

Date: 4/16/2019

Work Order No. 47301

ENGINE ASSEMBLY AND FINAL INSPECTION REPORT DIRECT DRIVE AND 76 SERIES ENGINES

CUSTOMER'S NAME:	A.G.A EURL C/O
ADDRESS:	
COMING	MODEL 0-360-A4M
	INSPACTION AND REPHIR
official STAKE	INSPACTION AND REPAIR
THIS FORM IS USED IN CONJUN	NCTION WITH APPLICABLE FACTORY OVERHAUD AND SERVICE BULLETINS.

MAINTENANCE RELEASE

The aircraft engine identified above was controlled/repaired, inspected and functionally tested in accordance with current federal air regulations and was found airworthy for return to service. Pertinent details of the repair are on file at this agency under work order

NO:

DATE

Authorized Signature

AIRMARK OVERHAUL, INC. 6001 N.W. 29th Avenue Ft. Lauderdale, FL 33309 F.A.A. Approved Repair Station No. JL4R288M

Technician_

Note: All Ref. No's are from Manual SSP1776 unless otherwise noted

Inspector:

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INSPECTION RECORD

Work Order No.

LYCOMING DIRECT DRIVE AND 76 SERIES

	CRANI (Ref.	(PIN SIZE No. 501)	Journal Size	Out of Round	
1.	2.1243	4. 2.1244	Standard	1. , 0002	40002
2.	2.1243	5.	M. 003	2 0001	5.
3.	2.1242	6.	M. 006	3000 (6.
			M.010		

	MAIN JOURNAL SIZE (Ref. No. 500 & No. 508)				
1.	2-3756	3. 2.3754	Standard	1. , 250/	30002
2.	2.3754	4. 2.3755	M. 003	2000/	4000)
		5	M. 006		5.
			M.010		

CRANKSHAFT (Ref. No.	CAMSHAFT RUNOUT (Ref. No. 516					
Mounted on Front and Rear Journal	FLANGE		Mounted on Front and Rear Journal			
Mounted on # (and # 4Journal	#2 ,001	#3 ,001	CENTER .0005			
Mounted on # 2 and # 4 Journal	#3 (201					
Mounted on # / and # / Journal	#	CRANK SHAFT S/N: <u>1/537931</u>				

TAPPET BODY IN CRANKCASE GUIDE							
(Ref. No. 511)							
Int.	1. 1002	2. 00 7	3061	4. 1007	5.	6.	
Exh.	1. 1002	2. 1003	3000	4 002	5.	6.	

Inspector:

Technician Thy

Note: All Ref. No's are from Manual SSP1776 unless otherwise noted

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ENGINE ASSEMBLY INSPECTION RECORD

Work Order No.

LYCOMING DIRECT DRIVE AND 76 SERIES

DESCRIPTION CONNECTING RODS		1	2	3	4	5	6
Conn Rod Bend & Twist (Ref. No. 503 and No. 504)		Ø	Ø	Ø	Ø		
Bushing in Connection Rod Diameter (Ref. No. 600)		1.1257	1,1257	1.1257	1,1258		
Conn Rod Bushing & Piston Pin Cleara (Ref. No. 602)	ance	(cc 13	13 صور	.0013	, and il	.—	
Conn Rod Bearing & Crank Pin Cleara (Ref. No. 501)	nce	600	,500 J	-003	.oo.2	s:	_
Conn Rod Side Clearance (Ref. No. 502)		,008	آدو.	.وي	, pw7		

CRANKCASE	1	2	3	4	5	6
Crankshaft in Main Bearing Diameter (Ref. No. 500)	, 403	. ₀ ,3	3نن.	.,,03		
Bushing in Counterweight Diameter (Ref. No. 521)	NIA	-				`
Bushing in Crankshaft Blades Diameter (Ref. Latest Revision of SI 1143)	NIA	_				•
Bushing in Propeller Flange Diameter & Location (Ref. Latest Revision of SI 1098)	sk					
Counterweights on Crank Check Blades Side Clear (Ref. No. 519)	NIA					
Crankshaft in Front Bearing End Clear (Ref. No. 506)	.069					
Camshaft Flanges in Crankcase End Clear (Ref. No. 515)	Ŷοσ.					

Technician 2	Telley L		
	/ ,	100	
Inspector:	1/1	6 les	

Note: All Ref. No's are from Manual SSP1776 unless otherwise noted

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ENGINE ASSEMBLY INSPECTION RECORD

Work Order No.

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LYCOMING DIRECT DIRVE AND 76 SERIES

		TECHI	NICIAN	COM	MENTS
Crankshaft Gear in Shaft Diameter (Ref No. 60294-7 7-53)		Ao			
Check Idler Gears, Crank Gear and Cam Gear fo (Ref. No. 60294-7 Section 3)		AD	E	.0002 T	
Install Crank Gear, Bolt Torque and Safety (Ref. Latest Rev. of S.B. 475 and O.H. Manual 60294-7 Section 7	Te	- 1	Wrench No.	insp.	Wrench No.
Torque and Safety Cam Gear bolts (Ref. No. 60294-7 Section 7-70) & Table 1	Te		Wrench No.	Insp.	Wrench No.
Torque and Safety Idler Shaft Bolts 150.4 lb 2 (Ref. No. 60294-7 Section 7-75 & Latest Revision of SI 1310)	vot	ech.	Wrench No.	Insp.	Wrench No.
Check crank gear to idler gear for internal timing	Те	ech.		Insp.	77.0
Clean - Inspect Lifter Unit (Ref. No. 60294-7 Section 6-25)	A				
Install Rocker Arms and Check Clearance (Ref. No. 618 St - As applicable)		ю			
Install Covers and Torque Screws (Ref. No. 905)	A				
Torque and Safety Rear Case Tie Bolt (Ref. 60294 –7 Section 7-93)		to			
Install and Torque Piston Cooling Nozzles (Ref No. 913)		V/A			
nspect – Install Oil Pump Ref No. 703 Thru 707)	A	ю			
Oil Pump Gear In Housing Diameter Ref. No. 703)	¥	40		.004	
Oil Pump Gear Shafts in Cover Diameter Ref. No. 703)p		AU		6 00	
Technicians: All Ref. No's are from Manual SSP1776 Inspector unless otherwise noted	or:	f.ll		Form 4/10/	AO-102 12



LYCOMING DIRECT DIRVE AND 76 SERIES

ENGINE ASSEMBLY

	TECHINICAN	COMMENTS			
Magneto Brg. To Gear Diameter					
(Ref. No. 746)	NIA				
Magneto Brg. In Case or Adapter Diameter					
(Ref No. 747)	NIA				
Crankshaft Gear to Idler Gear Backlash					
(Ref. No. 805)	AO	. 069			
Magneto Drive Gear to Idler Gear Backlash		L .010			
(Ref. No. 804)	Ao	R .010			
Camshaft Gear to Idler Gear Backlash					
(Ref. No. 803)	As	.010			
Propeller Governor Idler and Camshaft Backlash					
(Ref. No. 823)	WIA				
Oil Pump Gear Backlash					
(Ref. No. 808)	Au	.009			
Install Fuel System and Torque Lines and Nozzles					
C/W with S.B. on Line Clamping (Ref. Latest Rev. of SB 342)	NIA				

	Mech.	Wrench No.	Insp.	Wrench No.
Torque Rod Bolts				
(Ref No. 900 / Latest Revision of SI 1458) ዺ⟨೦ ៲៳ \\₀ऽ	po	AF5373	R	AE5382
Torque and Safety Bolt Inside Pan.			4	
(Ref. Table 1)	As	AESITI	U	AES357
Torque and Stripe Cylinder Hold Down Nuts			. 0	
(Ref. No. 929) 3-0: 165	Ao	AE5383	W	A£5382
Torque Crankcase and Thru Bolts and Nuts	AU	AF5383	LP	AES382

ote: All Ref. No's are from Manual SSP1776 unless otherwise noted

Technician

Inspector:

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FAA APPROVED REPAIR STATION #JL4R288M 6001 NORTHWEST 29TH AVENUE FORT LAUDERDALE, FLORIDA 33309 (954) 970-3200 • (800) 282-3202 FAX: (954) 970-3400

MAGNETIC PARTICLE INSPECTION

Work Order NO.
Certified Inspection

Customer Address	SA,GA,	EURL		Certified Inspection
Phone No.				
Fax. No. Make LY	COMING	Model 0-3(&-A4M)	S/N/ -70V	77-76/V Data 4/25/19

Quantity	Part No.	Description	Parts Accepted	Parts Rejected
(1)		Crankshaft	1	0
246		Counterweights	-0	
	•	Camshaft	0	
4)6		Connecting Rods & Caps	U	
(2)		Idler Gears	2	
(2)		Idler Shafts	2	
(26)		Magneto Drive Gears	2	
(1)		Crankshaft Gear	1	
(4)8		Piston Pins	Ч	
		Fuel Pump Shaft	1	
®		Oil Pump Drive	1	
<u> </u>		Oil Pump Impeller	2	
(1)		Tach Shaft	1	
17		Pro. Gov. Drive	0	
2		Prop. Gov. Idler Gears	0	
(19)		Vacuum Pump Drive	1	
X		Hyd. Pump Drive	0	
(8)12		Rocker Arms	8	
426 12		Rocker Shafts	У	
(8)212		Push Rods	8	
-1-2		Camshaft Gears	0	0

By: Inspector: Sham Sell

Form AO-112 9/14/00



FAA APPROVED REPAIR STATION #JL4R288M 6001 NORTHWEST 29TH AVENUE FORT LAUDERDALE, FLORIDA 33309 (954) 970-3200 • (800) 282-3202 FAX: (954) 970-3400

NDT INSPECTION RECORD

47301 Work Order No.

05/12/06

3300		'	Work Orger N	<u>O.</u> 1
Customer _	SAGA	EURL do	Certified Insp	ection
Address _			MAGNETIC F	PARTICLE
_		<u> </u>	LIQUID PENI	ETRANT
Phone No			ULTRASONIC	
Fax. No Make	100 min 6	Model <u>0-360-A4M</u> S/N <u>L-3067</u>		
			Parts	Parts
Quantity	Part No.	Description	Accepted	Rejected
		014 Somt		0
		ACCESSORY CONSR	/	0
				
