C. Chassis

1. FRAME	
1) Frame design	Double cradle, high tensile frame
2. STEERING SYSTEM	
1) Caster	27°
2) Trail	115 mm (4.53 in)
3) Number and size of balls in steering head	
Upper race	19 pcs. 1/4 in
Lower race	19 pcs. 1/4 in
4) Steering lock to lock	42° each (L and R)
3. FRONT SUSPENSION	
1) Type	Telescopic fork
2) Damper type	Oil damper, coil spring
3) Front fork spring	
Free length	482 mm (18.98 in)
Wire diameter x winding diameter	4 x 24.5 mm (0.157 x 0.965 in)
Spring constant	k_1 = 0.48 kg/mm (26.88 lb/in)/ 0 ~ 100 mm (0 ~ 3.94 in)
	k_2 = 0.65 kg/mm (36.40 lb/in)/ 100 ~ 150 mm (3.94 ~ 5.91 in)
4) Front fork travel	150 mm (5.906 in)
5) Inner tube O.D.	35 mm (1.378 in)
6) Front fork oil quantity and type	169 cc (5.72 oz) each leg Yamaha fork oil 10Wt or equivalent
7) Distance from the top of inner tube oil level without spring	Approx. 454 mm (17.9 in)
4. REAR SUSPENSION	
1) Type	Swing arm
2) Damper type	Oil damper, coil spring
3) Shock absorber travel	80 mm (3.15 in)
4) Shock absorber spring	
Free length	226 mm (8.90 in)
Wire diameter x winding diameter	7.5 x 60.5 mm (0.295 x 2.382 in)
Spring constant	k_1 = 1.714 kg/mm (96.0 lb/in)/ 0 ~ 45 mm (0 ~ 1.77 in)
	k_2 = 2.244 kg/mm (125.7 lb/in)/ 45 ~ 80 mm (1.77 ~ 3.15 in)
5) Swing arm free play (Limit)	1 mm (0.04 in)
6) Pivot shaft – Outside diameter	16 mm (0.63 in)

5. FUEL TANK	
1) Capacity	11.0 lit (2.9 US gal)
2) Fuel grade	Regular gasoline
6. WHEEL	
1) Type (Front and rear)	*Cast wheel **Spoke wheel
2) Tire size (Front)	3.50S19-4PR
(Rear)	130/90S16-4PR
3) Tire pressure:	
Up to 90 kg (198 lb) load	Front: 1.6 kg/cm² (22 psi) Rear: 2.0 kg/cm² (28 psi)
90 kg (198 lb)load ~ 204 kg (445 lb)load (Maximum load)	Front: 2.0 kg/cm² (28 psi) Rear: 2.3 kg/cm² (32 psi)
High speed riding	Front: 2.0 kg/cm² (28 psi) Rear: 2.3 kg/cm² (32 psi)
4) Rim run out limit (Front and rear)	
Vertical	2 mm (0.08 in)
Lateral	2 mm (0.08 in)
5) Rim size (Front)	1.85 x 19
(Rear)	*MT3.00 x 16 **2.75 x 16
6) Bearing type	
Front wheel (Left)	*6302ZZ **B6303
(Right)	*6302Z **B6303RS
Rear wheel (Left)	6304Z
(Right)	6305Z
7) Oil seal type	
Front wheel (Left)	SDD-45-56-6
(Right)	SD-22-42-7
Rear wheel (Left)	SD-35-62-9
(Right)	SD-27-52-5
8) Secondary drive chain type	
Type	50HDS
Number of links	103L + Joint
Chain pitch	15.875 mm (5/8 in)
Chain free play	20 ~ 30 mm (0.8 ~ 1.2 in)
7. BRAKE	
1) Front brake	
Type	Hydraulic disc type
Disc size (Outside dia. x thickness)	298 x 7.0 mm (11.73 x 0.28 in)
Disc wear limit	6.5 mm (0.26 in)
Disc pad thickness	11.0 mm (0.43 in)
Pad wear limit	6.0 mm (0.24 in)
Master cylinder inside dia.	14.0 mm (0.55 in)
Caliper cylinder inside dia.	38.1 mm (1.50 in)
Brake fluid type / quantity	DOT #3 Brake fluid / 38.1 cc (1.29 oz)
2) Rear brake (XS650SF only)	
Type	Hydraulic disc type
Disc size (Outside dia. x thickness)	267 x 7.0 mm (10.5 x 0.28 in)
Disc wear limit	6.5 mm (0.26 in)
Disc pad thickness	11.0 mm (0.43 in)
Pad wear limit	6.0 mm (0.24 in)
Master cylinder inside dia.	14.0 mm (0.55 in)
Caliper cylinder inside dia.	38.1 mm (1.50 in)
Brake fluid type / quantity	DOT #3 Brake fluid / 38.1 cc (1.29 oz)

3) Rear brake (XS650-2F only)	
Type	Drum brake (Leading trailing)
Actuating method	Link rod
Brake drum I.D.	180 mm (7.09 in)
Brake shoe dia. x width	180 x 30 mm (7.09 x 1.18 in)
Lining thickness/wear limit	4 mm/2 mm (0.16 in/0.08 in)
Shoe spring free length	68 mm (2.68 in)