SECTION 3 OPERATING INSTRUCTIONS

LYCOMING OPERATOR'S MANUAL O-235 AND O-290 SERIES

(3) Landing Approach – In making an approach for a landing, carburetor air heat should usually be in the "Full Cold" position. However, if icing conditions are known or suspected, then "Full Heat" should be applied. In the case that full power need to be applied under these conditions, as for an aborted landing, the carburetor heat should be returned to "Full Cold" prior to power application. See aircraft flight manual for specific instructions.

8. ENGINE FLIGHT CHART

Fuel and Oil -

Model	*Aviation Grade Fuel
О-235-С, -Е, -Н2С	
O-235-F, -G, -J, -K, -L, -M, -N, -P	
O-290-D, -D2	

* - Refer to latest revision of Service Instruction No. 1070.

NOTE

Aviation grade 100LL fuels in which the lead content is limited to 2 c.c. per gallon are approved for continuous use in the above listed engines.

	**Recommended Grade Oil		
Average	MIL-L-6082	MIL-L-22851 Ashless Dispersant	
Ambient Air	Grades	Grades	
All Temperatures		SAE 15W50 or 20W50	
Above 80°F (26.6°C)	SAE 60	SAE 60	
Above 60°F (15.5°C)	SAE 50	SAE 40 or SAE 50	
30°F (-1.11°C) to 90°F (32.2°C)	SAE 40	SAE 40	
0°F (-17.8°C) to 70°F (21.1°C)	SAE 30	SAE 40, 30 or 20W40	
Below 10°F (-12.2°C)	SAE 20	SAE 30 or 20W30	

** - Refer to the latest revision of Service Instruction No. 1014.

	O-235 Series	O-290-D, -D2 Series
Oil Sump Capacity Minimum Safe Quantity of	6 Qts.	8 Qts.
Oil in Sump	2 Qts.	2 Qts.

It is recommended that the lubricating oil be changed every 50 flying hours (or every 25 hours, if engine does not have a full-flow oil filter).

LYCOMING OPERATOR'S MANUAL O-235 AND O-290 SERIES

OPERATING CONDITIONS

Oil Pressure, psi -

Model	Maximum	Minimum	Idling	Start and Warm-Up
O-235 –C, -E, -F, -G, -H2C, -J,				
-K, -M	90	60	25	100
О-235-В	90	60	15	100
O-235-L*, -N	90	60	15	115
O-235-P	90	55	15	115
O-290-D	85	60	25	
O-290-D2	90	60	25	100
* - Front of engine	90	50	15	
Fuel Pressure, psi –				
Model		Maximum	Desire	d Minimum
All O-235 models, O-290-D2		8	3	0.5
O-290-D		5	3	0.5

Average Ambient Air	Oil Inlet T	emperature	
Temperature	Desired	Maximum	
Above 60°F (15.5°C)	180°F (82°C)	245°F (118°C)	
30°F (-1.11°C) to 90°F (32.2°C)	180°F (82°C)	245°F (118°C)	
0°F (-17.8°C) to 70°F (21.1°C)	170°F (77°C)	245°F (118°C)	
Below 10°F (-12.2°C)	160°F (71°C)	245°F (118°C)	

Engine oil temperatures should not be below 140°F (60°C) during continuous operation.

О-235-С, -Е

Operation	RPM	HP	Fuel Cons. Gal./Hr.	Max. Oil Cons. Qts./Hr.	*Max. Cyl. Head Temp.
Normal Rated	2800	115	10.7	0.52	500°F (260°C)
(75% Rated)	2350	86	7.3	0.29	500°F (260°C)
(65% Rated)	2250	75	5.8	0.25	500°F (260°C)

* - At Bayonet Location – For maximum service life of the engine, maintain cylinder head temperatures between 150°F (65°C) and 400°F (204°C) during continuous operation.