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**MAINTENANCE MANUAL AND INSTRUCTIONS FOR CONTINUED
 AIRWORTHINESS
 FOR
 AEROCET MODEL 5850 TWIN SEAPLANE FLOATS
 INSTALLED ON A DEHAVILLAND DHC-2 BEAVER AIRPLANE**


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This ICA must be followed when Aerocet 5850 Floats are installed in accordance with Supplemental Type Certificate (STC) No. SA01722SE.

The information contained in this document supplements or supercedes the basic manuals only in those areas listed herein. For limitations, procedures, and performance information not contained in this manual, consult the basic aircraft ICA or maintenance manual.


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LOG OF REVISIONS

Revision	Pages Affected	Description	Date	Approved
0	All	Initial Release	10/17/2006	
1	34	Corrected Bullets to BOM Items	2/27/07	T. Hamilton
	37	Corrected column headings in BOM		
	47, 48, 49	Revisions to 56-15230, 56-15240 & 56-15260 – changed bolts to pins.		
	56, 57	Revisions to 56-10114 – fiberglass wear strips.		
	63	Revisions to 56-10180 – fiberglass wear strips.		
	64	Revisions to 56-10400 – access panel fasteners changed to truss head.		
2	All	Entire Re-release. Where Notes or Cautions are given, formatted the verbiage for better emphasis – not marked with change bar. Where applicable, breaks were introduced to start new sections on odd pages. Adding new sections unavoidably pushes the subsequent outline numbers in Section 2 upward sequentially.	1/23/12	
	7	Added Figure 1.1.1		
	8	Added Figure 1.1.2		
	9	Added Figure 1.1.3, 1.1.4 & 1.1.5		
	10-11	Added paragraph explaining Airworthiness Limitations.		
	12	Added Section 1.3 Availability		
	13-17	Added Section 2.2 and figures for Fastener Torque, and Use and Discretion		
	19	Corrected Figure reference		
	21	Corrected two figure references. Changed UHMW wear strips to fiberglass.		
	22	Corrected Figure reference		

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Revision	Pages Affected	Description	Date	Approved
	22	Added Figure 2.6.1. Added description of new fwd hinging locker panels.		
	23	Added Figure 2.6.2 showing fwd hinging latch operation.		
	24	Added Figure 2.6.3		
	30	Corrected Figure Reference.		
	33	Added Troubleshooting Section 2.10.		
	37	Corrected "(above)" to "(below)"		
	38	Added Hydrex 33350 and show old resin as 33253 obs.		
	40	Changed UHMW wear strips to fiberglass. "Affix strips as shown in diagram <i>below.</i> " changed to "Affix strips as shown in diagram."		
	41	Added Airworthiness Limitations Section 4. (Following section numbers sequentially bumped)		
	65	Added missing balloons.		
	66	Changed 56-15280 to 56-15285.		
	69	Replaced figure showing new 56-15145-02		
	72	Updated Locker to show only fiberglass style wear strips. Inboard version now identified with "-1".		
	73	Added FWD hinging "-2" Locker inst.		
	75	Corrected cable guide orientation.		
	76	Lwr. Tiller bracket atch. Bolts lengthened from -7A to -10A.		
	77	Now showing placard.		
	79	Now showing machine screws, hrdwr.		

Originally prepared by Fliegen Works Inc., Portland, OR



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1. INTRODUCTION

Thank you for choosing Aerocet Floats. This manual covers the installation and maintenance of the 5850 floats as installed on the DHC-2 Beaver airplane, including instructions for installing the struts, steps, water rigging, and float structure. An IPC is also provided.

1.1. General Description

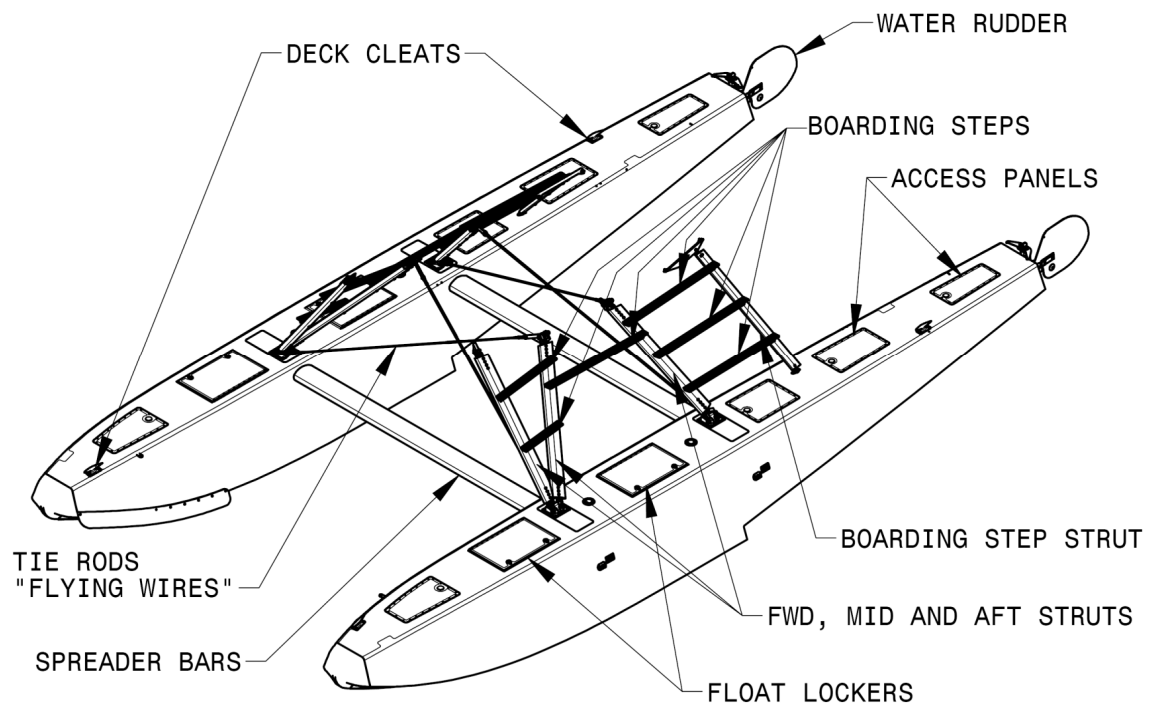


Figure 1.1.1. Showing Overview of Basic Components

The Aerocet Model 5850 Twin Seaplane Floats are all-composite float hulls. The float hulls are separated by spreader bars that slide into the float assemblies. The float design uses a double-fluted bottom contour from the step forward, and has a flat top deck design with built-in antiskid. Each float offers two large storage lockers.

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Water rudders are mounted on the stern of each float for water-taxi operations, and are connected directly to the airplane's rudder. The retract system, which is compatible with OEM and other approved cockpit handles, is installed in the standard manner.

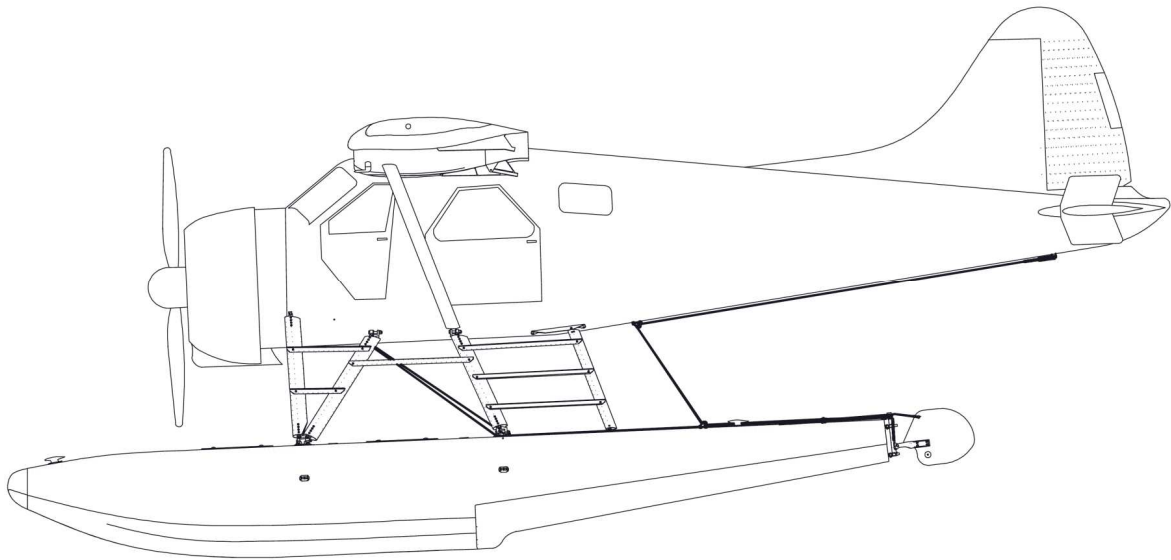


Figure 1.1.2 Side View of Model 5850 Floats on a DeHavilland DHC-2 "Beaver"

Each float is attached to the airplane by forward, mid, and aft struts. An attachment block is bolted to the upper end of the forward strut. The upper end of the mid and aft struts each have a forked attachment fitting bolted to them, and each of these forked attachments is bolted to a landing gear attachment lug on the side of the fuselage. At the lower end, the forward and mid struts are bolted to a common forked attachment fitting that is also bolted to the forward attachment lug on the float. The aft strut forked attachment fitting is bolted independently to the rear lug on the float.

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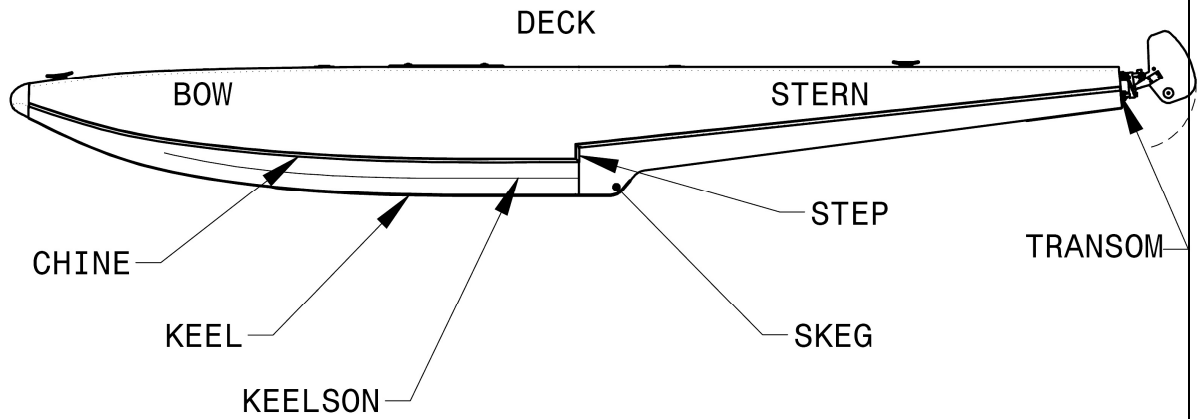


Figure 1.1.3 General Float Terms

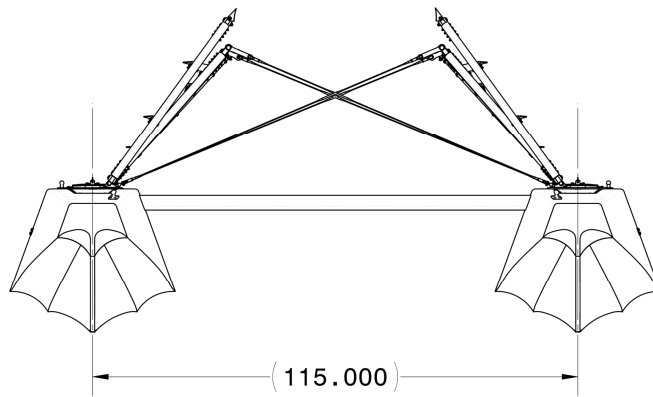


Figure 1.1.4 Front View of Floats and Rigging

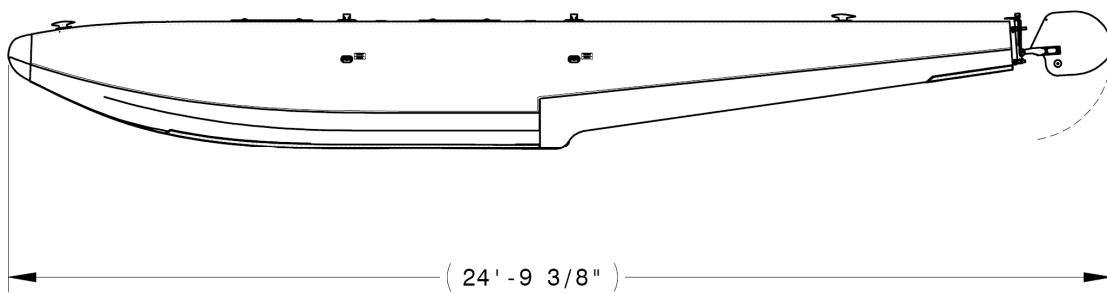


Figure 1.1.5 Model 5850 Float, Side View

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1.2. How to Use This Supplemental Manual

Used in conjunction with the DeHavilland Maintenance Manual, Repair Manual, and Illustrated Parts Catalogue for a DHC-2, Beaver, airplane, this supplemental manual provides the operator with a source of information for installing, removing, repairing, and maintaining Aerocet Model 5850 Twin Seaplane Floats on a DHC-2 Beaver. Instructions in this supplemental manual replace specific, noted sections of the DeHavilland manual.

This manual is organized as follows:


Maintenance Manual. Instructions and information necessary to maintain, install, and remove the Aerocet Model 5850 Twin Seaplane Floats on a DeHavilland DHC-2 Beaver airplane. This dovetails into existing sections of the DeHavilland Maintenance Manual, PSM 1-2-2.

Repair Manual. Instructions necessary to repair Aerocet Model 5850 Twin Seaplane Floats installed on a DeHavilland DHC-2 Beaver airplane. These instructions replace sections 5.8 through 5.15 of Section V, Alighting Gear in the DeHavilland Repair Manual, PSM 1-2-3.

Instructions for Continued Airworthiness. Instructions necessary to inspect and maintain an airworthy state with Aerocet Model 5850 Twin Seaplane Floats on a DeHavilland DHC-2 Beaver airplane. These instructions include Preflight, Daily, Periodic, and Special inspections. This information dovetails into existing sections of the DeHavilland Maintenance Manual, PSM 1-2-2.

Illustrated Parts Catalog. Drawings and parts necessary to use the Aerocet Model 5850 Twin Seaplane Floats on a DeHavilland DHC-2 Beaver airplane. This section should be used in lieu of the float sections in the DeHavilland Illustrated Parts Catalogue, PSM 1-2-4.

Airworthiness Limitations Section. The Airworthiness Limitations Section is required per 14 CFR 23.1529. This includes mandatory replacement times for type

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certification, mandatory inspection times for type certification and inspection procedures for those approved mandatory times.

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1.3. Availability:

One complete copy of this manual shall be provided with each new set of Aerocet Model 5850 floats. Additional copies and minor revisions shall be available via email, U.S.P.S (Mail), UPS or FedEx by request. Fees and delivery charges may apply.

Notification of any changes that require service for airworthiness shall be distributed to all applicable Aerocet owners on record with Aerocet, Inc. In such a case, copies of the applicable, revised portions of this manual shall be provided.

Aerocet, Inc. maintains record of purchasers and/or owners collected at the time of purchase in order to comply with the above as well as to maintain a high standard of service. If you have moved since your original purchase, have purchased a used product or otherwise have reason to believe that the contact information on file is incorrect, please provide the following information to Aerocet, Inc: (Aerocet contact information is on the front of this document.)

Float Information:

Float Model: _____

Float S/N (R/L) _____

Aircraft Information:

Aircraft Make/Model _____

Aircraft Registration _____

Aircraft S/N _____

Owner Information: (as applicable)

Previous Owner _____


Previous Address _____

Present Owner _____

Present Address _____

Present Phone Number _____

Present Email Address _____

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2. MAINTENANCE MANUAL

2.1. Lubrication

Replaces paragraph 1.29 of the DeHavilland Maintenance Manual, PSM 1-2-2.

None required. Corrosion protection covered in the Instructions for Continued Airworthiness (ICA).

2.2. Fastener Torque

2.2.1. Torque Value Conversion:

To convert in.-lbs. to ft.-lbs: Value (ft.-lbs.) x 12 = Value (in.-lbs.)

To convert ft.-lbs. to in.-lbs: Value (in.-lbs.) x 0.0833 = Value (ft.-lbs.)

2.2.2. Tooling Requirements:

Calibrated torque wrench

Adapters that affect the length of the torque wrench will affect the required torque indication and must be calculated according to Figure 1.4.3.

2.2.3. Hardware Cleanliness

All hardware is to be free of dirt, grit and grease. All dirty hardware shall be thoroughly cleaned and lubricated with a dry film lubricant such as LPS 1, or Teflon products per manufacturer instructions. It is recommended that all stainless hardware be thoroughly lubricated with anti-seize lubricant of good quality to prevent galling upon assembly.


2.2.4. Torque Procedure

Assure that hardware is clean and properly prepared for installation. Assemble nuts to bolts, measuring the tension required to turn the nut and add this to the required final torque. Where possible apply torque to the nut, and not to the fastener head. Apply a smooth, even pressure, stopping and re-torquing if chattering or premature loading occurs. This may warrant disassembly and subsequent inspection for burrs or galling. Replace any damaged hardware.

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Access panels should be torqued only to "hand tight", the fiberglass should exhibit only mild deformation. A portable hand drill could be used, provided that the clutch is set properly. Do not apply more pressure to the hatch screws than is necessary to engage the tool to the fastener head as this will risk damaging the Tinnerman style nuts below.

All other nuts shall be torqued per Section 2.3 unless otherwise noted.

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2.3. Fastener Torque Values (Except where otherwise noted)

CAUTION THE FOLLOWING TORQUE VALUES ARE DERIVED FROM OIL FREE CADMIUM PLATED THREADS.					
		TORQUE LIMITS RECOMMENDED FOR INSTALLATION (BOLTS LOADED PRIMARILY IN SHEAR)	MAXIMUM TORQUE LIMITS	ALLOWABLE TORQUE LIMITS	TIGHTENING TORQUE LIMITS
Thread Size	Tension type nuts MS20365 and AN310 (40,000 psi in bolts)	Shear type nuts MS20364 and AN320 (24,000 psi in bolts)	Nuts MS20365 and AN310 (90,000 psi in bolts)		Nuts MS20364 and AN320 (54,000 psi in bolts)
FINE THREAD SERIES					
8-36	12-15	7-9	20		12
10-32	20-25	12-15	40		25
1/4-28	50-70	30-40	100		60
5/16-24	100-140	60-85	225		140
3/8-24	160-190	95-110	390		240
7/16-20	450-500	270-300	840		500
1/2-20	480-690	290-410	1100		660
9/16-18	800-1000	480-600	1600		960
5/8-18	1100-1300	600-780	2400		1400
3/4-16	2300-2500	1300-1500	5000		3000
7/8-14	2500-3000	1500-1800	7000		4200
1-14	3700-5500	2200-3300*	10,000		6000
1-1/8-12	5000-7000	3000-4200*	15,000		9000
1-1/4-12	9000-11,000	5400-6600*	25,000		15,000


Figure 2.3.1 Recommended Torque Values (inch-pounds)
(from AC43.13-1B, Table 7-1)

FINE THREAD SERIES	
THREAD SIZE	MINIMUM PREVAILING TORQUE
7/16 - 20	8 inch-pounds
1/2 - 20	10 inch-pounds
9/16 - 18	13 inch-pounds
5/8 - 18	18 inch-pounds
3/4 - 16	27 inch-pounds
7/8 - 14	40 inch-pounds
1 - 14	55 inch-pounds
1-1/8 - 12	73 inch-pounds
1-1/4 - 12	94 inch-pounds
COARSE THREAD SERIES	
THREAD SIZE	MINIMUM PREVAILING TORQUE
7/16 - 14	8 inch-pounds
1/2 - 13	10 inch-pounds
9/16 - 12	14 inch-pounds
5/8 - 11	20 inch-pounds
3/4 - 10	27 inch-pounds
7/8 - 9	40 inch-pounds
1 - 8	51 inch-pounds
1-1/8 - 8	68 inch-pounds
1-1/4 - 8	88 inch-pounds

Self-Locking Nuts:

Self-locking nuts, when re-used, must have at least the minimum prevailing torque listed in figure to the left. Nuts that are smaller than those listed in the table shall not be used if they can be run up by hand.

Figure 2.3.2 Minimum Prevailing Torque Values for Re-used Self-Locking Nuts
(from AC43.13-1B, Table 7-2)

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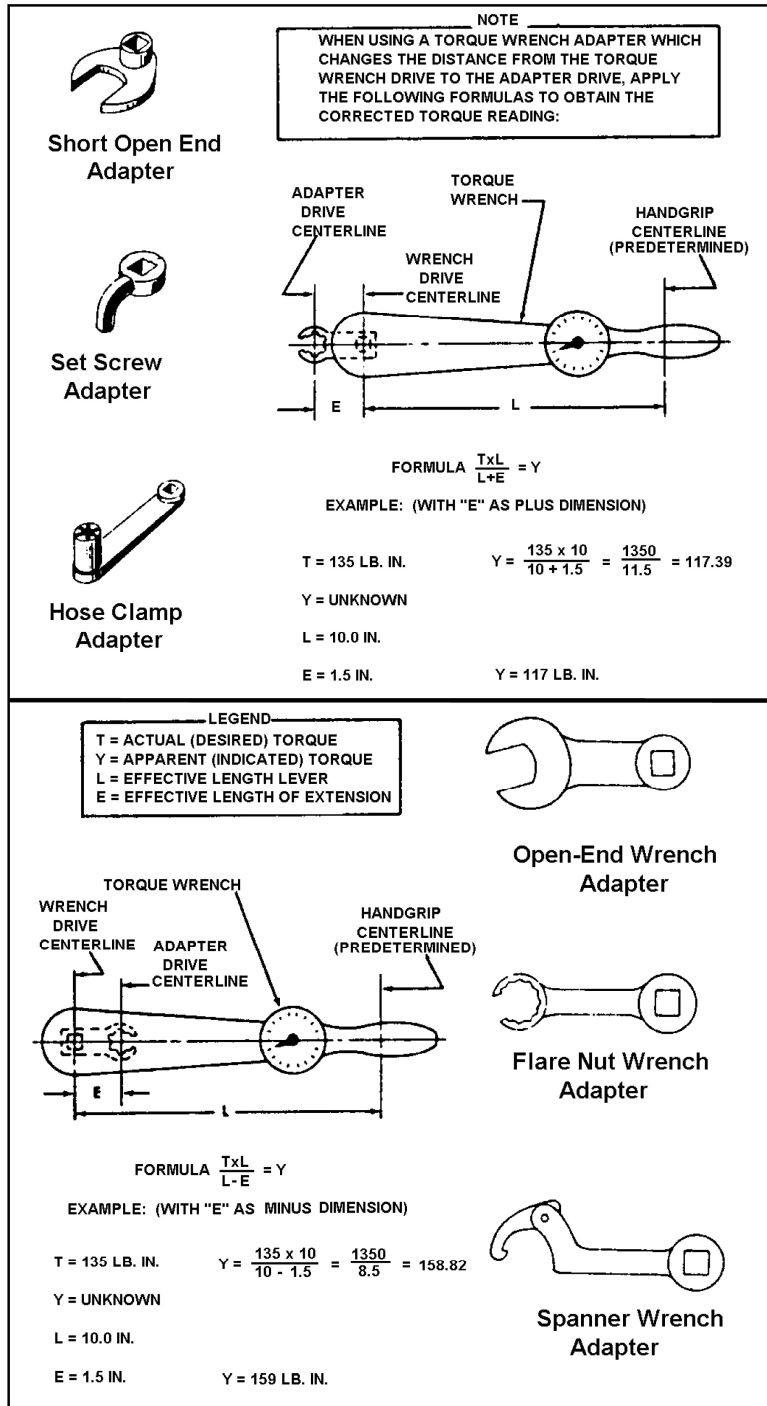



Figure 2.3.3 Torque Wrench with Various Adapters
 (from AC43.13-1B, Figure 7-2)

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2.4. Fastener Use and Discretion

2.4.1. Fastener Lengths

Rivets: Where replacement or repair of rivets is required, use rivets of proper specifications only. For instance, MS203426AD4-xxx. Lengths may be determined by measuring the thickness of the material(s) to be assembled and adding 1.5" X Diameter of the rivet to be used. Over-sized rivets may be substituted where holes have been drilled out.

Bolts and screws shall have a minimum of one thread visible through the nuts upon final torque.

Washers may be rearranged if necessary to accommodate proper fit, up to two washers beneath the nut and one beneath the fastener head. Typically, Aerocet intends to put one thin washer beneath the fastener head and one thicker washer beneath the nut.

2.4.2. Fastener Reuse

Fasteners are to be inspected per Section 4 of this manual for condition. Such fasteners that are acceptable, may be cleaned, re-lubricated and re-installed as determined. Self-locking nuts shall meet the minimum prevailing torque as listed in Figure 2.3.2, or shall be replaced.

2.5. Float Handling and Jacking

Add to the end of paragraph 1.14 of the DeHavilland Maintenance Manual, PSM 1-2-2.

In order to service the float bottoms or aircraft installation rigging, the floats may be lifted with hydraulic jacks, or if installed, with aircraft lifting rings. If using hydraulic jacks, raise only one float at a time, and assure proper balancing. The best lift point is 5.2 inches ahead of the step on the keel; this locates the jack directly under the main bulkhead in the float and nearest the strong step area. If space permits, and as a

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precaution, use a board in between the jack and the keel to distribute the load and reduce point pressure on the float structure. After raising the float, block the float in two places ahead of the step. Use a sawhorse to support the after body of the float to keep the plane from tipping back. Alternatively, use a stand to support the tail of the aircraft. You may position sawhorse(s) beneath bulkheads, which are located 42.25 inches, 81.75 inches, and 108.13 inches aft of the step.

The airplane may be otherwise lifted with a launching dolly or large forklift under the spreader bars. Lift as closely as possible to the float hulls without touching the hulls.


2.6. Floats Installation

Replaces paragraphs 2.26 through 2.35.1 of the DeHavilland Maintenance Manual, PSM 1-2-2.

2.6.1. Description

Provision is made on the airplane for fitting a twin float installation, complete with retractable, cable-operated water rudders. The complete float unit, comprising floats, water rudders, spreader bars, struts and fittings, streamline wires, and rudder control systems, may be fitted to the airplane in place of the main wheel and tailwheel units.

The Aerocet Model 5850 Twin Seaplane Floats are all-composite float hulls. The float hulls are separated by spreader bars that slide into the float assemblies. The float design uses a double fluted bottom contour from the step forward, and has a flat top deck design with built-in antiskid. Water rudders are mounted on the stern of each float for water taxi operations. Each float offers six water-tight compartments for safety, two of which serve as large storage lockers. Access to the insides of these compartments is facilitated through fastened access panels on the deck or the storage locker hatch covers. The floats incorporate pump locations into each compartment. These pump locations are used to remove any excess water from condensation, leakage from the access panel gaskets, bolts, pump-out plugs, or a damaged float hull. Replacement plugs are readily available, and are common to many brands of floats.

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Each float is attached to the airplane by forward, mid, and aft struts. Bolted to the upper end of the forward strut is an attachment block, and to the upper end of the mid and aft struts, a forked attachment fitting, each of which is in turn bolted to a landing gear attachment lug on the side of the fuselage. At the lower end, the forward and mid struts are bolted to a common forked attachment fitting, which in turn, is bolted to the forward attachment lug on the float. The aft strut forked attachment fitting is bolted independently to the rear lug on the float.

The floats installation is braced by a system of crossed streamline wires (tie rods). These are connected from the top of each middle strut to the opposite front deck fitting, and similarly from the top of each aft strut to the opposite rear deck fitting. The strut bracing wires are each attached to wire pulls at the strut-to-fuselage attachment points, and to wire pulls mounted at the attachment points at the float deck. Each bracing wire (tie rod) is provided with a threaded end, bushing, and lock nut for tightening and rigging adjustment. Two steps are attached between the forward and mid strut, on each side of the airplane, for entrance to the cockpit. One boarding step is attached between the mid and aft struts. For entrance to the cabin, a rear step strut is installed between the float deck and a fuselage fitting that attaches to original land plane boarding step hardware. Three boarding steps attach between the aft strut and the rear step strut.

Each of the float water rudder assemblies consists of a rudder post, which is hinged to upper and lower hinge brackets on the float, and carries a steering lever at its upper end and a rudder at its lower end, on a swing type pivot bracket. See figure 18 page 8. The swing type pivot bracket permits the rudder to be retracted. Nyliner type bushings are installed on the assembly as bearings for of the rudder post pivot points and the rudder retraction pivot points. No lubrication is required. The water rudders are controlled together, through a series of pulleys, turnbuckles, and an extension spring, to the rudder. The steering system consists of two control cables, one attached to the outboard end of each water rudder steering lever, and a single balance cable attached to the inboard ends of the steering levers. Each control cable is connected at the rear end to a tension spring,

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which in turn is connected to a lengthened torque tube arm that replaces the landplane arm on the rudder. The purpose of the spring is to ensure air rudder operation if the water rudders become inoperative due to icing or other failure. The cables run along the lower fuselage to the torque tube arm. Where changes in direction are required, the cables are routed over ball-bearing type pulleys.

