



YAMAHA

XV1100S/SC

**Supplementary
Service Manual**

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and new data for the XV1100S/SC. For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with following manual:

XV700L/XV1000L Service Manual (LIT-11616-04-13)

**TECHNICAL PUBLICATIONS
SERVICE DIVISION
MOTORCYCLE OPERATIONS
YAMAHA MOTOR CO., LTD.**

NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motorcycles have a basic understanding of the mechanical concepts and procedures inherent in motorcycle repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit to use and/or unsafe.

Yamaha Motor Company, Ltd. is continually striving to improve all models manufactured by Yamaha. Modifications and significant changes in specifications or procedures will be forwarded to all Authorized Yamaha dealers and will, where applicable, appear in future editions of this manual.

**XV1100S/SC
SUPPLEMENTARY SERVICE MANUAL
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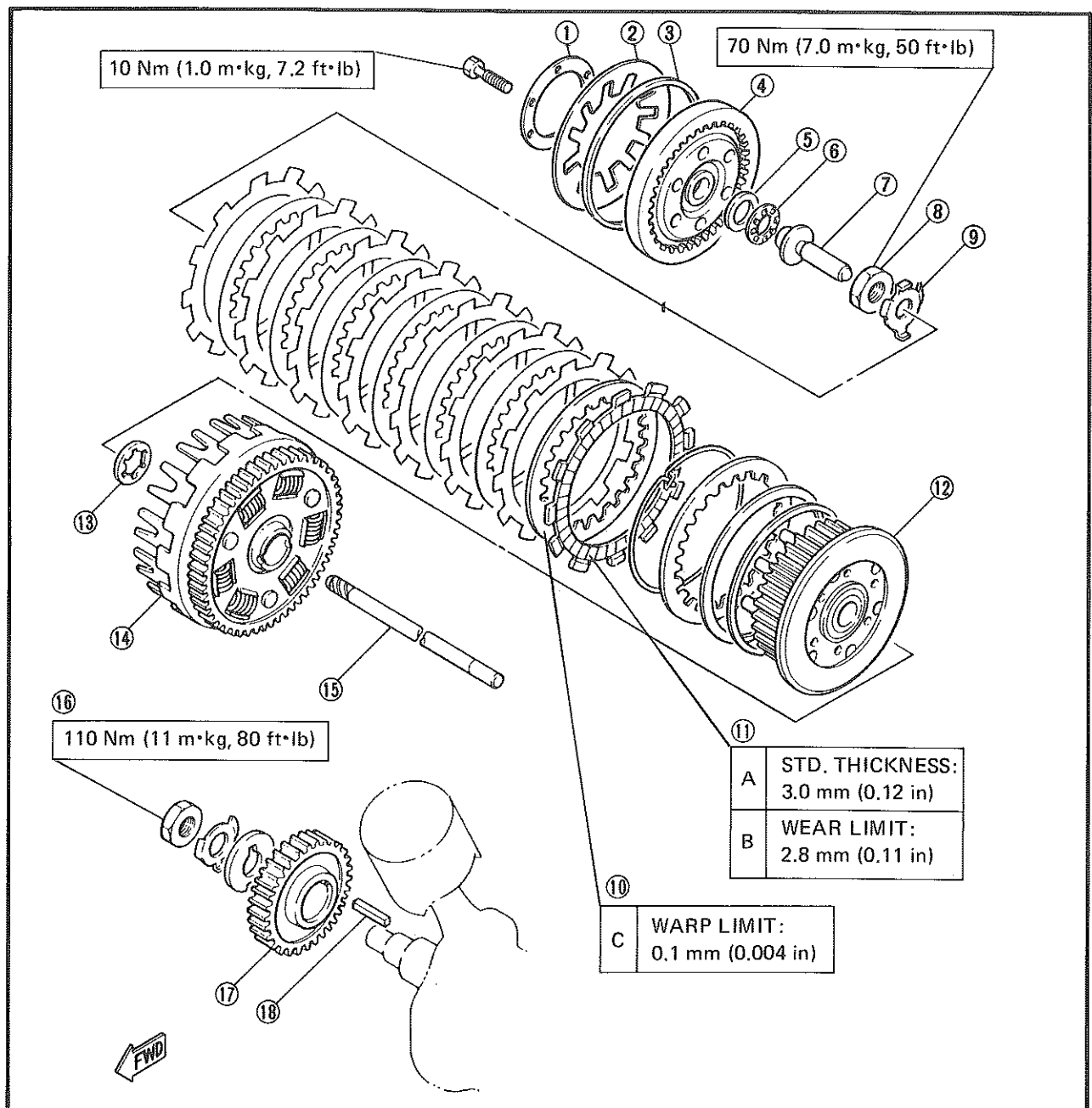
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WIRING DIAGRAM	



ENGINE

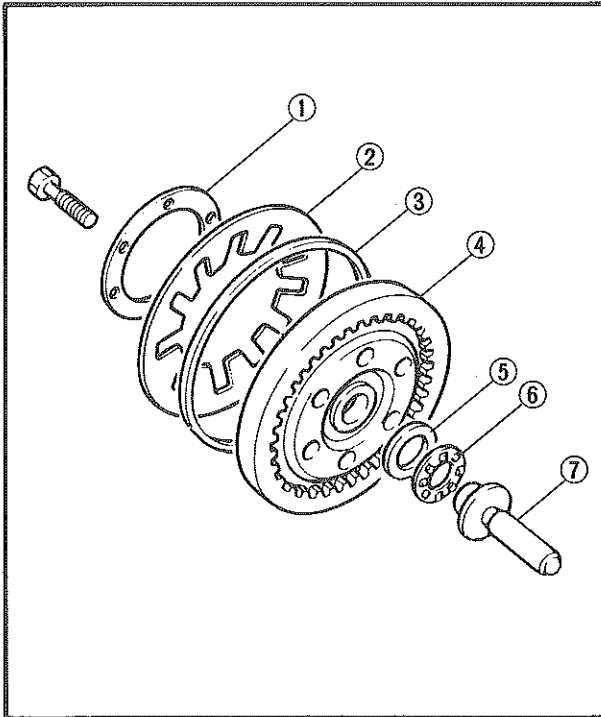
PRIMARY GEARS AND CLUTCH

- ① Plate washer
- ② Clutch spring
- ③ Spring seat
- ④ Clutch pressure plate
- ⑤ Washer
- ⑥ Thrust bearing
- ⑦ Push rod No. 1
- ⑧ Clutch boss securing nut
- ⑨ Lock washer
- ⑩ Clutch plate
- ⑪ Friction plate
- ⑫ Clutch boss
- ⑬ Thrust washer
- ⑭ Clutch housing
- ⑮ Push rod No. 2
- ⑯ Primary drive gear securing nut
- ⑰ Primary drive gear
- ⑱ Key



PRIMARY GEARS AND CLUTCH

ENG



DISASSEMBLY

Follow the CLUTCH AND PRIMARY GEAR disassembly step 1 and 2 of the XV1000L Service Manual.

1. Remove:

- Bolt
- Plate washer ①
- Clutch spring ②
- Spring seat ③
- Clutch pressure plate ④
- Washer ⑤
- Thrust bearing ⑥
- Push rod No. 1 ⑦
- Push rod No. 2

Follow the CLUTCH AND PRIMARY GEAR disassembly step 5 to 9.

INSPECTION AND REPAIR

Clutch Spring

1. Inspect:

- Clutch spring ①
- Wear/Bends/Cracks → Replace.

2. Measure:

- Clutch spring free height
- Out of specification → Replace springs as a set.



