YAMAHA

YFM350S

3GD-AE7

SUPPLEMENTARY SERVICE MANUAL

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and data for the YFM350S. For complete service information procedures it is necessary to use this Supplementary Service Manual together with the following manual.

YFM350X(J) '97 SERVICE MANUAL: 3GD-AE5
YFM350X(P) 2002 SUPPLEMENTARY SERVICE MANUAL: 3GD-AE6

YFM350S
SUPPLEMENTARY
SERVICE MANUAL

EBS00002

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 machine has a basic understanding of the mechanical ideas and the procedures of machine repair. Repairs attempted by anyone without this knowledge are likely to render the machine unsafe and unfit for use.

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:
Designs and specifications are subject to change without notice.

EBS00003

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

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

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

EBS00004

HOW TO USE THIS MANUAL

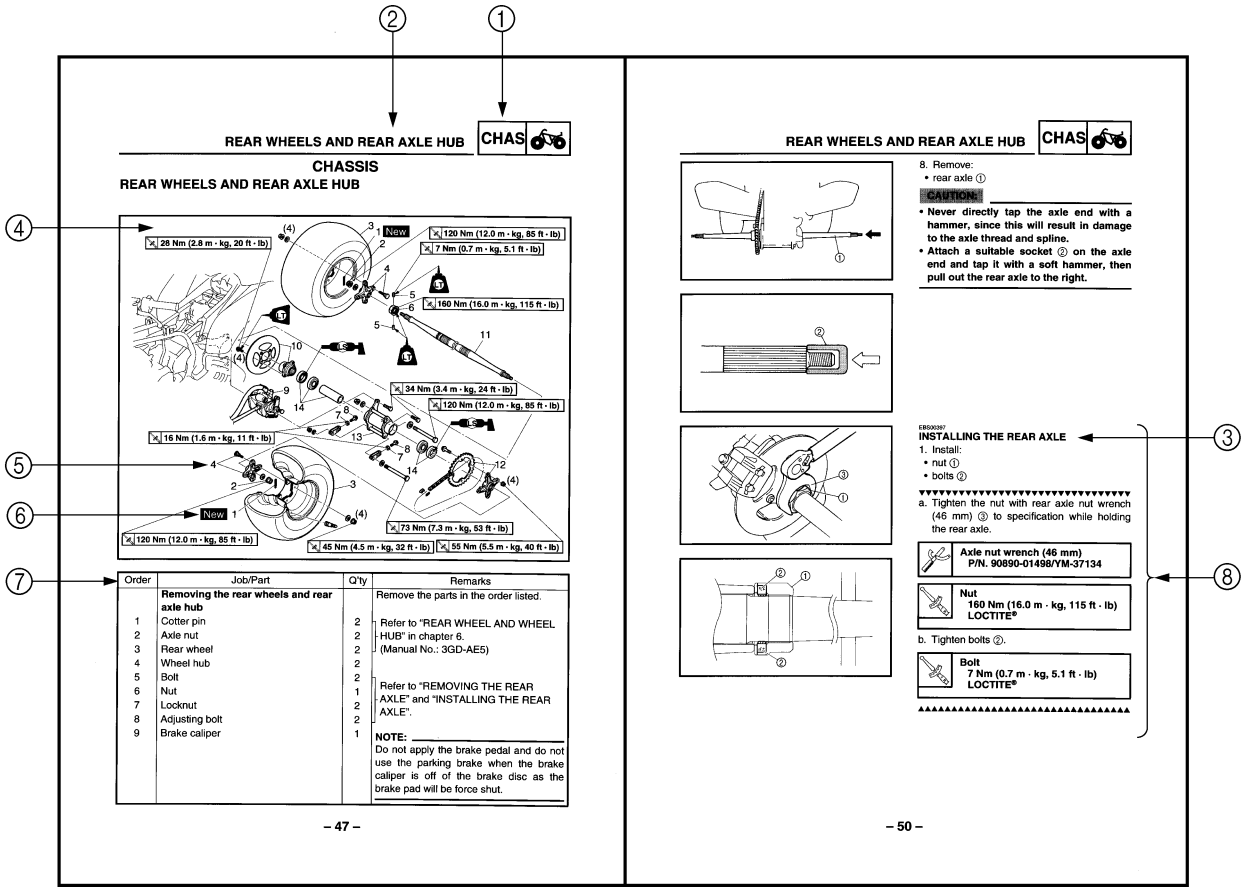
MANUAL ORGANIZATION

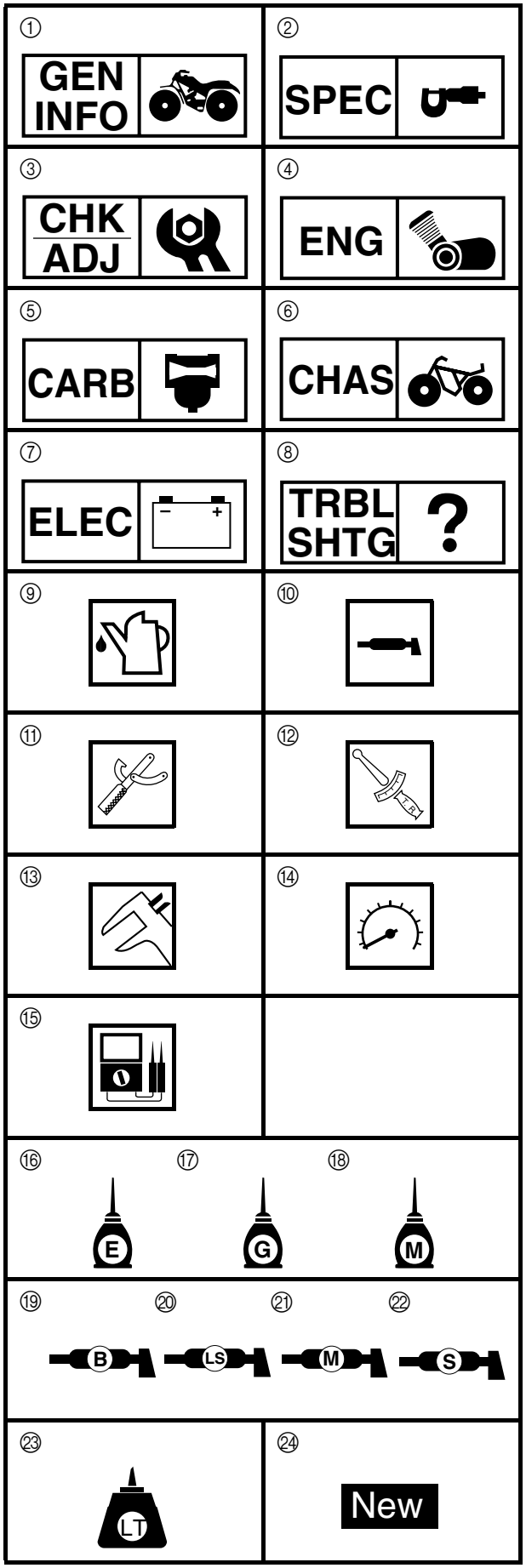
This manual consists of chapters for the main categories of subjects. (See “symbols”)
1st title ①: This is the title of the chapter with its symbol in the upper right corner of each page.
2nd title ②: This title indicates the section of the chapter and only appears on the first page of each section. 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.





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ILLUSTRATED SYMBOLS

Illustrated symbols ① to ⑧ are printed on the top right of each page and indicate the subject of each chapter.

① General information
② Specifications
③ Periodic checks and adjustments
④ Engine
⑤ Carburetion
⑥ Chassis
⑦ Electrical
⑧ Troubleshooting

Illustrated symbols ⑨ to ⑮ are used to identify the specifications appearing in the text.

⑨ Filling fluid
⑩ Lubricant
⑪ Special tool
⑫ Torque
⑬ Wear limit, clearance
⑭ Engine speed
⑮ Ω, V, A

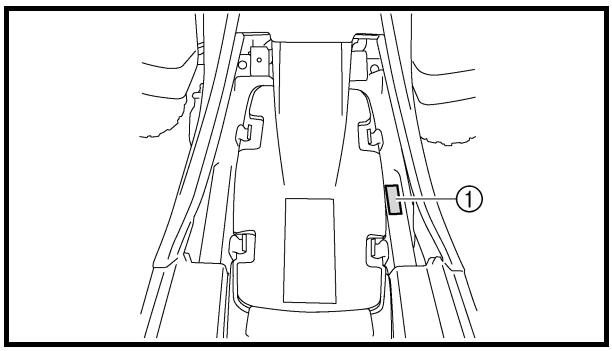
Illustrated symbols ⑯ to ㉒ in the exploded diagrams indicate the types of lubricants and lubrication points.

⑯ Apply engine oil
⑰ Apply gear oil
⑱ Apply molybdenum disulfide oil
⑲ Apply wheel bearing grease
⑳ Apply lightweight lithium soap base grease
㉑ Apply molybdenum disulfide grease
㉒ Apply silicon grease

Illustrated symbols ㉓ to ㉔ in the exploded diagrams indicate where to apply a locking agent ㉓ and when to install a new part ㉔.

㉓ Apply the locking agent (LOCTITE®)
㉔ Replace

CONTENTS



GENERAL INFORMATION

MACHINE IDENTIFICATION

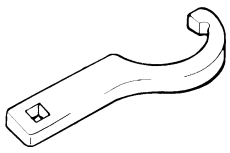
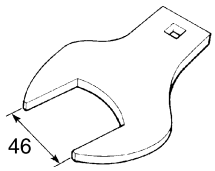
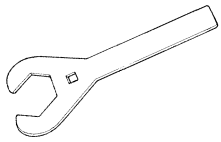
MODEL LABEL

The model label ① is affixed to the frame. This information will be needed to order spare parts.

EB102001
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.

For US and CDN
P/N. YM-, YU-, YS-, YK-, ACC-
Except for US and CDN
P/N. 90890-

Tool No.	Tool name/How to use	Illustration
90890-01443 YU-33975	Steering nut wrench This tool is needed to loosen and tighten the rear shock absorber locknut.	
90890-01498 YM-37134	Axle nut wrench (46 mm) This tool is needed to loosen or tighten the rear axle nut.	 

SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	YFM350S
Model code number	5YT1 (For USA and Oceania) 5YT2 (For CDN) 5YT3 (For Europe)
Dimensions	
Overall length	1,770 mm (69.7 in)
Overall width	1,095 mm (43.1 in)
Overall height	1,080 mm (42.5 in)
Seat height	820 mm (32.3 in)
Wheelbase	1,210 mm (47.6 in)
Minimum ground clearance	115 mm (4.53 in)
Basic weight	
With oil and full fuel tank	180.0 kg (397 lb)
Minimum turning radius	3,100 mm (122 in)
Engine	
Engine type	Air-cooled 4-stroke, SOHC
Cylinder arrangement	Forward-inclined single cylinder
Displacement	349.0 cm^3 (21.30 cu.in)
Bore × stroke	83.0 × 64.5 mm (3.27 × 2.54 in)
Compression ratio	9.20 : 1
Compression pressure	850 kPa (8.5 kg/cm^2, 120.9 psi) at 350 r/min
Starting system	Electric starter
Oil capacity	
Engine oil	
Periodic oil change	2.50 L (2.20 Imp qt, 2.64 US qt)
With oil filter replacement	2.60 L (2.29 Imp qt, 2.75 US qt)
Total amount	3.20 L (2.82 Imp qt, 3.38 US qt)
Fuel	
Type	Regular unleaded gasoline only (For CDN and Europe) Unleaded gasoline only (For USA and Oceania)
Tank capacity	9.0 L (1.98 Imp gal, 2.38 US gal)
Reserve amount	2.7 L (0.59 Imp gal, 0.71 US gal)
Carburetor	
Type/manufacturer	BSR36/MIKUNI

Model		YFM350S
Transmission		
Primary reduction system		Spur gear
Primary reduction ratio		76/24 (3.167)
Secondary reduction system		Chain drive
Secondary reduction ratio		38/13 (2.923)
Transmission type		Constant mesh, 6-speed forward, 1-speed reverse
Operation		Left foot operation
Gear ratio	1st	36/16 × 20/27 × 29/18 (2.685)
	2nd	33/20 × 20/27 × 29/18 (1.969)
	3rd	29/23 × 20/27 × 29/18 (1.504)
	4th	27/26 × 20/27 × 29/18 (1.239)
	5th	25/28 × 20/27 × 29/18 (1.066)
	6th	23/29 × 20/27 × 29/18 (0.946)
	Reverse	33/16 × 33/10 (6.806)
Chassis		
Frame type		Steel tube frame
Caster angle		6°
Trail		26.0 mm (1.02 in)
Toe-in (unloaded)		20 ~ 30 mm (0.79 ~ 1.18 in)
Tires		
Type		Tubeless
Size	front	AT21 × 7-10
	rear	AT20 × 10-9
Manufacturer	front	DUNLOP
	rear	DUNLOP
Type	front	KT851B
	rear	KT877A
Brakes		
Front brake	type	Dual disc brake
	operation	Right hand operation
Rear brake	type	Single disc brake
	operation	Right foot operation
Electrical		
Ignition system		DC C.D.I.
Generator system		A.C. magneto
Battery voltage/capacity		12 V/8.6 Ah
Battery type		YTZ10S
Bulb wattage × quantity		
Headlight		12 V 30 W/30 W × 2
Tail/brake light		12 V 5 W/21 W × 1
Neutral indicator light		12 V 1.7 W × 1
Reverse indicator light		12 V 1.7 W × 1

MAINTENANCE SPECIFICATIONS

ENGINE

Model		YFM350S
Rocker arm/rocker arm shaft		
Rocker arm inside diameter		11.980 ~ 11.998 mm (0.4717 ~ 0.4724 in)
Rocker arm shaft outside diameter		11.961 ~ 11.971 mm (0.4709 ~ 0.4713 in)
Rocker-arm-to-rocker-arm-shaft clearance		0.009 ~ 0.037 mm (0.0004 ~ 0.0015 in)
Carburetor		
I.D. mark		5YT1 00
Main jet	(M.J)	#142.5
Main air jet	(M.A.J)	#35
Jet needle	(J.N)	5JFC39-2
Needle jet	(N.J)	P-0M
Pilot jet	(P.J)	#22.5
Pilot air jet	(P.A.J.1)	#65
	(P.A.J.2)	#165
Pilot outlet	(P.O)	1
Bypass 1	(B.P.1)	0.8
Bypass 2	(B.P.2)	0.8
Bypass 3	(B.P.3)	0.8
Pilot screw turns out	(P.S)	2-1/4 (For CDN, Europe, and Oceania)
Valve seat	(V.S)	2.5
Starter jet	(G.S)	#70
Throttle valve size	(Th.V)	#105
Fuel level	(F.L)	4 ~ 5 mm (0.16 ~ 0.20 in) Above the float chamber mating surface
Float height		13.0 mm (0.51 in)
Engine idling speed		1,450 ~ 1,550 r/min
Intake vacuum		33.3 kPa (250 mmHg, 9.83 inHg)

Tightening torques

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m · kg	ft · lb	
Carburetor joint	Bolt	M8	2	20	2.0	14	
Carburetor clamp (cylinder head side)	Screw	M4	1	3	0.3	2.2	
Carburetor clamp (air filter case side)	Screw	M4	1	3	0.3	2.2	
Air filter case	Screw	M4	1	3	0.3	2.2	
Muffler and exhaust pipe	Bolt	M8	1	16	1.6	11	
Muffler	Bolt	M8	2	34	3.4	24	
Clutch cable holder	Bolt	M8	1	16	1.6	11	
Right crankcase cover	Bolt	M6	15	10	1.0	7.2	
Left crankcase cover	Bolt	M6	9	11	1.1	8.0	
Crankshaft end cover	Bolt	M6	4	7	0.7	5.1	
Bearing retainer (balancer shaft)	Screw	M6	2	7	0.7	5.1	
Bearing retainer (main axle)	Screw	M6	2	7	0.7	5.1	
Bearing retainer (left crankcase)	Screw	M5	2	7	0.7	5.1	
Drive sprocket	Nut	M20	1	90	9.0	65	Use a lock washer.
Stopper lever	Bolt	M6	1	10	1.0	7.2	
Reverse shift cam stopper bolt	Bolt	M14	1	18	1.8	13	
Drive select lever assembly	Bolt	M8	2	20	2.0	14	
Drive select lever shift rod and reverse shift cam	Bolt	M6	1	16	1.6	11	
Shift rod (shift pedal) locknut	Nut	M6	2	8	0.8	5.8	

CHASSIS

Model		YFM350S
Steering system		
Lock-to-lock angle		
Left		42.5°
Right		42.5°
Front suspension		
Shock absorber stroke		90.0 mm (3.54 in)
Shock absorber spring free length		232.5 mm (9.15 in)
Spring rate	(K1)	32.00 N/mm (3.26 kg/mm, 182.72 lb/in)
	(K2)	45.00 N/mm (4.59 kg/mm, 256.95 lb/in)
Spring stroke	(K1)	0 ~ 45.0 mm (0 ~ 1.77 in)
	(K2)	45.0 ~ 90.0 mm (1.77 ~ 3.54 in)
Optional spring		No
Rear suspension		
Shock absorber stroke		88.0 mm (3.46 in)
Shock absorber spring free length		238.5 mm (9.39 in)
Spring rate	(K1)	57.00 N/mm (5.81 kg/mm, 325.46 lb/in)
Stroke		0 ~ 88.0 mm (0 ~ 3.46 in)
Enclosed gas pressure	(standard)	1,500 kPa (15.0 kg/cm^2, 213.3 psi)
	(Min)	1,450 kPa (14.5 kg/cm^2, 206.2 psi)
	(Max)	1,550 kPa (15.5 kg/cm^2, 220.4 psi)
Wheel		
Front wheel type		Panel wheel
Rear wheel type		Panel wheel
Front rim size/material		10 × 5.5 AT/Aluminum
Rear rim size/material		9 × 8.5 AT/Aluminum
Rim runout limit		
Vertical		<2.0 mm (0.08 in)>
Lateral		<2.0 mm (0.08 in)>
Front disc brake		
Type		Dual disc brake
Disc outside diameter × thickness		161.0 × 3.5 mm (6.34 × 0.14 in)
<Limit>		<3.0 mm (0.12 in)>
Pad thickness		4.2 mm (0.17 in)
<Limit>		<1.0 mm (0.04 in)>
Rear disc brake		
Type		Single disc brake
Disc outside diameter × thickness		200.0 × 3.6 mm (7.87 × 0.14 in)
<Limit>		<3.1 mm (0.12 in)>
Pad thickness		4.5 mm (0.18 in)
<Limit>		<1.0 mm (0.04 in)>

Model	YFM350S
Brake lever and brake pedal	
Brake lever free play	0 mm (0 in)
Brake pedal position	50.2 mm (1.98 in) From the top of the frame to the top of the brake pedal
Throttle lever free play	2 ~ 4 mm (0.08 ~ 0.16 in)
Drive chain	
Type/manufacturer	DID520V/DAIDO
Number of links	97 + 1 links
Chain free play	25.0 ~ 35.0 mm (0.98 ~ 1.38 in)

Tightening torques

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m · kg	ft · lb	
Engine and frame	M10	73	7.3	53	
Front shock absorber and frame	M10	48	4.8	35	
Front shock absorber and lower arm	M10	48	4.8	35	
Steering knuckle and front wheel hub	M14	70	7.0	50	
Steering shaft and frame	M10	35	3.5	25	
Tie-rod locknut	M10	15	1.5	11	
Disc cover (inner)	M6	7	0.7	5.1	
Front brake master cylinder	M6	7	0.7	5.1	
Clutch and parking brake lever assembly	M5	4	0.4	2.9	
Front brake hose and upper front arm	M6	7	0.7	5.1	
Front brake pipe and brake pipe joint	M10	19	1.9	13	
Brake pipe joint and frame	M6	10	1.0	7.2	
Brake caliper bleed screw	M8	6	0.6	4.3	
Rear brake hose union bolt	M10	28	2.8	20	
Parking brake adjusting bolt and locknut	M8	16	1.6	11	
Rear brake light switch bracket and frame	M6	7	0.7	5.1	
Rear brake master cylinder and frame	M8	23	2.3	17	
Rear brake fluid reservoir and frame	M6	7	0.7	5.1	
Rear brake hose and swingarm	M6	7	0.7	5.1	
Rear hub and rear brake caliper	M8	34	3.4	24	
Rear axle ring nut	M33	160	16.0	115	
Rear axle ring nut set bolt	M6	7	0.7	5.1	
Rear hub and swingarm (lower)	M10	73	7.3	53	
Rear shock absorber and frame	M12	80	8.0	58	
Relay arm and swingarm	M12	73	7.3	53	
Rear shock absorber and relay arm	M12	73	7.3	53	
Connecting rod and relay arm	M12	73	7.3	53	
Connecting rod and frame	M12	73	7.3	53	
Spring preload adjusting locknut (rear shock absorber)	M44	42	4.2	30	

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m · kg	ft · lb	
Swingarm guard and swingarm	M8	16	1.6	11	
Driven chain sprocket and boss	M10	55	5.5	40	
Front bumper	M8	12	1.2	8.7	
Rear bumper	M8	34	3.4	24	
Drive chain guard	M8	12	1.2	8.7	
Foot protectors (left and right) and frame	M8	16	1.6	11	
Foot protectors (left and right), rear fender stay and frame	M8	17	1.7	12	
Foot protectors (left and right) and footrest	M8	17	1.7	12	
Footrest and frame	M10	73	7.3	53	
Battery holder	M6	10	1.0	7.2	
Front fender and front fender bracket	M6	7	0.7	5.1	
Front fender and frame	M6	7	0.7	5.1	
Front fender bracket (center) and frame	M6	10	1.0	7.2	
Front fender brackets (left and right) and frame	M6	13	1.3	9.4	
Headlight bracket and front fender bracket	M6	7	0.7	5.1	
Rear fender and frame	M6	10	1.0	7.2	
Rear fender and rear bumper	M6	7	0.7	5.1	
Rear fender and rear fender stay	M6	7	0.7	5.1	
Rear fender stay and frame	M6	7	0.7	5.1	
Rear fender stay and frame	M8	16	1.6	11	
Engine skid plate and frame	M8	12	1.2	8.7	
Fuel tank	M6	7	0.7	5.1	
Fuel cock and fuel tank	M6	4	0.4	2.9	
Rectifier/regulator	M6	7	0.7	5.1	
Tail/brake light bracket and rear fender	M6	4	0.4	2.9	

