YAMAHA

FZR1000 '87

2GH-SE1

SERVICE INFORMATION

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FOREWORD

This Service Information has been prepared to introduce new service and data for the FZR1000 ('87). For complete service information procedures it is necessary to use this publication together with the following microfiche service manual.

FZR1000 SERVICE MANUAL: 2GH-ME1

FZR1000
SERVICE INFORMATION
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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 OPERATIONS
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.

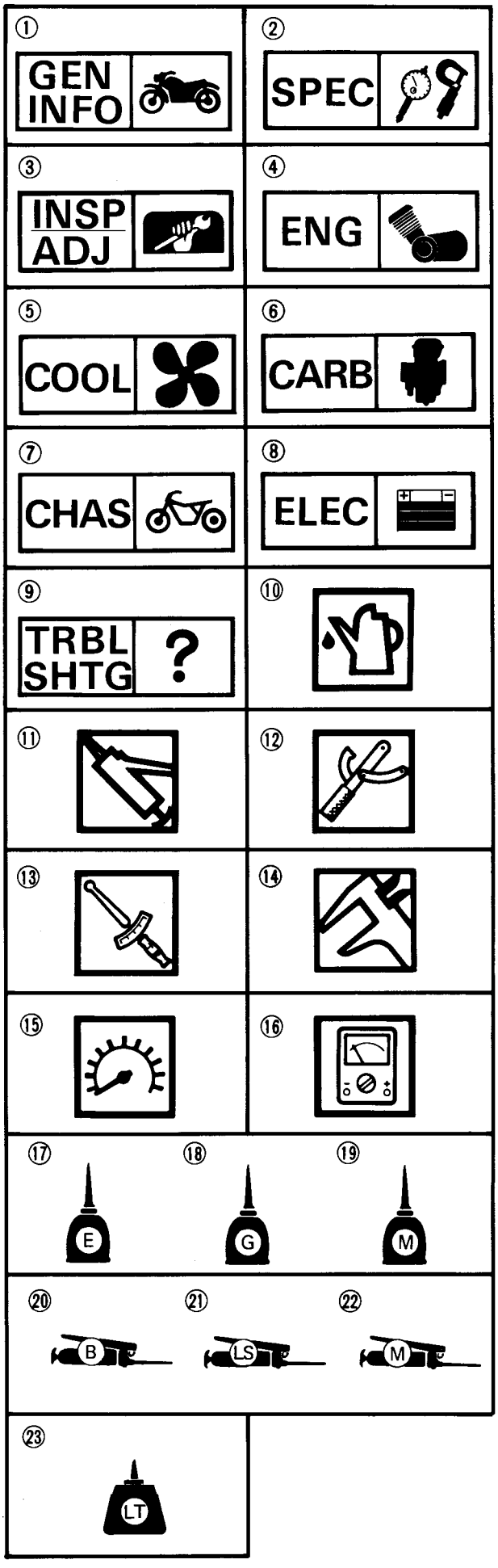
MANUAL FORMAT

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.

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®)

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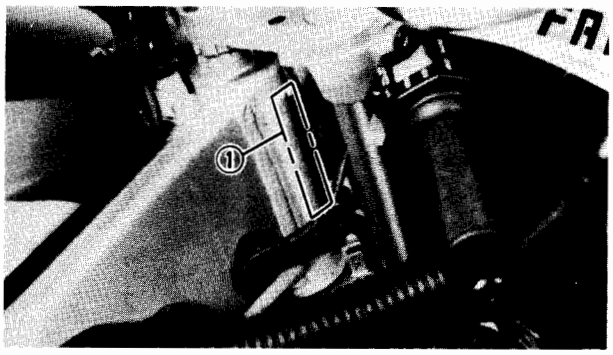
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FZR1000 COLOR WIRING DIAGRAM



GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

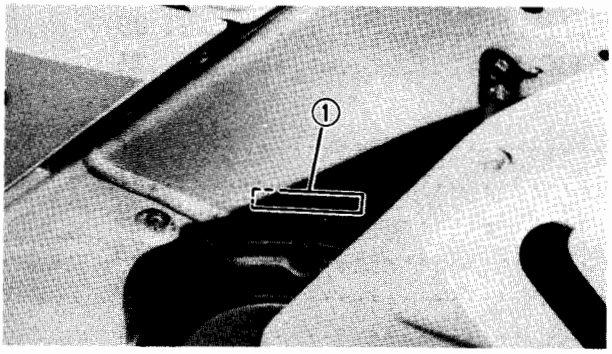
FRAME SERIAL NUMBER

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

Starting Serial Number:	
FZR1000 . . . .2GH-000101	
FZR1000 . . . .2LA-000101	(D, S)
FZR1000 . . . .2LE-000101	(F)
FZR1000 . . . .2LF-000101	(A, CH)
FZR1000 . . . .2RG-000101	(GB)
FZR1000T . . .2LL-000101	(AUS, NZ, ZA)

NOTE:

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.



ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the right side of the engine.

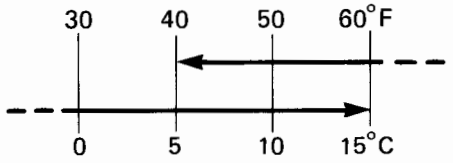
Starting Serial Number:	
FZR1000 . . . .2GH-000101	
FZR1000 . . . .2LA-000101	(D, S)
FZR1000 . . . .2LE-000101	(F)
FZR1000 . . . .2LF-000101	(A, CH)
FZR1000 . . . .2RG-000101	(GB)
FZR1000T . . .2LL-000101	(AUS, NZ, ZA)

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.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	FZR1000
Model Code Number:	2GH 2LA (D, S) 2LE (F) 2LF (A, CH) 2RG (GB, IR) 2LL (AUS, NZ, ZA)
Frame Starting Number:	2GH-000101 2LA-000101 (D, S) 2LE-000101 (F) 2LF-000101 (A, CH) 2RG-000101 (GB) 2LL-000101 (AUS, NZ, ZA)
Engine Starting Number:	2GH-000101 2LA-000101 (D, S) 2LE-000101 (F) 2LF-000101 (A, CH) 2RG-000101 (GB, IR) 2LL-000101 (AUS, NZ, ZA)
Dimensions: Overall Length Overall Width Overall Height Seat Height Wheelbase Minimum Ground Clearance	 2,205 mm (86.8 in) 730 mm (28.7 in) 1,215 mm (47.8 in) 775 mm (30.5 in) 1,470 mm (57.9 in) 140 mm (5.5 in)
Basic Weight: With Oil and Full Fuel Tank	 229 kg (505 lb)
Minimum Turning Radius:	3,400 mm (134 in)
Engine: Engine Type Cylinder Arrangement Displacement Bore x Stroke Compression Ratio Compression Pressure Starting System	 Liquid cooled 4-stroke, gasoline, DOHC 4-cylinder parallel 989 cm^3 (60.3 cu.in) 75.0 x 56.0 mm (2.9528 x 2.2047 in) 11.2 : 1 1,078.8 kPa (11 kg/cm^2, 156 psi) Electric starter
Lubrication System:	Wet sump
Engine Oil Type or Grade:  	 Yamalube 4-cycle oil or SAE 20W40 type SE motor oil SAE 10W30 type SE motor oil

GENERAL SPECIFICATIONS SPEC

Model	FZR1000	
Engine Oil Capacity:		
Engine Oil:		
Periodic Oil Change:	2.7 L (2.4 Imp qt, 2.9 US qt)	
With Oil Filter Replacement	3.0 L (2.6 Imp qt, 3.1 US qt)	
Total Amount	3.6 L (3.2 Imp qt, 3.8 US qt)	
Coolant Total Amount: (Including All Routes)	2.3 L (2.0 Imp qt, 2.4 US qt)	
Air Filter:	Dry type element	
Fuel:		
Type	Regular gasoline Unleaded Fuel only (AUS)	
Tank capacity	20.0 L (4.4 Imp gal, 5.3 US gal)	
Reserve Amount	4.5 L (0.99 Imp gal, 1.19 US gal)	
Carburetor:		
Type x Quantity	BDS37 x 4	
Manufacturer	MIKUNI	
Spark Plug:		
Type (Manufacture)	DR8ES-L (NGK), X24ESR-U (N.D.)	
Gap	0.6 ~ 0.7 mm (0.024 ~ 0.028 in)	
Clutch Type:	Wet, multiple-disc	
Transmission:		
Primary Reduction System	Spur gear	
Primary Reduction Ratio	68/41 (1.659)	
Secondary Reduction System	Chain drive	
Secondary Reduction Ratio	46/16 (2.875)	
Transmission Type	Constant-mesh, 5-speed	
Operation	Left foot operation	
Gear Ratio 1st	36/14 (2.571)	
2nd	32/18 (1.778)	
3rd	29/21 (1.381)	
4th	27/23 (1.174)	
5th	28/27 (1.037)	
Chassis:		
Frame Type	Double cradle, alminum deltabox	
Caster Angle	25.33°	
Trail	100 mm (3.941 in)	
Tire:	Front	Rear
Type	Tubeless	Tubeless
Size	120/70VR17-V270 120/70 ZR17	160/60VR18-V270 160/60 ZR18
Manufacture (Type)	DUNLOP (K445F) PIRELLI (MP7S)	DUNLOP (K445) PIRELLI (MP7S)

GENERAL SPECIFICATIONS

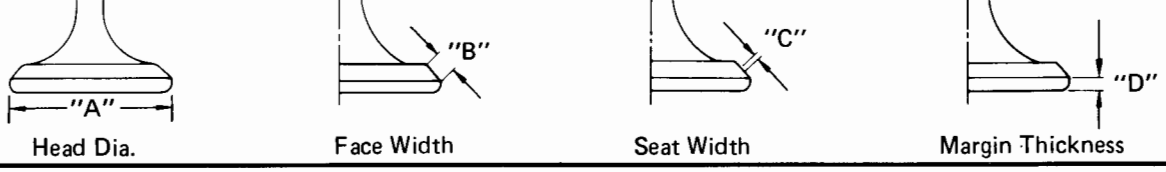
SPEC

Model	FZR1000	
Tire Pressure (Cold tire):	Front	Rear
Up to 90 kg (198 lb) load*	250 kPa (2.5 kg/cm², 36 psi)	250 kPa (2.5 kg/cm², 36 psi)
90 kg (198 lb) ~ Maximum load*	250 kPa (2.5 kg/cm², 36 psi)	290 kPa (2.9 kg/cm², 42 psi)
High speed riding	250 kPa (2.5 kg/cm², 36 psi)	290 kPa (2.9 kg/cm², 42 psi)
*Load is total weight of cargo, rider, passenger, and accessories.		
Brake:		
Front Brake Type	Dual disc brake	
Operation	Right hand operation	
Rear Brake Type	Single disc brake	
Operation	Right foot operation	
Suspension:		
Front Suspension	Telescopic fork	
Rear Suspension	Swingarm (Link suspension)	
Shock Absorber:		
Front Shock Absorber	Coil spring, oil damper	
Rear Shock Absorber	Coil spring, gas-oil damper	
Wheel Travel:		
Front Wheel Travel	130 mm (5.12 in)	
Rear Wheel Travel	130 mm (5.12 in)	
Electrical:		
Ignition System	T.C.I. (Digital ignition)	
Generator System	A.C. generator	
Battery Type or Model	YB14L	
Battery Capacity	12V 14AH	
Headlight type:	Quartz bulb Bulb (A, DK, GR, I, NL, SF)	
Bulb Wattage x Quantity:		
Headlight	35W/35W x 2 55W x 1, 60W/55W x 1 (B, D, F, S) 45W/40W x 2 (A, DK, E, GR, N, NL, SF) 60W/55W x 1 (CH)	
Marker Light	3.4W x 2 4W x 1 (A, B, CH, D, DK, E, F, GR, NL, S, SF) 4W x 2 (I)	
Tail/Brake Light	5W/21W x 2	
Flasher Light	21W x 4	
License Light	5W x 2	
Meter Light	3.4W x 4	
Indicator Light:		
Wattage x Quantity "NEUTRAL"	3.4W x 1	
"HIGH BEAM"	3.4W x 1	
"TURN"	3.4W x 1	
"OIL LEVEL"	3.4W x 1	

MAINTENANCE SPECIFICATIONS

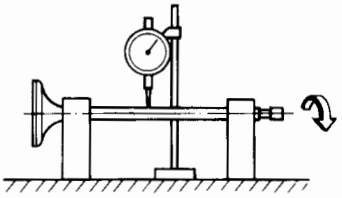
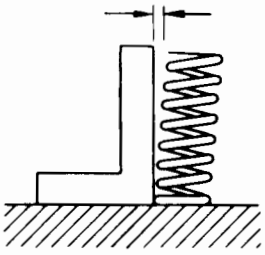
Engine

Model	FZR1000
Cylinder Head: Warp Limit*	0.03 mm (0.0012 in) *Lines indicate straightedge measurement
Cylinder: Bore Size/Measureing Point* Taper Limit Out of Round Limit	75.000 ~ 75.005 mm (2.9528 ~ 2.9529 in)/ 40 mm (1.57 in) 0.05 mm (0.002 in) 0.05 mm (0.002 in)
Camshaft: Drive Method Cam Cap Inside Dia. (I1, I4, E1, E4) (I2, I3, E2, E3) Camshaft Outside Dia. Shaft-to-Cap Clearance (I1, I4, E1, E4) (I2, I3, E2, E3) Cam Dimensions: Intake "A" < Limit > "B" < Limit > "C" < Limit > Exhaust "A" < Limit > "B" < Limit > "C" < Limit > Camshaft Runout Limit	Chain drive (Center) 24.470 ~ 24.491 mm (0.9634 ~ 0.9642 in) 24.500 ~ 24.521 mm (0.9646 ~ 0.9654 in) 24.437 ~ 24.450 mm (0.9621 ~ 0.9626 in) 0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in) 0.050 ~ 0.084 mm (0.0020 ~ 0.0033 in) 32.55 ~ 32.65 mm (1.2815 ~ 1.2854 in) 32.45 mm (1.278 in) 24.95 ~ 25.05 mm (0.9823 ~ 0.9862 in) 24.85 mm (0.9783 in) 7.70 mm (0.3031 in) 7.50 mm (0.2953 in) 32.4 ~ 32.5 mm (1.2756 ~ 1.2795 in) 32.3 mm (1.2717 in) 24.95 ~ 25.05 mm (0.9823 ~ 0.9862 in) 24.85 mm (0.978 in) 7.55 mm (0.2972 in) 7.35 mm (0.2894 in) 0.03 mm (0.0012 in)
Cam Chain: Cam Chain Type/No. of Links Cam Chain Adjustment Method Valve, Valve Seat, Valve Guide: Valve Clearance (Cold): IN. EX. Valve Dimensions:	DID219 (BUSH CHAIN)/110 Links Automatic 0.11 ~ 0.20 mm (0.004 ~ 0.008 in) 0.21 ~ 0.30 mm (0.008 ~ 0.012 in)



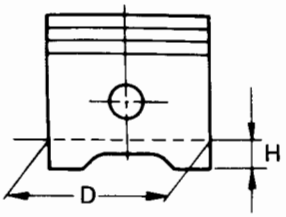
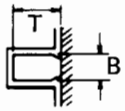
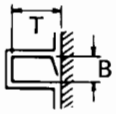
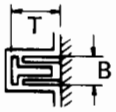
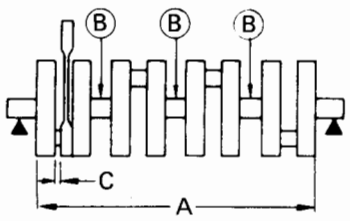
Head Dia. Face Width Seat Width Margin Thickness

MAINTENANCE SPECIFICATIONS SPEC

Model		FZR1000
"A" Head Dia.	IN.	23.4 ~ 23.6 mm (0.9213 ~ 0.9291 in)
	EX.	24.9 ~ 25.1 mm (0.9803 ~ 0.9882 in)
"B" Face Width	IN.	1.63 ~ 2.90 mm (0.0642 ~ 0.1142 in)
	EX.	1.63 ~ 2.90 mm (0.0642 ~ 0.1142 in)
"C" Seat Limit Width	IN.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
	EX.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
"D" Margin Thickness Limit	IN.	0.45 ~ 0.95 mm (0.0177 ~ 0.0374 in)
	EX.	0.75 ~ 1.25 mm (0.0295 ~ 0.0492 in)
Stem Outside Diameter	IN.	4.975 ~ 4.990 mm (0.1959 ~ 0.1965 in)
	EX.	4.960 ~ 4.975 mm (0.1953 ~ 0.1959 in)
< Limit >	IN.	4.945 mm (0.1947 in)
	EX.	4.930 mm (0.1941 in)
Guide Inside Diameter	IN.	5.000 ~ 5.012 mm (0.1969 ~ 0.1973 in)
	EX.	5.000 ~ 5.012 mm (0.1969 ~ 0.1973 in)
< Limit >	IN.	5.05 mm (0.1988 in)
	EX.	5.05 mm (0.1988 in)
Stem-to-Guide Clearance	IN.	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.	0.025 ~ 0.052 mm (0.0010 ~ 0.0020 in)
< Limit >	IN.	0.08 mm (0.0031 in)
	EX.	0.1 mm (0.0039 in)
Stem Runout Limit		0.01 mm (0.0004 in)
		
Valve Seat Width	IN.	0.9 ~ 1.1 mm (0.035 ~ 0.043 in)
	EX.	0.9 ~ 1.1 mm (0.035 ~ 0.043 in)
< Limit >	IN.	1.8 mm (0.071 in)
	EX.	1.8 mm (0.071 in)
Valve Spring:		
Free Length	IN.	39.76 mm (1.565 in)
	EX.	39.96 mm (1.573 in)
Installed Length (Valve Closed)	IN.	35.0 mm (1.378 in)
	EX.	35.0 mm (1.378 in)
Compressed Pressure	IN.	7.3 ~ 8.7 kg (16.1 ~ 19.2 lb)
(Valve closed)	EX.	11.0 ~ 13.0 kg (24.3 ~ 28.7 lb)
Tilt Limit	IN.	2.5°/1.7 mm (0.067 in)
	EX.	2.5°/1.7 mm (0.067 in)
		
Direction of Winding (Top view)	IN.	
	EX.	

MAINTENANCE SPECIFICATIONS

SPEC

Model		FZR1000
Piston:		
Piston Size "D"		74.93 ~ 74.94 mm (2.949 ~ 2.950 in)
Measuring Point "H"		3 mm (0.12 in) (From bottom line of piston skirt)
Piston-to-Cylinder Clearance		0.06 ~ 0.08 mm (0.0024 ~ 0.0031 in)
Oversize:	2nd	75.50 mm (2.97 in)
Piston Ring:		
Sectional Sketch	Top Ring 	Barrel B = 0.8 mm (0.0315 in) T = 3.1 mm (0.1220 in)
	2nd Ring 	Taper B = 1.0 mm (0.0394 in) T = 3.1 mm (0.1220 in)
	Oil Ring 	Expander B = 2.0 mm (0.0787 in) T = 2.5 mm (0.0984 in)
End Gap (Installed):	Top Ring	0.3 ~ 0.5 mm (0.0118 ~ 0.0197 in)
	< Limit >	0.7 mm (0.0276 in)
	2nd Ring	0.3 ~ 0.5 mm (0.0118 ~ 0.0197 in)
	< Limit >	0.7 mm (0.0276 in)
	Oil Ring	0.2 ~ 0.8 mm (0.0078 ~ 0.0315 in)
Side Clearance:	Top Ring	0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)
	< Limit >	0.15 mm (0.0059 in)
	2nd Ring	0.02 ~ 0.06 mm (0.0008 ~ 0.0024 in)
	< Limit >	0.15 mm (0.0059 in)
	Oil Ring	–
Connecting Rod:		
Crank Pin Oil Clearance		0.032 ~ 0.056 mm (0.0013 ~ 0.0022 in)
Bearing Size No. Color Code		1. Blue 2. Black 3. Brown 4. Green
Crankshaft:		
Assembly Width "A"		339.8 ~ 340.2 mm (13.38 ~ 13.39 in)
Runout Limit "B"		0.03 mm (0.0012 in)
Big End Side Clearance "C"		0.16 ~ 0.262 mm (0.006 ~ 0.010 in)

MAINTENANCE SPECIFICATIONS

SPEC

Model		FZR1000		
Main Journal Oil Clearance		0.020 ~ 0.044 mm (0.0008 ~ 0.0017 in)		
Bearing Size No. Color Code		1. Blue 2. Black 3. Brown 4. Green 5. Yellow		
Clutch:				
Friction Plate Thickness x Quantity		2.9 ~ 3.1 mm (0.114 ~ 0.122 in) x 9		
Location x Quantity/Identification		Outer x 1/Single semi-circular slot Center x 1/Blue painted mark Others x 7/Red painted mark		
Wear Limit		2.8 mm (0.110 in)		
Clutch Plate Thickness x Quantity		1.9 ~ 2.1 mm (0.075 ~ 0.083 in) x 7		
Warp Limit		0.1 mm (0.0039 in)		
Clutch Spring Free Length x Quantity		55.5 mm (2.185 in) x 6		
Clutch Spring Minimum Length		54.0 mm (2.126 in)		
Clutch Release Method		Hydrauric inner push		
Transmission:				
Main Axle Deflection Limit		0.08 mm (0.0031 in)		
Drive Axle Deflection Limit		0.08 mm (0.0031 in)		
Shifter:				
Shifter Type		Guide bar		
Carburetor:				
Type/Manufacture x Quantity		BDS37/MIKUNI x 4		
		2GH, 2RG, 2LL	2LA, 2LE	2LF
I.D. Mark		2GH00	2LE00	2LF00
Main Jet	(M.J.)			
(#1, 4 Cylinder)		#110	#112.5	#92.5
(#2, 3 Cylinder)		#107.5	#110	#90
Main Air Jet	(M.A.J.)	#65	#65	#65
Jet Needle-Clip Position	(J.N.)	5CZ2-4	5CZ2-3	5CZ2-3
Needle Jet	(N.J.)	Y-0	Y-0	Y-0
Pilot Jet	(P.J.)	#20	#20	#20
Pilot Outlet Size	(P.O.)	0.8	0.8	0.8
Pilot Air Jet	(P.A.J.)	#115	#115	#117.5
Pilot Screw	(P.S.)	2-1/2	2-1/2	2-1/2
Valve Seat Size	(V.S.)	1.5	1.5	1.5
Starter Jet	($G.S_1$)	#30	#30	#30
	($G.S_2$)	0.5	0.5	0.5
Bypath Size	($B.P_1$)	0.8	0.8	0.8
Throttle Valve Size	(Th.V)	#130	#130	#130
Fuel Level	(F.L.)	7.3 ~ 9.3 mm (0.287 ~ 0.366 in) Below from the float chamber line		

