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Service Bulletin

Document Number: SB-2018-07

Date: 11/25/19

Revision: D

Effective Models:

Aircraft	Aircraft S/N Range	Kit P/N's	Kit Description
Airbus Helicopters, AS350C, D, D1, B, B1, B2, BA, B3	ALL	20326 Series	AS350 Emergency Float Kits per FAA STC SR00470LA
Airbus Helicopters AS355 E, F, F1, F2, N, NP	ALL	20326 Series	AS355 Emergency Float Kits per FAA STC SR00645LA

NOTE: This Service Bulletin is sent to the operators of record for the model aircraft as shown above. If an aircraft has been leased or sold, please send this service bulletin to the new operator.

This technical data package being provided to the Federal Aviation Administration (FAA).

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LOG OF REVISIONS

Revision	Date	Pages	Description	Approval
N/C	11/15/18	All	Initial Issue	P. Bravo
A	08/05/19	All 4 7,9 8	Revised Header and Footer Revised Compliance Date Added Revision Note to ICA callout Updated Section 1.3	P. Bravo
B	10/08/19	All 3 8 11	Reformatted to current standard Updated Safety Summary Updated Section 1.3 Created Appendix A	P. Bravo
C	11/14/19	4 5 7 9	Updated Section G Added Note Revised ICA references Revised ICA references	P. Bravo
D	11/25/19	5 8	Revised Section 1.1 Revised Section 1.3	P. Bravo <i>For AG</i>



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SAFETY SUMMARY

GENERAL PRECAUTIONS

Personal Protective Equipment (PPE) must be worn when exposed to flying particles, liquid chemicals, or other potential hazards to the skin, eyes, ears, or respiratory system.

Make sure that the work area is free from dirt and foreign matter and contaminants that could otherwise damage functionality.

Failure to comply with or deviate from the procedure may negatively affect the equipment. It is the operator's responsibility to comply with these procedures.

DEFINITIONS

WARNING: THIS INDICATES INFORMATION THAT, IF NOT FOLLOWED, COULD RESULT IN PERSONAL INJURY, DEATH, OR LONG-TERM HEALTH CONDITIONS.

CAUTION: THIS INDICATES INFORMATION THAT, IF NOT FOLLOWED, MAY RESULT IN DAMAGE TO OR DESTRUCTION OF EQUIPMENT, OR THE LOSS OF MISSION EFFECTIVENESS.

NOTE: This indicates information that aids in understanding or provides additional detail on the methods of a procedure.



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A. SUBJECT:

Pull Cable rigging check and Inflation Handle force check for AS350/AS355 Emergency Float Kits

B. BACKGROUND:

The AS350/AS355 Emergency Float Kits utilize a system of pull cables to activate and release compressed gas from the float cylinders into the floats. Proper installation of the pull cables allows the two float cylinders installed on the aircraft to activate simultaneously, allowing for proper distribution of gas to all floats in the system. Improperly installed pull cables may lead to asymmetric inflation of the float system and/or difficulty deploying the float system from the float activation handle installed on the pilot cyclic.

C. ACTION:

This Service Bulletin (SB) provides instructions on the use of the DART P/N 607.1602 Pull Cable Test Tool Kit to verify the pull cable installation on the P/N 20326 Series Emergency Float Kit. The 607.1602 Pull Cable Test Tool Kit will be available from DART Aerospace by contacting DART Customer Support per Section 2.0.

D. COMPLIANCE:

This SB is MANDATORY, and all installed kits must be inspected and checked by March 31, 2020.

E. MANPOWER:

Maintenance-Man-Hours are based on hands-on time and can change per facility and availability of qualified personnel. The estimated time to complete this SB is three hours.

F. WEIGHT & BALANCE:

Accomplishment of this Service Bulletin has no impact on the A/C weight and balance:

G. PUBLICATIONS AFFECTED:

The DART Installation Instructions (II350-400, II350-600) and Instructions for Continued Airworthiness (ICA350-1, ICA350-20, ICA350-21) have been updated to reflect the incorporation of this kit for the verification of proper pull cable installation.

