

Date: 01/26/18
OPC Class: SST45

OPC - SST 45 Reference Information

The SST45 Reference Information was put together by members of the OPC Motor Technical Committee as an aid to SST45 Drivers, Engine Builders, and Inspectors. It is included here, for that purpose, and is considered part of the SST45 Technical Specifications and may be used to dispute a technical issue.

Note: The SST45 is to be raced as homologated.

Connecting Rod:

The SST45 connecting rod was produced with no oiling hole in the rod cap. The hole was left out in an effort to produce a more durable part. New SST45 rods are no longer available and the OPC Motor Technical Committee and OPC Racing Commission have approved use of the production "fishing" rod. This rod has an oiling hole in the rod cap. It is permissible to chamfer (radius) the edges of this hole to remove any potential stress riser and improve durability. See Note #10 and photographs in technical specifications.

Crankshaft:

The crankshaft for the SST45 was prepared for racing by hand grinding a radius on the top crankpin hole. The intent was to remove any potential stress riser to improve crankshaft durability. When using a replacement production "fishing" crankshaft it is advisable to duplicate this feature.

Newer Crankshafts have a larger diameter spline on the bottom. These may be used, however, you must use a new style matching driveshaft and cut it to fit the gearcase.

Cylinder Block:

Since there are no new blocks, 40,50,55 and 60 hp production "fishing" blocks are being used to make SST45's. You must use an SST45 type spec sleeve which will not have an exhaust relief hole above the exhaust port. It is permissible to have the exhaust relief hole in the aluminum portion of the block. Sleeve suppliers include BRP, Advanced Sleeve and LA Sleeve. All can supply SST45 cylinder sleeves. The lost foam blocks never had any hand grinding in the block. NO grinding is allowed in these blocks. The permanent mold blocks did have grinding in them as they came from the factory. There may be casting flashing on the bottom side of the transfer ports. It is permissible to grind the flashing on the bottom side of the transfer to get the aluminum to line up with the cylinder liner instead of restricting the port. Grinding can only be done on the lower 50% of the port. NO grinding is permitted on the top of the port to improve flow. This grinding only refers to Transfer Ports, NOT Boost or Exhaust.

Pistons/Rings:

There is only one model of SST45 piston available in standard bore and 0.030 oversize. This OEM cast piston uses a top Keystone ring and a rectangular lower ring. There is a newer part with different rings which is NOT legal. After market pistons are not legal. See information at the end of this document to aid in OEM piston identification.

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Tuner/Pipe:

New tuners are available from SeaWay Marine which have been reviewed and approved by the OPC Technical Committee. They have a black hard coating on them to prevent tampering.

Carburetors:

The original carburetors are wearing out, the throttle shaft bore wears but may be repaired by sleeving. (See SST45 Technical Specifications Note #16) Any three (3) jet style production "fishing" carburetor of the same bore and venturi specification is permissible. The production carburetors do not have full throttle plates which causes the engine to idle faster. If you decide to change the throttle plate take care not to damage or change the shaft. Screws and full throttle plates are available from SeaWay Marine. The throttle plate screw is no longer an inspectable item, however the throttle plate and shaft must remain as homologated. It is recommended to use the full throttle plate. The Choke arm may be removed. Carburetor linkage is a homologated part of the SST 45 and must remain as approved.

Gaskets/Ignition/Misc.:

Gaskets can be provided by any manufacture. Ignition parts can be BRP, Rapair, CDI, must function as intended, and must meet the same specification as OEM parts. Any bearings, seals, impellers, gaskets are allowed as long as they meet the same design intent and configuration of the OEM parts. (Must be of same design and thickness as OEM)

Drive Shaft Housing:

Driveshaft housings may be used from production "fishing" engines. The "fishing" housings need to be altered to exactly match the SST45 part. The exhaust outlet/relief must be the same as the SST45.

