YAMAHA

FZR600R '95

4JH-SE4

SERVICE INFORMATION

FOREWORD

This Service Information has been prepared to introduce new service and data for the FZR600R '95. For complete service information procedures it is necessary to use this publication together with the following microfiche service manual.

FZR600R '95 SERVICE MANUAL: 4JH-ME4
FZR600R '94 SERVICE INFORMATION: 4JH-SE1
FZR600R '94 SERVICE INFORMATION: 4JH-SE2

FZR600R '95
SERVICE INFORMATION

1st Edition, September 1994

Printed in Japan

NOTICE

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

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

HOW TO USE THIS MANUAL

PARTICULARY IMPORTANT INFORMATION

This material is distinguished by the following notation.

⚠ — 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 motorcycle operator, a bystander, or a person inspecting or repairing the motorcycle.

CAUTION: — A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.

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

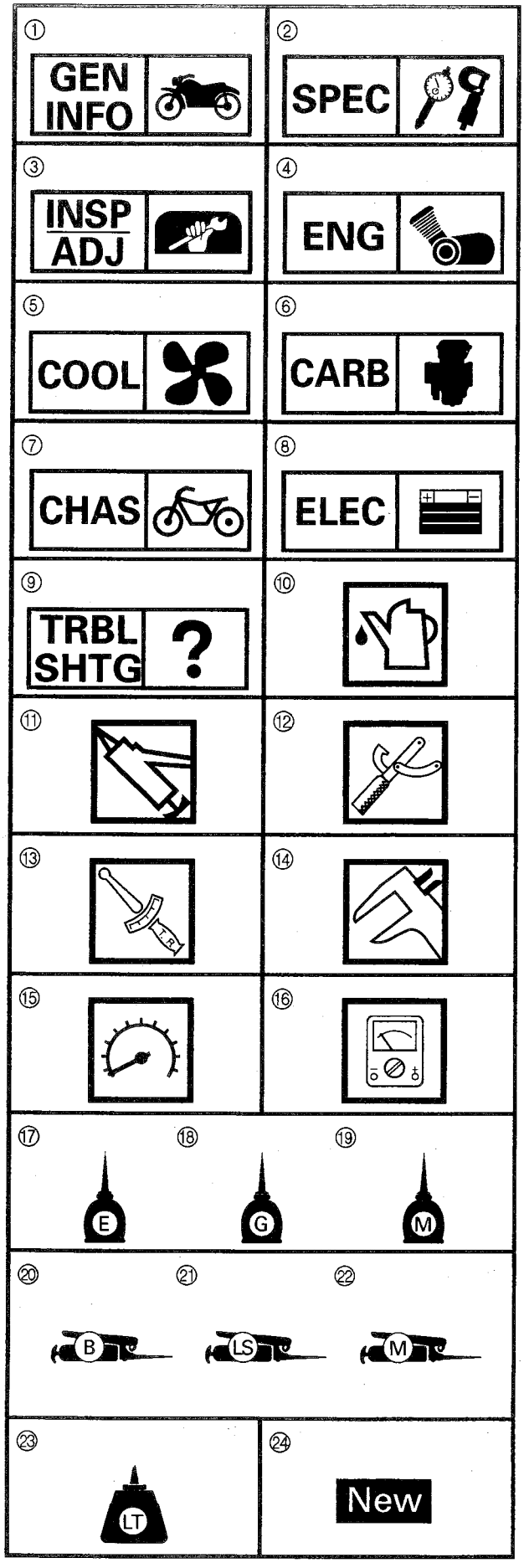
MANUAL FORMAT

All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, and assembly, inspection operations.
In this revised format, the condition of a faulty component will precede an arrow symbol and the course of action required will follow the symbol, e.g.,

- Bearings
  Pitting/Damage → Replace.

EXPLODED DIAGRAM

Each chapter provides exploded diagrams before each disassembly section for ease in identifying correct disassembly and assembly procedures.



ILLUSTRATED SYMBOLS
(Refer to the illustration)

Illustrated symbols ① to ⑨ are designed as thumb tabs to indicate the chapter's number and content.

