

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

E2PC Revision 1 XENOAH G72C-C  September 11, 1979
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**TYPE CERTIFICATE DATA SHEET NO. E2PC**

Engines of model described herein conforming with this data sheet (which is a part of Type Certificate No. E2PC) 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 manual and other approved instructions.

Type Certificate Holder	Xenoah Company 142-1, Sakuragaoka-2 Higashiyamato Tokyo 189, Japan	
Model	G72C-C	
Type (2 stroke cycle)	3LA	
Rating, standard atmosphere	Maximum continuous hp, rpm, sea level pressure altitude	54-6080-S.L.
	Takeoff (5 minutes) hp, rpm, full throttle, S.L. pressure altitude	60-6080-S.L.
Fuel, aviation gasoline (min. grade)	100/130	
Lubricating oil	Shell Super Two Stroke Oil No. WO-ST5-(dil)b CITGO Oil No. 93734	
Ignition, timing (BTC)	18 degrees at 6000 rpm, automatic advance to rpm	
Bore and stroke in. (mm)	2.835 x 2.343 (72mm x 59.5mm)	
Displacement, cu. in. (c.c.)	44.34 (726.7 c.c.)	
Compression ratio	7:1	
Dimensions, in. (mm)		
Length	22.20 (564mm)	
Width	17.40 (443mm)	
Height	15.35 (390mm)	
Weight (dry) lb. (Kg)	Total, including exhaust system	156.95 (71.2Kg)
	Base engine, with components and a starter (an accessory)	130.95 (59.4Kg)
	Alternator and bracket	7.93 ( 3.6Kg)
	Bracket for vacuum pump	0.88 ( 0.4Kg)
	Exhaust system	17.19 ( 7.8Kg)
CG. location, in. (mm) without exhaust tuner, silencer and tail pipe		
	From crankcase PTO end to inward	7.638 (194mm)
	From engine center line to upward	2.894 (73.5mm)
	From center line toward exhaust side	0.354 (9mm)

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LIST OF ACCESSORIES				
SYSTEM	COMPONENT	XENOAH PART NO.	MAKE	NUMBER OF COMPONENTS
Fuel	Carburetor	2720-81002	Mikuni Kogyo Co.	3
	Air Controller	2720-85500	Mikuni Kogyo Co.	1
	Fuel Pump	2720-82001	Mikuni Kogyo Co.	2
	Mixture Control	*	--	1
	Fuel Filter	*	--	1
Lubrication	Oil Pump	2720-8300	Mikuni Kogyo Co.	1
	Flow Indicator	*	--	1
Ignition (Dual)	Flywheel Magneto	2720-71000	Kokusan Denki Co.	1
	Capacitor Discharge Ignition (CDI)	2720-72000	Kokusan Denki Co.	1
	Spark Plugs	2720-79110	Champion N-28V	6
Starter	Motor	2720-76002	Hitachi, Ltd.	1
	Solenoid Switch	2720-78000	Hitachi, Ltd.	1
Electrical	Alternator	2720-77000	Mitsubishi Electrical Corporation	1
Exhaust	Manifold Ball Joints Tuner Silencer Tail Pipe	Ref. Xenoah Exhaust Kit PN 2720-95000		

\*Provided by aircraft manufacturer.

Power-Takeoff (PTO) Shaft

Counter-clockwise (viewing engine) direct to crankshaft.

Certification basis

FAR Part 21, Section 21.29

FAR Part 33, effective February 1, 1965, including Amendments 33-1 through 33-6.  
Application for Type Certificate dated October 28, 1975.

Equivalent level of safety determined for following:

1. FAR 33.7(b) (4) (ii)
2. FAR 33.39(b) and (c)

Import requirement

Each engine must be accompanied by a Japanese Certificate of Airworthiness for Export signed by a representative of the Japan Civil Aviation Bureau containing the following notation: "The engine covered by this certificate has been examined, tested, and found to conform to the type design approved under U.S. Type Certificate No. E2PC and to be in a condition for safe operation."

NOTE 1.

Maximum permissible temperatures:

Spark plug gasket thermocouple 356°F (180°C)

Exhaust manifold gas thermocouple 1,148°F (620°C)

NOTE 2.

Pressure limits:	Maximum		Minimum	
	p.s.i.	(Kg/cm2)	p.s.i.	(Kg/cm2)
Fuel pump inlet	7.1	(0.5)	-0.8	(-0.06)
Carburetor inlet	7.1	(0.5)	2.8	(0.2 )
Oil pump inlet	2.1	(0.2)	0	0
Oil pump inlet	4.3	(0.3)	2.8	(0.2 )

NOTE 3.

Accessory drive provisions:

Accessory Drive	Rotation Facing Drive Pad	Speed Ratio to Engine	Maximum Torque (in.-lb.)		Maximum Overhang Moment (in.-lb.)
			Continuous	Static	
Starter	C	9.2:1	--	--	--
Alternator	*C	1.13:1	26.0 (2500 rpm)	8.7	--
Bracket, for vacuum pump	*C	--	--	--	--
Fuel pump	--	1 pulse:1	--	--	Not supported by engine
Oil pump	C	0.5:1	--	--	--
Tachometer generator	--	3Hz:1	--	--	--

\* - Optional accessories.

"C" - Clockwise

NOTE 4.

The Model G72C-C engine is eligible for installation on fixed-wing aircraft. Installation instructions contained in Xenoah's Manual XEDR 35-28.

NOTE 5.

No thrust bearing installed on power takeoff (PTO) shaft. PTO shaft is prohibited from thrust loads and is limited to a maximum radial load of 440 lbs. (200 Kg).

NOTE 6.

Engine prohibited from operating in an inverted attitude.

NOTE 7.

Direct installation of a propeller to the engine PTO shaft is prohibited.

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