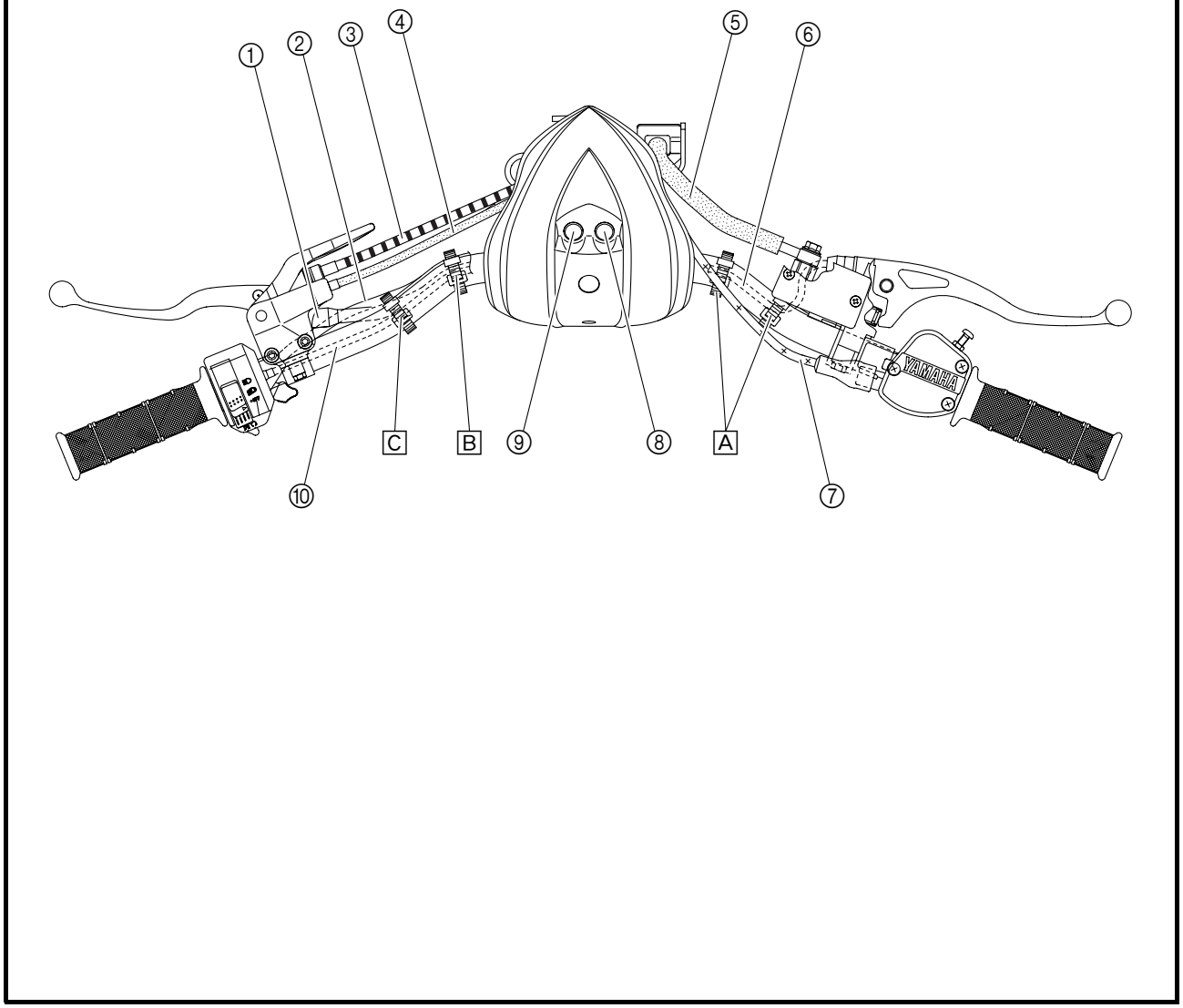
ELECTRICAL

Model	YFM350S
C.D.I.	
Magneto model/manufacturer	F4T466/MITSUBISHI
Pickup coil resistance	459 ~ 561 Ω at 20 °C (68 °F)
(Color)	(White/Red-White/Green)
Rotor rotation direction detection coil resistance	0.083 ~ 0.101 Ω at 20 °C (68 °F)
(Color)	(Red-White/Blue)
C.D.I. unit-model/manufacturer	F8T40374/MITSUBISHI
Rectifier/regulator	
Regulator type	Semi conductor-short circuit
Model/manufacturer	SH640E-11/SHINDENGEN
No-load regulated voltage	14.1 ~ 14.9 V
Rectifier capacity	14 A
Withstand voltage	200 V
Starter relay	
Model/manufacturer	2768095-A/JIDECO
Amperage rating	180 A
Coil winding resistance	4.18 ~ 4.62 Ω
Battery	
Specific gravity	1.310 at 20 °C (68 °F)
Starter motor	
Model/manufacturer	DBQD5/DENSO
Output	0.7 kW
Armature coil resistance	0.0118 ~ 0.0133 Ω at 20 °C (68 °F)
Brush overall length	12 mm (0.47 in) 8.5 mm (0.33 in)
Brush spring pressure	6.38 ~ 9.32 N (651 ~ 950 gf, 22.96 ~ 33.55 oz)
Commutator diameter	28 mm (1.10 in) 27 mm (1.06 in)
Mica undercut	0.6 mm (0.024 in)

CABLE ROUTING

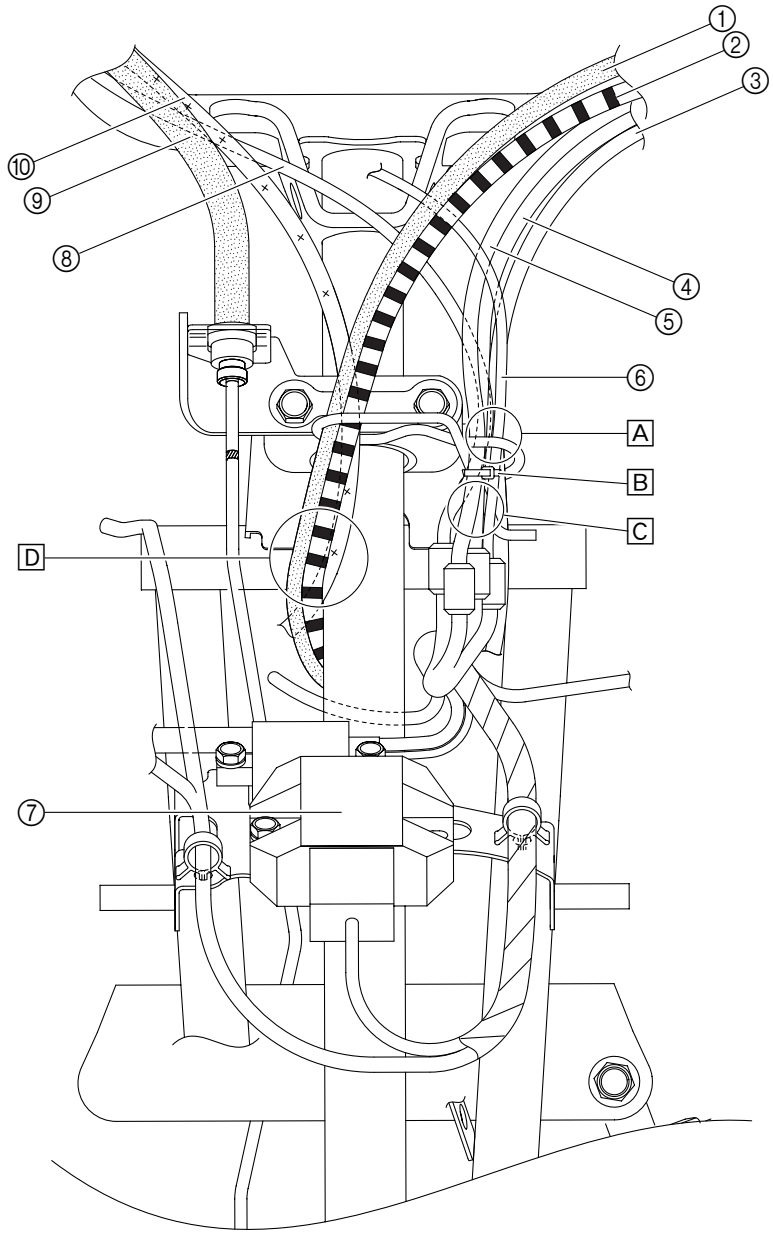
① Clutch switch lead
② Starter cable
③ Clutch cable
④ Parking brake cable
⑤ Front brake hose
⑥ Front brake light switch lead
⑦ Throttle cable
⑧ Neutral indicator light
⑨ Reverse indicator light
⑩ Handlebar switch lead

A Fasten the front brake light switch lead with two plastic bands.
B Fasten the starter cable, clutch switch lead, and handlebar switch lead with a plastic band.
C Fasten the clutch switch lead and handlebar switch lead with a plastic band.

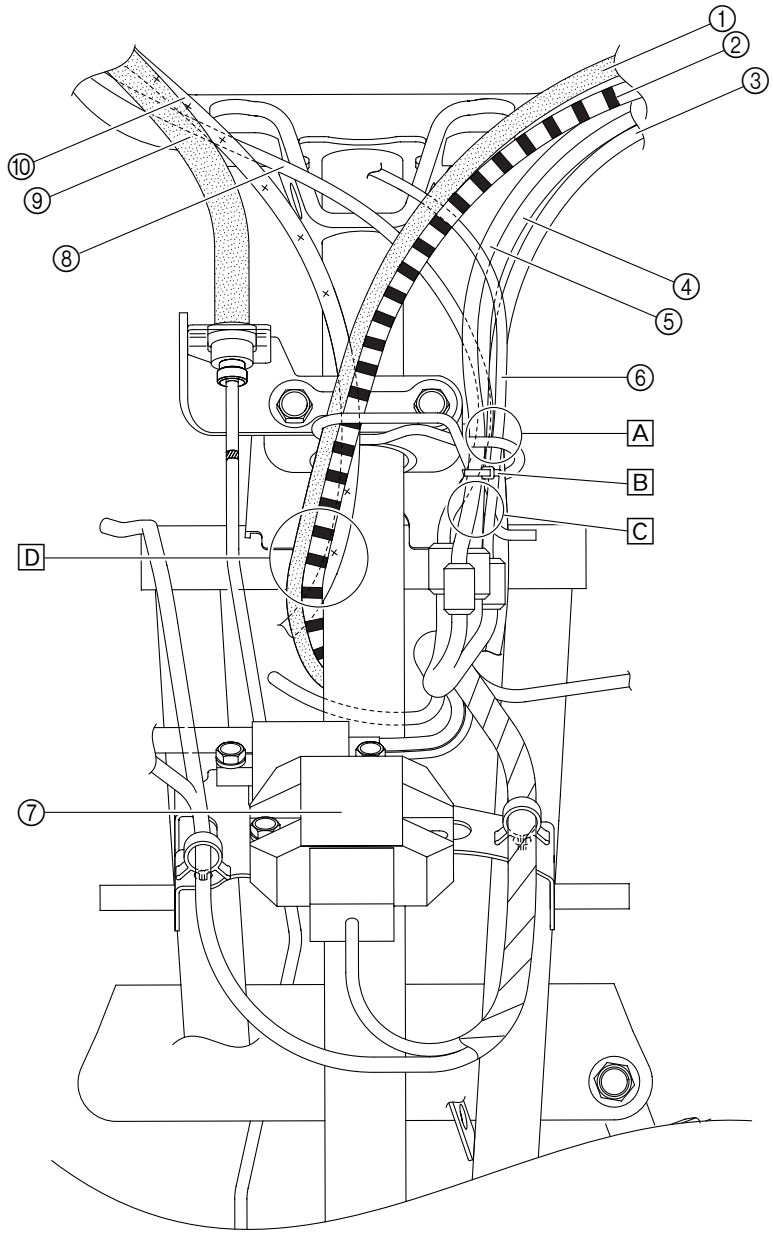


① Parking brake cable
② Clutch cable
③ Starter cable
④ Clutch switch lead
⑤ Handlebar switch lead
⑥ Neutral/reverse indicator light lead
⑦ Rectifier/regulator
⑧ Front brake light switch lead
⑨ Front brake hose
⑩ Throttle cable

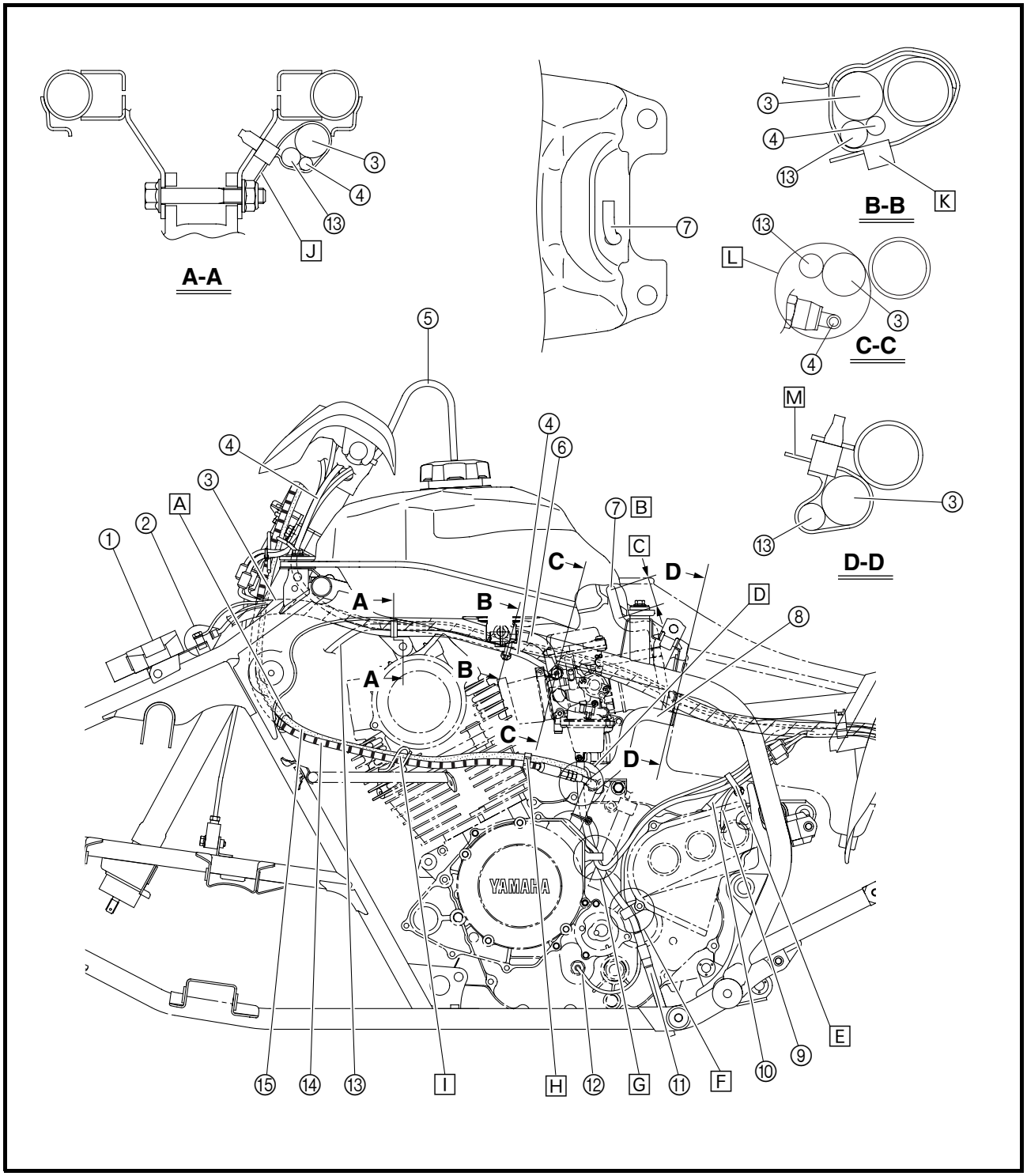
A Pass the clutch switch lead, handlebar switch lead, neutral/reverse indicator light lead, front brake light switch lead, and starter cable through the guide.
B Fasten the clutch switch lead, handlebar switch lead, neutral/reverse indicator light lead, and front brake light switch lead securely with a plastic locking tie.



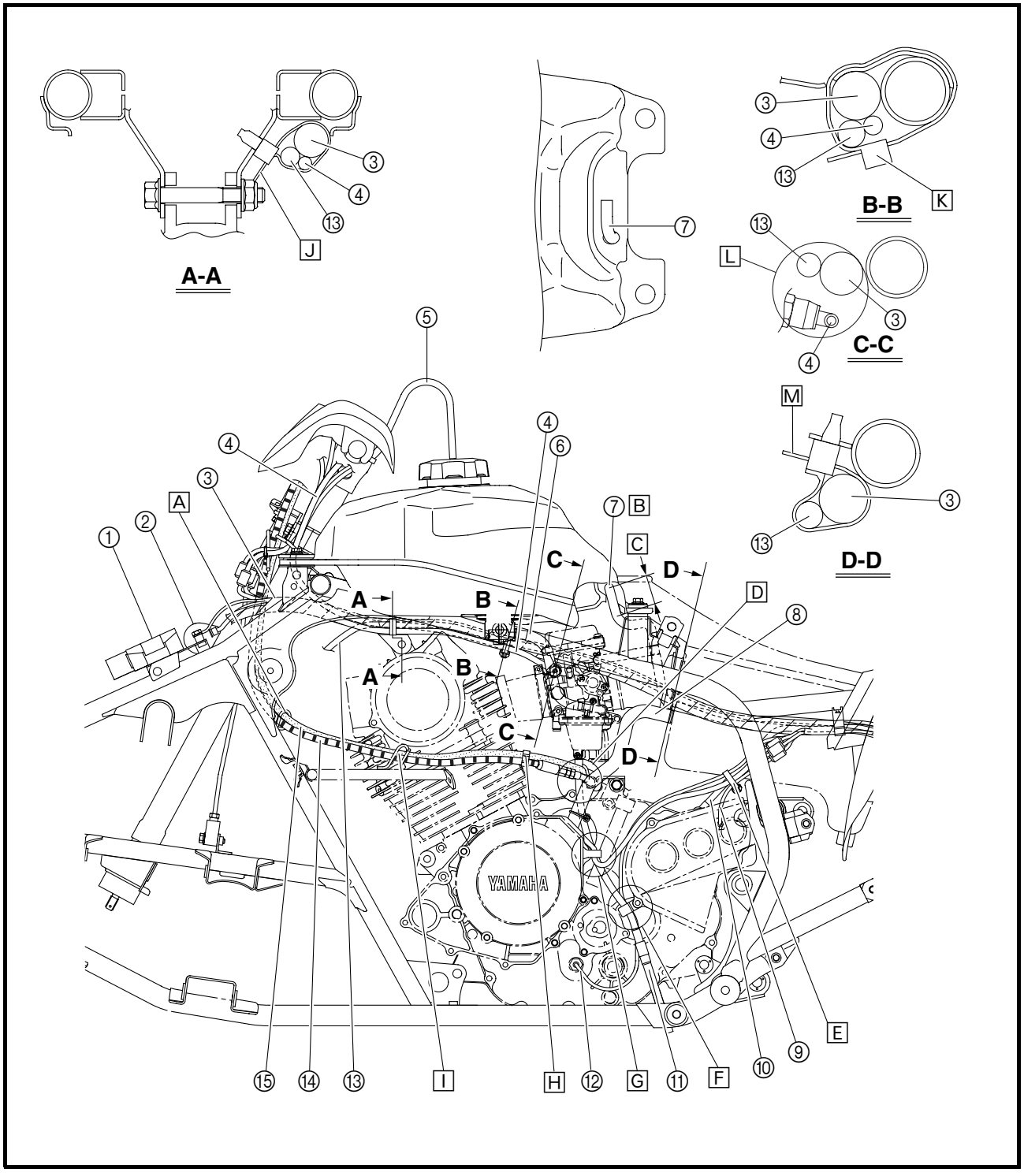
[C] Route the clutch switch lead, handlebar switch lead, neutral/reverse indicator light lead, and front brake light switch lead in front of the guide.
[D] Pass the throttle cable, clutch cable, and parking brake cable to the right side of the steering shaft.



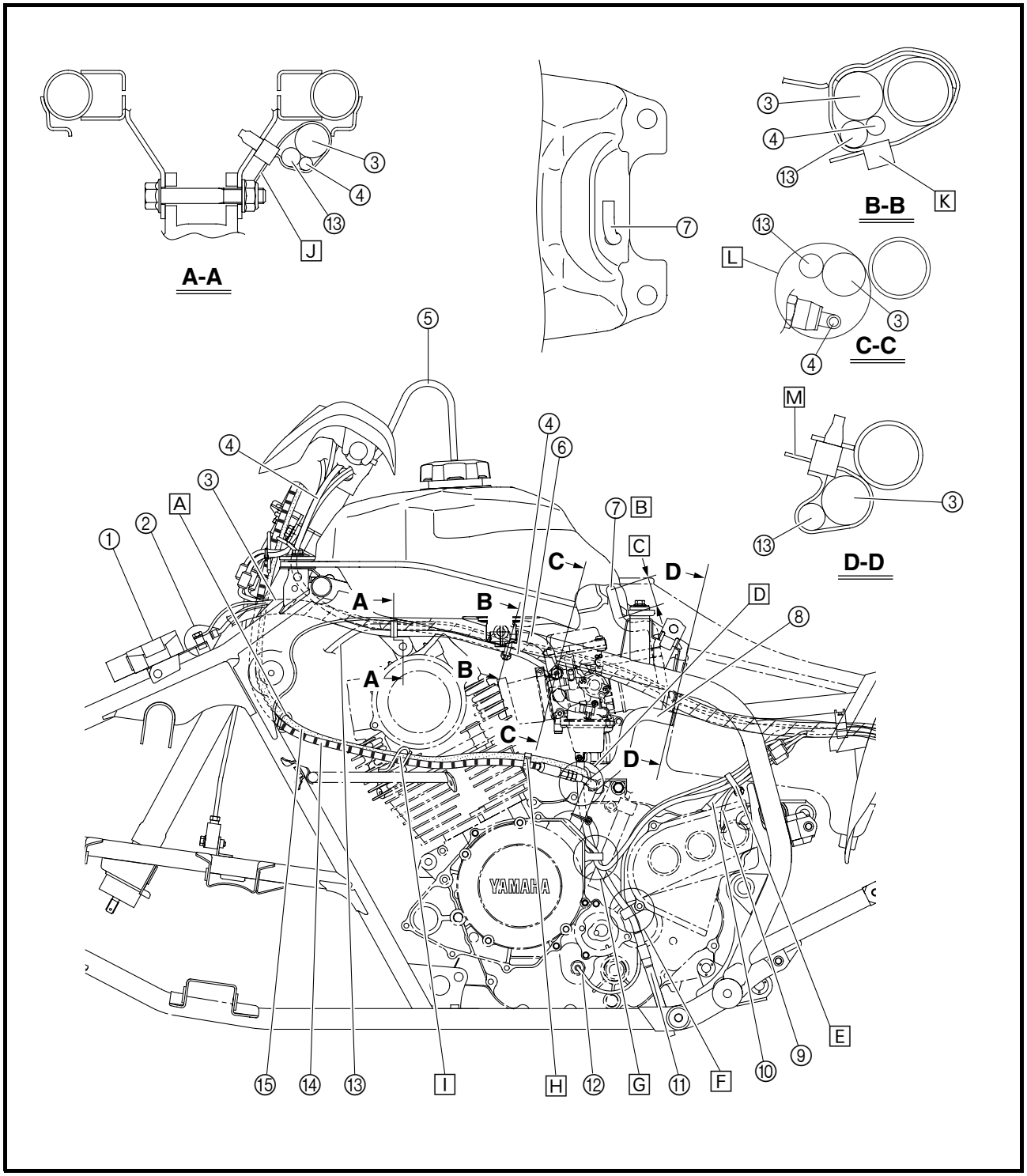
① Rectifier/regulator
② Ignition coil
③ Wire harness
④ Starter cable
⑤ Fuel tank breather hose
⑥ Fuel hose
⑦ Carburetor air vent hose
⑧ Crankcase breather hose
⑨ Reverse switch lead
⑩ Negative battery lead
⑪ Carburetor overflow hose
⑫ Neutral switch lead
⑬ Starter motor lead
⑭ Clutch cable
⑮ Parking brake cable



[A] Pass the parking brake cable and clutch cable through the cable guide.
[B] Pass the carburetor air vent hose through the hole in the fuel tank.
[C] The end of the carburetor air vent hose should extend at least 15 mm above the hole but not be higher than the intake of the air filter case.
[D] Pass the clutch cable and parking brake cable between the carburetor overflow hose and crankcase breather hose.
[E] Fasten the A.C. magneto lead, neutral switch lead, reverse switch lead, and negative battery lead with a plastic band. Face the end of the plastic band inward.
[F] Pass the neutral switch lead and carburetor overflow hose through the guide on the drive sprocket cover. Route the neutral switch lead behind the carburetor overflow hose.
[G] Fasten the A.C. magneto lead with the holder.

