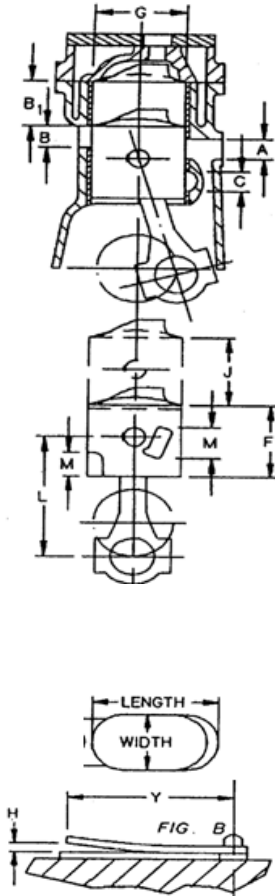


Date: 1-15-2015
 Model Year: 2006

RACE CLASS: SST-120

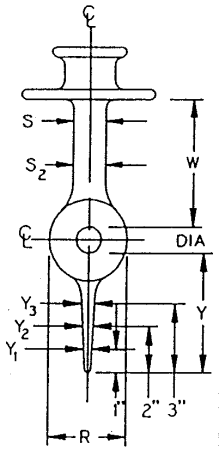
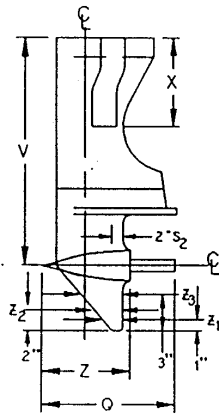


MANUFACTURER				MERCURY			
ADVERTISED SALES NAME				SST-120			
CLASS-DISPLACEMENT MAX				in ³	121.9		
NUMBER OF CYLINDERS				6			
MIN. VOLUME OF COMBUSTION CHAMBER (INC'L SPARK PLUG HOLE)				cm ³	32.0		
CARBURETOR	VENTURI		±.015	in	1.312		
	BORE		±.015	in	1.562		
	QUANTITY PER ENGINE		3 DUPLEX				
POWERHEAD SPECIFICATIONS	G	CYLINDER BORE	±.003	in	3.125		
	J	PISTON STROKE	±.011	in	2.650		
	L	ROD LENGTH	±.006	in	5.500		
	K	DECK HEIGHT	±.012	in	8.310		
	F	PISTON LENGTH	±.030	in	2.80		
	M	PORT HEIGHT	±.030	in	2@1.03;1@0.844		
	NUMBER OF PORTS PER CYLINDER	A	TRANSFER	3			
		B	EXHAUST	1			
		C	PISTON	-			
	PORT HEIGHT	A	TRANSFER	±.035	in	1@1.860 2@0.640	See Note # 9, 16
		B	EXHAUST	±.035	in	1.025	See Note # 10, 11, 16
		B ₁	EXHAUST	±.035	in	1.545	See Note # 16
		C	PISTON	±.035	in	-	
	PORT TIMING	A	TRANSFER	±2°	ATC	118°	See Note # 9, 16
		B	EXHAUST	±2°	ATC	92.7°	
		C	PISTON	±2°	ATC	--	
	REED BLOCK (ONE CYLINDER)	# OF PORTS		8			
		LENGTH x WIDTH SIZE OF PORTS		MAX	in	8 Port = 1.05x0.63 10 Port = 1.10x0.56	
		REED MAT'L		ANY			
		REED THICKNESS		±.001	in	ANY	
		H	REED STOP HGT.	MAX	in	None	
		Y	CHECKING DIS.	±.030	in	None	
	WEIGHT (ONE SET)	FLYWHEEL		MIN	lbs	6.6	
		PISTONS, RINGS, ROD, WRIST PIN, SPACERS, BEARINGS		MIN	lbs	1.7	

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Date: 1-15-2015
 Model Year: 2006