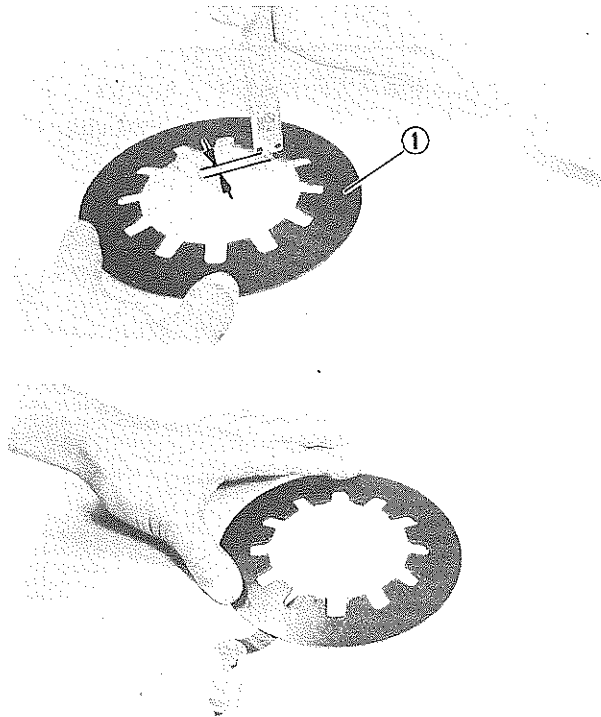
Clutch Spring Minimum Height:
6.5 mm (0.256 in)

3. Measure:

- Clutch spring warpage
- Use a surface plate and Feeler Gauge.
- Out of specification → Replace.



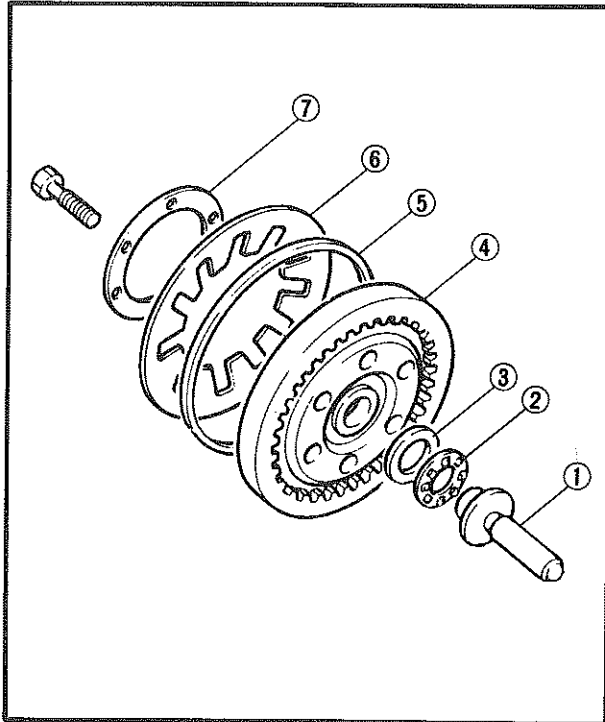
Warp Limit:
0.1 mm (0.004 in)



Spring Seat

1. Inspect:

- Spring seat
- Wear/Bends/Damage → Replace.

**ASSEMBLY**

1. Follow the PRIMARY GEAR AND CLUTCH assembly and adjustment step 1 to 11.
2. Install:
 - Push rod No. 2
 - Push rod No. 1 ①
 - Thrust bearing ②
 - Washer ③
 - Clutch pressure plate ④
 - Spring seat ⑤
 - Clutch spring ⑥
 - Plate washer ⑦
 - Bolt



Bolt:
10 Nm (1.0 m·kg, 7.2 ft·lb)

NOTE:

Mesh the pressure plate spline with the clutch boss spline.

