

# **SHARP Mini Late Model ECU and Engine Seal Requirements (12/12/22)**

The following requirements pertain to Suzuki GSXR 600cc, years 2004 through 2014.

## **ECU SEALING INSTRUCTIONS**

### **Terms and Conditions:**

1. The word “stock” means un-modified factory original parts or components.
2. No mixing of parts from different year engines
3. The Suzuki factory service manual for the specific engine’s year should serve as reference.
4. Service Limits and tolerances should be known and not exceeded for performance advantage. (Ex: excessive wear that gives a part additional clearance).
5. Repairs should be to the specifications defined in the Suzuki factory service manual for the specific engine’s year.

### **ECU:**

1. No aftermarket ECU’s.
2. No manipulating the ECU or any sensory signal.
3. ECU must be a production ECU that was originally supplied by the same manufacturer as the engine and Flashed with the SHARP Spec Tune.
4. No traction control device.
5. No more than one ECU box present in or on car. (Note, this can’t be verified if only the ECU or only the Engine was sent to be sealed.)

## **ENGINE SEALING INSTRUCTIONS**

### **Terms and Conditions:**

1. The word “stock” means un-modified factory original parts or components.
2. No mixing of parts from different year engines.
3. The Suzuki factory service manual for the specific engine’s year should serve as reference.
4. Service Limits and tolerances should be known and not exceeded for performance advantage. (Ex: excessive wear that gives a part additional clearance).
5. Repairs should be to the specifications defined in the Suzuki factory service manual for the specific engine’s year.

### **Engine Oil:**

1. No oil additives. Except those found in commercially available oils in the same concentrations as sold by the oil manufacturer.
  - a. If a sample is pulled, it will be tested against an off the shelf control sample of the same oil. A Rotella T6 sample will be tested against a Rotella T6 control sample. A Motul 7100 sample will be tested against a Motul 7100 control sample.

### **Gaskets:**

1. Cylinder head gaskets may be replaced only with original equipment manufacturer’s stock parts
  - a. All 3 layers of the head gasket must be used
2. All other gaskets may be replaced with duplicate aftermarket parts
3. Light cleaning of gasket surfaces with steel wool, Scotch-Brite, etc. is allowed.

**Head and Cams:**

1. NO decking or surfacing of the head or engine block.
  - a. Must be STOCK head height as provided by Suzuki.
2. Lash Pills can be OEM or Aftermarket.
3. Valve springs may be shimmed with standard or aftermarket shims.
4. No Adjustable Cam Gears.
5. No Repositioning of the stock cam gears.
6. NO PORTING or deporting of intake or exhaust runners.
7. Intake and exhaust ports may not be bead blasted.
8. Valve jobs, valve grinding, valve seating, valve seal modification and valve seat cutting are allowed.
9. Valve seat inserts may be reworked or replaced with any seat of original dimensions. Any dimensional thickness of the stock inserts may not be increased.
10. Valve seats can be ground with multiple angles. Blending of the valve seat into the head is permitted but cannot extend more than 1/8" into the aluminum head measured from where the seat meets the head.
11. OEM Head only.
12. Aftermarket cam chain tensioners allowed for safety of the motor.
13. Cam must be stock for the production year head as supplied from the manufacturer.
14. Valves cannot be larger in diameter than factory stock valves.

**Bottom End:**

1. NO decking or Surfacing of the Block.
  - a. Must be STOCK Block height as provided by Suzuki.
2. No casting flash removal.
3. No altering of the stock piston.
4. No machining to remove weight from the crank.
5. No after-market cranks.
6. No lightweight cranks.
7. No Polishing of Rods.
8. No Lightweight Wrist Pins.
9. No polishing or coatings of any kind.
10. No aluminum connecting rods.
11. No dry sump systems are allowed unless it comes from the motorcycle manufacturer as original equipment.
12. Modification of oil pan & pick up allowed or aftermarket ok. Modification to thermostat cover allowed or aftermarket ok. Modification to water pump Cover allowed or aftermarket ok.

**Clutch/Transmission:**

1. No removal of clutch.
2. Clutch must remain operational.
3. No modification to the stock transmission gears.
4. No close ratio gears or nonstandard gear ratios.
5. Transmission ratios must year model of engine.
6. All gears must remain in transmission.
7. No removing any gears.
8. No polishing or coatings of any kind.
9. Can remove slipper bolts in 2006+.

10. OEM equivalent clutch.
11. No lightweight clutch baskets, or modification of clutch basket and or flywheel. Ignition/Fuel.

**Injection:**

1. Injection must be OEM, stock OEM throttle bodies no mixing manufacturers
2. 04/05 must use 04/05 Injection
3. 06+ can use 08/09 Injection \* No mix matching.
4. OEM Injector Flow Rates (Can not use 750 injectors on 600 etc)
  
5. Can remove secondary plates in throttle body
6. You can unplug or delete the STVA
7. No throttle body spacers

**Charging System:**

1. No removing the charging system, it must remain in complete working order
2. No factory racing charging system

**Sealing Company Documentation Requirements:**

-Approved seals must be installed on the engine once the engine has been certified as meeting the above specs.

-Must provide SHARP with a service record or receipt for the repairs

Sealing Receipt must include the following information:

- Engine VIN#
- Original Seal numbers if applicable
- New Seal Numbers
- Description of work performed
- List of parts replaced
- Date and Signature

Records can be emailed to: [spencer@sharpengllc.com](mailto:spencer@sharpengllc.com)

Or Mailed to:

Spencer Harp  
704 Foxboro Lane  
Portal GA, 30450