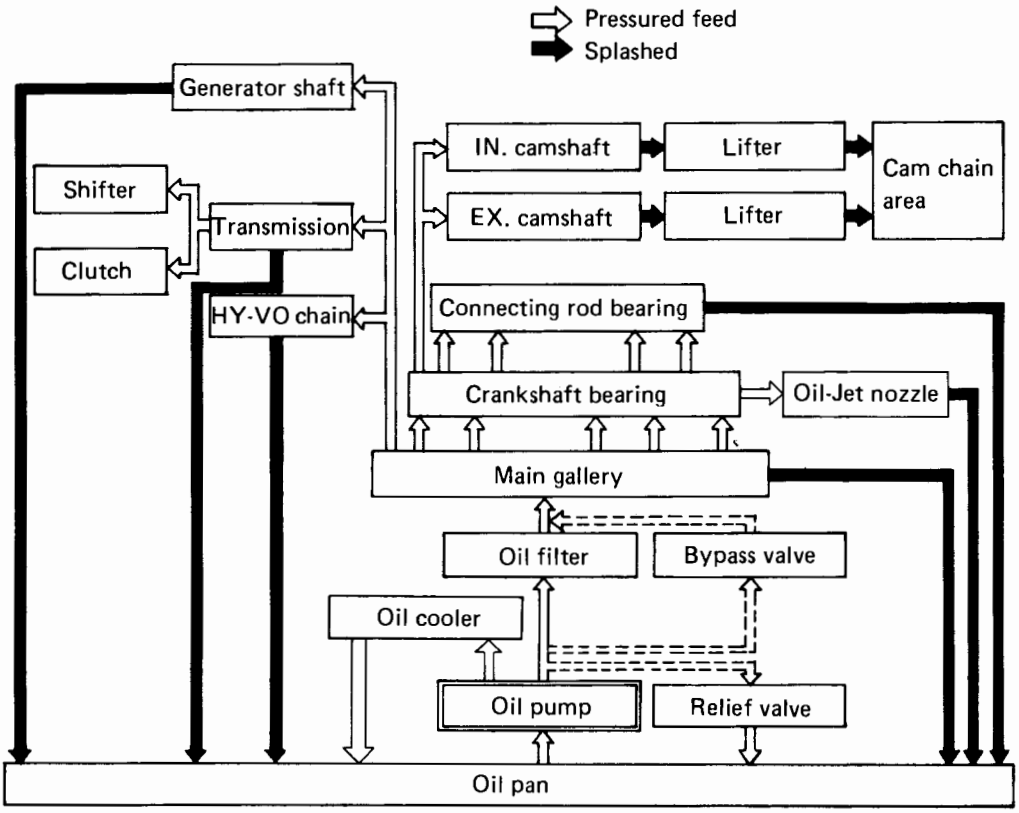
MAINTENANCE SPECIFICATIONS

SPEC

Model	FZR1000
Lubrication System:	
Oil Filter Type	Paper
Oil Pump Type	Trochoid pump
Tip Clearance	0.09 ~ 0.15 mm (0.0035 ~ 0.0060 in)
< Limit >	< 0.2 mm (0.008 in) >
Side Clearance	0.03 ~ 0.08 mm (0.0012 ~ 0.0031 in)
< Limit >	< 0.15 mm (0.006 in) >
Bypass Valve Setting Pressure	176.5 ~ 215.8 kPa (1.8 ~ 2.2 kg/cm², 25.6 ~ 31.3 psi)
Relief Valve Operating Pressure	382.5 ~ 460.9 kPa (3.9 ~ 4.7 kg/cm², 55.5 ~ 66.8 psi)
Cooling System:	
Radiator Core Size Width	375 mm (14.76 in)
Height	185 mm (7.28 in)
Thickness	32 mm (1.26 in)
Radiator Cap Opening Pressure	74 ~ 103 kPa (0.75 ~ 1.05 kg/cm², 10.7 ~ 14.9 psi)
Reservoir Tank Capacity	0.4 L (0.35 Imp qt, 0.42 US qt)
< From Low to Full Level >	0.15 L (0.13 Imp qt, 0.16 US qt)
Water Pump	
Type	Single-suction centrifugal pump
Reduction Ratio	68/41 x 41/43 (1.581)

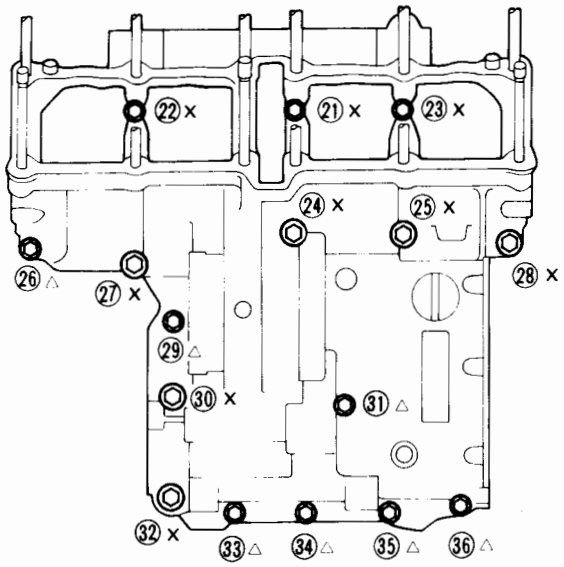
Model	FZR1000

Lubrication Chart:

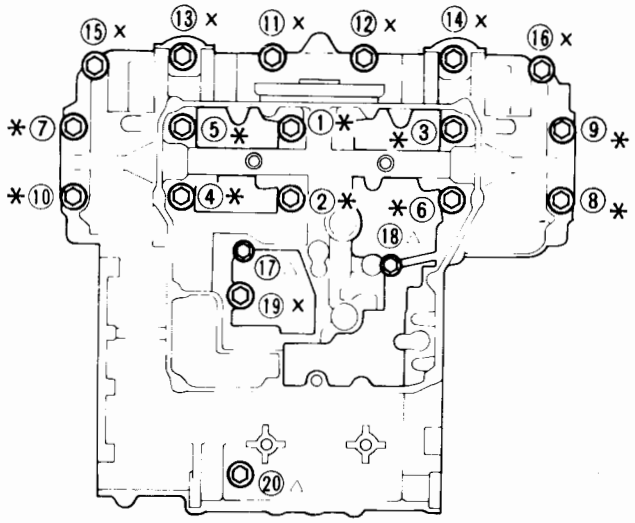


Crankcase Tightening Sequence:

Crankcase (Upper)



Crankcase (Lower)



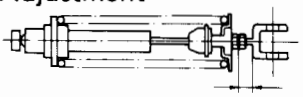
* : 9 mm Bolt: 32 Nm (3.2 m·kg, 23 ft·lb)
x : 8 mm Bolt: 24 Nm (2.4 m·kg, 17 ft·lb)
△ : 6 mm Bolt: 12 Nm (1.2 m·kg, 8.7 ft·lb)

MAINTENANCE SPECIFICATIONS SPEC

TIGHTENING TORQUE

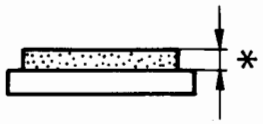
Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Camshaft Cap	Bolt	M6	40	10	1.0	7.2	M
Cylinder Head (Exhaust pipe)	Stud bolt	M8	8	15	1.5	11	E
Cylinder Head	Nut	M9	12	37	3.7	27	E
Spark Plug	–	M12	4	17.5	1.75	12.5	
Cylinder Head Cover	Bolt	M6	8	10	1.0	7.2	
Connecting Rod	Nut	M8	8	36	3.6	25	M
Cam Chain Sprocket	Flange bolt	M7	4	24	2.4	17	
Cam Chain Tensioner	Bolt	M6	2	10	1.0	7.2	
Cam Chain Tensioner End	Cap bolt	M11	1	20	2.0	14	
Chain Guide (Intake side)	Bolt	M6	2	10	1.0	7.2	
Oil Pump Housing	Screw	M6	1	10	1.0	7.2	
Oil Pump Mount	Bolt	M6	3	10	1.0	7.2	
Oil Filter Case	–	M20	1	15	1.5	11	
Oil Pan	Bolt	M6	12	10	1.0	7.2	
Drain Plug	–	M14	1	43	4.3	31	
Oil Pipe 1	Bolt	M6	3	7	0.7	5.1	
Oil Buffle Plate (Lower)	Frange bolt	M6	14	10	1.0	7.2	
Oil Level Switch	Bolt	M6	2	10	1.0	7.2	
Exhaust Pipe	Nut	M6	8	10	1.0	7.2	
Muffler Stay	Bolt	M10	1	25	2.5	18	
Muffler Bracket	Bolt	M8	1	20	2.0	14	
Exhaust Pipe Blind Plug (CO test)	Bolt	M6	4	10	1.0	7.2	
Crankcase (Cylinder head)	Stud bolt	M9	12	10	1.0	7.2	E
Main Axle Bearing Stopper	Torx	M6	3	10	1.0	7.2	L
Crankshaft End Cover	Screw	M6	6	7	0.7	5.1	
Crankcase Cover (Right)	Bolt	M6	11	10	1.0	7.2	
Crankcase	Bolt	M6	10	12	1.2	8.7	E
Crankcase	Bolt	M8	16	24	2.4	17	E
Crankcase	Bolt	M9	10	32	3.2	23	E
Starter Clutch	Bolt	M8	3	25	2.5	18	Stake
Starter Chain Guide	Bolt	M6	2	10	1.0	7.2	
Clutch Boss	Nut	M20	1	70	7.0	50	Use lock washer
Clutch Spring	Bolt	M6	6	8	0.8	5.8	
Drive Sprocket	Nut	M18	1	70	7.0	50	Use lock washer
Shift Cam Stopper Lever	Bolt	M6	2	10	1.0	7.2	L
Shift Cam (Neutral)	Screw	M5	1	4	0.4	2.9	L
Other Engine Part	Bolt	M8	–	20	2.0	14	
	Bolt	M6	–	10	1.0	7.2	
	Screw	M6	–	7	0.7	5	

Chassis

Model		FZR1000
Steering System:		
Steering Bearing Type		Taper Roller Bearing
Front Suspension:		
Front Fork Travel		130 mm (5.12 in)
Front Spring Free Length		533 mm (20.98 in)
< Limit >		528 mm (20.79 in)
Spring Rate:	K1	5.88 N/mm (0.6 kg/mm, 33.59 lb/in)
	K2	8.34 N/mm (0.85 kg/mm, 47.58 lb/in)
Stroke	K1	0.0 ~ 95 mm (0.0 ~ 3.74 in)
	K2	95 ~ 130 mm (3.74 ~ 5.12 in)
Optional Spring		No
Oil Capacity		425 cm³ (15.0 Imp oz, 14.4 US oz)
Oil Level (Fully Compression)		143 mm (5.63 in) Bellow the top of inner fork tube without fork spring
Oil Grade		Yamaha Fork Oil 10WT or equivalent
Adjustment		← Stiffer | Std. | Softer → Adjusting groove: 1 2 3 4 5 6 7
Rear Suspension:		
Shock Absorber Travel		50 mm (1.97 in)
Spring Free Length		202 mm (7.95 in)
Fitting Length		190 mm (7.48 in)
Spring Rate	K1	152 N/mm (15.5 kg/mm, 868 lb/in)
Stroke	K1	0 ~ 50 mm (0.0 ~ 1.97 in)
Optional Spring		No
Adjustment	Minimum	12.5 mm (0.49 in)
	Standard	14.5 mm (0.57 in)
	Maximum	20.5 mm (0.81 in)
Swingarm:		
Free Play Limit	End	1.0 mm (0.04 in)
	Side	1.0 mm (0.04 in)
Front Wheel:		
Type		Cast Wheel
Rim Size		MT3.50 x 17
Rim Material		Aluminum
Rim Runout Limit	Radial	1 mm (0.04 in)
	Lateral	0.5 mm (0.02 in)
Rear Wheel:		
Type		Cast wheel
Rim Size		MT4.50 x 18
Rim Material		Aluminum
Rim Runout Limit	Radial	1 mm (0.04 in)
	Lateral	0.5 mm (0.02 in)
Drive Chain:		
Type/Manufacturer		532ZL/D.I.D, RK532GSV/RK
No. of Links		110
Chain Free Play		15 ~ 20 mm (0.6 ~ 0.8 in)

MAINTENANCE SPECIFICATIONS

SPEC

Model	FZR1000
Front Disc Brake:	
Type	Dual (4-pot caliper)
Disc Outside Diameter x Thickness	320 x 4 mm (12.60 x 0.16 in)
Pad Thickness Inner	5.5 mm (0.22 in)
< Limit >*	0.5 mm (0.02 in)
Pad Thickness Outer	5.5 mm (0.22 in)
< Limit >*	0.5 mm (0.02 in)
	
Master Cylinder Inside Diameter	15.87 mm (0.62 in)
Caliper Cylinder Inside Diameter: Left	32.10 mm (1.26 in)
Right	33.96 mm (1.34 in)
Brake Fluid Type	DOT #3
Rear Disc Brake:	
Type	Single (4-pot caliper)
Disc Outside Diameter x Thickness	267 x 5 mm (10.51 x 0.20 in)
Pad Thickness Inner	5.5 mm (0.22 in)
< Limit >*	0.5 mm (0.02 in)
Pad Thickness Outer	5.5 mm (0.22 in)
< Limit >*	0.5 mm (0.02 in)
	
Master Cylinder Inside Diameter	14.0 mm (0.55 in)
Caliper Cylinder Inside Diameter	42.85 mm (1.69 in)
Brake Fluid Type	DOT #3
Clutch:	
Master Cylinder Inside Diameter	15.87 mm (0.63 in)
Release Cylinder Inside Diameter	38.1 mm (1.50 in)
Brake Fluid Type	DOT #3
Brake Lever and Brake Pedal:	
Brake Lever Free Play	2 ~ 5 mm (0.08 ~ 0.20 in)
Brake Pedal Position	50 mm (2.0 in) Bellow the top of the footrest.

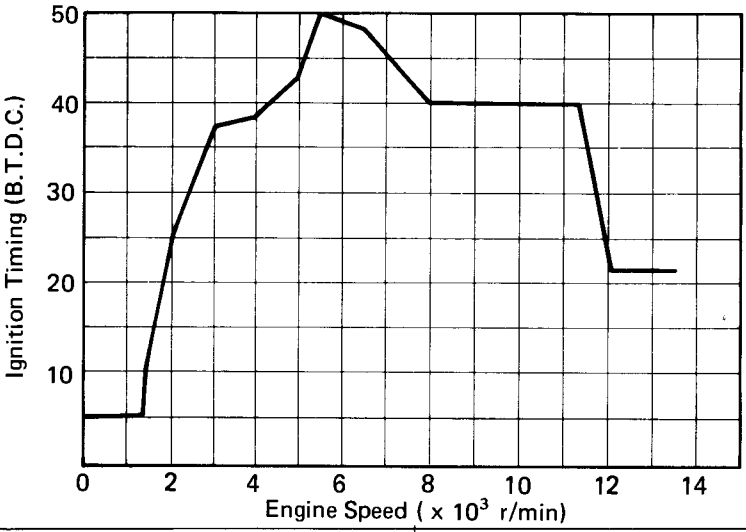
MAINTENANCE SPECIFICATIONS SPEC

Part to be tightened	Thread size	Tightening torque		
		Nm	m·kg	ft·lb
Front Axle	M14	58	5.8	42
Front Axle Pinch	M8	20	2.0	14
Front Fender	M6	107	10.7	77.4
Handle Crown and Inner Tube	M6	20	2.0	14
Handle Crown and Steering Stem Assy'	M22	110	11.0	80
Steering Stem Assy' and Lower Ring Nut: 1st	M22	52	5.2	37
(Refer to NOTE) 2nd			Loosen	
3rd		3	0.3	2.2
Brake Caliper (Front/Rear)	M10	35	3.5	25
Brake Disc and Wheel	M10	20	2.0	14
Master Cylinder and Master Cylinder Holder	M6	9	0.9	6.5
Master Cylinder and Master Cylinder Cap	M5	2	0.2	1.4
Bleed Screw and Brake Caliper	M8	6	0.6	4.3
Brake Hose	M10	25	2.5	18
Handlebar and Inner Tube	M8	20	2.0	14
Handlebar and Handle Crown	M6	9	0.9	6.5
Grip End (Handlebar)	M16	26	2.6	19
Engine Mounting: Front upper	M10	55	5.5	40
Rear upper slit	M8	15	1.5	11
Rear upper	M10	55	5.5	40
Rear lower	M10	42	4.2	30
Down Tube and Frame: Front	M10	63	6.3	46
Rear	M8	28	2.8	20
Footrest Bracket and Frame (Front)	M8	28	2.8	20
Footrest and Footrest Bracket (Front)	M10	55	5.5	40
Pivot Axle and Locknut	M14	90	9.0	65
Relay Arm and Frame	M10	48	4.8	35
Arm and Swingarm	M12	74	7.4	54
Arm and Relay Arm	M12	74	7.4	54
Rear Shock Absorber and Frame	M10	42	4.2	30
Rear Shock Absorber and Relay Arm	M10	40	4.0	28
Footrest and Footrest Bracket (Rear)	M10	55	5.5	40
Master Cylinder and Frame (Rear)	M8	20	2.0	14
Rear Frame and Frame	M10	55	5.5	40
Tension Bar and Swingarm	M8	28	2.8	20
Brake Caliper and Tension Bar (Rear)	M8	28	2.8	20
Brake Disc and Clutch Hub	M8	20	2.0	14
Sprocket and Clutch Hub	M10	55	5.5	40
Rear Axle and Nut	M15	110	11.0	80

NOTE:

After torquing the steering shaft and ring nut, adjust them for smooth movement of the handlebar.

Electrical

Model	FZR1000
Voltage	12V
Ignition System:	
Ignition Timing (B.T.D.C.)	5° ± 1° at 1,000 r/min
Advanced Timing (B.T.D.C.)	50° at 6,000 r/min
Advancer Type	Electrical
	
T.C.I.:	
Pickup Coil Resistance	135 ~ 165Ω at 20°C (68°F)
(Color)	(Gray – Orange)
T.C.I. Unit/Manufacturer	TID14-57/HITACHI
Ignition Coil:	
Model/Manufacturer	CM12-32/HITACHI
Minimum Spark Gap	6 mm (0.24 in) or more at 500 r/min
Primary Winding Resistance	1.8 ~ 2.2Ω at 20°C (68°F)
Secondary Winding Resistance	10.8 ~ 13.2 kΩ at 20°C (68°F)
Spark Plug Cap Resistance	10 kΩ
Charging System:	
Type	A.C. Generator
A.C. Generator:	
Model/Manufacturer	B3G/NIPPONDENSO
Nominal Output	12V, 28A at 5,000 r/min
Field Coil Resistance	3.8 ~ 4.2Ω at 20°C (68°F) (Brown – Green)
Starter Coil Resistance	0.15 ~ 0.18Ω at 20°C (68°F) (White – White)
Brush – Overall Length	13.7 mm (0.54 in)
< Limit >	4.7 mm (0.19 in)
– Spring Force	230 ~ 330 gr (8.1 ~ 11.6 oz)
Voltage Regulator:	
Type	Field control
No load Regulated Voltage	14.2 ~ 14.8V
Battery:	
Capacity	12V, 14AH
Specific Gravity	1.280

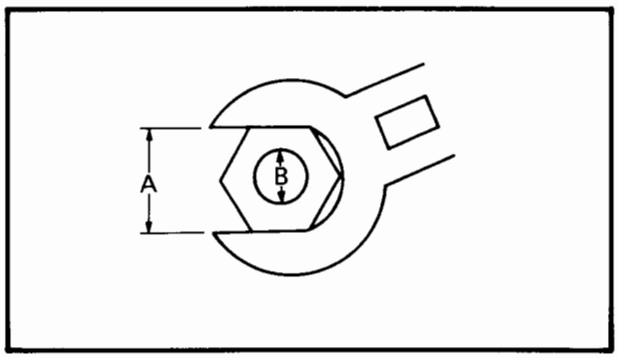
MAINTENANCE SPECIFICATIONS SPEC

Model	FZR1000
Electrical Starter System:	
Type	Constant mesh type
Starter Motor:	
Model/Manufacturer	SM-8/MITSUBA
Output	0.6 kw
Armature Coil Resistance	0.012Ω ± 10% at 20°C (68°F)
Brush – Overall Length	12 mm (0.47 in)
< Limit >	5 mm (0.20 in)
– Spring Force	680 ~ 920 g (24.0 ~ 32.4 oz)
Commutator Dia.	28 mm (1.10 in)
Wear Limit	27 mm (1.06 in)
Mica Undercut	0.8 mm (0.03 in)
Starter Switch:	
Model/Manufacturer	A104-128/HITACHI
Amperage Rating	100A
Coil Resistance	4.0 ~ 4.7Ω at 20°C (68°F)
Horn:	
Type/Quantity	Plane Type/1 pcs.
Model/Manufacturer	CF-12/NIKKO
Maximum Amperage	2.5A
Flasher Relay (Relay Assembly):	
Type	Semi transistor type
Model/Manufacturer	FX257N/NIPPON DENSO
Self Cancelling Device	Yes (Except D)
Flasher Frequency	75 ~ 95 cycle/min
Wattage	21W x 2 pcs + 3.4W
Sidestand Relay:	Except AUS, NZ, ZA
Model/Manufacturer	G4MW-112IT-010-Y17/OMRON
Coil Winding Resistance	75Ω ± 10% at 20°C (68°F)
Diode	No
Oil Level Switch:	
Model/Manufacturer	4H7/NIPPON DENSO
Fuel Pump Relay:	
Model/Manufacturer	25G-00/OMRON
Thermostat Switch:	
Model/Manufacturer	47X/NIPPON THERMOSTAT
Thermo Unit:	
Model/Manufacturer	11H/NIPPON SEIKI
Circuit Breaker:	
Type	Fuse
Amperage for Individual Circuit x Quantity:	
MAIN	30A x 1
HEADLIGHT	15A x 1
SIGNAL	10A x 1
IGNITION	10A x 1
RESERVE	10A x 1, 15A x 1, 30A x 1

