



WIPLINE FLOATS • SKIS • MODIFICATIONS • AIRCRAFT SALES
AVIONICS • INTERIOR • MAINTENANCE • PAINT REFINISHING



**PARTS MANUAL
FOR
WIPLINE MODEL 2100 FLOATS
ON
PIPER PA-18 & PA-12**

Revision M

1700 Henry Ave. - Fleming Field (KSGS), South St. Paul, MN 55075
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www.wipaire.com

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LOG OF REVISIONS

| Revision | Pages Affected | Description | Date |
|----------|---|---|------------|
| A | 54-59 | Added figure 14A & parts list for Grove/Wipaire assembly & revised table of contents. | 12/13/2005 |
| B | 43, 51 | Nose and main gear retraction cylinder p/n changed. | 3/20/2006 |
| C | 20-26 | Changed float deck cover P/Ns. | 8/3/2006 |
| D | 51 | Changed P/Ns for Main Gear Bushings. Added part number and revision to all pages. | 10/31/2006 |
| E | 44, 51 | Hydraulic Cylinder part number changes. | 7/21/2007 |
| F | Multiple pages updated | Many pages changed with updated part numbers for parts. New figure added for water rudder. | 9/1/2010 |
| G | All | Reformatted entire manual, update to Part Sales Dept page, added new warranty and customer information, updated hyd. pump, gear selector, electrical schematic images and BOMS, corrected multiple clerical errors and incorrect part/item callouts, added Grove Nose wheel Added Grove Nose Wheel, washer 415067 was 359071, updated electrical schematic figure, added 21A06476-003 to Grove Nose wheel, added 05DU06 to Water Rudder figure. | 4/22/2014 |
| H | 3 | Removed Warranty Claim Form. | 3/31/2016 |
| J | 11, 14-15, 17-18, 20-21, 51, 53, 62-63, 65-66, 89, 93 | Updated skins in Amphibian and Seaplane Hull Assembly drawings and part numbers. Changed Bulkhead Support 21A01158-177 to 21A01158-175 in item 5 on Amphibian Hull Assembly. Changed 21A01000-275 to Assembly Spray Rail R. and 21A01000-274 to Assembly Spray L. in Seaplane Hull Assembly. Added Item 32 in Lower Nose Gear Assembly drawing and added Plate – Bearing, Nose Spring and hardware part numbers. Changed Bolt AN4-13A to NAS6204-17 in Main Gear Retraction. Changed Bolt AN5-11A to Clevis Magnet 1005875. Changed Switch Screw MS35206-215 to MS24693-S6. Updated Pad 66-111 to 066-111 and Rivet 105-2 to 066-001 in Main Gear Wheel Grove section. Connector Assembly 2601048-200 no longer available, replaced with Female Connector 73F- 250-32-NL and Male Connector 73M-250-32-NL. Changed Nut AN315-640R to MS21044N06 in Hydraulic Pump Assembly. | 11/4/2019 |
| K | All | Reformatted manual in new software. Updated sections and created new drawings for bulkhead assemblies. Created sections for skins. Added 3A07005-178 Clip, Switch, Nose & Main to Nose Gear Retraction Assembly. Updated drawing for Gear Control (Rectangle) and the parts list. Changed Bushing 1001011 to 1001100 in Main Gear Retraction. Updated part numbers in Grove/Wipaire and Cleveland/Parker Main Wheel sections. | 6/1/2020 |
| L | All | Added note about nose and main gear tire/tube. Updated Tire and Tube part numbers AA1D4 and XA1AC. Changed 21A01158-203 to 21S01158-203. Updated bottom skins and stiffeners. Added note about Wipaire drawing 1011065 for alternate part numbers. Changed Ring Terminal R-3 to MS25036-102. Created sections for Post/ Pre Service Letter 225 for Hydraulics and Electrical. Updated Hydraulic System Installation for PA-18 and PA-12 images and part lists. Added 1011805 Hydraulic Pump for PA-18 image and parts list. Added 1011830 Hydraulic Pump for PA-12 image and parts list. Updated Hydraulic Pump Overview image and parts list. Updated Electrical Schematic image and parts list. | 5/10/2021 |
| M | 73 | Changed 010-026 Seal to 471570 Seal, Timken. | 5/26/2022 |

View most current version of parts manual at www.wipaire.com.

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FLOAT PART SALES DEPARTMENT OPERATIONS

Parts Sales:

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Note: Any information not found in this manual for strut package parts and other installation items refer to the installation drawing package provided with the STC at the time of float installation. Additional drawing copies are available for purchase through the Wipaire Customer Service Department.

Parts Ordering

Purchase orders should include:

1. Purchase order number
2. Name of person placing order
3. Invoicing information:
 - a. Customer name - company or individual
 - b. Address
 - c. Phone and fax number
4. Shipping information:
 - a. Address (if different from invoice address)
 - b. Method of shipment/preferred carrier
5. Aircraft model, float model, and serial numbers
6. Wipaire part number; name; type, e.g. left or right; quantity
7. Payment method: VISA, MasterCard, C.O.D. (Collect on Delivery) (U.S. customers only), pre-payment by check or wire transfer, open account (see Credit Policy)

INTRODUCTION

All references in this manual to LEFT and RIGHT are from the perspective of the pilot's seat with the floats fully installed and ready for floatplane operation.

The following is a list of abbreviations that may appear in the description nomenclature fields of this manual:

| | | | |
|---------|-------------|--------|---------------|
| AB | Afterbody | Inbd. | Inboard |
| Amphib. | Amphibious | Lg. | Large |
| AR | As Required | Lt. | Left |
| Assy. | Assembly | Lwr. | Lower |
| Brkt. | Bracket | Opt. | Optional |
| Btm. | Bottom | Otbd. | Outboard |
| Bulk. | Bulkhead | Reinf. | Reinforcement |
| Ctr. | Center | Rr. | Rear |
| Cyl. | Cylinder | Rt. | Right |
| Ft. | Front | Sm. | Small |
| Ftg. | Fitting | SN | Serial Number |
| Fus. | Fuselage | Spr. | Spreader |
| Fwd | Forward | Upr. | Upper |
| Horiz. | Horizontal | Vert. | Vertical |
| Hyd. | Hydraulic | W.W. | Wheel Well |

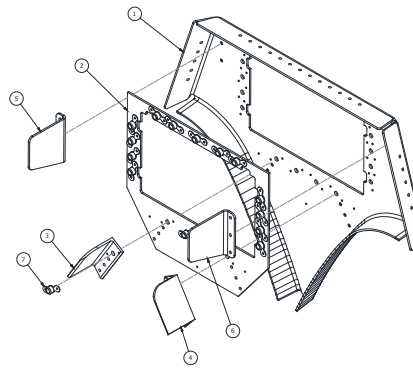
USING THIS PARTS MANUAL

COVERAGE

Parts information is provided in this manual for the hulls and all "deck down" parts. For information on strut package parts and other aircraft installation items, refer to the installation drawing package provided with the STC at the time of float installation. Additional drawing copies are available for purchase through Wipaire Customer Service Department.

Name of main part in the section. Example: This part is showing the components made up in Bulkhead #1.

BULKHEAD #1



Main part image. If the image has numbers associated with it, then those numbers are item numbers shown in the table below.

Items with a (-) instead of a number represent the main part as an assembly. Other parts represent the parts included in the assembly.

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|---------------------------------------|
| - | 1 | 1008815 | ASSEMBLY BULKHEAD #1, 10000 |
| 1 | 1 | 1008797 | PANEL, BULKHEAD #1 |
| 2 | 1 | 13A01156-085 | DOUBLER #1 BULKHEAD |
| 3 | 1 | 13A01357-049 | CLEAT, SISTER KEEL ATTACH #1 BULKHEAD |
| 4 | 1 | 13A01357-050 | CLEAT, SISTER KEEL ATTACH #1 BULKHEAD |
| 5 | 1 | 6A01156-054 | ANGLE – TOP RAIL |
| 6 | 1 | 6A01156-055 | ANGLE – TOP RAIL |
| 7 | 17 | MS21047L4 | NUT PLATE, SELF LOCKING |

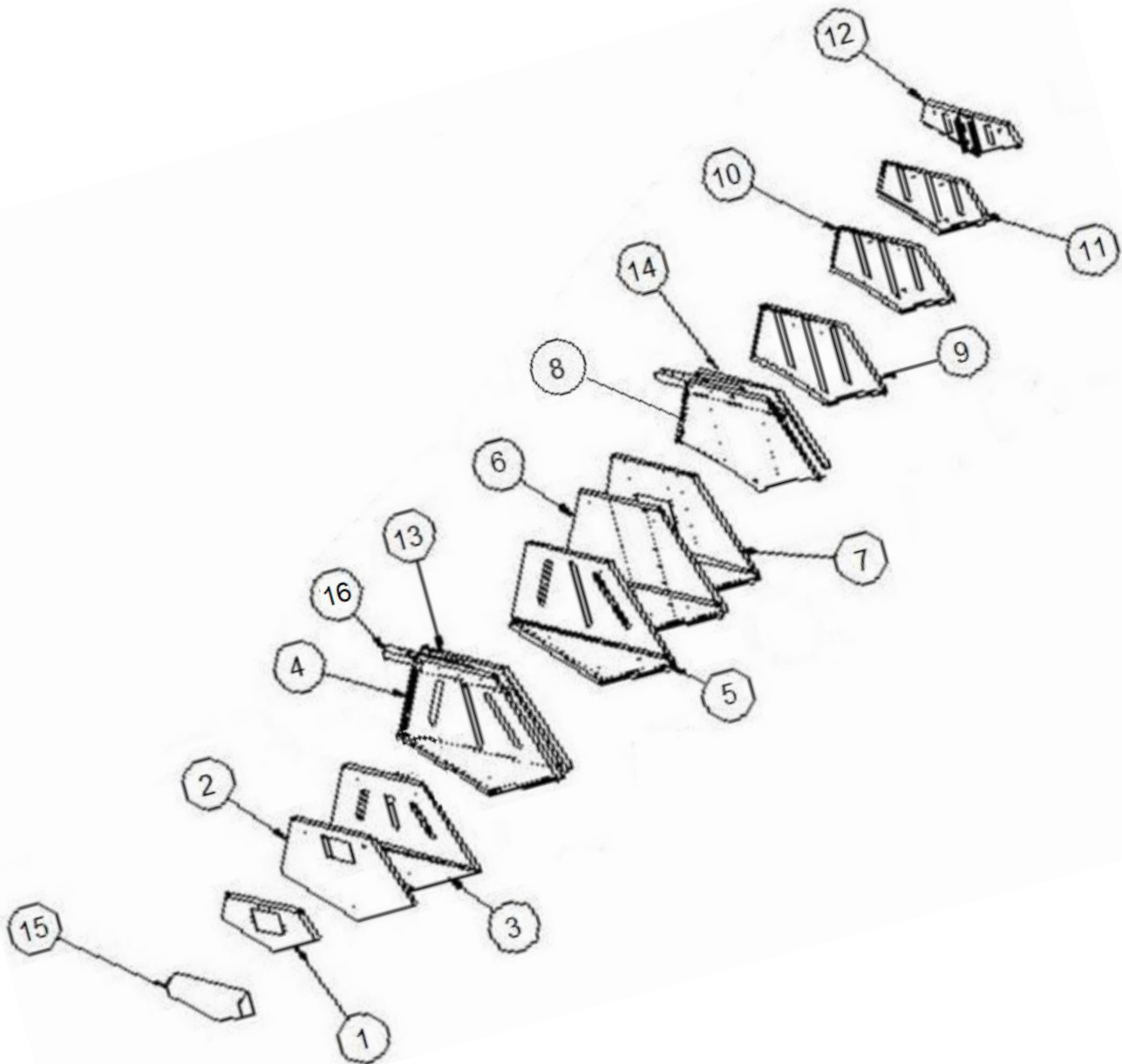
To order an individual part, order the part number associated with item number.

SECTION 1 HULL BULKHEAD ASSEMBLIES

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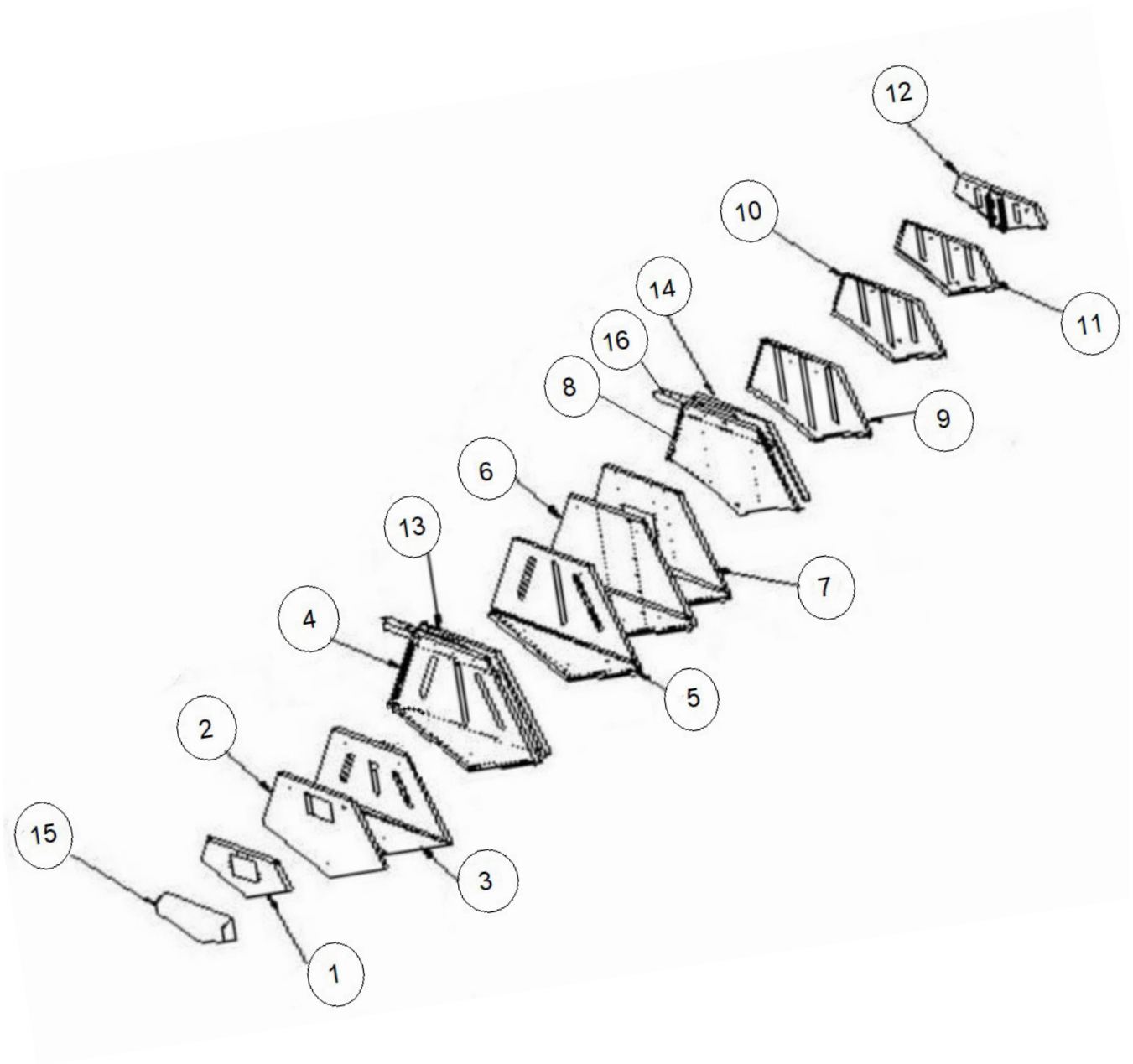
HULL ASSEMBLY - AMPHIBIAN



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|-------|-----|---------------|---|
| 1 | 1 | 21A01163-067 | ASSEMBLY, BULKHEAD #1 |
| 2 | 1 | 21A01000-265 | ASSEMBLY, BULKHEAD #3 |
| 3 | 1 | 21A01000-261 | ASSEMBLY, BULKHEAD #4 |
| 4 | 1 | 21A01000-253 | ASSEMBLY, BULKHEAD #5 |
| 5 | 1 | 21A01000-252 | ASSEMBLY, BULKHEAD #6 |
| 6 LT. | 1 | 21A01000-267 | ASSEMBLY, BULKHEAD #7, LH |
| 6 RT. | 1 | 21A01000-266 | ASSEMBLY, BULKHEAD #7, RH |
| 7 LT. | 1 | 21A01000-263 | ASSEMBLY, BULKHEAD #8, LH |
| 7 RT. | 1 | 21A01000-264 | ASSEMBLY, BULKHEAD #8, RH |
| 8 | 1 | 21A01000-262 | ASSEMBLY, BLKHD 10, COMP |
| 9 | 1 | 21A01000-395 | ASSEMBLY, BULKHEAD #11 |
| 10 | 1 | 21A01000-396 | ASSEMBLY, BULKHEAD #12 |
| 11 | 1 | 21A01000-397 | ASSEMBLY, BULKHEAD #13 |
| 12 | 1 | 21A01000-250 | ASSEMBLY, BULKHEAD #14 |
| 13 | 1 | 21A01000-260 | ASSY. SPR. BAR PANEL FWD |
| | 1 | 21A01163-065 | PANEL – SPR. BAR |
| | 1 | 21A01326-013 | ANGLE – SIDE L. |
| | 1 | 21A01326-014 | ANGLE – SIDE R. |
| | 1 | AN4-5A | BOLT, 1/4-28, 0.1875 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| | 1 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 14 | 1 | 21A01000-259 | ASSY. SPR. BAR PANEL AFT |
| | 1 | 21A01163-065 | PANEL – SPR. BAR |
| | 1 | 21A01326-009 | ANGLE – SIDE L. |
| | 1 | 21A01326-010 | ANGLE – SIDE R. |
| | 1 | AN4-5A | BOLT, 1/4-28, 0.1875 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| | 1 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 15 | 1 | 21A01000-295 | ASSEMBLY, NOSE BUMPER, 2100 |
| 16 | 2 | 21A03115-001 | TUBE – SPR. BAR MOUNTING |
| | 6 | AN4-22A | BOLT, 1/4-28, 1.8125 GRIP, UNDRILLED, STEEL |
| | 12 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 12 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 6 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |

HULL ASSEMBLY - SEAPLANE

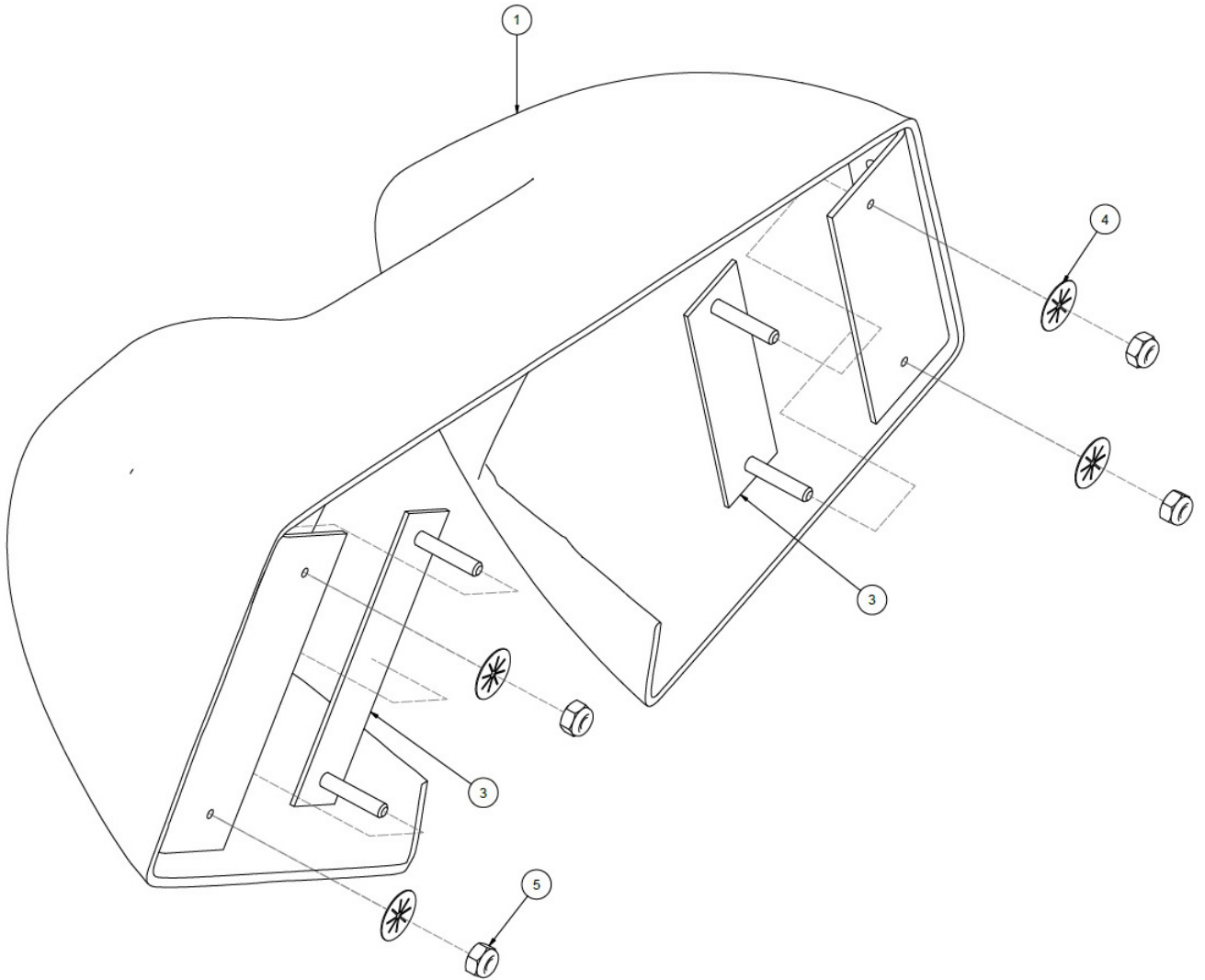


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|---------------------------|
| 1 | 1 | 21A01163-067 | BULKHEAD #1 |
| | 1 | 21501000-366 | COVER ASS'Y. |
| | 1 | 21S01150-134 | COVER – NOSE GEAR OPENING |
| | A/R | MS21059L3 | PLATE NUT |
| 2 | 1 | 21A01000-265 | ASSY BULKHEAD #3 |
| | 1 | 21A01158-184 | BULKHEAD |
| | 1 | 21A01326-006 | ANGLE – NOSE BOX ATTACH |
| | 1 | 21A01326-005 | ANGLE – NOSE BOX ATTACH |
| 3 | 1 | 21A01000-261 | ASSY BULKHEAD #4 |
| | 1 | 21A01158-174 | BULKHEAD – MAIN |
| | 1 | 21A01158-175 | SUPPORT – BULKHEAD LOWER |
| | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 4 | 1 | 21A01000-253 | ASSY BULKHEAD #5 |
| | 1 | 21A01158-178 | BULKHEAD - MAIN |
| | 1 | 21A01326-007 | ANGLE – SIDE L. |
| | 1 | 21A01326-008 | ANGLE – SIDE R. |
| | 1 | 21A01163-066 | PANEL – SPR. BAR |
| | 1 | 21A01158-175 | SUPPORT – BULKHEAD LOWER |
| | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 5 | 1 | 21A01000-252 | ASSY BULKHEAD #6 |
| | 1 | 21A01158-189 | BULKHEAD – MAIN |
| | 1 | 21A01158-177 | SUPPORT – BULKHEAD LOWER |
| | 1 | MS35489-19 | GROMMET |
| 6 | 1 | 21S01000-308 | ASSY BULKHEAD #7 |
| | 1 | 21A01158-189 | BULKHEAD - MAIN |
| | 1 | 21A01158-177 | SUPPORT – BULKHEAD LOWER |
| | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 7 | 1 | 21S01000-309 | ASSY BULKHEAD #8 |
| | 1 | 21A01158-189 | BULKHEAD – MAIN |
| | 1 | 21A01158-177 | SUPPORT – BULKHEAD LOWER |
| | 2 | 21S01158-203 | ANGLE – A.B. SKIN ATTACH |
| | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 8 | 1 | 21S01000-322 | ASSY. – BULKHEAD #10 |
| | 1 | 21A01158-169 | BULKHEAD - MAIN |
| | 1 | 21A01326-011 | ANGLE SIDE L. |
| | 1 | 21A01326-012 | ANGLE SIDE R. |
| | 1 | 21A01163-066 | PANEL – SPR. BAR |
| | 2 | 21S01340-129 | ANGLE – VERTICAL |
| | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 9 | 1 | 21A01000-395 | BULKHEAD #11 |
| | 1 | 21A01158-168 | BULKHEAD PANEL |

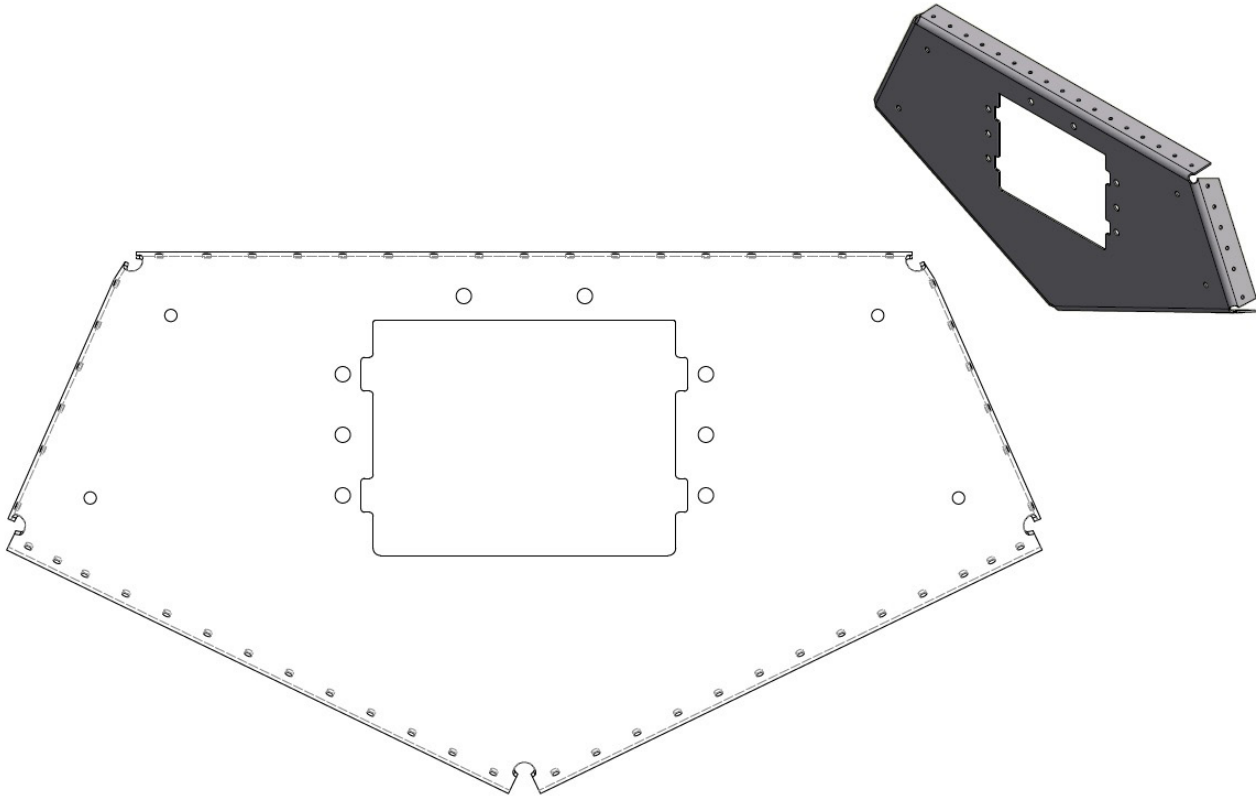
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 10 | 1 | 21A01000-396 | BULKHEAD #12 |
| | 1 | 21A01158-167 | BULKHEAD PANEL |
| 11 | 1 | 21A01000-397 | BULKHEAD #13 |
| | 1 | 21A01158-166 | BULKHEAD PANEL |
| 12 | 1 | 21A01000-250 | ASSY. BULKHEAD #14 |
| | 1 | 21A01158-164 | BULKHEAD - MAIN |
| | 1 | 21A01158-165 | CHANNEL – REIN. |
| | 1 | 21A08156-130 | PLATE – WATER RUDDER STOP |
| 13 | 1 | 21A01000-260 | ASSY. SPR. BAR PANEL FWD |
| | 1 | 21A01163-065 | PANEL – SPR. BAR |
| | 1 | 21A01326-013 | ANGLE – SIDE L. |
| | 1 | 21A01326-014 | ANGLE – SIDE R. |
| | 1 | AN4-5A | BOLT, 1/4-28, 0.1875 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| | 1 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 14 | 1 | 21A01000-259 | ASSY. SPR. BAR PANEL AFT |
| | 1 | 21A01163-065 | PANEL – SPR. BAR |
| | 1 | 21A01326-009 | ANGLE – SIDE L. |
| | 1 | 21A01326-010 | ANGLE – SIDE R. |
| | 1 | AN4-5A | BOLT, 1/4-28, 0.1875 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| | 1 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 15 | 1 | 21S01738-001 | NOSE BUMPER |
| 16 | 2 | 21A03115-001 | TUBE – SPR. BAR MOUNTING |
| | 6 | AN4-22A | BOLT, 1/4-28, 1.8125 GRIP, UNDRILLED, STEEL |
| | 12 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 12 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 6 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |

NOSE BUMPER - AMPHIBIAN



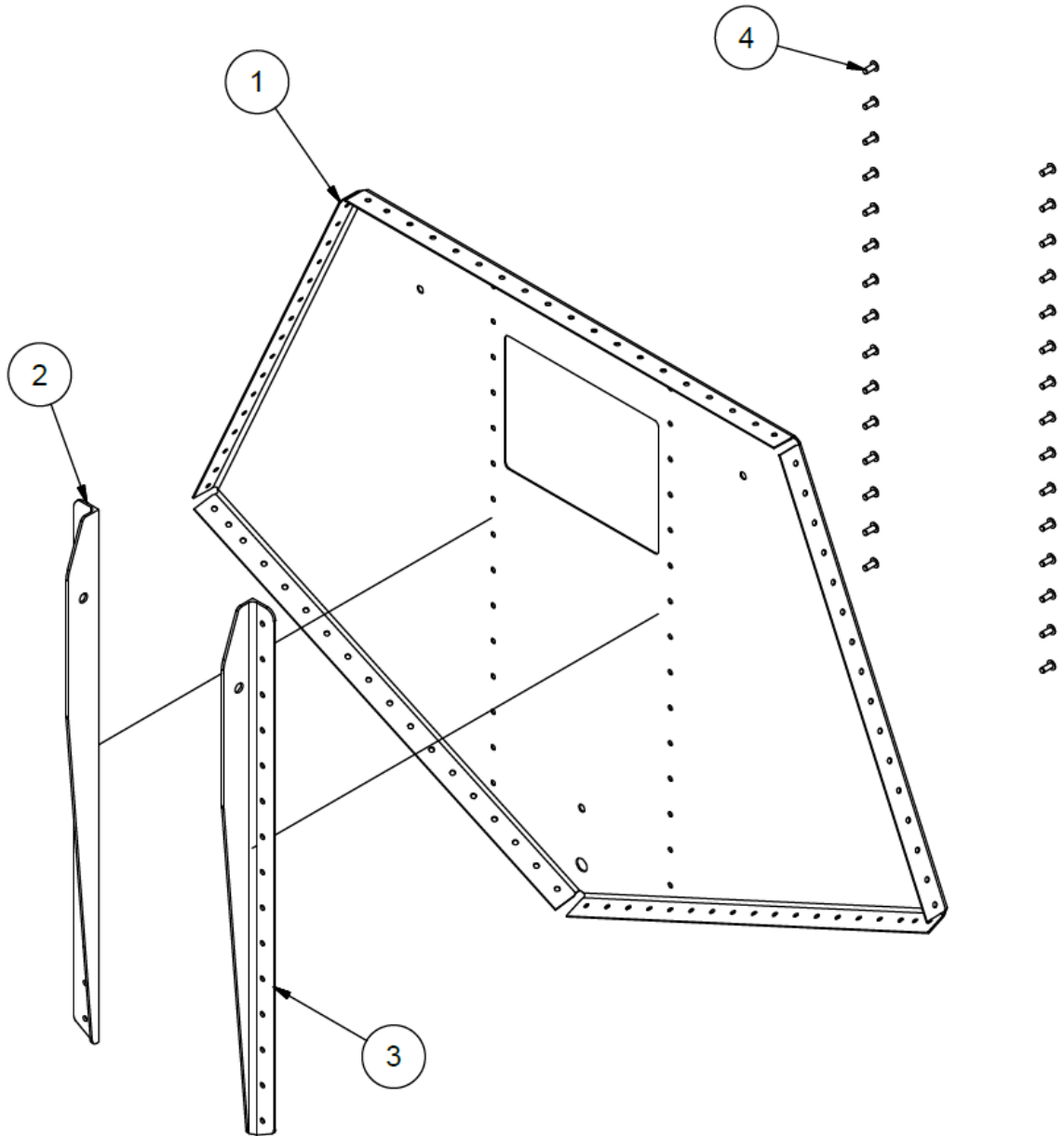
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------------|---|
| - | 1 | 21A01000-295 | ASSEMBLY, NOSE BUMPER, 2100 |
| 1 | 1 | 21A01000-295-1 | NOSE BUMPER |
| 2 | 2 | 21A01000-295-2 | ANGLE, MOUNT, NOSE BUMPER |
| 3 | 2 | 21A01000-295-3 | PLATE, SCREW MOUNT, NOSE BUMPER |
| 4 | 4 | 4HFW3 | PUSH NUT WASHER |
| 5 | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 6 | 4 | MS51958-67 | SCREW, BUTTON HEAD |

BULKHEAD #1



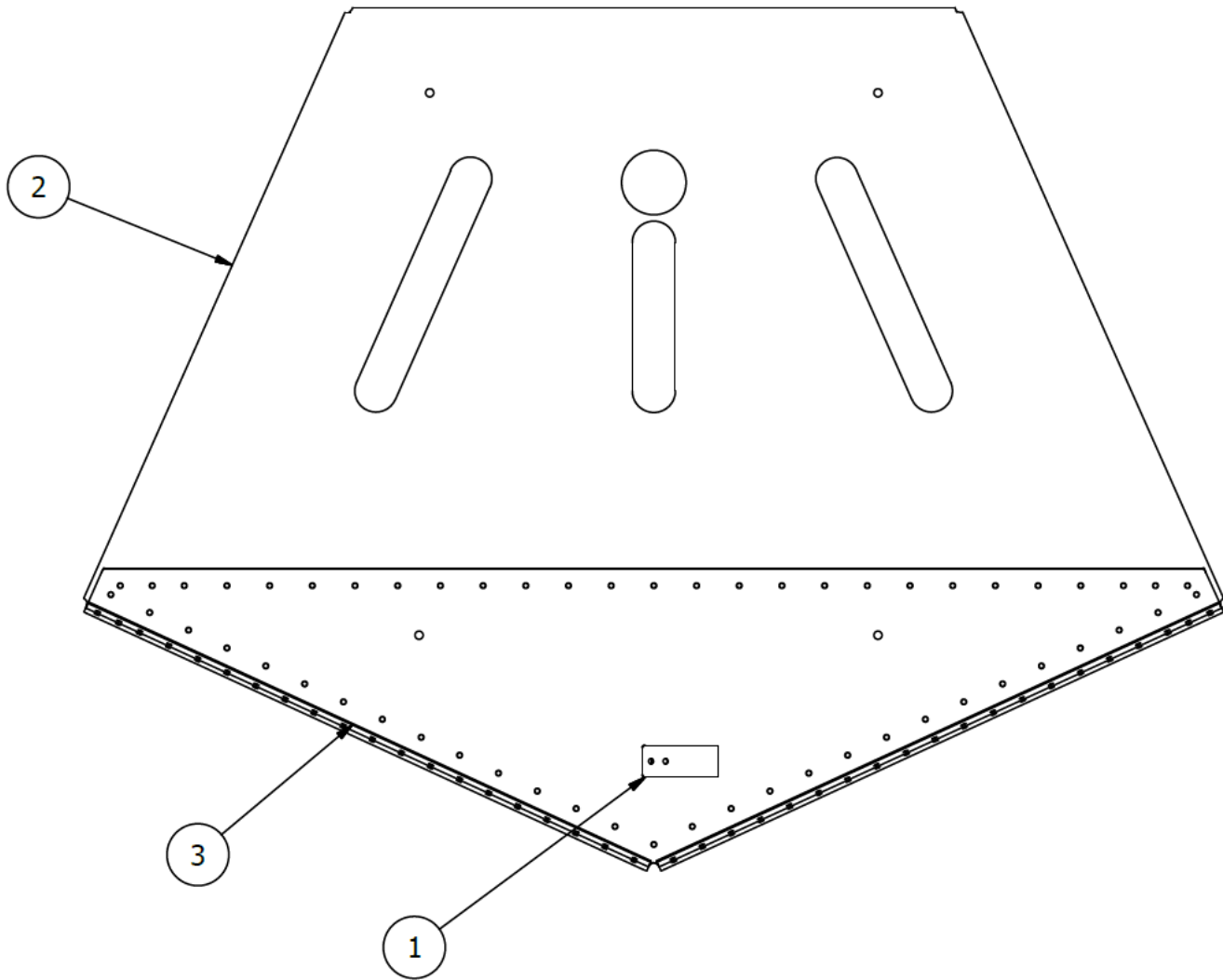
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| - | 1 | 21A01163-067 | BULKHEAD #1 |

BULKHEAD #3



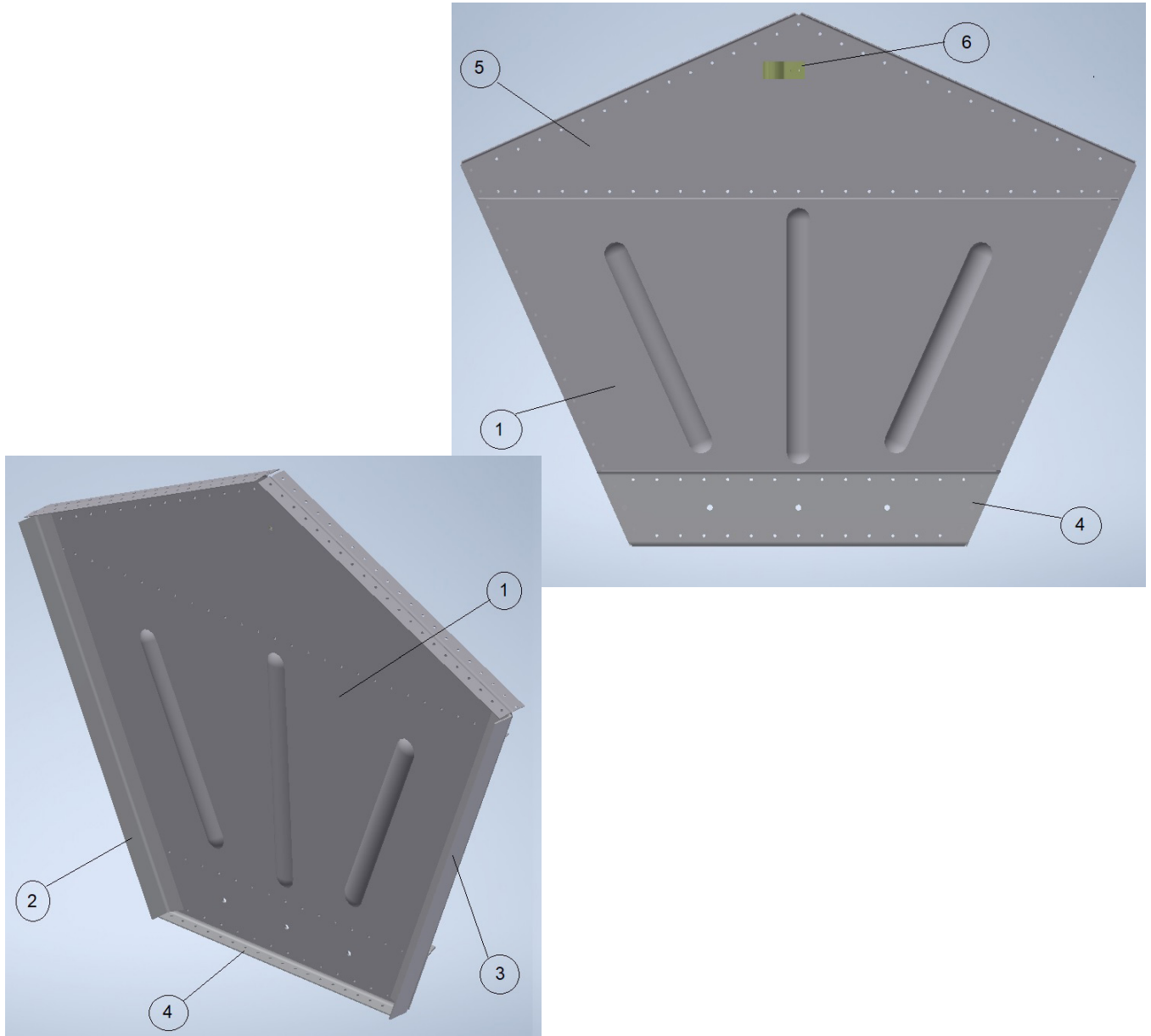
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--------------------------------|
| - | 1 | 21A01000-265 | ASSEMBLY, BULKHEAD #3 |
| 1 | 1 | 21A01158-184 | BULKHEAD #3 |
| 2 | 1 | 21A01326-005 | ANGLE, SUPPORT BULKHEAD #3 LT. |
| 3 | 1 | 21A01326-006 | ANGLE, SUPPORT BULKHEAD #3 RT. |
| 4 | 30 | AN470AD4-5 | RIVET |

