YAMAHA

XT600Z(U) '88

3AJ-SE1

SERVICE INFORMATION

HANDLING OF ASBESTOS PARTS

WARNING:

CERTAIN COMPONENTS USED IN THE CONSTRUCTION OF THIS MACHINE CONTAIN ASBESTOS.
ASBESTOS MAY BE FOUND IN THE FOLLOWING:
BRAKE SHOES, BRAKE PADS, GASKETS, CLUTCH PLATES AND HEAT INSULATORS.
BREATHING ASBESTOS DUST IS HAZARDOUS TO HEALTH.
PLEASE TAKE CARE WHEN WORKING WITH OR SERVICING THE PARTS CONTAINING ASBESTOS.

(1) ALWAYS WORK OUT OF DOORS IN A WELL VENTILATED PLACE.
(2) DO NOT DRILL, FILE OR CUT THE COMPONENT UNLESS ESSENTIAL AND THEN USE ONLY LOW SPEED TOOLS EQUIPPED, IF POSSIBLE, WITH DUST EXTRACTORS. IF HIGH SPEED TOOLS ARE USED THEY MUST BE EQUIPPED WITH DUST EXTRACTION FACILITY.
(3) WHEN POSSIBLE DAMPEN BEFORE CUTTING TO REDUCE POSSIBILITY OF DUST.
(4) DAMPEN DUST AND PLACE IT IN A PROPERLY SEALED RECEPTACLE AND DISPOSE OF IT SAFELY.

FOREWORD

This Service Information has been prepared to introduce new service and data for the XT600Z(U) '88. For complete service information procedures it is necessary to use this publication together with the following microfiche service manual.

XT600Z(U) SERVICE MANUAL: 3AJ-ME1

XT600Z(U)
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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.

TECHNICAL PUBLICATIONS
SERVICE DIVISION
MOTORCYCLE GROUP
YAMAHA MOTOR CO., LTD.

HOW TO USE THIS MANUAL

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation.

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

CAUTION: A CAUTION indicates special procedures that must be followed to avoid damage to the motorcycle.

WARNING: A WARNING indicates special procedures that must be followed to avoid injury to a motorcycle operator or person inspecting or repairing the motorcycle.

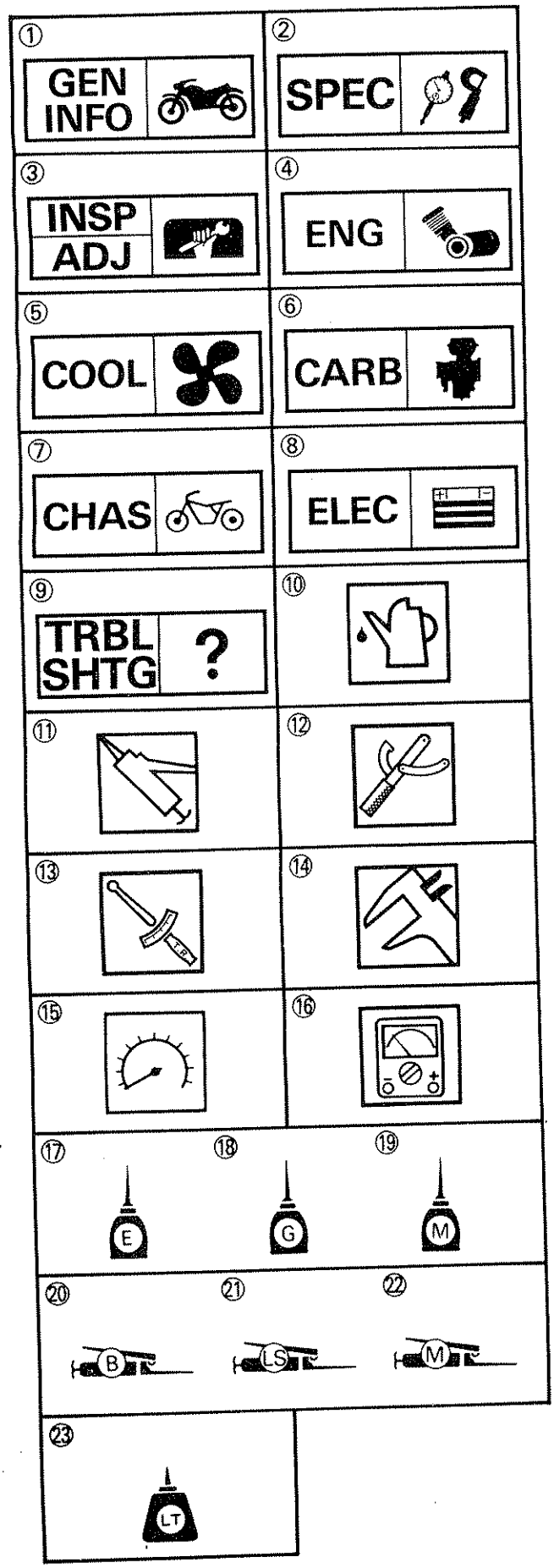
MANUAL FORMAT

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, assembly, and 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 ㉓ 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®)

CONTENTS

GENERAL INFORMATION 1
MOTORCYCLE IDENTIFICATION 1

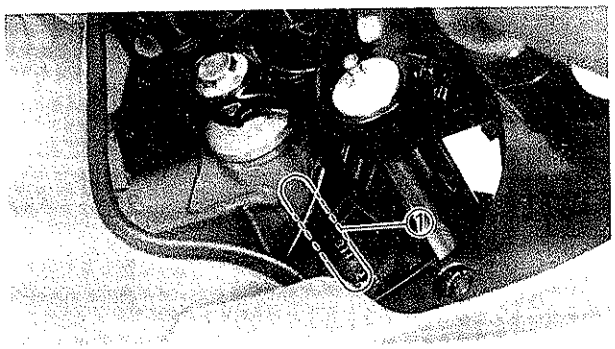
PERIODIC INSPECTION AND ADJUSTMENT 2
INTRODUCTION 2
PERIODIC MAINTENANCE/LUBRICATION INTERVALS 2

EXPLODED DIAGRAMS 4
VALVE AND ROCKER ARM 4
CAMSHAFT AND CAM CHAIN 5
CRANKSHAFT, PISTON AND BALANCER 6
TRANSMISSION 7
SHIFT CAM AND SHIFT FORK 8
CRANKCASE 9
STARTER DRIVES 10
CLUTCH 11
CYLINDER 12
CYLINDER HEAD 13
OIL PUMP AND OIL DELIVERY LINE 14
CARBURETOR 15
FRONT WHEEL 16
REAR WHEEL 17
FRONT AND REAR BRAKE 18
FRONT FORK 20
STEERING HEAD 21
REAR SHOCK ABSORBER AND SWINGARM 22
C.D.I. MAGNETO 24
STARTER MOTOR 25
METER ASSEMBLY 26
ELECTRICAL COMPONENTS 27
LUBRICATION DIAGRAM 29
CABLE ROUTING 33

SPECIFICATIONS 37
GENERAL SPECIFICATIONS 37
MAINTENANCE SPECIFICATIONS 40
GENERAL TORQUE SPECIFICATIONS 55
DEFINITION OF UNITS 55
LUBRICATION POINTS AND LUBRICANT TYPE 56

XT600Z(U) WIRING DIAGRAM

GENERAL INFORMATION



MOTORCYCLE IDENTIFICATION

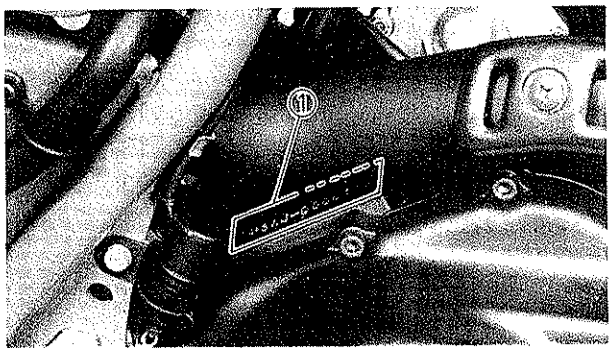
FRAME SERIAL NUMBER

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

Starting Serial Number:	
XT600Z	3AJ-000101
XT600Z	3AJ-031101
XT600Z	3AJ-033101
XT600Z	3DS-000101
XT600ZU	3DE-000101

ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the elevated part of the right rear section of the engine.



Starting Serial Number:	
XT600Z	3AJ-000101
XT600Z	3AJ-031101
XT600Z	3AJ-033101
XT600Z	3DS-000101
XT600ZU	3DE-000101

NOTE:

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

PERIODIC INSPECTION AND ADJUSTMENT

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 new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

PERIODIC MAINTENANCE/LUBRICATION INTERVALS

Unit: km (mi)

ITEM	REMARKS	BREAK-IN 1,000 (600)	EVERY 6,000 (4,000) or 6 months	EVERY 12,000 (8,000) or 12 months
Valve clearance	Check/Adjust valve clearance.	○	○	○
Spark plug	Check/Clean/Replace if necessary.	○	○	○
Air filter	Clean. Replace if necessary.		○	○
Carburetor	Check/Adjust idle speed, starter operation.	○	○	○
Fuel line	Check fuel hose for cracks or damage.		○	○
Engine oil	Replace (Warm engine before draining).	○	○	○
Engine oil filter/ Oil strainer	Replace filter element and clean oil strainer.	○	○	○
Brake	Check operation/fluid leakage/See NOTE./ Adjust if necessary.		○	○
Clutch	Check operation/Adjust if necessary.		○	○
Swingarm pivot/ Swingarm	Check swingarm assembly for looseness. Clean and lube.***	CHECK	○	○
Wheels	Check balance/damage/runout/spoke tightness.		○	○
Wheel bearings	Check bearings assembly for looseness/damage. Replace if damaged.		○	○
Steering bearing	Check bearings assembly for looseness. Moderately repack every 24,000 (16,000) or 24 months.***	CHECK		CHECK
Front forks	Check operation/oil leakage.		○	○
Rear shock absorber	Check operation/oil leakage.		○	○
Drive chain	Check and adjust slack/alignment/clean/lube.	EVERY 500 (300)		
Fittings/Fasteners	Check all chassis fittings and fasteners.	○	○	○
Sidestand switch (For Europe)	Check operation. Clean or replace if necessary.	○	○	○
Battery	Check specific gravity. Check breather pipe for proper operation.		○	○

***: Lithium base grease

PERIODIC MAINTENANCE/ LUBRICATION INTERVALS

INSP ADJ

NOTE:

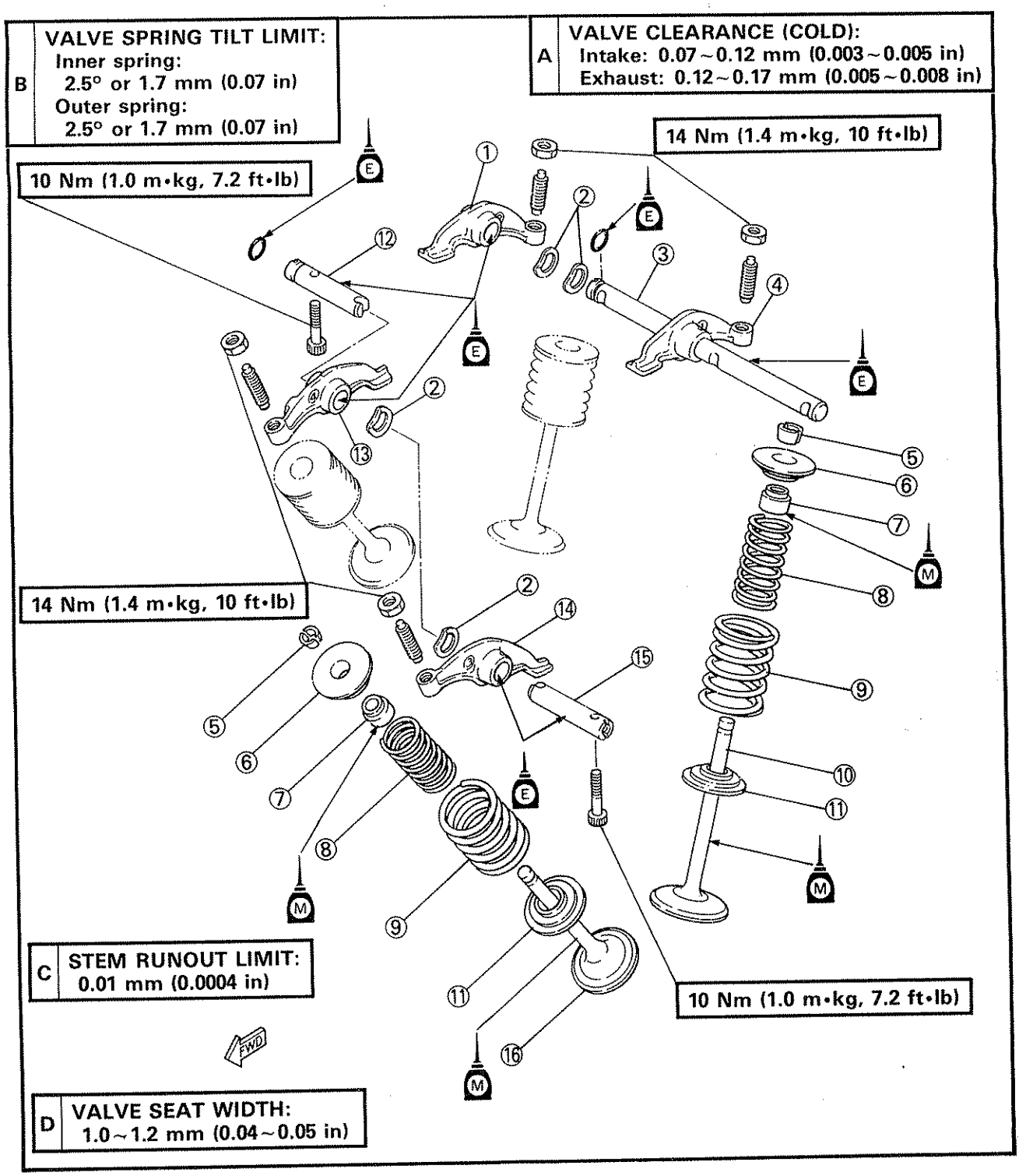
Brake system:

1. When disassembling the master cylinder or caliper cylinder, replace the brake fluid. Normally check the brake fluid level and add the fluid as required.
2. We recommended that, on the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years.
3. We recommended that, replace the brake hoses every four years, or if cracked or damaged.

EXPLODED DIAGRAMS

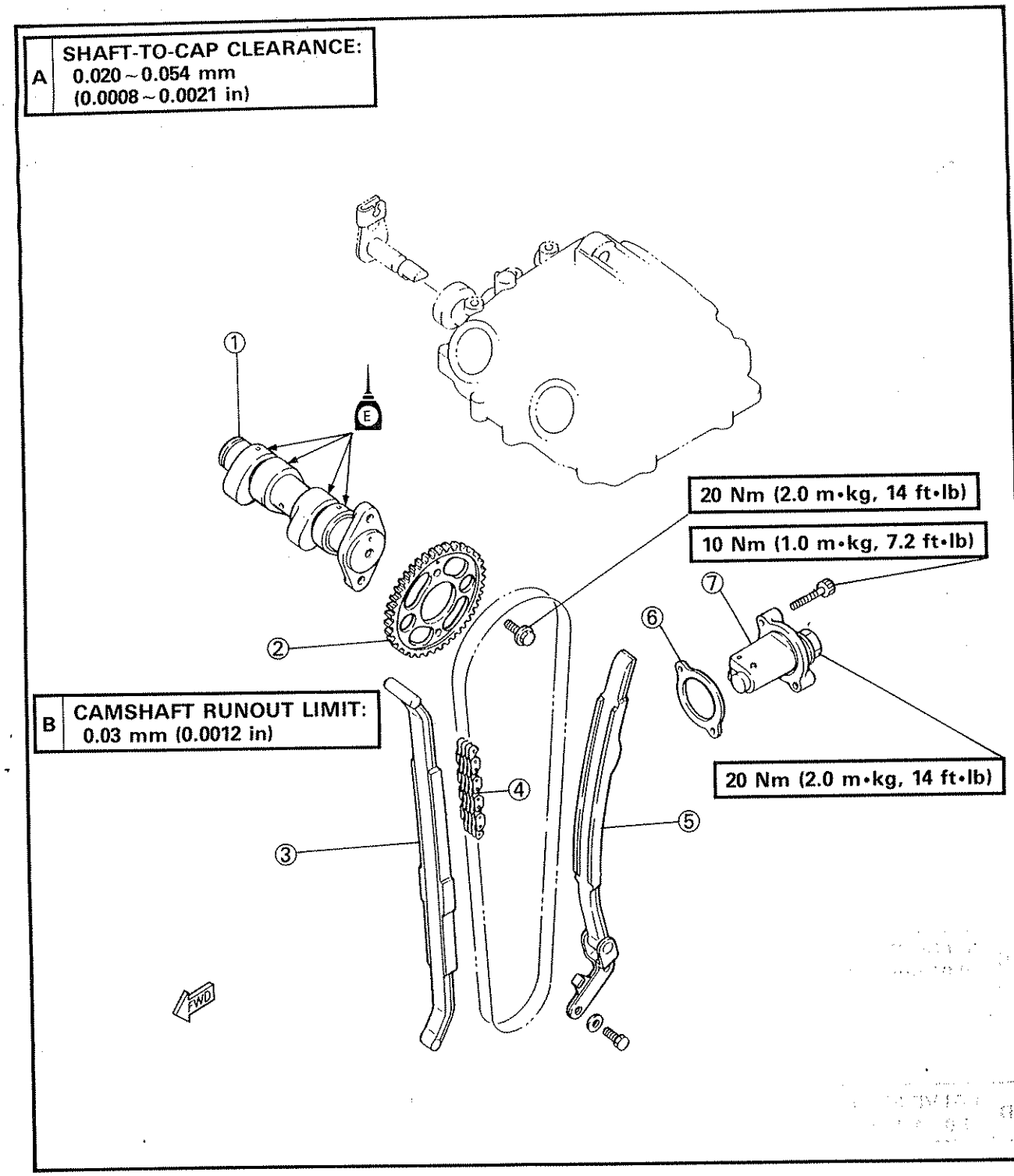
VALVE AND ROCKER ARM

① Rocker arm #2
② Wave washer
③ Rocker arm shaft (Intake)
④ Rocker arm #1
⑤ Valve retainer
⑥ Spring seat
⑦ Oil seal
⑧ Inner spring
⑨ Outer spring
⑩ Valve (Intake)
⑪ Spring seat
⑫ Rocker arm shaft (Exhaust)
⑬ Rocker arm #4
⑭ Rocker arm #3
⑮ Rocker arm shaft (Exhaust)
⑯ Valve (Exhaust)



CAMSHAFT AND CAM CHAIN

① Camshaft
② Cam sprocket
③ Chain guide
④ Cam chain
⑤ Chain guide
⑥ Gasket
⑦ Chain tensioner



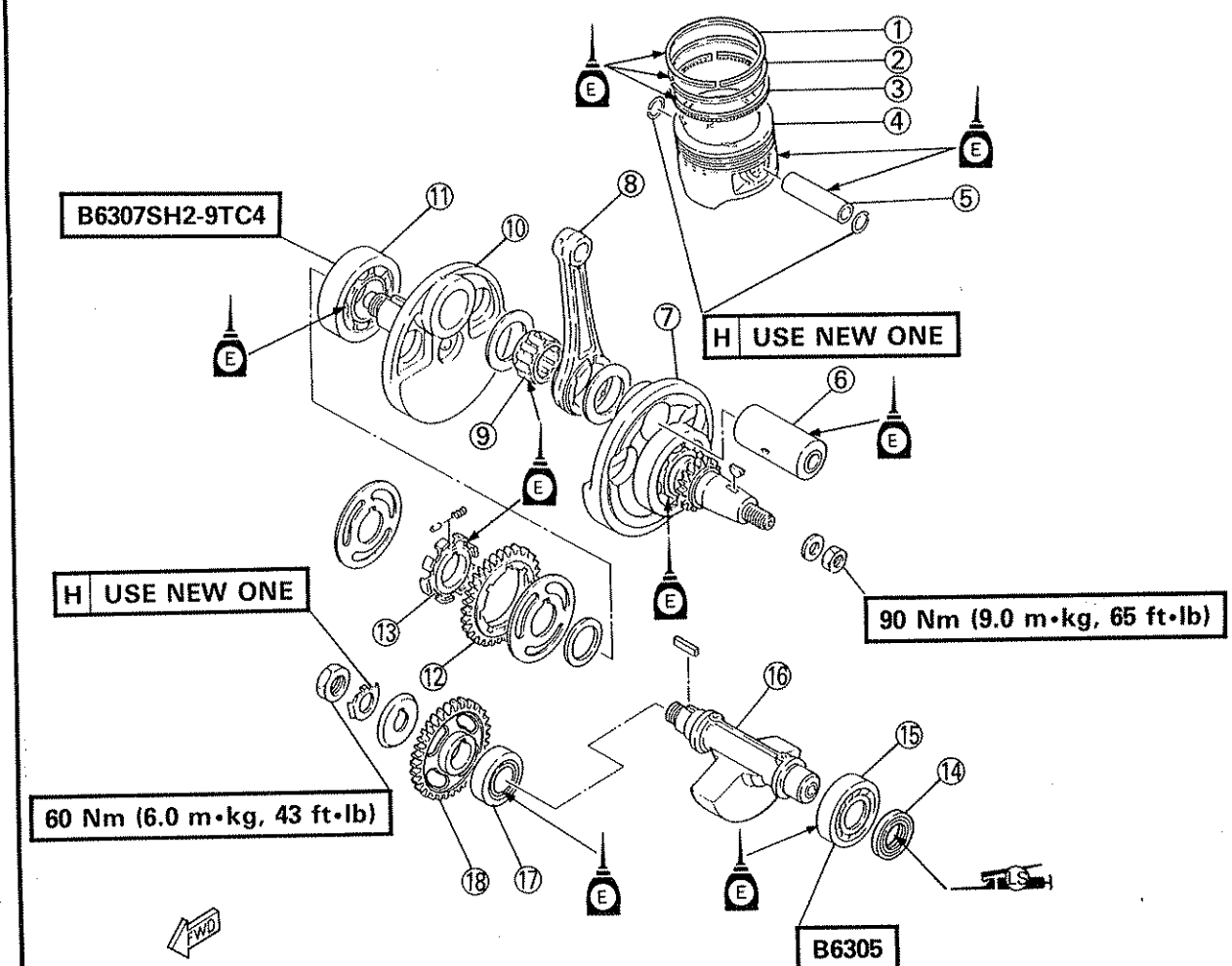
CRANKSHAFT, PISTON AND BALANCER

① Piston ring (Top)
② Piston ring (2nd)
③ Piston ring (Oil)
④ Piston
⑤ Piston pin
⑥ Crank pin
⑦ Crank (Left)
⑧ Connecting rod
⑨ Bearing
⑩ Crank (Right)
⑪ Bearing
⑫ Balancer drive gear
⑬ Boss
⑭ Oil seal
⑮ Bearing
⑯ Balancer
⑰ Bearing
⑱ Balancer gear

A	CRANK WIDTH: 74.95 ~ 75.00 mm (2.950 ~ 2.953 in)
B	RUNOUT LIMIT: 0.03 mm (0.0012 in)
C	SMALL END FREE PLAY: 0.8 ~ 1.0 mm (0.031 ~ 0.039 in)
D	BIG END SIDE CLEARANCE: 0.25 ~ 0.75 mm (0.010 ~ 0.030 in)

