1984 Suzuki GSX-R750

Factory Pilot Bike and Pre-Homologation Prototype

Prototype-Specific Parts and Assemblies

This inventory does not simply list individual differences. Its purpose is to identify the actual prototype components fitted to this motorcycle.

A detailed component-by-component comparison with regular production GSX-R750 motorcycles has documented more than one hundred individual differences. Many of those differences, however, belong to the same prototype part or assembly.

Key question: How many actual prototype-specific components are present on the motorcycle?

Prototype-specific components are found throughout virtually every major system of the machine.

> ***Based on the assemblies documented to date, approximately 85–90% of the motorcycle consists of prototype-specific components rather than regular-production GSX-R750 parts.***

This estimate is based on the major assemblies themselves, not merely individual differences. The frame, engine, oil system, induction system, bodywork, controls, suspension, braking components and numerous supporting parts all contain prototype-specific hardware.

FRAME AND CHASSIS

1. Main Frame

- Different overall frame casting design
- Five cast-in rear engine-mount holes
- Different steering-head structure
- Missing crossbeam ahead of airbox
- Missing curved crossbeam ahead of rear fender
- Missing steering-head reinforcement plate
- Missing rear shock-linkage reinforcement plate
- Different internal webbing
- Different wall thicknesses
- Different weld construction
- Different frame openings
- Different casting texture and finish

2. Steering Head Assembly

- Different shape
- Different casting design
- Different openings and contours

3. Rear Engine-Mount Castings

- Unique five-hole design
- Different casting geometry

4. Front Steering-Head Center Casting

- Different casting layout
- Two large cast-in openings

5. Rear Engine-Mount Brackets

- Prototype-only triangular opening design

6. Headlight Frame Bracket

- Different fabrication and mounting arrangement

ENGINE CASES AND COVERS

7. Upper Crankcase Half

- Different casting
- Different engine-number pad location
- Missing alternator support fin
- Missing starter-clutch support fin
- Different internal brace arrangement
- Different internal brace thickness
- Different casting marks
- Different rear case contours

8. Lower Crankcase Half

- Different casting
- Different oil-pickup housing area
- Different oil passages
- Different internal support structures
- Different casting details

9. Clutch Cover

- Different casting
- Different internal webbing

10. Starter Clutch Cover

- Different casting
- Different internal structure

11. Alternator Cover

- Different external design
- Different casting layout

12. Sprocket Cover

- Different casting
- Different internal support structure
- Rougher finish

OIL SYSTEM

13. Oil Strainer Housing

- Different casting
- Different gasket arrangement

14. Oil Pickup Assembly

- Different housing
- Different pickup channel
- Different internal design
- No internal ledge found on production version

15. Front Oil-Line Assembly

- Different routing
- Different fittings
- Burlington Tridon clamp system

16. Rear Oil-Line Assembly

- Different fabrication
- Different finish
- Hand-finished appearance

17. Oil-Pump Housing / Retainer

- Rough-cast prototype version

INTERNAL ENGINE COMPONENTS

18. Starter Clutch Assembly

- Different design

19. Connecting Rods

- Different design

20. Pistons

- Different design

21. Shift Drum

- Different machining
- Prototype-only rear cutout

22. Shifter Forks

- Different material

23. Crankshaft Counterweights

- Undrilled prototype configuration

CYLINDER HEAD AND TOP END

24. Cylinder Head

- Different casting
- Visible casting-channel remains
- Different perimeter wall thickness
- Different casting details throughout

INDUCTION SYSTEM

25. Carburetor Assembly

- Different castings
- Rougher casting finish
- Different machining
- Missing spring provision
- Different internal bore profile

26. Airbox Assembly

- Different construction
- Different mounting system
- Different mounting tabs
- Prototype-specific side-outrigger design

27. Intake Manifolds

- Rougher castings
- Sharper edges
- Different finish

BODYWORK

28. Upper Fairing

- Narrower dimensions
- Thicker material
- Different lower mounting geometry

29. Main Side Fairing Assembly

- Different dimensions
- Different vent dimensions
- Different material thickness

30. Lower Keel Assembly

- Different shape
- Different width
- Different openings
- Approximately twice the weight

- Significantly thicker material

31. Front Fender

- Different dimensions
- Different mold details

32. Rear Side Covers

- Different shape
- Additional cutout
- Thicker material

33. Tail Section

- Different connector arrangement
- Different mounting-hole design
- Thicker material

34. Headlight Housing / Surround

- Different design
- Different lower lip arrangement

35. Rear Fender Assembly

- Different design

36. License-Plate Light Housing

- Different design

SUSPENSION AND STEERING

37. Front Fork Assembly

- Rough-cast fork bodies
- Different machining at upper ends
- Different adjuster bodies
- Different casting-mark locations

38. Handlebars / Clip-Ons

- Different design

BRAKE SYSTEM

39. Rear Brake Master Cylinder

- Different design

40. Front Brake-Line Splitter

- Different design

WHEELS

41. Front Wheel

- Different casting webbing
- Different wheel design

RIDER CONTROLS

42. Left Switchgear Cluster

- Different design

43. Right Switchgear Cluster

- Different design

44. Footpeg Mounting Brackets

- Different castings

45. Front and Rear Footpegs

- Prototype-specific design

46. Shift Lever

- Different design

47. Rear Brake Lever

- Different design

ELECTRICAL COMPONENTS

48. Tachometer

- Different housing
- Nippon Denso marking ND 056900-051
- Different internal bulb arrangement

49. Sidestand Kill Switch

- Different design

MISCELLANEOUS

50. Timing-Chain Adjuster Housing

- Rough-cast prototype version
- Different manufacturing finish

Summary

More than fifty major prototype-specific assemblies have been identified on this motorcycle. When each assembly is examined in detail, the total number of individually documented differences exceeds one hundred.

The significance of this motorcycle is not that it contains one or two unusual prototype parts. Prototype-specific components are found throughout the frame, engine, oil system, induction system, bodywork, controls, suspension, braking system and electrical system.

> ***Based on the assemblies documented to date, approximately 85–90% of the motorcycle consists of prototype-specific components rather than regular-production GSX-R750 parts.***

The motorcycle therefore represents the earliest documented phase of GSX-R750 development presently known to survive in complete motorcycle form. Numerous features found throughout the machine were altered, redesigned or completely eliminated before series production commenced.

Rather than being a production GSX-R750 fitted with a small number of experimental parts, this motorcycle is a factory-built pilot bike and pre-homologation prototype whose construction differs fundamentally from regular production examples in virtually every major area of the machine.

The cumulative evidence is visible throughout the motorcycle itself. Its frame is prototype-specific. Its engine cases are prototype-specific. Its oil system is prototype-specific. Its induction system is prototype-specific. Most of its bodywork is prototype-specific. Its controls, instruments, suspension components and numerous supporting castings are prototype-specific.

Taken together, these components provide an exceptionally complete and remarkably intact record of the earliest documented surviving stage of GSX-R750 development presently known.