_/				
specification (<u> </u>	or standard and PENETRAM tension to a drawing	has been inspected and or tested in a has been found to be free of est will reveal. This does not include or state of wear or preservation of the re on file at this repair station under W	f defects in so inspection for con nis component(s)	far as aformity of or part(s).
Inspector:	12 MC		Forr	n AO-113

	oice					2/10	12	<u>.</u>			
3. Form Tracking Number: DIV WDC #123758	S. Work Order/Contract/Invoice Number: INVOICE #123851	11. Status/Work:	REPAIRED		T TO THAT WORK THE SA 145-5286		Other regulation specified in Block 12	2, the work identified in Block 11 cordance with Title 14, Code of t work, the items are approved for	14c. Approval/Certificate No.: DB2R762K	14e. Date (dd/mmm/yyyy): 14/FEB/2019	
CERTIFICATE		10. Serial Number:	MATCH #328	, JULY 2017.	WORK SPECIFIED IN BLOCKS 11/12 WAS CARRIED OUT IN ACCORDANCE WITH EASA PART 145 AND WITH RESPECT TO THAT WORK THE COMPONENT IS CONSIDERED READY FOR RELEASE TO SERVICE UNDER EASA PART 145 APPROVAL NUMBER EASA 145-5286		14a. Z 14 CFR 43.9 Return to Service Z O	Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	14b. Authorized Signature:	14d. Name (Typed of Printed): DARYLE WAYNE DOTSON	ies
EASE ((X	9. Quantity:	1	#2 CYLINDEF 002 REV 6 18	NCE WITH EAS DER EASA PA		14a. 🗹 14 C	Certifies and desc Federal return to		14d. Name (T DARYLE	Responsibilit
CHORIZED RELEASE CERTIFICATE FAA Form 8130-3. AIRWORTHINESS APPROVAL TAG	TULSA, OK 74115 (DB2R762K)	Part Number:	CASTING #72081	Remarks: REPAIRED #2 CAM JOURNAL & LOWER FRONT #2 & 4 & LOWER REAR #2 CYLINDER CRANKCASE REPAIRED PER DIVCO APPROVED PROCESS SPECS 77-002 REV 6 18 JULY 2017. DATE COMPLETED: 14/FEB/2019 WIDC #103758	CARRIED OUT IN ACCORDAN OR RELEASE TO SERVICE UN		ured in conformity to:	for safe operation. 12.	13c. Approval/Authorization No.:	13e. Date (dd/mmanu/yyyy):	User/Installer Responsibilities
AUT		8.	CASE	AL & LOWER F R DIVCO APP 3/2019	KS 11/12 WAS ED READY FO		e were manufact	e in a condition occified in Block			
Approving Civil Aviation Authority/Country: FAA/United States	Organization Name and Address: IVCO, INC., 2806 N. SHERIDAN ROAD,	7. Description:	LYC O-360 CRANKCASE	Remarks: REPAIRED #2 CAM JOURNAL & LOWER CRANKCASE REPAIRED PER DIVCO AP DATE COMPLETED: 14/FEB/2019 MDC #123758	K SPECIFIED IN BLOCK PONENT IS CONSIDER		Certifies the items identified above were manufactured in conformity to:	Approved design data and are in a condition for safe operation. Non-approved design data specified in Block 12.	. Authorized Signature:	Name (Typed or Printed):	
Approv Autl FAA	Organiz OIVCO,	Item:	_	Remarks: REPAIR CRANK(DATE C	WOR		a. Certif		o. Autho	J. Name	

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

specified in Block 1.



FAA APPROVED REPAIR STATION #JL4R288M 6001 NORTHWEST 29TH AVENUE FORT LAUDERDALE, FLORIDA 33309 (954) 970-3200 (800) 282-3202 FAX: (954) 970-3400

CYLINDER ASSEMBLY INSPECTION RECORD

4730 / WORK ORDER

Date 5/9/19 Work Required Cyl Peann Engine Model # 0360 MM Cyl. Class 12 CYLINDER POSITION NUMBER Cylinder Bore 5-1275 5.1275 5.1275 5.1285 Out of Round - 0005 . 0005 9005 . 9003 Taper or Choke · D115 -009 · D115 .0115 Condition of Ports Condition of Exhaust Studs Springs Outer Springs Intermediate DUES WEND NOT Springs Inner Romane D intake Valve to Guide Exhaust Valve to Guide Leak Check Liquid Penetrant Tested Magnafluxed Tested EN/2427 her/2427 huf 2427 Wiryer Part Number W/O # Stamped on Cylinder 47-301.1 47301.4 47301.2 42343 Type of Cylinder Barrel NITURE NITHEDE NITHESE NITHOR Type of Assembly Long (amo) anyo amo 3 RING SIDE 1. Ring . 803 ,003 ,003 0003 CLEARANCE 2. Ring 1003 3003 ,003 0003 3. Ring + 00 E/ 004 - 004 0.004 4. Ring 5. Ring 1 5 6 RING GAP 1. Ring , 045 046 045 .045 2. Ring 045 ,045 -041 046 3. Ring 1500 -022 1001 .022 4. Ring 5. Ring Mechanic: Inspector:

Approving Civil Aviation Authority/Country: FAA/United States		2. AUTHO	AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	TE 3. Form Tracking Number: 7364757443 1000000051673509	mber: 0000051673509
4. Organization Name and Address:	I	AVIALL SERVICES INC. 2750 REGENT BLVD DALLAS, TX 75261	OI.	5. Work Order/Contract/Invoice Number: 10025213	umber:
6. Item: 7. Description: 8.	Part Number:	9. Quantity:	10. Serial Number:	91.	11 Status/Work
1. MAGNETO	4371	_	17120862		NEW
12. Remarks: US JUL 1734					
THIS PMA PART IS NOT A CRITICAL COMPONENT. AIRWORTHINESS APPROVAL THE PRODUCT(S)/ARTICLE(S) SHIPPED UNDER THIS APPROVAL WERE PRODUCED BY	CAL COMPONE	ENT. R THIS APPRO)VAL WERE PRODUCED BY CHAMPION AEROSPACE LLC.	OSPACE LLC.	
13a.Certifies the items identified above were manufactured in conformity to:	ove were manu	ifactured in con-	142	ice Other regulation specified in Block 12.	ified in Block 12
 ☑ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12. 	in a condition ecified in Block	for safe operati		certimes that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	identified in Block 11 nth Title 14, Code of ems are approved
13b. Authorized Signature:	13c. Approval/A 127604222	13c. Approval/Authorization No.: 127604222	on No.: 14b. Authorized Signature:	14c. Approval/Certificate No.:	No.:
13d. Name (Typed or Printed): Thomas Willis	13e. Date 11 N	Date (dd/mmm/yyyy): 11 MAR 2019	: 14d. Name (Typed or Printed):	14e. Date (dd/mmm/yyyy):	X :
			User/Installer Responsibilities		
It is important to understand that the existence of this document alone does not automatically constitute authority to instal accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the cou airworthiness authority accepts aircraft engine(s)propeller(s)/ article(s) from the airworthiness authority of the country specertification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with	e of this document n airworthiness aut e(s)propeller(s)/ art erecords must con	alone does not aut hority different than icle(s) from the airv tain an installation o	It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)propeller(s)/ article(s) from the airworthiness authority of the country specified in the Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.	I the aircraft engine/propeller/article. Where the user/installer performs work in the performs work in the performs that the user/installer ensures that his/cified in the Block 1, it is essential that the user/installer ensures that his/cified in the Block 1. Statements in Blocks 13a and 14a do not constitute installer hefore the aircraft may be from the national regulations by the user/installer hefore the aircraft may be from	performs work in insures that his/her t constitute installation the flown
FAA Form 8130-3 (02-14)				NSN:	NSN:0052-00-012-9005

Authority/Country: FAA/United States	ates	2. AUTHO	ORIZED R	AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: 7365117129 1000000051673508	nber:)000051673508
4. Organization Name and Address:		AVIALL SERVICES INC. 2750 REGENT BLVD DALLAS, TX 75261		5	. Work Orde 10025213	5. Work Order/Contract/Invoice Number: 10025213	ımber:
7	. Part Number:	9. Quantity:		10. Serial Number:	er:		11. Status/Work:
1. MAGNETO	4370	-co-k	19020874				NEW
12. Remarks: US JUL 1737							
THIS PMA PART IS NOT A CRITICAL COMPONENT. AIRWORTHINESS APPROVAL THE PROPLICT(S)/ARTICLE(S) SHIPPED THIS APPROVAL WITH THE PROPLICT SOCIETY.	ICAL COMPON	ENT.					
to: Approved design data and are in a condition for safe operation.	bove were man re in a condition	ufactured in conf for safe operation	ormity 14a	— ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12—— Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14. Code of	ice ☐C specified ir s accomplisl	Other regulation specified in Block 12 of in Block 12, the work identified in Block 14. Code plished in accordance with Title 14. Code plished in accordance	ified in Block 12
☐ Non-approved design data specified in Block 12	pecified in Block	(12.		Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	and in respe	ct to that work, the ite	ems are approved
13b. Authorized Signature:	13c. Appi 1276	13c. Approval/Authorization No.: 127604222		14b. Authorized Signature:	147	14c: Approval/Certificate No.:	No.:
13d. Name (Typed or Printed): Thomas Willis	13e. Date	13e. Date (dd/mmm/yyyy): 11 MAR 2019		14d. Name-(Typed or Printed):	14e	14e. Date (dd/mmm/yyyy):)
			User/installer	User/Installer Responsibilities			
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/ article(s) from the airworthiness authority of the country specified in the Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.	nce of this documen an airworthiness au ne(s)propeller(s)/ a ce records must co	t alone does not aut thority different than ticle(s) from the aiw tain an installation c	ornatically constitut the airworthiness a rorthiness authority ertification issued i	te authority to install the aircraft engine/p authority of the country specified in Block / of the country specified in the Block 1. : in accordance with the national regulatio	ropeller/article. k 1, it is essenti Statements in E	. Where the user/installer partial that the user/installer er all that the user/installer er all that the user/installer er all that the user/installer before the aircraft installer before the aircraft	performs work in nsures that his/her constitute installation t may be flown.
FAA Form 8130-3 (02-14)						NSN:	NSN:0052-00-012-9005

