IDENTIFICATION NUMBERS RECORD

1. KEY NUMBER:

[Blank space for key number]

Your key identification number is stamped on your key as shown in the following illustration.

Record this number in the space provided for reference if you need a new key.

2. VEHICLE NUMBER (For Australia):
   FRAME NUMBER (Except for Australia):

[Blank space for vehicle/frame number]

3. ENGINE NUMBER:

[Blank space for engine number]

Record your vehicle (or frame) and engine number in the spaces provided to assist you in ordering spare parts from your Yamaha dealer or for reference in case your vehicle is stolen (See page 2-1)
INTRODUCTION

Congratulations on your purchase of the Yamaha XV1100W. This model is the result of Yamaha’s vast experience in the production of fine sporting, touring, and pacesetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields. This manual will give you an understanding of the operation, inspection, and basic maintenance of this motorcycle. If you have any questions about the operation or maintenance of your motorcycle, please consult a Yamaha dealer.

NOTE:
Some data in this manual may become outdated due to future improvement on this model. If you have any questions about this manual or your motorcycle, please consult a Yamaha dealer.

TECHNICAL PUBLICATIONS
SERVICE DIVISION
MOTORCYCLE GROUP
YAMAHA MOTOR CO., LTD.
⚠️ WARNING: ⚠️

PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE.

Particularly important information is distinguished in this manual by the following notations:

NOTE:
A NOTE provides key information to make procedures easier or clearer.

⚠️ CAUTION ⚠️
A CAUTION indicates special procedures that must be followed to avoid damage to the motorcycle.

⚠️ WARNING: ⚠️
A WARNING indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.

U-000

NOTE:
This manual should be considered a permanent part of this motorcycle and should remain with it even if the motorcycle is subsequently sold.
Both motorcycles and mopeds are fascinating vehicles which give a tremendous feeling of freedom to their riders. They must be correctly maintained at all times in order to ensure optimum performance. However, as a rider you must also ensure that your physical condition is good, and that you are not tired, in order that you too can optimise your vehicle control. Medicines, drugs and alcohol should not be combined with riding, especially alcohol which increases the individual’s likelihood of taking risks. Alcohol is dangerous, even in small quantities: Correct protective riding gear is just as much a part of motorcycling safety as the safety belt is in the car; a good leather suit and gloves, sturdy boots and a good quality, properly fitting crash helmet are ideal. But beware: good protective clothing can result in the individual being lulled into a false sense of security. When this happens more risks are taken and speeds increase... this particularly applies in wet weather. The good motorcyclist therefore rides defensively and protectively in order to minimise risks.
CONTENTS

DESCRIPTION ............................................ 1-1

MOTORCYCLE IDENTIFICATION ......................... 2-1
  Frame serial number .................................. 2-1
  (Except for Australia) ............................... 2-1
  Vehicle identification number ...................... 2-1
  (For Australia) ...................................... 2-1
  Engine serial number ................................ 2-2

CONTROL FUNCTIONS .................................. 3-1
  Main switch .......................................... 3-1
  Indicator lights ..................................... 3-2
  Oil level indicator circuits check ................ 3-3
  Fuel level indicator circuit check ................ 3-5
  Speedometer ........................................ 3-6
  Tachometer ......................................... 3-6
  Handlebar switches .................................. 3-7
  Clutch lever ........................................ 3-9
  Change pedal ....................................... 3-9
  Front brake lever .................................. 3-9
  Rear brake pedal .................................... 3-9
  Fuel tank cap ....................................... 3-10
  Starter lever (CHOKE) .............................. 3-10
  Steering lock ........................................ 3-11
  Helmet holder ....................................... 3-12
  Front forks ......................................... 3-12
  Rear shock absorber ................................ 3-12
  Sidestand ........................................... 3-13
  Sidestand/clutch switch operation check .......... 3-14

PRE-OPERATION CHECK ................................. 4-1
  Brakes .............................................. 4-3
  Brake fluid leakage ................................ 4-3
  Clutch ............................................... 4-4
  Throttle grip ....................................... 4-4
  Engine oil ......................................... 4-4
  Final gear oil ...................................... 4-5
Tires ................................................. 4-5
Tubeless tires and cast wheels ... 4-8
Fittings/Fasteners ....................... 4-10
Lights and signals ......................... 4-10
Switches ........................................... 4-10
Battery ............................................ 4-10
Fuel ................................................. 4-10

Engine oil .......................................... 6-6
Final gear oil .................................... 6-9
Air filter ........................................... 6-10
Carburetor adjustment .................. 6-10
Idle speed adjustment ................. 6-12
Throttle cable adjustment .............. 6-13
Valve clearance adjustment .......... 6-14
Spark plug inspection ..................... 6-14
Front brake adjustment ................. 6-15
Rear brake adjustment ..................... 6-16
Brake light switch adjustment ........ 6-18
Checking the front brake pads and rear brake shoes ......... 6-18
Inspecting the brake fluid level ...... 6-19
Brake fluid replacement ................. 6-20
Clutch adjustment ............................. 6-21
Free play adjustment ....................... 6-21
Mechanism adjustment ..................... 6-21
Cable inspection and lubrication ...... 6-22
Throttle cable and grip lubrication ... 6-23
Brake and change pedals ............... 6-23
Brake and clutch levers ................. 6-23

OPERATION AND IMPORTANT
RIDING POINTS .................................... 5-1
  Starting and warming up 
    a cold engine .................................. 5-1
  Starting a warm engine ................... 5-4
  Shifting ......................................... 5-4
  Engine break-in ................................ 5-5
  Parking ......................................... 5-6

PERIODIC MAINTENANCE AND
MINOR REPAIR .................................. 6-1
  Tool kit. ....................................... 6-1
  Periodic maintenance/lubrication .... 6-3
  Torque specifications ................. 6-5
Center and sidestand .......................... 6-23
Rear suspension .................................. 6-23
Front fork inspection ............................. 6-24
Front fork and rear shock absorber
adjustment ........................................... 6-25
Rear shock absorber adjustment ............... 6-26
Recommended combinations of
the front fork and the rear shock
absorber setting ..................................... 6-28
Steering inspection ................................. 6-29
Wheel bearings ....................................... 6-29
Battery ..................................................... 6-29
Replenishing the battery fluid .................... 6-30
Fuse replacement ...................................... 6-31
Replacing the headlight bulb ...................... 6-33
Headlight beam adjustment ....................... 6-34
Front wheel removal ................................ 6-35
Front wheel installation ......................... 6-36
Rear wheel removal .................................. 6-37
Rear wheel installation ............................ 6-38
Troubleshooting ..................................... 6-40
Troubleshooting chart ............................. 6-41

CLEANING AND STORAGE ................. 7-1
A. Cleaning ......................................... 7-1
B. Storage ........................................... 7-2

SPECIFICATIONS ................................. 8-1

NOISE REGULATION
(For Australia) ................................. 9-1

WIRING DIAGRAM
DESCRIPTION

1. Rear flasher light
2. Rear shock absorber
3. Fuel tank
4. Front flasher light
5. Front fender
6. Brake pedal
7. Footrest
8. Silencer
9. Rear wheel
10. Headlight
11. Seat
12. Tail/Brake light
13. Change pedal
14. Front wheel
15. Clutch lever
16. Speedometer
17. Main switch
18. Tachometer
19. Brake lever
20. Throttle grip
21. Right handlebar switch
22. Left handlebar switch

NOTE: The motorcycle you have purchased may differ slightly from those shown in the photographs.
MOTORCYCLE IDENTIFICATION

Frame serial number
(Except for Australia)
The frame serial number is stamped into the right side of the steering head pipe.

Vehicle identification number
(For Australia)
The vehicle identification number is stamped into the steering head pipe.

NOTE:
The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.
Engine serial number

The engine serial number is stamped into the right side of the engine.

1 Engine serial number

NOTE:

The first three digits of these numbers are for model identification, the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer.
CONTROL FUNCTIONS

Main switch
The main switch controls the ignition and lighting systems, its operation is described below.

ON
Electrical circuits are switched on. The engine can be started. The key cannot be removed in this position.

