From Cycle World GT500A Road Test
April 1976 Issue

My own remarks are noted in brackets thus: (----, ed.)

(These suspension dyno tests were performed by Number One Products
at the request of the Cycle World staff for each bike tested, ed.)

Suspension Dyno Tests

Front Forks

(In this space there is an oscillograph
chart of the rebound/damping characteristics
of the front forks...then the following copy:, ed.)

Description: Suzuki GT500 fork with HD315 oil (whatever the heck oil that is, ed.)
Fork travel, in.: 4.25
Spring Rate, lb/in: 50/65 progressive
Compression Damping Force, lb: 9
Rebound Damping Force, lb: 9
Static Seal Friction, lb: 18 (!!!, ed.)
Remarks: Forks are stiff and don't react to rough street surfaces enough to offer much rider comfort. This is due primarily to an inordinately high spring rate. The only saving factor here is that very little preload is used. Still, a 30 lb spring with an inch of preload would drastically improve the ride. Materials used in the fork are good but design is totally ineffective. Construction is similar to that of an XR75 Honda fork (the damper rod has a slotted top in lieu of holes to control fluid movement). There is no hydraulic damping until the fork is within one inch of full compression or extension. The only damping present in the middle of the stroke (where the fork works most of the time) is the result of seal friction. Because of the lack of rebound damping, the fork returns too quickly and top(s out, ed.). Any sudden lifting of the front end following a bump effects steering and causes the bike to wander, especially in turns. Bottoming does not occur because of the high spring rate. There is no easy cure. There are no accessory kits available.
If you are dissatisfied with the front suspension, replacement is the answer. If you consider this approach, stanchion tube diameter is 35 mm.

Rear Shocks

(In this space there is an oscillograph
chart of the rebound/damping characteristics
of the rear shocks...then the following copy:, ed.)

Description: Suzuki GT500 shock
Shock travel, in.: 2.75
Wheel Travel, in: 3.0
Spring Rate, lb/in: 146

Compression Damping Force, lb: 8
Rebound Damping Force, lb: 92

Remarks: Spring rate is too high for solo riding. The result is a jarring ride. A 110-120 lb. spring with a normal amount of preload would cure this. The standard spring, however, set on the softest preload position, is well suited to riding double (two up, ed.) The ratio between compression and rebound damping is fine, but there is insufficient rebound control for weight of spring fitted. Construction of the shock is marginal, both in materials and in oil capacity. If you enjoy riding fast, we suggest shock replacement. That is the only cure for the high heat buildup and inconsistent damping of the(se, ed.) original equipment (shocks, ed.).

Tests performed at Number One Products (end of copy, ed.)

I don't think Number One is in business any longer but their reports on the suspensions of various bikes are quite enlightening.
Additional selected info from the main test data for the GT500:

Claimed BHP @ RPM: 44.0 @ 6000
Claimed Torque @ RPM, lb-ft: 39.0 @ 5000
Recommended Fuel: Premium (!!!ed.)
Curb Weight (w/half tank fuel), lb: 412

Test Conditions:
Barometric Pressure, in. hg: 30.42 (so the old girl was getting enough air, ed.)
Altitude Above Mean Sea Level, ft: 328
Wind Velocity, MPH: 0 (and no adverse winds either, ed.)

Performance:
Top Speed (actual @ 6243 RPM), MPH: 99
Computed Top Speed in fifth gear @ 7000 RPM, MPH: 111
Fuel Consumption, MPG: 40-43
Speedo Error, 60MPH indicated, actually, MPH: 56
Acceleration, 0 to 60 MPH, sec: 6.0
Standing one quarter mile, sec: 14.31
Terminal Speed, MPH: 89.60

Well there's all the important stuff. If you don't have the original mag with this test, you can get the collected road tests of the various Suzuki models in:
Cycle World On Suzuki Street Bikes, 1971-1976
ISBN#: 1 869826 914