

Product: Yamaha YFM7FGPHW, YFM7FGPSEW, YFM7FGPW ATV Service Repair Workshop Manual
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YAMAHA

2007

ATV

SERVICE MANUAL

**Model : YFM7FGPHW, YFM7FGPSEW,
YFM7FGPW**

3B4281972000 

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EBS00000

**YFM7FGPW
SERVICE MANUAL**
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NOTICE

This manual was produced by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to include all the knowledge of a mechanic in one manual, so it is assumed that anyone who uses this book to perform maintenance and repairs on Yamaha vehicle has a basic understanding of the mechanical ideas and the procedures of vehicle repair. Repairs attempted by anyone without this knowledge are likely to render the vehicle unsafe and unfit for use.

This model has been designed and manufactured to perform within certain specifications in regard to performance and emissions. Proper service with the correct tools is necessary to ensure that the vehicle will operate as designed. If there is any question about a service procedure, it is imperative that you contact a Yamaha dealer for any service information changes that apply to this model. This policy is intended to provide the customer with the most satisfaction from his vehicle and to conform to federal environmental quality objectives. (For CDN)

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

NOTE:

-
- This Service Manual contains information regarding periodic maintenance to the emission control system. Please read this material carefully. (For CDN)
 - Designs and specifications are subject to change without notice.
-

IMPORTANT INFORMATION

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



The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



WARNING

Failure to follow WARNING instructions could result in severe injury or death to the vehicle operator, a bystander or a person checking or repairing the vehicle.

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the vehicle.

NOTE:

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

HOW TO USE THIS MANUAL

MANUAL ORGANIZATION

This manual consists of chapters for the main categories of subjects. (See “symbols”)

1st title ①: This is the title of the chapter with its symbol in the upper right corner of each page.

2nd title ②: This title indicates the section of the chapter and only appears on the first page of each section. It is located in the upper left corner of the page.

3rd title ③: This title indicates a sub-section that is followed by step-by-step procedures accompanied by corresponding illustrations.

EXPLODED DIAGRAMS

To help identify parts and clarify procedure steps, there are exploded diagrams at the start of each removal and disassembly section.

1. An easy-to-see exploded diagram ④ is provided for removal and disassembly jobs.
2. Numbers ⑤ are given in the order of the jobs in the exploded diagram. A number that is enclosed by a circle indicates a disassembly step.
3. An explanation of jobs and notes is presented in an easy-to-read way by the use of symbol marks ⑥. The meanings of the symbol marks are given on the next page.
4. A job instruction chart ⑦ accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc.
5. For jobs requiring more information, the step-by-step format supplements ⑧ are given in addition to the exploded diagram and the job instruction chart.

②

CLUTCH

①

ENG

④

⑤

⑥

⑦

Order	Job/Part	Q'ty	Remarks
Removing the clutch			
Primary sheave/secondary sheave			
1	Clutch housing assembly	1	Remove the parts in the order listed. Refer to "PRIMARY AND SECONDARY SHEAVES".
2	Gasket	1	
3	Dowel pin	2	
4	One-way clutch bearing	1	
5	Nut	1	
6	Clutch carrier assembly	1	
For installation, reverse the removal procedure.			

CLUTCH

ENG

③

⑧

REMOVING THE CLUTCH

1. Remove:
 - clutch housing assembly
 - gasket
 - dowel pins

NOTE:
Working in crisscross pattern, loosen each bolt 1/4 of a turn. Remove them after all of them are loosened.

2. Straighten:
• punched portion of the nut ①

3. Remove:
• nut ①

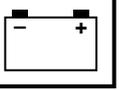
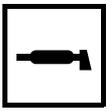
CAUTION:
The clutch carrier assembly nut has left-handed threads. To loosen the clutch carrier assembly nut turn it clockwise.

NOTE:
Use a clutch holding tool ② to hold the clutch carrier assembly.

Universal clutch holder
90890-04086, YM-91042

4 - 63

4 - 65

① GEN INFO 	② SPEC 	
③ CHK ADJ 	④ ENG 	
⑤ COOL 	⑥ FI 	
⑦ DRIV 	⑧ CHAS 	
⑨ ELEC 	⑩ TRBL SHTG ?	
⑪ 	⑫ 	
⑬ 	⑭ 	
⑮ 	⑯ 	
⑰ 	⑱ 	
⑲ 	⑳ 	㉑ 
㉒ 	㉓ 	㉔ 
㉕ 	㉖ New	

EBS00006

SYMBOLS

The following symbols are not relevant to every vehicle.

Symbols ① to ⑩ indicate the subject of each chapter.

- ① General information
- ② Specifications
- ③ Periodic checks and adjustments
- ④ Engine
- ⑤ Cooling system
- ⑥ Fuel injection system
- ⑦ Drive train
- ⑧ Chassis
- ⑨ Electrical
- ⑩ Troubleshooting

Symbols ⑪ to ⑱ indicate the following

- ⑪ Can be serviced with engine mounted
- ⑫ Filling fluid
- ⑬ Lubricant
- ⑭ Special tool
- ⑮ Torque
- ⑯ Wear limit, clearance
- ⑰ Engine speed
- ⑱ Electrical data (Ω , V, A)

Symbols ⑲ to ⑳ in the exploded diagrams indicate the types of lubricants and lubrication points.

- ⑲ Apply engine oil
- ⑳ Apply gear oil
- ㉑ Apply molybdenum disulfide oil
- ㉒ Apply wheel bearing grease
- ㉓ Apply lithium-soap-based grease
- ㉔ Apply molybdenum disulfide grease

Symbols ㉕ to ㉖ in the exploded diagrams indicate where to apply a locking agent ㉕ and when to install a new part ㉖.

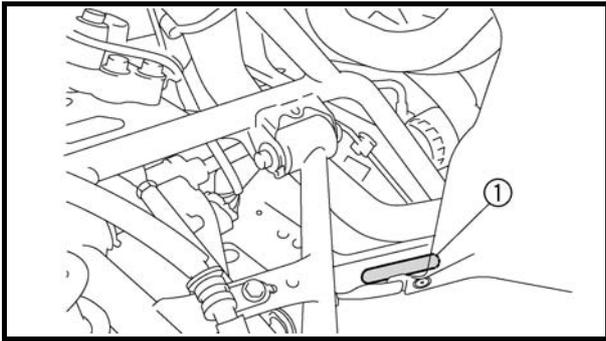
- ㉕ Apply the locking agent (LOCTITE®)
- ㉖ Replace

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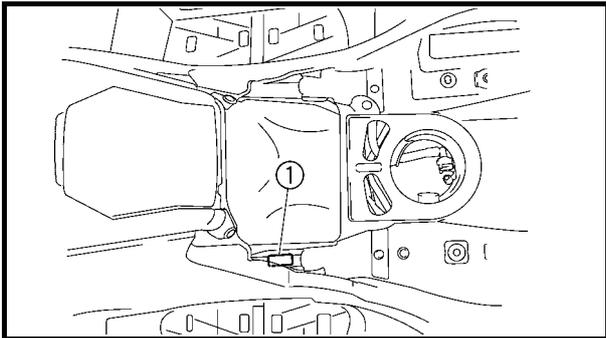
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GENERAL INFORMATION VEHICLE IDENTIFICATION

EBS00010

VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the front left side of the frame.