RACE CLASS: SST-120



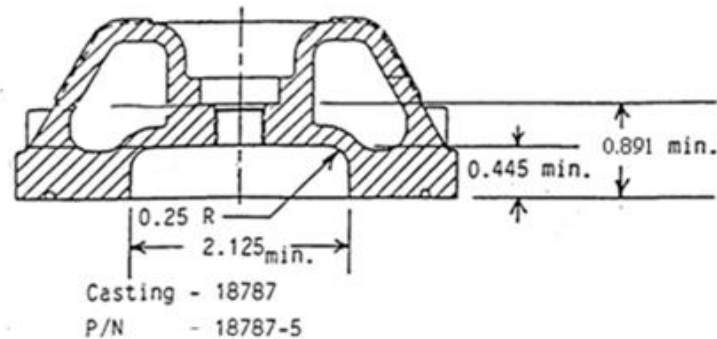
MANUFACTURER				MERCURY	MERCURY			
GEARCASE MODEL IDENTIFICATION				SST-120	SST-120			
ADVERTISED SALES NAME				VI SSM	IV SSM			
GEAR RATIO				14:15	15:17			
GEARCASE SPECIFICATIONS	X	EXHAUST TUBE LENGTH- POWERHEAD BASE TO PRIMARY TUBE END	±.25	in	9.6/10.6 SEE NOTE # 12, 13	9.6/10.6 SEE NOTE # 12, 13		
	Q	TORPEDO LENGTH (W/ PROPSHAFT)	MAX	in	20.25	22.65		
	R	TORPEDO WIDTH	MIN	in	2.25	2.54		
	S	STRUT WIDTH	MIN	in	1.17	1.57		
	S ₂	STRUT WIDTH (2" FORWARD OF TRAILING EDGE)	MIN	in				
	W	DIS. FROM PROPSHAFT TO CAVITATION PLATE	±.2	in	7.37	7.37		
	Y	LENGTH OF SKEG FROM PROPSHAFT	±.2	in	6.44	6.90		
	Z	TORPEDO LENGTH	±.2	in	14.88	17.28		
	V	PROPSHAFT CENTERLINE TO POWERHEAD BASE	LONG SHAFT	±.2	in	--	--	
			SHORT SHAFT	±.2	in	21.84	21.84	
	Y ₁	SKEG THICKNESS	MIN	in	0.20	0.20		
	Y ₂	SKEG THICKNESS	MIN	in	-			
	Y ₃	SKEG THICKNESS	MIN	in	0.25	0.26		
	Z ₁	SKEG CORD LENGTH	±.2	in	4.00	4.20		
Z ₂	SKEG CORD LENGTH	±.2	in	-				
Z ₃	SKEG CORD LENGTH	±.2	in	5.60	5.90			
DIA	PROPSHAFT DIA	±.1	in	1.06	1.06			

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Model Year: 2006

SST-120 NOTES

1. Head:



SST-120 NOTES

- Head gasket thickness is .045 inches minimum.
- Some hand de-burring may be present in V-6 rod slot areas.
- Any drive shaft housing legal for SST-140 is legal for SST-120.
- SST-120 must run either a 0.125 or 0.435 inch restrictor washer in both cylinder head thermostat covers.
- All V-6 crankshafts may have a chamfer at the seal ring diameter.
- The V-6 crankshaft centerline to crankcase/intake manifold surface to be 4.42 ± 0.01 inches.
- Intake Manifold thickness $2.000 \pm .015$. (between carburetors and reed blocks)
- Port timing tolerance on boost port is $\pm 3^\circ$.
- Exhaust Port Shape Template, part number 91-843116, is to be used as a gauge of the exhaust port shape. The radius at the top of the port and the corner radii must be visible at all edges of the template when the template is placed even (line-to-line) with the top center of the exhaust port. No part of the exhaust port may extend beyond the template
- SST-120 exhaust port passages to the exhaust chest dimensions are as follows: 1.03 inches (width) 2.40 inches (height) max.
- SST-120 exhaust tubes must each have one 0.50 ± 0.01 inch diameter hole.
- SST 120 exhaust tube plate water dump holes: 2 holes @ 0.50 ± 0.01 diameter
- SST 120 cylinder head combustion chamber pockets may have surface refinished. The cylinder head measurements must be within specified dimensions. No welding or repairs in the combustion chamber surfaces will be permitted.
- The Only Approved Aftermarket Ignition Parts are: CDI Electronics (RaPair) Approved part numbers only as follows.**
Stator # 174-5456, 174-5456-16 (Low Speed Coil - blue & blue/white to ground = 2200 Ohms; High Speed - Red and Red/white to ground = 50 Ohms.) Switch Box # 114-7778R2 (Black Potting), Rectifier # 154-6770, Trigger # 134-6456

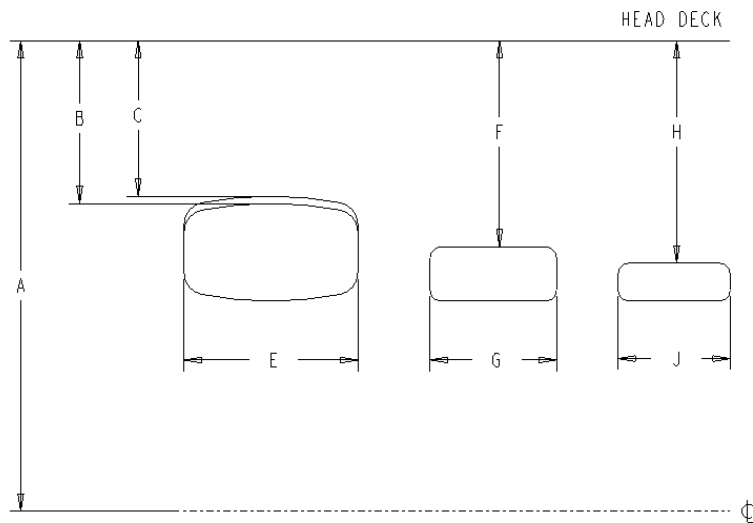
WARNING! FOR INSPECTION ONLY! These specifications are not intended as a guide for modification or "blueprinting" and are subject to change as needed.