3. Follow the PRIMARY GEAR AND CLUTCH assembly and adjustment step 14.

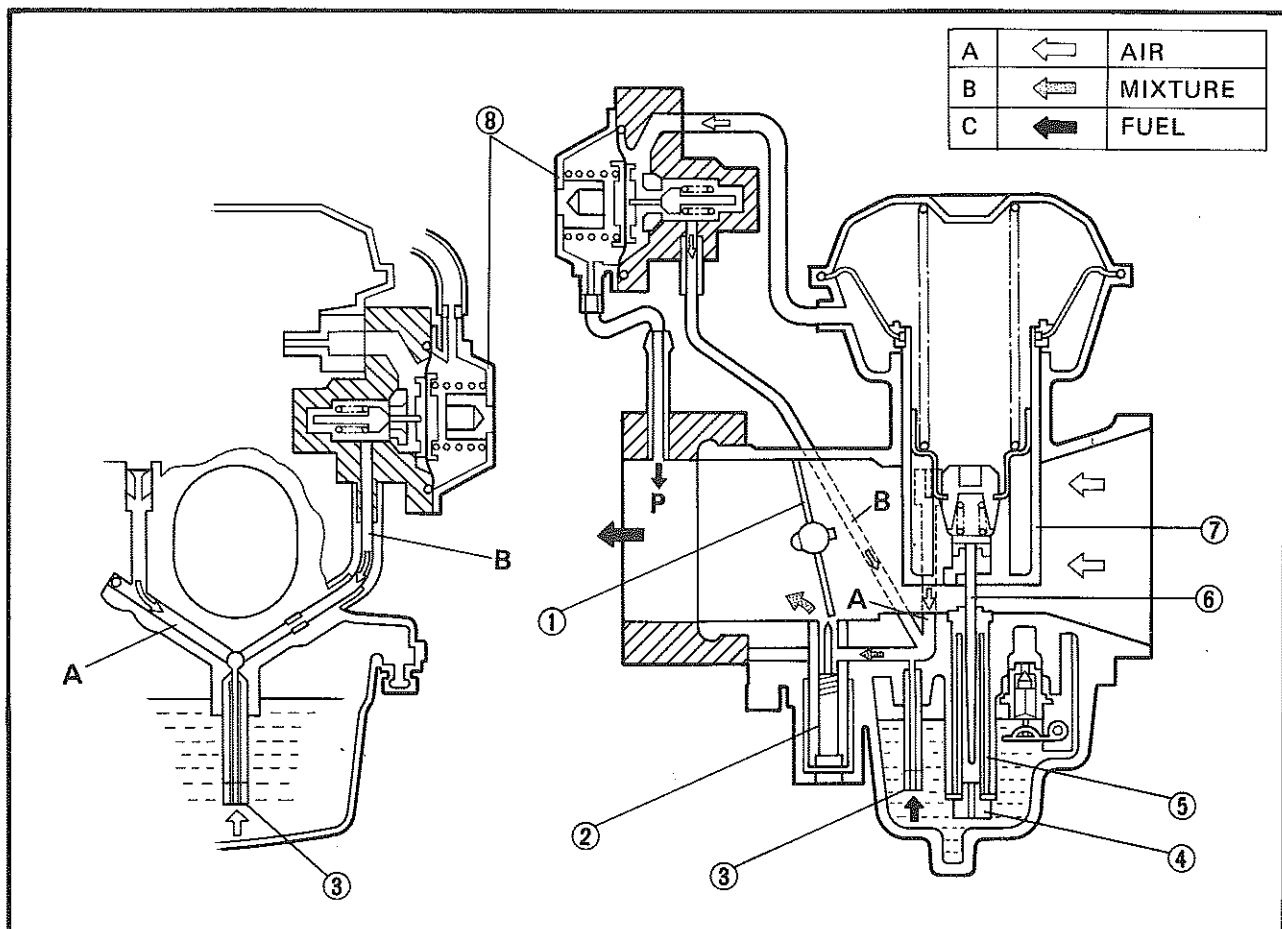


CARBURETION

CARBURETOR

COASTING ENRICHER SYSTEM SECTION VIEW

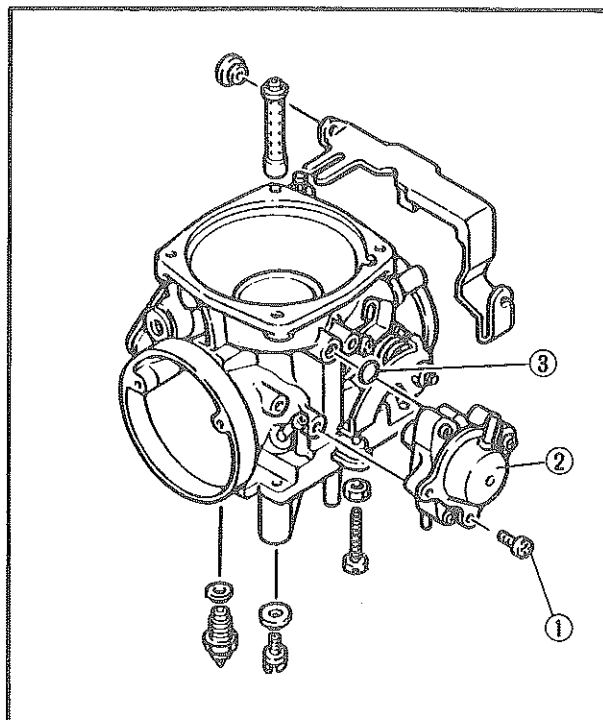
- | | |
|------------------|---------------------|
| ① Throttle valve | ⑤ Main nozzle |
| ② Pilot screw | ⑥ Jet needle |
| ③ Pilot jet | ⑦ Vacuum piston |
| ④ Main jet | ⑧ Coasting enricher |



- When the throttle is open, air is supplied to the pilot jet through route A and B.
- When the throttle is closed, carb. joint vacuum (P) is increased, thereby pulling the enricher diaphragm and shutting off the air in route B. Hence, the mixture at the pilot outlet becomes richer and reduces afterburning.



CARBURETOR



DISASSEMBLY

1. Remove:

- Screws ①
- Coasting enricher assembly ②
- O-ring ③

INSPECTION

1. Check:

- Coasting enricher diaphragm
 - O-ring
- Tears/Damage → Replace.

ASSEMBLY

1. Install:

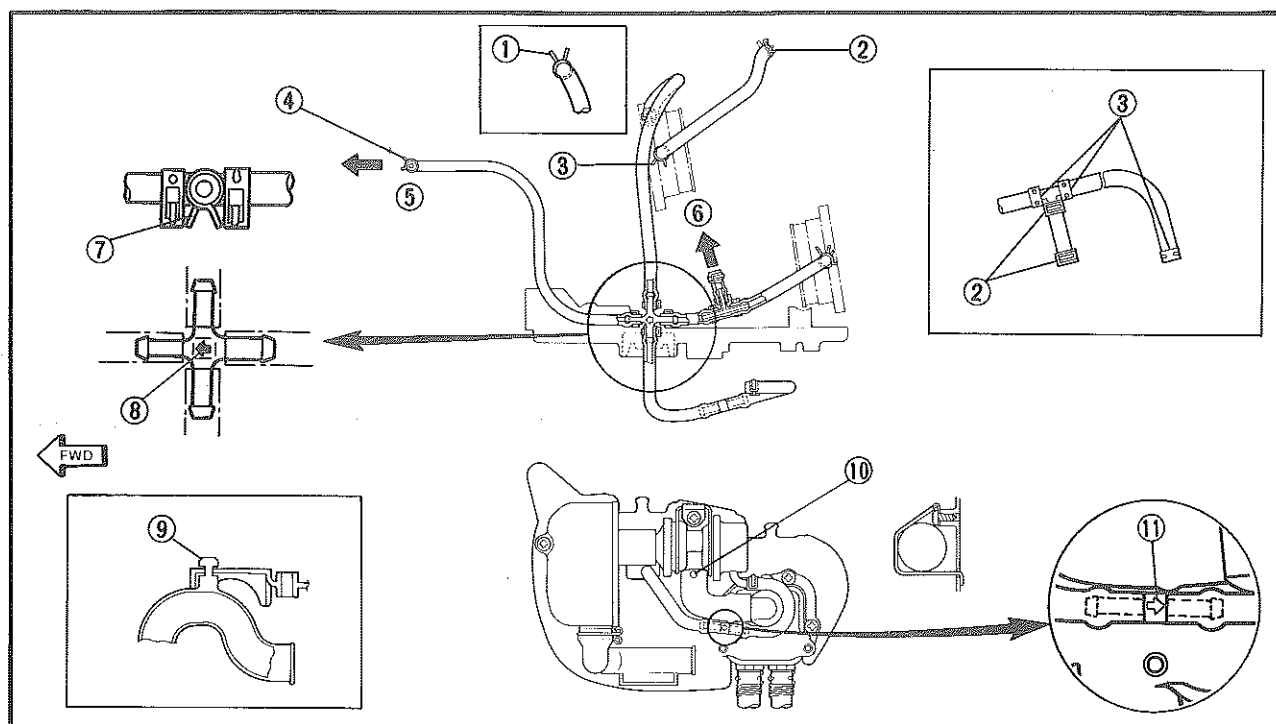
- O-ring ③
- Coasting enricher assembly ②
- Screws ①

AIR INDUCTION SYSTEM

Vacuum Line Routing

- ① Make the clamping claws face downward
- ② Make the clamping claws face the out side
- ③ Make the clamping claws face inside
- ④ Make the clamping claws face the direction of the motorcycle's direction
- ⑤ To pressure sensor
- ⑥ To coasting enricher

- ⑦ Make the clamping claws face downward
- ⑧ Make the arrow mark face the pressure sensor
- ⑨ Insert the projection of the hose bend into the square hole
- ⑩ Make the white point mark face the air-cut valve side
- ⑪ Make the arrow mark face the air-cut valve side