EBS00011

MODEL LABEL

The model label ① is affixed at the location in the illustration. This information will be needed to order spare parts.

EAS20170

FEATURES

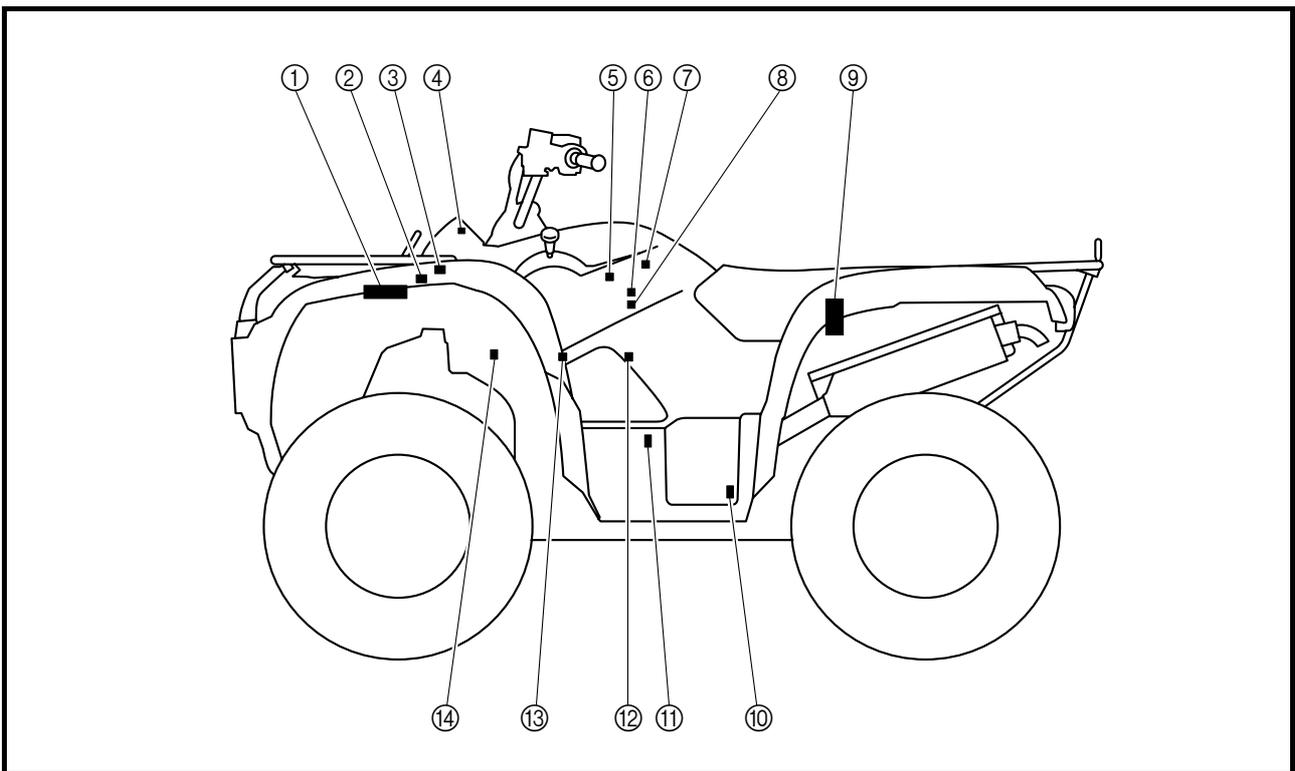
OUTLINE OF THE FI SYSTEM

The main function of a fuel supply system is to provide fuel to the combustion chamber at the optimum air-fuel ratio in accordance with the engine operating conditions and the atmospheric temperature. In the conventional carburetor system, the air-fuel ratio of the mixture that is supplied to the combustion chamber is created by the volume of the intake air and the fuel that is metered by the jet used in the respective carburetor.

Despite the same volume of intake air, the fuel volume requirement varies with the engine operating conditions, such as acceleration, deceleration, or operating under a heavy load. Carburetors that meter the fuel through the use of jets have been provided with various auxiliary devices, so that an optimum air-fuel ratio can be achieved to accommodate the constant changes in the operating conditions of the engine.

As the requirements for the engine to deliver more performance and cleaner exhaust gases increase, it becomes necessary to control the air-fuel ratio in a more precise and finely tuned manner. To accommodate this need, this model has adopted an electronically controlled fuel injection (FI) system, in place of the conventional carburetor system. This system can achieve an optimum air-fuel ratio required by the engine at all times by using a microprocessor that regulates the fuel injection volume according to the engine operating conditions detected by various sensors.

The adoption of the FI system has resulted in a highly precise fuel supply, improved engine response, better fuel economy, and reduced exhaust emissions.



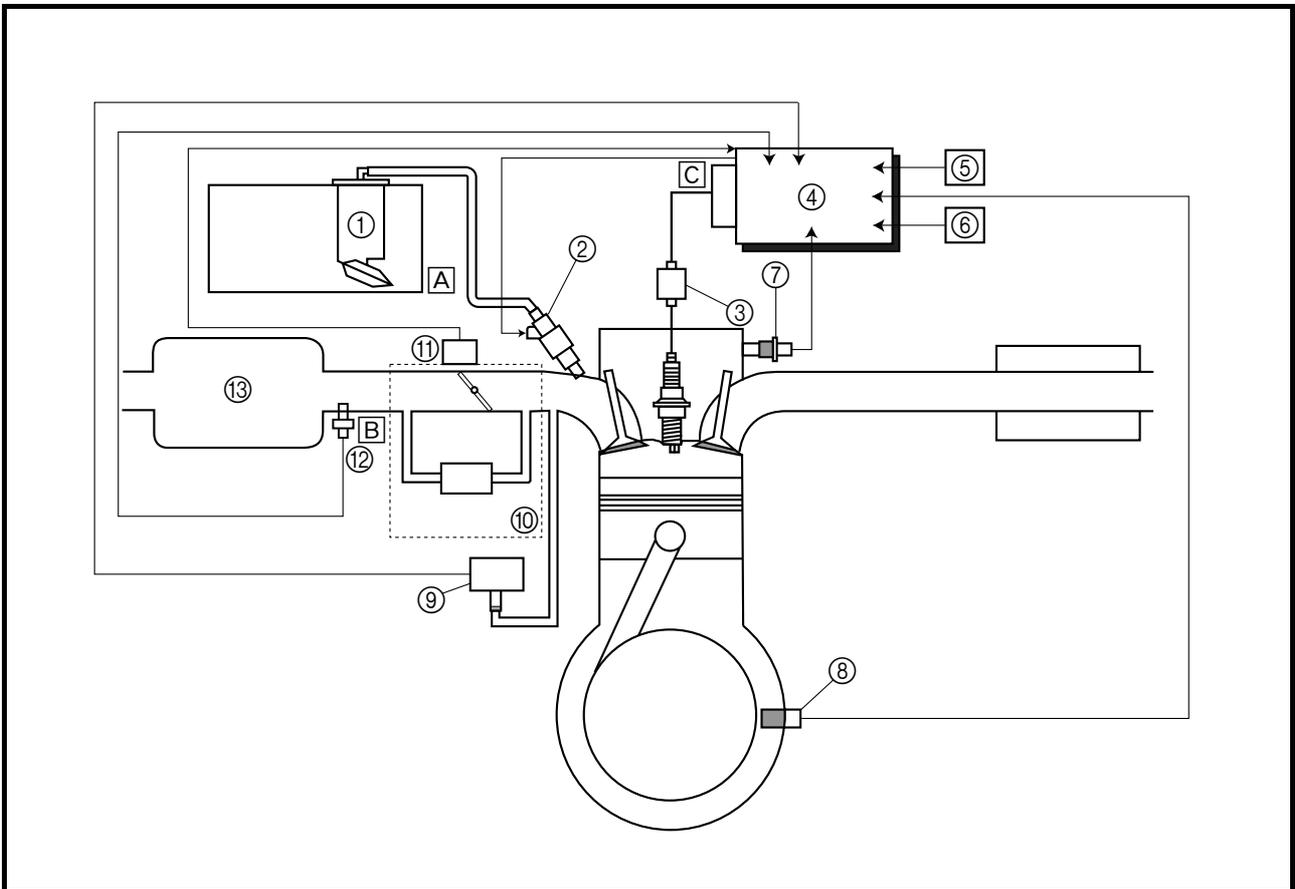
- | | |
|----------------------------------|------------------------------|
| ① ECU (engine control unit) | ⑨ Fuel pump |
| ② Lean angle sensor | ⑩ Speed sensor |
| ③ Fuel injection system relay | ⑪ Crankshaft position sensor |
| ④ Engine trouble warning light | ⑫ Coolant temperature sensor |
| ⑤ Intake air pressure sensor | ⑬ Spark plug |
| ⑥ TPS (throttle position sensor) | ⑭ Ignition coil |
| ⑦ Intake air temperature sensor | |
| ⑧ Fuel injector | |