① General information
② Specifications
③ Periodic inspection and adjustment
④ Engine
⑤ Cooling system
⑥ Carburetion
⑦ Chassis
⑧ Electrical
⑨ Troubleshooting

Illustrated symbols ⑩ to ⑯ are used to identify the specifications appearing in the text.

⑩ Filling fluid
⑪ Lubricant
⑫ Special tool
⑬ Tightening
⑭ Wear limit, clearance
⑮ Engine speed
⑯ Ω,V,A

Illustrated symbols ⑰ to ㉔ in the exploded diagram indicate grade of lubricant and location of lubrication point.

⑰ Apply engine oil
⑱ Apply gear oil
⑲ Apply molybdenum disulfide oil
⑳ Apply wheel bearing grease
㉑ Apply lightweight lithium-soap base grease
㉒ Apply molybdenum disulfide grease
㉓ Apply locking agent (LOCTITE®)
㉔ Use new one

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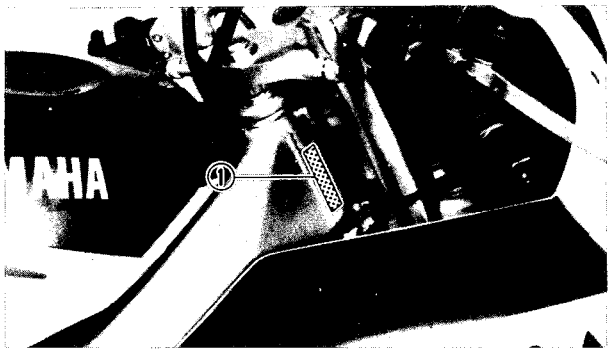


GENERAL INFORMATION

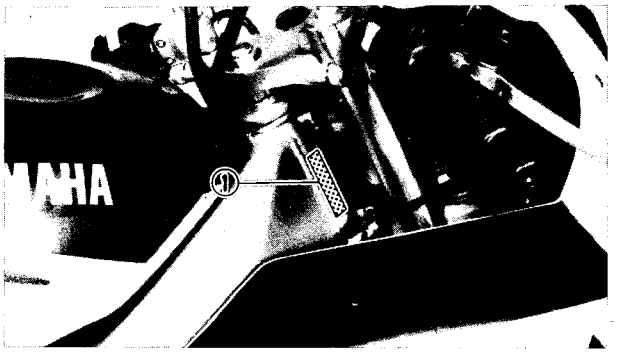
MOTORCYCLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER (For E)

The vehicle identification number ① is stamped into the right side of the steering head.

Starting serial number:
JYA4JHS0✳SA044101 (for E)

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.

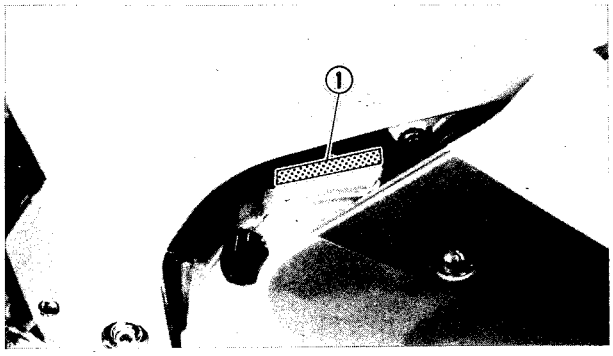


FRAME SERIAL NUMBER (Except for E)

The frame serial number ① is stamped into the right side of the steering head.

Starting serial number:
4JH-031101 (for D, B, DK, SF, GB, N, NL, F, GR, I and PRT)
4JH-047101 (for D)
4MH-005101 (for D)
4MM-004101 (for CH, A and S)

NOTE:
The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.



ENGINE SERIAL NUMBER

The engine serial number ① is stamped into crankcase.

