SERVICE LETTER 214

Pilatus 6100A Hydraulic Pump Replacement

Aircraft Makes/Model(s):	raft Makes/Model(s): Float Model(s):		By: MAB
Pilatus PC-6	6100A	Part Number: 1011549	Approved: SDW
T liatus i O-O		Date: 5/7/2021	Revision: A

LOG OF REVISIONS

Revision	Description	Date
А	Initial release	5/7/2021

FAA approval has been obtained for technical data in this publication that affects STC or TSO design compliance.

EFFECTIVITY:

This service letter applies to Pilatus model PC-6 with Wipline 6100 Amphibian Floats installed per STC SA227CH.

COMPLIANCE:

Optional compliance

BACKGROUND:

Bi-Directional Hydraulic Pump Assembly p/n 1005294 has been discontinued. This service letter provides the option to replace it with a new bi-directional pump p/n 1011436. Uni-Directional Hydraulic Pump Assembly p/n 6A09000-029 has been discontinued. This service letter provides the option to replace it with a new uni-directional pump p/n 1011404.

COMPLIANCE METHOD:

Install provided parts as shown in the Work Instruction section of this service letter.

APPROXIMATE SHOP HOURS:

The work instruction for this service letter will take approximately 8 labor hours.

WEIGHT AND BALANCE CHANGE:

PC-6 Uni-Directional Pump Only +4 lbs, F.S. 262.50 inches

PC-6 Bi-Directional Pump Only +6.1 lbs, F.S. 262.50 inches

WARRANTY INFORMATION:

This service letter does not include warranty for labor and parts.

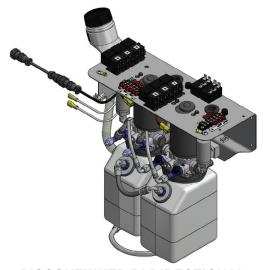
TECHNICAL DATA:

Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at www.wipaire.com.

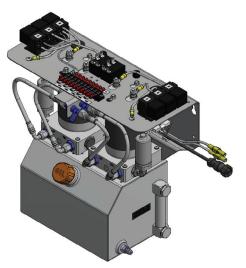


ITEMS PROVIDED IN SERVICE KIT 1011549-01 (BI-DIRECTIONAL PUMP)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011436	Assembly, Hydraulic Power Pack
2	2	3TC2-30	Circuit Breakers, 30 Amp



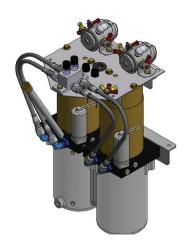
DISCONTINUED BI-DIRECTIONAL
HYDRAULIC PUMP 1005294



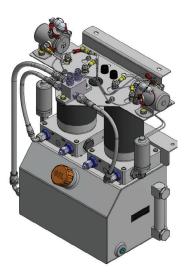
NEW BI-DIRECTIONAL HYDRAULIC PUMP 1011436

ITEMS PROVIDED IN SERVICE KIT 1011549-02 (UNI-DIRECTIONAL PUMP)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011404	Assembly, Hydraulic Power Pack
2	2	320559	Crimp Terminal, Butt, 22-16 AWG



DISCONTINUED UNI-DIRECTIONAL HYDRAULIC PUMP 6A09000-029



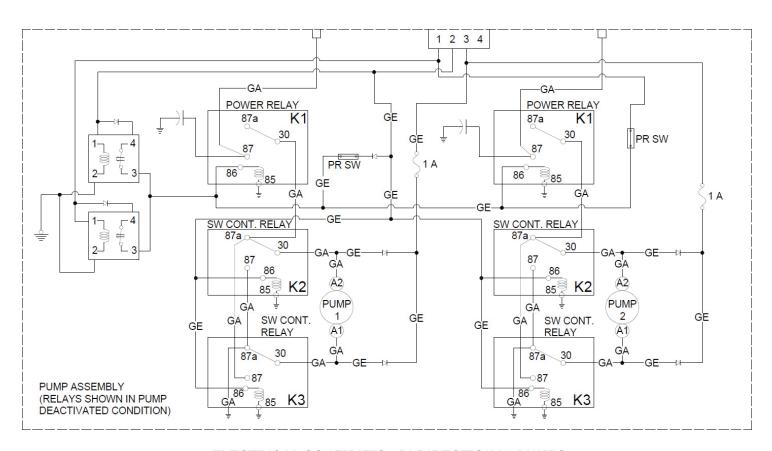
NEW UNI-DIRECTIONAL HYDRAULIC PUMP 1011404