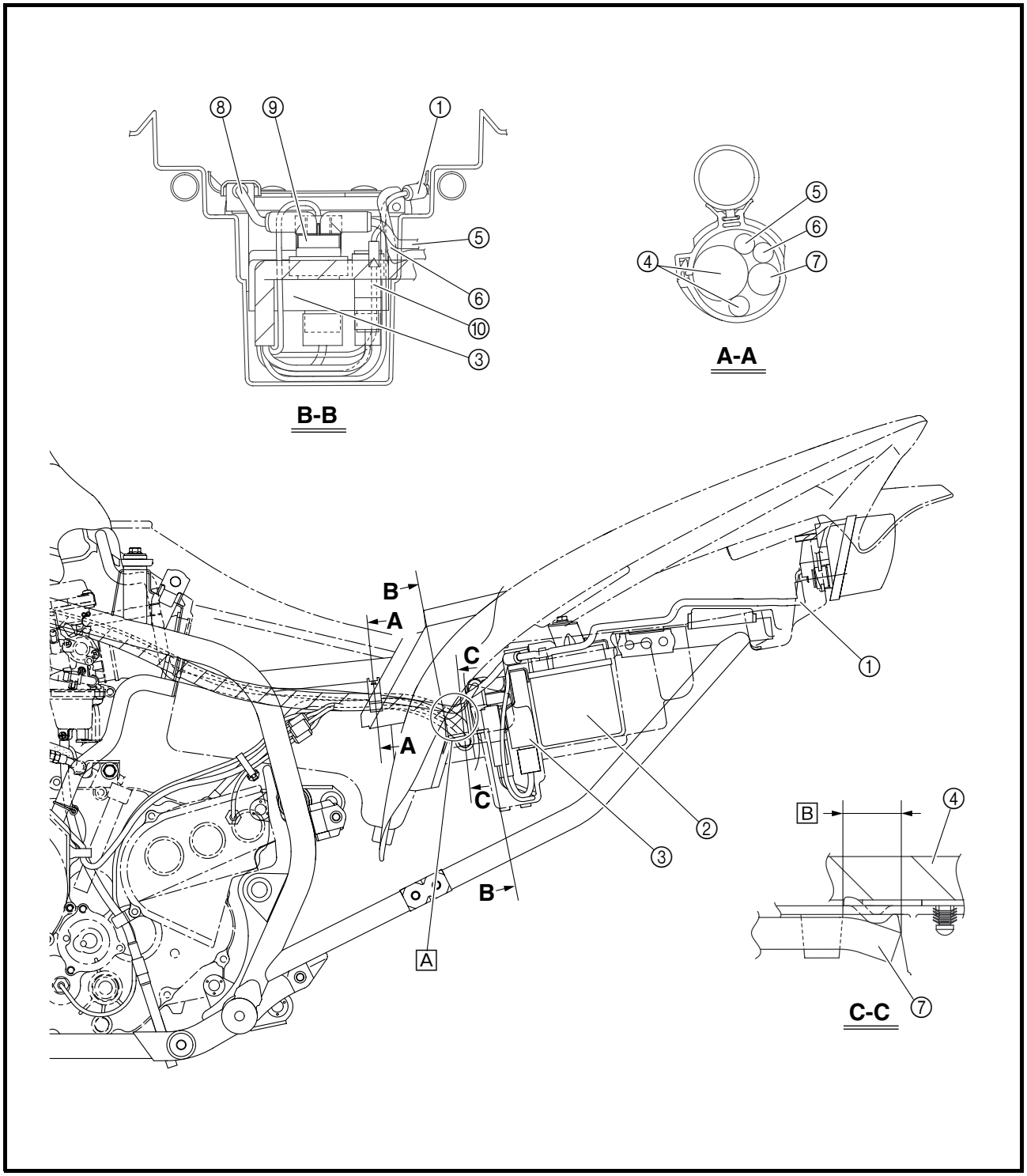


H Fasten the parking brake cable and clutch cable with the clip. Fasten the clip to the clutch cable between the cable protector and the clutch cable adjuster.
I Pass the parking brake cable and clutch cable through the cable guide.
J Fasten the wire harness, starter motor lead, and starter cable with a plastic band. Face the end of the plastic band down.
K Pass a plastic band through the hole in the fuel tank shield, and then fasten the wire harness, starter motor lead, and starter cable with the plastic band. The end of the plastic band should be under the frame, facing inward.
L Route the wire harness and starter motor lead above the starter cable.
M Fasten the wire harness and starter motor lead with a plastic band. Face the end of the plastic band inward.



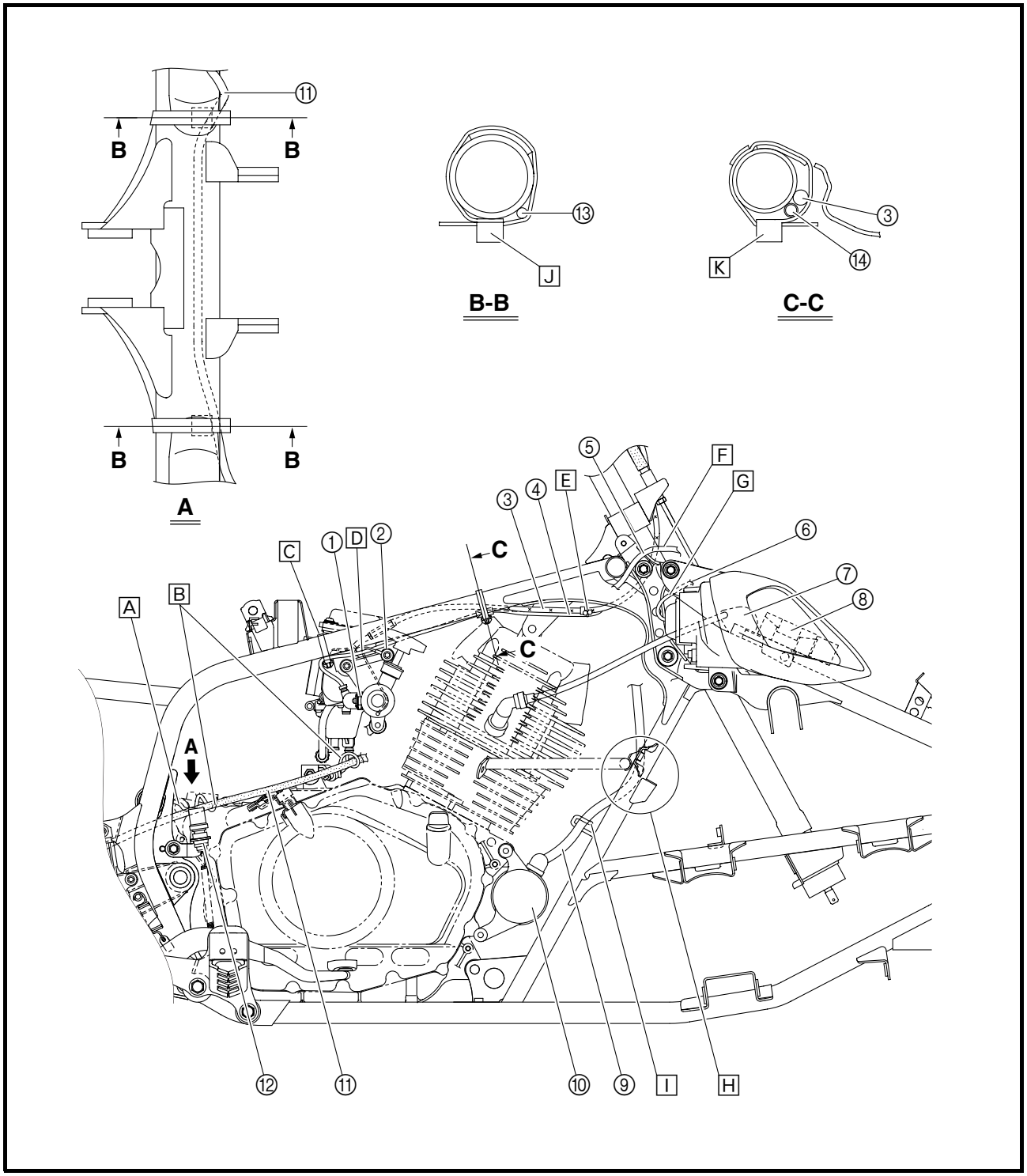
① Tail/brake light lead
② Battery
③ C.D.I. unit
④ Wire harness
⑤ Starter motor lead
⑥ Negative battery lead
⑦ Carburetor air vent hose
⑧ Positive battery lead
⑨ Starter relay
⑩ Starting circuit cut-off relay

A Pass the wire harness, negative battery lead, and starter motor lead through the hole in the rear fender.
B More than 15 mm (0.6 in)

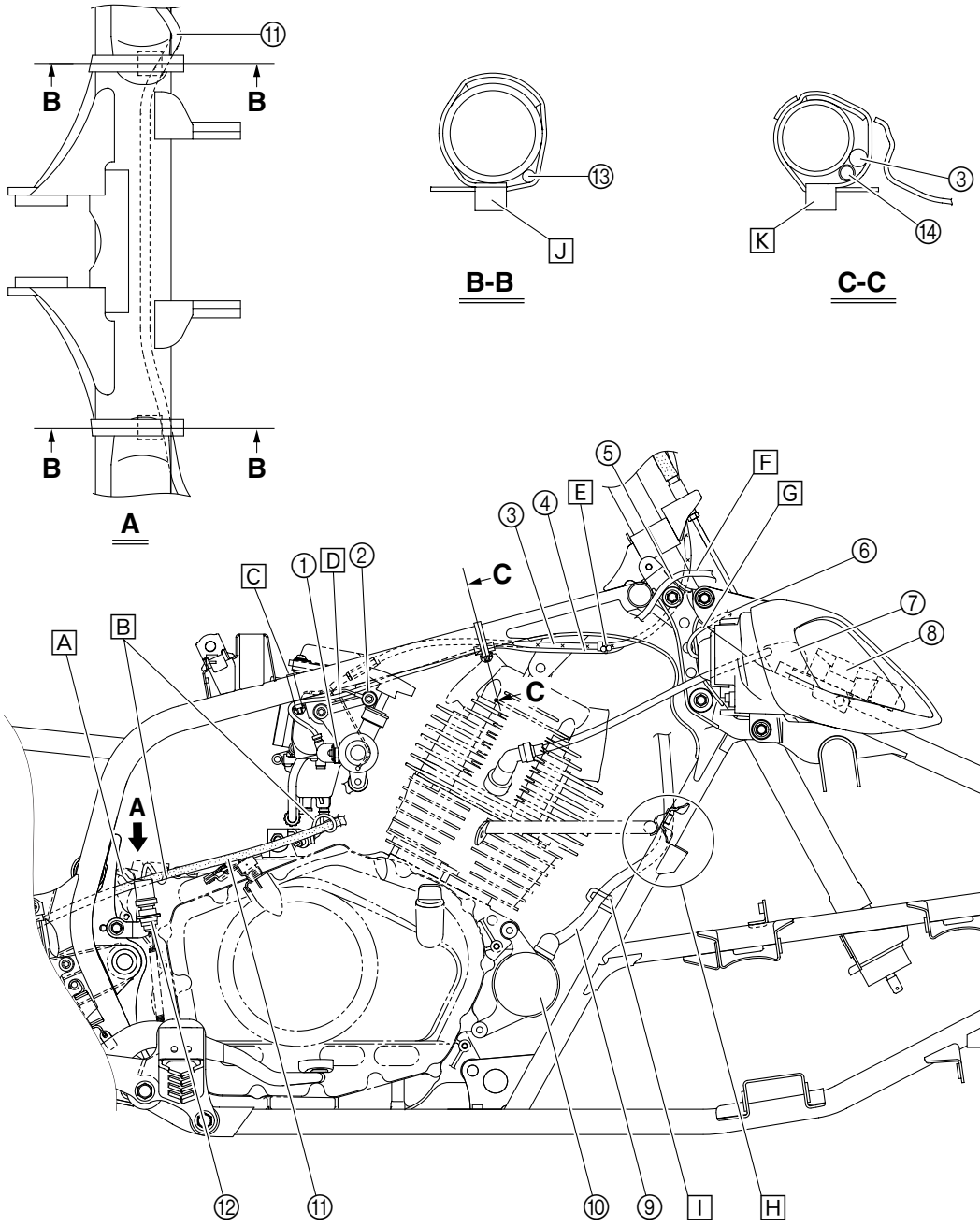


① Drive select lever switch
② Ground terminal
③ Throttle cable
④ Drive select lever switch lead
⑤ Main switch lead
⑥ Headlight lead
⑦ Ignition coil
⑧ Rectifier/regulator
⑨ Starter motor lead
⑩ Starter motor
⑪ Parking brake cable
⑫ Rear brake light switch
⑬ Rear brake light switch lead
⑭ Drive select lever switch connector

A Route the rear brake light switch lead over the parking brake cable.
B Pass the parking brake cable through the cable guides.
C Fasten the drive select lever switch lead with a plastic band. Face the end of the plastic band inward.

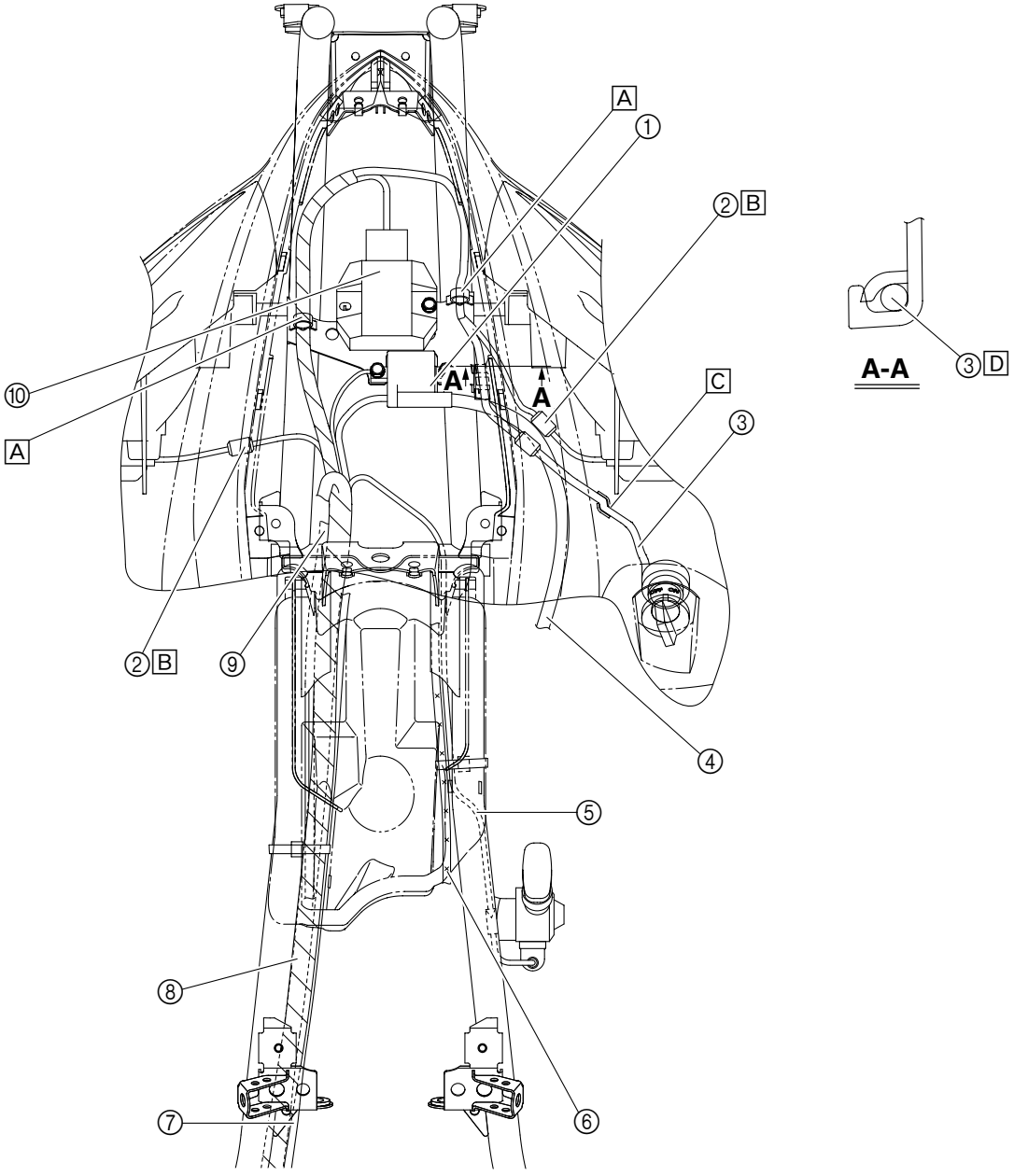


[D] Route the drive select lever switch lead on the outside of the drive select lever bracket, and then under the ground lead.
[E] Fasten the throttle cable and drive select lever switch lead with a plastic clamp.
[F] Route the main switch lead over the headlight bracket.
[G] Pass the headlight lead between the headlight bracket and the headlight.
[H] Route the starter motor lead in front of the front fender bracket.
[I] Pass the starter motor lead through the guide.
[J] Fasten the rear brake light switch lead under the frame with two plastic bands. Face the end of each band rearward.
[K] Pass a plastic band through the holes in the fuel tank shield, and then fasten the throttle cable and drive select lever switch connector with the plastic band. The end of the plastic band should be under the frame, facing inward.



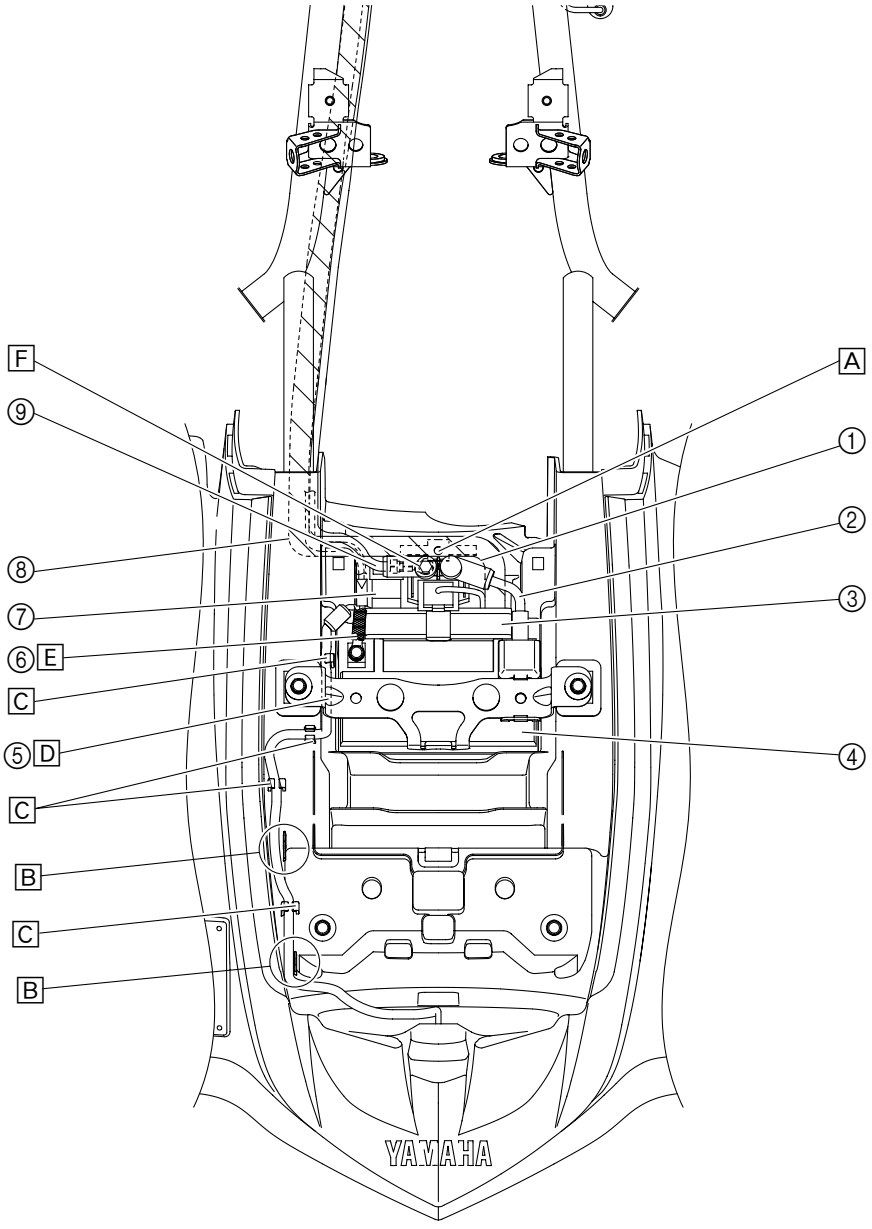
① Ignition coil
② Headlight lead
③ Main switch lead
④ Spark plug lead
⑤ Drive select lever switch lead
⑥ Throttle cable
⑦ Starter motor lead
⑧ Wire harness
⑨ Starter cable
⑩ Rectifier/regulator

A Fasten the wire harness with the holder.
B Route the headlight lead over the frame.
C Fasten the main switch lead with the holder on the front fender.
D Pass the main switch lead through the guide on the front fender.

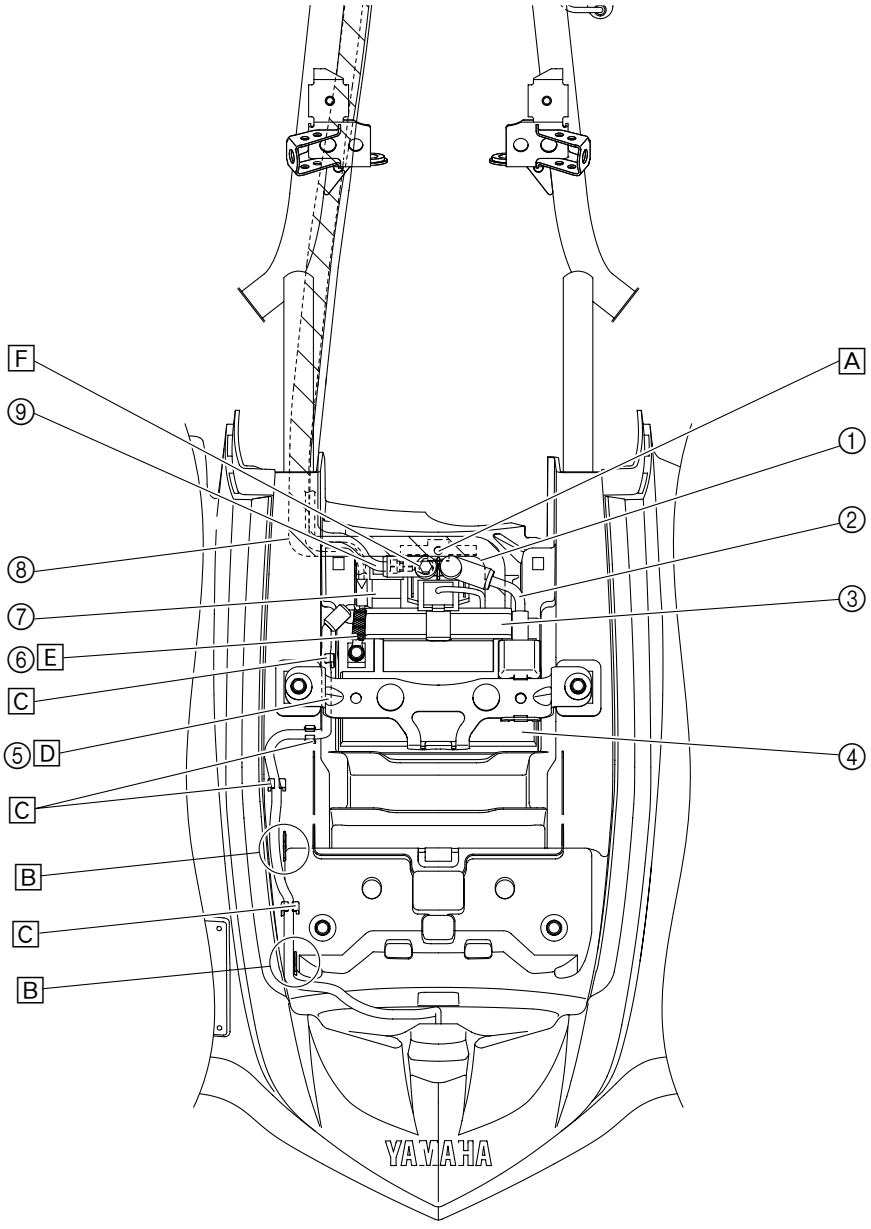


① Starter relay
② Positive battery lead
③ C.D.I. unit
④ Battery
⑤ Tail/brake light lead
⑥ Negative battery lead
⑦ Starting circuit cut-off relay
⑧ Wire harness
⑨ Starter motor lead

A Fasten the wire harness by inserting the projections on the plastic tab into the hole in the rear fender.
B Pass the tail/brake light lead through the guide on the rear fender.
C Fasten the tail/brake light lead with the holders on the rear fender.
D Route the tail/brake light lead under the battery holding bracket.