BULKHEAD #4



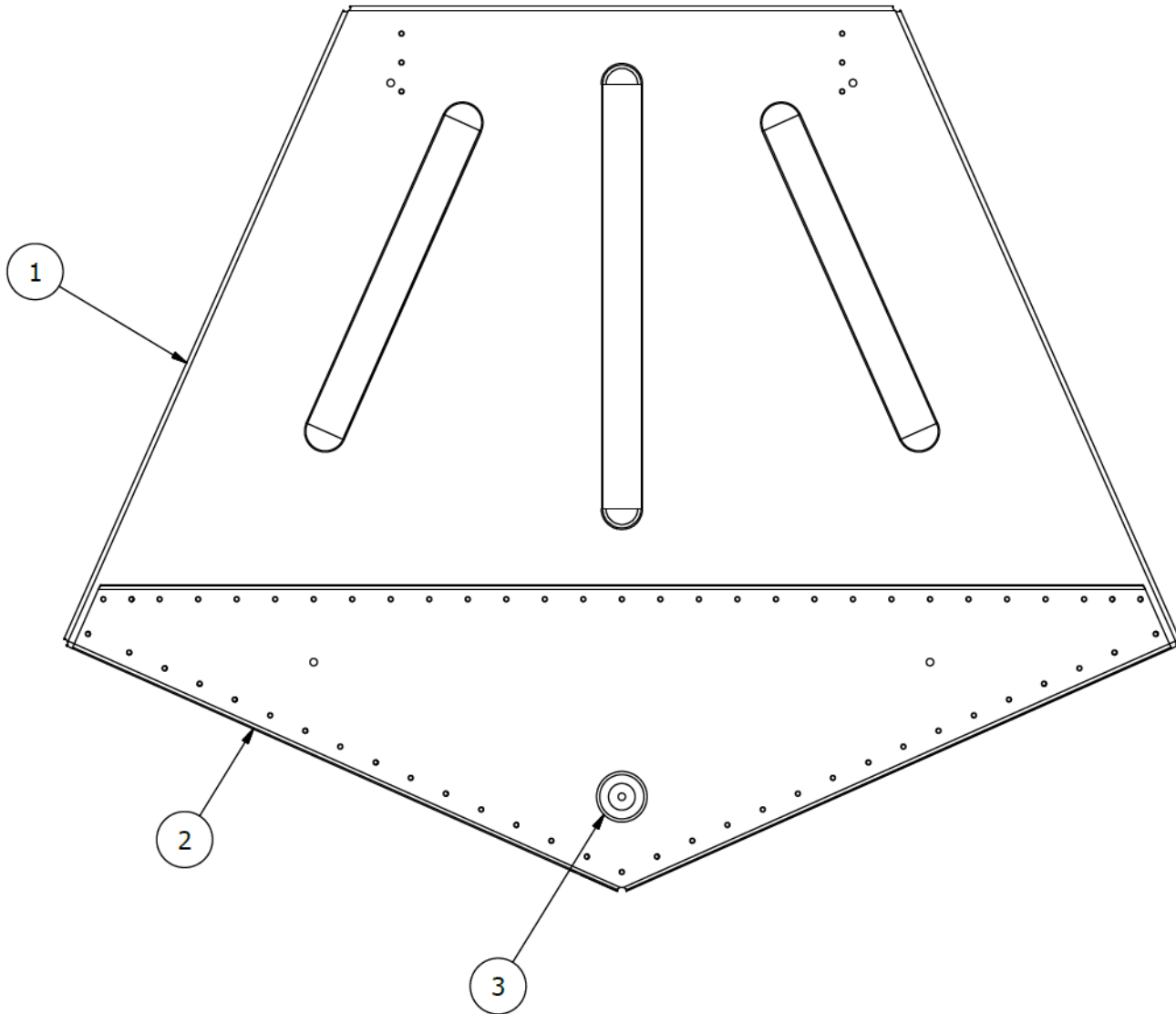
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|------------------------------|
| - | 1 | 21A01000-261 | ASSEMBLY, BULKHEAD #4 |
| 1 | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |
| 2 | 1 | 21A01158-174 | BULKHEAD #4 - FORMED |
| 3 | 1 | 21A01158-175 | BULKHEAD SUPPORT #4 - FORMED |

BULKHEAD #5



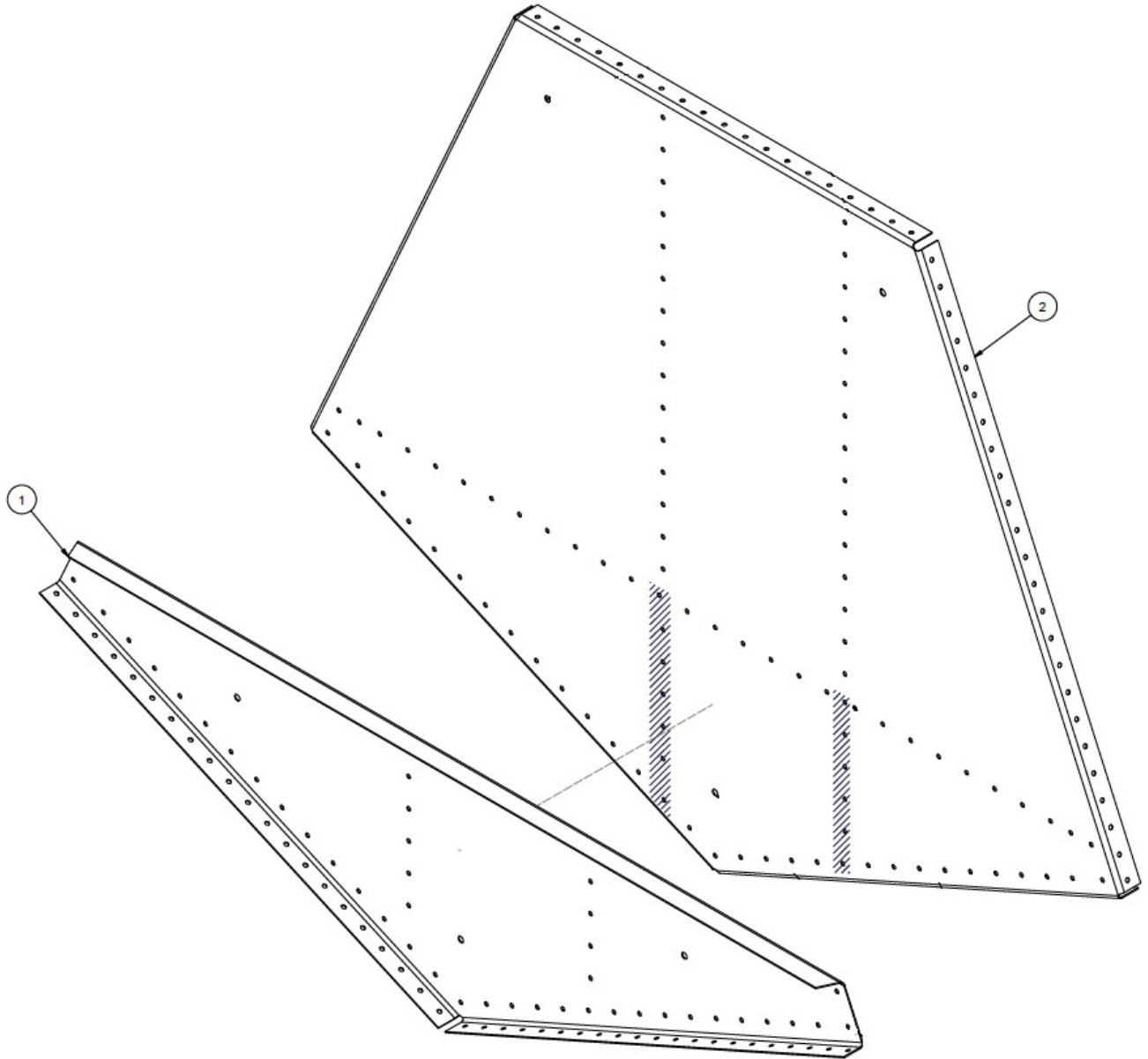
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--------------------------|
| - | 1 | 21A01000-253 | ASSY BULKHEAD #5 |
| 1 | 1 | 21A01158-178 | BULKHEAD - MAIN |
| 2 | 1 | 21A01326-007 | ANGLE - SIDE L. |
| 3 | 1 | 21A01326-008 | ANGLE - SIDE R. |
| 4 | 1 | 21A01163-066 | PANEL - SPR. BAR |
| 5 | 1 | 21A01158-177 | SUPPORT - BULKHEAD LOWER |
| 6 | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |

BULKHEAD #6



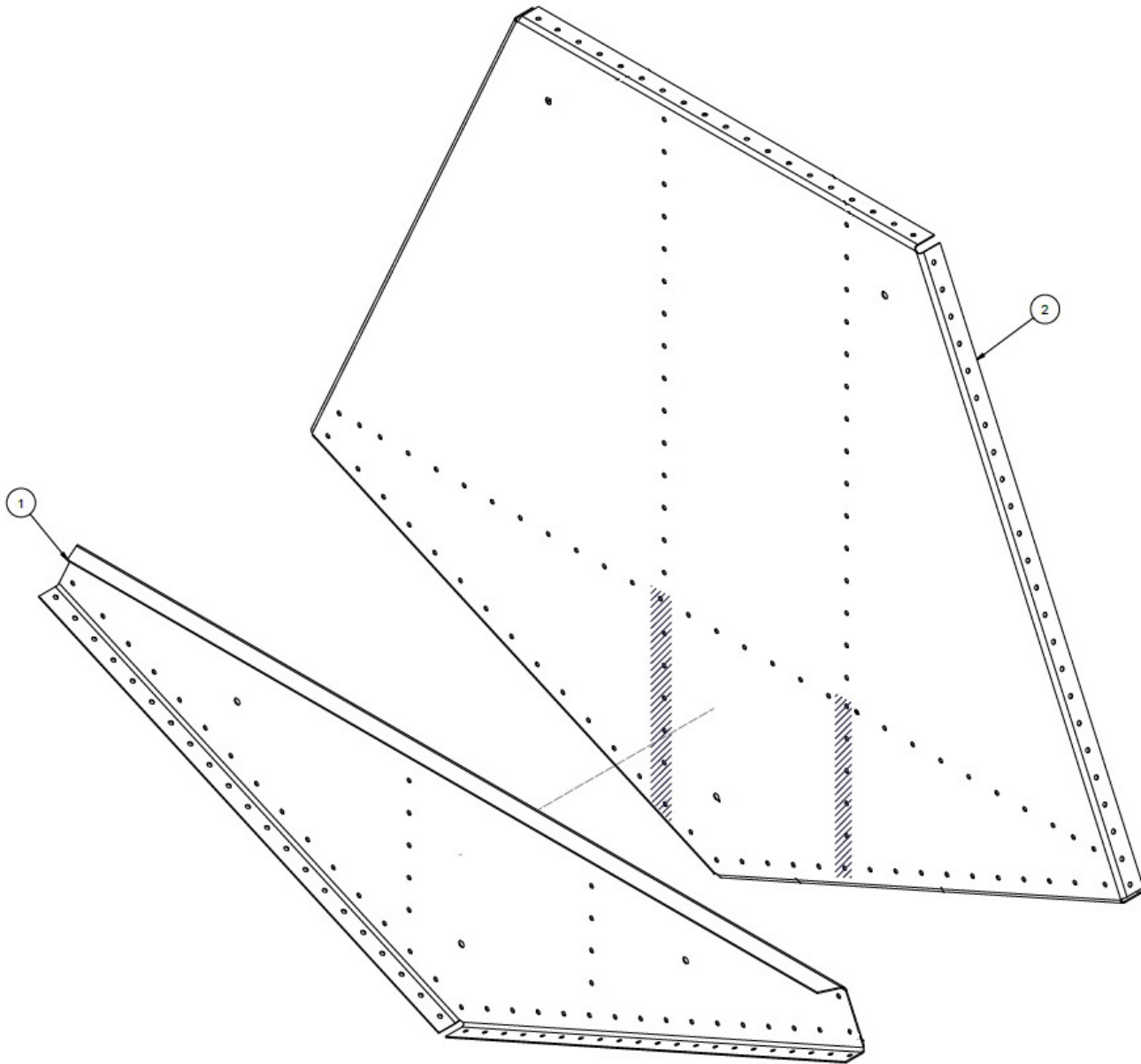
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-----------------------|
| - | 1 | 21A01000-252 | ASSEMBLY, BULKHEAD #6 |
| 1 | 1 | 21A01158-189 | BULKHEAD #6 |
| 2 | 1 | 21A01158-177 | SUPPORT, BULKHEAD #6 |
| 3 | 1 | MS35489-19 | GROMMET, RUBBER |

BULKHEAD #7 LEFT FLOAT



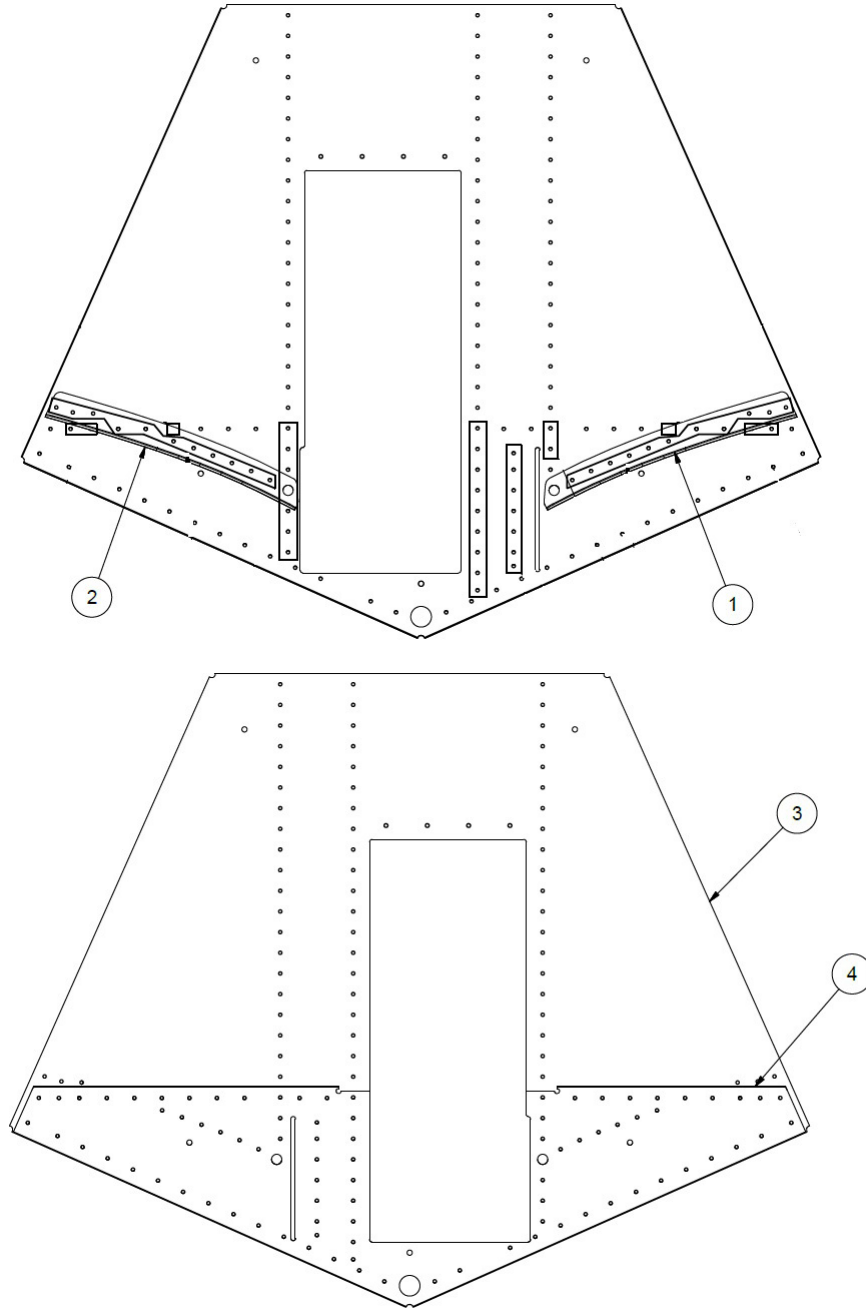
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|----------------------------|
| - | 1 | 21A01000-267 | ASSEMBLY, BULKHEAD #7, LH |
| 1 | 1 | 21A01158-187 | SUPPORT, BLKHD 7, RH, 2100 |
| 2 | 1 | 21A01158-181 | BULKHEAD #7 - LH |

BULKHEAD #7 RIGHT FLOAT



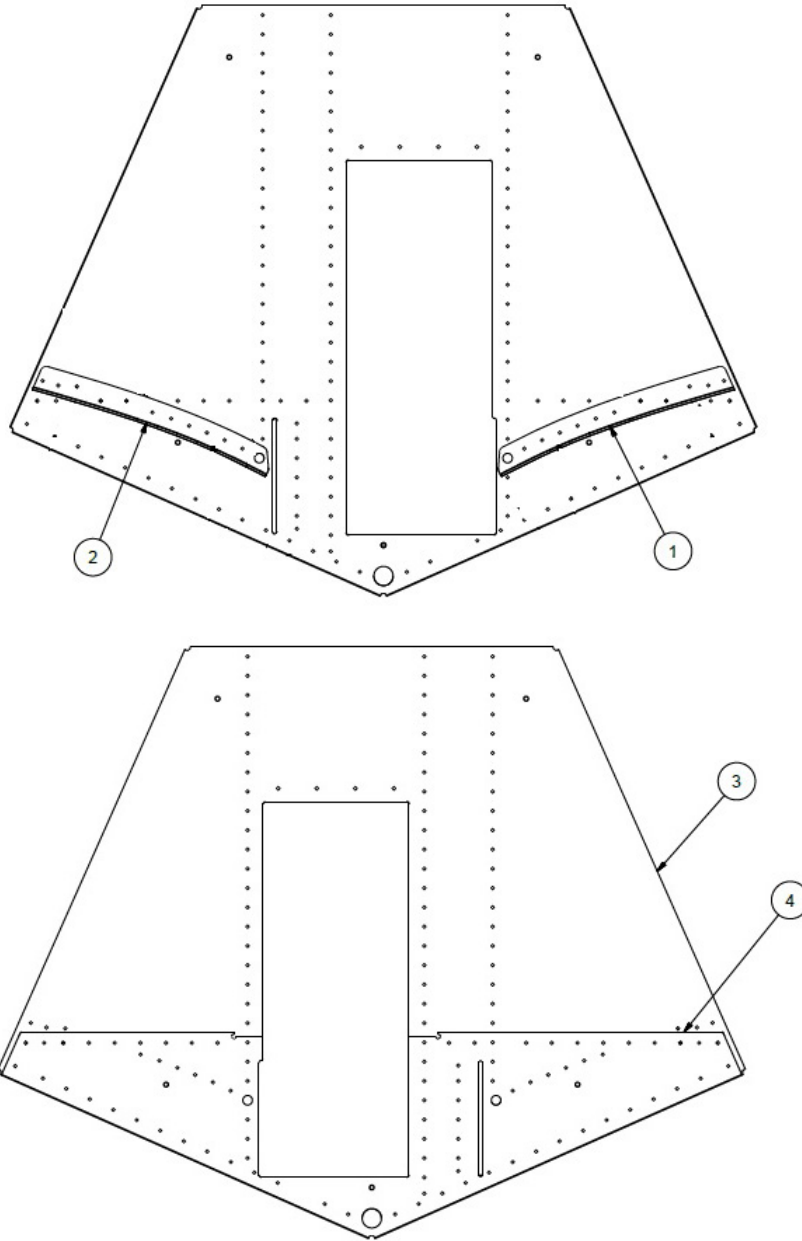
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|----------------------------|
| - | 1 | 21A01000-266 | ASSEMBLY, BULKHEAD #7, RH |
| 1 | 1 | 21A01158-188 | SUPPORT, BLKHD 7, LH, 2100 |
| 2 | 1 | 21A01158-182 | BULKHEAD #7 - RH |

BULKHEAD #8 LEFT FLOAT



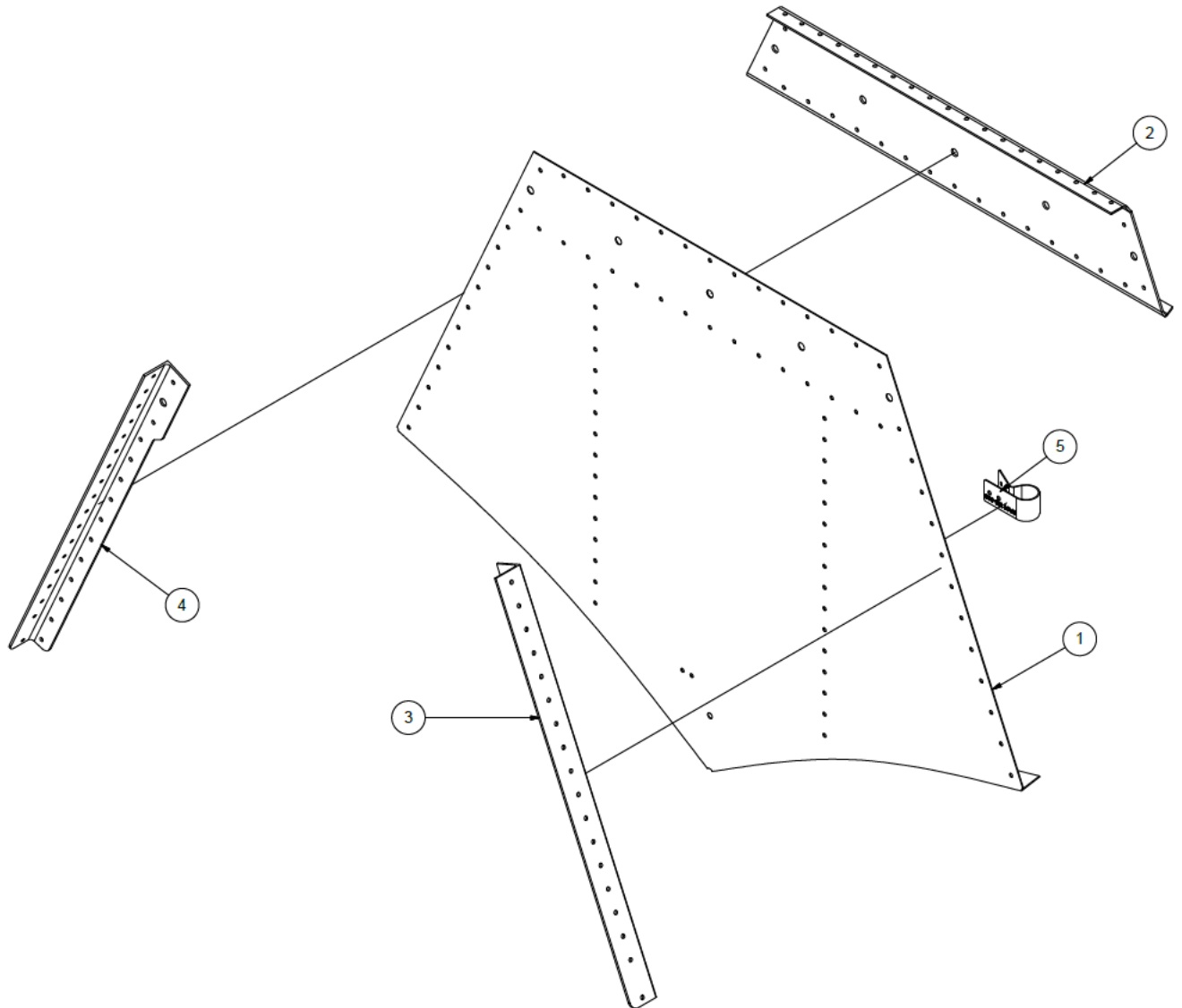
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-------------------------------|
| - | 1 | 21A01000-263 | ASSY, BULKHEAD #8, LH |
| 1 | 1 | 21A01158-179 | ANGLE - AFTERBODY ATTACH - RH |
| 2 | 1 | 21A01158-180 | ANGLE - AFTERBODY ATTACH - LH |
| 3 | 1 | 21A01158-191 | BULKHEAD #8 - LH - FORMED |
| 4 | 1 | 21A01158-193 | SUPPORT - LH - BULKHEAD #8 |

BULKHEAD #8 RIGHT FLOAT



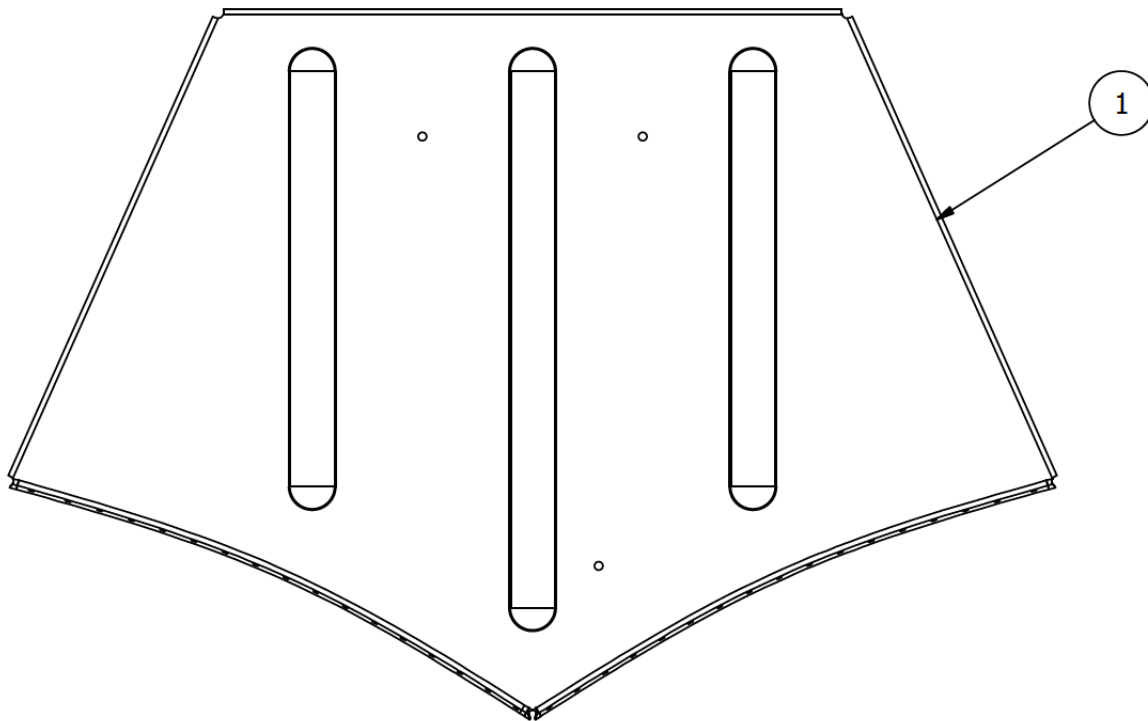
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-------------------------------|
| - | 1 | 21A01000-264 | ASSY, BULKHEAD #8, RH |
| 1 | 1 | 21A01158-179 | ANGLE - AFTERBODY ATTACH - RH |
| 2 | 1 | 21A01158-180 | ANGLE - AFTERBODY ATTACH - LH |
| 3 | 1 | 21A01158-190 | BULKHEAD #8 - RH - FORMED |
| 4 | 1 | 21A01158-192 | SUPPORT - RH - BULKHEAD #8 |

BULKHEAD #10



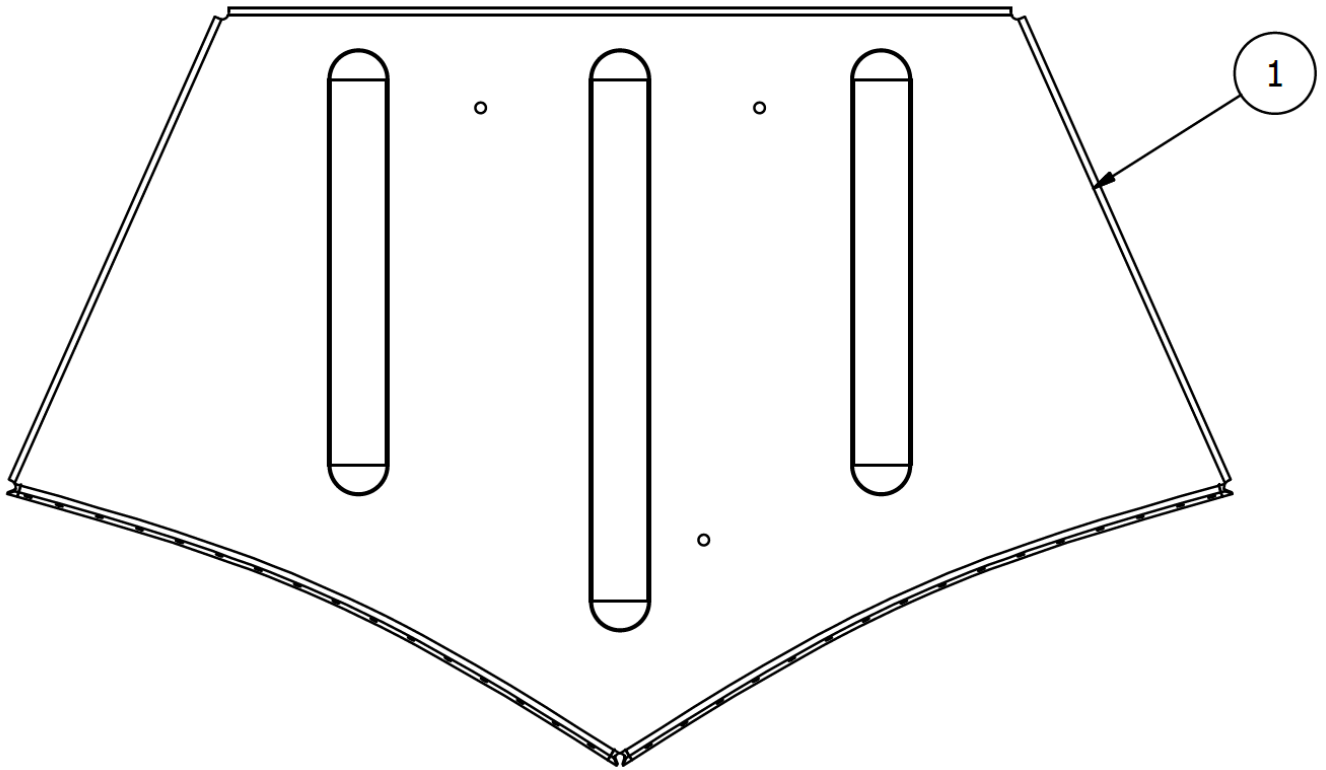
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-----------------------------------|
| - | 1 | 21A01000-262 | ASSY, BLKHD 10 |
| 1 | 1 | 21A01158-169 | BULKHEAD #10 - FORMED |
| 2 | 1 | 21A01163-066 | SPREADER BAR PANEL |
| 3 | 1 | 21A01326-011 | ANGLE, SIDE BAR, BULKHEAD #10, LF |
| 4 | 1 | 21A01326-012 | ANGLE, SIDE BAR, BULKHEAD #10, RT |
| 5 | 1 | 3A01158-003 | CLAMP, PUMP OUT TUBE |

BULKHEAD #11



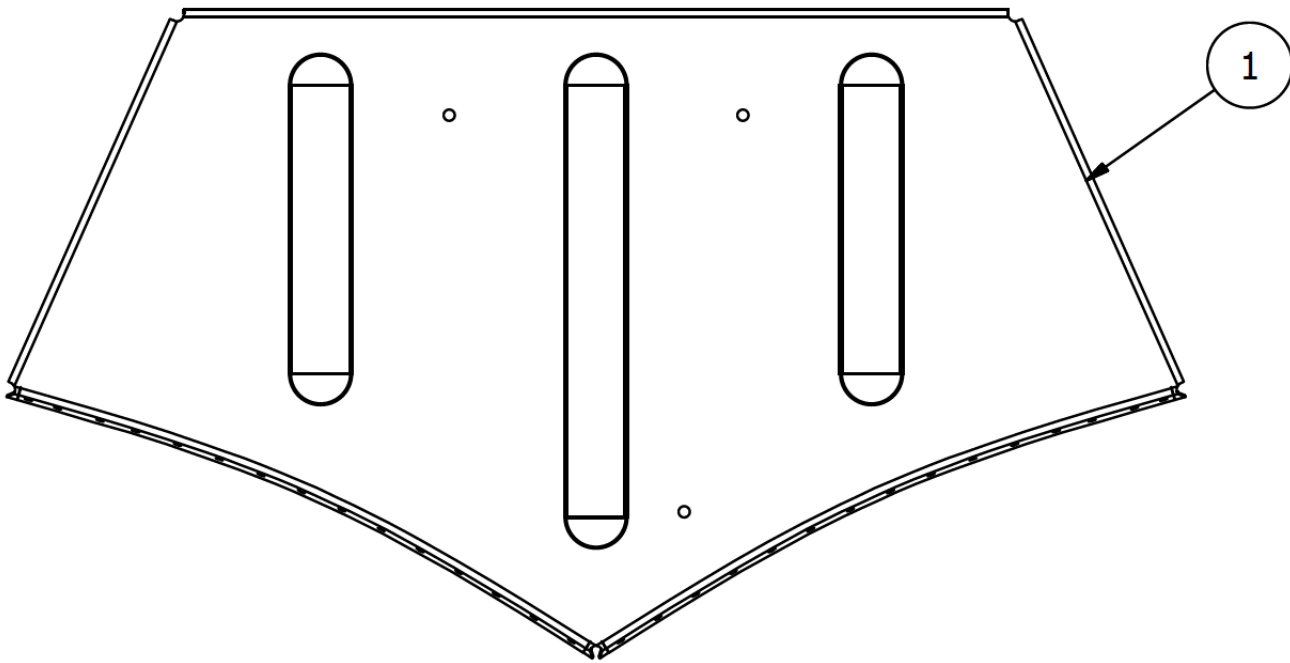
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|------------------------|
| - | 1 | 21A01000-395 | BULKHEAD STN. #11 ASSY |
| 1 | 1 | 21A01158-168 | BULKHEAD #11 - FORMED |

BULKHEAD #12



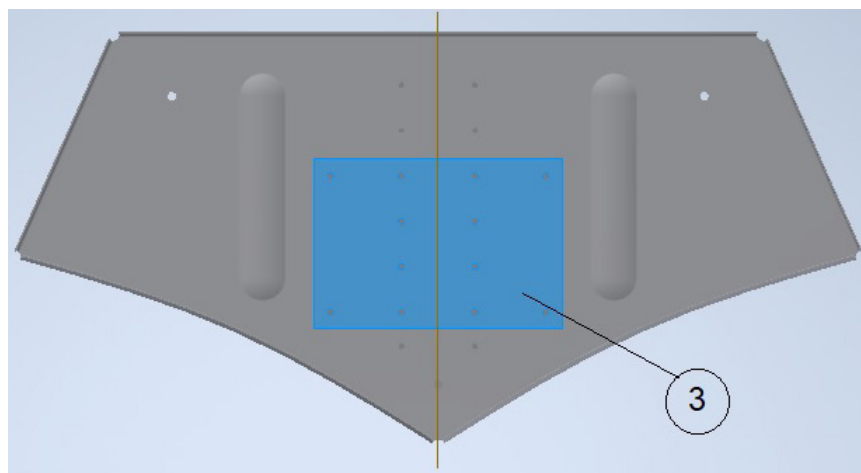
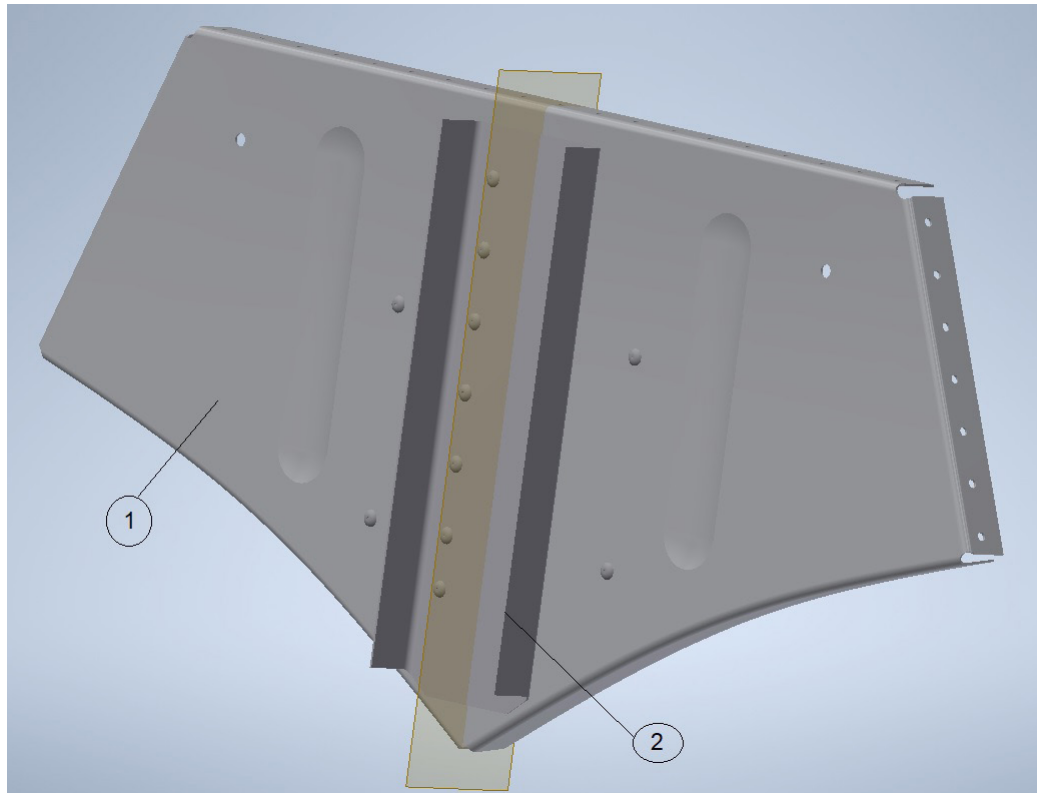
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-----------------------|
| - | 1 | 21A01000-396 | ASSY, BULKHEAD #12 |
| 1 | 1 | 21A01158-167 | BULKHEAD #12 - FORMED |

BULKHEAD #13



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|------------------------|
| - | 1 | 21A01000-397 | ASSEMBLY, BULKHEAD #13 |
| 1 | 1 | 21A01158-166 | BULKHEAD #13 - FORMED |

BULKHEAD #14



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--------------------------|
| - | 1 | 21A01000-250 | BULKHEAD STN. #14 ASSY. |
| 1 | 1 | 21A01158-164 | BULKHEAD STN. #14 FORMED |
| 2 | 1 | 21A01158-165 | CHANNEL-BULKHEAD #14 |
| 3 | 1 | 21A08156-130 | PLATE-WATER RUDDER STOP |

