

FOREWORD

This section describes service data for GV1400GCJ/GDJ.

NOTE:

Any differences between "H" ('87-model) and "J" ('88-model) in service data are clearly indicated with the asterisk marks (). Refer to the previous section for details which are not given in this section.*

SERVICE DATA**VALVE + GUIDE**

Unit: mm (in)

ITEM	STANDARD		LIMIT
Valve diam.	IN.	30.0 (1.18)	—
	EX.	26.0 (1.02)	—
Valve lift	IN.	7.0 (0.28)	—
	EX.	6.0 (0.24)	—
Lash-adjuster plunger stroke	0–0.2 (0–0.008)		—
Valve guide to valve stem clearance	IN.	0.020–0.047 (0.0008–0.0019)	0.35 (0.014)
	EX.	0.035–0.062 (0.0014–0.0024)	0.35 (0.014)
Valve guide I.D.	IN. & EX.	5.000–5.012 (0.1969–0.1973)	—
Valve stem O.D.	IN.	4.965–4.980 (0.1955–0.1961)	—
	EX.	4.950–4.965 (0.1949–0.1955)	—
Valve stem runout	IN. & EX.	—	0.05 (0.002)
Valve head thickness	IN. & EX.	—	0.5 (0.02)
Valve stem end length	IN. & EX.	—	3.3 (0.13)
Valve seat width	IN. & EX.	0.9–1.1 (0.035–0.043)	—
Valve head radial runout	IN. & EX.	—	0.03 (0.001)
Valve spring free length	—		34.5 (1.36)
Valve spring tension	9.4–11.0 kg (20.7–24.3 lbs) at length 31.5 mm (1.24 in)		—

CAMSHAFT + CYLINDER HEAD

Unit: mm (in)

ITEM	STANDARD		LIMIT
Cam height	IN.	32.652–32.692 (1.2855–1.2871)	32.36 (1.274)
	EX.	32.065–32.105 (1.2624–1.2640)	31.77 (1.251)
Camshaft journal oil clearance	IN. & EX.	0.032–0.066 (0.0013–0.0026)	0.150 (0.0060)
Camshaft journal holder I.D.	IN. & EX.	22.012–22.025 (0.8666–0.8671)	—
Camshaft journal O.D.	IN. & EX.	21.959–21.980 (0.8645–0.8654)	—

ITEM	STANDARD		LIMIT
Cam chain 20-pitch length	—		161.0 (6.34)
Cam chain pin (at aligning mark)	Front	18th pin	—
	Rear	18th pin	—
Idler chain 20-pitch length	—		161.0 (6.34)
Idler chain pin (at aligning mark)	29th pin		—
Cylinder head distortion	—		0.10 (0.004)

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD		LIMIT
Compression pressure	10–14 kg/cm ² (142–200 psi)		8 kg/cm ² (114 psi)
Compression pressure difference	—		2 kg/cm ² (28 psi)
Piston to cylinder clearance	0.045–0.055 (0.0018–0.0022)		0.120 (0.0047)
Cylinder bore	81.000–81.015 (3.1890–3.1896)		81.085 (3.1923)
Piston diam.	80.950–80.965 (3.1870–3.1876) Measure at 14 mm (0.6 in) from the skirt end.		80.880 (3.1842)
Cylinder distortion	—		0.10 (0.004)
Piston ring free end gap	1st	R Approx. 10.5 (0.41)	8.4 (0.33)
	2nd	R Approx. 11.7 (0.46)	9.4 (0.37)
Piston ring end gap	1st	R 0.20–0.35 (0.008–0.014)	0.70 (0.028)
	2nd	R 0.20–0.35 (0.008–0.014)	0.70 (0.028)
Piston ring to groove clearance	1st	—	0.18 (0.007)
	2nd	—	0.15 (0.006)
Piston ring groove width	1st	1.01–1.03 (0.0398–0.0406)	—
	2nd	1.21–1.23 (0.0476–0.0484)	—
	Oil	2.51–2.53 (0.0988–0.0996)	—
Piston ring thickness	1st	0.970–0.990 (0.0382–0.0390)	—
	2nd	1.170–1.190 (0.0461–0.0469)	—
Piston pin bore	20.002–20.008 (0.7875–0.7877)		20.030 (0.7886)
Piston pin O.D.	19.996–20.000		19.980

CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD		LIMIT
Conrod small end I.D.	20.010–20.018 (0.7878–0.7881)		20.040 (0.7890)
Conrod big end side clearance	0.10–0.25 (0.004–0.010)		0.30 (0.012)
Conrod big end width	19.95–20.00 (0.785–0.787)		—
Crank pin width	40.10–40.15 (1.579–1.581)		—
Conrod big end oil clearance	0.032–0.056 (0.0013–0.0022)		0.090 (0.0035)
Crank pin O.D.	39.976–40.000 (1.5739–1.5748)		—
Crankshaft journal oil clearance	0.020–0.044 (0.0008–0.0017)		0.080 (0.0031)
Crankshaft journal O.D.	39.976–40.000 (1.5739–1.5748)		—
Crankshaft thrust bearing thickness	Left side	2.850–3.000 (0.112–0.118)	—
	Right side	2.925–2.950 (0.115–0.116)	—
Crankshaft thrust clearance	0.045–0.100 (0.0018–0.0039)		—
Crankshaft journal holder width	24.05–24.13 (0.947–0.950)		—
Crankshaft journal width	30.00–30.05 (1.181–1.183)		—
Crankshaft runout	—		0.05 (0.002)

OIL PUMP + FUEL PUMP + WATER PUMP

Unit: mm (in)

ITEM	STANDARD	LIMIT
Oil pump reduction ratio	1.756 (72/41 × 37/35)	—
Oil pressure (at 60°C, 140°F)	Above 5.0 kg/cm ² (71 psi) Below 8.0 kg/cm ² (114 psi) at 3 000 r/min.	—
Fuel pump discharge	Over 500 ml/min.	—
Fuel pump resistance	1–2 Ω	—
Water pump drive chain 10-pitch length	—	64.5 (2.54)

CLUTCH

Unit: mm (in)

ITEM	STANDARD		LIMIT
Drive plate thickness	No.1	2.72–2.88 (0.104–0.116)	2.42 (0.095)
	No.2	3.45–3.55 (0.128–0.140)	2.58 (0.102)
Drive plate claw width	15.8–16.0 (0.62–0.63)		15.0 (0.59)

ITEM	STANDARD	LIMIT
Driven plate distortion	—	0.1 (0.004)
Clutch spring free length	—	34.0 (1.34)
Clutch master cylinder bore	14.000–14.043 (0.5512–0.5529)	—
Clutch master cylinder piston diam.	13.957–13.984 (0.5495–0.5506)	—
Clutch release cylinder bore	38.100–38.162 (1.5000–1.5024)	—
Clutch release cylinder piston diam.	38.042–38.075 (1.4977–1.4990)	—

THERMOSTAT + RADIATOR + FAN

ITEM	STANDARD	LIMIT
Thermostat valve opening temperature	75.0° ± 1.5°C (167° ± 2.7°F)	—
Thermostat valve lift	Over 8 mm (0.13 in) at 90°C (194°F)	—
Radiator cap valve release pressure	0.90 ± 0.15 kg/cm ² (12.8 ± 2.1 psi, 90 ± 15 kPa)	—
Electric fan thermo-switch operating temperature	ON 105° ± 3°C (221° ± 5.4°F)	—
	OFF Approx. 98°C (208.4°F)	—
Electric fan relay resistance	Approx. 70 Ω	—
Thermo-gauge resistance	27.4 Ω at 100°C (212°F)	—