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 thread diameter

LUBRICATION POINT AND GRADE OF LUBRICANT

ENGINE

Lubrication Point	Symbol	Grade of Lubricant
Oil seal lip	B	Wheel bearing grease
O-Ring	B	Wheel bearing grease
Bearing	E	Engine oil
Piston surface	E	Engine oil
Piston pin	E	Engine oil
Crankshaft pin	E	Engine oil
Crankshaft journal	E	Engine oil
Connecting rod bolt/Nut	M	Molybdeum disulfide oil
Camshaft cam lobe/Journal	M	Molybdeum disulfide oil
Valve stem (IN, EX)	M	Molybdeum disulfide oil
Valve stem end (IN, EX)	M	Molybdeum disulfide oil
Water pump impeller shaft	E	Engine oil
Oil pump rotor (Inner/Outer), housing	E	Engine oil
Oil strainer assembly	E	Engine oil
Outer starter clutch surface	E	Engine oil
Idle gear surface/Bearing	E	Engine oil
Starter clutch ball	E	Engine oil
Primary driven gear	E	Engine oil
Transmission gear (Wheel/Pinion)	M	Molybdeum disulfide oil
Axle (Main/Drive)	M	Molybdeum disulfide oil
Shift cam	M	Molybdeum disulfide oil
Shift fork/Guide bar	E	Engine oil
Shift shaft assembly	E	Engine oil

LUBRICATION POINT AND GRADE OF LUBRICANT

SPEC

CHASSIS

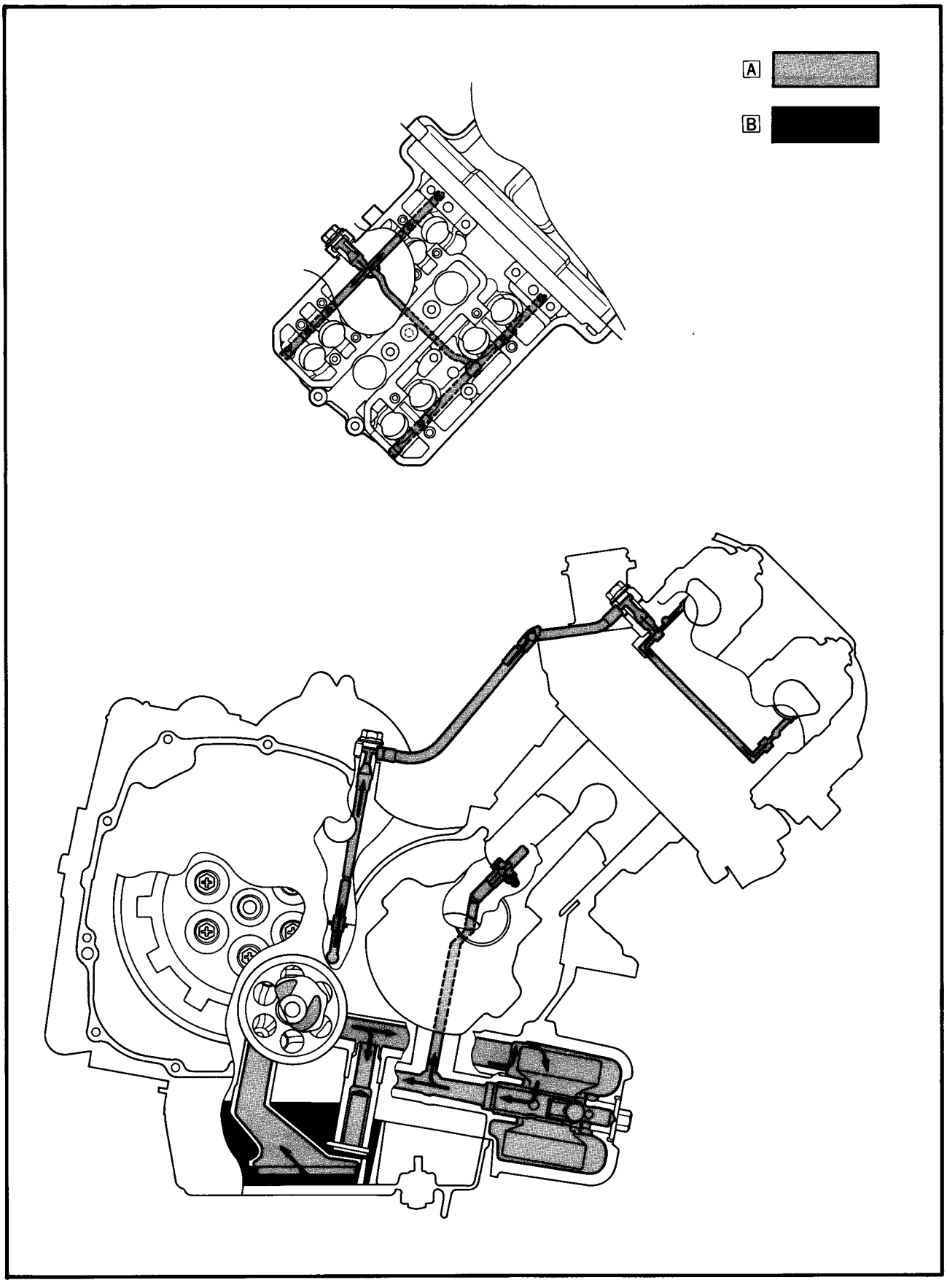
Lubrication Point	Symbol	Grade of Lubricant
Steering bearing (Upper/Lower)	B	Molybdenum disulfide grease
Wheel bearing/Axle	B	Wheel bearing grease
Front wheel oil seal (Right/Left)	B	Wheel bearing grease
Rear wheel oil seal	B	Wheel bearing grease
Clutch hub oil seal	B	Wheel bearing grease
Clutch hub fitting area	B	Wheel bearing grease
Rear brake pedal shaft	B	Wheel bearing grease
Change pedal	B	Wheel bearing grease
Side stand sliding surface	B	Wheel bearing grease
Tube guide (Throttle grip) inner surface	B	Wheel bearing grease
Brake lever bolt, sliding surface	B	Wheel bearing grease
Clutch lever bolt, sliding surface	B	Wheel bearing grease
Rear shock absorber (Upper/Lower)	M	Molybdenum disulfide grease
Swingarm pivot bearing	LS	Lithium-soap base grease
Pivot shaft	LS	Lithium-soap base grease
Arm 1, 2 bearing	LS	Lithium-soap base grease
Thrust cover (Inner)	LS	Lithium-soap base grease
Rellay arm bearing (Inner)	LS	Lithium-soap base grease
Rear footrest ball	B	Wheel bearing grease
Rear footrest pin	B	Wheel bearing grease

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 x m/sec^2	Force
Nm m·kg	Newton meter Meter kilogram	N x m m x 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

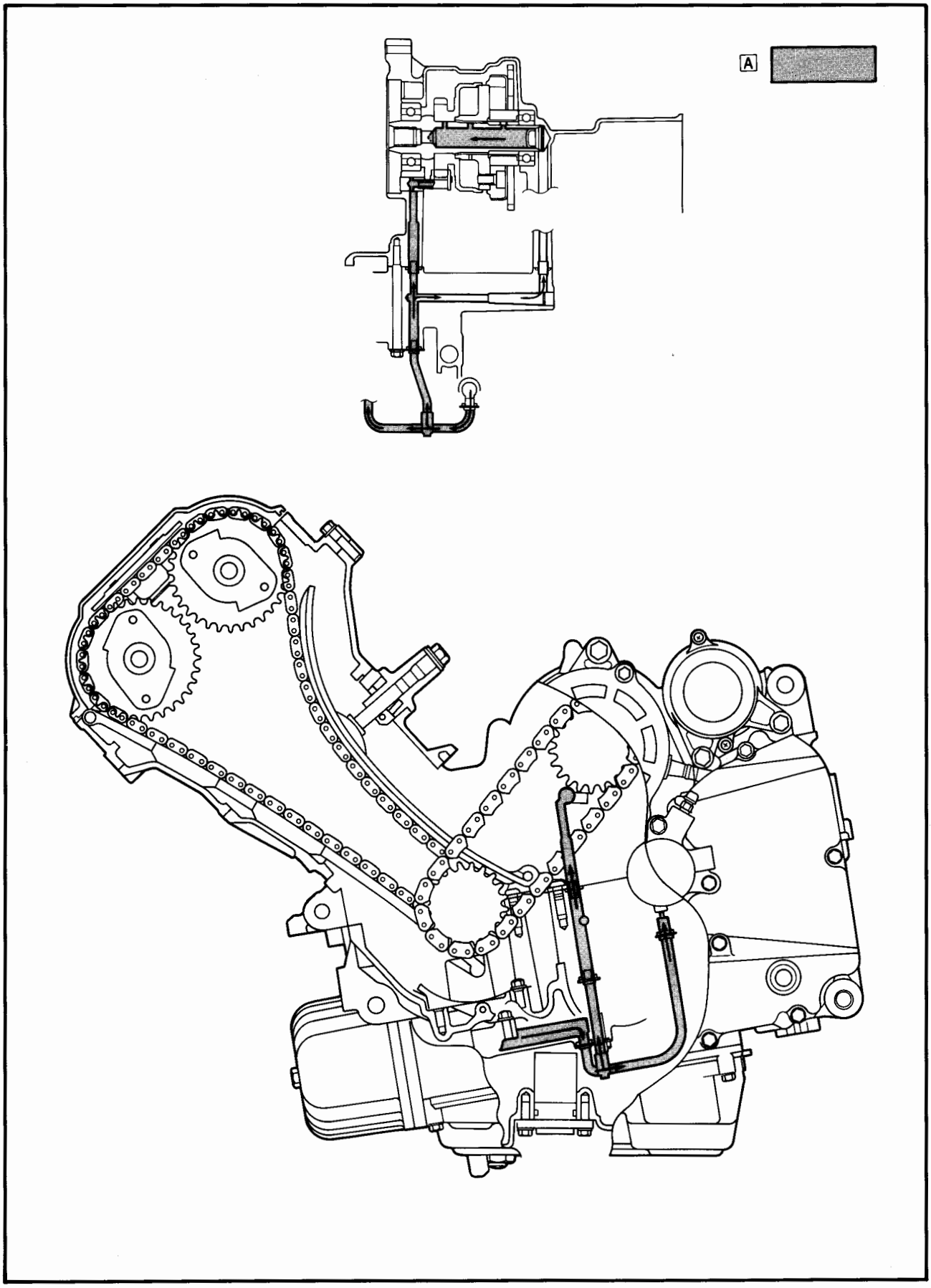
LUBRICATION DIAGRAM (1)

[A] Feed
[B] Scavenge



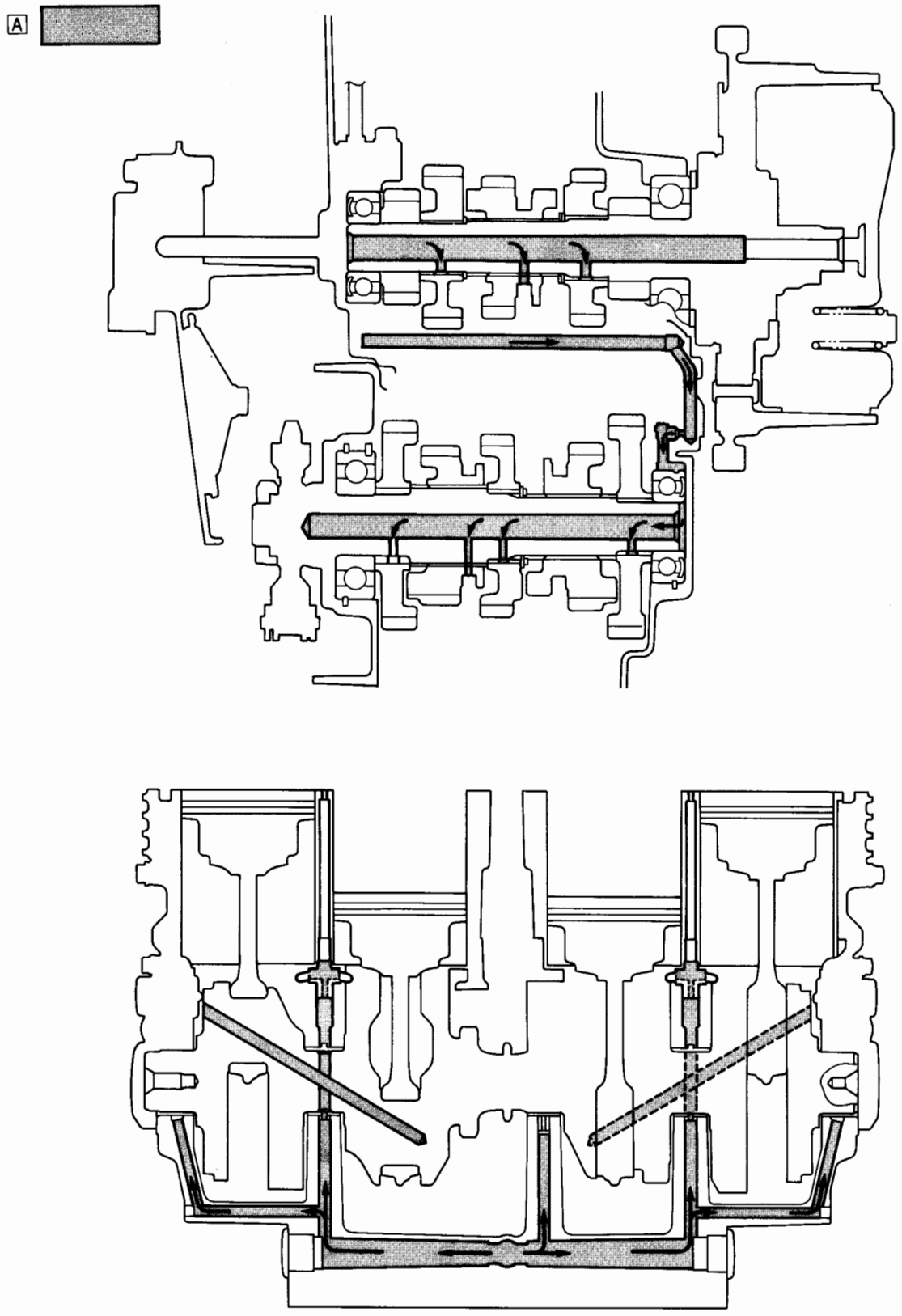
LUBRICATION DIAGRAM (2)

[A] Feed



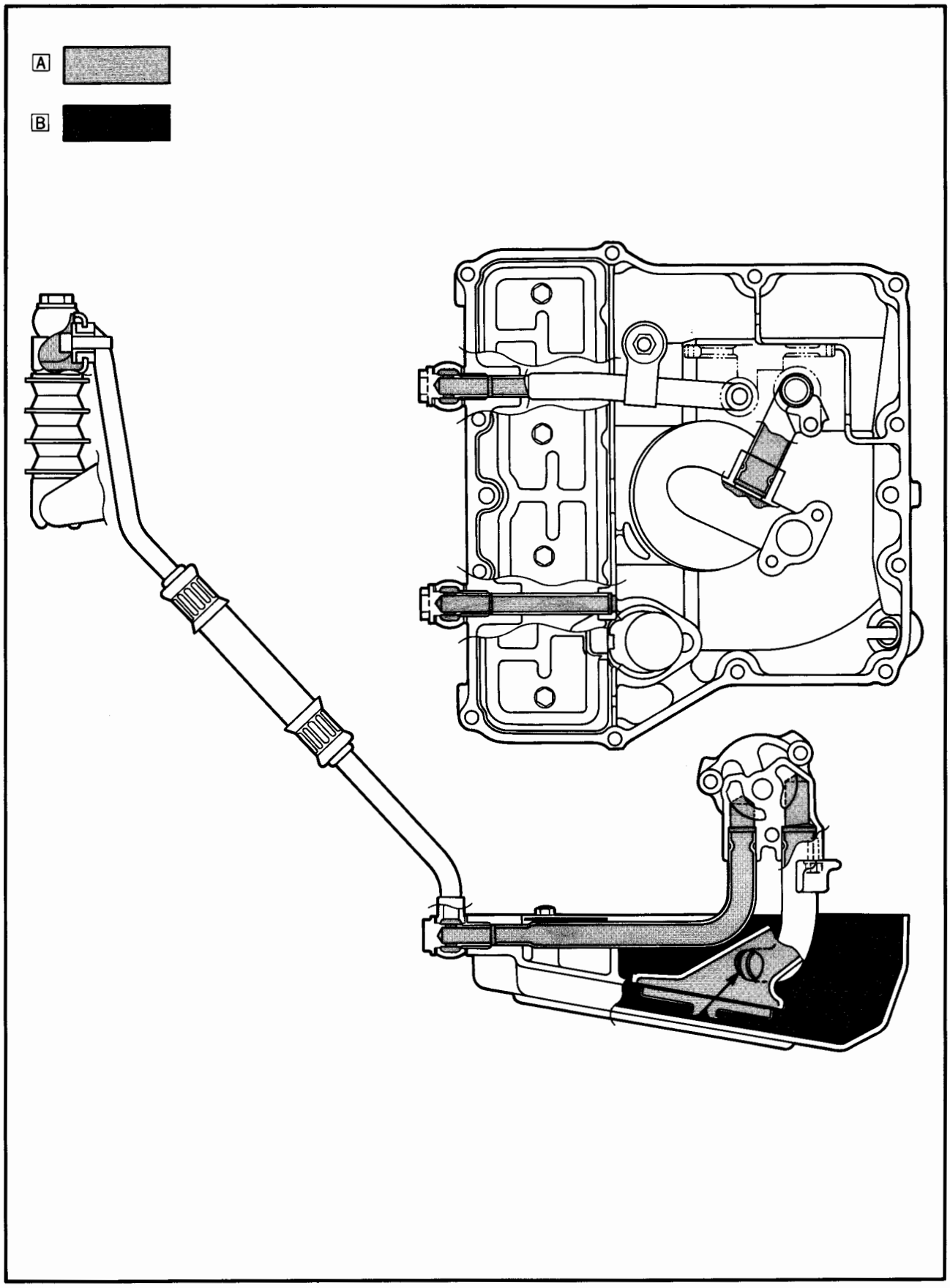
LUBRICATION DIAGRAM (3)

[A] Feed



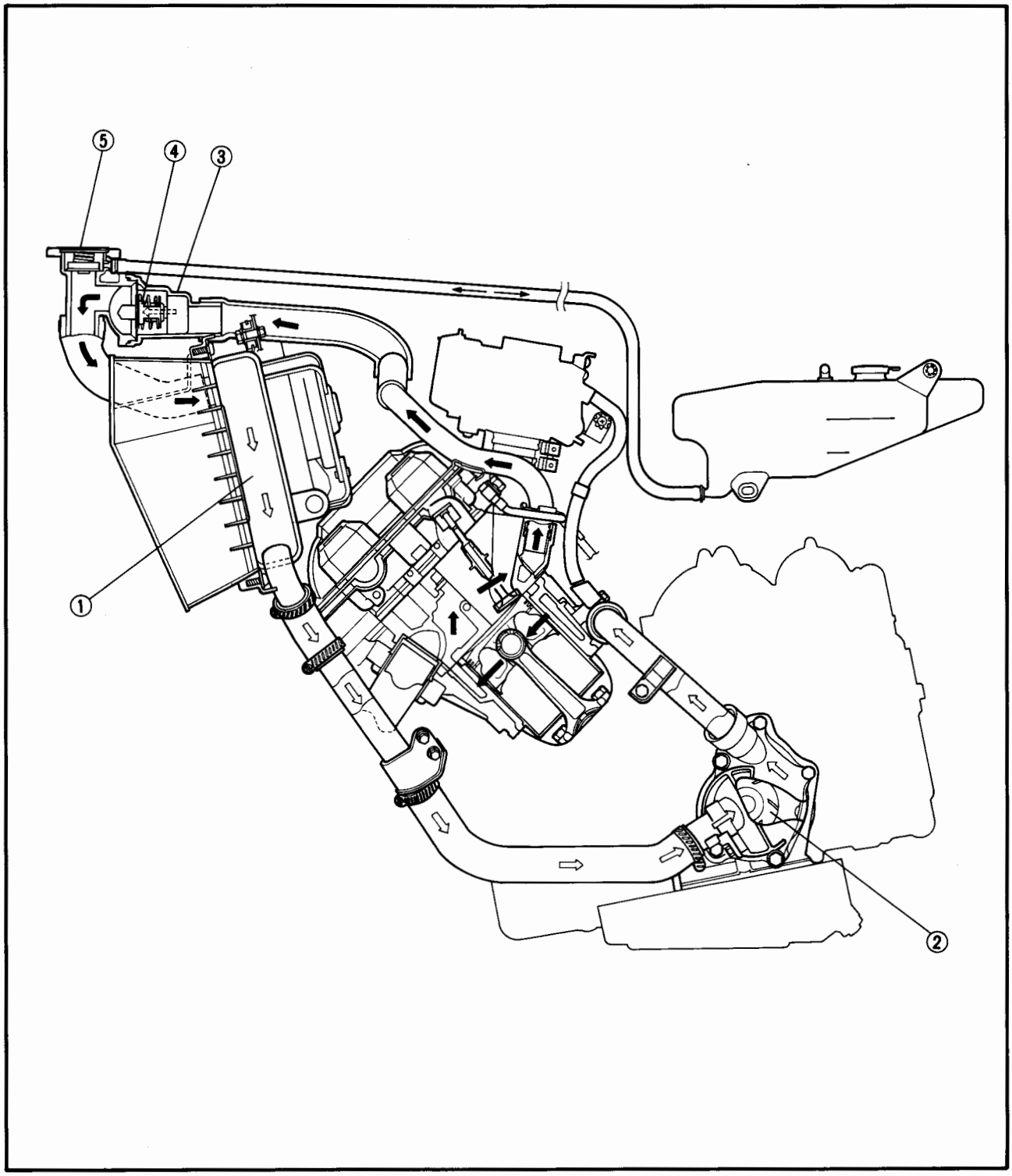
LUBRICATION DIAGRAM (4)