The principle of operation of the water rudder steering system is as follows: it is the reaction to the pilot's selected pedal and the torque tube movement, through the air rudder system, that brings about the desired water rudder movement; not the movement of the selected pedal. The following paragraph, which can be read in conjunction with Figure 10, is an example of control operation for the left water rudder.

The left rudder pedal is moved forward, rotating the forward torque tube, and moving the attached operating arm toward the rear, thus allowing the right control cable to move in the same direction. Simultaneously, left movement of the air rudder causes rotation of the rear torque tube, movement of the right rudder pedal to the rear, and forward movement of the attached operating arm, thereby pulling the left rudder cable forward, and moving both water rudders through the balance cable to the left.

To enable the water rudders to be retracted for take-off and mooring, a retraction cable control is provided. The retraction handle is connected by a tie cable to the retraction cables, which are routed over pulleys and through fairleads to the rudder, which is located within a pivot bracket, and held in the down position by a spring. The rudder may be retracted by lifting the handle up from the guide tube, and attaching it, by means of the securing ring, to the spool at the rear of the cockpit left door frame, or by hooking the modified rudder retraction handle into its retaining clip to the left of the starter clutch handle.

The rudder steering rigging should align the rudders straight ahead when the airplane rudder is centered. Cables should be just taut. There should be no pre-stretching of the springs, which connect to the airplane rudder system. This keeps the friction low, not hampering yaw stability.

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The water rudder retract cables should be rigged so that the rudders are tucked neatly behind the float transoms when retracted and the cables are just becoming slack in the down position. Acceptable throw may vary. Approximate travel should be 11.16 inches, dependent upon the retracted position of the water rudder and the cockpit retraction device arrangement used.

2.6.2. Cleaning

Seaplanes operating in salt water, or in a smoky area, should be thoroughly hosed down or flushed with fresh water each day.

The float's design, which uses an all-composite structure, basically eliminates hull corrosion and leakage. The floats should be kept clean with biodegradable soap and water. The sides and the bottoms from the step aft can be waxed to help in the cleaning process. The bottoms of the floats from the step forward should not be waxed, as this gives unpredictable water performance. Stains from the waterline down may be removed using marine fiberglass stain remover. We have been successful using a product called FSR. Do not use abrasive cleaners or pads—these will scratch the white gel-coat surface. The gel-coat color surface should always be maintained on the floats for ultraviolet radiation protection.

2.6.3. Float Hull Description and Maintenance

The metal chine strips are abrasive wear surfaces used to protect the floats from docks and pilings. See Figure 18, page 10. These are extrusions bonded on using a one-part urethane adhesive. These strips should be kept intact.

The keels have aluminum keel strips bonded on for protection; optional fiberglass wear strips can be added upward and outward from the keel near the step area where the float would nest in the rocks on a beach. See figure 18, pg. 11. These wear strips should be inspected on pre-flight or upon suspicion of damage. The strips should never be allowed to wear through to the gel-coat surface on the float. Replace the wear strips as necessary per the repair manual section 3.8.

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All float access panels are to be removed upon annual inspection to detect any hidden damage and to comply with the maintenance and water rudder sections of this supplemental manual. During this time, assure that all the pump-out tubes are not cracked (especially around the fitting to the pump-out cup), that they pass through their respective locators to keep them in the low spots, and that they have no blockages. If a pump-out tube is cracked, it will not pull the water out of its respective compartment, resulting in extra weight and CG problems. Replace as necessary. See figure 18, page 12 for access panel and pump tube assemblies.

Any penetration to the float structure, de-lamination of the layers of cloth, or wearing through of gel-coat must be repaired according to Hull Repair Section in the Repair Manual section of this supplemental manual. Significant damage warrants consultation from Aerocet, Inc.

Float locker latches and seals are to be maintained as needed. Adjust the locker latches by spacing the black catch ramp the correct distance to maintain a detent when the locker catches. For inboard-hinging hatches the white dots will face the outside when the locker catches.

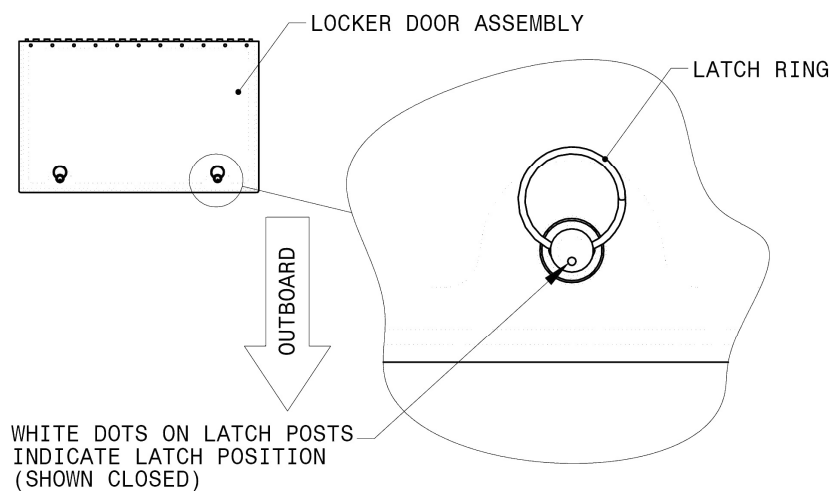



Figure 2.6.1 Showing Inboard Hinging Style Locker Hatch

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For optional, newer, forward hinging locker covers, orient the arrow-shaped handle pointing forward (toward the hash mark in the “CLOSE” position shown on the placard) and in the detent. This style is designed to maintain a small amount of positive tension on the knob while the door is open. To close the latch, push downward on the knob and the door panel as necessary and turn clockwise to engage the catch and reach the detent.

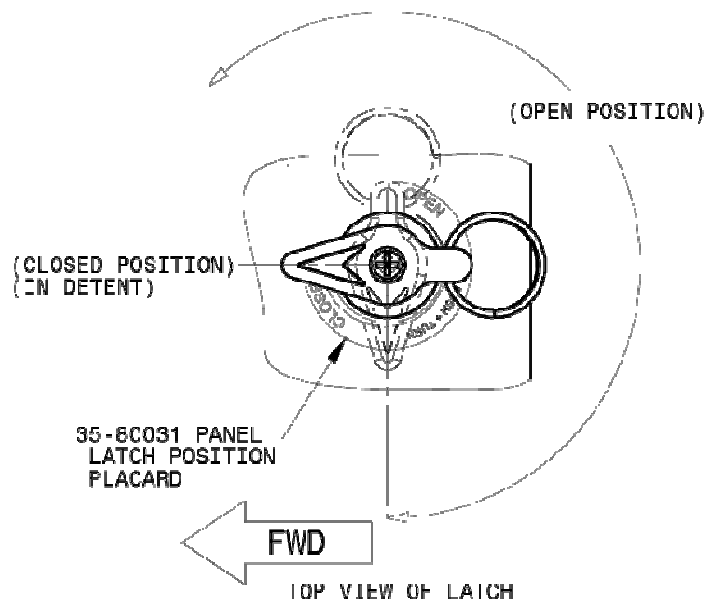


Figure 2.6.2 Showing Optional, Fwd Hinging Latch Operation

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Investigation should be prompted if excessive water is pumped from any of the pump-out cups during pre flight. Water can leak through the pump-out plugs where the nylon pull line (on some styles of plugs) penetrates and may also seep through the access panel seals.

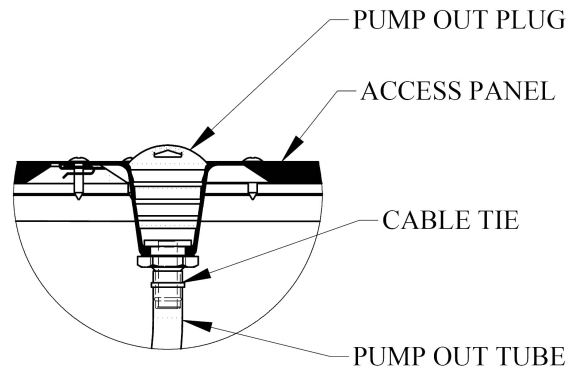



Figure 2.6.3 Showing typical pump-out cup, plug and access panel

Condensation will also generate water inside the float compartments. More than four or five full pumps of water using an aircraft float pump should raise concern for maintenance. In contrast, if a pump-out tube is cracked or broken, a significant sucking sound will not be heard when the pump is removed from the pump-out cup. If there is question regarding the integrity of the pump-out tube, the operator should investigate and determine the cause. Attention should be given to any bolts that pass through the stern or other external float structures. These should be sealed into place using a single part urethane such as Sikaflex 292. It should also be noted that more water is typically pumped from the stern and bow compartments because they are often covered with water during operation and allow more seepage through the plugs and seals. Pump-out plugs must have some venting capability to allow for expansion and contraction of the air in each compartment during flight.

If the pilot strikes rocks or debris when on the water, he must assess the damage as soon as possible. Continuing into a high speed situation with the floats will typically exaggerate the damage due to high water pressure.

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Bare steel parts such as cross-wire terminals, wire pulls, bolt heads, nuts, and other hardware items should be protected with a coating of Paralketone rust preventive or heavy grease.

2.6.4. Winter Storage of the Floats

To address winter storage in locations where temperatures may drop below freezing, add a quart of RV antifreeze through each of the pump-out cups. Tape over the pump-out holes to minimize the amount of moisture that enters each of the six compartments. Do not use masking tape. Storing the floats under cover or indoors is recommended.

2.6.5. Lubrication

None required. Corrosion protection covered in the Instructions for Continued Airworthiness (ICA).

2.7. Conversion from Wheels to Floats

Complete instructions are given in the following paragraphs for conversion of the airplane from wheel to float landing gear.

2.7.1. Boxing the Floats.

Place the floats a suitable distance apart, and in a parallel position. Insert spreader bars into slots in the float and install the AN8-65A bolts through the deck plates through existing holes in spreader bars. All fasteners that penetrate float shell structures must be sealed with SIKAFLEX or equivalent urethane adhesive sealant.

2.7.2. Installing Cable Systems on Float Units (See Figure 10).

1. Attach retraction cables to water rudders, thread them through fairleads, and position them in the middle section of the triple pulley bracket on each float. Remove the retraction pulley from the bracket on the left hand float, position the left water rudder retraction cable, and refit the pulley.
2. Remove the retraction pulley from the bracket on the right hand float. Position right water rudder retraction cable in bracket and refit pulley. Remove retraction pulley from bracket on the rear spreader bar, position right water rudder retraction cable in bracket, and refit pulley.

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3. Attach balance cable to inboard end of left water rudder lever, and thread it through fairlead on left hand float. Remove balance pulley and from brackets and on rear spreader bar, position balance cable in brackets, and refit pulleys and. Thread balance cable through fairlead on right hand float, and attach it to the inboard end of the water rudder lever.
4. Attach each control cable via swivel pulleys, to the tailwheel torque arm at the outboard end of the relative water rudder lever.
5. Position each control cable in the top position of the relative triple pulley bracket.
6. Remove the control pulley from the bracket on the right hand float, position control cable, and refit pulley.
7. Remove the control pulley from the bracket on the left hand float, position control cable, and refit pulley.
8. Attach extension cable to left control cable.
9. Fit pulleys and to top and intermediate positions respectively, of triple pulley bracket with pulley bushings inserted between each pulley and under the bottom pulley.

2.7.3. Installing Struts on Float Unit


See Figures 2 through 7 and proceed as follows:

1. Place an attachment block between the top fork of each forward strut.

Note

The forward struts are identified by their length, being the longest of the three struts. The top and bottom ends of the forward strut are identified by the position of the corner cut-aways, which face aft on installation.

Smear the bolts with rust preventive compound, fit washers to bolts, and insert one bolt through each top fork and attachment block. Fit washer and nut to each bolt, and tighten finger tight.

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- Place forked fittings, one between the top fork of each mid strut.

Note

The mid struts are identified by their length, which is intermediate between the longest (forward) struts, and the shortest (aft) struts. The top and bottom ends of the mid strut are identified by the position of the corner cut-aways, which face aft on installation.

Smear the bolts with rust preventive compound, fit washers to bolts, and insert one bolt through each top fork and forked attachment block. Fit washer and nut to each bolt, and tighten finger tight.

- Place a forked attachment fitting between the bottom fork of each forward strut and the bottom fork of each mid strut. Smear bolts and with rust preventive compound, and fit washers to bolts. Insert a bolt through each forward strut bottom fork and the forked attachment fitting, and insert a bolt through each mid strut bottom fork and the forked attachment fitting. Fit washer and nut to each bolt and tighten finger tight.
- Place a forked attachment fitting between the top fork of each aft strut.

Note

The aft struts are identified by their length, being the shortest of the three struts. The top and bottom ends of the aft strut are identified by the position of the corner cut-aways, which face aft on installation.

Smear the bolts with rust preventive compound, fit washers to bolts, and insert one bolt through each top fork and forked fitting. Fit washer and nut to each bolt, and tighten finger tight. Place the forked fittings, one between each aft strut bottom fork. Smear bolts with rust preventive compound and fit washer into each bolt. Insert one bolt through each bottom fork and fork fitting. Fit washer and nut to each bolt and tighten finger tight.

- All struts are now completely assembled, and are ready for installation on floats. Place forked fitting, located at bottom of forward and mid struts, over lug on the front deck. Smear bolts with rust preventive compound, fit washer to each bolt, and insert one bolt


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through each forked fitting and lug. Fit washer and nut to bolts and tighten finger tight. Place forked fitting, located at bottom of each aft strut, over each lug on the float deck. Smear bolts with rust preventive compound, fit washer to each bolt, and insert one bolt through each fork fitting and bracket. Fit washer and nut to bolts and tighten finger tight.

2.7.4. Preparing Airplane for Reception of Float Unit

Prepare airplane for reception of float unit, and proceeding as follows:

1. Remove panels from beneath the fuselage. Fit operating arms to the sockets on the rudder pedal torque tubes.
2. Remove brake master cylinders as instructed in paragraph 3.4.1, and replace with jury struts. Plug disconnected brake lines.
3. Detach assembly of retraction handle, securing ring and cable from clip on wall at side of pilot's seat. Smear cable with rust preventive compound, and position handle over guide tube.
4. Unscrew and remove screws securing cover plates to center bottom panel. Refit panels beneath fuselage.
5. Remove cabin door step.
6. Remove fairings from each main landing gear leg.
7. Hoist airplane as instructed in paragraph 1-12, and tie down tail in order to balance loading of airplane during the removal of landing gear.
8. Remove main landing gear as instructed in paragraph 2.20.3 of the DeHavilland Maintenance Manual, PSM 1-2-2, and plug the brake hydraulic lines at connection points.
9. Fit sleeves to each center attachment point.
10. Remove tailwheel and existing torque tube arm and install new torque tube arm.

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2.7.5. Installing Float Unit on Airplane

See Figures 1 through 7, and proceed as follows:

1. With the airplane hoisted, position fuselage over float unit, lower airplane, and align fittings at top of struts, with attachment lugs, and on one side of fuselage.
2. Smear bolt with rust preventive compound, fit washer, and insert bolt through fuselage lug and attachment block on the forward strut. Fit washer and nut to bolt, and tighten finger tight.
3. Smear bolt with rust preventive compound. Locate wire pull between the forward section of forked fitting, and the fuselage lug. Also position wire pull so that it angles forward. Locate spacing washer between rear section of forked fitting and the fuselage lug. Fit washer to bolt, and insert bolt through forked fitting and fuselage lug. Fit washer and nut to bolt and tighten finger tight.
4. Smear bolt with rust preventive compound. Locate wire pull between the rear section of forked fitting at the top of the aft strut and the attachment lug. Also position wire pull so that it angles aft. Fit washer to bolt, and insert bolt through forked fitting and fuselage lug. Fit nut to each bolt, and tighten finger tight.

Note

The fitting of the bolts through each of the attachment points may be facilitated by slight rocking of the fuselage.

5. Repeat steps a, b, c, and d for opposite side struts.

2.7.6. Installing Strut Bracing Wires

Install strut bracing wires by referring to Figure 17, and proceeding as follows:

1. With airplane hoisted clear of floor, remove all fork ends from wires, and clean wire threaded ends. Coat ends with rust preventive compound.

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2. Install right hand threaded fork ends as marked with “R” on wire pulls at top of mid and aft struts. Install left hand threaded fork ends and marked with “L” on the float wire pulls and.
3. Insert the streamline bracing wires into the fork ends with the 4-inch long circular section uppermost and crank wires to obtain correct alignment and tension. The wire tension is correct when a load of 15 pounds applied at the center and perpendicular to the flat of the wire, produces a deflection at this point of between 0.110 inches and 0.125 inches. It will be found that if the wires are installed as previously instructed, alignment will be correct, leaving an equal amount of thread visible between the wire and the base of the fork end. In all cases, this amount is approximately 0.8 inches.
4. When all streamline bracing wires are fitted, and correct alignment and tension is obtained, fit fiber separators and tighten locknuts at each end of bracing wires.
5. With struts installed, and streamline wires fitted and tensioned, tighten all nuts at strut ends.
6. Lower the airplane on to the floor.

2.7.7. Connecting Water Rudder Control System (See Figure 10 and Figure 18 pg. 8).

1. Connect water rudder control cables to springs.
2. Remove pulleys from brackets, position control cables in brackets, and refit pulleys.
3. With air rudder pedals in neutral position, line up water rudders with float keels and air rudder, and adjust and lock cable turn buckles.

2.7.8. Connecting Water Rudder Retraction System (See Figure 10)

1. Connect each of the retraction control cables to a link plate, position both links together, and with water rudders retained in the fully down position, extend links and cables to join cable end of the retraction control. Ensure that there is sufficient tension in the cables, and cut the links accordingly. Drill No. 11 bolts in each link, and connect the links to the retraction control cable with a clevis pin and cotter pin.

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2. With retraction control system installed and rudders in neutral position, retract the rudders, locate position of retraction ring attachment spool on door frame, and fit spool.

2.7.9. Installing Sea Fins

Install per Kenmore STC instructions.

2.7.10. Installing Steps and Ladder. See Figures 8 and 9, and proceed as follows:

1. Fit rungs and between forward and center struts, and secure in position with bolts and nuts.
2. Fit rung between center and aft struts, and secure in position with bolts and nuts.
3. Attach rear step strut fuselage fitting to fuselage with existing landplane boarding step hardware.
4. Assemble ladder strut, and install it by bolting fixed end to float eye bolt and telescoping end to the fuselage eye bolt.
5. Install rungs by bolting their forward ends to aft strut, and their aft ends to ladder strut.

2.8. Conversion from Floats to Wheels

Procedures for conversion of the airplane from float to wheel landing gear are detailed in the following paragraphs.

2.8.1. Removing Float Gear and Fitting Wheel Gear.

1. Disconnect water rudder control cables from springs, and remove springs and operating arms from socket on rudder assembly torque tubes.
2. Disconnect and remove float ladder and steps.
3. Disconnect retraction cables at links.
4. Remove sea fin by reversing installation procedure detailed in Kenmore STC instructions.
5. Re-install tailwheel.
6. Hoist airplane as instructed in paragraph 1.12 of the DeHavilland Maintenance Manual, PSM 1-2-2, to take weight off of floats, and tie down the tail to balance loading of airplane during removal of floats.
7. Disconnect and remove strut streamline bracing wires (see Figure 17).

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8. Disconnect the aft struts at the floats. Take load off aft strut by adjusting hoist, and by rocking the rear of the fuselage.
9. Disconnect forward and center struts at the floats, hoist airplane clear of the floats, and remove the struts from fuselage.
10. Remove sleeve from each of the front attachment lugs on the fuselage, and fit the main landing gear and tailwheel unit as instructed in paragraphs 2.20.7 and 2.23.4 of the DeHavilland Maintenance Manual, PSM 1-2-2.
11. Remove jury struts, and fit brake master cylinders as instructed in paragraph 3.4.6.
12. Refill the brake master cylinders, and bleed the system as instructed in paragraph 3.3.
13. Fit step beneath cabin door.
14. Pull retraction control tie cable into cockpit, and secure with retraction handle and


CAUTION

Do not tighten plug knob with a wrench, as this may lead to destruction of the plug and socket assembly.

securing ring to cockpit side wall.

2.9. Testing Floats

If a float compartment fills with water, and the damage is not apparent by inspection, contact Aerocet using the contact information on the cover of this supplemental manual.


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2.10. Troubleshooting

Problem	Possible Cause	Corrective Action
Water in floats	Missing plug	Install plug
	Condensation	Pump out float bays
	Improperly fastened access panel or locker door	Install panel, latch locker door
	Damaged or missing door seals	Inspect seals, replace as necessary
	Missing Access Panel fasteners	Replace as necessary
	Improperly sealed fasteners	Disassemble, clean, inspect and reinstall with sealant.
	Cracked cable sheathes	Replace as necessary
	Damaged float hull	Inspect float bays for signs of penetration
Excessive drift left or right during water taxi operations	Water Rudder rigging is mis-aligned	Align the float rudders by re-adjusting the steering cables and/or the balance cable.
	Debris caught on floats	Remove debris.
	Damage to one float	Inspect and repair damage.
"Howling" noise from one or both floats after take-off	Damage to water rudder blade(s)	Locate and replace damaged pieces.
	Locker door left open.	Fly the airplane. Land. Latch the doors.
Aircraft is unstable during water operations	Broken structural members	Inspect Struts, Tie Rods, etc. for breaks and for adjustment.
Rudder Pedal feels "stiff"	Mis-aligned steering cables	Correct the alignments of the exit holes through the floats to the aircraft mounted pulleys.
	Over-tightened turnbuckles	Adjust tension.
	Over-tightened internal float fittings	Loosen the fittings and re-snug them by hand.
Reduced water rudder steering	Broken cable	Replace as necessary.
	Debris caught in the tiller	Remove debris.
	Jammed Cable	Check all pulley assemblies for missing keepers and fouled cables.
	Broken rudder retract spring(s) - Rudders do not deploy fully.	Replace as necessary.
Water Rudders do not retract	Cable jammed	Check for fouled cables and debris, especially at tiller.

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3. REPAIR MANUAL, PSM 1-2-3

Replaces sections 5.8 through 5.15 of Section V, Alighting Gear, in the DeHavilland Repair Manual, PSM 1-2-3.

3.1. Struts

3.1.1. Negligible Damage

Smooth dents in the skin surface of the float struts that are free from cracks and sharp corners may be classified as negligible damage, provided they do not exceed 1.0 inch diameter and 0.10 inch in depth. Multiple dents in one strut, provided they are at least 1.0 feet apart may be classified as negligible damage. Holes in the struts may be classified as negligible damage provided they do not exceed 0.25 inch diameter (for example, a mis-drilled hole for a step). Multiple holes in one strut may be classified as negligible damage, provided there are no more than two holes for every 4 inches of length.

3.1.2. Repairable Damage

With the exception of the work necessary to replace a badly damaged strut, no other repair must be attempted on a float strut.

3.1.3. Damage Repairable by Replacing Parts

Any damage to the struts that exceeds the negligible limits or causes any bending, twisting, or cracking of the struts will necessitate complete replacement.

3.2. Composite Float Hulls

Composite float repair, done correctly, will obtain the strength required to put the float back into service and cosmetically show little or no evidence of damage ever having taken place. The materials used for original construction and repair are conventional to the industry. Any damage on the bottom of the float should be repaired immediately because of the tremendous water pressures encountered. Contact Aerocet, Inc. prior to beginning a repair to obtain correct materials, including resin (resins have shelf lives), catalyst, cloth, gel-coat, and resin thickeners. Epoxy underwater patch kits may be used


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in an emergency if the damage is relatively small, but the repair must be replaced with correct materials for equal strength status. Damage larger than 4.0 inches in size requires consulting Aerocet, Inc. for proper laminate orientation and assuring correct number of laminates in the damaged area.

3.3. Repair Types and Procedures

All repaired areas on the exterior must be surface coated (gel-coated) with a minimum of 10 mil thickness to assure UV protection. Types of repairs are described below:

1. Resin-starved Areas, Exposed Fibers, or Small Impact Damaged Soft Spots (0.5 Inches Diameter or less)
 - a. Sand surface with in defective area to remove gloss.
 - b. Use a brush, squeegee, or syringe to work resin into defective area. Use the same resin as the original laminate.
2. Small Bruises, Punctures Less than 0.25 Inches Diameter, or Surface Voids
 - a. Sand surface surrounding defect to remove gloss.
 - b. Cut patches to fit correction area using the same fabric as the original part. Extending a minimum of 0.5 inch past the damaged area. All patch corners must be rounded.
 - c. Apply a light brush coat of resin so that it appears similar to the original coat.
 - d. Place one or more plies on detail covering correction area using impregnation of fabric as described in below.
3. Cuts, Fractures, or Punctures 0.25 Inch Diameter or Larger
 - a. Cut back enough material to ascertain the extent of the damage. Trim back plies to a smooth oval; generally 0.5 inch per ply.
 - b. If the area is large enough, supply backing to hold the shape of the original contour. Put a parting agent on this backing to assure its release.
 - c. Replace the fabric on a ply-for-ply basis overlapping 0.5 inch minimum on each succeeding ply using impregnation of fabric as described in section 5.3.

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Any smooth areas need to be sanded with 80-grit sandpaper to assure proper bonding.

- d. If damage has occurred where there is sandwich construction involving the core, work each layer separately. Fix either the outside or inside skins. Then cut to fit like core material to replace the damaged core. Bond the core onto the repaired skin using the proper resin and thickener. A mixture of Hydrex resin and Aerosil 202 thickener should be applied to the bonding surface of the core using a squeegee (using Torin Corebond alternative is acceptable). A film of approximately 0.015 inches should be used. Apply pressure to the bond to assure proper adhesion to the skin and to eliminate air voids. Apply this pressure to small areas of core bonding using weights such as lead shot bags with a release film that eliminates sticking to any excess bonding material. Larger areas require the use of a vacuum bag for core bonding. Consult Aerocet, Inc. for this procedure. Fill any seam voids with a resin/glass bubble mixture. Apply the final laminates according to the ply schedule to finish the repair.

3.4. Impregnation of Fabric

To impregnate fabric with resin, cut the fabric in a suitable shape, lay it on a flat surface, and apply the resin mixture evenly with a squeegee. Alternatively, you may impregnate the fabric with resin with the fabric on the defective area providing voids and starved areas are not produced. Impregnate the fabric in place by applying a thin coat of resin to the area to be laminated, applying the resin directly to the fabric using a squeegee or brush, and then laying the fabric down, rolling it into the resin. Any air in the laminate should be removed using a squeegee or brush. See section 3.5 (below) regarding resin mixing.

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3.5. Resin Mixing

Gel times or pot life is the time it takes the resin to set up in the container after proper and thorough mixing with accelerators and catalysts. Gel times can be adjusted significantly by varying the amounts of these materials. Gel times will also vary significantly with the batch size if left in a bucket or with a very thick laminate.

TYPICAL GEL TIMES USING HYDREX 33253, (33350-15 is similar) 100gm castings only; laminate times are typically double that of the gel times.

33%MEKP %Catalyst	Resin Qty	50°F	60°F	70°F	80°F
0.75%	100gm	55 min	38 min	28 min	23 min
1.00%	100gm	40 min	27 min	20 min	15 min
1.50%	100gm	30 min	21 min	14 min	11 min
2.00%	100gm	23 min	17 min	12 min	8 min

Note

Under no circumstances should more than 2.0 percent catalyst mixture be used. Conversely, if you use less than the recommended minimum amount of catalyst (0.75 percent) the resin may never completely cure, resulting in a reduction of strength.

WARNING

Be extremely careful with the MEKP catalyst. Contact with eyes must be prevented. Blindness may result. Flush eyes immediately if MEKP catalyst makes contact with eyes, and contact a physician immediately. Never mix MEKP catalyst into the resin without eye protection.

3.6. Preparation of Fiberglass Materials

1. Fiberglass shall be trimmed on a clean table to prevent contamination.

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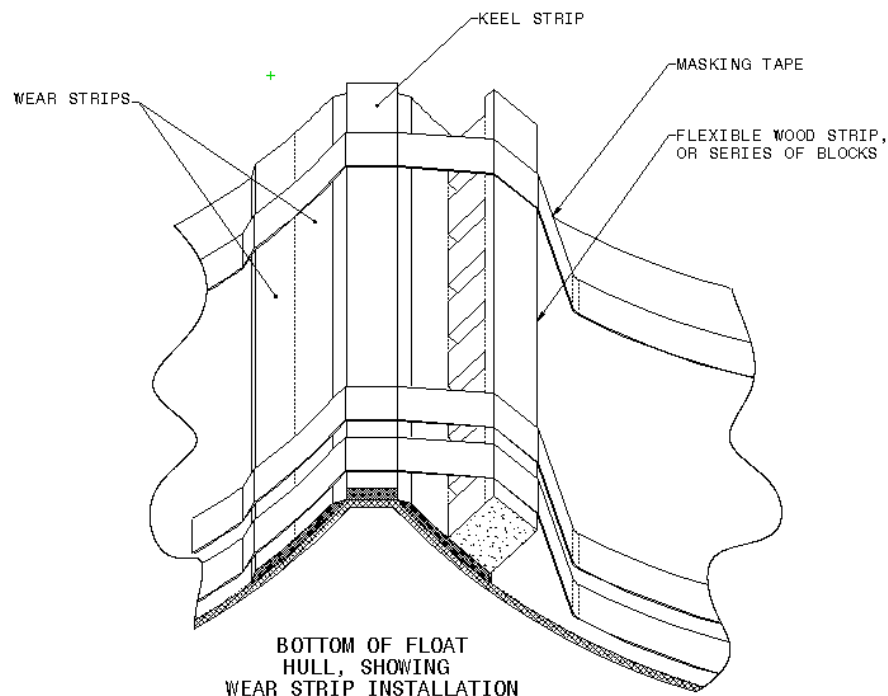
2. When laps are necessary, lap widths of at least 0.5 inch shall be maintained for fiberglass pieces in any given ply and no more than one of the component plies shall be lapped at any one place. The number of laps shall be kept to a minimum.