Authority/Country: FAA/UNITED STATES AUTHORIZED RELEA AUTHORIZED RELEA AUTHORIZED RELEA FAA Form 8130-3, AIRWORTH FRAN FORM 8130-3, AIRWORTH FAA Form 8130-3, AIRWORTH PART Number: 9. Qu ****** ***************************	Civil Aviation y/Country: UNITED STATES AUTHORIZED RELEA FAA Form 8130-3, AIRWORTH RAA FORM 8130-3, AIRWORTH RAA FORM 8130-3, AIRWORTH RAA FORM 8130-3, AIRWORTH 8. Part Number: 9. Qu ARTER 149NL 1 **** END ***** INNESS APPROVAL- PARTS. FOR PMA ELIGIBILITY SEE WWW.HARTZELL.AEROA pproved design data and are in a condition for safe operation. proved design data specified in Block 12.	CENIA Aviation y/Country: UNITED STATES AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG AND A STATE TECHNOLOGIES, 2900 SELMA HWY. MONTGOMERY, AL. 36108 PQ1383CE-D Nu ARTER 1. Description: 8. Part Number: 9. Quantity: 10. Serial Number: 11. ARTER 12. AL 26108 PQ1383CE-D Nu 12. ARTER 13. ARTER 14. ARTER 14. ARTER 15. ARTER 16. ARTER 17. ARTER 17. ARTER 18. ARTER 18. ARTER 19. ARTER 1	13b. 13d. 13d. It is i	13h	136	132	13,	13:	13}	1			13a.		12.		9	TH	4	1.
Civil Aviation y/Country: UNITED STATES AUTHORIZED RELEA FAA Form 8130-3, AIRWORTH IN Name and Address: ENGINE TECHNOLOGIES, 2900 SELMA HWY. MONTGOMER ARTER 49NL 11**** FNID ***** INESS APPROVAL- PARTS. FOR PMA ELIGIBILITY SEE WWW. HARTZELL.AEROI Piproved design data and are in a condition for safe operation. on-approved design data specified in Block 12. ed Signature: ed Signature: 13c. Approval/Authorization No.: 144 PQ1383CE-D Fed or Printed): 13c. Date (dd/mmm/yyyy): 144 Hancock 13c. Date (dd/mmm/yyyy): 144 13c. Date (dd/mmm/yyyy): 144 13c. Date (dd/mmm/yyyy): 144	Civil Aviation y/Country: UNITED STATES AUTHORIZED RELEA FAA Form 8130-3, AIRWORTH IN Name and Address: ENGINE TECHNOLOGIES, 2900 SELMA HWY. MONTGOMER ARTER 49NL 11**** FNID ***** INESS APPROVAL- PARTS. FOR PMA ELIGIBILITY SEE WWW. HARTZELL.AEROI Piproved design data and are in a condition for safe operation. on-approved design data specified in Block 12. ed Signature: ed Signature: 13c. Approval/Authorization No.: 144 PQ1383CE-D Fed or Printed): 13c. Date (dd/mmm/yyyy): 144 Hancock 13c. Date (dd/mmm/yyyy): 144 13c. Date (dd/mmm/yyyy): 144 13c. Date (dd/mmm/yyyy): 144	AUTHORIZED RELEASE CERTIFICATE AUTHORIZED RELEASE CERTIFICATE S.	s importantere the usere the user the user the user the user that it is cified in I	s importa			Gar	l. Name (6			Ø		AIRWOR		<u> </u>	Item:	RTZEL	FA,	Approvit Autho
Approving Civil Aviation Approving Civil Aviation Approved Control of Commerce AUTHORIZED RELEASE CERTIFICATE	prostates AUTHORIZED RELEASE CERTIFICATE FAA Form 8190.3, AIRWORTHINESS APPROVAL TAG ETECHNOLOGIES, 2900 SELMA HWY. MONTGOMERY, AL. 36108 Part Number: 9. Quantity: 10. Serial Number: 11 Nontrophion: 11 H-S101308 Pertination: 12 Pertination for safe operation. Pertination for safe operat	autidion y: OSTATIES AUTHORIZED RELEASE CERTIFICATE FAA Form \$130.3. AIRWORTHINESS APPROVAL TAG 5. Work OF IETECHNOLOGIES, 2900 SELMA HWY. MONITGOMERY, AL. 36108 PETCHNOLOGIES, 2900 SELMA HWY. MONITGOMERY, AL. 36108 PETCHNOLOGIES, 2900 SELMA HWY. MONITGOMERY, AL. 36108 1 19NL 1 10. Serial Number: 9. Quantity: 10. Serial Number: 11. 88 H-\$101308 NEW PPROVAL-PARTSFOR PMA ELIGIBILITY SEE WWW.HARTZELLAEROPMA/ PROVAL-PARTSFOR PMA ELIGIBILITY SEE WWW.HARTZELLAEROPMA/ SET AND	essential the lock 1.	er/installer	nt to under		y Hanco	[yed or P	A	ized Signat	Non-appro	Approved	s the items	THINESS A	ks:	TARTEI		L ENGIN	/UNITE	g Civil Avi ity/Countr
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A HWY. MONTGOMERY, AL. 36108 PQ1383CE-D Per: 9. Quantity: 10. Serial Number: 1 H-S101308 SEE WWW.HARTZELL.AERO/PMA/ SEE WWW.HARTZELL.AERO/PMA/ See (add/mmm/yyyy): 144: [2] 14. CFR. 43.9 Return. to Secretical in and described in Block 12 was accomplished by Federal Regulations, part 43 and in respectively. Goperation. 445: Anthorized Signature: Federal Regulations, part 43 and in respectively. Forwal/Authorization No.: 445: Anthorized Signature: Forwal/Authorization No.: 445: Anthorized Signature: Federal Regulations, part 43 and in respectively. Federal Regulations, part 43 and in respectively. Federal Regulations part 43 and in respectively.	SEE WWW.HARTZELL.AERO/PMA/ See Service	3. Form T	it his/her a	14 A	ocument al		=			13c.App	sk 12.	on for safe	ured in co	IGIBILITY			Part Numl	00 SELM	HOR	
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3. Form Tracking Number: H-S101308 5. Work Order/Contract/Invoice Number: M442770 11. Status/Work: NEW NEW NEW 14c. Approval/Certificate No. 11. 14c. Approval/Certificate No. 14c. Date (dd/minim/yyyy):	racking Nu 308 rder/Contr. M44277/ M44277/ atus/Work entified in Bit entified		e co	Õ.				¥.		<u> </u>	∵o de	ੜ੍ਹ∷∷	<u>漢</u>					act/		臣

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ApprovingCivil Aviation Authority/Country: FAA/UNITED STATES	AUTHORIZED RELEASE CERTIF	EASE (PROVAL TAG	3. Form Tracking Number: INV #: 6365
Organization Name and Address: Aerote	d Address: Aerotech of Louisville, Inc. 2209 Watterson Trail	!	Louisville, KY 40299	5. Work Order, Contract, or Invoice Number: WIO: 129933
6. Item: 7. Description:	ion: 8. Part Number: 9.	Quantity	10. Serial Number:	11. Status/Work;
1 Chrysler alternator	4111810	1	S/N H-H090568	Overhauled
12. Remarks: COPY OF WORK ORD	rks: COPY OF WORK ORDER AVAILABLE ON REQUEST FROM AEROTECH OF LOUISVILLE	ΓĒ.		
CERTIFIES THAT THE	CERTIFIES THAT THE WORK SPECIFIED IN BLOCK 11/12 WAS CARRIED OUT IN ACCORDANCE WITH EASA	CORDANCE WIT	H EASA PART 145 AND WITH RESPECT TO THAT WORK THE	TO THAT WORK THE
AIRCRAFT COMPONE	AIRCRAFT COMPONENT IS CONSIDERED READY FOR RELEASE TO SERVICE UNDER EASA APPROVAL CERTIFICATE NUMBER145.6696 AND BY THE FAA AIR	ER EASA APPRO	VAL CERTIFICATE NUMBER145.6696 AN	ID BY THE FAA AIR
AGENCY CERTIFICATI	AGENCY CERTIFICATE NUMBER PU4R453M APPROVED FOR EXPORT. THE ORIGIONAL EQUIP, MFG. DATA	DNAL EQUIP. MF	3. DATA APPEARS ON THE I.D. PLATE IN THE LINES IDENTIFIED	N THE LINES IDENTIFIED
AU MOUND & ORIGIN	AS MODING & ORIG. MEG. COMPETES WITH OF AZ OR INVOICE BEEN COMPILED WITH BESTADOLED, and not	ם הפראס הנוסה א		
		7		
13a. Certifies the items iden	13a. Sertifies the items identified above were manufactured in conformity to:	14a ×	14 CFR 43.9 Return to Service X O	Other regulation specified in Block 12
Approved d	Approved design data and are in a condition for safe operation	Certifies Block 11	Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance	block 12, the work identified in accomplished in accordance
Non-approv	Non-approved design data specified in Block 12	with Title 14, Co	with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	part 43 and in respect to that ervice.
		/		
13b. Authorized Signature:	13c. Approval/Authorization No:	: 14b. Authorized Signature	ed Signature:	14c. Approval/Certificate No: PU4R453M
13d. Name (Typed or Printed):	13e. Date (dd/mm/yyyy):	14d. Name (Typed or	Typed or Printed):	14e. Date: (dd/mm/yyyy):
			John C. Evans	03/May/2019
	User/Installer Responsibilities	sponsibilities	3	
It is important to understand	It is important to understand that the existence of this document alone does not automatically constitute	omatically con	stitute authority to install the aircraft engine/propeller/article.	t engine/propeller/article
Where the user/installer performs work in accordance wit country specified in Block 1, it is essential that the user/in airworthiness authority of the country specified in Block 1.	Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.	of an airworthi r airworthiness	ness authority different than the airworthiness authority of the authority accepts aircraft engine(s)/propeller(s)/article(s) fror	worthiness authority of the)/propeller(s)/article(s) from the
Statements in Blocks 13a an issued in accordance with the	Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft mainto issued in accordance with the national regulations by the user/installer before the aircraft may be flown.	ases, aircraft i rcraft may be t	In all cases, aircraft maintenance records must contain an installation certification ethe aircraft may be flown.	an installation certification