OFF
All electrical circuits are switched off. The key can be removed in this position.

LOCK.
The steering is locked in this position, and all electrical circuits are switched off. The key can be removed in this position. Refer to “Steering lock” (Page 3-11) for proper operation.

PARKING:
The steering is locked in this position, and the taillight and auxiliary light come on but all other circuits are off. The key can be removed in this position.

NOTE:
Always turn the main switch to “OFF” or “LOCK” and remove the key when the motorcycle is unattended.
**Indicator lights**

1. "TURN" indicator light
2. "NEUTRAL" indicator light
3. "HIGH BEAM" indicator light
4. "OIL LEVEL" indicator light
5. "FUEL" warning light

**TURN" indicator light (orange):**
This indicator flashes when the turn switch is "ON".

**NEUTRAL" indicator light (green):**
This indicator comes on when the transmission is in neutral.

**HIGH BEAM" indicator light (blue):**
This indicator comes on when the headlight high beam is used.

**OIL LEVEL" indicator light (red):**
This indicator comes on when the oil level is low. This light circuit can be checked by the following procedure.

⚠️ **CAUTION:**
Do not run the motorcycle until you know the motorcycle has enough engine oil.
Oil level indicator circuit check

Main switch "ON". Engine stop switch "RUN"

Oil level indicator light does not come on

Push starter switch with gears in "NEUTRAL" or apply clutch lever.

Oil level indicator light comes on

Engine oil level and electrical circuit are OK. Go ahead with riding

Oil level indicator light does not come on

Ask a Yamaha dealer to inspect electrical circuit

Oil level indicator light comes on

Check engine oil level

Oil level is OK

Supply engine oil

Oil level is low
"FUEL" warning light (red)
When the fuel level drops below approximately 3.0 L (0.7 Imp gal, 0.8 US gal), this light will come on. When this light comes on, slide the "FUEL" (Reserve) switch to "RES". Then, fill the tank at the first opportunity.
Fuel level indicator circuit check

Main switch "ON".
Engine stop switch "RUN"

Fuel level indicator light does not come on.

Push starter switch with gears in "NEUTRAL" or apply clutch lever

Fuel level indicator light does not come on

Fuel level and electrical circuit are OK. Go ahead with riding.

Fuel level indicator light comes on

Check fuel level

Fuel level is OK.

Ask a Yamaha dealer to inspect electrical circuit

Fuel level is low

Supply fuel
Speedometer
The odometer and trip odometer are built into the speedometer. The trip odometer can be reset to “O” with the reset switch. Use the odometer to estimate how far you can ride on a tank of fuel before going to “RESERVE” This information will enable you to plan fuel stops in the future.

Tachometer
This model is equipped with an electric tachometer so the rider can monitor the engine speed and keep it within the ideal power range.

1. Red zone

Do not operate in the red zone
Red zone: 7,000 r/min and above

1️⃣ Reset knob  2️⃣ Odometer  3️⃣ Trip odometer
Handlebar switches:

1. "PASS" switch
2. "LIGHTS" (Dimmer) switch
3. "TURN" signal switch
4. "HORN" switch

"PASS" switch
When you are passing a vehicle ahead, the passing light switch should be depressed so that the headlight gives a signal to the rider.

"LIGHTS" (Dimmer) switch
Turn the switch to "HI" for the high beam and to "LO" for the low beam.

"TURN" signal switch
This model is equipped with self-cancelling turn signals. To signal a right-hand turn, push the switch to the right, to signal a left-hand turn, push the switch to the left. Once the switch is released, it will return to the center position. To cancel the signal, push the switch in after it has returned to the center position. If the switch is not cancelled by hand, it will self-cancel after the motorcycle has travelled for about 10 seconds or approximately 150 meters (490 feet) whichever is greater. The self-cancelling mechanism only operates when the motorcycle is moving, thus the signal will not self-cancel while you are stopped at an intersection.
"HORN" switch
Press the switch to sound the horn.

"LIGHTS" switch
Turn the light switch to "ON" to turn on the headlight, taillight, and meter lights. Turn the light switch to "PO" to turn on the auxiliary light, taillight, and meter lights.

"ENGINE STOP" switch
The engine stop switch is a safety device for use in an emergency such as when the motorcycle overturns or when trouble occurs in the throttle system. The engine will not run when the engine stop switch is turned to "OFF." In case of emergency, turn the switch to "OFF."

"START" switch
To start the engine, push the starter.

⚠️ CAUTION ⚠️
See starting instructions prior to starting engine.

"FUEL" (Reserve) switch
Usually run with this switch "ON." When the "FUEL" warning light comes on during a run, slide the switch to "RES" and refuel at the first opportunity. Then slide the switch to "ON."
Clutch lever
The clutch lever is located on the left handlebar, and the starting circuit cut-off switch is incorporated in the clutch lever holder. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth starts. (Refer to the engine starting procedures for a description of the starting circuit cut-off switch.)

Change pedal
The gear ratios of the constant-mesh 5-speed transmission are ideally spaced. The gears can be shifted by using the change pedal on the left side of the engine.

Front brake lever
The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake.

Rear brake pedal
The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to activate the rear brake.
Fuel tank cap

TO OPEN.
Insert the key and turn clockwise 1/4 turn. The lock will be released and the cap can be opened.

TO CLOSE.
Push the tank cap into position with the key inserted. To remove the key, turn it counter clockwise to the original position.

NOTE:
This tank cap cannot be closed unless the key is in the lock. The key cannot be removed if the cap is not locked properly.

Starter lever (CHOKE)
The starter lever is located on the left handlebar.
Starting a cold engine requires a richer fuel mixture. In such a case, turn the starter lever to the left. After the engine is warm, turn the lever to its original position.
NOTE: Refer to "Starting and warming up a cold engine" for proper operation.

C-300

Steering lock
The steering is locked when the main switch is turned to "LOCK." To lock the steering, turn the handlebars all the way to the left or right. With the key at "OFF," push it into the main switch, turn the key counterclockwise to "LOCK," and remove the key. To release the lock, turn the key clockwise.

WARNING:
Never turn the key to "LOCK" when the motorcycle is moving.
Helmet holder
To open the helmet holder, insert the key in the lock and turn it as shown. To lock the helmet holder, replace the holder in its original position.

<table>
<thead>
<tr>
<th>1</th>
<th>Open</th>
</tr>
</thead>
</table>

U-615

⚠️ WARNING: ⚠️
Never ride with a helmet in the helmet holder. It could interfere with rear wheel movement, causing loss of control and possibly an accident.

Front forks
The front forks of this model are pneumomechanical; namely, a combination air and mechanical coil spring in the inner tubes. By adjusting the air pressure, you can alter the suspension to suit the motorcycle's load and the operating conditions. Refer to page 6-25 for proper adjustment procedures.

Rear shock absorber
The spring preload and the damping of the rear shock absorber can be adjusted to suit
motorcycle's load (ex: optional accessories etc.) and riding conditions. Refer to page 6-26 for proper adjustment procedures.

1  Damping adjuster
2  Spring preload adjuster

D-301

Sidestand
This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 5-1 for an explanation of this system)

1  Sidestand switch

U-689

⚠️ WARNING:
This motorcycle must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator resulting in a possible loss of control. Yamaha has designed into this motorcycle a lockout system to assist the operator in fulfilling his responsibility of retracting
the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, you must return the motorcycle to a Yamaha dealer immediately for repair.