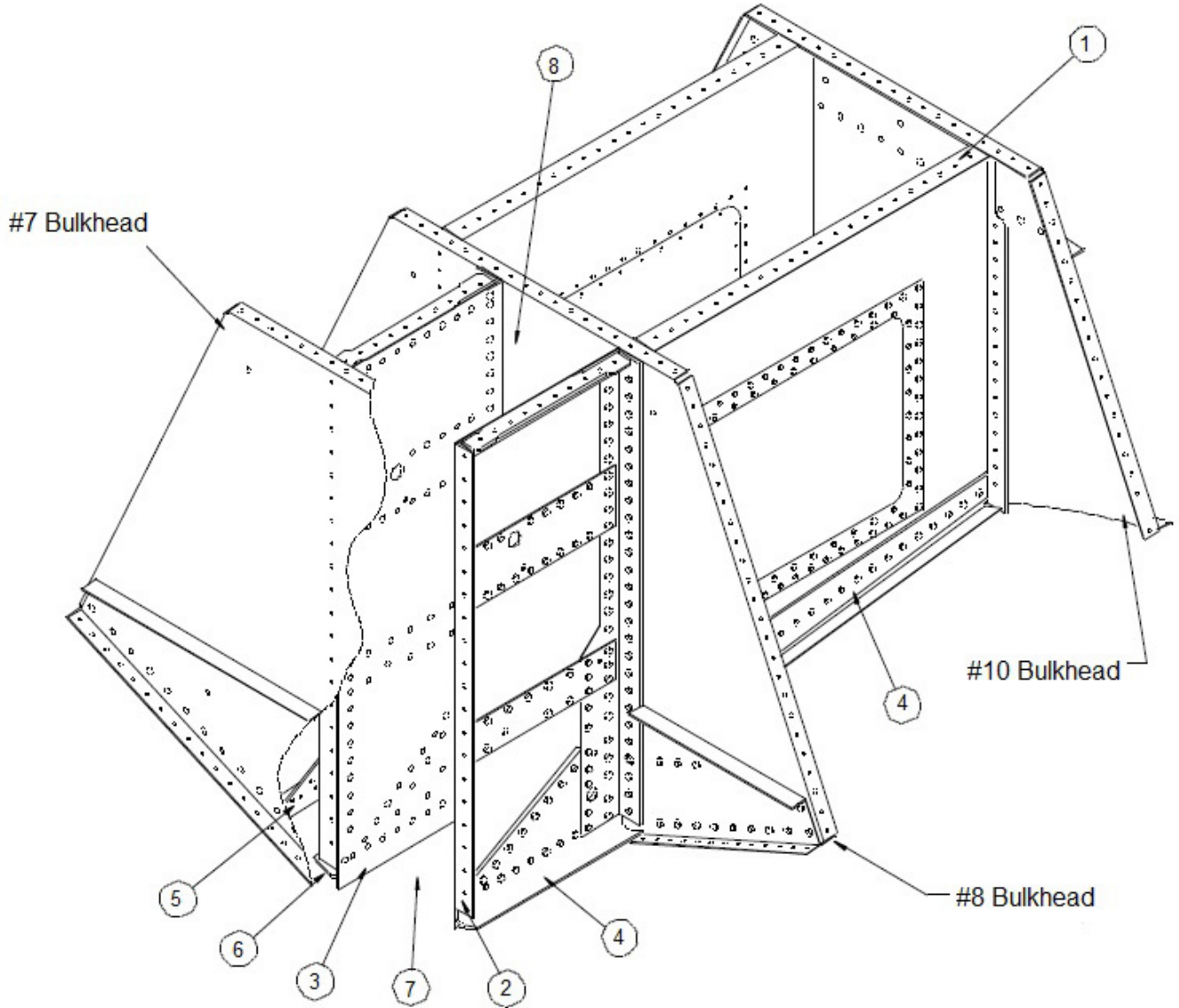
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SECTION 2 WHEEL WELL ASSEMBLY

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WHEEL WELL ASSEMBLY - AMPHIBIAN



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|---|
| 1 | 1 | 21A01000-289 | ASSY. – WHEEL WELL HALF L. |
| | 1 | 21A01158-185 | PANEL – FORMED L. |
| | 1 | 13A01156-124 | RING – COVER REINFORCEMENT |
| | 1 | 21A01158-163 | COVER, INSPECTION, WHEELWELL, LARGE |
| | 28 | AN526-632R6 | SCREW TRUSS HEAD, NON STRUCTURAL CAD 1 |
| | 1 | 21A01000-290 | ASSY. – WHEELWELL HALF R. |
| | 1 | 21A01158-186 | PANEL – FORMED R. |
| | 1 | 13A01156-124 | RING – COVER REINFORCEMENT |
| | 1 | 21A01158-163 | COVER, INSPECTION, WHEELWELL, LARGE |
| | 28 | AN526-632R6 | SCREW TRUSS HEAD, NON STRUCTURAL CAD 1 |
| 2 | 1 | 21A01000-257 | ASSY. – WHEEL WELL PANEL – OUTBR'D L. |
| | 1 | 21A01000-256 | ASSY. - WHEEL WELL PANEL – OUTBR'D R. |
| 3 | 1 | 21A01000-255 | ASSY. – WHEEL WELL PANEL – INBR'D L. |
| | 1 | 21A01000-254 | ASSY. - WHEEL WELL PANEL – INBR'D R. |
| 4 | 1 | 21A01017-005 | CARRY-THRU STRAP OUTBR'D L. |
| | 1 | 21A01017-004 | CARRY-THRU STRAP OUTBR'D R. |
| 5 | 1 | 21A01017-003 | CARRY-THRU STRAP INBR'D L. |
| | 1 | 21A01017-002 | CARRY-THRU STRAP INBR'D R. |
| 6 | 1 | 21A01017-007 | CARRY-THRU STRAP INBR'D L. |
| | 1 | 21A01017-006 | CARRY-THRU STRAP INBR'D R. |
| | 1 | 21A01156-131 | ANGLE – ATTACH AFT L. |
| | 1 | 21A01156-132 | ANGLE – ATTACH AFT R. |
| | 1 | 21A01156-125 | SPACER, CARRY THRU STRAP |
| | 2 | 21A01326-015 | ANGLE – ATTACH FWD |
| 7 | 1 | 21A01000-398 | SAND GUARD ASSY. (NOT SHOWN) |
| | 1 | 21A01150-136 | SAND GUARD (NOT SHOWN) |
| | 4 | AN526-1032R8 | SCREW, TRUSS HEAD, NON STRUCTURAL, CAD 1, STEEL |
| | 4 | MS21078-3 | NUT PLATE |
| 8 | 1 | 21A01569-001 | MUD FLAP (NOT SHOWN) |
| | 1 | 21A01150-135 | REINFORCEMENT |

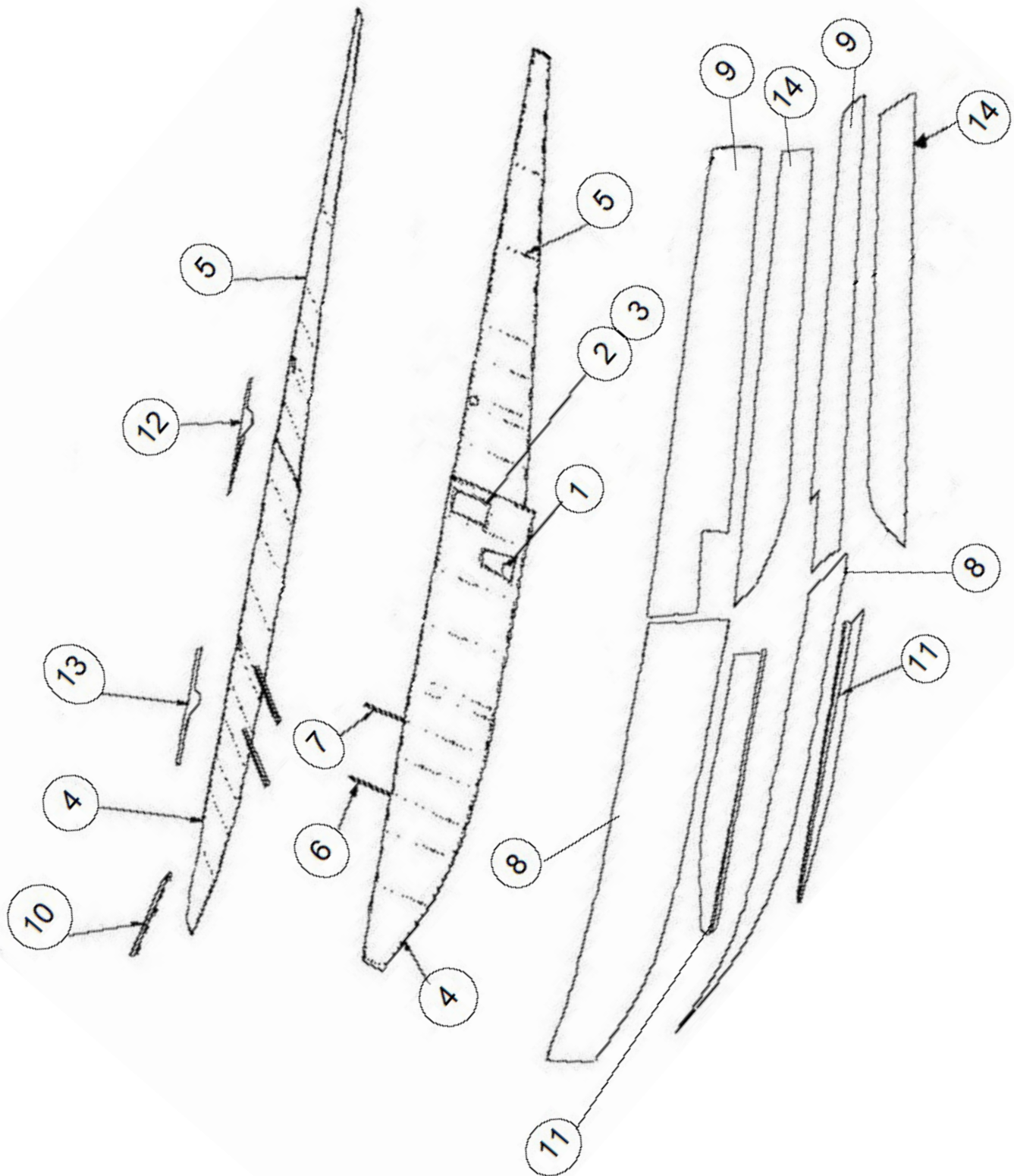
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SECTION 3 SKINS & STIFFENERS

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| RIGHT BOTTOM SKIN & STIFFENERS | 44 |

SKINS & STIFFENERS - AMPHIBIAN

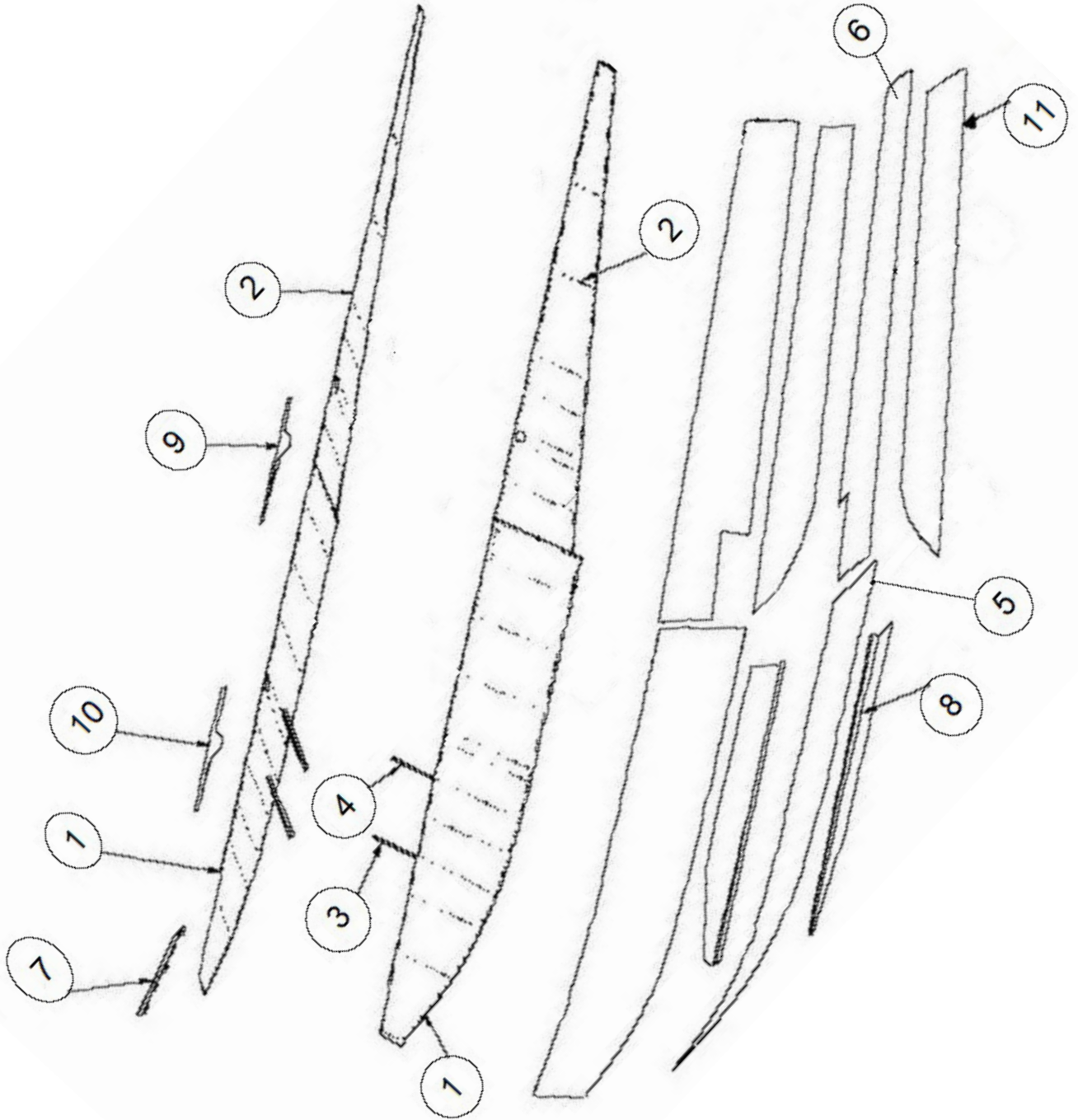


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--|
| 1 | 1 | 3A01000-005 | STEP – BOARDING |
| 2 | 2 | 21A01156-126 | REINFORCEMENT – COVER |
| 3 | 2 | 21A01000-427 | CONVER – INSP. ASSY. |
| | 2 | 21A01004-101 | COVER – INSP. |
| | 2 | 21A01567-012 | GASKET |
| | 56 | AN526-632R6 | SCREW TRUSS HEAD, NON STRUCTURAL CAD 1 |
| 4 | 1 | 21A01004-093 | SIDE SKIN – STEP TO BOW L. OUTBR'D |
| | 1 | 21A01004-094 | SIDE SKIN – STEP TO BOW R. OUTBR'D |
| | 1 | 21A01004-095 | SIDE SKIN – STEP TO BOW L. INBR'D |
| | 1 | 21A01004-096 | SIDE SKIN – STEP TO BOW R. INBR'D |
| | 1 | 1002114 | BRACKET (PADDLE) |
| | 1 | 1002113 | STOP (RIGHT) |
| | 1 | 3A01503-001 | CLIP, PADDLE |
| | 1 | 0238-0035 | PADDLE 4 FT. |
| 5 | 1 | 21A01004-097 | SIDE SKIN – STEP TO STERN L. OUTBR'D |
| | 1 | 21A01004-098 | SIDE SKIN – STEP TO STERN R. OUTBR'D |
| | 1 | 21A01004-099 | SIDE SKIN – STEP TO STERN L. INBR'D |
| | 1 | 21A01004-100 | SIDE SKIN – STEP TO STERN R. INBR'D |
| 6 | 2 | 21A01340-105 | STIFFENER – SIDE SKIN |
| 7 | 2 | 21A01340-104 | STIFFENER – SIDE SKIN |
| 8 | 1 | 1011430 | ASSEMBLY, SKIN, BOTTOM, FWD, LEFT, 2100 |
| | 1 | 1011410 | SKIN, BOTTOM, LH, FWD 2100 |
| | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011414 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011416 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011418 | STIFFENER, BOTTOM SKIN, FWD |
| | 3 | 1011420 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011431 | ASSEMBLY, SKIN, BOTTOM, FWD, RIGHT, 2100 |
| | 1 | 1011411 | SKIN, BOTTOM, RH, FWD, 2100 |
| | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011415 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011417 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011419 | STIFFENER, BOTTOM SKIN, FWD |
| | 3 | 1011421 | STIFFENER, BOTTOM SKIN, FWD |
| 9 | 1 | 21A01004-103 | BOTTOM SKIN AFTERBODY L. |
| | 1 | 21A01004-104 | BOTTOM SKIN AFTERBODY R. |
| 10 | 1 | 21A01000-275 | ASSY. SPRAY RAIL R. |
| | 1 | 21A01000-274 | ASSY. SPRAY RAIL L. |
| 11 | 1 | 21A01000-429 | BOOSTER – SISTER KEEL L. |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--|
| | 1 | 21A01000-428 | BOOSTER – SISTER KEEL R. |
| 12 | 1 | 21A01162-033 | DOUBLER – GUNWALL AFT L. |
| | 1 | 21A01162-034 | DOUBLER – GUNWALL AFT R. |
| 13 | 1 | 21A01162-031 | DOUBLER – GUNWALL FWD L. |
| | 1 | 21A01162-032 | DOUBLER – GUNWALL FWD R. |
| 14 | 1 | 1009422 | SCALLOP, FOAM, RIGHT, 2100 S/N 21977 AND LATER |
| | 1 | 1009424 | SCALLOP, FOAM, LEFT, 2100 S/N 21977 AND LATER |

SKINS & STIFFENERS - SEAPLANE

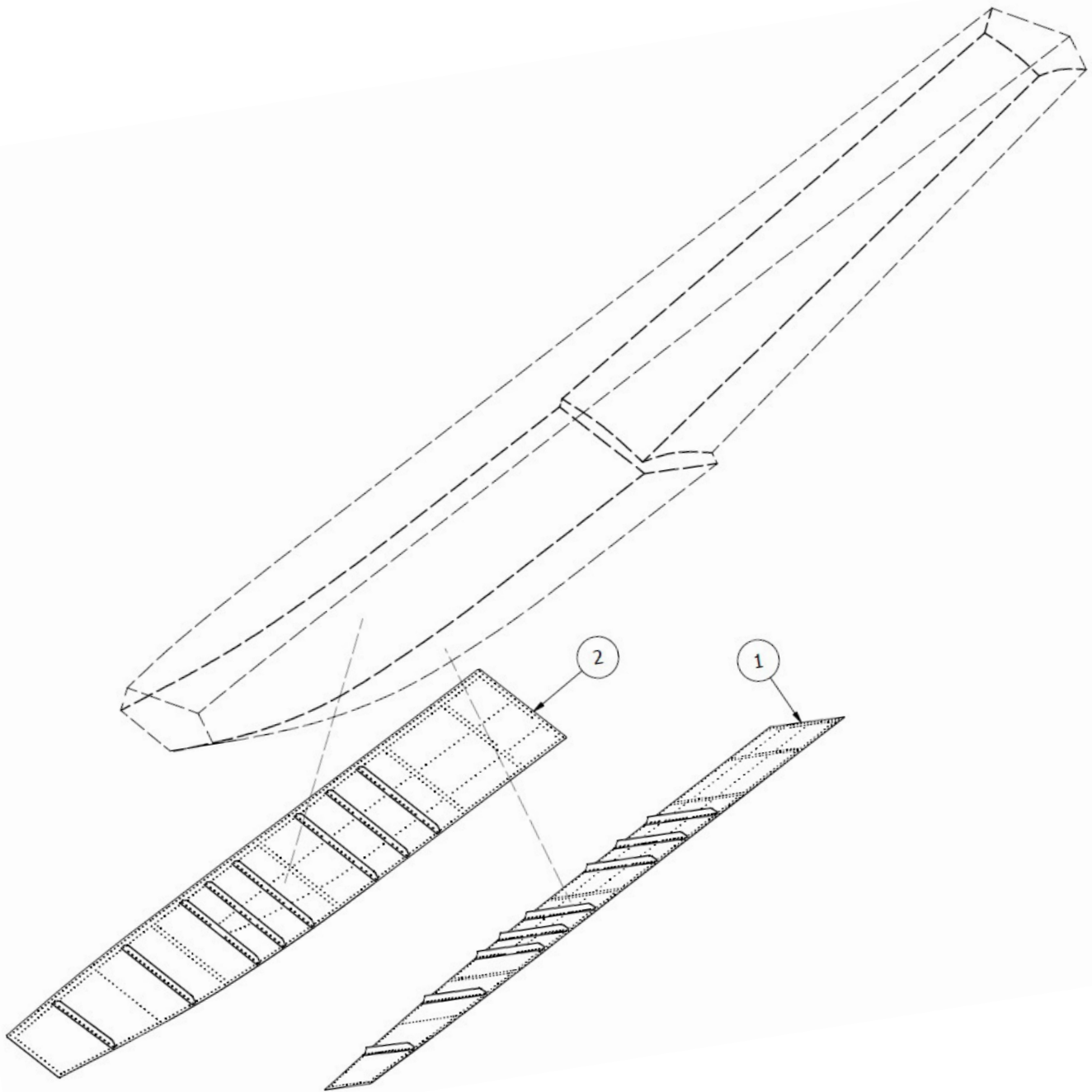


| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|--|
| 1 | 1 | 21S01004-123 | SIDE SKIN – STEP TO BOW L. OUTBR'D |
| | 1 | 21S01004-122 | SIDE SKIN – STEP TO BOW R. OUTBR'D |
| | 1 | 21S01004-125 | SIDE SKIN – STEP TO BOW L. INBR'D |
| | 1 | 21S01004-124 | SIDE SKIN – STEP TO BOW R. INBR'D |
| | 1 | 1002114 | BRACKET (PADDLE) |
| | 1 | 3A01156-057 | STOP (LEFT) |
| | 1 | 1002113 | STOP (RIGHT) |
| | 1 | 3A01503-001 | CLIP, PADDLE |
| | 1 | 0238-0035 | PADDLE |
| 2 | 1 | 21A01004-097 | SIDE SKIN – STEP TO STERN L. OUTBR'D |
| | 1 | 21A01004-098 | SIDE SKIN – STEP TO STERN R. OUTBR'D |
| | 1 | 21A01004-099 | SIDE SKIN – STEP TO STERN L. INBR'D |
| | 1 | 21A01004-100 | SIDE SKIN – STEP TO STERN R. INBR'D |
| 3 | 2 | 21A01340-105 | STIFFENER – SIDE SKIN |
| 4 | 2 | 21A01340-104 | STIFFENER – SIDE SKIN |
| 5 | 1 | 1011430 | ASSEMBLY, SKIN, BOTTOM, FWD, LEFT, 2100 |
| | 1 | 1011410 | SKIN, BOTTOM, LH, FWD 2100 |
| | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011414 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011416 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011418 | STIFFENER, BOTTOM SKIN, FWD |
| | 3 | 1011420 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011431 | ASSEMBLY, SKIN, BOTTOM, FWD, RIGHT, 2100 |
| | 1 | 1011411 | SKIN, BOTTOM, RH, FWD, 2100 |
| | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011415 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011417 | STIFFENER, BOTTOM SKIN, FWD |
| | 1 | 1011419 | STIFFENER, BOTTOM SKIN, FWD |
| | 3 | 1011421 | STIFFENER, BOTTOM SKIN, FWD |
| 6 | 1 | 21S01004-131 | BOTTOM SKIN AFTERBODY L. |
| | 1 | 21S01004-130 | BOTTOM SKIN AFTERBODY R. |
| 7 | 1 | 21A01000-275 | ASSY. SPRAY RAIL R. |
| | 1 | 21A01000-274 | ASSY. SPRAY RAIL L. |
| 8 | 1 | 21A01000-429 | BOOSTER – SISTER KEEL L. |
| | 1 | 21A01000-428 | BOOSTER – SISTER KEEL R. |
| 9 | 1 | 21A01162-033 | DOUBLER – GUNWALL AFT L. |
| | 1 | 21A01162-034 | DOUBLER – GUNWALL AFT R. |
| 10 | 1 | 21A01162-031 | DOUBLER – GUNWALL FWD L. |
| | 1 | 21A01162-032 | DOUBLER – GUNWALL FWD R. |

PARTS MANUAL
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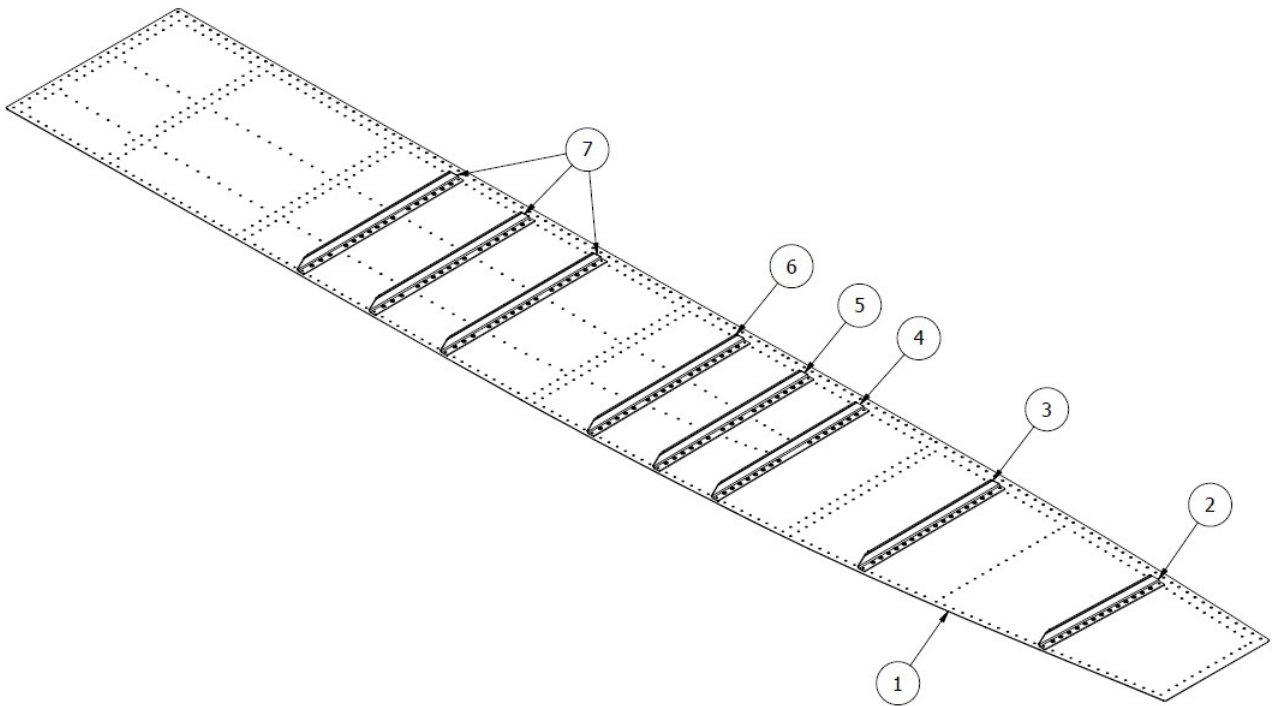
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|-------------|------------|-----------------|--|
| 11 | 1 | 1009422 | SCALLOP, FOAM, RIGHT, 2100 S/N 21977 AND LATER |
| | 1 | 1009424 | SCALLOP, FOAM, LEFT, 2100 S/N 21977 AND LATER |

BOTTOM SKIN ASSEMBLIES



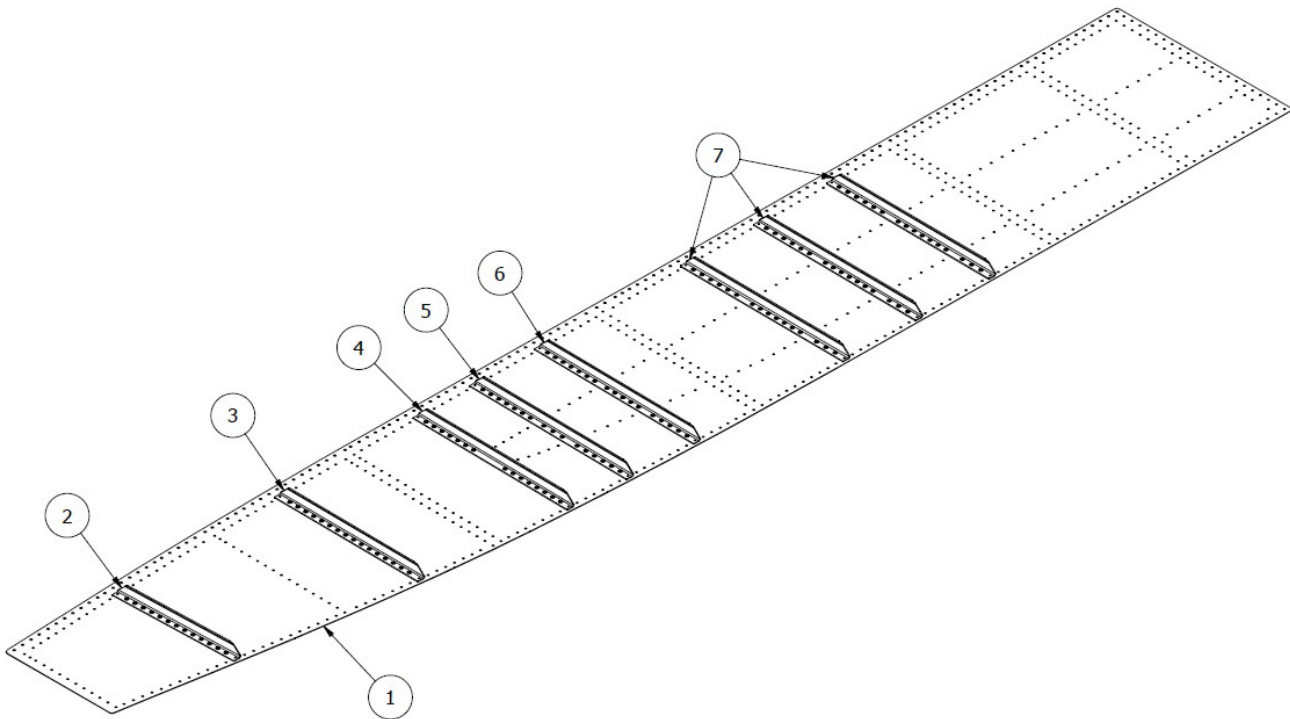
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------|--|
| 1 | 1 | 1011430 | ASSEMBLY, SKIN, BOTTOM, FWD, LEFT, 2100 |
| 2 | 1 | 1011431 | ASSEMBLY, SKIN, BOTTOM, FWD, RIGHT, 2100 |

LEFT BOTTOM SKIN & STIFFENERS



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------|-----------------------------|
| 1 | 1 | 1011410 | SKIN, BOTTOM, LH, FWD 2100 |
| 2 | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| 3 | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| 4 | 1 | 1011414 | STIFFENER, BOTTOM SKIN, FWD |
| 5 | 1 | 1011416 | STIFFENER, BOTTOM SKIN, FWD |
| 6 | 1 | 1011418 | STIFFENER, BOTTOM SKIN, FWD |
| 7 | 3 | 1011420 | STIFFENER, BOTTOM SKIN, FWD |

RIGHT BOTTOM SKIN & STIFFENERS



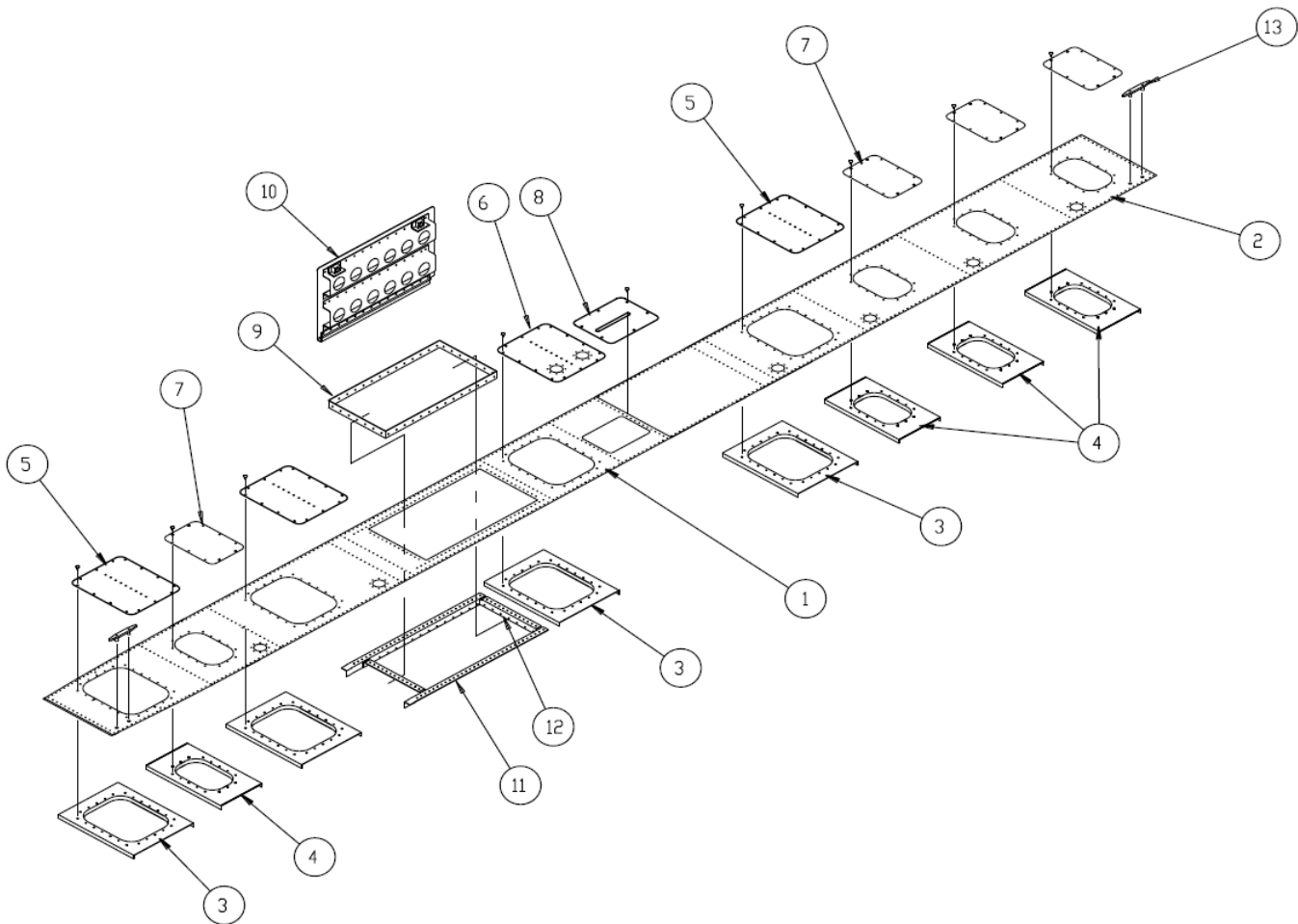
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------|-----------------------------|
| 1 | 1 | 1011411 | SKIN, BOTTOM, RH, FWD, 2100 |
| 2 | 1 | 1011412 | STIFFENER, BOTTOM SKIN, FWD |
| 3 | 1 | 1011413 | STIFFENER, BOTTOM SKIN, FWD |
| 4 | 1 | 1011415 | STIFFENER, BOTTOM SKIN, FWD |
| 5 | 1 | 1011417 | STIFFENER, BOTTOM SKIN, FWD |
| 6 | 1 | 1011419 | STIFFENER, BOTTOM SKIN, FWD |
| 7 | 3 | 1011421 | STIFFENER, BOTTOM SKIN, FWD |

SECTION 4 TOP DECK ASSEMBLY

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| TOP DECK - SEAPLANE..... | 49 |

TOP DECK - AMPHIBIAN

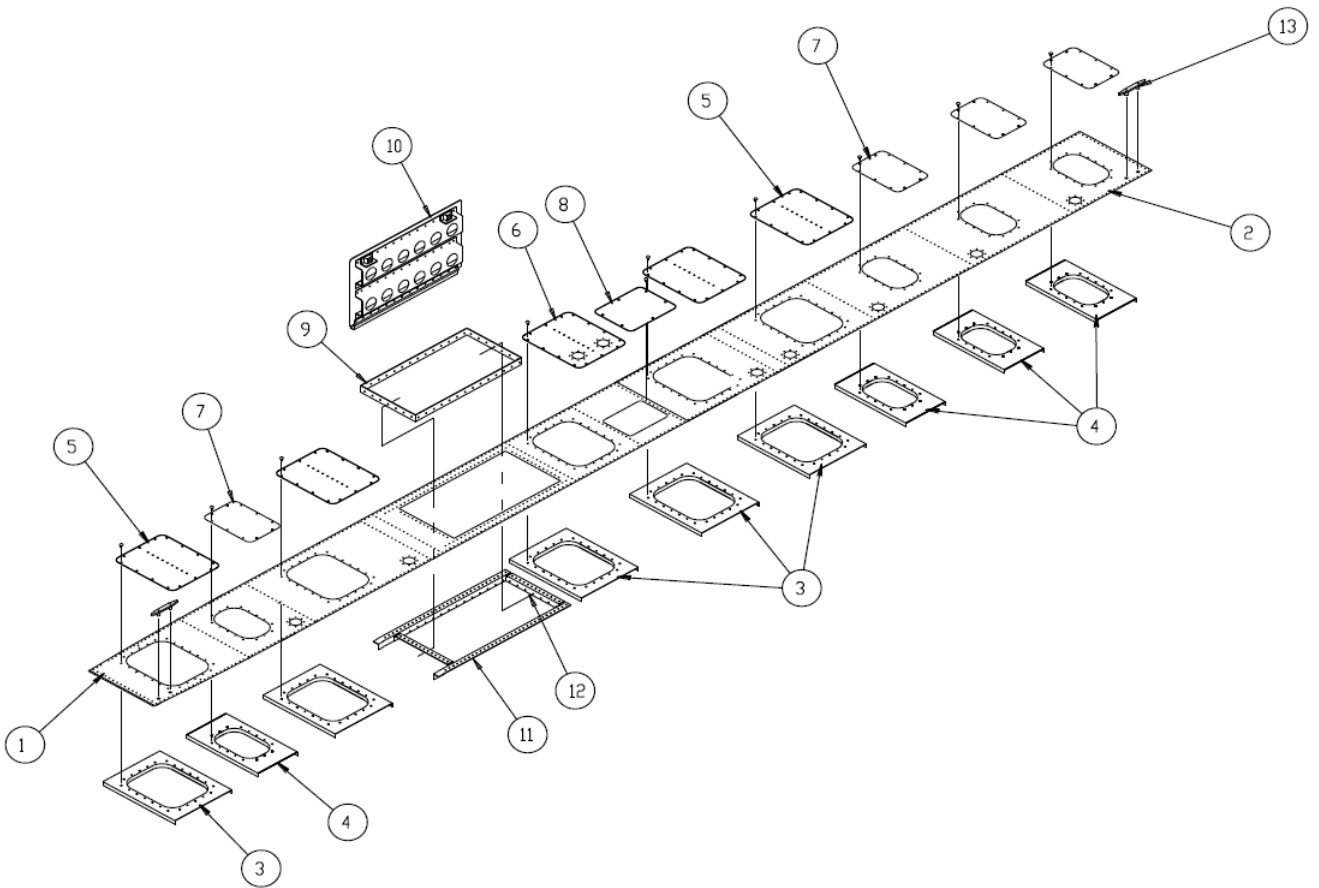


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|-----------------|---|
| 1 | 1 | 21A01004-091 | SKIN – FWD SECTION L. |
| | 1 | 21A01004-092 | SKIN – FWD SECTION R. |
| 2 | 1 | 21A01004-089 | SKIN – AFT SECTION L. |
| | 1 | 21A01004-090 | SKIN – AFT SECTION R. |
| 3 | 4 | 21A01002-130 | SUPPORT – INSP. COVER - LARGE |
| | A/R | 1002481 | TINNERMAN WITH TAPE |
| 4 | 4 | 21A01002-131 | SUPPORT – INSP. COVER – SMALL |
| | A/R | 1002481 | TINNERMAN WITH TAPE |
| 5 | 3 | 21A01000-258 | INSP. COVER ASSY– LARGE – W/ ANGLE & GASKET |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 3 | 1001437 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-001 | SEAL – GASKET ONLY (FLAT COVER) |
| 6 | 1 | 21A01000-273 | INSP. COVER ASSY, LARGE, W/ ANGLE (2 CUPS) & GASKET |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 3 | 1001437 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-001 | SEAL – GASKET ONLY (FLAT COVER) |
| 7 | 4 | 21A01000-284 | INSP. COVER ASSY - SMALL |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 3 | 1001437 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-002 | SEAL – GASKET ONLY (FLAT COVER) |
| 8 | 1 | 21A01002-137 | COVER – GEAR INDICATOR L. |
| | 1 | 21A01002-138 | COVER – GEAR INDICATOR R. |
| | 1 | 10A3-6338-1 | PLACARD – DOWN - LAND |
| | 1 | 10A3-6338-2 | PLACARD – UP - WATER |
| | 4 | 2600-3 | SCREW – CAM - LOK |
| | 2 | 1126000-5 | SCREW – CAM – LOK |
| | 6 | 212-12N | RECEPTACLE – CAM – LOK |
| 9 | 1 | 21A01150-131 | JAMB – BAGGAGE DOOR |
| | 1 | 1002067 | BAGGAGE JAMB, HINGE SIDE |
| 10 | 1 | 21A01000-268 | ASSY – BAGGAGE DOOR |
| | 1 | 21A01162-035 | COVER - SKIN |
| | 1 | 21A01740-008 | HINGE, BAGGAGE COVER, 1.5 |
| | 1 | 21A01741-004 | HINGE, BAGGAGE COVER, 3/4 |
| | 2 | 21A01010-012 | STIFFENER - DOOR |
| | 2 | 21A01004-106 | STIFFENER ENDS |
| | 2 | 3A01206-001 | RETAINER - LOCK |
| | 2 | 3A01273-004 | LOCK PIN |
| | 2 | 3A01702-001 | CATCH – LATCH |
| | 2 | 3A01525-003 | LOCK SPRING |
| | 2 | 1002663 | RING – OPENING |
| | 1 | 1001438 | SEAL – GASKET (NOT SHOWN) |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------------|--|
| | 1 | 1002186 | HINGE PIN |
| | 12 | 01692-0410 | RIVET POP |
| | 2 | 10/32 X 1/2 SS | BOLT |
| 11 | 1 | 21A01326-003 | TOP RAIL – BAGGAGE OPENING L. |
| | 1 | 21A01326-002 | TOP RAIL – BAGGAGE OPENING R. |
| 12 | 2 | 21A01326-004 | JAMB – BAGGAGE DOOR |
| 13 | 2 | 21A01203-001 | CLEAT – TIE DOWN |
| | 4 | 21A01280-004 | BUSHING |
| | 4 | AN525-10R24 | SCREW, HEAD, 10-32 THREAD, 1-3/32" GRIP, 1-1/2" LENGTH |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 4 | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |

TOP DECK - SEAPLANE



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|-----------------|---|
| 1 | 1 | 21S01004-135 | SKIN – FWD SECTION L. |
| | 1 | 21S01004-134 | SKIN – FWD SECTION R. |
| 2 | 1 | 21S01004-137 | SKIN – AFT SECTION L. |
| | 1 | 21S01004-136 | SKIN – AFT SECTION R. |
| 3 | 4 | 21A01002-130 | SUPPORT – INSP. COVER - LARGE |
| | A/R | 1002481 | TINNERMAN WITH TAPE |
| 4 | 5 | 21A01002-131 | SUPPORT – INSP. COVER – SMALL |
| | A/R | 1002481 | TINNERMAN WITH TAPE |
| 5 | 4 | 21A01000-258 | INSP. COVER ASSY – LARGE – W/ ANGLE & GASKET |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 3 | 1001437 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-001 | SEAL – GASKET ONLY (FLAT COVER) |
| 6 | 1 | 2A01000-273 | INSP. COVER – LARGE – ANGLE (2 CUPS) & GASKET |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 3 | 1001437 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-001 | SEAL – GASKET ONLY (FLAT COVER) |
| 7 | 4 | 21A01000-284 | INSP. COVER ASSY- SMALL & GASKET |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | 4 | 1001728 | SEAL – GASKET ONLY (FORMED COVER) |
| | 3 | 21A01567-002 | SEAL – GASKET ONLY (FLAT COVER) |
| 8 | 1 | 21S01000-399 | COVER ASSY & GASKET |
| | 1 | 1002110 | SEAL – GASKET ONLY |
| | A/R | SS TATP 8 X 5/8 | SCREW – ATTACH |
| | A/R | 9A3-671 | NUT – TINNERMAN |
| | 2 | 30S01326-035 | STIFFENER – ANGLE |
| 9 | 1 | 21A01150-131 | JAMB – BAGGAGE DOOR |
| | 1 | 101438 | SEAL – GASKET (NOT SHOWN) |
| | 1 | 1002067 | JAMB – HINGE SIDE |
| 10 | 1 | 21A01000-268 | ASSY – BAGGAGE DOOR |
| | 1 | 21A01162-035 | COVER - SKIN |
| | 1 | 21A01741-004 | HINGE, BAGGAGE COVER, 3/4 |
| | 2 | 21A01010-012 | STIFFENER - DOOR |
| | 2 | 21A01004-106 | STIFFENER ENDS |
| | 2 | 3A01206-001 | RETAINER - LOCK |
| | 2 | 3A01273-004 | LOCK PIN |
| | 2 | 3A01702-001 | CATCH – LATCH |
| | 2 | 3A01525-003 | LOCK SPRING |
| | 2 | 9-0177A221 | RING – OPENING |
| | 1 | 101438 | SEAL – GASKET (NOT SHOWN) |
| 11 | 1 | 21A01326-003 | TOP RAIL – BAGGAGE OPENING L. |
| | 1 | 21A01326-002 | TOP RAIL – BAGGAGE OPENING R. |

PARTS MANUAL
 2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|-------------|------------|-----------------|--|
| 12 | 2 | 21A01326-004 | JAMB – BAGGAGE DOOR |
| 13 | 2 | 21A01203-001 | CLEAT – TIE DOWN |
| | 4 | 21A01280-004 | BUSHING |
| | 4 | AN525-10R24 | SCREW, HEAD, 10-32 THREAD, 1-3/32" GRIP, 1-1/2" LENGTH |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 4 | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |

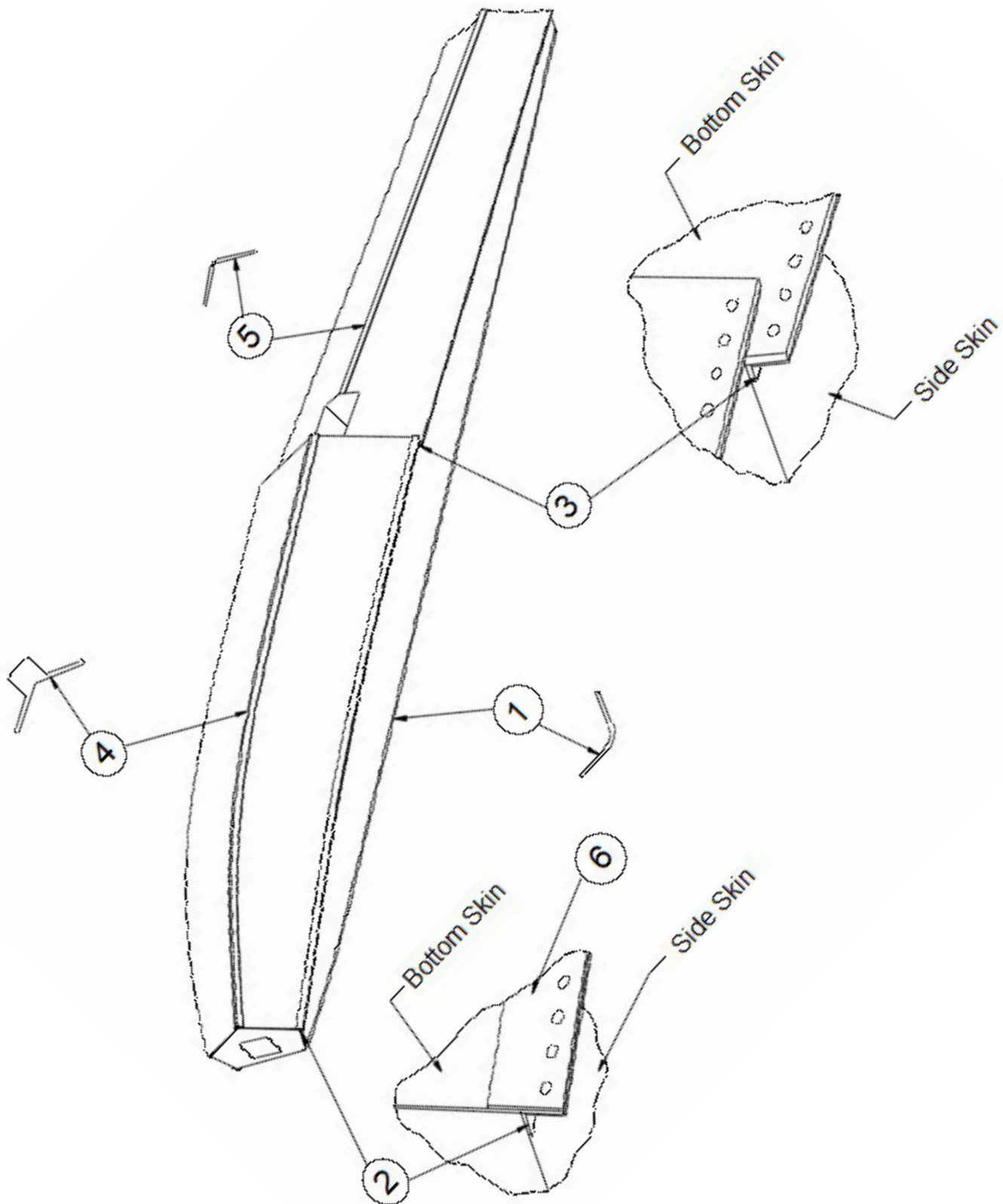
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SECTION 5 EXTRUSIONS

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| HULL EXTRUSIONS - SEAPLANE..... | 56 |

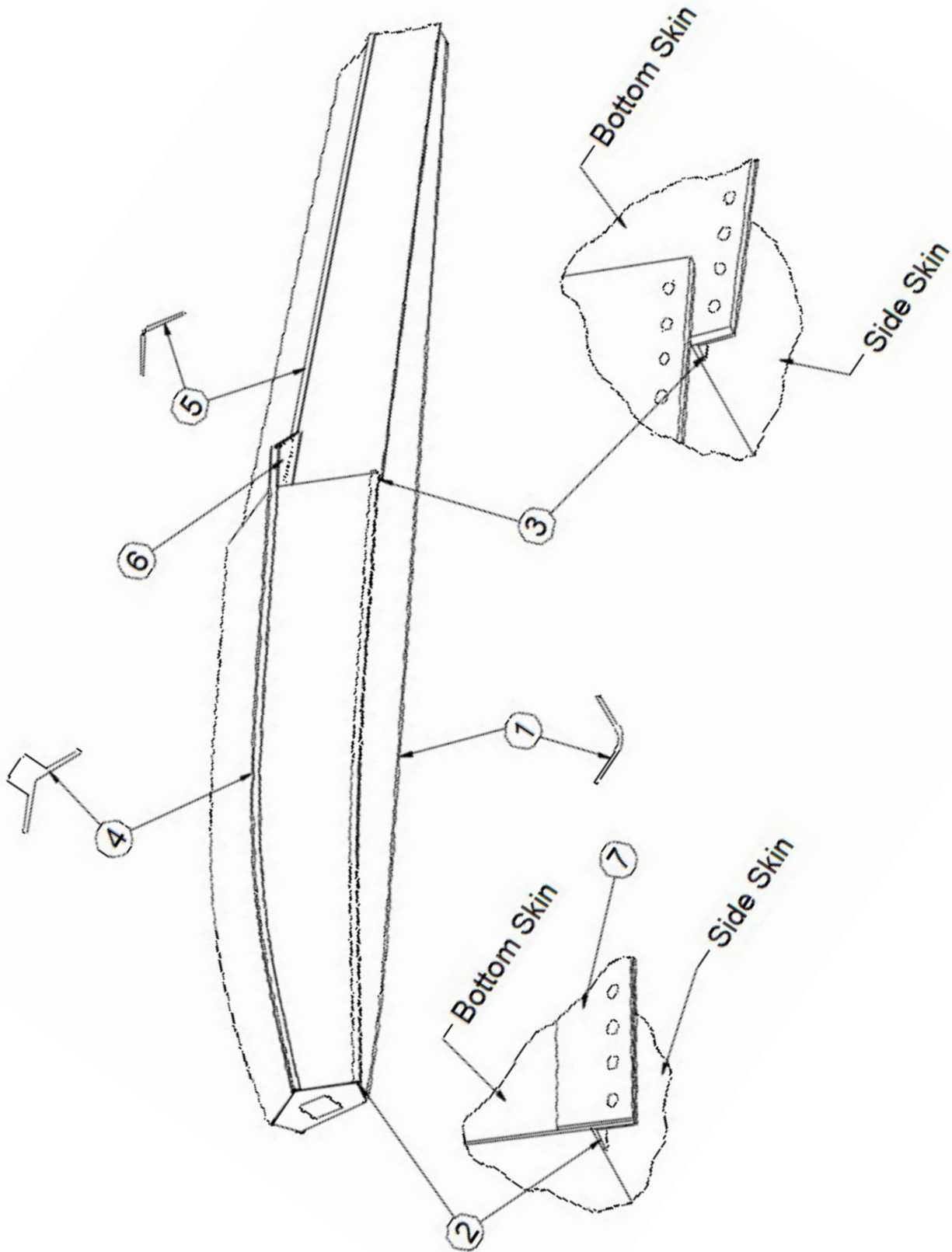
HULL EXTRUSIONS - AMPHIBIAN



PARTS MANUAL
 2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|----------------------|
| 1 | 1 | 21A01324-001 | GUNWALL – L. |
| | 1 | 21A01324-002 | GUNWALL – R. |
| 2 | 1 | 21A01340-109 | CHINE - FWD L. |
| | 1 | 21A01340-108 | CHINE – FWD R. |
| 3 | 1 | 21A01340-107 | CHINE – AFTERBODY L. |
| | 1 | 21A01340-106 | CHINE – AFTERBODY R. |
| 4 | 1 | 21A01321-001 | KEEL - MAIN |
| 5 | 1 | 21A01008-142 | KEEL - AFTERBODY |
| 6 | 1 | 21A01005-267 | STRAP, CHINE, L. |
| | 1 | 21A01005-268 | STRAP, CHINE, R. |

HULL EXTRUSIONS - SEAPLANE



PARTS MANUAL
 2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|------------------------------|
| 1 | 1 | 21A01324-001 | GUNWALL – L. |
| | 1 | 21A01324-002 | GUNWALL – R. |
| 2 | 1 | 21A01340-109 | CHINE - FWD L. |
| | 1 | 21A01340-108 | CHINE – FWD R. |
| 3 | 1 | 21A01340-107 | CHINE – AFTERBODY L. |
| | 1 | 21A01340-106 | CHINE – AFTERBODY R. |
| 4 | 1 | 21S01321-004 | KEEL - MAIN |
| 5 | 1 | 21S01008-172 | KEEL - AFTERBODY |
| 6 | 1 | 21S01000-400 | AFTERBODY GUSSET ASSY. |
| | 1 | 21S01163-037 | ANGLE SUPPORT – AFTERBODY L. |
| | 1 | 21S01163-038 | ANGLE SUPPORT – AFTERBODY R. |
| 7 | 1 | 21A01005-267 | STRAP, CHINE, L. |
| | 1 | 21A01005-268 | STRAP, CHINE, R. |

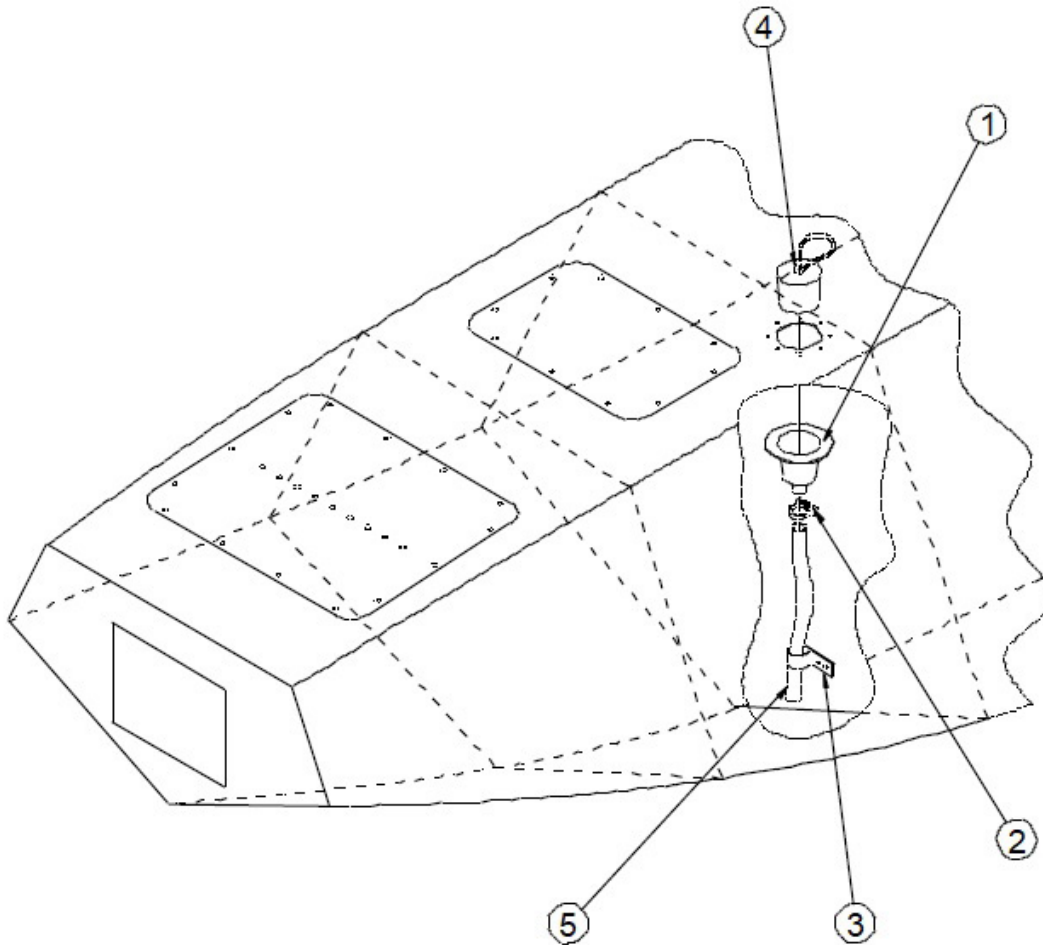
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SECTION 6 PUMPER TUBE INSTALLATION

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| PUMPER TUBE..... | 60 |
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PUMPER TUBE



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|-----------------------|
| 1 | 1 | 4A01749-001 | CUP – PUMPOUT ALUM. |
| | A/R | AN470AD4-4 | RIVETS |
| 2 | 1 | 57134 | CLAMP – UPPER END |
| 3 | 1 | 3A01158-003 | CLAMP – LOWER END |
| 4 | 1 | 2111 | STOPPER – PUMPER TUBE |
| 5 | 1 | 21A01618-062 | PUMPOUT TUBE 10.5 IN. |
| | 1 | 21A01648-061 | PUMPOUT TUBE 12.5 IN. |
| | 1 | 21A01648-060 | PUMPOUT TUBE 15.0 IN. |
| | 1 | 21A01618-059 | PUMPOUT TUBE 17.5 IN. |
| | 1 | 21A01648-058 | PUMPOUT TUBE 23.0 IN. |
| | 1 | 21A01648-056 | PUMPOUT TUBE 21.5 IN. |
| | 1 | 21A01648-055 | PUMPOUT TUBE 18.5 IN. |

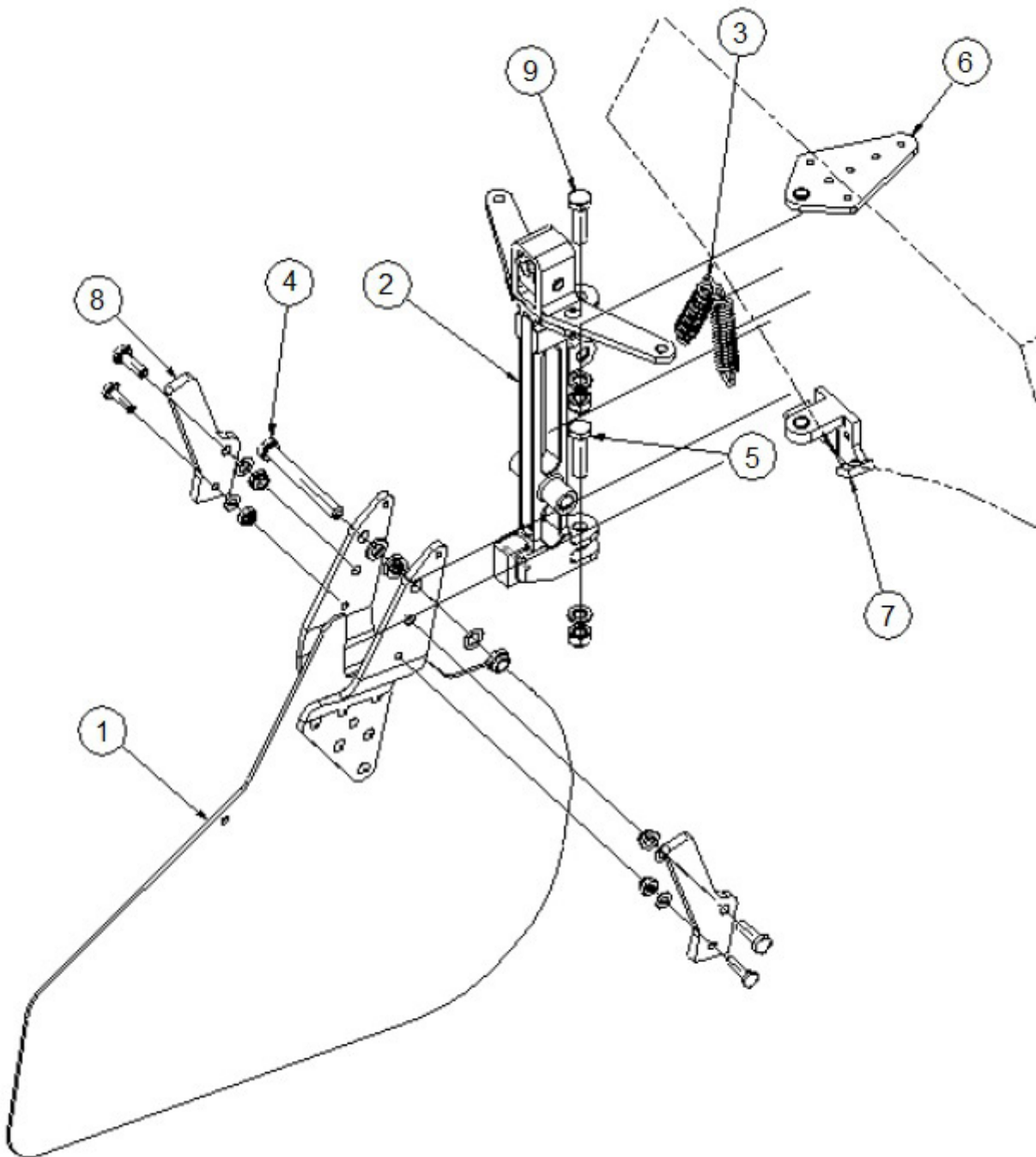
SECTION 7

WATER RUDDER AND STEERING & RETRACT SYSTEM

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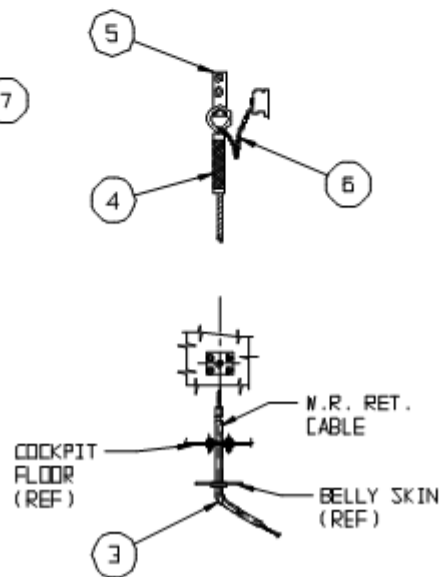
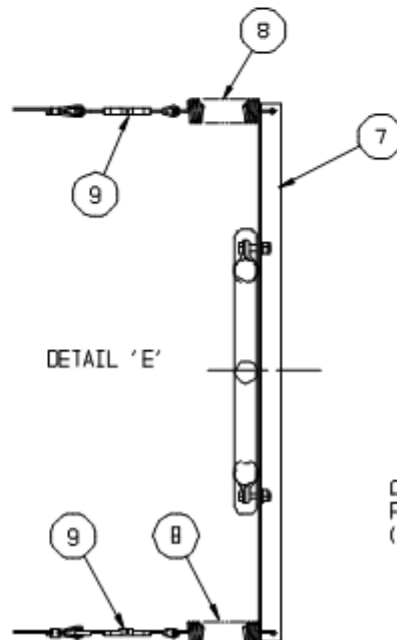
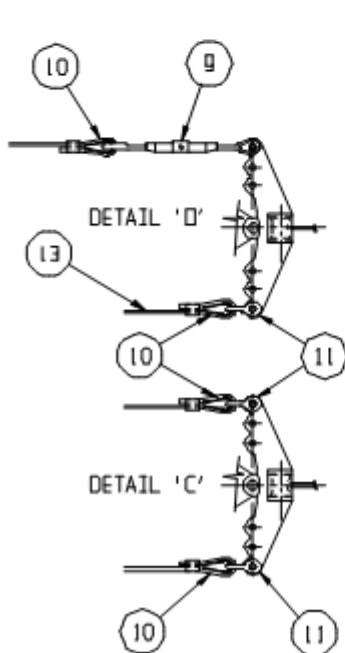
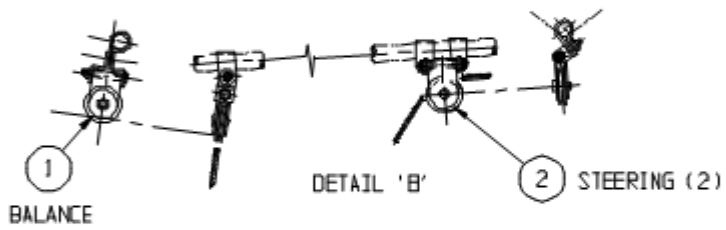
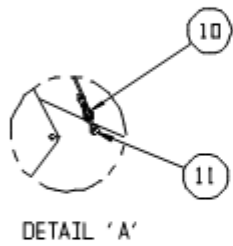
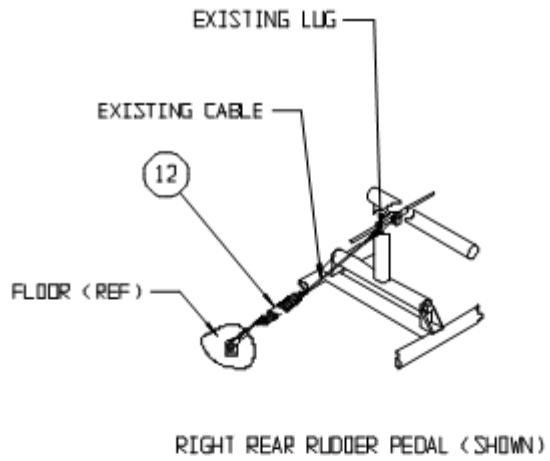
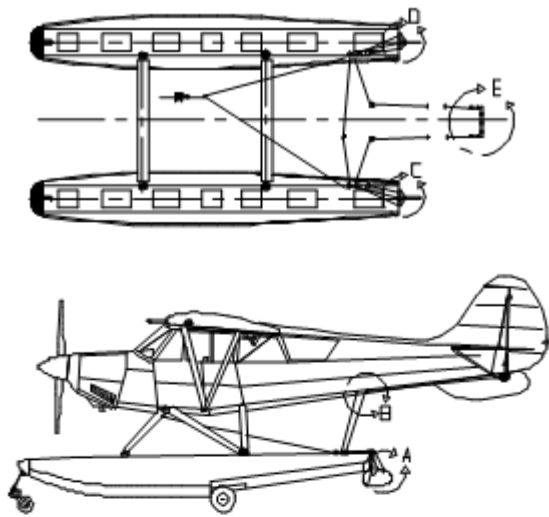
WATER RUDDER INSTALLATION



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------------|---|
| 1 | 1 | 21A08000-123 | ASSY. - BLADE |
| | 1 | 1002649 | BLADE |
| | 1 | 21A08019-001 | ARM L. |
| | 1 | 21A08019-002 | ARM R. |
| 2 | 1 | 1003858 | WATER RUDDER POST WITH BELLCRANK ASSEMBLY |
| | 1 | 1003854 | WATER RUDDER POST ASSEMBLY |
| | 1 | 1003267 | WATER RUDDER POST |
| | 2 | 05DU06 | BUSHING |
| | 1 | 1003853 | BELLCRANK, WATER RUDDER POST ASSEMBLY |
| | 1 | 1003274 | BELLCRANK, WATER RUDDER POST |
| | 2 | 03DU04 | BUSHING |
| | 1 | 21A08648-002 | BUMBER, DOWN STOP |
| | 1 | 1001457 | ROLL PIN |
| | 1 | 21A8602-009 | GUIDE, RETRACT |
| | 1 | 5/16 X 1 1/2 INCHES | PIN ATTACH |
| 3 | 2 | 21A08525-006 | SPRING |
| 4 | 1 | AN5-25A | BOLT, 5/16-24, 2.1875 GRIP, UNDRILLED, STEEL |
| | 3 | NAS1149D0516J | WASHER, 0.328 ID, 0.016 THK, ALUMINUM |
| | 1 | NAS 1149D0563J | WASHER, 0.328 ID, 0.063 THK, ALUMINUM |
| | 1 | MS21083N5 | NUT, LOCKING, LOW HEIGHT, 5/16-24 UNF |
| 5 | 1 | AN5-11A | BOLT, 5/16-24 THREAD, 11/16" GRIP, 1-7/32" LENGTH |
| | A/R | NAS1149D0563J | WASHER, 0.328 ID, 0.063 THK, ALUMINUM |
| | 1 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF |
| 6 | 1 | 21A01000-299 | ASSEMBLY – TOP BEARING |
| | 1 | 21A01019-003 | PLATE |
| | 1 | 21A01705-003 | BEARING |
| 7 | 1 | 21A08000-157 | ASSEMBLY – LOWER BEARING |
| | 1 | 21A08318-002 | BRACKET |
| | 1 | 05DU06 | BEARING |
| 8 | 2 | 21A08154-009 | STOP |
| | 2 | AN4-6A | BOLT, 1/4-28, 0.3125 GRIP, UNDRILLED, STEEL |
| | 2 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 2 | MS21083N4 | NUT, LOCKING, LOW HEIGHT, 1/4-28 UNF |
| | 2 | AN3-6A | BOLT, 10-32, 0.375 GRIP, UNDRILLED, STEEL |
| | 2 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 2 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 9 | 1 | AN5-12A | BOLT SIZE 5/16-24, LENGTH 1/64 - 1-11/32, GRIP LENGTH 13/16 |
| | A/R | NAS1149D0563J | WASHER, 0.328 ID, 0.063 THK, ALUMINUM |
| | 1 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF |

STEERING & RETRACT SYSTEM INSTALLATION



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 21A08000-126 | ASS'Y., BALANCE PULLEY |
| | 1 | 21A08000-125 | ASS'Y., PULLEY BRACKET |
| | 1 | 21A08008-150 | BRACKET - PULLEY |
| | 1 | 21A08230-002 | SPACER, BLOCK |
| | 1 | MS20219-2 | PULLEY |
| | 1 | AN4-7A | BOLT, 1/4-28, 0.4375 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 1 | MS21083N4 | NUT, LOCKING, LOW HEIGHT, 1/4-28 UNF |
| | 2 | 21A08163-068 | BRACKET, "Z" |
| | 2 | AN742D12 | CLAMP, LOOP |
| | 1 | AN3-17A | BOLT, 10-32, 1.5 GRIP, UNDRILLED, STEEL |
| | 3 | AN3-5A | BOLT, 10-32, 0.25 GRIP, UNDRILLED, STEEL |
| | A/R | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 2 | AN3-4A | BOLT, 10-32, 0.125 GRIP, UNDRILLED, STEEL |
| | 4 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| | 1 | 1001957 | STRAP, SUPPORT, PULLEY, BALANCE |
| | 1 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| 2 | 2 | 21A08000-124 | ASS'Y., STEERING PULLEY |
| | 1 | 21A08000-125 | ASS'Y., PULLEY BRACKET |
| | 1 | 21A08008-150 | BRACKET |
| | 1 | 21A08230-002 | SPACER, BLOCK |
| | 1 | MS20219-2 | PULLEY |
| | 1 | AN4-7A | BOLT, 1/4-28, 0.4375 GRIP, UNDRILLED, STEEL |
| | 1 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 1 | MS21083N4 | NUT, LOCKING, LOW HEIGHT, 1/4-28 UNF |
| | 2 | AN742D12 | CLAMP, LOOP |
| | 2 | AN42B4A | BOLT EYE, 10-32 THREAD, #10 SIZE, 1/8" GRIP, 17/32" LENGTH |
| | 1 | AN3-17A | BOLT, 10-32, 1.5 GRIP, UNDRILLED, STEEL |
| | A/R | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |
| | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 2 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 1 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| 3 | 1 | 21A08000-129 | ASS'Y., RETRACT TUBE |
| | 1 | MS354489-11 | GROMMET, RUBBER |
| | 4 | AN5261032R12 | SCREW, ATTACH |
| | 4 | AN970-3 | WASHER, .203 ID, .875 OD, .063 THK |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 4 | 1 | 21A08274-007 | HANDLE, RETRACT |
| | 1 | 33056 | COUPLING SET SCREW, 10/32 X 1/4, 3/16" DIA |
| 5 | 1 | 21A08487-001 | HOOK, RETAINER CLIP |

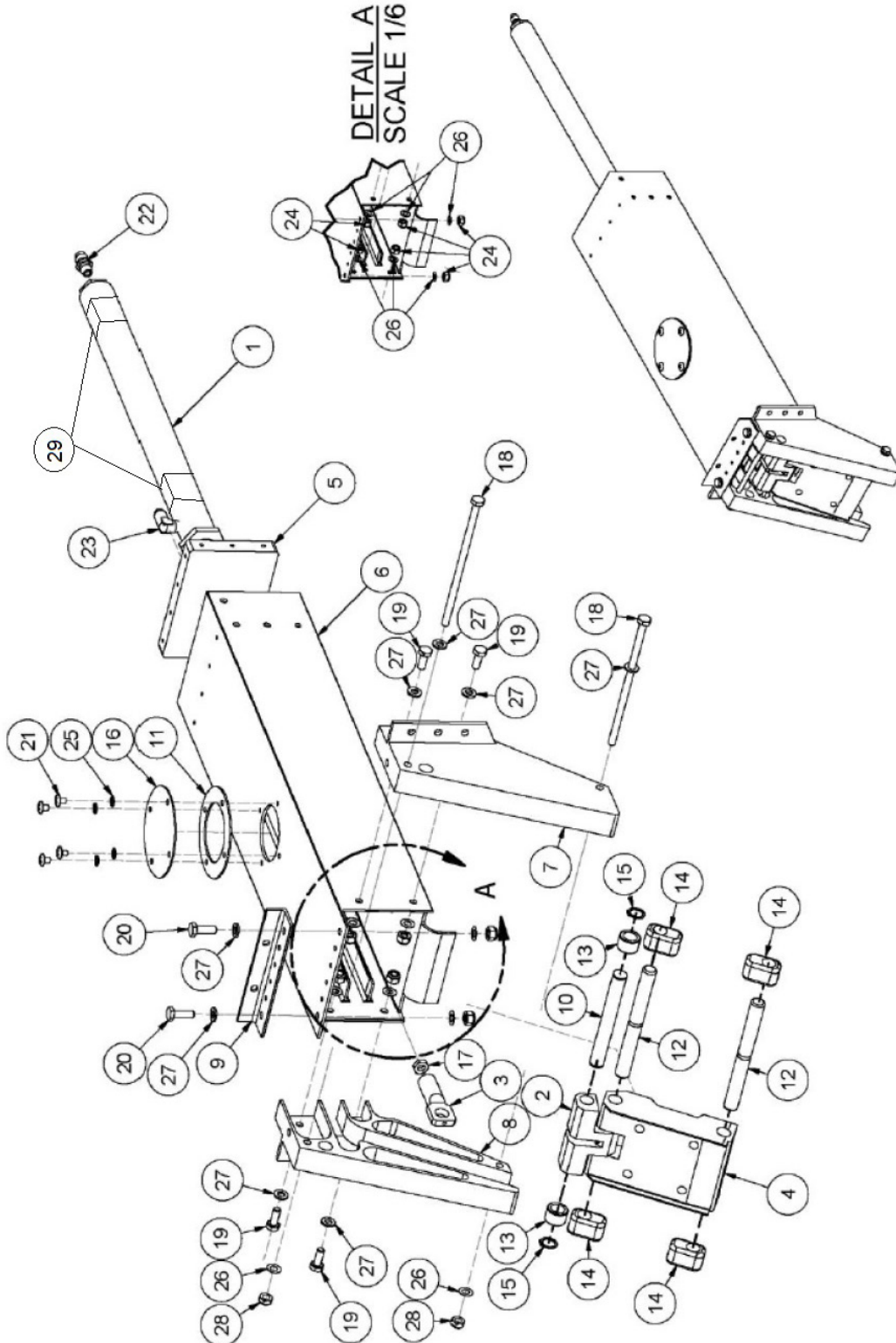
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| | 2 | AN5261032R8 | SCREW, ATTACH |
| | 2 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 6 | 1 | 21A08747-001 | CHAIN, RETRACT, 15 INCHES |
| 7 | 1 | 21A12359-202 | EXTENSION, RUDDER HORN |
| | 2 | AN742D10 | CLAMP, ATTACH |
| | 2 | AN4-6A | BOLT, 1/4-28, 0.3125 GRIP, UNDRILLED, STEEL |
| | 2 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 2 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 8 | 2 | 21A08525-005 | SPRING |
| 9 | 3 | MS21251B3S | TURNBUCKLE, BARREL |
| | 3 | MS21255-3RS | FORK, TERMINAL |
| | 1 | MS20392-2C13 | PIN ATTACH |
| | 1 | MS24665-132 | PIN, COTTER |
| | 1 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 3 | MS21255-3LS | EYE, TERMINAL |
| 10 | 8 | AN100-3 | THIMBLE, CABLE |
| | 9 | MS51844-43 | NICOPRESS, CLAMP |
| 11 | 5 | MS20115-3 | SHACKLES |
| | 6 | MS20392-2C13 | PIN, ATTACH |
| | 5 | MS24665-132 | PIN, COTTER |
| 12 | A/R | RM690 | CABLE (REQUEST LENGTH) 3/32 X 7 |

SECTION 8 LANDING GEAR

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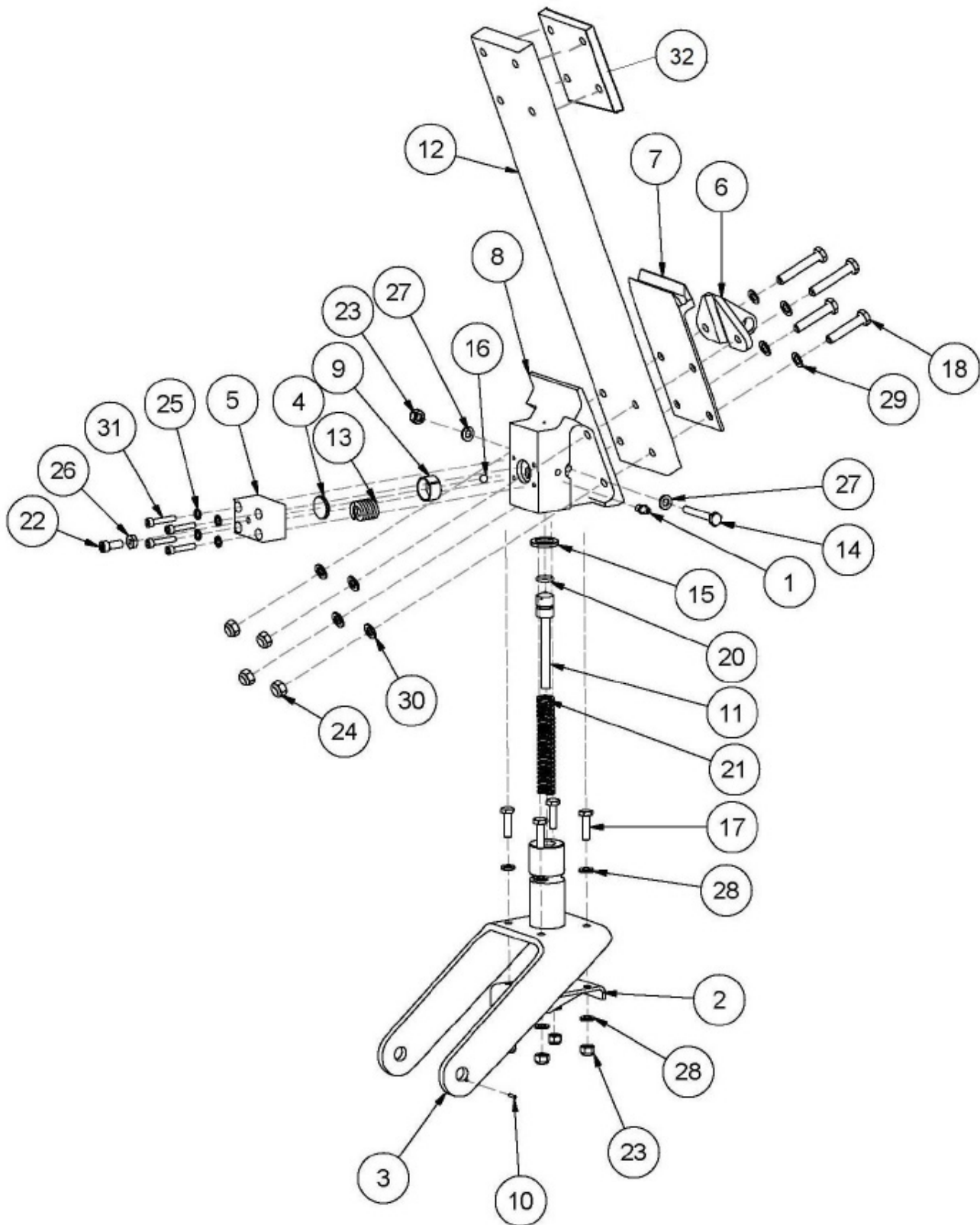
NOSE GEAR RETRACTION ASSEMBLY