FAA APPROVED REPAIR STATION #JL4R288M 6001 NORTHWEST 29TH AVENUE FORT LAUDERDALE, FLORIDA 33309 (954) 970-3200 • (800) 282-3202 FAX: (954) 970-3400

LYCOMING ENGINE TEST PERFORMANCE

47301 Work Order No.

Model_(90	- Hym		S/N	500/	1-5611	(Operato	orling	Hil	<u></u> Date ∑	121/19
					(Cylinde	r Head	Temp	erature	•		
Run Time	RPM	Oil Temp.	Oil Pres.	Man. Pres.	1	2	3	4	5	6	Fuel Pres.	Remarks
10	1200	140	70	12								Of
10	1500	160	72	15	300	300	305	305				
10	1800	170	72	18	310	310	3/5	315				
10	2000	180	80	20	315	315	320	320				
10	2200	185	80	22	320	320	325	325		/,		
10	2400	190	82	24	325	325	370	330	/			
15	2,700	190	82	27	325	325	330	330				
*60	2200		80	22	325	325	370				:3	
*Oil we	ight at	start	19.7	7				1		es per	1	
*Oil we	ight at	end	14.3	3			- ,	overt	naul ma	anual n	10.6029	4-7-14
**Refer	to geare	on run, che ed engine #180/	run in s	chedule	for run t	time and	RPM v	/ariatio	ns.		01 <u> </u>	£6 80/
Oil Pres	ssure Ve	erification	at Prope	ller Gov	ernor P	ad /	11)					
Propelle	er Oil Co	ontrol Lea	k Test P	rocedure	e		PSI/ /				·	
Check (Oil Scree	en for Co	ntaminat	ion		1 st 2 nd	Check: Check:	Clear	1 1			

Inspector:

Check Engine for Leaks, Fuel and Oil

Check Magneto Timing, Torque and Stripe

Form AO-115 01/31/04

MODEL 0-308-	A4M SIN L-30677.36/CWIO# 47301	DATE MAY &	1/
SSUE NO	DESCRIPTION	SIGNATURE	
			ρ
201F	INSPECTION OF C/S FLANGES	11	
	FLANGE NOT BENT, 0.437" THICK	1	
212B	REPLACING STRAIGHT THRU-STUDS WITH		
	NECKED STUDS $P/C/\omega$		
	1		
222D	CRANKSHAFT RENITRIDING RECOMMENDATIONS		
	CRANKSHAFT NOT REWORKED		
225B	REPLACEMENT OF VALVE ROCKER THRUST		
	WASHERS NA TO MODEL		
238	MAGNETIZED CONDITION OF HYDRAULIC TAPPET		
	PLUNGER ASSY.		
	ALL INSPECTED GOOD, NONE MAGNE	712EA	
240W (MANDATORY)	MANDATORY REPLACEMENT OF PARTS AT		
	NORMAL OVERHAUL PARTS REPLACED FOR		
	PROP STRIKE + UPON REMOVAL		
271A	CYLINDER PAINTING		
	NA TO WIDE DECK MODER		
272A	RETORQUEING OF CENTER MAIN THRU-STUDS		
	NA TO MODEL		
273A	MODIFICATION OF CRANKCASE CENTER MAIN		
	BEARINGS SUPPORT		
	NA TO MODER		
314C	LIMITED TRAVEL LIFTER REPLACEMENT		
	NA TO MODEL		
357	ENGINE INSPECTION IN EVENT OF IMMERSION		
	NA- PROP STRIKE INSPECTION		
366C (MANDATORY)	CARBURETOR THROTTLE BOWL SCREW INSPECTION		
	INSPECTED GOOD		
367F	REQUIRED INSPECTION OF P/N 69650 PISTON PIN		
	(4) LU14078 PISTON PINS INSTALLED		
367F SUPP 1	REQUIRED INSPECTION OF P/N 69650 PISTON PIN		
	A) EN 14078 PISTON PINS INSTALLED		
369R	ENGINE INSPECTION AFTER OVERSPEED		
	NA- PROP STRIKE INSPECTION		1
370	OIL FILTER ATTACHING STUD REPLACEMENT	1	
	NEW CH48/10.1 FILTER INSTALL	CED	
381C	OIL PUMP WOODRUFF KEY DRIVE &	S/S MSB524	D
	IMPELLER REPLACEMENT	1	7

SSUE NO	4m SIN 2-30677-36ACWIO# 47301 IDESCRIPTION	DATE MAY 2	
385C	OIL PUMP IMPELLER & DRIVE REPLACEMENT	S/S MSB524	//
3030	OIL POWE INFELLER & DRIVE REPEACEWENT	0/0 W00024	7P-
385C SUPP 1	OIL PUMP IMPELLER & DRIVE REPLACEMENT	S/S MSB524	
3030 30FF 1	OIL FOWER HAVE LELLIN & DIVIVE INC. LACTIVILIA.	0/0 11102024	7
388C	EXHAUST VALVE & GUIDE CONDITION		-
3000	NOT REQ'D ALL HI-CHROME EXH G	U705	1
398B	ACTION FOLLOWING USE OF INCORRECT FUEL		+
5500	NA- PROP STRIKE INSPECTION		+
400	INSTALLATION OF TEFLON THRUST BUTTONS		1
100	Q) THRUST BUTTONS INSTALLED		
406A (MANDATORY)	ROMEC & TITAN FUEL PUMP INSPECTION		
	NA TO MODEL		
411D (MANDATORY)	O-360-A3A - A4A - A4J-IO-360-B4A MAGNETO ISOLATION		
1110 (11011101110111)	DRIVE NA TO MODEL		
419	EXHAUST VALVE REPLACEMENT		
710	NA TO MODER		
425C	REPRINT TCM SB 645 IMPULSE COUPLING		*
	NEW CHAMPION MAGNETO KIT INST.	RLUED	
431	TEFLON FIRE HOSES WITH FIRE SLEEVE		
	HOSES NOT SUPPLIED		
439A	INSPECTION OF CONNECTING RODS FOR GALLING		
	ALL INSPECTED GOOD, NONE GALLE	4つ	
446E	USE OF LYCOMING LW-16702 OIL ADDÍTIVE		
	NA TO MODEL		
447B (MANDATORY)	INSPECTION OF UPPER EXHAUST VALVE SPRING		
	SEATS NA TO MODEL		
451	OIL LEVEL GAGE REWORK/REPLACEMENT		
	NA TO MODEL		
455D	REPLACEMENT OF OIL PUMP IMPELLERS	S/S MSB524	
456F	REPLACEMENT OF OIL PUMP IMPELLERS	S/S MSB524	
466	INSPECTION OF OIL FILTER BASE ADAPTER		
	INSPECTED GEDD		
468C	REPRINT OF SLICK SB2-88A 4200 SERIES MAGNETOS	 	
	NEW CHAMPION MAGNETO KUT INST.	ALLED 1	
475C AND SUPP 1	CRANKSHAFT GEAR MODIFICATION & ASSY.	<u> </u>	<u> </u>
	INSPECTED/INSTALLED AS SPECIFIED,	1 / 7	-

MODEL 0-360-,	A4M SIN L-30677-36ACWIO# 47301 DATE 1944	21,201
SSUE NO	DESCRIPTION	E
477A	INSPECTION & REWORK OF P/N LW-18790	1)
	ROCKER ARM ASSY.	T
	(4)69444, (4)74636 RECKER ARMS	1
477A SUPP 1	ADDITION OF SERIAL NUMBERS TO THE ENGINE	
	(4) 69444, A) 74636 ROCKER ARMS	
480F (MANDATORY)	OIL AND FILTER CHANGE INTERVALS	
486	INSPECTION OF SINGLE BELT DRIVEN RING GEAR	
	SUPPORT	
	SUPPORT NOT RECEIVED, NOT SUPPRIED	
488A	PROPELLER GOVERNOR LINE SUPPORT	
488A SUPP 1	A/C BRACKET & HARDWARE	_
100/10011 1	NA TO MODE	
495A	REPLACEMENT OF COMPOSITE FLOATS W/METAL S/S MSB58	2
100/1	(PRECISION AIRMOTIVE)	_
	(I REGISTOR AIRWOTTVE)	
496	LEAR ROMEC RELIEF DIAPHRAGM REPLACEMENT	
+30	NA TO MODEL	
501B	PISTON PIN RECALL (LW-14077)	
0010	(4) LW 14078 PISTON PINS IN STALLED	
502	REPLACEMENT OF LW-13262 INTAKE VALVE	
302		
505B (MANDATORY)	INSPECTION OF PITTING ON CRANKSHAFTS	
SOOD (WANDATORT)	NA - SOLID SHAFT	
508	TCM MAGNETO IMPULSE COUPLING INSTALLATION	
300	(TCM SB 639)	
509	REPRINT AEROQUIP SB AA135	
509	HOSES NOT SUPPLIES	_
515 (MANDATORY)	REPRINT OF TCM'S SB 643 MAINTENANCE INTERVALS	_
STS (WANDATORT)		
516A (MANDATORY)	NEW CHAMPION MAGNETO KUT INSTALLED	
OTOA (WANDATORY)	INSPECTION OF BENDIX/TCM MAGNETOS WITH IC.	
E47 (444) DATODO	NEW CHAMPION MAGNETO KIT INSTALLED	
517 (MANDATORY)	REPRINT OF TCM SBCSB 641 OPEN CONDITION	
	IN THE CAPACITORS	
F47 OUDD 4	NEW CHAMPION MAGNETO KIT INSTALLED	
517 SUPP 1	CORRECTION OF AFFECTED ENGINES FOR SB517	
E40D 044415 - =====	NEW CHAMPION MAGNETO KAT INSTALLED	ρ
518D (MANDATORY)	INSPECTION OF THERMOSTATIC BYPASS VALVE	/ A

