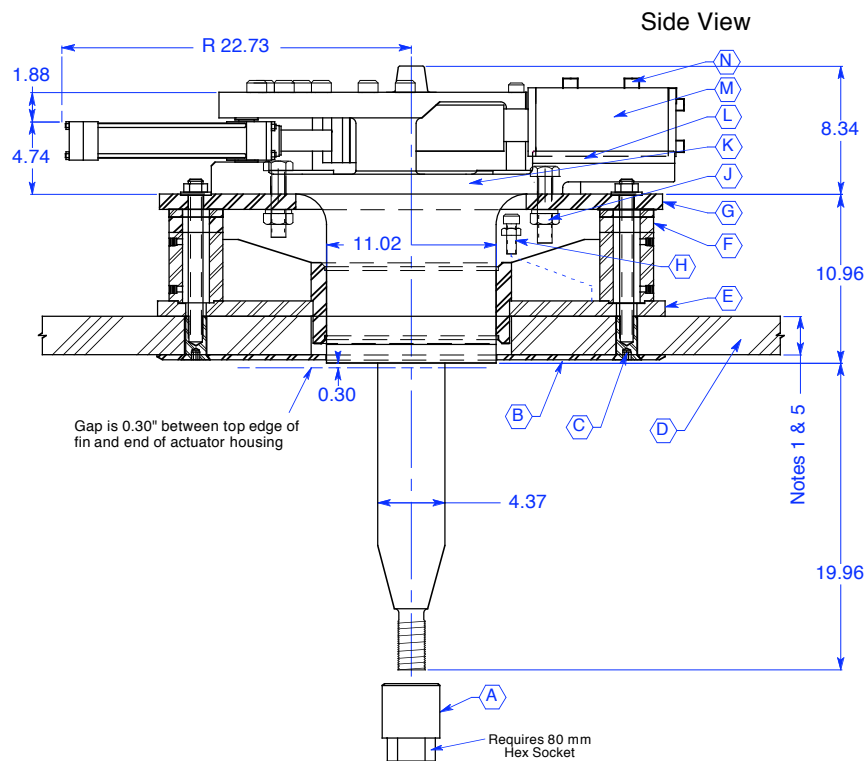
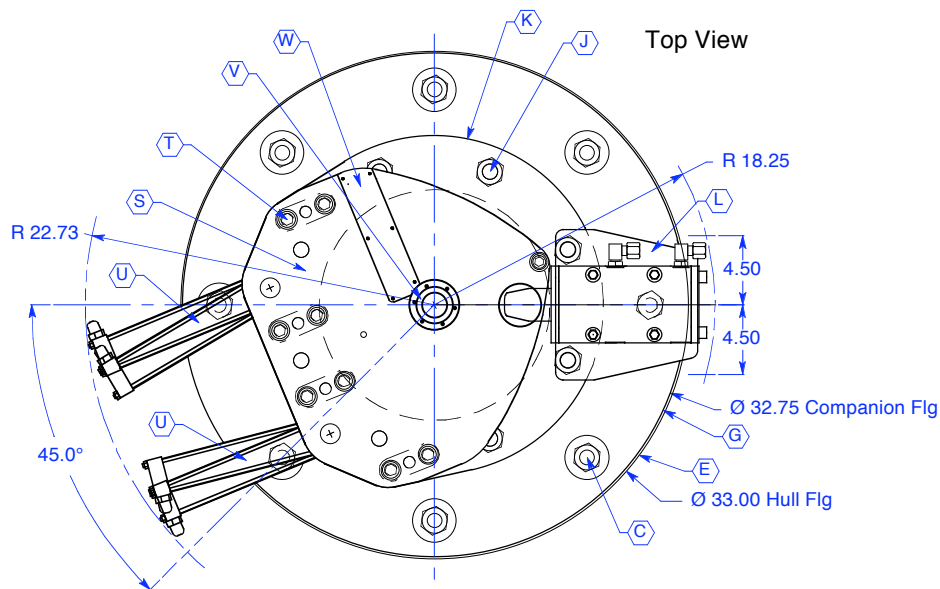
**** 0.75" x 2" dowel pins at each of four main top plate legs.