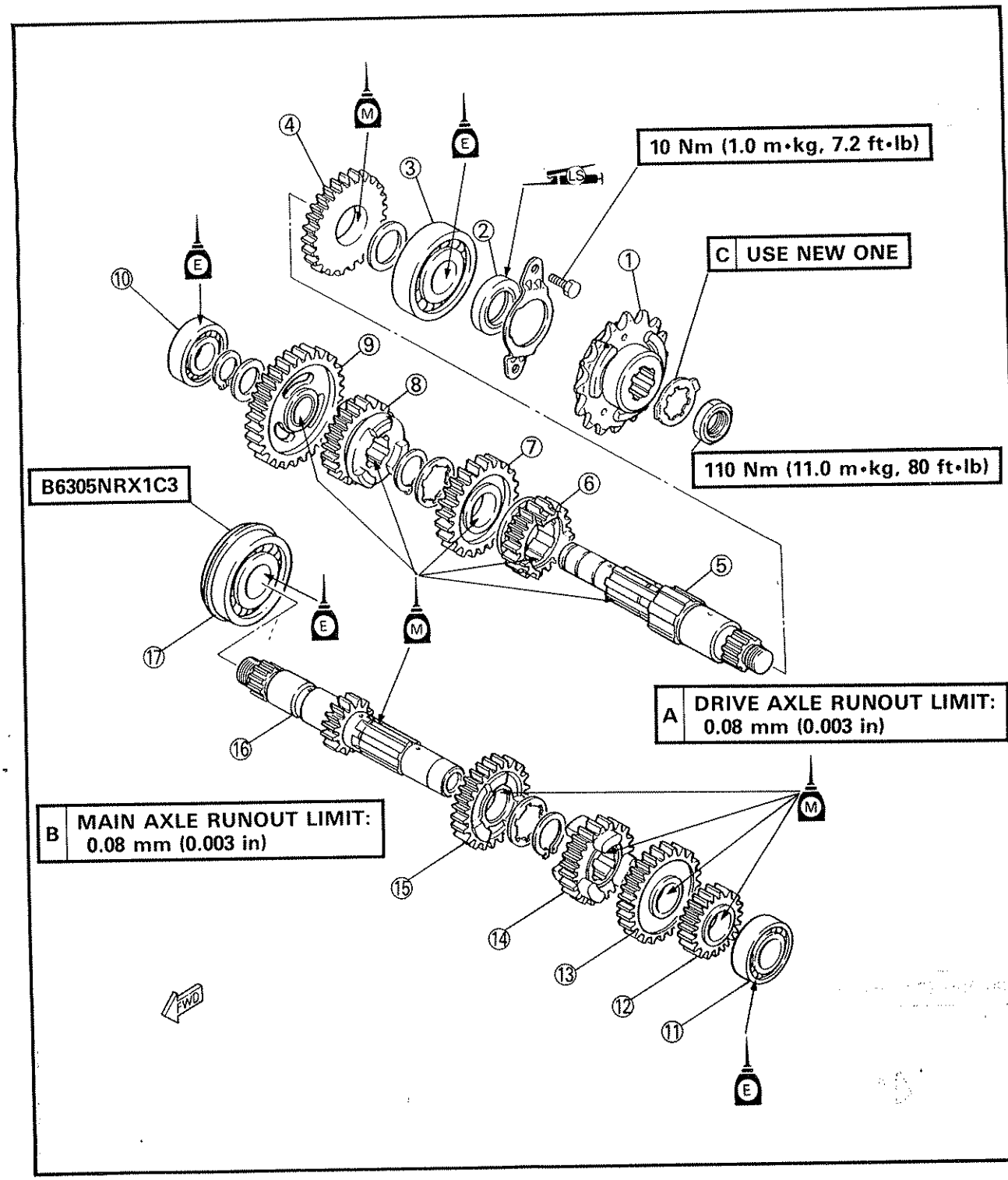
F	PISTON RING END GAP: Top: 0.30 ~ 0.45 mm (0.012 ~ 0.018 in) 2nd: 0.30 ~ 0.45 mm (0.012 ~ 0.018 in) Oil: 0.20 ~ 0.70 mm (0.008 ~ 0.028 in)
G	PISTON RING SIDE CLEARANCE: Top: 0.04 ~ 0.08 mm (0.002 ~ 0.003 in) 2nd: 0.03 ~ 0.07 mm (0.001 ~ 0.003 in)

E	PISTON SIZE: 94.915 ~ 94.965 mm (3.737 ~ 3.739 in)



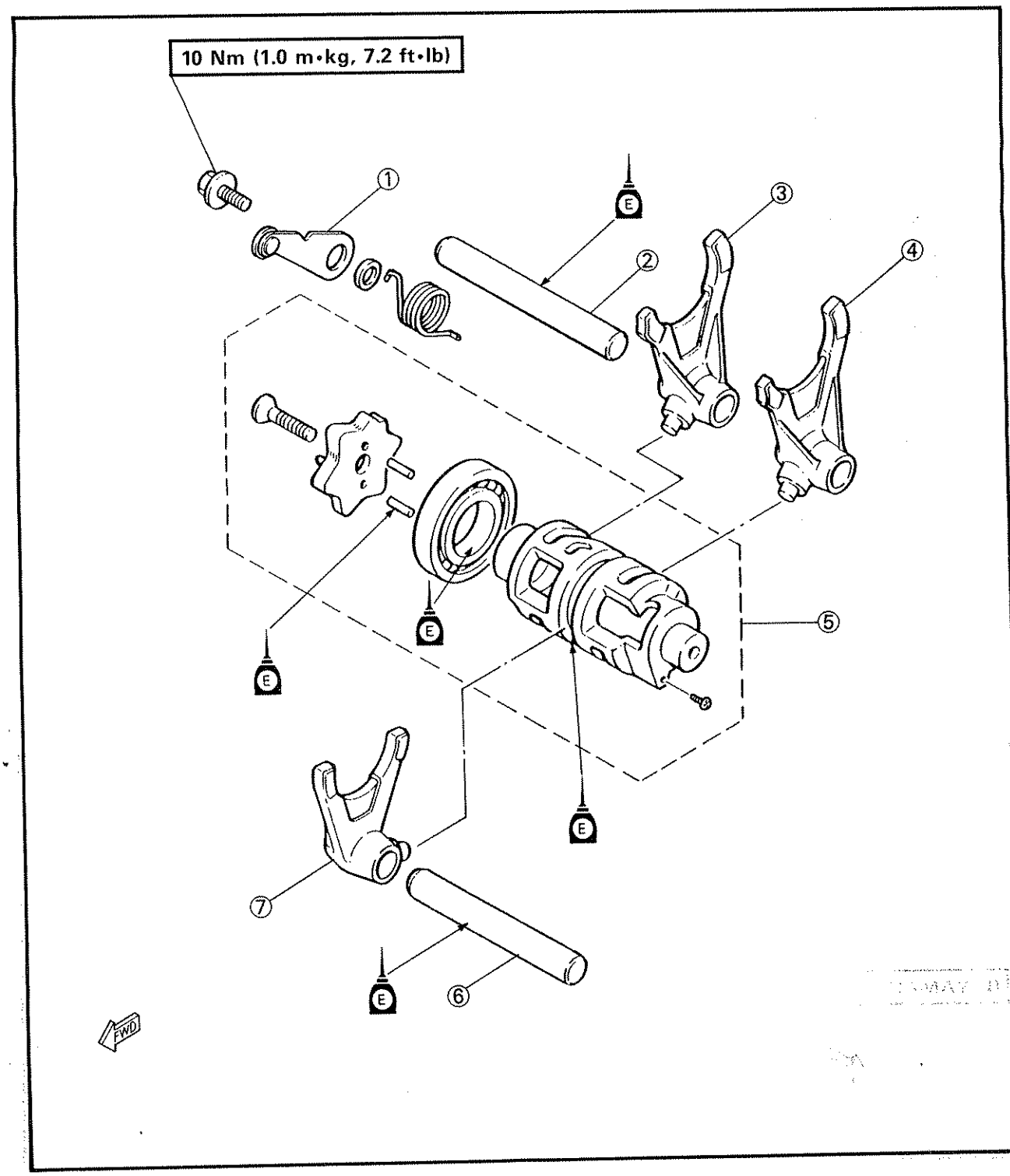
TRANSMISSION

① Drive sprocket
② Oil seal
③ Bearing
④ 2nd wheel gear
⑤ Drive axle
⑥ 5th wheel gear
⑦ 3rd wheel gear
⑧ 4th wheel gear
⑨ 1st wheel gear
⑩ Bearing
⑪ Bearing
⑫ 2nd pinion gear
⑬ 5th pinion gear
⑭ 3rd pinion gear
⑮ 4th pinion gear
⑯ Main axle
⑰ Bearing



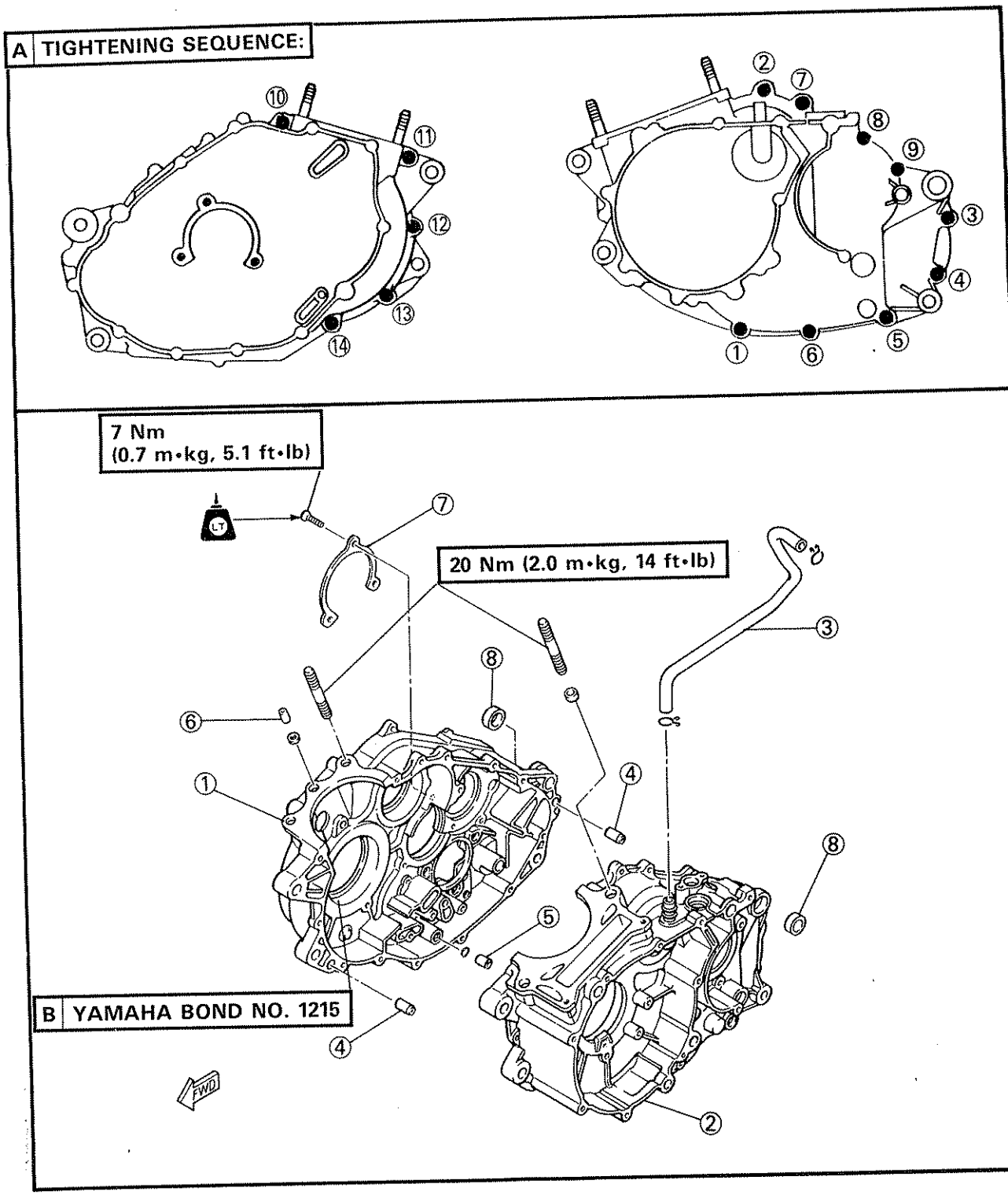
SHIFT CAM AND SHIFT FORK

① Stopper lever
② Guide bar
③ Shift fork #3
④ Shift fork #1
⑤ Shift cam
⑥ Guide bar
⑦ Shift fork #2



CRANKCASE

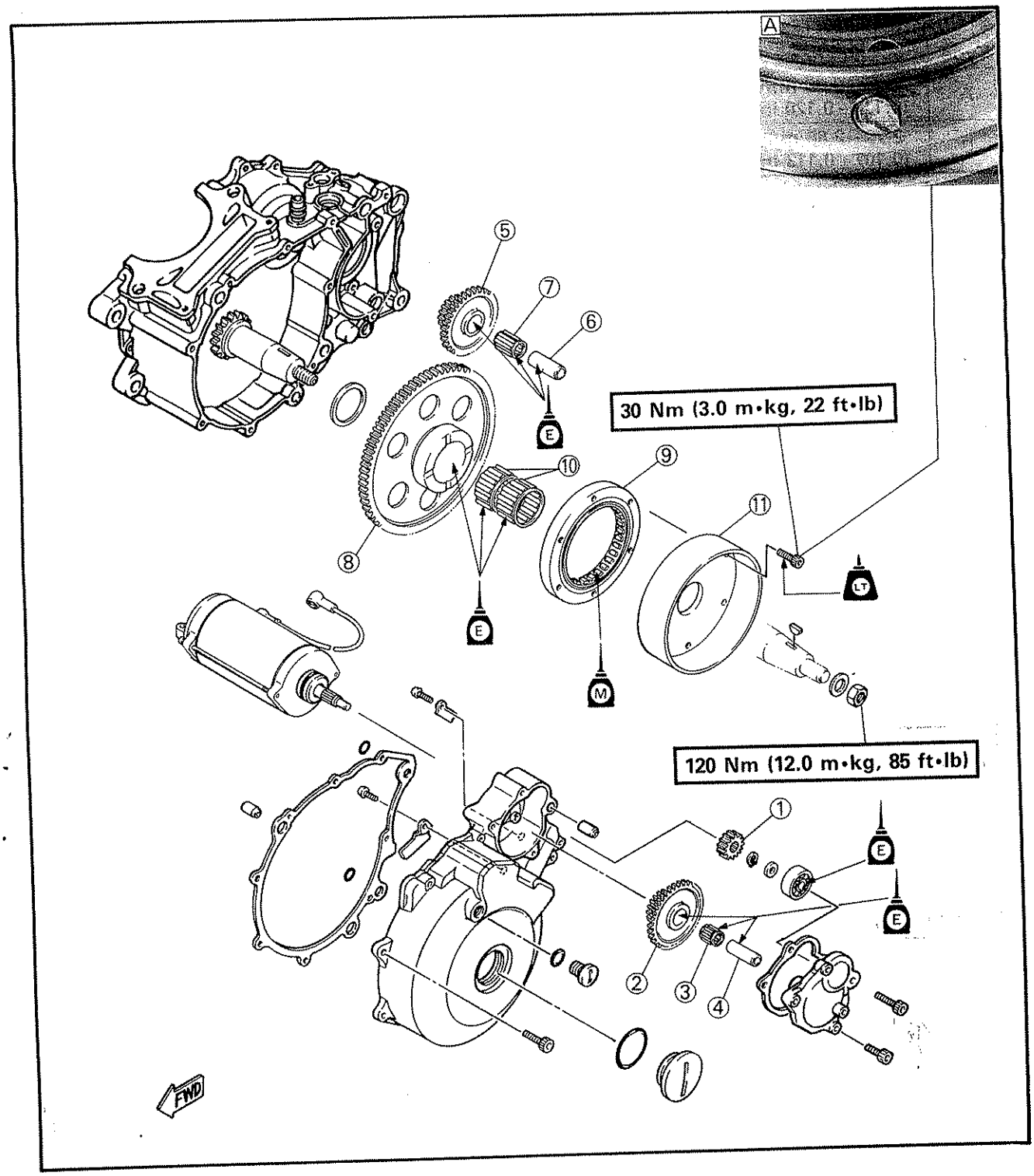
① Crankcase (Right)
② Crankcase (Left)
③ Crankcase ventilation hose
④ Dowel pin
⑤ Dowel pin
⑥ Dowel pin
⑦ Stopper plate
⑧ Collar



STARTER DRIVES

① Starter motor drive gear
② Primary starter idle gear
③ Bearing
④ Primary idle gear axle
⑤ Secondary starter idle gear
⑥ Secondary idle gear axle
⑦ Bearing
⑧ Starter wheel gear
⑨ Starter clutch
⑩ Bearings
⑪ CDI magneto

[A] AFTER INSTALLING THE STARTER CLUTCH, CALK THE BOLT END, AS SHOWN.



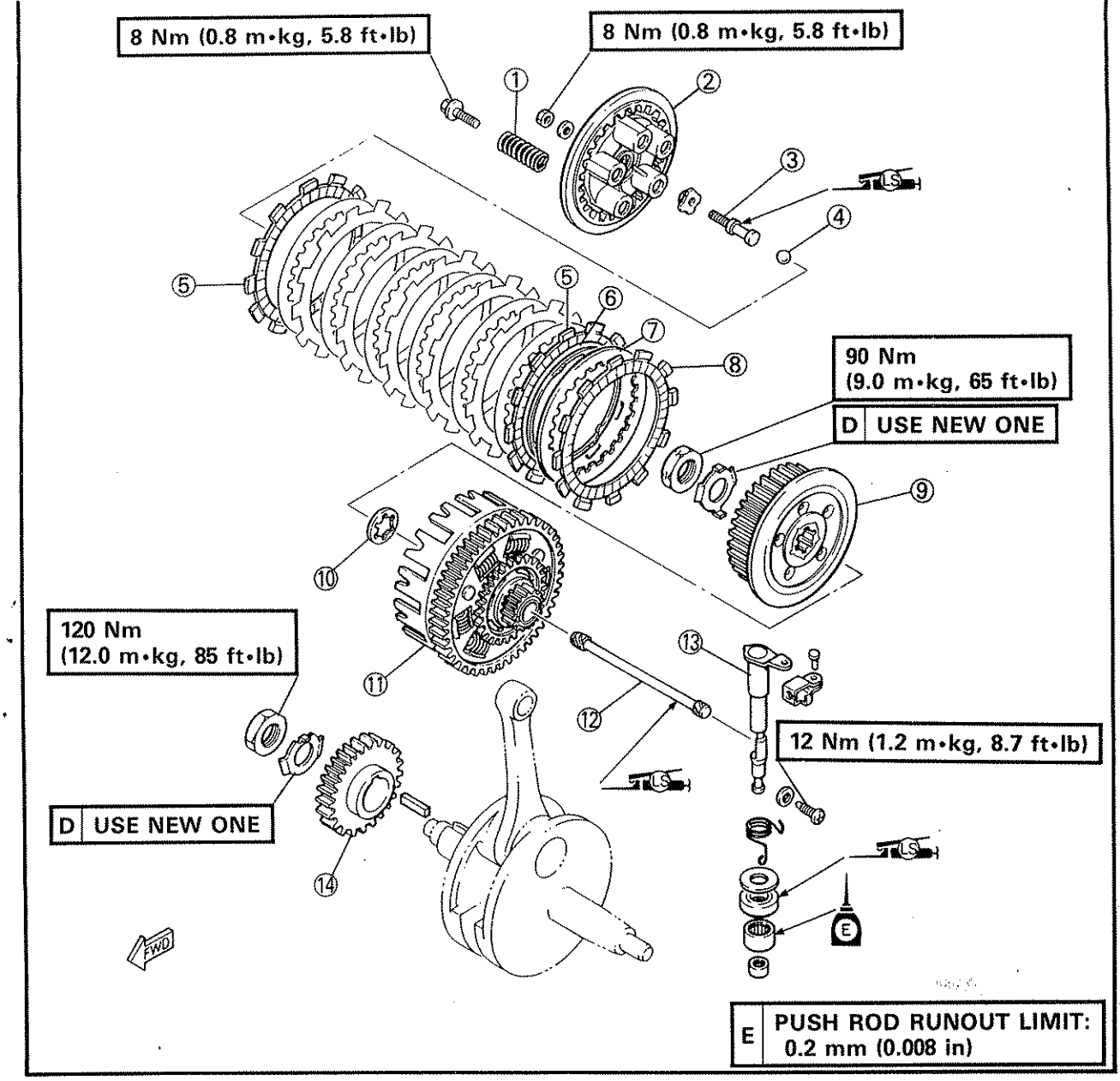
CLUTCH

① Clutch spring
② Pressure plate
③ Push rod
④ Ball
⑤ Friction plate (Type A)
⑥ Wave plate
⑦ Clutch plate
⑧ Friction plate (Type B)
⑨ Clutch boss
⑩ Thrust washer
⑪ Clutch housing
⑫ Push rod
⑬ Push lever
⑭ Primary drive gear

A	FRICTION PLATE:		
Type	Thickness	Wear Limit
A	2.94 ~ 3.06 mm (0.116 ~ 0.120 in)	2.8 mm (0.110 in)
B	2.72 ~ 2.88 mm (0.107 ~ 0.113 in)	2.6 mm (0.102 in)

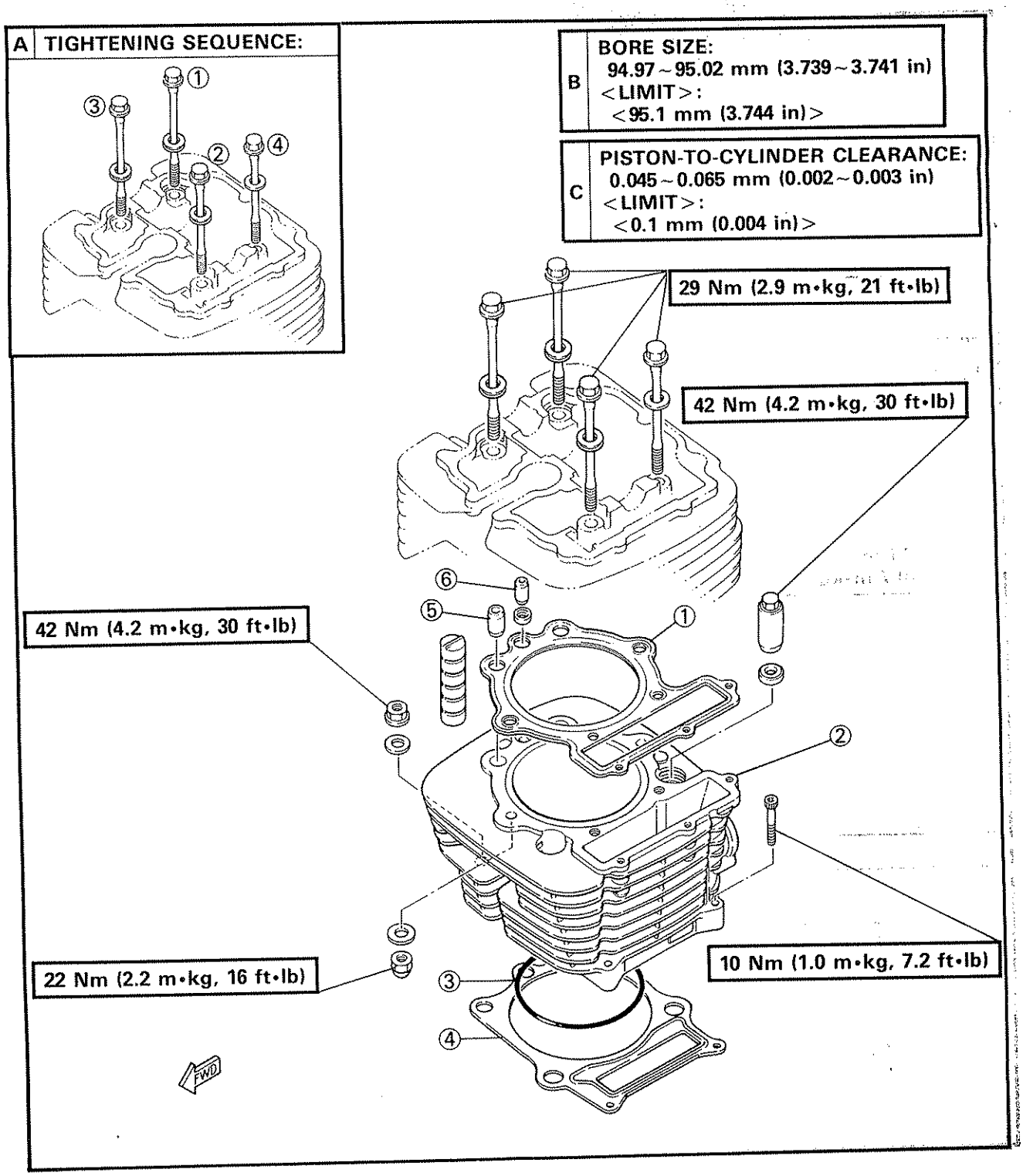
B CLUTCH SPRING MINIMUM FREE LENGTH: 32.6 mm (1.283 in)

