

SK LIGHT MODIFIED 602 CRATE ENGINE SPECS

SS 20E- 4 GENERAL SPEC ENGINE REQUIREMENTS - A 602 spec motor based on the GM Performance Factory Sealed Circle Track Crate Engine is the only engine permitted. The engine that will be used will be the GM Part Number 88958602 GMR 350/350 Circle Track Engine with spec modifications that can be done only through a Stafford Motor Speedway approved service center. The engines will be teched and resealed upon completion from the Stafford tech staff. All engine seals must remain intact and un-tampered with. Any service work requiring the removal of any seal bolts must also be scheduled with, and approved by Stafford Motor Speedway BEFORE the seal bolts are tampered with. Tampering with seals will result in severe penalties and loss of eligibility of the engine to compete in the SK Light division.

NOTE: Any new Second Generation Factory Sealed Circle Track Crate Engine will be required to change the pistons to the Mahle/Clevite P/N 224-3544. This is due to the new Factory Pistons no longer meeting the Stafford rules. Due to this rule, all first generation motors must be sealed and documented to compete at Stafford Motor Speedway. Any questions on this rule please feel free to call any of the Service Centers or Jay Shea at (413)-786-2926.

Stafford Motor Speedway approved service centers for the GM Performance Factory Sealed Circle Track Crate Engines are:

RAD Auto Machine	Ludlow, MA	1-413-583-4414
T/A Engines	Plainville, CT	1-860-747-6713

SS 20E- 5 DETAILED SPEC ENGINE REQUIREMENTS - Every engine must start out as a 602 GM performance factory sealed circle track crate motor, GM P/N 88958602 GMR 350/350 circle track crate engine. This may consist of any of the following: a new sealed engine, a preexisting engine, or a 602 Crate Spec from any of the three builders.

THE FOLLOWING RULES ONLY REFER TO ENGINES THAT ARE NOT ALREADY STAFFORD 602 CRATE SPECS.

NOTE: The following rules and price quote are without oil pan & pump. Engines that are not already in competition will have that price added at time of service.

These rules were put in place only to make this engine more reliable, cost effective in the future, and to have a more consistent performance basis throughout the division.

Any of the three service centers are approved and only allowed to do the following changes for a price of \$2,500.00. This will not include replacement balancer.

1.Disassemble Engine

2.Clean & mag. Rods and Block

3.Pressure test Heads

4.Bore & hone Block 20 over

5.R&R Cam Barings & Oil Plugs

6.Square deck to .020”in the hole

7.Valve job & CC two Heads

8.Assemble & set up Springs

9.Polish Crank

10.Tork cheak Rods

11.R&R Pistons on Rods

12.Assemble Engine to Stafford Spec

13.Sealed and documented by Stafford

14.Parts will include:

Pistons

Pins

Rings

Rod, main & Cam Bearings

Gasket set

Lifters

Timing set

16 Valves

Valve Seals

Springs

20E- 5.5 PISTONS – The only approved pistons for competition will be the GM Piston P/N 12361371 or the Mahle/Clevite Piston P/N 224-3544. The Mahle/Clevite piston is a .020” over bore. Any Mahle/Clevite piston found to be over the .020” over bore limit will be deemed illegal. Any SK Light Modified car using the Mahle/Clevite 224-3544 pistons will be required to add an additional 50 pounds of weight to the car and maintain the maximum left side weight percentage of 56%. The overall car weight of 2650 pounds must be marked clearly on the hood of the car so that it is easily seen by NASCAR Officials and competitors.

20E- 5.5.4 OIL PANS / OIL COOLERS

- A. The factory sealed OEM oil pan or CANTON RACING PRODUCTS Part Number 11-102T, are the only oil pans permitted.
- B. Engine oil coolers are not permitted.

20E-5.6 VALVES - The only approved valve will be the OEM GM or the Manley stock replacement valve.

20E- 5.6.1 VALVE SPRINGS - The only approved valve springs for the GM Performance Factory Sealer Circle Track Crate Engine (GM Part Number 88958602) are factory OEM GM Part Number 10212811 springs, or the Comp Cam P/N 981-16. Additional valve spring devices of any kind are not permitted.

20E- 5.7 HARMONIC BALANCER - The Harmonic Balancer must be factory OEM GM Part Number 12555879 or the Power Bond # PB1046-SS. Alterations of any kind to the factory OEM GM Part Number 12555879 or # PB1046-SS Harmonic balancer are not permitted.