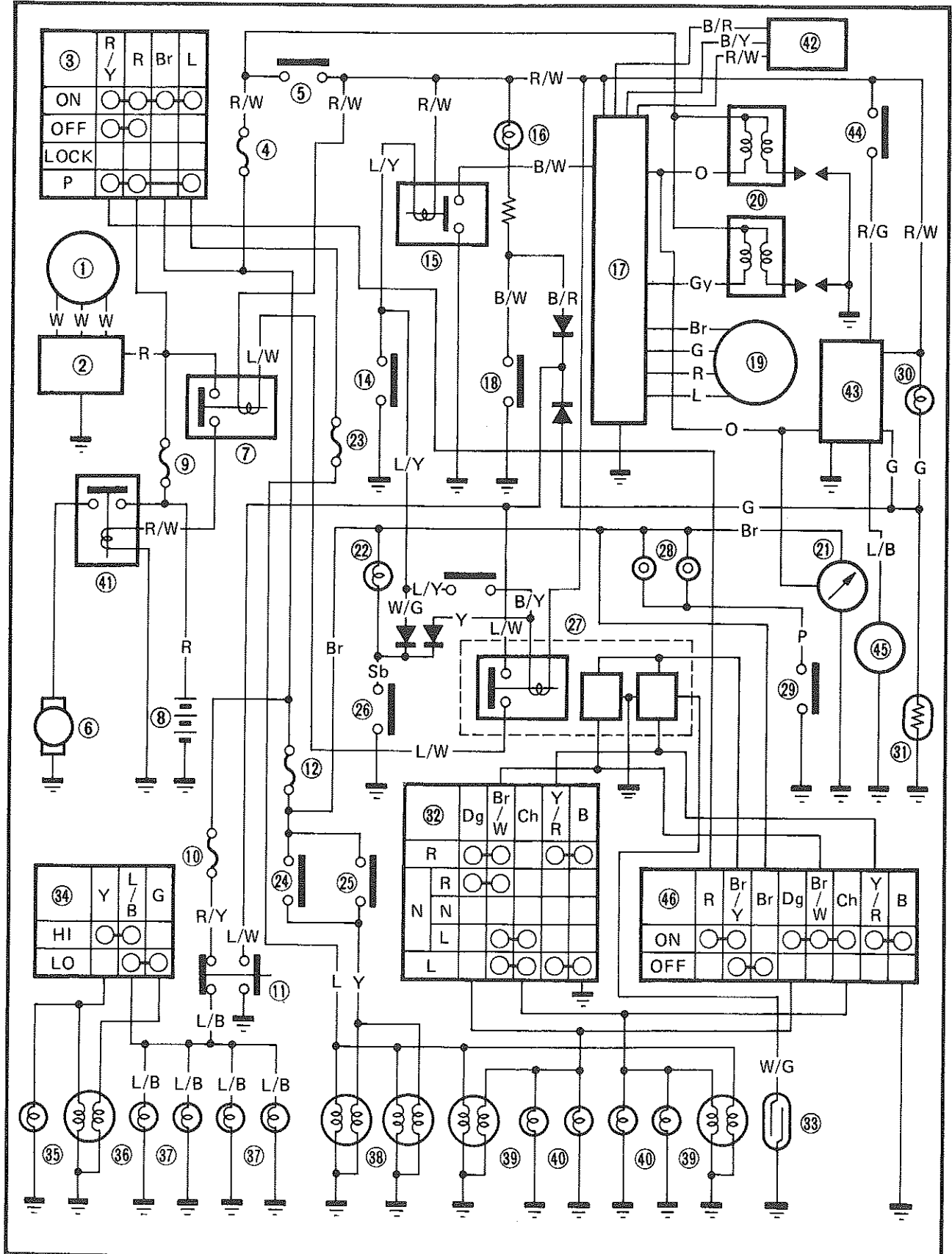
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ELECTRICAL

XV1100S/SC CIRCUIT DIAGRAM



CIRCUIT DIAGRAM

ELEC



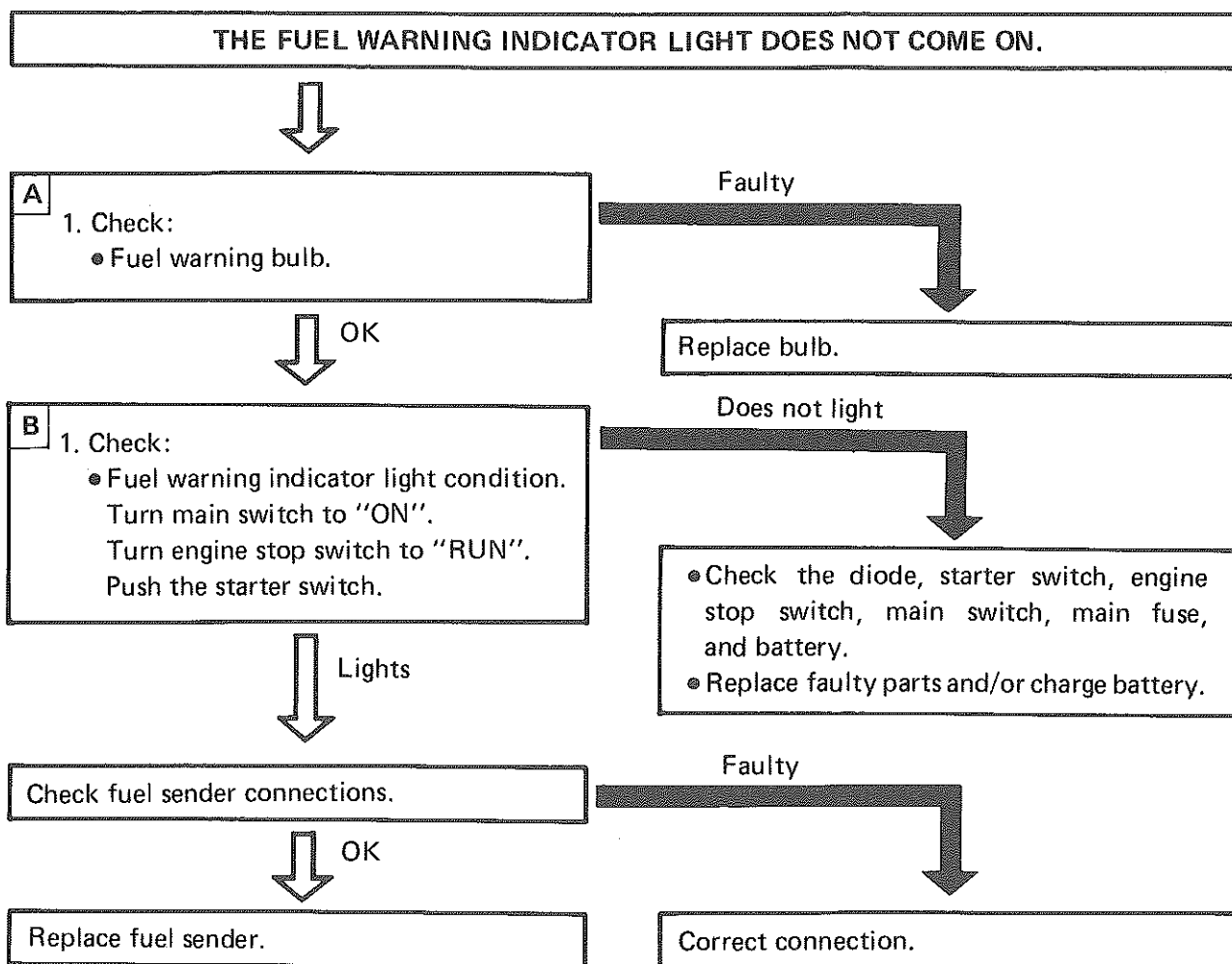
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|-----------------------------|---------------------------------|------------------------------|
| ① AC Magneto | ①⑦ Ignitor unit | ③② Flasher switch |
| ② Rectifier/Regulator | ①⑧ Oil level switch | ③③ Reed switch |
| ③ Main switch | ①⑨ Pick up coil | ③④ Dimmer switch |
| ④ Ignition fuse | ②⑩ Ignition coil | ③⑤ High beam indicator light |
| ⑤ Engine stop switch | ②⑪ Tachometer | ③⑥ Headlight |
| ⑥ Starter motor | ②⑫ Neutral indicator light | ③⑦ Meter illumination light |
| ⑦ Starter relay | ②⑬ Tail fuse | ③⑧ Tail/Brake light |
| ⑧ Battery | ②⑭ Front brake switch | ③⑨ Flasher indicator light |
| ⑨ Main fuse | ②⑮ Rear brake switch | ④⑩ Flasher light |
| ⑩ Head fuse | ②⑯ Neutral switch | ④⑪ Solenoid switch |
| ⑪ Starter switch | ②⑰ Relay assembly | ④⑫ Pressure sensor |
| ⑫ Signal fuse | ②⑱ Horn | ④⑬ Fuel pump controller |
| ⑬ Clutch switch | ②⑲ Horn switch | ④⑭ Reserve switch |
| ⑭ Sidestand switch | ③⑰ Fuel warning indicator light | ④⑮ Fuel pump |
| ⑮ Sidestand relay | ③⑱ Fuel sender | ④⑯ Hazard switch |
| ⑯ Oil level indicator light | | |