SSUE NO	94m SIN L-30677-36ACWIO# 47301 DESCRIPTION	DATE MAY 3/	
		P	
19 (MANDATORY)	SHROUD TUBE RETAINING SPRINGS (LW-14995)	W	
13 (WANDATORT)	SPRINGS INSTALLED FROM GASKET SE	T	
200	INCORRECT PISTONS IN CERTAIN LYCOMING KITS		
20			
04 (444)	REPLACEMENT OF OIL PUMP GEARS		
24 (MANDATORY)		11500	
	AEL 78531 Pump W/AEL18109-10 IMPE	CLE 163	
25A (MANDATORY)	LYCOMING LW-15473 HIGH PRESSURE FUEL PUMPS		
	NA TO MODEL		
27C (MANDATORY)	RECALL OF PISTON PIN LW-14077		- F
	(4) LW14078 PISTON PINS INSTACLED		<u>1</u>
28 (MANDATORY)	REPRINT TCM SERVICE BULLETIN SB 658		
	NEW CHAMPION MAGNETO KIT INS	necon	
29B (MANDATORY)	AN FUEL PUMPS LEAR ROMEC SB101 SB020		9
	NA TO MODEL		
30B (MANDATORY)	APPLICATION OF PROTECTIVE COATING ON C/SHAFT		4
7	REF. S.I. 1511A		W.
	NA-SOLID SHAFT		3
			Q
533C (MANDATORY)	PROP STRIKE INSPECTION (ATTACH CHECKLIST)		
, , , , , , , , , , , , , , , , , , ,	OW-SEE ATTACHED CHECKLIST		
39A (MANDATORY)	REPRINT OF CRANE/LEAR ROMEC S.B.		
JOSA (MANDATORT)	NA TO MODER		
540 (MANDATORY)	VALVE SEAT, INSPECTION		\neg
040 (IMANDATORT)	PICIN-TIME IN SERVICE		B
EA1 (MANDATORY)	REPRINT OF TCM CSB662A CAPACITOR REPLACEMENT		4
541 (MANDATORY)	AND DATE CODE INSPECTION		
0142041	ENGINE NAMEPLATE REPLACEMENT		č
SI1304J	P/c/W		
ZOLL 0000000	CAPACITOR REPLACEMENT & DATE CODE INSPECTION		
TCM CSB662A			
	NA TO MOSER		
543C (MANDATORY)	OIL FILER BASE SEAL REPLACEMENT		
	NA TO MODEL		
543A SUPP 1	OIL FILER BASE SEAL REPLACEMENT	S/S BY 543B	
548A (MANDATORY)	DIAPHRAGM - TYPE FUEL PUMP INSP./REPLACEMENT		
	AERO ACC'45 OH ZOIS PUMP REINSTALL	FD .	
549 (MANDATORY)	CRANKSHAFT SERIAL NUMBER INSPECTION		
	NA BY CRANKSHAFT SIN	14	

MODEL DA 2 60- H	4m SIN 2-30677-36ACWIO# 47301	DATE MA	4 3/13	WIY
ISSUE NO	DESCRIPTION	SIGNATU	ŖE	
SB549 SUPP 1	CRANKSHAFT SERIAL NUMBER INSPECTION	, /	,	
	NA BY CRANKSHAFT S/N	U	······································	
555A (MANDATORY)	OIL PUMP BODY PLUG INSPECTION			
	P/N'S 78528, 78890, 51A22618			. 8
	MA- AEL 78531 DIL PUMP HOUSING			3
555 SUPP 2	OIL PUMP BODY PLUG INSPECTION	SUPERCE	DED	
		BY SB555		8
			1	
57 (MANDATORY)	RSA-5, RSA-10 FUEL SERVOS OVERHAULED BY			a de
	PRECISION AIR MOTIVE			56
· · · · · · · · · · · · · · · · · · ·	NA TO MODEL			一 運
559	KELLY AEROSPACE STARTER REPLACEMENT		 	-
	(KELLY AEROSPACE) S/B NO. A-112 REV A		+	-8
	NEW 149 NI STARTER INSTALLED		+	
565 (MANDATORY)	DIAPHRAGM TYPE FUEL PUMP INSPECTION		-	
700 (113 11 13 71 1 0 1 1 1 7	NA TO MODEL		1	INC.
566 (MANDATORY)	CRANKSHAFT REPLACEMENT			-
JOO (MANDATORT)			-	
566 SUPP NO. 1	CRANKSHAFT REPLACEMENT		-	- Fred
300 GOFF NO. 1				-
568 (MANDATORY)	REPRINT OF SLICK S/B NO SB1-88B LYCOMING ENGINE			_
DOG (WANDATORT)			ļ	_
	EQUIPPED WITH PRESSURIZED SLICK MAGS			_
69A (MANDATORY) AND	CRANKSHAFT RETIREMENT FOR CERTAIN LYCOMING			_
SUPP NO. 1				3 8
OUPP NO. 1	ENGINES (SEE SERVICE LETTER L244 FOR KIT P/N)			- 3
306-01E (MANDATORY)	REMOVAL OF SUPERIOR CYLINDERS WITH SOFT			_
SUPERIOR				- 9
BUPERIUR	BARRELS			-5
72 (444) 0470000	An Cylin DERS Ly com ING.			
573 (MANDATORY)	PRESSURIZED MAGNETO PRESSURE TESTS			_ 20
744	NA TO MODEL			
574A (MANDATORY)	CYLINDER STUD HOLE, CROSS THREADED			
	NA BY LOT/DATE CODE OF ALL CYL	5		16
576	TCM SB633A-TACH CIRCUIT INTEGRITY			- 3
	NEW CHAMPION MAGNETO KIT INSTA	LUED		7
577A	SKY TEC STARTER SKYTEC S/B 07-01 REV. D			K
	NEW 149NL STARTER INSTALLED			100
MSB028A	KELLY AEROSPACE FUEL PUMP REPLACE	l		0
	DIAPHRAGM & PLUNGER REPLACEMENT (GEARED PUMPS)	0	ASON, A COUR
	NA TO MODEL			

MODEL 0-360-A	4M SIN L-30677-36ACWIO# 47301	DATE MAY 2/	, 8417
SSUE NO	DESCRIPTION	SIGNATURE '	
578	INCORRECT CYLINDERS ASSEMBLIES SHIPPED W/CYLIND	ER KITS , //	
	NOT FACTORY KITS	1/1	
MSB: 08-1 REV 3	ENGINE COMPONENTS INC. INSPECTION REMOVAL OR		
(MANDATORY)	REPLACEMENT OF AEL65102 CYLINDER ASSEMBLY		3
	ALL CALINDERS Lycoming		5
582A (MANDATORY) AND	REPLACEMENT OF BRASS OR POLYMER FLOAT		G
SUPP 1	WITH FOAM FLOAT PRECISION S/B MSA-13		-
	NO WORK ALLSMEN		6
583A (MANDATORY)	REPRINT OF SLICK MAGNETO SB2-08A		
	NEW CHAMFION MAGNETO KIT INSTA	450	
584B (MANDATORY)	REPRINT OF SLICK MAGNETO SB3-08A		- 16
	NEW CHAMPION MAGNETO KIT INST	ALLED	
591A (MANDATORY)	REPRINT OF KELLY AEROSPACE MSB 039		
	REPLACMENT OF TURBINE WHEEL		
	NA TO MOTH		
CSB668	INSPECTION OF IGNITION HARNESS ATTACHMENT PLATE		
	(TCM S-20/S-200)		
	NA- CHAMPION MAGNETOS		
592	ENGINE INSPECTION AFTER OVERBOOST		
002	NA-NOT OVERBOOK		
SB-18 REV A	MARVEL SCHEBLER EMERGENCY SERVICE BULLETINE		
OD-1011LV71	HA-6 CARBURETORS		$\neg \uparrow$
	NA TO MODEL		
601	NON COMPLIANT OIL FILL TUBE P/N 77527		
001	NA TO MODER		
615	DIAPHRAGM TYPE FUEL PUMP REPLACEMENT	S/S SB621	
010	DIAL FILL OLE FORM RELIGIONERY	G/G GEOZ1	
617	DIAPHRAGM TYPE FUEL PUMP REPLACEMENT	S/S SB621	
017	DIPH THE TOTAL TOT	0/0 00021	
619	HARDNESS CHECK LW15014 ROCKER ARMS		
019	NA TO MODEL		
SB670 TCM	MAGNETO BLOCK INSPECTION (S-20,200,1200 SERIES)		
SD070 TCIVI	MEW CHAMPION MAGNETO KIT INSTA	((((((((((((((((((((
CDC04D		MG E	
SB621B	DIAPHRAGM TYPE FUEL PUMP REPLACEMENT		
600	SLICK LASAR MAGNETOS		
622	<u> </u>		
202	NOT LASAR MAGNETOS	L	
623	HARTZELL SB-062, LW14326 AND LW14338 ALTERNATORS	1	
	THRU BOLT REPLACEMENT	P	
	NA BY ALTERNATOR P/N		

ISSUE NO	44M S/N L-30677-36AC WIO# 47301 DESCRIPTION	DATE MAY 21, 20.
SL255A	APPROVED FUEL PUMPS HIO-360-D1A, G1A, TO-360-C1A6	
	NA TO MODEL	1/1
628	REPRINT OF HARTZELL ENGINE TECHNOLOGIES SB ASBO	069
	CONNECTING ROD BUSHING INSPECTION WHEN CYLINDS	
MSB 630A	CONNECTING ROD BUSHING INSPECTION WHEN CYLINDS	R
	IS REMOVED	
	IDENTIFICATION OF CONNECTING RODS WITH NON	10165
MSB 632B	IDENTIFICATION OF CONNECTING RODS WITH NON	
	CONFORMING SMALL END BUSHINGS	
	ALL RODS REGUSHED. 4) AEL 19913 BU	SHINGS
MSB 634	CYLINDER AND HEAD ASSEMBLY SERVICEABLE LIFE	
	MA BY CASTING MARKINGS	
MSB 637	CHAMPION SLICK IMPULSE COUPLED MAGNETO	0
	INSPECTION RIGHT MAGNETO NA BY SIN	
	LEFT MAGNETO REQUIRES INSPECTION	1
	AT YOU HARS,	
	/	9
·····		
		