D-302

Sidestand/clutch switch operation check

Check the operation of the sidestand switch and clutch switch against the information below

⚠️ WARNING: ⚠️

Be sure to use the centerstand during this inspection.
ENGINE WILL STALL

SIDESTAND SWITCH IS OK

U-691

⚠️ WARNING: ⚠️

If improper operation is noted, consult a Yamaha dealer immediately.
# PRE-OPERATION CHECKS

Before using this motorcycle, check the following points

<table>
<thead>
<tr>
<th>Item</th>
<th>Routine</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front brake</td>
<td>Check operation, free play and fluid level and fluid leakage Top-up with DOT#4 (or DOT#3) brake fluid if necessary</td>
<td>4-3<del>4-4, 6-15</del>6-20</td>
</tr>
<tr>
<td>Rear brake</td>
<td>Check operation, condition and free play Adjust if necessary</td>
<td>4-4, 6-21~6-22</td>
</tr>
<tr>
<td>Clutch</td>
<td>Check operation, condition and free play Adjust if necessary</td>
<td></td>
</tr>
<tr>
<td>Throttle grip/Housing</td>
<td>Check for smooth operation Lubricante/Adjust if necessary.</td>
<td>4-4, 6-13~6-14, 6-23</td>
</tr>
<tr>
<td>Engine oil</td>
<td>Check oil level/add oil as required</td>
<td>4-4, 6-6~6-8</td>
</tr>
<tr>
<td>Final gear oil</td>
<td>Check for leakage visually</td>
<td>4-5, 6-9~6-10</td>
</tr>
<tr>
<td>Wheels/Tires</td>
<td>Check tire pressure, wear, damage</td>
<td>4-5<del>4-9, 6-35</del>6-39</td>
</tr>
<tr>
<td>Control/Meter cables</td>
<td>Check for smooth operation Lubricate if necessary</td>
<td>6-22</td>
</tr>
<tr>
<td>Brake and change pedal shafts</td>
<td>Check for smooth operation Lubricate if necessary</td>
<td>6-23</td>
</tr>
<tr>
<td>Brake and clutch lever pivots</td>
<td>Check for smooth operation Lubricate if necessary</td>
<td>6-23</td>
</tr>
<tr>
<td>Center and sidestand pivots</td>
<td>Check for smooth operation Lubricate if necessary</td>
<td>6-23</td>
</tr>
<tr>
<td>Fittings/fasteners</td>
<td>Check all chassis fittings and fasteners Tighten/Adjust, if necessary</td>
<td>4-10, 6-5</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>Check fuel level/top-up as required</td>
<td>4-10~4-11</td>
</tr>
<tr>
<td>Item</td>
<td>Routine</td>
<td>Page</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Lights and signals</td>
<td>Check for proper operation</td>
<td>4-10, 6-33~6-35</td>
</tr>
<tr>
<td>Battery</td>
<td>Check fluid level, top-up with distilled water if necessary.</td>
<td>4-10, 6-29~6-31</td>
</tr>
</tbody>
</table>

**NOTE:**
Pre-operation checks should be made each time the motorcycle is used. Such an inspection can be thoroughly accomplished in a very short time, and the added safety it assures is more than worth the time involved.

⚠️ **WARNING:**
If any item in the Pre-Operation Check is not working properly, have it inspected and repaired before operating the motorcycle.
Brakes (See page 6-15 for more detail)

1. Brake lever and brake pedal
   Check for correct free play in the front brake lever and rear brake pedal. Make sure they are working properly. Check the brakes at low speed shortly after starting out. If the free play is incorrect, adjust it.

⚠️ WARNING: ⚠️
A soft, spongy feeling in the brake lever indicates a failure in the brake system. Do not operate the motorcycle until the failure in the brake system is corrected. Ask a Yamaha dealer for immediate repairs. A soft, spongy feeling could indicate a hazardous condition in the brake system.

2. Brake fluid
   Check the brake fluid level
   Add fluid if necessary

Recommended brake fluid: DOT#4

NOTE: ________________________________
If DOT#4 is not available, #3 can be used.

3. Check the disc pads
   Refer to page 6-18

4. Check the brake shoes
   Refer to page 6-18

NOTE: ________________________________
When this brake service is necessary, ask a Yamaha dealer.

E-113

Brake fluid leakage (Front)
Apply the brake for a few minutes. Check to see if any brake fluid leaks out from the pipe joints or the master cylinder.
E-200

Clutch (See page 6-21 for more detail)
Check the free play in the clutch lever, and make sure the lever operates properly. If the free play is incorrect, adjust it.

E-301

Throttle grip (See page 6-13 for more detail)
Turn the throttle grip to see if it operates properly, and check the free play. Make sure the grip returns by spring force when released. Ask a Yamaha dealer to make any necessary adjustments.

E-401

Engine oil (See page 6-6 for more detail)
Make sure the engine oil is at the specified level. Add oil as necessary.

Recommended oil:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>SAE 20W40 type SE motor oil</th>
<th>SAE 10W30 type SE motor oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C</td>
<td></td>
<td>10°C</td>
</tr>
<tr>
<td>5°C</td>
<td></td>
<td>15°C</td>
</tr>
<tr>
<td>30°F</td>
<td></td>
<td>40°F</td>
</tr>
<tr>
<td>60°F</td>
<td></td>
<td>50°F</td>
</tr>
</tbody>
</table>

Oil quantity

- Total amount:
  3.6 L (3.2 Imp qt, 3.8 US qt)
- Periodic oil change:
  3.0 L (2.6 Imp qt, 3.2 US qt)
- With oil filter replacement:
  3.1 L (2.7 Imp qt, 3.3 US qt)

NOTE:

Recommended engine oil classification: API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc.)
Final gear oil (See page 6-9 for more detail)
Make sure the final gear oil is at the specified level. Add oil as necessary.

Recommended oil.
SAE 80 API GL-4 Hypoid gear oil
If desired, an SAE 80W90 hypoid gear oil may be used for all conditions.

NOTE: "GL-4" is a quality and additive rating. "GL-5" or "GL-6" rated hypoid gear oils may also be used.

Tires
To ensure maximum performance, long service, and safe operation, note the following.
1. Tire air pressure
   Always check and adjust the tire pressure before operating the motorcycle.

WARNING: Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature. Tire inflation pressure must be adjusted according to total weight of cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.
Basic weight
With oil and full fuel tank

<table>
<thead>
<tr>
<th></th>
<th>239 kg (527 lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum load*</td>
<td>231 kg (509 lb)</td>
</tr>
<tr>
<td>Cold tire pressure</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>Rear</td>
</tr>
<tr>
<td>Up to 90 kg (198 lb) load*</td>
<td>180 kPa</td>
</tr>
<tr>
<td></td>
<td>(18 kg/cm²,</td>
</tr>
<tr>
<td></td>
<td>26 psi)</td>
</tr>
<tr>
<td>90 kg (198 lb) ~</td>
<td>200 kPa</td>
</tr>
<tr>
<td>160 kg (353 lb) load*</td>
<td>(20 kg/cm²,</td>
</tr>
<tr>
<td></td>
<td>28 psi)</td>
</tr>
<tr>
<td>160 kg (353 lb) ~</td>
<td>200 kPa</td>
</tr>
<tr>
<td>Maximum load*</td>
<td>(20 kg/cm²,</td>
</tr>
<tr>
<td></td>
<td>28 psi)</td>
</tr>
<tr>
<td>High speed riding</td>
<td>230 kPa</td>
</tr>
<tr>
<td></td>
<td>(23 kg/cm²,</td>
</tr>
<tr>
<td></td>
<td>32 psi)</td>
</tr>
</tbody>
</table>

*Load is the total weight of cargo, rider, passenger, and accessories

WARNING:

Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your motorcycle. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires. NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the cargo, rider, passenger, and accessories (faireding, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.
2 Tire inspection
Always check the tires before operating the motorcycle. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

<table>
<thead>
<tr>
<th>Manufacture</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgestone</td>
<td>100/90–19 57H</td>
<td>G535W</td>
</tr>
<tr>
<td>Dunlop</td>
<td>100/90–19 57H</td>
<td>F17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacture</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridgestone</td>
<td>140/90–15M/C 70H</td>
<td>G536W</td>
</tr>
<tr>
<td>Dunlop</td>
<td>140/90–15M/C 70H</td>
<td>K425</td>
</tr>
</tbody>
</table>

Minimum tire tread depth (front and rear) 10 mm (0.04 in)

⚠️ WARNING:
It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines. Have a Yamaha dealer replace the tire immediately. Brakes, tires, and related wheel parts replacement should be left to a Yamaha Service Technician.
Tubeless tires and cast wheels
This motorcycle is equipped with cast wheels designed for either tube or tubeless tires. Tubeless tires are installed as standard equipment.