Starting serial number:
4JH-044101 (for E)
4JH-031101 (for D, B, DK, SF, GB, N, NL, F, GR, I and PRT)
4JH-047101 (for D)
4MH-005101 (for D)
4MM-004101 (for CH, A and S)

NOTE:
- The first three digits of these numbers are for model identification; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	FZR600R
Model code:	4JH4 (for D, B, DK, SF, GB, N, NL, F, GR, I and PRT) 4JH5 (for E) 4JH6 (for D) 4MH2 (for D) 4MM2 (for CH, A and S)
Engine starting number:	4JH-031101 (for D, B, DK, SF, GB, N, NL, F, GR, I and PRT) 4JH-044101 (for E) 4JH-047101 (for D) 4MH-005101 (for D) 4MM-004101 (for CH, A and S)
Vehicle identification number:	JYA4JHS0 ✳ SA044101 (for E)
Frame starting number:	4JH-031101 (for D, B, DK, SF, GB, N, NL, F, GR, I and PRT) 4JH-047101 (for D) 4MH-005101 (for D) 4MM-004101 (for CH, A and S)
Basic weight: With oil and full fuel tank	 207 kg (456 lb) 209 kg (461 lb) (for CH, A and S)
Tire pressure (cold tire): Maximum load-except motorcycle	 173 kg (381 lb) 208 kg (459 lb) (for D) 171 kg (377 lb) (for CH, A and S)
Loading condition A* front rear	0 ~ 90 kg (0 ~ 198 lb) 225 kPa (2.25 kg/cm², 32 psi) 250 kPa (2.5 kg/cm², 36 psi)
Loading condition B* front rear	90 ~ 173 kg (198 ~ 381 lb) 90 ~ 208 kg (198 ~ 459 lb) (for D) 90 ~ 171 kg (198 ~ 377 lb) (for CH, A and S) 250 kPa (2.5 kg/cm², 36 psi) 290 kPa (2.9 kg/cm², 41 psi)
High-speed riding front rear	 250 kPa (2.5 kg/cm², 36 psi) 290 kPa (2.9 kg/cm², 41 psi)

MAINTENANCE SPECIFICATIONS

CHASSIS

Model		FZR600R
Front suspension:		
Front fork travel		130 mm (5.12 in)
Fork spring free length		424.5 mm (16.71 in)
<Limit>		419.5 mm (16.52 in)
Collar length		150 mm (5.9 in)
Spring rate	(K1)	8.0 N/mm (0.8 kg/mm, 44.8 lb/in)
Stroke	(K1)	0 ~ 130 mm (0.00 ~ 5.12 in)
Optional spring		No
Oil capacity		431 cm^3 (15.2 Imp oz, 14.6 US oz)
Oil level		137 mm (5.40 in)
Oil grade		Fork oil 10 WT or equivalent
Rear suspension:		
Shock absorber travel		64 mm (2.52 in)
Spring free length		228 mm (8.98 in)
Fitting length		210 mm (8.27 in)
Spring rate	(K1)	85.0 N/mm (8.5 kg/mm, 476.0 lb/in)
Stroke	(K1)	0 ~ 64 mm (0.00 ~ 2.52 in)
Optional spring		No
Enclosed gas / air pressure (STD)		1,200 kPa (12 kg/cm^2, 171 psi)