C CLUTCH PLATE WARPAGE LIMIT: 0.2 mm (0.008 in)



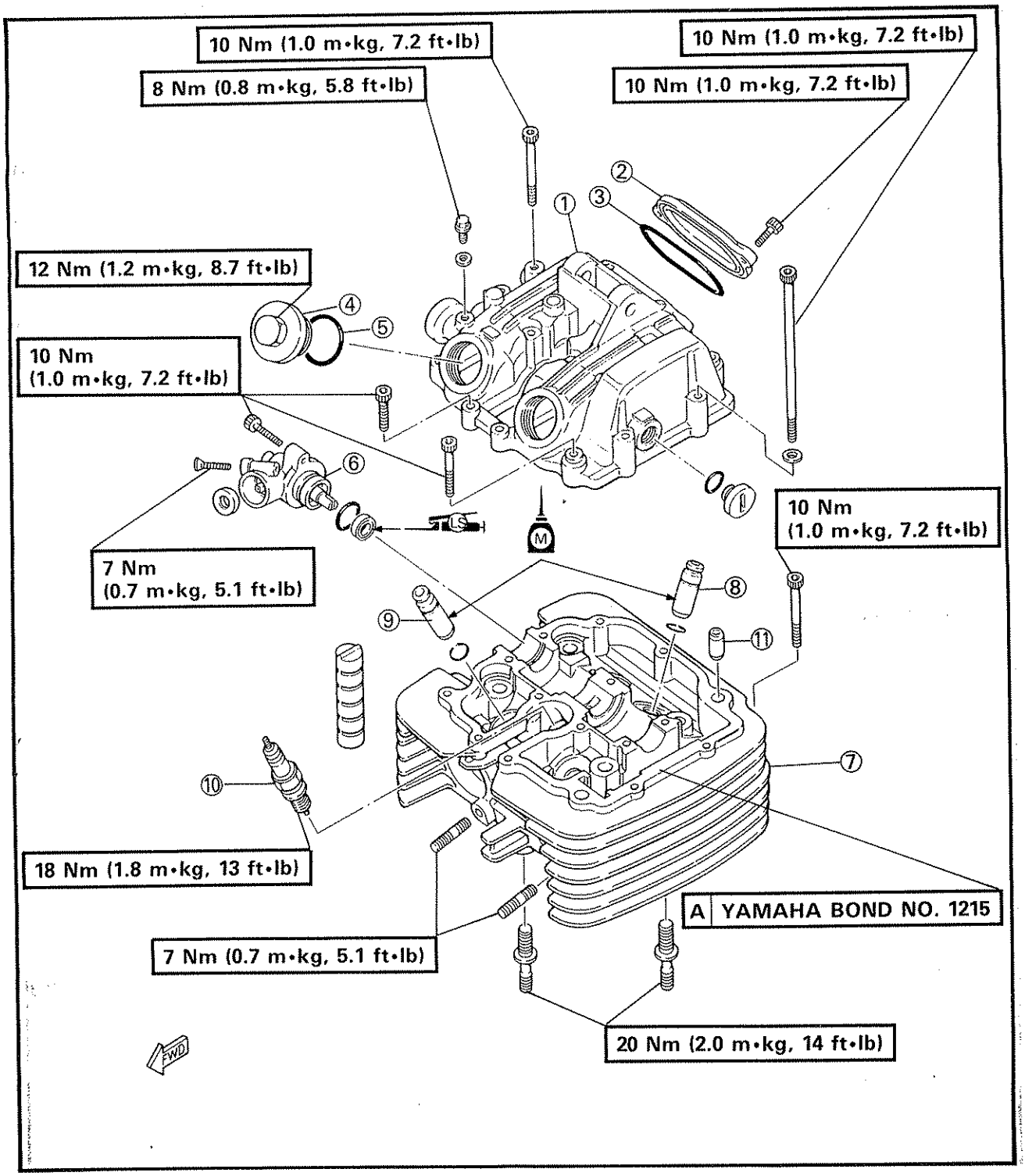
CYLINDER

① Gasket
② Cylinder
③ O-ring
④ Gasket
⑤ Dowel pin
⑥ Dowel pin



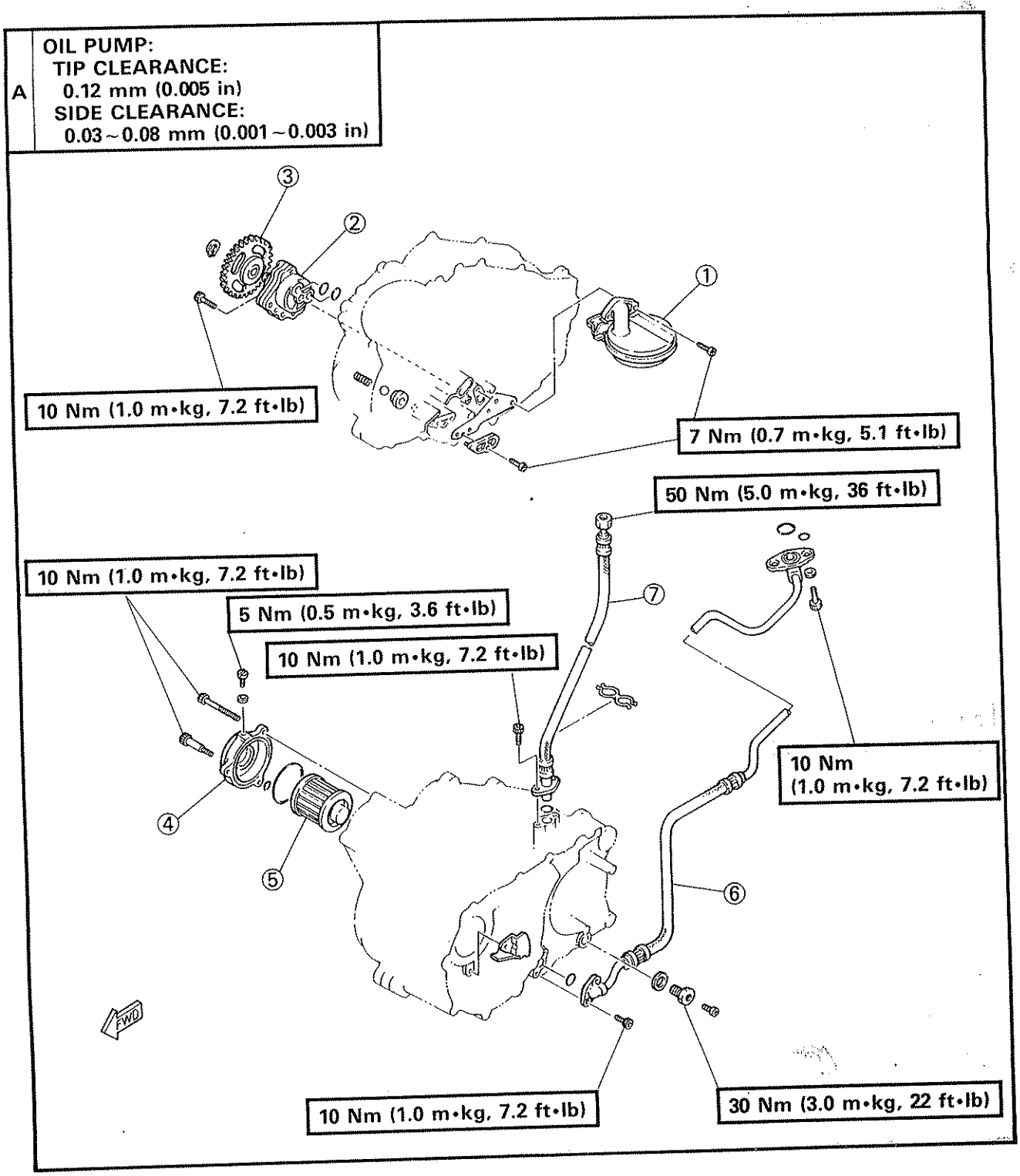
CYLINDER HEAD

① Cylinder head cover
② Tappet cover (Intake)
③ O-ring
④ Tappet cover (Exhaust)
⑤ O-ring
⑥ Gear unit (Tachometer)
⑦ Cylinder head
⑧ Valve guide (Intake valve)
⑨ Valve guide (Exhaust valve)
⑩ Spark plug
⑪ Dowel pin



OIL PUMP AND OIL DELIVERY LINE

① Oil strainer
② Oil pump
③ Oil pump gear
④ Oil cleaner cover
⑤ Oil cleaner
⑥ Oil hose
⑦ Oil hose

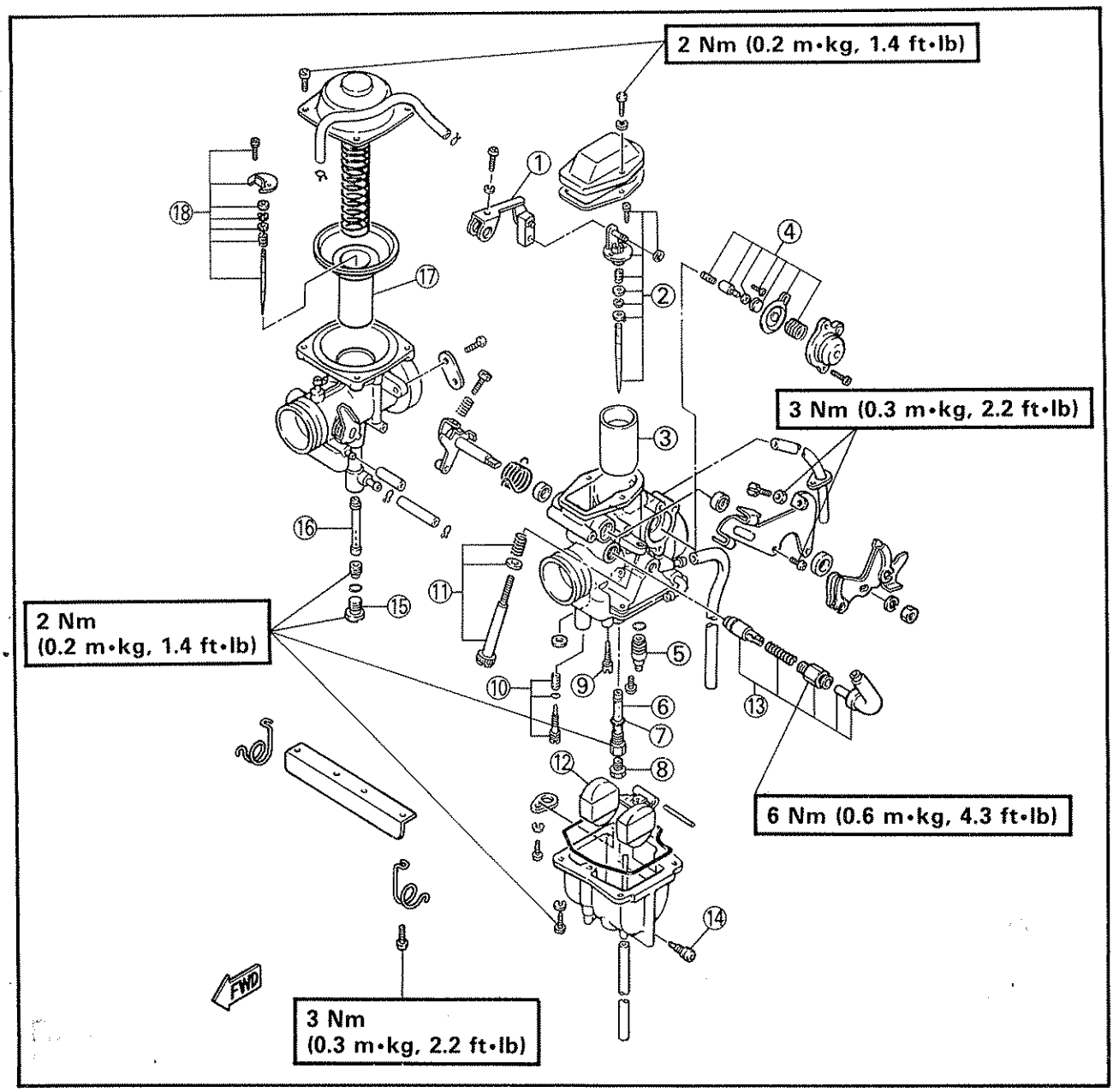


CARBURETOR

① Connecting arm
② Jet needle set
③ Throttle valve
④ Coasting enricher assembly
⑤ Needle valve set
⑥ Main nozzle
⑦ O-ring
⑧ Main jet
⑨ Pilot jet
⑩ Pilot screw set
⑪ Throttle stop screw set
⑫ Float
⑬ Starter plunger set
⑭ Drain screw
⑮ Main jet
⑯ Main nozzle
⑰ Throttle valve
⑱ Jet needle set

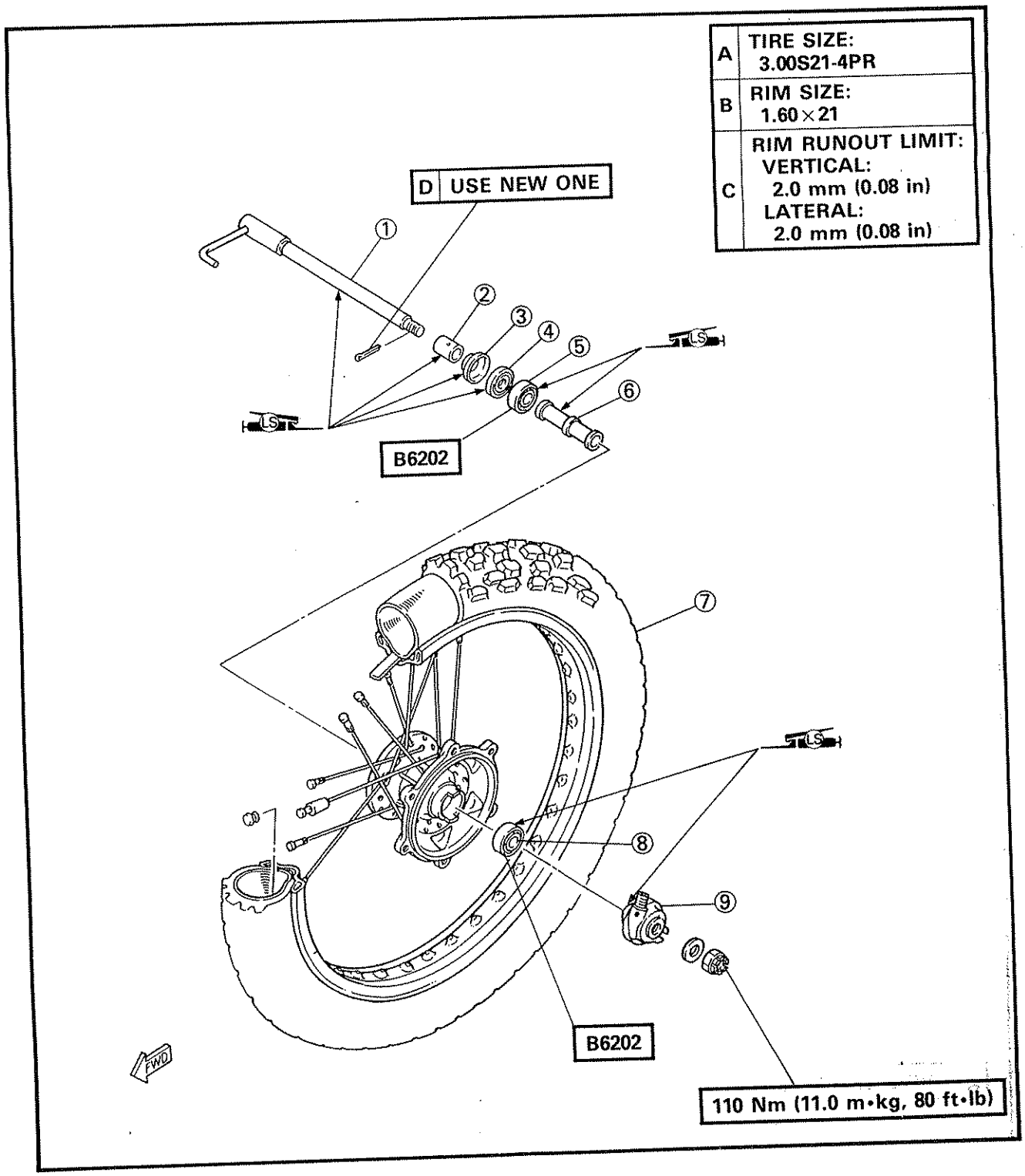
SPECIFICATIONS		
	PRIMARY	SECONDARY
MAIN JET	#155 #165 (D)	#125
PILOT JET	#48	—
JET NEEDLE	5C47—3/5 5C48—3/5 (D)	5X76—3/5 5X76—3/5 (D)
PILOT SCREW	2 turns out	
FLOAT HEIGHT	25.0 ~ 27.0 mm (0.98 ~ 1.06 in)	
FUEL LEVEL	5.0 ~ 7.0 mm (0.20 ~ 0.28 in)	

(D): For Germany



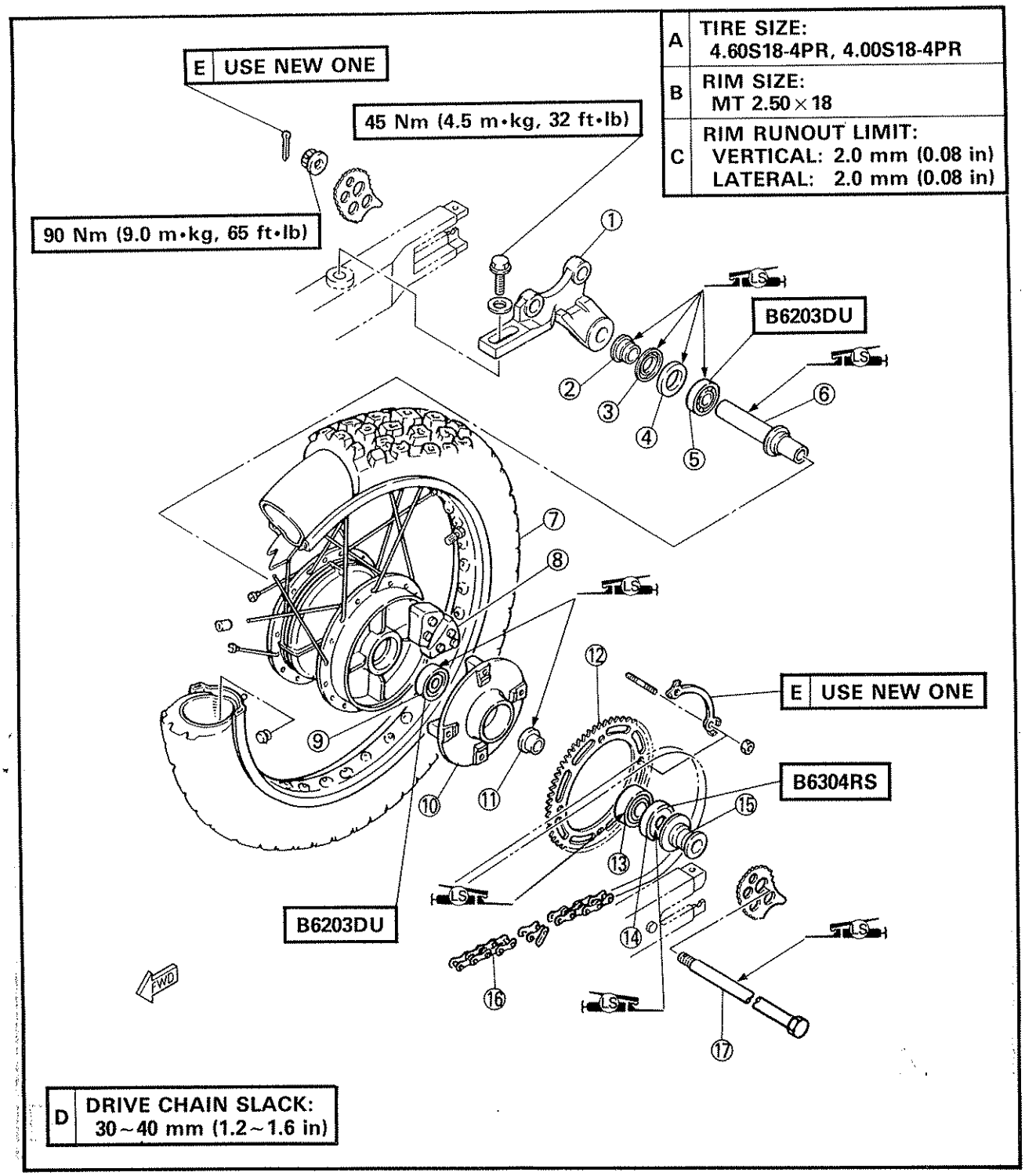
FRONT WHEEL

① Wheel axle
② Collar
③ Dust cover
④ Oil seal
⑤ Bearing
⑥ Collar
⑦ Front wheel
⑧ Bearing
⑨ Gear unit (Speedometer)