COLOR CODE

GyGray
 LBlue
 RRed
 GGreen
 Br.Brown
 BBlack
 ChChocolate
 YYellow

PPink
 WWhite
 OOrange
 R/WRed/White
 L/RBlue/Red
 R/YRed/Yellow
 Br/WBrown/White

W/GWhite/Green
 Y/RYellow/Red
 L/WBlue/White
 B/RBlack/Red
 L/B. . . .Blue/Black
 Y/GYellow/Green
 W/YWhite/Yellow

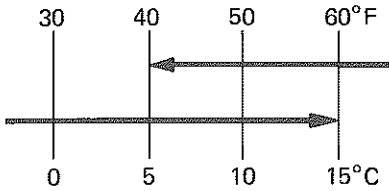
TROUBLESHOOTING CHART


GENERAL SPECIFICATIONS



SPECIFICATIONS

GENERAL SPECIFICATIONS

Item	Model	
	XV1100S/SC	
Model: IBM Number Engine Starting Number Frame Starting Number	XV1100SC 1TA 1TA-000101 JYA1TA00 * GA000101	XV1100S 1TE 1TE-000101 JYA1TE00 * GA000101
Dimensions: Overall Length Overall Width Overall Height Seat Height Wheelbase Minimum Ground Clearance	2,235 mm (88.0 in) 840 mm (33.1 in) 1,170 mm (46.1 in) 715 mm (28.1 in) 1,525 mm (60.0 in) 145 mm (5.7 in)	
Basic Weight: With Oil and Full Fuel Tank	239 kg (527 lb)	
Minimum Turning Radius:	2,740 mm (107.9 in)	
Engine: Engine Type Cylinder Arrangement Displacement Bore x Stroke Compression Ratio Compression Pressure Starting System	Air cooled 4-stroke, gasoline, SOHC V-2 cylinder 1,063 cm ³ 95.0 x 75.0 mm (3.74 x 2.95 in) 8.3 : 1 980 kPa (10 kg/cm ² , 142 psi) at 300 r/min Electric starter	
Lubrication System:	Wet sump	
Oil Type or Grade: Engine Oil  Final Gear Oil	Yamalube 4-cycle oil or SAE 20W40 type SE motor oil (If temperature does not go below 5°C (40°F).) SAE 10W30 type SE motor oil (If temperature does not go above 15°C (60°F).) SAE 80 API "GL-4" Hypoid gear oil	
Oil Capacity: Engine Oil: Periodic Oil Change With Oil Filter Replacement Total Amount Final Gear Case Oil Amount	3.0 L (2.6 Imp qt, 3.2 US qt) 3.1 L (2.7 Imp qt, 3.3 US qt) 3.6 L (3.2 Imp qt, 3.8 US qt) 0.2 L (0.18 Imp qt, 0.21 US qt)	
Air Filter:	Dry type element	



Item	Model	XV1100S/SC	
Fuel:			
Type		Regular gasoline	
Tank Capacity		16.8 L (3.69 Imp gal, 4.43 US gal)	
Reserve Amount		3.0 L (0.66 Imp gal, 0.79 US gal)	
Carburetor:			
Type		HSC40 x 2	
Manufacturer		HITACHI	
Spark Plug:			
Type/Manufacturer		BP7ES/NGK W22EP-U/ND	
Gap		0.7 ~ 0.8 mm (0.028 ~ 0.031 in)	
Clutch Type:		Wet, multiple-disc	
Transmission:			
Primary Reduction System		Spur gear	
Primary Reduction Ratio		78/47 (1.659)	
Secondary Reduction System		Shaft drive	
Secondary Reduction Ratio		45/46 x 19/18 x 32/11 (3.003)	
Transmission Type		Constant-mesh, 5-speed	
Operation		Left foot operation	
Gear Ratio			
1st		39/17 (2.294)	
2nd		40/24 (1.666)	
3rd		36/28 (1.285)	
4th		32/31 (1.032)	
5th		29/34 (0.852)	
Chassis:			
Frame Type		Pressed backbone	
Caster Angle		32°	
Trail		129 mm (5.1 in)	
Tire:			
Type		Tubeless	
Size (F)		100/90-19 57H	
Size (R)		140/90-15 70H	
Tire Pressure (Cold tire):		FRONT	REAR
WEIGHT with Oil and Full Fuel Tank		239 kg (527 lb)	
Standard Tire		Bridgestone/Dunlop 100/90-19 57H	Bridgestone/Dunlop 140/90-15 70H
Cold Tire Pressure:			
Up to 90 kg (198 lb) Load*		177 kPa (1.8 kg/cm ² , 26 psi)	196 kPa (2.0 kg/cm ² , 28 psi)
90 kg (198 lb) Load ~ 160 kg (353 lb) Load*		196 kPa (2.0 kg/cm ² , 28 psi)	226 kPa (2.3 kg/cm ² , 32 psi)
160 kg (353 lb) Load* ~		196 kPa (2.0 kg/cm ² , 28 psi)	275 kPa (2.8 kg/cm ² , 40 psi)
231 kg (509 lb) Load*		226 kPa (2.3 kg/cm ² , 32 psi)	245 kPa (2.5 kg/cm ² , 36 psi)
High Speed Riding		1.0 mm (0.04 in)	1.0 mm (0.04 in)
Minimum Tire Tread Depth		* Load is the total weight of cargo, rider, passenger, and accessories.	

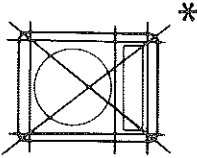
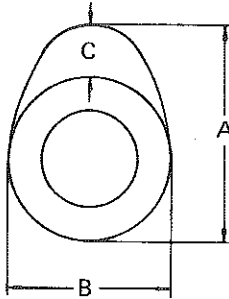
GENERAL SPECIFICATIONS

APPX



Item	Model	XV1100S/SC
Brake: Front Brake Type Operation Rear Brake Type Operation		Dual disc brake Right hand operation Drum brake Right foot operation
Suspention: Front Suspension Rear Suspension		Telescopic fork Swingarm (Conventional)
Shock Absorber: Front Shock Absorber Rear Shock Absorber		Coil-Air spring, oil damper Coil spring, oil damper
Wheel Travel: Front Wheel Travel Rear Wheel Travel		150 mm (5.9 in) 97 mm (3.8 in)
Electrical: Ignition System Generator System Battery Type or Model Battery Capacity		T.C.I. A.C. Generator GM18Z-3A 12V 20AH
Headlight Type:		Quartz bulb
Bulb Wattage x Quantity: Headlight Tail/Brake Light Flasher Light		60W/55W x 1 8W/27W x 2 27W x 4
Indicator Light: Meter Light Wattage x Quantity: "NEUTRAL" "HIGH BEAM" "TURN" "FUEL" "OIL LEVEL"		3W x 4 3W x 1 3W x 1 3W x 2 3W x 1 3W x 1

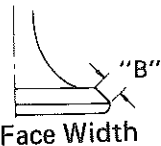
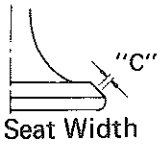
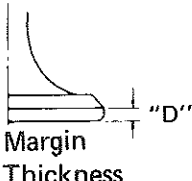
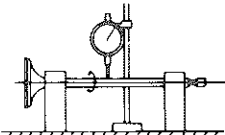