[A] Feed
[B] Scavenge



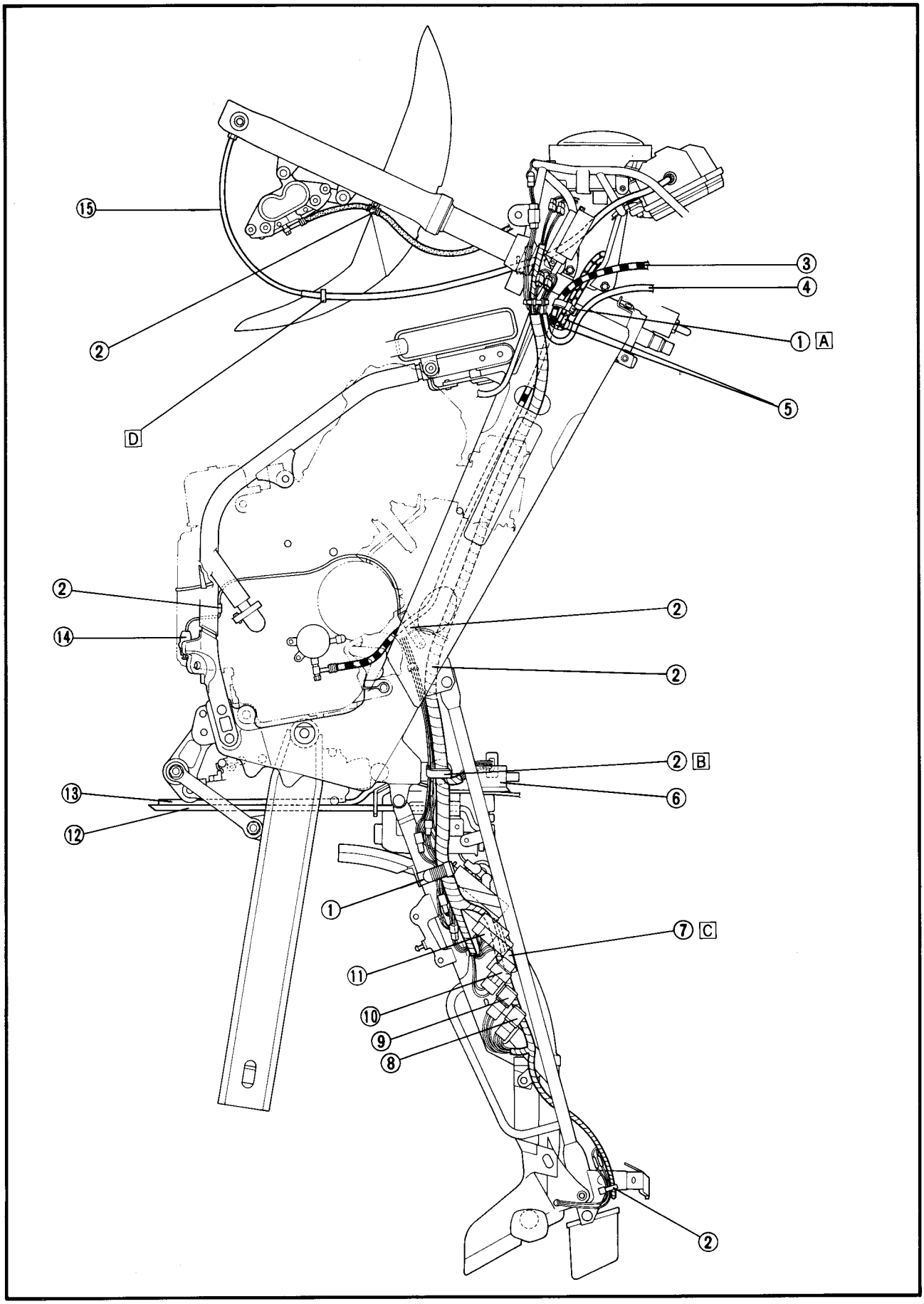
COOLANT DIAGRAM

① Radiator
② Water pump
③ Thermostat housing
④ Thermostatic valve
⑤ Radiator cap



— MEMO —

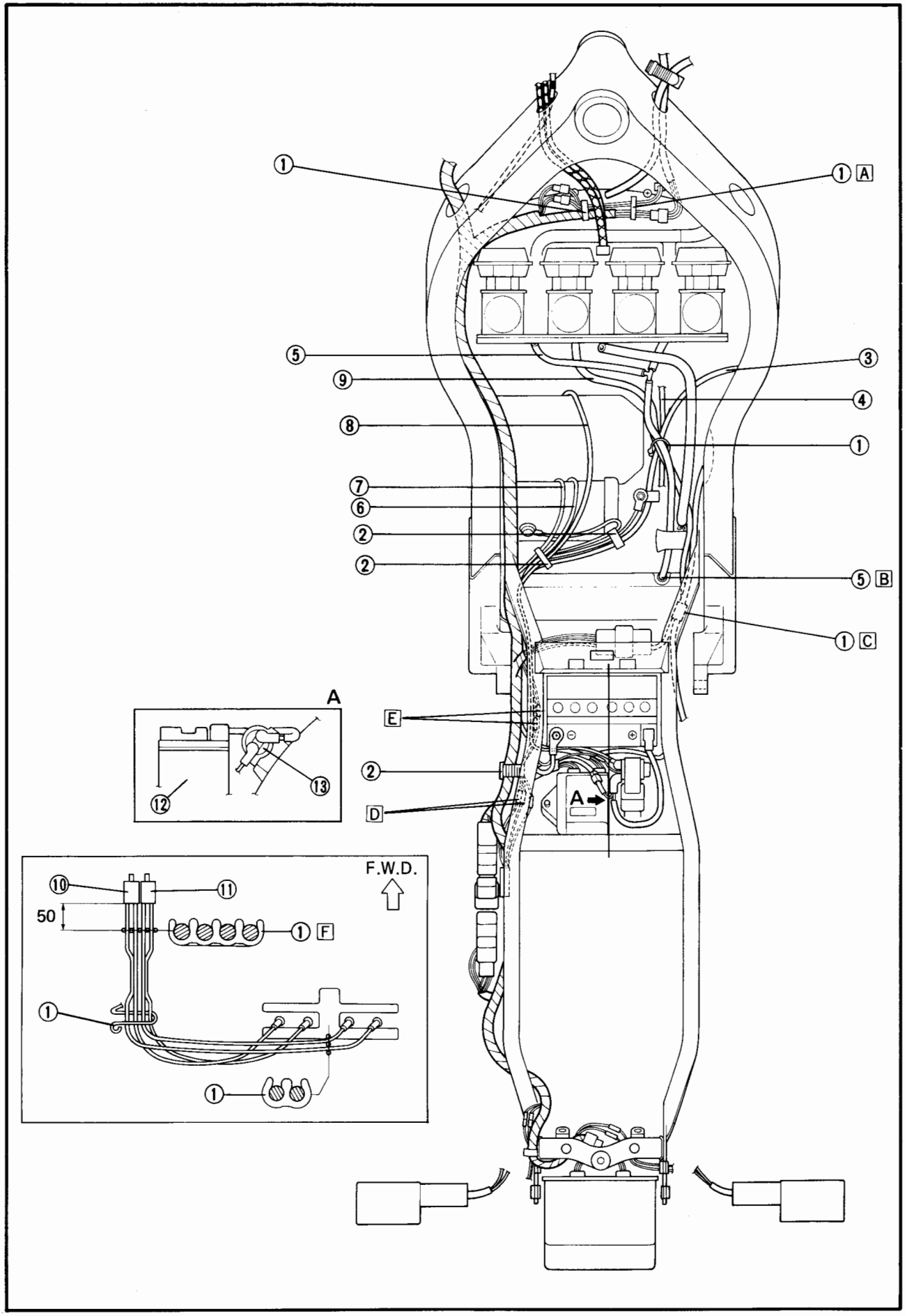
CABLE ROUTING



CABLE ROUTING SPEC

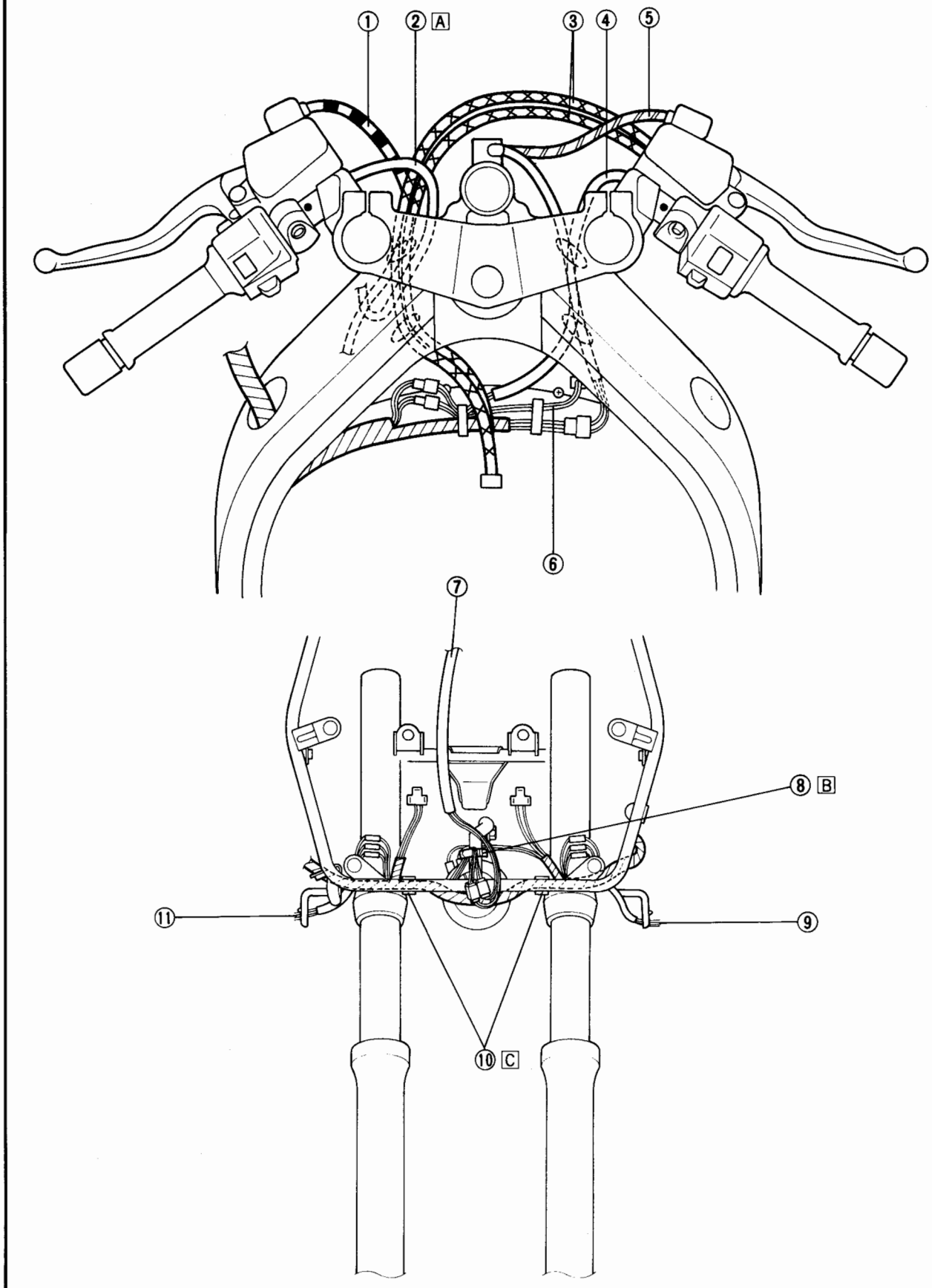
① Band
② Clamp
③ Clutch hose
④ Handle switch lead (Right)
⑤ Throttle cables
⑥ Flasher relay
⑦ Diode block
⑧ Sidestand relay
⑨ Fuel pump control relay
⑩ Fuse (MAIN)
⑪ Fuse box
⑫ Breather hose (Battery)
⑬ Breather hose (Coolant reservoir tank)
⑭ Sidestand switch
⑮ Speedometer cable

[A] Clamp the throttle cables and clutch hose.
[B] Clamp the leads from the engine and wire harness at the white tape would around it.
[C] Route the diode block lead inside of the rear frame.
[D] Pass the speedometer cable through the guide.


1
1 A
5
9
8
7
6
2
2
3
4
1
5 B
1 C
A
12
13
E
2
D
A
F.W.D.
10
11
50
1 F
1
1

① Clamp
② Band
③ Pick-up coil leads
④ Reservoir tank hose
⑤ Air vent hose
⑥ A.C. generator lead
⑦ Neutral switch lead
⑧ Sidestand switch lead
⑨ Fuel hose
⑩ Ignition coil (#1, #4 cylinder)
⑪ Ignition coil (#2, #3 cylinder)
⑫ Battery
⑬ Starter relay

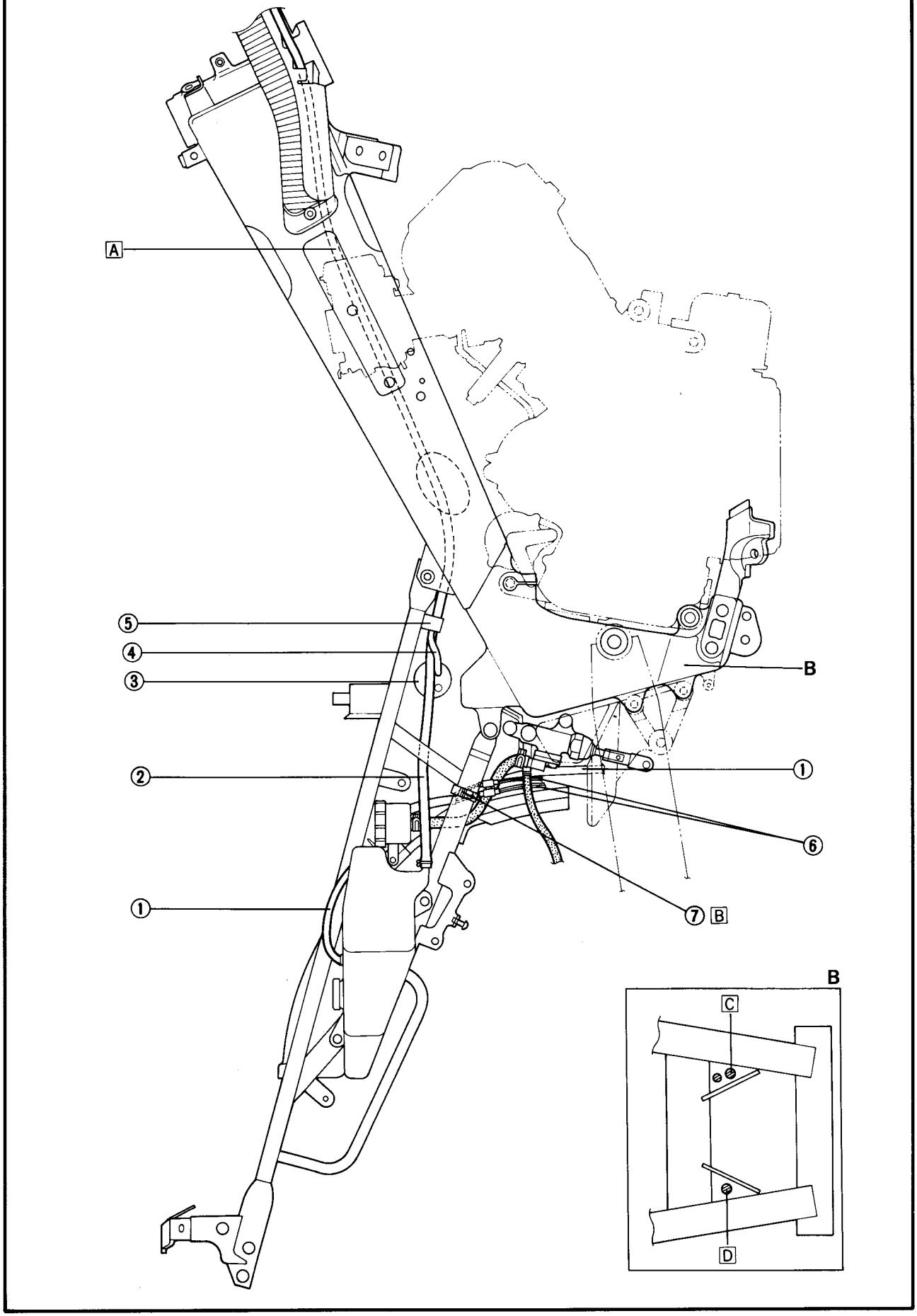
[A] Clamp the main switch lead and fan motor lead.
[B] Push in the air vent hose end into the hole on the crankcase rear end.
[C] Clamp the fuel hose and the coolant reservoir tank hose.
[D] Pass the neutral switch coupler (Green) and sidestand switch connectors between the wire harness and frame.
[E] Pass the A.C. generator coupler and the fuel pump coupler between the wire harness and battery box.
[F] Clamp the spark plug leads at 50 mm (1.97 in) from the ignition coils.


①
② A
③
④
⑤
⑥
⑦
⑧ B
⑨
⑩ C
⑪

CABLE ROUTING SPEC

① Clutch hose
② Handle switch leads (Left)
③ Throttle cables
④ Handle switch leads (Right)
⑤ Brake hose
⑥ Fan motor lead
⑦ Meter ass'y lead
⑧ Band
⑨ Front flasher lead (Left)
⑩ Cramp
⑪ Front flasher light (Right)

[A] Route the handle switch lead (Right) above the clutch hose and throttle cables.
[B] Clamp only the meter ass'y leads after connection of couplers.
[C] Route the headlight leads outside of the cramps at both sides.


A
5
4
3
2
1
B
1
6
7 B
B
C
D

① Breather hose (Coolant reservoir tank)
② Hose (Coolant reservoir tank)
③ Fuel pump
④ Fuel hose
⑤ Clamp
⑥ Stop switch leads
⑦ Band

[A] Route the coolant reservoir tank hose inside of the frame (Right).
[B] Clamp the stop switch leads inside of the frame.
[C] Pass the fuel tank breather hose and battery breather hose.
[D] Pass the coolant reservoir tank breather hose.

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

Unit: km (miles)

Item	Remarks	Break-in 1,000 (600)	EVERY	
			6,000 (4,000) or 6 months	12,000 (8,000) or 12 months
Valve(s)*	Check valve clearance. Adjust if necessary.	EVERY 42,000 (28,000)		
Spark plug(s)	Check condition. Clean or replace if necessary.	○	○	○
Air filter	Clean. Replace if necessary.		○	○
Carburetor*	Check idle speed/synchronization/starter operation. Adjust if necessary.	○	○	○
Fuel line*	Check fuel hose and vacuum pipe for cracks or damage. Replace if necessary.		○	○
Fuel filter*	Check condition. Replace every 30,000 (20,000).			○
Engine oil	Replace (Warm engine before draining).	○	○	○
Engine oil filter*	Replace.	○		○
Brake*	Check operation/fluid leakage/See NOTE. Correct if necessary.		○	○
Clutch*	Check operation/fluid leakage/See NOTE. Correct if necessary.		○	○
Rear arm pivot*	Check rear arm assembly for looseness. Correct if necessary. Moderately repack every 24,000 (16,000) or 24 months.***			○
Rear suspension link pivots*	Check operation. Apply grease lightly every 24,000 (16,000) or 24 months.***			○
Wheels*	Check balance/damage/runout. Repair if necessary.		○	○
Wheel bearings*	Check bearings assembly for looseness/ damage. Replace if damaged.		○	○
Steering bearing*	Check bearings assembly for looseness. Correct if necessary. Moderately repack every 24,000 (16,000) or 24 months.**	○		○
Front forks*	Check operation/oil leakage. Repair if necessary.		○	○
Rear shock absorber*	Check operation/oil leakage. Repair if necessary.		○	○
Cooling system	Check coolant leakage. Repair if necessary. Replace coolant every 24,000 (16,000) or 24 months.		○	○
Drive chain	Check chain slack/alignment. Adjust if necessary. Clean and lube.	EVERY 500 (300)		

PERIODIC MAINTENANCE/LUBRICATION

INSP ADJ 

Unit: km (miles)

Item	Remarks	Break-in 1,000 (600)	EVERY 6,000 (4,000) or 6 months	EVERY 12,000 (8,000) or 12 months
Fittings/Fasteners*	Check all chassis fittings and fasterners. Correct if necessary.	○	○	○
Center and sidestand*	Check operation. Repair if necessary.	○	○	○
Battery*	Check specific gravity. Check breather pipe for proper operation. Correct if necessary.		○	○
A.C. Generator*	Replace generator brushes every 100,000 (62,000).			

*: It is recommended that these items be serviced by a Yamaha dealer.
**: Medium weight wheel bearing grease.
***: Molybdenum disulfide grease.

