



**YAMAHA**

**2009**

**SERVICE MANUAL**

**XJ6S(Y)**

**XJ6SA**

***DIVERSION***



EAS20040

**XJ6S(Y)  
XJ6SA  
SERVICE MANUAL  
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First edition, January 2009  
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**IMPORTANT**

This manual was produced by the Yamaha Motor Company, Ltd. 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. Therefore, anyone who uses this book to perform maintenance and repairs on Yamaha vehicles should have a basic understanding of mechanics and the techniques to repair these types of vehicles. Repair and maintenance work attempted by anyone without this knowledge is likely to render the vehicle unsafe and unfit for use.




Yamaha Motor Company, Ltd. is continually striving to improve all of 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.

**TIP**

Designs and specifications are subject to change without notice.

**IMPORTANT MANUAL INFORMATION**

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

	<b>This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.</b>
	<b>A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.</b>
	<b>A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.</b>
<b>TIP</b>	<b>A TIP provides key information to make procedures easier or clearer.</b>

## HOW TO USE THIS MANUAL

This manual is intended as a handy, easy-to-read reference book for the mechanic. Comprehensive explanations of all installation, removal, disassembly, assembly, repair and check procedures are laid out with the individual steps in sequential order.

- The manual is divided into chapters and each chapter is divided into sections. The current section title is shown at the top of each page “1”.
- Sub-section titles appear in smaller print than the section title “2”.
- To help identify parts and clarify procedure steps, there are exploded diagrams at the start of each removal and disassembly section “3”.
- Numbers are given in the order of the jobs in the exploded diagram. A number indicates a disassembly step “4”.
- Symbols indicate parts to be lubricated or replaced “5”.

Refer to “SYMBOLS”.

- A job instruction chart accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc “6”.
- Jobs requiring more information (such as special tools and technical data) are described sequentially “7”.

**1**  
**CLUTCH**

**CLUTCH**

Removing the clutch cover

**3**

**5**

**4**

**6**

Order	Job/Parts to remove	Qty	Remarks
1	Right hand side cover	1	Refer to "REPAIRING THE CLUTCH" on page 5-47
2	Pressure plate	1	Refer to "REPAIRING THE CLUTCH" on page 5-47
3	Clutch cover	1	
4	Clutch cover gasket	1	
5	Clutch cover	1	

For a complete removal procedure, refer to the removal procedure.

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**CLUTCH**

**7. Remove:**

- Clutch plate "1"
- Friction plate "2"

**8. Remove:**

- Spring "1"
- Spring seal plate "2"

**11. Remove:**

- Collar
- Bearing
- Clutch housing "1"
- Ball
- Push rod "1"

**TIP:**

- Turn the disconnect and remove the clutch housing.
- Carefully hang the oil pump drive chain "2" on the main axle to avoid dropping it into the oil pan.
- Be careful not to drop the ball into the oil pan.

**CHECKING THE FRICTION PLATES**

The following procedure applies to all of the friction plates.

**1. Check:**

- Friction plate
- Damage/wear — Replace the friction plates as a set.

**2. Measure:**

- Friction plate thickness
- Out of specification — Replace the friction plates as a set.

**TIP:** Measure the friction plate at four places

Friction plate 1, 2 thickness	2.92-3.08 mm (0.115-0.121 in)
Wear limit	2.80 mm (0.1102 in)
Friction plate 3 thickness	2.94-3.06 mm (0.116-0.120 in)
Wear limit	2.84 mm (0.1118 in)

**CHECKING THE CLUTCH PLATES**

The following procedure applies to all of the clutch plates.

**1. Check:**

- Clutch plate
- Damage — Replace the clutch plates as a set.

**2. Measure:**

- Clutch plate warpage (with a surface plate and thickness gauge "1")
- Out of specification — Replace the clutch plates as a set.

Warpage limit	0.10 mm (0.0039 in)
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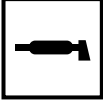













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## SYMBOLS

The following symbols are used in this manual for easier understanding.

### TIP

The following symbols are not relevant to every vehicle.

SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Serviceable with engine mounted		Gear oil
	Filling fluid		Molybdenum disulfide oil
	Lubricant		Brake fluid
	Special tool		Wheel bearing grease
	Tightening torque		Lithium-soap-based grease
	Wear limit, clearance		Molybdenum disulfide grease
	Engine speed		Silicone grease
	Electrical data		Apply locking agent (LOCTITE®).
	Engine oil		Replace the part with a new one.

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