3.7. Surface Coat Application (Gel Coat)

1. All surface coats must be applied to a thickness of 10 to 15 mil. Use a mil gauge and check often. Waterline down is very critical to prevent blistering from water absorption.
2. All surface coats must be catalyzed with 2 percent MEKP.
3. Thinning of surface coats can only be done to manufacturer's recommendations.


3.8. Keel and Wear Strip Bonding

1. Prepare keel area by sanding float surface with 80-grit sandpaper. It is desirable to mask out the area immediately surrounding the strips in order to avoid excess damage to the gel coat.



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2. Bond aluminum keel strips using a marine grade urethane adhesive (e.g. Sikaflex 292) and fiberglass wear strips using a mixture of Hydrex resin and Aerosil 202 thickener. A thick epoxy resin (clear type, not yellow) may be used to bond the plastic wear strips as well.
3. Wear Strips only: Saturate the fiberglass backing on the wear strip and leave a thick film. Affix strips as shown in diagram. Do not allow the resin to fully harden before trimming excess. Time to harden varies with temperature and ratios mixed.
4. Keel Strips only: Hold the keel strip in place using an abundance of masking tape. Remove tape after the urethane cures and clean up excess material. Aerocet recommends carefully scoring the squeeze-out along the edges of the keel strips, then peeling it away in strips.

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4. AIRWORTHINESS LIMITATIONS

4.1.GENERAL

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under §§43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

4.2.DESCRPTION


A. **TIME LIMITED ITEMS.**

None.


B. **REQUIRED INSPECTIONS INTERVAL.**

None.

C. **Scheduled Maintenance:** for Aerocet recommended Inspection or Replacement are located in Section 4.

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5. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS


These instructions should be added to the Instructions for Continued Airworthiness contained in Appendix 2 of the DeHavilland maintenance manual).

5.1. General Practices

1. Metal Parts: check for corrosion (rust), stress cracks or metal distortion, elongation of holes, and rivet damage.
2. Critical Bolts: check for corrosion (rust), wear, and torque. It is recommended that some form of corrosion-inhibiting compound be applied to all threaded fasteners and other similar parts. Possible products used include those listed in the Product Listings that follow, but are not limited to these products. Apply per manufacturer recommendations only.
3. Composite Parts: check for stress cracks, gel coat presence (UV protection), and punctures. (Section 5 covers repair and re-work of composite parts.)
4. All parts/fasteners that penetrate float structures, such as a bulkhead or the float deck, must be sealed with marine-grade urethane adhesive such as Sikaflex 292.

5.2. Product Listings

1. Float Sealant for Bolts and Chine Strip Attachment: Sika Manufacturing Sikaflex 292.
2. Rust (corrosion) Protection: ACF-50, Corrosion X, Boeing Company Boeshield T9.
3. Bolt Protection: PUR-AL-KETONE, which is distributed by Lake and Air; LPS Industries LPS 3; Zip Chemical Company Zip D-5029NS.
4. United EZ Turn Lubricant: Produced by United Erie 1-800-377-7561, and available through distributors.
5. Composite Materials for Hull Repair: Contact Aerocet, Inc., for resin, cloth, gel-coat, resin thickeners.

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5.3. Part 1, Preflight

Conduct Preflight inspections according to existing DeHavilland maintenance manual, and add the following to the Airframe group:


11. Check Float lockers secured.

5.4. Part 2, Daily Inspections

Conduct daily inspections according to existing DeHavilland Manual, and refer to Table 1, Continued Airworthiness Service Schedule, below.

5.5. Part 3, Periodic Inspections

Conduct periodic inspections according to existing DeHavilland Manual, and refer to Table 4.5, Continued Airworthiness Service Schedule, below.

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5.5.1. Continued Airworthiness Service Schedule

TABLE 4.5 Service Schedule

INSPECTION TIME INTERVALS			HOURS (MONTHS) (Whichever occurs first)		
			Daily	100 (12)	200 (24)
		Notes			
Water Rudder System	Water Rudders and Tiller Posts	Inspect for damage and freedom of movement. Check immediately after a take-off or landing with the rudders down.	X		
	Cables	Inspect for fraying, especially around the stern pulleys, and inspect cable guards (cotter pins).		X	
	Pulleys and Bushings	Inspect for freedom of rotation and condition of pulleys.		X	
Hulls and Struts	Float exterior	Inspect for damage, surface coat (gel coat - UV protection).	X		
	Float exterior, bottoms	Inspect for damage, wear, keel wear strips and chine wear strips.		X	
	Float interior	Inspect for evidence of damage from the interior vantage point.			X
	Access Panels and Pump Out System	Inspect seals, cracks in pump out tubes, attachment of pump out tubes, tube routing.			X
	Deck Blocks, Deck Plates and Hardware	Spray coat protection according to Note 1 and hardware according to Note 2. If working in saltwater, protect more frequently.		X	
	Struts	Inspect for damage, corrosion.			X
	Baggage Compartment	Inspect seals, latches, internal damage from baggage.			X
Walk-Wire (if installed)	Float Bow	Inspect for corrosion of all parts, wear, fatigue or fray.	X		
Placards	Cabin Placards	Inspect for placement and legibility.			X

Note 1: Spray coat of a migrating corrosion material (ACF-50, Boeshield T9, or Corrosion X).

Note 2: Coat hardware with PUR-AL-KETONE or LPS 3.

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5.6. Special Inspections

Conduct Special inspections per existing DeHavilland maintenance manual, and add the following to the Airframe group:

In a variety of circumstances, it is necessary to perform prompt inspections for damage. Details relating to these investigations are addressed in Sections 2 and 5 of this supplemental manual, and in the Service Schedule (Table 1) above. The pilot is responsible for determining the severity of damage to the aircraft and its flightworthiness while in the field. Inspections and repairs are to be performed as necessary and per practices outlined in this manual.

1. Landing completed on grass or other runway surfaces: Inspect bottom of float, including wear strips and keel plate.
2. Harsh landings on either runway or water: Remove and inspect float strut attachment hardware for bent hardware and elongated holes, including all fitting bolts and AN4 bolts through struts.
3. Impact with a submerged object during taxi, take-off, or landing on water: Remove and inspect float strut attachment hardware for bent hardware and elongated holes. Inspect entire bottom of float.
4. Suspected damage incurred during tie-down or mooring (e.g. damage from wind or wave action): Remove and inspect attachment hardware and deck plates. Inspect both exterior and interior of float sides where contact with object may have occurred.
5. Excessive water encountered during pump-out on pre-flight inspection: Inspect to determine cause of excess water.

Note that exceptional inspections are not limited to this list; other scenarios may occur that warrant exceptional inspections.

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6. ILLUSTRATED PARTS CATALOGUE

These illustrations replace existing DeHavilland Illustrated Parts Catalogue (IPC) figures 89, 90, 91, and items 1 through 4 of figure 92.

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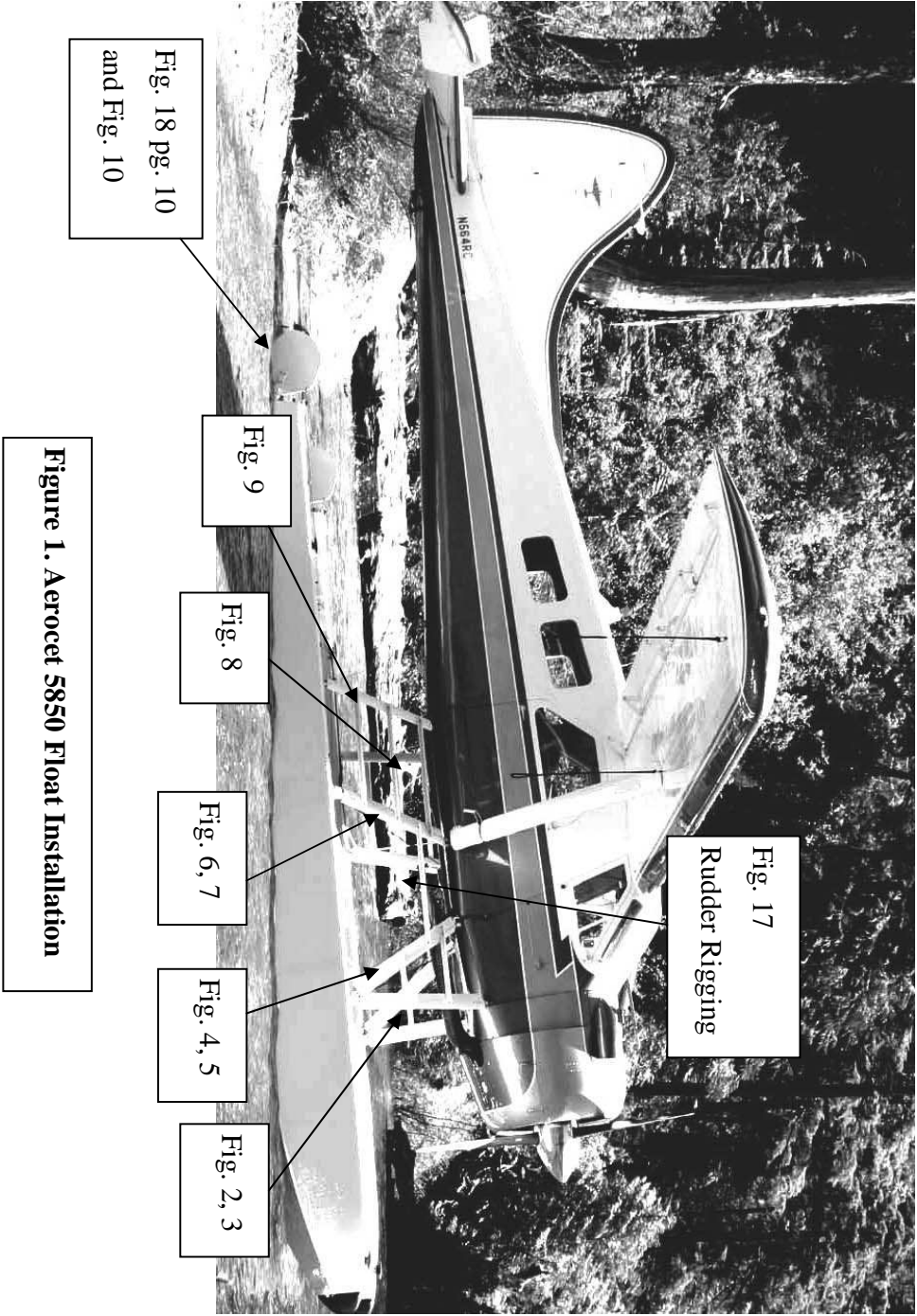

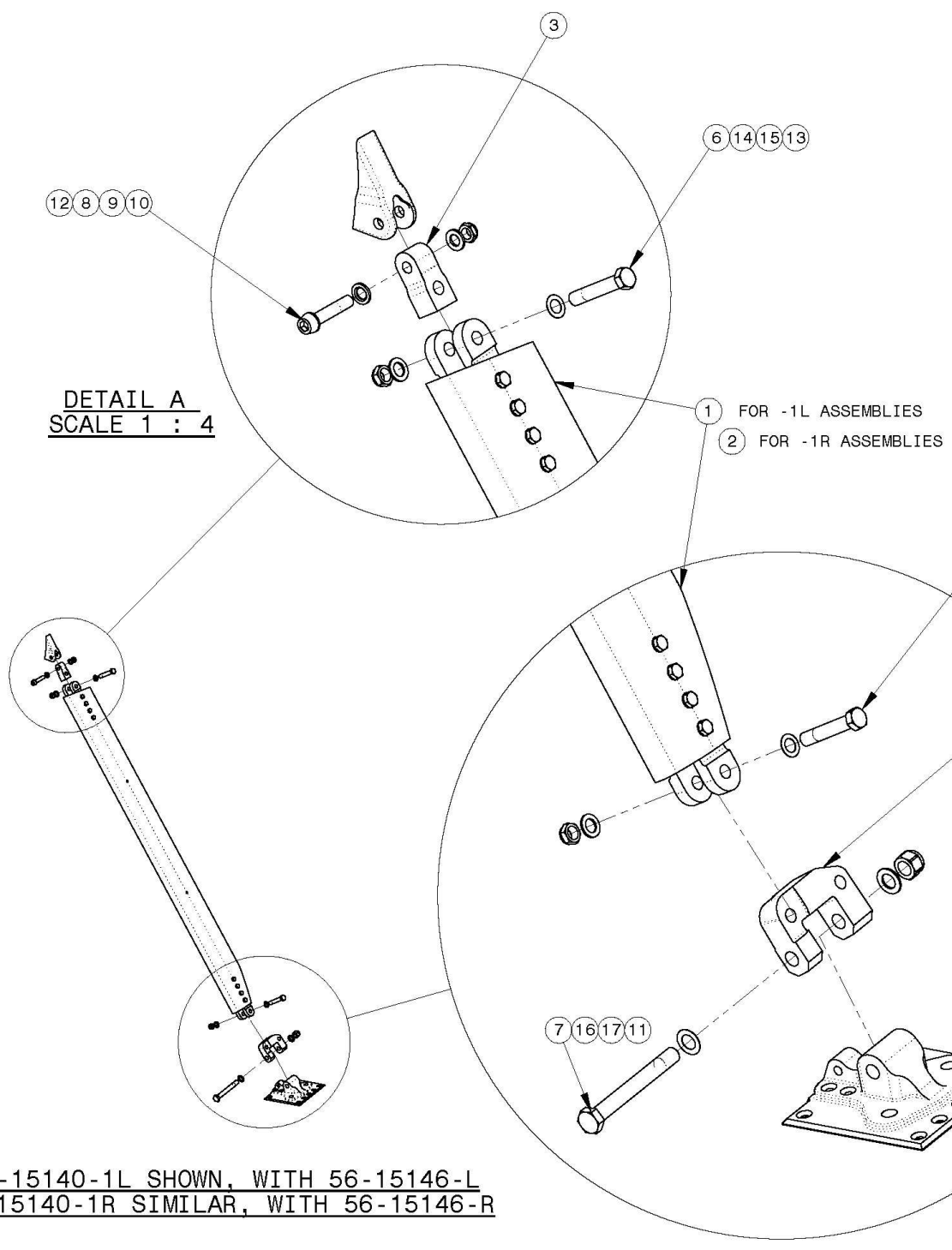


Figure 1. Aerocet 5850 Float Installation

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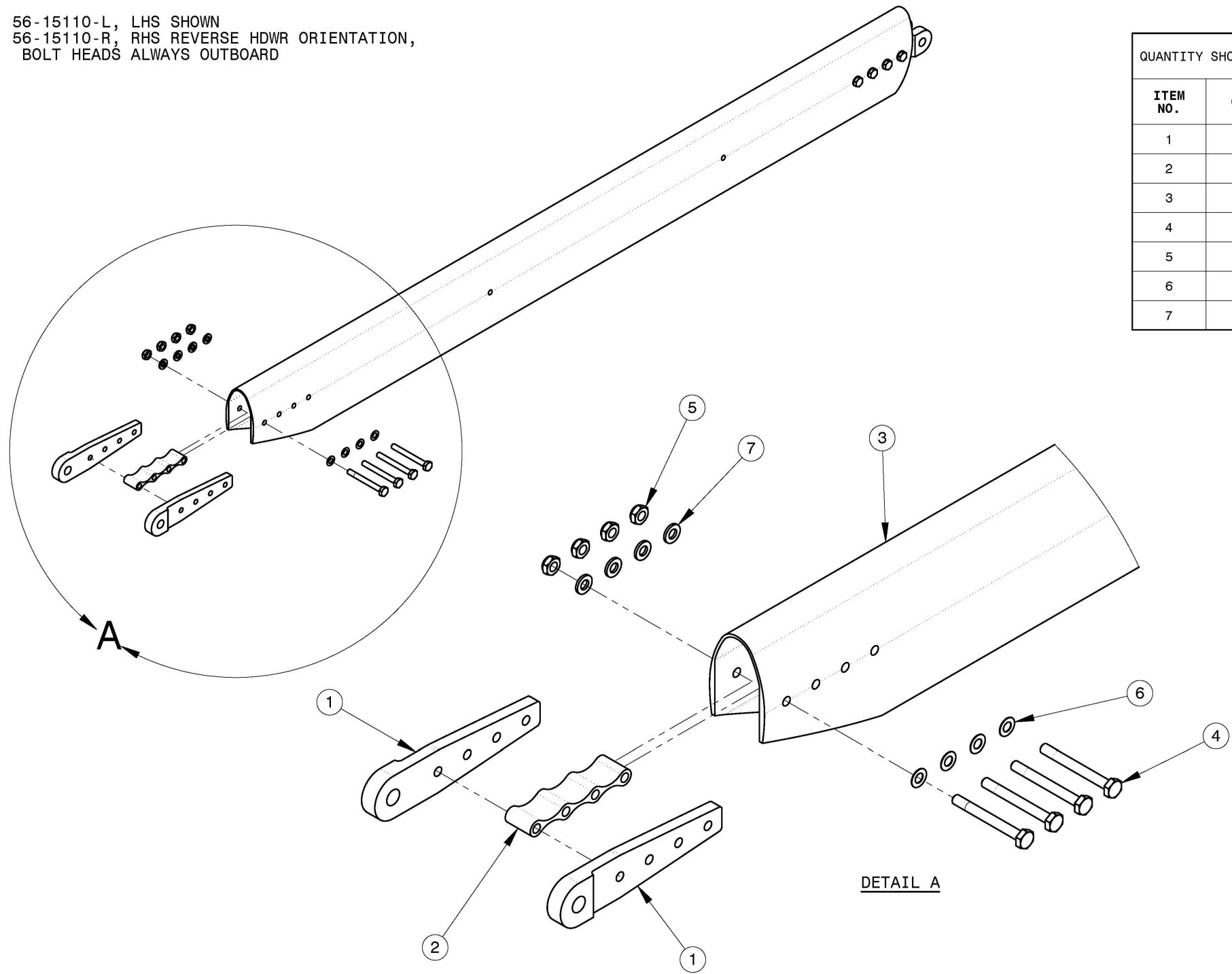
PARTS LISTING FOR 56-15140-1L AND -R				
ITEM NO.	56-15140-1L QTY.	56-15140-1R QTY.	PART NUMBER	DESCRIPTION
1	1	-	56-15110	STRUT ASSEMBLY, FWD
2	-	1	56-15110	STRUT ASSEMBLY, FWD
3	1	1	56-15143	FUSELAGE FITTING, FWD
4	1	-	56-15146-L	DECK FITTING, FWD, LHS
5	-	1	56-15146-R	DECK FITTING, FWD, RHS
6	2	2	AN7-22A	BOLT - MACHINE, AIRCRAFT
7	1	1	AN8-42A	BOLT - MACHINE, AIRCRAFT
8	1	1	MS20002-6	WASHER, COUNTERSUNK, HIGH STRENGTH
9	1	1	MS20002C6	WASHER, COUNTERSUNK, HIGH STRENGTH
10	1	1	MS20006-20	BOLT, INTERNAL WRENCHING
11	1	1	MS21044N8	NUT, SELF-LOCKING, REGULAR HEIGHT
12	1	1	MS21083N6	NUT, SELF-LOCKING, LOW HEIGHT
13	2	2	MS21083N7	NUT, SELF-LOCKING, LOW HEIGHT
14	2	2	NAS1149D0716K	WASHER, FLAT
15	2	2	NAS1149D0763K	WASHER, FLAT
16	1	1	NAS1149D0816K	WASHER, FLAT
17	1	1	NAS1149D0863K	WASHER, FLAT

NOTE: NAS1149D0---J MAY BE SUBSTITUTED WHERE NAS1149D0---K WASHERS ARE CALLED OUT.

Figure 2. Parts Listings for Forward Struts Installation, 56-15140-1L and 56-15140-1R

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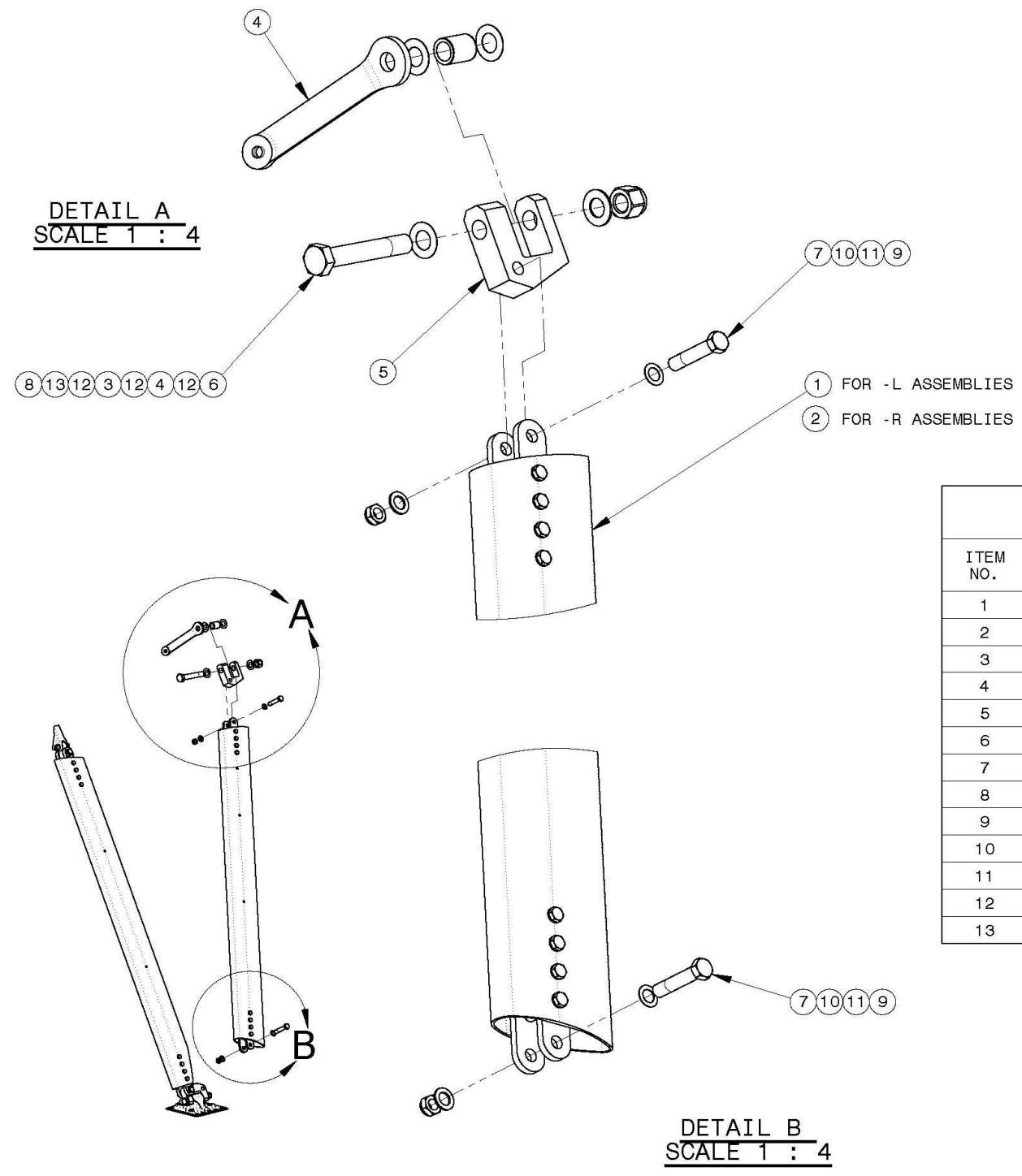
56-15110-L, LHS SHOWN
 56-15110-R, RHS REVERSE HDWR ORIENTATION,
 BOLT HEADS ALWAYS OUTBOARD



QUANTITY SHOWN FOR ONE STRUT ASSEMBLY			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	4	56-15106	STRAP, CLEVIS STYLE STRUT ASSEMBLY
2	2	56-15109	SPACER, CLEVIS STYLE STRUT ASSEMBLY
3	1	56-15112	STRUT, FWD
4	8	AN4-22A	BOLT - MACHINE, AIRCRAFT
5	8	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
6	8	NAS1149D0416K	WASHER, FLAT
7	8	NAS1149D0463K	WASHER, FLAT


Figure 3. Parts Listings for Forward Struts Assemblies 56-15110-L, 56-15110-R

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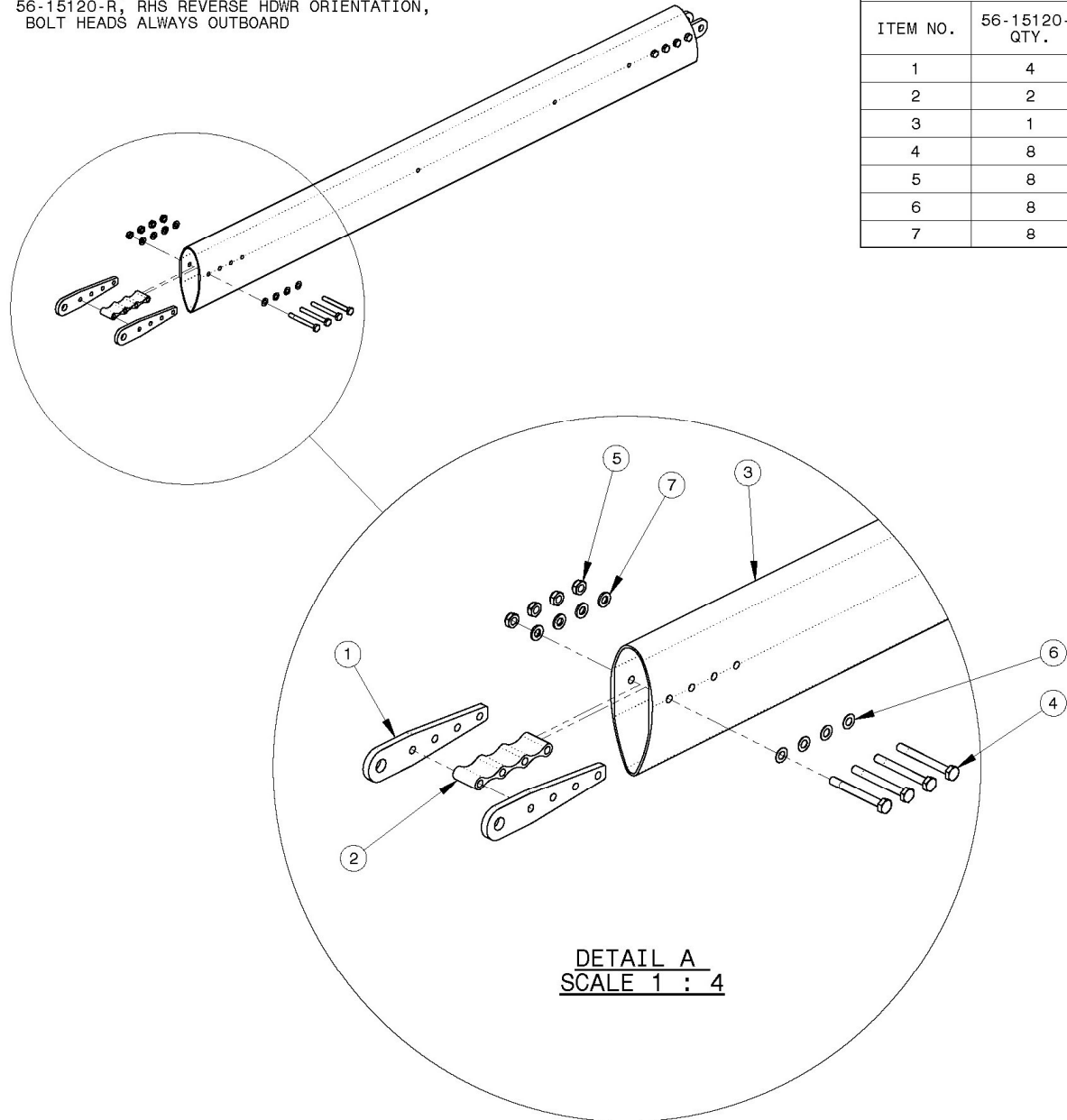