NOTES:

1. 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.
2. The Hull Doubler Plate is a retainer surface for assembly fasteners and sealants. The Hull Doubler Plate should NOT be considered to provide structural hull reinforcement.
3. The Hull Flange Bolts will through- bolt the Hull Doubler Plate, Inboard Hull Flange and Companion flange.
4. Inboard Hull Flange with eight integral riser columns and adjustable spacer stacks.
5. The range of hull thickness that can be accommodated by standard actuator equipment is 2.5" to 4.0". See the TRAC Stabilizer Installation Manual for additional details concerning this thickness range.
6. Hull Flange Jacking Screws are used during installation and removed after final flange bedding.
7. 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.

ARCTURUSMARINE™ **TRAC®** 517-A MARTIN AVENUE
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	DRAWN	RJP	Parts & Dimensions for Fiberglass Hull Installation All DIMENSIONS are inches unless noted		
	CHECKED				
	ISSUED	06/07/2005	SCALE: NONE	SHEET: 1 OF 1	REV: B



Assembly Parts

A. Fin Nut *	M. Yoke Locking Cylinder
B. Hull Doubler Plate (Note 2)	N. Locking Cylinder Screw
C. Hull Flange Bolt (Note 3)	R. Yoke Clamping Screw
D. Augmented hull thickness (Notes 1 & 5)	S. Top Plate
E. Inboard Hull Flange (Note 4)	T. Top Plate Screw
F. Hull Flange Spacer (Note 5)	U. Actuator Cylinder
G. Companion Flange	V. Position Sensor Cover
H. Hull Flange Jacking Screw (Note 6)	W. Sensor Cable Cover
J. Actuator Flange Bolt	
K. Actuator Flange	
L. Lock Cylinder Platform	

Assembly Fasteners

Part	Description	Qty	Size	Install Torque ft-lb / (Nm)	Install with Coating ***
A.	Fin Nut *	1	M48 -5.0	1000 / (1356)	Loctite® 262
B.	Hull Flange Bolt	8	M24 -3.0	250 / (339)	3M® 5200
C.	Flange Jacking Screw	3	M16 -20	--	--
J.	Actuator Flange Bolt	8	M24 -3.0	400 / (542)	H
N.	Locking Cylinder Screw	4	M16 -2.0	180 / (244)	M
R.	Yoke Clamping Screw	1	1" -14	500 / (678)	H
T.	Top Plate Screw ****	8	M20 -2.5	95 / (129)	M
T.	Top Plate Screw	1	M16 -2.0	70 / (95)	M
V.	Sensor Cover Screw	6	M5 -0.8	1.5 / (2.0)	--
W.	Cable Cover Screw	6	M3 -0.5	0.3 / (0.4)	--

* Requires 80 mm hex socket.

*** M = Medium strength thread lock compound; H = High Strength thread lock compound.

Installation torques shown here require coating on threads and also, as lubricant, under bolt head or nut, whichever is turned.