[E] Connect the end of the negative battery lead with the gray tape to the negative battery terminal.
[F] Cover the positive battery lead terminal and starter motor lead terminal with the covers.



EB300000

PERIODIC CHECKS AND ADJUSTMENTS

INTRODUCTION

This chapter includes all information necessary to perform recommended inspections and adjustments. These preventive maintenance procedures, if followed, will ensure more reliable vehicle operation and a longer service life. The need for costly overhaul work will be greatly reduced. This information applies to vehicles already in service as well as to new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

PERIODIC MAINTENANCE/LUBRICATION

ITEM	ROUTINE	INITIAL			EVERY	
		1 month	3 months	6 months	6 months	1 year
Valves*	• Check valve clearance. • Adjust if necessary.	○		○	○	○
Spark plug	• Check condition. • Adjust gap and clean. • Replace if necessary.	○	○	○	○	○
Air filter element	• Clean. • Replace if necessary.	**Every 20 ~ 40 hours (More often in wet or dusty areas.)**				
Carburetor*	• Check starter (choke) operation. • Adjust engine idling speed.		○	○	○	○
Crankcase breather system*	• Check breather hose for cracks or damage. • Replace if necessary.			○	○	○
Exhaust system*	• Check for leakage. • Tighten if necessary. • Replace gasket(s) if necessary.			○	○	○
Fuel line*	• Check fuel hose for cracks or damage. • Replace if necessary.			○	○	○
Engine oil	• Replace. (Warm engine before draining.)	○		○	○	○
Engine oil filter element	• Clean. • Replace if necessary.	○		○		○
Engine oil strainer	• Clean.	○		○		○
Drive chain	• Check and adjust slack/alignment/clean/lube.	○	○	○	○	○
Brakes*	• Check operation/fluid leakage/See NOTE page 24. • Correct if necessary.	○	○	○	○	○
Clutch*	• Check operation. • Adjust if necessary.	○		○	○	○
Wheels*	• Check balance/damage/runout. • Replace if necessary.	○		○	○	○
Wheel bearings*	• Check bearing assemblies for looseness/damage. • Replace if damaged.	○		○	○	○
Steering system*	• Check operation. • Repair if damaged. • Check toe-in. • Adjust if necessary.	○	○	○	○	○
Front and rear suspension*	• Check operation. • Correct if necessary.			○		○
Upper and lower arm pivot and steering shaft*	• Lubricate every 6 months with lithium-soap-based grease.			○	○	○
Rear arm pivot*	• Lubricate every 6 months with lithium-soap-based grease.			○	○	○

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ITEM	ROUTINE	INITIAL			EVERY	
		1 month	3 months	6 months	6 months	1 year
Fittings and fasteners*	• Check all chassis fittings and fasteners. • Correct if necessary.	○	○	○	○	○
Lights and switches*	• Check operation. • Adjust headlight beams.	○	○	○	○	○

* Since these items require special tools, data and technical skills, have a Yamaha dealer perform the service.

NOTE:

- Recommended brake fluid: DOT 4
- Brake fluid replacement:
  - When disassembling the master cylinders or calipers, replace the brake fluid. Normally check the brake fluid level and add fluid as required.
  - On the inner parts of the master cylinders and calipers, replace the oil seals every two years.
  - Replace the brake hoses every four years, or if cracked or damaged.

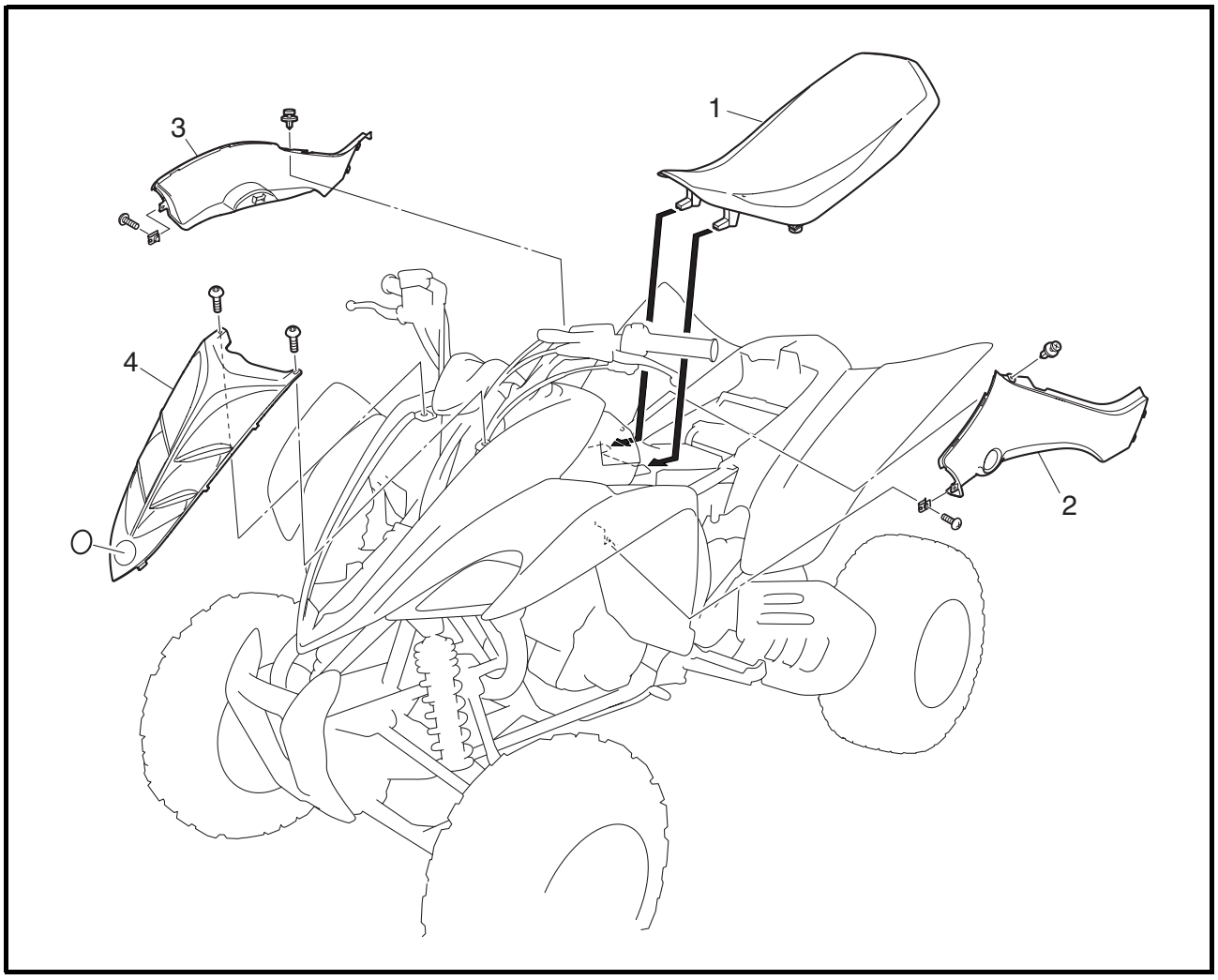
⚠ WARNING

Indicates a potential hazard that could result in serious injury or death.

EBS00033

SEAT, FENDERS AND FUEL TANK

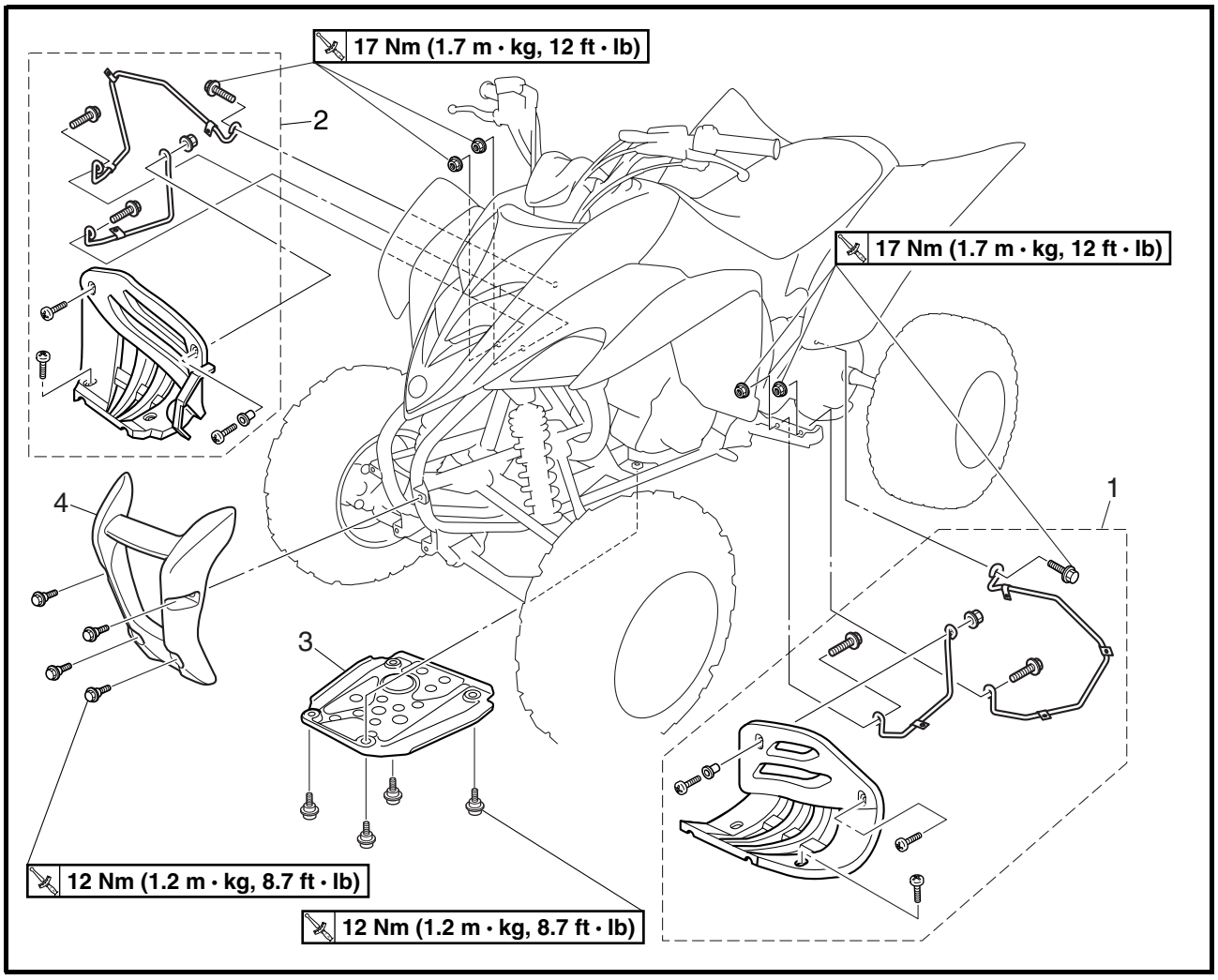
SEAT, SIDE COVERS, AND FRONT PANEL



Order	Job/Part	Q'ty	Remarks
	Removing the seat, side covers, and front panel		Remove the parts in the order listed.
1	Seat	1	**NOTE:** Pull back the seat lock lever, than pull up on the rear of the seat.
2	Left side cover	1	
3	Right side cover	1	
4	Front panel	1	
			For installation, reverse the removal procedure.

EBS00034

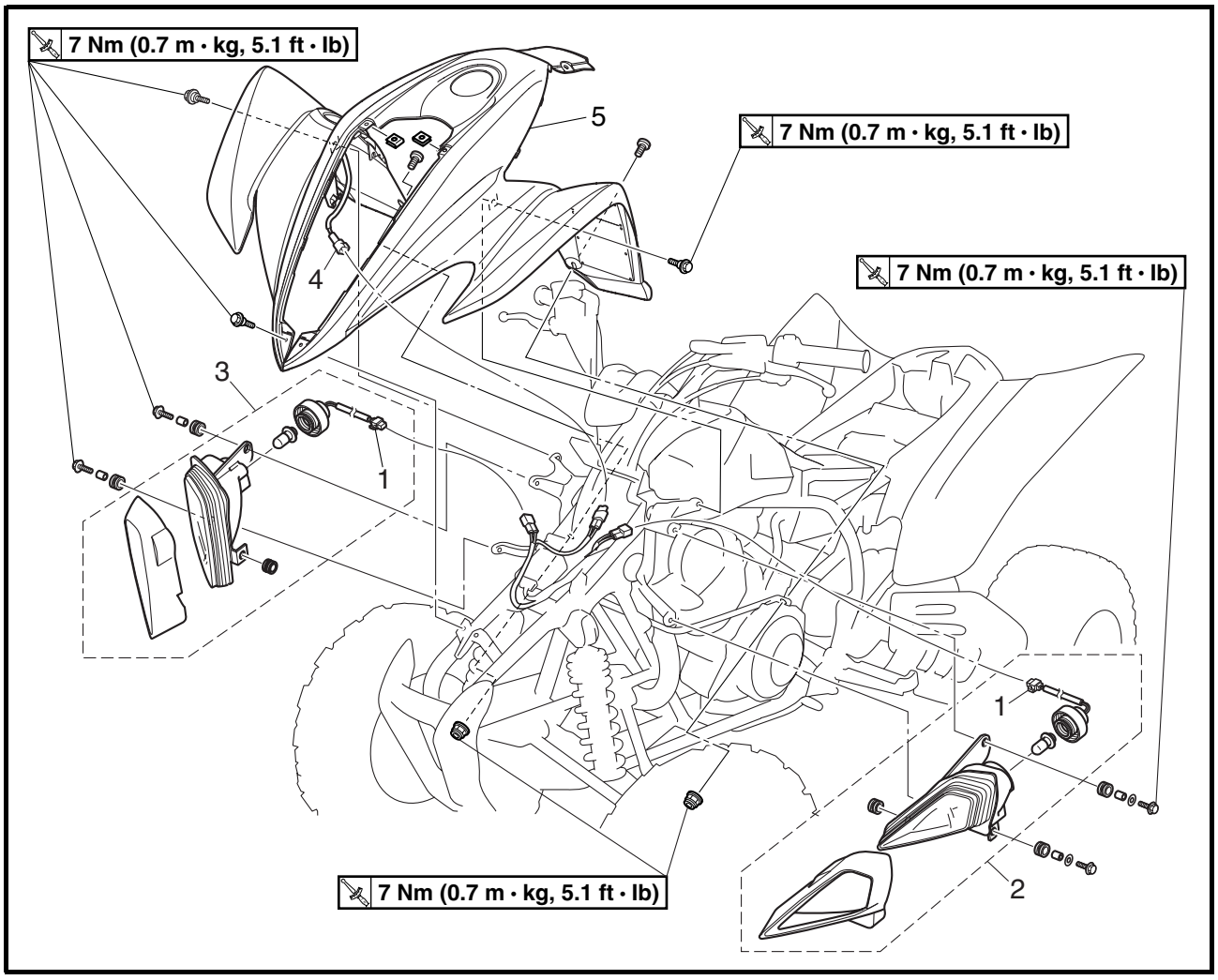
FOOT PROTECTORS, ENGINE SKID PLATE, AND FRONT BUMPER



Order	Job/Part	Q'ty	Remarks
	Removing the foot protectors, engine skid plate, and front bumper		Remove the parts in the order listed.
1	Left foot protector	1	
2	Right foot protector	1	
3	Engine skid plate	1	
4	Front bumper	1	
			For installation, reverse the removal procedure.

EBS00036

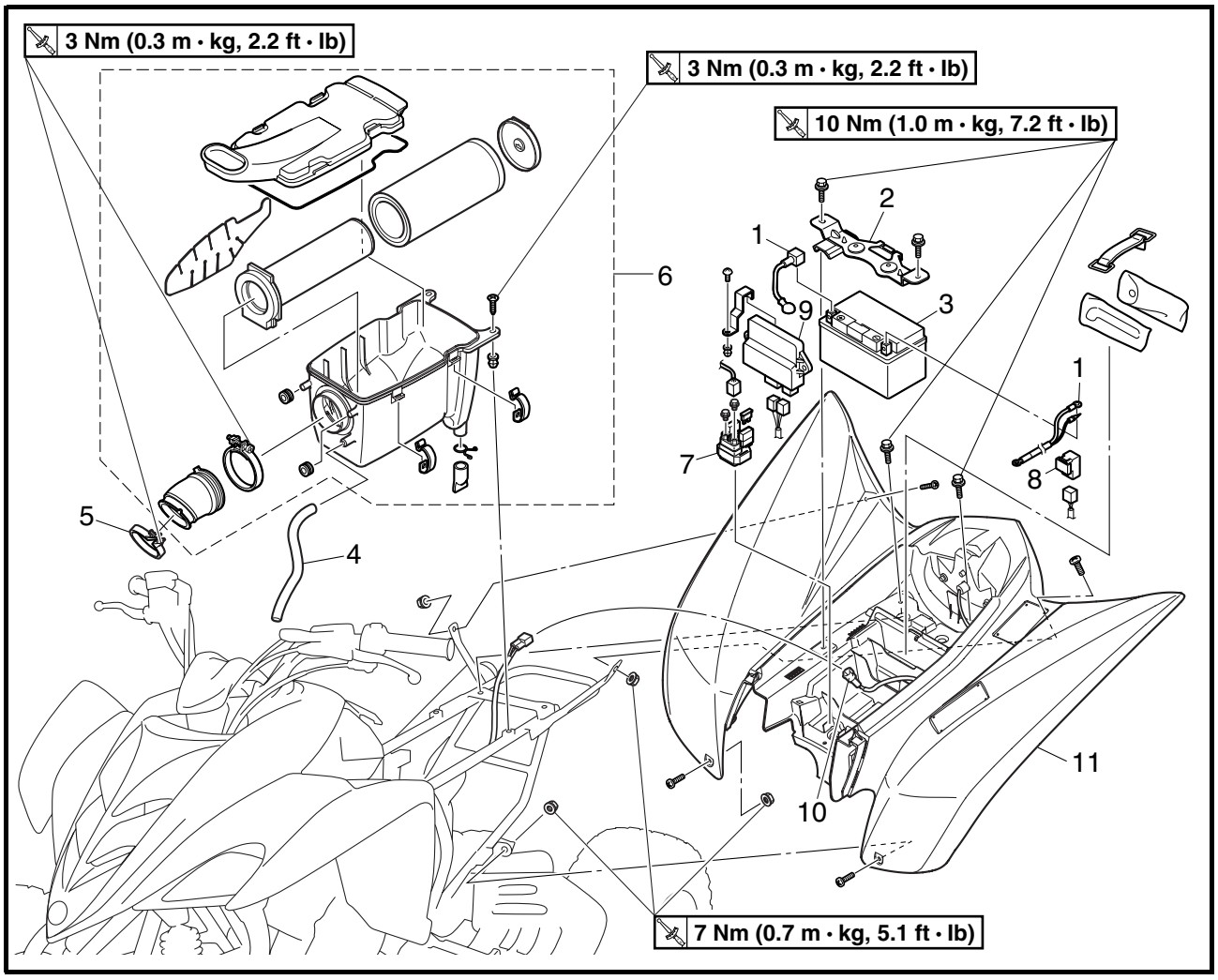
HEADLIGHTS AND FRONT FENDER



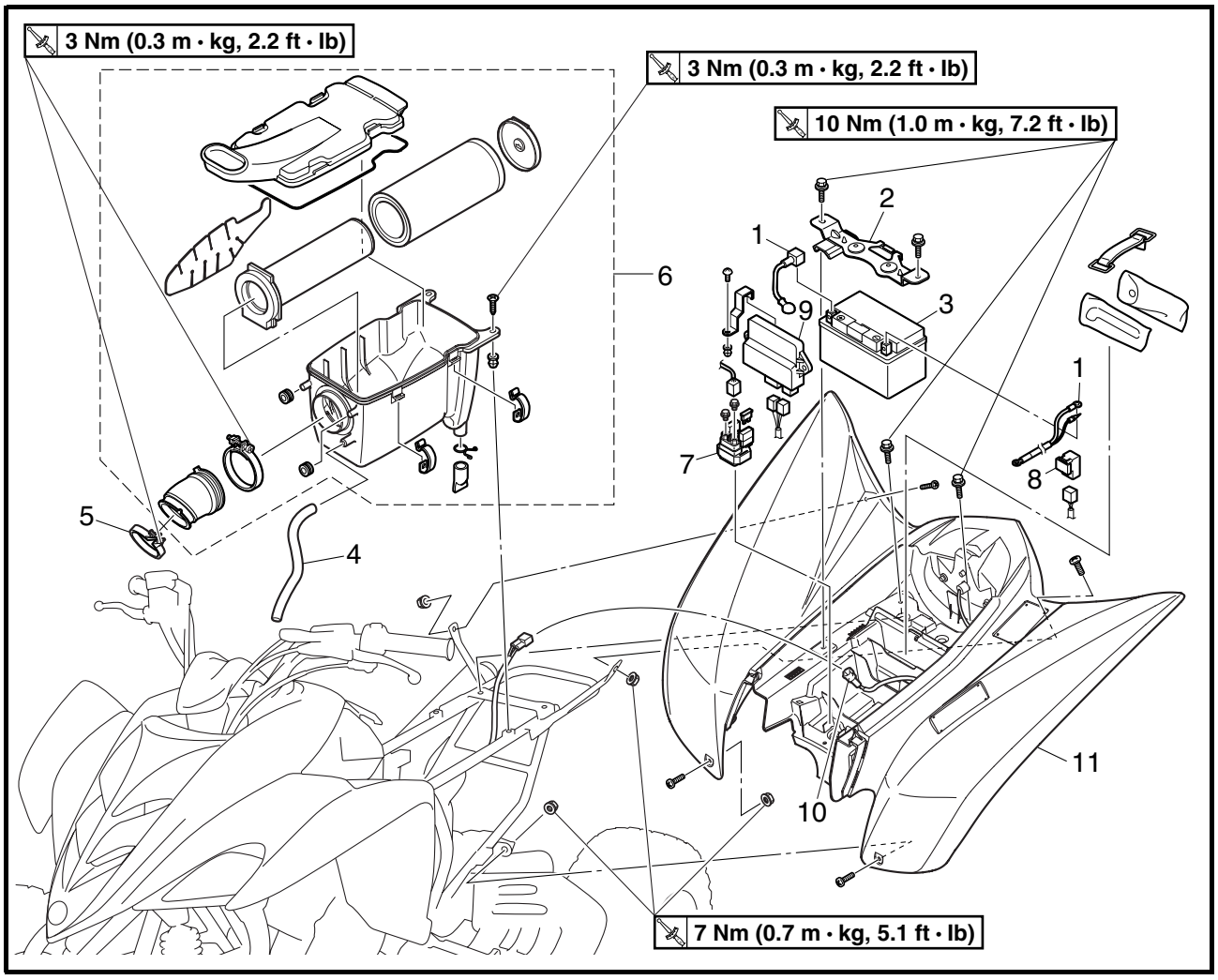
Order	Job/Part	Q'ty	Remarks
	Removing the headlights and front fender		Remove the parts in the order listed.
	Seat/side covers (left and right)/front panel		Refer to "SEAT, SIDE COVERS, AND FRONT PANEL".
1	Headlight coupler	2	Disconnect.
2	Left headlight	1	
3	Right headlight	1	
4	Main switch coupler	1	Disconnect.
5	Front fender	1	
			For installation, reverse the removal procedure.