Tightening torques

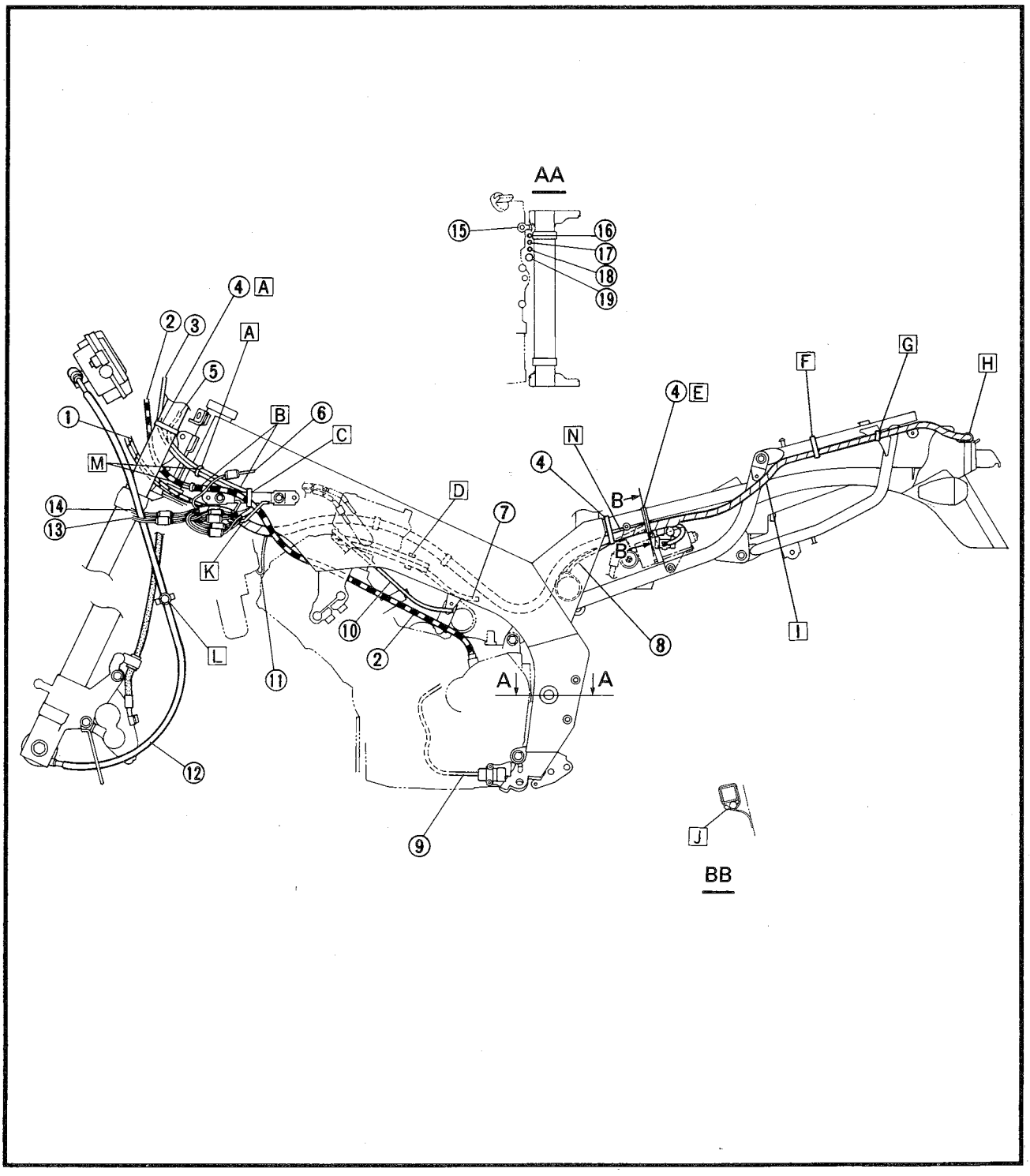
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m·kg	ft·lb	
Upper bracket and inner tube	M8	30	3.0	22	
Upper bracket and steering shaft	M22	110	11.0	80	
Handle boss and inner tube	M6	13	1.3	9.4	
Handle boss and upper bracket	M6	13	1.3	9.4	
Ring nut (steering shaft)	M25	3	0.3	2.2	See NOTE
Inner tube and lower bracket	M10	38	3.8	27	
Union bolt (brake hose)	M10	26	2.6	19	
Master cylinder (front brake)	M6	10	1.0	7.2	
Handle boss and handlebar	M8	28	2.8	20	
Engine mounting:					
Mounting bolt (front)	M10	40	4.0	29	
Mounting bolt (rear upper)	M10	48	4.8	35	
Mounting bolt (rear lower)	M10	48	4.8	35	
Pinch bolt (front left)	M10	64	6.4	46	
Exhaust pipe bracket	M10	40	4.0	29	
Frame and rear fender stay	M8	30	3.0	22	
Swingarm pivot shaft	M16	90	9.0	65	
Relay arm and frame	M10	48	4.8	35	
Relay arm and connecting rod	M10	48	4.8	35	