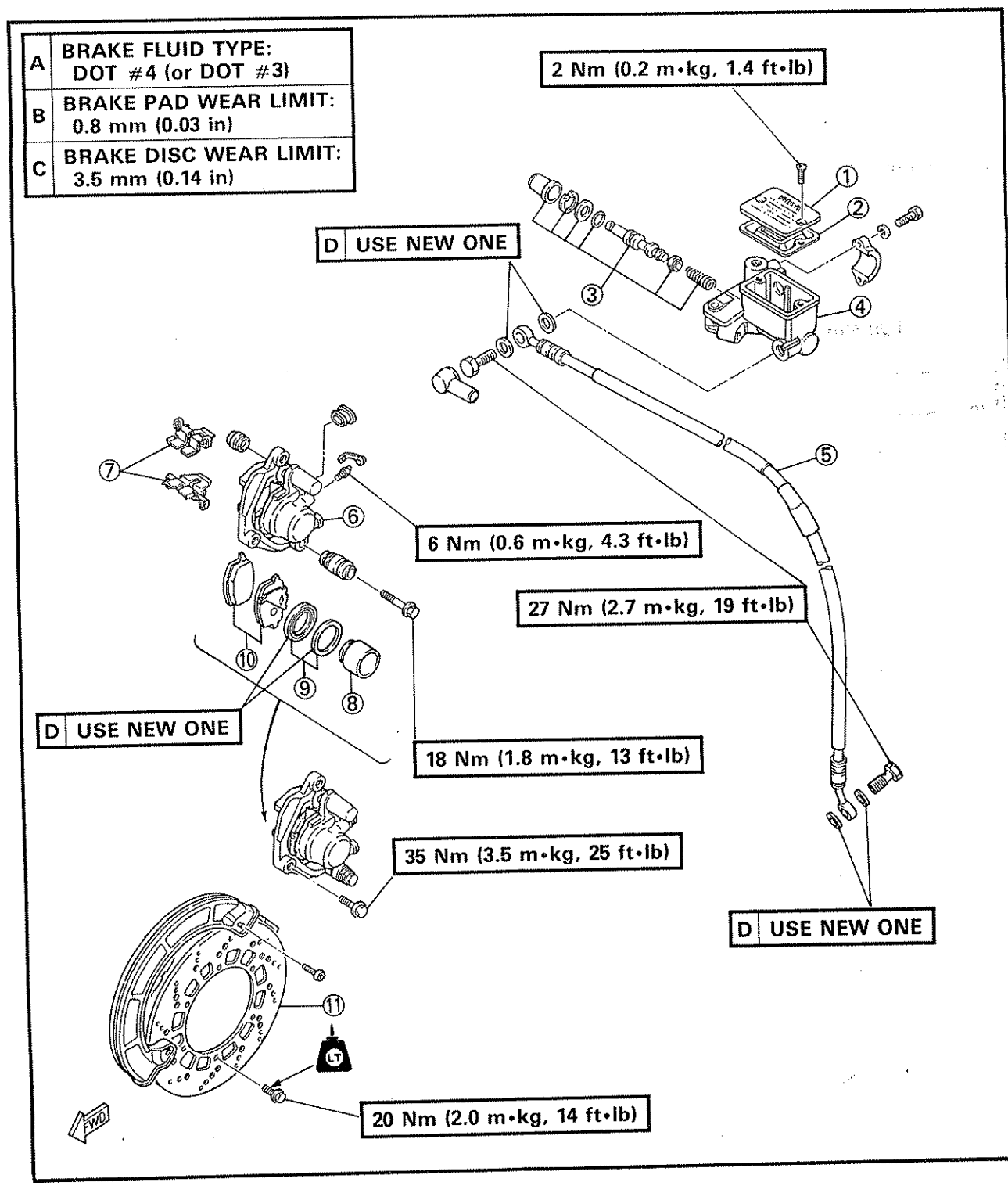
REAR WHEEL

① Caliper bracket
② Collar
③ Dust cover
④ Oil seal
⑤ Bearing
⑥ Collar
⑦ Rear wheel
⑧ Damper
⑨ Bearing
⑩ Clutch hub
⑪ Collar
⑫ Driven sprocket
⑬ Bearing
⑭ Oil seal
⑮ Collar
⑯ Drive chain
⑰ Wheel axle



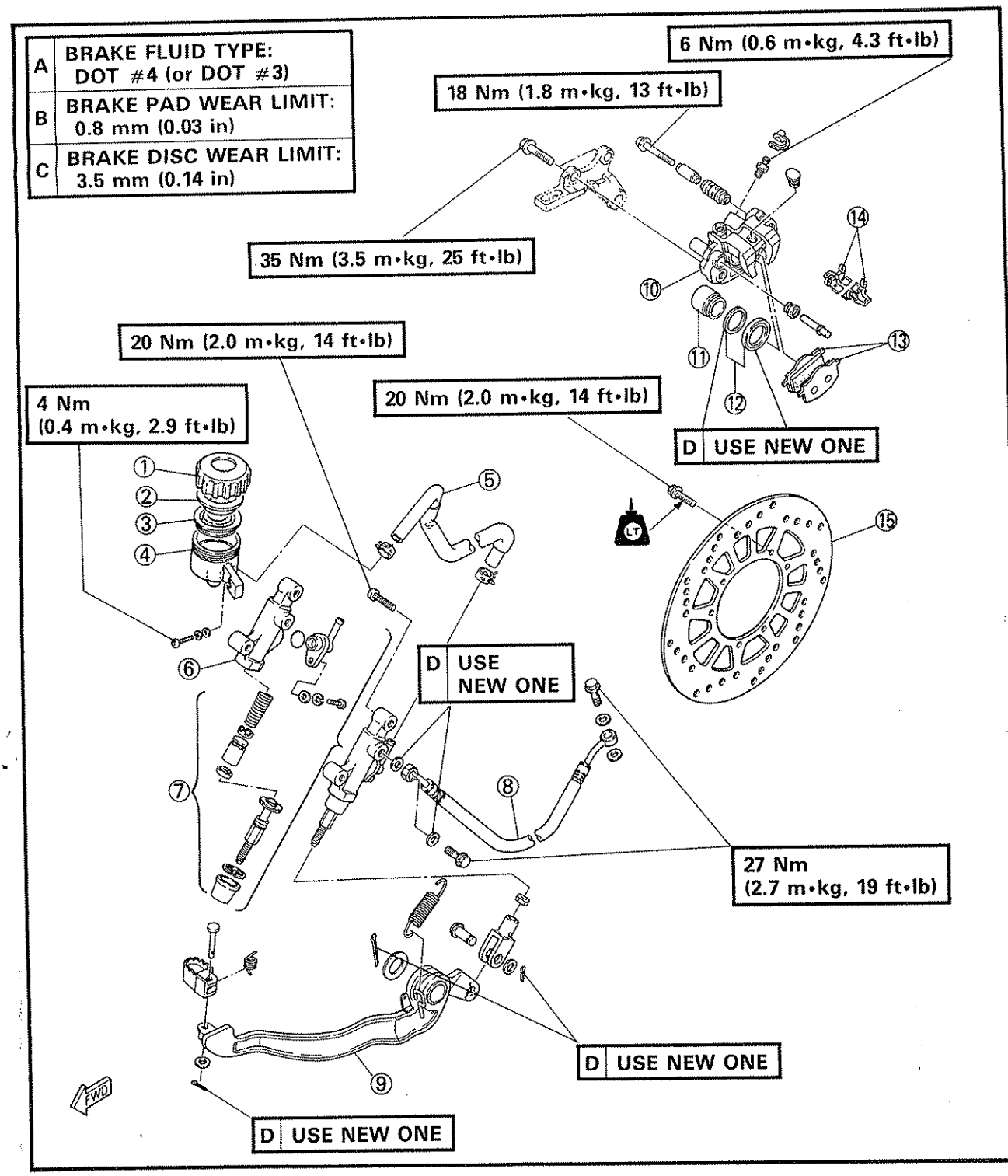
FRONT AND REAR BRAKE

① Master cylinder cap
② Rubber seal
③ Master cylinder kit
④ Master cylinder
⑤ Brake hose
⑥ Brake caliper
⑦ Pad spring
⑧ Piston
⑨ Piston seal
⑩ Brake pad
⑪ Brake disc



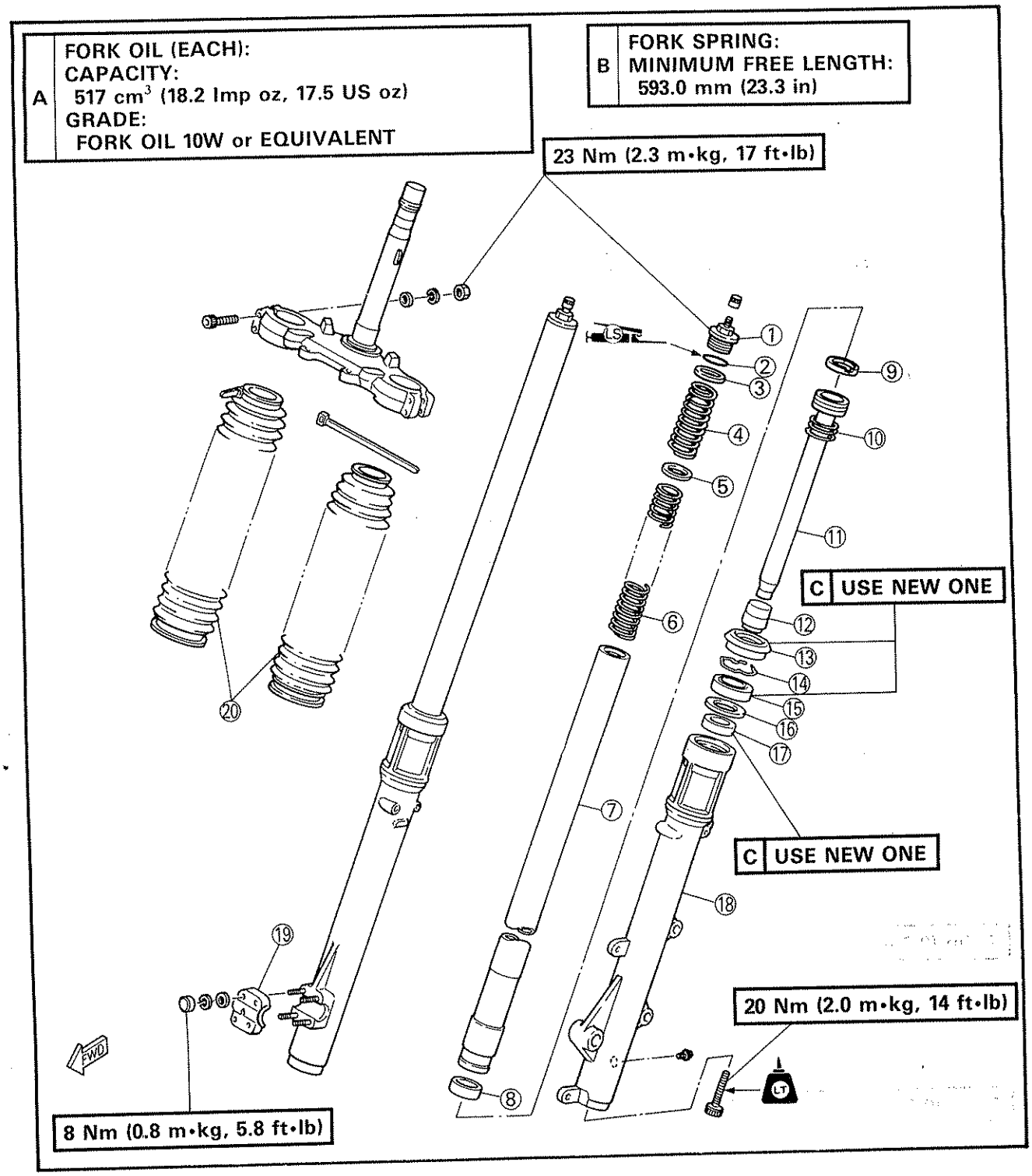
FRONT AND REAR BRAKE

① Reservoir tank cap
② Bush
③ Diaphragm
④ Reservoir tank
⑤ Reservoir hose
⑥ Master cylinder
⑦ Master cylinder kit
⑧ Brake hose
⑨ Brake pedal
⑩ Brake caliper
⑪ Piston
⑫ Piston seal
⑬ Brake pad
⑭ Pad spring
⑮ Brake disc



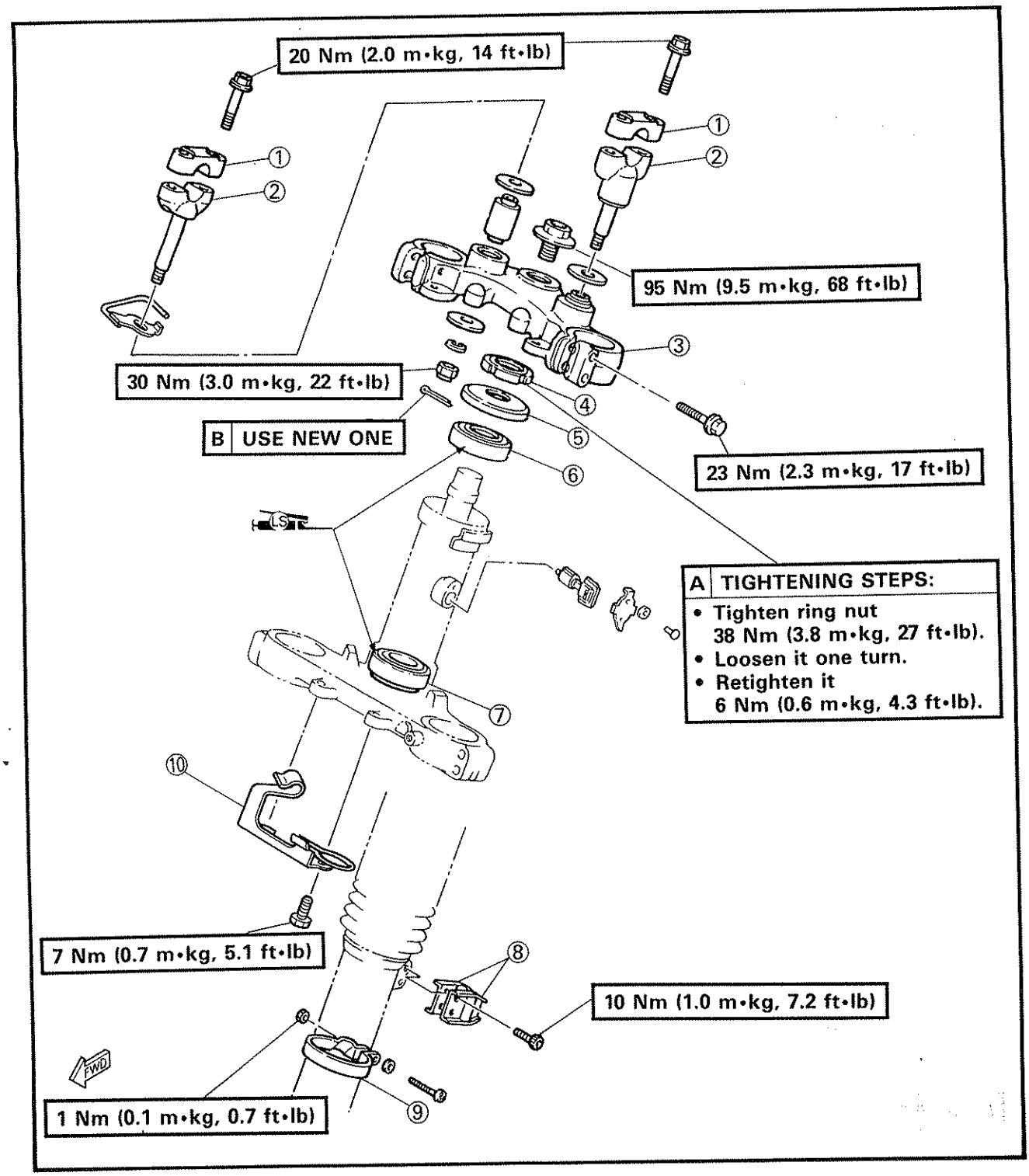
FRONT FORK

① Cap bolt
② O-ring
③ Spring seat
④ Fork spring (Small)
⑤ Spring seat
⑥ Fork spring (Large)
⑦ Inner fork tube
⑧ Guide bush
⑨ Piston ring
⑩ Rebound spring
⑪ Damper rod
⑫ Oil lock piece
⑬ Dust seal
⑭ Retaining clip
⑮ Oil seal
⑯ Washer
⑰ Slide metal
⑱ Outer fork tube
⑲ Axle holder
⑳ Fork boot



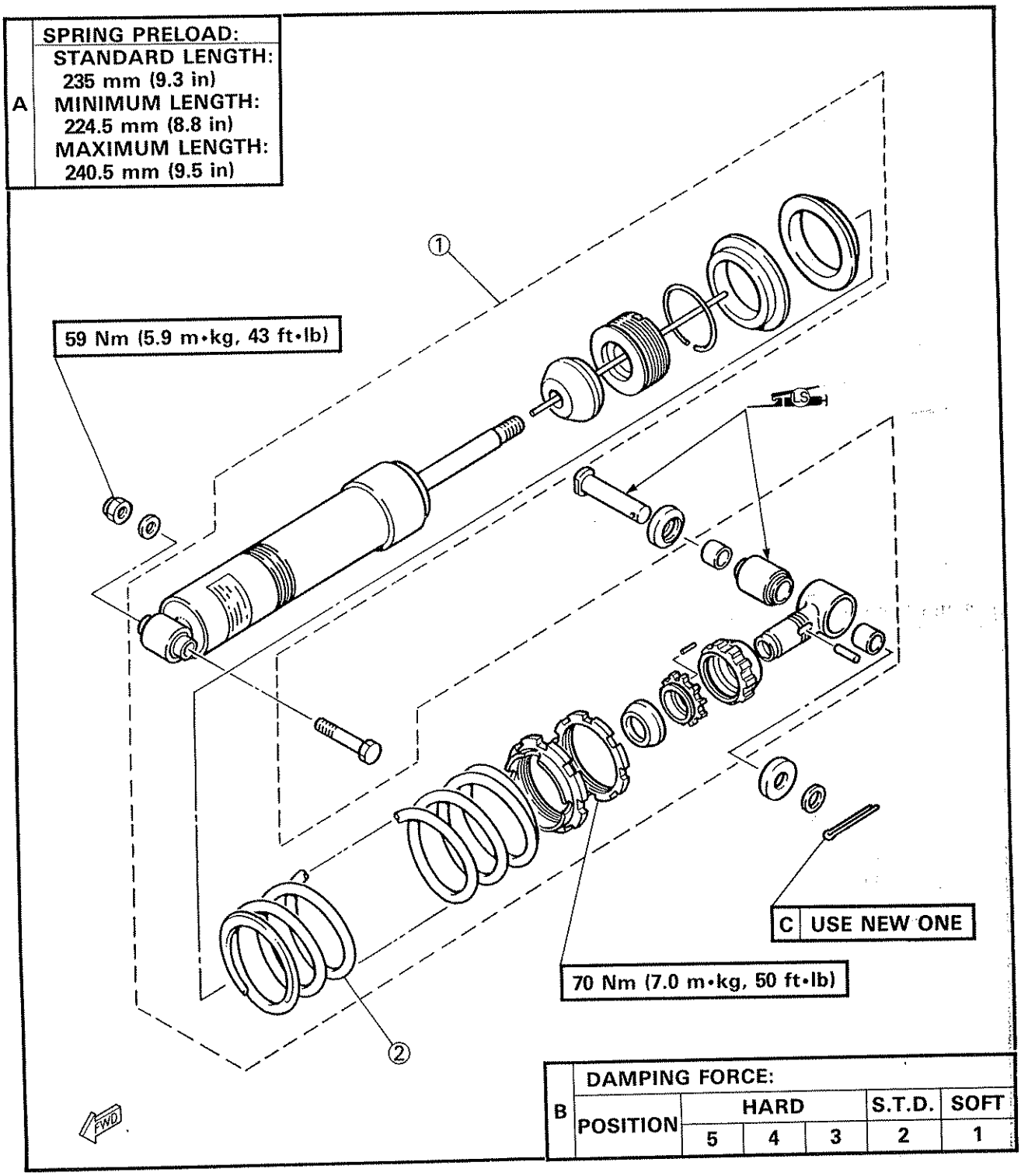
STEERING HEAD

① Handlebar holder (Upper)
② Handlebar holder (Lower)
③ Handle crown
④ Ring nut
⑤ Cover
⑥ Bearing (Upper)
⑦ Bearing (Lower)
⑧ Clamp (Brake hose)
⑨ Cable holder (Speedometer cable)
⑩ Headlight stay



