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INSTALLATION INSTRUCTIONS AND OWNERS MANUAL

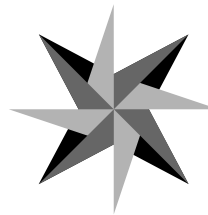
Part # IS-39462, Rev 1, 07/2013

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jbs

Jet Boat Mechanical Steering
HELM MOUNTING KIT SB39462



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*Before you do it your way,
please try it our way.*

JETBOAT STEERING SYSTEM

HELM MOUNTING KIT SB39462

NOTICE

Installer: these instructions contain important safety information and must be forwarded to the boat owner.

These instructions show you how to install a *HELM MOUNTING KIT* for a Jetboat steering system.

A complete system consists of the following components.

- Helm Assembly SH5087 (135°) or SH5088 (270°)
- Cable Assembly SSC219xx (where xx is length in feet). 2 required.
- Nozzle Connection Kit SA27590P (OMC) or SA27591P (Merc.). 2 required.
- Bezel Mounting Kit SB39452

DANGER

If steering cable is stiff in operation, it is unsafe to use and must be replaced immediately.

WARNING

This steering system is for use with small jet propelled boats using 2 cycle engines (175 HP Maximum). IT IS NOT FOR USE WITH LARGE JET PUMPS USING AUTOMOTIVE V8 ENGINES OR OUTBOARDS WITH LOWER JET UNITS.

WARNING

Before starting installation read these instructions and engine makers instructions thoroughly. Failure to follow either of these instructions or incorrect assembly can result in loss of control and cause property damage, injury, or death.

WARNING

DO NOT substitute parts from other manufacturers, they may cause a safety hazard for which SeaStar Solutions cannot accept responsibility. Use only SeaStar Solutions steering cables with this helm.

WARNING

To avoid excessive steering loads, and to get the best steering performance, the water jet nozzle and the reverse gate must be adjusted as instructed in the motor manufacturers operation manual. Failure to do so can effect the performance of the boat and its safe operation which may cause property damage, injury, or death.

WARNING

DO NOT attach any electrical ground wires to the helm. This would result in an electrolytic reaction to the steering system that may result in system failure or greatly reduced service life.

WARNING

Helms must not be disassembled for any reason. Removal and replacement of the hardware which locks the steering shaft to the helm assembly may lead to total failure of the system, which could result in property damage, injury, or death.

NOTICE

Helms and cable assemblies are supplied lubricated ready for installation, do not add any lubricant to either assembly. Use of other lubricants can cause damage to the steering cable, resulting in the cable seizing or premature wear. Keep the cable and drive assembly clean during installation. Dirt will damage the system and cause premature wear.

Cable Routing

When mounting the jet boat steering system, it is important to determine cable routing first. When routing steering cables, select a path with the minimum number of bends, making the bends as large a radius as possible. *Do not make bends less than 8 inch radius.* Sharp or frequent bends will result in hard steering and premature cable wear. When it is necessary to pass through a bulkhead, a 3/4" minimum diameter hole is required. Cables should be supported at regular intervals.

⚠ CAUTION

Cables must not be bundled together with electrical wiring.
Cables must not rest on sharp edges which can cause chafing.

Helm Mounting Bracket Installation

The helm may be installed for either vertical, port, starboard or inline cable entry. This is determined by the type of engine and the construction of the boat. Figure 1 and the template show a reference point to assist in positioning the mounting bracket. Study this carefully before drilling any holes. Dimensions shown in Figure 1 and the template must be maintained to ensure proper clearances. Locate the position for the steering wheel on the console or dashboard. Using template (Figure 4) oriented as determined by Figure 1, mark location of holes. Drill three holes 6.60mm (5/16") diameter and one hole 69.85mm (2-3/4") diameter. Place Mounting Bracket (item 1) in position on dash and fasten securely in place using Washers (item 5), Hex Bolts (item 3) and Locknuts (item 4).

⚠ CAUTION

Bolts (item 3) must be installed with the head of the bolt behind the dashboard as shown in Figure 2, to prevent interference with the arm of the helm.

Proceed to install helm and cables as shown in Figure 3.