⚠️ WARNING:
Do not attempt to use tubeless tires on a wheel designed for use only with tube-type tires. Tire failure and personal injury may result from sudden deflation.

| Tube-type Wheel  |  → Tube-type Tires only  |
| Tubeless-type Wheel  |  → Tube-type or Tubeless tires  |
2 Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.

3 After installing a tire, ride conservatively to allow the tire to seat itself on the rim properly. Failure to allow proper seating may cause tire failure, resulting in damage to the motorcycle and injury to the rider.

4 After repairing or replacing a tire, check to be sure the valve stem lock nut is securely fastened. If not, torque it as specified.

<table>
<thead>
<tr>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 Nm (0.15 m·kg, 11 ft·lb)</td>
</tr>
</tbody>
</table>
Fittings/Fasteners
Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 6-5 to find the correct torque.

Lights and signals
Check the headlight, flasher lights, taillight, brake light, meter lights, and all the indicator lights to make sure they are in working condition.

Switches
Check the operation of the headlight switch, turn switch, brake light switch, horn switch, starter switch, main switch, etc.

Battery (See page 6-29 for more detail)
Check the fluid level and top-up if necessary. Use only distilled water if refilling is necessary.

Fuel
Make sure there is sufficient fuel in the tank.

⚠️ WARNING:
Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler tube as shown in the illustration or it may overflow when the fuel heats up later and expands.

1 Filler tube 2 Fuel level
Recommended fuel. Regular gasoline
For Australia Unleaded fuel only
Fuel tank capacity
  Total
    16.8 L (3.7 imp gal, 4.4 US gal)
  Reserve
    3.0 L (0.7 imp gal, 0.8 US gal)
OPERATION AND IMPORTANT RIDING POINTS

WARNING:
Before riding this motorcycle, become thoroughly familiar with all operating controls and their function. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.

WARNING:
1. Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.

2. Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

Starting and warming up a cold engine

NOTE: This motorcycle is equipped with a starting and an ignition circuit cut-off switch.
1. The engine can be started only under the following conditions.
   a. The transmission is in neutral.
   b. The sidestand is up, the transmission is in gear, and the clutch is disengaged
2. The motorcycle must not be ridden when the sidestand is down
**WARNING:**

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 3-14.)

1. TURN MAIN SWITCH TO "ON" AND ENGINE STOP SWITCH TO "RUN"

2. IF TRANSMISSION IS IN NEUTRAL AND SIDESTAND IS DOWN
   - PUSH STARTER SWITCH; ENGINE WILL START
   - RETRACT SIDESTAND AND PUT TRANSMISSION IN GEAR
   - MOTORCYCLE CAN BE RIDDEN

3. IF TRANSMISSION IS IN GEAR AND SIDESTAND IS UP
   - PULL IN CLUTCH LEVER AND PUSH STARTER SWITCH; ENGINE WILL START
   - MOTORCYCLE CAN BE RIDDEN
1. Turn the ignition key to "ON" and the engine stop switch to "RUN."

**CAUTION:**

If the fuel level indicator light comes on, check the fuel level. If necessary, add sufficient fuel.

2. Shift transmission into neutral

**NOTE:**

When the transmission is in neutral, the neutral indicator light (green) should be on. If the light does not come on, ask a Yamaha dealer to inspect it.

3. Fully open the starter (CHOKE) and completely close the throttle grip

4. Start the engine by pushing the starter switch.

**NOTE:**

If the engine fails to start, release the starter switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.

**CAUTION:**

The oil level indicator light and fuel level indicator light should come on when the starter switch is pushed and should go off when the starter switch is released. If the oil level indicator light flickers or remains on, immediately stop the engine and check for the engine oil level and for oil leakage. If necessary, replenish oil and check to see that the oil level indicator light goes off. If not, consult a Yamaha dealer.
5. After starting the engine, turn back the starter (CHOKE) to warming up position (about halfway)

NOTE: To get maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine!

6. After warming up the engine, turn off the starter completely.

NOTE: The engine is warm when it responds normally to the throttle with the starter turned off.

Starting a warm engine
The starter (CHOKE) is not required when the engine is warm.

CAUTION: See “Break-in section” prior to operating the motorcycle for the first time.

Shifting
The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the change pedal is shown in the illustration (Page 3-9).
To shift into NEUTRAL, depress the change pedal repeatedly until it reaches the end of its travel (you will feel a stop when you are in first gear) then raise the pedal slightly.
CAUTION

1. Do not coast for long periods with the engine off, and do not tow the motorcycle a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.

2. Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without the clutch.

Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation or any condition which might result in excessive heating of the engine, must be avoided.

1. 0 ~ 150 km (0 ~ 90 mi)
   Avoid operation above 5,000 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.
2. 150 ~ 500 km (90 ~ 300 mi). Avoid prolonged operation above 6,000 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

3. 500 ~ 1,000 km (300 ~ 600 mi)
Avoid prolonged full throttle operation
Avoid cruising speeds in excess of 7,000 r/min.

After 1,000 km (600 mi) of operation, be sure to replace the engine oil, oil filter element, and final gear oil.

4. 1,000 km (600 mi) and beyond
Full throttle can be used.

Never let engine speeds enter the red zone.

\textbf{CAUTION:}

If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.

\textbf{WARNING:}

The muffler and exhaust pipe are hot. Park the motorcycle in a place where pedestrians or children are not likely to touch the motorcycle. Do not park the motorcycle on a slope or soft ground; the motorcycle may overturn.
PERIODIC MAINTENANCE AND MINOR REPAIR

Periodic inspection, adjustment, and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals. YOU MUST TAKE INTO CONSIDERATION THAT WEATHER, TERRAIN, GEOGRAPHICAL LOCATIONS, AND A VARIETY OF INDIVIDUAL USES ALL TEND TO DEMAND THAT EACH OWNER ALTER THIS TIME SCHEDULE TO SHORTER INTERVALS TO MATCH HIS ENVIRONMENT. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages.

WARNING:
If you are not familiar with motorcycle service, this work should be done by a Yamaha dealer.

Tool kit
The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are sufficient for most of these purposes; however a torque wrench is also necessary to properly tighten nuts and bolts.
U-671

**WARNING:**

Modifications to this motorcycle not approved by Yamaha may cause loss of performance, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.

---

U-060

**NOTE:**

If you do not have a torque wrench available during a service operation requiring one, take your motorcycle to a Yamaha dealer to check the torque settings and adjust them as necessary.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>REMARKS</th>
<th>BRAK-IN 1,000 (600)</th>
<th>EVERY 6,000 (4,000) or 6 months</th>
<th>EVERY 12,000 (8,000) or 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve(s)*</td>
<td>Check valve clearance Adjust if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Spark plug(s)</td>
<td>Check condition Clean or replace if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Air filter</td>
<td>Clean Replace if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Carburetor*</td>
<td>Check idle speed/synchronization/starter operation</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Adjust if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel line*</td>
<td>Check fuel hose and vacuum pipe for cracks or damage</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Replace if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>Replace (Warm engine before draining)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Engine oil filter*</td>
<td>Replace</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Final gear oil</td>
<td>Check oil level/oil leakage</td>
<td></td>
<td>Replace</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Replace every 24,000 (16,000) or 24 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front brake*</td>
<td>Check operation/fluid leakage/See NOTE Correct if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Rear brake</td>
<td>Check operation Adjust if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Clutch</td>
<td>Check operation Adjust if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Rear arm pivot*</td>
<td>Check rear arm assembly for looseness Correct if necessary</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderately repack every 24,000 (16,000) or 24 months**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheels*</td>
<td>Check balance/damage/runout Repair if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Wheel bearings*</td>
<td>Check bearings assembly for looseness/damage Replace if damaged</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>ITEM</td>
<td>REMARKS</td>
<td>BRAK-IN 1,000 (600)</td>
<td>6,000 (4,000) or 6 months</td>
<td>12,000 (8,000) or 12 months</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------------</td>
<td>---------------------</td>
<td>---------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Steering bearing*</td>
<td>Check bearings assembly for looseness</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Correct if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderately repack every 24,000 (16,000) or 24 months **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front forks*</td>
<td>Check operation/oil leakage Repair if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Rear shock absorber*</td>
<td>Check operation/oil leakage Repair if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Fittings/Fasteners*</td>
<td>Check all chassis fittings and fasteners</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Correct if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center and sidestand*</td>
<td>Check operation Repair if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sidestand switch*</td>
<td>Check operation Clean or replace if necessary</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Battery*</td>
<td>Check specific gravity</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Check breather pipe for proper operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correct if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* It is recommended that these items be serviced by a Yamaha dealer
** Medium weight wheel bearing grease
*** Lithium soap base grease

**NOTE:**

Brake fluid replacement:

1. When disassembling the master cylinder or caliper cylinder, replace the brake fluid Normally check the brake fluid level and add the fluid as required.
2. On the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years
3. Replace the brake hoses every four years, or if cracked or damaged
Torque specifications

Use a torque wrench to tighten these items. It is recommended that these items be checked occasionally, especially before a long trip.