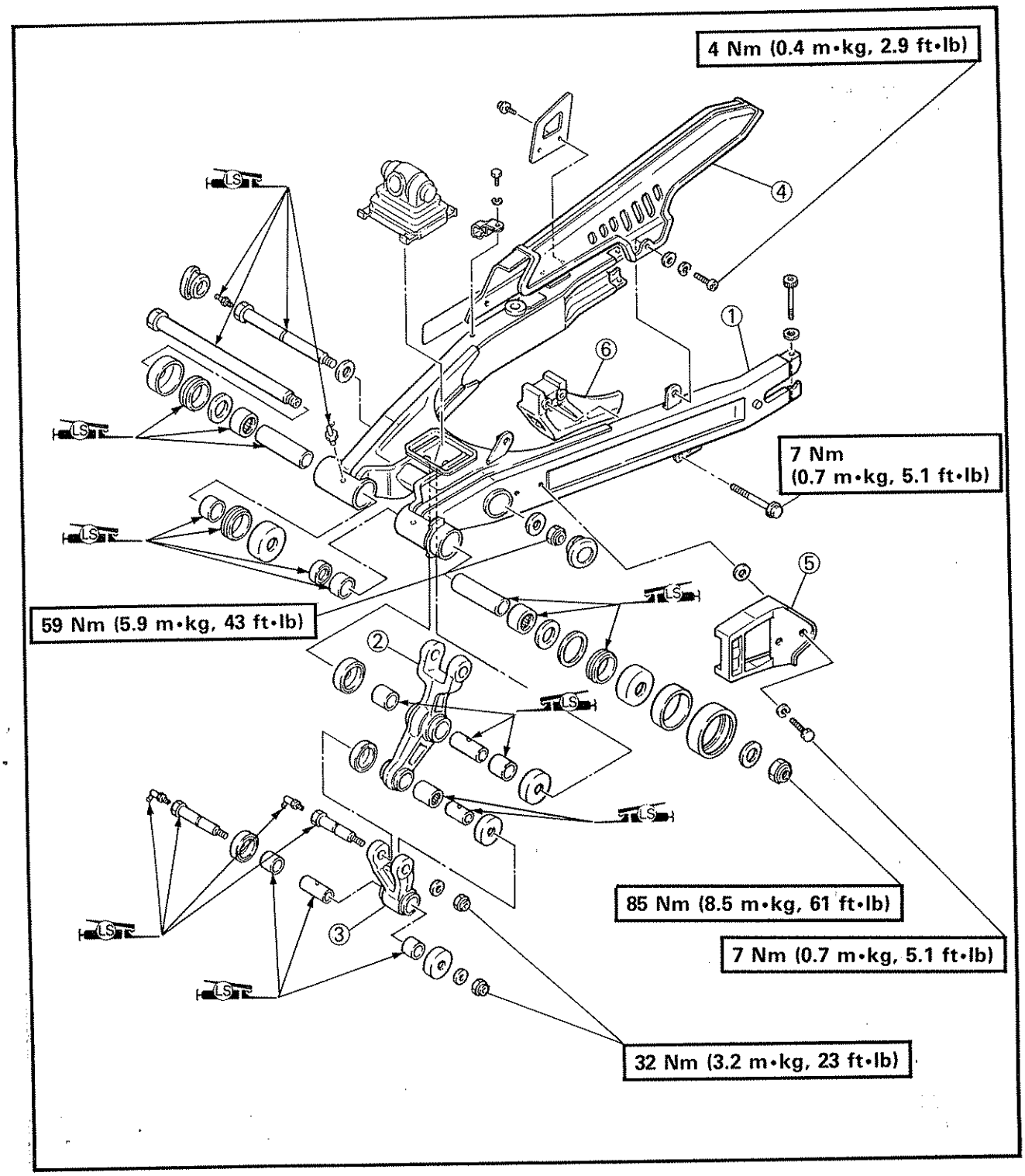
REAR SHOCK ABSORBER AND SWINGARM

① Rear shock absorber assembly
② Spring



REAR SHOCK ABSORBER AND SWINGARM

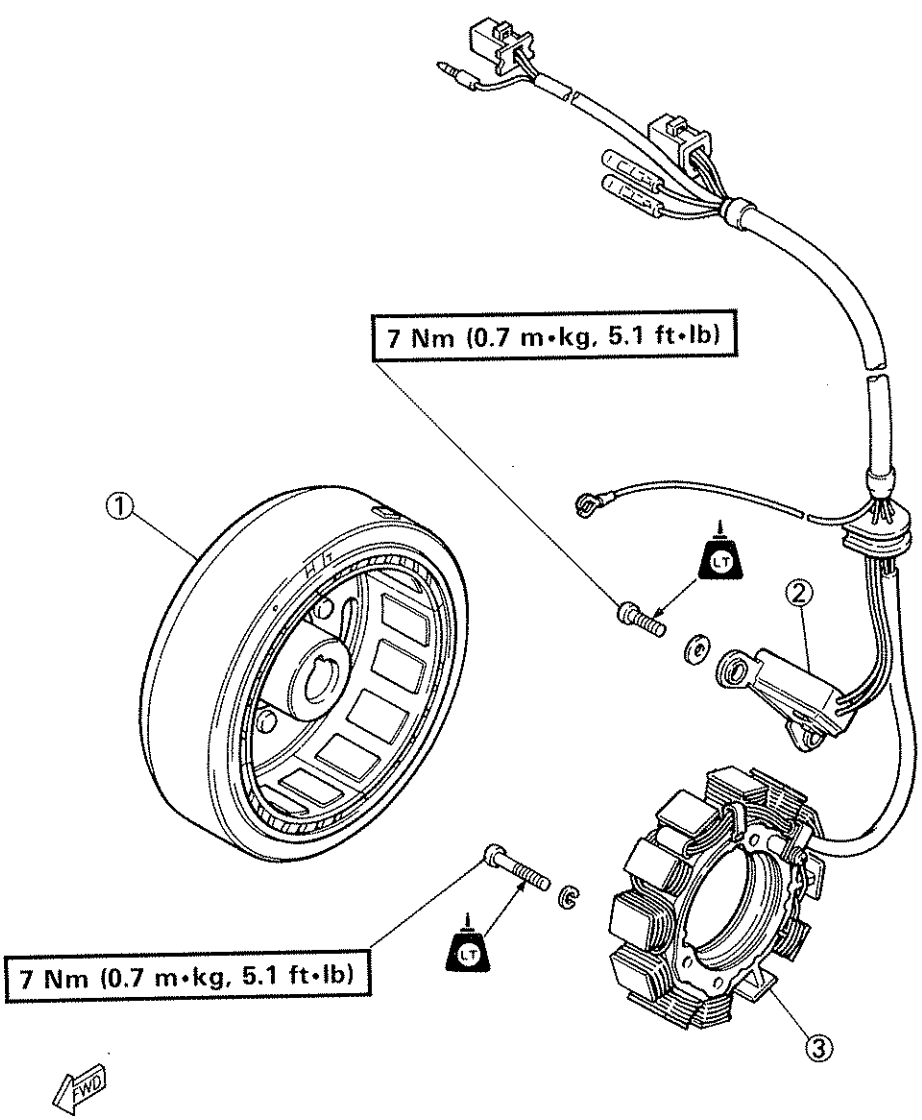
① Swingarm
② Relay arm
③ Connecting arm
④ Chain case
⑤ Chain protector
⑥ Chain guide



C.D.I. MAGNETO

① Rotor
② Pickup coil
③ Source coil/Charging coil

A	PICKUP COIL RESISTANCE: 90 ~ 130Ω at 20°C (68°F) (Black/Yellow — Blue/Yellow) 90 ~ 130Ω at 20°C (68°F) (Black/Yellow — Green/White)

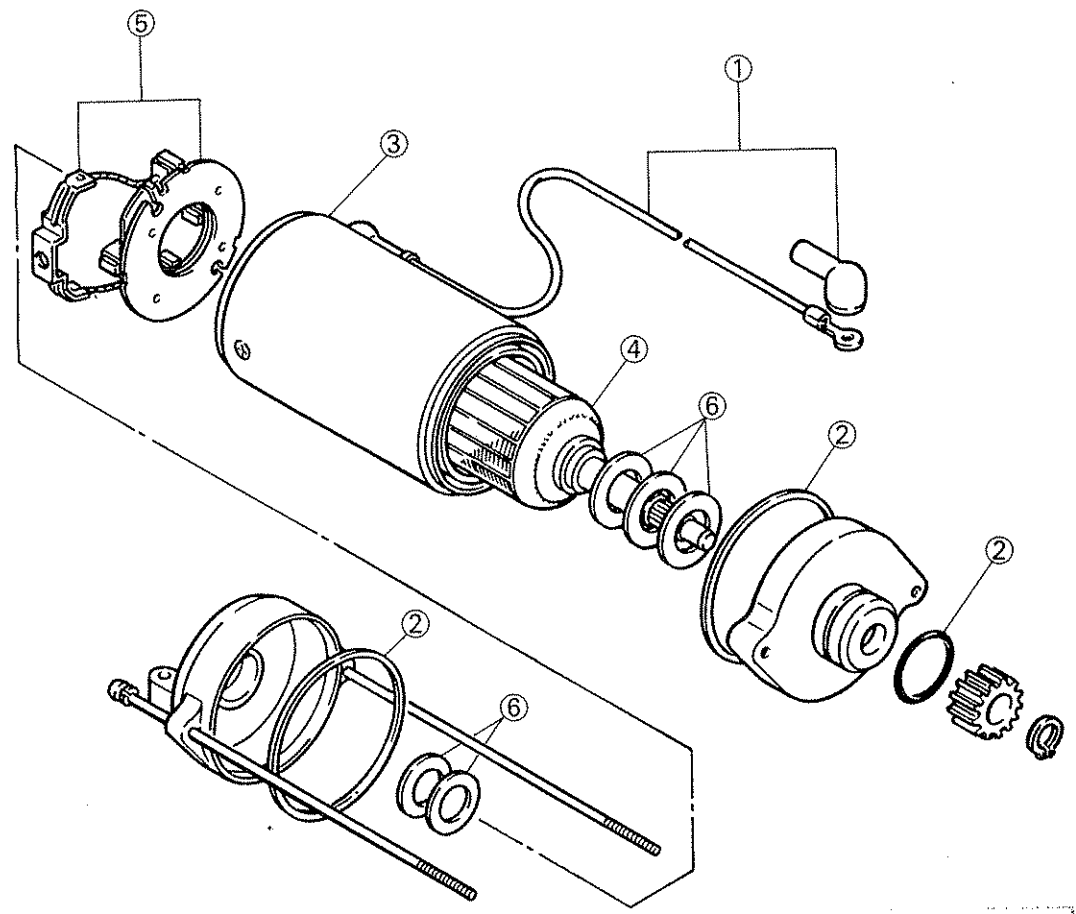


B	CHARGING COIL RESISTANCE: 0.2 ~ 0.6Ω at 20°C (68°F) (White/Yellow — White/Yellow)	C	SOURCE COIL RESISTANCE: 160 ~ 240Ω at 20°C (68°F) (Brown — Red)

STARTER MOTOR

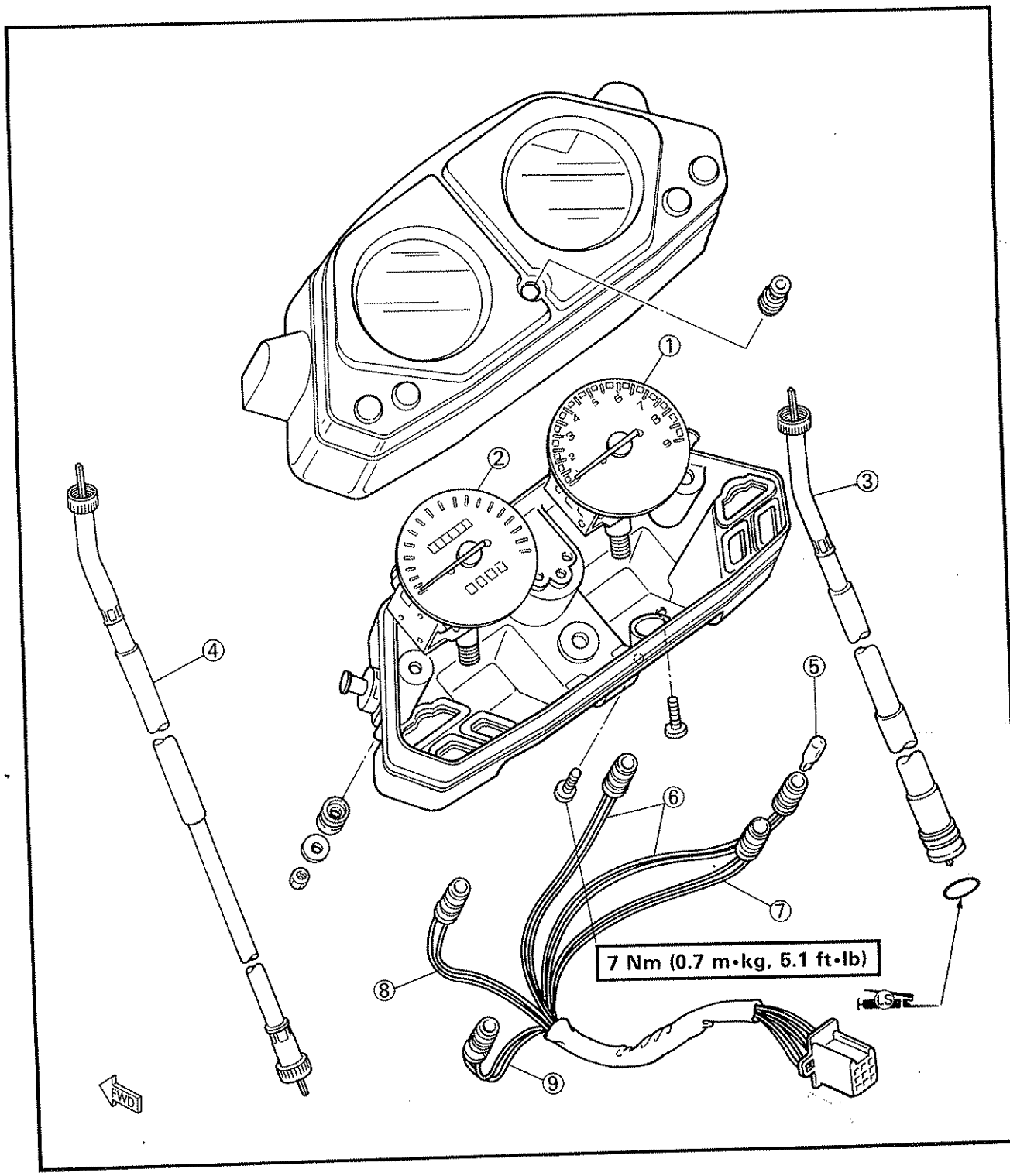
① Starter motor lead
② O-ring
③ Yoke assembly
④ Armature coil assembly
⑤ Brush assembly
⑥ Washer

A	COMMUTATOR UNDER CUT: 0.7 mm (0.028 in)
B	COMMUTATOR DIAMETER WEAR LIMIT: 27 mm (1.06 in)
C	BRUSH WEAR LIMIT: 5.0 mm (0.20 in)



METER ASSEMBLY

① Tachometer assembly
② Speedometer assembly
③ Tachometer cable
④ Speedometer cable
⑤ Bulb
⑥ Meter light
(Blue and Black lead)
⑦ "NEUTRAL" indicator light
(Sky blue and Brown lead)
⑧ "HIGH BEAM" indicator light
(Yellow and Black lead)
⑨ "TURN" indicator light
(Dark green and Chocolate lead)

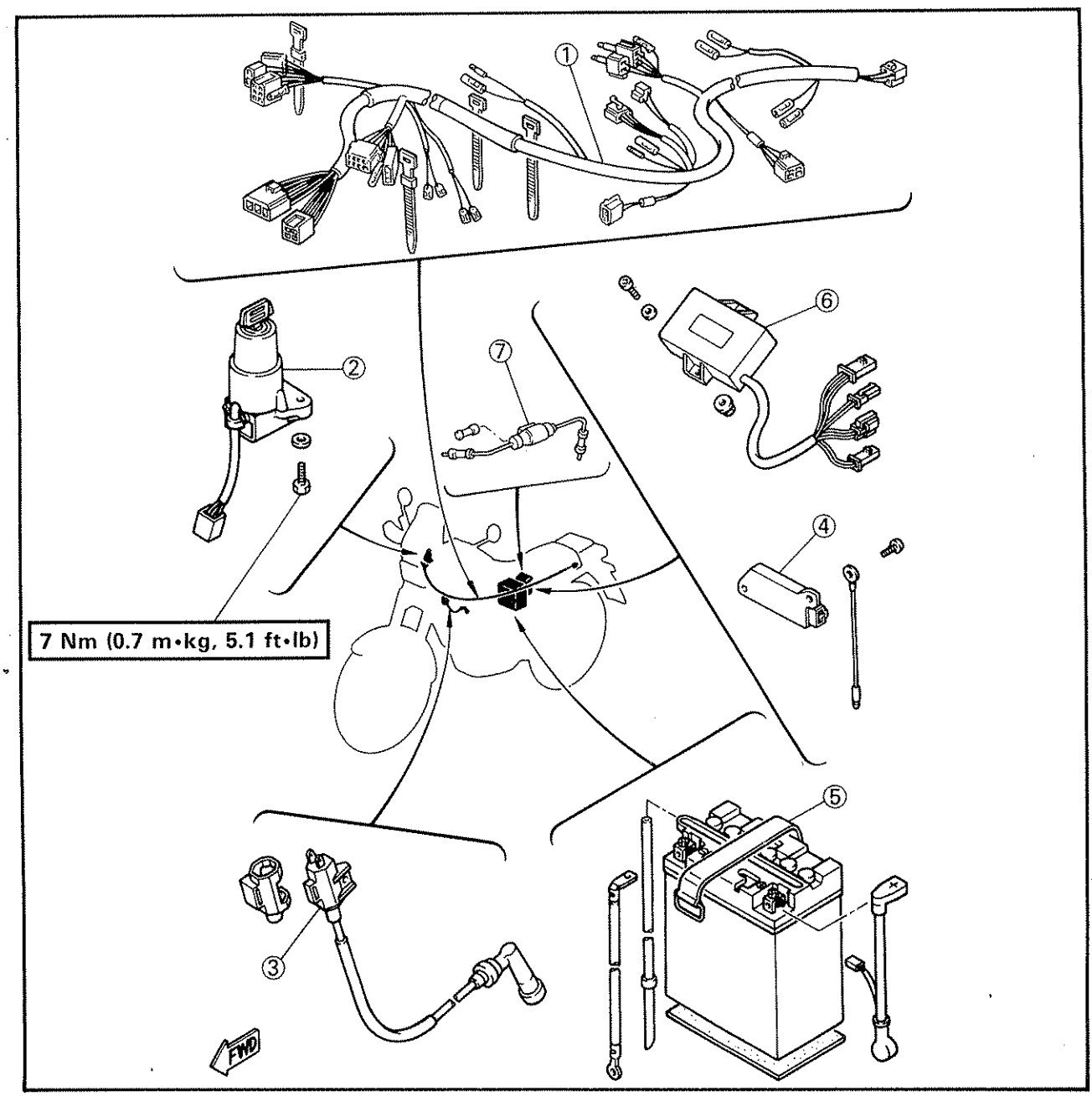


ELECTRICAL COMPONENTS

① Wireharness
② Main switch
③ Ignition coil
④ Rectifier/Regulator
⑤ Battery
⑥ CDI unit
⑦ Fuse

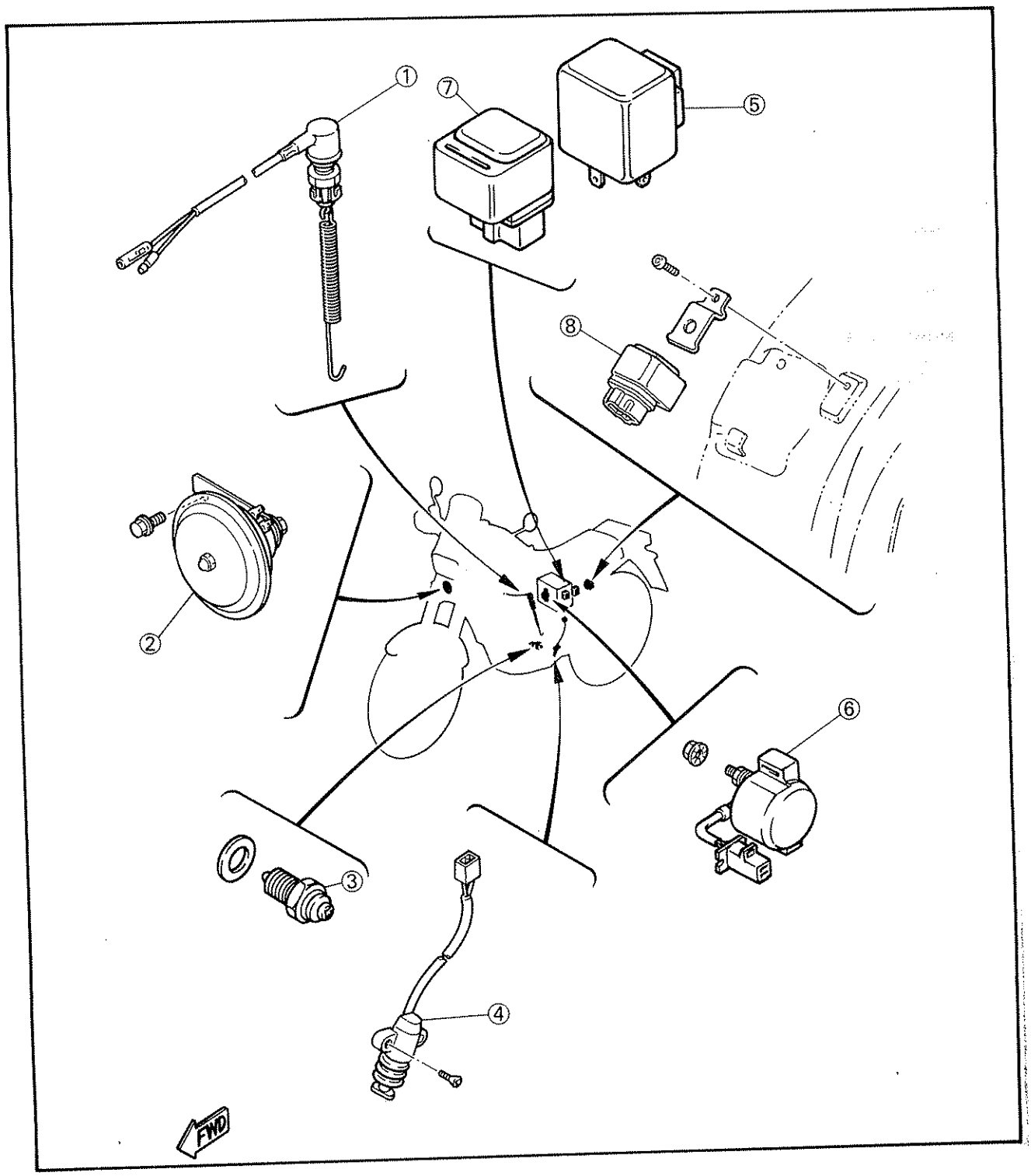
IGNITION COIL:
PRIMARY COIL RESISTANCE:
0.15~0.21Ω at 20°C (68°F)
SECONDARY COIL RESISTANCE:
3.8~5.8kΩ at 20°C (68°F)

BATTERY:
CAPACITY:
12V 12AH
SPECIFIC GRAVITY:
1.280



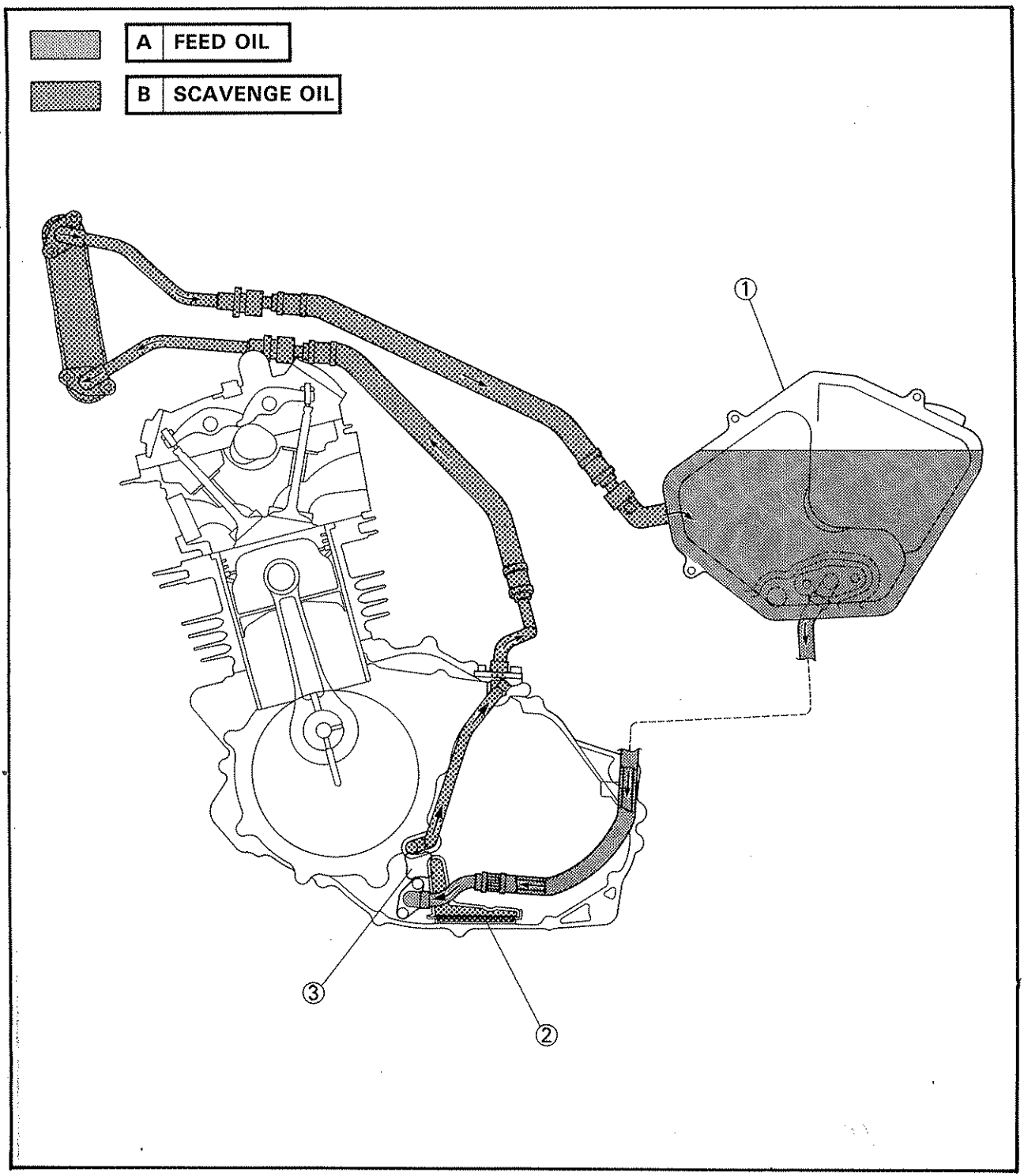
ELECTRICAL COMPONENTS

① Rear brake switch
② Horn
③ Neutral switch
④ Sidestand switch
⑤ Flasher relay
⑥ Starter relay
⑦ Starting circuit cut-off relay
⑧ Neutral relay