FI SYSTEM

The fuel pump delivers fuel to the fuel injector via the fuel filter. The pressure regulator maintains the fuel pressure that is applied to the fuel injector at only 324 kPa (3.24 kg/cm², 46.1 psi). Accordingly, when the energizing signal from the ECU energizes the fuel injector, the fuel passage opens, causing the fuel to be injected into the intake manifold only during the time the passage remains open. Therefore, the longer the length of time the fuel injector is energized (injection duration), the greater the volume of fuel that is supplied. Conversely, the shorter the length of time the fuel injector is energized (injection duration), the lesser the volume of fuel that is supplied.

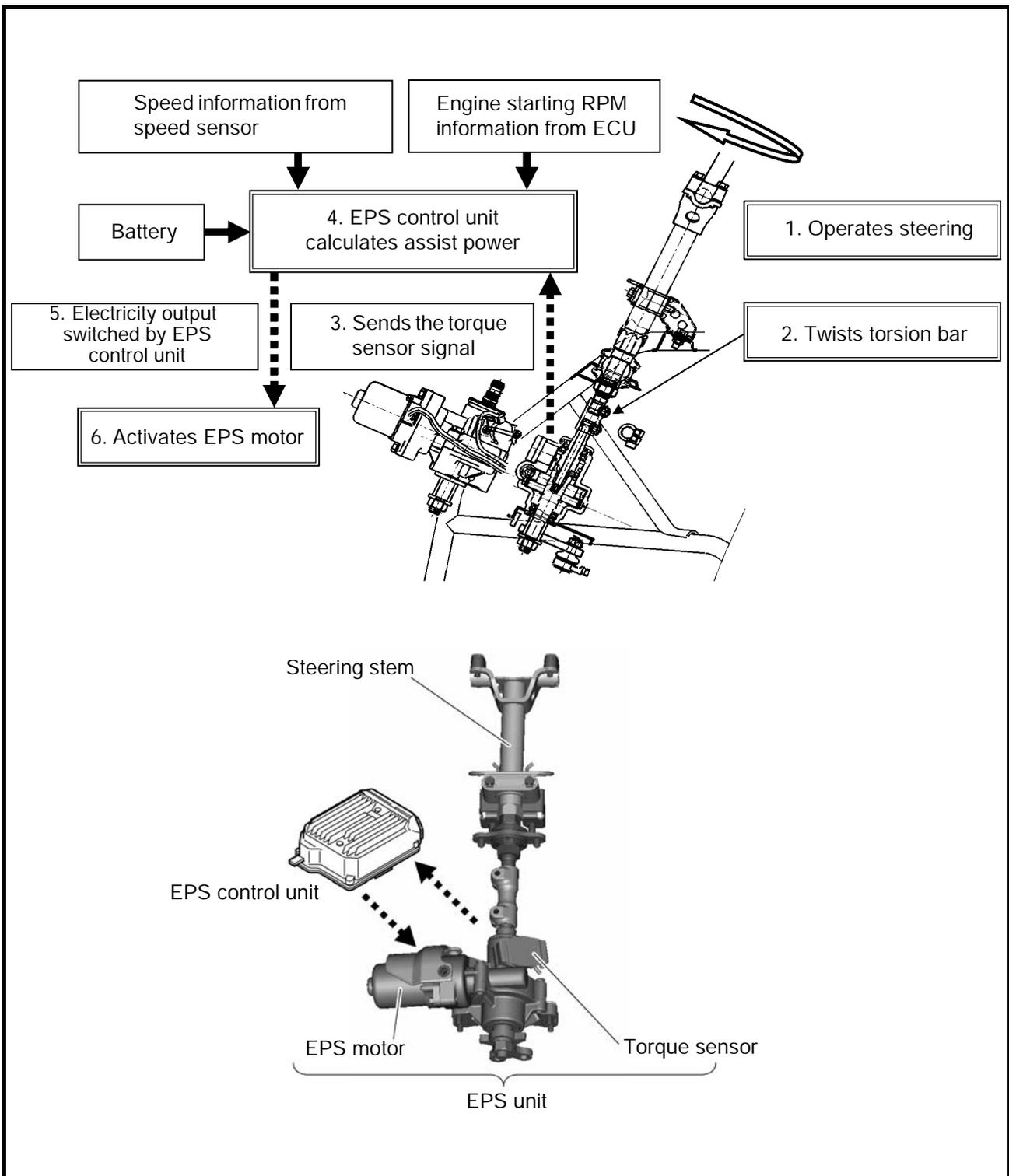
The injection duration and the injection timing are controlled by the ECU. Signals that are input from the throttle position sensor, crankshaft position sensor, intake air pressure sensor, intake air temperature sensor, coolant temperature sensor, lean angle sensor and speed sensor enable the ECU to determine the injection duration. The injection timing is determined through the signals from the crankshaft position sensor. As a result, the volume of fuel that is required by the engine can be supplied at all times in accordance with the driving conditions.

Illustration is for reference only.