Always check the tightness of these items whenever they are loosened for any reason.

<table>
<thead>
<tr>
<th>A (Nut)</th>
<th>B (Bolt)</th>
<th>General torque specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mm</td>
<td>6 mm</td>
<td>6 0.6 4.3</td>
</tr>
<tr>
<td>12 mm</td>
<td>8 mm</td>
<td>15 1.5 11</td>
</tr>
<tr>
<td>14 mm</td>
<td>10 mm</td>
<td>30 3.0 22</td>
</tr>
<tr>
<td>17 mm</td>
<td>12 mm</td>
<td>55 5.5 40</td>
</tr>
<tr>
<td>19 mm</td>
<td>14 mm</td>
<td>85 8.5 61</td>
</tr>
<tr>
<td>22 mm</td>
<td>16 mm</td>
<td>130 13.0 94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spark plug</td>
<td>20 2.0 14</td>
</tr>
<tr>
<td>Engine drain plug</td>
<td>43 4.3 31</td>
</tr>
<tr>
<td>Oil filter bolt</td>
<td>10 1.0 7.2</td>
</tr>
<tr>
<td>Front axle pinch bolt</td>
<td>20 2.0 14</td>
</tr>
<tr>
<td>Front axle</td>
<td>105 10.5 75</td>
</tr>
<tr>
<td>Rear wheel axle</td>
<td>105 10.5 75</td>
</tr>
<tr>
<td>Rear axle pinch bolt</td>
<td>20 2.0 14</td>
</tr>
<tr>
<td>Final gear drain plug</td>
<td>23 2.3 17</td>
</tr>
</tbody>
</table>
Engine oil

1. Oil level measurement
   a. Place the motorcycle on the centerstand
      *Warm up the engine for several minutes*

   **NOTE:**
   Be sure the motorcycle is positioned straight up when checking the oil level, a slight tilt toward the side can produce false readings.

   b. With the engine stopped, check the oil level through the level window located at the lower part of the left side crankcase cover.

   **NOTE:**
   Wait a few minutes until the oil level settles before checking.

   c. The oil level should be between maximum and minimum marks. If the level is low, add sufficient oil to raise it to the proper level.

2. Engine oil and oil filter replacement
   a. Warm-up the engine for a few minutes.
   b. Stop the engine. Place an oil pan under the engine, and remove the oil filler cap.
   c. Remove the drain plug and drain the oil.
d. Remove the oil filter bolt and filter element.

e. Reinstall the drain plug (make sure it is tight).

**Drain plug torque**
43 Nm (4.3 m·kg, 31 ft·lb)

f. Install the new oil filter element, new O-ring, and the filter cover; tighten the oil filter bolt

**Oil filter bolt.**
10 Nm (1.0 m·kg, 7.2 ft·lb)

U-041

**NOTE:**
Make sure the O-ring is positioned properly.
\section*{CAUTION:}

Do not add any chemical additives. Engine oil also lubricates the clutch and additives could cause clutch slippage.

\section*{CAUTION:}

Be sure no foreign material enters the crankcase.

\begin{itemize}
  \item[g] Add oil through the oil filler hole.
  \item[h] After replacement of engine oil and/or oil filter, be sure to check for oil leaks. The oil level indicator should go off after the oil is filled.
\end{itemize}

\begin{itemize}
  \item Periodic oil change.
    \begin{itemize}
      \item 3.0 L (2.6 Imp qt, 3.2 US qt)
    \end{itemize}
  \item With oil filter replacement
    \begin{itemize}
      \item 3.1 L (2.7 Imp qt, 3.3 US qt)
    \end{itemize}
  \item Recommended oil: See page 4-4
\end{itemize}

\section*{CAUTION:}

If the indicator light flickers or remains on, immediately stop the engine and consult a Yamaha dealer.
Final gear oil

U-634

⚠️ WARNING:

Do not let foreign material enter the final gear case. Be sure oil does not get on the tire or wheel.

1. Oil level measurement
   a. Place the motorcycle on a level place, and place it on the centerstand. The engine should be cool (at atmospheric temperature)
   b. Remove the oil filler cap and check the oil level. The oil level should be at the brim of the hole. Add oil as necessary

2. Gear oil replacement
   a. Place an oil pan under the final gear case
   b. Remove the final gear oil filler cap and the drain plug; drain the oil
1 Final gear drain plug

c Reinstall and tighten the final gear case drain plug (See page 6-5 for torque specifications)
d Fill the gear case to the specified level

**Oil capacity**

Final gear case.

0.2 L (0.18 Imp qt, 0.21 US qt)

Recommended oil See page 4-5

e Reinstall the filler cap

2. Remove the fuel tank.
3. Remove the air filter case assembly.

4. Remove the air filter case cover.

5. Remove the element.

6. Tap the element lightly to remove most of the dust and dirt; blow out the remaining dirt with compressed air from the inner surface of the element. If the element is damaged, replace it.
Carburetor adjustment
The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following point may be serviced by the owner as part of this routine maintenance.

The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed, poor engine performance and damage may result.

Idle speed adjustment
1. Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.
2. Set the idle to the specified engine speed by adjusting the throttle stop screw; turn the screw in to increase engine speed, turn the screw out to decrease engine speed.

**NOTE:**
If the specified idle speed cannot be obtained by performing the above adjustment, consult a Yamaha dealer.

---

**Throttle cable adjustment**

**NOTE:**
Before adjusting the throttle cable free play, the engine idling speed should be adjusted.

The throttle cable should have a specified free play in the turning direction at the grip flange. If the play is incorrect, take the following steps for adjustment.

<table>
<thead>
<tr>
<th>Free play.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ~ 7 mm (0.16 ~ 0.28 in)</td>
</tr>
</tbody>
</table>
Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something of the condition of the engine. Normally, all spark plugs from the same engine should have the same color on the white porcelain insulator around the center electrode. The ideal color at this point is a medium to light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine. Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer.

You should periodically remove and inspect the spark plug because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with a proper type plug.

Valve clearance adjustment

The valve clearance becomes larger with use, resulting in improper fuel/air supply and engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment, however, should be left do a professional Yamaha service technician.
Standard spark plug
BP7ES (NGK) or W22EP-U (N.D.)

Before installing any spark plug, measure the electrode gap with a wire thickness gauge; adjust the gap to specification as necessary.

When installing the plug, always clean the gasket surface and use a new gasket. Wipe off any grime from the threads, and torque the spark plug properly.

Spark plug torque.
20 Nm (2.0 m·kg, 140 ft·lb)

NOTE:
If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turns past finger tight. Have the spark plug torqued to the correct value as soon as possible with a torque wrench.

Front brake adjustment
The free play at the end of the front brake lever should be 2 ~ 5 mm (0.08 ~ 0.2 in).
1. Loosen the lock nut
2. Turn the adjuster so that the brake lever movement at the lever end is 2 ~ 5 mm (0.08 ~ 0.2 in) before the adjuster contacts the master cylinder piston.
3. After adjusting, tighten the lock nut.

