



YAMAHA

2008

AG200F/FE

**SUPPLEMENTARY
SERVICE MANUAL**

3GX-28197-E3

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and data for the AG200F/FE 2008. For complete service information procedures it is necessary to use this Supplementary Service manual together with the following manual.

AG200F 1997 SERVICE MANUAL: 3GX1-AE1
AG200F 2003 SUPPLEMENTARY SERVICE MANUAL: 3GX1-AE2

EAS00000

**AG200F/FE 2008
SUPPLEMENTARY
SERVICE MANUAL**
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NOTICE

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.

NOTE:

Designs and specifications are subject to change without notice.

IMPORTANT MANUAL INFORMATION

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



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 scooter operator, a bystander or a person checking or repairing the scooter.

CAUTION:

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

NOTE:

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

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.

- ① The manual is divided into chapters. An abbreviation and symbol in the upper right corner of each page indicate the current chapter. Refer to "SYMBOLS".
- ② Each chapter is divided into sections. The current section title is shown at the top of each page, except in Chapter 3 ("PERIODIC CHECKS AND ADJUSTMENTS"), where the sub-section title(s) appears.
- ③ Sub-section titles appear in smaller print than the section title.
- ④ To help identify parts and clarify procedure steps, there are exploded diagrams at the start of each removal and disassembly section.
- ⑤ Numbers are given in the order of the jobs in the exploded diagram. A circled number indicates a disassembly step.
- ⑥ Symbols indicate parts to be lubricated or replaced. Refer to "SYMBOLS".
- ⑦ A job instruction chart accompanies the exploded diagram, providing the order of jobs, names of parts, notes in jobs, etc.
- ⑧ Jobs requiring more information (such as special tools and technical data) are described sequentially.

CLUTCH ENG

⑤

⑥

⑦

Order	Job name/Part name	Qty	Remarks
	Clutch removal		Remove the parts in order. Refer to "ENGINE REMOVAL" section.
	Sprocket cover		
1	Clutch springs	4	
2	Pressure plate	1	Refer to "CLUTCH INSTALLATION" section.
3	Nut/Washer	1/1	
4	Push plate	1	
5	Push rod #1/O-ring	1/1	
6	Clutch plates	4	
7	Friction plates	5	
8	Cushion spring	1	
9	Nut/Lock washer	1/1	Refer to "CLUTCH REMOVAL/INSTALLATION" section.
10	Clutch boss	1	
11	Plate washer	1	Refer to "CLUTCH INSTALLATION" section.
12	Primary driven gear	1	

CLUTCH ENG

③

CLUTCH REMOVAL

- Remove:
 - Nut ① (clutch boss)
 - Lock washer ②
 - Clutch boss ③
 Straighten the lock washer tab ④.

NOTE: Loosen the clutch boss nut ① while holding the clutch boss with a clutch holding tool ⑤.

Clutch holding tool: 90890-04086

CLUTCH INSPECTION





















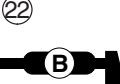
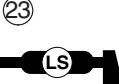
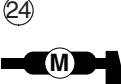
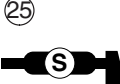

- Inspect:
 - Friction plates
 - Damage/wear → Replace the friction plates as a set.
- Measure:
 - Friction plate thickness
 - Out of specification → Replace the friction plates as a set.
 - Measure at four places.

Thickness (friction plate): 2.9 - 3.1 mm
«Limit: 2.8 mm»
- Inspect:
 - Clutch plates
 - Damage → Replace the clutch plates as a set.
- Measure:
 - Clutch plate warpage
 - Out of specification → Replace the clutch plates as a set.
 - Use a surface plate and a feeler gauge ⑥.

Warp limit (clutch plate): Less than 0.2 mm
- Inspect:
 - Clutch springs
 - Damage → Replace the clutch springs as a set.

4 27

4 29

① GEN INFO 	② SPEC 		
③ CHK ADJ 	④ CHAS 		
⑤ ENG 	⑥ COOL 		
⑦ FI 	⑧ ELEC 		
⑨ TRBL SHTG ?	⑩ 		
⑪ 	⑫ 		
⑬ 	⑭ 		
⑮ 	⑯ 	⑰ 	
⑱ 	⑲ 	⑳ 	㉑ 
㉒ 	㉓ 	㉔ 	㉕ 
㉖ 	㉗ New		

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SYMBOLS

The following symbols are not relevant to every vehicle.