Connecting rod and swingarm	M10	48	4.8	35	
Rear shock absorber and relay arm	M10	40	4.0	29	
Rear shock absorber and bracket	M10	40	4.0	29	
Damping gas compartment	M6	7	0.7	5.1	
Fuel pump and fuel tank	M5	3	0.3	2.2	
Fuel pump and fuel cock	M6	7	0.7	5.1	
Footrest bracket and frame	M8	30	3.0	22	
Rear footrest and frame	M8	30	3.0	22	
Rear master cylinder and footrest bracket	M8	23	2.3	17	
Rear brake reservoir tank	M6	5	0.5	3.6	
Union bolt (rear brake hose)	M10	26	2.6	19	
Sidestand bolt and nut	M10	39	3.9	28	
Sidestand bolt and frame	M10	46	4.6	33	
Front wheel axle	M14	59	5.9	43	
Rear wheel axle	M18	117	11.7	85	
Front brake caliper	M10	35	3.5	25	
Rear brake caliper	M10	35	3.5	25	
Brake disc and wheel	M8	20	2.0	14	
Driven sprocket and clutch hub	M10	60	6.0	43	
Tension bar	M8	30	3.0	22	
Caliper breed screw	M8	6	0.6	4.3	
Pinch bolt (front axle)	M10	40	4.0	29	

