

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

7E1 Revision 3 BMW GO-480-B1A6 March 28, 2007

TYPE CERTIFICATE DATA SHEET NO. 7E1

Engines of models described herein conforming with this data sheet (which is a part of type certificate No. 7E1) and other approved data on file with the Federal Aviation Agency meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portion of the Civil Air Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	BMW Triebwerkbau G.m.b.H. Munich 68 Federal Republic of Germany
Model	BMW GO-480-B1A6
Type 6HOA, reduction gear ratio	77:120
Rating	
Max. continuous, hp., r.p.m., full throttle at:	
Sea level pressure altitude	260-3000
Takeoff (5 min.), hp., r.p.m., full throttle at:	
Sea level pressure altitude	270-3400
Fuel (Min. grade aviation gas.)	80/87
Lubricating oil	MIL-L-6082 or Lycoming Spec. No. 301-D
Bore and stroke, in.	5.125 X 3.875
Displacement, cu. in.,	479.7
Compression ratio	7.3:1
Weight (dry) lb.	432
C.G. location (dry), in.	
(See Lycoming Dwg. No. 63050)	
From face of thrust bearing nut-surface "y"	19.37
From propeller shaft C.L.	0.27 below 0.36 right viewed from rear end of the engine
Propeller shaft, SAE No.	20 spline
Carburetor	Bendix-Stromberg PS-58D carburetor
Ignition, dual	Scintilla S6-LN-20-21 magnetos
Ignition, Timing, °BTC	25
Spark plugs	Champion REM 39N or equivalent spark plugs according to Lycoming Service Bulletin No. 175H dtd 31 Dec 58
Oil sump capacity, qt.	12
Usable oil sump capacity, qt.	9.25

CERTIFICATION BASIS

CAR 10. Type Certificate No. 7E1 issued October 18, 1960.
Date of Application for Type Certificate March 14, 1960.

The aviation authority for the **Federal Republic of Germany Luftfahrt-Bundesamt (LBA)**, originally type certificated this engine. The FAA validated this product under U.S. Type Certificate Number 7E1. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the **Federal Republic of Germany**.

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IMPORT REQUIREMENTS

To be considered eligible for installation on U.S. registered aircraft, each new engine to be exported to the United States with a **Federal Republic of Germany LBA** or EASA airworthiness approval shall have a Joint Aviation Authorities (JAA) or EASA Form 1, Authorized Release Certificate. The JAA or EASA Form 1 should state that the engine conforms to the type design approved under the U.S. Type Certificate 7E1, is in a condition for safe operation and has undergone a final operational check.

NOTE 1. Maximum permissible temperatures:

Cylinder head (well-type thermocouple) 475°F
Cylinder barrel 325°F
Oil inlet 225°F

NOTE 2.

	<u>Min.</u>	<u>Max.</u>
Fuel pressure limits	11 p.s.i.	15 p.s.i.
Oil pressure limits:		
(Normal operation)	65 p.s.i.	85 p.s.i.
(Idling)	25 p.s.i.	

NOTE 3. The following accessory drive provisions are available:

	<u>*Direction of Rotation</u>	<u>**Speed</u>	<u>Maximum Torque</u> (in.-lb.)		<u>Max. Overhang Moment</u> (in.-lb.)
			<u>Continuous</u>	<u>Static</u>	
			Starter	C	
Generator	C	2.577:1	90	250	200
Fuel pump	C	1.000:1	50	450	10
Tachometer	C	.500:1	7	50	5
Vacuum pump (or Hydraulic pump)	C	1.333:1	100	800	25
Prop. gov.	C	.801:1	125	825	—

* "C" - clockwise, facing engine pad

** Speed - Times crankshaft r.p.m.

NOTE 4. The GO-480-B1A6 series engine incorporates a crankshaft with five 3rd order and one 6th order torsional vibration dampers.

NOTE 5. This engine incorporates provisions for absorbing propeller thrust in both tractor and pusher type installations.

NOTE 6. Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or, for approvals made before September 28, 2003 by the **Federal Republic of Germany Luftfahrt-Bundesamt**. Any such documents including those approved under a delegated authority, are accepted by the FAA and are considered FAA approved.

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

These approvals pertain to the type design only.

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