· · · · · · · · · · · · · · · · · · ·		

SSUE NO	0-A4M S/N L-30677-36AC W/O# 47301 DESCRIPTION	DATE MA	RF	
9-10-07	CYLINDER BAFFLE CLAMPS (O-360) SB 254A	OCHALO	0	
	P/C/W	- /	A	_
34-16-05	POSS. ENGINE OIL LOSS A/C FUEL PUMP (SB 298)		1	-
	NA BY POND PART NUMBER			_
66-20-04	OIL FILTER ADAPTER GASKET (SB 307)			
	SU12795 INSTALLED FROM GASKET SE			
′3-23-01	PISTON PINS (O-360) SB 367F	1		
	(4) LW14078 PISTON PINS INSTALLED	 		=
4-26-09	DRIVE BUSHINGS BENDIX/TCM (SB 556B)	 		
. 20 00	NEW CHAMPION MAGNETO KIT INSTAL	. 60		-5
75-08-09R3	OIL PUMP FAILURES (O,HO-360) SB 381B/385C	2613		(C)
	AEL 7853; pump w/AEL 18109-10 1mi	PELLERI		- 4
78-09-07R3	IMPULSE MEASUREMENT BENDIX/TCM SB 645	S/S BY 96	-12-07	
0 00 07710	IIIII GEGE INEX CONCENIEUX I BENDIN I GIN OB G-G	0,0 51 50	12-07	-
78-18-04	2000 SERIES MAGNETO (SB 590A)	 	- 	- S
0 10 04		 	+	-
9-10-03R2	ENGINE MOUNT BRACKET ATTACH BOLTS (0-360)	 	+	A NEW A 1519
0 10 00112	SI 1380 NA TO MODER	 	-	<u>C</u>
	OF 1000 / W / O MASIDE		-	- 4
79-12-07	GREEN BLOCK 2000 SERIES (SB 606)		 	
	NA TO MODEC		1	
79-15-02	INTERNAL ECONOMIZER CHANNEL PLUG REPLACEMENT			
0 10 02	NA TO MODER	 		
79-18-06 R1	2000 SERIES MAGNET (SB 605A)			┥.
	NA to moder			
30-02-13	TURBO OIL DRAIN FLANGE (TO-360-C) SB 426		1	2
	NA TO MODEL			-
30-04-03R2	UPPER SPRING SEATS (SB 435)		1	
	NA TO MODEL			
30-14-07	UPPER SPRING SÉATS (O,LO-360) SB 447			S
	NA TO MODER			
30-17-14	2000 SERIES MAGNET (SB 605A)			in
	NA TO MODEL			
31-12-06R1	3000 SERIES GEAR INSPECTION (SB 618/619)			9
	NA TO MODEL			91
31-18-04R2	FAILURE OF OIL PUMP GEARS (SB 455A/456)	S/S 96-09	10	di.
· · · · · · · · · · · · · · · · · · ·				
32-11-05	2000 SERIES GEAR INSPECTION (SB 617B)			6
	NA TO MODEL		0	THE REAL PROPERTY.
32-13-01	GREEN BLOCK 1200 SERIES (SB 613)	/	1	
	NEW CHAMPION MAGNETO KIT INSTA	KI EN	<i>a</i>	

SSUE NO	DESCRIPTION	SIGNATURE	201
32-20-01	IMPULSE CAM SOFTNESS BENDIX/TCM (SB 623)	1/)
	NEW CHAMPION MAGNETO KIT INST	avien In	
37-10 - 06R1	ROCKER ARM FAILURE (LW-18790) SB 477A	7 2 3 7/1	nia-to
27 10 001(1	(4) 67444. A) 74636 ROCKER ARM	nk	
90-04-06R1	PROP. GOVERNOR LINE (ALL 4 CYLINDER ENGINES)		
30-04-00IX I	SB 488A NA TO MODEL		
	35 400A NA 18 M3BE	- 	
91-14-22	PREV. LOOSENING/FAILURE OF CRANKSHAFT BOLTS	S/S 2004-10-14	
71-14-22	(SB 475C)	2 0/0 2004-10-14	
	(36 4730)		
92-12-05	PISTQN PIN LW-14077 (SB 501)		—
32-12-05		. 30	
22 22 27	14) LW14078 PISTON PINS INSTALL	S/S 93-05-21	
92-20-07	FUEL PUMPS AERO ACCY	3/3 93-03-21	
	NUISOTION LINES (OR 640D & OURDI ENERTY N. 4)	-0/0 0000 00 04	
93-02-05	INJECTION LINES (SB 342D & SUPPLEMENT No. 1)	S/S 2002-26-01	
	FILE BUNDO (FDO (ADD)	- 0/0 00 11 11	
93-05-21	FUEL PUMPS AERO ACCY	S/S 93-11-11	
93-11-11	FUEL PUMPS AERO ACCY		
	NA TO MODEL		
94-01-03R2	COIL AND MAGNET INSPECTION MSB 644		
	NEW CHAMPION MAGNETO KIT INST	ALLE D	
94-06-09	CAPACITOR BATCH CODES (CSB 641) BENDIX/TCM		
	NEW CHAMPION MAGNETO KIT INS	TALLED	
94-14-13	DETONATION DUE TO LOW OCTANE FUEL	✓ S/S 95-26-02	
94-25-04	HA-6 SERIES CARBURETOR	2	
	NA TO MADER		
95-07-01	75060 SUSPECT UNAPPROVED CONNECTING ROD		<u> </u>
	BOLT (8) NEW SL74644 BOLTS INSTACHE	TP.	
95-26-02	DETONATION DUE TO LOW OCTANE FUEL		
	NA- PROP STRIKE INSPECTION		
96-09 - 10C	REPLACEMENT OF OIL PUMP GEARS		
	AKL7853; PUMP W/AKL18109-10 IM	PELLERS	
96-12-07	INSPECTION OF TCM IMPULSE COUPLINGS	S/S 2005-12-06	
1,4,			T
96-23-03	LYCOMING LW-15473 HIGH PRESSURE FUEL PUMPS SB	525A	t
	NA TO MODEZ		7
	RECALL OF PISTON PIN LW-14077 SB 527C	S/S 97-15-11/	

	AYM SIN L-30677-36ACWIO# 47301	DATE MAY 2/	
SSUE NO	DESCRIPTION	SIGNATURE	
		F	_
7-15-11	RECALL OF PISTON PIN LW-14077 SB 527C	1/1	
	(4) LW14078 PISTON PINS INSTACLED	<u> </u>	_
8-01-06	ONE PIECE VENTURI & FUEL NOZZLE		
	PRECISION SB MSA -2,-7,-8,-9		
	P/c/w		
8-02-08	INSPECTION OF PITTING ON CRANKSHAFTS MSB505B		
	NA-SOLID SHAFT		
8-17-11	CRANKSHAFTS REPAIRED BY NELSON BALANCING SERV	ICE	
	CHAFT NOT REPAIRED BY NELSON		
8-18-12	AN FUEL PUMP LEAR ROMEC (MSB 529A)	S/S 2003-14-03	
0 10 12			
2000-18-53	OIL FILER BASE SEAL REPLACEMENT (MSB543A)	S/S 2002-12-07	
.000-10-00	OIL FIGURE AND		
2002-12-07	OIL FILTER SEAL REPLACEMENT (MSB543A)		
.002-12-07	NA TO MORE		
2002-26-01	INJECTION LINES	S/S 2008-14-07	
2002-20-01	INSECTION EINES		
2002 44 02	LEAR ROMEC FUEL PUMP (SB529B)		
2003-14-03	NA TO MODE		
2004 40 440	PREVENT LOOSENING OF CRANKSHAFT GEAR BOLT		
2004-10-14C			-
	(MSB475C) INSPECTED INSTALLED PER		
	MSB475C + SUPPI, 135196466EAR,	4	
	NEW 570 2746 BOLT		
2005-0023R3	EASA EXHAUST VALVE AND GUIDE INSPECTION		_
	NA - ALL HI-CHROME GUDES		
2005-12-06	INSPECTION OF TCM IMPULSE COUPLINGS	4. (0	
	NEW CHAMPION MAGNETO KIT INS	THECOD	
2005-19-11	CRANKSHAFT REPLACEMENT (MSB566)		
	NA TO MODER	0/0 0000 40 07	
2005-26-10	ECI CLASSIC CAST CYLINDERS	7 S/S 2006-12-07	
2006-06-16	CRANKSHAFT REPLACEMENT CMSB566 SUPP NO 1		_
	TABLE 2 NA TO MODE		_
			L
2006-10-21 C2	REPLACEMENT OF CERTAIN AEL11750 CONN RODS		
	(4) 74502 RODS REINSTALLES		
2006-12-07	ECI CLASSIC CAST CYLINDERS		
	ALL CYCINDERS ARE LYCOMING		-/
	CRANKSHAFT REPLACEMENT (MSB569A)	- S/S 2012-19-01/	10

MODEL 0-360	-A4m SIN L-30677-36ACWIO# 47301	DATE MAY FILE	W/9
ISSUE NO	DESCRIPTION	SIGNATURE	
2007-04-19R1	REMOVAL OF SUPERIOR CYLINDER WITH SOFT		
	BARRELS. SUPERIOR B06-01E	1/1	
	ALL CYLINDERS ARE LYCOMIN	14	
2008-14-07	INJECTION LINES	S/S 2011-26-04	ف
			Z
2008-19-05	INSPECTION & REPLACEMENT OF ECITITAN CYLINDER	S/S 2009-26-12	
2008-08-14	PRECISON AIRMOTIVE MSB N. PRS107	S/S 2009-02-03	
	REV 1 AND PEX-1	,	
	11.64 17.110 1 67.1		正。
2009-02-03	PRECISION AIRMOTIVE MSB NO. PRS107		D.
2000-02-00	REV. 4 & PEX-1 INSPECT BRASS PLUG		OVE
	S/N 383493 SEE SI 1520		9
	NA TO MODEL		33
2009-26-12	INSPECTION & REPLACEMENT OF ECI TITAN CYLINDER	S	- 93
2009-20-12	AL CYLINDERS ARE LY COMING		AIRWARK
2010-07-08	REMOVAL OF TURBOCHARGERS AS PER		-3
2010-07-00	KELLY AEROSPACE SB NO. 039		
			-85
2011-13-03	CLEANING OF MACHINING DEBRIS FROM TURBOCHARG	SED.	
2011-13-03	CENTER HOUSINGS (HARTZELL S.B. NO. 040 REV.A)	JEN .	
			-
2011-15-10	AVSTAR SERVO DIAPHRAGM REPLACEMENT	S/S 2012-03-06	- 0
2011-10-10	AVSTAR SERVO DIAPHRAGIVI REPLACEIVIENT	3/3 2012-03-00	
2011-26-04	INJECTION LINES (SB 342 F)	S/S 2015-19-07	- 3
2011-20-04	INJECTION LINES (SB 342 F)	3/3 2013-19-01	-
2011-26-07	MANDATORY REPLACEMENT OF CERTAIN SLICK		
2011-20-01	MAGNETOS		
		carrie Ca	50
2012-03-06	AVSTAR SERVO DIAPHRAGM REPLACEMENT	J714466 4	- 5
2012-03-00	NA TO MODEL		12
0040 00 07	BILLET HA-6 CARBURETOR REPLACEMENT		- z
2012-03-07			
0040 40 04	MA TO MODEL		- X
2012-19-01	CRANKSHAFT REPLACEMENT (MSB569A)		- 3
0045.00.07	NA TO MADE		
2015-02-07	PROPELLER GOVERNOR SET SCREW INSTALLATION		A 19 Park
001m 10 11	NA TO MODER		taqui
2017-16-11	CONNECTING ROD BUSHINGS MSB 632B		_
·	ALL RODS REBUSHED, H) AR-13923	BUSHINGS , D	
		14	
		0,	