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 1002571 | CYLINDER, NOSE GEAR, 2100/2350 |
| 2 | 1 | 21A07032-005 | LINK - TROLLEY, NOSE GEAR |
| 3 | 1 | 21A07094-002 | END - ROD, CYLINDER, NOSE GEAR |
| 4 | 1 | 21A07187-009 | TROLLEY - NOSE GEAR |
| 5 | 1 | 21A07237-002 | END CAP, NOSE BOX |
| 6 | 1 | 21A07323-001 | BOX, NOSE GEAR |
| 7 | 1 | 21A07349-003 | END, NOSE GEAR TRACK LEFT |
| 8 | 1 | 21A07349-004 | END, NOSE GEAR TRACK, RIGHT |
| 9 | 1 | 21A07359-194 | EXTRUSION, ANGLE |
| 10 | 1 | 21A07509-007 | AXLE, TROLLEY LINK |
| 11 | 1 | 30A07567-011 | GASKET, COVER, NOSE BOX, 2100 AND 3000 |
| 12 | 2 | 34A07509-008 | AXLE, TROLLEY |
| 13 | 2 | 3A07530-001 | BEARING - TROLLEY, NOSE GEAR |
| 14 | 4 | 3A07604-001 | BLOCK, SLIDE, TROLLEY, NOSE GEAR |
| 15 | 2 | 5100-46-H | SNAP RING |
| 16 | 1 | 8A01008-080 | COVER, BULKHEAD HYD CYL. HOLE |
| 17 | 1 | AN316-5R | NUT JAM, HEXAGON, 5/16-24 THREAD, RIGHT |
| 18 | 2 | AN4-53A | BOLT, 1/4-28 THREAD, 4-15/16" GRIP, 5-13/32 LENGTH |
| 19 | 4 | AN4-5A | BOLT, 1/4-28 THREAD, 3/16" GRIP, 21/32" LENGTH |
| 20 | 2 | AN4-6A | BOLT, THREAD SIZE 1/4-28, LENGTH +/- 1/64 - 25/32 |
| 21 | 4 | AN526-1032R4 | SCREW, TRUSS HEAD MACHINE, 10-32 THREAD, 1/4" LENGTH |
| 22 | 1 | AN816-4D | NIPPLE, FLARED TUBE AND PIPE THREAD |
| 23 | 1 | MS20822-4D | ELBOW 90 DEG, 7/16-20 TUBE THREAD, 5-44 PIPE THREAD |
| 24 | 6 | MS21044N4 | NUT, HEX LOCKING NYLON INSERT STEEL CAD 2, 1/4-28 |
| 25 | 4 | MS35333-39 | LOCKWASHER, INTERNAL TOOTH, TO FIT DIA #10 |
| 26 | 8 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| 27 | 8 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| 28 | 2 | NAS679-A4W | KAYNAR NUT |
| 29 | 2 | 3A07005-178 | CLIP, SWITCH, NOSE & MAIN |

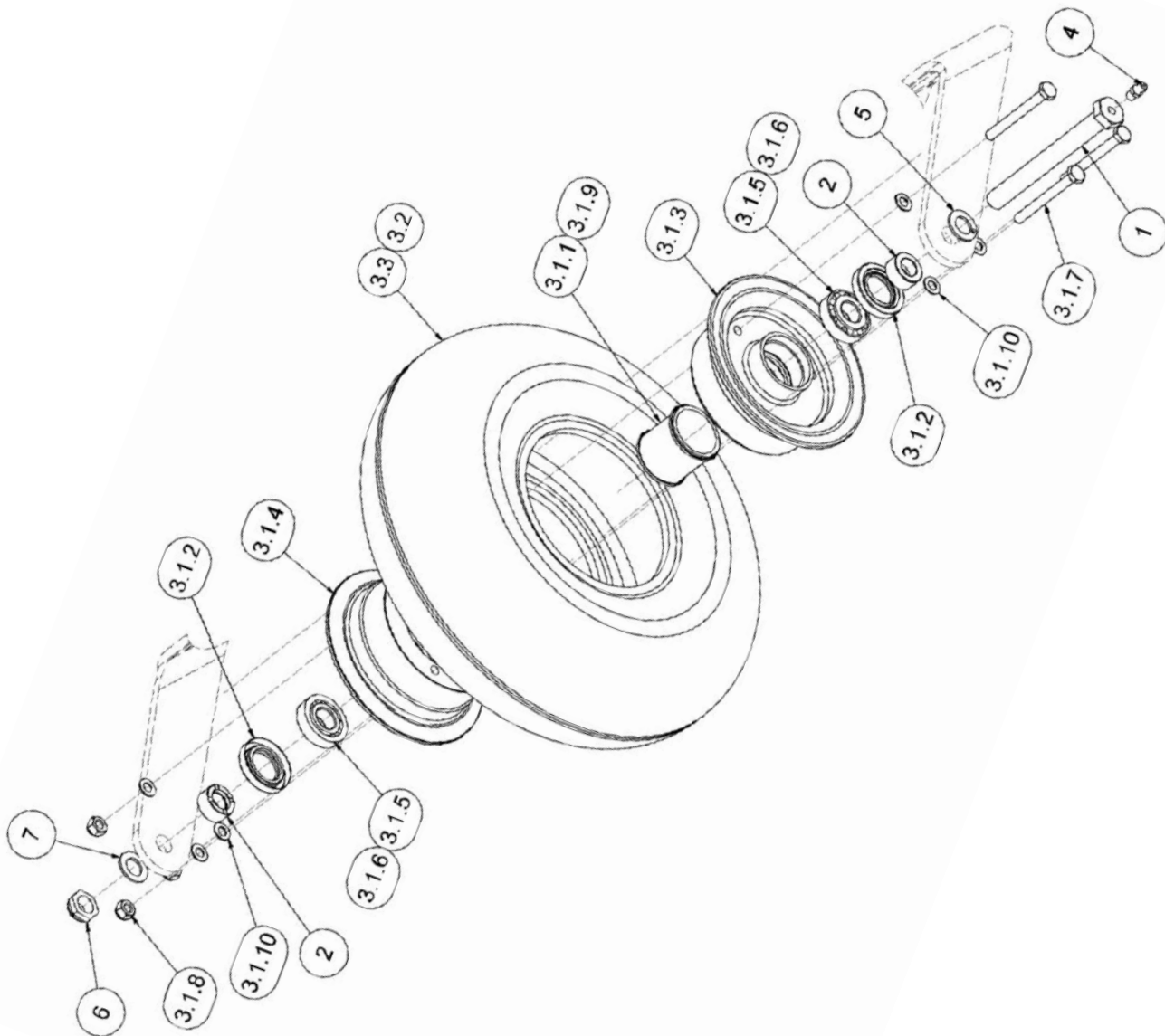
NOSE GEAR LOWER ASSEMBLY



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 1095K41 | COMMON GREASEZERK |
| 2 | 1 | 21A06000-020 | WELDMENT, PIVOT SHAFT, FORK, NOSE GEAR |
| 3 | 1 | 21A06020-001 | FORK, NOSE GEAR (2100) |
| 4 | 1 | 21A06160-053 | PRESSURE PLATE |
| 5 | 1 | 21A06194-005 | BLOCK - SPRING |
| 6 | 1 | 21A06213-006 | TOW HOOK NOSE GEAR |
| 7 | 1 | 21A06237-001 | BEARING PLATE, LOWER, NOSE GEAR |
| 8 | 1 | 21A06318-005 | BLOCK - PIVOT, NOSE GEAR |
| 9 | 1 | 21A06475-006 | FRICITION CUP |
| 10 | 1 | 21A06476-003 | PIN, ANTIROTATION |
| 11 | 1 | 21A06605-002 | PLUNGER- NOSE WHEEL, 21, 23,3,34 |
| 12 | 1 | 21A06653-001 | SPRING NOSE GEAR |
| 13 | 1 | 21A06705-005 | PRESSURE SPRING |
| 14 | 1 | 30A06702-016 | BOLT - MODIFIED, PIVOT BLOCK |
| 15 | 1 | 3A06602-001 | THRUST WASHER |
| 16 | 1 | 9528K15 | 1/4" CHROME BALL BEARING |
| 17 | 4 | AN4-7A | BOLT, 1/4-28, 0.4375 GRIP, UNDRILLED, STEEL |
| 18 | 2 | AN5-14A | BOLT, 5/16-24, 1.0625 GRIP, UNDRILLED, STEEL |
| 19 | 2 | AN5-16A | BOLT, 5/16-24 THREAD, 1-5/16" GRIP, 1-27/32" LENGTH |
| 20 | 1 | AN6227-9 | O-RING |
| 21 | 1 | M62-350 | SPRING |
| 22 | 1 | MS16997-60 | SOCKET HEAD CAP SCREW |
| 23 | 5 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 24 | 4 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF |
| 25 | 4 | MS35333-39 | LOCKWASHER, INTERNAL TOOTH, TO FIT DIA #10 |
| 26 | 1 | MS35649-2252 | NUT, PLAIN HEXAGON, 1/4-20 THREAD |
| 27 | 2 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| 28 | 8 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| 29 | 4 | NAS1149F0532P | WASHER, 0.328 ID, 0.032 THK, STEEL |
| 30 | 4 | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL |
| 31 | 4 | NAS1352-316P | SOCKET HEAD CAP SCREW |
| 32 | 1 | 21A06166-001 | PLATE – BEARING, NOSE SPRING |
| | 4 | AN5-20A | BOLT, 5/16-24, 1.5625 GRIP, UNDRILLED, STEEL (NOT SHOWN) |
| | 4 | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL (NOT SHOWN) |
| | 4 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF (NOT SHOWN) |

NOSE WHEEL ASSEMBLY (GROVE)

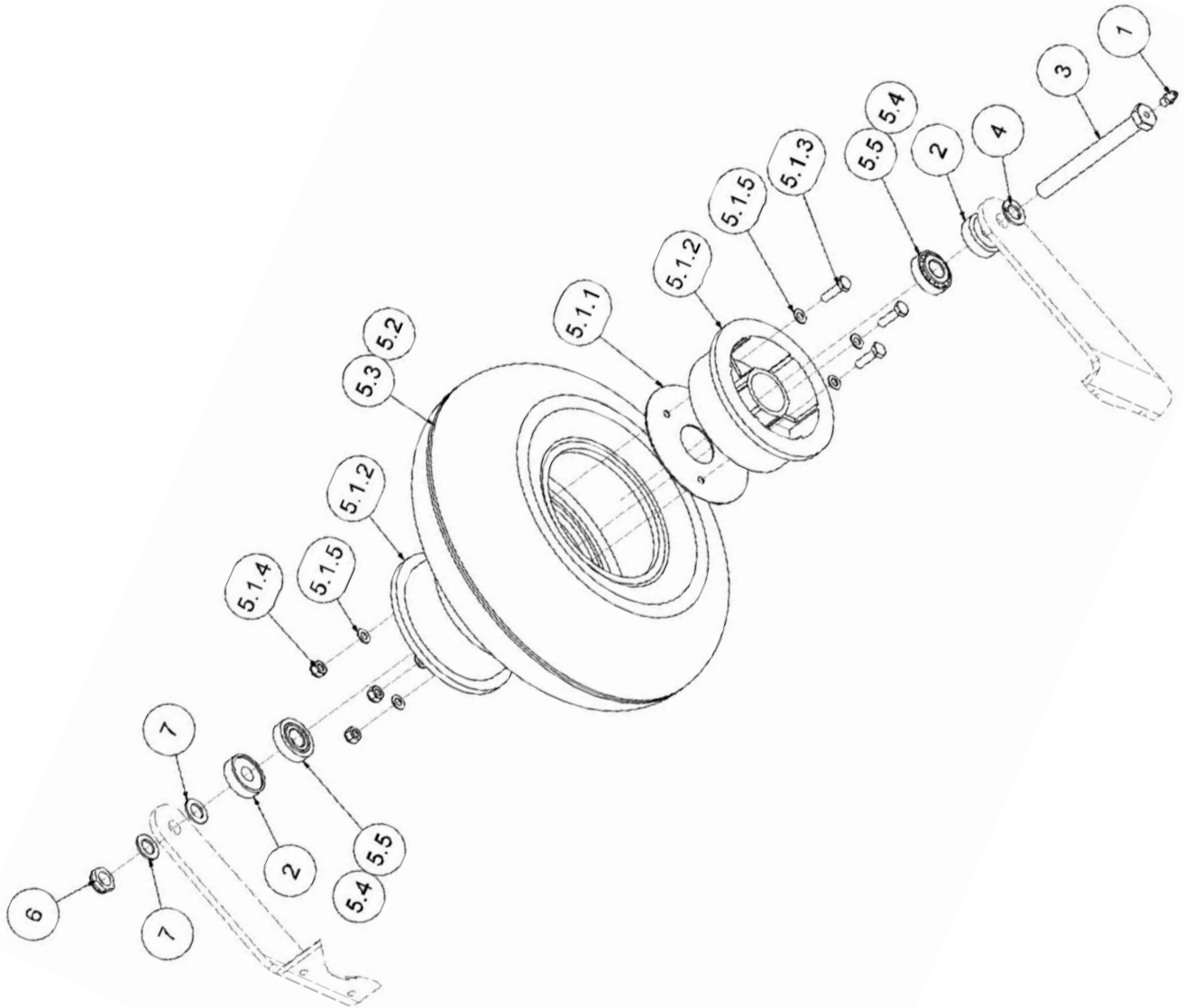


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|--------|-----|---------------|---|
| 1 | 1 | 1005927 | BOLT, AXLE, NOSE GEAR |
| 2 | 2 | 1005929 | SPACER |
| 3 | 1 | 1005931 | ASSEMBLY, NOSE WHEEL |
| 3.1 | 1 | 49-12AF-001 | ASSEMBLY, WHEEL, GROVE |
| 3.1.1 | 1 | 010-019 | GREASE RETAINER |
| 3.1.2 | 2 | 471570 | SEAL, TIMKEN (EQUIVALENT TO GROVE OEM P/N 010-026) |
| 3.1.3 | 1 | 015-020A | WHEEL HALF INNER |
| 3.1.4 | 1 | 016-020AF | WHEEL HALF OUTER |
| 3.1.5 | 2 | A4050 | BEARING CORE |
| 3.1.6 | 2 | A4138 | BEARING CONE |
| 3.1.7 | 3 | AN4-23A | BOLT, 1/4-28, 1.9375 GRIP, UNDRILLED, STEEL |
| 3.1.8 | 3 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 3.1.9 | 2 | MS28775-029 | O RING, I.D 1.489, O.D. 1.629. .070 THICK |
| 3.1.10 | 6 | NAS1149F0416 | WASHER, 0.265 ID, 0.016 THK, STEEL |
| 3.2 | 1 | XA1AA* | INNER TUBE, 2.80 X 4 |
| 3.3 | 1 | AD1A2* | TIRE, 2.50 / 2.80 - 4 |
| 4 | 1 | 1095K41 | COMMON GREASEZERK |
| 5 | 1 | 3A06702-003 | MODIFIED WASHER |
| 6 | 1 | MS21083N8 | NUT, SELFLOCKING, 1/2-20 THREAD, NYLON INSERT, 250 DEG. |
| 7 | 1 | NAS1149D0863J | WASHER, 0.515 ID, 0.063 THK, ALUMINUM |
| 8 | 1 | 21A06476-003 | PIN ANTI ROTATE AXLE |

* Any alternate tire (tube type) which is TSO-approved, matches the listed tire's dimensions, and meets its speed/load/ply ratings may be used. Equivalent tubes may also be used.

NOSE WHEEL ASSEMBLY (PARKER)

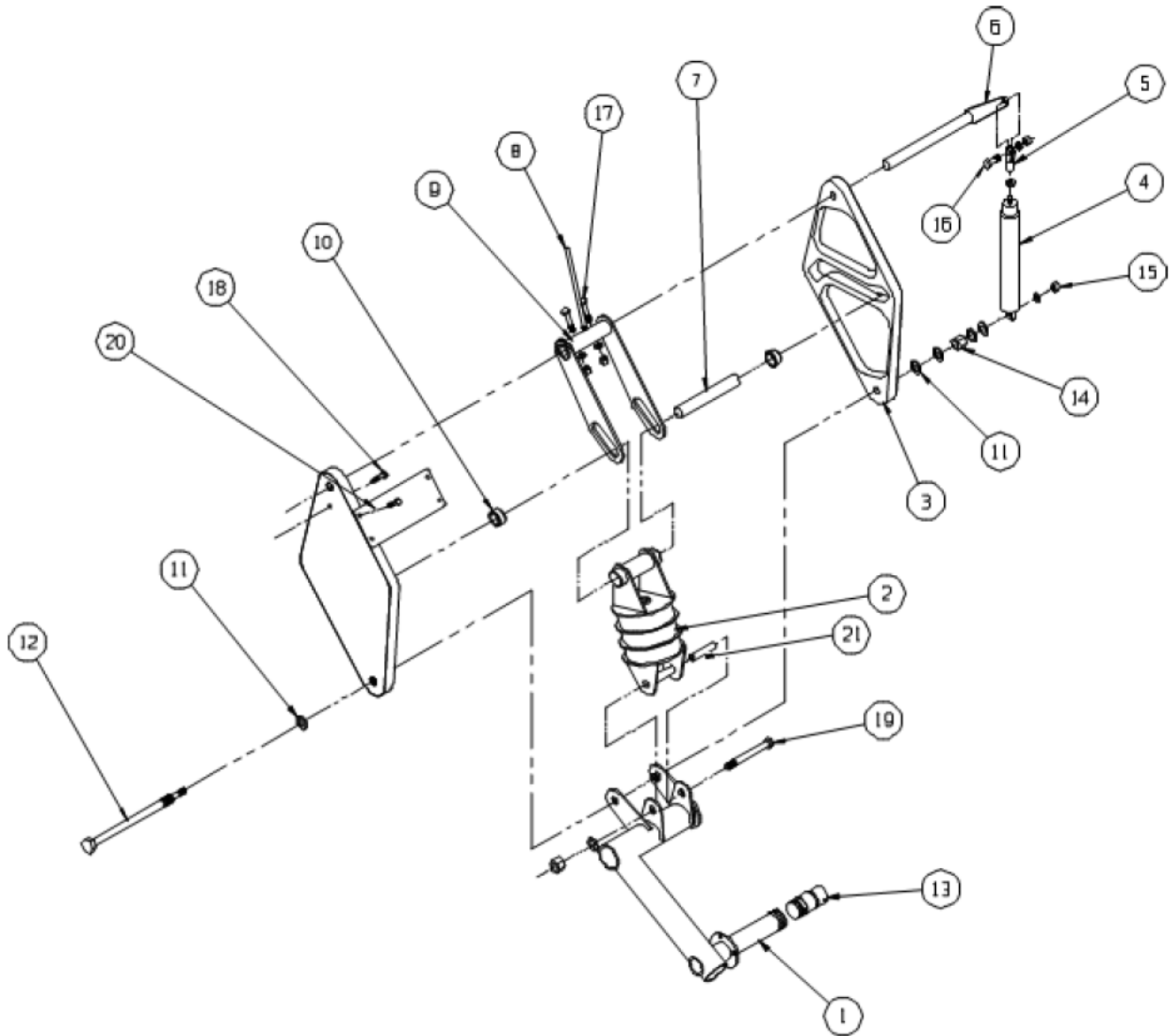


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|-------|-----|---------------|---|
| 1 | 1 | 1095K41 | COMMON GREASEZERK |
| 2 | 2 | 3A06259-001 | SPACER |
| 3 | 1 | 3A06702-002 | BOLT, MODIFIED, AXLE, NOSE GEAR |
| 4 | 1 | 3A06702-003 | MODIFIED WASHER |
| 5 | 1 | 21A06000-021 | NOSE WHEEL ASSEMBLY |
| 5.1 | 1 | D-30380 | PARKER WHEEL ASSEMBLY |
| 5.1.1 | 1 | 068-30373 | GASKET |
| 5.1.2 | 2 | 161-30382 | WHEEL HALF |
| 5.1.3 | 3 | AN4-7A | BOLT, 1/4-28, 0.4375 GRIP, UNDRILLED, STEEL |
| 5.1.4 | 3 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 5.1.5 | 6 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 5.2 | 1 | XA1AA* | INNER TUBE, 2.80 X 4 |
| 5.3 | 1 | AD1A2* | TIRE, 2.50 / 2.80 - 4 |
| 5.4 | 2 | A4050 | BEARING CORE |
| 5.5 | 2 | A4138 | BEARING CONE |
| 6 | 1 | MS21083N8 | NUT, SELFLOCKING, 1/2-20 THREAD, NYLON INSERT, 250 DEG. |
| 7 | 2 | NAS1149D0863J | WASHER, 0.515 ID, 0.063 THK, ALUMINUM |

* Any alternate tire (tube type) which is TSO-approved, matches the listed tire's dimensions, and meets its speed/load/ply ratings may be used. Equivalent tubes may also be used.

MAIN GEAR RETRACTION INSTALLATION

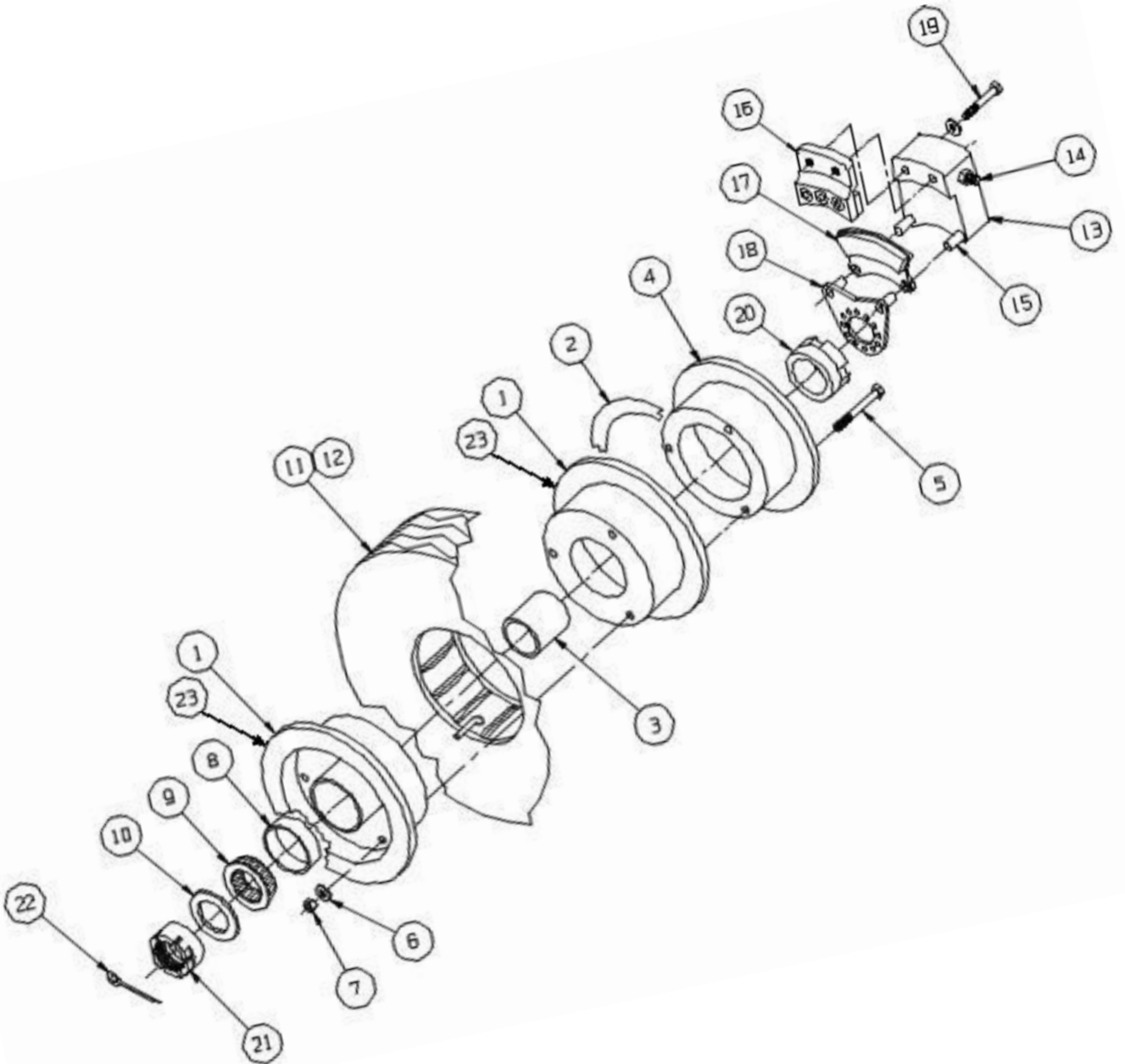


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 21A04000-077 | ASSY. – DRAG LINK L. |
| | 1 | 21A04000-076 | ASSY. – DRAG LINK R. |
| | 2 | 08FDU12 | BEARING |
| 2 | 1 | 21A04000-073 | ASSY. SHOCK STRUT |
| | 1 | 21A04000-074 | ASSY. - UPPER END |
| | 1 | 21A04000-075 | ASSY. – LOWER END |
| | 2 | 1095K41 | ZERK – GREASE |
| | 2 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 2 | NAS1149D0463J | WASHER, 0.265 ID, 0.063 THK, ALUMINUM |
| | 1 | 1002087 | DUAL BUSHING ASSEMBLY |
| | 1 | 1001100 | BUSHING ASSEMBLY |
| | 1 | 21A04503-004 | RETAINING PIN |
| | 1 | MS24665-151 | COTTER PIN |
| | 1 | 21A04585-002 | SLEEVES |
| 3 | 1 | 21A05114-005 | TRACK – MAIN GEAR L. |
| | 1 | 21A05114-006 | TRACK – MAIN GEAR R. |
| | 1 | 10DU12 | BEARING - UPPER |
| | 1 | 08DU12 | BEARING – LOWER |
| 4 | 1 | 1002574 | CYLINDER |
| | 2 | MS20822-4D | ELBOW 90 DEG, 7/16-20 TUBE THREAD, 5-44 PIPE THREAD |
| 5 | 1 | 21A05705-002 | ROD END |
| | 1 | AN316-5 | JAMB NUT |
| | 1 | 21A05260-005 | SPACER |
| | 1 | MS20002C6 | WASHER TO FIT DIA 3/8", COUNTERSUNK (CHAMFERED EDGE GOES AGAINST CYLINDER) |
| 6 | 1 | 21A05000-017 | ARM – RETRACT L. |
| | 1 | 21A05000-016 | ARM – RETRACT R. |
| 7 | 1 | 21A04454-006 | AXLE – SHOCK STRUT |
| 8 | 1 | 21A05000-022 | INDICTATOR ASSY. |
| 9 | 1 | 21A05000-018 | GEAR ACTUATOR |
| 10 | 2 | 21A05520-003 | ROLLER – TRACK |
| 11 | 2 | 93783A033 | WASHERS, PRESSURE SEALING, W/ ZINC PLATING, 1/2" DIA |
| 12 | 1 | 21A05000-019 | BOLT, MAIN GEAR |
| | 1 | 21A05735-001 | BOLT |
| | 1 | 21A05476-002 | STUD |
| 13 | 1 | 21A04263-007 | RETAINER - GREASE |
| | 2 | MS28775-210 | O RING, DIA 0.734 |
| | 1 | 1095K41 | ZERK – GREASE |
| 14 | 1 | MS21044N8 | NUT, LOCKING, REGULAR HEIGHT, 1/2-20 UNF |
| | 2 | NAS1149F0863P | WASHER, AIRFRAME, TO FIT DIA 1/2" |
| 15 | 1 | MS21083N5 | NUT, LOCKING, LOW HEIGHT, 5/16-24 UNF |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| | A/R | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL |
| 16 | 1 | 1005875 | ASSEMBLY, PIN, CLEVIS, MAGNET HOLDER |
| | 2 | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL |
| | 1 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF |
| 17 | 2 | NAS6204-17 | BOLT, 1/4-28 THREAD, 1.432" LENGTH, 1.062" GRIP |
| | 4 | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 2 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 18 | 8 | AN3-6A | BOLT, 10-32, 0.375 GRIP, UNDRILLED, STEEL |
| | 8 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 8 | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |
| | 8 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 19 | 1 | AN8-33A | BOLT, 1/2-20 THREAD, 2-11/16" GRIP, 3-15/32" LENGTH |
| | 1 | NAS1149F0832P | WASHER, 0.515 ID, 0.032 THK, STEEL |
| | 1 | NAS1149F0863P | WASHER, AIRFRAME, TO FIT DIA 1/2" |
| | 1 | MS21044N8 | NUT, LOCKING, REGULAR HEIGHT, 1/2-20 UNF |
| 20 | 1 | 21A05003-079 | PLATE - SEPARATING |
| | 4 | AN3-5A | BOLT, 10-32, 0.25 GRIP, UNDRILLED, STEEL |
| | 8 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 21 | 1 | 21A04547-004 | BUSHING, LOWER, SHOCK STRUT |
| | 2 | 21A09005-262 | CLIP, MAGNETIC INDICATOR (NOT SHOWN) |
| | 2 | 5801 | PROXIMITY SWITCH (NOT SHOWN) |
| | 4 | MS24693-S6 | SCREW, COUNTERSUNK , 4-40 UNC, 0.5 LG (NOT SHOWN) |

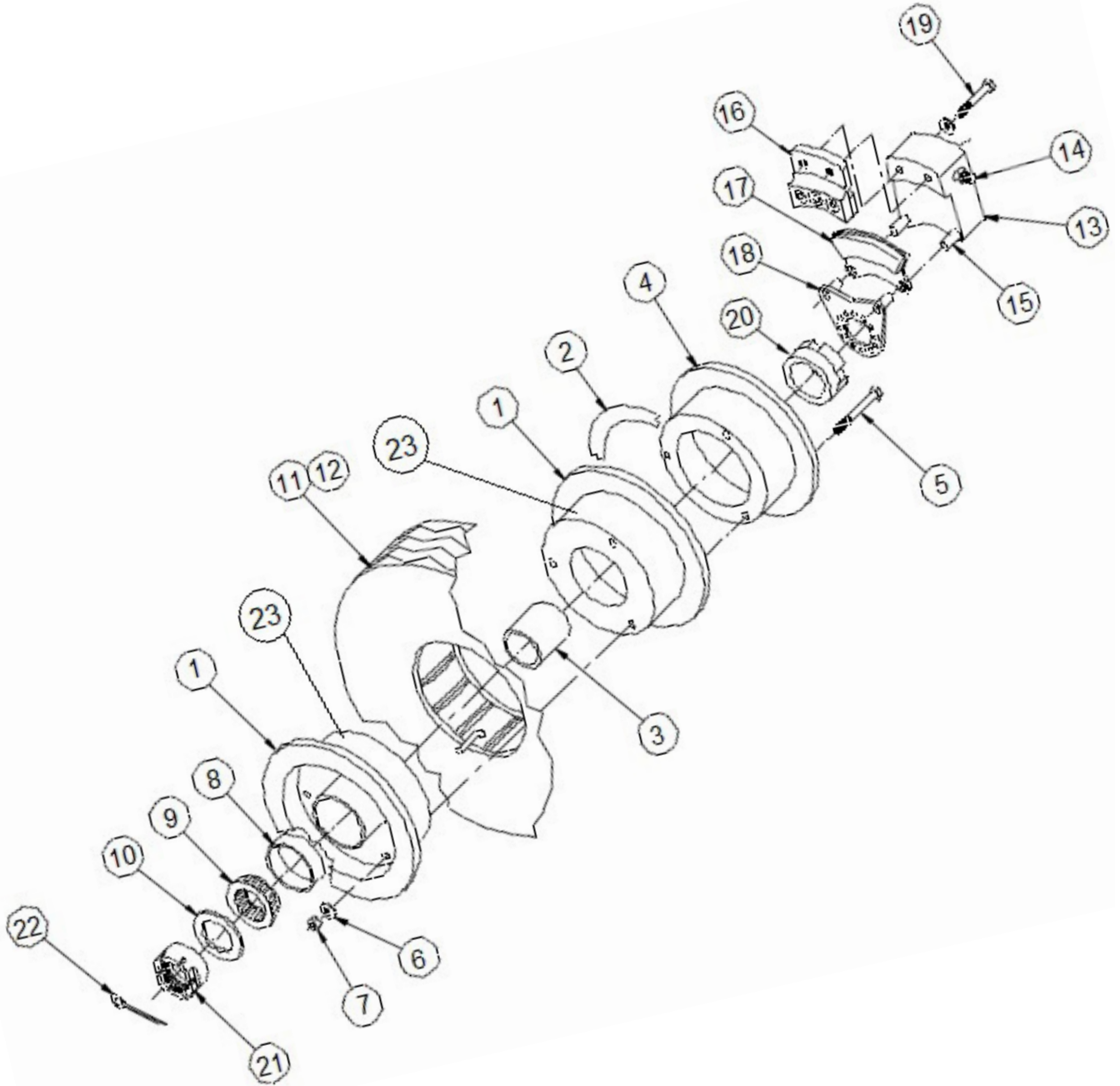
MAIN GEAR WHEEL GROVE / WIPAIRE ASSEMBLY



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 1 | 1 | 1002141 | ASSY, MAIN WHEEL, GROVE, 2100 |
| 2 | 1 | 3A04620-001 | GASKET - TEFLON |
| 3 | 1 | 010-009 | GREASE RETAINER |
| 4 | 1 | 018-001 | BRAKE DISC |
| 5 | 3 | AN4-23A | BOLT, 1/4-28, 1.9375 GRIP, UNDRILLED, STEEL |
| 6 | 3 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 7 | 3 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 8 | 2 | 08125 | BEARING RACE (CHROME) |
| 9 | 2 | 08231 | BEARING CUP |
| 10 | 2 | 473237 | SEAL - INSIDE/OUTSIDE |
| 11 | 1 | AA1D4* | TIRE -TYPE III 500 X 5, 6 PLY |
| 12 | 1 | XA1AC* | TUBE 500 X 5 |
| 13 | 1 | 32-1 | BRAKE ASSEMBLY |
| | 2 | 017-003 | PISTON |
| | 2 | MS28775-217 | "O" RING, HYDRAULIC |
| 14 | 1 | 220-0063 | BLEEDER ASSEMBLY |
| | 1 | MS20823-3D | FITTING 45° BRAKE LINE |
| 15 | 2 | 013-001 | TORQUE PIN |
| | 2 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 16 | 1 | 10-3 | ASS'Y - BACK PLATE |
| | 1 | 066-111 | PAD |
| | 3 | 066-001 | RIVET |
| 17 | 1 | 11-2 | ASS'Y - PRESSURE PLATE |
| | 1 | 066-111 | LINING |
| | 3 | 066-001 | RIVET |
| 18 | 1 | 020-001 | BRAKE TORQUE PLATE |
| 19 | 3 | AN4H-15A | BOLT |
| | 3 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 20 | 1 | 3A04093-001 | SPACER |
| 21 | 1 | 3A04268-003 | NUT - AXLE |
| 22 | 1 | MS24665-351 | COTTER PIN |
| 23 | 1 | 1002142 | ASSY, RIM & BEARINGS, GROVE, 2100 |

* Any alternate tire (tube type) which is TSO-approved, matches the listed tire's dimensions, and meets its speed/load/ply ratings may be used. Equivalent tubes may also be used.

MAIN GEAR WHEEL CLEVELAND / PARKER ASSEMBLY



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 3A04000-002 | ASSY. – WHEEL (W/ TUBE & TIRE) |
| | 1 | 3A04000-060 | ASSY. - WHEEL |
| 2 | 1 | 3A04620-001 | GASKET - TEFLON |
| 3 | 1 | 3A04616-001 | GREASE RETAINER |
| 4 | 1 | 164-01700 | BRAKE DISC |
| 5 | 3 | AN4-22A | BOLT, 1/4-28, 1.8125 GRIP, UNDRILLED, STEEL |
| 6 | 3 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 7 | 3 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 8 | 2 | 8231 | BEARING CUP |
| | 2 | 8231CP | BEARING CUP, CHROME (OPT.) |
| 9 | 2 | 8125 | BEARING CONE |
| | 2 | 8125CP | BEARING CONE, CHROME (OPT.) |
| 10 | 2 | 473237 | SEAL - INSIDE/OUTSIDE |
| 11 | 1 | AA1D4* | TIRE –TYPE III |
| 12 | 1 | XA1AC* | TUBE |
| | 1 | 075-00800 | ASSY. – BRAKE AND TORQUE PLATE |
| 13 | 1 | 21A04000-096 | ASSY. – CALIPER (RIGHT) |
| | 1 | 21A04000-097 | ASSY. – CALIPER (LEFT) |
| | 1 | 062-00300 | PISTON |
| | 1 | AN6227-23 | “O” RING |
| | 1 | MS20823-3D | FITTING - 45 DEGREES (BRAKE LINE) |
| 14 | 1 | 081-30619 | SEAT – BLEEDER |
| | 1 | 79-3 | SCREW – BLEEDER |
| | 1 | 183-1 | CAP – BLEEDER |
| 15 | 2 | 069-00400 | ANCHOR BOLT |
| | 2 | NAS1149F0463P | WASHER, 0.265 ID, 0.063 THK, STEEL |
| | 2 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 16 | 1 | 074-02700 | ASSY. – BACK PLATE |
| | 1 | 064-00500 | PLATE – BACK |
| | 1 | 066-10600 | LINING |
| | 3 | 105-00200 | RIVET |
| 17 | 1 | 073-04800 | ASSY. – PRESSURE PLATE |
| | 1 | 063-00500 | PLATE - PRESSURE |
| | 1 | 066-10600 | LINING |
| | 3 | 105-00200 | RIVET |
| 18 | 1 | 3A04711-001 | BRAKE TORQUE PLATE - LEFT |
| | 1 | 3A04711-002 | BRAKE TORQUE PLATE – RIGHT |
| 19 | 1 | AN4H15A | BOLT, 1/4-28 THREAD, 1-3/16" GRIP, 1-21/32" LENGTH |
| | 1 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 20 | 1 | 3A04093-001 | SPACER |
| 21 | 1 | 3A04268-003 | NUT – AXLE |

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|-------------|------------|-----------------|------------------------------------|
| 22 | 1 | MS24665-351 | COTTER PIN |
| 23 | 1 | 40-78A | WHEEL ASSEMBLY, EXTERNAL, 5.00 X 5 |

* Any alternate tire (tube type) which is TSO-approved, matches the listed tire's dimensions, and meets its speed/load/ply ratings may be used. Equivalent tubes may also be used.