PARTS LISTINGS FOR 56-15150-L & 56-1510-R MID STRUTS ASSEMBLIES				
ITEM NO.	56-15150-L QTY.	56-15150-R QTY.	PART NUMBER	DESCRIPTION
1	1	-	56-15120-L	STRUT ASSEMBLY, MID, LHS
2	-	1	56-15120-R	STRUT ASSEMBLY, MID, RHS
3	1	1	56-15152	BUSHING
4	1	1	56-15153	WIREPULL STRAP, FWD
5	1	1	56-15154	FUSELAGE FITTING, MID
6	1	1	AN10-35A	BOLT - MACHINE, AIRCRAFT
7	2	2	AN7-20A	BOLT - MACHINE, AIRCRAFT
8	1	1	MS21044N10	NUT, SELF-LOCKING, REGULAR HEIGHT
9	2	2	MS21083N7	NUT, SELF-LOCKING, LOW HEIGHT
10	2	2	NAS1149D0716K	WASHER, FLAT
11	2	2	NAS1149D0763K	WASHER, FLAT
12	3	3	NAS1149D1016K	WASHER, FLAT
13	1	1	NAS1149D1063K	WASHER, FLAT

Figure 4. Parts Listings for Mid Struts Installation, 56-15150-L and 56-15150-R


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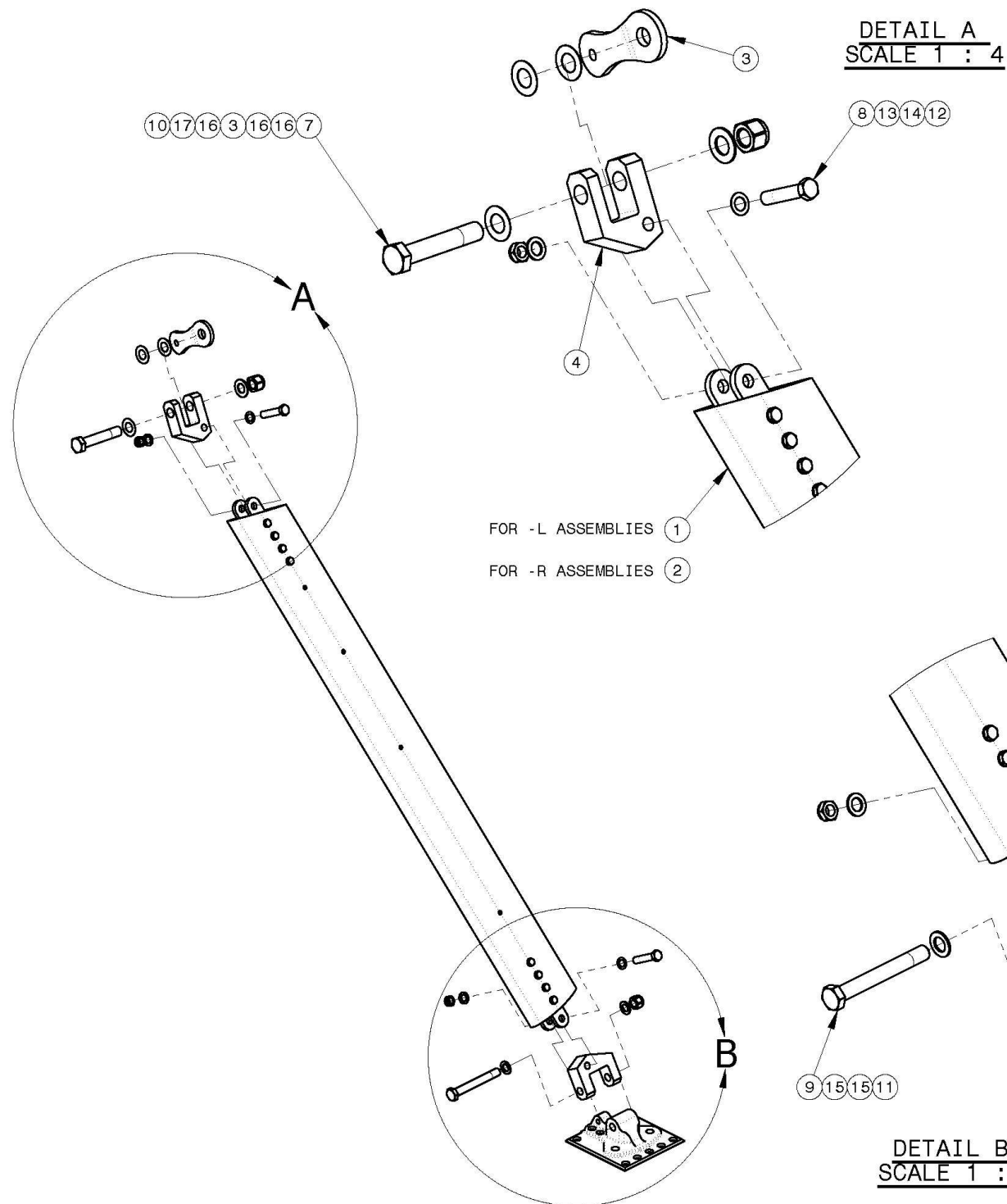
56-15120-L, LHS SHOWN
 56-15120-R, RHS REVERSE HDWR ORIENTATION,
 BOLT HEADS ALWAYS OUTBOARD



PARTS LISTINGS FOR 56-15120-L & 56-1520-R MID STRUTS ASSEMBLIES				
ITEM NO.	56-15120-R QTY.	56-15120-L QTY.	PART NUMBER	DESCRIPTION
1	4	4	56-15107	STRAP, CLEVIS STYLE STRUT ATTACHMENTS
2	2	2	56-15108	SPACER, CLEVIS STYLE STRUT ASSEMBLY
3	1	1	56-15122	STRUT, MID
4	8	8	AN4-22A	BOLT - MACHINE, AIRCRAFT
5	8	8	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
6	8	8	NAS1149D0416K	WASHER, FLAT
7	8	8	NAS1149D0463K	WASHER, FLAT


Figure 5. Parts Listings for Mid Struts Assemblies, 56-15120-L and 56-15120-R

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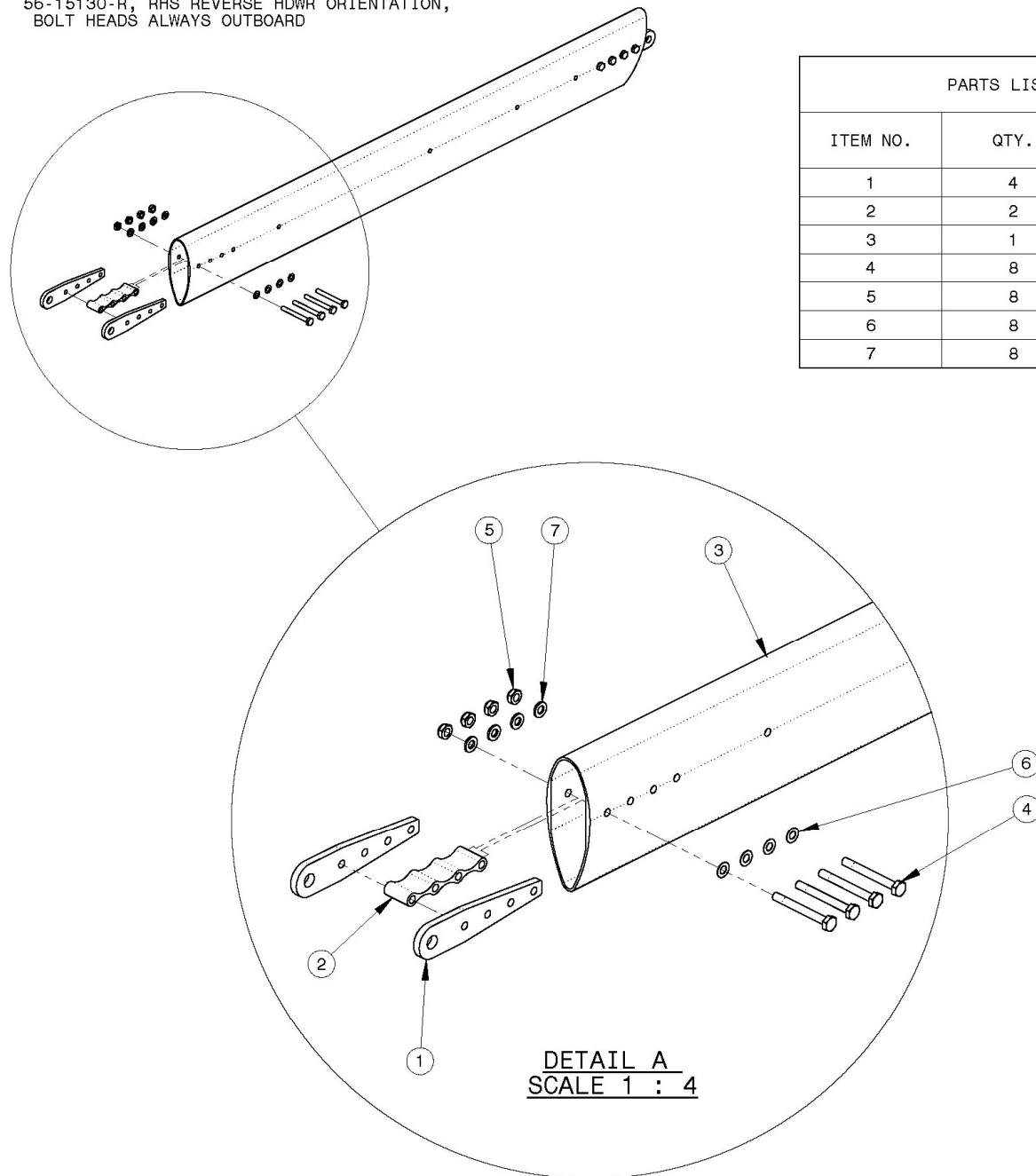


PARTS LISTINGS FOR 56-15160-L & 56-15160-R AFT STRUT ASSEMBLIES				
ITEM NO.	56-15160-R QTY.	56-15160-L QTY.	PART NUMBER	DESCRIPTION
1	-	1	56-15130-L	STRUT ASSEMBLY, AFT
2	1	-	56-15130-R	STRUT ASSEMBLY, AFT
3	1	1	56-15163	WIREPULL STRAP, AFT
4	1	1	56-15164	FUSELAGE FITTING, AFT
5	-	1	56-15165-L	DECK FITTING, AFT, LHS
6	1	-	56-15165-R	DECK FITTING, AFT, RHS
7	1	1	AN10-33A	BOLT - MACHINE, AIRCRAFT
8	2	2	AN7-20A	BOLT - MACHINE, AIRCRAFT
9	1	1	AN8-40A	BOLT - MACHINE, AIRCRAFT
10	1	1	MS21044N10	NUT, SELF-LOCKING, REGULAR HEIGHT
11	1	1	MS21044N8	NUT, SELF-LOCKING, REGULAR HEIGHT
12	2	2	MS21083N7	NUT, SELF-LOCKING, LOW HEIGHT
13	2	2	NAS1149D0716K	WASHER, FLAT
14	2	2	NAS1149D0763K	WASHER, FLAT
15	2	2	NAS1149D0863K	WASHER, FLAT
16	3	3	NAS1149D1016K	WASHER, FLAT
17	1	1	NAS1149D1063K	WASHER, FLAT

Figure 6. Parts Listings for Aft Struts Installation 56-15160-L and 56-15160-R


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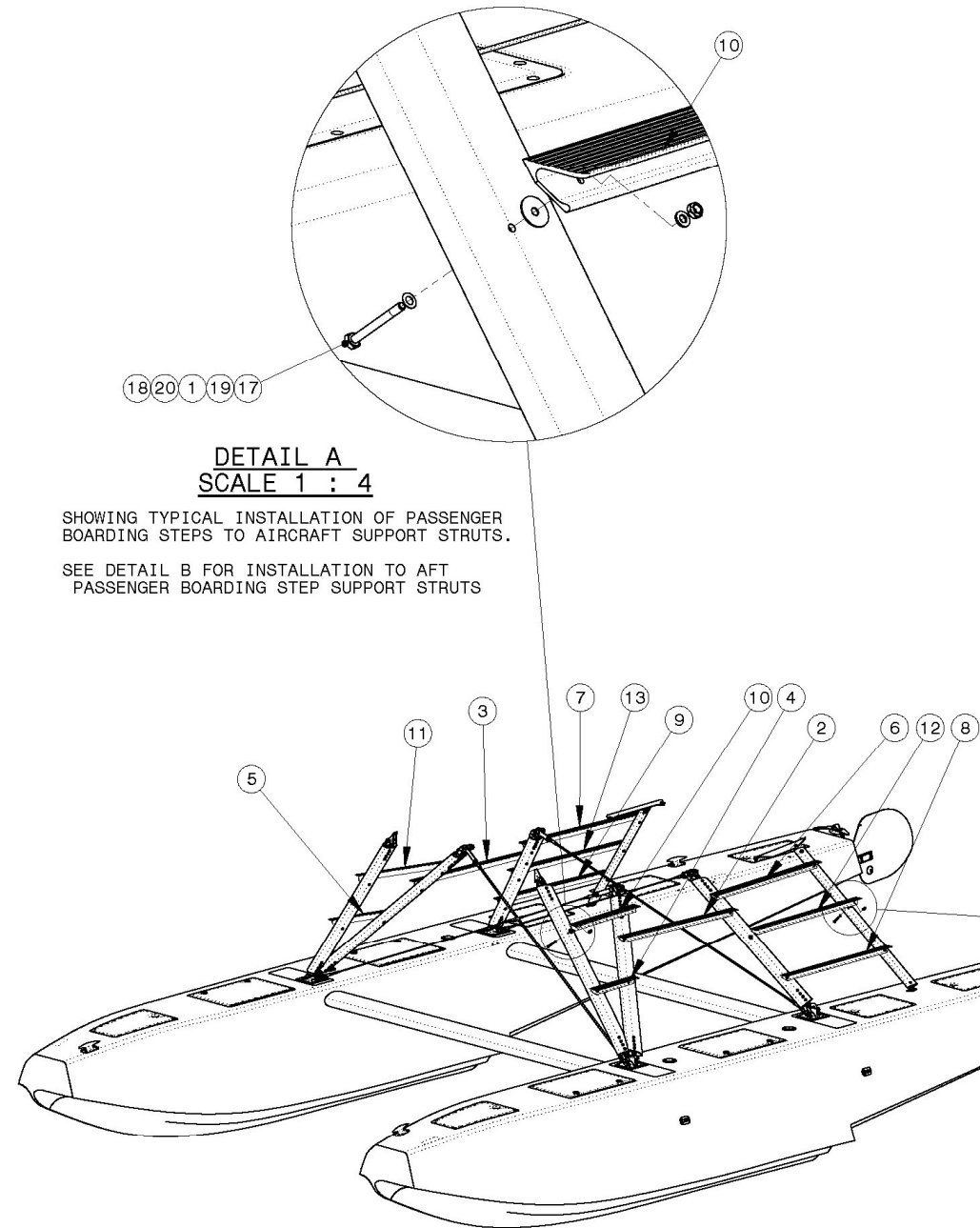
56-15130-L, LHS SHOWN
 56-15130-R, RHS REVERSE HDWR ORIENTATION,
 BOLT HEADS ALWAYS OUTBOARD



PARTS LISTINGS FOR 56-15130-L & 56-15130-R AFT STRUTS ASSEMBLIES			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	4	56-15107	STRAP, CLEVIS STYLE STRUT ATTACHMENTS
2	2	56-15108	SPACER, CLEVIS STYLE STRUT ASSEMBLY
3	1	56-15132	STRUT, AFT
4	8	AN4-22A	BOLT - MACHINE, AIRCRAFT
5	8	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
6	8	NAS1149D0416K	WASHER, FLAT
7	8	NAS1149D0463K	WASHER, FLAT

Figure 7. Parts Listings for Aft Struts Assemblies, 56-15130-L and 56-15130-R

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DETAIL A
SCALE 1 : 4


SHOWING TYPICAL INSTALLATION OF PASSENGER BOARDING STEPS TO AIRCRAFT SUPPORT STRUTS.
SEE DETAIL B FOR INSTALLATION TO AFT PASSENGER BOARDING STEP SUPPORT STRUTS

DETAIL B
SCALE 1 : 4

SHOWING TYPICAL INSTALLATION OF PASSENGER BOARDING STEPS TO PASSENGER STEP SUPPORT STRUTS.
SEE DETAIL A FOR INSTALLATION TO AIRCRAFT SUPPORT STRUTS

PARTS LISTINGS FOR PASSENGER BOARDING STEP INSTALLATION			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	24	35-32137	STEP WASHER
2	1	56-15303-L	MID BOARDING STEP, LHS
3	1	56-15303-R	MID BOARDING STEP, RHS
4	1	56-15304-L	BOARDING STEP, FWD, LOWER, LHS
5	1	56-15304-R	BOARDING STEP, FWD, LOWER, RHS
6	1	56-15305-L	BOARDING STEP, AFT, UPPER, LHS
7	1	56-15305-R	BOARDING STEP, AFT, UPPER, RHS
8	1	56-15307-L	BOARDING STEP, AFT, LOWER, LHS
9	1	56-15307-R	BOARDING STEP, AFT, LOWER, RHS
10	1	56-15308-L	BOARDING STEP, FWD, UPPER, LHS
11	1	56-15308-R	BOARDING STEP, FWD, UPPER, RHS
12	1	56-15309-L	BOARDING STEP, AFT, LOWER, LHS
13	1	56-15309-R	BOARDING STEP, AFT, LOWER, RHS
14	1	56-15310-L	BOARDING STEP STRUT ASS'Y INSTALLATION, LHS
15	1	56-15310-R	BOARDING STEP STRUT ASS'Y INSTALLATION, RHS
16	6	AN4-17A	BOLT - MACHINE, AIRCRAFT
17	18	AN4-23A	BOLT - MACHINE, AIRCRAFT
18	24	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
19	24	NAS1149D0416K	WASHER, FLAT
20	24	NAS1149D0463K	WASHER, FLAT

Figure 8. Parts Listings for Passenger Boarding Step Installation

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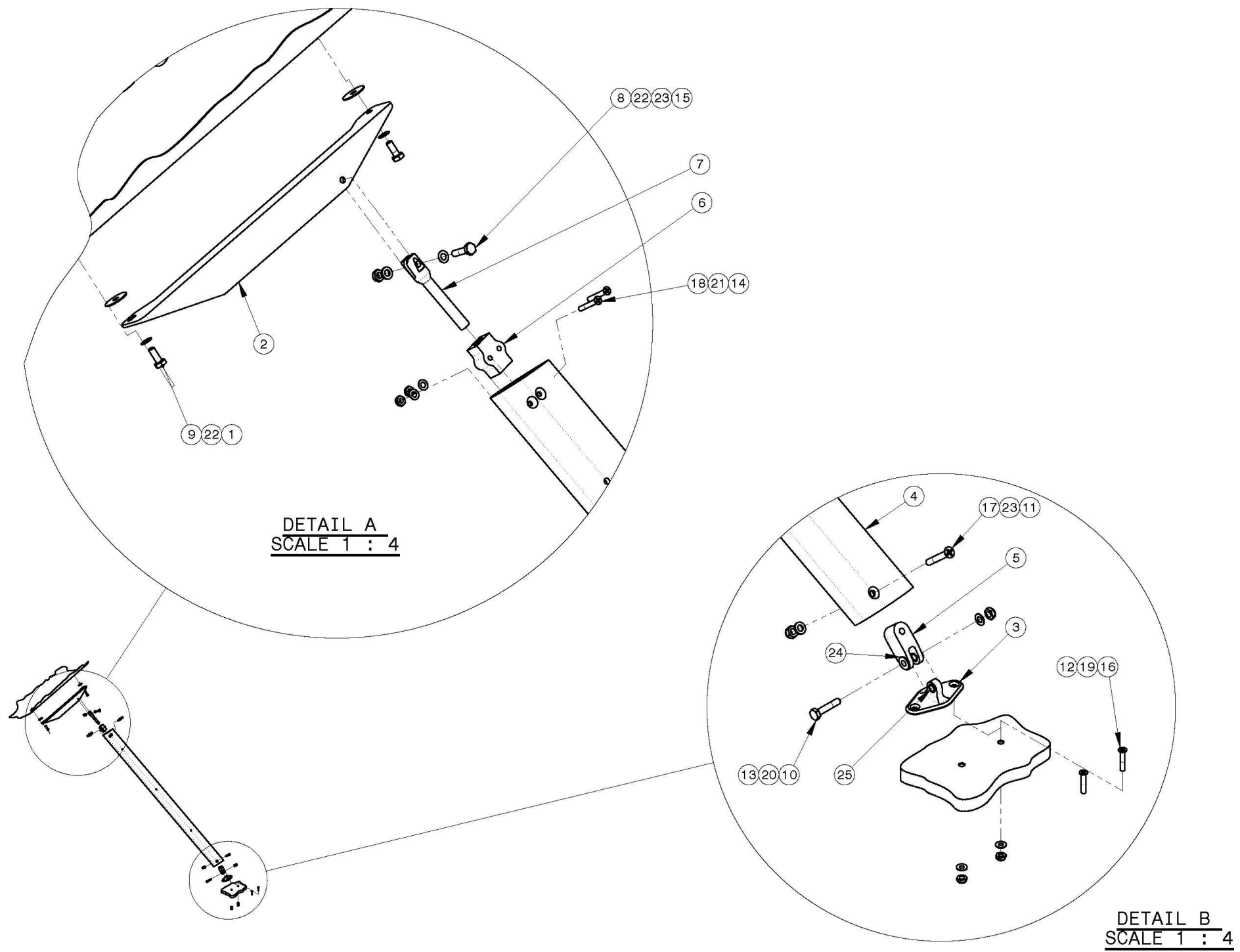




Figure 9. Parts Listings for Boarding Step Strut Assemblies, 56-15310-L and 56-15310-R (Page 1 of 2)

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PARTS LISTINGS FOR 56-15310-L BOARDING STEP STRUT ASSEMBLY, LHS			
ITEM NO.	56-15310-L QTY.	PART NUMBER	DESCRIPTION
1	2	35-32137	STEP WASHER
2	1	56-15325-L	FUSELAGE FITTING, BOARDING STEP INSTALLATION, LHS
3	1	56-15342	DECK FITTING, SINGLE LUG STYLE
4	1	56-15351-L	BOARDING STEP STRUT, LHS
5	1	56-15352	CLEVIS, SINGLE LUG STYLE DECK FITTING
6	1	56-15353	FUSELAGE FITTING RECEIVER
7	1	56-15357	SLIDE PIN
8	1	AN4-10A	BOLT - MACHINE, AIRCRAFT
9	2	AN4-5A	BOLT - MACHINE, AIRCRAFT
10	1	AN4C12A	BOLT - MACHINE, AIRCRAFT, STAINLESS
11	1	MS21044N4	NUT, SELF-LOCKING
12	2	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
13	1	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
14	2	MS21083N3	NUT, SELF-LOCKING, LOW-HEIGHT
15	1	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
16	2	MS24694C58	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
17	1	MS24694S113	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
18	2	MS24694S64	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
19	2	NAS1149C0332R	WASHER, FLAT, STAINLESS
20	1	NAS1149C0416R	WASHER, FLAT, STAINLESS
21	2	NAS1149D0316K	WASHER, FLAT
22	3	NAS1149D0416K	WASHER, FLAT
23	2	NAS1149D0463K	WASHER, FLAT
24	2	RFI-0406-04	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)
25	1	RSI-0406-05	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)

PARTS LISTINGS FOR 56-15310-R BOARDING STEP STRUT ASSEMBLY, RHS			
ITEM NO.	56-15310-R QTY.	PART NUMBER	DESCRIPTION
1	2	35-32137	STEP WASHER
2	1	56-15325-R	FUSELAGE FITTING, BOARDING STEP INSTALLATION, RHS
3	1	56-15342	DECK FITTING, SINGLE LUG STYLE
4	1	56-15351-R	BOARDING STEP STRUT, RHS
5	1	56-15352	CLEVIS, SINGLE LUG STYLE DECK FITTING
6	1	56-15353	FUSELAGE FITTING RECEIVER
7	1	56-15357	SLIDE PIN
8	1	AN4-10A	BOLT - MACHINE, AIRCRAFT
9	2	AN4-5A	BOLT - MACHINE, AIRCRAFT
10	1	AN4C12A	BOLT - MACHINE, AIRCRAFT, STAINLESS
11	1	MS21044N4	NUT, SELF-LOCKING
12	2	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
13	1	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
14	2	MS21083N3	NUT, SELF-LOCKING, LOW-HEIGHT
15	1	MS21083N4	NUT, SELF-LOCKING, LOW HEIGHT
16	2	MS24694C58	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
17	1	MS24694S113	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
18	2	MS24694S64	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
19	2	NAS1149C0332R	WASHER, FLAT, STAINLESS
20	1	NAS1149C0416R	WASHER, FLAT, STAINLESS
21	2	NAS1149D0316K	WASHER, FLAT
22	3	NAS1149D0416K	WASHER, FLAT
23	2	NAS1149D0463K	WASHER, FLAT
24	2	RFI-0406-04	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)
25	1	RSI-0406-05	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)

Figure 9 (Cont'd.). Parts Listings for Boarding Step Strut Assemblies, 56-15310-L and 56-15310-R (Page 2 of 2)

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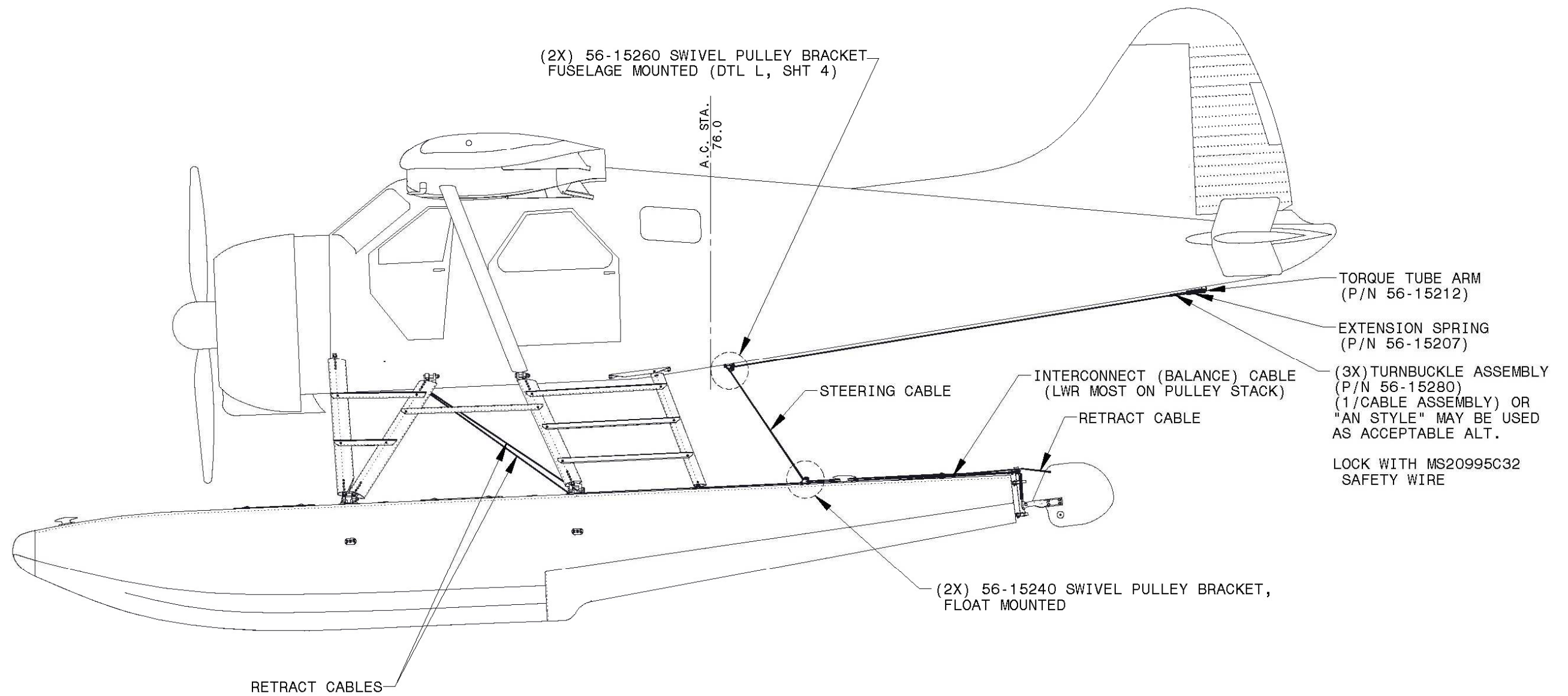



Figure 10. Water Rudder Rigging and Pulley Installation (Page 1 of 4)