ITEM	DESCRIPTION	QUANTITY
1	Mounting Bracket	1
3	Hex Head Bolt 1/4"	3
4	Lock Nut 1/4"	3
5	Flat Washer 1/4"	3
7	Flat Washer 1/2"	1
8	Hex Nut 1/2"	1
9	Woodruff Ket	1

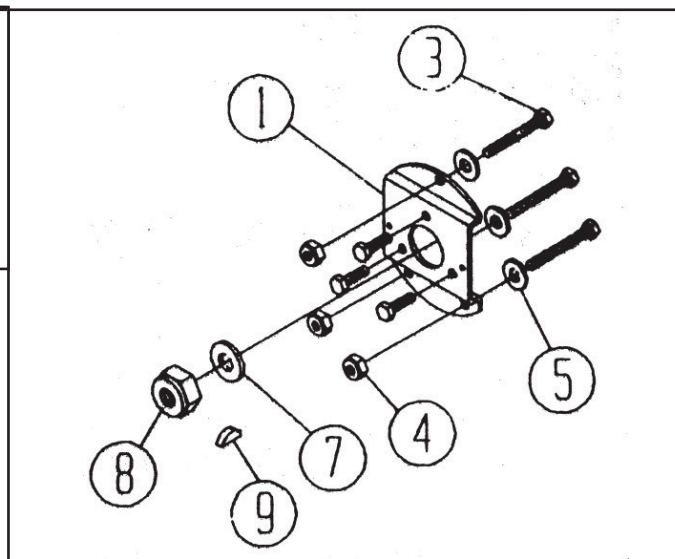
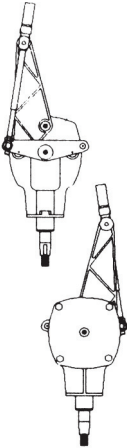
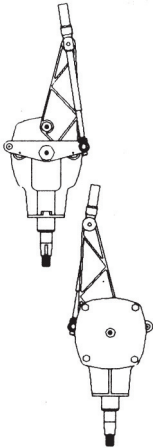
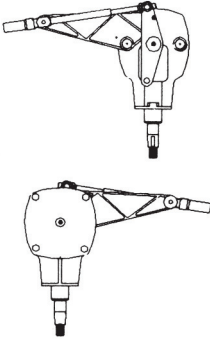
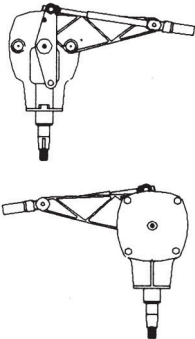
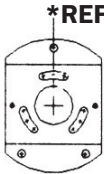
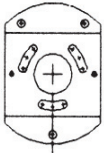
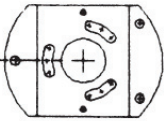
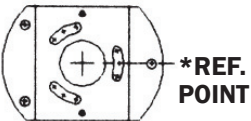


Figure 2.

Helm Mounting Options

<p>THESE ARE FOUR BASIC CABLE-TO-HELM MOUNTING OPTIONS (SHOWN AT RIGHT)</p> <p>(BOTH SIDES SHOWN)</p>	 <p>OPTION 1</p>	 <p>OPTION 2</p>	 <p>OPTION 3</p>	 <p>OPTION 4</p>
<p>THESE ARE FOUR BASIC HELM MOUNTING BRACKET-TO-DASH OPTIONS (SHOWN BELOW)</p>	<p>OUTPUT WHEN USING THE ABOVE CABLE MOUNTING OPTIONS WITH THE FOLLOWING HELM MOUNTING BRACKET LOCATION OPTIONS.</p>			
 <p>*REF. POINT</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM TO PORT SIDE -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM TO STARBOARD SIDE -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>
 <p>*REF. POINT</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM TO STARBOARD SIDE -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM TO PORT SIDE -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>
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 <p>*REF. POINT</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>	<p>-CABLE EXITS HELM STRAIGHT BACK -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM STRAIGHT UP -STARBOARD TURN PULLS CABLE (OMC. JET)</p>	<p>-CABLE EXITS HELM STRAIGHT DOWN -STARBOARD TURN PUSHES CABLE (MERC. JET)</p>

NOTE: IN ADDITION TO THE ABOVE MOUNTING BRACKET OPTIONS, SLOTTED MOUNTING BRACKETS ALLOW 20° OF HELM ROTATION IN BOTH DIRECTIONS.

Figure 1.

Parts List

ITEM	DESCRIPTION	QUANTITY
1	Helm Assembly	1
2	Cable Assembly	1
3	Cable Assembly	1
4	Bracket, Cable	1
5	Hex Bolt, 1/4-20 x .75 LG.	3
6	Lock Washer Spring (1/4)	3
7	Bearing Nyliner	1
8	Hex Sholder Bolt, 1/4-20 x 1"	1
9	Arm	1
10	Lock Washer (5/16)	2
11	Hex Nut (5/16)	2
12	Block, Arm Pivot	1
13	Block Set, Cable Pivot	1
14	Hex Bolt, Flange (3/8)	1
15	Bearing (Brass) (3/8) I.D.	1
16	Washer, Flat (3/8)	1
17	Locknut (3/8)	1
18	Screw, Pan Head (#10)	2