H. APPROVAL:

The resultant modifications described in the Accomplishment Instructions section have been shown to comply with the applicable Federal Aviation Regulations.



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ACCOMPLISHMENT INSTRUCTIONS

1.0 P/N 607.1602 PULL CABLE TEST KIT

The DART P/N 607.1602 Pull Cable Test Kit will be provided to operators who have the P/N 20326 Series Emergency Float System Kit installed on their aircraft. The kit will allow operators to perform a check on the pull cable system rigging for the flotation system without using a charged reservoir assembly or inflating the floats.

The kit includes two P/N 607.1601 test tools, hex keys, miscellaneous hardware, and an operational manual. The test tools will be installed on the interior of the float reservoir assembly valve shrouds and will interface with the pull cable assemblies.

Table 1: 607.1602 Kit Part Breakdown

DART P/N	Description	QTY
607.1601	Pull Cable Test Fixture Assembly	2
601.3821	Set Screws	2
601.4278	Set Screws	4
601.4281	5/64" Hex L-Key	1
601.3823	3/32" Hex L-Key	1
646.7818	Retaining Wire	1
601.2330	Cotter Pin	2
601.1689	Clevis Pin	2

1.1 VERIFICATION OF PULL CABLE INSTALLATION

Details on the calibration and use of the P/N 607.1601 test tools are covered in Operational Instruction Manual (OIM-9) included with the P/N 607.1602 pull cable test kit.

After verification and/or adjustment of the aircraft pull cable installation, proceed to Section 1.2 of this document to install the tools onto the reservoir assemblies.

1.2 INSTALLATION OF PULL CABLE TEST TOOL

Prior to working around the float system, safety pins shall be placed in the inflation handle and each reservoir assembly.

WARNING: SAFETY PINS SHALL BE INSTALLED INTO THE INFLATION HANDLE AND INFLATION VALVES PRIOR TO WORKING WITH THE SYSTEM. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH.

NOTE: Please use the ICA corresponding to the specific float system configuration. For ICA350-21 use at revision T or later, ICA350-20 at revision K or later, ICA350-1 at revision L or later.

1. Remove both float reservoir assemblies from the aircraft by removing the output hose connector, pull cable assemblies, and the band clamps that hold the assemblies to the aircraft.

WARNING: A DIFFUSER CAP SHALL BE INSTALLED ONTO THE OUTLET OF EACH RESERVOIR ASSEMBLY AFTER DISCONNECTING THE HOSE FITTING, AND PRIOR TO REMOVING THE RESERVOIR ASSEMBLY FROM THE AIRCRAFT. THE RESERVOIR SHALL BE SECURED USING A BELT VISE OR OTHER METHOD TO PREVENT ANY ROLLING OR FALLING DURING HANDLING. GREAT CARE SHALL BE TAKEN WHEN WORKING AROUND CHARGED CYLINDERS. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH.

2. Place the float reservoir assemblies on a table and secure them from rolling.
3. Using a 1/8" drill bit, drill two holes into one side of the reservoir valve as shown (Figure 1).

It is advised to mark these locations and verify the hole centers by removing the two set screws from the P/N 607.1601 test tool and sliding the tool onto the shroud and aligning the tool with the marks.