- ① Fuel pump
- ② Fuel injector
- ③ Ignition coil
- ④ ECU (engine control unit)
- ⑤ Speed sensor
- ⑥ Lean angle sensor
- ⑦ Coolant temperature sensor
- ⑧ Crankshaft position sensor
- ⑨ Intake air pressure sensor
- ⑩ Throttle body
- ⑪ Throttle position sensor
- ⑫ Intake air temperature sensor
- ⑬ Air filter case
- A Fuel system
- B Air system
- C Control system

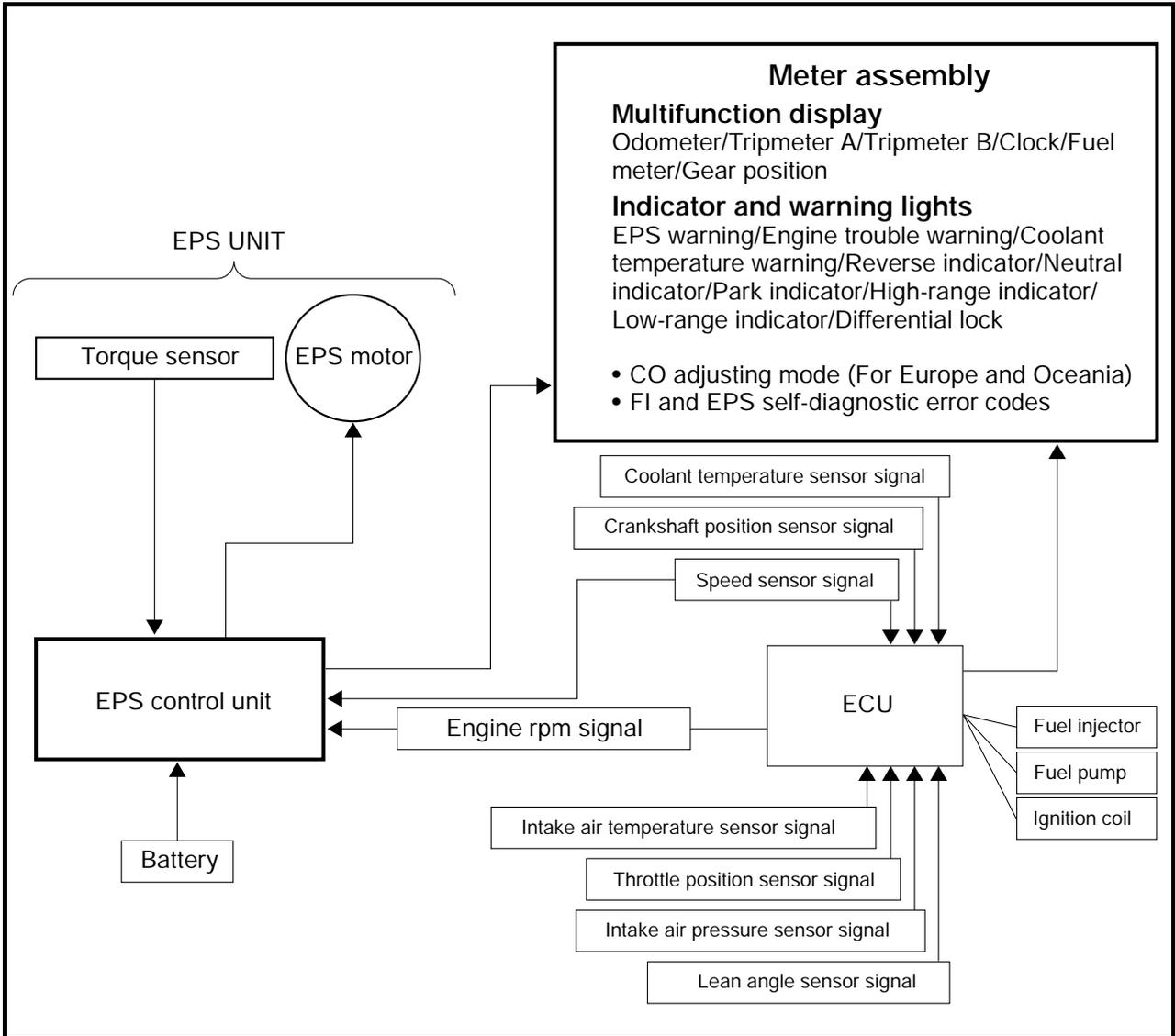
OUTLINE OF THE EPS (ELECTRIC POWER STEERING) SYSTEM



CAUTION:

To prevent accidental damage to the EPS unit, it must not be disassembled.

EPS (ELECTRIC POWER STEERING) SYSTEM BLOCK DIAGRAM



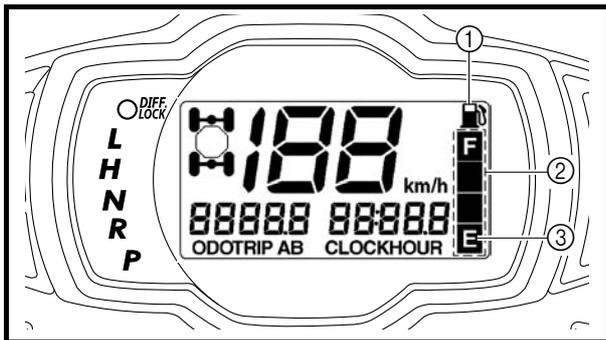
Clock mode

Pushing the “CLOCK” button switches the display between the clock mode “CLOCK” and the hour meter mode “HOUR” in the following order:

CLOCK → HOUR → CLOCK

To set the clock

1. Set the display to the clock mode.
2. Push the “SELECT” button and “RESET” button together for at least three seconds.
3. When the hour digits start flashing, push the “RESET” button to set the hours.
4. Push the “SELECT” button, and the minute digits will start flashing.
5. Push the “RESET” button to set the minutes.
6. Push the “SELECT” button and then release it to start the clock.



Fuel meter

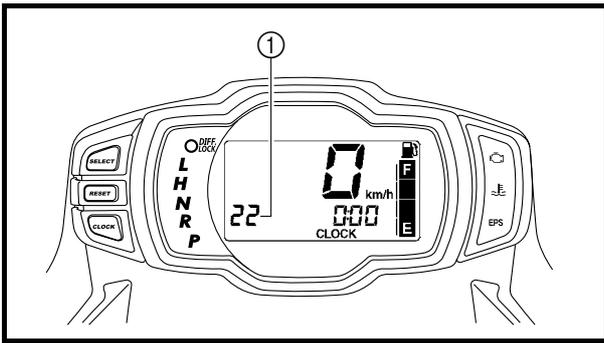
The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from “F” (full) towards “E” (empty) as the fuel level decreases. When the “E” segment disappears and the fuel level warning indicator flashes, refuel as soon as possible.

NOTE:

This fuel meter is equipped with a self-diagnosis system. If the electrical circuit is defective, all the display segments and fuel level warning indicator will start flashing. If this occurs, check the electrical circuit.

Refer to “SIGNALING SYSTEM” in chapter 9.

- ① Fuel level warning indicator
- ② Fuel meter
- ③ “E” segment



Self-diagnosis device

This model is equipped with a self-diagnosis device for various electrical circuits.

If any of those circuits are defective, the multi-function display will indicate a two-digit error code. If the multifunction display indicates such an error code, note the code number, and check the vehicle.

ECB00810

CAUTION:

If the multifunction display indicates an error code, the vehicle should be checked as soon as possible in order to avoid engine damage.

① Error code display



EBS00013

IMPORTANT INFORMATION PREPARATION FOR REMOVAL AND DISASSEMBLY

1. Before removal and disassembly remove all dirt, mud, dust and foreign material.
2. Use only the proper tools and cleaning equipment.
Refer to "SPECIAL TOOLS".
3. When disassembling always keep mated parts together. This includes gears, cylinders, pistons and other parts that have been "mated" through normal wear. Mated parts must always be reused or replaced as an assembly.
4. During disassembly, clean all of the parts and place them in trays in the order of disassembly. This will speed up assembly and allow for the correct installation of all parts.
5. Keep all parts away from any source of fire.

