



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

November 23, 2021

STRUCTURES

Group Chairman's Factual Report

CEN20LA175

**Appendix C – LMLG Actuator Exam
(5 pages)**



APPH WICHITA, Inc.

CUST P/N: 114-380041-21

Date: 11 May 2021

Part #: 40600-12

Description: ACTUATOR ASSY - MLG

Serial Number: 14

Received From: NTSB

PO: CEN20LA175

Ship To: DUMMIE ADDRESS

Ship Via: *

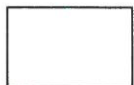
City, State, Zip:



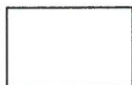
Warranty



Overhaul



Repair



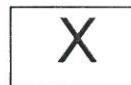
Rebuilt



Test



Inspect



Issue 8130

Cycles Since New (CSN): N/A

Cycles Since OH (CSO): N/A

Cycles Since Repair (CSR): N/A

Total Time (TT):

Time Since OH (TSO):

Time Since Repair (TSR):

Date of Approval to Proceed

Date of charges Approved

Customer Purchase Order Instructions / Comments

*Fluid Sample was obtained AND taken with Actuator by Beech

Work Performed

Work Performed IAW: Visually Inspected S/N 14 while observed by NTSB, FAA, Beech. Noted bent ROD END upon inspection. Actuator was cleaned prior to performing the unlock pressure test. Unit PASSED unlock pressure test @ 375 psi. Full F/T then performed per 40600 FTP = CMM 32-30-47. NO Defects Noted. Actuator was tore down AND observed by NTSB, FAA, Beech. NO Defects Noted. Unit was bagged individually per NTSB AND Boxed. Beech Removed Actuator from HDE premises after investigation was complete.

R
15

5/20/2021

Parts Replaced

NO PARTS REPLACED → ROD END NOTED AS DAMAGED.

Disassembly	R 13
Clean	R 13
Inspected	R 15
Assembly	N/A R 15
Functional Test Performed	TESTED TO TEAR PRICE TO TEAR FT 31
Final Inspection Performed	N/A R 15
FAA Form 8130 Issued	N/A R 15

Work Order Number 700966

CRO Number

Re

Inspector's Signature

MRO 	Shop Order 700966 / * / *		Part 40600-12		Eng Revision AE	Required By 18 May 2021	Quantity 1	Page 1 of 3
	Rout Rev 3	BOM Rev 3	Start Date 13 May 2021	Description ACTUATOR ASSY - MLG				
	Customer P/N 114-380041-21		CRO Number 228680 / 1		Customer NATIONAL TRANSPORTATION SAFE		Customer PO CEN20LA175	
	Print Date 12 May 2021	Printed By JACOB.QUADE		Serial No. 14		Location 450		

Router Notes

REFERENCE AIRIGHT DWG. 40600

REFERENCE APPH WICHITA CMM 32-30-47 Rev OR, Dated 8/2013

ROUTER REV 2 (1/6/2011) (BD) - DWG UPDATE TO REVISION AC

ROUTER REV 3 (9/30/2013) (BD) - ADDED CMM NUMBER

 1104062	OP No. 10	Due Date 13May21	Work Center INSP.	Operation INSPECT	Setup 0.00	Unit Time 1.00	OP Time 1.00		
1 PHOTGRAPHIC DOCUMENTATION OF AS RECEIVED UNIT CAPTURE 100% OF THE ASSEMBLY IN PHOTOS BY TAKING SHOTS FROM FROM ALL POSSIBLE ANGLES. OBSERVE AND DOCUMENT ANY AREAS OF DAMAGE ON FORM LG-150-400255 WORK PERFORMED REPORT.					Good	Scrap	Oper.	Insp.	Date
					1	Ø	R 15	N/A	5/20/21
2 CLEAN EXTERIOR OF ACTUATOR WITHOUT DISSASSEMBLY REFERENCE CMM 32-30-47 PAGE 401: CLEAN THE EXTERIOR USING SOFT BRISTLE BRUSHES, LINT FREE CLOTHS, AND NON-AGGRESSIVE CLEANING SOLVENTS SUCH AS LOTOXANE, ISOPROPYLE ALCOHOL, MINERAL SPIRIT, LPS RESOLVE, LOCTITE 7063 OR SOLVENT TO PD680 TYPE 2 OR MIL-T-81533.					Good	Scrap	Oper.	Insp.	Date
					1	Ø	R 13	N/A	5/20/21
3 PHOTGRAPHIC DOCUMENTATION OF CLEANED UNIT CAPTURE 100% OF THE ASSEMBLY IN PHOTOS BY TAKING SHOTS FROM FROM ALL POSSIBLE ANGLES. OBSERVE AND DOCUMENT ANY AREAS OF DAMAGE ON FORM LG-150-400255 WORK PERFORMED REPORT.					Good	Scrap	Oper.	Insp.	Date
					1	Ø	R 15	N/A	5/20/21

