



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

### TYPE CERTIFICATE DATA SHEET Nº EM-2012T12

Type Certificate Holder:

**LYCOMING ENGINES – AVCO CORPORATION**

652, Oliver Street  
Williamsport, Pennsylvania, PA 17701  
**USA**

EM-2012T12

Sheet 01

LYCOMING

AEIO-580-B1A

05 October 2012

---

Engines of models described herein conforming with this data sheet, which is part of Type Certificate No. 2012T12, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other instructions.

<b>MODEL</b>	AEIO-580-B1A
<b>TYPE</b>	6HOA Direct Drive
<b>RATINGS</b>	AEIO-580-B1A
	Max. continuous, hp. - rpm. full throttle at:
	Sea level pressure altitude: 315-2700
	Takeoff, hp. - rpm full throttle at:
	Sea level pressure altitude: 315-2700

<b>MODEL</b>		AEIO-580-B1A
<b>FUEL TYPE</b>	(minimum grade aviation gasoline)	100/100LL
<b>FUEL PUMP DRIVE</b>		See Note 3
<b>INJECTION</b>	Precision Airmotive Corp (PAC).	PAC RSA-10ED1 or Lycoming FM-250
<b>OIL, LUBRICATION</b>	Lubricants should conform to the Service Instruction N° 1014 specifications as listed or to subsequent revisions thereto.	
<b>BORE AND STROKE</b>	mm (in)	135.1 x 111.1 (5.319 x 4.375)
<b>DISPLACEMENT</b>	L (cu.in)	9.55 (583)
<b>COMPRESSION RATIO</b>		8.9:1
<b>IGNITION</b>	Dual	Slick 6393 (left) 6350 (right)
<b>C.G. LOCATION</b>	(Dry with starter installed) From front face of propeller mounting flange, mm (in)	460.5 (18.13)
	Off propeller shaft center line (vertical), mm (in)	12.7 (0.50) below
	Off propeller shaft center line (lateral), mm (in)	23.9 (0.94) left
<b>TIMING, °BTC</b>		20
<b>SPARK PLUGS</b>		See Note 4

<b>MODEL</b>		AEIO-580-B1A		
<b>OIL SUMP CAPACITY</b>	L (qts)	15.1 (16)		
	Usable oil L (qt.), Normal operation 20° nose up or down	5.9 (6.2) up		
	Minimum safe oil L (qt.), Aerobatic operation 37° nose up and 25° nose down	5.3 (5.6) down		
		8.5 (9.0)		
<b>WEIGHT (DRY)</b>	Less Started and Alternator, kg (lb)	202.3 (446)		
<b>PROPELLER SHAFT</b>	Specification A.S. 127	Type 2 Flange Modified		
<b>APPLICABLE NOTES</b>		1,2,3,4,6,8		
<b>IMPORT REQUIREMENTS</b>	Each engine imported separately and/or spare parts must be accompanied by an Airworthiness Certificate for Export and/or an Airworthiness Approval Tag, respectively, issued by FAA, attesting that the particular engine and/or parts were submitted to the governmental quality control before delivery and are in conformity with the ANAC approved type design.			
<b>CERTIFICATION BASIS</b>		<u>Model</u>	<u>Application</u>	<u>Issued TC</u>
	Brazilian Requirements for Aeronautical Certification – RBHA 33, which endorses FAR 33 effective February 1, 1965 amendments -1 through -20	AEIO-580-B1A	03 Feb. 2012	05 October 2012

**NOTES:**

<b>NOTE 1</b>	<u>Maximum permissible temperatures:</u>	AEIO-580-B1A
	Cylinder head (well type thermocouple), C° (F°)	240.5 (465)
	Oil gallery, C° (F°)	118.3 (245)

**NOTE 2** Pressure limits:

		Minimum	Maximum	Minimum Idle
Fuel	p.s.i. at inlet to fuel pump	-2	65	#
	p.s.i. at inlet to fuel injector	29	65	12
Oil	Normal operation, p.s.i.	55	95	
	Idling, p.s.i.	25	#	
	Starting, warm-up, taxi and take off, p.s.i.	#	115	

**NOTE 3** Accessory Drive Provisions: For additional information on engine drives, refer to Lycoming Operator's Manual.

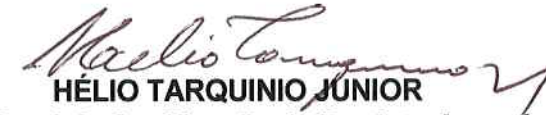
Accessory	AEIO-580-B1A	Rotation facing Drive Pad	Speed Ratio to Crankshaft	Max. Torque N.m (in.-lb.)		Max. Overhung Moment N.m (in.-lb.)
				Cont	Static	
Starter	*	CC	16.556:1	#	50.84 (450)	16.95 (150)
Alternator	*	C	3.2:1	6.80 (60)	13.56 (120)	19.80 (175)
Accessory # 1	*	CC	1.300:1	7.90 (70)	50.84 (450)	2.82 (25)
Hydraulic Pump	*	C	1.385:1	11.30 (100)	90.39 (800)	4.52 (40)
Tachometer	*	C	0.500:1	0.79 (7)	5.65 (50)	0.56 (5)
Prop. Governor	*	C	0.947:1	14.10 (125)	248.57 (2200)	2.80 (25)
Fuel Pump		Plunger	0.500:1	#	#	1.13 (10)
Fuel Pump	*	CC	1.000:1	2.80 (25)	50.84 (450)	2.80 (25)

"C" Clockwise      "CC" Counter Clockwise

**NOTE 4** Spark Plugs: See latest revision of Lycoming Service Instruction N° 1042 for approved equipment.**NOTE 5** Reserved**NOTE 6** Accessories and Equipment: Starters and Alternators approved for use on this engine are listed in the latest revisions of Lycoming Service Instruction N° 1154.

NOTE 7 Reserved

NOTE 8 This engine incorporates provisions for absorbing propeller thrust in both tractor and pusher type installations.



**HÉLIO TARQUÍNIO JÚNIOR**  
**Gerente Geral de Certificação de Produto Aeronáutico**  
**(General Manager, Aeronautical Product Certification)**