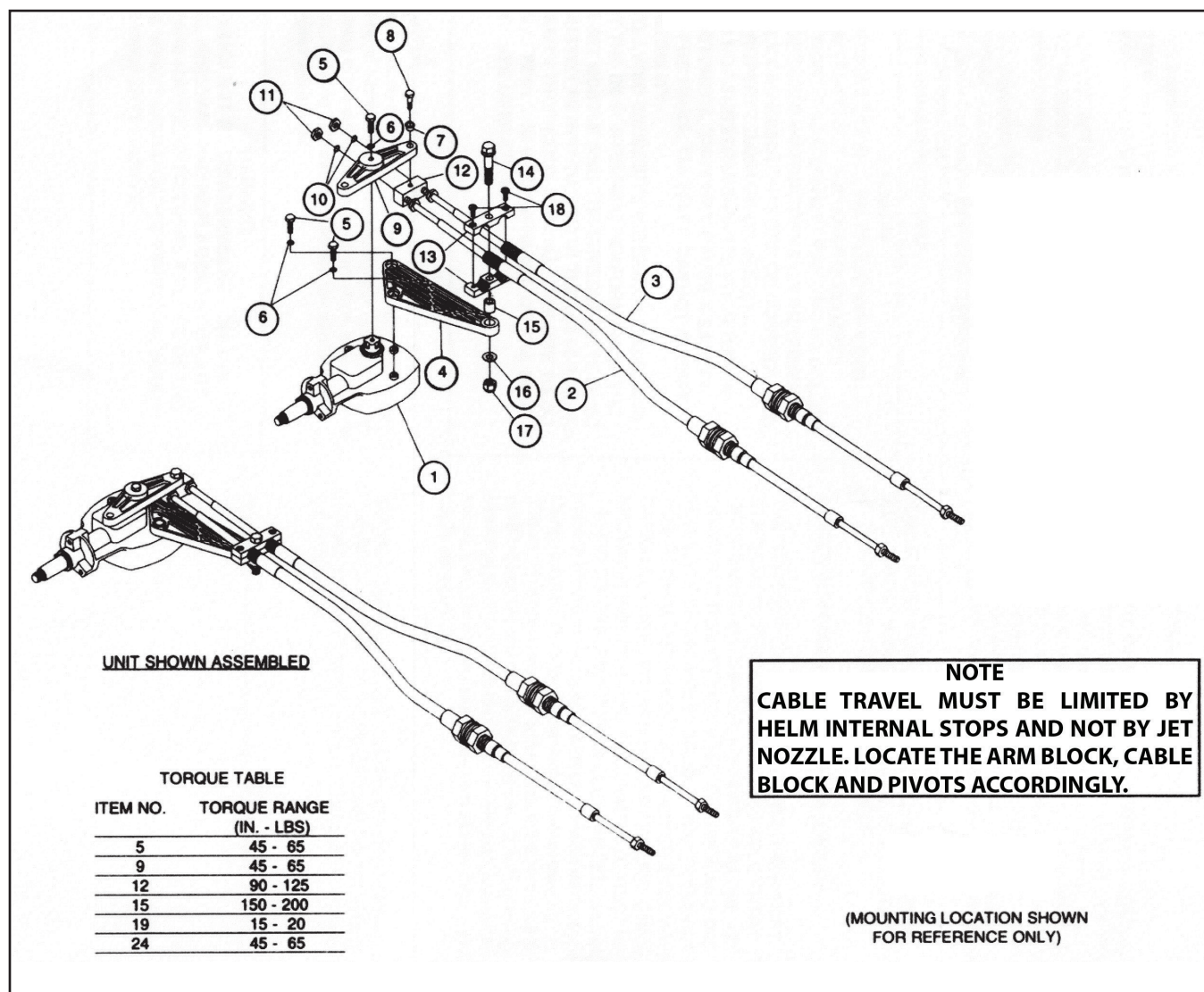


Figure 3.

Operation & Maintenance Notes

1. After a few hours of operation and at frequent intervals thereafter, check all fasteners and the complete steering system for security and integrity.

DANGER

Loosening or loss of one or more fasteners may cause failure of the steering system, resulting in loss of steering control and could cause property damage, injury, or death.

2. Keep all moving parts free from build-up of salt and other foreign material. This will affect their operation and create steering problems. Pay particular attention to the attachment to the jet nozzle. Periodically clean thoroughly and lubricate with a waterproof marine grease.

3. Inspect periodically for corrosion. Any parts affected by corrosion must be replaced. When replacing hardware, self-locking hardware as originally supplied must be used.