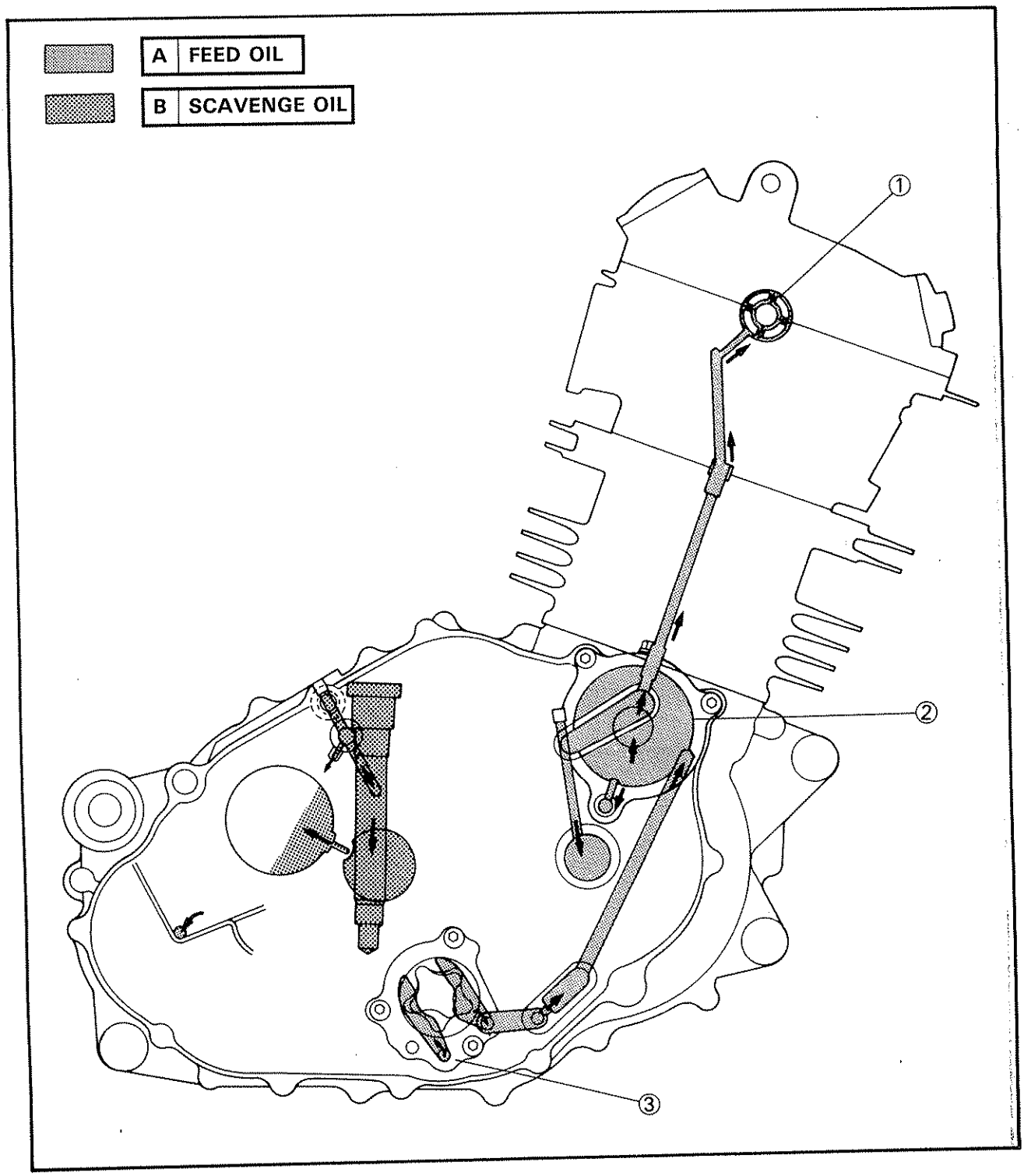
LUBRICATION DIAGRAM

① Oil tank
② Oil strainer
③ Oil pump



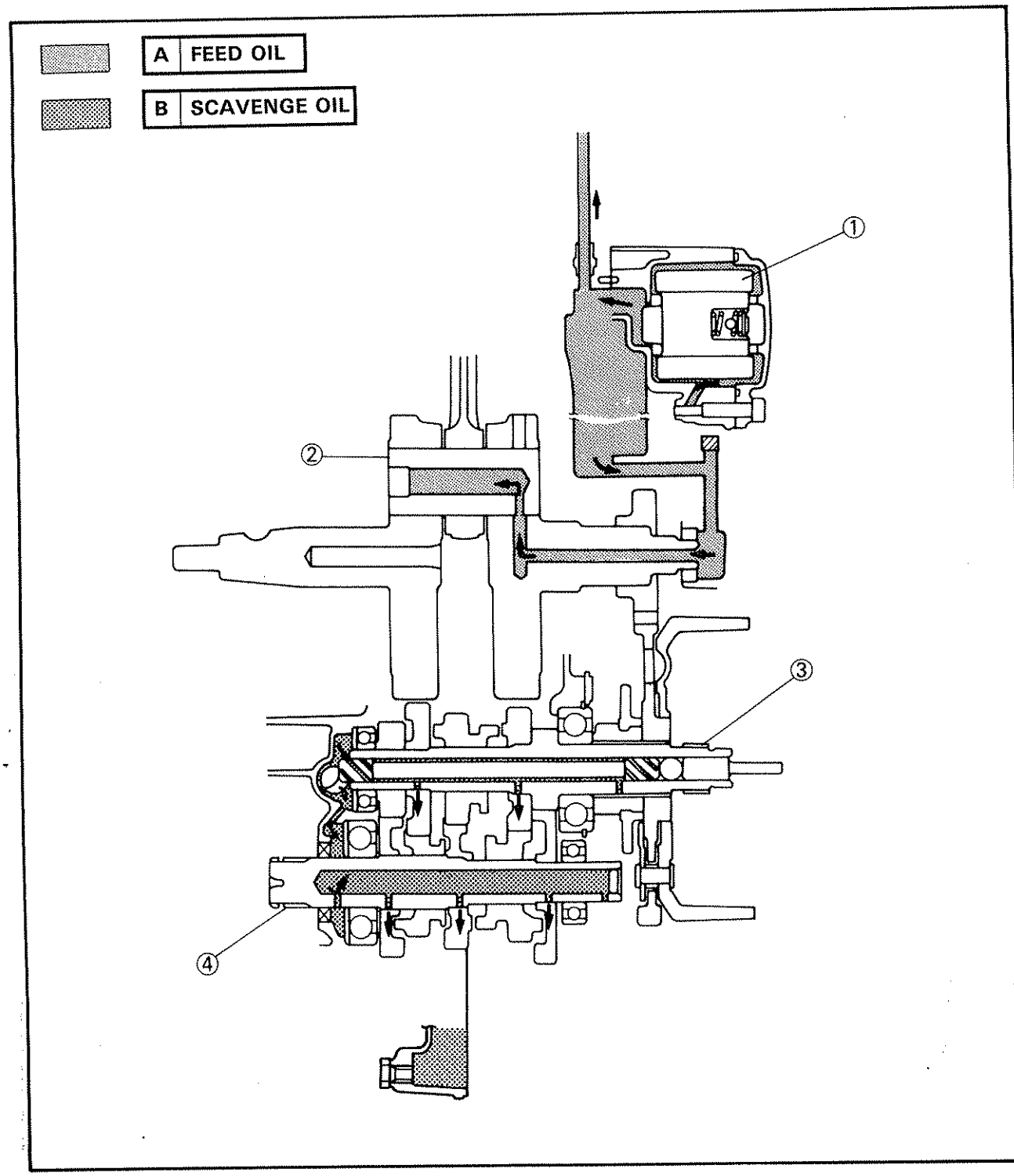
LUBRICATION DIAGRAM

① Camshaft
② Oil cleaner
③ Oil pump



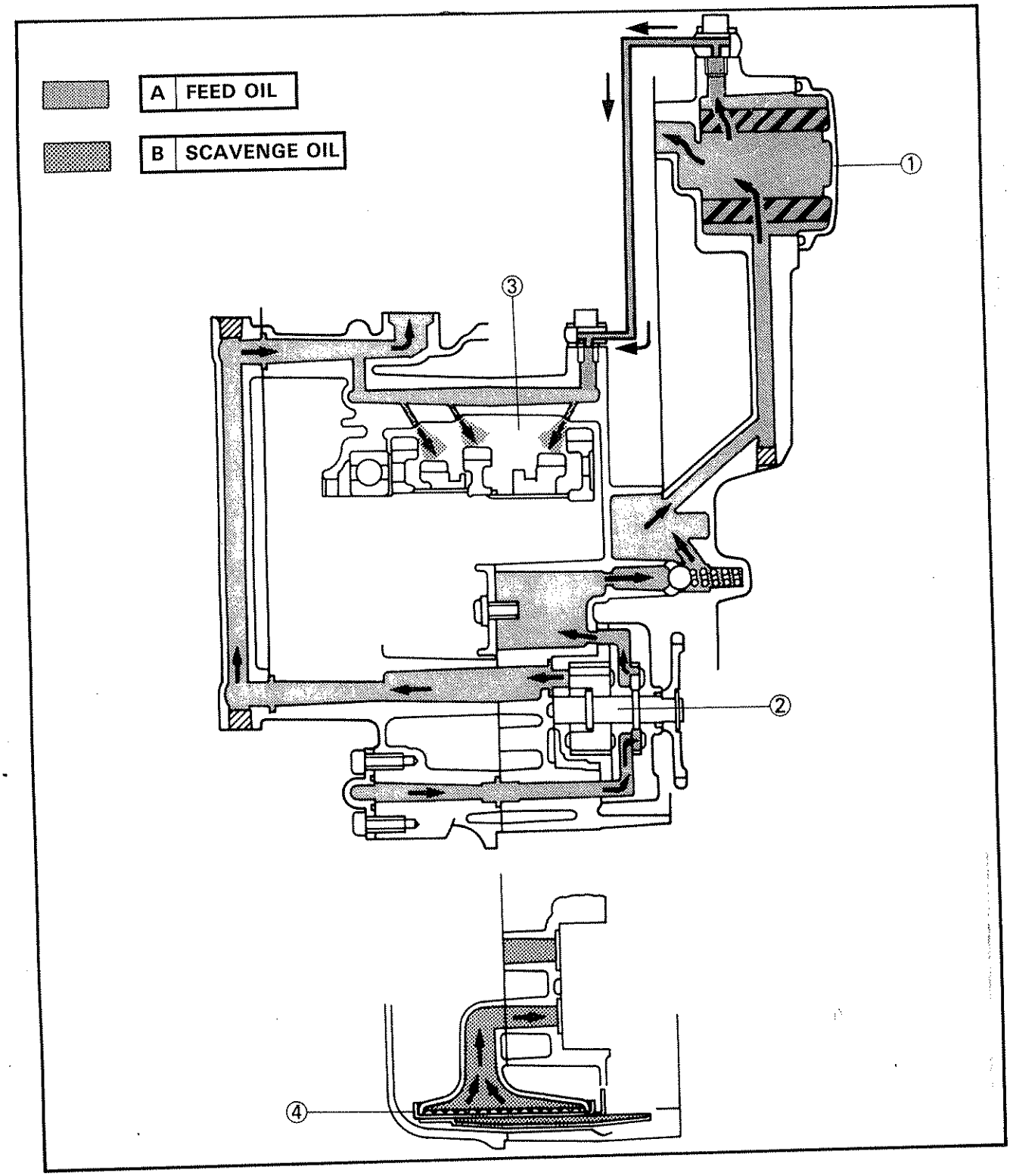
LUBRICATION DIAGRAM

① Oil cleaner
② Crank pin
③ Main axle
④ Drive axle



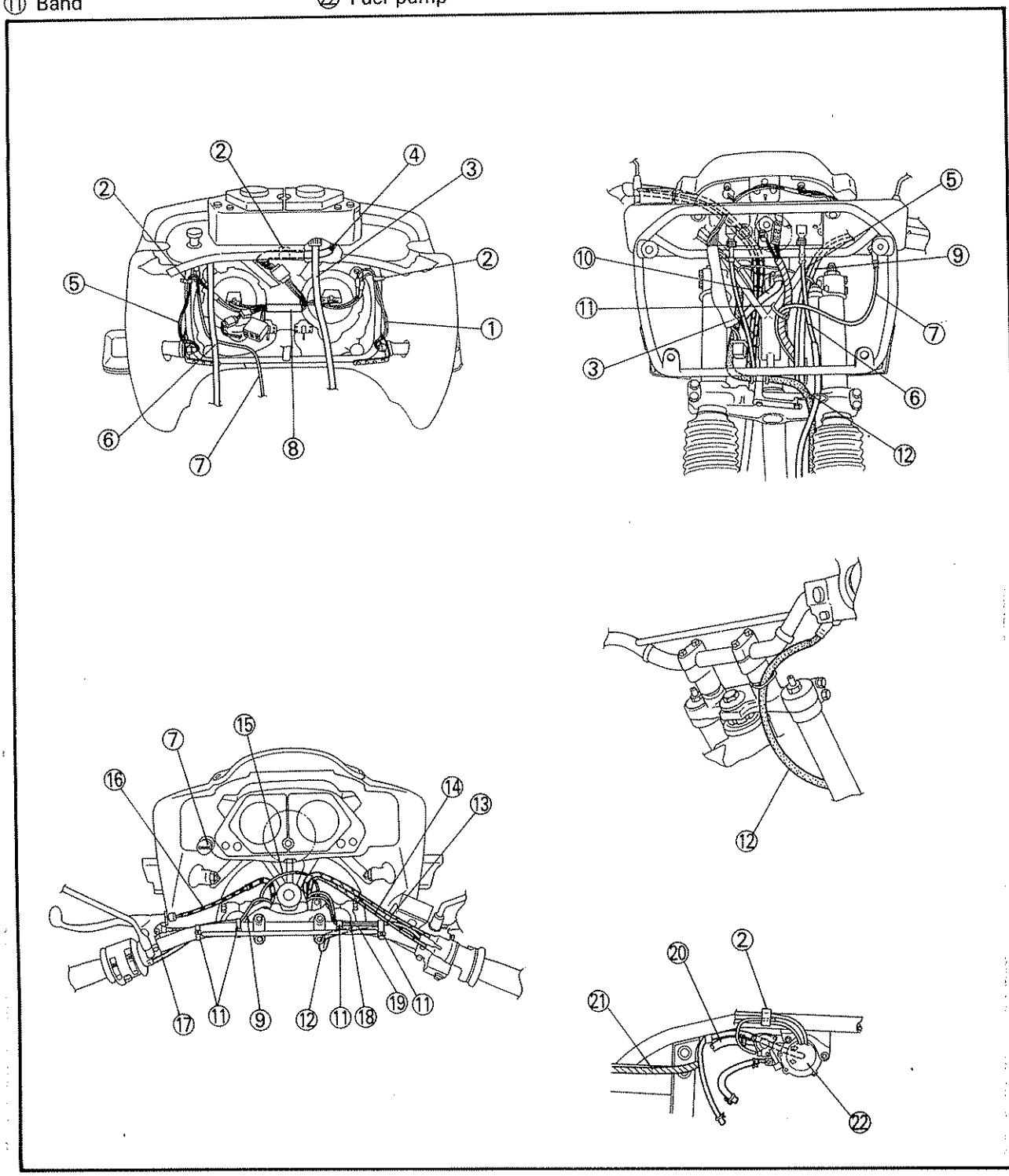
LUBRICATION DIAGRAM

① Oil cleaner
② Oil pump
③ Shift cam
④ Oil strainer



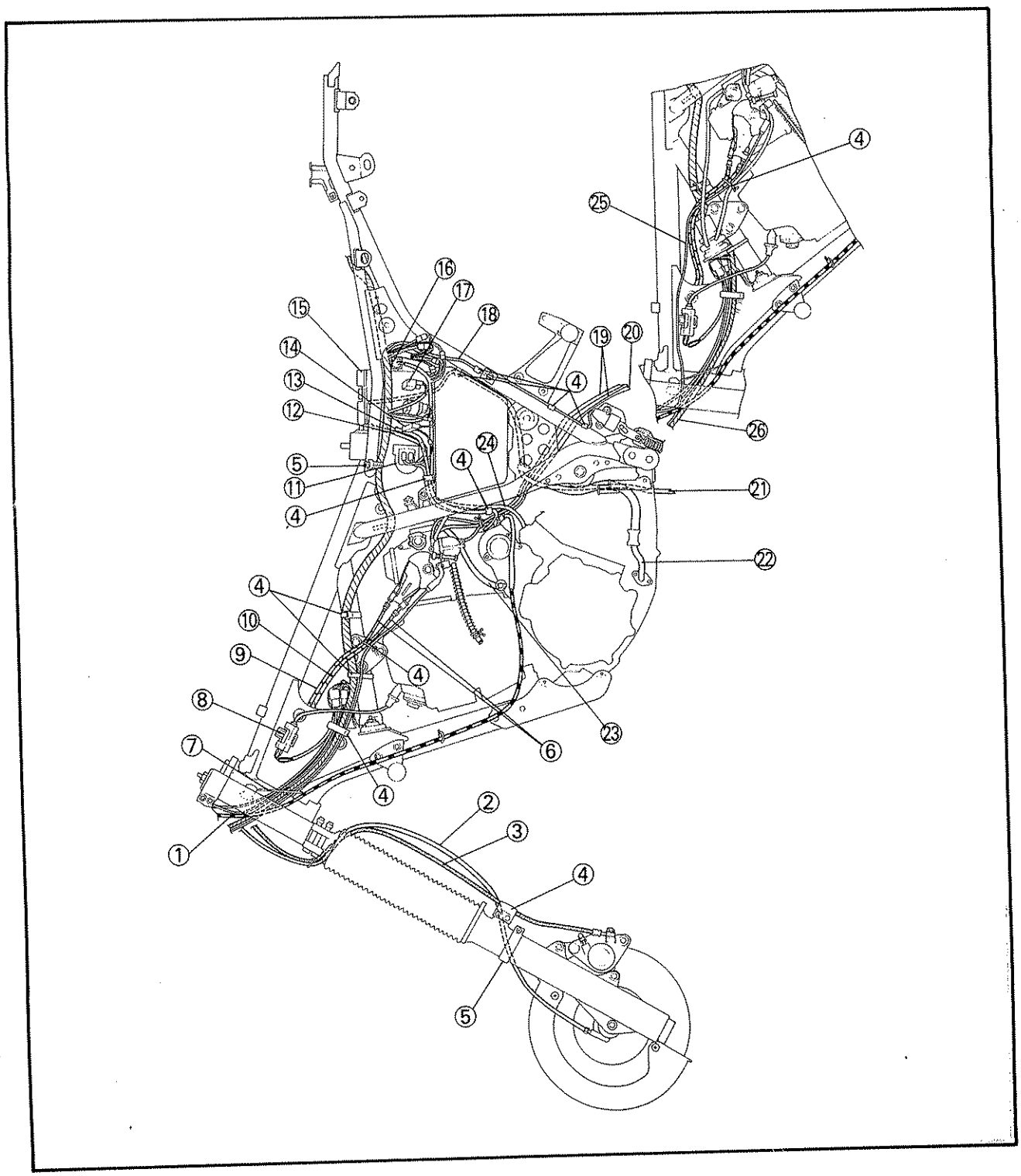
CABLE ROUTING

① Flasher light lead (Right)
② Clamp
③ Tachometer cable
④ Meter lead
⑤ Flasher light lead (Left)
⑥ Speedometer cable
⑦ Starter cable
⑧ Headlight lead
⑨ Clutch switch lead
⑩ Main switch lead
⑪ Band
⑫ Brake hose
⑬ Throttle cable 2
⑭ Throttle cable 1
⑮ Cable guide
⑯ Clutch cable
⑰ Handlebar switch lead (Left)
⑱ Handlebar switch lead (Right)
⑲ Stop switch lead
⑳ Fuel hose
㉑ Wireharness
㉒ Fuel pump



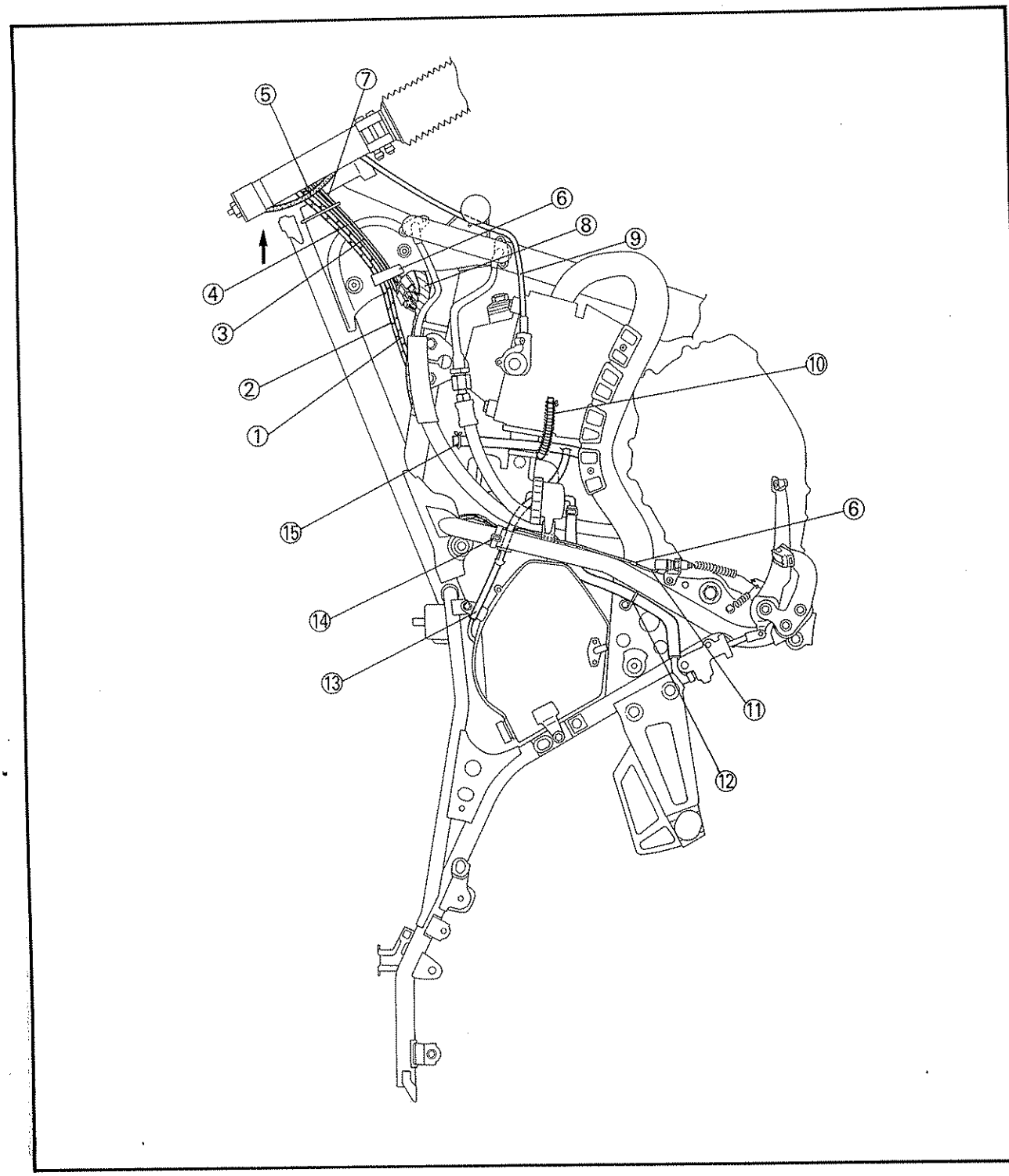
CABLE ROUTING

① Clutch cable
② Speedometer cable
③ Brake hose
④ Clamp
⑤ Band
⑥ Throttle cable
⑦ Cable guide
⑧ Ignition coil
⑨ Throttle cable 1
⑩ Throttle cable 2
⑪ Starter switch ass'y
⑫ Battery lead ⊕
⑬ Battery lead ⊖
⑭ Fuse
⑮ Battery
⑯ Rectifier/Regulator
⑰ Flasher relay
⑱ Sidestand switch lead
⑲ Breather hose (Carburetor)
⑳ Overflow hose (Carburetor)
㉑ Breather hose (Battery)
㉒ Oil hose
㉓ Breather hose (Crankcase)
㉔ CDI magneto lead
㉕ Starter cable
㉖ Wireharness