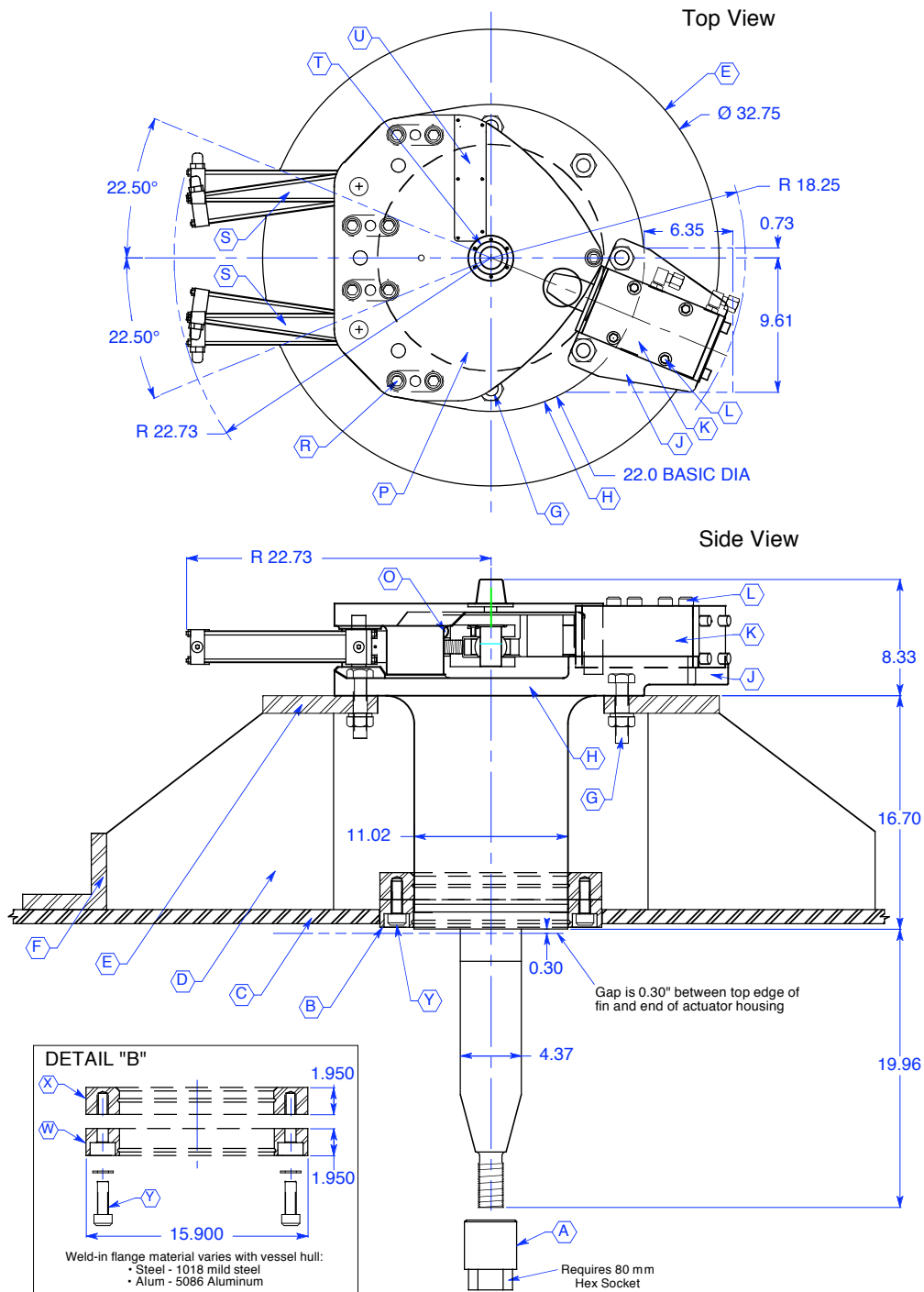
**** 0.75" x 2" dowel pins at each of four main top plate legs.

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2. The Hull Doubler Plate is a retainer surface for assembly fasteners and sealants. The Hull Doubler Plate should NOT be considered to provide structural hull reinforcement.
3. The Hull Flange Bolts will through- bolt the Hull Doubler Plate, Inboard Hull Flange, Spacers, and Companion flange.
4. Inboard Hull Flange with eight integral riser columns and adjustable spacer stacks.
5. The range of hull thickness that can be accommodated by standard actuator equipment is 2.5" to 4.0". See the TRAC Stabilizer Installation Manual for additional details concerning this thickness range.
6. Hull Flange Jacking Screws are used during installation and removed after final flange bedding.
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	CHECKED				
	ISSUED	06/11/2005	SCALE: NONE	SHEET: 1 OF 1	REV: B