NOTE:

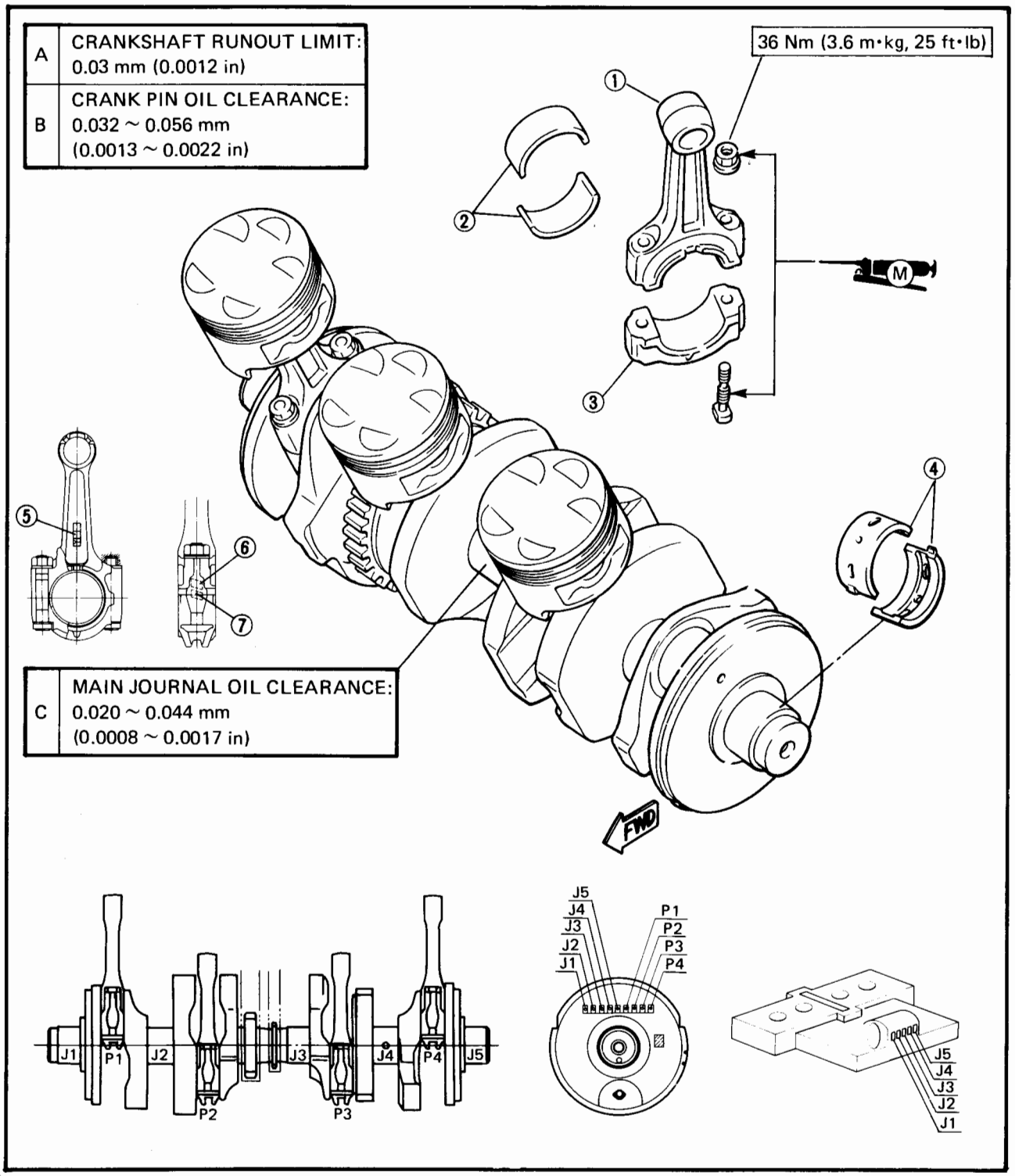
Brake fluid replacement:

1. When disassembling the master cylinder or caliper cylinder (clutch release cylinder), replace the brake fluid. Normally check the brake fluid level and add the fluid as required.
2. On the inner parts of the master cylinder and caliper cylinder (clutch release cylinder), replace the oil seals every two years.
3. Replace the brake (clutch) hoses every four years, or if cracked or damaged.

EXPLODED DIAGRAMS

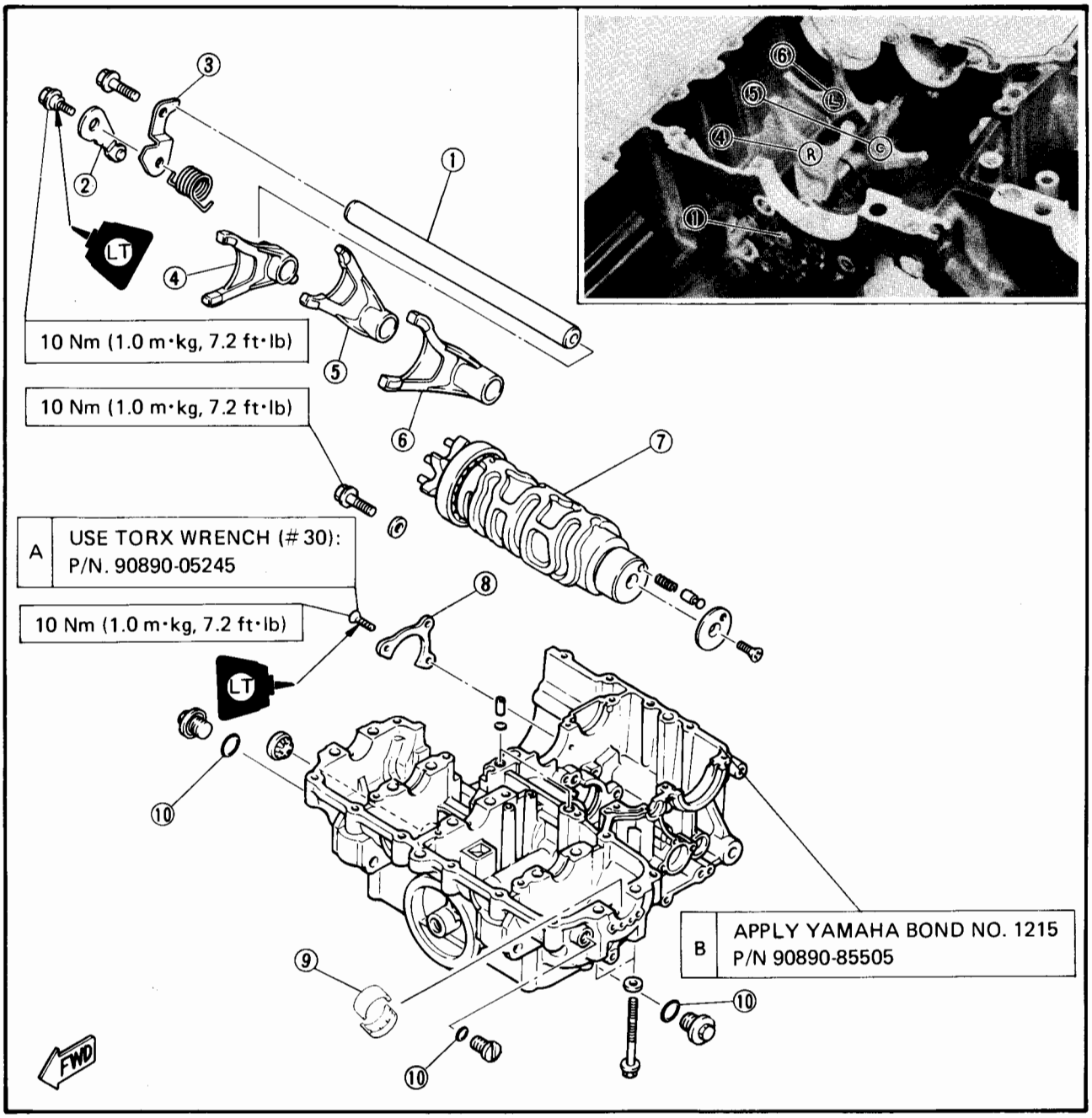
CRANKSHAFT

① Connecting rod
② Connecting rod bearing
③ Connecting rod cap
④ Main journal bearing
⑤ "Y" mark
⑥ Matching mark
⑦ Crank pin bearing size



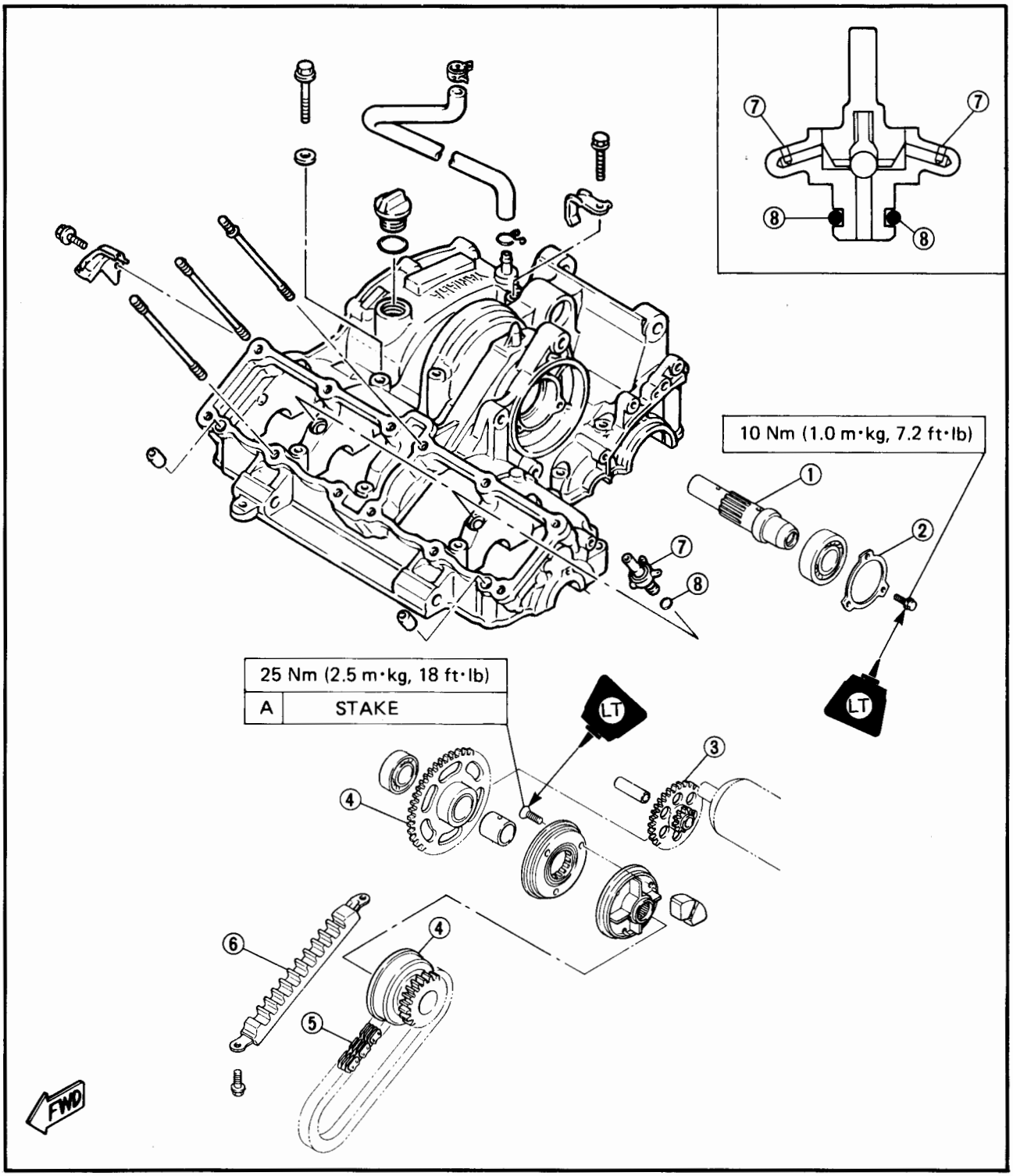
LOWER CRANKCASE

① Guide bar
② Stopper lever
③ Shift fork guide bar stopper
④ Shift fork (R)
⑤ Shift fork (C)
⑥ Shift fork (L)
⑦ Shift cam
⑧ Main axle bearing stopper
⑨ Crankshaft main bearing
⑩ O-ring



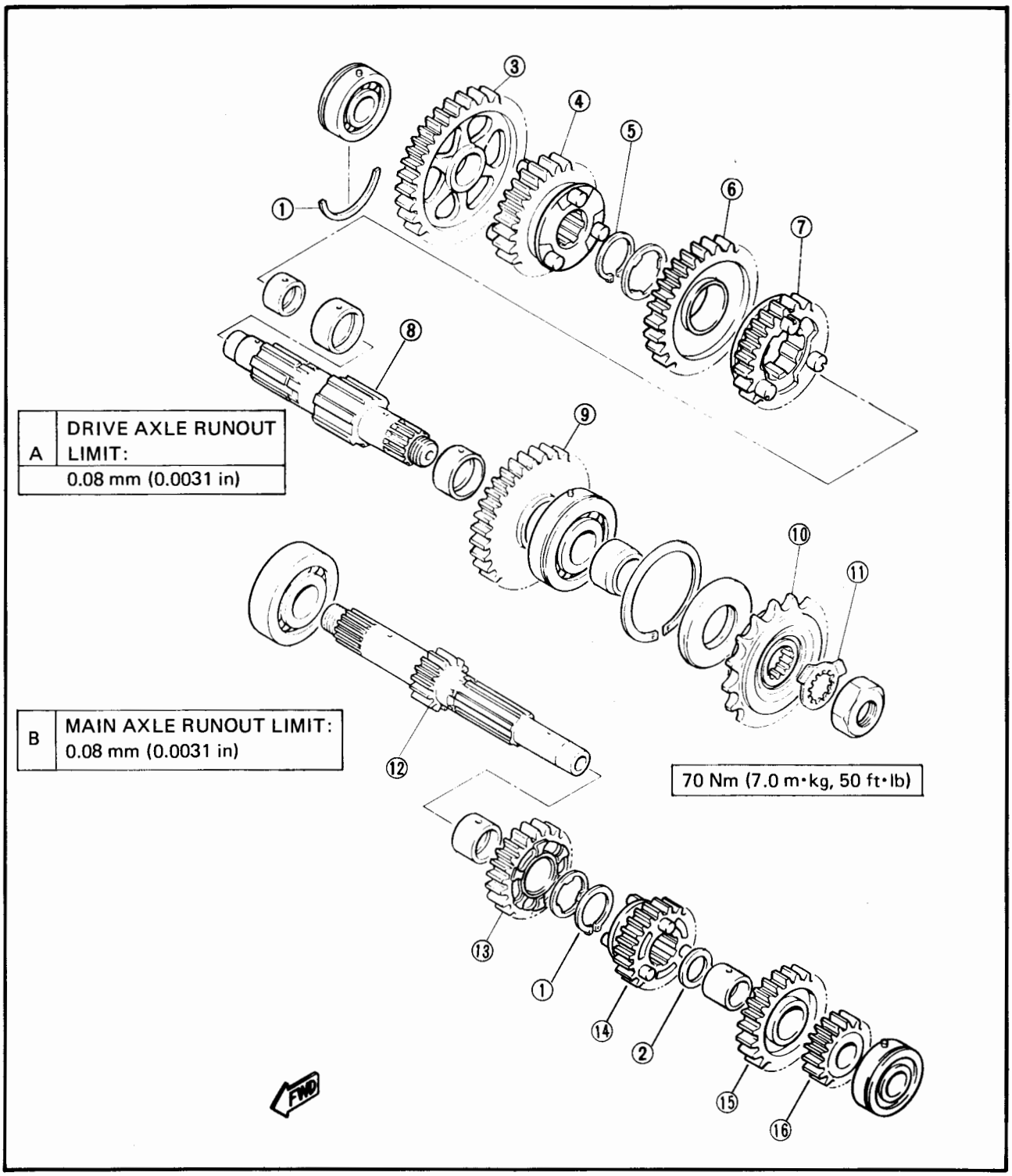
UPPER CRANKCASE

① AC generator shaft
② Cover plate
③ Starter idle gear
④ Starter clutch damper assembly
⑤ HY-VO chain
⑥ HY-VO chain guide
⑦ Oil-Jet nozzle
⑧ O-ring



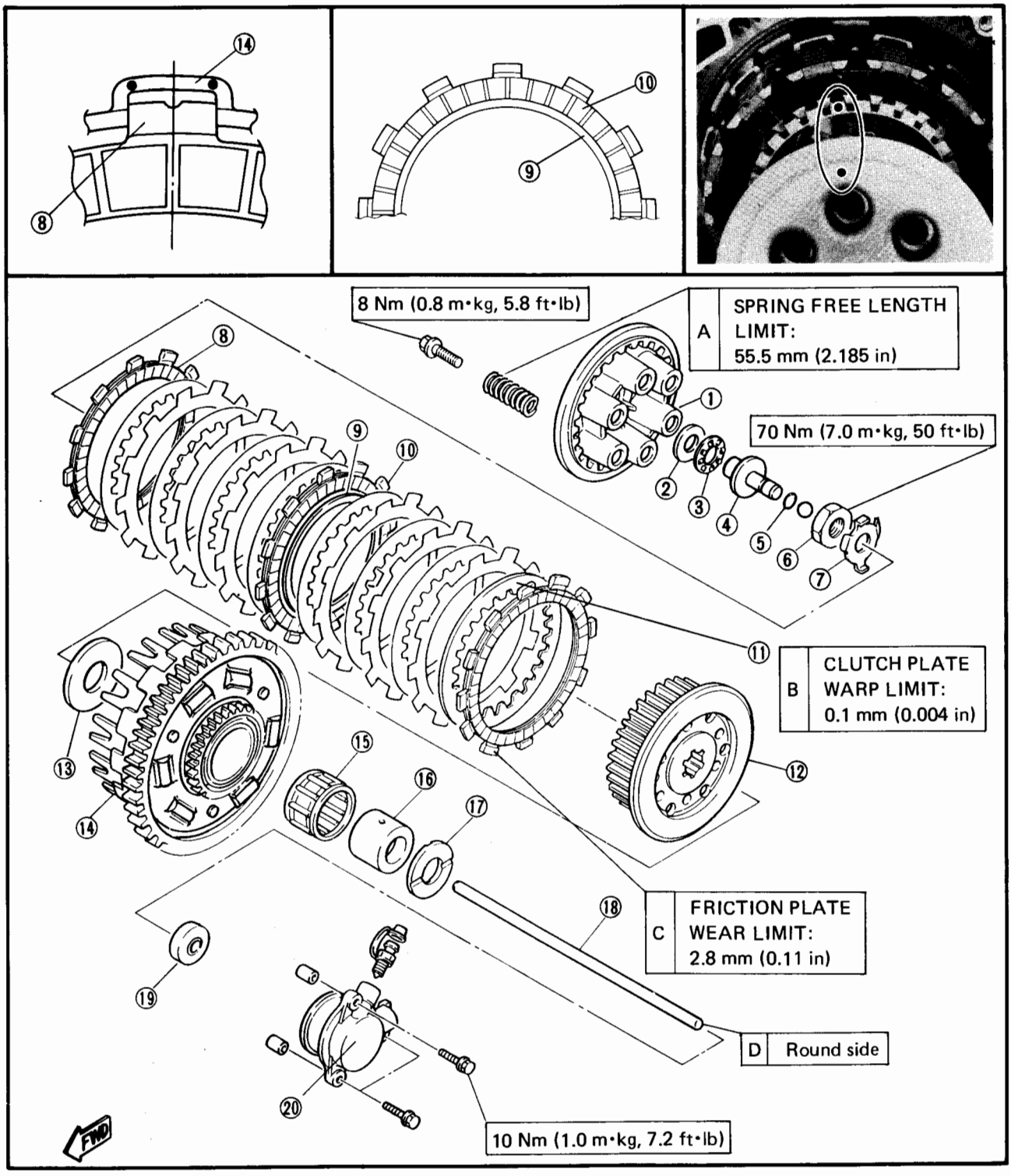
Transmission

① Circlip
② Plain washer
③ 1st wheel gear (36T)
④ 4th wheel gear (27T)
⑤ Circlip
⑥ 3rd wheel gear (29T)
⑦ 5th wheel gear (28T)
⑧ Drive axle
⑨ 2nd wheel gear (32T)
⑩ Drive sprocket
⑪ Lock washer
⑫ Main axle
⑬ 4th pinion gear (27T)
⑭ 3rd pinion gear (21T)
⑮ 5th pinion gear (27T)
⑯ 2nd pinion gear (18T)