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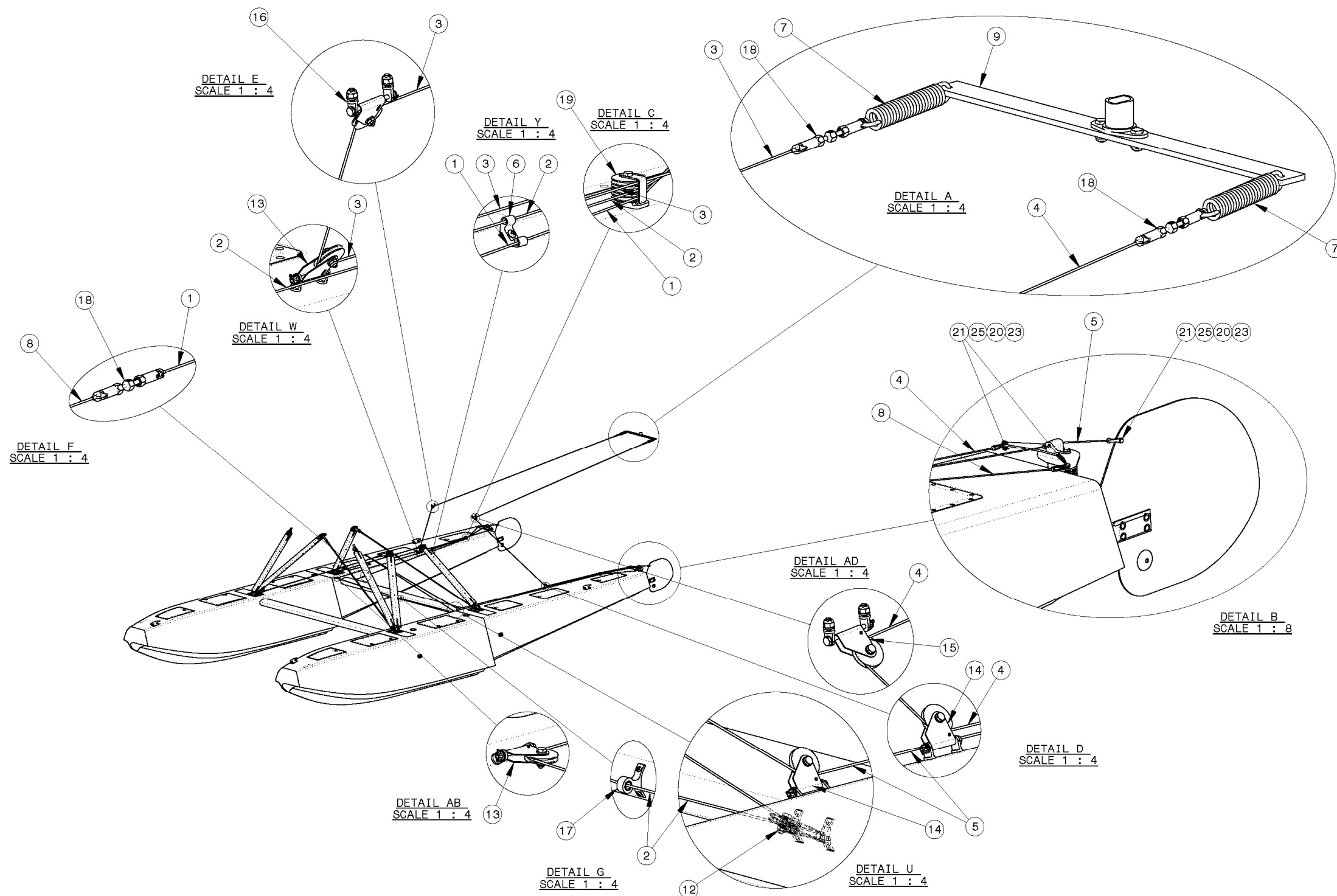



Figure 10 (Cont'd.). Water Rudder Rigging and Pulley Installation (Page 2 of 4)

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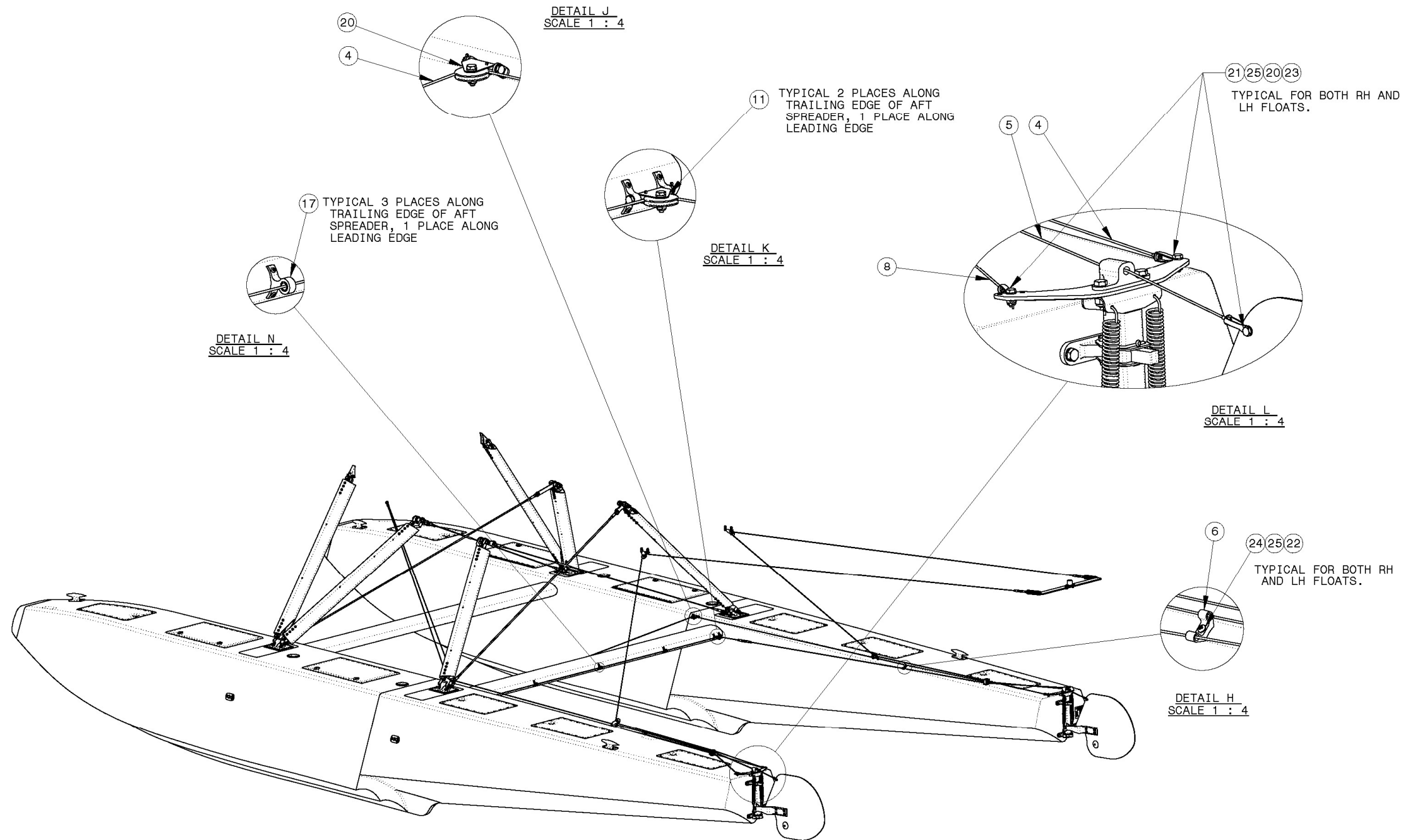




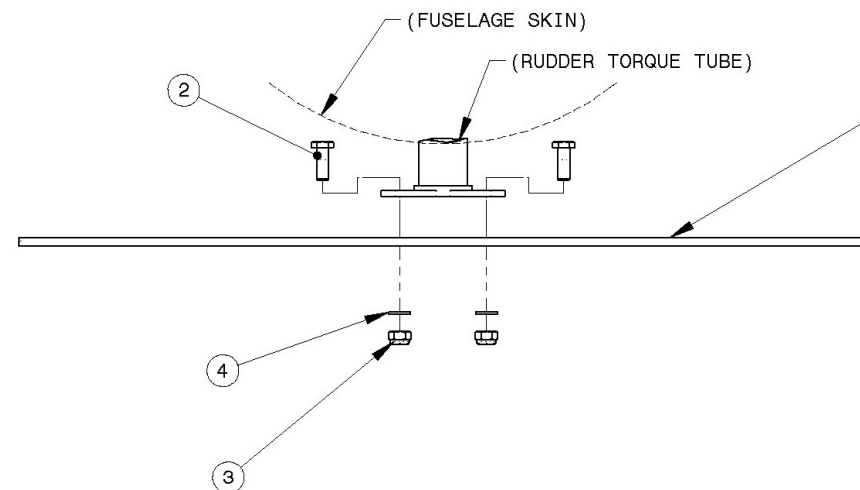
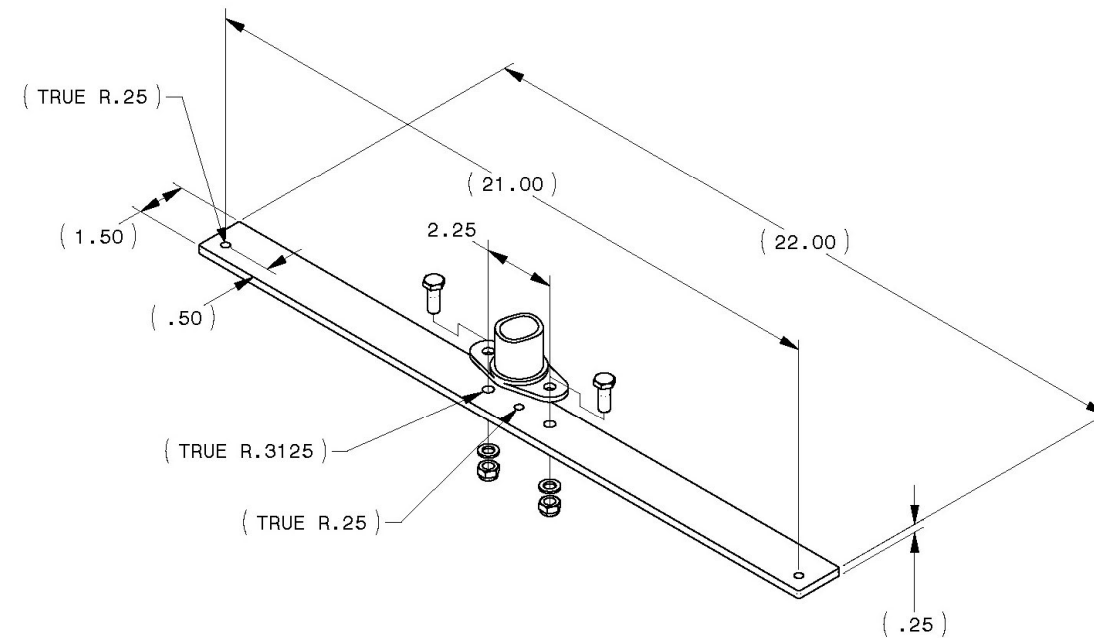
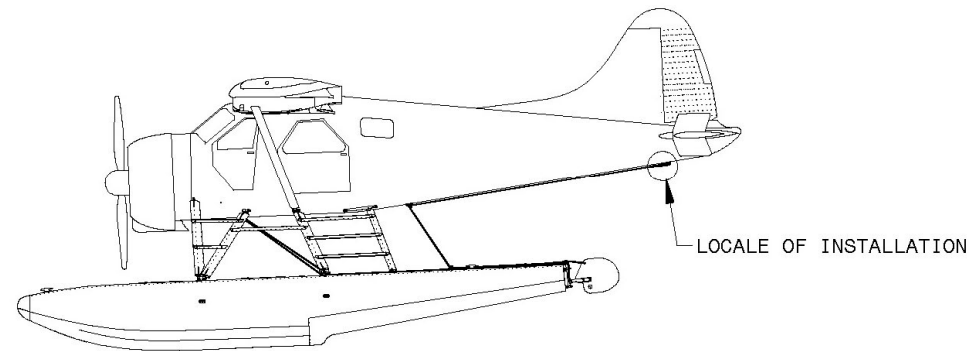
Figure 10 (Cont'd.). Water Rudder Rigging and Pulley Installation (Page 3 of 4)

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PARTS LISTINGS FOR 56-15200, WATER RUDDER RIGGING			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	56-15201	CABLE ASSEMBLY, INTERCONNECT, RHS
2	1	56-15202	WATER RUDDER RETRACT CABLE, RHS
3	1	56-15203	WATER RUDDER STEERING CABLE, RHS
4	1	56-15204	WATER RUDDER STEERING CABLE, LHS
5	1	56-15205	WATER RUDDER RETRACT CABLE, LHS
6	2	56-15206	CABLE GUIDE
7	2	56-15207	EXTENSION SPRING, WATER RUDDER STEERING
8	1	56-15208	INTERCONNECT CABLE, LHS
9	1	56-15210	TORQUE TUBE ARM ASSEMBLY
10	1	56-15230	SWIVEL PULLEY ASSEMBLY, SPREADER MOUNTED TYPE
11	1	56-15230	SWIVEL PULLEY ASSEMBLY, SPREADER MOUNTED TYPE
12	1	56-15230	SWIVEL PULLEY ASSEMBLY, SPREADER MOUNTED TYPE
13	2	56-15240	SWIVEL PULLEY ASSEMBLY, FLOAT MOUNTED
14	2	56-15240	SWIVEL PULLEY ASSEMBLY, FLOAT MOUNTED
15	1	56-15260	SWIVEL PULLEY BRACKET
16	1	56-15260	SWIVEL PULLEY BRACKET
17	4	56-15270	CABLE GUIDE ASSEMBLY, SPREADER MOUNTED
18	3	56-15280	TURNBUCKLE ASSEMBLY
19	2	56-15290	PULLEY STACK ASSEMBLY
20	7	AN310C3	NUT, PLAIN, CASTELLATED, AIRFRAME
21	7	AN3C5	BOLT - MACHINE, AIRCRAFT
22	3	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
23	7	MS24665-153	COTTER PIN
24	3	MS35207-265	MACHINE SCREW
25	10	NAS1149C0363R	WASHER, FLAT, STAINLESS

Figure 10 (Cont'd.). Water Rudder Rigging and Pulley Installation (Page 4 of 4)

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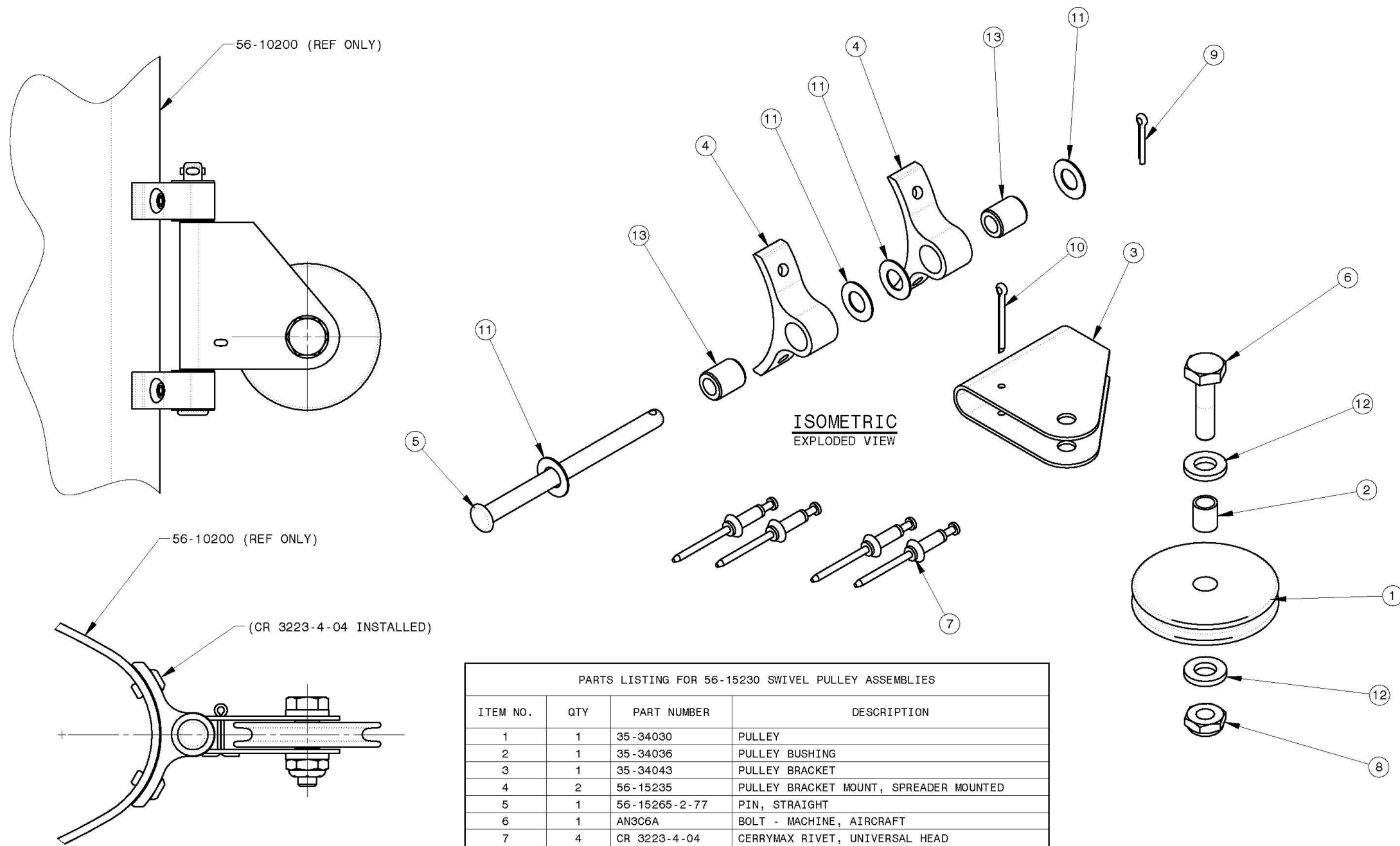
(FOR REPLACEMENT OF EXISTING TORQUE TUBE ARM WITH LONGER ARM AEROCET P/N 56-15212 PER DWG. NO. 56-15200.)

(ACCEPTABLE ALTERNATE: ALUMINUM, 2024-T3 AND OF DIMENSIONS SHOWN)

PARTS LISTING FOR 56-15210 TORQUE TUBE ARM INSTALLATION			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	56-15212	TORQUE TUBE ARM
2	2	AN5-6A	BOLT - MACHINE, AIRCRAFT
3	2	MS21044N5	NUT, SELF-LOCKING, HEXAGON, REGULAR HEIGHT
4	2	NAS1149D0563K	WASHER, FLAT

Figure 11. Torque Tube Arm Installation, 56-15210

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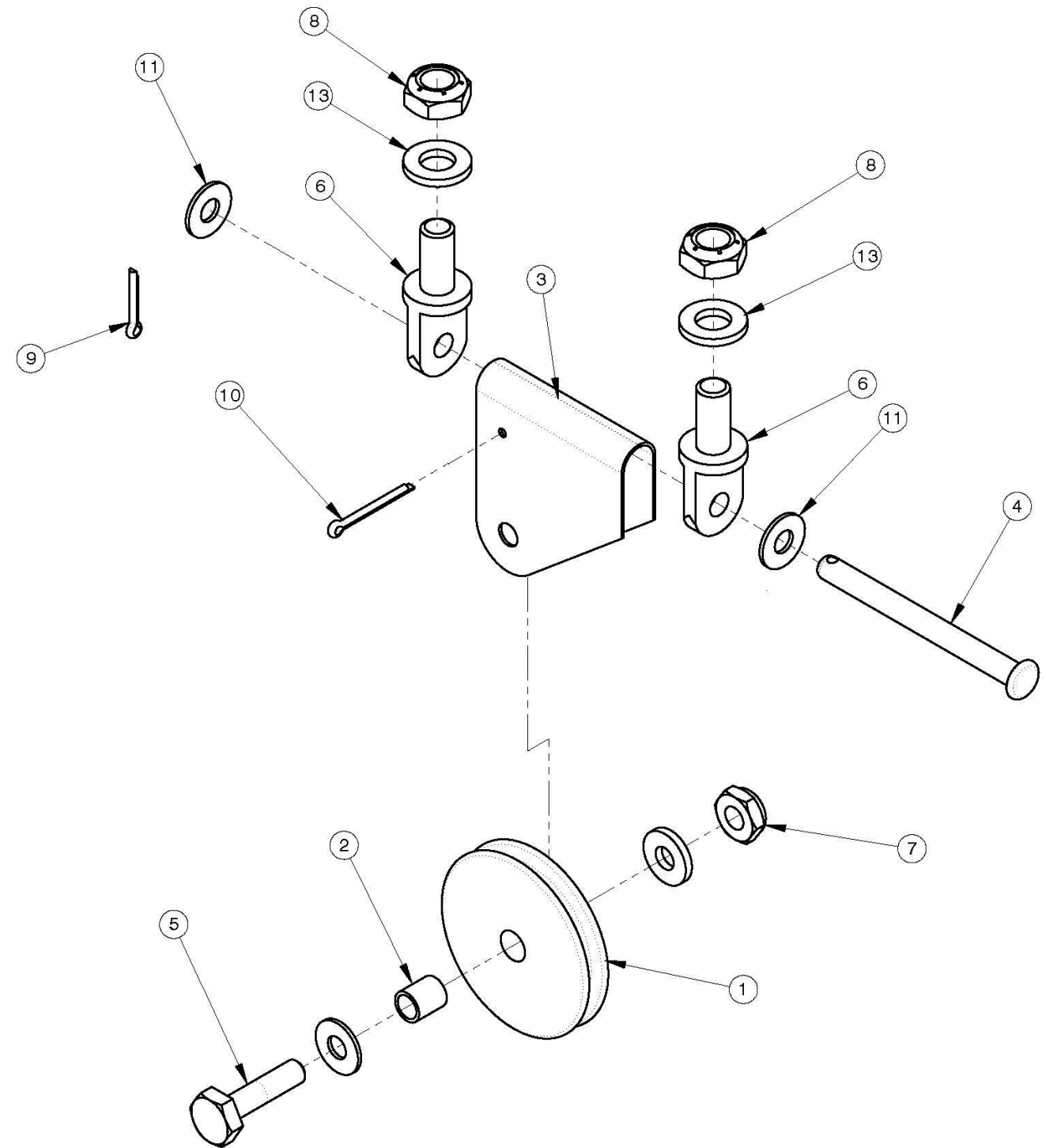
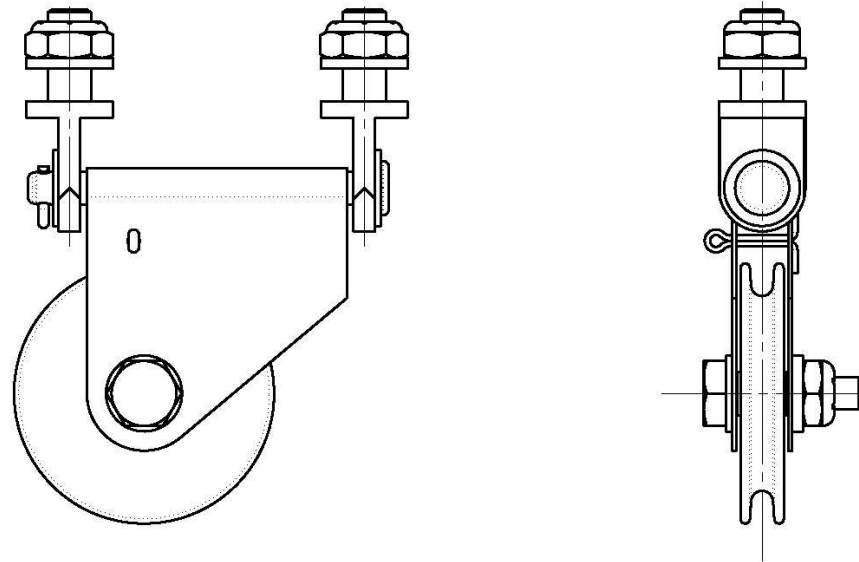
ISOMETRIC
EXPLODED VIEW

PARTS LISTING FOR 56-15230 SWIVEL PULLEY ASSEMBLIES			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	35-34030	PULLEY
2	1	35-34036	PULLEY BUSHING
3	1	35-34043	PULLEY BRACKET
4	2	56-15235	PULLEY BRACKET MOUNT, SPREADER MOUNTED
5	1	56-15265-2-77	PIN, STRAIGHT
6	1	AN3C6A	BOLT - MACHINE, AIRCRAFT
7	4	CR 3223-4-04	CERRYMAX RIVET, UNIVERSAL HEAD
8	1	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
9	1	MS24665-151	COTTER PIN
10	1	MS24665-153	COTTER PIN
11	4	NAS1149D0316K	WASHER, FLAT
12	2	NAS1149D0363K	WASHER, FLAT
13	2	RSI-0305-06	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)

NOTE: ALUMINUM NAS1149D0--K AND NAS1149D0--J WASHERS MAY BE USED INTERCHANGEABLY PER AVAILABILITY.