TRANSMISSION

Unit: mm (in) Except ratio

ITEM	STANDARD	LIMIT
Primary reduction ratio	1.756 (72/41)	—
Secondary reduction ratio	1.000 (19/19)	—
Final reduction ratio	2.666 (32/12)	—
Gear ratios	Low	2.750 (33/12)
	2nd	1.684 (32/19)
	3rd	1.250 (25/20)
	4th	1.000 (25/25)
	Top	0.851 (23/27)
Shift fork groove clearance	0.10–0.30 (0.004–0.012)	0.50 (0.020)
Shift fork groove width	5.5–5.6 (0.217–0.220)	—
Shift fork thickness	5.3–5.4 (0.209–0.213)	—

SHAFT DRIVE

Unit: mm (in)

ITEM	STANDARD		LIMIT
Secondary bevel gear backlash	0.05–0.32 (0.002–0.013)		—
Final bevel gear backlash	Drive side	0.03–0.64 (0.001–0.025)	—
	Driven side	0.02–0.35 (0.0008–0.0138)	
Secondary drive bevel gear preload	3–7 kg-cm (2.6–6.1 lb-in)		—
Secondary driven bevel gear preload	3–7 kg-cm (2.6–6.1 lb-in)		—

CARBURETOR

ITEM	SPECIFICATION
Carburetor type	MIKUNI BDS33SS
Bore size	33 mm (1.30 in)
I.D. No.	24A00
Idle r/min.	950 ± 100 r/min.
Fuel level	17.0 ± 0.5 mm (0.67 ± 0.02 in)
Float height	11.5 ± 1.0 mm (0.45 ± 0.04 in)
Main jet (M.J.)	#105
Main air jet (M.A.J.)	0.6 mm
Jet needle (J.N.)	5D20-3rd
Needle jet (N.J.)	Y-8
Throttle valve (Th.V.)	#125
Pilot jet (P.J.)	#25
By-pass (B.P.)	0.8 mm, 0.8 mm, 0.8 mm
Pilot outlet (P.O.)	0.7 mm
Valve seat (V.S.)	1.5 mm
Starter jet (G.S.)	#25
Pilot screw (P.S.)	PRE-SET
Pilot air jet (P.A.J.1 & 2)	PRE-SET
Throttle cable play	2–3 mm (0.08–0.12 in)
Choke cable play	0.5–1.0 mm (0.02–0.04 in)

ELECTRICAL

Unit: mm (in)

ITEM	SPECIFICATION	NOTE
Ignition timing	7° B.T.D.C. Below 1 500 ± 250 r/min. and 35° B.T.D.C. Above 3 000 ± 250 r/min.	
Firing order	1-3-2-4	
Spark plug	Type * NGK: PJR7A N.D.: X22EPR-GL	

ITEM		STANDARD		LIMIT
Spark performance		Over 8 (0.3) at 1 atm.		
Signal coil resistance		50–200 Ω		P–Lg/R, Gr–Bl/W
Ignition coil resistance		Primary	2–6 Ω	O/W–W or B/Y
		Secondary	10–25 k Ω	Plug cap– W or B/Y
Generator no-load voltage		More than 90 V (AC) at 5 000 r/min.		
Regulated voltage		14–15 V at 5 000 r/min.		
Starter motor		Brush length	Limit: 6 (0.24)	MITSUBA
		Commutator under-cut	Limit: 0.2 (0.008)	
Starter relay resistance		2–6 Ω		
Cornering light relay resistance		108–162 Ω		
Battery	Type designation	SY50-N18L-A		
	Capacity	12 V 72 kC (20 Ah)/10HR		
	Standard electrolyte S.G.	1.28 at 20°C (68°F)		
Fuse size	Headlight	10 A		
	Signal	10 A		
	Ignition	10 A		
	Tail	10 A		
	Power source	10 A		
	CB	3 A		
	Audio	5 A		
	ALC	10 A		
Circuit breaker		30 A		