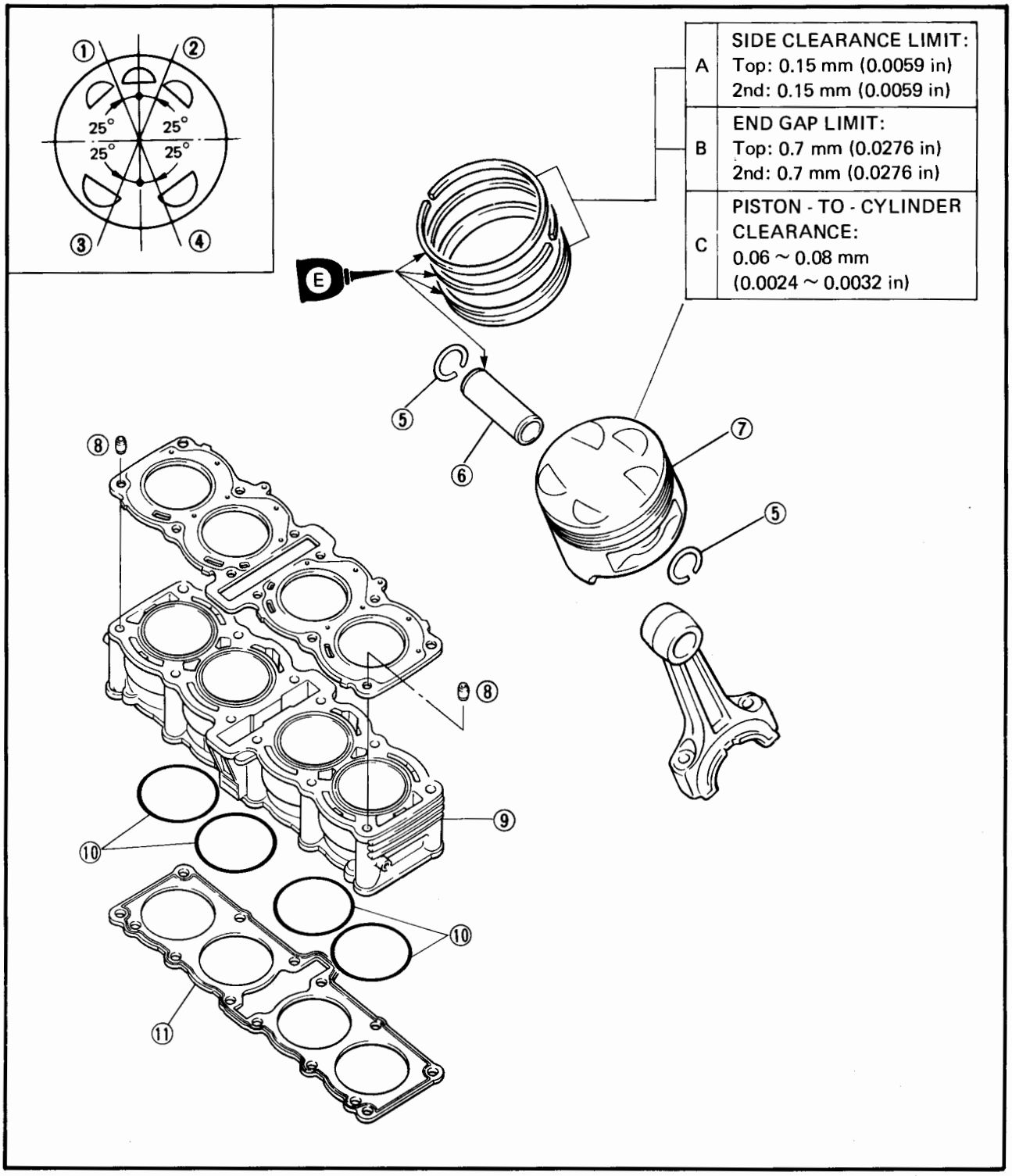
CLUTCH

① Pressure plate
② Plate washer
③ Bearing
④ Push rod # 1
⑤ O-ring
⑥ Ball
⑦ Lock washer
⑧ Friction plate (Outer)
⑨ Cushion spring
⑩ Friction plate (Center)
⑪ Clutch plate
⑫ Clutch boss
⑬ Washer
⑭ Primary driven gear
⑮ Bearing
⑯ Spacer
⑰ Thrust washer
⑱ Push rod # 2
⑲ Oil seal
⑳ Clutch release cylinder



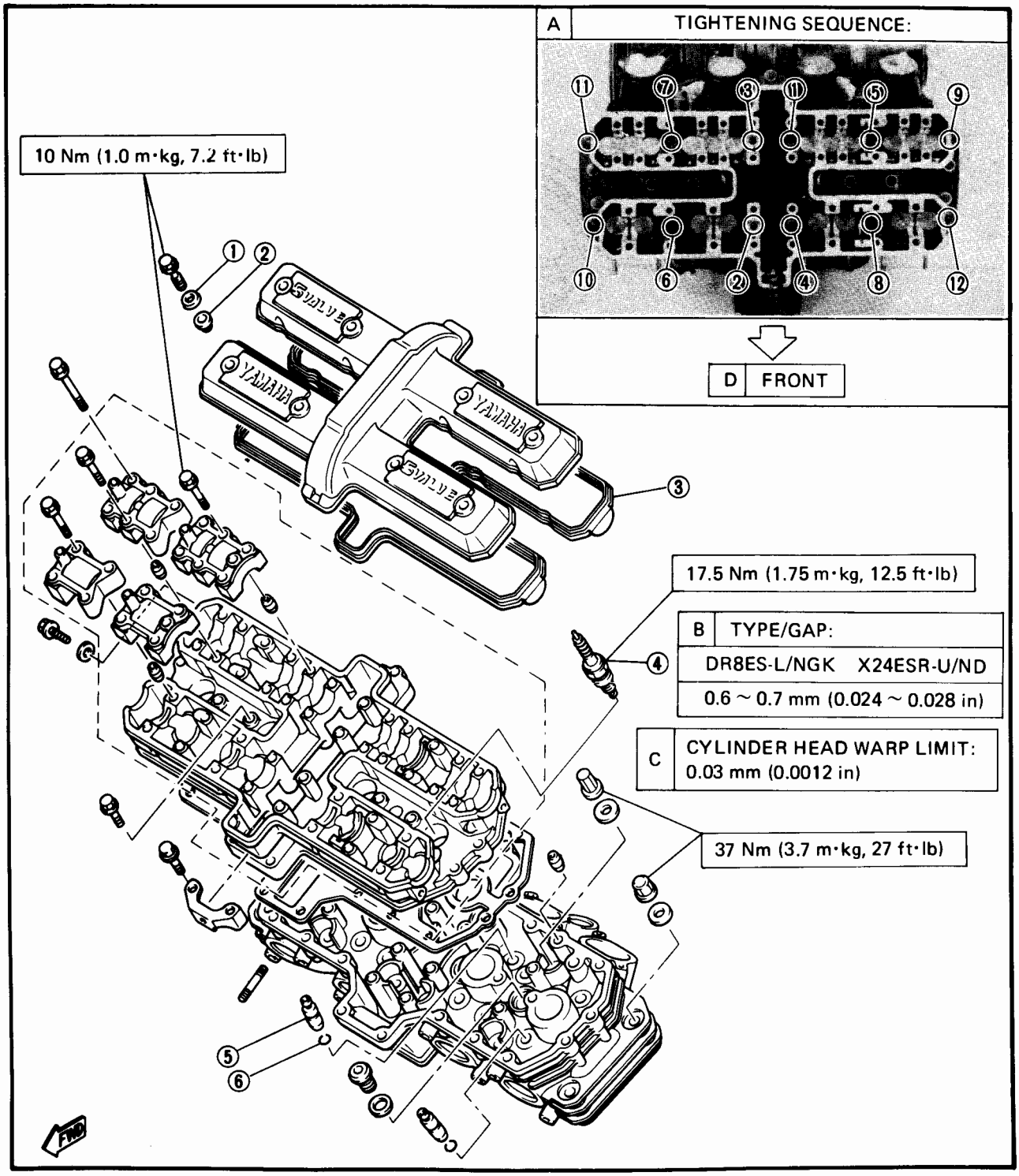
PISTON AND CYLINDER

① Top ring
② Oil ring (Lower)
③ Oil ring (Upper)
④ Second ring
⑤ Circlip
⑥ Piston pin
⑦ Piston
⑧ Dowel pin
⑨ Cylinder
⑩ O-ring
⑪ Gasket



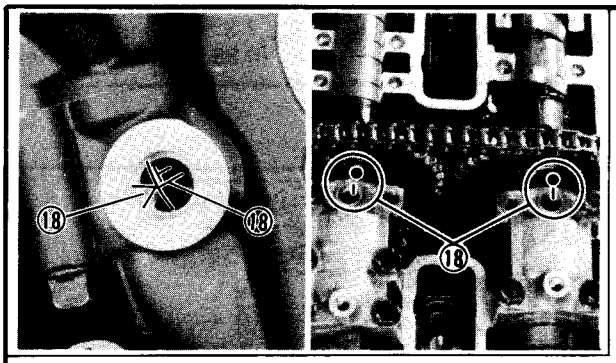
CYLINDER HEAD

① Washer
② Rubber washer
③ Gasket
④ Spark plug
⑤ Valve guide
⑥ Circlip



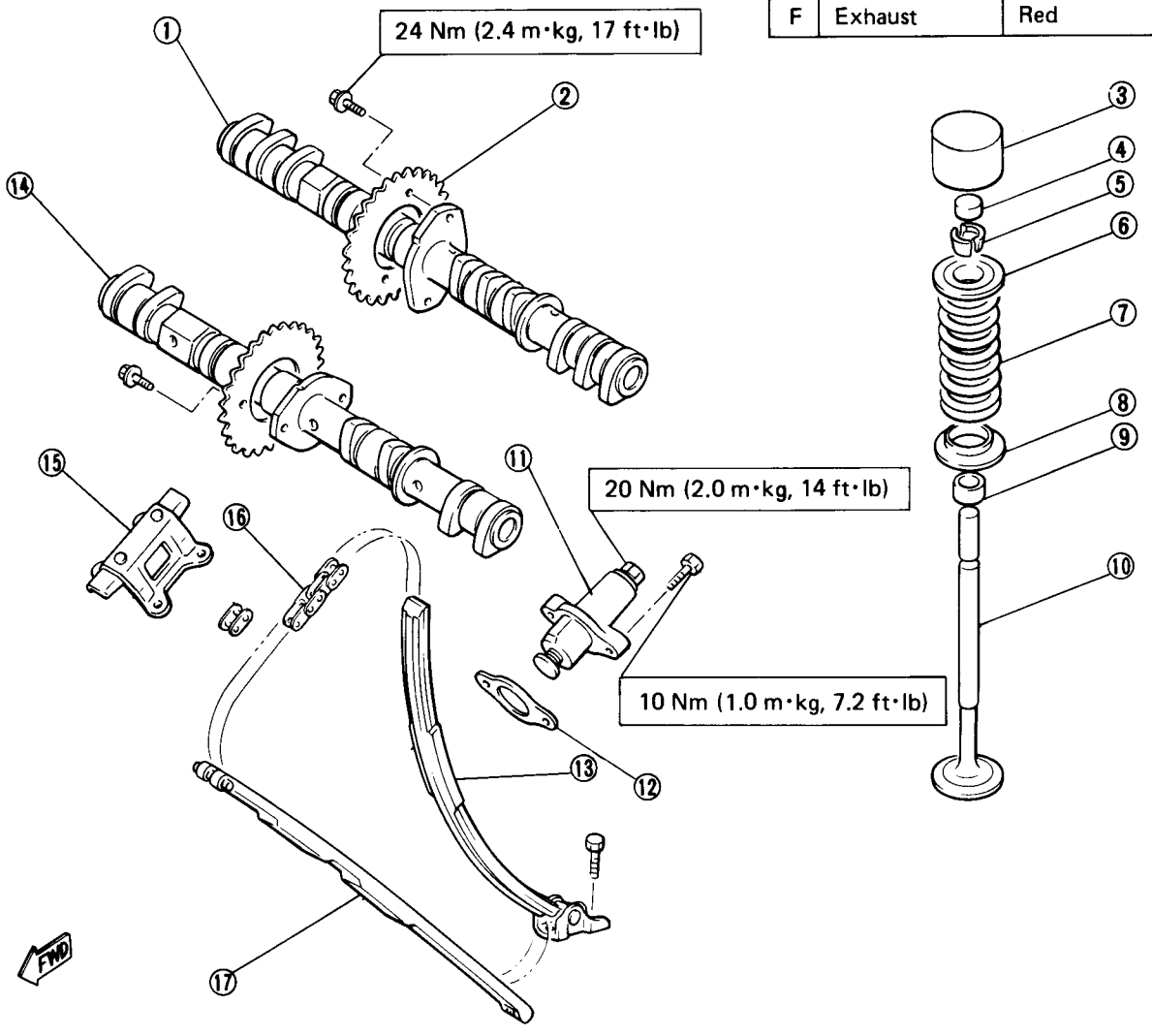
CAMSHAFT

① Camshaft (Intake)
② Cam chain sprocket
③ Valve lifter
④ Valve pad
⑤ Valve retainer
⑥ Spring seat
⑦ Valve spring
⑧ Spring seat
⑨ Oil seal
⑩ Valve
⑪ Cam chain tensioner
⑫ Gasket
⑬ Cam chain guide (Intake side)
⑭ Camshaft (Exhaust)
⑮ Chain guide (Upper)
⑯ Cam chain
⑰ Cam chain guide (Exhaust side)
⑱ Match mark



A	VALVE CLEARANCE (COLD):	
B	INTAKE: 0.11 ~ 0.20 mm (0.004 ~ 0.008 in)	
C	EXHAUST: 0.21 ~ 0.30 mm (0.008 ~ 0.012 in)	

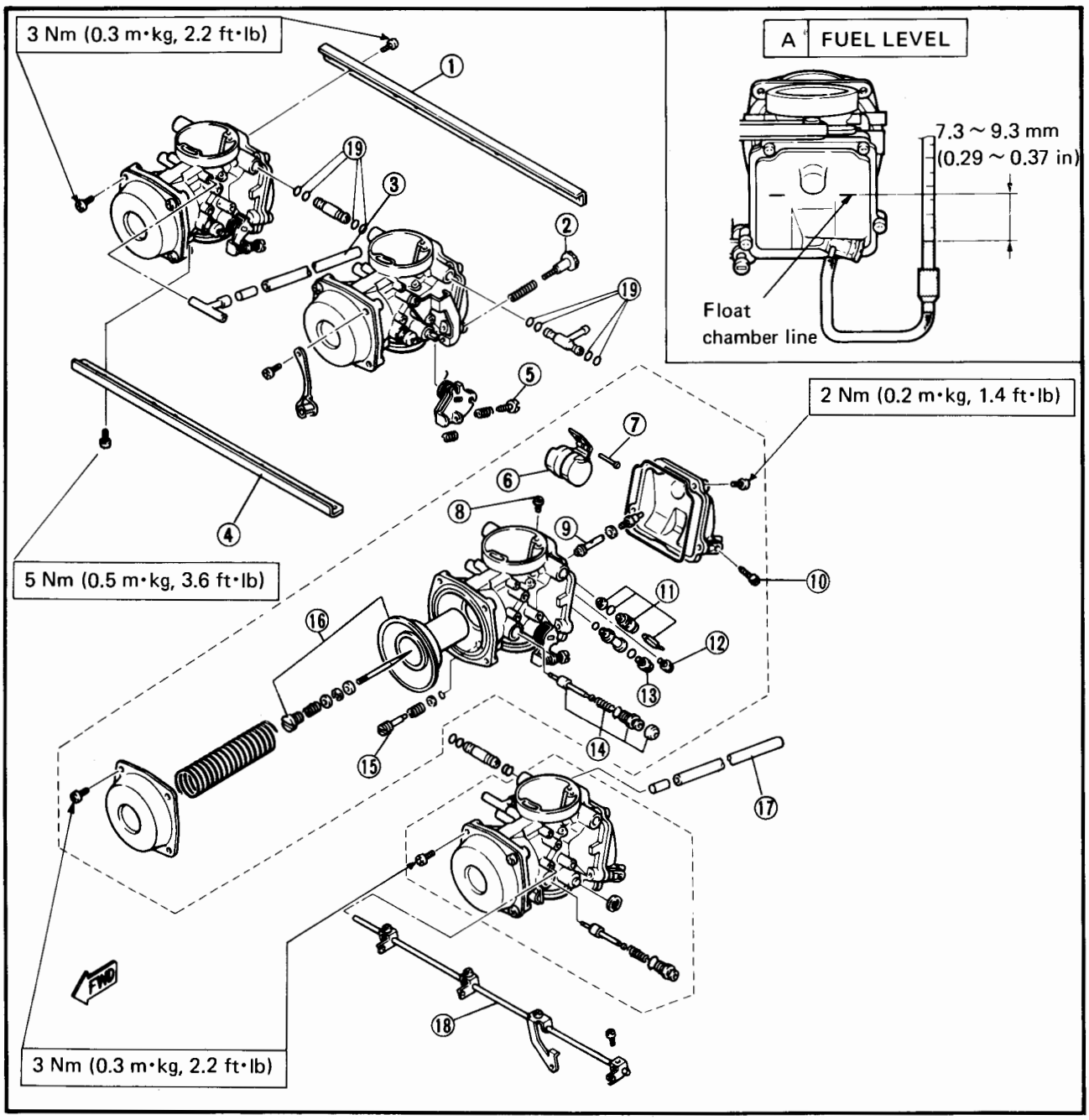
D	VALVE SPRING COLOR:	
E	Intake	Blue
F	Exhaust	Red



CARBURETOR

① Upper bracket
② Throttle stop screw
③ Fuel overflow hose
④ Lower bracket
⑤ Syncronizing screw
⑥ Float
⑦ Float pin
⑧ Pilot air screw
⑨ Needle jet
⑩ Fuel drain screw
⑪ Valve seat assembly
⑫ Pilot jet
⑬ Main jet
⑭ Starter plunger assembly
⑮ Pilot screw
⑯ Piston valve assembly
⑰ Fuel feed hose
⑱ Starter lever shaft
⑲ O-ring

SPECIFICATIONS			
ID Mark	2GH00	2LE00	2LF00
MAIN JET			
(#1, 4 cylinder)	#110	#112.5	#92.5
(#2, 3 cylinder)	#107.5	#110	#90
MAIN AIR JET	#65	#65	#65
PILOT JET	#20	#20	#20
PILOT AIR JET	#115	#115	#117.5
JET NEEDLE	5CZ2-4	5CZ2-3	5CZ2-3
PILOT SCREW	2-1/2	2-1/2	2-1/2
THROTTLE VALVE	#130	#130	#130
ENGINE IDLE SPEED	950 ~ 1.050 r/min		
FUEL LEVEL	7.3 ~ 9.3 mm (0.29 ~ 0.37 in)		

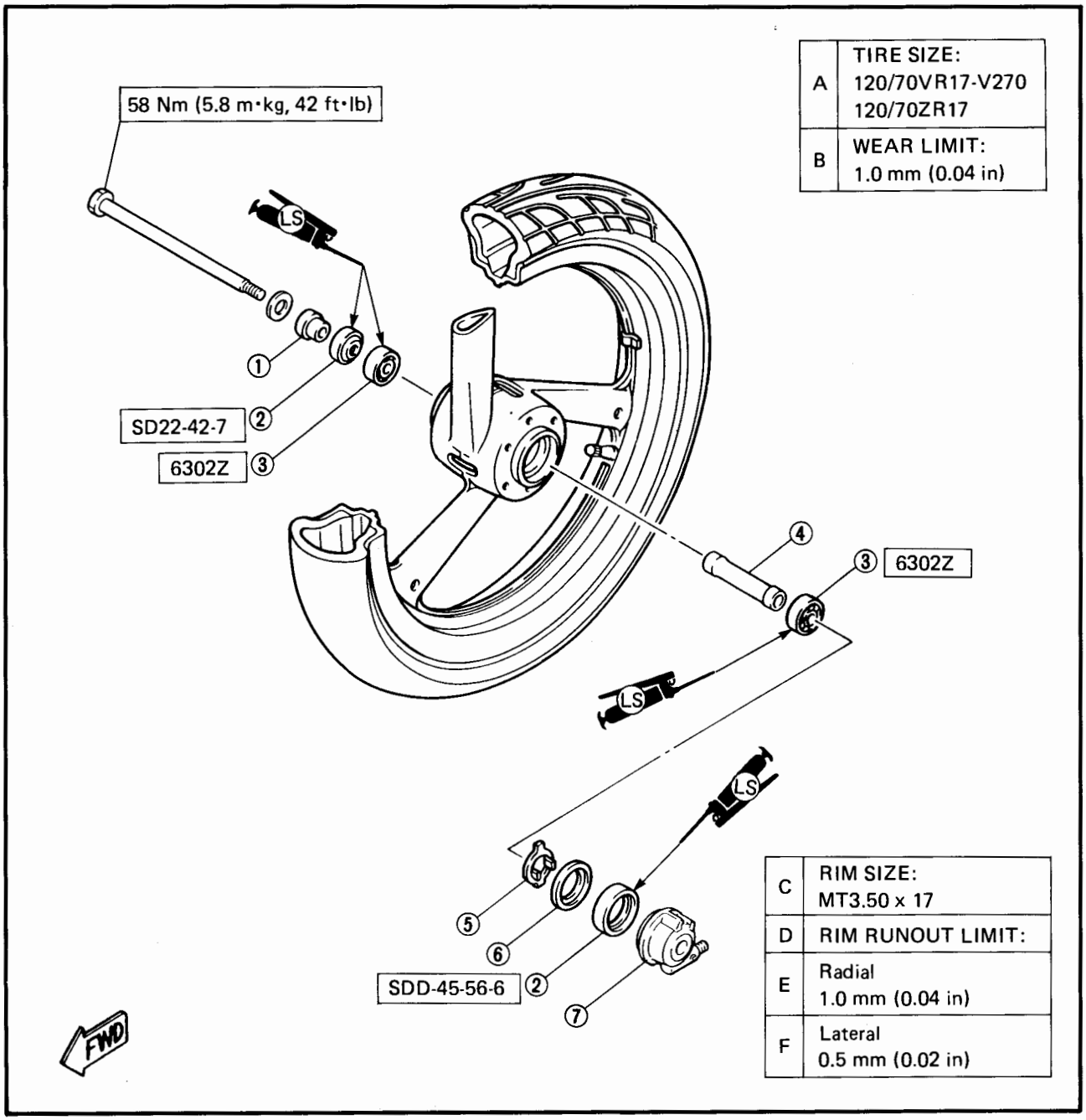


FRONT WHEEL

① Collar
② Oil seal
③ Bearing
④ Spacer
⑤ Meter clutch
⑥ Clutch retainer
⑦ Speedometer gear unit

