

**LYCOMING****Record of Accessories and Major Parts Shipped with Engine**Model No: **O-320-E3D**Serial No: **RL-24601-27E**ENPL: **RENPL-RT8310**Order No: **KM772306**TC No: **E-274**Date: **25-JAN-2021**

Inspector:



All accessories listed are 0 (zero) time since New or 0 (zero) time since Overhaul. All accessories are new unless part number is succeeded by -85 or -70

<u>Part Name</u>	<u>Part Number</u>	<u>Manufacture</u>	<u>Serial#</u>	<u>Setting</u>
Carburetor	61B26213	Avstar	AV28871226	AV10-5009
Crankcase Match No	11B20161-1SB		BB13942	
Crankshaft Serial No	13B47024-85		V537969966	
Cylinder 1	16A30080-02	Lycoming	38208564-030	
Cylinder 2	16A30080-02	Lycoming	38208564-028	
Cylinder 3	16A30080-02	Lycoming	38208564-031	
Cylinder 4	16A30080-02	Lycoming	38208564-034	
Fuel Pump	LW-15472	Lycoming	5120L0060	
Ignition Harness - Left	67P20407	SLICK		
Ignition Harness - Right	67P20406	SLICK		
Magneto - Left	66GC20SFNN	SLICK	20120869	Slick pn 4371
Magneto - Right	66GP-0SANN	SLICK	20100559	Slick pn 4370
Spark Plug	1182-E7	Champion		

**LYCOMING****Airworthiness Directive Compliance List**

652 Oliver Street Williamsport, PA 17701 U.S.A.

Sign for AD's Coded 1 (Applicable to engine Model)

Engine Model No: **O-320-E3D**Engine SN: **RL-24601-27E****25-JAN-21**

AD No. / Rev	SB / Rev	Description	Method of Compliance	Next Due	Code
59-10-07	254/A-Inactive	Cylinder Baffle Clamps	Baffle Hooks	N/A	1
69-24-03		Marvel Schebler MA-3-A, MA-3-PA, MA-3-SPA, MA-4-SPA, MA-4-5, MA-5, MA-4-5-AA, MA-6AA, and HA-6 Carburetors	Serviceable or unaffected unit installed	N/A-Once	1
73-23-01	367/F	Piston Pin inspection	Serviceable or unaffected unit installed	N/A-Once	1
75-08-09	381/385/B/C	Oil Pump Drive Shaft	Serviceable or unaffected unit installed	N/A-Once	1
80-06-05	449	Slick Electro Bulletin #1-80	Serviceable or unaffected unit installed	N/A	1
81-16-05		Slick Electro Magneto	Serviceable or unaffected unit installed	N/A-Once	1
87-10-06/R1	477/A	Inspection & rework of LW-18790 Rocker Arm Assembly	LW-18790 rocker arms not installed	N/A	1
90-04-06/R1	488/A	Propeller Governor Line Support	Installed prop governor line w/ steel nuts & fittings. N/A if not equipped w/ rear-mount prop governor & ext. oil line.	N/A	1
92-12-05	501/B	LW-14077 Piston Pin	Serviceable or unaffected unit installed	N/A	1
96-09-10	524	Oil Pump Impeller replacement	Serviceable or unaffected unit installed	N/A	1
97-15-11	527/C	Recall of Piston Pin P/N LW-14077	Serviceable or unaffected unit installed	N/A	1
98-01-06	498/B	Precision Airmotive MA-3, MA-3A, MA-3PA, MA-3SPA, MA-4SPA carbs	Serviceable or unaffected unit installed	N/A	1
98-02-08	530/B	Crankshaft ID Corrosion MPI, Urrethabond 104	Serviceable or unaffected unit installed	N/A	1
2012-03-07	N/A	Marvel-Schebler Emergency Service Bulletin (SB) No. SB-18	Serviceable or unaffected unit installed	N/A	1
2017-16-11	632/B	Inspect Conn Rod Bushing of engine SN in SB	Not affected by SB or replaced	N/A-Once	1
66-20-04	307	Oil Filter Adapter Gasket	AC oil filter not used	N/A	3
67-01-04		STC - Superior Flow Oil Filters	Used genuine Lycoming Parts		3
-11-11		Fuel Pump Aero Accessories, Inc. Mandatory Service Bulletin No. 001	Serviceable or unaffected unit installed	N/A-Once	3
93-19-04	504	Carburetor Overhauled by Consolidated	Serviceable or unaffected unit installed	N/A	3
95-26-02	398	Engine operated with Low Octane Fuel	Engine is new or rebuilt at Manufacturer	N/A	3
98-17-11	-	Crankshaft repaired by NELSON BALANCING SERVICE	Serviceable or unaffected unit installed	N/A	3
2004-10-14	475/C	Crankshaft Gear Modification and Assembly procedures	Serviceable or unaffected unit installed	N/A	3
2006-12-07	-	ECI Cylinder Assemblies P/N AEL65102	Used genuine Lycoming parts	N/A	3
2007-04-19/R1		SAP Cylinder assembly	Used genuine Lycoming parts	N/A	3
2009-26-12		ECI Cylinder assembly	Used genuine Lycoming parts	N/A	3