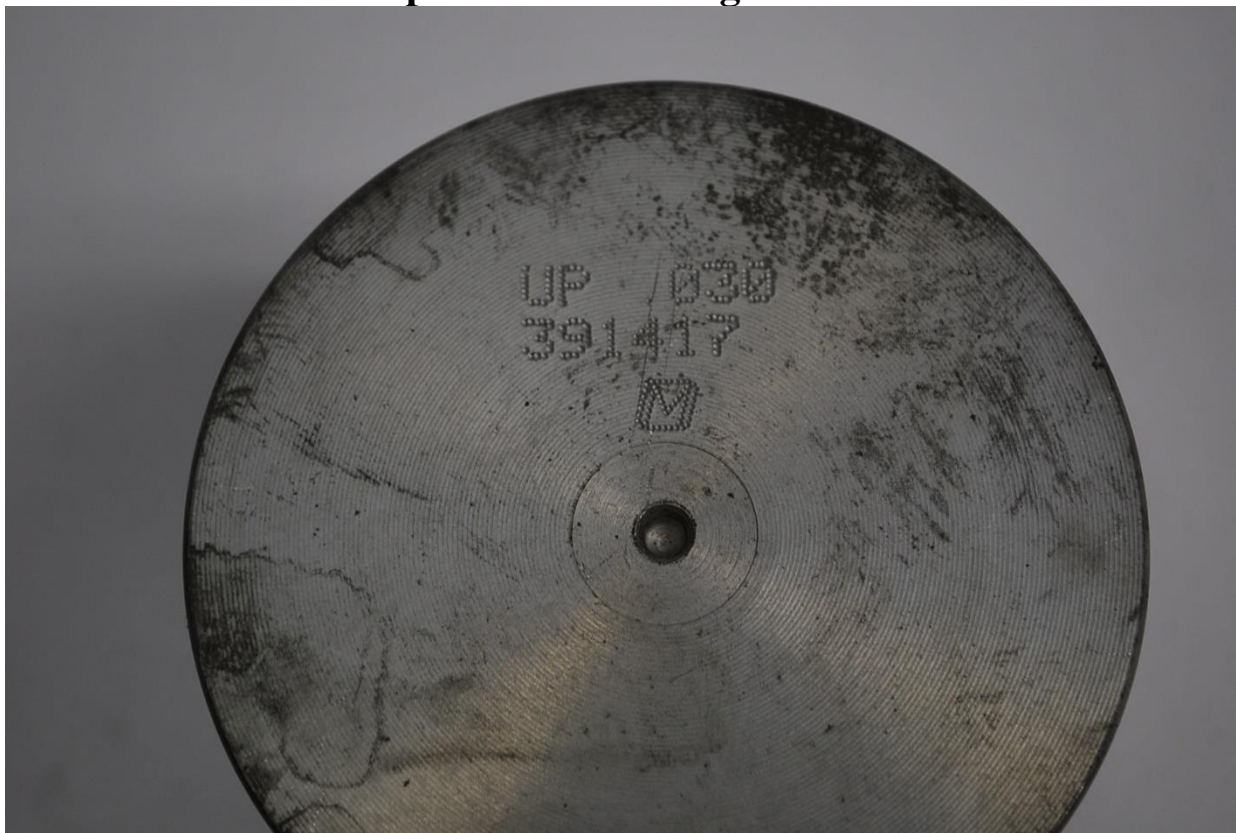
Motor Cover Upper and Lower:

New style upper and lower motor covers are available from SeaWay Marine and are approved. When using the new style motor covers a new throttle cable mount is required. This mount may also be used with Old style covers. Installation of the new lower motor cover requires drilling and tapping three 1/4x20 holes. Note #13.

Swivel Bracket:

The OMC plastic bushings used in the swivel bracket are no longer available. SeaWay Marine has produced brass replacements which are approved for use. Part numbers are located in the OPC SST45 Spec Sheets.

**OEM Piston - PN 396581 – Distinctive OMC/BRP lettering on the top.
No Boss on the wrist pin area of casting**



**OEM Piston - PN 5006665 – Distinctive OMC/BRP lettering on the top.
No Boss on the wrist pin area of casting**



OEM Piston - PN 391417 – Distinctive OMC lettering on the top. No Boss on the wrist pin area of casting



Pro Marine Piston – Looks identical to the OEM Piston – Notable differences is the stamped lettering on the top of the piston (Extra dimensional number's and the fact that the sizing runs horizontal to the “UP” lettering). Secondly note casting Boss on the on the wrist pin area– RH side in photo



Weisco Piston – Distinctive lettering on top of piston



Revision:

02-25-15 Document Created.

01-26-18 Per OPC Commission Meeting January 2018, Information contained in this document is to be excepted as an extension of the SST45 Technical Specifications; Carburetor throttle plate screws are non-inspectable items. Note #16; OEM piston identification information added.