Figure 12. Parts Listings for Swivel Pulley Assemblies, 56-15230

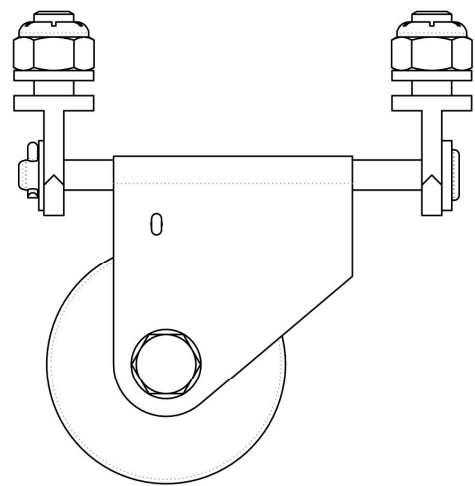
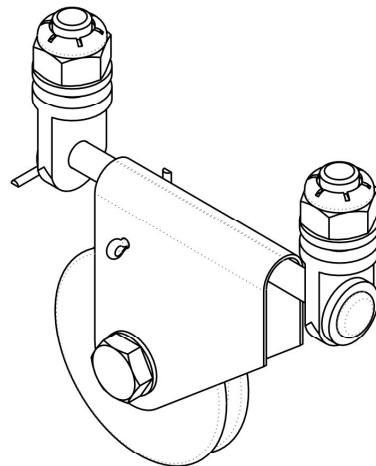
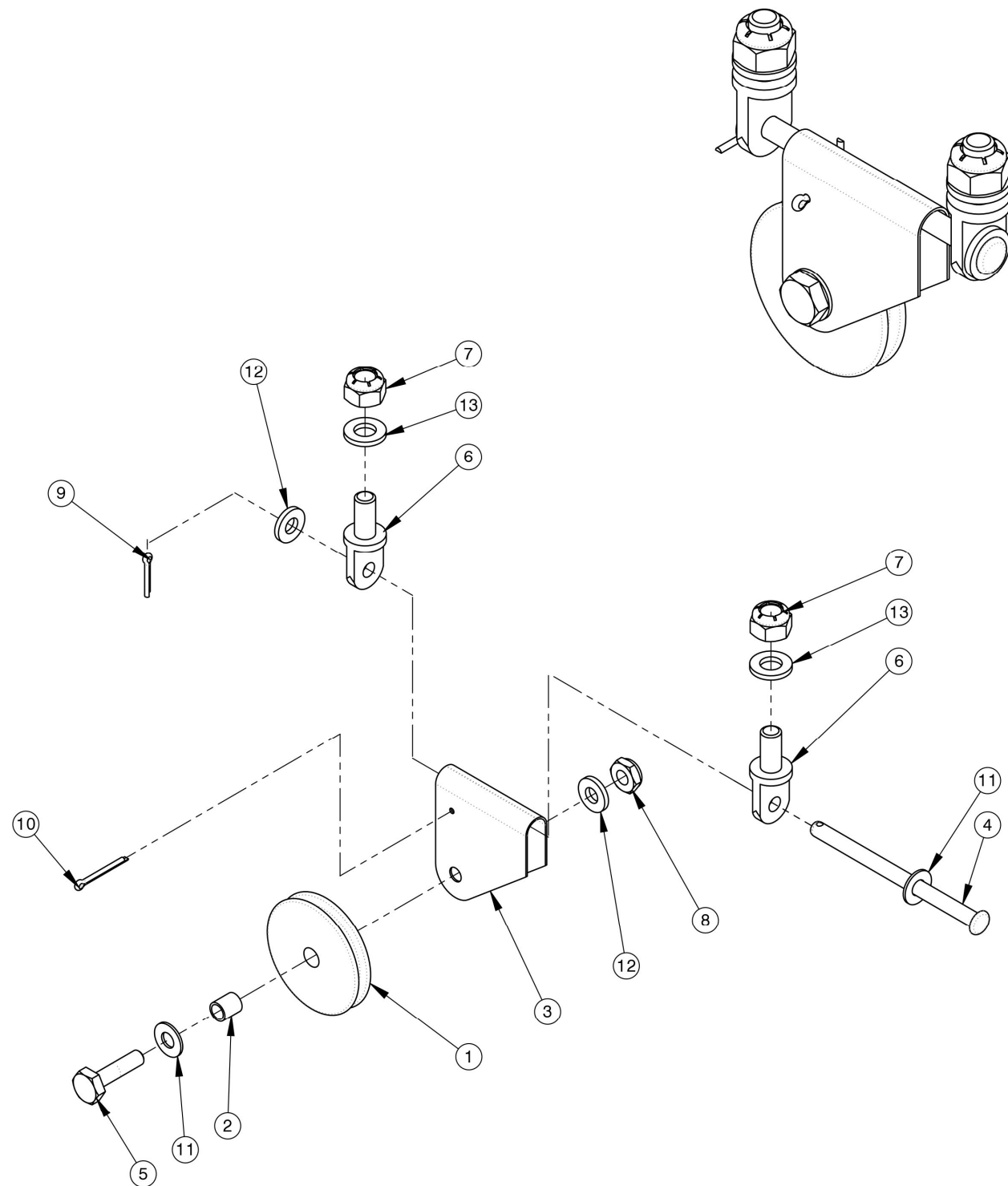
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PARTS LISTING FOR 56-15240 SWIVEL PULLEY BRACKET ASSEMBLY, FLOAT MOUNTED			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	35-34030	PULLEY
2	1	35-34036	PULLEY BUSHING
3	1	35-34043	PULLEY BRACKET
4	1	56-15265-2-61	PIN, STRAIGHT
5	1	AN3C6A	BOLT - MACHINE, AIRCRAFT
6	2	AN43B-C4A	EYEBOLT
7	1	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
8	2	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
9	1	MS24665-151	COTTER PIN
10	1	MS24665-153	COTTER PIN
11	3	NAS1149C0332R	WASHER, FLAT, STAINLESS
12	1	NAS1149C0363R	WASHER, FLAT, STAINLESS
13	2	NAS1149C0463R	WASHER, FLAT, STAINLESS

Figure 13. Parts Listings for Swivel Pulley Bracket Assembly, Float Mounted, 56-15240

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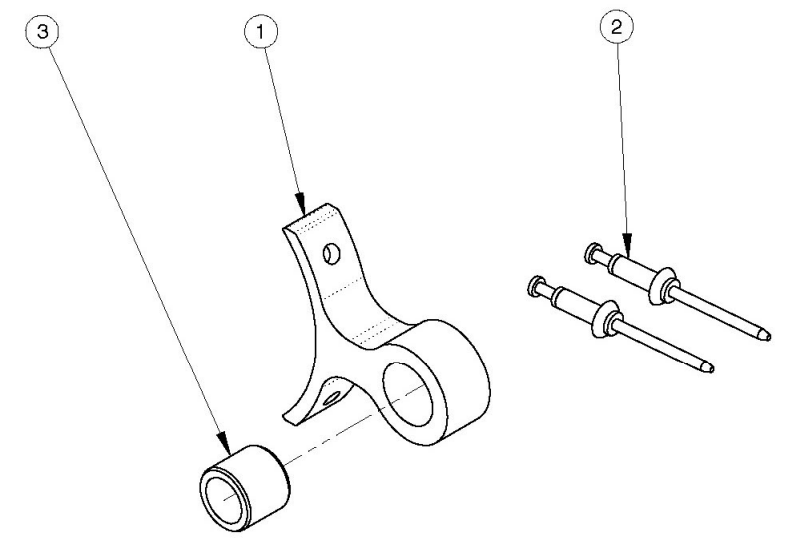
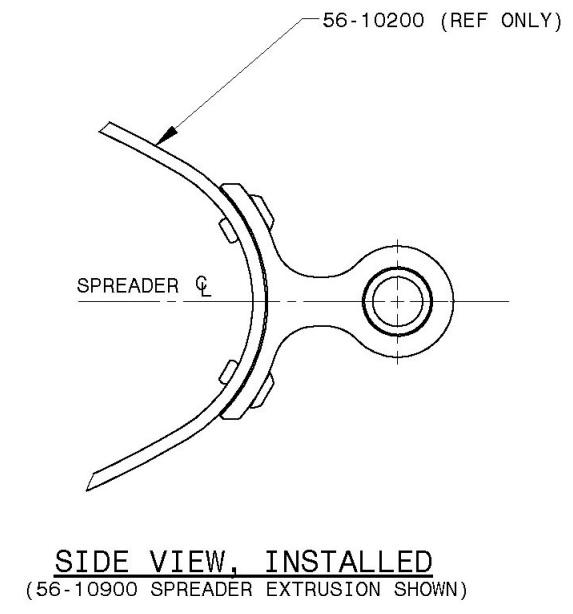


NOTE: NAS1149D0XXK WASHERS MAY BE USED INTERCHANGEABLY WITH NAS1149D0XXJ WASHERS PER AVAILABILITY.

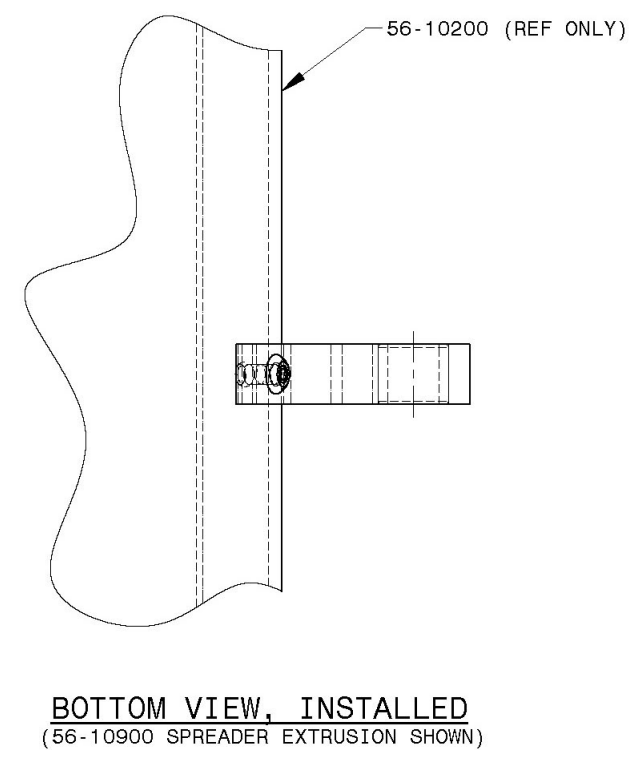
PARTS LIST FOR 56-15260 SWIVEL PULLEY ASSEMBLY			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	35-34030	PULLEY
2	1	35-34036	PULLEY BUSHING
3	1	35-34043	PULLEY BRACKET
4	1	56-15265-2-83	PIN, STRAIGHT
5	1	AN3C6A	BOLT - MACHINE, AIRCRAFT
6	2	AN43B-4A	EYEBOLT
7	2	MS21044N4	NUT, SELF-LOCKING, REGULAR HEIGHT
8	1	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
9	1	MS24665-151	COTTER PIN
10	1	MS24665-153	COTTER PIN
11	2	NAS1149C0332R	WASHER, FLAT, STAINLESS
12	2	NAS1149C0363R	WASHER, FLAT, STAINLESS
13	2	NAS1149D0463K	WASHER, FLAT

Figure 14. Parts Listings for Swivel Pulley Assembly. 56-15260

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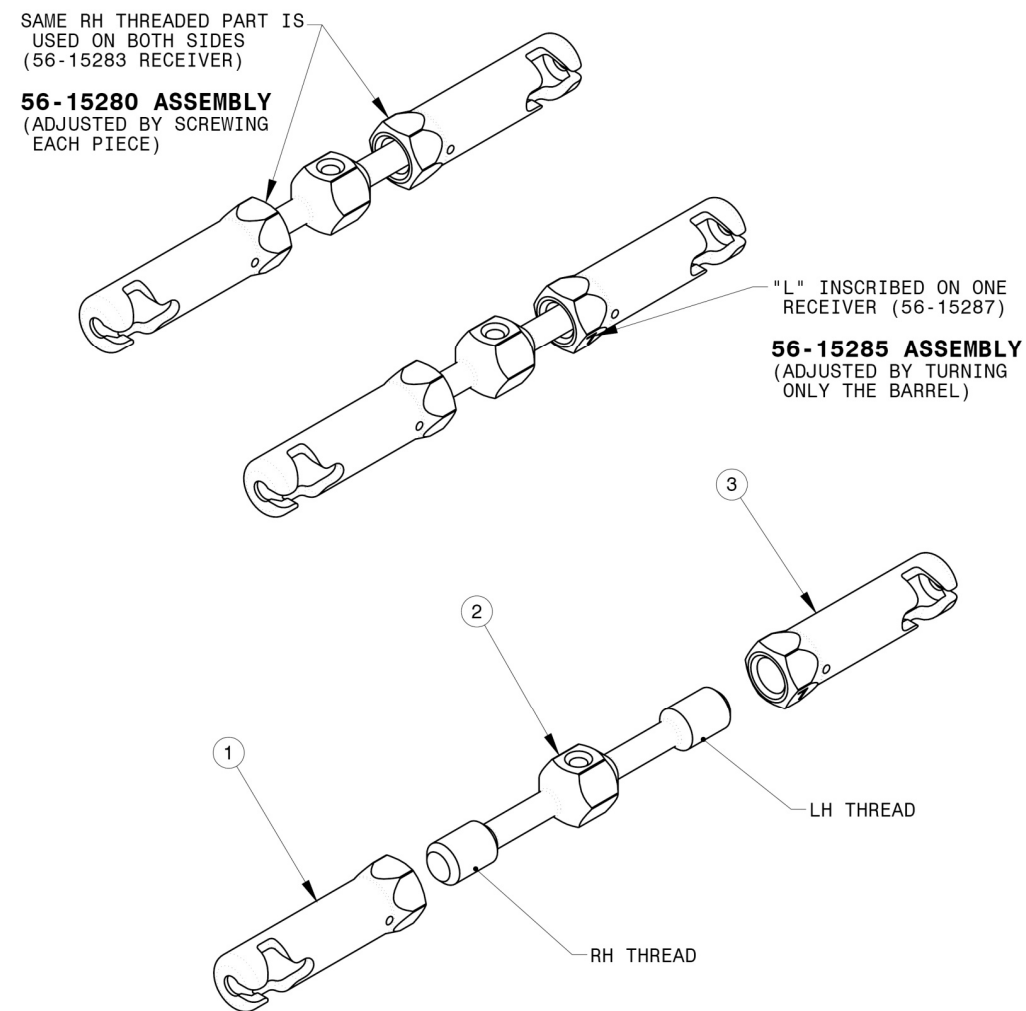
- NOTES:
- 1) PARTS MAY BE SHIPPED IN UNASSEMBLED OR PARTIALLY ASSEMBLED STATE TO FACILITATE INSTALLATION.
 - 2) PACKAGING SHALL BE FASHIONED IN SUCH A MANNER THAT ALL NECESSARY PARTS ARE CONTAINED AND IDENTIFIED TOGETHER.



PARTS LISTING FOR 56-15270 CABLE GUIDE, SPREADER MOUNTED			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	56-15271	CABLE GUIDE, SPREADER MOUNTED
2	2	CR 3223-4-04	CERRYMAX RIVET, UNIVERSAL HEAD
3	1	RSI-0507-06	PLAIN BEARING, SLEEVE OR FLANGE (IGUS P/N)

Figure 15. Parts Listings for Cable Guide, Spreader Mounted. 56-15270


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PARTS LISTINGS FOR 56-15285 TURNBUCKLE ASSEMBLIES			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	56-15283	TURNBUCKLE RECEIVER
2	1	56-15286	TURNBUCKLE BARREL, LH-RH THREADED
3	1	56-15287	TURNBUCKLE RECEIVER, LH THREADS

NOTE: 56-15285 REPLACES 56-15280 ASSEMBLIES.
ONLY 56-15283 IS INTERCHANGEABLE.

Figure 16. Parts Listings for Turnbuckle Assemblies. 56-15285

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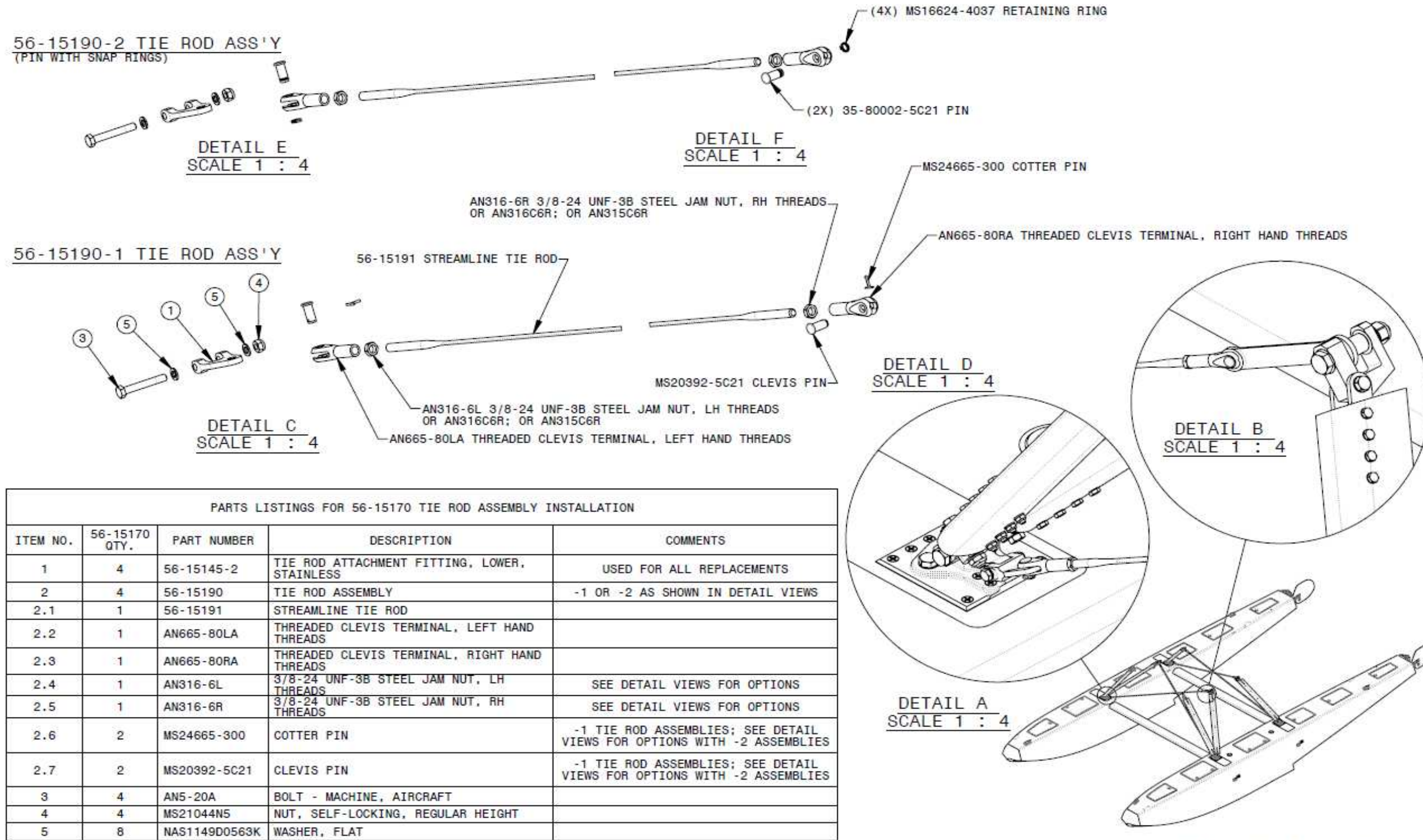

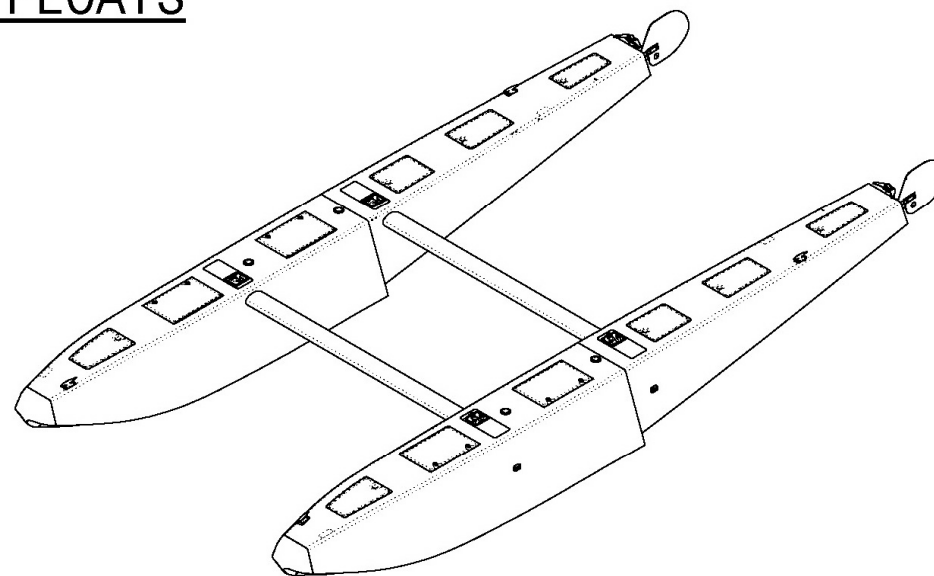
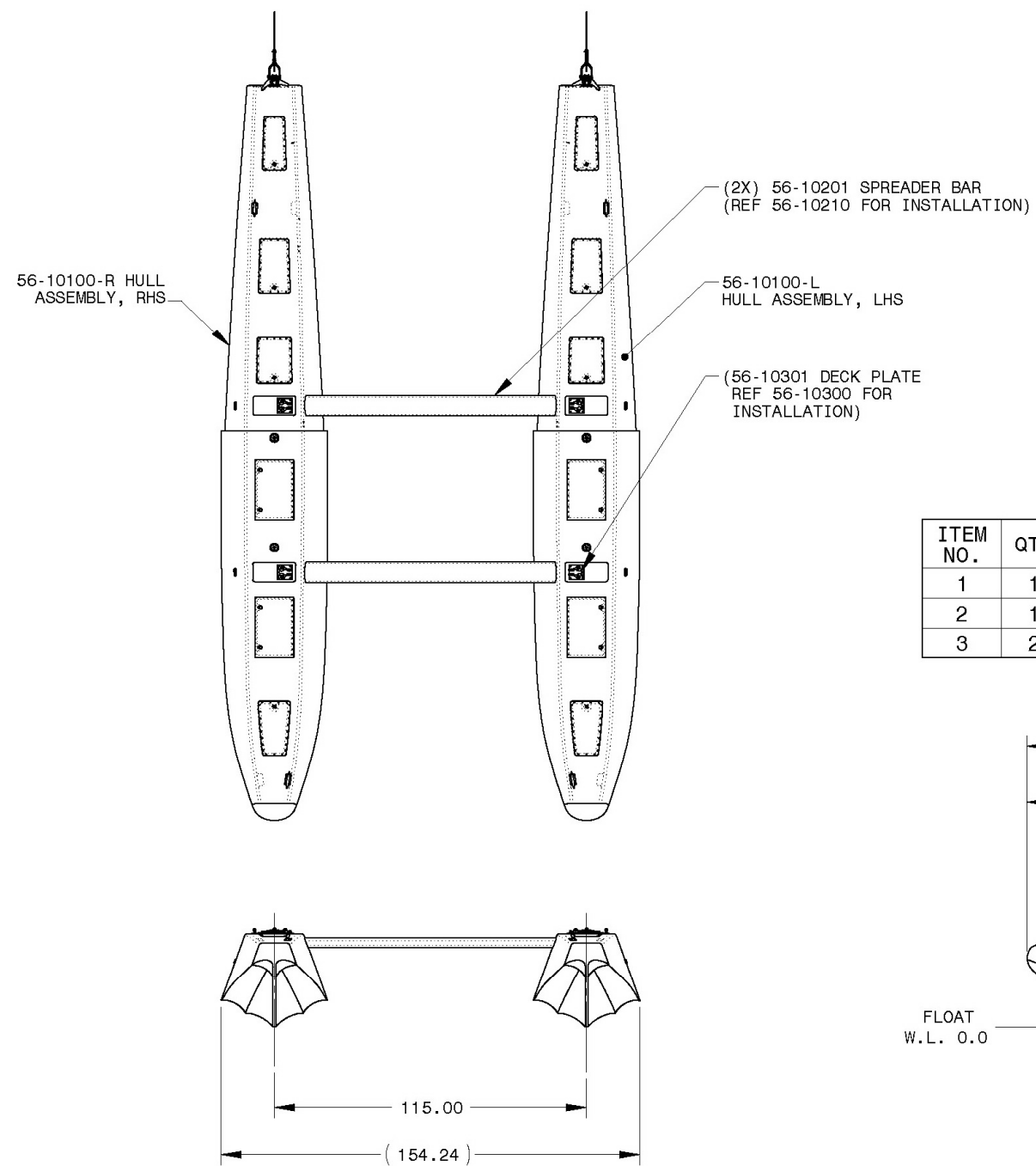


Figure 17. Parts Listings for Flying Wires (Tie Rod Assembly) Installation, 56-15170

MODELS USED: 56-15100, REV B;
56-15170, REV B; 56-15190, REV B.

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AEROCET MODEL 5850 FLOATS



ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	56-10100-L	MODEL 5850 FLOAT HULL ASSEMBLY, TSO
2	1	56-10100-R	MODEL 5850 FLOAT HULL ASSEMBLY, TSO
3	2	56-10210	SPREADER BAR INSTALLATION ASSEMBLY

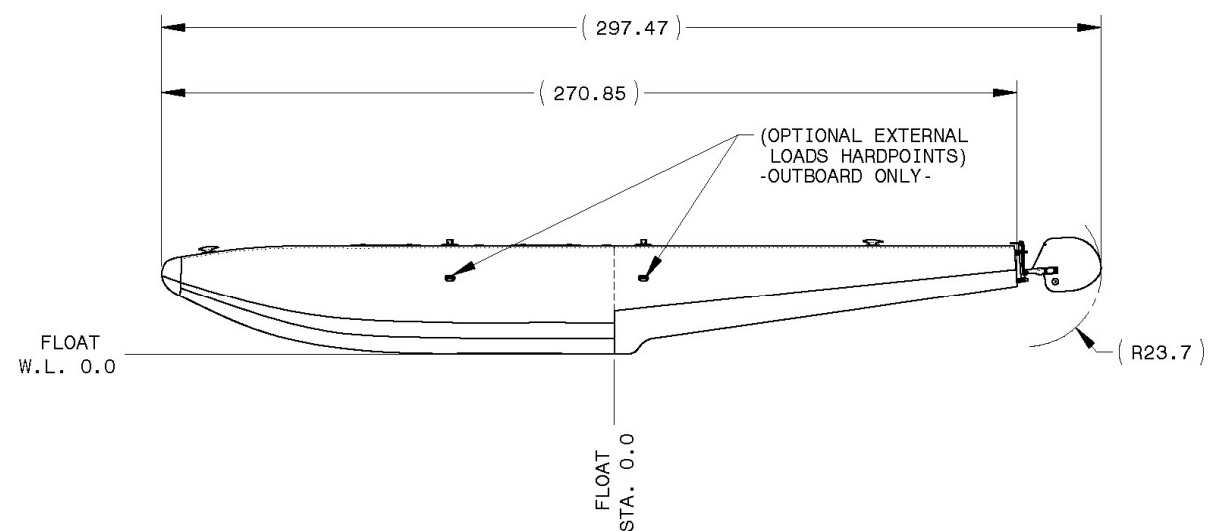

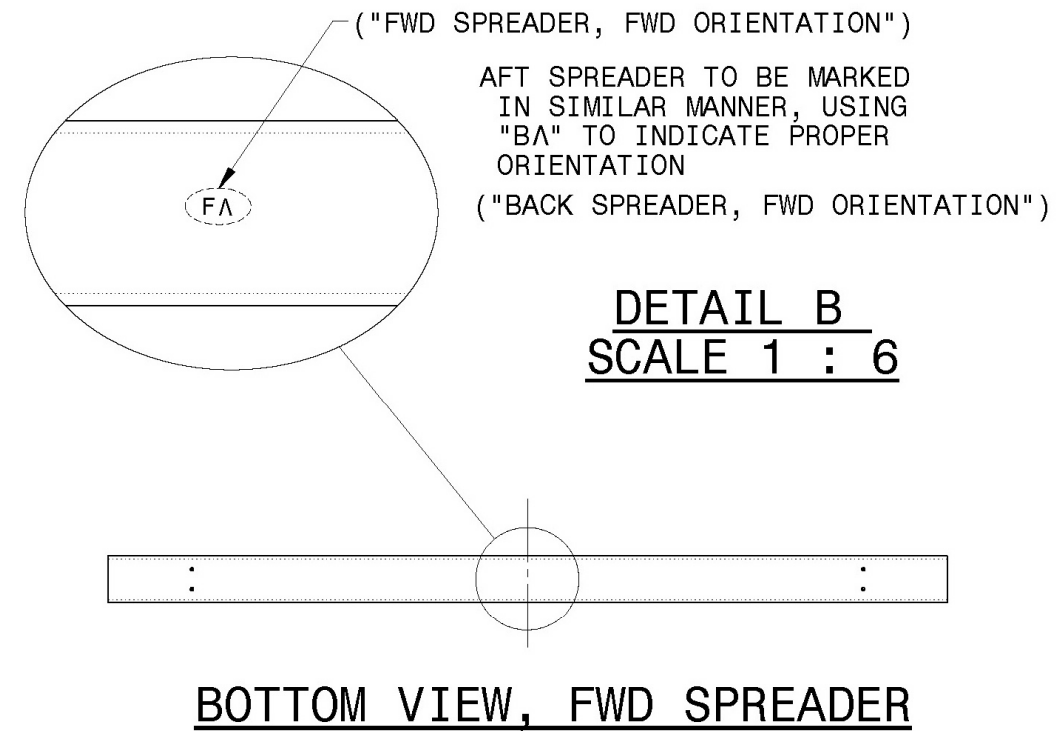
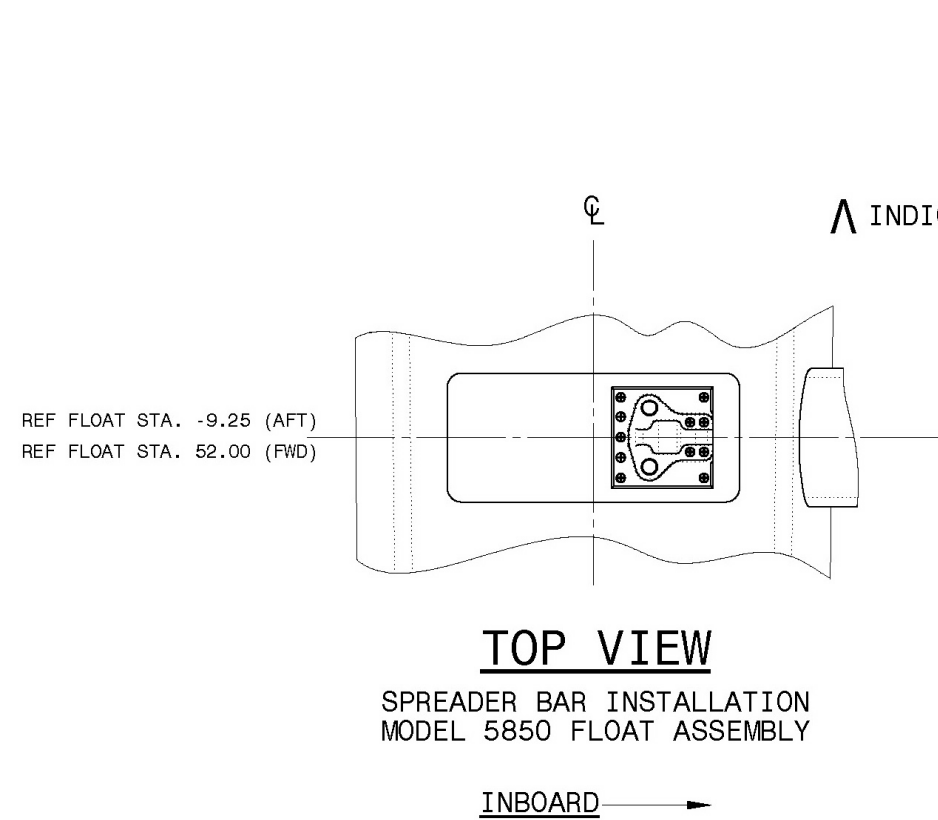


Figure 18. 5850 Twin Seaplane Floats (Page 1 of 12)

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PARTS LISTINGS FOR 56-10210 SPREADER BAR INSTALLATION			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	56-10201	SPREADER BAR, AEROCET MODEL 5850 FLOATS
2	2	56-10202	CLAMP BLOCK, MODEL 5850 FLOAT TSO
3	4	NAS1149D0816K	WASHER, FLAT
4	4	NAS1149D0863K	WASHER, FLAT
5	4	AN8-65A	BOLT - MACHINE, AIRCRAFT
6	4	MS21044N8	NUT, SELF-LOCKING, REGULAR HEIGHT