EBS00014

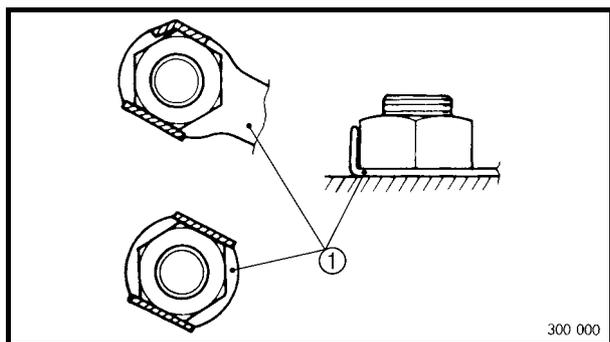
REPLACEMENT PARTS

1. Use only genuine Yamaha parts for all replacements. Use oil and grease recommended by Yamaha for all lubrication jobs. Other brands may be similar in function and appearance, but inferior in quality.

EBS00015

GASKETS, OIL SEALS AND O-RINGS

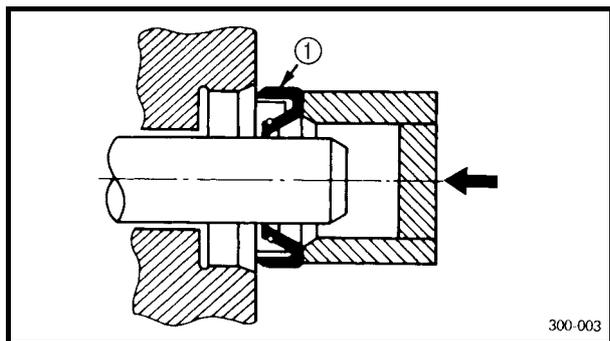
1. When overhauling the engine, replace all gaskets, seals and O-rings. All gasket surfaces, oil seal lips and O-rings must be cleaned.
2. During reassembly properly oil all mating parts and bearings, and lubricate the oil seal lips with grease.



EBS00016

LOCK WASHERS/PLATES AND COTTER PINS

After removal, replace all lock washers/plates ① and cotter pins. After the bolt or nut has been tightened to specification, bend the lock tabs along a flat of the bolt or nut.



EBS00017

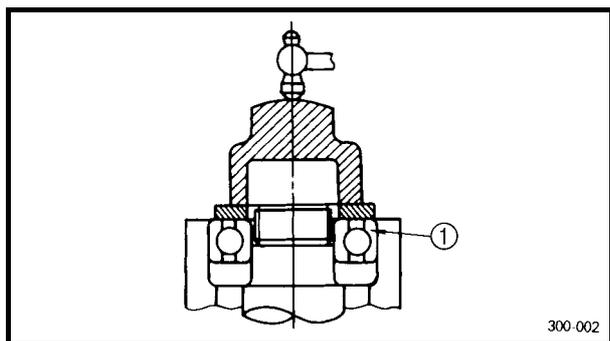
BEARINGS AND OIL SEALS

Install bearings and oil seals so that the manufacturer's marks or numbers are visible. When installing oil seals, lubricate the oil seal lips with a light coat of lithium-soap-based grease. Oil bearings liberally when installing, if appropriate.

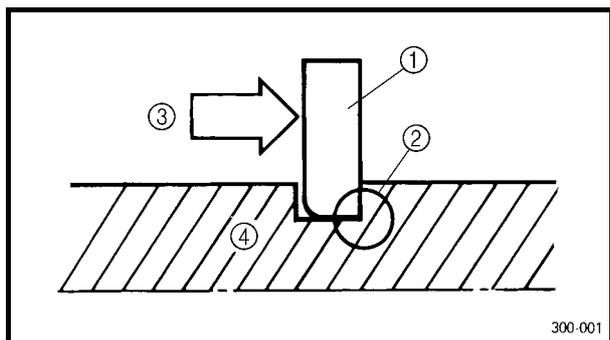
① Oil seal

CAUTION:

Do not spin the bearing with compressed air because this will damage the bearing surfaces.



① Bearing

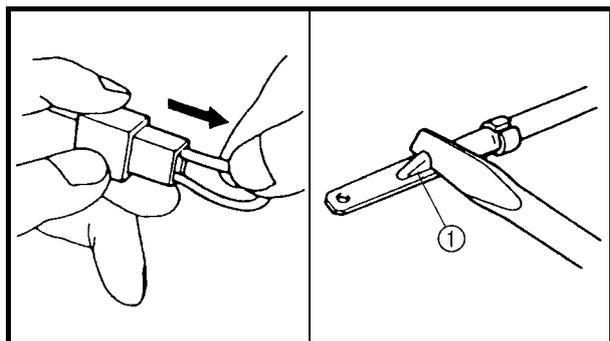
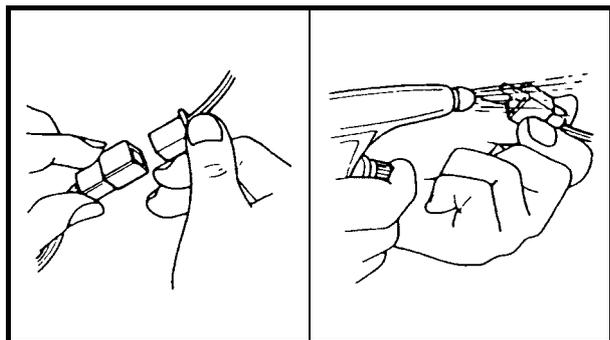


EBS00018

CIRCLIPS

Before reassembly, check all circlips carefully and replace damaged or distorted circlips. Always replace piston pin clips after one use. When installing a circlip ①, make sure the sharp-edged corner ② is positioned opposite the thrust ③ that the circlip receives.

④ Shaft



EBS00019

CHECKING THE CONNECTIONS

Check the leads, couplers, and connectors for stains, rust, moisture, etc.

1. Disconnect:

- lead
- coupler
- connector

2. Check:

- lead
- coupler
- connector

Moisture → Dry with an air blower.

Rust/stains → Connect and disconnect several times.

3. Check:

- all connections

Loose connection → Connect properly.

NOTE: _____

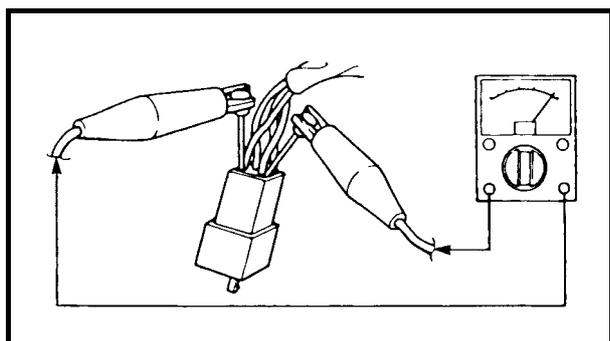
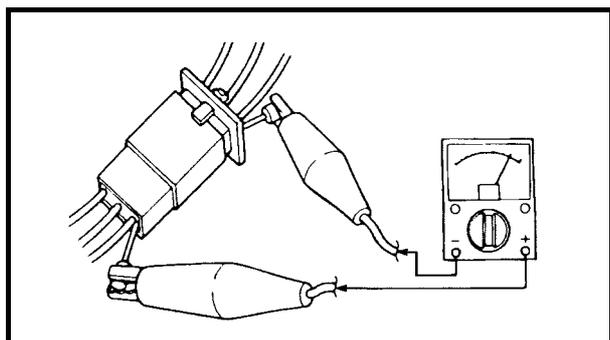
If the pin ① on the terminal is flattened, bend it up.