MAINTENANCE SPECIFICATIONS
ENGINE

Item	Model
Cylinder Head: Warp Limit 	XV1100S/SC 0.03 mm (0.001 in) * Lines indicate straightedge measurement.
Cylinder: Bore Size Taper Limit Out-of-round Limit	95.0 mm (3.74 in) 0.05 mm (0.002 in) 0.01 mm (0.0004 in)
Camshaft: Drive Method Cam Cap Inside Diameter Camshaft Outside Diameter Shaft-to-cap Clearance Cam Dimensions: Intake "A" "B" "C" Exhaust "A" "B" "C"  Camshaft Runout Limit: Cam Chain Type/Number of Links Cam Chain Adjustment Method	Chain drive (left, right) $25^{+0.021}_0$ mm ($0.9843^{+0.0008}_0$ in) $25^{-0.020}_{-0.040}$ mm ($0.9843^{-0.0008}_{-0.0016}$ in) 0.020 ~ 0.061 mm (0.0008 ~ 0.0024 in) 39.17 mm (1.5421 in) 32.17 mm (1.2665 in) 7.00 mm (0.2756 in) 39.20 mm (1.5433 in) 32.27 mm (1.2705 in) 6.93 mm (0.2728 in) 0.03 mm (0.001 in) SILENT CHAIN/98 Automatic
Rocker Arm/Rocker Arm Shaft: Bearing Inside Diameter Shaft Outside Diameter Arm-to-shaft Clearance	 $14^{+0.018}_0$ mm ($0.551^{+0.0007}_0$ in) $14^{-0.009}_{-0.015}$ mm ($0.551^{-0.00035}_{-0.00059}$ in) 0.009 ~ 0.033 mm (0.00035 ~ 0.00130 in)

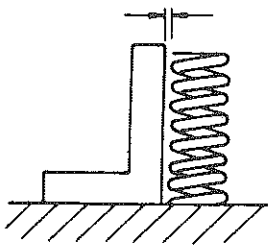
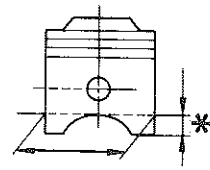
MAINTENANCE SPECIFICATIONS

APPX



Item		Model	XV1100S/SC
Valve, Valve Seat, Valve Guide:			
Valve Clearance (Cold):	IN.		0.07 ~ 0.12 mm (0.00276 ~ 0.00472 in)
	EX.		0.12 ~ 0.17 mm (0.00472 ~ 0.00669 in)
Valve Dimensions:			
		   	
"A" Head Dia.	IN.		47 ^{+0.2} ₀ mm (1.85 ^{+0.008} ₀ in)
	EX.		39 ^{+0.2} ₀ mm (1.54 ^{+0.008} ₀ in)
"B" Face Width	IN.		2.1 mm (0.083 in)
	EX.		2.1 mm (0.083 in)
"C" Seat Limit Width	IN.		1.3 ± 0.1 mm (0.051 ± 0.004 in)
	EX.		1.3 ± 0.1 mm (0.051 ± 0.004 in)
"D" Margin Thickness Limit	IN.		1.3 ± 0.2 mm (0.051 ± 0.008 in)
	EX.		1.3 ± 0.2 mm (0.051 ± 0.008 in)
Stem Outside Diameter	IN.		8 ^{-0.010} _{-0.025} mm (0.315 ^{-0.0004} _{-0.0010} in)
	EX.		8 ^{-0.025} _{-0.040} mm (0.315 ^{-0.0010} _{-0.0016} in)
Guide Inside Diameter	IN.		8 ^{+0.012} ₀ mm (0.315 ^{+0.0005} ₀ in)
	EX.		8 ^{+0.012} ₀ mm (0.315 ^{+0.0005} ₀ in)
Stem-to-guide Clearance	IN.		0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.		0.025 ~ 0.052 mm (0.0010 ~ 0.0020 in)
Stem Runout Limit			0.03 mm (0.001 in)
			
Valve Spring:			
Free Length:			
Innser Spring	IN.		43.39 mm (1.708 in)
	EX.		43.39 mm (1.708 in)
Outer Spring	IN.		45.33 mm (1.785 in)
	EX.		45.33 mm (1.785 in)
Installed Length (Valve closed):			
Inner Spring	IN.		38.0 mm (1.496 in)
	EX.		38.0 mm (1.496 in)
Outer Spring	IN.		40.0 mm (1.575 in)
	EX.		40.0 mm (1.575 in)
Installed Force:			
Inner Spring	IN.		6.9 kg (15.2 lb)
	EX.		6.9 kg (15.2 lb)
Outer Spring	IN.		13.1 kg (28.9 lb)
	EX.		13.1 kg (28.9 lb)

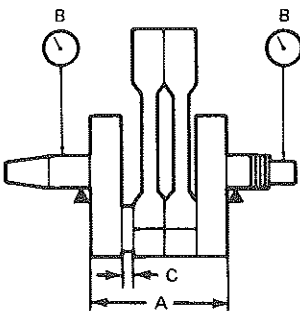


Item	Model	XV1100S/SC			
Tilt Limit: Inner Spring IN. & EX. Outer Spring IN. & EX.  Direction of Winding (Top view)		2.5°/1.9 mm (0.0748 in)		2.5°/1.9 mm (0.0748 in)	
		Inner spring		Outer spring	
		IN	EX	IN	EX
		Left	Left	Right	Right
Piston: Piston Size/ Measuring Point *  Clearance between Piston & Cylinder Oversize: 2nd 4th		94.930 ~ 94.980 mm (3.737 ~ 3.739 in)/ 14.6 mm (0.575 in) (From bottom line of piston skirt) 0.045 ~ 0.065 mm (0.0018 ~ 0.0026 in) 95.50 mm (3.76 in) 96.00 mm (3.78 in)			
Piston Ring: Sectional Sketch  Top Ring B T  2nd Ring B T  Oil Ring B T End Gap (Installed): Side Clearance:		Plain 1.5 mm (0.06 in) 3.8 mm (0.15 in) Taper 1.2 mm (0.0472 in) 3.8 mm (0.15 in) 2.5 mm (0.0984 in) 3.4 mm (0.13 in) Top Ring 0.3 ~ 0.5 mm (0.012 ~ 0.020 in) 2nd Ring 0.3 ~ 0.45 mm (0.012 ~ 0.018 in) Oil Ring 0.2 ~ 0.7 mm (0.008 ~ 0.0276 in) Top Ring 0.04 ~ 0.08 mm (0.0016 ~ 0.0031 in) 2nd Ring 0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)			

MAINTENANCE SPECIFICATIONS

APPX



Item	Model XV1100S/SC
Connecting Rod Oil Clearance Color Code (Corresponding size)	$0.030 \sim 0.054 \text{ mm (0.0012} \sim 0.0021 \text{ in)}$ 1. Blue $(1.5^{+0.001}_{-0.003})$ 2. Black $(1.5^{-0.003}_{-0.007})$ 3. Brown $(1.5^{-0.007}_{-0.007})$ 4. Green $(1.5^{-0.011}_{-0.015})$ 5. Yellow $(1.5^{-0.015}_{-0.019})$
Crankshaft:  Crank Width "A" Runout Limit "B" Big End Side Clearance "C"	$102^{0}_{-0.05} \text{ mm (4.02}^{0}_{-0.002} \text{ in)}$ $0.02 \text{ mm (0.0008 in)}$ $0.370 \sim 0.474 \text{ mm (0.0146} \sim 0.0187 \text{ in)}$
Clutch: Friction Plate Thickness x Quantity Wear Limit Clutch Plate Thickness x Quantity Warp Limit Clutch Spring Free Length x Quantity Clutch Release Method Push Rod Bending Limit	$3.0 \pm 0.1^{\text{t}} \text{ mm (0.12} \pm 0.004 \text{ in)} \times 8$ 2.8 mm (0.11 in) $2.0 \pm 0.1 \text{ mm (0.079} \pm 0.004 \text{ in)} \times 7$ $0.1 \text{ mm (0.004 in)}$ $7.2 \text{ mm (0.283 in)} \times 1$ Inner push, screw push 0.5 mm (0.02 in)
Transmission: Main Axle Deflection Limit Drive Axle Deflection Limit	$0.08 \text{ mm (0.0031 in)}$ $0.08 \text{ mm (0.0031 in)}$
Shifter: Shifter Type	Guide bar

