

Bottom end data sheet

Customer Greg Johnson Date received 5-3-02 Work order # 1640  
 Engine make Lycoming Model 0320E2G Serial L-46162-27A Total time 2440.17  
 #1 #2 #3 #4 Hobbs 2,576.6

		Front	FrontRear	Center	Rear
M.003	Crankshaft Mains				
	Main Journal Diameter OD.	2.3726	2.3728	2.3728	2.3726
	Out of round Mains	-.0001	-.0002	-.0003	-.0001
	Run Out Mains			.0010	
	Flange Run Out .0013		Prop Pilot Run Out .0018		
M.003	Connecting Rod Journal OD.	2.1220	2.1219	2.1220	2.1219
	Out of Round Rod Journal	-.0002	-.0002	-.0002	-.0001
	Crankcase thrustuds, center shank OD	.5001 - .5004 all four			
	Thrustud holes in crankcase ID	.5006 - .5016			

Q+8 SL78027 Bolts, connecting rod, Shank OD .3807 all eight  
 Bolt holes in connecting rods and caps ID .3812 - .3819 all sixteen

4	Connecting Rods 78030 Repaired & Yellow tagged by Aircraft Specialties. Re bushed				
	Bushing Diameter ID.	1.1259	1.1259	1.1259	1.1260
	Alignment Twist 4.001"per1"	OK	OK	OK	OK
	Alignment Parallel 2.001"per1"	OK	OK	OK	OK
	Rod & Crankshaft side CL.	.0070	.0075	.0075	.0070
	Part # 61155 Gear Crank Shaft OD.	2.1263 Repair & Yellow tagged by Aircraft Specialties			
	Crank Shaft gear Boss in Crankshaft ID.	2.1251 Gear installed Per SB 475B			
1 new	Part # ST0243 Bolt, Crank Gear Mounting Installed, Final Torque of 17 lbs = Lock Down				

	Crankcase				
	Main Journals in Case ID.	2.5675	2.5675	2.5679	2.5677
	Main Journals Out of Round	-.0002	-.0003	-.0002	-.0004
	Cam Journals in Case ID.	1.0304		1.0304	1.0307
	Cam Journals Out of Round	-.0002		-.0002	-.0005
	Camshaft Part# 76097 Original, Ground & Yellow tagged by Aircraft Specialties				
	Camshaft Journals OD.	1.0275		1.0274	1.0276
	Tappet Bosses in Case ID.	.7193	-.7197 All eight		
Q+8	Part# 72877 Tappet Body OD.	.7166 ex	-.7170 int All eight Reground & yellow tagged		

	Crankshaft Seal Boss ID.	3.3120	OR	-.0020	
	Crankcase Flatness at Parting Surface, Less than .0030 deviation				

	Left Idler Gear Post Boss in Case ID.	.6246	Post Case End OD.	.6235
	Right Idler Gear Post Boss in Case ID.	.6246	Post Case End OD.	.6235
	Left Idler Post, Gear End OD.	.6235	Idler Gear Bushing ID.	.6261
	Right Idler Post, Gear end OD.	.6232	Idler Gear Bushing ID.	.6261

	Crankshaft End Clearance	Ref 506 .011
	Camshaft End Clearance	Ref 507 .0045 .0045

Rear section data sheet

Customer Greg Johnson Date received 5/3/02 Work order # 1640  
 Engine make Lycoming Model 10-320-E26 Serial L-46162-37A Total time 2440.17

Oil Pump  
 Pump Housing Depth .7515-.7518  
 ew Driven Impeller Shaft OD. .4975 Width .7485 CL. on Diameter .004 Marked C  
 ew Drive Impeller ID. .7502 Width .7485 CL. on Diameter .0035 Marked N  
 ew Impeller Drive Shaft PE61174 Accessory End OD. .5926 Cover & Gear Mounting OD. .7480  
 Accessory Case Driven Shaft Boss ID. .4999 Oil hole previously drilled  
 Drive Shaft Boss ID. .5952  
 Pump Housing, Driven Shaft Boss ID. .5000  
 Drive Shaft Boss ID. .7502