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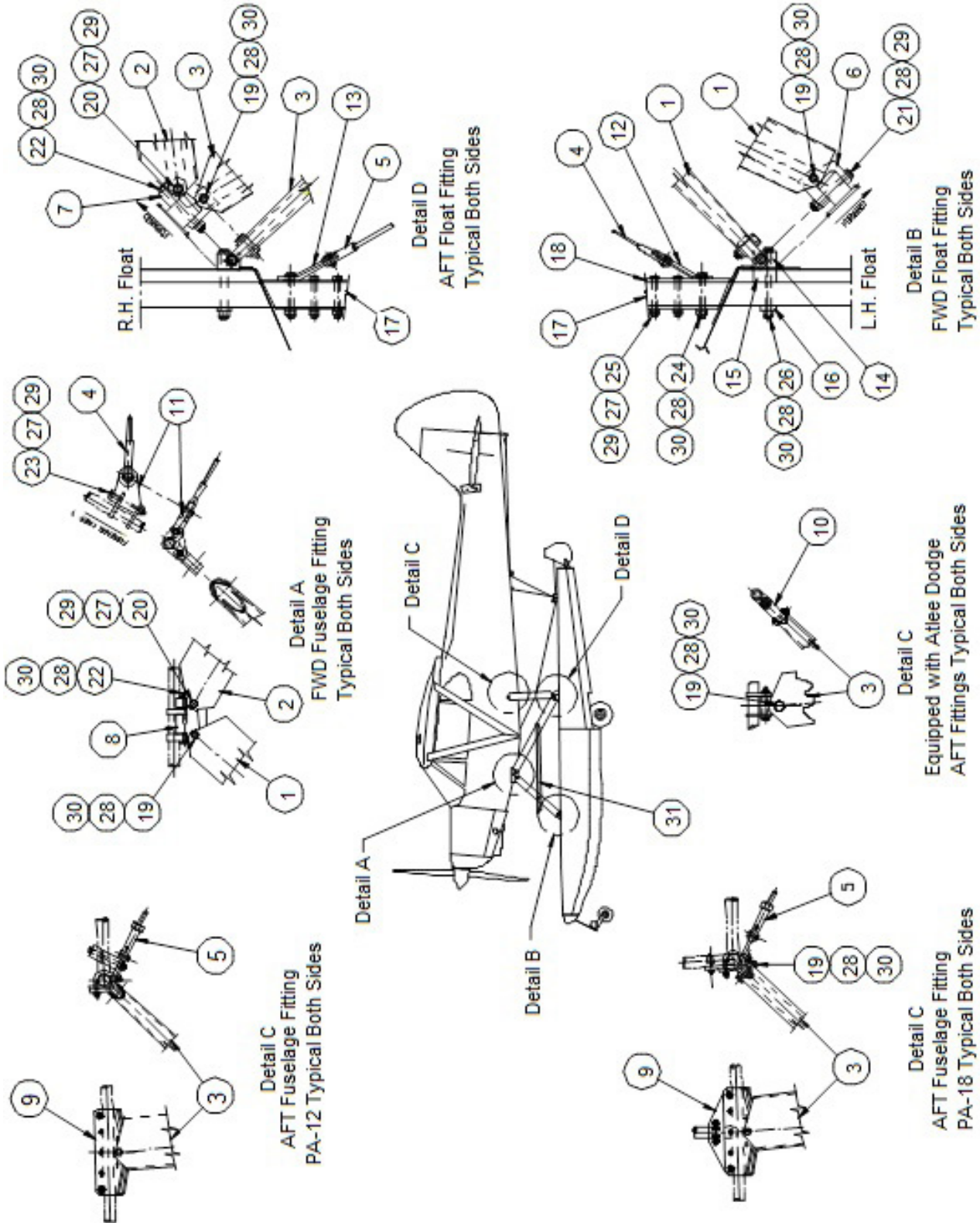
SECTION 9

STRUTS, WIRES AND SPREADER BARS

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STRUTS, WIRES & SPREADER BARS



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 1 | 2 | 21A02334-023 | STRUT, FRONT, PA-18 |
| 2 | 2 | 21A02334-024 | STRUT, CENTER, PA-18 |
| 3 | 2 | 21A02000-146 | ASS'Y., REAR STRUT, PA-18 |
| | 2 | 21A02000-179 | ASS'Y., REAR STRUT, PA-18 (ATLEE DODGE FITTING) (FLOAT S/N BELOW 257) |
| | 2 | 1001527 | ASS'Y., REAR STRUT, PA-18 (CUB CRAFTERS RT.) |
| | 2 | 1001533 | ASS'Y., REAR STRUT, PA-18 (CUB CRAFTERS LT.) |
| | 2 | 21A02000-162 | ASS'Y., REAR STRUT, PA-12 |
| | 2 | 21A02000-169 | ASS'Y., REAR STRUT, PA-12 (ATLEE DODGE FITTING) (FLOAT S/N BELOW 257) |
| 4 | 2 | 21A02000-139 | ASS'Y., DRAG WIRE, FWD (PA-18) |
| | 1 | AN705AC-4800 | WIRE |
| | 1 | AN665-46LS * | CLEVIS L. |
| | 1 | AN665-46RS * | CLEVIS R. |
| | 1 | AN316C5L | NUT CHECK L. |
| | 1 | AN316C5R | NUT CHECK R. |
| | 2 | SP4ZF6 | PIN, CLEVIS |
| | 2 | SP90C5 | PIN, COTTER |
| | 2 | 21A02000-134 | ASS'Y., DRAG WIRE, FWD (PA-12) |
| | 1 | AN705AC-5000 | WIRE |
| | 1 | AN665-46LS * | CLEVIS L. |
| | 1 | AN665-46RS * | CLEVIS R. |
| | 1 | AN316C5L | NUT CHECK L. |
| | 1 | AN316C5R | NUT CHECK R. |
| | 2 | SP4ZF6 | PIN, CLEVIS |
| | 2 | SP90C5 | PIN, COTTER |
| 5 | 2 | 21A02000-138 | ASS'Y., DRAG WIRE, AFT |
| | 1 | AN706AC-4525 | WIRE |
| | 1 | AN665-80LAS * | CLEVIS L. |
| | 1 | AN665-80RAS * | CLEVIS R. |
| | 1 | AN316C6L | NUT CHECK L. |
| | 1 | AN316C6R | NUT CHECK R. |
| | 2 | SP4ZH9MOD | PIN, CLEVIS |
| | 2 | SP90E7 | PIN, COTTER |
| 6 | 2 | 21A02055-004 | FTG, LOWER FRONT STRUT |
| 7 | 1 | 21A02055-005 | FTG, LOWER REAR STRUT L. |
| | 1 | 21A02055-006 | FTG, LOWER REAR STRUT R. |
| 8 | 1 | 21A02055-007 | FTG, UPPER FRONT STRUT L. |
| | 1 | 21A02055-008 | FTG, UPPER FRONT STRUT R. |
| 9 | 1 | 21A02000-147 | ASS'Y., UPPER STRUT FITTING, REAR (PA-18) |
| | 1 | 21A02455-001 | "U" BOLT, UPPER |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| | 2 | 21A02456-001 | "U" BOLT, LOWER |
| | 2 | 21A02487-002 | SADDLE, "U" BOLT |
| | 1 | 21A02019-004 | PLATE, MAIN BASE |
| | 1 | 21A02019-005 | PLATE, UPPER |
| | 1 | 21A02019-006 | PLATE, LOWER |
| | 1 | 21A02020-002 | SPACER, PLATE |
| | A/R | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 2 | MS21044N3 | NUT |
| | A/R | NAS1149D0316J | WASHER |
| | 4 | MS21044N4 | NUT |
| | 1 | 21A02000-163 | ASS'Y., UPPER STRUT FITTING, REAR (PA-12) |
| | 1 | 21A02456-001 | "U" BOLT |
| | 1 | 21A02487-002 | SADDLE, "U" BOLT |
| | 1 | 21A02019-004 | PLATE- MAIN BASE |
| | 1 | 21A02019-005 | PLATE, UPPER |
| | 1 | 21A02019-006 | PLATE, LOWER |
| | 1 | 21A02020-002 | SPACER, PLATE |
| | 2 | AN3-10A | BOLT, PLATE ATTACH |
| | A/R | NAS1149D0416J | WASHER, 0.265 ID, 0.016 THK, ALUMINUM |
| | 2 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 1 | 21A02060-003 | BLOCK, TUBE SUPPORT |
| | 2 | AN3-25A | BOLT, 10-32 THREAD, 2-1/4" GRIP, 2-21/32" LENGTH |
| | A/R | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 4 | MS21044N4 | NUT, LOCKING, REGULAR HEIGHT, 1/4-28 UNF |
| 10 | 2 | 21A02472-005 | FITTING, REAR STRUT (ATLEE DODGE) (FLOAT S/N BELOW 256) |
| | 2 | 21A02206-005 | FITTING, REAR STRUT (ATLEE DODGE) (FLOAT S/N 257 ON) |
| 11 | 2 | 21A02075-002 | WIRE PULL, FWD, UPPER |
| 12 | 2 | 21A02462-004 | WIRE PULL, FWD, LOWER (PA-18) |
| | 2 | 21A02519-007 | WIRE PULL, FWD, LOWER (PA-12) |
| 13 | 2 | 21A02462-005 | WIRE PULL, AFT, LOWER (PA-18) |
| | 2 | 21A02462-008 | WIRE PULL, AFT, LOWER (PA-12) |
| 14 | 4 | 21A03032-006 | BLOCK, DECK FTG. |
| 15 | 4 | 21A03214-003 | SPACER |
| 16 | 4 | 21A03154-007 | PLATE, BEARING |
| 17 | 4 | 21A03115-001 | TUBE, SPREADER BAR MOUNT |
| 18 | 2 | 21A03356-047 | SPREADER BAR |
| 19 | 6 | AN6-16A | BOLT, 3/8-24, 1.1875 GRIP, UNDRILLED, STEEL |
| 20 | 4 | AN5-15A | BOLT, 5/16-24, 1.1875 GRIP, UNDRILLED, STEEL |
| 21 | 2 | AN6-33A | BOLT, 3/8-24 THREAD, 2-13/16" GRIP, 3-29/64 LENGTH |
| 22 | 4 | AN6-34A | BOLT, 3/8-24, 2.9375 GRIP, UNDRILLED, STEEL |

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 23 | 2 | AN5-24A | BOLT, 5/16-24 THREAD, 2-1/16" GRIP, 2-19/32" LENGTH |
| 24 | 4 | AN6-26A | BOLT SIZE 3/8-24, LENGTH 1/64 - 2-53/64, GRIP LENGTH 2-3/16 |
| 25 | 8 | AN5-24A | BOLT, 5/16-24 THREAD, 2-1/16" GRIP, 2-19/32" LENGTH |
| 26 | 4 | AN6-42A | BOLT, STEEL, 3/8-24 THREAD, GRIP 3.688" |
| 27 | A/R | NAS1149D0563J | WASHER, 0.328 ID, 0.063 THK, ALUMINUM |
| 28 | A/R | NAS1149D0663J | WASHER, 0.39 ID, 0.063 THK, ALUMINUM |
| 29 | 16 | MS21044N5 | NUT, LOCKING, REGULAR HEIGHT, 5/16-24 UNF |
| 30 | 16 | MS21044N6 | NUT, LOCKING, REGULAR HEIGHT, 3/8-24 UNF |
| 31 | 1 | 21A02369-031 | STEP, LEFT SIDE |
| | 1 | 21A02369-032 | STEP, RIGHT SIDE |
| | 4 | AN3-20A | BOLT, 10-32, 1.625 GRIP, UNDRILLED, STEEL |
| | 1 | AN3-22A | BOLT, 10-32, 1.875 GRIP, UNDRILLED, STEEL |
| | 10 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 5 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| | 5 | BPF | HOLE PLUG 1 INCH |
| | 1 | 1002039 | STEP, BOARDING LEFT (OPTIONAL) |

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SECTION 10

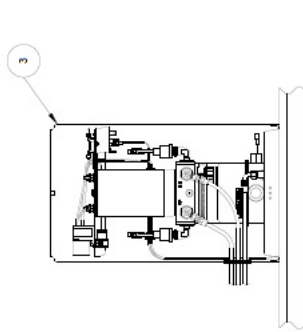
HYDRAULIC SYSTEM

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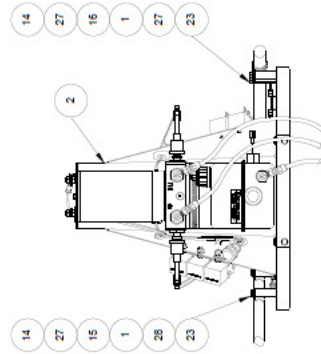
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HYDRAULIC SYSTEM INSTALLATION FOR PA-18

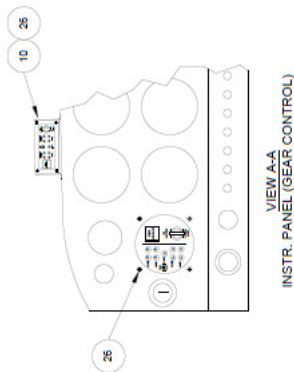
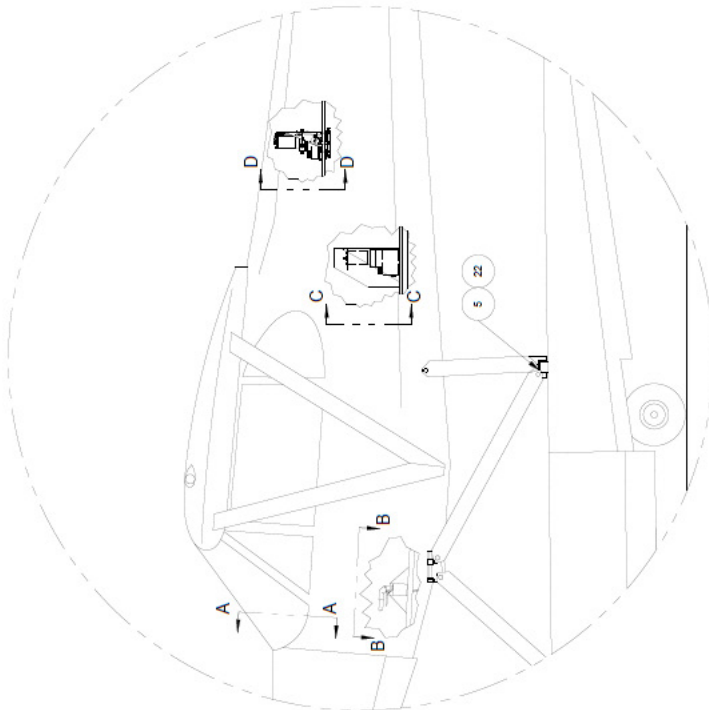
POST SERVICE LETTER 225



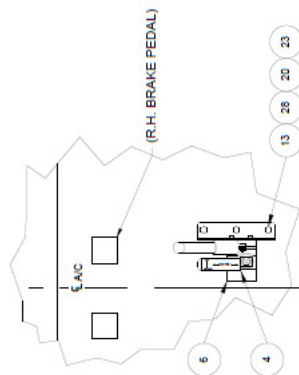
VIEW C-C
HYDRAULIC PUMP INST. (W/O COVER)
BAGGAGE COMPARTMENT
(AIRCRAFT WITH EXTENDED BAGGAGE)



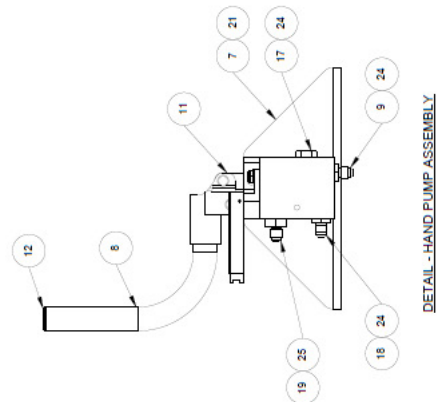
VIEW E-E
HYDRAULIC PUMP INST.
AFT FUSELAGE
(AIRCRAFT WITHOUT EXTENDED BAGGAGE)



VIEW A-A
INSTR. PANEL (GEAR CONTROL)



VIEW B-B
HAND PUMP INST.

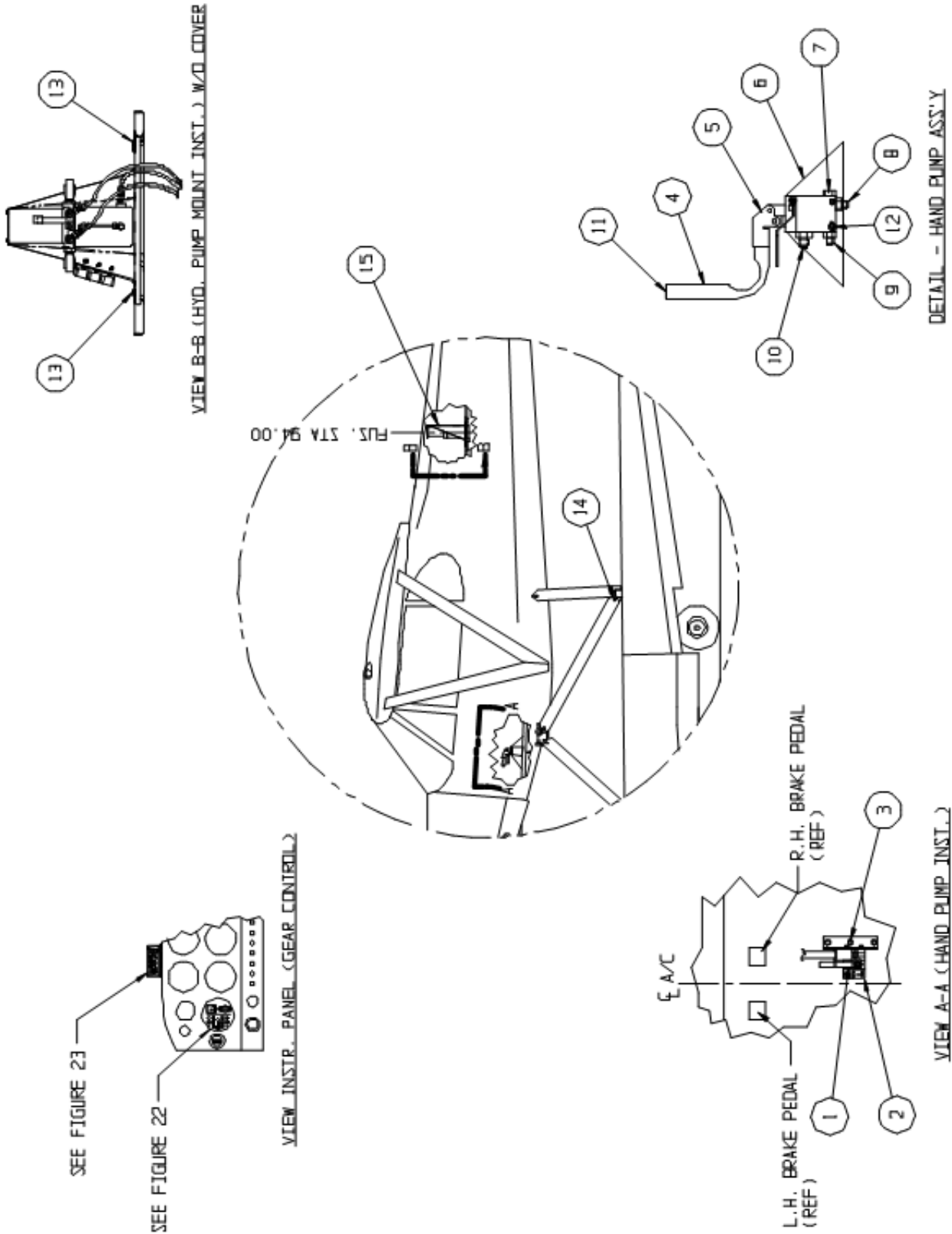


DETAIL - HAND PUMP ASSEMBLY

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 6 | 1011799 | SPACER |
| 2 | 1 | 1011805 | ASSEMBLY, HYDRAULIC POWER PACK, STANDARD BAGGAGE |
| 3 | 1 | 1011830 | ASSEMBLY, HYDRAULIC POWER PACK, EXTENDED BAGGAGE |
| 4 | 1 | 12A3-7379-1 | PLACARD, EMERGENCY HAND PUMP |
| 5 | 2 | 21A04000-080 | ASSEMBLY, BRAKE LINE (NOT SHOWN) |
| 6 | 1 | 21A09000-194 | ASSEMBLY, HAND PUMP AND BRACKET |
| 7 | 1 | 21A09156-129 | BRACKET, HAND PUMP ATTACH |
| 8 | 1 | 21A09396-001 | HANDLE |
| 9 | 1 | 21A09746-001 | UNION |
| 10 | 1 | 21A11158-194 | COVER, CONTROL HEAD (ABOVE DASH) |
| 11 | 1 | 642873 | HAND PUMP (ONLY) |
| 12 | 1 | 9283K13 | CAP PLUG |
| 13 | 3 | AN3-7A | BOLT, 10-32, 0.5 GRIP, UNDRILLED, STEEL |
| 14 | 6 | AN3-17A | BOLT, 10-32, 1.5 GRIP, UNDRILLED, STEEL |
| 15 | 3 | AN742D10 | CLAMP, PLAIN, ALUMINUM, TO FIT 5/8" DIA TUBE |
| 16 | 3 | AN724D12 | CLAMP, PLAIN, ALUMINUM, TO FIT 3/4" DIA TUBE |
| 17 | 1 | AN814-4D | PLUG |
| 18 | 1 | AN815-4D | UNION |
| 19 | 1 | AN919-6D | UNION |
| 20 | 3 | AN970-3 | WASHER, .203 ID, .875 OD, .063 THICK |
| 21 | 2 | MS16997-77 | SOCKET HEAD CAP SCREW, 5/16-18 THREAD |
| 22 | 2 | MS20823-3D | FITTING, 45 DEGREE, TO BOOSTER |
| 23 | 9 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 24 | 3 | MS28775-012 | O-RING, HYDRAULIC PACK, .364 ID |
| 25 | 1 | MS28775-014 | O-RING, HYDRAULIC PACK, .489 ID |
| 26 | 4 | MS35214-42 | SCREW, 8-32, 0.5 LENGTH |
| 27 | 9 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| 28 | 6 | NAS1149F0363P | WASHER, 0.203 ID, 0.063 THK, STEEL |

HYDRAULIC SYSTEM INSTALLATION FOR PA-18 PRE SERVICE LETTER 225

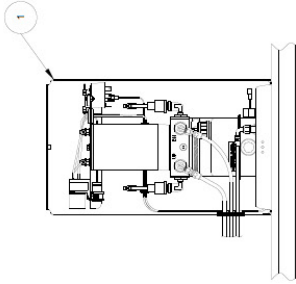


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

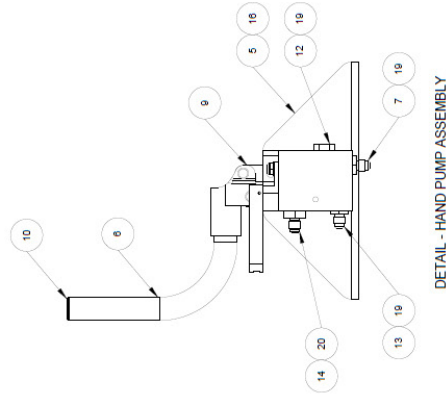
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 21A09000-194 | ASS'Y., HAND PUMP |
| 2 | 1 | 12A3-7379-1 | PLACARD |
| 3 | 3 | AN3-7A | BOLT, 10-32, 0.5 GRIP, UNDRILLED, STEEL |
| | 3 | AN970-3 | WASHER, .203 ID, .875 OD, .063 THK |
| | 3 | NAS1149F0363P | WASHER, 0.203 ID, 0.063 THK, STEEL |
| | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 4 | 1 | 21A09396-001 | HANDLE |
| 5 | 1 | 642873 | HAND PUMP (ONLY) |
| 6 | 1 | 21A09156-129 | BRACKET, PUMP ATTACH |
| 7 | 1 | AN814-4D | PLUG |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 8 | 1 | 21A09746-001 | UNION |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 9 | 1 | AN815-4D | UNION |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 10 | 1 | AN919-6D | UNION |
| | 1 | MS28775-014 | "O" RING, HYDRAULIC |
| 11 | 1 | 9283K13 | CAP PLUG |
| 12 | 2 | MS16997-77 | SOCKET HEAD CAP SCREW |
| | 2 | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL |
| 13 | 2 | AN742D10 | CLAMP, MOUNTING |
| | 2 | AN742D12 | CLAMP, MOUNTING |
| | 4 | AN3-3A | BOLT, 10-32, 0.0625 GRIP, UNDRILLED, STEEL |
| | 8 | NAS1149D0316J | WASHER, 0.203 ID, 0.016 THK, ALUMINUM |
| | 4 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 14 | 2 | 21A04000-080 | ASS'Y., BRAKE LINE (NOT SHOWN) |
| | 2 | 63-190600-3 | FITTING |
| | 2 | MS20823-3D | FITTING 45 DEGREES TO BOOSTER |
| 15 | 1 | 21A09000-210 | ASSEMBLY, HYDRAULIC POWER PACK, 12V |

HYDRAULIC SYSTEM INSTALLATION FOR PA-12

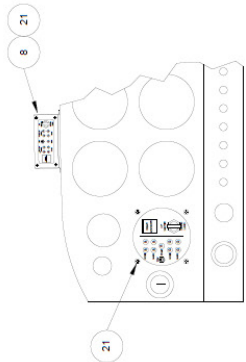
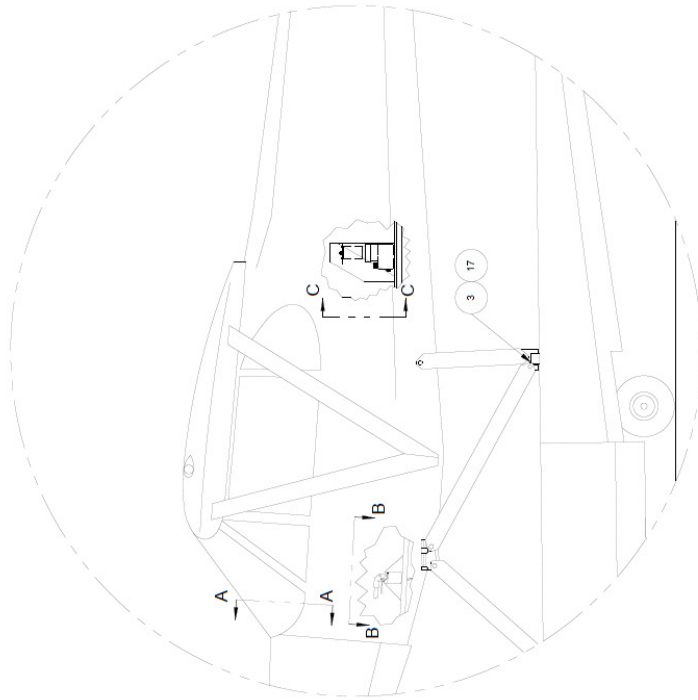
POST SERVICE LETTER 225



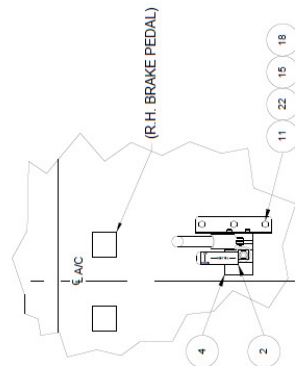
VIEW C-C
HYDRAULIC PUMP INST. (W/O COVER)
PUMP INSTALLATIONS ON PA-12 VARY.
SHOWN HERE IS A COMMON INSTALL.
IN THE BAGGAGE FLOOR



DETAIL - HAND PUMP ASSEMBLY



VIEW A-A
INSTR. PANEL (GEAR CONTROL)



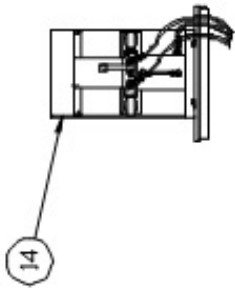
VIEW B-B
HAND PUMP INST.

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

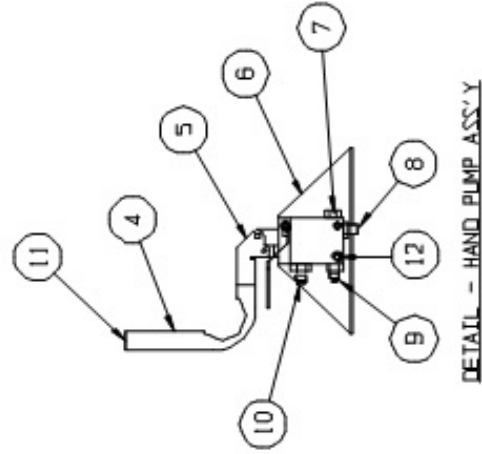
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 1 | 1 | 1011830 | ASSEMBLY, HYDRAULIC POWER PACK |
| 2 | 1 | 12A3-7379-1 | PLACARD, EMERGENCY HAND PUMP |
| 3 | 2 | 21A04000-080 | ASSEMBLY, BRAKE LINE (NOT SHOWN) |
| 4 | 1 | 21A09000-194 | ASSEMBLY, HAND PUMP AND BRACKET |
| 5 | 1 | 21A09156-129 | BRACKET, HAND PUMP ATTACH |
| 6 | 1 | 21A09396-001 | HANDLE |
| 7 | 1 | 21A09746-001 | UNION |
| 8 | 1 | 21A11158-194 | COVER, CONTROL HEAD (ABOVE DASH) |
| 9 | 1 | 642873 | HAND PUMP (ONLY) |
| 10 | 1 | 9283K13 | CAP PLUG |
| 11 | 3 | AN3-7A | BOLT, 10-32, 0.5 GRIP, UNDRILLED, STEEL |
| 12 | 1 | AN814-4D | PLUG |
| 13 | 1 | AN815-4D | UNION |
| 14 | 1 | AN919-6D | UNION |
| 15 | 3 | AN970-3 | WASHER, .203 ID, .875 OD, .063 THICK |
| 16 | 2 | MS16997-77 | SOCKET HEAD CAP SCREW, 5/16-18 THREAD |
| 17 | 2 | MS20823-3D | FITTING, 45 DEGREE, TO BOOSTER |
| 18 | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 19 | 3 | MS28775-012 | O-RING, HYDRAULIC PACK, .364 ID |
| 20 | 1 | MS28775-014 | O-RING, HYDRAULIC PACK, .489 ID |
| 21 | 4 | MS35214-42 | SCREW, 8-32, 0.5 LENGTH |
| 22 | 3 | NAS1149F0363P | WASHER, 0.203 ID, 0.63 THK, STEEL |

HYDRAULIC SYSTEM INSTALLATION FOR PA-12

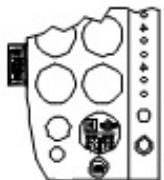
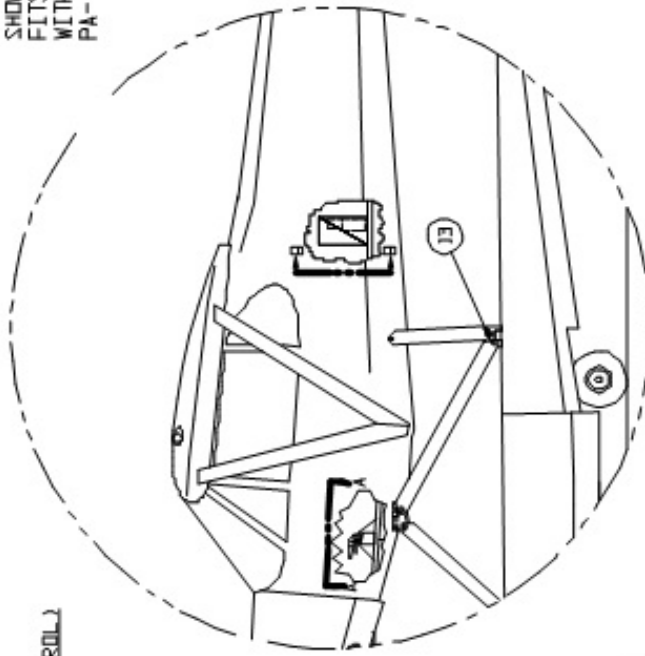
PRE SERVICE LETTER 225



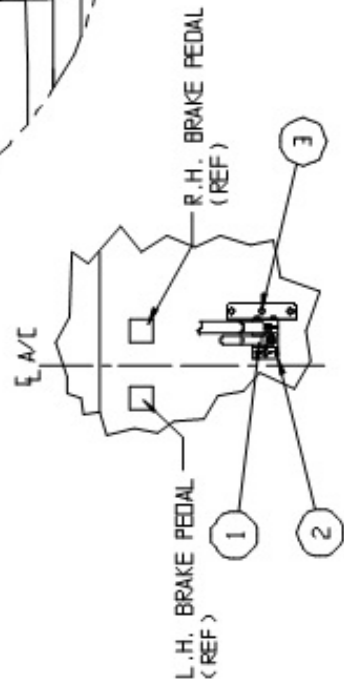
VIEW_B-B (HYD. PUMP MOUNT INST.) W/O COVER
 PUMP INSTALLATIONS ON PA-12 VARY.
 SHOWN HERE IS A COMMON INSTL THAT
 FITS ALL PA-12. IF YOUR A/C IS EQUIPPED
 WITH A DIFFERENT MOUNT, IT MAY BE A
 PA-18



DETAIL - HAND PUMP ASS'Y



VIEW INSTR. PANEL (GEAR CONTROL)



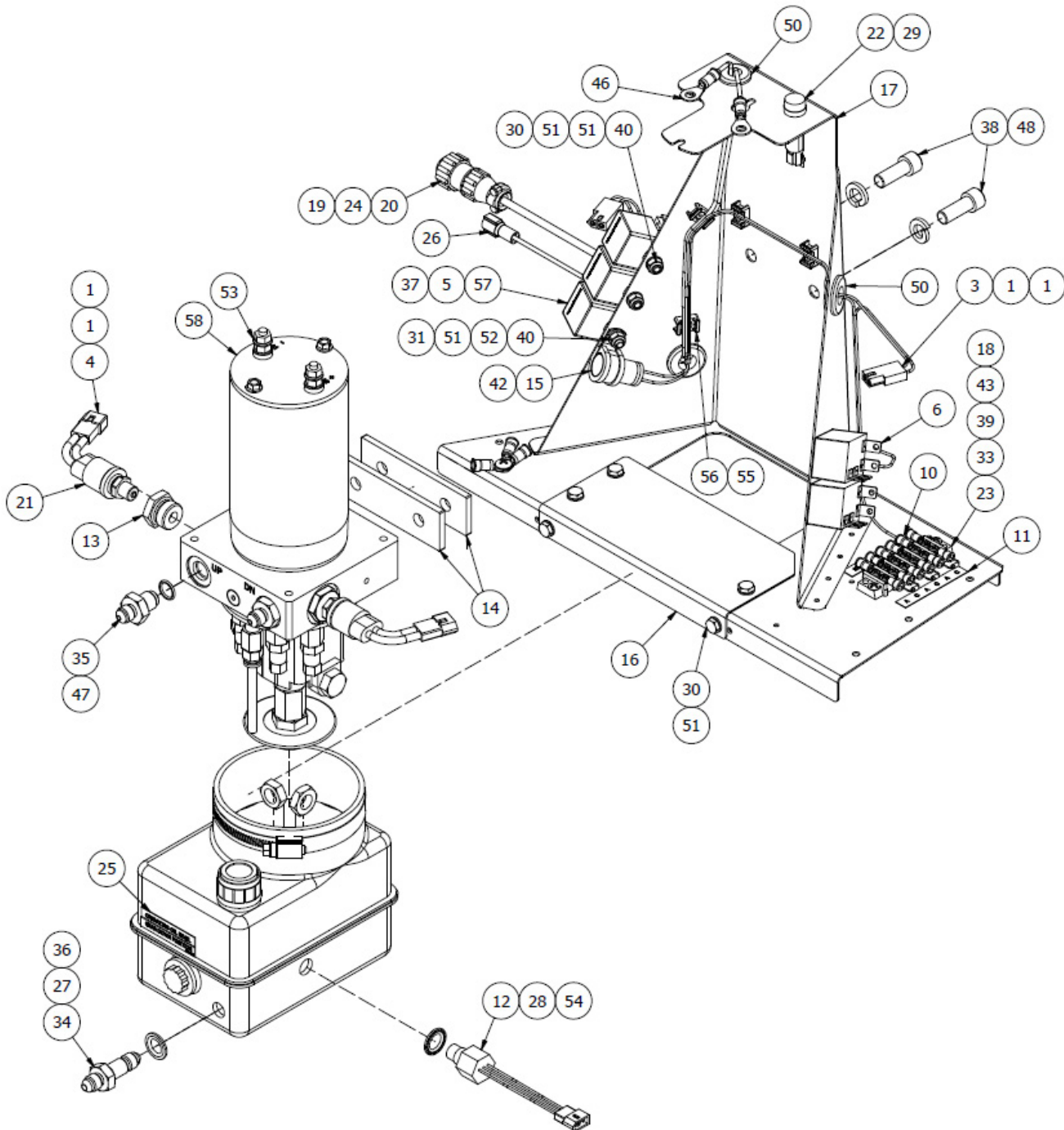
VIEW_A-A (HAND PUMP INST.)

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

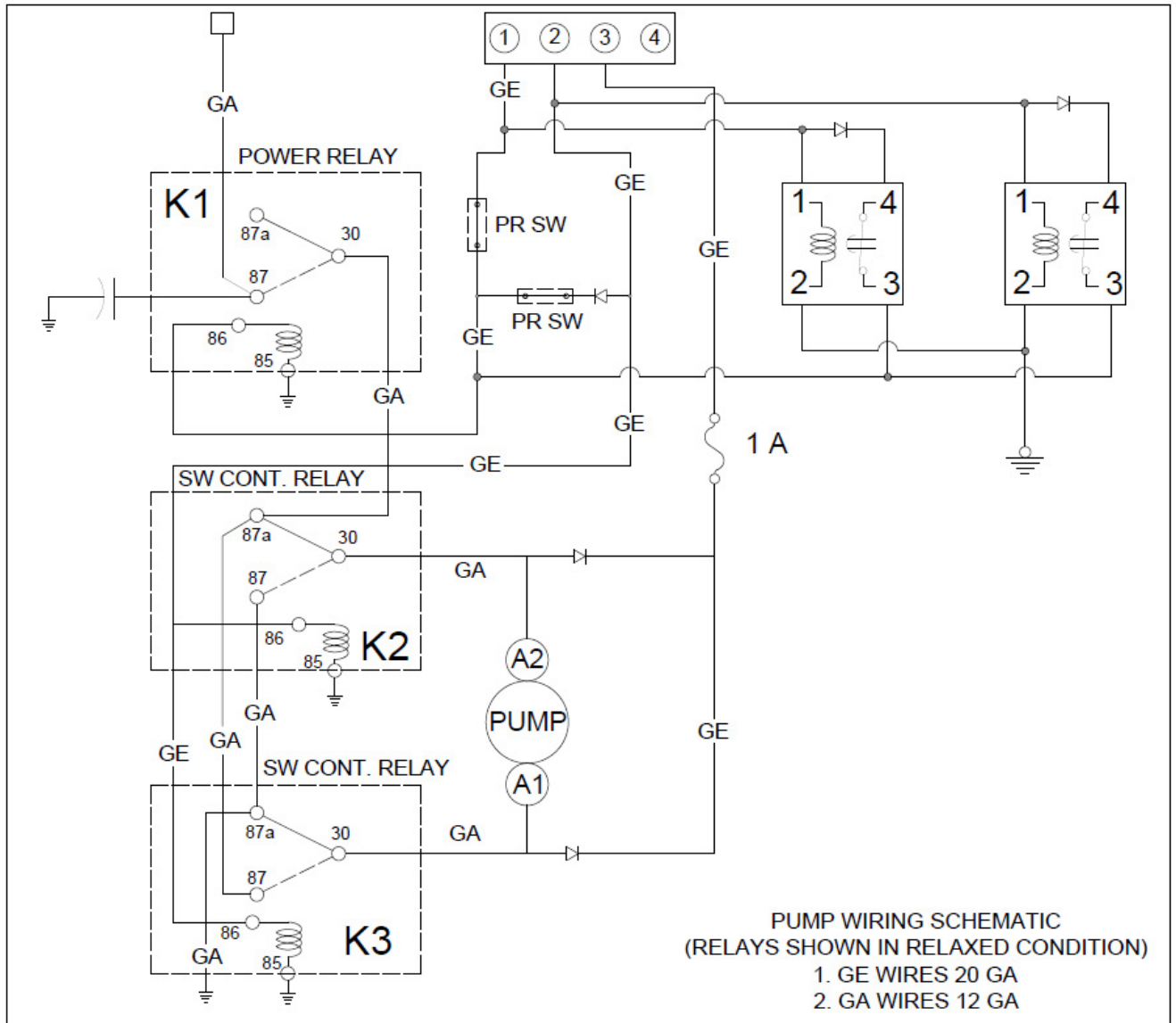
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 1 | 1 | 21A09000-194 | ASS'Y HAND PUMP & BRACKET |
| 2 | 1 | 12A3-7379-1 | PLACARD |
| 3 | 3 | AN3-7A | BOLT, 10-32, 0.5 GRIP, UNDRILLED, STEEL |
| | 3 | AN970-3 | WASHER, .203 ID, .875 OD, .063 THK |
| | 3 | NAS1149F0363P | WASHER, 0.203 ID, 0.063 THK, STEEL |
| | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 4 | 1 | 21A09396-001 | HANDLE |
| 5 | 1 | 642873 | HAND PUMP (ONLY) |
| 6 | 1 | 21A09156-129 | BRACKET, PUMP ATTACH |
| 7 | 1 | AN814-4D | PLUG |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 8 | 1 | 21A09746-001 | UNION |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 9 | 1 | AN815-4D | UNION |
| | 1 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| 10 | 1 | AN919-6D | UNION |
| | 1 | MS28775-014 | "O" RING, HYDRAULIC |
| 11 | 1 | 9283K13 | CAP PLUG |
| 12 | 2 | MS16997-77 | SOCKET HEAD CAP SCREW |
| | 2 | NAS1149F0563P | WASHER, 0.328 ID, 0.063 THK, STEEL |
| 13 | 2 | 21A04000-080 | ASS'Y., BRAKE LINE (NOT SHOWN) |
| | 2 | 63-190600-3 | FITTING, AERO QUIP HOSE #3 |
| | 2 | MS20823-3D | FTG. 45 DEGREES TO BOOSTER |
| 14 | 1 | 21A09000-210 | ASSEMBLY, HYDRAULIC POWER PACK, 12V |