4. Apply Alodine® to the interior of the valve shroud holes.

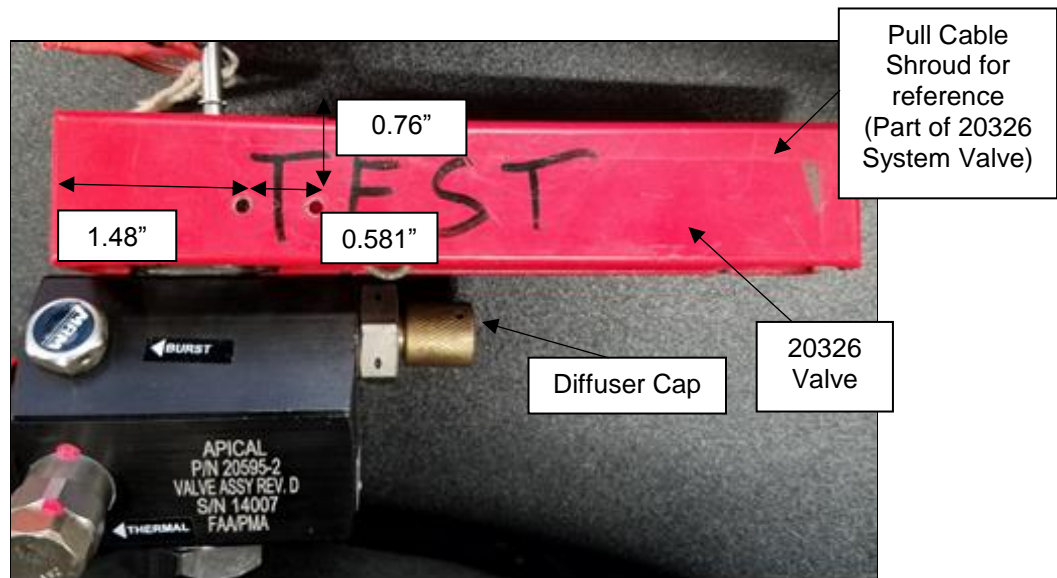


Figure 1: Valve Pull Cable Test Tool Hole Locations (No Test Tool Installed)

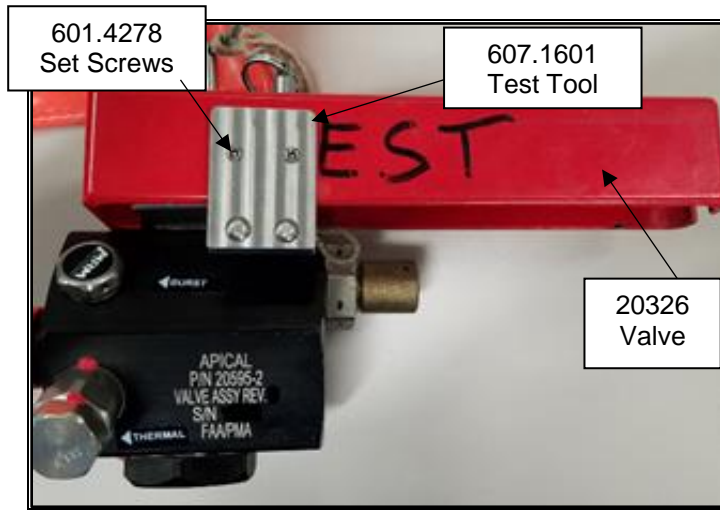


Figure 2: Pull Cable Test Tool Installed

5. Position the pull cable test tool in the valve shroud as shown in Figure 2 by sliding the tool up above the valve trigger pull cable. Secure the tool in place by tightening the P/N 601.4278 set screws into the drilled holes until only one thread shows.
6. Re-install the float reservoir assemblies onto the aircraft and secure the band clamps per applicable ICA.
7. Re-install the pull cable assemblies to the valve assembly shrouds per applicable ICA.
8. Position the end of the pull cable assembly clevis to be in line with the pull cable test tools pull rod.
9. Connect the pull rod and pull cable by installing the clevis pin (Figure 3).