 1104063	OP No. 20	Due Date 13May21	Work Center OASSY	Operation FLUID CAPATURE	Setup 0.00	Unit Time 0.50	OP Time 0.50		
1 OBTAIN HYDRAULIC FLUID FROM ACTUATOR WITHOUT MAJOR DISASSEMBLY EXTRACT RESIDUAL FLUID FROM THE ACTUATOR. REMOVE THE EXTEND PORT FITTING FROMT HE ACTUATOR. SETUP A CLEAN LINT FREE TRAY IN A POSITION ON THE TEST STAND TO CAPTURE FLUID RESIDING IN THE ACTUATOR. CONNECT HYDRAULIC LINE TO THE RETRACT PORT. USING THE TEST STAND AT LOW PRESSURE (0 - 20 PSI) AND LOW FLOW. RETRACT THE ACTUATOR AND CAPTURE THE FLUID EXITING THE ACTUATOR INTO THE CLEAN TRAY. PORE FLUID FROM TRAY INTO A CLEAN PLASTIC BEAKER WITH A LID.					Good	Scrap	Oper.	Insp.	Date
					1	Ø	R 15	N/A	5/20/21

MRO	Shop Order	Part	Eng Revision	Required By	Quantity	Page
	700966 / * / *	40600-12	AE	18 May 2021	1	2 of 3

Barcode	OP No.	Due Date	Work Center	Operation	Setup	Unit Time	OP Time
1104063	20	13May21	OASSY	FLUID CAPATURE	0.00	0.50	0.50

Good	Scrap	Oper.	Insp.	Date
1	0	R 15	N/A	5/20/21

Barcode	OP No.	Due Date	Work Center	Operation	Setup	Unit Time	OP Time
1104072	30	14May21	OASSY	FUNCTIONAL TEST	0.00	3.00	3.00

Good	Scrap	Oper.	Insp.	Date
1	0	FT 31	N/A	5/20/21

Barcode	OP No.	Due Date	Work Center	Operation	Setup	Unit Time	OP Time
1104073	40	14May21	OASSY	DISASSEMBLE	0.00	3.00	3.00

Good	Scrap	Oper.	Insp.	Date
1	0	R 13	N/A	5/20/21

Good	Scrap	Oper.	Insp.	Date
1	0	R 15	N/A	5/20/21

Good	Scrap	Oper.	Insp.	Date
N/A	Bagged only			

Barcode	OP No.	Due Date	Work Center	Operation	Setup	Unit Time	OP Time
1104074	50	18May21	INSPL	DIMENSIONAL INSPECT	0.00	8.00	8.00

Good	Scrap	Oper.	Insp.	Date
1	0	R 15	N/A	5/20/21

Good	Scrap	Oper.	Insp.	Date

MRO	Shop Order 700966 / * / *	Part 40600-12	Eng Revision AE	Required By 18 May 2021	Quantity 1	Page 3 of 3										
 1104074	OP No. 50	Due Date 18 May 21	Work Center INSPL	Operation DIMENSIONAL INSPECT	Setup 0.00	Unit Time 8.00										
2 CREATE REPORT GATHER, DIGITIZE, AND ORGANIZE ALL PHOTOS AND DOCUMENT INTO A COMPREHENSIVE REPORT. SUBMIT REPORT TO NTSB.				<table border="1"> <tr> <td>Good</td> <td>Scrap</td> <td>Oper.</td> <td>Insp.</td> <td>Date</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			Good	Scrap	Oper.	Insp.	Date					
Good	Scrap	Oper.	Insp.	Date												

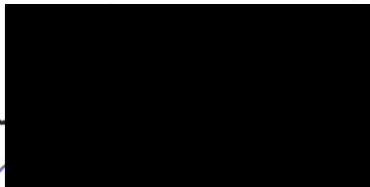
Not Required 5/20/21

MAIN GEAR ACTUATOR: PART# 40600-2,-4,-5,-6,-8,-10,-12 / TEST SPECIFICATIONS FROM
PART# 40600-12
SERIAL # 14
W/O# 700966
DATE: 5/20/2021
DRAWING 40600 REV. AE
DATE: 5/20/15

REFERENCE ONLY

- | | |
|--|--------------|
| 1. CYCLE ACTUATOR 25 TIMES AT 3000PSI
NO BINDING/LEAKAGE ALLOWED. | PASS
6.24 |
| 2. CHECK/SET STROKE(6.23+/- .03) | PASS |
| 3. CHECK FREE PLAY IN LOCK(.020 MAX) | 85 PSI |
| 4. SHUTTLE VALVE OPERATION(65 TO 105 PSI) | PASS |
| 5. CHECK SHUTTLE LEAKAGE @ 650PSI 10 DPM MAX(-6,-8,-10,-12)
@2000PSI 20 DPM MAX(-2,-4,-5) | PASS |
| 6. APPLY 4500PSI PROOF PRESSURE | 375 PSI |
| 7. CHECK UNLOCK PRESSURE(200 TO 400PSI) | 22.00 |
| 8. SET EXTENDED LENGTH(21.98 +/- .25) | 15.76 |
| 9. SET RETRACTED LENGTH(15.75 +/- .25) | PASS |
| 10. SET SWITCH(LOCK/UNLOCK) | 9/11 |
| 11. DRAIN AND CAP ACTUATOR | |

INSPECTOR/STAMP:



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