Tachometer Drive Shaft OD. .4350 Tachometer Drive Shaft Boss ID. .4378

Fuel Pump Push Rod OD. .3106 Fuel Pump Push Rod Boss ID. .3123

Vacuum Pump Drive Gear Shaft OD. .8723 Vacuum Pump Drive Adapter ID. .8749

Gear Back Lashes

ef 803 Camshaft and Crankshaft idler .008  
 ef 804 Left Crankshaft idler crankshaft .014  
 et 804 Right Crankshaft idler crankshaft .007

Top end data sheet

Customer Greg Johnson  
 Engine make Lycoming

Date received 5/3/02  
 Model D-320-E26

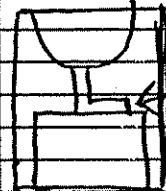
Work order # 1640  
 Serial L-46162-27A Total time 2440.17

Factory new Lycoming O5K21100 cylinder Kits Per Precision Engine STC SE682 NE

		#1	#2	#3	#4	
4 new	Cylinders					
	Bore Diameter	ID. 5.1265	5.1256	5.1265	5.1255	
	Choke	.0085	.0080	.0090	.0093	
	Out of Round	-.0005	-.0002	-.0013	-.0005	
	Barrel surface	Nitride	Nitride	Nitride	Nitride	
	Intake Guide	ID. .4047	.4047	.4047	.4047	
	Exhaust Guide	ID. .4993	.4993	.4993	.4993	
CK4	Intake Valve 73938	OD. .4027	.4027	.4027	.4027	
CK4	Exhaust Valve LW19001	OD. .4939	.4939	.4939	.4939	
	Intake seats	Ground 30°, lapped, blued, and leak checked.				
	Exhaust seats	Ground 45°, lapped, blued, and leak checked.				
CK8	Valve springs LW11800 .187 wire	Large compressed tool .20 = 118 - 123				Lbs.
		Med. compressed tool = -				Lbs.
CK8	LW1195 .135 wire	Small compressed tool .17 = 64 - 67				Lbs.
CK16	Rocker shaft bosses Head	ID. .6258	thru .6260	all sixteen		
4 new	Rocker shafts 13790	OD. .6243	.6243	.6243	.6243	
rebush	Rocker arm Bushing	ID. .6258 - .6263	all 8, installed @ +8.7463"		bushing - sized	
	Rocker arm side CL.	Int. .009	.006	.008	.007	
		Exh. .009	.007	.008	.009	
	Dry Lifter CL.	Int. .072 - 14	.045 - 14	.058 - 14	.038 - 14	
		Exh. .052 - 14	.043 - 14	.063 - 13	.039 - 14	
CK4	Pistons 75089					
	Skirt Diameter	OD. 5.1175	5.1175	5.1177	5.1177	
	Pin Hole Diameter	ID. 1.1250	1.1250	1.1250	1.1250	
	Piston ring gap					
CK4	1st 74241	.054	.052	.053	.050	
CK4	2nd 74241	.056	.055	.053	.051	
CK4	3rd 14421950	.027	.024	.026	.023	
	4th					
	Piston ring Side CL.					
	1st	.004	.004	.004	.004	
	2nd	.003	.003	.003	.003	
	3rd	.0025	.0025	.0025	.0025	
	4th					
CK4	Piston Pins LW14078	OD. 1.1243	1.1243	1.1243	1.1243	Heavy wall
		ID.				
	Piston Pin & plug	OAL. 5.085	5.0865	5.0864	5.0848	
CK8	Piston Pin Plug 72198	OD. 1.1241 thru	1.1243	all eight		Aluminum Bronze.

8 78290 Hyd units, used servicable, inspected in accordance with Maintenance Manual

8 Push rod sockets, used servicable



Oil slot