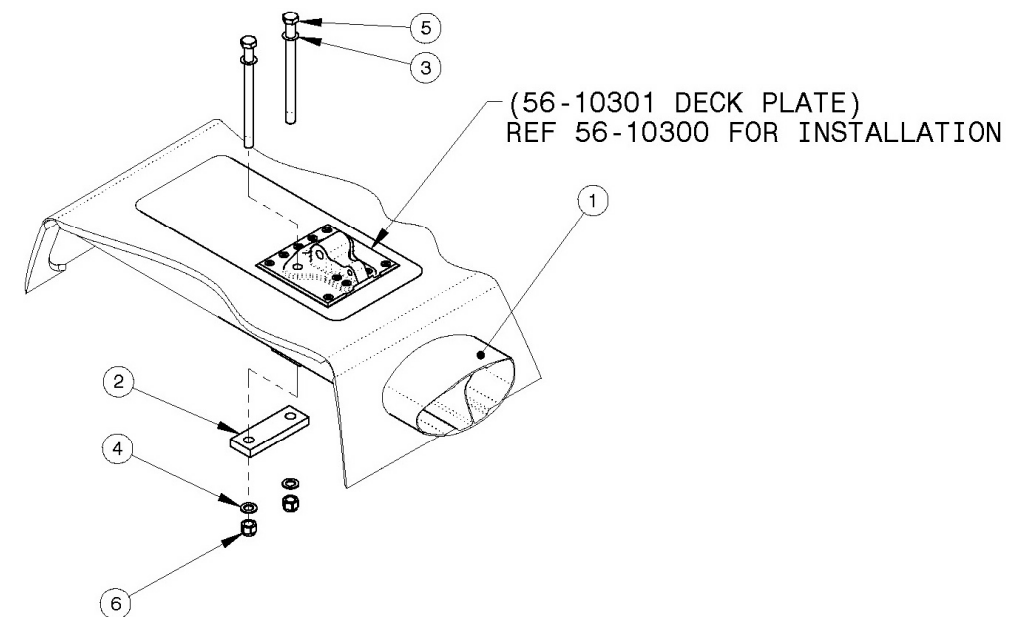
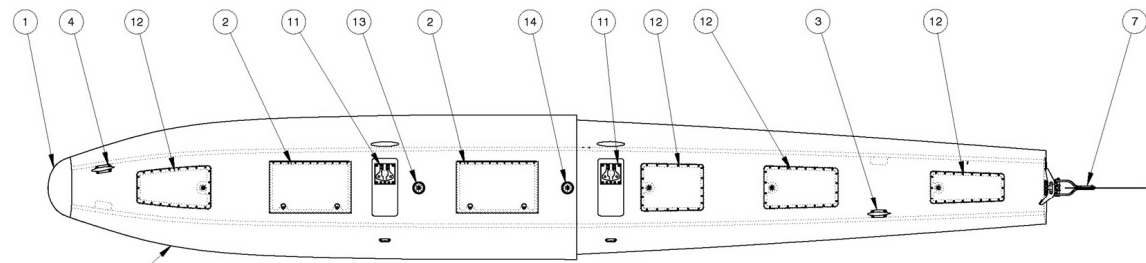


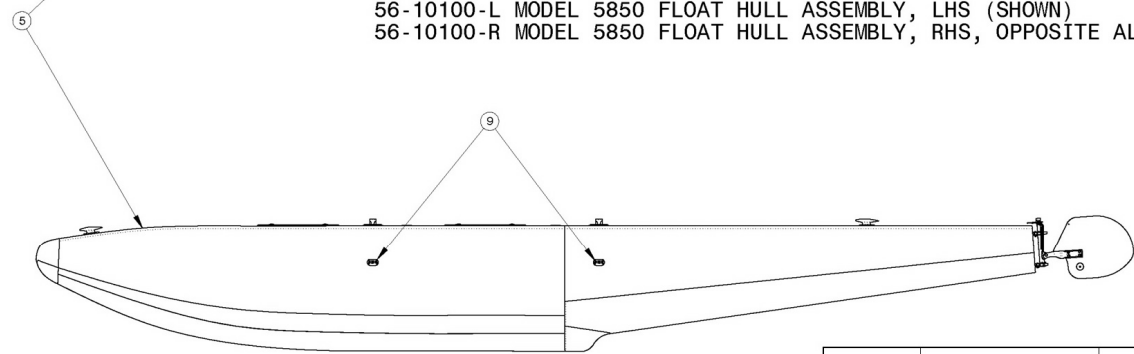
Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 2 of 12)

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TOP VIEW

56-10100-L MODEL 5850 FLOAT HULL ASSEMBLY, LHS (SHOWN)
56-10100-R MODEL 5850 FLOAT HULL ASSEMBLY, RHS, OPPOSITE ALONG ϕ



ITEM NO.	56-10100-L QTY	56-10100-R QTY.	PART NUMBER	DESCRIPTION
1	1	1	56-10112	BUMPER INSTALLATION
2	2	2	56-10114	LOCKER DOOR ASSEMBLY
3	1	1	56-10116	DECK CLEAT INSTALLATION, AFT
4	1	1	56-10118	DECK CLEAT INSTALLATION, FWD
5	1	-	56-10120-L	FLOAT HULL, FIBERGLASS ASSEMBLY, LHS
6	-	1	56-10120-R	FLOAT HULL, FIBERGLASS ASSEMBLY, RHS
7	1	-	56-10150-L	TILLER AND RUDDER INSTALLATION
8	-	1	56-10150-R	TILLER AND RUDDER INSTALLATION
9	1	1	56-10160	ANCHOR PLATE INSTALLATION
10	1	1	56-10170	CHINE RUB-STRIP INSTALLATION
11	2	2	56-10300	DECK PLATE INSTALLATION
12	1	1	56-10400	ACCESS COVER INSTALLATION
13	1	1	56-10460	FWD PUMP OUT WELL INSTALLATION
14	1	1	56-10465	AFT PUMP OUT WELL INSTALLATION
15	1	1	56-10600	DATA PLACARD INSTALLATION

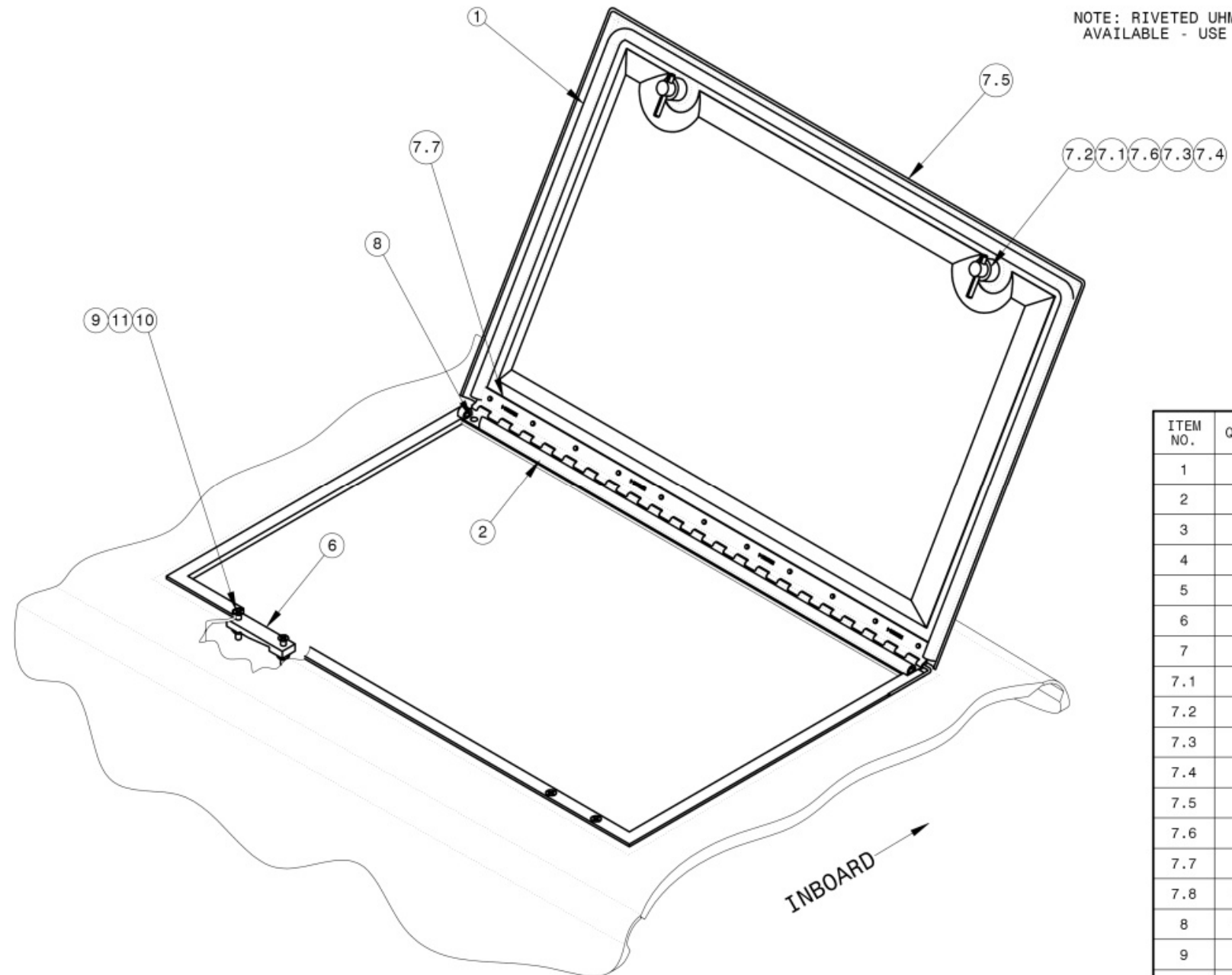
Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 3 of 12)

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56-10114-1 LOCKER DOOR ASSEMBLY & INSTALLATION

SHOWING BONDED FIBERGLASS WEAR STRIPS

NOTE: RIVETED UHMW PLASTIC STRIPS ARE NO LONGER AVAILABLE - USE THIS VERSION FOR REPLACEMENTS

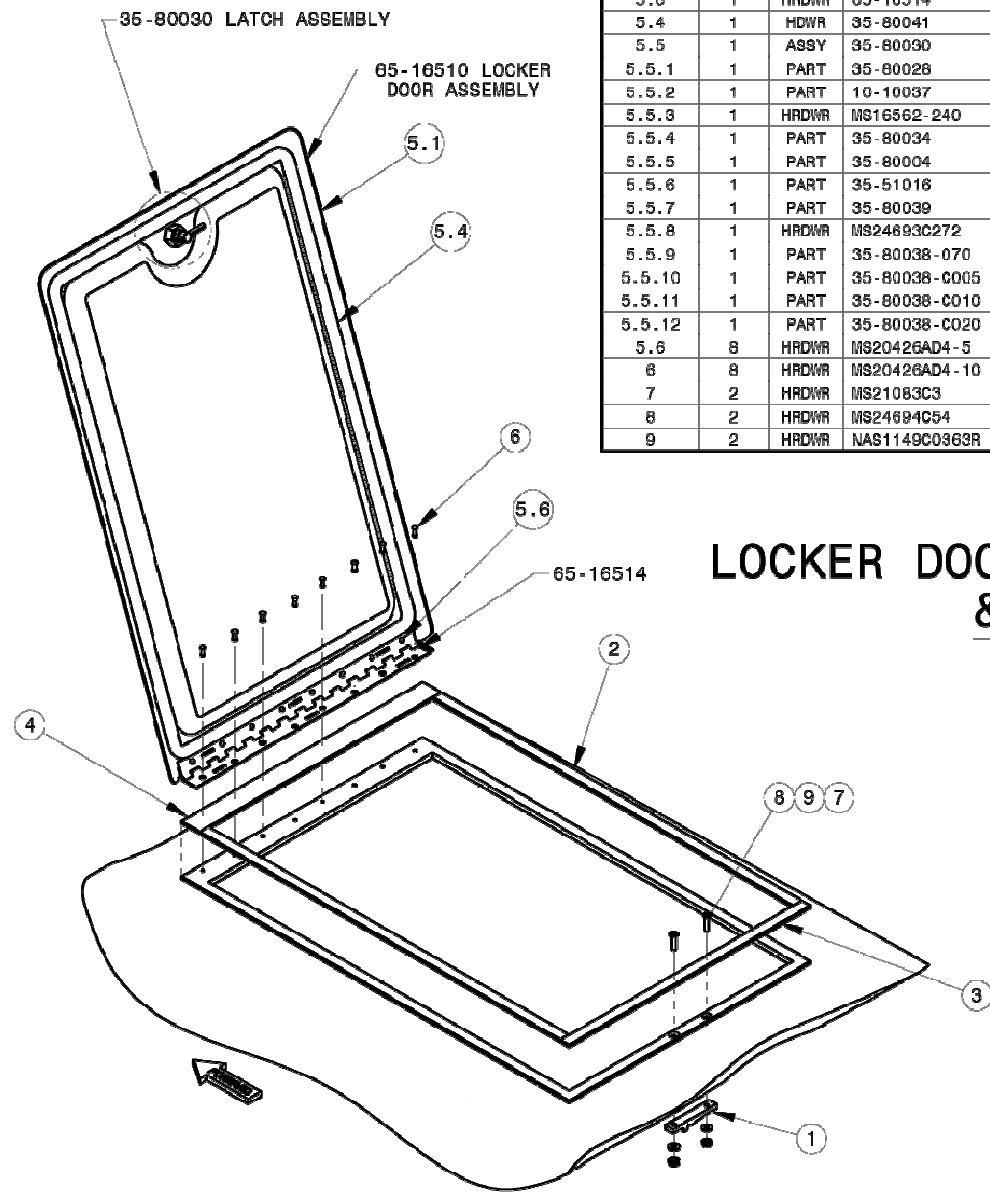


ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	3/8 X 7/32	EPDM FOAM RUBBER SEAL, APPROX 47.6"
2	1	3/8 X 7/32	EPDM FOAM RUBBER SEAL, APPROX 21"
3	1	35-22601-1	LOCKER WEAR STRIP, LHS
4	1	35-22601-2	LOCKER WEAR STRIP, OUTBOARD
5	1	35-22601-3	LOCKER WEAR STRIP, RHS
6	2	35-51015	LOCKER RAMP
7	1	56-41046	LOCKER DOOR ASSEMBLY
7.1	2	35-51010-2	HATCH LOCK [PIN]
7.2	2	35-51010-1	HATCH WASHER
7.3	4	35-51011	WASHER
7.4	2	35-51016	LOCKER RING
7.5	1	56-41045	LOCKER COVER
7.6	2	MS16562-240	SPRING PIN
7.7	1	MS20001-4	PIANO HINGE
7.8	11	MS20426AD4-4	RIVET, 100° COUNTERSUNK HEAD, LENGTH A/R
8	11	MS20426AD4-7	RIVET, 100° COUNTERSUNK HEAD, LENGTH A/R
9	4	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS
10	4	MS24694C59	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
11	4	NAS1149C0363R	WASHER, FLAT, STAINLESS

Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 4 of 12)

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PARTS LIST FOR 56-10114-2 FWD HINGING LOCKER					
ITEM NO.	QTY	TYPE	PART NUMBER	DESCRIPTION	COMMENTS
1	1	PART	10-10051	LATCH RAMP	
2	2	PART	35-22601-4	LOCKER WEAR STRIP, SIDE	
3	1	PART	35-22601-5	LOCKER WEAR STRIP, REAR	
4	1	PART	35-22601-6	LOCKER WEAR STRIP, FRONT	
5	1	ASSY	65-16510	LOCKER DOOR ASSEMBLY, FWD HINGED	
5.1	1	PART	65-16511	LOCKER DOOR PANEL, FWD HINGING TYPE	
5.2	1	PART	35-80031	PANEL LATCH POSITION PLACARD	
5.3	1	HRDWR	65-16514	LOCKER HINGE ASSEMBLY, 13 3/8"	
5.4	1	HRDWR	35-80041	EPDM FOAM RUBBER SEAL	
5.5	1	ASSY	35-80030	LATCH ASSEMBLY	
5.5.1	1	PART	35-80028	LATCH KNOB	
5.5.2	1	PART	10-10037	LATCH POST	
5.5.3	1	HRDWR	MS16562-240	SPRING PIN	
5.5.4	1	PART	35-80034	LATCH BUSHING	
5.5.5	1	PART	35-80004	NUT, HEX, NYLON, 1/2-20 THREAD	
5.5.6	1	PART	35-51016	LOCKER RING	
5.5.7	1	PART	35-80039	SPRING, COMPRESSION	
5.5.8	1	HRDWR	MS24683C272	MACHINE SCREW, COUNTERSUNK HEAD	
5.5.9	1	PART	35-80038-070	WASHER, PLASTIC	
5.5.10	1	PART	35-80038-C005	WASHER, SHIMMING, STAINLESS	OPTIONAL AND AS REQUIRED OR
5.5.11	1	PART	35-80038-C010	WASHER, SHIMMING, STAINLESS	NAS1149C1232R WASHER(S) MAY BE SUBSTITUTED
5.5.12	1	PART	35-80038-C020	WASHER, SHIMMING, STAINLESS	
5.6	8	HRDWR	MS20426AD4-5	RIVET, COUNTERSUNK (LENGTH A/R)	
6	8	HRDWR	MS20426AD4-10	RIVET, COUNTERSUNK (LENGTH A/R)	
7	2	HRDWR	MS21083C3	NUT, SELF-LOCKING, LOW HEIGHT, STAINLESS	
8	2	HRDWR	MS24684C54	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100"	
9	2	HRDWR	NAS1149C0363R	WASHER, FLAT, STAINLESS	



56-10114-2 LOCKER DOOR ASSEMBLY, FWD HINGED & INSTALLATION

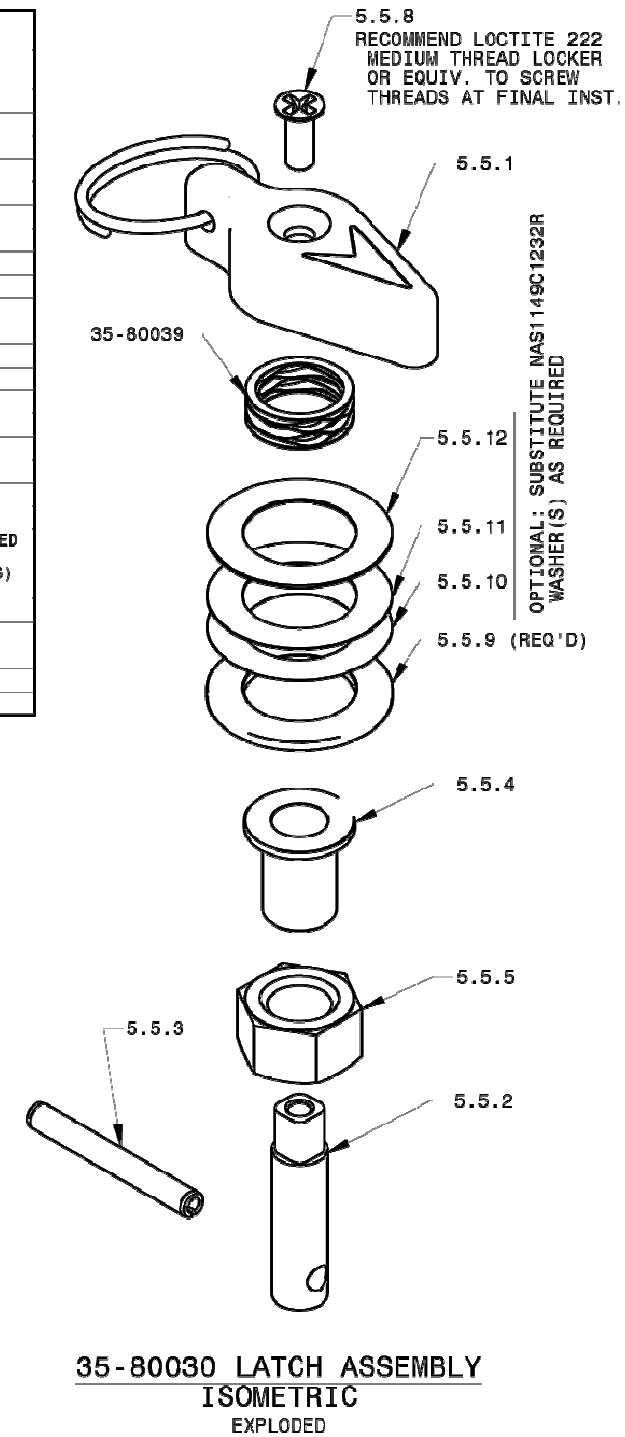
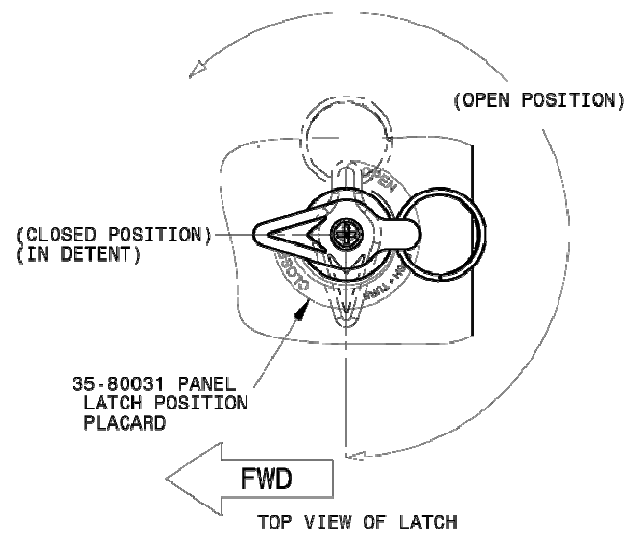
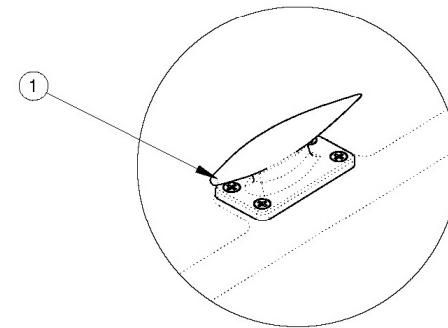
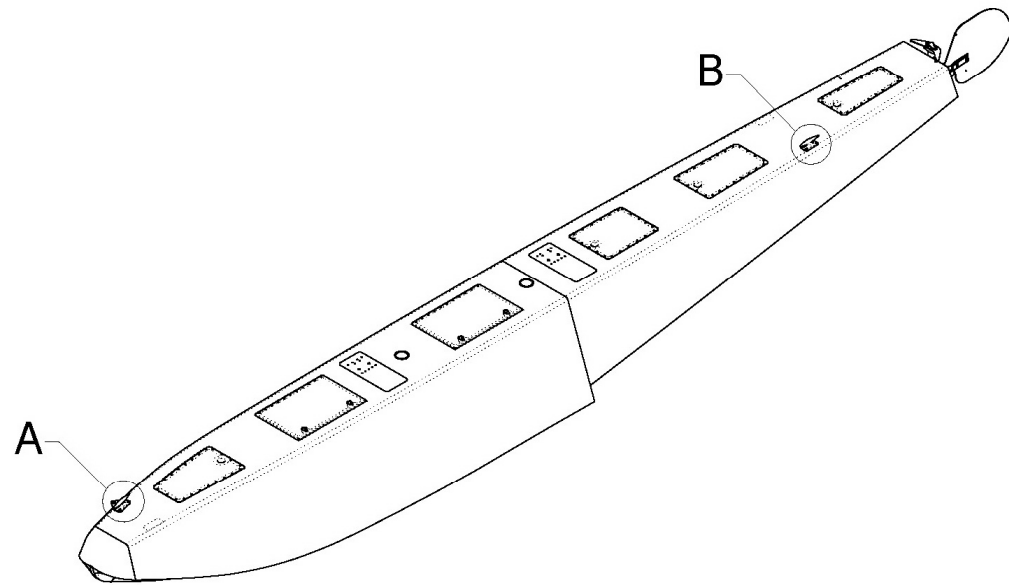
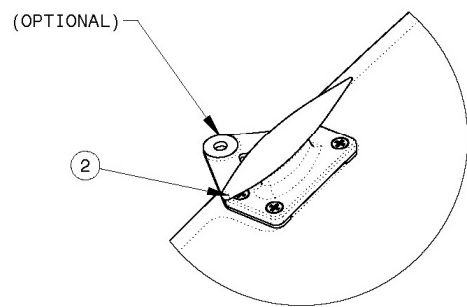


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DETAIL B
SCALE 1 : 4

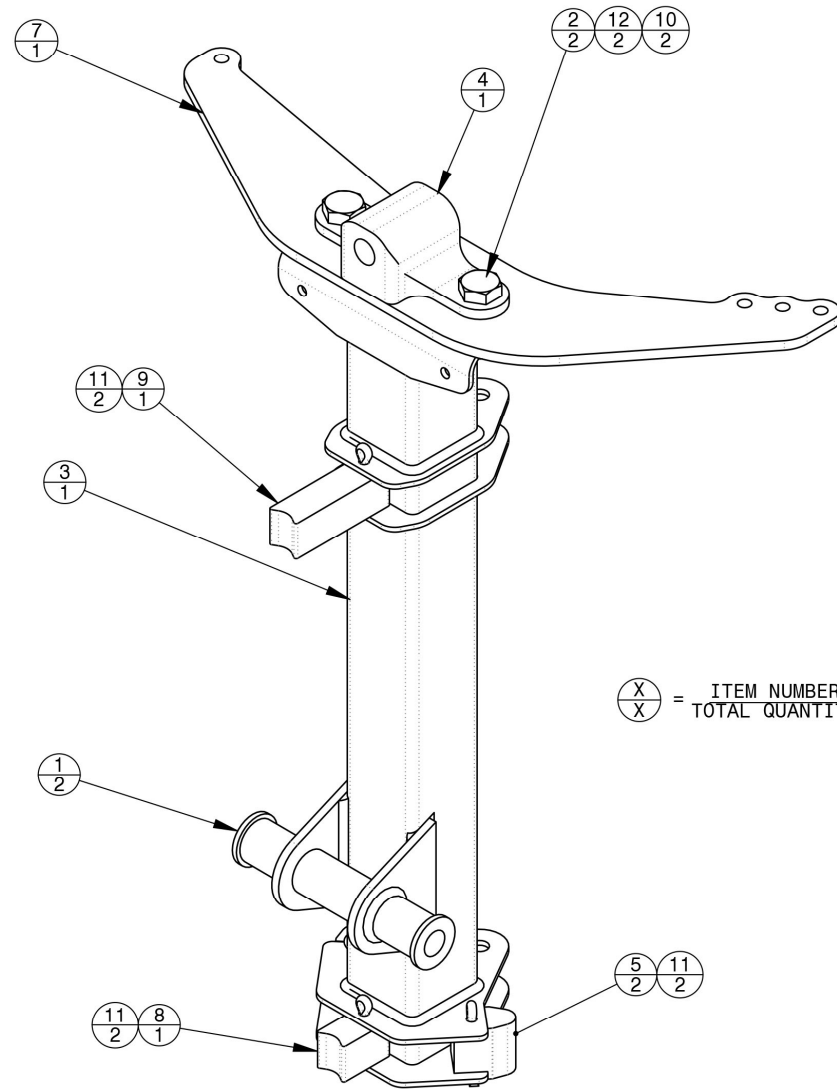


DETAIL A
SCALE 1 : 4

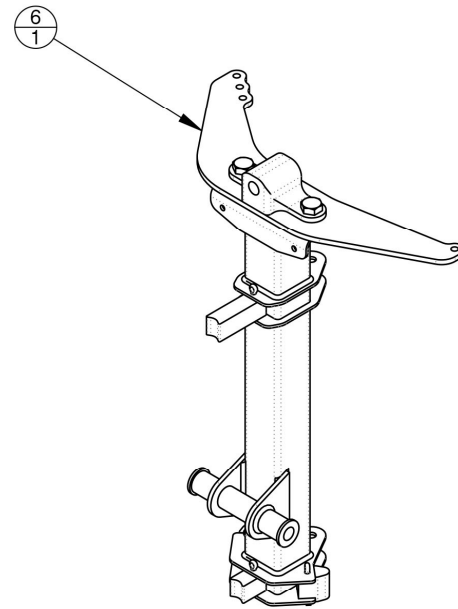
PARTS LISTINGS FOR 56-10116 AND 56-10118 DECK CLEAT INSTALLATIONS			
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	56-10116	DECK CLEAT INSTALLATION, AFT
	1	35-32250	DECK CLEAT, (VENDOR REF # AE033401)
	4	NAS1149C0463R	WASHER, FLAT, STAINLESS
	4	MS24694C110	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
	2	35-32251	FENDER WASHER, TRIMMED
	4	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
	2	35-32251	FENDER WASHER
2	1	56-10118	DECK CLEAT INSTALLATION, FWD
	1	35-32250	DECK CLEAT, (VENDOR REF # AE033401)
	2	35-32251	FENDER WASHER, TRIMMED
	4	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
	4	MS24694C110	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
	4	NAS1149C0463R	WASHER, FLAT, STAINLESS
	2	35-32251	FENDER WASHER
	1	35-51060	WALK WIRE TAB

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$\frac{X}{X}$ = ITEM NUMBER
TOTAL QUANTITY



56-10500-L, TILLER ASSEMBLY, LHS

(USE 56-10526-L IN PLACE OF 56-10526-R)