Symbols ① to ⑨ indicate the subject of each chapter.

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

Symbols ⑩ to ⑰ indicate the following.

- ⑩ Serviceable with engine mounted
- ⑪ Filling fluid
- ⑫ Lubricant
- ⑬ Special tool
- ⑭ Tightening torque
- ⑮ Wear limit, clearance
- ⑯ Engine speed
- ⑰ Electrical data

Symbols ⑱ to ㉕ in the exploded diagrams indicate the types of lubricants and lubrication points.

- ⑱ Engine oil
- ⑲ Gear oil
- ⑳ Molybdenum-disulfide oil
- ㉑ Brake fluid
- ㉒ Wheel-bearing grease
- ㉓ Lithium-soap-based grease
- ㉔ Molybdenum-disulfide grease
- ㉕ Silicone grease

Symbols ㉖ to ㉗ in the exploded diagrams indicate the following.

- ㉖ Apply locking agent (LOCTITE®)
- ㉗ Replace the part

CONTENTS

SPECIFICATIONS

GENERAL SPECIFICATIONS	1
CHASSIS SPECIFICATION	1

CHASSIS

FRONT WHEEL AND BRAKE (ELECTRIC STARTER MODEL)	2
ASSEMBLING THE BRAKE SHOE PLATE	4
REAR WHEEL AND REAR BRAKE (ELECTRIC STARTER MODEL) ...	5
ASSEMBLING THE BRAKE SHOE PLATE	6
FRONT FORK	7
ASSEMBLING THE FRONT FORK	7



SPECIFICATIONS

GENERAL SPECIFICATIONS

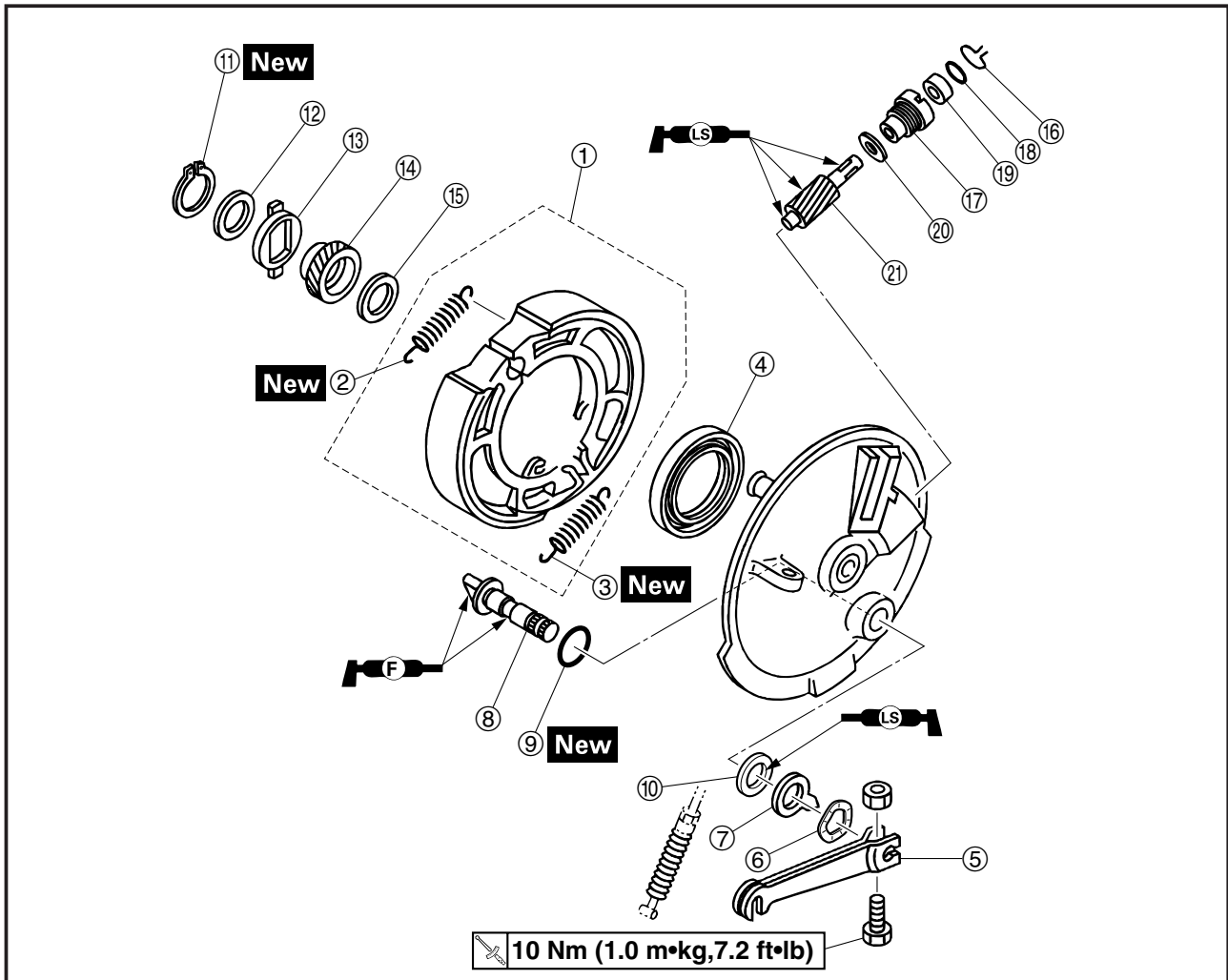
Item	Standard	Limit
Model code	AG200F : 3GXU (AUS)(CHL)	•••
	3GXV (PER)	•••
	3GXW (CIV)(GTM)(ZAF)	•••
	AG200FE : 3GXX (PER)	•••