Engine Inspection Checklist After Propeller Strike for All Lycoming Engines - Except Geared Engines Engine Serial Number: L-30677-36AC **Engine Model:** 0-360-A4M Date Inspection Completed: MAY 21, 2019 4-16-19 **Date Inspection Started: Corrective Action Additional Information** Sequential Task **Done/Comments** Condition of Propeller/Corrective Action: Examine the propeller for extent of 1. damage: record condition of propeller. Propeller satisfactory Repair propeller in accordance with propeller manufacturer's instructions Replace propeller in accordance with the airframe manufacturer's instructions. As per the airframe and propeller 2. Remove the propeller. manufacturer's instructions. In accordance with the airframe Remove the engine. 3. manufacturer's instructions. **MATCH NO: CRANKCASE P/N:** In accordance with the applicable Disassemble the engine - remove the 4. Lycoming engine manual. OK crankshaft, camshaft, connecting rods, crankshaft gear, and internal steel parts. Make sure there is no dirt, debris, sludge, Complete blast cleaning of the 5. paint, or any other substance that could crankcase with 17 grit walnut shells or OK prevent reliable Fluorescent Penetrant equivalent at 35 to 45 psi (241 to 310 Inspection (FPI) or subsequent oil flow. kPa); remove all coatings on the crankcase and engine mount bosses. Make sure there is no dirt, debris, sludge, Complete blast cleaning of the oil sump 6. paint, or any other substance that could and engine mount bosses with 17 grit OK prevent reliable FPI or subsequent oil walnut shells or equivalent at 35 to 45 flow. psi (241 to 310 kPa). Make sure there is no dirt, debris, sludge, Complete blast cleaning of the engine 7. paint, or any other substance that could mount brackets (on six-cylinder INTEGRAL engines) and, if used, the lower mount prevent reliable FPI or subsequent oil rings (on helicopter engines) with 17 flow. CRANKEASE grit walnut shells or equivalent at 35 to 45 psi (241 to 310 kPa). Make sure there is no dirt, debris, sludge, Complete blast cleaning of the paint, or any other substance that could accessory housing with 17 grit walnut OK prevent reliable FPI or subsequent oil shells or equivalent at 35 to 45 psi (241 flow. to 310 kPa).

ISSUED				REVIS	ED	PAGE NO.	REVISION	
MO	DAY	YEAR	MO	DAY	YEAR	2 of 16	C	SR 533
06	29	98	10	18	16	3 of 16		O.B. 555

Engine Inspection Checklist After Propeller Strike for All Lycoming Engines - Except Geared Engines (Cont.)

	Sequential Task	Additional Information	Corrective Action Done/Comments
9.	Remove and discard the existing crankshaft gear retaining bolt and lockplate.		OK
10.	Examine the crankshaft.	Refer to the applicable Lycoming engine manual and the latest revision of the Service Table of Limits - SSP-1776 for the crankshaft disassembly and inspection procedures.	INSPECTED UP
11.	Examine, the crankshaft counter-bored recess, the alignment dowel especially at the base where it goes into the crankshaft, the bolt hole threads, and the crankshaft gear for wear, galling, corrosion, and fretting.	Refer to the latest revision of Service Bulletin No. SB-475. If the bolt hole threads are damaged, they cannot be repaired. Replace the crankshaft.	INSPECTED GOOD
12.	Clean the crankshaft, camshaft, crankshaft gear, counterweights, rollers and bushings.	Make sure there is no dirt, debris, sludge, paint, or any other substance that could prevent reliable magnetic particle inspection or subsequent oil flow.	OK
13.	Clean the following internal parts made of steel: Connecting rods Tappets (not roller tappets) Piston pins Rocker shafts Accessory drive gears Magneto drive gears Idler and oil pump shafts Shaft gears and impellers		υK

△ CAUTION:

BASED UPON THE ACCUMULATED ENGINEERING, TECHNICAL, AND HISTORICAL DATA AVAILABLE, LYCOMING ENGINES PROHIBITS STRAIGHTENING OR GRINDING OF BENT CRANKSHAFT PROPELLER FLANGES TO RESTORE MAXIMUM RUN-OUT SPECIFICATION AS NOTED IN THE LATEST REVISION OF THE SERVICE TABLE OF LIMITS - SSP-1776. IF THE CRANKSHAFT PROPELLER FLANGE IS BENT, REPLACE THE CRANKSHAFT. DO NOT TRY TO STRAIGHTEN OR GRIND THE CRANKSHAFT PROPELLER FLANGE.

	ISSUED			REVIS	ED	PAGE NO.	REVISION	
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Engine Inspection Checklist After Propeller Strike for All Lycoming Engines - Except Geared Engines (Cont.) V537931 S/N: **CRANKSHAFT P/N:** 13827134 **Corrective Action Additional Information** Sequential Task Done/Comments Refer to the latest revisions of both Service Use crankshaft Measure the flange run-out on the 14. Bulletin No. SB-240 and the Service Table crankshaft. Replace crankshaft of Limits - SSP-1776 for crankshaft flange REFER run-out tolerance. A0-108 Record the crankshaft flange run-out measurement.* Refer to the latest revision of the Service ✓ Use crankshaft 15. Measure the main bearing run-out on Table of Limits - SSP-1776 for the main the crankshaft. Replace crankshaft REGGE TO bearing run-out tolerance Record the main bearing run-out A0-108 measurement.* Refer to the latest revision of the Service Main journals 16. Measure the polished dimensions on within acceptable Table of Limits - SSP-1776 for the the main journals. limits - use dimensions on the main journals crankshaft Record the dimensions of the main REFER TO AD-108 Replace crankshaft iournals.* Refer to the latest revision of the Service Pin journals 17. Measure the polished dimensions on within acceptable Table of Limits - SSP-1776 for the the pin journals. limits - use dimensions on the pin journals crankshaft Record the dimensions of the pin journals.* Replace crankshaft REFER to AD-108 If the measurement or dimension is out of tolerance, discard the crankshaft and replace it with a serviceable crankshaft. Install the crankshaft per the applicable Lycoming manual and the latest revision of the Service Table of Limits - SSP-1776. Refer to the section 18. Complete a check of connecting rod Parallelism Measurement "Connecting Rod parallelism. Connecting Rod 1 Parallelism/Squareness .0000 Check" in this Service Connecting Rod 2 10000 Bulletin, Record the Connecting Rod 3 parallelism measurement for 0000 each connecting rod. Connecting Rod 4 0000 Replace all connecting rods Connecting Rod 5 not in compliance with measurements in the latest Connecting Rod 6 revision of the Service Table Connecting Rod 7 of Limits - SSP-1776 (Reference 503). Connecting Rod 8

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Eng	gine Inspection Checklist After Propelle	er Strike : (Co	for All Lycoming nt.)	Engines - Except Geared Engines	
	Sequential Task	· · · · · ·	onal Information	Corrective Action Done/Comments	
19.	Complete a check of connecting rod	a check of connecting rod Refer to the section			
17.	squareness.	1	ting Rod	Connecting Rod 1 1000	
		1	sm/Squareness in this Service	Connecting Rod 2	
		1	. Record the ess measurement f	Connecting Rod 3	
		each cor	necting rod.	Connecting Rod 4	
			all connecting roompliance with	Connecting Rod 5	
		measure	ments in the latest		
		1	of the Service Tales - SSP-1776	Connecting Rod 7	
			nce 504).	Connecting Rod 8	
NOT	TICE: The magnetic particle inspection Service Instruction No. SI-1285.	must be d	one by a certified	technician as per the latest revision of	
20.	Complete a magnetic particle inspection crankshaft.	on the	Record test results.	☐ Replace crankshaft REFER TO	
21.	Complete a magnetic particle inspection crankshaft counterweights. Examine the counterweight bushing both the counterweights and the crankshaft	res in	Record test results.	Replace all counterweight pins, bushings, end plates and snap rings - regardless of their condition.	
22.	Complete a magnetic particle inspection camshaft.		Record test results.	☐ Use camshaft REGRIA Replace camshaft	
23.	Complete a magnetic particle inspection connecting rods.	n on the	Record test results. OK PERENTAL TO ADDIZ	Replace connecting rod bolts and nuts -regardless of condition. Refer to the latest revision of Service Instruction No. SI-1458 for assembly instructions.	
24.	Complete a magnetic particle inspection crankshaft gear; examine the gear end a latest revision of Service Bulletin No. S	as per the	Record test results.	Use crankshaft gear Replace crankshaft gear April	
25.	Complete a magnetic particle inspectio following internal parts made of steel: • Accessory drive gears • Magneto drive gears • Idler and oil pump shafts • Shaft gears and impellers • Piston pins • Connecting rods	n on the	Record test results.	Use Replace Accessory drive gears Magneto drive gears Idler and oil pump shafts Shaft gears and impellers Piston pins Connecting rods	
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Engine Inspection Checklist After Propeller Strike for All Lycoming Engines - Except Geared Engines (Cont.) **Corrective Action** Sequential Task Additional Information **Done/Comments** 26. Complete the visual inspection and Fluorescent Record test results. ☑ Use crankcase REFER TO Penetrant Inspection (FPI) on the crankcase. Replace crankcase Refer to the latest revision of Service Instruction No. SI-1285. Closely examine the forward crankcase bearing support and adjacent structure. 27. Record test results. Use oil sump Complete the visual inspection and FPI on the REFER TO BON13 oil sump. Replace oil sump Complete the visual inspection and FPI on the Record test results. 28. Use engine mounts engine mounts and, if used, the lower mount Replace engine mounts rings (on helicopter engines). Record test results. 29. Complete the visual inspection and FPI on the Use accessory housing accessory housing. TO AD/113 Replace accessory housing Complete the visual inspection on the oil pump Record test results. ✓ Use impeller 30. impeller. Replace impeller **NOTICE:** Roller tappets, counterweight rollers, and bushings must be replaced. Complete the visual inspection and FPI on the Record test results. Tappets/lifters 31. REPLACED FOR tappets (not roller tappets) and lifters. acceptable PITTING Refer to the latest revision of Service Replace tappets/lifters Instruction No. SI-1011. Record test results. Replace magneto 32. Examine each magneto in accordance with the magneto manufacturer's instructions. 33. Examine the pistons as per instructions in the Record test results. Pistons acceptable applicable Lycoming manual and the latest Replace pistons revision of the Service Table of Limits - SSP-1776. REFER TO Refer to the latest revision of Service Bulletin 34. Record parts that must be No. SB-240 to identify any parts that must be replaced. PARTS LIST replaced during engine assembly. 35. Install a new crankshaft gear retaining bolt and Refer to the latest revision DK lockplate. of Service Bulletin No. SB-475.