<b>Engine # :</b> RL-24601-27E	<b>Model # :</b> 0-320-E3D	<b>Order # :</b> KM772306	<b>Preservation :</b> LPS 486
<b>Operator 1:</b> A. COIMBRA	<b>Accept/Date :</b> <i>Keller</i>	<b>Test Mode :</b> Final	<b>Part 3.2 Test</b>
<b>Operator 2:</b>	<b>Accept/Date :</b> <i>1-20-21</i>	<b>BOM :</b> RENPL-RT8310	<b>Sign :</b> <i>[Signature]</i>
<b>Fuel Serial # :</b> AV28871226	<b>Ignition Left :</b> 20120869	<b>Ignition Right :</b> 20100559	<b>SW Rev :</b> LSW20001-B LCY
<b>Fuel Slave :</b> NO	<b>Ignit_L Slave :</b> NO	<b>Ignit_R Slave :</b> NO	<b>Barometer :</b> 29.92
<b>Fuel Curve :</b> C-13084	<b>Float Bowl Connected to Fuel Pump Inlet :</b> YES		<b>Read Time :</b> 1/20/21 14:43
<b>Pre-Oil Temp :</b> 165	<b>Pre-Oil Pres :</b> 88	<b>Setting # :</b> AV10-5009	<b>Test Status :</b> Pass
<b>ETS # :</b> 625	<b>ETS Rev :</b> ECO-20685	<b>Date/Time :</b> 1/20/21 14:06	

Comments	Variations
	<p>The following minor variations to the applicable engine test specification were observed during this test and determined to be acceptable 'as is'. The acceptance of these variations will not affect air worthiness or performance.</p> <p>1) <i>Fuel flow 0.97 PPH rich @ AF 900</i></p> <p>2) _____</p> <p>3) _____</p> <p>4) _____</p> <p>Engr. <i>J. Keller</i> Q.C. <i>[Signature]</i> Date <i>1/21/21</i></p>

When / Test	Low Limit	Value	High Limit	Status
<b>2 Runin @ 1500 for 5 min</b>				
Allowable Speed Variation (RPM)	-75	7	75	Pass
Cylinder Head Temperature (DegF)		297.4	500	Pass
Inlet Air Temp (DegF)	0	60.2	110	Pass
<b>5 Runin @ 1800 for 10 min</b>				
Allowable Speed Variation (RPM)	-75	3.2	75	Pass
Cylinder Head Temperature (DegF)		340.3	500	Pass
Inlet Air Temp (DegF)	0	61.6	110	Pass
<b>8 MagChk @ 1800 for 1 min</b>				
Magneto Dropoff - Each Mag (RPM)		126.7	150	Pass
Magneto Dropoff - Difference (RPM)		2.4	35	Pass
Cylinder Head Temperature (DegF)		340.9	500	Pass
Inlet Air Temp (DegF)	0	61.7	110	Pass
<b>10 Runin @ 2200 for 10 min</b>				
Allowable Speed Variation (RPM)	-75	5.9	75	Pass
Cylinder Head Temperature (DegF)		392.8	500	Pass
Inlet Air Temp (DegF)	0	62.3	110	Pass
<b>15 Idle @ Idle for 4 min</b>				
Idle Speed (RPM)	600	667.5	700	Pass
Cylinder Head Temperature (DegF)		290.1	500	Pass
Oil Pressure @ Idle (PSI)	25	50.3		Pass
Inlet Air Temp (DegF)	0	59.5	110	Pass