EBS00039

REAR FENDER



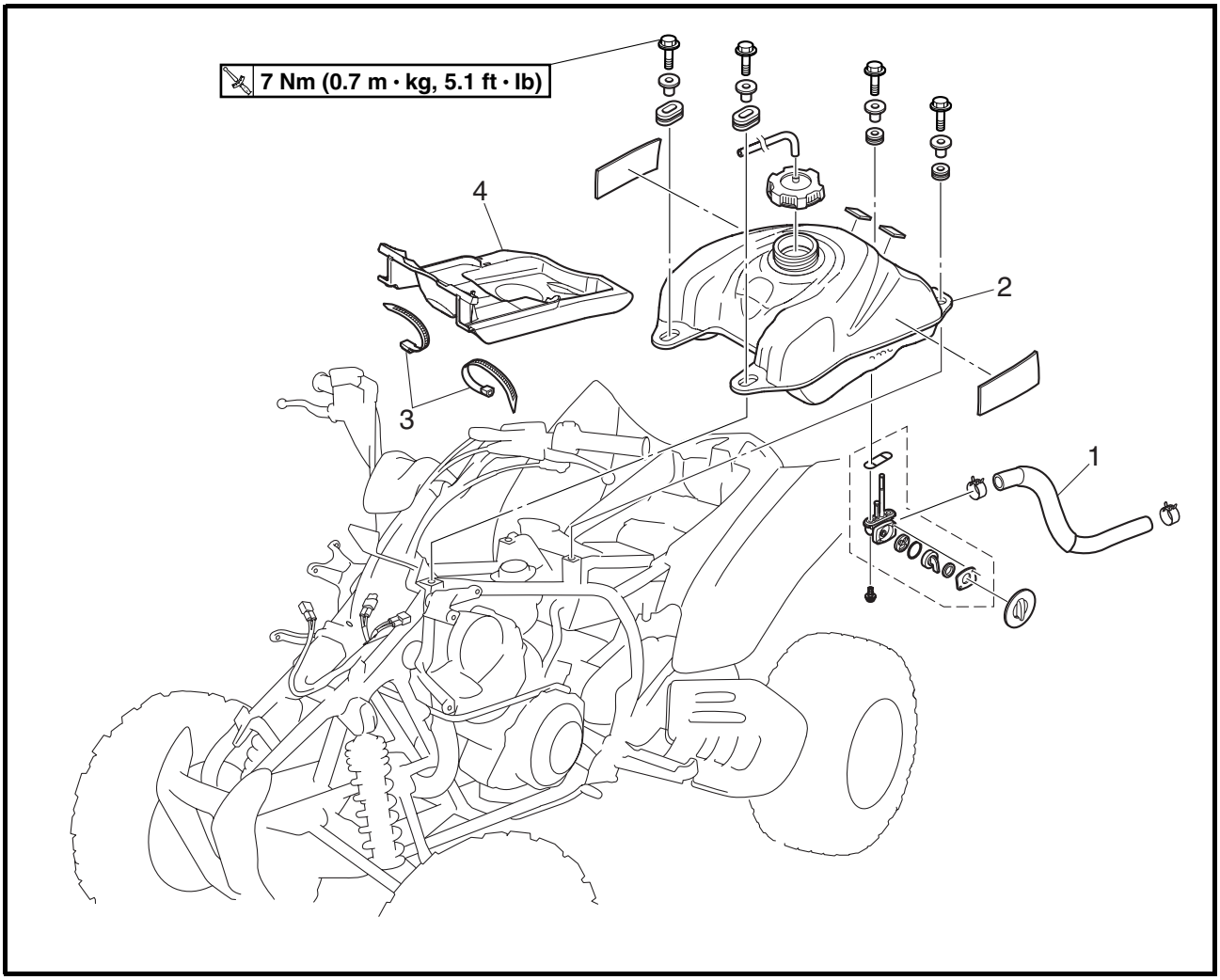
Order	Job/Part	Q'ty	Remarks
	Removing the rear fender		Remove the parts in the order listed.
	Seat/side covers (left and right)		Refer to "SEAT, SIDE COVERS, AND FRONT PANEL".
1	Battery lead	2	**CAUTION:** **First disconnect the negative lead, then disconnect the positive lead.**
2	Battery holding bracket	1	
3	Battery	1	
4	Crankcase breather hose	1	Disconnect.
5	Clamp screw	1	Loosen.
6	Air filter case	1	
7	Starter relay	1	
8	Starting circuit cut-off relay	1	
9	C.D.I. unit	1	



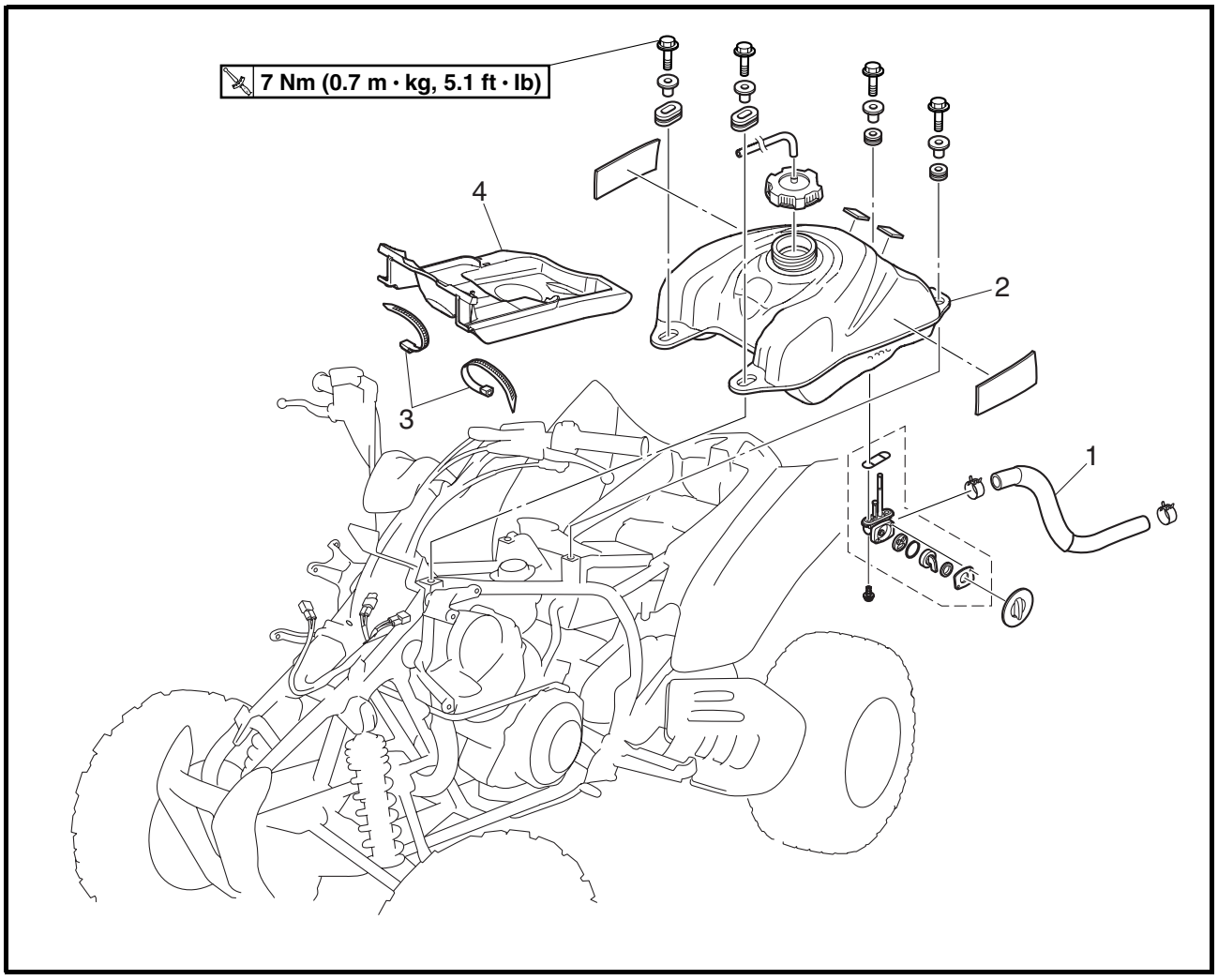
Order	Job/Part	Q'ty	Remarks
10	Tail/brake light coupler	1	Disconnect.
11	Rear fender	1	For installation, reverse the removal procedure.

EBS00042

FUEL TANK



Order	Job/Part	Q'ty	Remarks
	Removing the fuel tank		Remove the parts in the order listed.
	Seat/side covers (left and right)		Refer to "SEAT, SIDE COVERS, AND FRONT PANEL".
	Front fender		Refer to "HEADLIGHTS AND FRONT FENDER".
1	Fuel hose (fuel cock side)	1	**NOTE:** Before disconnecting the fuel hose, turn the fuel cock to "OFF".
2	Fuel tank	1	**NOTE:** When installing the fuel tank, pass the fuel tank breather hose through the hole in the handlebar cover.
3	Plastic band	2	

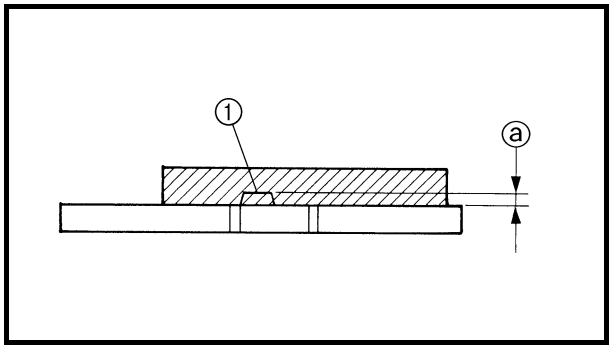


Order	Job/Part	Q'ty	Remarks
4	Fuel tank shield	1	For installation, reverse the removal procedure.

CHASSIS

CHECKING THE FRONT BRAKE PADS

1. Remove:
   • front wheels
   Refer to "FRONT WHEEL AND WHEEL HUB" in chapter 6. (Manual No.: 3GD-AE5)
2. Check:
   • brake pads
   Wear indicator ① almost in contact with the brake disc → Replace the brake pads as a set.
   Refer to "FRONT BRAKE" in chapter 6. (Manual No.: 3GD-AE5)



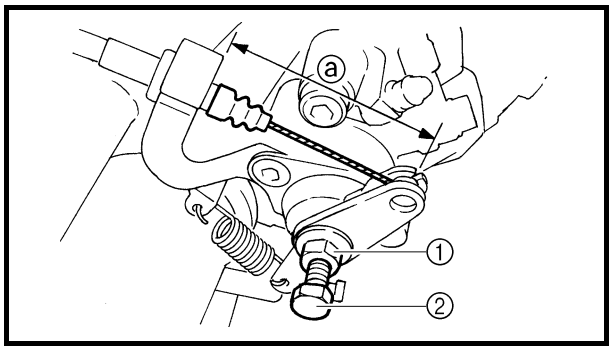
Brake pad wear limit ⓐ
1.0 mm (0.04 in)

3. Operate the brake lever.
4. Install:
   • front wheels
   Refer to "FRONT WHEEL AND WHEEL HUB" in chapter 6. (Manual No.: 3GD-AE5)

ADJUSTING THE PARKING BRAKE

1. Check:
   • parking brake cable end length ⓐ
   Out of specification → Adjust.

Parking brake cable end length
64 ~ 68 mm (2.52 ~ 2.68 in)



2. Adjust:
   • parking brake cable end length

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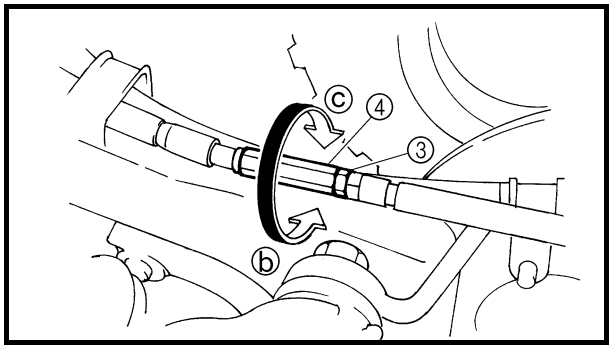
a. Loosen the locknut ① and adjusting bolt ②.
b. Slide back the rubber cover.
c. Loosen the locknut ③.
d. Turn the adjusting nut ④ in direction ⓑ or ⓒ until the specified brake cable end length is obtained.
e. Tighten the locknut ③.
f. Slowly turn the adjusting bolt clockwise until resistance is felt.
g. Turn it 1/8 counterclockwise.
h. Tighten the locknut ①.



Locknut
16 Nm (1.6 m · kg, 11 ft · lb)

i. Slide the rubber cover to its original position.

⚠ WARNING

After this adjustment is performed, lift the rear wheels off the ground by placing a block under the engine, and spin the rear wheels to ensure there is no brake drag. If any brake drag is noticed perform the above steps again.

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EBS00111

ADJUSTING THE REAR SHOCK ABSORBER

1. Remove:
   - seat

   Refer to "SEAT, SIDE COVERS, AND FRONT PANEL".
2. Remove:
   - air filter case

   Refer to "REAR FENDER".
3. Adjust:
   - spring preload

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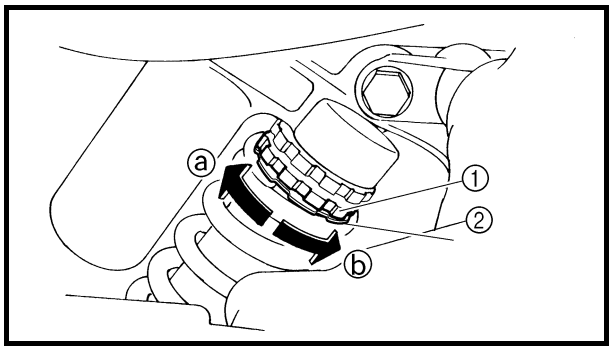
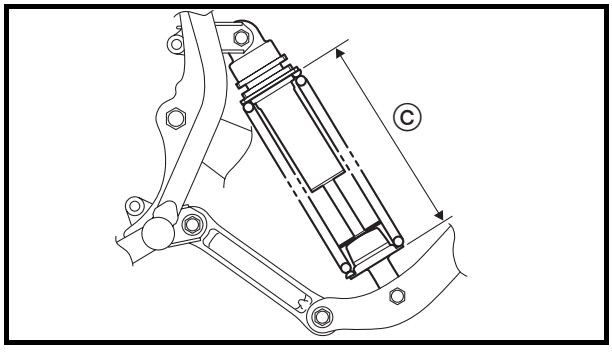
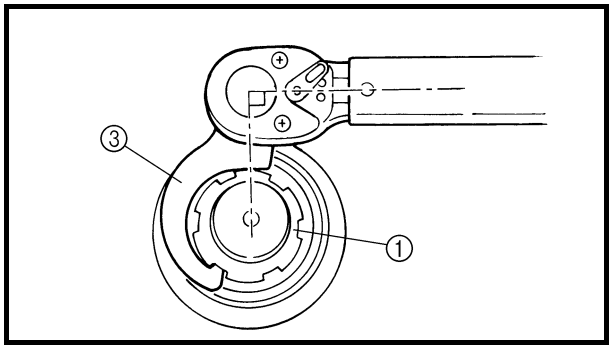
a. Elevate the rear wheels by placing a suitable stand under the frame.
b. Loosen the locknut ①.
c. Turn the adjusting ring ② in direction ⓐ or ⓑ.





Direction ⓐ	**Spring preload is increased (suspension is harder).**
Direction ⓑ	**Spring preload is decreased (suspension is softer).**

Adjusting length ⓒ
Standard: 228.5 mm (9.00 in)
Minimum: 218.5 mm (8.60 in)
Maximum: 233.5 mm (9.19 in)



NOTE:
- Be sure to remove all dirt and mud from around the locknut and adjusting ring before adjustment.
- The length of the spring (installed) changes 1 mm (0.04 in) per turn of the adjuster.

CAUTION:

Never attempt to turn the adjusting ring beyond the maximum or minimum setting.

d. Tighten the locknut ① with a steering nut wrench ③.

NOTE:
Set the torque wrench at a right angle to the steering nut wrench.

	**Steering nut wrench** **P/N. 90890-01443/YU-33975**
	**Locknut** **42 Nm (4.2 m · kg, 30 ft · lb)**

NOTE:
Always tighten the locknut against the adjusting ring, then torque it to specification.

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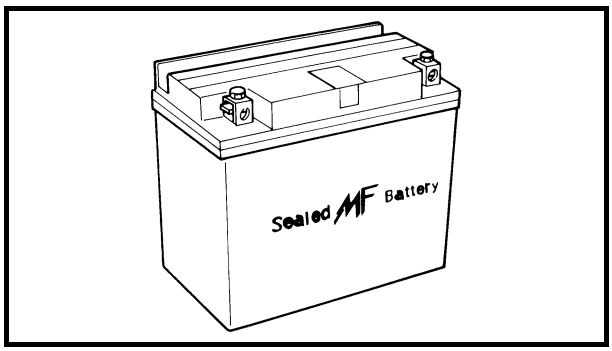
4. Install:
   - air filter case
     Refer to “REAR FENDER”.
5. Install:
   - seat
     Refer to “SEAT, SIDE COVERS, AND FRONT PANEL”.



EBS00120

ELECTRICAL SYSTEM

CHECKING AND CHARGING THE BATTERY

⚠ WARNING

Batteries generate explosive hydrogen gas and contain electrolyte which is made of poisonous and highly caustic sulfuric acid. Therefore, always follow these preventive measures:

- **Wear protective eye gear when handling or working near batteries.**
- **Charge batteries in a well-ventilated area.**
- **Keep batteries away from fire, sparks or open flames (e.g., welding equipment, lighted cigarettes).**
- **DO NOT SMOKE when charging or handling batteries.**
- **KEEP BATTERIES AND ELECTROLYTE OUT OF REACH OF CHILDREN.**
- **Avoid bodily contact with electrolyte as it can cause severe burns or permanent eye injury.**

FIRST AID IN CASE OF BODILY CONTACT:
EXTERNAL

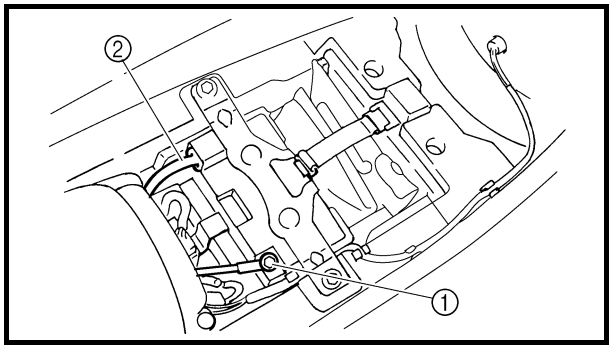
- **Skin — Wash with water.**
- **Eyes — Flush with water for 15 minutes and get immediate medical attention.**

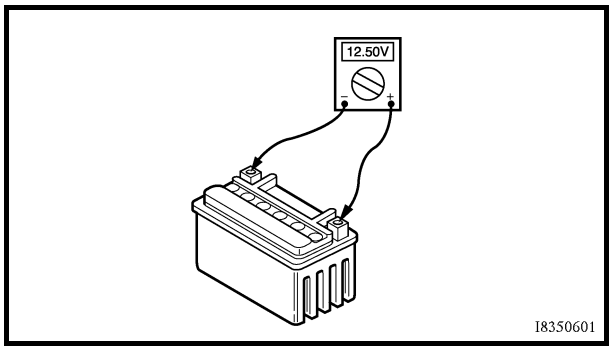
INTERNAL

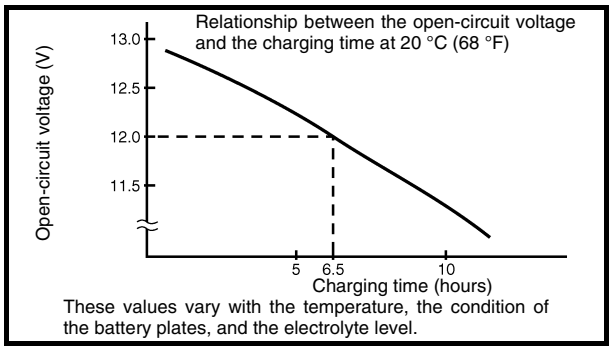
- **Drink large quantities of water or milk followed with milk of magnesia, beaten egg or vegetable oil. Get immediate medical attention.**

CAUTION:

- **This is a sealed battery. Never remove the sealing caps because the balance between cells will not be maintained and battery performance will deteriorate.**
- **Charging time, charging amperage and charging voltage for an MF battery are different from those of conventional batteries. The MF battery should be charged as explained in the charging method illustrations. If the battery is overcharged, the electrolyte level will drop considerably. Therefore, take special care when charging the battery.**







NOTE:

Since MF batteries are sealed, it is not possible to check the charge state of the battery by measuring the specific gravity of the electrolyte. Therefore, the charge of the battery has to be checked by measuring the voltage at the battery terminals.

1. Remove:
   - seat
     Refer to "SEAT, SIDE COVERS, AND FRONT PANEL".
2. Disconnect:
   - battery leads
     (from the battery terminals)

CAUTION:

First, disconnect the negative battery lead ①, and then the positive battery lead ②.

3. Remove:
   - battery holding bracket
     Refer to "REAR FENDER".
4. Remove:
   - battery
5. Check:
   - battery charge

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a. Connect a pocket tester to the battery terminals.

Positive tester probe →
positive battery terminal
Negative tester probe →
negative battery terminal

NOTE:

- The charge state of an MF battery can be checked by measuring its open-circuit voltage (i.e., the voltage when the positive terminal is disconnected).
- No charging is necessary when the open-circuit voltage equals or exceeds 12.8 V.

b. Check the charge of the battery, as shown in the charts and the following example.

