

U.S DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION TYPE CERTIFICATE DATA SHEET E00060EN	TCDS NUMBER E00060EN REVISION: 7 DATE: JANUARY 28, 2015 TRACE ENGINES, LP MODELS: OE600A & TE600D
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Engines of models described herein conforming with this data sheet (which is part of Type Certificate number E00060EN) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations, provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

TYPE CERTIFICATE (TC) HOLDER: Trace Engines, LP
 3000 West Interstate 20
 Midland, Texas 79701

TYPE CERTIFICATE HOLDER RECORD: Orenda Recip, Inc. transferred TC E00060EN to
 Trace Engines, LP on June 30, 2006

1. MODELS	OE600A	TE600D	
TYPE	An eight cylinder reciprocating engine in a 90° "V" configuration, aluminum block with iron cylinder liners, with a geared propeller drive and two valves per cylinder operated by pushrods off a single camshaft. The engine is fuel injected, turbosupercharged, liquid cooled, dry sump lubricated with a rear mounted accessory gearbox and magneto type ignition system.		
RATINGS (See NOTE 1)			
Max. continuous, hp., engine rpm	500-4200	500-4200	
Takeoff (5 min.) hp., engine rpm	600-4400	600-4400	
Manifold pressure (in. Hg)			
Max. continuous	50.0	50.0	
Takeoff	52.0	50.0	
Critical altitude (ft)			
Max. continuous	20,000	20,000	
Takeoff	10,000	10,000	
REDUCTION GEAR RATIO	0.4675:1	0.4675:1	
FUEL (See NOTE 3)			
Min. grade aviation gasoline	100LL (Blue)	100LL (Blue)	
Temperature (°F) at fuel pump, max.	150	150	
OIL, LUBRICATION	Refer to Maintenance Manual, Chapter 72		
Approved oils			
Temperature	See NOTE 2	See NOTE 2	
Pressure	See NOTE 3	See NOTE 3	
Capacity, min. (US qts)	16	16	
IGNITION (dual)	TCM/Bendix S-1200 series		
Magnetos	38±1		
Timing (degrees BTC)	Two per cylinder. Refer to Installation Manual Section 3.5.3 for approved spark plug types.		
Spark Plugs			

*PAGE	1	2	3
REV.	7	7	6

Description: revised note 3 to psig from psia

LEGEND: "- -" INDICATES "SAME AS PRECEDING MODEL"
"..." "NOT APPLICABLE"
NOTE: SIGNIFICANT CHANGES ARE BLACK-LINED IN THE LEFT MARGIN.

1. MODELS (cont.)	OE600A	TE600D	
BORE AND STROKE – in.	4.433 x 4.000	4.433 x 4.000	
DISPLACEMENT, cu. in.	495	495	
COMPRESSION RATIO	8.0:1	8.0:1	
TURBOCHARGER	See NOTE 5	See NOTE 5	
WEIGHT (dry) lb. Includes all engine supplied, engine mounted components, and the fuel servo, turbocharger, wastegate, wastegate controller, and pressure relief valve.	730	710	
C.G. Location	Refer to Installation Manual Section 1.3		
PROPELLER SHAFT Propeller mounting flange	ARP880A	ARP880A	
PRINCIPAL DIMENSIONS (in)	Refer to Installation Manual Figure 1	Refer to Installation Manual Figure 1	

CERTIFICATION BASIS

FAR 33, effective February 1, 1965, Amendments 33-1 through 33-15 inclusive.

TYPE CERTIFICATE E00060EN

MODELS	APPLICATION DATE	ISSUED/AMENDED
OE600A	DEC 12, 1994	MAY 8, 1998
TE600D	DEC 16, 2010	JANUARY 21, 2015

NOTES

NOTE 1. The engine ratings are based on dry sea level static ICAO standard atmosphere conditions and include extraction of airframe services equivalent to 18 HP. The quoted ratings are obtainable on a test stand with the specified fuel and oil, with intake, exhaust and induction system parameters as defined in the Installation Manual.

The allowable power operating envelope at altitudes above the standard density critical altitude for Maximum Continuous power of 20,000 feet is defined in the Installation Manual Section 1.5.

NOTE 2. MAXIMUM PERMISSIBLE TEMPERATURES:

Engine Coolant	240°F
Engine Oil	230°F
Exhaust Gas Turbocharger Inlet Temperature (T.I.T.)	OE600A 1650°F
	TE600D 1750°F

NOTE 3. FUEL & OIL PRESSURE LIMITS

Engine Oil Pressure Limits (psig)	Idle – 40 Min – 60 Max – 120
Fuel Pump Inlet Pressure (psig)	Min – 0 Max – 60
Fuel Servo Inlet Pressure (psig)	Min – 50 Max – 115

NOTE 4. ACCESSORY DRIVE PROVISIONS

Accessory Drive Pad	Rotation Facing Drive Pad	Drive Ratio	Max Torque (in-lb.)		Max Weight (lb.)	Max Overhang Moment (in-lb.)
			Continuous	Static		
Tachometer	CW	0.50:1	4.0	75	1.0	1.5
Propeller Governor	CW	0.61:1	8.8	375	3.7	9.1
Alternator	CCW	1.76:1	37.7	825	12.75	44.6
Customer Service (2)	CW	1.00:1	48.0	375	3.2	8.7
	CW – Clockwise		CCW – Counter Clockwise			

NOTE 5. Turbochargers approved for use on the OE600A engine are AlliedSignal model TA94 as listed in OE600A Bill of Material T15000, and Hartzell Technologies T81 as listed in TE600D Bill of Material T15005-1

NOTE 6. Deleted

NOTE 7. The Instructions for Continued Airworthiness required by FAR Part 33 have been approved for the OE600A. This Revision, Rev #6 is evidence that the Instructions for Continued Airworthiness required by FAR Part 33 have been approved for the TE600D.

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