⚠ WARNING: A soft or spongy feeling in the brake lever can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will cause greatly diminished braking capability and can result in loss of control and an accident. Have a Yamaha dealer inspect and bleed the system if necessary.

H-845
Rear brake adjustment

⚠ WARNING: Check the brake lever free play. Be sure the brake is working properly.

U-643

For brake pedal adjustment, be sure to proceed as follows: (It is advisable to have a Yamaha dealer make this adjustment.)
1. Pedal height
   a. Loosen the adjuster lock nut (for pedal height).
   b. By turning the adjuster clockwise or counterclockwise, adjust the brake pedal position as shown below.
   c. Secure the adjuster lock nut.

**WARNING:**

After adjusting the pedal height, adjust brake pedal free play.

1. Adjuster bolt (for pedal height)
2. Lock nut
3. Footrest
4. Pedal height 20 mm (0.8 in)
5. Free play 20 ~ 30 mm (0.8 ~ 1.2 in)

2. Free play
   The rear brake should be adjusted to suit the rider’s preference; but free play at the brake pedal end must be 20 ~ 30 mm (0.8 ~ 1.2 in). Turn the adjuster on the brake rod clockwise to reduce play, turn the adjuster counterclockwise to increase play.
Proper adjustment is achieved when the brake light comes on just before the brake begins to take effect.

1. Main body
2. Adjusting nut

H-814

Checking the front brake pads and rear brake shoes

A wear indicator is attached to each brake to facilitate brake pad and shoe check. This indicator permits a visual check without disassembling the brake.
FRONT
To check, depress the brake and inspect the wear indicator. If the wear indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.

1 Wear indicator

REAR
To check, look at the wear indicator while depressing the brake pedal. If the indicator reaches the wear limit line, ask a Yamaha dealer to replace the shoes.

1 Wear limit
2 Wear indicator

Inspecting the brake fluid level
Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective. Before riding, check the brake fluid level and replenish when necessary, observe these precautions:

1 When checking the fluid level, make sure the master cylinder top is horizontal by turning the handlebars.
2. Use only the designated quality brake fluid: otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.

**Recommended brake fluids** DOT #4

**NOTE:**

If DOT #4 is not available, #3 can be used

3. Refill with the same type of brake fluid, mixing fluids may result in a harmful chemical reaction and lead to poor performance.

4. Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.

5. Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.

6. Have a Yamaha dealer check the cause if the brake fluid level goes down.

**Brake fluid replacement**

1. Complete fluid replacement should be done only by trained Yamaha service personnel.

2. Have a Yamaha dealer replace the following components when indicated in the schedule or when they are damaged or leaking.
   a. Replace all rubber seals every two years.
   b. Replace all hoses every four years.
**Clutch adjustment**

This model has a clutch cable length adjuster and a clutch mechanism adjuster. The cable length adjuster is used to take up slack from cable stretch and to provide sufficient free play for proper clutch operation. The clutch mechanism adjuster is used to provide the correct amount of clutch “throw” for proper disengagement. Normally, once the mechanism is properly adjusted, the only necessary adjustment involves maintaining the proper free play at the clutch lever.

**Free play adjustment**

The clutch should be adjusted to suit the rider’s preference, but free play at the lever pivot should be $2 \sim 3$ mm (0.08 \sim 0.12 in). Loosen the handlebar lever adjuster lock nut. Next turn the length adjuster either in or out until proper lever free play is achieved.

**Mechanism adjustment**

The second adjustment is located behind the adjusting cover. Removing the cover will expose the adjuster and lock nut. (Before making the mechanism adjustment, loosen the clutch cable length adjuster.) Loosen the
lock nut, rotate the adjuster in until it lightly seats against the clutch push rod. Back the adjuster out 1/4 turn and tighten the lock nut. This adjustment must be checked because heat and clutch wear can cause incomplete clutch operation. Check the clutch cable adjustment at the handlebar after adjusting.

1. Lock nut
2. Adjuster

---

**Cable inspection and lubrication**

**WARNING:**

Damage to the outer housing of the various cables may cause corrosion and interfere with the movement of the cable. An unsafe condition may result so replace such cables as soon as possible.

Lubricate the inner cable and the cable end. If they do not operate smoothly, ask a Yamaha dealer to replace them.

**Recommended lubricant.**

SAE 10W30 motor oil
Throttle cable and grip lubrication
The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

Brake and change pedals
Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

Center and sidestand
Lubricate the pivoting parts. Check to see that the center and sidestand move up and down smoothly.

Recommended lubricant:
SAE 10W30 motor oil

⚠️ WARNING:
If the center and/or sidestand movement are not smooth, consult a Yamaha dealer.

Brake and clutch levers
Lubricate the pivoting parts.

Rear suspension
Lubricate the pivoting parts.
Recommended lubricant:
Swingarm pivots: Bearing grease
Other pivots: Lithium soap base grease

Front fork inspection

⚠️ WARNING:

Securely support the motorcycle so there is no danger of it falling over.

1. Visual check
   Check any scratch/damage on the inner tube and excessive oil leakage with the front fork.

2. Operation check
   Place the motorcycle on a level place
   a. Hold the motorcycle on an upright position with a rider's hands on the handlebar and apply the front brake
   b. Pump the front fork up and down for several times.

⚠️ CAUTION:
If any damage or unsmooth movement is found with the front fork, consult a Yamaha dealer.
Front fork and rear shock absorber adjustment

Front fork:

NOTE: ____________________________________________

Since the right and left front forks are connected by one air hose, there is only one valve where the air pressure is measured and adjusted.

1. Elevate the front wheel by placing the motorcycle on the centerstand.

NOTE: ____________________________________________

When checking and adjusting the air pressure, there should be no weight on the front end of the motorcycle.

2. Remove the valve cap from the left fork.

3. Using the air check gauge, check and adjust the air pressure. If the air pressure is increased, the suspension becomes stiffer, and if decreased, it becomes softer.

To increase:
Use an air pump or pressurized air supply
To decrease.
Release the air by pushing the valve.

1. Air check gauge

NOTE: ____________________________________________

An optional air check gauge is available
Please ask a nearby Yamaha dealer
P/No. 2X4-2811A-00
Standard air pressure.
40 kPa (0.4 kg/cm², 5.7 psi)
Maximum air pressure
120 kPa (1.2 kg/cm², 17.1 psi)
Minimum air pressure
40 kPa (0.4 kg/cm², 5.7 psi)

**CAUTION**

Never exceed the maximum pressure, or oil seal damage may occur.

4 Install the valve cap securely

**Rear shock absorber adjustment**

1 Spring preload
   If the spring seat is raised, the spring becomes stiffer, and if lowered, it becomes softer

2 Damping
   Turn the damping adjuster to increase or decrease the damping.

Standard position 1
   1 — Softest
   5. — Stiffest
WARNING:
Always adjust each shock absorber to the same setting. Uneven adjustment can cause poor handling and loss of stability.

Standard position. 1
No. 1 — Minimum damping
No. 4 — Maximum damping

NOTE:
When adjusting the damping, the adjuster should be placed in the clicked position. If not, the damping will be set to the maximum (No. 4).
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.

<table>
<thead>
<tr>
<th>Front fork</th>
<th>Rear shock absorber</th>
<th>Loading condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spring seat</td>
<td>Damping adjuster</td>
</tr>
<tr>
<td>Air pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>40 ~ 80 kPa (0.4 ~ 0.8 kg/cm², 57 ~ 114 psi)</td>
<td>1 ~ 2</td>
</tr>
<tr>
<td>2</td>
<td>40 ~ 80 kPa (0.4 ~ 0.8 kg/cm², 57 ~ 114 psi)</td>
<td>3 ~ 5</td>
</tr>
<tr>
<td>3</td>
<td>40 ~ 80 kPa (0.4 ~ 0.8 kg/cm², 57 ~ 114 psi)</td>
<td>3 ~ 5</td>
</tr>
<tr>
<td>4</td>
<td>80 ~ 120 kPa (0.8 ~ 1.2 kg/cm², 114 ~ 171 psi)</td>
<td>5</td>
</tr>
</tbody>
</table>

6-28
Steering inspection
Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous.
Place a block under the engine to raise the front wheel off the ground.
Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.