NOTE:

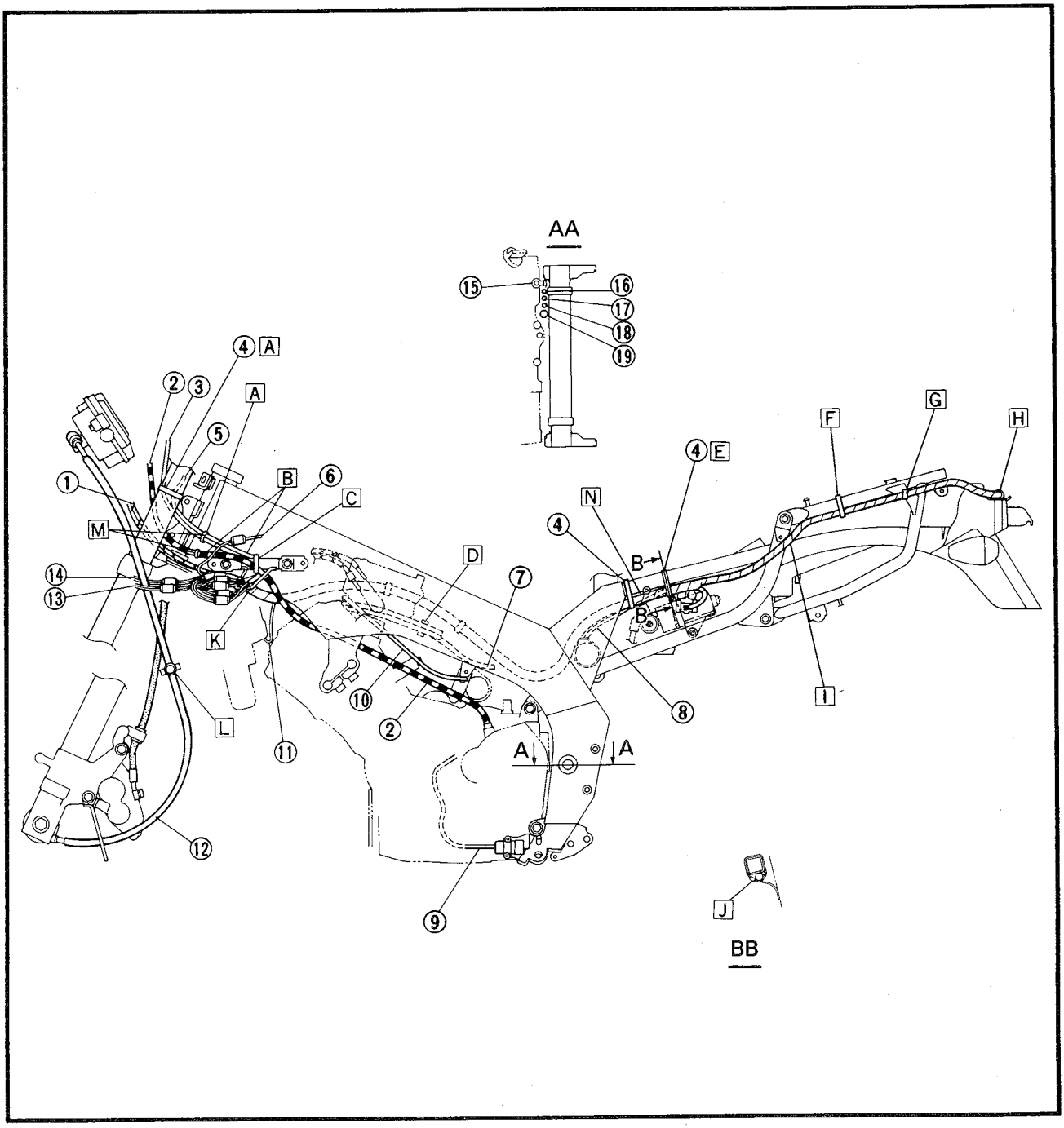
1. First, tighten the ring nut approximately 52 Nm (5.2 m • kg, 38 ft • lb) by using the torque wrench, then loosen the ring nut completely.
2. Retighten the ring nut to specification.