CHASSIS SPECIFICATION

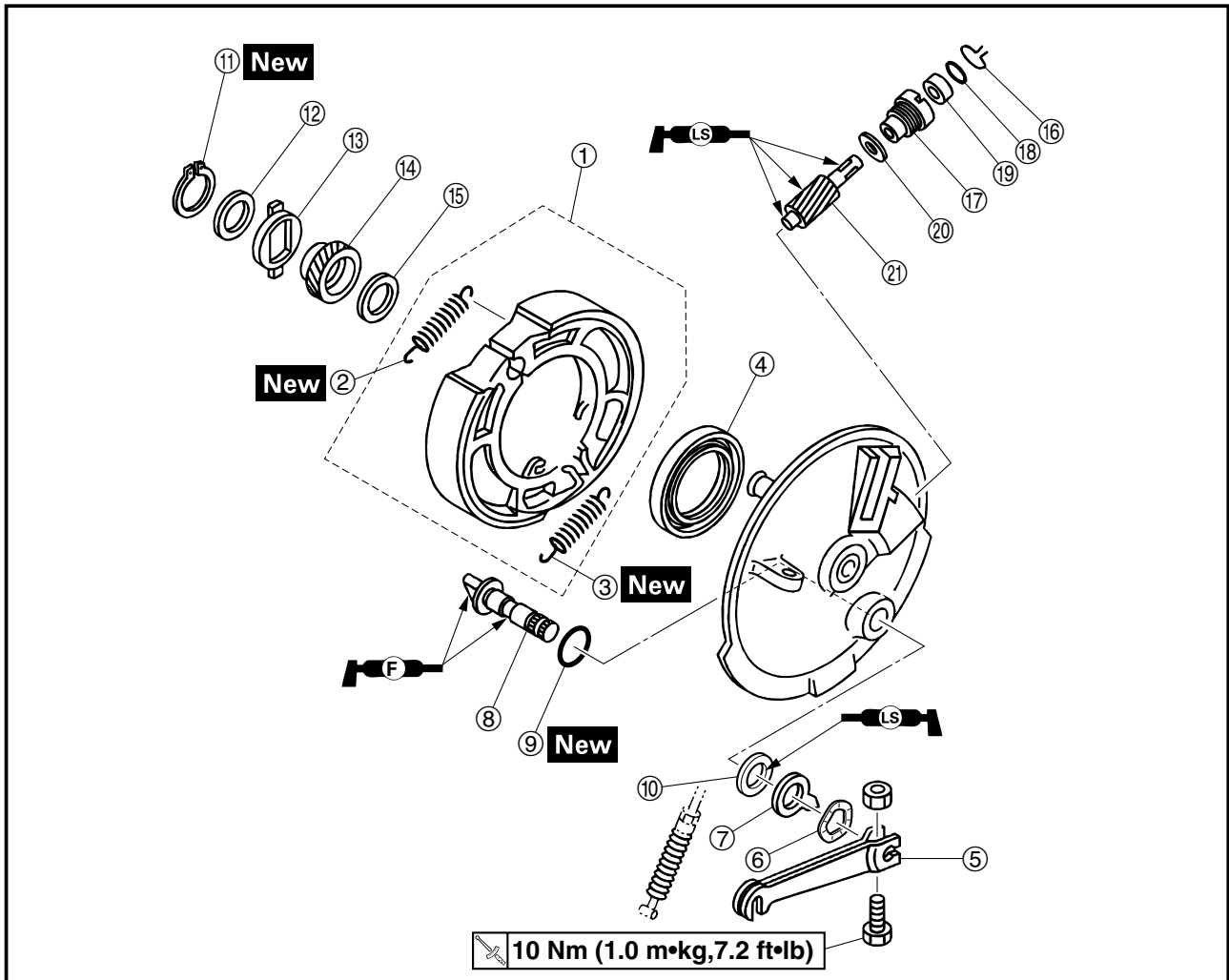
Item	Standard	Limit
Front suspension		
Type	Telescopic fork	•••
Spring/Shock absorber type	Coil spring oil damper	•••
Front fork travel	200.0 mm (7.87 in)	•••
Fork spring free length	403.5 mm (15.89 in)	395.4 mm
Collar length	3GXU, 3GXX : 160.0 mm	•••
	3GXV, 3GXW : 170.0 mm	•••
Spring rate K1	4.90 N/mm (27.98 lb/in) (0.50 kgf/mm)	•••
	K2	6.40 N/mm (36.54 lb/in) (0.65 kgf/mm)
Spring stroke K1	3GXU, 3GXX : 0-130 (5.12 in) mm	•••
	3GXV, 3GXW : 0-140 (5.51 in) mm	•••
K2	3GXU, 3GXX : 130 (5.12 in)-200 (7.87 in) mm	•••
	3GXV, 3GXW : 140 (5.51 in)-200 (7.87 in) mm	•••
Fitting length	3GXU, 3GXX : 398.4 mm (15.68 in)	•••
	3GXV, 3GXW : 388.4 mm (15.29 in)	•••
Optional spring available	No	•••
Recommended oil	Fork oil 10W or equivalent	•••
Front fork leg oil quantity	294.0 cm ³ (9.94 Us oz) (10.37 Imp oz)	•••
Front fork leg oil level	117.0 mm (4.61 in)	•••
Inner tube bend limit	•••	0.2 mm

CHASSIS

FRONT WHEEL AND BRAKE (ELECTRIC STARTER MODEL)



Order	Job/Part	Q'ty	Remarks
	Disassembling the front brake shoe plate		Remove the parts in the order listed.
	Front wheel		Refer to "FRONT WHEEL AND FRONT BRAKE" on 3GX1-AE1 in chapter 6.
①	Brake shoe kit	1	
②	Brake shoe spring (pivot side)	1	
③	Brake shoe spring (brake camshaft side)	1	
④	Oil seal	1	
⑤	Brake camshaft lever	1	
⑥	Wave washer	1	
⑦	Brake shoe wear indicator	1	
⑧	Brake camshaft	1	
⑨	O-ring	1	
⑩	Oil seal	1	
⑪	Cir clip	1	
⑫	Washer	1	
⑬	Meter clutch	1	