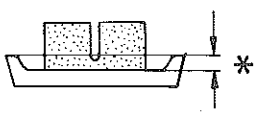
Item	Model	XV1100S/SC	
Carburetor:			
Model		XV1100S	XV1100SC
Type/Manufacturer/Quantity		HSC40/HITACHI/2	←
I.D. Mark		1TE	1TF
Main jet (M.J.)	Left (#1) carburetor	#122	←
	Right (#2) carburetor	#128	←
Main air jet (M.A.J.)		#50	←
Jet needle-clip position (J.N.)	Left (#1) carburetor	Y-33	←
	Right (#2) carburetor	Y-33	←
Needle jet (N.J.)		φ3.2	←
Throttle valve (Th.V.)		13.0°	←
Pilot jet (P.J.)		#40	←
Pilot air jet (P.A.J.)		#100	←
Pilot screw (P.S.)		Preset	←
Valve seat size (V.S.)		φ1.4	←
Starter jet (G.S.)		#40	←
Fuel level (F.L.)		0 ± 1.0 mm (0 ± 0.04 in)	←
Engine idling speed		1,000 ± 50 tr/min	
Vacuum pressure at idling speed		24 ± 1.3 kPa (180 ± 10 mmHg, 7.09 ± 0.4 inHg)	←
Vacuum synchronous difference		Below 10 kPa (10 mmHg, 0.4 inHg)	←
Lubrication System:			
Oil Filter Type		Paper	
Oil Pump Type		Trochoid pump	
Tip Clearance	< Limit >	0.03 ~ 0.09 mm (0.001 ~ 0.004 in)	
Side Clearance	< Limit >	0.03 ~ 0.08 mm (0.001 ~ 0.003 in)	
Bypass Valve Setting Pressure		980 ± 20 kPa (1.0 ± 0.2 kg/cm ² , 14.2 ± 2.8 psi)	
Relief Valve Operating Pressure		490 ± 49 kPa (5.0 ± 0.5 kg/cm ² , 71 ± 7.1 psi)	

MAINTENANCE SPECIFICATIONS

APPX



CHASSIS

Model		XV1100S/SC
Item		
Steering System: Steering Bearing Type		Taper roller bearing
Front Suspension: Front Fork Travel Fork Spring Free Length Spring Rate/Stroke Optional Spring Oil Capacity or Oil Level Oil Grade Enclosed Air Pressure: Standard Minimum Maximum		150 mm (5.9 in) 513 mm (20.2 in) $K_1 = 6.3 \text{ N/mm (0.64 kg/mm, 35.8 lb/in)}$ 0 ~ 150 mm (0 ~ 5.9 in) No 372 cm ³ (13.1 Imp oz, 12.6 US oz) 179 mm (7.0 in) (From top of inner tube fully compressed without spring.) Yamaha fork oil 10wt or SAE 10W30 Type SE motor oil 39.2 kPa (0.4 kg/cm ² , 5.7 psi) 39.2 kPa (0.4 kg/cm ² , 5.7 psi) 117.7 kPa (1.2 kg/cm ² , 17.1 psi)
Rear Suspension: Shock Absorber Travel Spring Free Length Spring Rate/Stroke Optional Spring Rear Damping Adjustment		70 mm (2.8 in) 216.5 mm (8.5 in) $K_1 = 43.1 \text{ N/mm (4.4 kg/mm, 246 lb/in)}$ 0 ~ 40 mm (0 ~ 1.57 in) $K_2 = 62.7 \text{ N/mm (6.4 kg/mm, 358 lb/in)}$ 40 ~ 70 mm (1.57 ~ 2.8 in) No Rebound
Rear Arm: Swingarm Free Play Limit: End Side		1.0 mm (0.04 in) 1.0 mm (0.04 in)
Wheel: Front Wheel Type Rear Wheel Type Front Rim Size/Material Rear Rim Size/Material Rim Runout Limit: Vertical Lateral		Cast wheel Cast wheel MT2.15 x 19/Aluminum MT3.00 x 15/Aluminum 2.0 mm (0.08 in) 2.0 mm (0.08 in)
Disc Brake: Type Front Outside Dia. x Thickness Rad Thickness: Inner < Limit > * Outer < Limit > * Master Cylinder Inside Dia. Caliper Cylinder Inside Dia. Brake Fluid Type		Dual disc 267 x 5 mm (10.7 x 0.2 in) 5.5 mm (0.217 in) 0.5 mm (0.0197 in) 5.5 mm (0.217 in) 0.5 mm (0.0197 in) 15.87 mm (0.625 in) 38.18 mm (1.50 in) DOT #3



Item \ Model	XV1100S/SC
Drum Brake: Type Rear Drum Inside Dia. < Limit > Lining Thickness < Limit > Shoe Spring Free Length	Leading trailing 200 mm (7.87 in) 201 mm (7.91 in) 4 mm (0.16 in) 2 mm (0.08 in) 68 mm (2.7 in)
Brake Lever & Brake Pedal: Brake Lever Free Play Brake Pedal Position Brake Pedal Free Play	5 ~ 8 mm (0.2 ~ 0.3 in) 20 mm (0.8 in) upper from footrest top end 20 ~ 30 mm (0.8 ~ 1.2 in)
Clutch Lever Free Play:	2 ~ 3 mm (0.08 ~ 0.12 in)

Recommended combinations of the front fork and the rear shock absorber settings.

Use this table as a guide for specific riding and motorcycle load conditions.

Front fork		Rear shock absorber		Loading condition			
Air pressure		Spring seat	Damping adjuster	Solo rider	With passenger	With accessories and equipment	With accessories, equipment, and passenger
1	39.2 ~ 78.5 kPa (0.4 ~ 0.8 kg/cm ² , 5.7 ~ 11.4 psi)	1 ~ 2	1 ~ 2	○			
2	39.2 ~ 78.5 kPa (0.4 ~ 0.8 kg/cm ² , 5.7 ~ 11.4 psi)	3 ~ 5	2 ~ 3		○		
3	58.8 ~ 98.1 kPa (0.6 ~ 1.0 kg/cm ² , 8.5 ~ 14.2 psi)	3 ~ 5	3 ~ 4			○	
4	78.5 ~ 117.7 kPa (0.8 ~ 1.2 kg/cm ² , 11.4 ~ 17.1 psi)	5	4				○

Tightening Torque

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Stay 1, 2 & Stay 3, 4	Bolt	M6 x P1.0	4	7.0	0.7	5.1	
Stay 1, 2 & Frame	Bolt	M10 x P1.25	2	27	2.7	19	
Stay 3, 4 & Frame	Screw	M8 x P1.25	2	20	2.0	14	