Assembly Parts

A. Fin Nut *	L. Locking Cylinder Screw
B. Hull Flange Assembly (Note 2)	O. Yoke Clamping Screw
C. Augmented hull thickness (Note 1)	P. Top Plate
D. Platform Gusset (Note 3)	R. Top Plate Screw
E. Platform Flange (Note 3)	S. Actuator Cylinder
F. Hull Framing (Note 3)	T. Position Sensor Cover
G. Actuator Flange Bolt (Note 4)	U. Sensor Cable Cover
H. Actuator Flange	W. Weld-in Hull Flange
J. Locking Cylinder Platform	X. Bolt-on Hull Flange
K. Yoke Locking Cylinder	Y. Hull Flange Screw

Assembly Fasteners

Part	Description	Qty	Size	Install Torque ft-lb / (Nm)	Install with Coating ***
A.	Fin Nut *	1	M48 -5.0	1000 / (1356)	Loctite® 262
G.	Actuator Flange Bolt	8	M24 -3.0	400 / (542)	H
L.	Locking Cylinder Screw	4	M16 -2.0	180 / (244)	M
O.	Yoke Clamping Screw	1	1" -14	500 / (678)	H
R.	Top Plate Screw ****	8	M20 -2.5	95 / (129)	M
R.	Top Plate Screw	1	M16 -2.0	70 / (95)	M
T.	Sensor Cover Screw	6	M5 -0.8	1.5 / (2.0)	--
U.	Cable Cover Screw	6	M3 -0.5	0.3 / (0.4)	--
Y.	Hull Flange Screw	8	M20 -2.5	140 / (190)	M

* Requires 80 mm hex socket.

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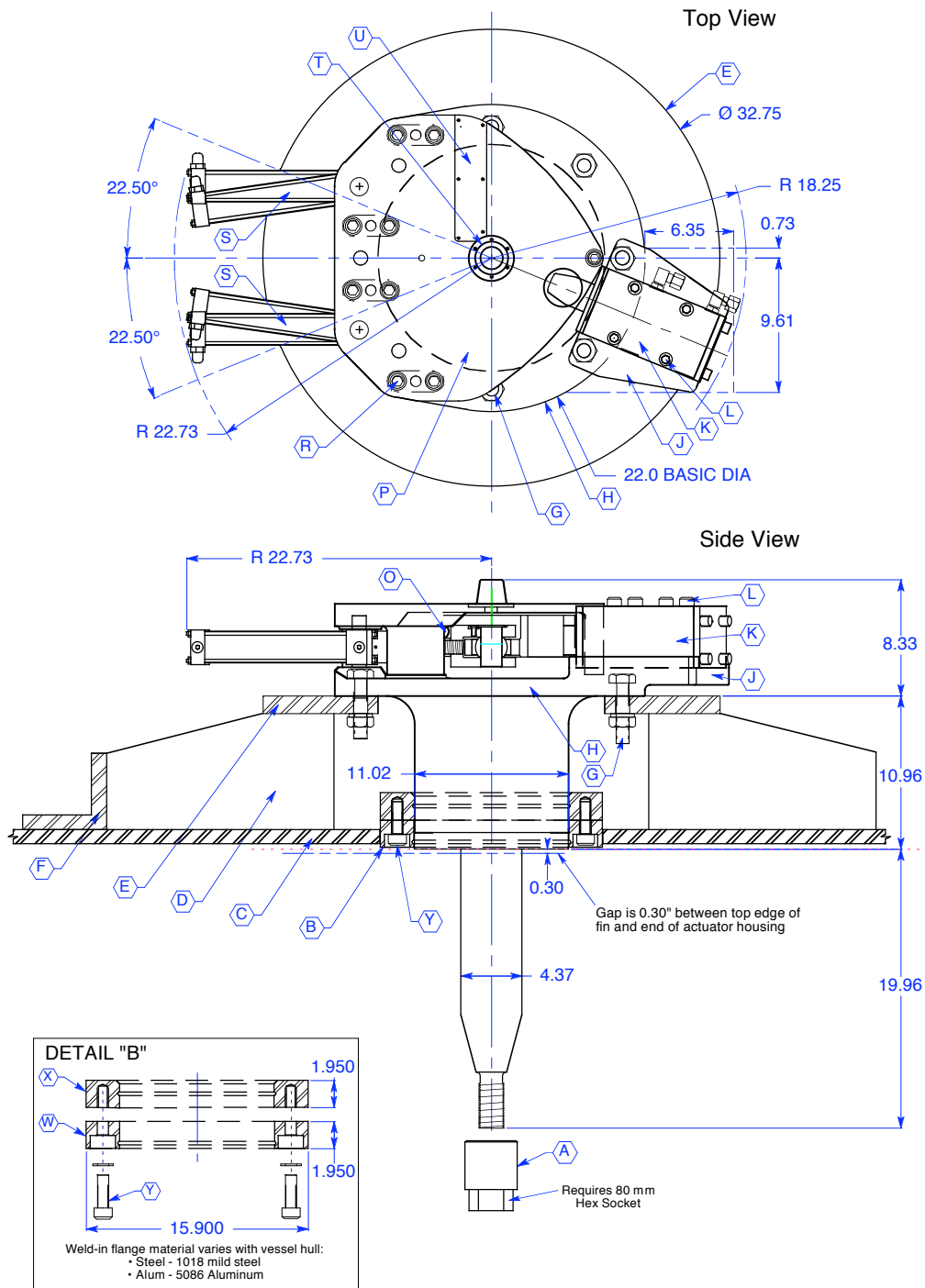
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**** 0.75" x 2" dowel pins at each of four main top plate legs.