Order	Job/Part	Q'ty	Remarks
⑭	Drive gear	1	For installation, reverse the removal procedure.
⑮	Washer	1	
⑯	Compression spring	1	
⑰	Bush	1	
⑱	O-ring	1	
⑲	Oil seal	1	
⑳	Plate washer	1	
㉑	Meter gear	1	



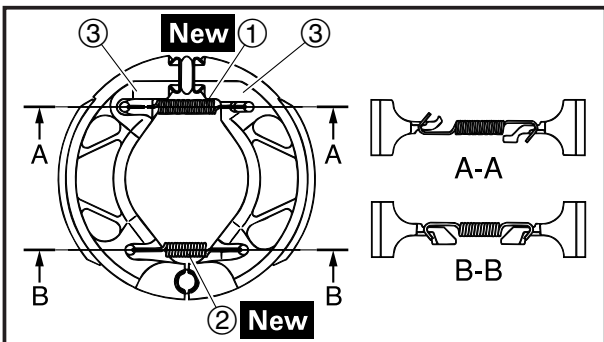
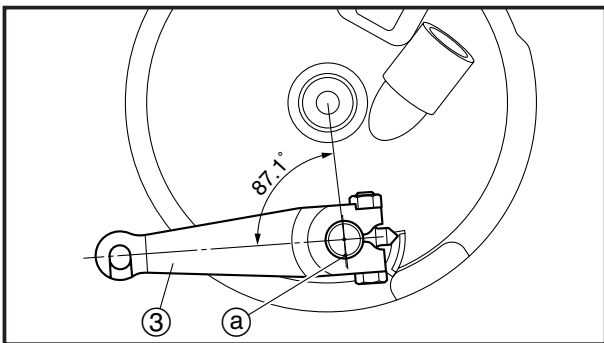
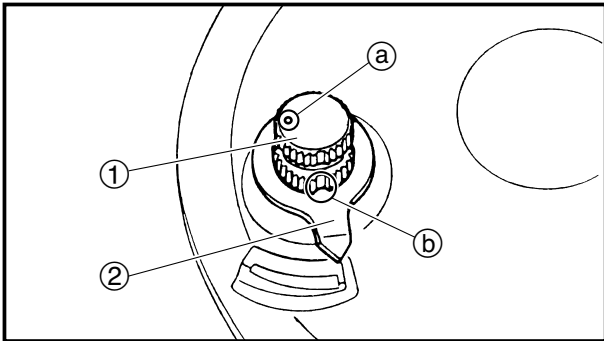
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ASSEMBLING THE BRAKE SHOE PLATE

- Lubricate:
 - brake camshaft



Recommended lubricant
Yamaha grease F



- Install:
 - O-ring **New**
 - oil seal
 - brake camshaft ①
 - brake shoe wear indicator ②
 - wave washer
 - brake camshaft lever ③

10 Nm (1.0 m · kg, 7.2 ft · lb)

- Install the brake camshaft so its punch mark **a** is positioned as shown.
- Align the projection **b** on the brake shoe wear indicator with the notch in the brake camshaft.
- Install the brake camshaft lever as shown.

⚠ WARNING

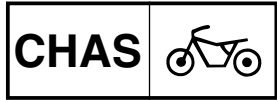
After installing the brake camshaft, remove any excess grease.

- Install:
 - brake shoe spring (brake camshaft side) ①
 - brake shoe spring (pivot side) ②
 - brake shoes ③