20E- 5.8.2 PUSH RODS - The only approved Push Rods for the GM Performance Factory Sealer Circle Track Crate Engine (GM Part Number 88958602) are the factory OEM GM Part Number 14095256. Any alteration of any kind to factory OEM GM Part Number 14095256 Push Rods is not permitted. The addition of guide plates or any other Push Rod devices of any kind are not permitted.

20E- 5.8.3 ROCKER ARMS - The only approved rocker arms for the GM Performance Factory Sealer Circle Track Crate Engine (GM Part Number 88958602) are factory OEM GM Part Number 10089648 Rocker Arms with a 1.5 ratio. Additional rocker arm devices of any kind are not permitted. Additional oiling devices of any kind are not permitted.

20E- 5.8.4 ROCKER ARM NUTS - The only approved rocker arm nut for the GM Performance Factory Sealer Circle Track Crate Engine (GM Part Number 88958602) is the factory OEM KOOL NUT KIT GM Part Number 25534352. Additional Rocker Arm Stud support or strengthening devices of any kind are not permitted.

20E- 5.10 CARBURETOR - The only approved carburetor shall be the Holley two-barrel model # 4412. All parts must be a Holly part for the 4412.

- (1) Body of Carburetor: No polishing, grinding or drilling of holes permitted.
- (2) The choke may be removed, but all screw holes must be permanently sealed.
- (3) Choke Horn: Choke horn may not be removed.
- (4) Boosters: Boosters may not be changed. Size or shape must no be altered. Height must remain standard.
- (5) Venturi area must not be altered in any manner. Casting ring must not be removed.
- (6) Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates and drilling holes into the carburetor will not be permitted.
- (7) Base Plate: Base plate must not be altered in shape or size.
- (8) Butterflies: Stock butterflies must not be thinned or tapered. Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft but screw heads must remain standard.
- (9) Throttle Shaft: Shaft must remain standard and must not be thinned or cut in any manner.

20E- 5.10.4 CARBURETOR ADAPTER

A. A track approved adapter plate must be installed between the intake manifold and the carburetor. Alterations of any kind to the track approved adapter plate are not permitted. The only track approved adapter plate is the CANTON RACING PRODUCTS part number 85065A aluminum adapter.

20E- 9 ENGINE EXHAUST SYSTEM -

A. Headers are permitted. The SK Light Modified division must utilize track specified headers only. All headers must remain un-altered and exactly match the Track’s factory sample headers. The only SK Light Modified track approved headers are:

Troyer Chassis - Kooks Headers # SMS1033 or FLOWRITE #SMS 25

Raceworks Chassis - Kooks Headers # SMS1233 or FLOWRITE #SMS 45

Chassis Dynamics Chassis - Kooks Headers # SMS1435 or FLOWRITE #SM S35

SPAFCO CHASSIS - FLOWRITE #SMS 55

B. Stainless steel, stepped and 180-degree headers are not permitted.

C. The exhaust header flange must mount directly to the cylinder head with no spacers between the flange and the cylinder head. A maximum header flange thickness of ½ inch is permitted.

D. Inserts are not permitted in any part of the header or collector. Merge, crossover and pyramid collectors are not permitted.

E. Exhaust pipes must come out of engine at cowl and must extend a minimum of six (6) inches past the cowl. Right exhaust pipe may run beneath the car, but must turn down and out toward the bottom of the right side frame rail.

F. LOBAK # RCM 30-12-30, LOBAK #35-12-35, **Kooks #R300-10, or Flow-Right P/N FR300** mufflers are required at all times. Modifications or repairs of any type are not permitted on the muffler. Both muffler flanges must be intact. Mufflers must be removable for inspection.

NOTE: It should be noted that the life expectancy for all Lobak mufflers is two years. All owners are responsible to make sure their mufflers are in proper working order. If found not to be, the muffler will be deemed illegal (i.e. missing one or more of the internal baffles).

G. Thermal wrap is not permitted anywhere on exhaust system.

ALL OTHER INTERNAL PARTS NOT LISTED WILL REMAIN OEM GM. THERE WILL BE NO EXCEPTIONS TO THIS RULE.

THESE ENGINES SHOULD MAKE AT LEAST TWO FULL SEASONS BEFORE DISASSEMBLY, AND WILL NOT BE ABLE TO BE DISASSEMBLED WITH OUT NEED OF REPAIR.

NOTE: FINAL ENGINE PRICES WILL VARY DEPENDING ON WHAT 602 YOU START WITH, AND IF ENGINE NEEDS OIL PAN & PUMP.

THERE WILL BE STAFFORD 602 CRATE SPEC MOTORS FOR SALE AT SERVICE CENTERS, FOR A BASE PRICE OF \$6,700.00.