HYDRAULIC PUMP ASSEMBLY FOR PA-18

POST SERVICE LETTER 225



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12



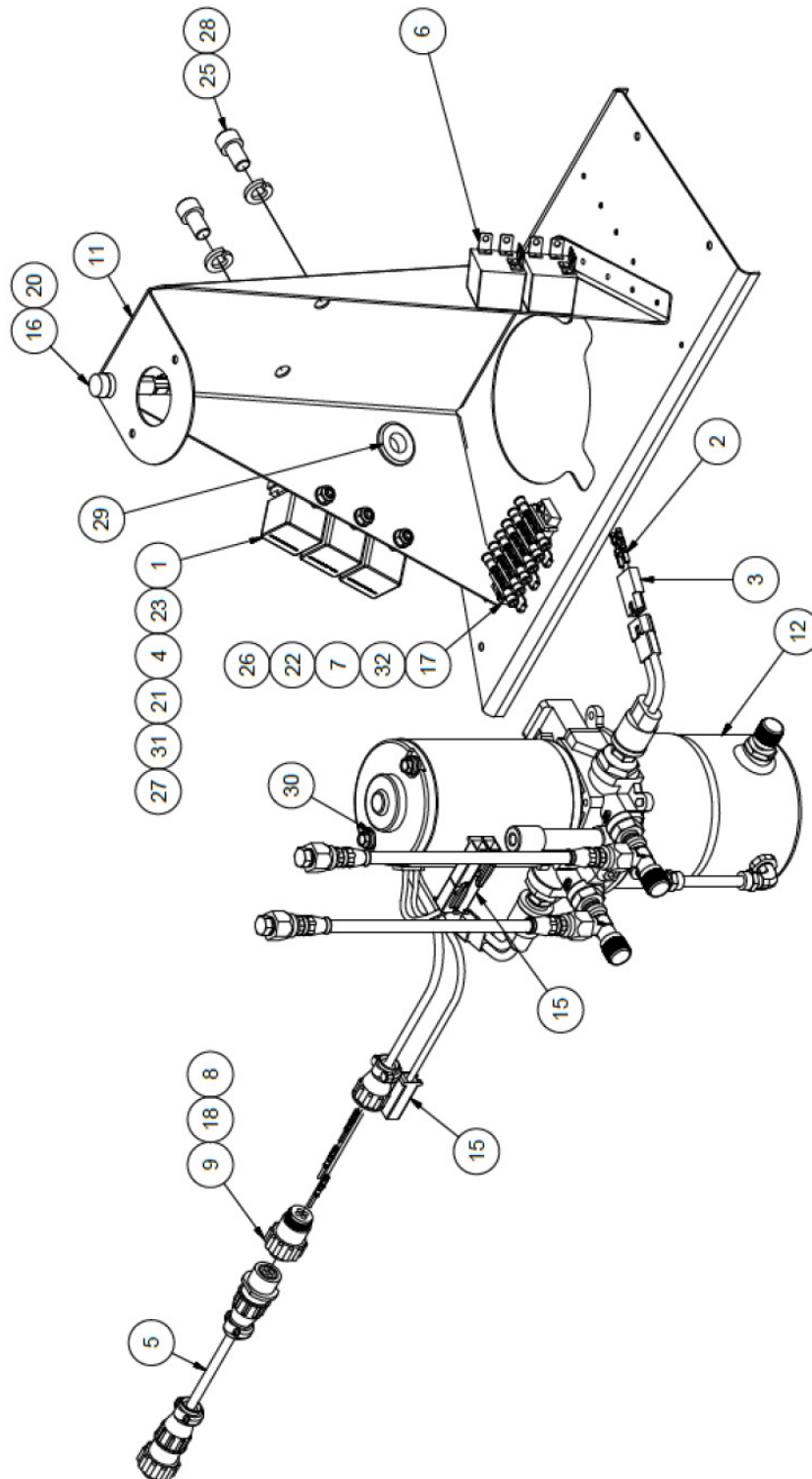
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|-------------------------------------|
| - | 1 | 1011805 | ASSEMBLY, HYDRAULIC POWER PACK, 12V |
| 1 | 4 | 02-09-1104 | PIN, CRIMP FEMALE, 1/8" DIA |
| 2 | 4 | 02-09-2118 | PIN, CRIMP MALE, 1/8" DIA |
| 3 | 2 | 03-09-1022 | CONNECTOR PLUG, MALE, 2 CONN. |
| 4 | 2 | 03-09-2022 | CONNECTOR PLUG, FEMALE |
| 5 | 14 | 1-901-355-917 | TERMINAL |
| 6 | 1 | 1005042 | TIMER RELAY HARNESS |
| 7 | 1 | 1009143-01 | PLACARD, K1 INDICATOR (NOT SHOWN) |
| 8 | 1 | 1009143-02 | PLACARD, K2 INDICATOR (NOT SHOWN) |
| 9 | 1 | 1009143-03 | PLACARD, K3 INDICATOR (NOT SHOWN) |

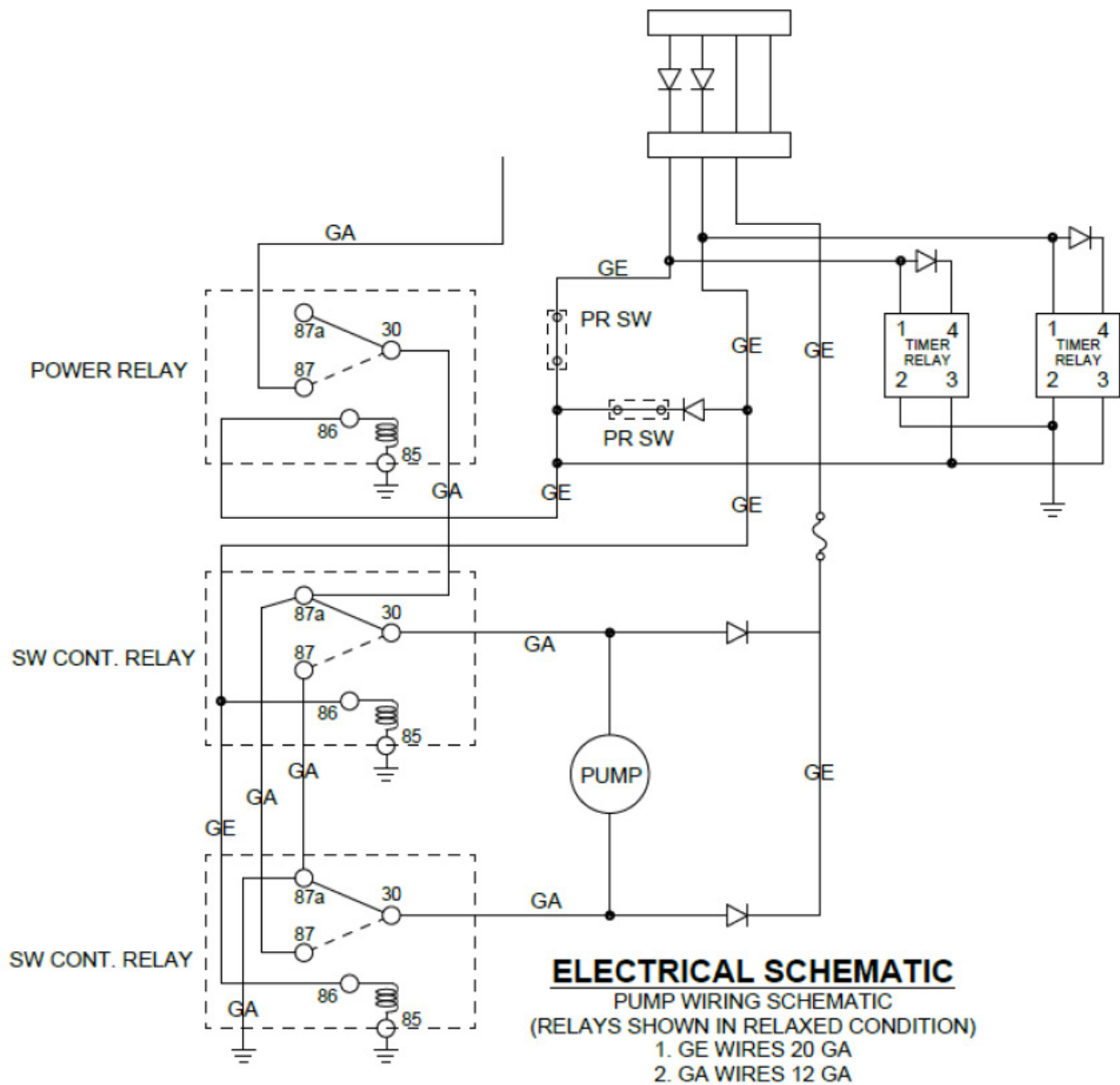
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|-----------------------|---|
| 10 | 1 | 1009144-01 | PLACARD, CR INDICATOR |
| 11 | 1 | 1009144-02 | PLACARD, AC INDICATOR |
| 12 | 1 | 1009428 | ASSEMBLY, SENSOR, FLUID LEVEL |
| 13 | 2 | 1011062 | ASSEMBLY, PLUG, PRESSURE SWITCH PORT |
| 14 | 2 | 1011624 | SPACER, HYDRAULIC PUMP |
| 15 | 1 | 1011798 | ASSEMBLY, CAPACITOR |
| 16 | 1 | 1011800 | REMOVABLE PLATE, HYDRAULIC PUMP ASSEMBLY, PA-18 |
| 17 | 1 | 1011803 | ASSEMBLY, HYDRAULIC PUMP BRACKET, PA-18 |
| 18 | 3 | 1N4004 | DIODE |
| 19 | 1 | 206062-3 | CLAMP, CABLE, CPC SIZE 11 |
| 20 | 1 | 206429-1 | PLUG, MALE, CPC SIZE 1, 4 PIN |
| 21 | 2 | 20PS001EB 700W500W | PRESSURE SWITCH |
| 22 | 1 | 3453LF2A | FUSE HOLDER |
| 23 | 1 | 6-140 | TERMINAL BLOCK, 6 CONNECTOR |
| 24 | 3 | 66103-4 | PIN, CRIMP SOCKET, 24-20G |
| 25 | 1 | 6A3-2199 | PLACARD, OIL LEVEL |
| 26 | 1 | 73M-250-32-NL | CONNECTOR, MALE, 10-12 AWG, FULLY INSULATED |
| 27 | 1 | 93783A032 | SEALING WASHER |
| 28 | 1 | 93786A200 | PRESSURE-SEALING WASHER, M12 |
| 29 | 1 | AGC-1 | FUSE, 250V, (S2565-1) |
| 30 | 7 | AN3-3A | BOLT, 10-32, 0.0625 GRIP, UNDRILLED, STEEL |
| 31 | 1 | AN3-5A | BOLT, 10-32, 0.25 GRIP, UNDRILLED, STEEL |
| 32 | 1 | AN526C1032R8 | SCREW, MACHINE, TRUSS HEAD |
| 33 | 2 | AN526C632R8 | SCREW, MACHINE, TRUSS HEAD |
| 34 | 1 | AN832-4D | UNION-4D |
| 35 | 2 | AN919-3D | FITTING, REDUCER |
| 36 | 1 | AN924-4D | JAM NUT |
| 37 | 3 | BR05-FW | SOCKET, 5 PRONG, PLASTIC |
| 38 | 2 | MS16997-99 | SCREW, CAP, SOCKET HEAD |
| 39 | 2 | MS21044N06 | NUT, LOCKING, REGULAR HEIGHT, 6-32 UNC |
| 40 | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 41 | 1 | MS21045-3 | NUT, SELF LOCKING |
| 42 | 1 | MS21919WDG10 | CLAMP, LOOP, CUSHIONED, 5/8 TUBE OD |
| 43 | 12 | MS25036-102 | RING TERMINAL, #6 STUD, 16-22 AWG, RED |
| 44 | 1 | MS25036-103 | RING TERMINAL, #10 STUD, 22-16 AWG, RED |
| 45 | 2 | MS25036-112 | RING TERMINAL, #10 STUD, 10-12 AWG, YELLOW |
| 46 | 2 | MS25036-157 | RING TERMINAL, 1/4 STUD, 10-12 AWG, YELLOW |
| 47 | 2 | MS28775-013 | "O" RING, HYDRAULIC |
| 48 | 2 | MS35338-46 | WASHER, SPLIT |
| 49 | 1 | MS35489-11 | GROMMET, RUBBER |

PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------------------------------|---------------------------------------|
| 50 | 2 | MS35489-14 | GROMMET, RUBBER |
| 51 | 10 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| 52 | 1 | NAS1149F0363P | WASHER, 0.203 ID, 0.063 THK, STEEL |
| 53 | 2 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 54 | 1 | NJAM12X1.0CLZ | NUT, JAM, M12X1.0, ZINC |
| 55 | 4 | S2230-1 | RIVET |
| 56 | 4 | TM2S6-M | CABLE TIE MOUNT |
| 57 | 3 | V23234- A0001-X032 | RELAY, 12V, 5 PRONG |
| 58 | 1 | YBZS- C0.63W1T100K/ UVZOT2 | HYDRAULIC POWER PACK, 12VDC, .64 PUMP |

HYDRAULIC PUMP ASSEMBLY FOR PA-18 PRE SERVICE LETTER 225

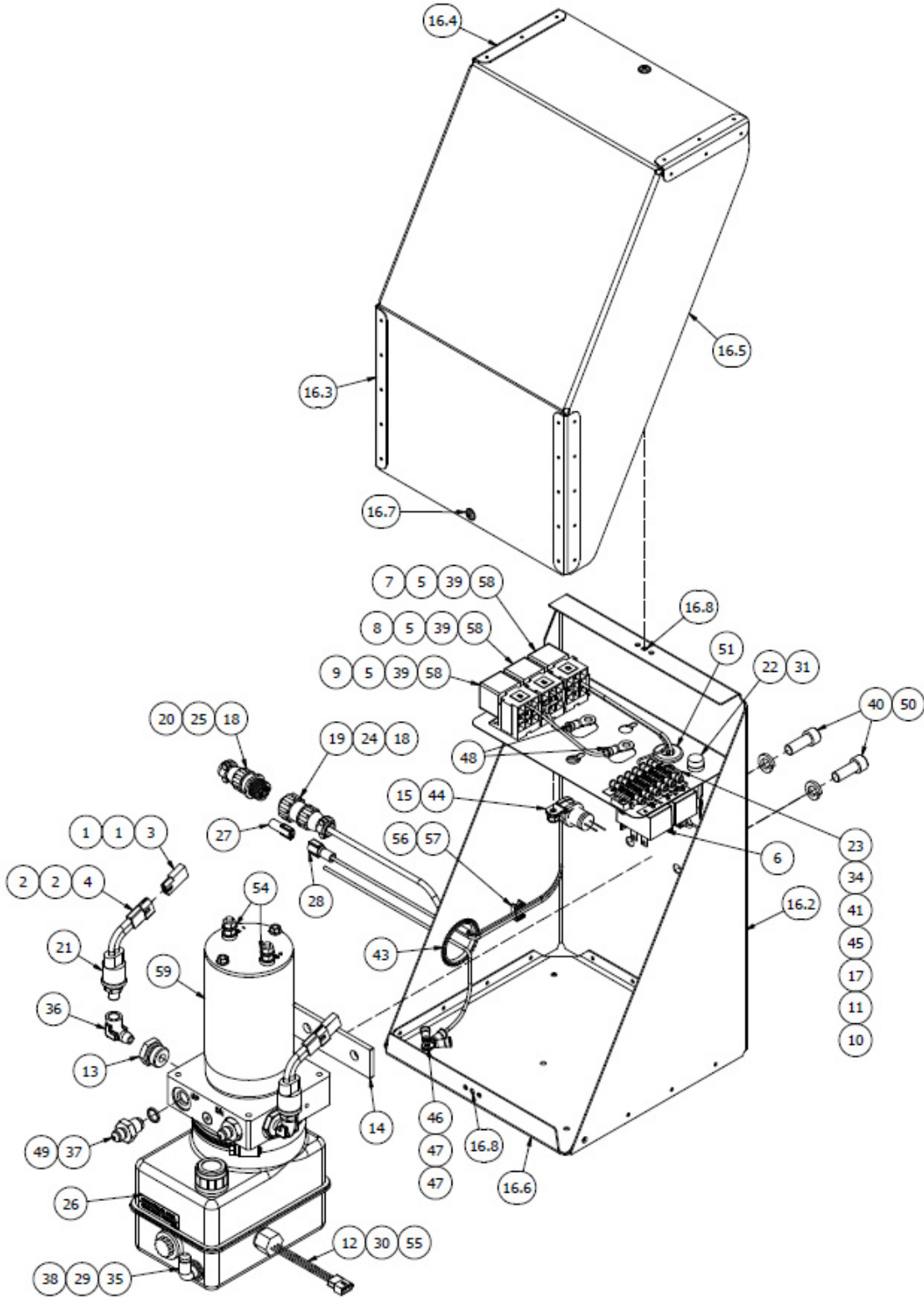


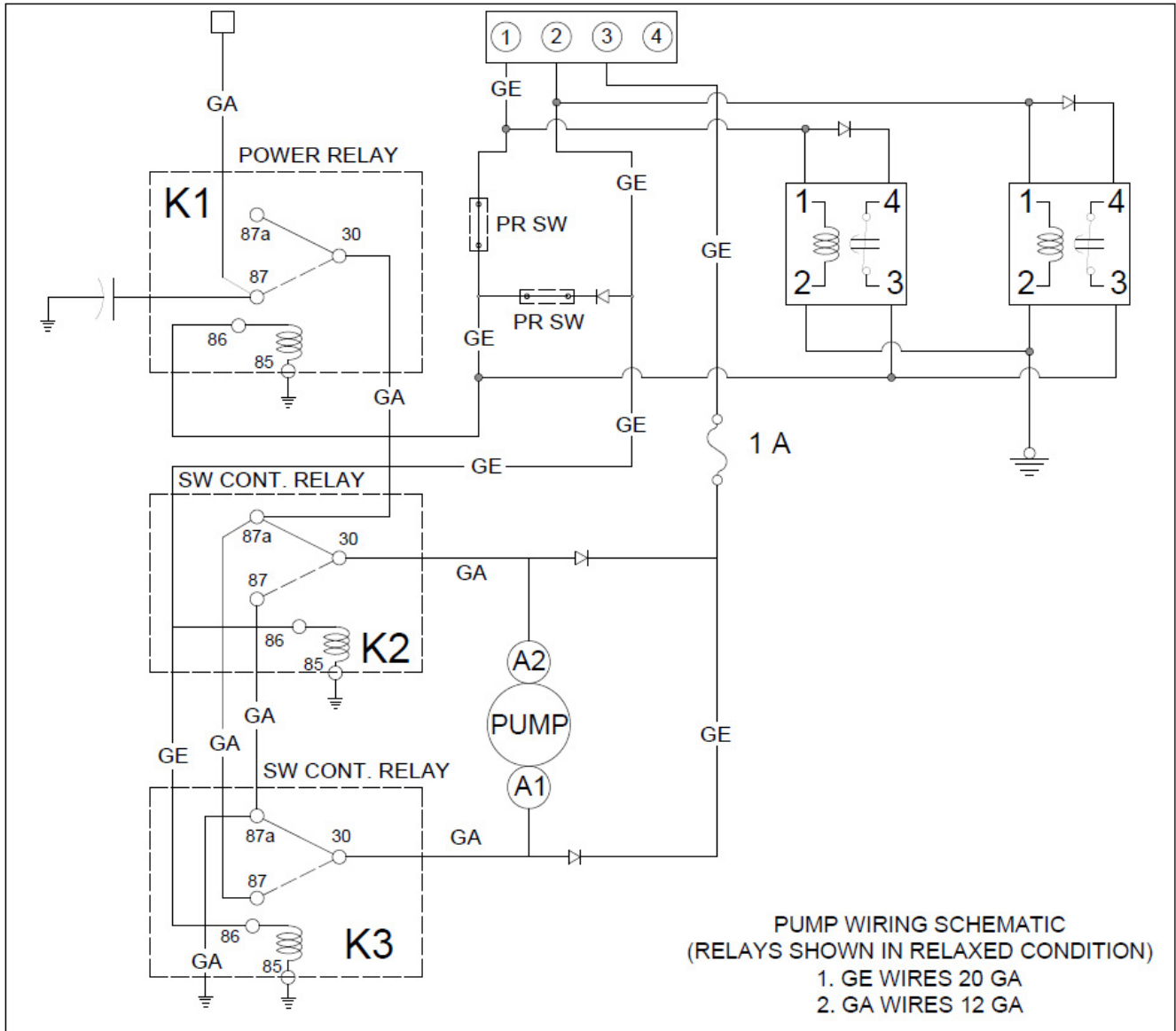


| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|-------------------------------|
| 1 | 3 | 0-332-209-137 | RELAY, 12V, 5 PRONG |
| 2 | 4 | 02-09-1104 | PIN, CRIMP FEMALE, 1/8" DIA |
| 3 | 2 | 03-09-1022 | CONNECTOR PLUG, MALE, 2 CONN. |
| 4 | 14 | 1-901-355-917 | TERMINAL |
| 5 | 1 | 1004949 | CABLE, DIODE ADAPTOR |
| 6 | 1 | 1005042 | TIMER RELAY HARNESS |
| 7 | 3 | 1N4004 | DIODE, 2-1/2" |
| 8 | 2 | 206062-3 | CLAMP, CABLE, CPC SIZE 11 |
| 9 | 1 | 206429-1 | PLUG, MALE, CPC SIZE 1, 4 PIN |
| 10 | 1 | 206430-2 | CPC FREE HANG, 4 PIN, FEMALE |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|---------|---------------|--|
| 11 | 1 | 21A09000-209 | ASSEMBLY, HYD. PUMP BRACKET, (PA-18) |
| 12 | 1 | 21A09000-215 | ASSEMBLY, HYDRAULIC PUMP, 12V |
| 13 | 6 FT | 22759-16-12-9 | WIRE, 12 AWG, WHITE |
| 14 | 10.1 FT | 22759-16-20-9 | WIRE, 20 AWG, WHITE |
| 15 | 1 | 73F-250-32-NL | CONNECTOR, FEMALE, 10-12 AWG |
| | 1 | 73M-250-32-NL | CONNECTOR, MALE, 10-12 AWG |
| 16 | 1 | 3453LF2A | FUSE HOLDER |
| 17 | 1 | 6-140 | TERMINAL BLOCK, 6 CONNECTOR |
| 18 | 3 | 66103-4 | PIN, CRIMP SOCKET, 24-20G |
| 19 | 3 | 66105-4 | CRIMP SOCKET, FEMALE |
| 20 | 1 | AGC-1 | FUSE, 250V |
| 21 | 3 | AN3-3A | BOLT, 10-32, 0.0625 GRIP, UNDRILLED, STEEL |
| 22 | 2 | AN526-632R8 | SCREW, MACHINE, TRUSS HEAD |
| 23 | 3 | BR05FW | SOCKET, 5 PRONG, PLASTIC |
| 24 | 1.5 FT | HS105-3/16-0 | HEAT SHRINK, TUBING, BLACK |
| 25 | 2 | MS16997-96 | SOCKET HEAD CAP SCREW |
| 26 | 2 | MS21044N06 | NUT, LOCKING, REGULAR HEIGHT, 6-32 UNC |
| 27 | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 28 | 2 | MS35338-46 | WASHER, SPLIT, CARBON STEEL |
| 29 | 1 | MS35489-14 | GROMMET, RUBBER |
| 30 | 4 | NAS1149D0363J | WASHER, 0.203 ID, 0.063 THK, ALUMINUM |
| 31 | 6 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| 32 | 12 | MS25036-102 | RING TERMINAL, #6 STUD, 16-22 AWG, RED |

HYDRAULIC PUMP ASSEMBLY FOR PA-12 POST SERVICE LETTER 225





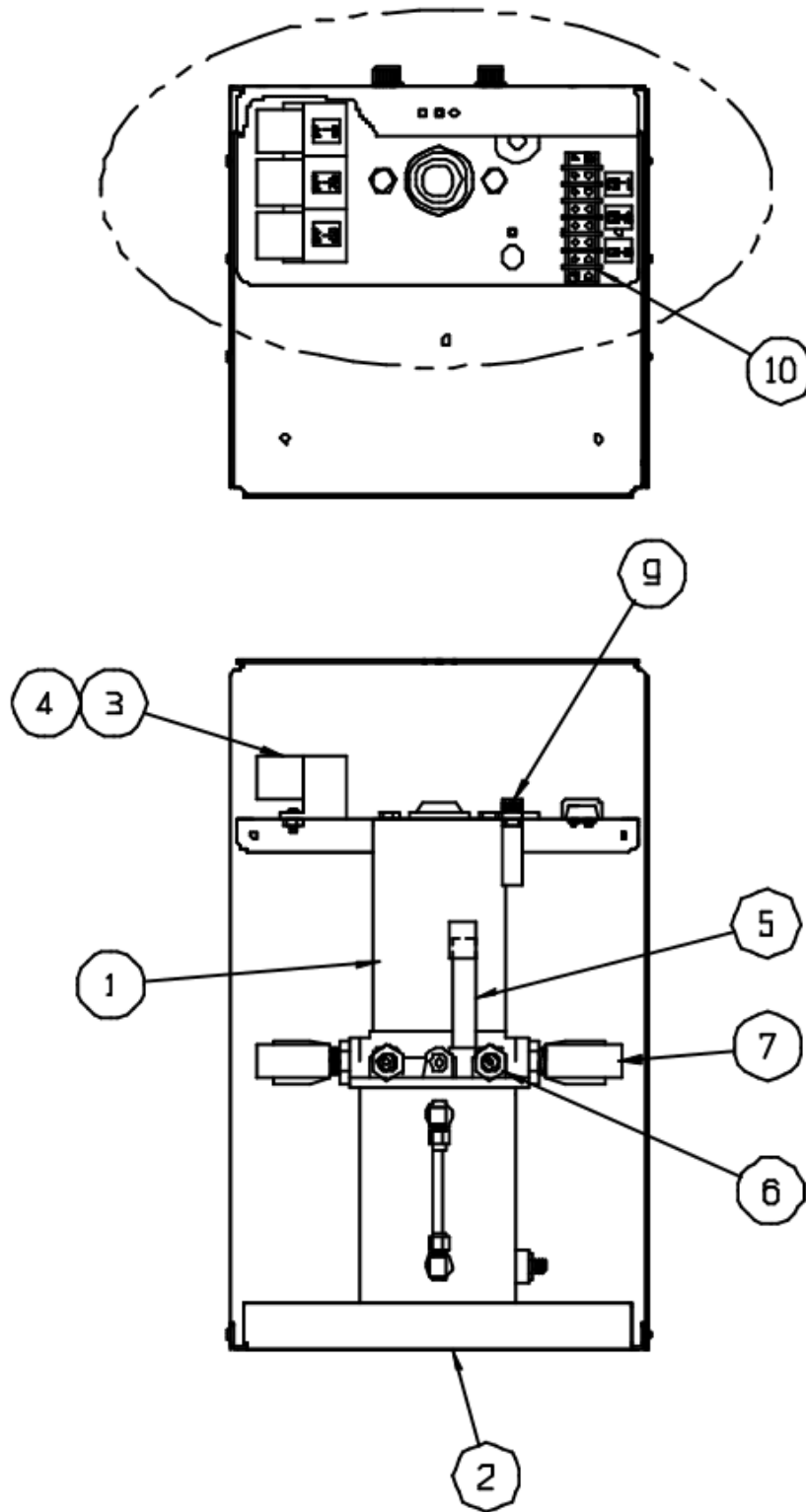
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--------------------------------|
| - | 1 | 1011830 | ASSEMBLY, HYDRAULIC POWER PACK |
| 1 | 4 | 02-09-1104 | PIN, CRIMP FEMALE, 1/8" DIA |
| 2 | 4 | 02-09-2118 | PIN, CRIMP MALE, 1/8" DIA |
| 3 | 2 | 03-09-1022 | CONNECTOR PLUG, MALE, 2 CONN. |
| 4 | 2 | 03-09-2022 | CONNECTOR PLUG, FEMALE |
| 5 | 14 | 1-901-355-917 | TERMINAL |
| 6 | 1 | 1005042 | TIMER RELAY HARNESS |
| 7 | 1 | 1009143-01 | PLACARD, K1 INDICATOR |
| 8 | 1 | 1009143-02 | PLACARD, K2 INDICATOR |
| 9 | 1 | 1009143-03 | PLACARD, K3 INDICATOR |

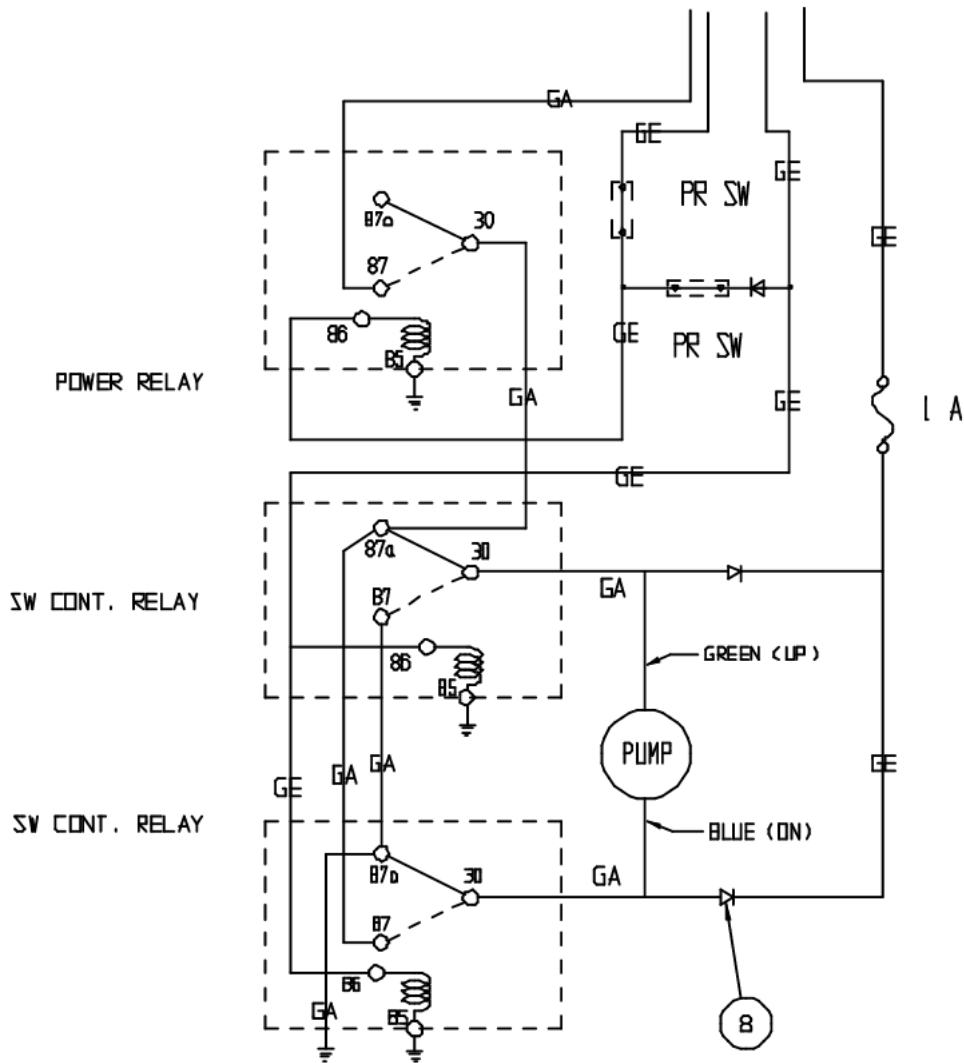
PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|-----------------------|---|
| 10 | 1 | 1009144-01 | PLACARD, CR INDICATOR |
| 11 | 1 | 1009144-02 | PLACARD, AC INDICATOR |
| 12 | 1 | 1009428 | ASSEMBLY, SENSOR, FLUID LEVEL |
| 13 | 2 | 1011062 | ASSEMBLY, PLUG, PRESSURE SWITCH PORT |
| 14 | 1 | 1011624 | SPACER, HYDRAULIC PUMP |
| 15 | 1 | 1011798 | ASSEMBLY, CAPACITOR |
| 16 | 1 | 1011829 | ASSEMBLY, BRACKET, HYDRAULIC PUMP |
| 16.1 | 1 | 1011620 | TOP PLATE, HYDRAULIC PUMP |
| 16.2 | 1 | 1011806 | BRACKET, HYDRAULIC PUMP |
| 16.3 | 2 | 1011807 | LOWER ANGLE, BRACKET, HYDRAULIC PUMP |
| 16.4 | 2 | 1011826 | UPPER ANGLE, BRACKET, HYDRAULIC PUMP |
| 16.5 | 1 | 1011828 | COVER, BRACKET, HYDRAULIC PUMP |
| 16.6 | 1 | 21A09162-061 | BOTTOM PLATE, BRACKET, HYDRAULIC PUMP |
| 16.7 | 2 | AN525-10R7 | SCREW, WASHER HEAD, 10-32 |
| 16.8 | 2 | MS21047L3 | NUT PLATE, FIXED, STEEL, PLAIN, 10-32 |
| 17 | 3 | 1N4004 | DIODE, 2-1/2" |
| 18 | 2 | 206062-3 | CLAMP, CABLE, CPC SIZE 11 |
| 19 | 1 | 206429-1 | PLUG, MAL, CPC SIZE 1, 4 PIN |
| 20 | 1 | 206430-2 | CPC FREE HANG, 4 PIN, FEMALE |
| 21 | 2 | 20PS001EB 700W500W | PRESSURE SWITCH |
| 22 | 1 | 3453LF2A | FUSE HOLDER |
| 23 | 1 | 6-140 | TERMINAL BLOCK, 6 CONNECTOR |
| 24 | 3 | 66103-4 | PIN, CRIMP SOCKET, 24-20G |
| 25 | 3 | 66105-4 | CRIMP SOCKET, FEMALE |
| 26 | 1 | 6A3-2199 | PLACARD, OIL LEVEL |
| 27 | 1 | 73F-250-32-NL | CONNECTOR, FEMALE, 10-12 AWG, FULLY INSULATED |
| 28 | 1 | 73M-250-32-NL | CONNECTOR, MALE, 10-12 AWG, FULLY INSULATED |
| 29 | 1 | 93783A032 | SEALING WASHER |
| 30 | 1 | 93786A200 | PRESSURE-SEALING WASHER, M12 |
| 31 | 1 | AGC-1 | FUSE, 250V, (S2565-1) |
| 32 | 2 | AN3-3A | BOLT, 10-32, 0.0625 GRIP, UNDRILLED, STEEL |
| 33 | 1 | AN3-5A | BOLT, 10-32, 0.25 GRIP, UNDRILLED, STEEL |
| 34 | 2 | AN526C632R8 | SCREW, MACHINE, TRUSS HEAD |
| 35 | 1 | AN833-4D | FITTING, HYDRAULIC, 90 DEGREES ELBOW |
| 36 | 2 | AN914-1D | ELBOW, 90 DEGREES, INTERNAL EXTERNAL PIPE |
| 37 | 2 | AN919-3D | FITTING, REDUCER |
| 38 | 1 | AN924-4D | JAM NUT |
| 39 | 3 | BR05-FW | SOCKET, 5 PRONG, PLASTIC |
| 40 | 2 | MS16997-99 | SCREW, CAP, SOCKET HEAD |
| 41 | 2 | MS21044N06 | NUT, LOCKING, REGULAR HEIGHT, 6-32 UNC |

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------------------------------|--|
| 42 | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 43 | 1 | MS21266-2N | CATERPILLAR GROMMET |
| 44 | 1 | MS21919WDG10 | CLAMP, LOOP, CUSHIONED, 5/8 TUBE OD |
| 45 | 12 | MS25036-102 | RING TERMINAL, #6 STUD, 16-22 AWG, RED |
| 46 | 1 | MS25036-103 | RING TERMINAL, #10 STUD, 22-16 AWG, RED |
| 47 | 2 | MS25036-112 | RING TERMINAL, #10 STUD, 10-12 AWG, YELLOW |
| 48 | 2 | MS25036-157 | RING TERMINAL, 1/4 STUD, 10-12 AWG, YELLOW |
| 49 | 2 | MS28775-013 | "O" RING, HYDRAULIC |
| 50 | 2 | MS35338-46 | WASHER, SPLIT |
| 51 | 1 | MS35489-14 | GROMMET, RUBBER |
| 52 | 5 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| 53 | 1 | NAS1149F0363P | WASHER, 0.203 ID, 0.063 THK, STEEL |
| 54 | 2 | NAS1149F0432P | WASHER, 0.265 ID, 0.032 THK, STEEL |
| 55 | 1 | NJAM12X1.0CLZ | NUT, JAM, M12X1.0, ZINC |
| 56 | 3 | S2230-1 | RIVET, POP |
| 57 | 3 | TM2S6-M | CABLE TIE MOUNT |
| 58 | 3 | V23234- A0001-X032 | RELAY, 12V, 5 PRONG |
| 59 | 1 | YBZS- C0.63W1T100K/ UVZOT2 | HYDRAULIC POWER PACK, 12VDC, .64 PUMP |

HYDRAULIC PUMP ASSEMBLY FOR PA-12 PRE SERVICE LETTER 225





ELECTRICAL SCHEMATIC

PUMP WIRING SCHEMATIC
(RELAYS SHOWN IN RELAXED CONDITION)

1. GE WIRES 20 GA
2. GA WIRES 12 GA
3. FOR WIRING REF DVG. 10C1-6028

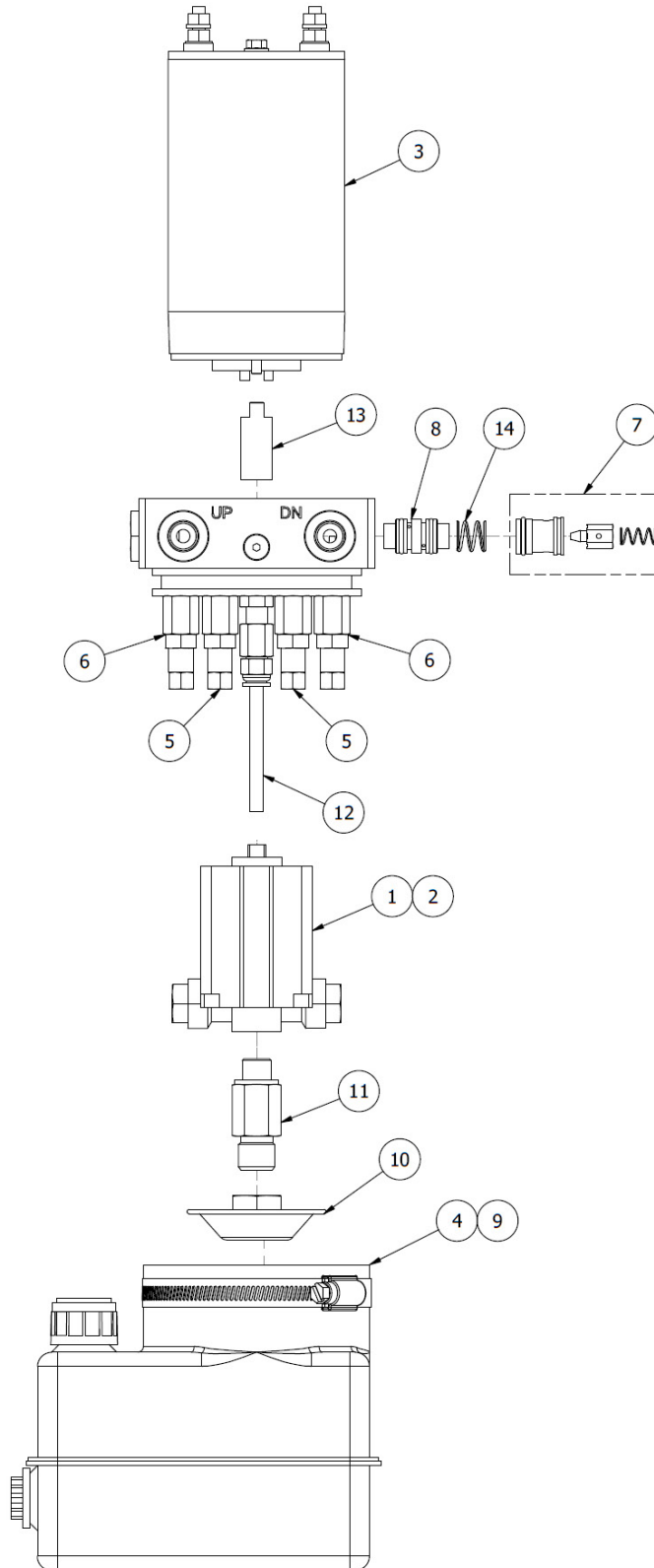
| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|-------------------------------|
| - | 1 | 21A09000-233 | HYD. PUMP COMPLETE WITH MOUNT |
| 1 | 1 | 21A09000-215 | HYD. PUMP 12V (COMPLETE) |
| 2 | 1 | 21A09000-232 | ASS'Y., MOUNT WITH COVER |
| | 2 | MS16997-96 | CAP, SCREW ATTACH TO PUMP |
| | 2 | MS353338-46 | LOCK WASHER |
| 3 | 3 | 0-332-209-137 | RELAY |

PARTS MANUAL
 2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|-----------------------|--|
| 4 | 3 | BR05FW | SOCKET, RELAY |
| | 15 | 1-901-355-917 | TERMINAL |
| | 1 | AN3-4A | BOLT, 10-32, 0.125 GRIP, UNDRILLED, STEEL |
| | 2 | AN3-3A | BOLT, 10-32, 0.0625 GRIP, UNDRILLED, STEEL |
| | 6 | NAS1149F0332P | WASHER, 0.203 ID, 0.032 THK, STEEL |
| | 3 | MS21044N3 | NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF |
| 5 | 1 | 21A09274-006 | STAND PIPE |
| | 1 | MS28775-011 | "O" RING, HYDRAULIC |
| | 1 | 6A09706-001 | FILTER, HYDRAULIC PIPE |
| 6 | 2 | AN804-4D | TEE FITTING |
| | 2 | MS28775-012 | O RING, HYDRAULIC PACKING, .364 ID |
| | 1 | AN815-4D | UNION |
| 7 | 2 | 20PS001EB 700W500W | PRESSURE, SWITCH |
| 8 | 3 | IN4004 | DIODE |
| 9 | 1 | AGC-1 | FUSE |
| 10 | 1 | 6-140 | TERMINAL STRIP |
| | 2 | AN520-6R8 | SCREW |
| | 2 | MS21044N06 | NUT, LOCKING, REGULAR HEIGHT, 6-32 UNC |