Example

c. Open-circuit voltage = 12.0 V
d. Charging time = 6.5 hours
e. Charge of the battery = 20 ~ 30%

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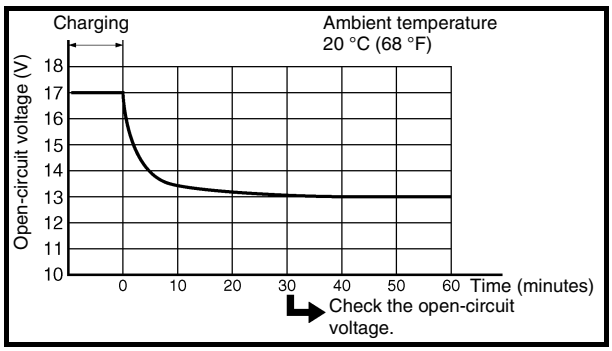
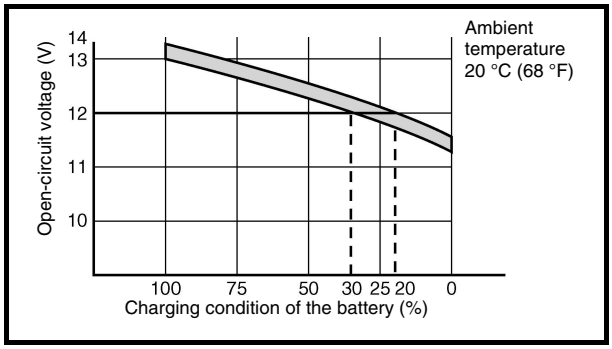




6. Charge:
   - battery
     (refer to the appropriate charging method illustration)

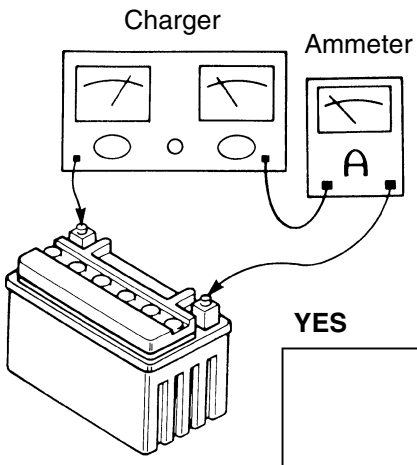
⚠ WARNING

Do not quick charge a battery.

CAUTION:

- **Never remove the MF battery sealing caps.**
- **Do not use a high-rate battery charger since it forces a high-amperage current into the battery quickly and can cause battery overheating and battery plate damage.**
- **If it is impossible to regulate the charging current on the battery charger, be careful not to overcharge the battery.**
- **When charging a battery, be sure to remove it from the machine. (If charging has to be done with the battery mounted on the machine, disconnect the negative battery lead from the battery terminal.)**
- **To reduce the chance of sparks, do not plug in the battery charger until the battery charger leads are connected to the battery.**
- **Before removing the battery charger lead clips from the battery terminals, be sure to turn off the battery charger.**
- **Make sure the battery charger lead clips are in full contact with the battery terminal and that they are not shorted. A corroded battery charger lead clip may generate heat in the contact area and a weak clip spring may cause sparks.**
- **If the battery becomes hot to the touch at any time during the charging process, disconnect the battery charger and let the battery cool before reconnecting it. Hot batteries can explode!**
- **As shown in the following illustration, the open-circuit voltage of an MF battery stabilizes about 30 minutes after charging has been completed. Therefore, wait 30 minutes after charging is completed before measuring the open-circuit voltage.**

Charging method using a variable-current (voltage) charger



Measure the open-circuit voltage prior to charging.

NOTE:
Leave the battery unused for more than 30 minutes before measuring its open-circuit voltage.

Connect a charger and ammeter to the battery and start charging.

NOTE:
Set the charging voltage to 16 ~ 17 V. (If the charging voltage is lower, charging will be insufficient, if it is higher, the battery will be over-charged.)

Is the amperage higher than the standard charging amperage written on the battery?

YES

NO

Adjust the charging voltage to 20 ~ 25 V.

Monitor the amperage for 3 ~ 5 minutes. Is the standard charging amperage exceeded?

YES

NO

Adjust the voltage to obtain the standard charging amperage.

If the amperage does not exceed the standard charging amperage after 5 minutes, replace the battery.

Set the timer to the charging time determined by the open-circuit voltage.
Refer to “CHECKING AND CHARGING THE BATTERY”.

If the required charging time exceeds 5 hours, it is advisable to check the charging amperage after 5 hours. If there is any change in the amperage, readjust the voltage to obtain the standard charging amperage.

Leave the battery unused for more than 30 minutes before measuring its open-circuit voltage.
12.8 V → Charging is complete.
12.0 ~ 12.7 V → Recharging is required.
Under 12.0 V → Replace the battery.

Charging method using a constant voltage charger

Measure the open-circuit voltage prior to charging.

NOTE:
Leave the battery unused for more than 30 minutes before measuring its open-circuit voltage.

Connect a charger and ammeter to the battery and start charging.

Is the amperage higher than the standard charging amperage written on the battery?

YES

Charge the battery until the charging voltage reaches 15 V.

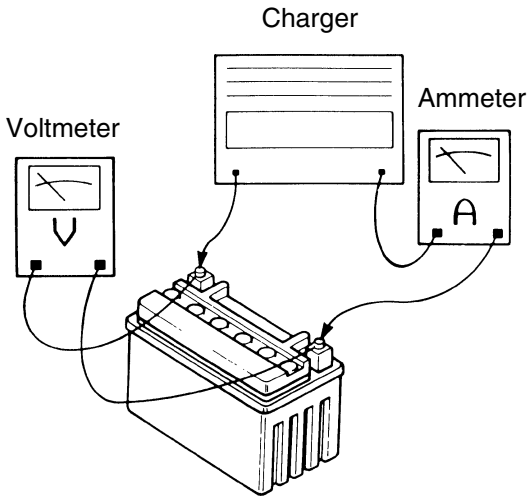
NOTE:
Set the charging time to a maximum of 20 hours.

Leave the battery unused for more than 30 minutes before measuring its open-circuit voltage.
12.8 V → Charging is complete.
12.0 ~ 12.7 V → Recharging is required.
Under 12.0 V → Replace the battery.

CAUTION:
Constant amperage chargers are not suitable for charging MF batteries.

NO

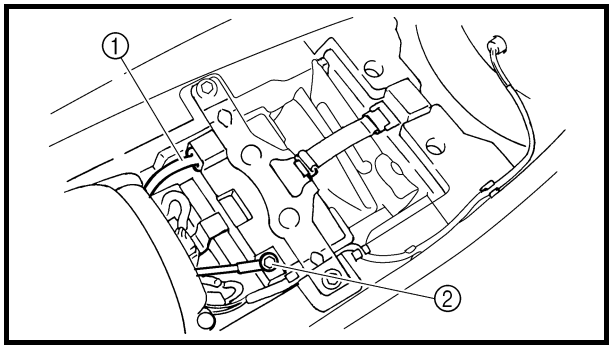
This type of battery charger cannot charge an MF battery. A variable-voltage charger is recommended.



7. Install:
   • battery
8. Install:
   • battery holding bracket
     Refer to “REAR FENDER”.
9. Connect:
   • battery leads
     (to the battery terminals)

CAUTION:

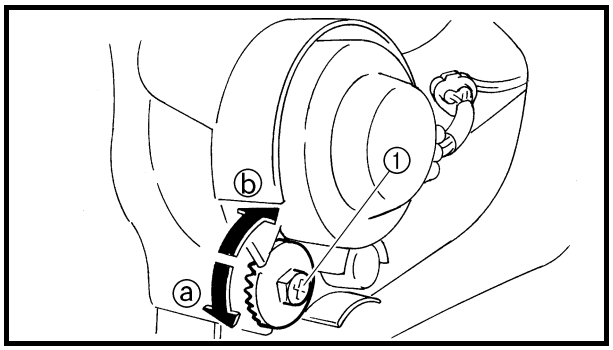
First, connect the positive battery lead ①, and then the negative battery lead ②.



10. Check:
    • battery terminals
      Dirt → Clean with a wire brush.
      Loose connection → Connect properly.
11. Lubricate:
    • battery terminals

	Recommended lubricant **Dielectric grease**

12. Install:
    • seat
      Refer to “SEAT, SIDE COVERS, AND FRONT PANEL”.



EBS00122

ADJUSTING THE HEADLIGHT BEAMS

1. Adjust:
   • headlight beam (vertically)

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a. Turn the adjusting bolt ① in direction ⓐ or ⓑ.

Direction ⓐ	**Headlight beam is raised.**
Direction ⓑ	**Headlight beam is lowered.**

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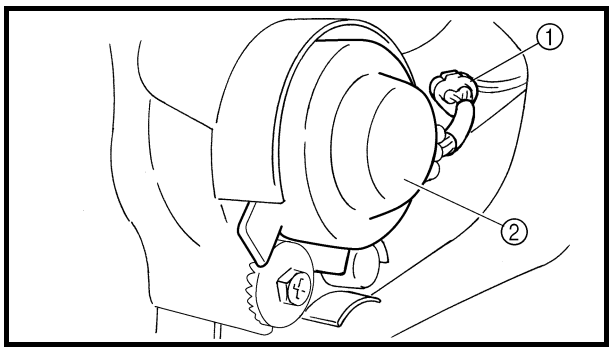
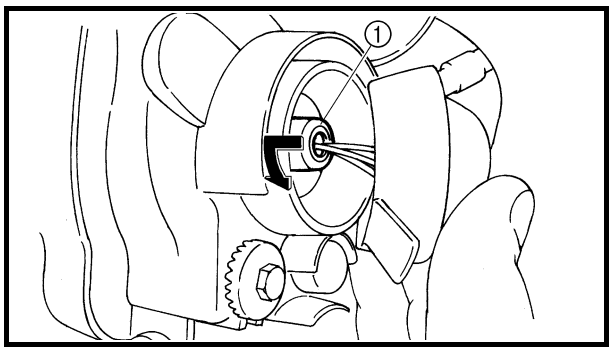


EBS00124

REPLACING A HEADLIGHT BULB

1. Disconnect:
   - headlight lead coupler ①
2. Remove:
   - headlight bulb holder cover ②



3. Remove:
   - bulb holder ①
   - bulb

NOTE:

Push the headlight bulb holder inward, turn it counterclockwise and remove the defective bulb.

⚠ WARNING

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

4. Install:
   - bulb New

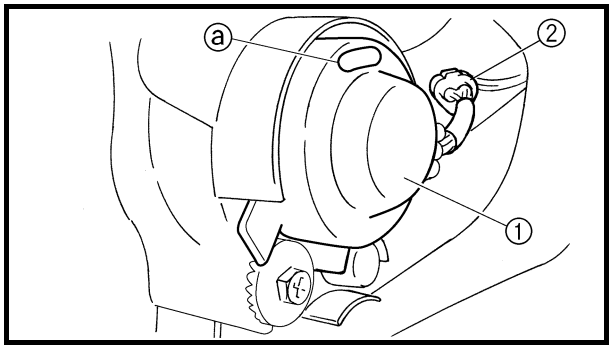
CAUTION:

Avoid touching the glass part of the bulb. Keep it free from oil; otherwise, the transparency of the glass, life of the bulb, and luminous flux will be adversely affected. If oil gets on the bulb, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.

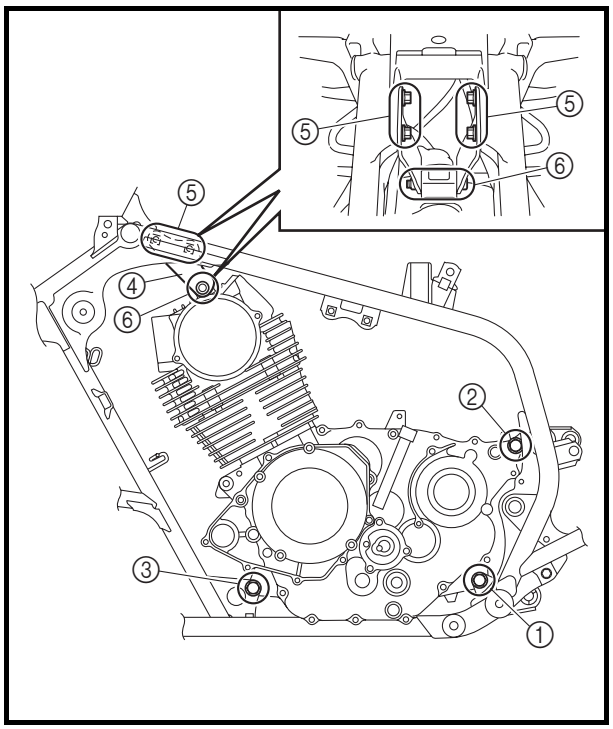
5. Install:
   - bulb holder
   - headlight bulb holder cover ①

NOTE:

After installing the bulb holder cover, make sure that the "TOP" mark ⓐ is in the position shown.



6. Connect:
   - headlight lead coupler ②



ENGINE

ENGINE REMOVAL

INSTALLING THE ENGINE

⚠ WARNING

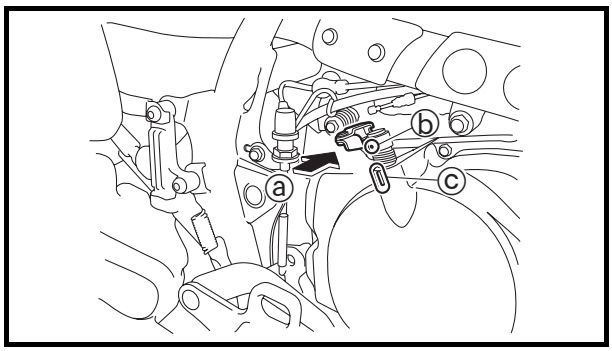
Securely support the machine so there is no danger of it falling over.

1. Install:
   - engine assembly
2. Install:
   - engine lower mounting bolt (rear)/nut ①
   - engine upper mounting bolt (rear)/nut ②
   - engine lower mounting bolt (front)/nut ③
   - engine bracket (left and right) ④
   - engine bracket bolts ⑤
   - engine upper mounting bolt (front)/nut ⑥

NOTE:

- All mounting bolts should be installed from the right of the machine.
- Do not fully tighten the bolts and nuts.

3. Tighten:
   - engine lower mounting bolt (rear)/nut ①
     73 Nm (7.3 m · kg, 53 ft · lb)
   - engine upper mounting bolt (rear)/nut ②
     73 Nm (7.3 m · kg, 53 ft · lb)
   - engine lower mounting bolt (front)/nut ③
     73 Nm (7.3 m · kg, 53 ft · lb)
   - engine bracket bolts ⑤
     33 Nm (3.3 m · kg, 24 ft · lb)
   - engine upper mounting bolt (front)/nut ⑥
     33 Nm (3.3 m · kg, 24 ft · lb)



CLUTCH

INSTALLING THE RIGHT CRANKCASE COVER

1. Install:
   - right crankcase cover

10 Nm (1.0 m · kg, 7.2 ft · lb)

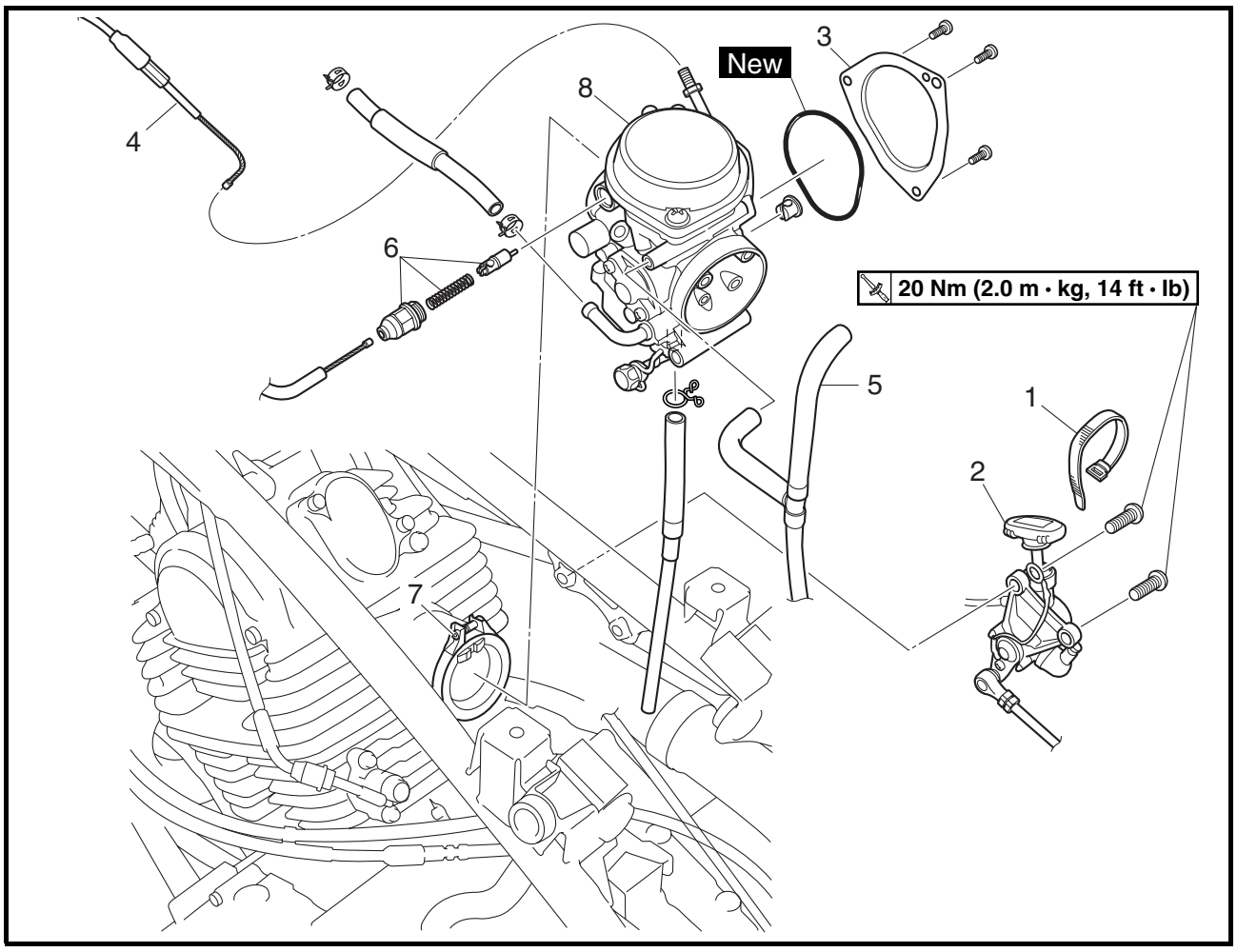
NOTE:

When installing the right crankcase cover, push the push lever in direction ⓐ and check that the punch mark ⓑ on the push lever aligns with the mark ⓒ on the right crankcase cover.

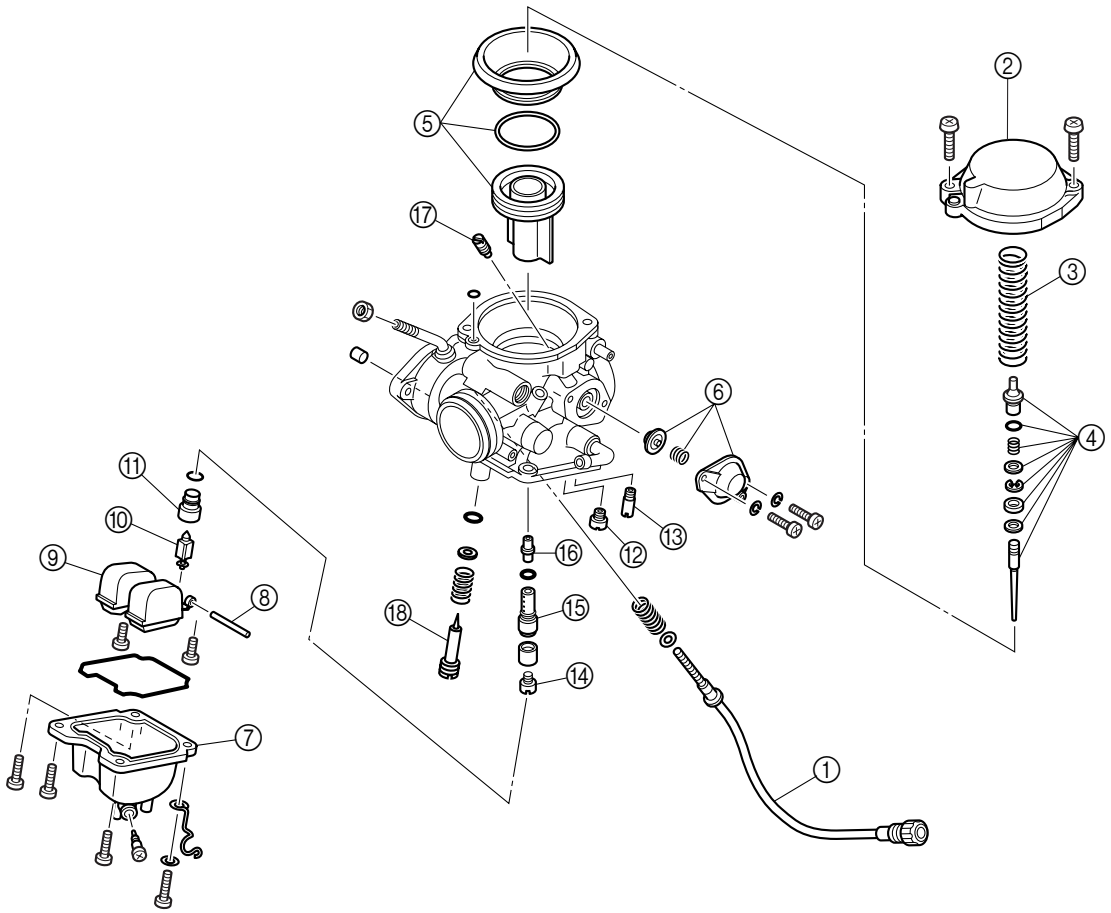
EBS00141

CARBURETOR

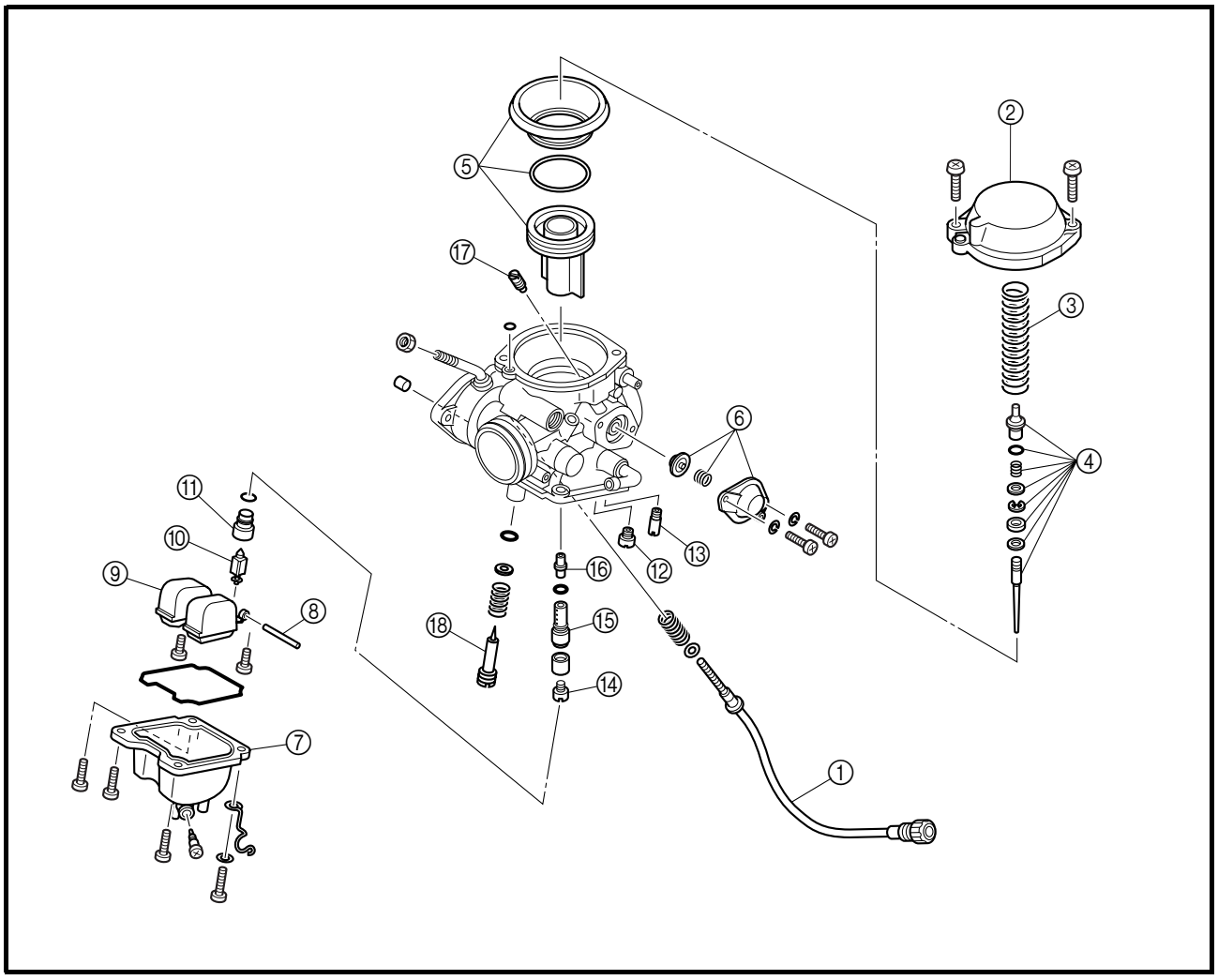
CARBURETOR



Order	Job/Part	Q'ty	Remarks
	Removing the carburetor		Remove the parts in the order listed.
	Fuel tank/air filter case		Refer to "SEAT, FENDERS AND FUEL TANK".
1	Plastic band	1	
2	Drive select lever assembly	1	
3	Throttle valve cover	1	
4	Throttle cable	1	
5	Carburetor air vent hose	1	Disconnect.
6	Starter plunger	1	
7	Clamp screw	1	Loosen.
8	Carburetor	1	
			For installation, reverse the removal procedure.