4. Connect:

- lead
- coupler
- connector

NOTE: _____

Make sure all connections are tight.



5. Check:

- continuity (with the pocket tester)

Pocket tester
90890-03112
Analog pocket tester
YU-03112-C

NOTE: _____

- If there is no continuity, clean the terminals.
- When checking the wire harness, perform steps (1) to (3).
- As a quick remedy, use a contact revitalizer available at most part stores.

EBS00021

SPECIAL TOOLS

The following special tools are necessary for complete and accurate tune-up and assembly. Use only the appropriate special tools; this will help prevent damage caused by the use of inappropriate tools or improvised techniques. Special tools may differ by shape and part number from country to country. In such a case, two types are provided.

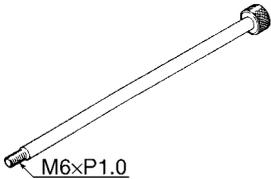
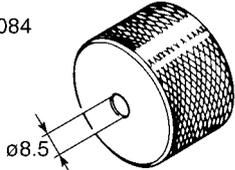
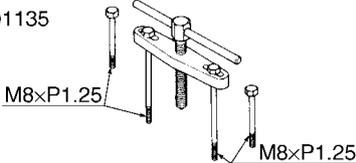
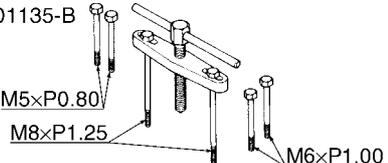
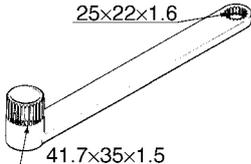
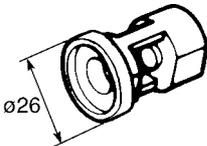
When placing an order, refer to the list provided below to avoid any mistakes.

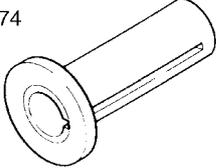
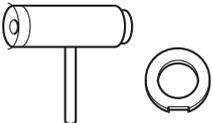
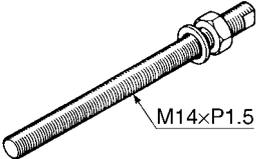
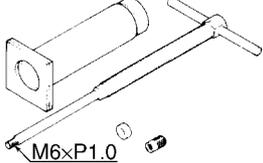
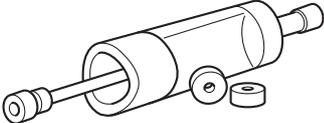
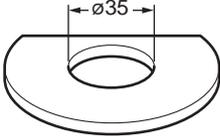
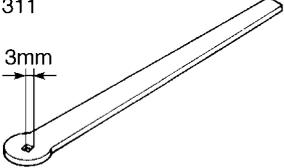
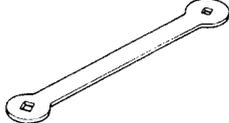
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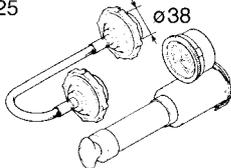
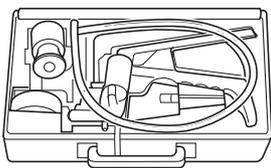
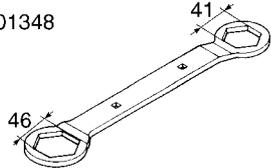
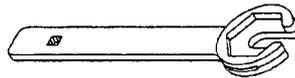
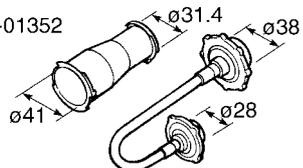
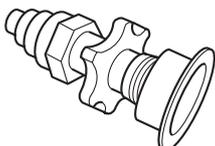
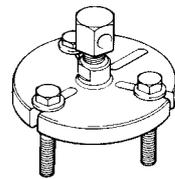
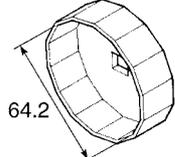
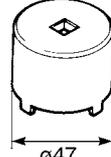
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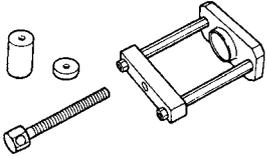
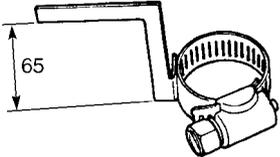
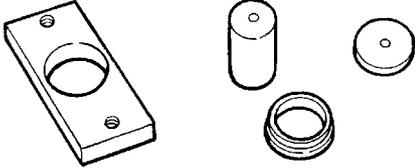
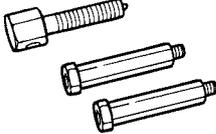
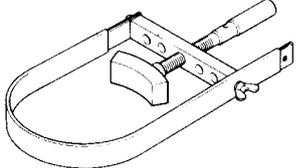
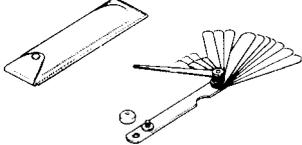
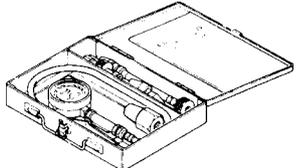
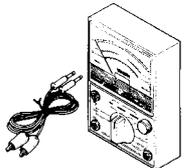
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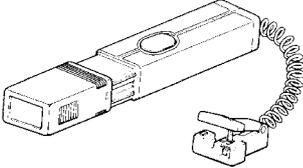
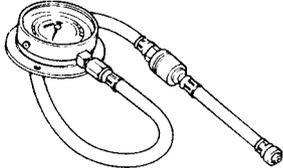
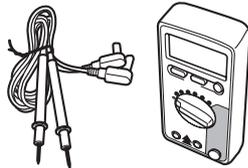
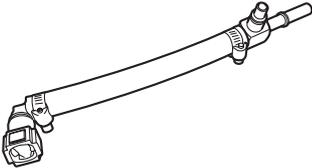
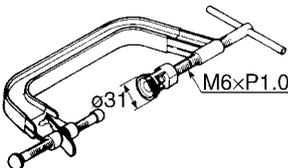
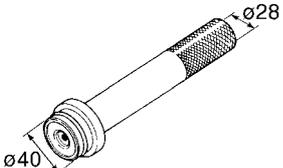
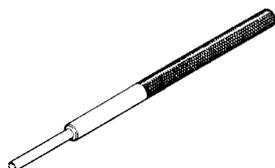
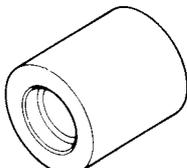
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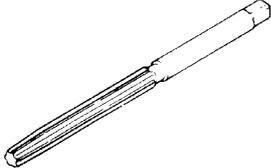
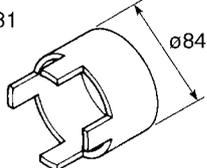
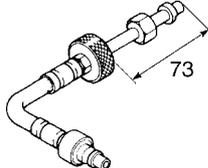
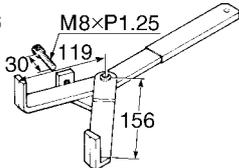
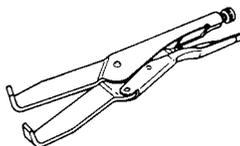
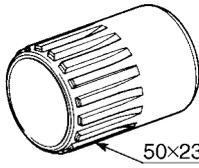
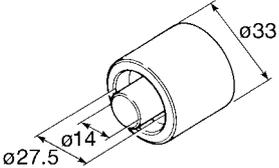
Tool No.	Tool name/How to use	Illustration
90890-01083 YU-01083-1	Slide hammer bolt Slide hammer bolt 6 mm This tool is used to remove the rocker arm shaft.	
90890-01084 YU-01083-3	Weight This tool is used to remove the rocker arm shaft.	90890-01084 
		YU-01083-3 
90890-01135 YU-01135-B	Crankcase separating tool Crankcase separator This tool is used to separate the crankcase.	90890-01135 
		YU-01135-B 
90890-01229 YM-01229	Coupling gear/middle shaft tool Gear holder This tool is needed when removing or installing the coupling gear nut.	
90890-01243 YM-01253-1	Valve spring compressor attachment Valve spring compressor adapter (26 mm) This tool is needed to remove and install the valve assemblies.	