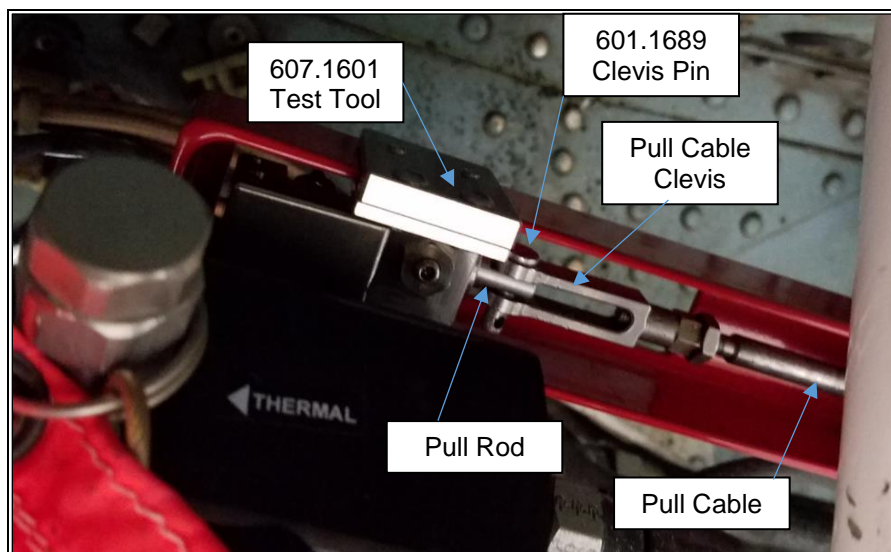


Figure 3: Pull Cable Installation



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1.3 TESTING PULL CABLE INSTALLATION

Reference Operational Instruction Manual (OIM-9) for instructions on testing the pull cable installation.

Measured activation of both pull cable test tools from the handle assembly shall be no greater than 30 lbs. [13.61 Kg] and both test tools shall deploy from a single full stroke of the handle.

If the force required to deploy the test tools is above 30 lbs [13.61 Kg] or both test tools did not simultaneously deploy, accomplish the following:

Re-adjust cable rigging per OIM-9 until the pull force is below 30 lbs (13.6 kg) and the test tools deploy simultaneously.

NOTE: After re-rigging, if the force required to deploy the test tools is still above 30 lbs [13.61 Kg] or both test tools do not simultaneously deploy, contact DART customer service.

NOTE: If INOPPING the system is desirable, proceed to Appendix A.

When the cable installation has been verified, it is recommended that the pull cable test tools be used by pilots to perform a qualitative assessment of the pull cable installation and allow pilots to train in deploying the floats. It is the intent of the float activation handle design that the pilot can deploy the floats using just one hand.



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1.4 TEST TOOL REMOVAL

After completing the rigging and inflation handle force check, remove the P/N 607.1601 test tools from the reservoir assemblies as follows:

1. Disconnect the pull cables from the pull rods by removing the clevis pins.
2. Remove the pull cables from the valve assembly shroud per applicable ICA.
3. Remove the float reservoir assemblies from the aircraft by loosening the band clamps per applicable ICA.
4. Loosen the P/N 601.4278 set screws in the test tools and slide the tools out from the valve assembly shroud.
5. Re-install the reservoir assemblies into the aircraft per applicable ICA.
6. Connect the pull cable assemblies to the reservoir assemblies while keeping any adjustments made to the pull cable rigging from the previous step (Section 1.3).



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2.0 SB RECORD

1. Record compliance of this SB in the aircraft logbook.
2. Fill out the Record Sheet and send it to DART Customer Support (support@dartaero.com).
3. Update the Aircraft Logbook to indicate that SB-2018-07 has been complied with.

Customer	Aircraft Model	Aircraft Serial Number	Aircraft Tail Number	Kit P/N	Kit Serial Number
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



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3.0 APPENDIX A

1. INOP the Emergency Float System by replacing the “Remove Prior to Flight” warning tag with the P/N 604.5213 “Emergency Float System Inoperative” Warning Tag on the P/N 601.0998 quick-release pin.
2. Insert the modified quick-release pin into the float activation handle.
3. Ty-wrap the pin into place on the pilot collective so that the Warning Tag is clearly visible but does not interfere with flight operations.

The P/N 604.5213 “Emergency Float System Inoperative” Warning Tags can be obtained from DART. Contact DART Customer Service for a resolution on the issue.