WATTAGE

Unit: W

ITEM		SPECIFICATION
Headlight	HI	60
	LO	55
Tail/Brake light		8/23
Turn signal light		23
Cornering light		35
Combination meter light		3.4
Turn signal indicator light		3.4
High beam indicator light		1.7
Neutral indicator light		3.4
Oil pressure indicator light		3.4
Cruise indicator light		3.4
License light		8
Travel trunk light		5

BRAKE + WHEEL + VENTILATOR

Unit: mm (in)

ITEM	STANDARD		LIMIT
Rear brake pedal height	Above 15 (0.6)		—
Brake disc thickness	Front (R. & L.)	5.0 ± 0.2 (0.197 ± 0.008)	4.5 (0.18)
	Rear	6.7 ± 0.2 (0.264 ± 0.008)	6.0 (0.24)
Brake disc runout	—		0.30 (0.012)
Master cylinder bore	Front	15.870–15.913 (0.6248–0.6265)	—
	Rear	12.700–12.743 (0.5000–0.5017)	—
Master cylinder piston diam.	Front	15.827–15.854 (0.6231–0.6242)	—
	Rear	12.657–12.684 (0.4983–0.4994)	—
Brake caliper cylinder bore	Front (R. & L.)	42.850–42.926 (1.6870–1.6900)	—
	Rear	45.000–45.076 (1.7717–1.7746)	—
Brake caliper piston diam.	Front (R. & L.)	42.770–42.820 (1.6839–1.6858)	—
	Rear	44.930–44.980 (1.7689–1.7709)	—
Wheel rim runout	Axial	—	2.0 (0.08)
	Radial	—	2.0 (0.08)
Wheel axle runout	Front	—	0.25 (0.010)
	Rear	—	0.25 (0.010)
Tire size	Front	130/90-16 67H	—
	Rear	150/90-15 74H	—
Tire tread depth	Front	—	1.6 (0.06)
	Rear	—	2.0 (0.08)
Ventilator control cable play	0.5–1.0 (0.02–0.04)		—

SUSPENSION

Unit: mm (in)

ITME	STANDARD	LIMIT	NOTE
Front fork stroke	150 (5.9)	—	
Front fork spring free length	—	454 (17.9)	
Front fork oil level	121 (4.8)	—	

ITEM	STANDARD	LIMIT	NOTE
Front suspension stroke	150 (5.9)	—	
Rear wheel travel	106 (4.2)	—	

TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
	kPa	kg/cm ²	psi	kPa	kg/cm ²	psi
FRONT	225	2.25	32	225	2.25	32
REAR	280	2.80	40	280	2.80	40

FUEL + OIL + COOLANT

ITEM	SPECIFICATION		NOTE
Fuel type	Gasoline used should be graded 85-95 octane or higher. An unleaded or low-lead gasoline type is recommended.		
Fuel tank including reserve	23 L (6.1/5.1 US/Imp gal)		
Engine oil type and grade	SAE 10W/40, API SE or SF		
Engine oil capacity	Change	3 200 ml (3.4/2.8 US/Imp qt)	
	Filter change	3 700 ml (3.9/3.3 US/Imp qt)	
	Overhaul	4 200 ml (4.4/3.7 US/Imp qt)	
Front fork oil type	Fork oil #15		
Front fork oil capacity (each leg)	407 ml (13.8/14.1 US/Imp oz)		
Bevel gear and propeller shaft oil type	SAE 90 hypoid gear oil with GL-5 under API classification		
Bevel gear oil capacity	Secondary	330 – 350 ml (11.2 – 11.8/11.6 – 12.3 US/Imp oz)	
	Final	330 – 350 ml (11.2 – 11.8/11.6 – 12.3 US/Imp oz)	
Brake and clutch fluid type	DOT4		
Coolant including reserve tank	3.6 L (3.8/3.2 US/Imp qt)		
reserve tank	0.6 L (0.6/0.5 US/Imp qt)		

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