Std Airflow Data Sheet

Engine #: RL-24601-27E	Model #: 0-320-E3D	Order #: KM772306
Operator 1: A. COIMBRA	Accept/Date: <u>MLL</u>	Test Mode: Final
Operator 2:	Accept/Date: <u>1-21-21</u>	BOM: RENPL-RT8310
Fuel Serial #: AV28871226	Ignition Left: 20120869	Ignition Right: 20100559
Fuel Slave: NO	Ignit_L Slave: NO	Ignit_R Slave: NO
Fuel Curve: C-13084	Float Bowl Connected to Fuel Pump Inlet: YES	SW Rev: LSW20001-B LCY
Pre-Oil Temp: 165	Pre-Oil Pres: 88	Setting #: AV10-5009
ETS #: 625	ETS Rev: ECO-20685	Date/Time: 1/21/21 07:09
		Barometer: 29.92
		Read Time: 1/21/21 08:16
		Test Status: Review

Comments	Variations
	The following minor variations to the applicable engine test specification were observed during this test and determined to be acceptable 'as is'. The acceptance of these variations will not affect air worthiness or performance. 1) _____ 2) _____ 3) _____ 4) _____ Engr. _____ Q.C. _____ Date _____

When / Test	Low Limit	Value	High Limit	Status
<b>2 Airflow @ AF-300 for 4 min</b>				
Fuel Flow Limits (PPH)	23.3	24.18	26.9 @ AF-287	Pass
Cylinder Head Temperature (DegF)		320.3	500	Pass
Inlet Air Temp (DegF)	0	59.4	110	Pass
<b>4 Airflow @ AF-700 for 4 min</b>				
Fuel Flow Limits (PPH)	54.5	57.81	60.1 @ AF-700	Pass
Cylinder Head Temperature (DegF)		400.9	500	Pass
Inlet Air Temp (DegF)	0	62	110	Pass
<b>6 Airflow @ AF-900 for 4 min</b>				
Fuel Flow Limits (PPH)	69.4	76.37	75.4 @ AF-898	Review
Cylinder Head Temperature (DegF)		432.6	500	Pass
Inlet Air Temp (DegF)	0	62.1	110	Pass
<b>12 Rated @ Rated for 15 min</b>				
Rated Speed (RPM)	2650	2720.4	2750	Pass
Manifold Pressure @ Rated (InHg)	26.5	27.09	28.5	Pass
Fuel Pressure @ Rated (PSI)	1	3.3	6	Pass
Oil Pressure @ Rated (PSI)	75	79.5	85	Pass
Air Flow Limits (PPH)	900.6	954.4		Pass
Cylinder Head Temperature (DegF)		424.1	500	Pass
Oil Gallery Temp @ Rated (DegF)	165	179.4	215	Pass
Inlet Air Temp (DegF)	0	63.1	110	Pass
<b>15 Final_Idle @ Idle for 4 min</b>				
Idle Speed (RPM)	600	683.6	700	Pass
Cylinder Head Temperature (DegF)		319.7	500	Pass
Oil Gallery Temp @ Final_Idle (DegF)	140	165.4	215	Pass
Oil Pressure @ Idle (PSI)	25	48.7		Pass
Manifold Pressure @ Final Idle (In Hg)	8	14.5	17	Pass
Inlet Air Temp (DegF)	0	59	110	Pass
<b>17 Manual @ N/A for 0 min</b>				
Acceleration Check (sec)	2	4	5	Pass
Idle Cut-off Time (sec)	0	5	5	Pass