HYDRAULIC PUMP OVERVIEW

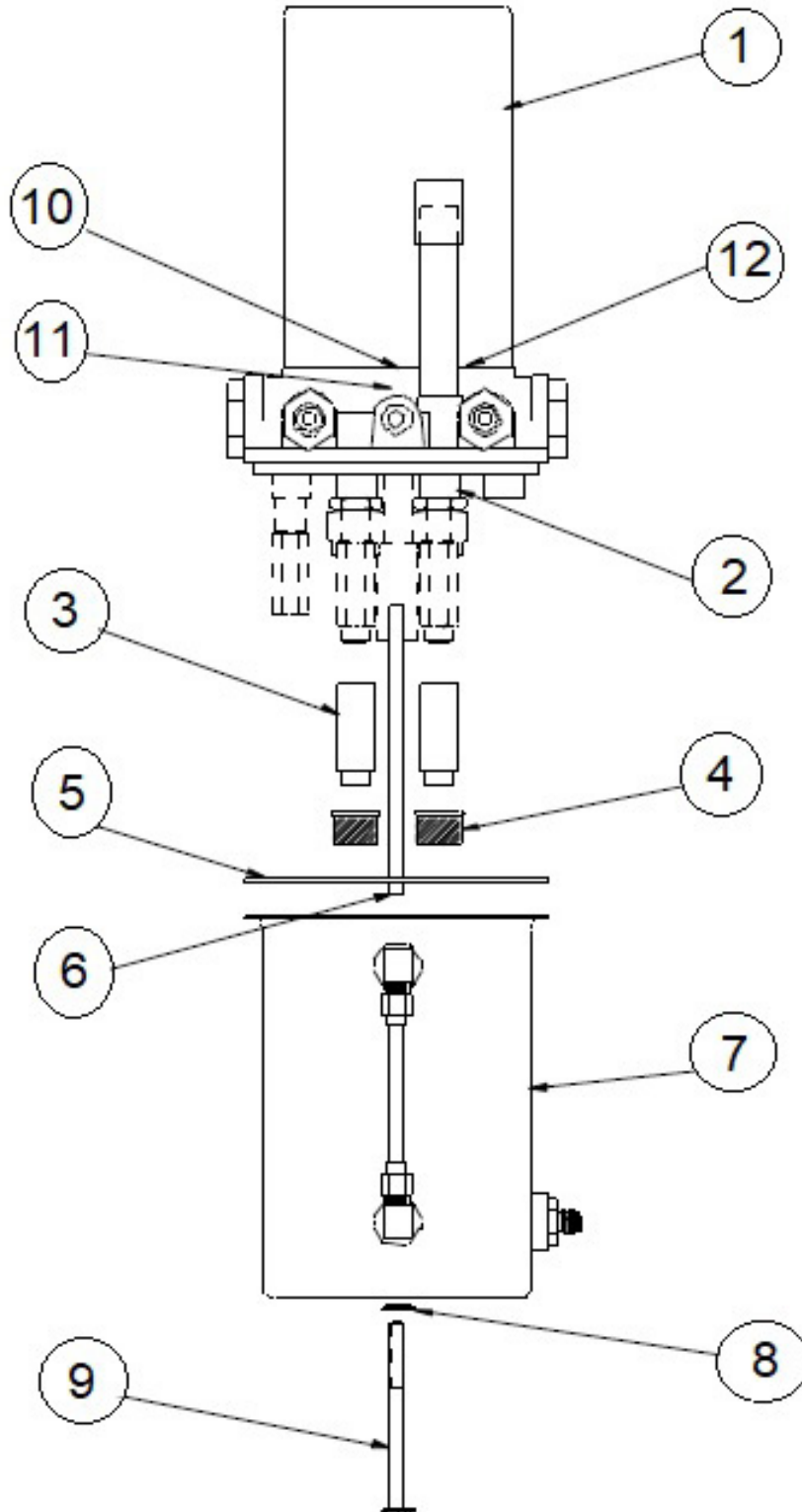
POST SERVICE LETTER 225



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|----------|--|
| 1 | 1 | 202-0003 | BI-DIRECTIONAL PUMP, 0.64 ML/R |
| 2 | 1 | 299-0008 | SEAL KIT, BI-DIRECTIONAL GEAR PUMP |
| 3 | 1 | 610-0010 | DC MOTOR, 12V, .8KW |
| 4 | 1 | 622-0016 | RESERVOIR, 1 QT. |
| 5 | 2 | 631-0005 | PRESSURE RELIEF VALVE |
| 6 | 2 | 631-0006 | THERMAL RELIEF VALVE |
| 7 | 2 | 632-0004 | ASSEMBLY, PILOT OPERATED CHECK VALVE |
| 8 | 1 | 637-0024 | SHUTTLE VALVE |
| 9 | 1 | 681-0050 | CLAMP, HOSE, 1 LITER PLASTIC RESERVOIR |
| 10 | 1 | 682-0019 | FILTER, PICKUP TUBE, HYDRAULIC PUMP |
| 11 | 1 | 682-0055 | SUCTION HEX TUBE |
| 12 | 1 | 682-0056 | RETURN TUBE |
| 13 | 1 | 683-0011 | COUPLING, MOTOR TO PUMP |
| 14 | 2 | 685-0012 | SPRING, SHUTTLE VALVE |
| 15 | 1 | 687-0001 | SEAL KIT, RESERVIOR O-RING, PILOT OPERATED RELIEF VALVE O-RING, THERMAL AND PRESSURE RELIEF VALVE O-RING (NOT SHOWN) |

HYDRAULIC PUMP OVERVIEW PRE SERVICE LETTER 225

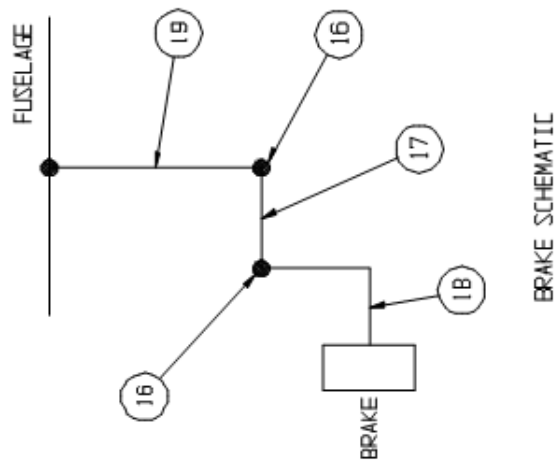
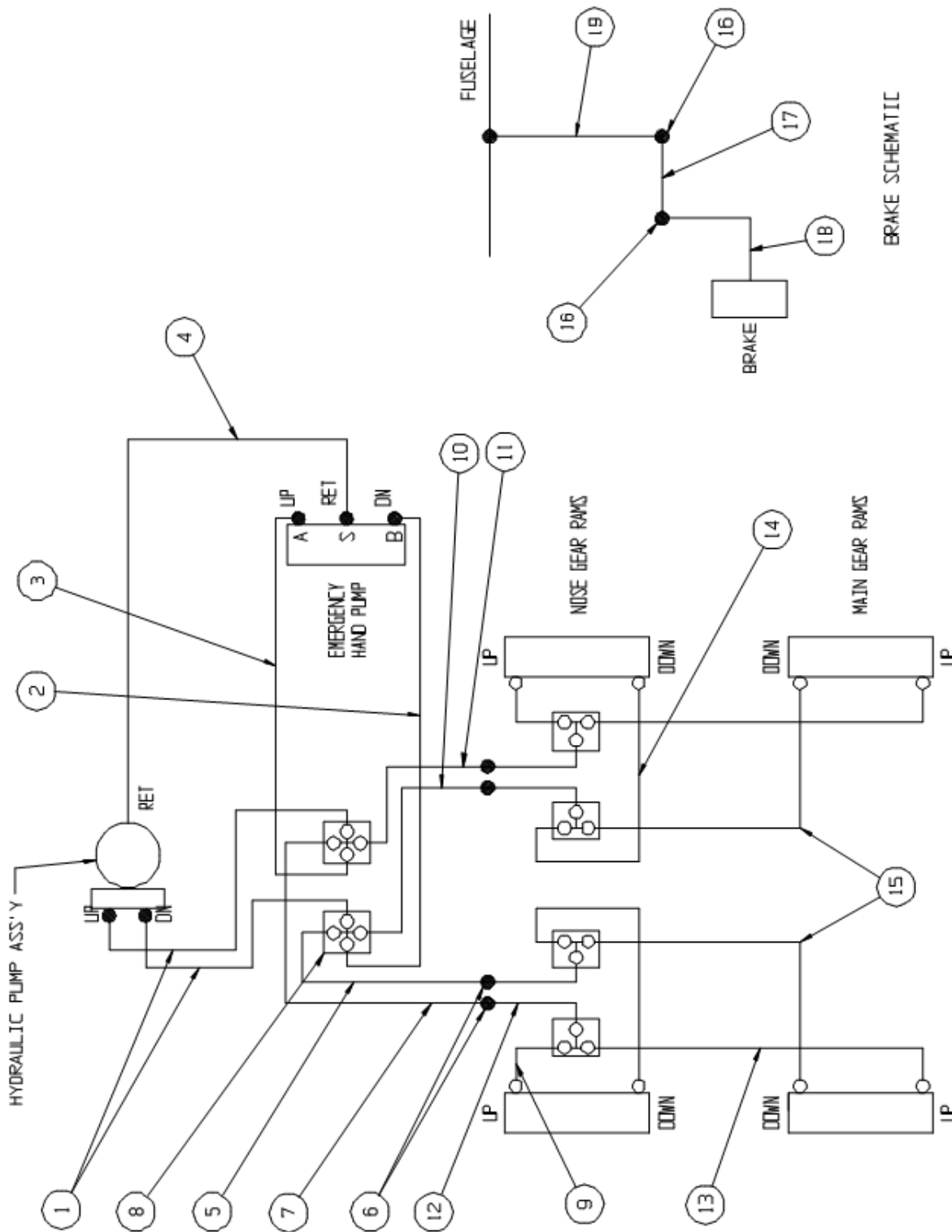


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|--------------|---|
| 1 | 1 | 21A09000-215 | HYDRAULIC PUMP ASSY. (12V) |
| | 1 | 410497* | MOTOR (12V) |
| 2 | 1 | 634873 | BASIC PUMP |
| 3 | 2 | 362136 | TUBE EXTENSIONS |
| 4 | 2 | 410521* | FILTER |
| 5 | 1 | 410578* | SEAL RESERVIOR |
| 6 | 1 | 365047 | RETURN TUBE |
| 7 | 1 | 775260 | RESERVIOR – GAUGE ASSY. |
| 8 | 1 | 415067 | SEAL THREAD |
| 9 | 1 | 409715* | SCREW – RESERVIOR ATTACH |
| 10 | 1 | 361183* | COUPLING – MOTOR TO PUMP |
| 11 | 1 | 410512 | SEAL – PUMP SHAFT |
| 12 | 1 | 405673 | O-RING, BI-DIRECTIONAL MOTOR TO ADAPTOR |

* Reference Wipaire drawing 1011065 for alternate part numbers.

HYDRAULIC SCHEMATIC



PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|---|
| 1 | 2 | 21A09000-204 | ASSEMBLY, HOSE – PUMP TO 4 WAY TO TEE |
| 2 | 1 | 21A09000-223 | ASSEMBLY, HOSE – 4 WAY TEE L. TO H. PUMP |
| 3 | 1 | 21A09000-207 | ASSEMBLY, HOSE – 4 WAY TEE R. TO H. PUMP |
| 4 | 1 | 21A09000-208 | ASS'Y HOSE-PUMP TANK TO HAND PUMP |
| 5 | 1 | 21A09000-206 | ASSEMBLY, HOSE – 4 WAY TEE R. FLOAT |
| 6 | 4 | AN833-4D | FITTING, ELBOW (DECK FITTING) |
| | 4 | AN924-4D | NUT, TUBE, 7/16-20 THREAD |
| | 4 | NAS1149D0763J | WASHER, 0.453 ID, 0.063 THK, ALUMINUM |
| 7 | 1 | 21A09000-205 | ASSEMBLY, HOSE – 4 WAY TEE TO L. FLOAT |
| 8 | 2 | AN827-4D | CROSS FITTING, FLARED TUBE, 1/4" TUBE, 7/16-20 THREAD |
| 9 | 2 | 21A09000-218 | ASSEMBLY, HOSE – NOSE UP TO TEE |
| 10 | 1 | 21A09000-205 | ASSEMBLY, HOSE – 4 WAY TEE TO L. FLOAT |
| 11 | 1 | 21A09000-206 | ASSEMBLY, HOSE – 4 WAY TEE R. FLOAT |
| 12 | 4 | 21A09000-222 | ASSEMBLY, HOSE – TEE TO TOP UP – DN |
| 13 | 2 | 21A09000-220 | ASSEMBLY, HOSE – MAIN UP TO TEE |
| 14 | 2 | 21A09000-219 | ASSEMBLY, HOSE – NOSE DN TO TEE |
| 15 | 2 | 21A09000-221 | ASSEMBLY, HOSE – MAIN DN TO TEE |
| 16 | 2 | AN833-3D | FITTING, HYDRAULIC, 90° ELBOW |
| | 4 | NAS1149D0663J | WASHER, 0.39 ID, 0.063 THK, ALUMINUM |
| | 2 | AN924-3D | NUT, TUBE, 3/8-24 THREAD |
| 17 | 1 | 21A04000-079 | ALUM BRAKE LINE |
| 18 | 1 | 21A04000-078 | HYD. LINE ASSY. WHEEL WELL BRAKE LINE |
| 19 | 2 | 21A04000-080 | ASS'Y., BRAKE LINE (FUSELAGE TO DECK) |

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SECTION 11

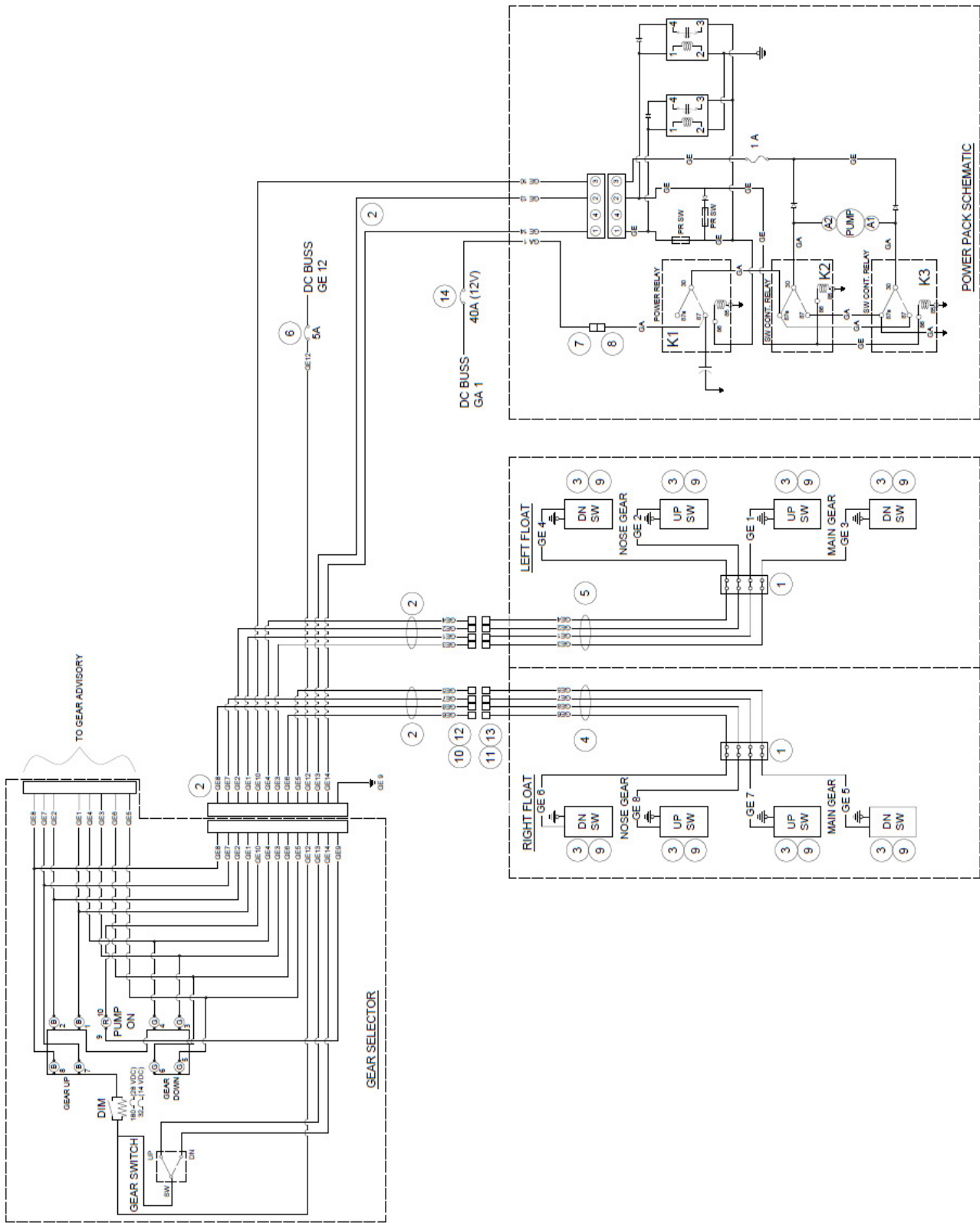
ELECTRICAL

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ELECTRICAL SCHEMATIC

POST SERVICE LETTER 225

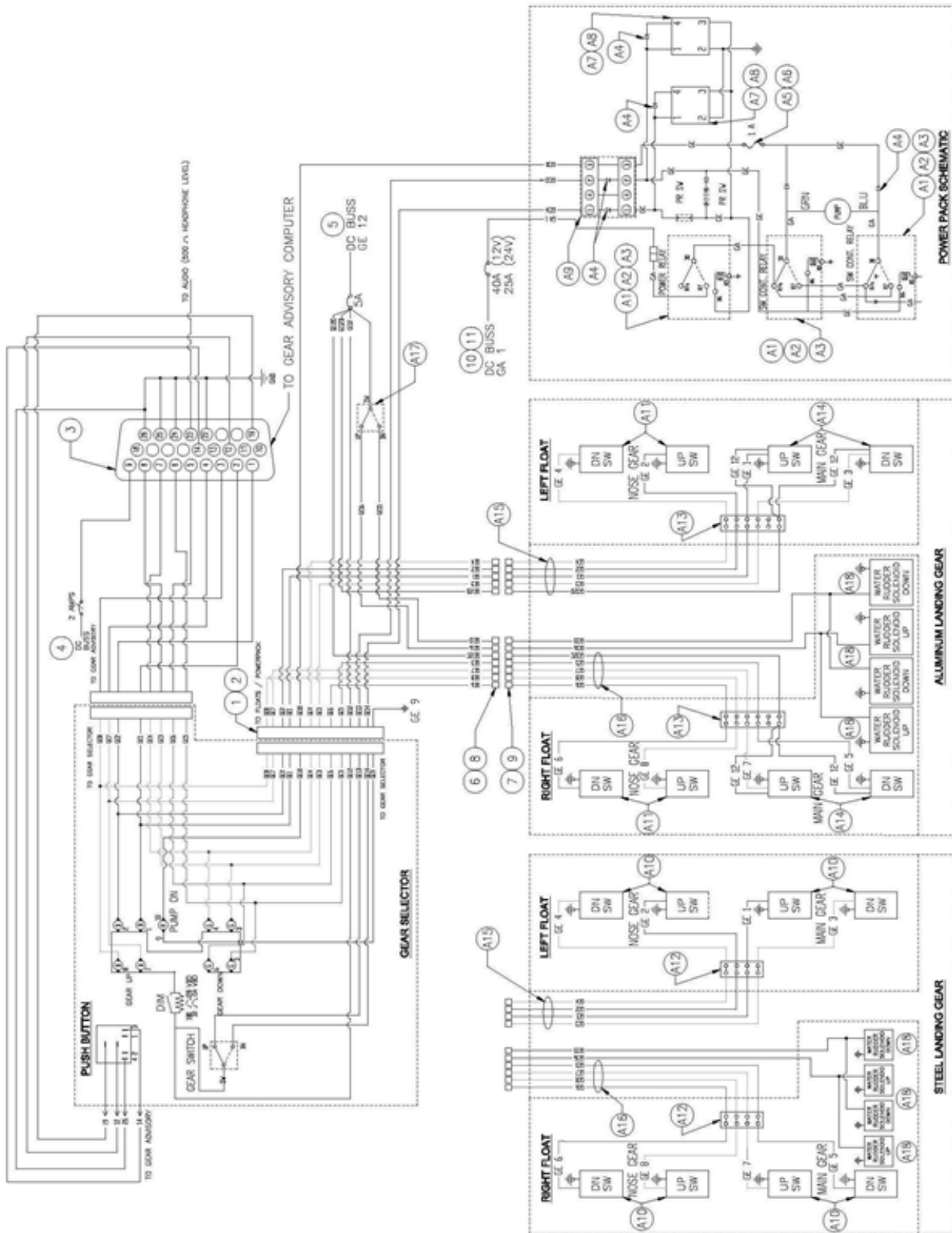


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 2 | 4-140 | TERMINAL BLOCK, 4 POSITION |
| 2 | 1 | 4A11000-011 | WIRE HARNESS, GEAR SELECTOR, FLOATS, HYD. PUMP |
| 3 | 8 | 5801 | GEAR POSITION SWITCH, PROXIMITY, MAGNETIC |
| 4 | 1 | 6A10000-004 | WIRE HARNESS, LEFT FLOAT |
| 5 | 1 | 6A10000-005 | WIRE HARNESS, RIGHT FLOAT |
| 6 | 1 | 7277-2-5 | CIRCUIT BREAKER, 5 AMP |
| 7 | 1 | 73F-250-32-NL | CONNECTOR, FEMALE, 12-10 AWG |
| 8 | 1 | 73M-250-32-NL | CONNECTOR, MALE, 12-10 AWG |
| 9 | 8 | 21A09005-262 | CLIP, GEAR POSITION SWITCH HOLDER |
| 10 | 8 | S1635-1 | PIN |
| 11 | 8 | S1636-1 | SOCKET |
| 12 | 8 | S1637-1 | HOUSING |
| 13 | 8 | S1637-2 | HOUSING |
| 14 | 1 | W23-X1A1G-40 | CIRCUIT BREAKER, 40 AMP, 12VDC |

ELECTRICAL SCHEMATIC

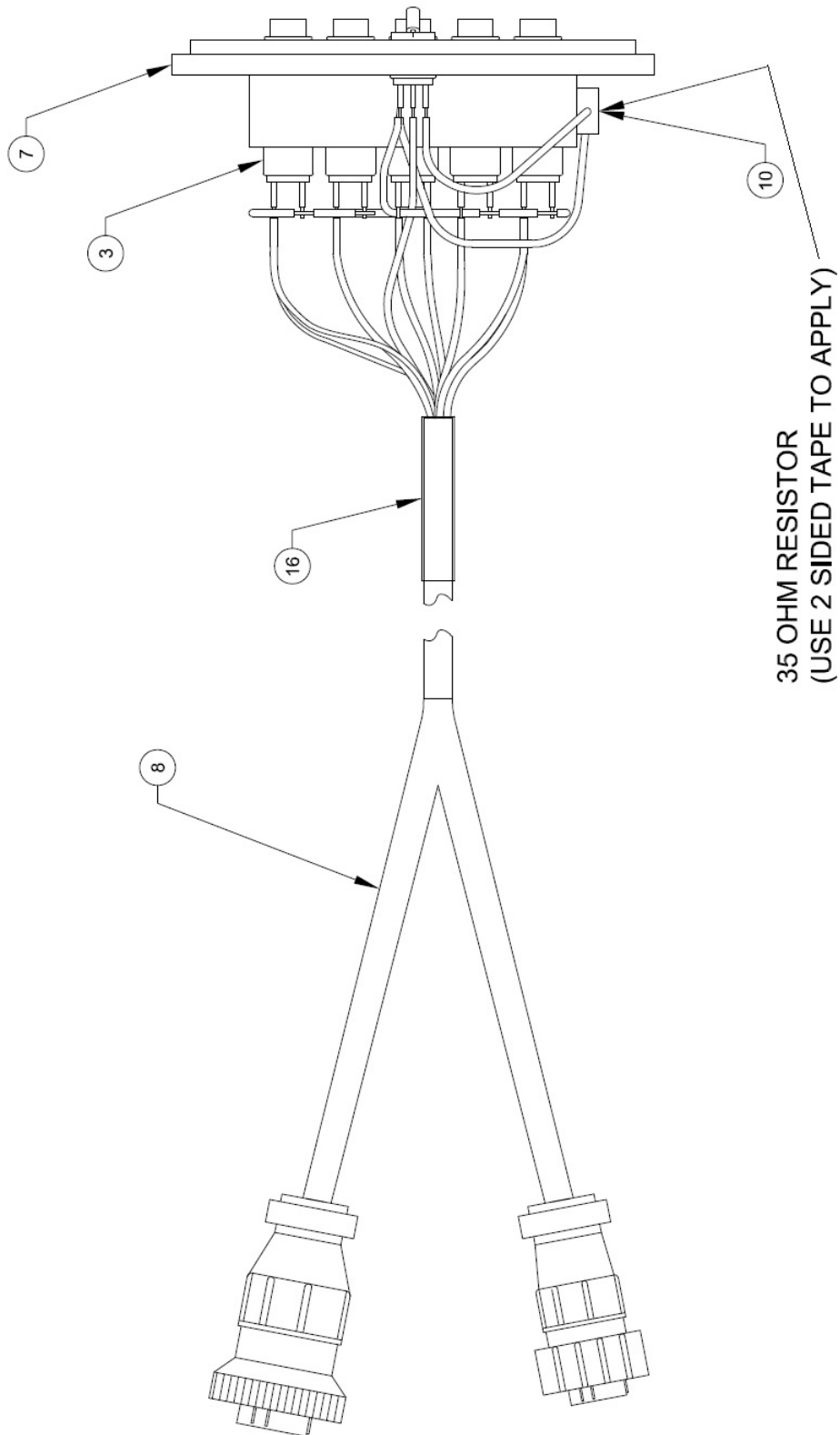
PRE SERVICE LETTER 225

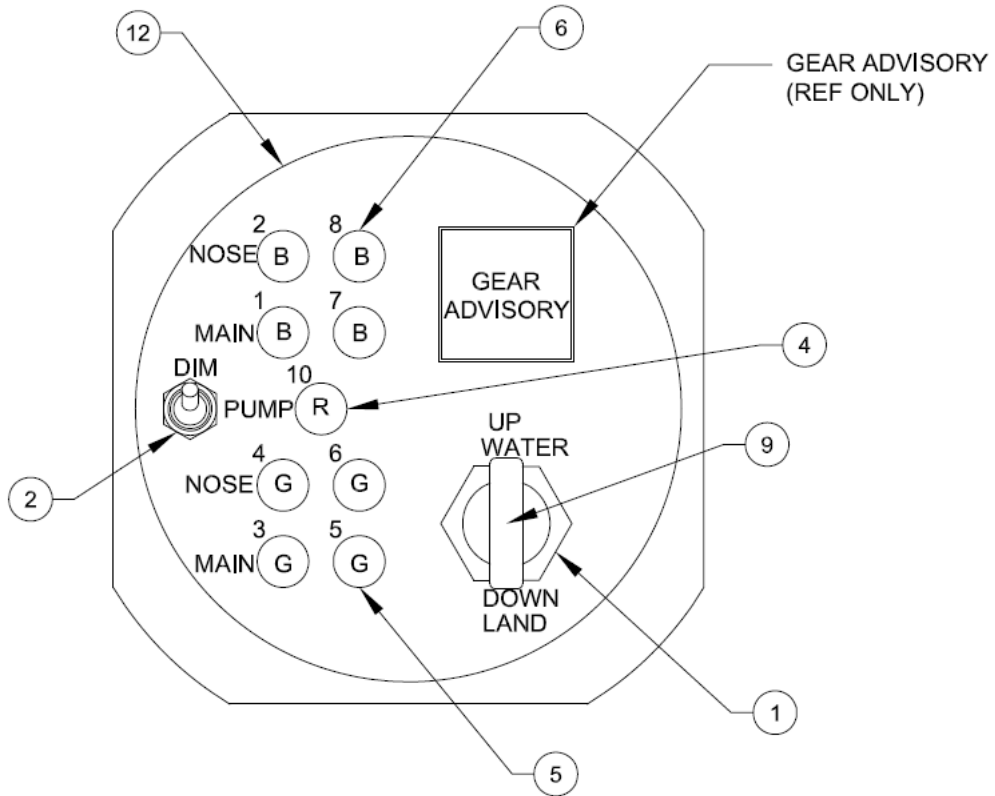
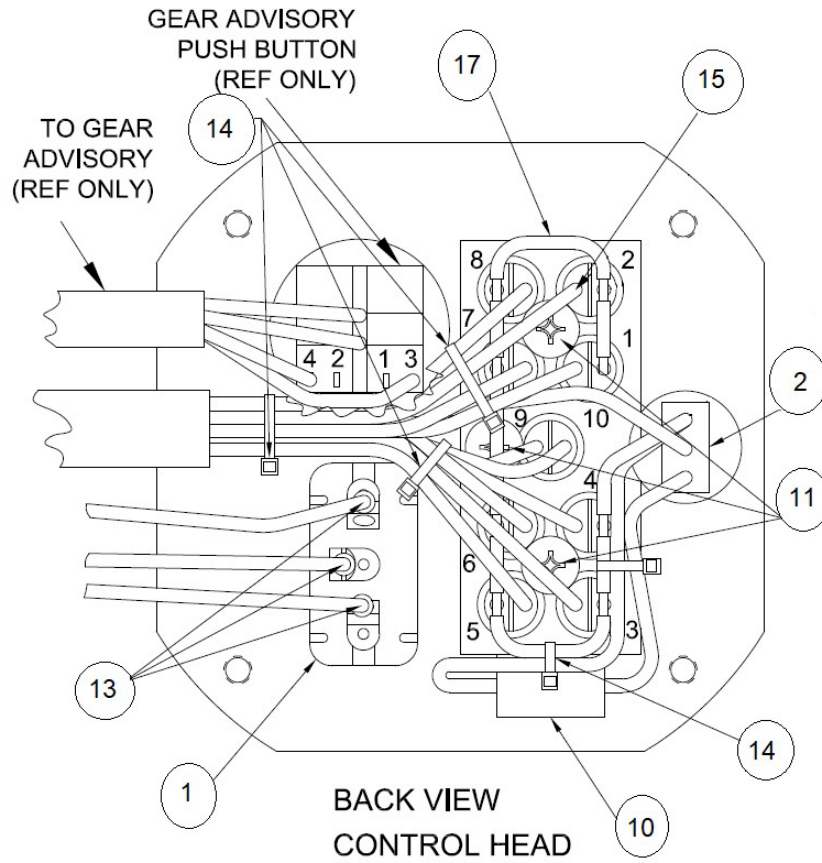


PARTS MANUAL
2100 FLOATS ON PIPER PA-18 & PA-12

| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-----|---------------|--|
| 1 | 1 | 4A11000-011 | ASSEMBLY, GEAR SELECTOR WIRING HARNESS |
| 3 | 1 | 4A11000-014 | ASSEMBLY, WIRING HARNESS, GEAR ADVISORY |
| 4 | 1 | 7277-2-2 | KLIXON CIRCUIT BREAKER, 2 AMP |
| 5 | 1 | 7277-2-5 | KLIXON CIRCUIT BREAKER, 5 AMP |
| 6 | 8 | S1635-1SF | PIN |
| 7 | 8 | S1636-1 | SOCKET |
| 8 | 8 | S1637-1 | HOUSING |
| 9 | 8 | S1637-2 | HOUSING |
| 11 | 1 | W-23-X1A1G-40 | BREAKER, CIRCUIT, 40AMP |
| A1 | 3 | 0-332-209-211 | RELAY, 24V, 5 PRONG |
| A3 | 3 | BR05FW | SOCKET, 5 PRONG, PLASTIC |
| A4 | 7 | 1N4004 | DIODE, 2-1/2" |
| A5 | 1 | AGC-1 | FUSE, 250V, (S2565-1) |
| A6 | 1 | 3453LF2A | FUSE HOLDER |
| A7 | 2 | 1005042 | ASSEMBLY, TIMER RELAY HARNESS (12V SYSTEM) |
| A9 | 1 | 1004949 | CABLE, DIODE ADAPTER |
| A10 | 8 | 5801 | SWITCH, SENSOR |
| A12 | 2 | 4-140 | 4 LUG TERMINAL BLOCK |
| A15 | 1 | 6A10000-004 | ASSEMBLY, WIRE HARNESS, LEFT FLOAT |
| A16 | 1 | 6A10000-005 | ASSEMBLY, WIRE HARNESS, RIGHT FLOAT |

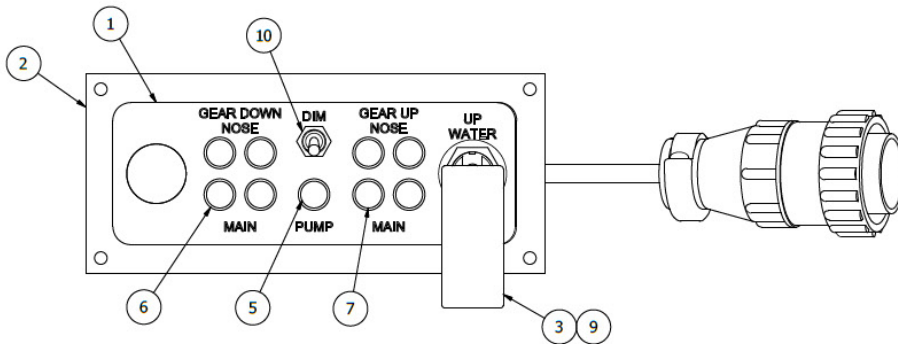
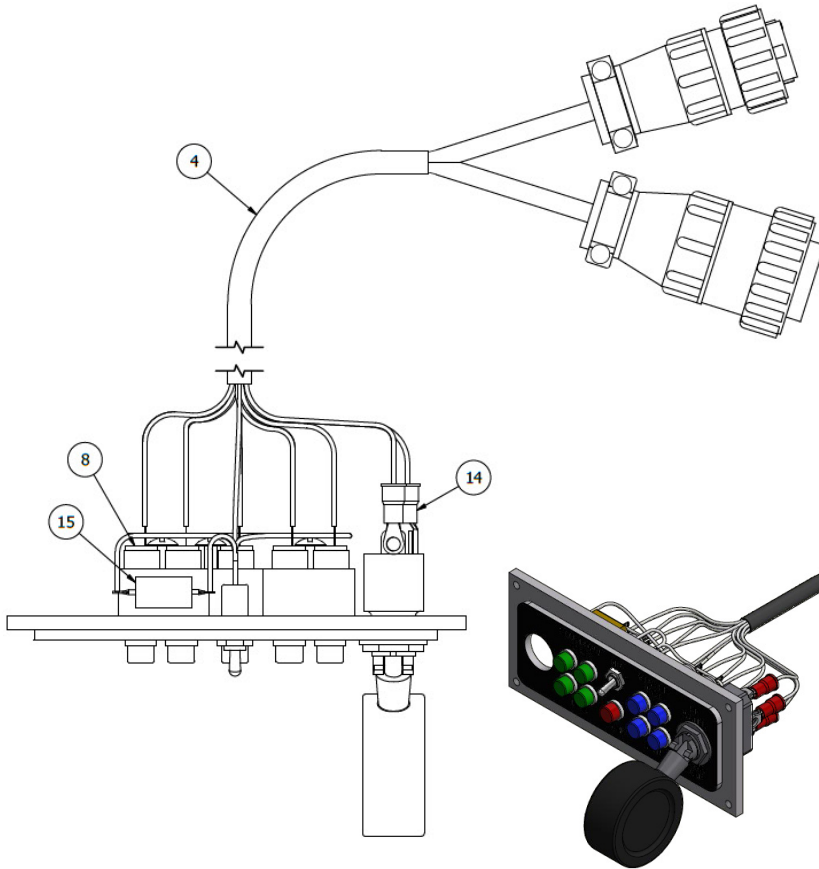
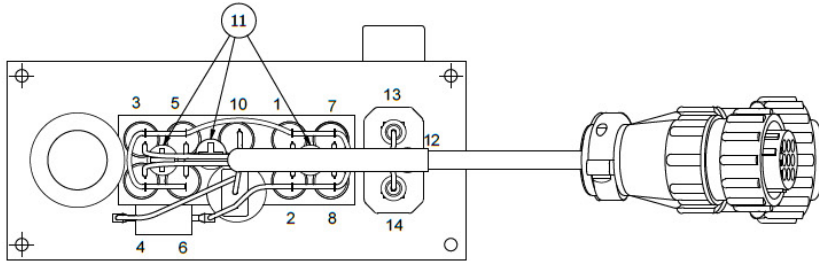
GEAR CONTROL (ROUND)





| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-------|-------------------|-----------------------------------|
| - | 1 | 21A11000-009 | GEAR SELECTOR ASSY. ROUND (12V) |
| 1 | 1 | 8857K44 | SWITCH |
| 2 | 1 | A101SYCB | TOGGLE SWITCH, SPDT, ON-ON |
| 3 | 9 | 515-0012 | SOCKET |
| 4 | 1 | 507-3914-1431-600 | INDICATOR LAMP, 14V, RED |
| 5 | 4 | 507-3914-1432-600 | INDICATOR LAMP, 14V, GREEN |
| 6 | 4 | 507-3914-1434-600 | INDICATOR LAMP, 14V, BLUE |
| 7 | 1 | 21A11179-001 | BLOCK, GEAR CONTROL |
| 8 | 1 | 4A11000-008 | HARNESS ASSEMBLY, GEAR SELECTOR |
| 9 | 1 | 21A11259-003 | GEAR SWITCH KNOB |
| 10 | 1 | RH-5-35 | RESISTOR, 14V, DALE RH5 5W |
| 11 | 3 | AN526-632R8 | SCREW, TRUSS HEAD, 6-32 |
| 12 | 1 | 10B3-6202 | PLACARD, ROUND 2100 GEAR SELECTOR |
| 13 | 3 | MS25036-102 | RING CONNECTOR, #6, 20 AWG, RED |
| 14 | 5 | PLT1M-M | CABLE TIE |
| 15 | 16 IN | HIXR-3/16 | SHRINK WRAP, 3/16, WHITE |
| 16 | 3 IN | HS105-1/2-0 | HEAT SHRINK TUBING |
| 17 | 6 IN | 22759-16-20-9 | WIRE, 20 AWG, WHITE |

GEAR CONTROL (RECTANGLE)



| ITEM | QTY | PART NO. | PART DESCRIPTION |
|------|-------|------------------|---|
| - | 1 | 21A11000-010 | ASSEMBLY, INDICATOR, GEAR CONTROL, SQUARE, 12V |
| 1 | 1 | 10B3-6277 | PLACARD, GEAR CONTROL SQUARE |
| 2 | 1 | 21A11179-002 | BLOCK GEAR CONTROL SQUARE |
| 3 | 1 | 21A11259-003 | GEAR SWITCH KNOB |
| 4 | 1 | 4A11000-008 | WIRING HARNESS ASSY. SELECTOR |
| | 3 IN | HS105-1/2-0 | HEAT SHRINK TUBING |
| 5 | 1 | 5073914-1431-600 | LAMP LIGHT, RED 14V |
| 6 | 4 | 5073914-1432-600 | LAMP LIGHT, GREEN 14V |
| 7 | 4 | 5073914-1434-600 | LAMP LIGHT, BLUE, 14V |
| 8 | 9 | 515-0012 | SOCKET |
| 9 | 1 | 8857K44 | SWITCH |
| 10 | 1 | A101SYCB | TOGGLE SWITCH |
| 11 | 3 | AN526-632R8 | SCREW, TRUSS HEAD MACHINE, 6-32 THREAD, 1/2" LENGTH |
| 12 | 12" | HS105-3/32-0 | HEAT SHRINK, TUBING - BLACK |
| 13 | 3 | PLT1M-M | CABLE TIE, NYLON, WHITE, 4" (SMALL) |
| 14 | 3 | MS25036-102 | TERMINAL, RING #6 STUD, 16-22 AWG, RED |
| 15 | 1 | RH-5-35 | RESISTOR, 14V, DALE RH5 5W |
| 16 | 6 IN | 22759-16-20-9 | WIRE, 20AWG, WHITE (NOT SHOWN) |
| 17 | 16 IN | HIXR-3/16 | SHRINK WRAP, 3/16, WHITE (NOT SHOWN) |