⚠️ WARNING:
Securely support the motorcycle so there is no danger of it falling over.

Wheel bearings
If the wheel bearings in the front or rear wheel allow play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings. The wheel bearings should be inspected according to the Maintenance Schedule.

Battery
Check the level of the battery electrolyte and see that the terminals are tight. Add distilled water if the electrolyte level is low.
CAUTION:
When inspecting the battery, be sure the breather pipe is routed correctly. If the breather pipe touches the frame or exits in such a way as to cause battery electrolyte or gas to exit onto the frame, structural and cosmetic damage to the motorcycle can occur.

WARNING:
Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing. Antidote: EXTERNAL-Flush with water. INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately. Eyes: Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.

Replenishing the battery fluid
A poorly maintained battery will deteriorate quickly. The battery fluid should be checked at least once a month.
1. The level should be between the upper and lower level marks. Use only distilled water if refilling is necessary.
3 If the battery will be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.

4 Always make sure the connections are correct when putting the battery back in the motorcycle. Make sure the breather pipe is properly connected and is not damaged or obstructed.

Fuse replacement
1. There are two fuse blocks on this motorcycle. The main fuse block is located under the seat. The other fuse block is located under the indicator lights panel.
2. If any fuse is blown, turn off the ignition switch and the switch in the circuit in question. Install a new fuse of proper amperage. Turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

**CAUTION:**

Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.
Replacing the headlight bulb
This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:
1. Remove the 2 screws holding the light unit assembly.

2. Disconnect the lead wires, and remove the light unit assembly.
3. Turn the bulb holder counterclockwise and remove the defective bulb.

1. Bulb holder

WARNING:
Keep flammable products or your hands away from the bulb while it is on, it will be hot. Do not touch the bulb until it cools down.

4. Slip a new bulb into position and secure it in place with the bulb holder.
Headlight beam adjustment

1 Horizontal adjustment.
   To adjust the beam to the right, turn the adjusting screw clockwise
   To adjust the beam to the left, turn the screw counterclockwise

2 Vertical adjustment
   To raise the beam, turn the adjusting screw clockwise
   To lower the beam, turn the screw counterclockwise

1 Don't touch

5 Reinstall the light unit assembly. Adjust the headlight beam if necessary
1. Horizontal adjusting screw
2. Vertical adjusting screw

J-219

**Front wheel removal**

1. Place the motorcycle on the centerstand
2. Remove the speedometer cable at the speedometer gear housing
3. Remove the front fork brace securing bolts and remove the brace with fender.

4. Loosen the pinch bolt

1. Pinch bolt
5. Remove the axle. Make sure the motorcycle is properly supported.

NOTE: Do not depress the brake lever when the disc is off the caliper as the brake pads will be forced shut.

6. Lower the wheel until the discs come off the calipers. Turn the calipers outward so they do not obstruct the wheel and remove the wheel.

Front wheel installation
When installing the front wheel, reverse the removal procedure.
Pay attention to the following points:
1. Make sure the wheel hub and the speedometer clutch assembly are installed with the projections meshed into the slots.
2. Make sure the projecting portion (torque stopper) of the speedometer housing is positioned correctly.
3. Make sure the axle is properly torqued.

Tightening torque
105 Nm (70.5 m·kg, 75 ft·lb)

4. Before tightening the pinch bolt, compress the front forks several times to check for proper fork operation.

5. Tighten the axle pinch bolt.

Axle pinch bolt torque:
20 Nm (2.0 m·kg, 14 ft·lb)

J-315
Rear wheel removal
U-662

⚠️ WARNING:

It is advisable to have a Yamaha dealer service the rear wheel.

1. Place the motorcycle on the centerstand.
2. Remove the tension bar and the brake rod from the brake shoe plate. The tension bar can be removed by removing the cotter pin and nut from the tension bar bolt. The brake rod can be removed by removing the adjuster.
3. Remove the axle nut cotter pin and the axle nut
4. Loosen the rear axle pinch bolt and pull out the rear axle

5. Move the wheel to the right to separate it from the final gear case and remove the rear wheel

**Rear wheel installation**

When installing the rear wheel, reverse the removal procedure.
Pay attention to the following points:

1. Apply light coating of lithium base grease to final gear case splines and rear wheel hub splines
2. Make sure the splines on the wheel hub fit into the final gear case.

3. Make sure the axle nut is properly torqued, and a new cotter pin is installed.

⚠️ WARNING:
Always use a new cotter pin on the axle nut.

<table>
<thead>
<tr>
<th>Tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axle nut</td>
</tr>
<tr>
<td>105 Nm (10.5 ·kg, 75 ft·lb)</td>
</tr>
<tr>
<td>Axle pinch bolt</td>
</tr>
<tr>
<td>20 Nm (2.0 ·kg, 14 ft·lb)</td>
</tr>
</tbody>
</table>

4. Adjust the rear brake (See page 6-16)

⚠️ WARNING:
Check the operation of the brake light after adjusting the rear brake.
Troubleshooting
Although Yamaha motorcycles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and a loss of power. The troubleshooting chart describes a quick, easy procedure for checking these systems.

If your motorcycle requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealer have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts on your motorcycle. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.
Troubleshooting chart

**WARNING:**
Never check the fuel system while smoking or in the vicinity of an open flame.

**CJ5-08**

1. **Fuel**
   - Check if there is fuel in the fuel tank
     - Enough fuel
     - Ask Yamaha dealer to inspect
     - Some fuel
     - Supply fuel
     - Restart engine

2. **Compression**
   - Use electric starter
     - There is compression
     - Compression normal
     - No compression
     - Ask Yamaha dealer to inspect

3. **Ignition**
   - Remove spark plug(s) and check electrode
     - Wet
     - Wipe clean with dry cloth
     - Spark good
     - Ignition system normal
     - Spark, weak
       - No spark
       - Adjust plug gap or replace plug(s)
   - Dry
     - Attach plug cap and ground to chassis
     - Use electric starter

4. **Battery**
   - Use electric starter
     - Engine turns over quickly
     - Battery good
     - Spark good
     - Ignition system normal
     - Spark, weak
       - No spark
       - Adjust plug gap or replace plug(s)
     - Engine turns over slowly
     - Check fluid, recharge, check connections
     - Ask Yamaha dealer to inspect
CLEANING AND STORAGE

A. CLEANING
Frequent thorough cleaning of your motorcycle will not only enhance its appearance but will improve its general performance and extend the useful life of many components.

1. Before cleaning the motorcycle
   a. Block off the end of exhaust pipe to prevent water entry, a plastic bag and strong rubber band may be used.
   b. Make sure the spark plug(s) and all filler caps are properly installed.

2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to wheel axles.

3. Rinse the dirt and degreaser off with a garden hose, use only enough pressure to do the job.

4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old tooth brush or bottle brush is handy for hard-to-get-to places.

5. Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.

6. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.

CAUTION
Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brakes and transmission seals. Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.
7. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish. When finished, start the engine and let it idle for several minutes.

B. STORAGE
Long term storage (60 days or more) of your motorcycle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the motorcycle, prepare for storage as follows.

1. Drain the fuel tank, fuel lines, and carburetor float bowl(s)
2. Remove empty fuel tank, pour a cup of SAE 10W30 or 20W40 motor oil in tank, shake the tank to coat the inner surfaces thoroughly and drain off the excess oil. Reinstall the tank.

3. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole and reinstall the spark plug. Turn the engine over several times (ground spark plug lead wires) to coat the cylinder walls with oil.

U-664

⚠️ WARNING:
When using the starter motor to crank the engine, remove the spark plug wires, and ground them to prevent sparking.

4. Lubricate all control cables
5. Block up the frame to raise both wheels off the ground.
6. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
7. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.

8. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0° C (30° F) or more than 30° C (90° F)).