CABLE ROUTING

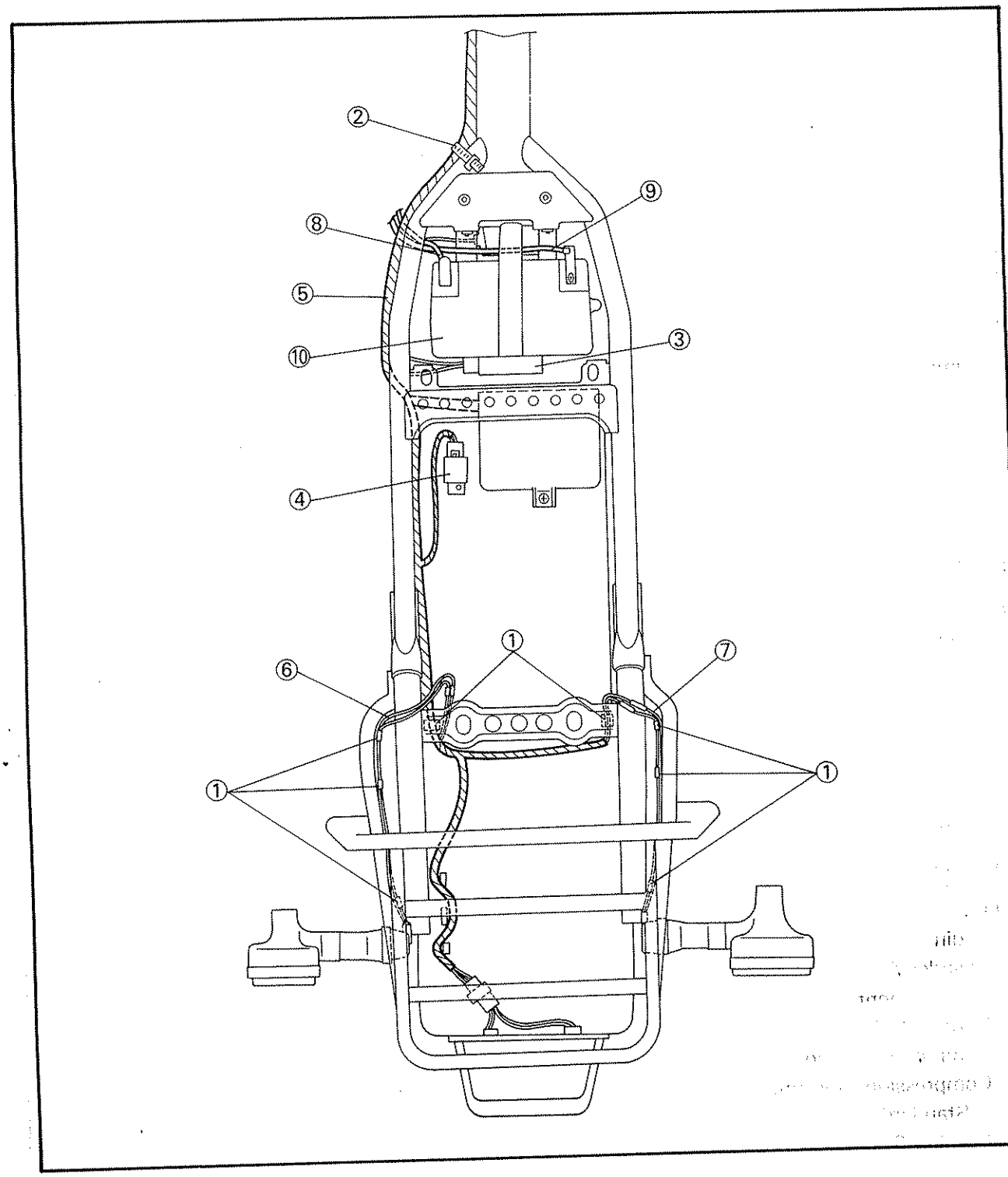
① Throttle cable 1
② Throttle cable 2
③ Stop switch lead
④ Handlebar switch lead (Right)
⑤ Cable guide
⑥ Clamp
⑦ Main switch lead
⑧ Wireharness
⑨ Tachometer cable
⑩ Fuel hose
⑪ Stop switch lead
⑫ Holder
⑬ Breather hose (Oil tank)
⑭ Band
⑮ Breather hose



CABLE ROUTING

SPEC

① Clamp
② Band
③ Rectifier/Regulator
④ Sidestand switch relay
⑤ Wireharness
⑥ Flasher light lead (Left)
⑦ Flasher light lead (Right)
⑧ Battery lead ⊕
⑨ Battery lead ⊖
⑩ Battery



SPECIFICATIONS

(D): For Germany
(DK): For Denmark
(N): For Norway
(S): For Sweden
(GB): For England
(E): For Spain
(NL): For Holland
(O): For Oceania and S. Africa
(SF): For Finland
(F): For France
(I): For Italy
(B): For Belgium
(GR): For Greece
(CH): For Switzerland
(P): For Portugal

GENERAL SPECIFICATIONS

Model	XT600Z(U)
Model Code Number:	3AJ1 (D)(F)(I)(B)(GB)(S)(GR)(P) 3AJ2 (E) 3AJ3 (NL)(N)(SF)(DK) 3DS1 (CH) 3DE1 (O)
Engine Starting Number:	3AJ1-000101 3AJ2-031101 3AJ3-033101 3DS1-000101 3DE1-000101
Frame Starting Number:	3AJ1-000101 3AJ2-031101 3AJ3-033101 3DS1-000101 3DE1-000101
Dimensions: Overall Length Overall Width Overall Height Seat Height Wheelbase Minimum Ground Clearance	 2,210 mm (87.0 in) 2,290 mm (90.2 in) (D) (S) (DK) (N) 2,340 mm (92.1 in) (SF) 835 mm (32.9 in) 1,340 mm (52.8 in) 890 mm (35.0 in) 1,460 mm (57.5 in) 255 mm (10.0 in)
Basic Weight: With Oil and Full Fuel Tank	 185 kg (408 lb)
Minimum Turning Radius:	2,300 mm (90.6 in)
Engine: Engine Type Cylinder Arrangement Displacement Bore × Stroke Compression Ratio Compression Pressure Standard Starting System	 Air cooled 4-stroke, SOHC Forward inclined single cylinder 595 cm^3 95 × 84 mm (3.74 × 3.31 in) 8.5 : 1 1,100 kPa (11 kg/cm^2 156 psi) Electric starter

GENERAL SPECIFICATIONS

SPEC

Model	XT600Z(U)
Lubrication System:	
Type	Dry sump
Engine Oil Type	SAE 20W40 type SE motor oil or SAE 10W30 type SE motor oil
Oil Capacity:	
Periodic Oil Change	1.9 L (1.7 Imp qt, 2.0 US qt)
With Oil Filter Replacement	2.0 L (1.8 Imp qt, 2.1 US qt)
Total Amount	2.4 L (2.1 Imp qt, 2.5 US qt)
Oil Tank Capacity	1.7 L (1.5 Imp qt, 1.8 US qt)
Air Filter:	
Type	Wet type element
Oil Type	Foam-air-filter oil or SAE 10W30 motor oil
Fuel:	
Type	Regular gasoline
Fuel Tank Capacity	23.0 L (5.1 Imp gal, 6.1 US gal)
Fuel Reserve Amount	3.1 L (0.7 Imp gal, 0.8 US gal)
Carburetor:	
Type/Quantity	Y27PV/1 pc.
Manufacturer	TEIKEI
Spark Plug:	
Type/Plug Gap	DPR7EA-9/0.8~0.9 mm (0.031~0.035 in) DPR8EA-9/0.8~0.9 mm (0.031~0.035 in)
Manufacturer	NGK
Clutch:	
Type	Wet, multiple-disc
Transmission:	
Type	Constant mesh 5-speed
Operation	Left foot operation
Primary Reduction System	Spur gear
Primary Reduction Ratio	74/31 (2.387)
Secondary Reduction System	Chain drive
Secondary Reduction Ratio	38/15 (2.533) (CH) 40/15 (2.677) (D)(F)(I)(B)(GB)(S)(E)(NL)(N)(SF)(DK)
Gear Ratio: 1st	31/12 (2.583)
2nd	27/17 (1.588)
3rd	24/20 (1.200)
4th	21/22 (0.954)
5th	19/24 (0.792)
Chassis:	
Frame Type	Diamond
Caster Angle	27.5°
Trail	109 mm (4.29 in)

GENERAL SPECIFICATIONS

Model		XT600Z(U)
Tire:		
Type		With tube
Size:	Front	3.00S21-4PR
	Rear	4.60S18-4PR
		120/80-18-62P (IRC)
Manufacturer:	Front	BRIDGESTONE (TW25)
		IRC (GP110)
	Rear	BRIDGESTONE (TW26)
		IRC (GP110)
Tire Pressure (Cold tire):		
Maximum Load*		180 kg (397 lb)
	(Front)	34 kg (75 lb)
	(Rear)	146 kg (322 lb)

Cold Tire Pressure	Front	Rear
Up to 90 kg (198 lb) load*	150 kPa (1.5 kg/cm^2, 21 psi)	150 kPa (1.5 kg/cm^2, 21 psi)
90 kg (198 lb) ~ Maximum load*	150 kPa (1.5 kg/cm^2, 21 psi)	180 kPa (1.8 kg/cm^2, 26 psi)
Off-road riding	100 kPa (1.0 kg/cm^2, 14 psi)	100 kPa (1.0 kg/cm^2, 14 psi)
High speed riding	150 kPa (1.5 kg/cm^2, 21 psi)	150 kPa (1.5 kg/cm^2, 21 psi)

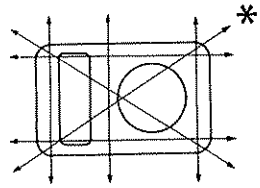
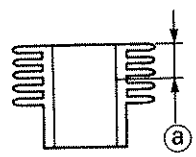
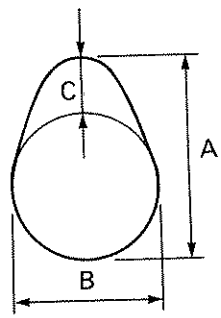
*Load is total weight of cargo, rider, passenger, and accessories.

Brake:	
Front Brake Type	Single disc brake
Front Brake Operation	Right hand operation
Rear Brake Type	Single disc brake
Rear Brake Operation	Right foot operation
Suspension:	
Front	Telescopic fork
Rear	Swingarm (New Monocross)
Shock Absorber:	
Front	Coil—Air spring/Oil damper
Rear	Coil—Gas spring/Oil damper
Wheel Travel:	
Front	255 mm (10.0 in)
Rear	225 mm (8.9 in)
Electrical:	
Ignition System	CDI
Generator System	A.C. magneto generator
Battery Type	GM12AZ
Battery Capacity	12V, 12AH
Headlight Type	Quartz bulb (Halogen)
	(D)(B)(S)(E)(F)(GR)(P)(GB)(O)
	Bulb type (I)(DK)(SF)(NL)(CH)(N)

Model	XT600Z(U)
Bulb Wattage (Quantity):	
Headlight	12V 60W/55W (1 pc.) (D)(E)(B)(S)(F)(GR)(P) 12V 55W (1 pc.) 12V 35W/35W (2 pcs.) (I)(DK)(GB)(O)(SF)(NL) 12V 60W/55W (1 pc.) (CH)(N)
Tail/Brake Light	12V 5W/21W (1 pc.)
Flasher Light	12V 21W (4 pcs.)
Auxiliary Light	12V 4W (1 pc.) (D)(E)(B)(S)(F)(GR)(P)(SF)(NL)(CH)(N) 12V 4W (2 pcs.) (I)(DK) 12V 3.4W (2 pcs.) (GB) (O)
Meter Light	12V 3.4W (2 pcs.)
"NEUTRAL" indicator Light	12V 3.4W (1 pc.)
"HIGH BEAM" indicator Light	12V 3.4W (1 pc.)
"TURN" indicator Light	12V 3.4W (1 pc.)

MAINTENANCE SPECIFICATIONS

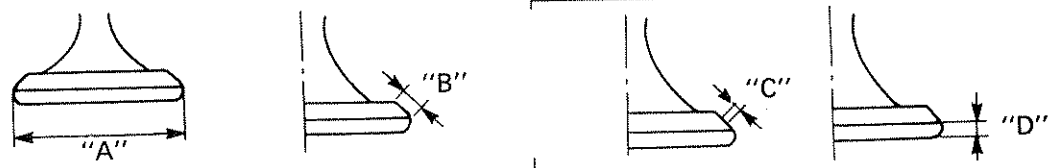
ENGINE

Model	XT600Z(U)
Cylinder Head: Warp Limit 	0.03 mm (0.0012 in) * Lines indicate straightedge measurement.
Cylinder: Bore Size <Wear Limit> Measuring Point ⓐ 	94.97 ~ 95.02 mm (3.739 ~ 3.741 in) <95.1 mm (3.744 in)> 40 mm (1.6 in)
Camshaft: Drive Method Camshaft Outside Diameter Shaft-to-cap Clearance Cam Dimensions Intake "A" "B" "C" Exhaust "A" "B" "C" 	Chain drive (Left) 22.967 ~ 22.980 mm (0.904 ~ 0.905 in) 0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in) 36.52 ~ 36.62 mm (1.438 ~ 1.442 in) 30.01 ~ 30.11 mm (1.181 ~ 1.185 in) 6.51 mm (0.256 in) 36.70 ~ 36.80 mm (1.445 ~ 1.449 in) 30.07 ~ 30.17 mm (1.184 ~ 1.188 in) 6.63 mm (0.261 in)
Camshaft Runout Limit	0.03 mm (0.0012 in)

MAINTENANCE SPECIFICATION

SPEC

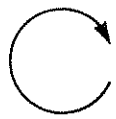
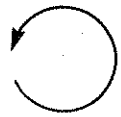
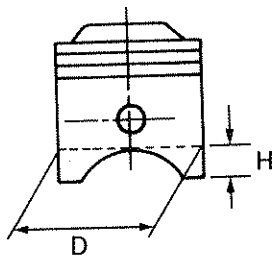
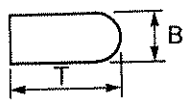
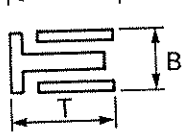
Model	XT600Z(U)	
Cam Chain:		
Cam Chain Type	75 — 010	
Number of Links	126 Links	
Cam Chain Adjustment Method	Automatic	
Rocker Arm/Rocker Arm Shaft:		
Rocker Arm Inside Diameter	12.000 ~ 12.018 mm (0.472 ~ 0.473 in)	
Shaft Outside Diameter	11.976 ~ 11.991 mm (0.471 ~ 0.472 in)	
Arm-to-shaft Clearance	0.009 ~ 0.042 mm (0.0003 ~ 0.002 in)	
Valve, Valve Seat, Valve Guide:		
Valve Clearance (Cold):		
Intake	0.07 ~ 0.12 mm (0.003 ~ 0.005 in)	
Exhaust	0.12 ~ 0.17 mm (0.005 ~ 0.007 in)	
Valve Dimensions:	Intake	Exhaust
"A" Head Diameter	36.9 ~ 37.1 mm (1.45 ~ 1.46 in)	31.9 ~ 32.1 mm (1.25 ~ 1.26 in)
"B" Face Width	2,26 mm (0.09 in)	←
"C" Seat Width	1.0 ~ 1.2 mm (0.04 ~ 0.05 in)	←
"D" Margin Thickness	1.0 ~ 1.4 mm (0.04 ~ 0.06 in)	0.8 ~ 1.2 mm (0.03 ~ 0.05 in)



Stem Outside Diameter:	
Intake	6.975 ~ 6.990 mm (0.274 ~ 0.275 in)
Exhaust	6.955 ~ 6.970 mm (0.273 ~ 0.274 in)
Guide Inside Diameter:	
Intake	7.000 ~ 7.012 mm (0.275 ~ 0.276 in)
Exhaust	7.000 ~ 7.012 mm (0.275 ~ 0.276 in)
Stem-to-guide Clearance:	
Intake	0.010 ~ 0.037 mm (0.0004 ~ 0.001 in)
Exhaust	0.030 ~ 0.057 mm (0.001 ~ 0.002 in)
Stem Runout Limit	0.01 mm (0.0004 in)
Valve Seat Width:	
Intake	1.0 ~ 1.2 mm (0.04 ~ 0.05 in)
Exhaust	1.0 ~ 1.2 mm (0.04 ~ 0.05 in)

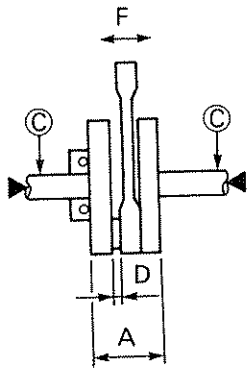
MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)	
Valve Spring:	Inner Spring	Outer Spring
Free Length:		
Intake	40.1 mm (1.58 in)	43.8 mm (1.72 in)
Exhaust	40.1 mm (1.58 in)	43.8 mm (1.72 in)
Set Length (Valve Closed):		
Intake	22.7 mm (0.89 in)	34.2 mm (1.35 in)
Exhaust	22.7 mm (0.89 in)	34.2 mm (1.35 in)
Direction of winding	Clockwise	Counterclockwise
(Top View)		
Tilt Limit:		
Intake	2.5°/1.7 mm (0.07 in)	←
Exhaust	2.5°/1.7 mm (0.07 in)	←
Piston:		
Piston Size "D"	94.915 ~ 94.965 mm (3.737 ~ 3.739 in)	
Measureing Point "H"	5.0 mm (0.20 in)	
Over Size 2nd	95.5 mm (3.760 in)	
Over Size 4th	96.0 mm (3.780 in)	
		
Piston Off-set	2.0 mm (0.08 in)	
Piston Off-set Direction	Intake side	
Piston-to-cylinder Clearance	0.045 ~ 0.065 mm (0.002 ~ 0.003 in)	
<Limit>	<0.1 mm (0.004 in)>	
Piston Ring:		
Type:		
Top Ring	Barrel	
2nd Ring	Plain	
Dimensions (B × T):		
Top Ring	B = 1.2 mm (0.047 in)	
	T = 3.8 mm (0.150 in)	
2nd Ring	B = 1.2 mm (0.047 in)	
	T = 3.8 mm (0.150 in)	
Oil Ring	B = 2.5 mm (0.098 in)	
	T = 3.4 mm (0.134 in)	
End Gap (Installed):		
Top Ring	0.30 ~ 0.45 mm (0.012 ~ 0.018 in)	
2nd Ring	0.30 ~ 0.45 mm (0.012 ~ 0.018 in)	
Oil Ring	0.20 ~ 0.70 mm (0.008 ~ 0.028 in)	

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)
Piston Ring: Side Clearance (Installed): Top Ring 2nd Ring	 0.04~0.08 mm (0.002~0.003 in) 0.03~0.07 mm (0.001~0.003 in)
Crankshaft: Crank Width "A" Runout Limit "C" Big End Side Clearance "D" Small End Free Play "F"	 74.95~75.00 mm (2.950~2.953 in) 0.03 mm (0.0012 in) 0.25~0.75 mm (0.010~0.030 in) 0.8~1.0 mm (0.031~0.039 in)
Balancer: Drive Method	 Spur gear
Clutch: Friction Plate: Thickness Quantity Wear Limit Friction Plate: Thickness Quantity Wear Limit Clutch Plate: Thickness Quantity Warp Limit Clutch Spring: Free Length Quantity Minimum Free Length Clutch Housing: Thrust Clearance Clutch Release Method	 2.72~2.88 mm (0.107~0.113 in) 6 pcs. 2.6 mm (0.102 in) 2.94~3.06 mm (0.116~0.120 in) 2 pcs. 2.8 mm (0.110 in) 1.2 mm (0.047 in) 7 pcs. 0.2 mm (0.008 in) 34.6 mm (1.362 in) 5 pcs. 32.6 mm (1.283 in) 0.070~0.071 mm (0.003 in) Inner push, cam push
Transmission: Main Axle Runout Limit Drive Axle Runout Limit	 0.08 mm (0.003 in) 0.08 mm (0.003 in)
Shifter: Type	 Cam drum and guide bar

MAINTENANCE SPECIFICATION

SPEC

Model		XT600Z(U)	
Carburetor:		Except for Germany	For Germany
I.D. Mark		3AJ 10	3AJ 00
Main Jet	(M.J.)		
Primary Carburetor		#155	#165
Secondary Carburetor		#125	←
Main Air Jet	(M.A.J.)		
Primary Carburetor		φ1.0	←
Secondary Carburetor		φ1.2	←
Jet Needle	(J.N.)		
Primary Carburetor		5C47—3/5	5C48—3/5
Secondary Carburetor		5X76—3/5	5X76—3/5
Needle Jet	(N.J.)	φ2.6	←
Cutaway	(C.A.)	5.5	←
Pilot Outlet	(P.O.)	φ0.8	←
Pilot Jet	(P.J.)	#48	←
Bypass 1	(B.P.1)	φ1.0	←
Pilot Screw	(P.S.)	1 5/8 turns out	←
Valve Seat Size	(V.S.)	φ2.5	←
Starter Jet	(G.S.)	#80	←
Fuel Level	(F.L.)	5.0 ~ 7.0 mm (0.20 ~ 0.28 in)	←
Float Height	(F.H.)	25.0 ~ 27.0 mm (0.98 ~ 1.06 in)	←
Engine Idle Speed		1,250 ~ 1,350 r/min	←
Lubrication System:			
Oil Filter:			
Type		Paper type	
Oil Pump:			
Type		Trochoid type	
Tip Clearance		0.12 mm (0.005 in)	
Side Clearance		0.03 ~ 0.08 mm (0.001 ~ 0.003 in)	
Bypass Valve Setting Pressure		80 ~ 120 kPa (0.8 ~ 1.2 kg/cm^2, 11 ~ 17 psi)	
Relief Valve Operating Pressure		80 ~ 120 kPa (0.8 ~ 1.2 kg/cm^2, 11 ~ 17 psi)	
Oil Pressure		13 kPa (0.13 kg/cm^2, 1.8 psi) at 1,300 r/min	
Pressure Checking Location		Oil cleaner chamber	