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- 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. Consult the TRAC Stabilizer Installation Manual for recommended and required details applicable to the platform flange.
- 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.
- 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.

ARCTURUSMARINE™ TRAC®		517-A MARTIN AVENUE ROHNERT PARK, CA 94928 707.586.3155 Tel 707.586.3159 Fax http://www.thrusters.com		
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	DRAWN	RJP	Parts & Dimensions for METAL Hull Installation	
	CHECKED		All DIMENSIONS are inches unless noted	
	ISSUED	06/12/2005	SCALE: NONE	SHEET: 1 OF 1
			REV: B	



Assembly Parts

A. Fin Nut *	L. Locking Cylinder Screw
B. Hull Flange Assembly (Note 2)	O. Yoke Clamping Screw
C. Augmented hull thickness (Note 1)	P. Top Plate
D. Platform Gusset (Note 3)	R. Top Plate Screw
E. Platform Flange (Note 3)	S. Actuator Cylinder
F. Hull Framing (Note 3)	T. Position Sensor Cover
G. Actuator Flange Bolt (Note 4)	U. Sensor Cable Cover
H. Actuator Flange	W. Weld-in Hull Flange
J. Locking Cylinder Platform	X. Bolt-on Hull Flange
K. Yoke Locking Cylinder	Y. Hull Flange Screw

Assembly Fasteners

Part	Description	Qty	Size	Install Torque ft-lb / (Nm)	Install with Coating ***
A.	Fin Nut *	1	M48 -5.0	1000 / (1356)	Loctite® 262
G.	Actuator Flange Bolt	8	M24 -3.0	400 / (542)	H
L.	Locking Cylinder Screw	4	M16 -2.0	180 / (244)	M
O.	Yoke Clamping Screw	1	1" -14	500 / (678)	H
R.	Top Plate Screw ****	8	M20 -2.5	95 / (129)	M
R.	Top Plate Screw	1	M16 -2.0	70 / (95)	M
T.	Sensor Cover Screw	6	M5 -0.8	1.5 / (2.0)	--
U.	Cable Cover Screw	6	M3 -0.5	0.3 / (0.4)	--
Y.	Hull Flange Screw	8	M20 -2.5	140 / (190)	M

* Requires 80 mm hex socket.

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