NOTE: Make any necessary repairs before storing the motorcycle.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>XV1100W</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimension.</strong></td>
<td></td>
</tr>
<tr>
<td>Overall length</td>
<td>2,285 mm (90.0 in)</td>
</tr>
<tr>
<td>Overall width</td>
<td>840 mm (33.1 in)</td>
</tr>
<tr>
<td>Overall height</td>
<td>1,190 mm (46.9 in)</td>
</tr>
<tr>
<td>Seat height</td>
<td>715 mm (28.1 in)</td>
</tr>
<tr>
<td>Wheel base</td>
<td>1,525 mm (60.0 in)</td>
</tr>
<tr>
<td>Minimum ground clearance</td>
<td>145 mm (5.7 in)</td>
</tr>
<tr>
<td><strong>Basic weight.</strong></td>
<td></td>
</tr>
<tr>
<td>With oil and full fuel tank</td>
<td>239 kg (527 lb)</td>
</tr>
<tr>
<td><strong>Minimum turning radius.</strong></td>
<td>2,740 mm (107.9 in)</td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Air cooled 4-stroke, gasoline, SOHC</td>
</tr>
<tr>
<td>Model</td>
<td>3EG2</td>
</tr>
<tr>
<td>Cylinder arrangement</td>
<td>V-2 cylinder</td>
</tr>
<tr>
<td>Displacement</td>
<td>1,063 cm³</td>
</tr>
<tr>
<td>Bore x Stroke</td>
<td>95.0 x 75.0 mm (3.74 x 2.95 in)</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>8.3:1</td>
</tr>
<tr>
<td>Starting system</td>
<td>Electric starter</td>
</tr>
<tr>
<td>Lubrication system</td>
<td>Wet sump</td>
</tr>
<tr>
<td>Model</td>
<td>XV1100W</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td><strong>Engine oil (4-cycle)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>SAE 20W40 type SE motor oil</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>SAE 10W30 type SE motor oil</td>
</tr>
<tr>
<td><strong>Periodic oil change</strong></td>
<td>(If temperature does not go below 5°C/40°F)</td>
</tr>
<tr>
<td><strong>With oil filter replacement</strong></td>
<td>(If temperature does not go above 15°C/60°F)</td>
</tr>
<tr>
<td><strong>Total amount</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Final gear oil</strong></td>
<td>SAE 80 API GL-4 Hypoid gear oil</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>0.2 L (0.18 Imp qt, 0.21 US qt)</td>
</tr>
<tr>
<td><strong>Air filter</strong></td>
<td>Dry type element</td>
</tr>
<tr>
<td><strong>Fuel</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Regular gasoline</td>
</tr>
<tr>
<td><strong>For Australia Unleaded fuel only</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Tank capacity</strong></td>
<td>16.8 L (3.7 Imp gal, 4.4 US gal)</td>
</tr>
<tr>
<td><strong>Reserve amount</strong></td>
<td>3.0 L (0.7 Imp gal, 0.8 US gal)</td>
</tr>
<tr>
<td><strong>Carburetor</strong></td>
<td>BST40/MIKUNI</td>
</tr>
<tr>
<td><strong>Type/Manufacturer</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spark plug</strong></td>
<td>BP7ES (NGK) or W22EP-U (ND)</td>
</tr>
<tr>
<td><strong>Type/Manufacturer</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Gap</strong></td>
<td>0.7 ~ 0.8 mm (0.028 ~ 0.031 in)</td>
</tr>
<tr>
<td>Model</td>
<td>XV1100W</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Clutch type</td>
<td>Wet, multi-disc</td>
</tr>
<tr>
<td>Transmission</td>
<td></td>
</tr>
<tr>
<td>Primary reduction system</td>
<td>Gear</td>
</tr>
<tr>
<td>Primary reduction ratio</td>
<td>78/47 (1 659)</td>
</tr>
<tr>
<td>Secondary reduction system</td>
<td>Shaft drive</td>
</tr>
<tr>
<td>Secondary reduction ratio</td>
<td>45/46 x 19/18 x 32/11 (3 003)</td>
</tr>
<tr>
<td>Transmission type</td>
<td>Constant mesh 5-speed</td>
</tr>
<tr>
<td>Operation</td>
<td>Left foot operation</td>
</tr>
<tr>
<td>Gear ratio</td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>39/17 (2 294)</td>
</tr>
<tr>
<td>2nd</td>
<td>40/24 (1 666)</td>
</tr>
<tr>
<td>3rd</td>
<td>36/28 (1 285)</td>
</tr>
<tr>
<td>4th</td>
<td>32/31 (1 032)</td>
</tr>
<tr>
<td>5th</td>
<td>29/34 (0 852)</td>
</tr>
<tr>
<td>Chassis.</td>
<td>Pressed backbone</td>
</tr>
<tr>
<td>Frame type</td>
<td>32°</td>
</tr>
<tr>
<td>Caster angle</td>
<td>129 mm (5 1 in)</td>
</tr>
<tr>
<td>Trail</td>
<td></td>
</tr>
<tr>
<td>Tire</td>
<td>Tubeless</td>
</tr>
<tr>
<td>Type</td>
<td>100/90-19 57H</td>
</tr>
<tr>
<td>Size</td>
<td>140/90-15 M/C 70H</td>
</tr>
<tr>
<td>Front</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td>Dual, Disk brake</td>
</tr>
<tr>
<td>Front brake type</td>
<td>Right hand operation</td>
</tr>
<tr>
<td>Operation</td>
<td>Drum brake</td>
</tr>
<tr>
<td>Rear brake type</td>
<td>Right foot operation</td>
</tr>
<tr>
<td>Operation</td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>XV1100W</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Suspension</td>
<td>Telescopic fork</td>
</tr>
<tr>
<td></td>
<td>Swingarm</td>
</tr>
<tr>
<td>Shock absorber</td>
<td>Front: Air/Coil spring, Oil damper</td>
</tr>
<tr>
<td></td>
<td>Rear: Coil spring, Oil damper</td>
</tr>
<tr>
<td>Wheel travel</td>
<td>Front: 150 mm (5.9 in)</td>
</tr>
<tr>
<td></td>
<td>Rear: 97 mm (3.8 in)</td>
</tr>
<tr>
<td>Electrical</td>
<td>TCI</td>
</tr>
<tr>
<td>Ignition system</td>
<td>AC magneto</td>
</tr>
<tr>
<td>Generator system</td>
<td>GM18Z-3A/12V 20AH</td>
</tr>
<tr>
<td>Battery type/Capacity</td>
<td>Quartz bulb</td>
</tr>
<tr>
<td>Bulb wattage/Quantity</td>
<td></td>
</tr>
<tr>
<td>Headlight</td>
<td>60W/55W</td>
</tr>
<tr>
<td>Tail/Brake light</td>
<td>5W/21W x 2</td>
</tr>
<tr>
<td>Flasher light</td>
<td>21W x 4</td>
</tr>
<tr>
<td>Meter light</td>
<td>3W x 4</td>
</tr>
<tr>
<td>Auxiliary light</td>
<td>3.4W</td>
</tr>
<tr>
<td>Indicator light wattage/Quantity</td>
<td></td>
</tr>
<tr>
<td>&quot;NEUTRAL&quot;</td>
<td>3W</td>
</tr>
<tr>
<td>&quot;HIGH BEAM&quot;</td>
<td>3W</td>
</tr>
<tr>
<td>&quot;OIL LEVEL&quot;</td>
<td>3W</td>
</tr>
<tr>
<td>&quot;TURN&quot;</td>
<td>3W x 2</td>
</tr>
<tr>
<td>&quot;FUEL&quot;</td>
<td>3W</td>
</tr>
</tbody>
</table>
NOISE REGULATION (For Australia)

"TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED"

Owners are warned that the law may prohibit:

(a) The removal or rendering inoperative by any person other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and

(b) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.
COLOR CODE

L . . . . . Blue  Dg . . . . . Dark green  L/W . . . . . Blue/White  R/G . . . . . Red/Green
G . . . . . Green  Lg . . . . . Light green  G/L . . . . . Green/Blue  R/Y . . . . . Red/Yellow
Y . . . . . Yellow  W . . . . . White  G/Y . . . . . Green/Yellow  R/W . . . . . Red/White
Gy . . . . . Gray  L/Y . . . . . Blue/Yellow  Y/W . . . . . Yellow/White