CABLE ROUTING

① Throttle cable
② Clutch cable
③ Handlebar switch lead (left)
④ Clamp
⑤ Main switch lead
⑥ Fuel reserve switch lead
⑦ Vacuum hose (#4)
⑧ Starter motor lead
⑨ Sidestand switch lead
⑩ Starter cable
⑪ Fan motor lead
⑫ Speedometer cable
⑬ Headlight lead
⑭ Meter light lead
⑮ Ground lead
⑯ Reservoir tank breather hose
⑰ Roll over hose
⑱ Fuel tank breather hose
⑲ Air filter case breather hose



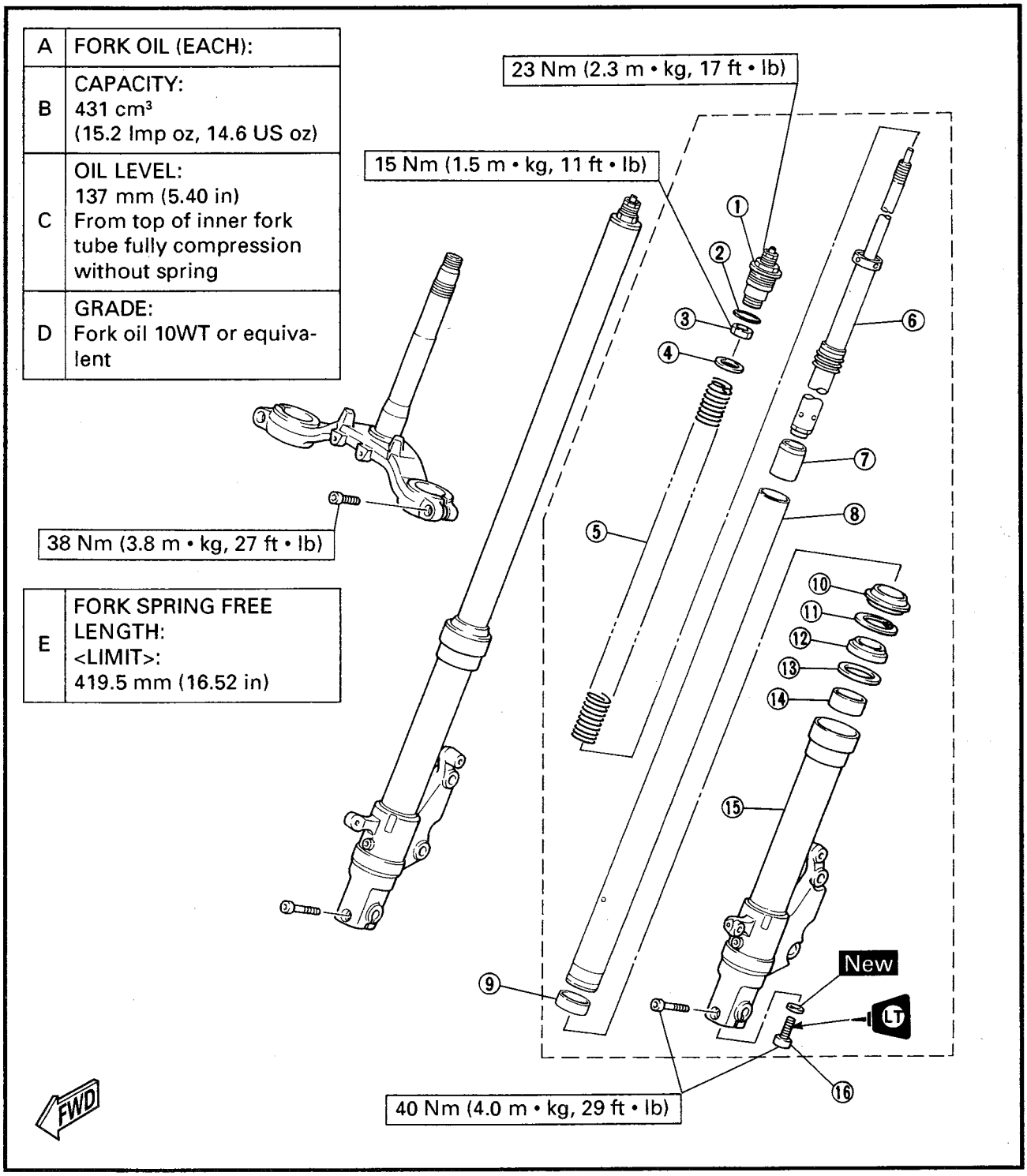
A Clamp the main switch lead and handlebar switch lead (left).
B Pass the clutch cable along the outside of the bracket and the main switch lead along the inside of the bracket.
C Clamp the main switch lead, handlebar switch lead (left) and clutch cable to the bracket.
D Clamp the vacuum hose plug onto the inside of the frame and plug hoses #1 ~ #3.
E Clamp the main harness and starter motor lead behind the side cover installation screw.
F Place the end of the clamp downward.
G Insert the clamp into the hole in the rear flame.
H Insert the clamp into the seat lock stay.
I Pass the main harness to the inside of the rear fender from the outside of the frame.
J Place the ends of the clamp on the battery box with the wire along the bottom of the frame.
K Pass the main harness, main switch lead, handlebar switch lead (left) and clutch cable through the guide.
L Install the clamp to the center cowling.
M Insert the clamp to the frame.
N Install the wire harness, taking care to ensure that the wire harness is not jammed up hard against the bolt of the damping gas compartment.