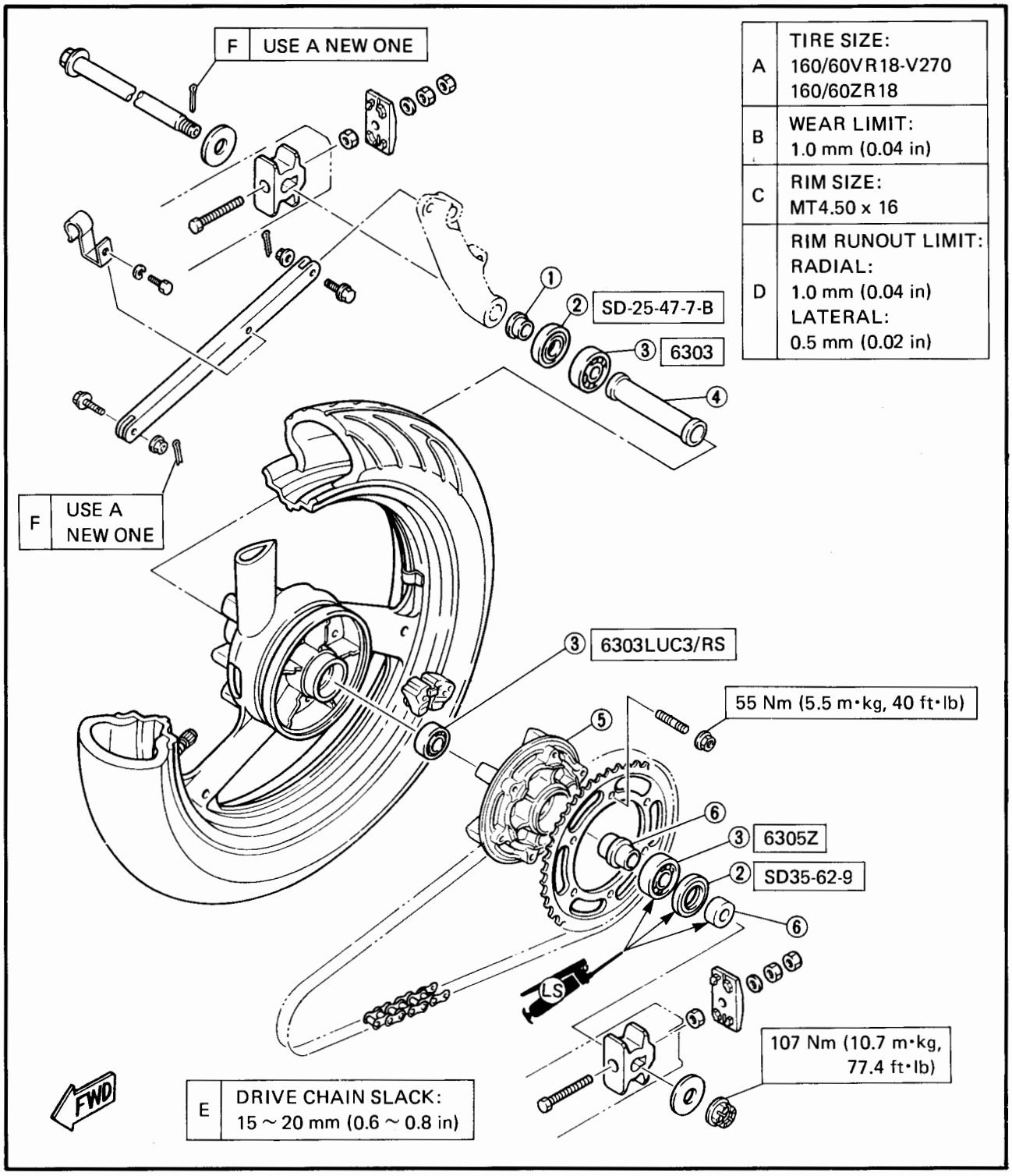
TIRE AIR PRESSURE (COLD):		
Cold tire pressure	Front	Rear
Up to 90 kg (198 lb) load*	250 kPa (2.5 kg/cm², 36 psi)	250 kPa (2.5 kg/cm², (36 psi)
90 kg (198 lb) ~ Maximum load*	250 kPa (2.5 kg/cm², 36 psi)	290 kPa (2.9 kg/cm², 42 psi)
High speed riding	250 kPa (2.5 kg/cm², 36 psi)	290 kPa (2.9 kg/cm², 42 psi)

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



REAR WHEEL

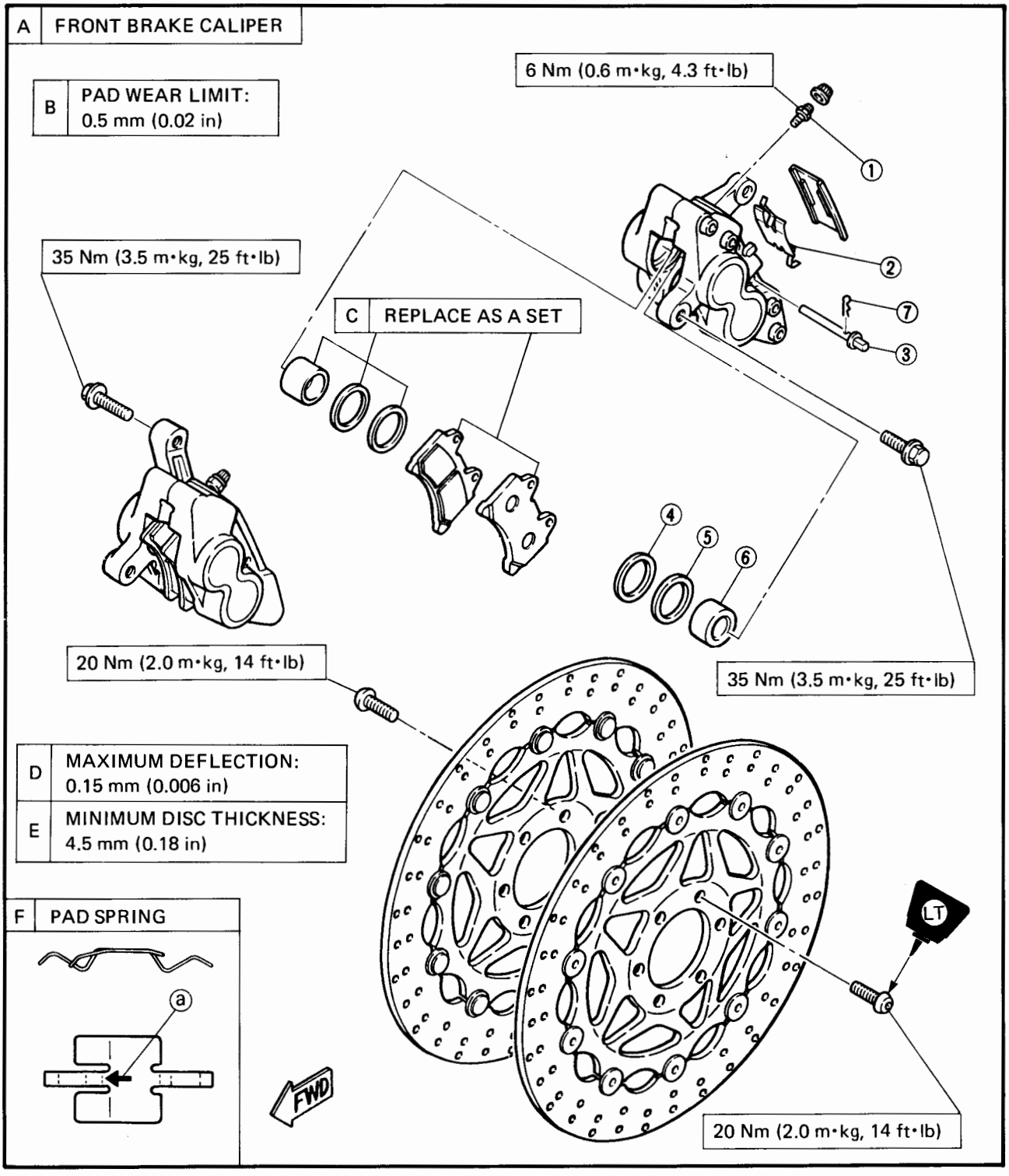
① Dust cover
② Oil seal
③ Bearing
④ Spacer
⑤ Clutch hub
⑥ Collar



FRONT AND REAR BRAKE

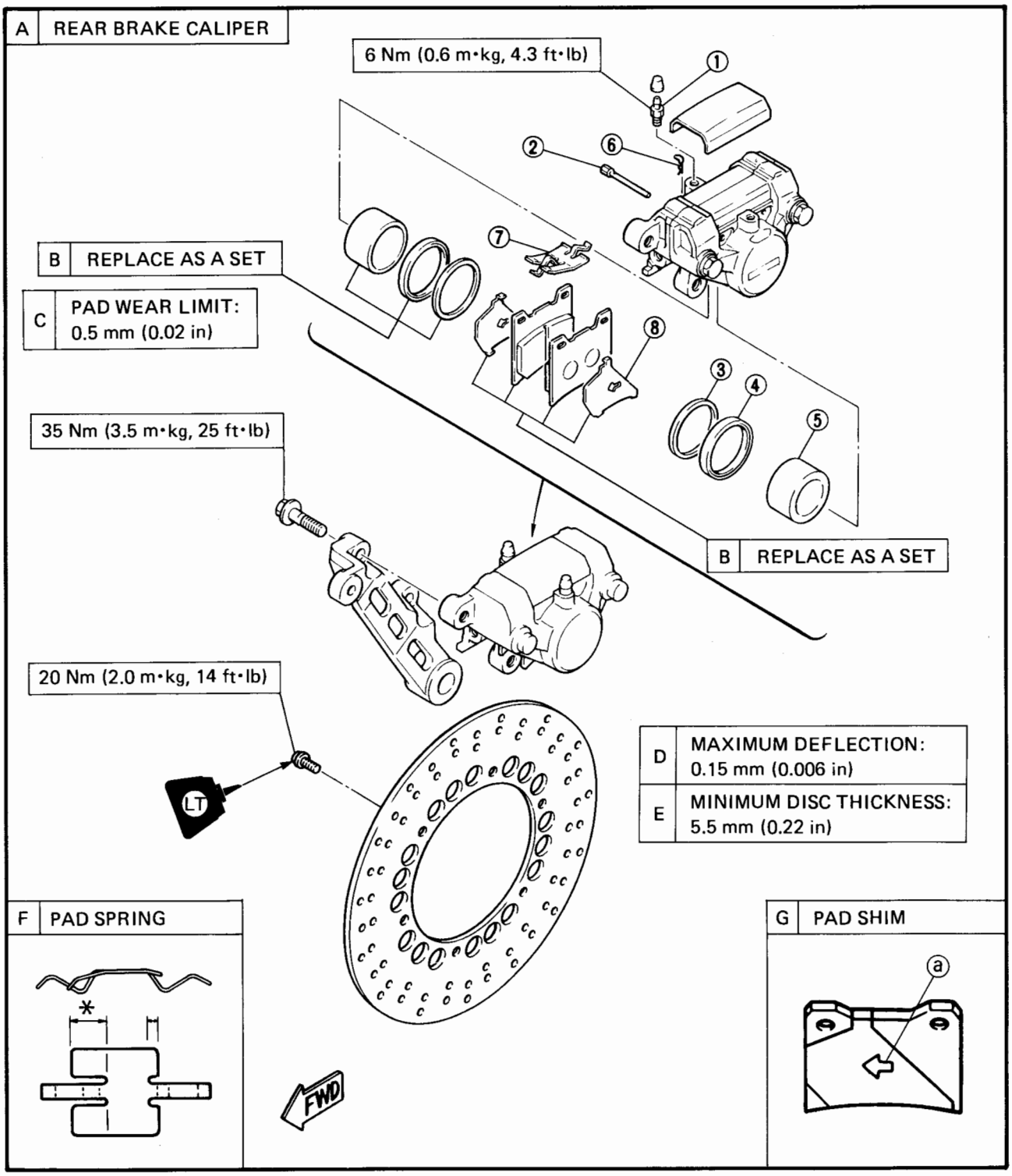
① Air bleed screw
② Pad spring
③ Retaining pin
④ Dust seal
⑤ Piston seal
⑥ Piston
⑦ Circlip

F The arrow mark ⓐ on the pad spring must pointing the disc rotating direction.



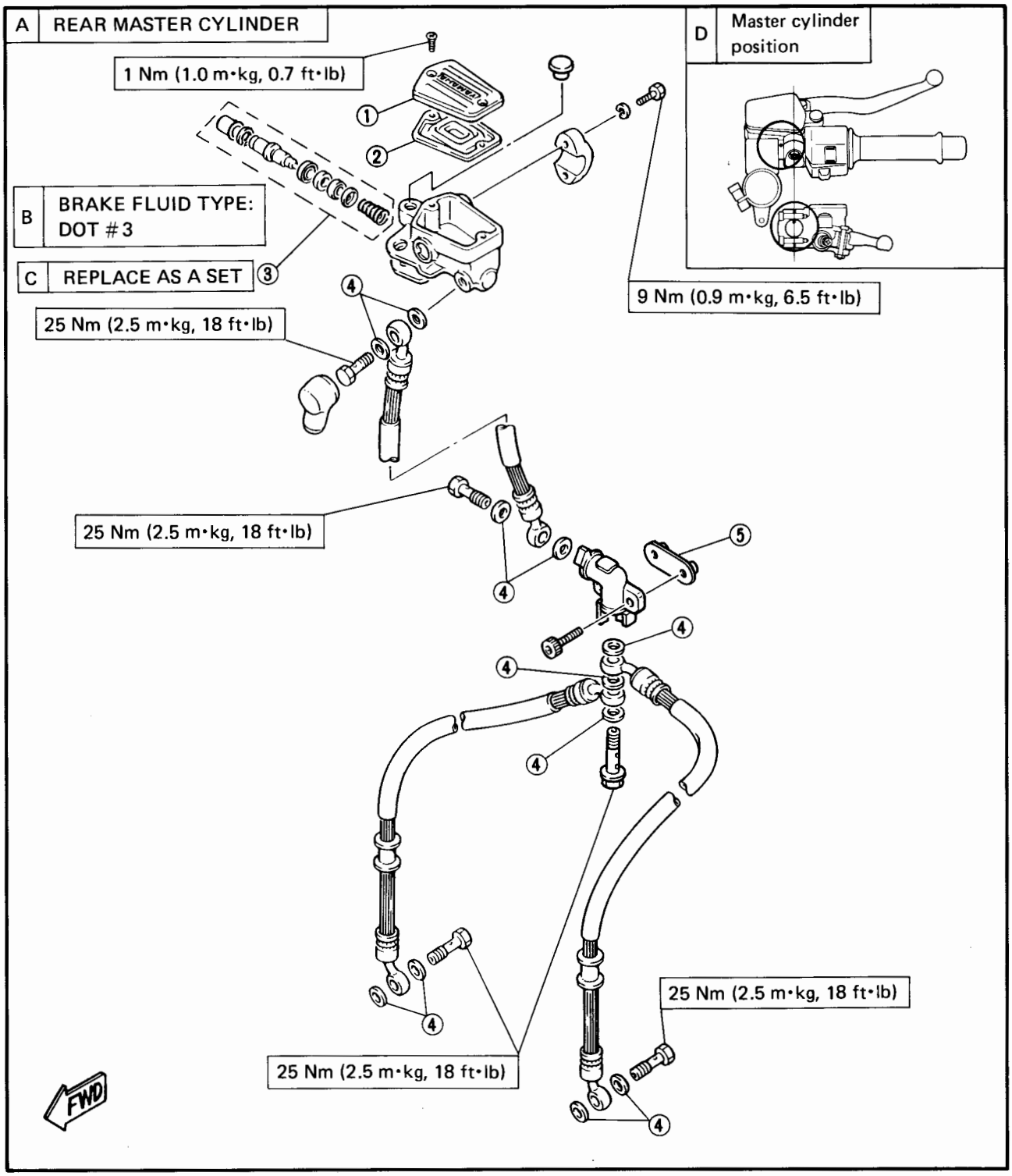
① Air bleed screw
② Retaining pin
③ Dust seal
④ Piston seal
⑤ Piston
⑥ Circlip
⑦ Pad spring
⑧ Pad shim

F The longer tangs (✱) of the pad spring must point in the disc rotating direction.
G The allow mark ⓐ on the pad shim must point in the disc rotating direction.

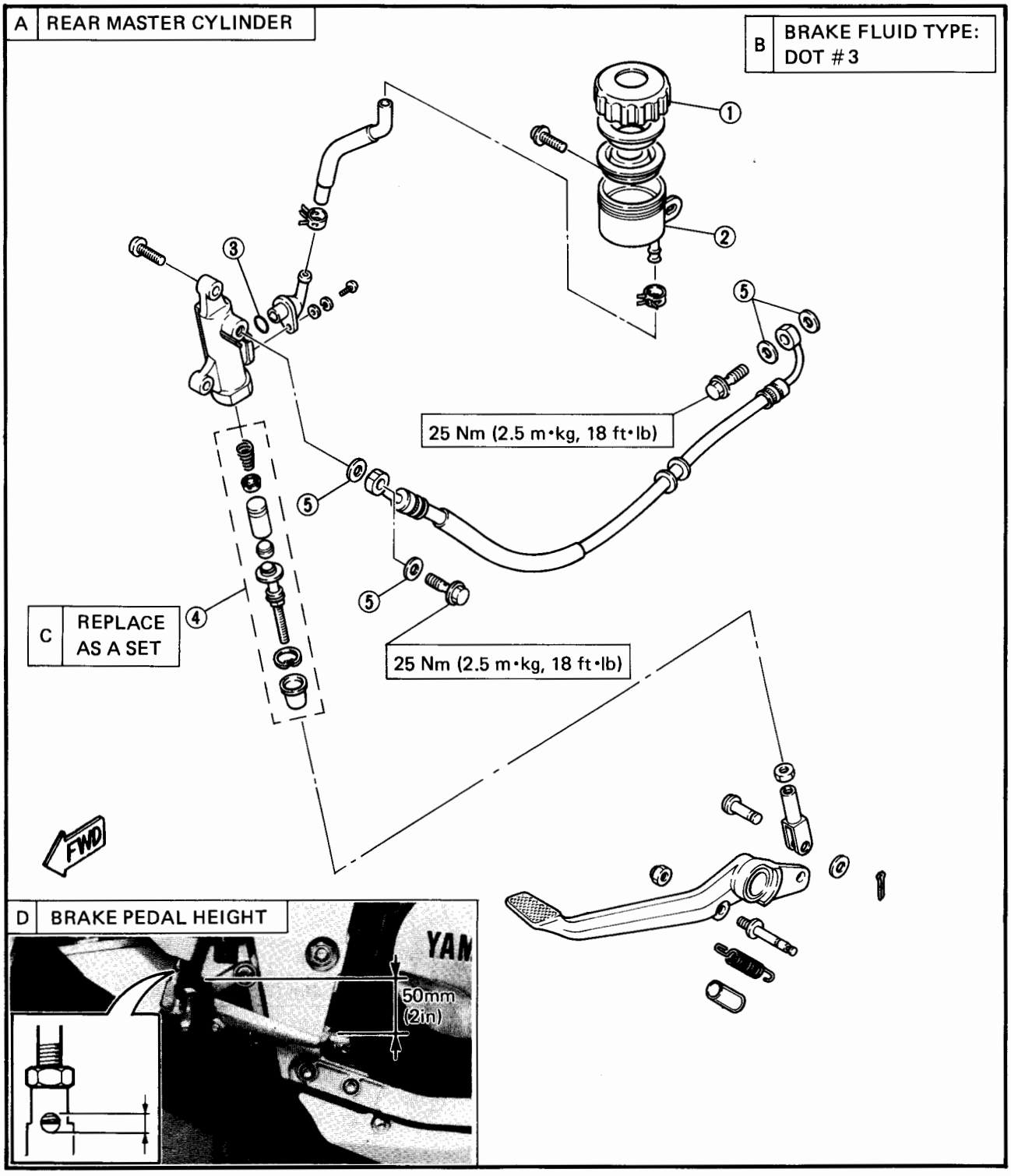


MASTER CYLINDER

① Master cylinder cap
② Rubber seal
③ Master cylinder kit
④ Copper washer
⑤ Metering valve

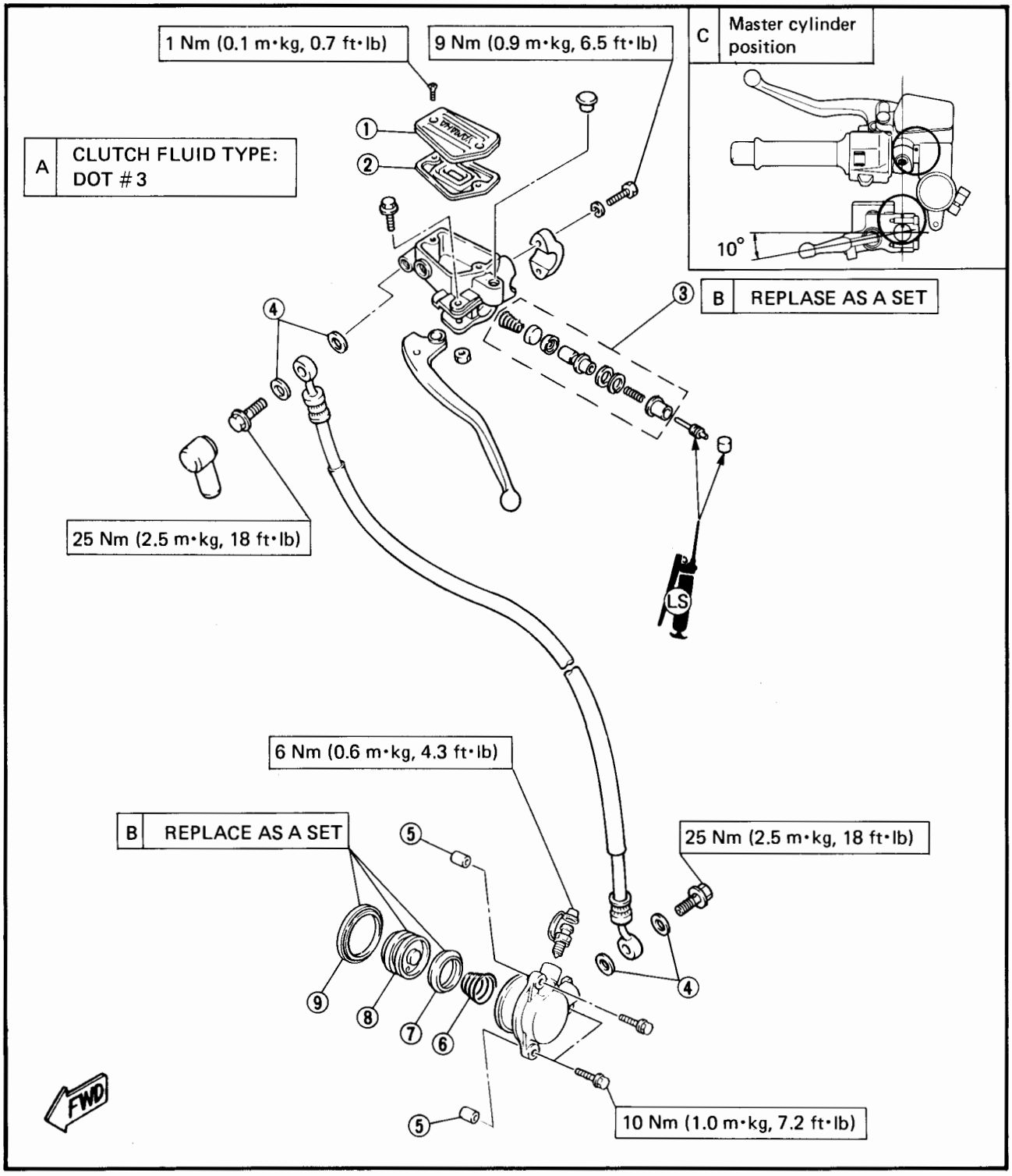


① Reservoir tank cap
② Reservoir tank
③ O-ring
④ Master cylinder kit
⑤ Copper washer