4. Inspect steering cable periodically for cracks or other damage. If any is found the cable must be replaced.

DANGER

If steering cable is stiff in operation, it is unsafe to use and must be replaced immediately.

DANGER

DO NOT cover cracks with tape or other sealants, this will create a hazard in which the cable can fail suddenly without warning, resulting in property damage, injury, or death.

NOTICE

Boat builder and boat dealer, please supply these Installation Instructions and Owner's Manual with the delivery of boat. Boat owner keep these instructions with your boat for future reference. Boat owner consult with your boat builder, boat dealer, or SeaStar Solutions if you have any questions regarding these instructions.

Dash Mounting Template

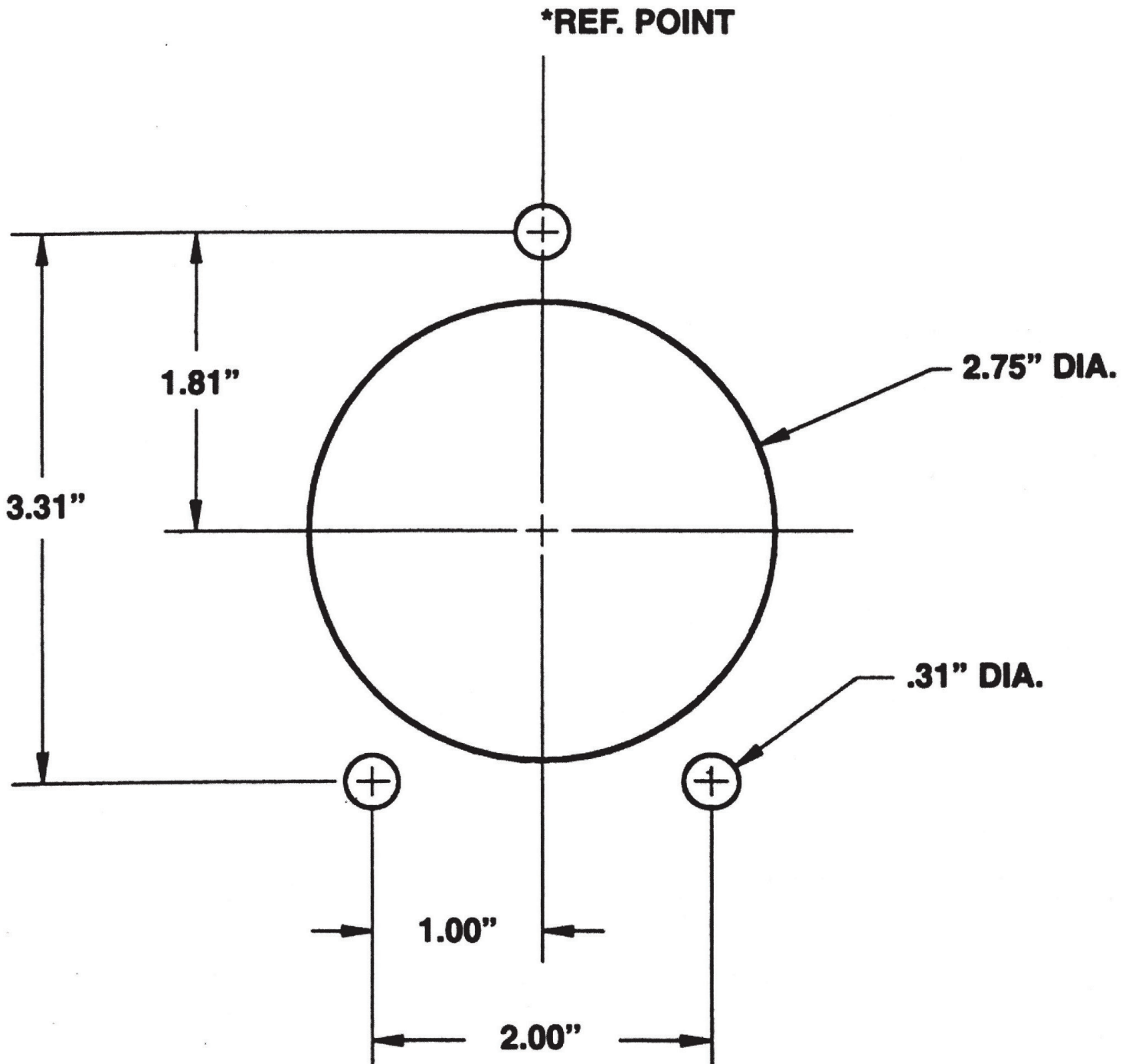


Figure 4.

NOTICE

If you must photocopy this mounting template for use, check ALL measurements using a measuring device prior to using as a template.



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PART # IS-39462 07-2013 Rev. 1