EXPLODED DIAGRAM

FRONT FORK

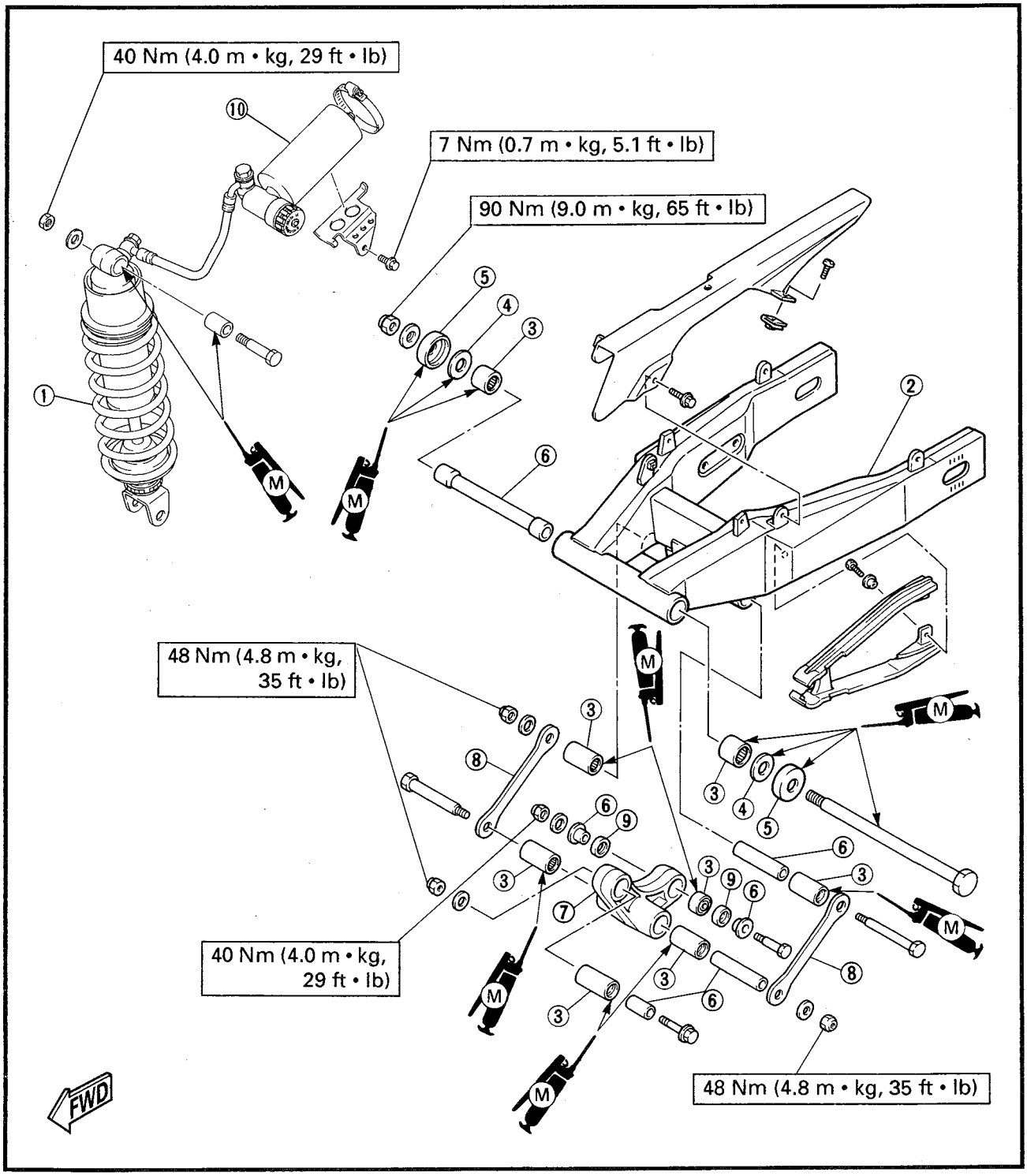
① Cap bolt complete
② O-ring
③ Locknut
④ Spring seat
⑤ Fork spring
⑥ Damper rod assembly
⑦ Oil lock piece
⑧ Inner fork tube
⑨ Piston metal
⑩ Dust seal
⑪ Stopper ring
⑫ Oil seal
⑬ Seal spacer
⑭ Slide metal
⑮ Outer fork tube
⑯ Damper rod bolt



REAR SHOCK ABSORBER AND SWINGARM

① Shock absorber
② Swingarm
③ Bearing
④ Thrust washer
⑤ Thrust cover
⑥ Collar
⑦ Relay arm
⑧ Connecting rod
⑨ Oil seal
⑩ Damping gas compartment

NOTE:
Coat the bearings, bushings, thrust covers, oil seals, and collars with a liberal amount of molybdenum disulfide grease before installing. After installing, thoroughly wipe off excess grease.



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