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)				
Tightening torque:					
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Cylinder head					
Flange bolt	M8 ×1.25	29	2.9	21	
Stud bolt	M10×1.25	20	2.0	14	
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Stud bolt	M6 ×1.0	7	0.7	5.1	
Spark plug	M12×1.25	18	1.8	13	
Cylinder head cover					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Tappet cover (Intake)					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Tappet cover (Exhaust)	M32×1.5	12	1.2	8.7	
Gear unit (Tachometer)					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Flat head screw	M6 ×1.0	7	0.7	5.1	
Cylinder					
Cap nut	M8 ×1.25	22	2.2	16	
Nut	M10×1.25	42	4.2	30	
Hexagon nut	M10×1.25	42	4.2	30	
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Balancer gear					
Hexagon nut	M16×1.0	60	6.0	43	
Rotor (A.C. magneto)					
Hexagon nut	M14×1.5	120	12.0	85	
Locknut (Valve clearance adjuster)					
Hexagon nut	M6 ×1.0	14	1.4	10	
Cam sprocket					
Flange bolt	M7 ×1.0	20	2.0	14	
Cam chain tensioner					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Blind plug	M16×1.0	20	2.0	14	
Flange bolt	M6 ×1.0	8	0.8	5.8	
Rocker arm shaft					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Oil pump					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Oil strainer					
Panhead screw	M6 ×1.0	7	0.7	5.1	
Drain plug (crankcase)	M14×1.5	30	3.0	22	
Oil cleaner cover					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Screw	M5 ×0.8	5	0.5	3.6	

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)				
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Oil hose					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Union nut	M16×1.5	50	5.0	36	
Delivery pipe					
Union bolt	M8 ×1.25	18	1.8	13	
Carburetor joint					
Bolt	M6 ×1.0	10	1.0	7.2	
Clamp (Carburetor joint)					
Screw	M4 ×0.7	2	0.2	1.4	
Air filter case					
Flange bolt	M6 ×1.0	10	1.0	7.2	
Exhaust pipe					
Flange nut	M6 ×1.0	10	1.0	7.2	
Exhaust pipe protector					
Bind head screw	M6 ×1.0	7	0.7	5.1	
Muffler protector					
Bind head screw	M6 ×1.0	7	0.7	5.1	LT
Band (Exhaust pipe and muffler)					
Flange bolt	M8 ×1.25	20	2.0	14	LT
Muffler					
Flange bolt	M8 ×1.25	40	4.0	29	
Crankcase					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Stud bolt	M10×1.25	20	2.0	14	
Clamp (C.D.I. magneto lead)					
Panhead screw	M6 ×1.0	7	0.7	5.1	
Crankcase cover (Right)					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Crankcase cover (Left)					
Hexagon socket head bolt	M6 ×1.0	10	1.0	7.2	
Stopper plate (Bearing)					
Flat head screw	M6 ×1.0	7	0.7	5.1	LT
Ratchet wheel guide					
Hexagon bolt	M6 ×1.0	10	1.0	7.2	
Pressure plate					
Flange bolt	M6 ×1.0	8	0.8	5.8	
Clutch boss					
Hexagon nut	M20×1.0	90	9.0	65	
Primary drive gear					
Hexagon nut	M20×1.0	120	12.0	85	
Push lever					
Panhead screw	M8 ×1.0	12	1.2	8.7	
Push rod					
Hexagon nut	M6 ×1.0	8	0.8	5.8	
Drive sprocket					
Hexagon nut	M18×1.0	110	11.0	80	

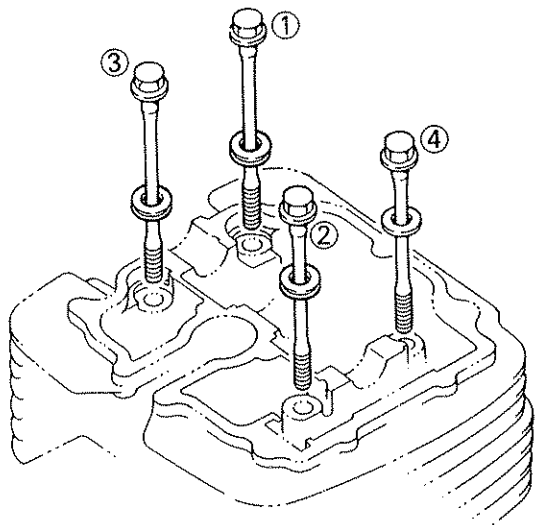
MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)				
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Stopper plate (Oil seal) Hexagon bolt	M6 ×1.0	10	1.0	7.2	
Stopper lever Bolt	M6 ×1.0	10	1.0	7.2	
Change pedal Hexagon bolt	M6 ×1.0	10	1.0	7.2	
Stator coil Panhead screw	M6 ×1.0	7	0.7	5.1	LT
Pickup coil Panhead screw	M6 ×1.0	7	0.7	5.1	LT
Neutral switch	M10×1.25	20	2.0	14	
Starter motor Flange bolt	M6 ×1.0	10	1.0	7.2	

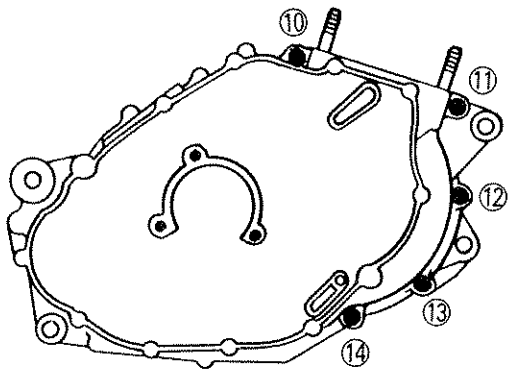
Tightening sequence:

Cylinder head

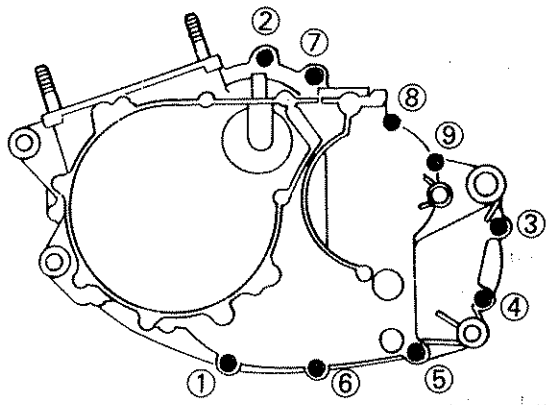


Crankcase

Right-hand



Left-hand



MAINTENANCE SPECIFICATION

CHASSIS

Model	XT600Z(U)
Steering System: Bearing Type	 Taper roller bearing
Front Suspension: Front Fork Travel Fork Spring Free Length <Minimum Free Length> Spring Rate/Stroke (K1) (K2) Optional Spring Oil Capacity Oil Level Oil Grade Enclosed Air Pressure: Standard Minimum ~ Maximum	 255 mm (10.0 in) 603 mm (23.7 in) <593 mm (23.3 in)> 2.25 N/mm (0.225 kg/mm, 12.6 lb/in)/ Zero ~ 76.0 mm (Zero ~ 3.0 in) 4.6 N/mm (0.46 kg/mm, 25.3 lb/in)/ 76.0 ~ 255 mm (3.0 ~ 10.0 in) No 517 cm^3 (18.2 Imp oz, 17.5 US oz) 120 mm (4.72 in) From top of inner tube fully compressed without spring Fork oil 10W or equivalent Zero kPa (Zero kg/cm^2, Zero psi) Zero ~ 100 kPa (Zero ~ 1.0 kg/cm^2, Zero ~ 14 psi)
Rear Suspension: Shock Absorber Travel Spring Free Length Fitting Length Spring Rate/Stroke Optional Spring Enclosed Gas Pressure	 74 mm (2.9 in) 244.5 mm (9.6 in) 235 mm (9.3 in) 90 N/mm (9.0 kg/mm, 504 lb/in)/ Zero ~ 65.0 mm (0.0 ~ 2.6 in) No 1,500 kPa (15 kg/cm^2, 213 psi)
Swingarm: Free Play Limit Side Clearance	 1.0 mm (0.039 in) at swingarm end Move swingarm end side to side. 0.3 mm (0.012 in) at swingarm pivot
Front Wheel: Type Rim Size Rim Material Rim Runout Limit: Vertical Lateral	 Spoke wheel 1.60 × 21 Aluminum 2.0 mm (0.079 in) 2.0 mm (0.079 in)

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)
Rear Wheel:	
Type	Spoke wheel
Rim Size	MT2.50×18
Rim Material	Aluminum
Rim Runout Limit:	
Vertical	2.0 mm (0.079 in)
Lateral	2.0 mm (0.079 in)
Drive Chain:	
Type/Manufacturer	DID 520V6/DAIDO
Number of Links	104
Chain Slack	30~40 mm (1.18~1.57 in)
Front Disc Brake:	
Type	Single
Disc Outside Diameter	267 mm (10.5 in)
Disc Thickness	4.0 mm (0.16 in)
Pad Thickness	6.8 mm (0.27 in)
<Wear Limit>	<0.8 mm (0.03 in)>
Master Cylinder Inside Diameter	12.7 mm (0.5 in)
Caliper Cylinder Inside Diameter	38.1 mm (1.5 in)
Brake Fluid Type	DOT No. 4 or DOT No. 3
Rear Disc Brake:	
Type	Single
Disc Outside Diameter	220 mm (8.66 in)
Thickness	5.0 mm (0.20 in)
Pad Thickness	6.0 mm (0.24 in)
<Wear Limit>	<0.8 mm (0.03 in)>
Master Cylinder Inside Diameter	12.7 mm (0.5 in)
Caliper Cylinder Inside Diameter	34.9 mm (1.37 in)
Brake Fluid Type	DOT No. 4 or DOT No. 3
Brake Lever and Pedal:	
Brake Lever Free Play	2.0~5.0 mm (0.08~0.20 in) At end of brake lever.
Brake Pedal Position	5.0~10.0 mm (0.20~0.40 in) Below top of footrest.
Clutch Lever and Throttle Grip:	
Clutch Lever Free Play	2.0~3.0 mm (0.08~0.12 in) At pivot of clutch lever.
Throttle Cable Free Play	2.0~5.0 mm (0.08~0.20 in) At grip flange.

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)				
Tightening torque:					
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Front fork/Handlebar:					
Handle crown and inner tube	M8 ×1.25	23	2.3	17	
Handle crown and steering shaft	M14×1.25	77	7.7	56	
Handlebar	M8 ×1.25	20	2.0	14	
Steering shaft and ring nut	M25×1.0	6	0.6	4.3	Refer to "NOTE"
Clamp (Front brake hose)	M8 ×1.25	10	1.0	7.2	
Master cylinder cap (Front brake)	M4 ×0.7	2	0.2	1.4	
Cowling stay and frame	M6 ×1.0	23	2.3	17	
Cowling stay and cowling	M6 ×1.0	7	0.7	5.1	
Meter mounting bolt	M8 ×1.0	7	0.7	5.1	
Horn and frame	M6 ×1.0	7	0.7	5.1	
Main switch and handle crown	M6 ×1.0	7	0.7	5.1	G
Handlebar holder	M10×1.25	7	0.7	5.1	
Cable holder (Speedometer cable)	M5 ×0.8	1	0.1	0.7	
Cowling and fuel tank	M5 ×0.8	4	0.4	2.9	
Windscreen and cowling	M5 ×0.8	1	0.1	0.7	
Engine mount:					
Engine stay (Front) and frame	M10×1.25	64	6.4	46	
Engine stay (Front) and engine	M10×1.25	64	6.4	46	
Engine stay (Upper) and frame	M10×1.25	64	6.4	46	
Engine stay (Upper) and engine	M10×1.25	64	6.4	46	
Engine (Rear) and frame	M10×1.25	64	6.4	46	
Engine protector and frame	M6 ×1.0	10	1.0	7.2	
Rear shock absorber/Swingarm:					
Pivot shaft	M14×1.5	85	8.5	61	
Swingarm and relay arm	M12×1.25	59	5.9	43	
Relay arm and connecting rod	M10×1.25	32	3.2	23	
Connecting rod and frame	M10×1.25	32	3.2	23	
Rear shock absorber and frame	M12×1.25	59	5.9	43	
Chain tensioner	M8 ×1.25	23	2.3	17	
Chain case and swingarm	M6 ×1.0	4	0.4	2.9	
Chain protector and swingarm	M6 ×1.0	7	0.7	5.1	
Chain guide and swingarm	M6 ×1.0	7	0.7	5.2	
Bolt (at swingarm end)	M6 ×1.0	3	0.3	2.2	
Front wheel/Rear wheel:					
Front wheel axle and nut	M14×1.5	110	11.0	80	
Rear wheel axle and nut	M16×1.5	90	9.0	65	
Front axle holder	M6 ×1.0	8	0.8	5.8	
Brake caliper (Front) and front fork	M10×1.25	35	3.5	25	
Brake caliper (Rear) and bracket	M10×1.25	35	3.5	25	
Bracket and swingarm	M10×1.25	45	4.5	32	

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)				
Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Footrest/Pedal/Stand:					
Sidestand and frame	M10×1.25	40	4.0	29	
Rear brake switch and frame	M6 ×1.0	4	0.4	2.9	
Footrest (For rider) and frame	M10×1.25	45	4.5	32	
Footrest (For passenger) and frame	M8 ×1.25	20	2.0	14	
Master cylinder (Rear brake) and frame	M8 ×1.25	20	2.0	14	
Reservoir tank (Rear brake) and frame	M6 ×1.0	4	0.4	2.9	
Tank/Seat/Cover/Fender:					
License bracket	M6 ×1.0	5	0.5	3.6	
Rear reflector	M5 ×0.8	4	0.4	2.9	
Oil tank and oil hose	M6 ×1.0	10	1.0	7.2	
Drain bolt (Oil tank)	M8 ×1.25	18	1.8	13	
Special bolt (Oil tank)	M12×1.25	20	2.0	14	
Helmet holder and frame	M6 ×1.0	4	0.4	2.9	
Seat and frame	M6 ×1.0	10	1.0	7.2	
Front fender and lower bracket	M6 ×1.0	7	0.7	5.1	
Rear fender	M6 ×1.0	7	0.7	5.1	
Battery box and frame	M6 ×1.0	7	0.7	5.1	
Fuel tank stay and frame	M6 ×1.0	7	0.7	5.1	
Fuel tank and frame	M6 ×1.0	7	0.7	5.1	
Fuel pump and frame	M5 ×0.8	5	0.5	3.6	
Fuel pump and clamp	M6 ×1.0	7	0.7	5.1	
Oil tank and frame	M8 ×1.25	10	1.0	72	
Oil cooler and frame	M6 ×1.0	7	0.7	5.1	
CDI unit and mud guad	M6 ×1.0	4	0.4	2.9	
License bracket and taillight	M6 ×1.0	7	0.7	5.1	
Regulator and battery box	M6 ×1.0	7	0.7	5.1	
Regulator and battery box	M16×1.25	35	3.5	25	
Regulator and battery box	M12×1.25	24	2.4	17	

NOTE:

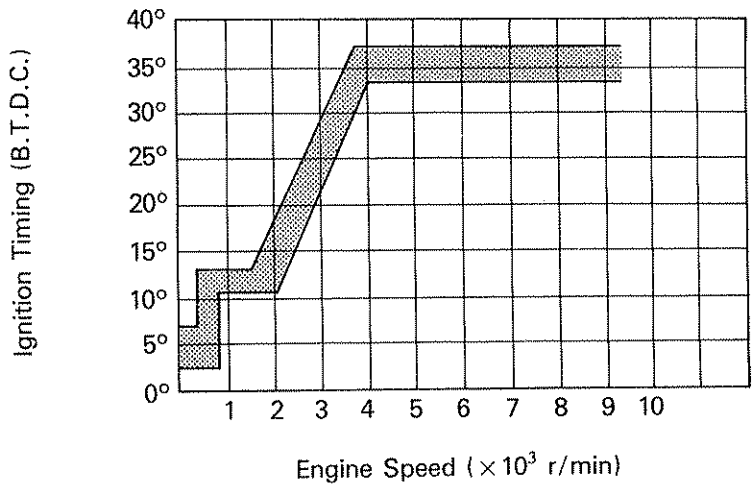
1. First, tighten the ring nut approximately 38 Nm (3.8 m•kg, 27 ft•lb) by using the torque wrench, then loosen the ring nut one turn.
2. Retighten the ring nut to specification.

MAINTENANCE SPECIFICATION

SPEC

ELECTRICAL

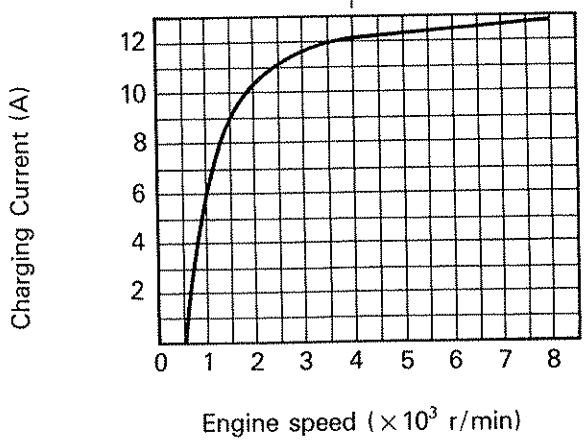
Model	XT600Z(U)
Voltage:	12V
Ignition System: Ignition Timing (B.T.D.C.) Advanced Timing (B.T.D.C.) Advancer Type	 12° at 1,200 r/min 36° at 6,000 r/min Electrical Type



C.D.I.: Magneto Model/Manufacturer Pickup Coil Resistance (Color) Source Coil Resistance (Color) C.D.I. Unit Model/Manufacturer	 VCD92/NIPPON DENSO 92 ~ 138Ω at 20°C (68°F) (Blue/Yellow—Black/Yellow) 92 ~ 138Ω at 20°C (68°F) (Green/White—Black/Yellow) 112 ~ 132Ω at 20°C (68°F) (Brown—Red) QAB52-50/NIPPON DENSO
Ignition Coil: Model/Manufacturer Minimum Spark Gap Primary Coil Resistance Secondary Coil Resistance	 J0138-50/NIPPON DENSO 6.0 mm (0.24 in) 0.15 ~ 0.21Ω at 20°C (68°F) 3.8 ~ 5.8 kΩ at 20°C (68°F)

MAINTENANCE SPECIFICATION

SPEC

Model	XT600Z(U)
Spark Plug Cap: Type Resistance	 Resin type 8 ~ 12kΩ at 20°C (68°F)
Charging System: Type Model/Manufacturer Output	 A.C. magneto generator VCD92/NIPPONDENSO 14V 12A at 5,000 r/min
	
Charging Coil Resistance (Color)	0.7 ~ 1.1Ω at 20°C (68°F) (W—W)
Voltage Regulator/Rectifier: Model/Manufacturer Voltage Regulator: Type No Load Regulated Voltage Rectifier: Capacity Withstand Voltage	 SH569/SHINDENGEN Semi conductor-short circuit type 14.3 ~ 15.3V 25A 240V
Battery: Specific Gravity	 1.280
Starter Motor: Model/Manufacturer Output Brush Overall Length <Limit> Brush Spring Pressure <Limit> Commutator Dia. <Limit> Mica Undercut	 SM13/MITSUBA 0.8kW 12 mm (0.47 in) <5 mm (0.20 in)> 680 ~ 920 g (24.0 ~ 32.4 oz) <520 g (13.6 oz)> 28 mm (1.10 in) <27 mm (1.06 in)> 0.7 mm (0.028 in)
Starter Switch: Model/Manufacturer Amperage Rating	 126-22011-D000/HONDA LOCK 100A

MAINTENANCE SPECIFICATIONS

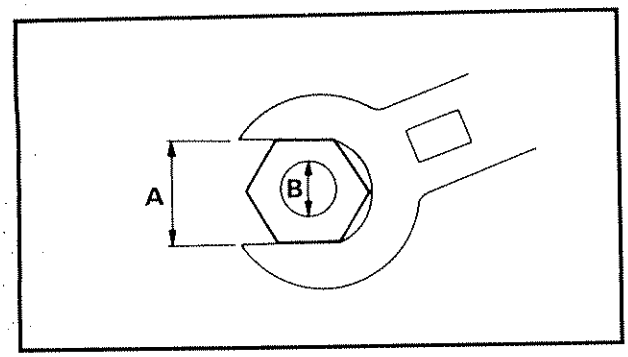
SPEC

Model	XT600Z(U)
Horn:	
Type	Plane type
Quantity	1 pc.
Model/Manufacturer	YF-12/NIKKO
Maximum Amperage	2.5A
Flasher Relay:	
Type	Condenser type
Model/Manufacturer	FZ249SD/NIPPON DENSO FJ245EF/NIPPON DENSO.....(D)
Self Cancelling Device	No
Flasher Frequency	75～95 cycles/min
Wattage	21W×2+3.4W
Circuit Breaker:	
Type	Fuse
Amperage for Individual	20A

GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard I.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

A (Nut)	B (Bolt)	General torque specifications		
		Nm	m•kg	ft•lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



A: Distance across flats
B: Outside thred diameter

DEFINITION OF UNITS

Unit	Read	Definition	Measure
mm cm	millimeter centimeter	10^{-3} meter 10^{-2} meter	Length Length
kg	kilogram	10^{3} gram	Weight
N	Newton	1 kg × m/sec^2	Force
Nm m•kg	Newton meter Meter kilogram	N × m m × kg	Torque Torque
Pa N/mm	Pascal Newton per millimeter	N/m^2 N/mm	Pressure Spring rate
L cm^3	Liter Cubic centimeter	—	Volume or capacity
r/min	Rotation per minute	—	Engine speed

LUBRICATION POINTS AND LUBRICANT TYPE

ENGINE

Lubrication Points (Part name)	Lubricant Type
Oil seal lips (All)	LS
Bearing retainer	E
Crank Pin	E
Connecting rod (Big end)	E
Piston and piston ring	E
Boss (Balancer drive gear)	E
Piston pin	E
Valve stem and valve guide	M
Oil seal (Valve stem end)	M
Rocker arm shaft and rocker arm	E
Cam and bearing (Camshaft)	E
Rotor and rotor housing (Oil pump)	E
Push rod	LS
Primary driven gear and main axle	E
Sliding gear (Transmission)	M
Free movement gear (Transmission)	M
Shift fork and guide bar	E
Shift cam and bearing (Shift cam)	E
Shift shaft	E
Crankcase mating surfaces	Yamaha Bond No. 1215
Mating surfaces (Cylinder head and cylinder head cover)	Yamaha Bond No. 1215

LUBRICATION POINTS AND LUBRICANT TYPE

CHASSIS

Lubrication Points (Part name)	Lubricant Type
Gear unit (Speedometer)	LS
Oil seal lips (All)	LS
Wheel axle (Front wheel and rear wheel)	LS
Rear wheel hub and clutch hub	LS
Bush (Swingarm) and thrust cover	LS
Pivot shaft (Swingarm)	LS
Bushes (Rear shock absorber)	LS
Bushes (Relay arm and connecting rod)	LS
Bearings (Relay arm and connecting rod)	LS
Pivoting points (Brake pedal and change pedal)	LS
Bearings (Steering head)	LS
Right handlebar end	LS
Pivoting points (Brake lever and clutch lever)	LS
Clutch cable end	LS
Pivoting point (Sidestand)	LS
Bushes (Chain tensioner)	LS
Grease nipple (Swingarm)	LS
Grease nipple (Relay arm)	LS
Grease nipple (Connecting arm)	LS