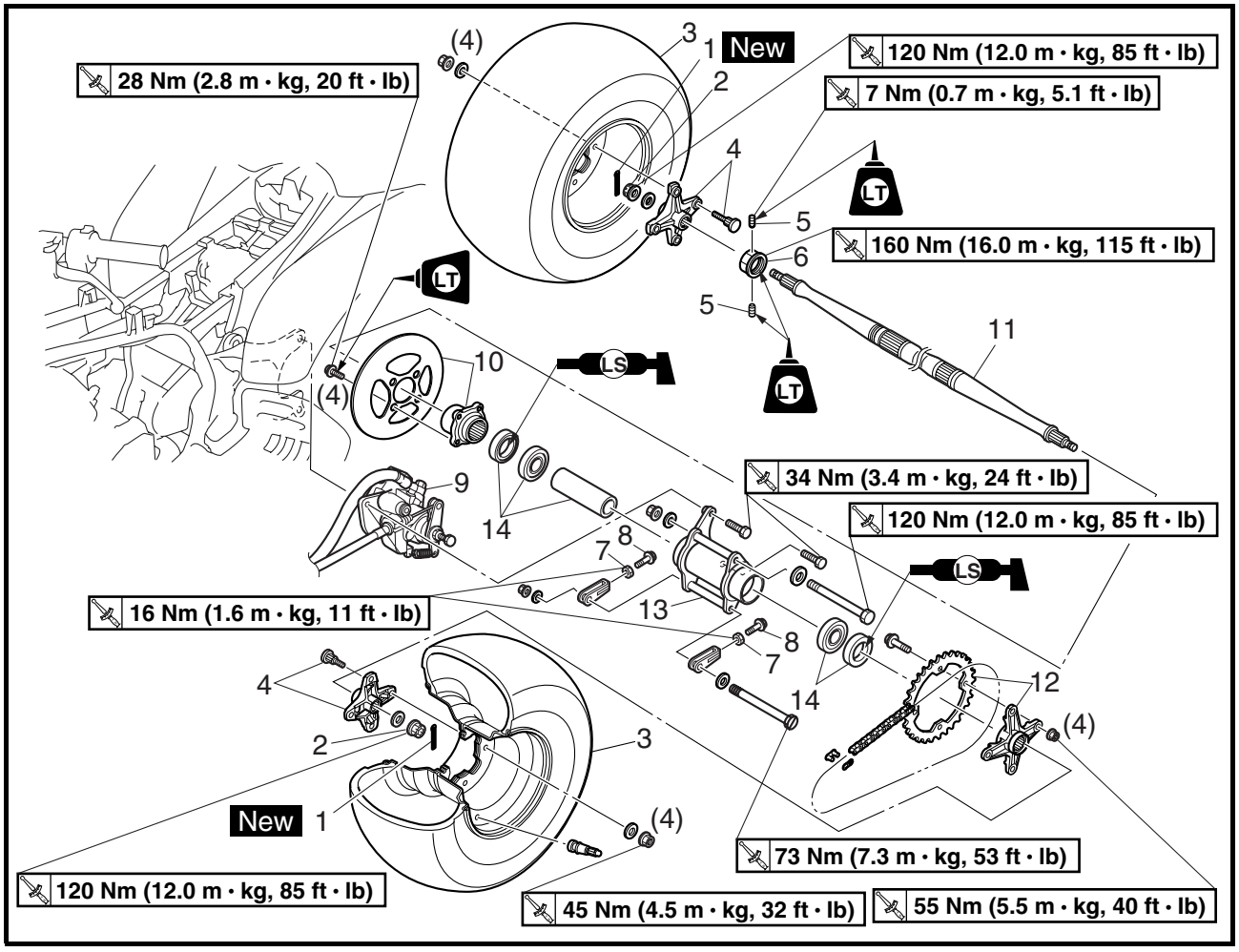
Order	Job/Part	Q'ty	Remarks
	Disassembling the carburetor		Remove the parts in the order below.
①	Throttle stop screw	1	
②	Vacuum chamber cover	1	
③	Piston valve spring	1	
④	Jet needle holder/jet needle set	1	
⑤	Piston valve	1	
⑥	Coasting enricher assembly	1	
⑦	Float chamber	1	
⑧	Float pin	1	
⑨	Float	1	
⑩	Needle valve	1	
⑪	Needle valve seat	1	
⑫	Starter jet	1	
⑬	Pilot jet	1	
⑭	Main jet	1	



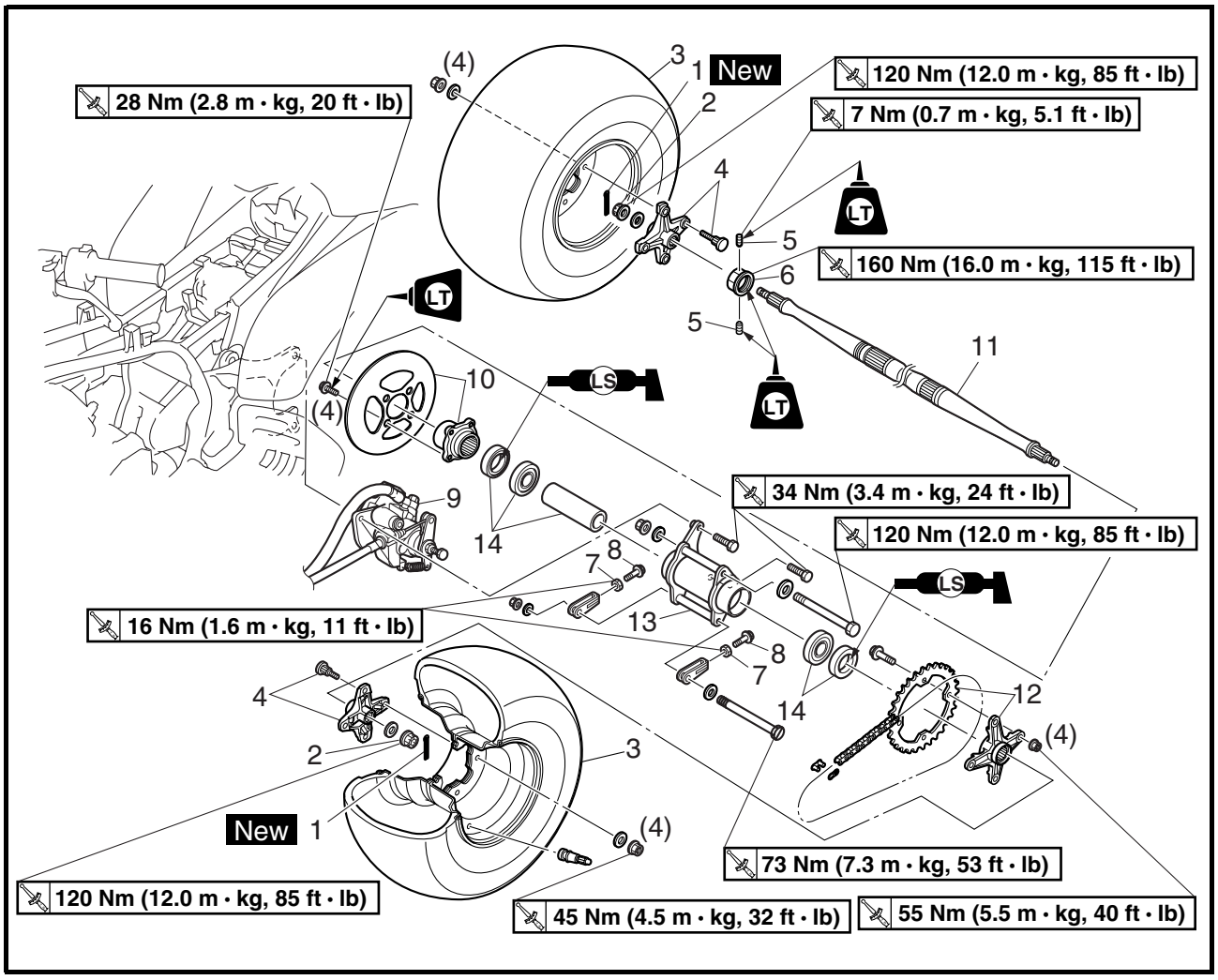
Order	Job/Part	Q'ty	Remarks
⑮	Main jet holder	1	
⑯	Needle jet	1	
⑰	Pilot air jet	1	
⑱	Pilot screw	1	
			For assembly, reverse the disassembly procedure.

CHASSIS

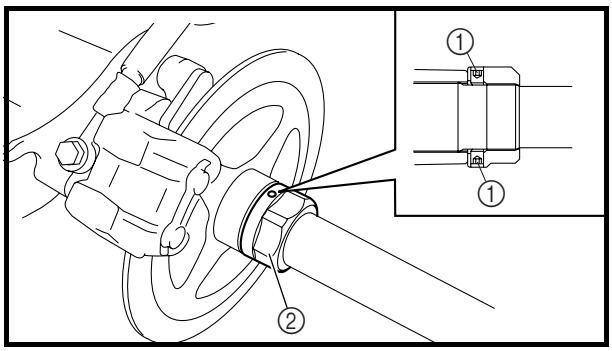
REAR WHEELS AND REAR AXLE HUB

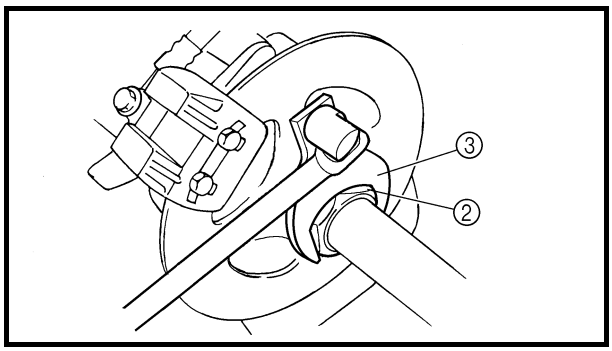


Order	Job/Part	Q'ty	Remarks
	Removing the rear wheels and rear axle hub		Remove the parts in the order listed.
1	Cotter pin	2	Refer to "REAR WHEEL AND WHEEL HUB" in chapter 6. (Manual No.: 3GD-AE5)
2	Axle nut	2	
3	Rear wheel	2	
4	Wheel hub	2	
5	Bolt	2	Refer to "REMOVING THE REAR AXLE" and "INSTALLING THE REAR AXLE".
6	Nut	1	
7	Locknut	2	
8	Adjusting bolt	2	
9	Brake caliper	1	**NOTE:** Do not apply the brake pedal and do not use the parking brake when the brake caliper is off of the brake disc as the brake pad will be force shut.



Order	Job/Part	Q'ty	Remarks
10	Brake disc/brake disc bracket	1/1	
11	Rear axle	1	Refer to "REMOVING THE REAR AXLE".
12	Driven sprocket/sprocket bracket	1/1	
13	Rear axle hub	1	
14	Spacer/bearing/oil seal	1/2/2	
			For installation, reverse the removal procedure.





EBS00393

REMOVING THE REAR AXLE

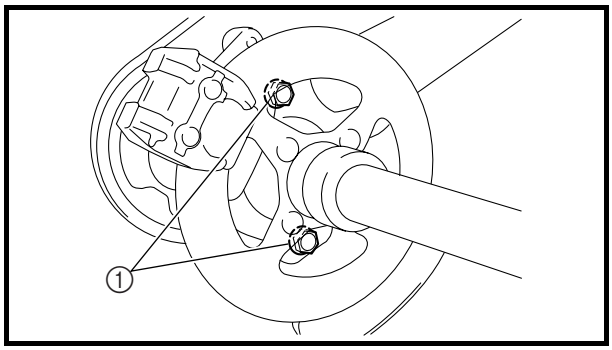
1. Place the machine on a level surface.
2. Remove:
   - bolts ①
3. Loosen:
   - nut ②

NOTE:

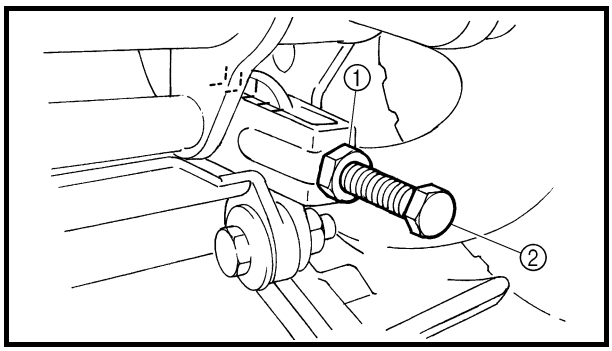
- Apply the parking brake so that the rear axle does not turn, when loosening the nut.
- Use the axle nut wrench (46 mm) ③.

	Axle nut wrench (46 mm) **P/N. 90890-01498/YM-37134**

4. Elevate the rear wheels by placing the suitable stand under the frame.
5. Remove:
   - rear wheels
   - wheel hubs
   - nut



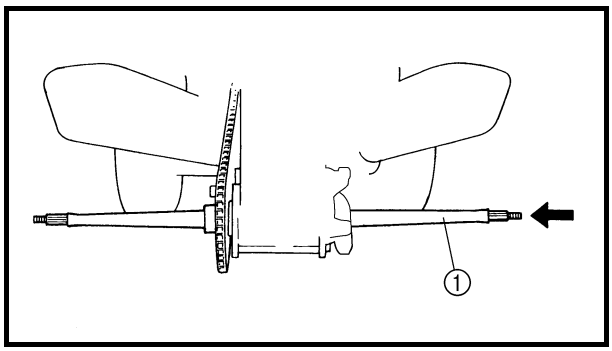
6. Loosen:
   - rear axle hub nuts ①



7. Loosen:
   - locknut ①
   - adjusting bolt ②

NOTE:

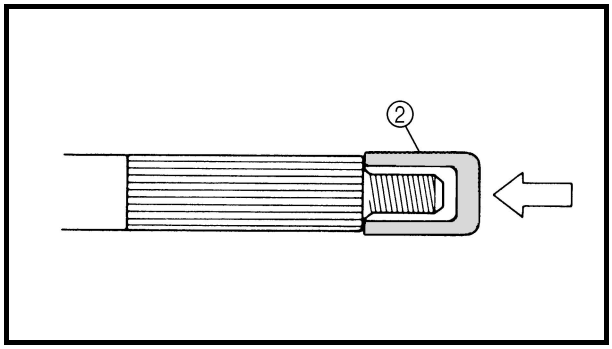
Loosen the locknut and adjusting bolt on each side of the machine.



8. Remove:
   • rear axle ①

CAUTION:

• Never directly tap the axle end with a hammer, since this will result in damage to the axle thread and spline.
• Attach a suitable socket ② on the axle end and tap it with a soft hammer, then pull out the rear axle to the right.



EBS00397
INSTALLING THE REAR AXLE

1. Install:
   • nut ①
   • bolts ②

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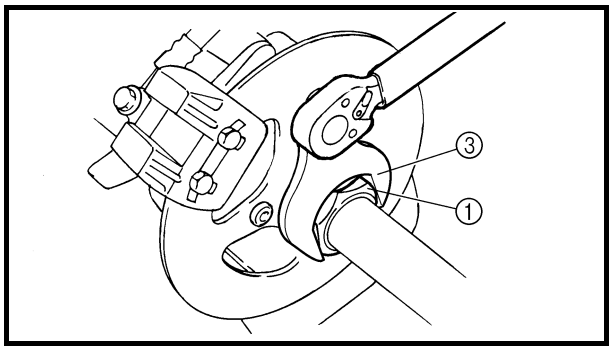
a. Tighten the nut with rear axle nut wrench (46 mm) ③ to specification while holding the rear axle.



	**Axle nut wrench (46 mm)** **P/N. 90890-01498/YM-37134**

	**Nut** **160 Nm (16.0 m · kg, 115 ft · lb)** **LOCTITE®**

b. Tighten bolts ②.

	**Bolt** **7 Nm (0.7 m · kg, 5.1 ft · lb)** **LOCTITE®**

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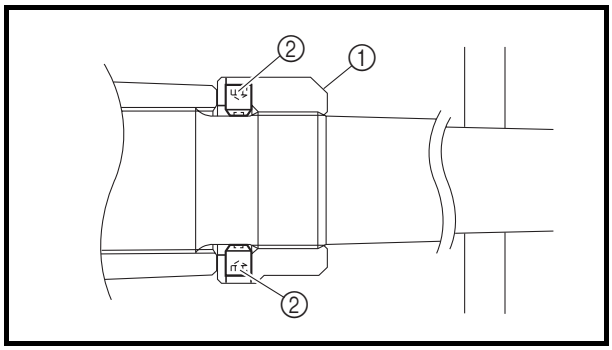
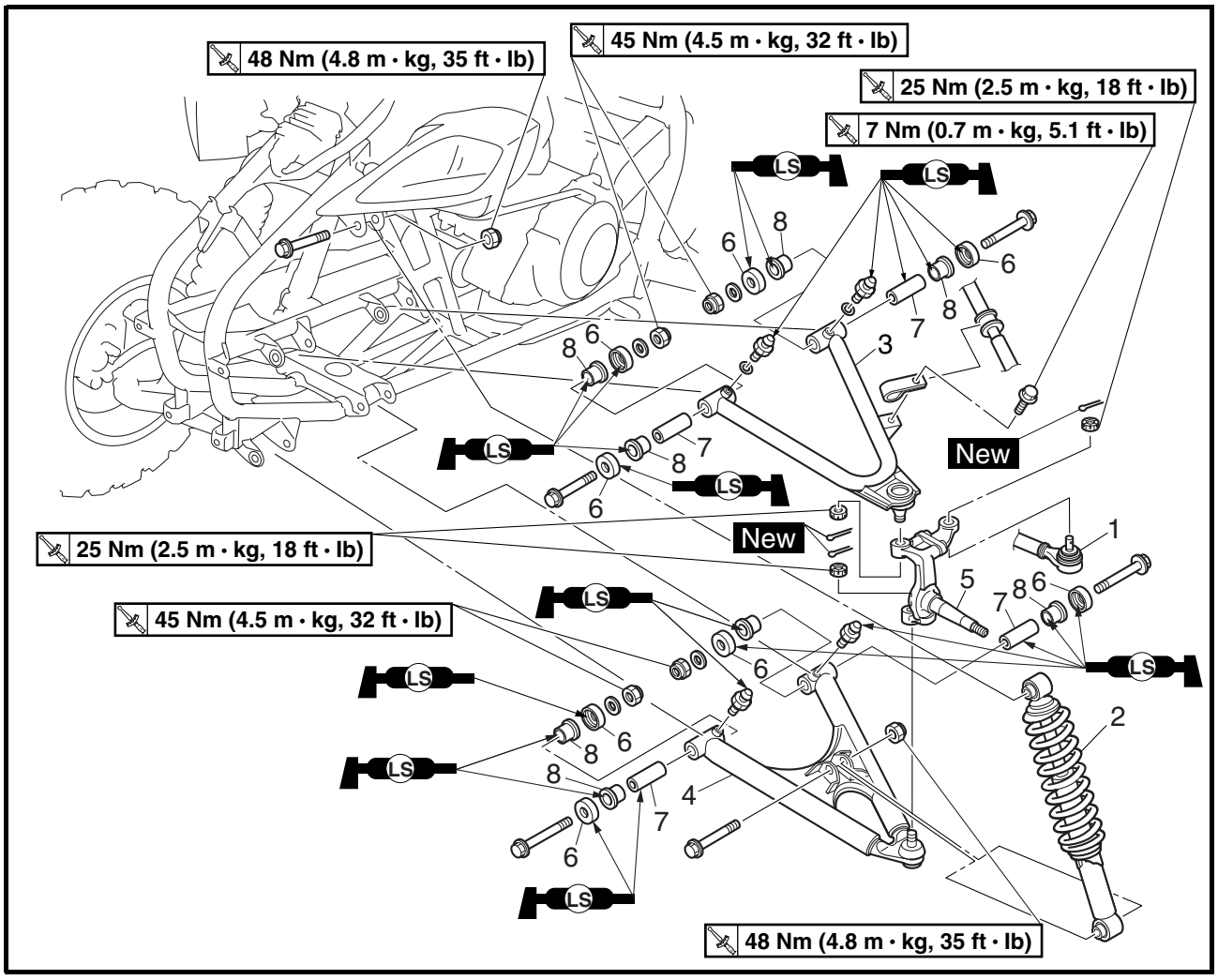
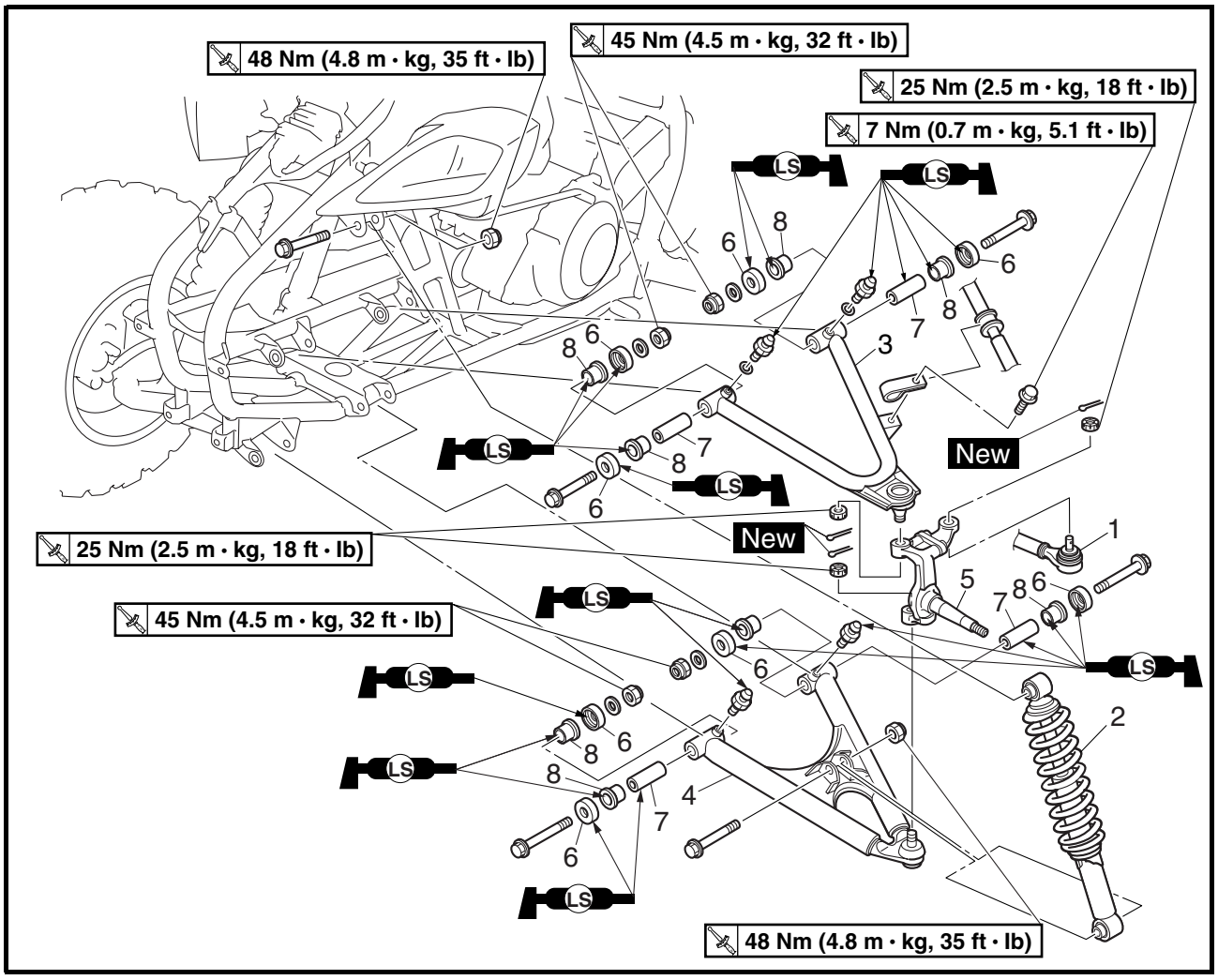