SCALE 1:4

ITEM NO.	RHS/QTY	LHS/QTY.	PART NUMBER	TYPE	DESCRIPTION
1	2	2	35-34029	PART	TILLER BUSHING
2	2	2	56-10155-7A	PART	BOLT - MACHINE, STAINLESS
3	1	1	56-10505	ASSY	WELDED TILLER SUBASSEMBLY
4	1	1	56-10521	PART	RETRACT CABLE GUIDE
5	2	2	56-10525	PART	TILLER STOP
6	-	1	56-10526-L	PART	STEERING ARM, LHS
7	1	-	56-10526-R	PART	STEERING ARM, RHS
8	1	1	56-10538-1	PART	RUDDER BLADE STOP
9	1	1	56-10538-2	PART	RUDDER BLADE STOP
10	2	2	MS21044C5	HRDWR	NUT, SELF-LOCKING, REGULAR HEIGHT, STAINLESS
11	4	4	MS24665-372	HRDWR	COTTER PIN, STAINLESS
12	2	2	NAS1149C0563R	HRDWR	WASHER, FLAT, STAINLESS

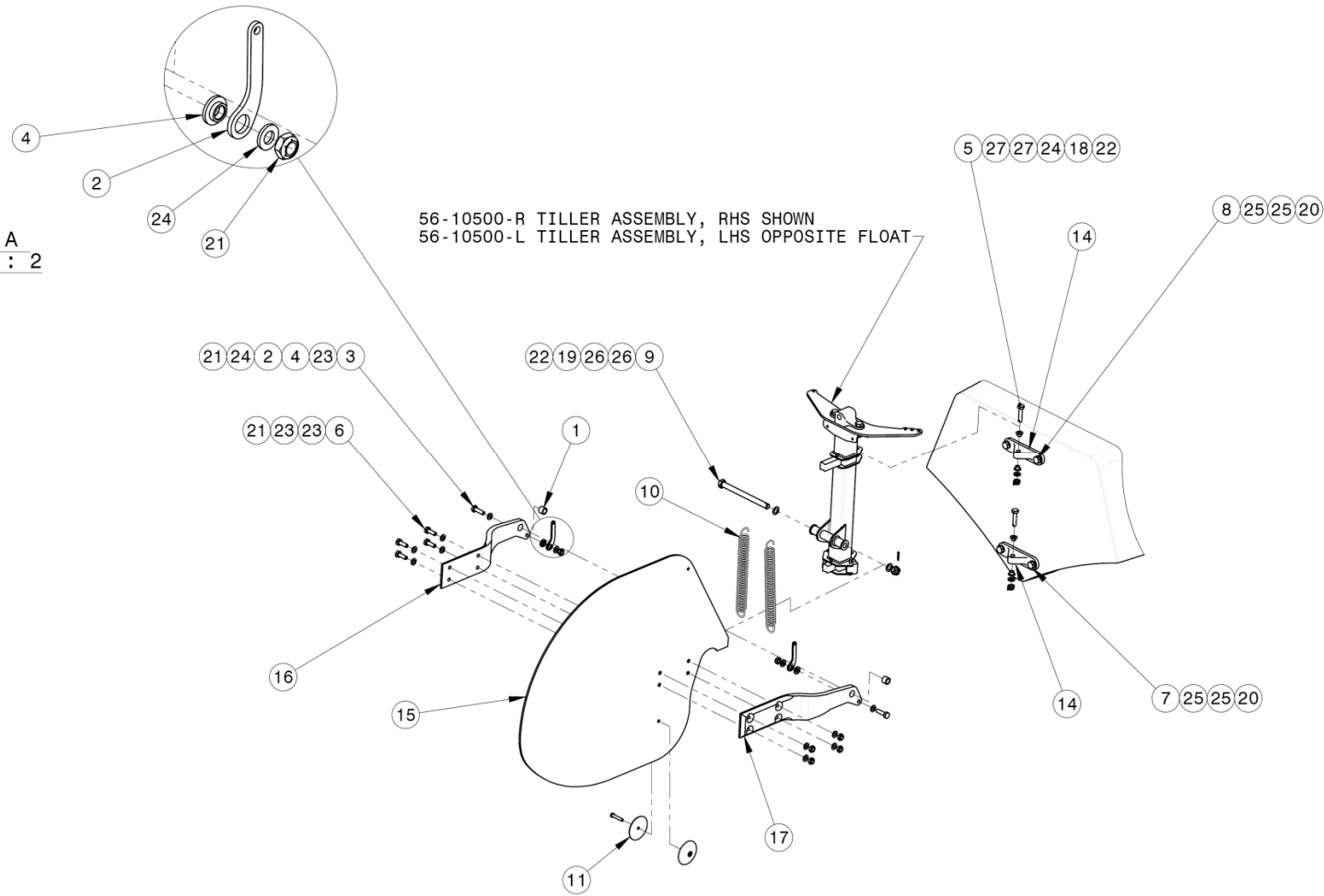
56-10500-R, TILLER ASSEMBLY, RHS


(USE 56-10526-R IN PLACE OF 56-10526-L)

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DETAIL A
SCALE 1 : 2



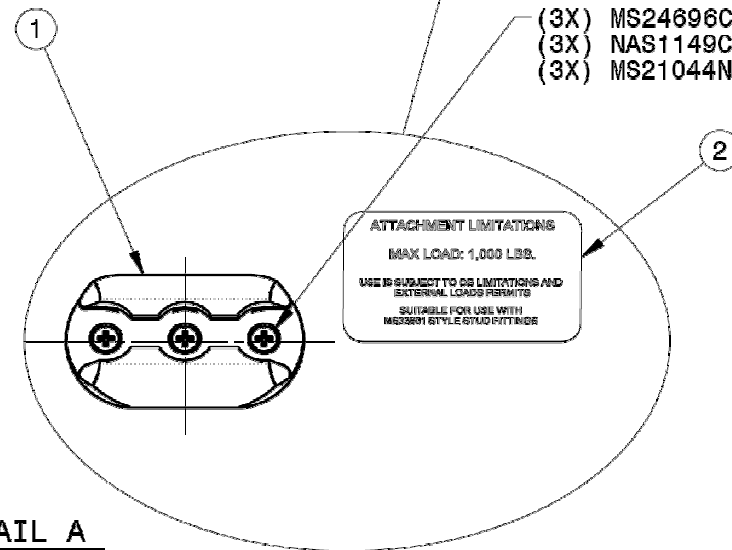
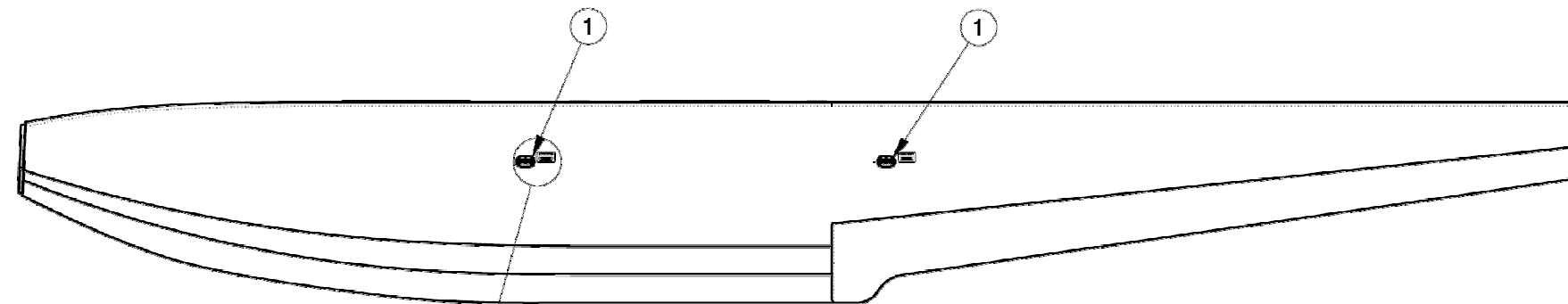
		 Incorporated		
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PARTS LIST FOR 56-10150 RUDDER ASSEMBLY, AEROCET MODEL 5850 FLOATS				
ITEM NO.	RHS/QTY	LHS/QTY	PART NUMBER	DESCRIPTION
1	2	2	35-34031	TILLER BUSHING
2	2	2	35-34046	RUDDER RETURN LINK
3	2	2	35-34052	YOKE SPRING BOLT
4	2	2	35-34054	RUDDER LINK BUSHING
5	2	2	56-10154-11	BOLT - MACHINE, STAINLESS
6	4	4	56-10154-6A	BOLT - MACHINE, STAINLESS
7	2	2	56-10155-10A	BOLT - MACHINE, STAINLESS
8	2	2	56-10155-13A	BOLT - MACHINE, STAINLESS
9	1	1	56-10156-45	BOLT - MACHINE, STAINLESS
10	2	2	56-10157	EXTENSION SPRING
11	1	1	56-10158	ZINC ANODE ASSEMBLY
12	-	1	56-10500-L	TILLER ASSEMBLY, LHS
13	1	-	56-10500-R	TILLER ASSEMBLY, RHS
14	2	2	56-10517	PIVOT BLOCK
15	1	1	56-10530	RUDDER BLADE
16	1	1	56-10537-L	RUDDER YOKE, LHS
17	1	1	56-10537-R	RUDDER YOKE, RHS
18	2	2	AN310C4	NUT, CASTELLATED, STAINLESS
19	1	1	AN310C6	NUT, CASTELLATED, STAINLESS
20	4	4	MS21044C5	NUT, SELF-LOCKING, REGULAR HEIGHT, STAINLESS
21	6	6	MS21083C4	NUT, SELF-LOCKING, LOW-HEIGHT, STAINLESS
22	3	3	MS24665-300	COTTER PIN, 1/8", STAINLESS
23	10	10	NAS1149C0432R	WASHER, FLAT, STAINLESS
24	4	4	NAS1149C0463R	WASHER, FLAT, STAINLESS
25	8	8	NAS1149C0563R	WASHER, FLAT, STAINLESS
26	2	2	NAS1149C0616R	FLAT WASHER, STAINLESS
27	4	4	TFI-0405-04	FLANGE BEARING, IGLIDE T500

*CONTACT AEROCET FOR ACCEPTABLE ALTERNATES OF MARINE GRADE
HARDWARE

Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 8 of 12)

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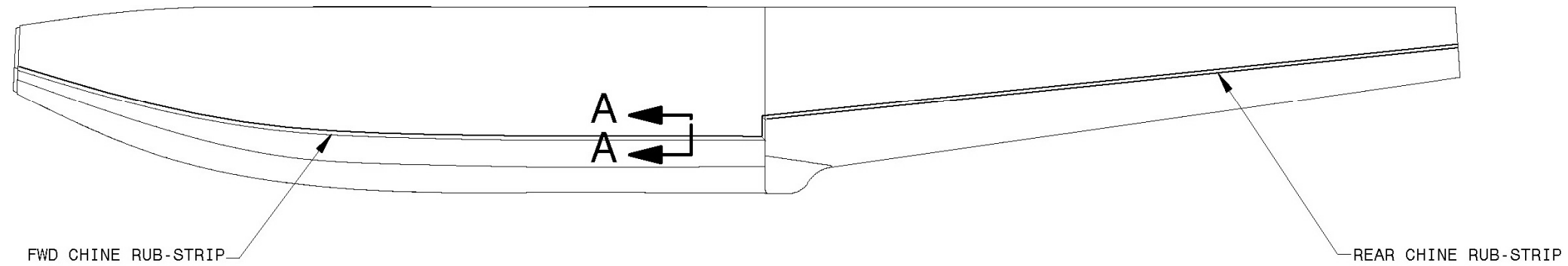
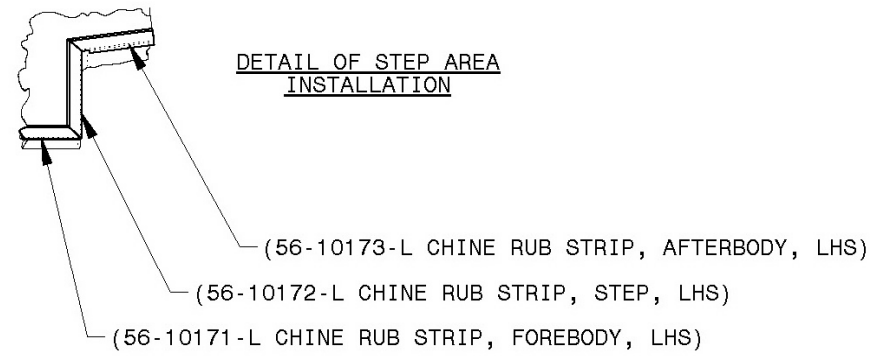
DETAIL A
 SCALE 1 : 2

- (3X) MS24696C58 MACHINE SCREW, STAINLESS
- (3X) NAS1149C0363R WASHER, FLAT, STAINLESS
- (3X) MS21044N3 NUT, SELF-LOCKING, STAINLESS

PARTS LISTINGS FOR 56-10160 ANCHOR PLATE INSTALLATION			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	2	56-10163	ANCHOR PLATE
2	2	56-10165	EXTERNAL LOADS LIMITATIONS PLACARD
3	6	MS21044C3	NUT, SELF-LOCKING, STAINLESS, REGULAR HEIGHT
4	6	MS24694C58	MACHINE SCREW, FLAT COUNTERSUNK HEAD, 100°
5	6	NAS1149C0363R	WASHER, FLAT, STAINLESS

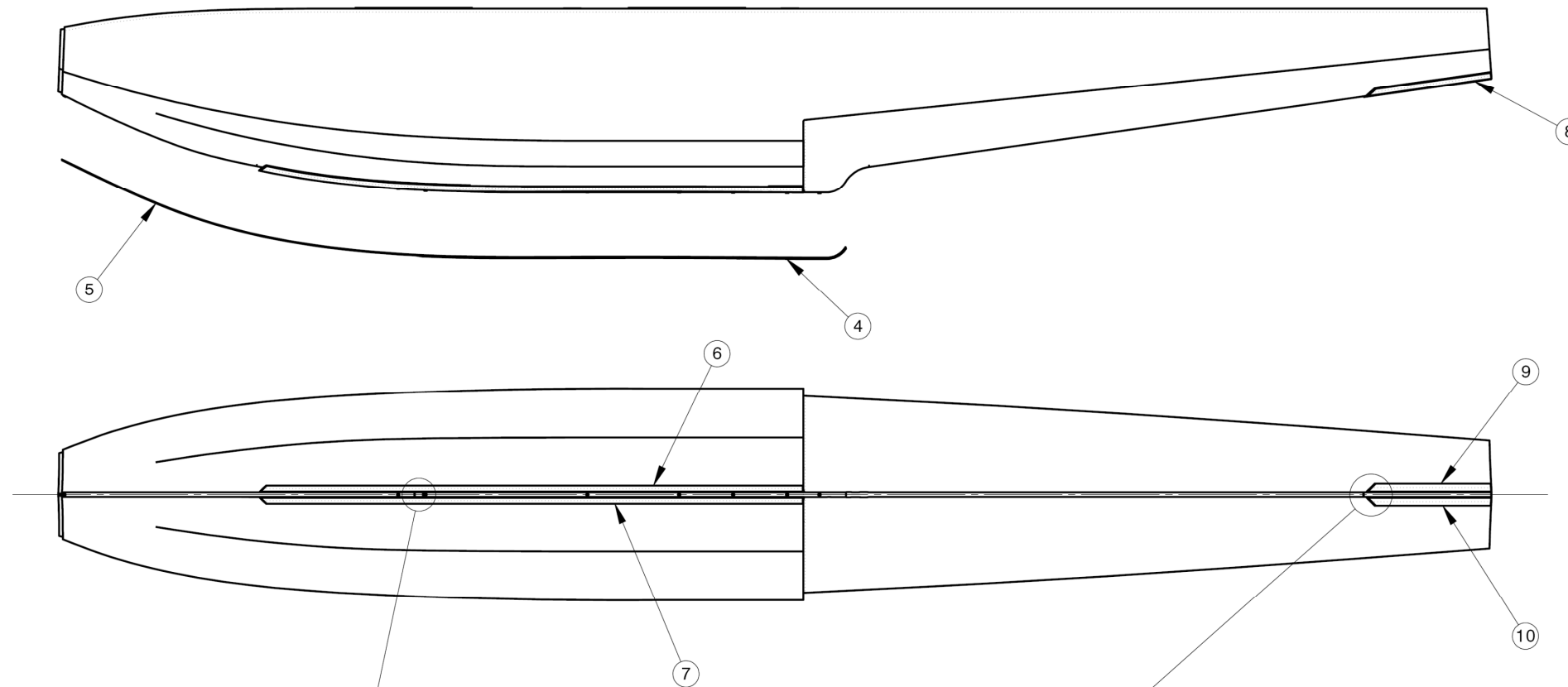
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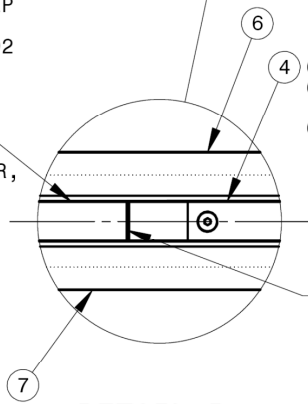
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	1	56-10171-L	CHINE RUB STRIP, FOREBODY, LHS
2	1	56-10171-R	CHINE RUB STRIP, FOREBODY, RHS
3	1	56-10172-L	CHINE RUB STRIP, STEP, LHS
4	1	56-10173-R	CHINE RUB STRIP, STEP, RHS
5	1	56-10173-L	CHINE RUB STRIP, AFTERBODY, LHS
6	1	56-10173-R	CHINE RUB STRIP, AFTERBODY, RHS

Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 10 of 12)



(GAP BETWEEN FWD & STEP KEEL STRIPS)
FILL WITH SIKA-FLEX 292 OR EQUIVALENT

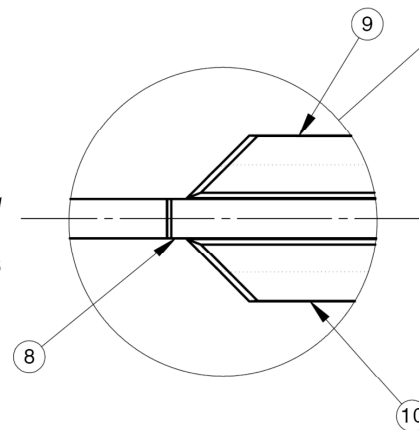
2X 1/4-20 X 3/4 FAS MACHINE SCREW
2X NAS1149C0463R WASHER, FLAT, OR EQUIVALENT
2X 1/4-20 SELF-LOCKING NUT, S/S



DETAIL B
SCALE 1 : 4

6X 1/4-20 X 1 FAS MACHINE SCREW
6X NAS1149C0463R WASHER, FLAT, OR EQUIVALENT
6X 1/4-20 SELF-LOCKING NUT, S/S


THIS EDGE OF 56-10182 MAY BE GROUNDED TO ASSURE PROPER FIT

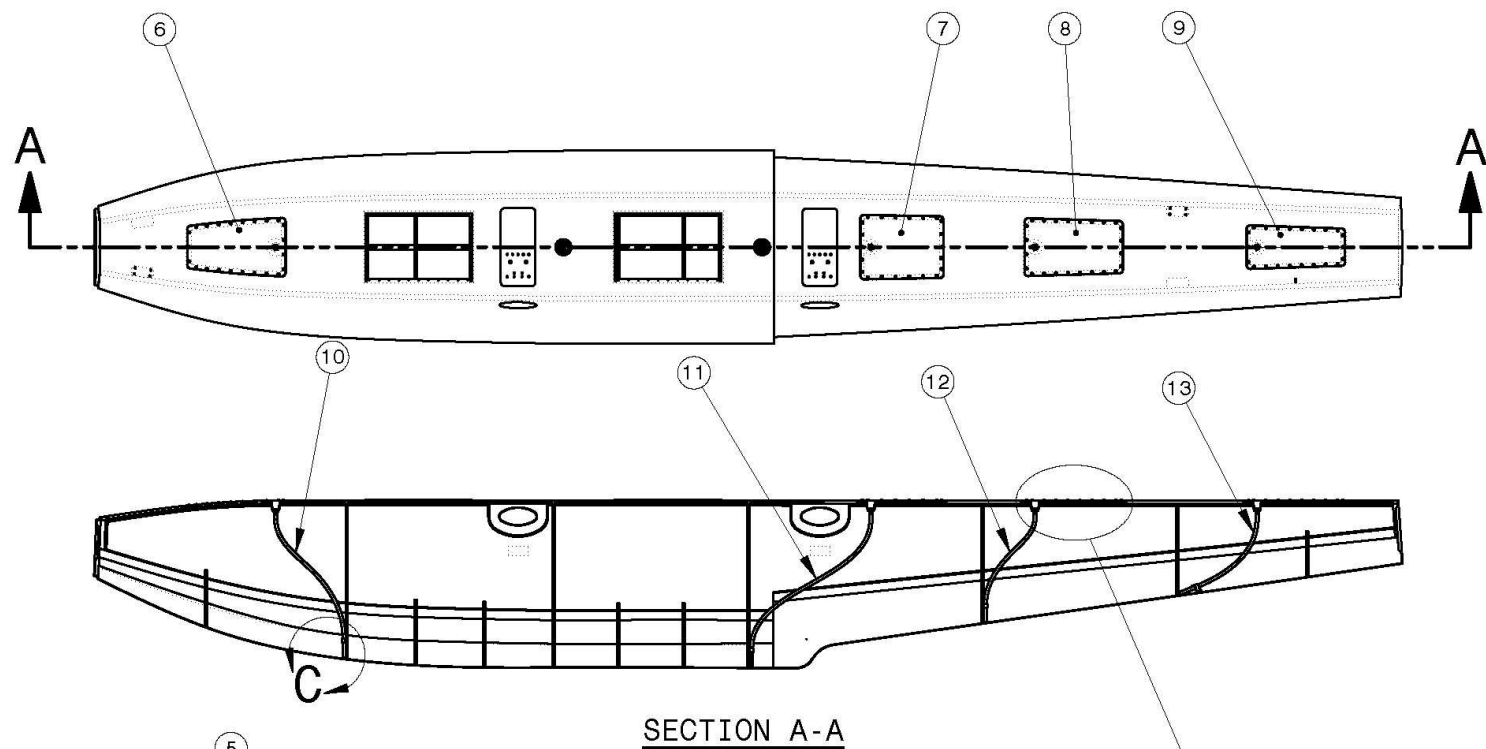


DETAIL A
SCALE 1 : 4

56-10180 KEEL AND WEAR STRIP INSTALLATION			
ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	8	1/4-20	NUT, SELF-LOCKING, 18-8 OR 300 SERIES STAINLESS
2	6	1/4-20 X 1 FAS	FLAT SOCKET CAP SCREW, 82°, 18-8 OR 300 SERIES S/S
3	2	1/4-20 X 3/4 FAS	FLAT SOCKET CAP SCREW, 82°, 18-8 OR 300 SERIES S/S
4	1	56-10181	KEEL STRIP, STEP AREA
5	1	56-10182	KEEL STRIP FWD
6	1	56-10183-L	WEAR STRIP, FOREBODY, LHS
7	1	56-10183-R	WEAR STRIP, FOREBODY, RHS
8	1	56-10184	KEEL STRIP, AFT
9	1	56-10185-L	WEAR STRIP, AFT, LHS
10	1	56-10185-R	WEAR STRIP, AFT, RHS
11	8	NAS1149C0463R	WASHER, FLAT, STAINLESS

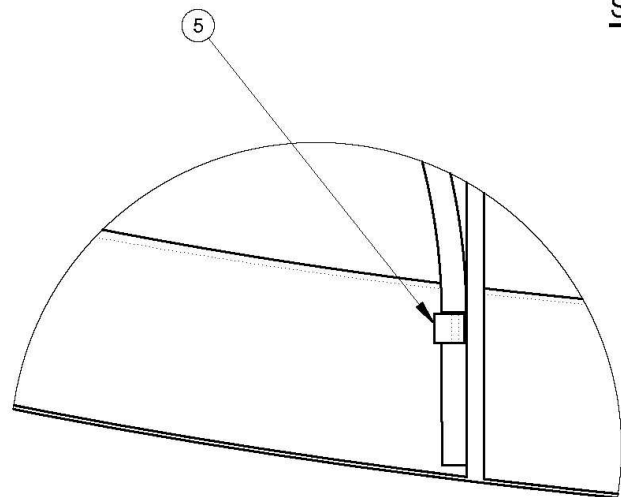
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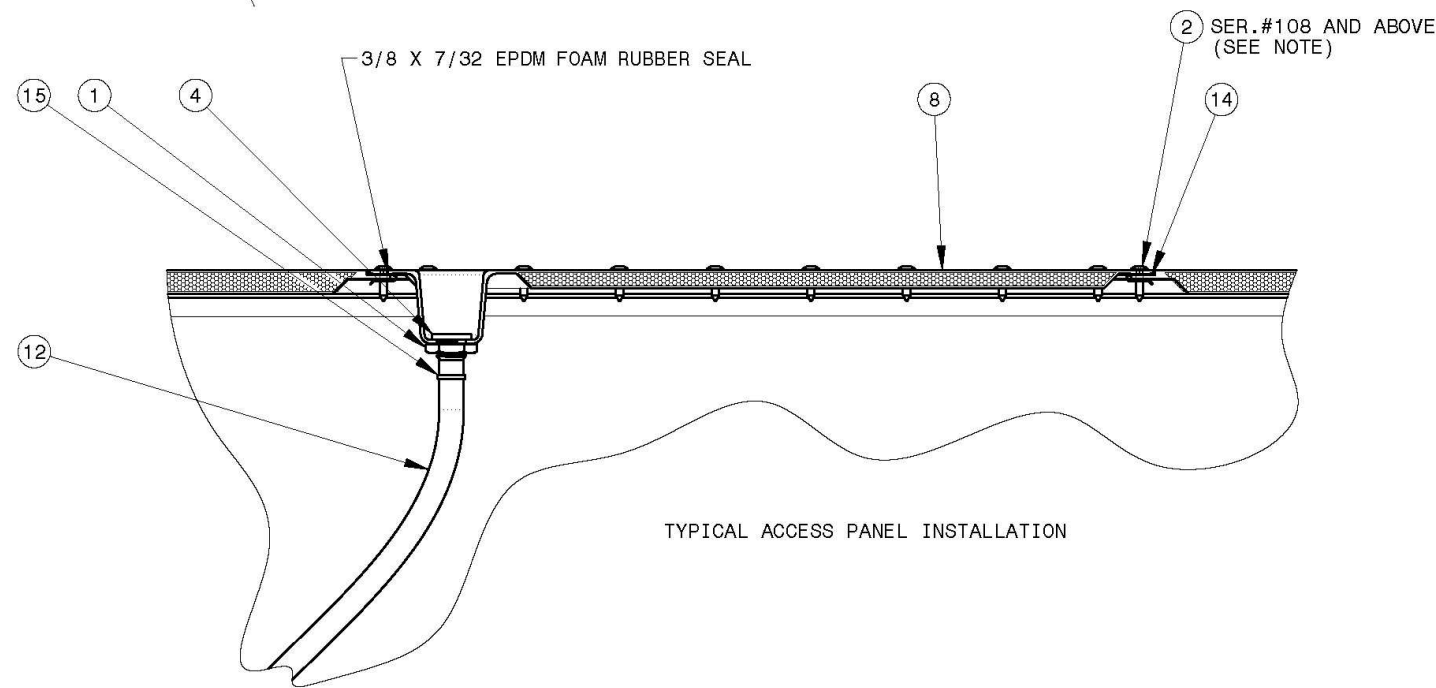


ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	4	0475010HJN	HEX JAM NUT (NYLON 6/6)
2	93	10R X 3/4 TAS	SHT MTL SCREW, STAINLESS, TRUSS HEAD
3	1	3/8 X 7/32	EPDM FOAM RUBBER SEAL, LENGTH A/R
4	4	35-41040	PUMP OUT SLEEVE
5	4	35-41055	TUBING GUIDE
6	1	56-10401	ACCESS PANEL 1
7	1	56-10402	ACCESS PANEL 2
8	1	56-10403	ACCESS PANEL 3
9	1	56-10404	ACCESS PANEL 4
10	1	56-10421	PUMP OUT TUBE 1-1
11	1	56-10428	PUMP OUT TUBE 4-1
12	1	56-10429	PUMP OUT TUBE 5-1
13	1	56-10430	PUMP OUT TUBE 6-1
14	93	575SS-1024-27	TINNERMAN FASTENER, DES. # C575SS-1024
15	4	T18 R9 C2	CABLE TIE (MS3367-4-9)

NOTE: TRUSS HEAD STYLE FASTENERS ARE PROVIDED OEM WITH FLOAT SERIAL #108 AND FOLLOWING. 10R X 3/4 TAS, 100° COUNSUNK SCREWS USED FOR FLOAT SERIAL #100 THRU 107.



DETAIL C
 TYPICAL PUMP OUT TUBING INSTALLATION
 ASSURE LOW PICK-UP POINTS IN EACH
 COMPARTMENT OR REGION



TYPICAL ACCESS PANEL INSTALLATION

Figure 18 (Cont'd.). 5850 Twin Seaplane Floats (Page 12 of 12)