Work Instruction

Bi-Directional Pump

- 1. Disconnect aircraft battery.
- 2. Disconnect single pin Molex connectors for GA1 and GA4 (12 ga) wire.
- 3. Disconnect 4 pin CPC connector from hydraulic power pack assembly 1005294.
- 4. Disconnect and cap hydraulic lines 1005288-03 from hydraulic power pack manifolds going to 1005262 manifold in belly of aircraft.
- 5. Drain hydraulic fluid from both hydraulic power pack reservoirs.
- 6. Disconnect and cap hydraulic line 1005288-06 from hydraulic power pack reservoir.
- 7. Unbolt and remove hydraulic power pack 1005294 from pump mount assembly.
- 8. Install new hydraulic power pack 1011436 onto pump mount assembly using existing hardware.
- 9. Re-install hydraulic lines 1005288-03 onto hydraulic power pack tees.
- 10. If required, remove and swap hydraulic fittings AN816-4-4D and MS27769D3 on hydraulic power pack reservoir.
- 11. Re-install hydraulic line 1005288-06 onto hydraulic power pack reservoir.
- 12. Re-install 4 pin CPC connector. See electrical schematic.
- 13. Cut single pin Molex connector from GA1 and GA4 (12 ga) wires. Install 73M-250-32NL connector onto GA1 wire and 73F-250-32-NL connector onto GA4 wire. Connect GA1 wire to pump 1 and GA4 wire to pump 2. See electrical schematic.



ELECTRICAL SCHEMATIC - BI-DIRECTIONAL PUMPS

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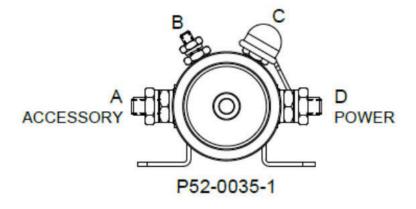
CIRCUIT BREAKER HOUSING

- 14. Remove two 20 amp Pump 1 and Pump 2 circuit breakers P/N 7277-2-20 from 1005264 circuit breaker housing located on top of circuit breaker panel.
- 15. Install two 30 amp Pump 1 and Pump 2 circuit breakers P/N 3TC2-30 into 1005264 circuit breaker housing. See electrical schematic.
- 16. Reconnect aircraft battery, service pump reservoir with MIL-H-5606 hydraulic fluid, and perform a retraction/extension test to make sure system is functioning correctly. Watch the system for leaks and add MIL-H-5606 hydraulic fluid as needed.

Work Instruction

Uni-Directional Pump

- 1. Pull Pump 1 and Pump 2 circuit breakers.
- 2. Remove and cap both pressure and return hydraulic lines on hydraulic pump manifold 6A09000-027.
- 3. Remove GA1 and GA4 wires (12 ga) from electrical solenoids on hydraulic power pack 6A09000-029.

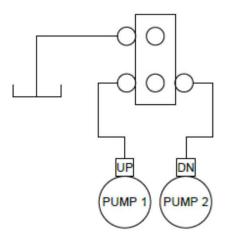


SOLENOID SCHEMATIC

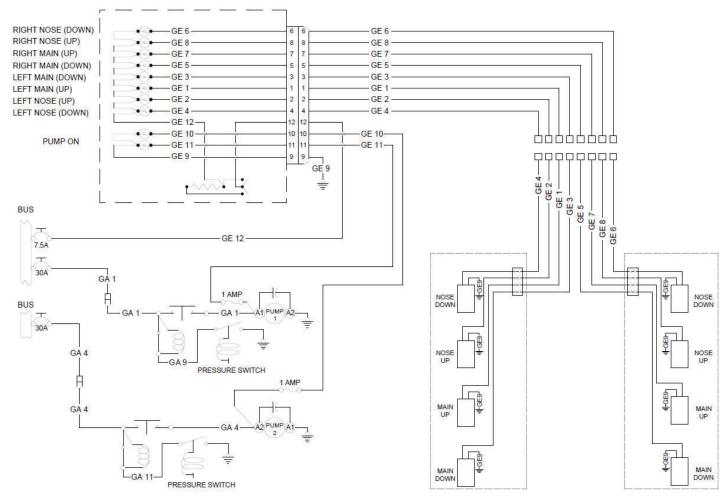
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- 4. Cut GE10 and GE11 wires (20 ga) at butt splice connection.
- 5. Unbolt and remove hydraulic power pack 6A09000-029 from pump mount assembly.
- 6. Install new hydraulic power pack 1011404 onto pump mount assembly using existing hardware.
- 7. Install pressure and return line to hydraulic pump manifold. Refer to hydraulic schematic.



HYDRAULIC SCHEMATIC



ELECTRICAL SCHEMATIC UNI-DIRECTIONAL PUMPS



- 8. Re-install GE10 and GE11 wires (20 ga) onto wires coming from fuse holder with supplied butt splice connectors. See electrical schematic.
- 9. Re-install GA1 and GA4 wires (12 ga) onto electrical solenoids on hydraulic power pack 1011404. See electrical schematic.
- 10. Reset Pump 1 and Pump 2 circuit breakers, service pump reservoir with MIL-H-5606 hydraulic fluid, and perform a retraction/extension test to make sure system is functioning correctly. Watch the system for leaks and add MIL-H-5606 hydraulic fluid as needed.

Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 214.