Tool No.	Tool name/How to use	Illustration
90890-01274 YU-90058 YU-90059	Crankshaft installer pot Installing pot Pot installer	90890-01274 
	This tool is used to install the crankshaft.	YU-90058/YU-90059 
90890-01275 YU-90060	Crankshaft installer bolt Bolt	 M14xP1.5
90890-01304 YU-01304	Piston pin puller set Piston pin puller	90890-01304  M6xP1.0
	This tool is used to remove the piston pin.	YU-01304 
90890-01309 YU-90059	Spacer Pot spacer	 ø35
90890-01311 YM-08035-A	Tappet adjusting tool Valve adjuster 3 mm & 4 mm	90890-01311  3mm
	This tool is necessary for adjusting the valve clearance.	YM-08035-A 

Tool No.	Tool name/How to use	Illustration
90890-01325 YU-24460-01	Radiator cap tester Radiator pressure tester	90890-01325 
	This tool is used to check the cooling system.	YU-24460-01 
90890-01348 YM-01348	Locknut wrench	90890-01348 
	This tool is needed when removing or installing the secondary sheave spring.	YM-01348 
90890-01352 YU-33984	Radiator cap tester adapter Radiator pressure tester adapter	90890-01352 
	This tool is used to check the cooling system.	YU-33984 
90890-01362 YU-33270-B	Flywheel puller Heavy duty puller	
90890-01426 YU-38411	Oil filter wrench	
90890-01430 YM-38404	Ring nut wrench	

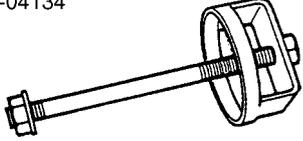
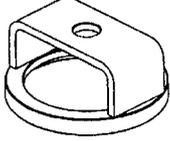
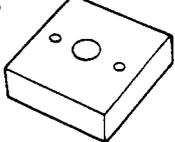
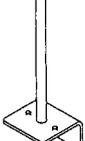
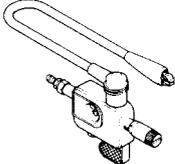
Tool No.	Tool name/How to use	Illustration
90890-01474 YM-01474	Ball joint remover These tools are used to removing or installing the ball joints.	
90890-01475 YM-01475	Gear lash measurement tool Middle drive gear lash tool This tool is used to measure the gear lash.	
90890-01480 YM-01480	Ball joint remover attachment set Ball joint adapter set These tools are used to removing or installing the ball joints.	
90890-01511 YM-01230	Final gear backlash band Middle drive gear lash tool This tool is needed when measuring the final gear backlash.	
90890-01514 YM-01514	Ball joint remover short shaft set These tools are used to removing or installing the ball joints.	
90890-01701 YS-01880-A	Sheave holder Primary clutch holder This tool is needed to hold the primary sheave when removing or installing the sheave nuts.	
90890-03079 YM-34483	Thickness gauge Narrow gauge set This tool is used to measure the valve clearance.	
90890-03081 YU-33223	Compression gauge Engine compression tester This tool is needed to measure engine compression.	
90890-03112 YU-03112-C	Pocket tester Analog pocket tester This instrument is needed for checking the electrical systems.	

Tool No.	Tool name/How to use	Illustration
90890-03141 YU-03141	Timing light Inductive clamp timing light This tool is necessary for checking ignition timing.	
90890-03153 YU-03153	Pressure gauge This tool is used to measure fuel pressure.	
90890-03170 YM-03170	Belt tension gauge Rear drive belt tension gauge This tool is used to measure the steering tension.	
90890-03174 YU-A1927	Digital circuit tester Model 88 Multimeter with tachometer This tool is used to check the electrical systems.	
90890-03176 YM-03176	Fuel pressure adapter This tool is used to measure fuel pressure.	
90890-04019 YM-04019	Valve spring compressor This tool is used to remove or install the valve assemblies.	
90890-04058 YM-04058	Middle driven shaft bearing driver Bearing driver 40 mm This tool is used to install the water pump seal.	
90890-04064 YM-04064-A	Valve guide remover (ø6) Valve guide remover (6.0 mm) This tool is needed to remove and install the valve guides.	
90890-04065 YM-04065-A	Valve guide installer (ø6) Valve guide installer (6.0 mm) This tool is needed to install the valve guides.	

Tool No.	Tool name/How to use	Illustration
90890-04066 YM-04066	Valve guide reamer (ø6) Valve guide reamer (6.0 mm) This tool is needed to rebores the new valve guides.	
90890-04081 YM-91044	Spacer (crankshaft installer) Pot spacer This tool is used to install the crankshaft.	90890-04081 
		YM-91044 
90890-04082	Extension This tool is used to measure engine compression.	
90890-04086 YM-91042	Universal clutch holder This tool is needed to hold the clutch carrier when removing or installing the carrier nut.	90890-04086 
		YM-91042 
90890-04128 YM-04128	Bearing retainer wrench Middle gear bearing retainer This tool is needed when removing or installing the bearing retainers.	
90890-04130 YM-04059	Adapter (M16) Adapter #13 This tool is used to install the crankshaft.	
90890-04132 YM-33221-A	Mechanical seal installer Water pump seal installer This tool is used to install the water pump seal.	

SPECIAL TOOLS



Tool No.	Tool name/How to use	Illustration
90890-04134 YM-04134	Sheave spring compressor	90890-04134 
	This tool is needed when removing or installing the secondary sheave spring.	YM-04134 
90890-04135 YM-04135	Sheave fixed block Sheave fixed bracket	90890-04135 
	This tool is needed when removing or installing the secondary sheave spring.	YM-04135 
90890-06754 YM-34487	Ignition checker Opama pet-4000 spark checker This instrument is necessary for checking the ignition system components.	
90890-06760 YU-39951-B	Digital tachometer This tool is needed for checking engine rpm.	
90890-85505	Yamaha bond No. 1215 (Three bond No.1215®) This bond is used on crankcase mating surfaces, etc.	