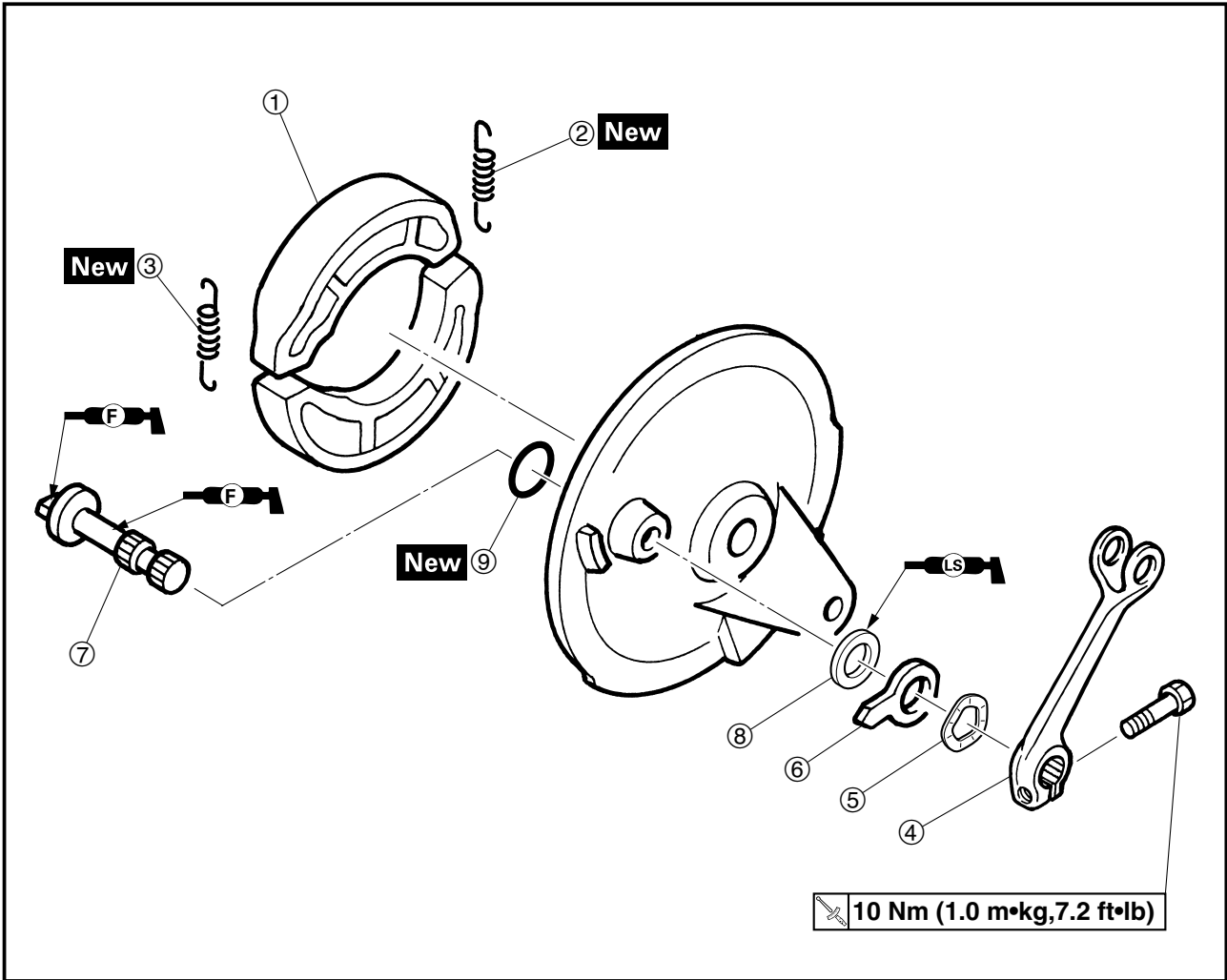
NOTE:

- Do not to damage the springs during installation.
- Install the brake shoe spring as shown.

REAR WHEEL AND REAR BRAKE (ELECTRIC STARTER MODEL)



REAR WHEEL AND REAR BRAKE (ELECTRIC STARTER MODEL)



Order	Job/Part	Q'ty	Remarks
	Disassembling the rear brake shoe plate		Disassemble the parts in the order listed.
	Rear wheel		Refer to "REAR WHEEL, REAR BRAKE AND DRIVE CHAIN" on 3GX1-AE1 in chapter 6.
①	Brake shoe kit	1	
②	Brake shoe spring (pivot side)	1	
③	Brake shoe spring (brake camshaft side)	1	
④	Brake camshaft lever	1	
⑤	Wave washer	1	
⑥	Brake shoe wear indicator	1	
⑦	Brake camshaft	1	
⑧	Oil seal	1	
⑨	O-ring	1	
			For assemble, reverse the disassemble procedure.