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	Sequential Task	Additional Information	Corrective Action Done/Comments
36.	Review the documents of all other engine- mounted accessories on the engine, propeller governor (if installed), etc. for instructions on what to do for components exposed to sudden engine stoppage.		CV S CONSIBILITY OF SIBILITY
37.	Assemble and install the engine. Install the propeller and test the engine. Complete an operational check of the engine.	In accordance with instructions in the applicable Lycoming engine manuals, the latest revisions of the Service Table of Limits - SSP-1776 and Service Instruction No. SI-1427.	TEST RUN GOODS REFER TO AD-115:
38.	Record maintenance findings and any corrective action in the engine logbook.		OK

UNAIRWORTHY PARTS:

NO UNAIRWORTHY PARTS RESULTING FROM PROPELIER

ADDITIONAL WORK/INSPECTIONS NECESSARY:

NONE FOR ENGINE AS SHIPPED.

OUTCOME OF INSPECTION- SUMMARY NOTES:

ENGINE, AS SHIPPED, 18 AIRWORTHY.

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MANDATORY SERVICE BULLETIN

DATE:

October 18, 2016

Service Bulletin No. 533C (Supersedes Service Bulletin No. 533B) Engineering Aspects are FAA Approved

SUBJECT:

Recommended Action for Sudden Engine Stoppage, Propeller/Rotor Strike or

Loss of Propeller/Rotor Blade or Tip

MODELS AFFECTED:

All Lycoming reciprocating aircraft engines

TIME OF COMPLIANCE:

BEFORE FURTHER FLIGHT

REASON FOR REVISION Applies to all Lycoming aircraft engines (not just direct drive engines); added checklist specific for Lycoming geared engines; updated checklist which

applies to all other Lycoming aircraft engines, added check for connecting rod

squareness to the checklists.

NOTICE: Incomplete review of all the information in this document can cause errors. Read the entire Service Bulletin to make sure you have a complete understanding of the requirements.

This Service Bulletin identifies propeller/rotor damage conditions and gives corrective action recommendations for aircraft engines that have had propeller /rotor damage as well as any of the following:

- Separation of the propeller/rotor blade from the hub
- Loss of a propeller or rotor blade tip
- Sudden stoppage

A propeller strike includes:

- Any incident, whether or not the engine is operating, where repair of the propeller is necessary
- Any incident during engine operation where the propeller has impact on a solid object. This incident includes propeller strikes against the ground. Although the propeller can continue to turn, damage to the engine can occur, possibly with progression to engine failure
- Sudden RPM drop on impact to water, tall grass, or similar yielding medium where propeller damage does not usually occur

A propeller strike can occur at taxi speeds and during touch-and-go operations with propeller tip ground contact. In addition, propeller strikes also include situations where an aircraft is stationary and a landing gear collapse occurs causing one or more blades to be bent, or where a hangar door (or other object) hits the propeller blade. These instances are cases of sudden engine stoppage because of potentially severe side loading on the crankshaft propeller flange, front bearing, and seal.



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A CAUTION:

BASED UPON THE ACCUMULATED ENGINEERING, TECHNICAL, AND HISTORICAL DATA AVAILABLE, LYCOMING ENGINES **PROHIBITS** STRAIGHTENING OR GRINDING OF BENT CRANKSHAFT PROPELLER FLANGES TO RESTORE MAXIMUM RUN-OUT SPECIFICATION AS NOTED IN THE LATEST REVISION OF THE SERVICE TABLE OF LIMITS - SSP-1776. IF THE CRANKSHAFT PROPELLER FLANGE IS BENT, REPLACE THE CRANKSHAFT. **DO** NOT TRY TO STRAIGHTEN OR GRIND THE CRANKSHAFT PROPELLER FLANGE.

Recommended Corrective Action for Propeller Strikes

CAUTION:

DAMAGE TO A PROPELLER IS SERIOUS AND CAN CAUSE THE ENGINE TO BE UNAIRWORTHY.

Circumstances of a propeller strike cannot always be used as predictors for the extent of engine damage or its future reliability. There can be varying degrees of damage to an engine and propeller from a propeller strike. The initial damage can be hidden but could become progressively worse with time and wear.

Given these possibilities and the fact that there is no identified clear, quantifiable threshold limit or gradient standard to reliably measure the extent of damage to an engine, Lycoming Engines can only recommend BEFORE FURTHER FLIGHT, that you complete the tasks in the sequential order shown in the applicable "Inspection Checklist After a Propeller Strike" included in this Service Bulletin as the corrective action for a propeller strike. One checklist applies specifically to Lycoming geared engines (GO-435, GO-480, GSO-480, IGO-540, IGSO-540, and TIGO-541) while the other checklist is for all other Lycoming aircraft engines. Make a copy of the checklist that applies to your engine model, complete it and keep it as a service record. Record all results and any corrective action taken in compliance as per the revision of this Service Bulletin in the engine logbook.

NOTICE: The agency that returns the aircraft to service is responsible for the decision to operate an engine that had a propeller strike. Lycoming Engines does not take the responsibility for the decision to return the engine to service after a propeller strike.

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1. Approving Civil Aviation	7				3. Form I racking Number:
Authority/Country: FAA/United States	AUT	AUTHORIZED RELEASE CERTIFICATE	EASE C	ERTIFICATE PROVAL TAG	47301
4. Organization Name and Address: AIRM	HARK OVERHAUL,	Idress: AIRMARK OVERHAUL, INC. * 6001 N.W. 29 TH AVENUE * FT. LAUDERDALE, FL 33309 (JL4R288M)	FT. LAUDERDA	LE, FL 33309 (JL4R288M)	5. Work Order/Contract/Invoice Number: W/O: 47301
6. Item: 7. Description:	8. Pa	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
001 ENGINE	Ó	O-360-A4M	1/EA	L-30677-36AC	REPAIRED
12. Remarks: [HIS TEXTRON LYCOMING ENGINE ANTH TEXTBON I VOOMING OVERH	IING ENGINE	WAS REPAIRED AS NEE	DED DUE 1	12. Remarks: [HIS TEXTRON LYCOMING ENGINE WAS REPAIRED AS NEEDED DUE TO A PROPELLER STRIKE ONLY IN ACCORDANCE STRIKE ONLY IN ACCORDANCE STRIKE ONLY IN ACCORDANCE STRIKE ONLY IN ACCORDANCE STRIKE ONLY IN A NUMBER OF STRIKE ONLY ONLY ONLY ONLY ONLY ONLY ONLY ONLY	ONLY IN ACCORDANCE
OUT PER WORK ORDE	R NUMBER 473	OUT PER WORK ORDER NUMBER 47301. TIME SINCE MAJOR OVERHAUL 1126.1 HOURS.	OVERHAL	JL 1126.1 HOURS.	
13a. Certifies the items identified above were manufactured in conformity to:	bove were manufactu	red in conformity to:	14a. 🛭 14 6	14a. X 14 CFR 43.9 Return to Service	Other regulation specified in Block 12
Approved design data and are in a condition for safe operation. Non-approved design data specified in Block 12.	nd are in a condition for ta specified in Block 1	or safe operation. 2.	Certifies and desc Federal return to	Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	, the work identified in Block 11 ordance with Title 14, Code of work, the items are approved for
13b. Authorized Signature:		13c. Approval/Authorization No.:	14b. Authori	14b. Authorized Signature:	14c. Approval/Certificate No.: JL4R288M
13d. Name (Lyped or Printed):		13e. Date (dd/mmm/gyyy):	14d. Name (7	14d. Name (Typed or Printed): WILLIAM POLLARD	14e. Date (dd/mmm/yyyy): 21/MAY/2019
		User/Installer	User/Installer Responsibilities	ies	
It is important to understand that	the existence of this do	cument alone does not automatically	constitute autho	It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.	article.
Where the user/installer performs work in accordance wi Block 1, it is essential that the user/installer ensures that I specified in Block 1.	work in accordance w Installer ensures that	ith the national regulations of an airv his/her airworthiness authority accej	worthiness author pts aircraft engin	Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.	rity of the country specified in thiness authority of the country

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

FAA Form 8130-3 (02-14)

NSN: 0052-00-012-9005

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

country specified in Block1.

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Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

NSN: 0052-00-012-9005 \\
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Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued accordance with the national regulations by the user/installer before the aircraft may be flown.

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