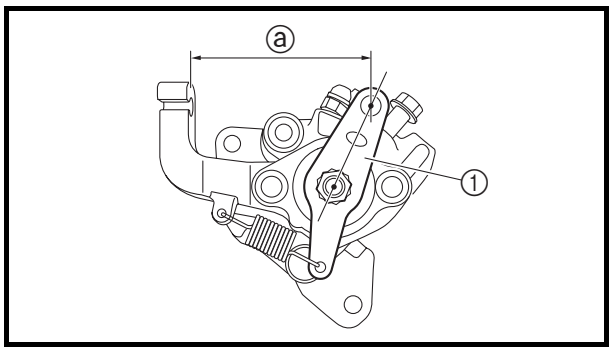
EBS00468
FRONT ARMS AND FRONT SHOCK ABSORBER



Order	Job/Part	Q'ty	Remarks
	Removing the front arms and front shock absorber		Remove the parts in the order listed. The following procedure applies to both of the front arms and front shock absorbers.
	Muffler/exhaust pipe		Refer to "ENGINE ASSEMBLY AND ADJUSTMENT" in chapter 4. (Manual No.: 3GD-AE5)
	Front wheel/brake disc/front brake caliper		Refer to "FRONT WHEEL AND WHEEL HUB" in chapter 6. (Manual No.: 3GD-AE5)
	Front bumper		Refer to "SEAT, FENDERS AND FUEL TANK".
1	Tie-rod	1	Disconnect.
2	Front shock absorber	1	



Order	Job/Part	Q'ty	Remarks
3	Upper front arm	1	Refer to "FRONT SUSPENSION— REMOVAL" in chapter 6. (Manual No.: 3GD-AE5)
4	Lower front arm	1	
5	Steering knuckle	1	
6	Dust cover	8	
7	Spacer	4	
8	Bushing	8	
			For installation, reverse the removal procedure.



REAR BRAKE

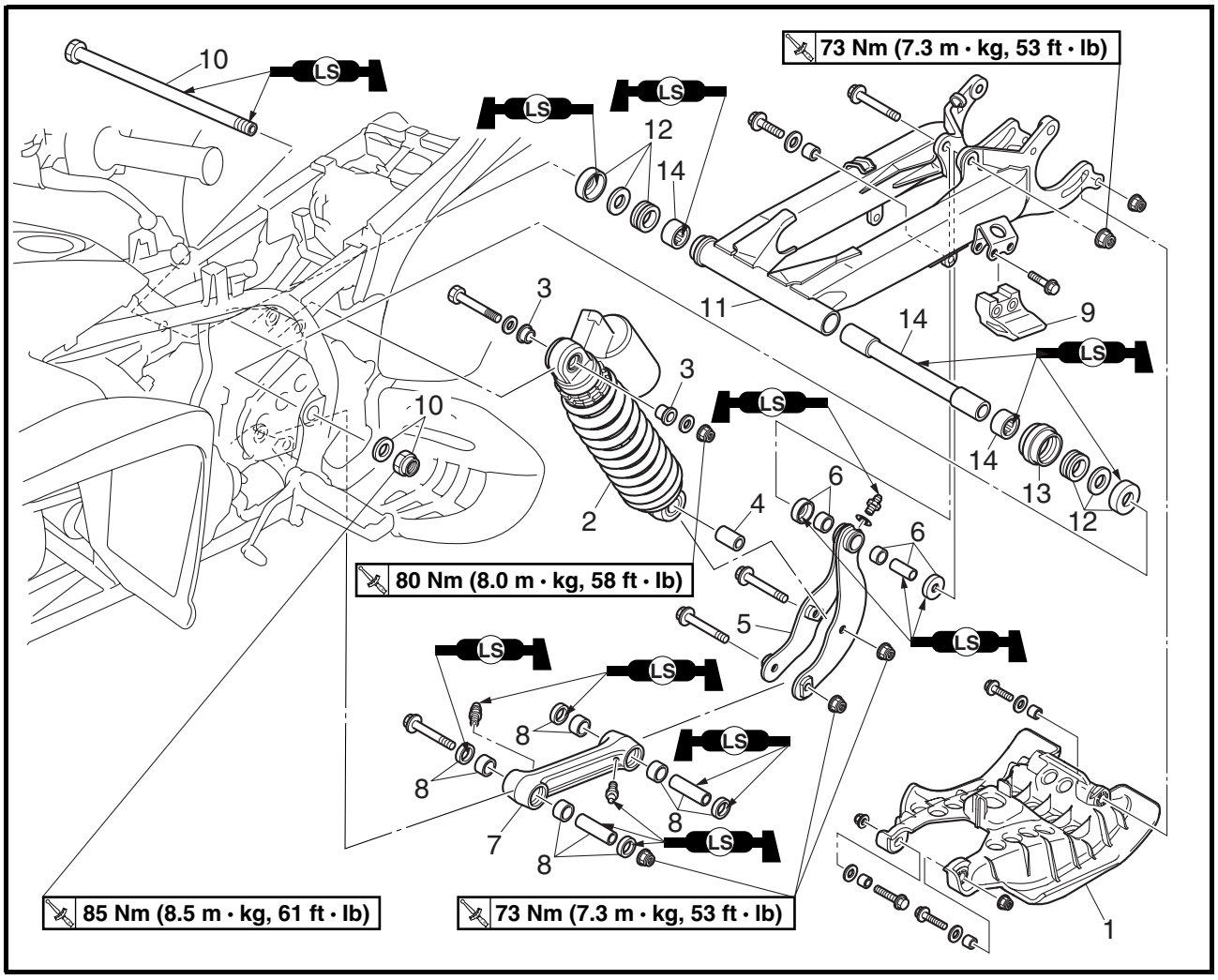
ASSEMBLING THE REAR BRAKE CALIPER

1. Install:
   • parking brake arm ①

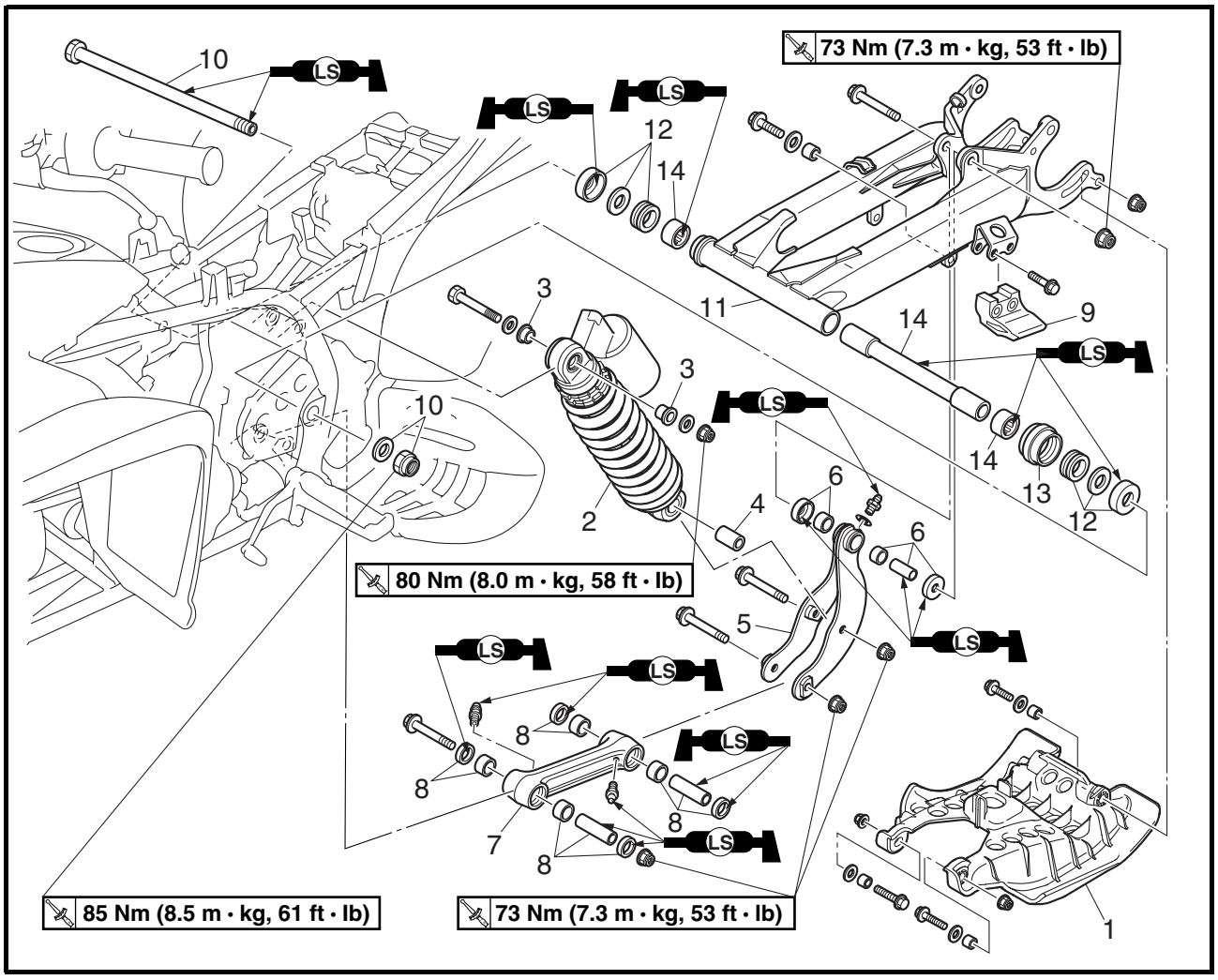
NOTE:

Install the parking brake arm so that the parking-brake-arm-to-parking-brake-bracket distance ⓐ is approximately 73 mm (2.87 in).

REAR SHOCK ABSORBER AND SWINGARM



Order	Job/Part	Q'ty	Remarks
	Removing the rear shock absorber and swingarm		Remove the parts in the order listed.
	Rear wheel/rear axle hub		Refer to "REAR WHEELS AND REAR AXLE HUB".
	Parking brake cable/rear brake hose		Refer to "REAR SHOCK ABSORBER AND SWINGARM" in chapter 6. (Manual No.: 3GD-AE5)
	Drive chain		Refer to "DRIVE CHAIN AND SPROCKETS" in chapter 6. (Manual No.: 3GD-AE5)
1	Swingarm skid plate	1	
2	Rear shock absorber	1	
3	Spacer	2	
4	Spacer	1	
5	Relay arm	1	
6	Dust cover/bushing/spacer	2/2/1	



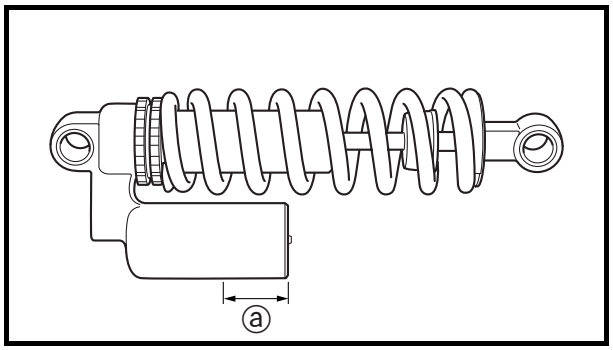
Order	Job/Part	Q'ty	Remarks
7	Connecting rod	1	
8	Oil seal/bushing/spacer	4/4/2	
9	Drive chain guide	1	
10	Pivot shaft/washer/nut	1/1/1	
11	Swingarm	1	
12	Dust cover/washer/oil seal	2/2/2	
13	Drive chain protector	1	
14	Bearing/spacer	2/1	
			For installation, reverse the removal procedure.

EBS00485
HANDLING THE REAR SHOCK ABSORBER AND GAS CYLINDER

⚠ WARNING

This rear shock absorber and gas cylinder contain highly compressed nitrogen gas. Before handling the rear shock absorber or gas cylinder, read and make sure you understand the following information. The manufacturer cannot be held responsible for property damage or personal injury that may result from improper handling of the rear shock absorber and gas cylinder.

- **Do not tamper or attempt to open the rear shock absorber or gas cylinder.**
- **Do not subject the rear shock absorber or gas cylinder to an open flame or any other source of high heat. High heat can cause an explosion due to excessive gas pressure.**
- **Do not deform or damage the rear shock absorber or gas cylinder in any way. If the rear shock absorber, gas cylinder or both are damaged, damping performance will suffer.**



DISPOSING OF THE REAR SHOCK ABSORBER AND GAS CYLINDER

Gas pressure must be released before disposing of the rear shock absorber and gas cylinder. To release the gas pressure, drill a 2 ~ 3-mm hole through the gas cylinder at a point ⓐ 50 mm (1.97 in) from its end as shown.

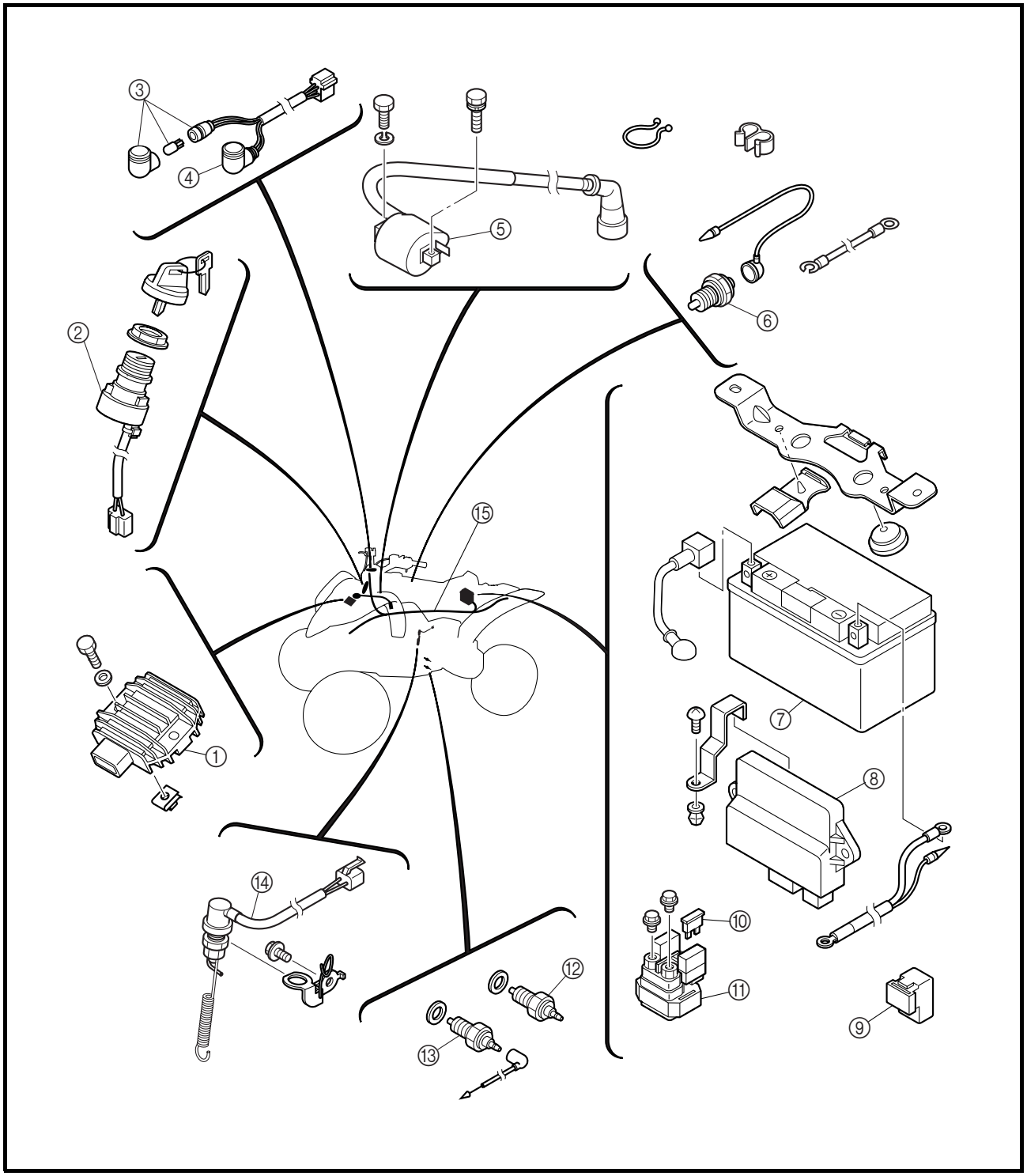
⚠ WARNING

Wear eye protection to prevent eye damage from released gas or metal chips.

ELECTRICAL

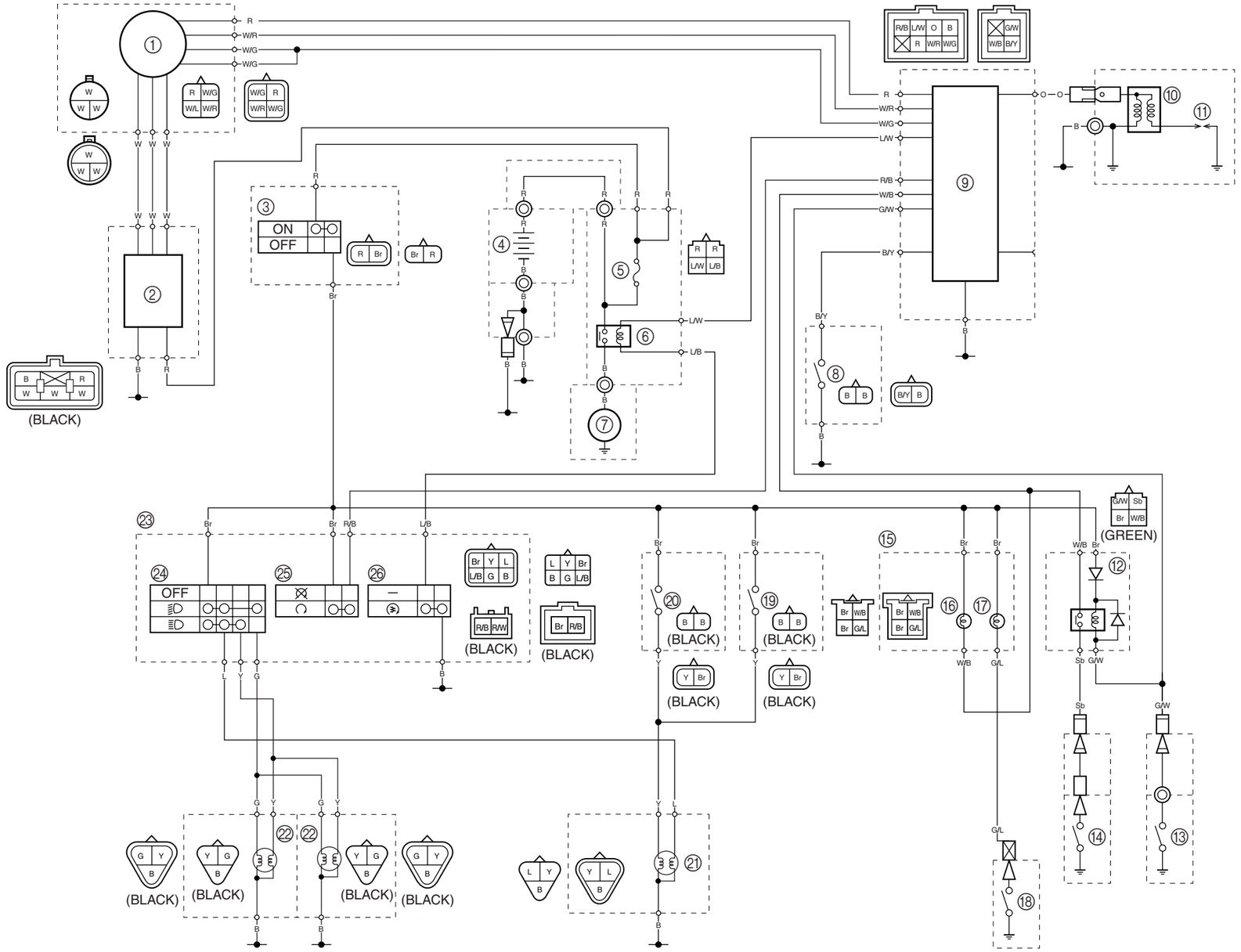
ELECTRICAL COMPONENTS

① Rectifier/regulator
② Main switch
③ Neutral indicator light
④ Reverse indicator light
⑤ Ignition coil
⑥ Drive select lever switch
⑦ Battery
⑧ C.D.I. unit
⑨ Starting circuit cut-off relay
⑩ Fuse
⑪ Starter relay
⑫ Reverse switch
⑬ Neutral switch
⑭ Rear brake light switch
⑮ Wire harness



YAMAHA MOTOR CO., LTD.
2500 SHINGAI IWATA SHIZUOKA JAPAN

YFM350S WIRING DIAGRAM



① A.C. magneto
② Rectifier/regulator
③ Main switch
④ Battery
⑤ Fuse
⑥ Starter relay
⑦ Starter motor
⑧ Clutch switch
⑨ C.D.I. unit
⑩ Ignition coil
⑪ Spark plug
⑫ Starting circuit cut-off relay
⑬ Drive select lever switch
⑭ Neutral switch
⑮ Indicator light assembly
⑯ Neutral indicator light
⑰ Reverse indicator light
⑱ Reverse switch
⑲ Rear brake light switch
⑳ Front brake light switch
㉑ Tail/brake light
㉒ Headlight
㉓ Handlebar switch
㉔ Light switch
㉕ Engine stop switch
㉖ Start switch

COLOR CODE

B .....Black	Sb .....Sky blue	L/B .....Blue/Black	W/L ..... White/Blue
Br.....Brown	W .....White	L/W .....Blue/White	W/R..... White/Red
G.....Green	Y .....Yellow	R/B.....Red/Black	
L.....Blue	B/Y.....Black/Yellow	R/W.....Red/White	
O.....Orange	G/L.....Green/Blue	W/B .....White/Black	
R.....Red	G/W .....Green/White	W/G.....White/Green	