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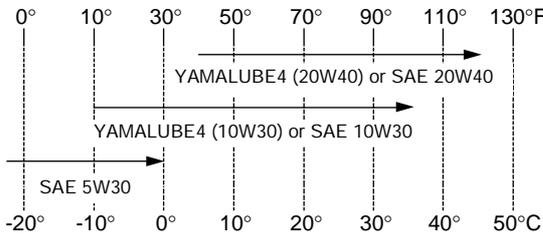
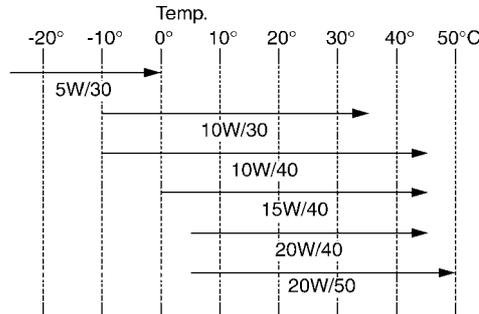


EBS01001

SPECIFICATIONS

GENERAL SPECIFICATIONS

Item	Standard
Model code	3B42, 3B46 (For CDN) 3B43, 3B47 (For Europe) 3B44 (For Oceania)
Dimensions	
Overall length	2,065 mm (81.3 in)
Overall width	1,180 mm (46.5 in)
Overall height	1,240 mm (48.8 in)
Seat height	905 mm (35.6 in)
Wheelbase	1,250 mm (49.2 in)
Minimum ground clearance	275 mm (10.8 in)
Minimum turning radius	3,200 mm (126.0 in)
Basic weight	
With oil and fuel	294.0 kg (648 lb)
Engine	
Engine type	Liquid-cooled 4-stroke, SOHC
Cylinder arrangement	Forward-inclined single cylinder
Displacement	686.0 cm ³ (41.86 cu. in)
Bore × stroke	102.0 × 84.0 mm (4.02 × 3.31 in)
Compression ratio	9.20 : 1
Standard compression pressure (at sea level)	450 kPa (4.50 kg/cm ² , 64.0 psi)
Starting system	Electric starter
Lubrication system	Wet sump

Item	Standard
<p>Oil type or grade</p> <p>Engine oil For CDN</p>  <p>For Europe and Oceania</p>  <p>Final gear oil Differential gear oil</p>	<p>API service SE, SF, SG type or higher JASO standard MA</p> <p>SAE 80 API GL-4 Hypoid gear oil SAE 80 API GL-4 Hypoid gear oil</p>
<p>Oil quantity</p> <p>Engine oil Periodic oil change With oil filter replacement Total amount</p> <p>Final gear oil Periodic oil change Total amount</p> <p>Differential gear case oil Periodic oil change Total amount</p>	<p>2.00 L (1.76 Imp qt, 2.11 US qt) 2.10 L (1.85 Imp qt, 2.22 US qt) 2.40 L (2.11 Imp qt, 2.54 US qt)</p> <p>0.20 L (0.18 Imp qt, 0.21 US qt) 0.25 L (0.22 Imp qt, 0.26 US qt)</p> <p>0.215 L (0.19 Imp qt, 0.23 US qt) 0.23 L (0.20 Imp qt, 0.24 US qt)</p>
<p>Radiator capacity (including all routes)</p>	<p>1.99 L (1.75 Imp qt, 2.10 US qt)</p>
<p>Air filter</p>	<p>Wet type element</p>
<p>Fuel</p> <p>Type</p> <p>Fuel tank capacity Fuel reserve amount</p>	<p>Regular unleaded gasoline only (For CDN and Europe) Unleaded gasoline only (For Oceania)</p> <p>20.0 L (4.40 Imp gal, 5.28 US gal) 4.5 L (0.99 Imp gal, 1.19 US gal)</p>
<p>Fuel injector</p> <p>Type/quantity Manufacturer</p>	<p>297500-1010/1 DENSO</p>

GENERAL SPECIFICATIONS

SPEC



Item	Standard
Spark plug	
Type/manufacturer	CPR7EA-9/NGK
Spark plug gap	0.8 ~ 0.9 mm (0.031 ~ 0.035 in)
Clutch type	
Wet, centrifugal automatic	
Transmission	
Primary reduction system	V-belt
Secondary reduction system	Shaft drive
Secondary reduction ratio	41/21 × 24/18 × 33/9 (9.544)
Transmission type	V-belt automatic
Operation	Left hand operation
Single speed automatic	2.380 ~ 0.700 : 1
Sub transmission ratio	low 31/16 (1.938)
	high 29/25 (1.160)
Reverse gear	23/14 × 28/23 (2.000)
Chassis	
Frame type	Steel tube frame
Caster angle	5.0°
Camber angle	0°
Kingpin angle	11.0°
Kingpin offset	0 mm (0 in)
Trail	26.0 mm (1.02 in)
Tread front (STD)	940.0 mm (37.01 in)
Tread rear (STD)	915.0 mm (37.01 in)
Toe-in (with tires touching the ground)	0 ~ 10.0 mm (0 ~ 0.39 in)
Tire	
Type	front rear
Size	front rear
Manufacturer/model	front rear
	Tubeless Tubeless AT25 × 8-12 AT25 × 10-12 DUNLOP/KT421 (For CDN and Europe) CHENG SHIN/C828-4P (For Oceania) DUNLOP/KT425 (For CDN and Europe) CHENG SHIN/C828-4P (For Oceania)
Tire pressure (cold tire)	
Maximum load*	220.0 kg (485 lb)
Off-road riding	front rear
	32 ~ 38 kPa (0.32 ~ 0.38 kg/cm ² , 4.6 ~ 5.5 psi) 27 ~ 33 kPa (0.27 ~ 0.33 kg/cm ² , 3.9 ~ 4.8 psi)
*Load is total weight of cargo, rider, accessories, and tongue	
Brake	
Front brake	type operation
Rear brake	type operation
	Dual disc brake Right hand operation Dual disc brake Left hand and right foot operation

GENERAL SPECIFICATIONS

SPEC



Item	Standard
Suspension	
Front suspension	Double wishbone
Rear suspension	Double wishbone
Shock absorber	
Front shock absorber	Coil spring/oil damper
Rear shock absorber	Coil spring/oil damper
Wheel travel	
Front wheel travel	180 mm (7.1 in)
Rear wheel travel	230 mm (9.1 in)
Electrical system	
Ignition system	Transistorized coil ignition (digital)
Generator system	AC magneto
Battery type	YTX20L-BS
Battery capacity	12 V 18.0 Ah
Bulb type	Halogen bulb
Bulb voltage/wattage × quantity	
Headlight	12 V 35.0 W/35.0 W × 2
Tail/brake light	12 V 21.0/5.0 W × 1
Indicator light	
Neutral indicator light	LED
Reverse indicator light	LED
Coolant temperature warning light	LED
Engine trouble warning light	LED
EPS warning light	LED
Park indicator light	LED
On-command four-wheel drive/differential gear lock indicator	LCD
High-range indicator light	LED
Low-range indicator light	LED
Differential gear lock indicator light	LED