MAINTENANCE SPECIFICATIONS

APPX



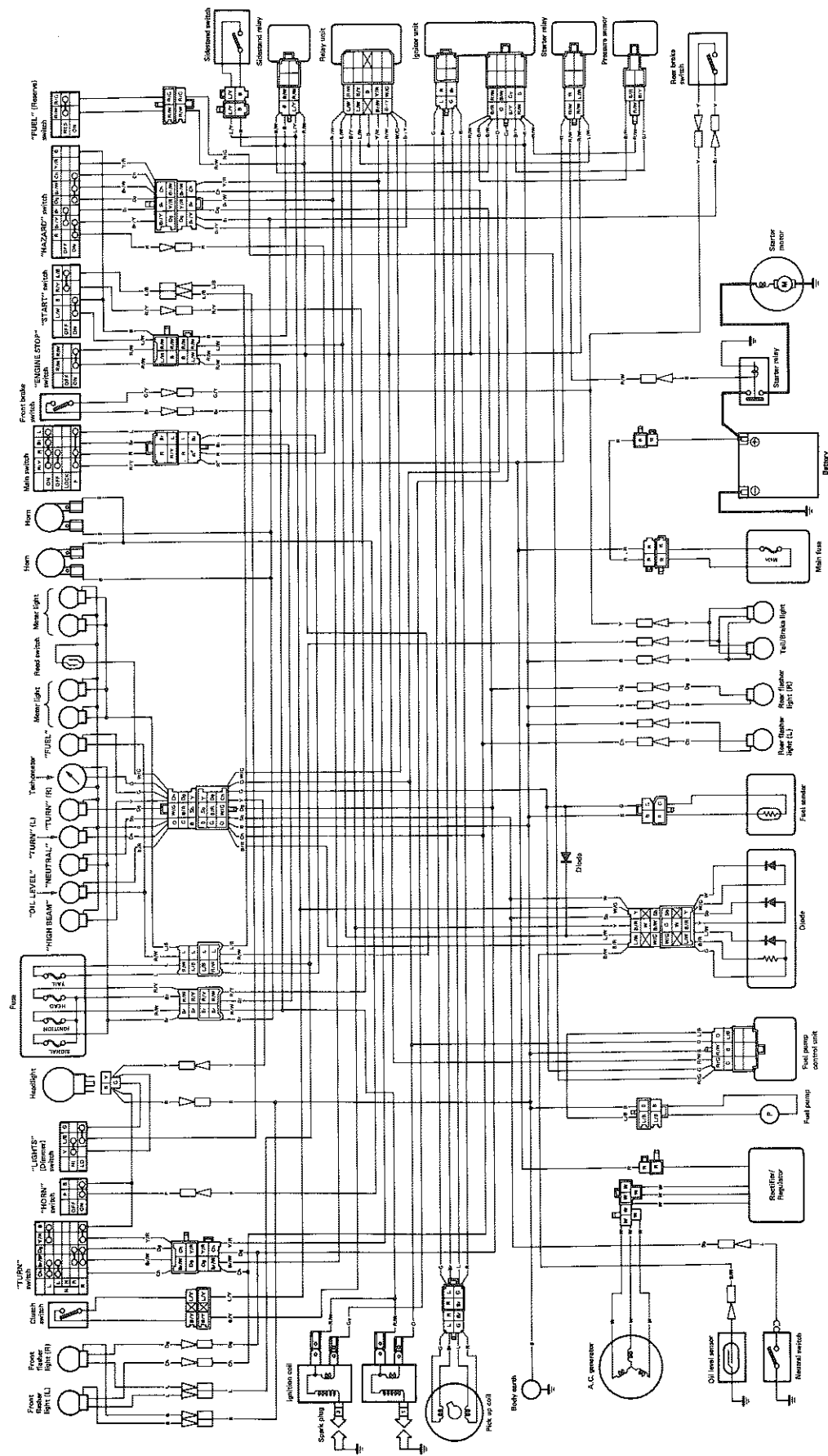
ELECTRICAL

Item	Model	XV1100S/SC ₂
Voltage:		12V
Ignition System: Ignition Timing (B.T.D.C.) Advanced Timing (B.T.D.C.) Advancer Type		10° at 1,000 r/min 48° at 4,000 r/min Vacuum and electrical
Ignition timing (B.T.D.C.) Engine speed (x 10³ r/min) 43 ± 2.5°/3,000 rpm 48 ± 2.0°/4,000 rpm 47 ± 2.5°/7,000 rpm P = -170 mmHg #1 #2 2,020 ± 250 rpm/34° 2,050 ± 250 rpm/34° 36.4 ± 2.2°/7,000 rpm 31 ± 2.2°/4,000 rpm 3,240 ± 250 rpm/25° #1 3,170 ± 250 rpm/25° #2 P = 0 mmHg #1 #2 1,410 ± 200 rpm/12° 1,240 ± 200 rpm/12° 2,550 ± 250 rpm/12° #1 2,300 ± 250 rpm/12° #2 10 ± 1.3°/1,000 rpm		
T.C.I.:		
Pickup Coil Resistance (Color)		155Ω ± 20% at 20°C (68°F) (Brown — Green), (Blue — Red)
T.C.I. unit — Model/Manufacturer		J4T016/MITSUBISHI
Ignition Coil:		
Model/Manufacturer		F6T507/MITSUBISHI
Minimum Spark Gap		6 mm (0.236 in)
Primary Winding Resistance		4.2Ω ± 15% at 20°C (68°F)
Secondary Winding Resistance		13.2 kΩ ± 15% at 20°C (68°F)
Charging System:		
Type		A.C. Magneto
A.C. Generator:		
Model/Manufacturer		F3T431/MITSUBISHI
Nominal Output		14V, 20A at 5,000 r/min
Stator Coil Resistance		0.5Ω ± 10% at 20°C (68°F)
Voltage Regulator:		
Type		I.C. type, short control
Model/Manufacturer		SH569/SHINDENGEN
No Load Regulated Voltage		14.8 ± 0.5V
Rectifier:		
Model/Manufacturer		SH569/SHINDENGEN
Capacity		16A
Battery:		
Capacity		12V 20AH
Specific Gravity		1.280



Item	Model XV1100S/SC
Electric Starter System: Type Starter Motor: Model/Manufacturer Output Armature Coil Resistance Field Coil Resistance Brush: Overall Length < Limit > Spring Pressure Commutator Dia. Wear Limit Mica Undercut Starter Switch: Model/Manufacturer Amperage Rating	Electro magnetic shift type SM-224I-1/MITSUBA 0.6kW $0.006\Omega \pm 10\%$ at 20°C (68°F) $0.003\Omega \pm 10\%$ at 20°C (68°F) 12.5 ± 0.5 mm (0.492 ± 0.020 in) 5.5 mm (0.217 in) 620 ± 60 g (21.82 ± 2 oz) 28 mm (1.10 in) 27 mm (1.06 in) 0.5 mm (0.02 in) 1NL/OMRON 15A
Horn: Type x Quantity Model/Manufacturer Maximum Amperage	Eddy type x 2 1RM-00, 1RM-10/NIKKO 2A
Flasher Relay: Type Model/Manufacturer Self cancelling device Flasher Frequency Wattage	Semi transistor FX257N/N.D. Yes 85 ± 10 cycle/min 27W x 4 pcs + 3.4W
Self Cancelling Unit: Model/Manufacturer	FX257N/N.D.
Starter Relay: Model/Manufacturer	Yes FX257N/N.D.
Side Stand Relay: Model/Manufacturer Coil Winding Resistance Color Code	Yes 4U8/OMRON $100\Omega \pm 10\%$ at 20°C (68°F) Blue
Circuit Breaker: Type Amperage for Individual Circuit x Quantity Main Headlight Signal Ignition Tail Reserve	Fuse 30A x 1 15A x 1 15A x 1 10A x 1 10A x 1 30A x 1 15A x 1 10A x 1

XV1100S/SC WIRING DIAGRAM



COLOR CODE

B	Black
L	Blue
Dg	Dark green
Br	Brown
Sb	Sky blue
Y	Yellow
R	Red
Gv	Gray
G	Green
P	Pink
W	White
O	Orange
B/Y	Black/Yellow
B/R	Black/Red
B/W	Black/White
L/B	Blue/Black
L/Y	Blue/Yellow
Y/R	Yellow/Red
R/W	Red/White
R/Y	Red/Yellow
G/Y	Green/Yellow
W/G	White/Green
B/W	Brown/White
B/Y	Brown/Yellow



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