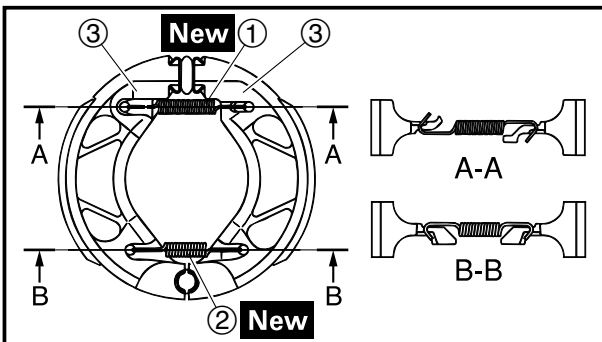
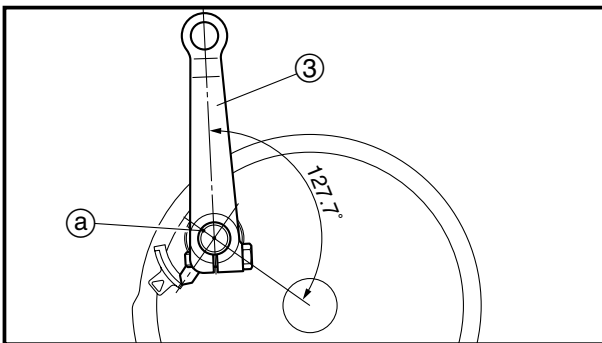
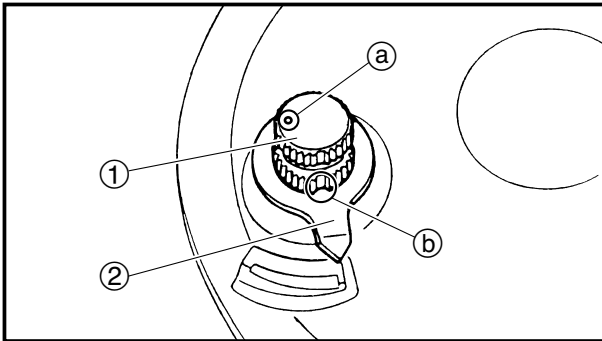
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ASSEMBLING THE BRAKE SHOE PLATE

- Lubricate:
 - brake camshaft



Recommended lubricant
Yamaha grease F



- Install:
 - O-ring **New**
 - oil seal
 - brake camshaft ①
 - brake shoe wear indicator ②
 - wave washer
 - brake camshaft lever ③

10 Nm (1.0 m · kg, 7.2 ft · lb)

- Install the brake camshaft so its punch mark ① is positioned as shown.
- Align the projection ② on the brake shoe wear indicator with the notch in the brake camshaft.
- Install the brake camshaft lever as shown.

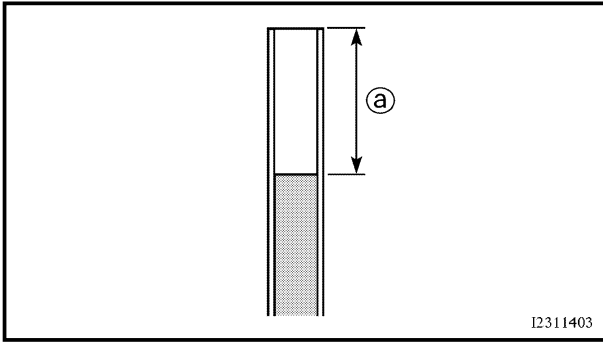
⚠ WARNING

After installing the brake camshaft, remove any excess grease.

- Install:
 - brake shoe spring (brake camshaft side) ①
 - brake shoe spring (pivot side) ②
 - brake shoes ③

NOTE:

- Do not to damage the springs during installation.
- Install the brake shoe spring as shown.



FRONT FORK ASSEMBLING THE FRONT FORK

1. Measure:

- Front fork leg oil level ①
Out of specification → Adjust.



Front fork leg oil level
117 mm (4.61 in)

NOTE:

- Hold the fork in an upright position.
- Measure the front fork leg oil level from the top of the inner tube fully compressed and without the fork spring. (electric starter model)
- Measure the front fork leg oil level from the top of the inner tube fully extended and without the fork spring. (kick starter model)



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