Date: 1-15-2015
 Model Year: 2006

15. continued: Not Approved: information for inspection purpose only: Stator #174-5456S-15 (Low Speed Coil - blue & blue/white to ground = 2200 Ohms; High Speed - red and red/white to ground = 30 Ohms.) , Switch Box #114-7778R2.2 (Blue Potting).

16. SST 120 may use any cowling and pan manufactured by Mercury provided they fit with no modifications. They must have front cover over air inlet. Aftermarket copies may also be used.

17 . SST-120 Ports:



Port Measurements from Block Top Deck down to Top of Port

SST120		Minimum Inches	Maximum Inches
A	Deck Height	8.298	8.322
B	Exhaust Port	1.530	as cast
C	Exhaust Port Chamfer	1.510	1.565
E	Exhaust Width		as cast
F	Transfer Port	2.04	
G	Transfer Port Width		as cast
H	Boost Port	2.02	
J	Boost Port Width		as cast

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Date: 1-15-2015
Model Year: 2006

REVISIONS:

Rev: 1.15.2015 Note #15 additional information added for approved Stator and Switch Box, Not Approved part numbers/descriptions added. Note #16 added to allow use of any Mercury Cowling & pan, Note #17 was #16.

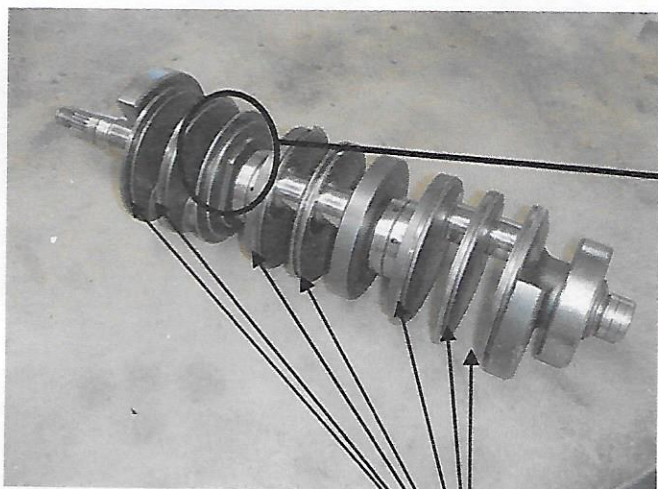
To: OPC Chairman, OPC Motor Technical Committee

Subject: Rule Clarification SST 120 Engine Homologation

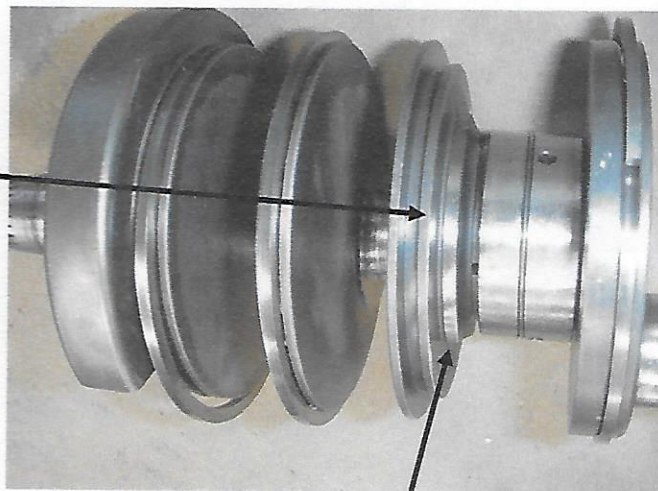
RE: Crankshaft

Clarification: There has been some discussion as to which crankshafts may be used in an SST 120 Engine. During the APBA National meeting there were several conversations regarding the use of non-homologated crankshafts, however, due to the many variations produced no decisions or recommendations were proposed.

The only crankshaft currently legal for use in the SST-120 class is the crankshaft homologated with the engine. This crankshaft is easily identified as it has seven (7) seal rings and the oil gear drive ring, without oil gear, at the upper center main.



SST-120 Crankshaft
Seal Ring Locations



Oil gear drive
No oil gear used

Jim Nerstrom
Chairman, OPC Motor Technical Committee