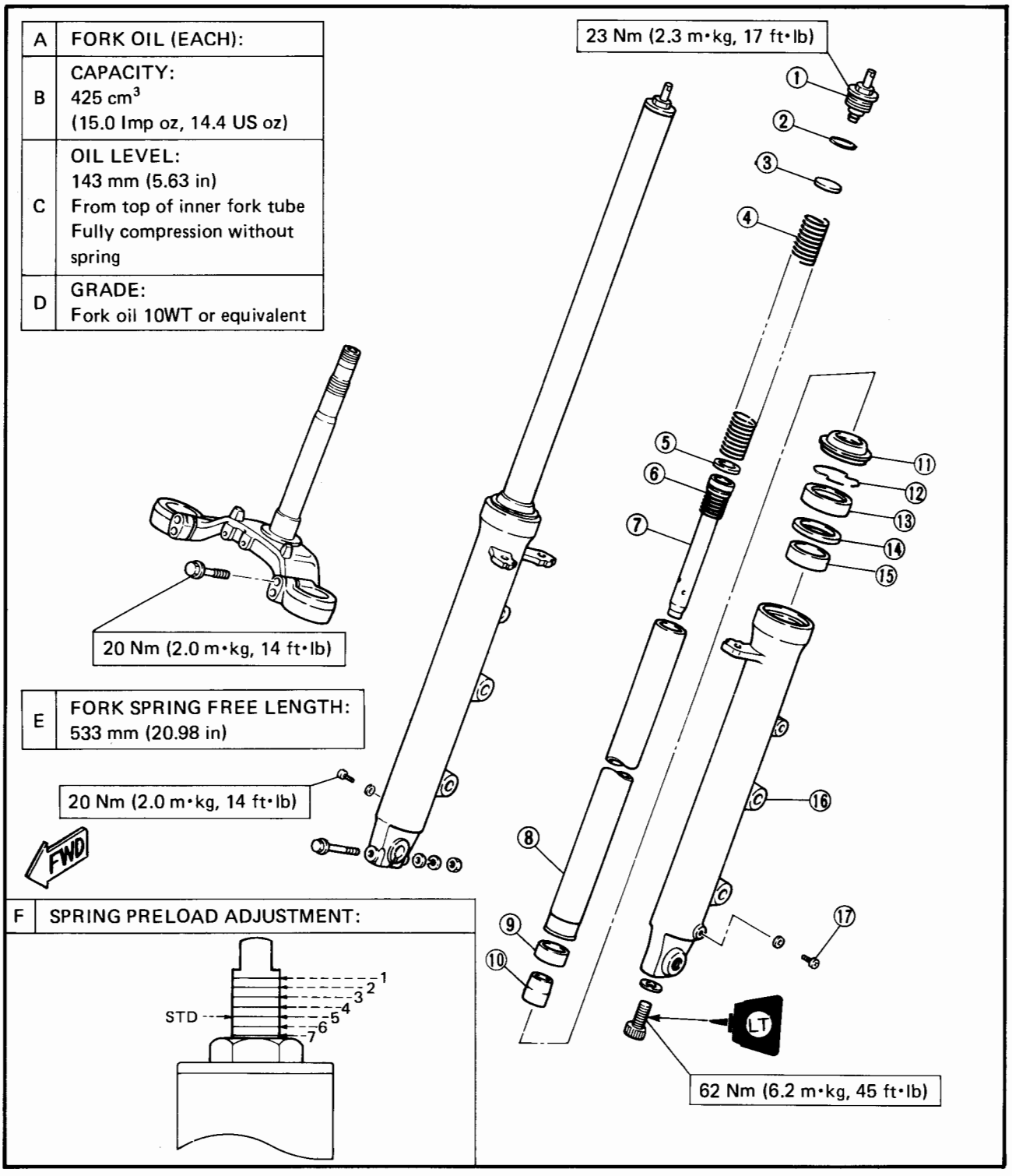
HYDRAULIC CLUTCH

① Master cylinder cap
② Rubber seal
③ Master cylinder kit
④ Copper washer
⑤ Dowel pin
⑥ Spring
⑦ Piston
⑧ Piston seal
⑨ Dust seal



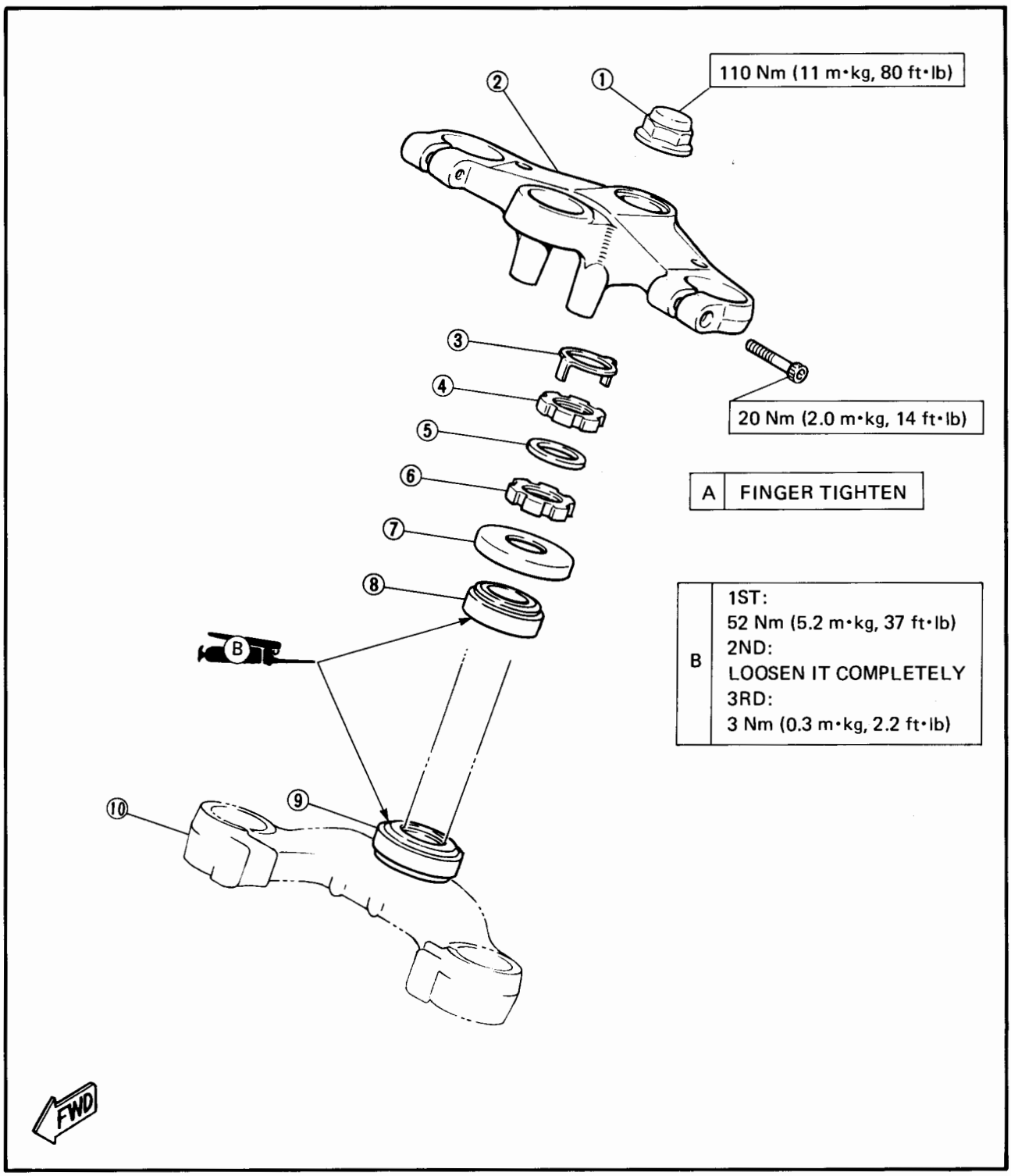
FRONT FORK

① Cap bolt
② O-ring
③ Spring seat
④ Fork spring
⑤ Ring
⑥ Rebound spring
⑦ Damper rod
⑧ Inner fork tube
⑨ Slide bushing
⑩ Oil lock piece
⑪ Dust seal
⑫ Retaining clip
⑬ Oil seal
⑭ Seal spacer
⑮ Guide bushing
⑯ Outer fork tube
⑰ Drain screw



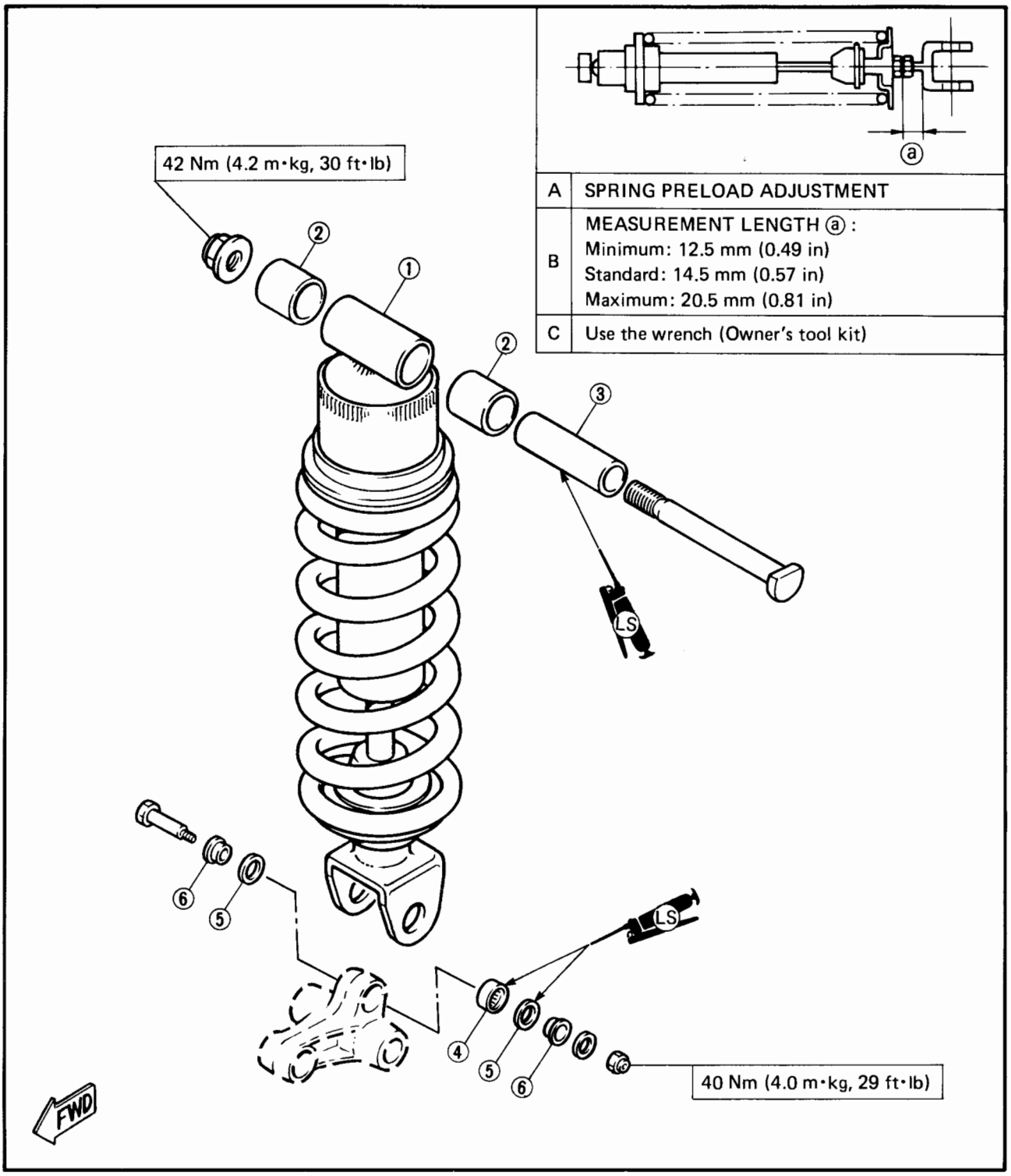
STEERING

① Steering stem nut
② Handle crown
③ Lock washer
④ Ring nut (Upper)
⑤ Washer
⑥ Ring nut (Lower)
⑦ Bearing cover
⑧ Bearing (Upper)
⑨ Bearing (Lower)
⑩ Steering stem



REAR SHOCK ABSORBER

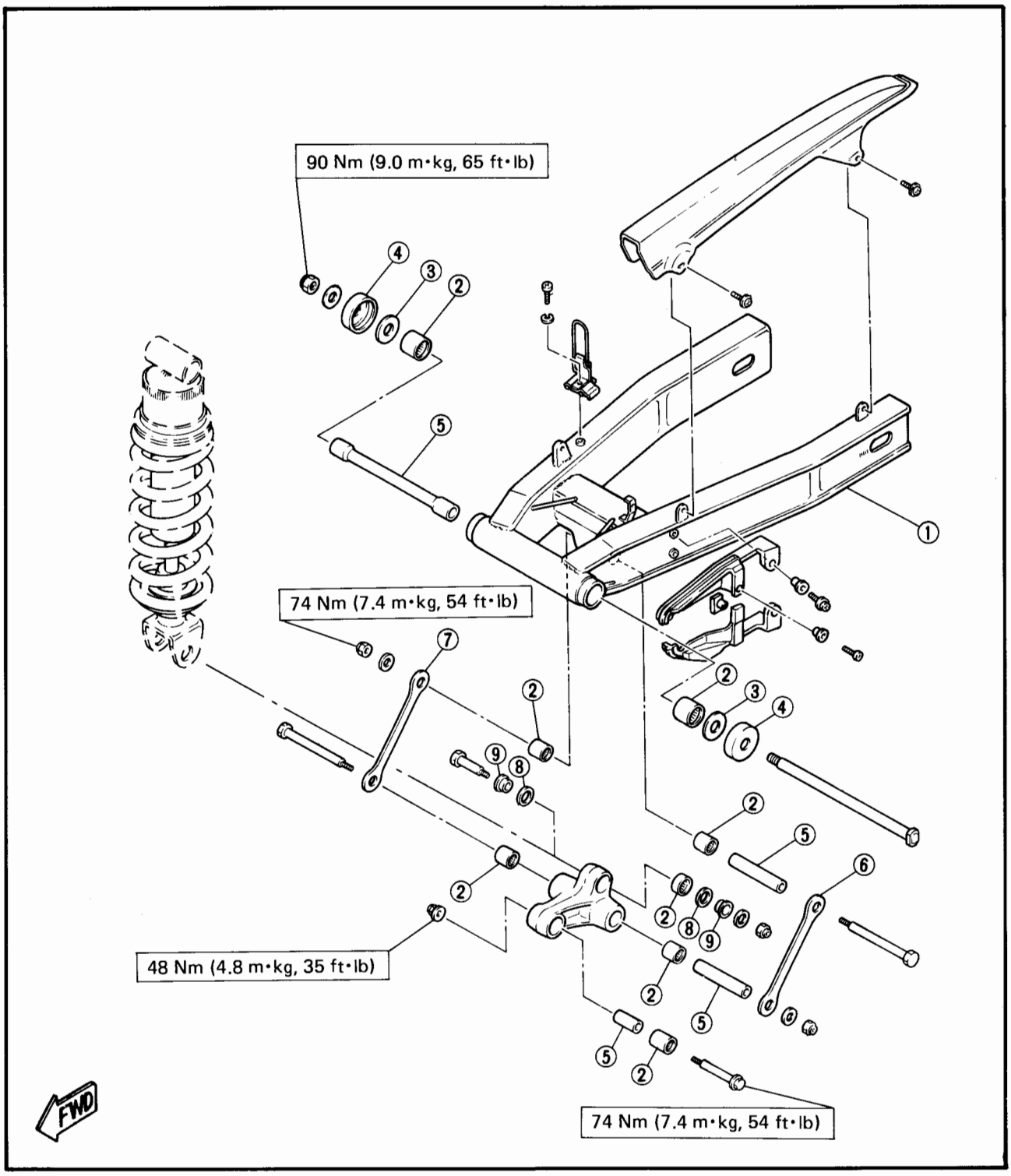
① Shock absorber
② Bushing
③ Collar
④ Bearing
⑤ Oil seal
⑥ Dust seal



SWINGARM

① Swingarm
② Bearing
③ Thrust washer
④ Thrust cover
⑤ Collar
⑥ Arm 1
⑦ Arm 2
⑧ Oil seal
⑨ Dust cover

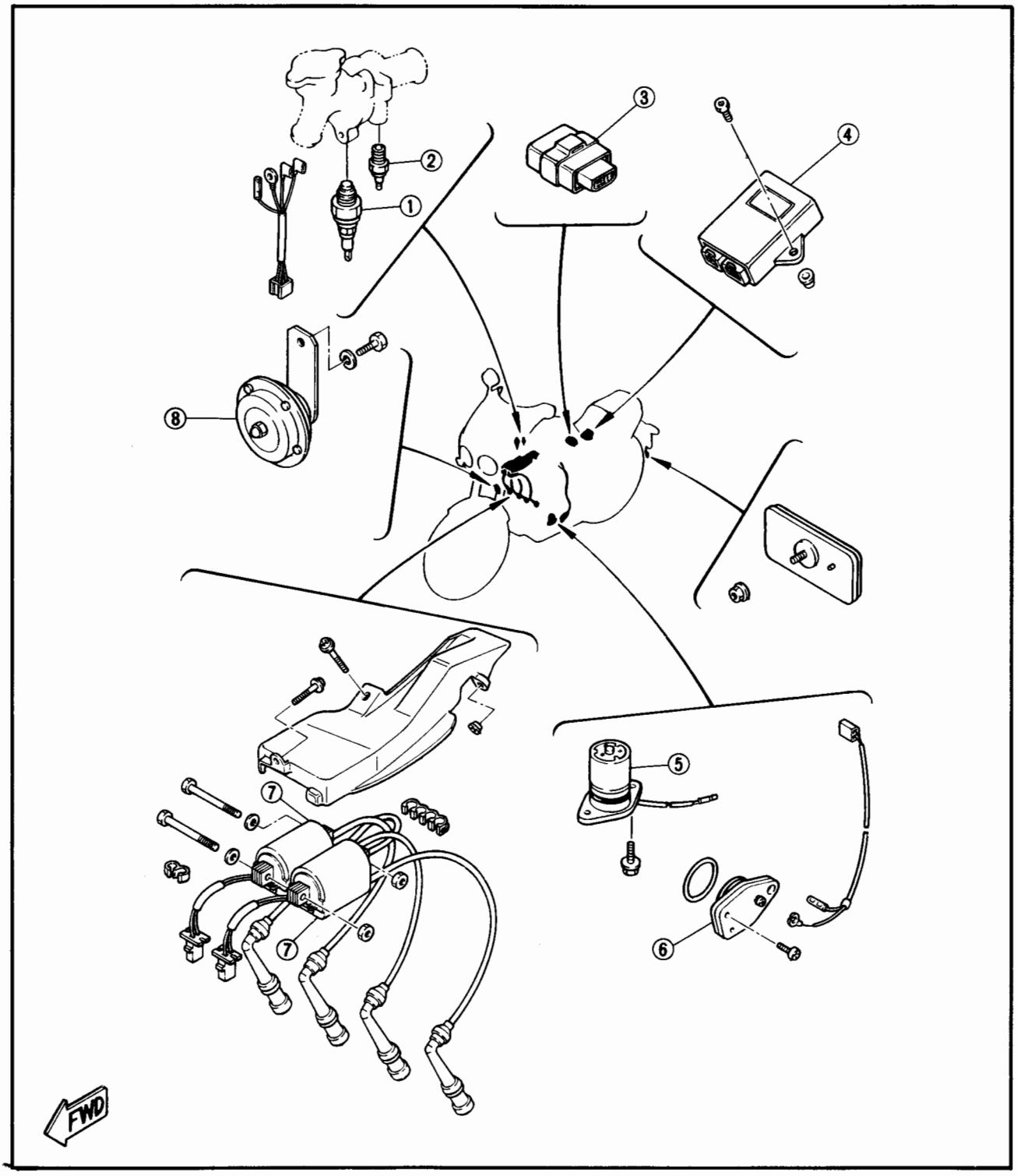
NOTE:
Coat the bearings, bushings, thrust covers, oil seals, and collars with a liberal amount of light weight lithium-soap base grease before installing. After installing, thoroughly wipe off excess grease.



ELECTRICAL COMPONENTS (1)

① Thermo switch
② Thermo unit
③ Relay assembly
④ Digital ignitor unit
⑤ Oil level switch
⑥ Neutral switch
⑦ Ignition coil
⑧ Horn

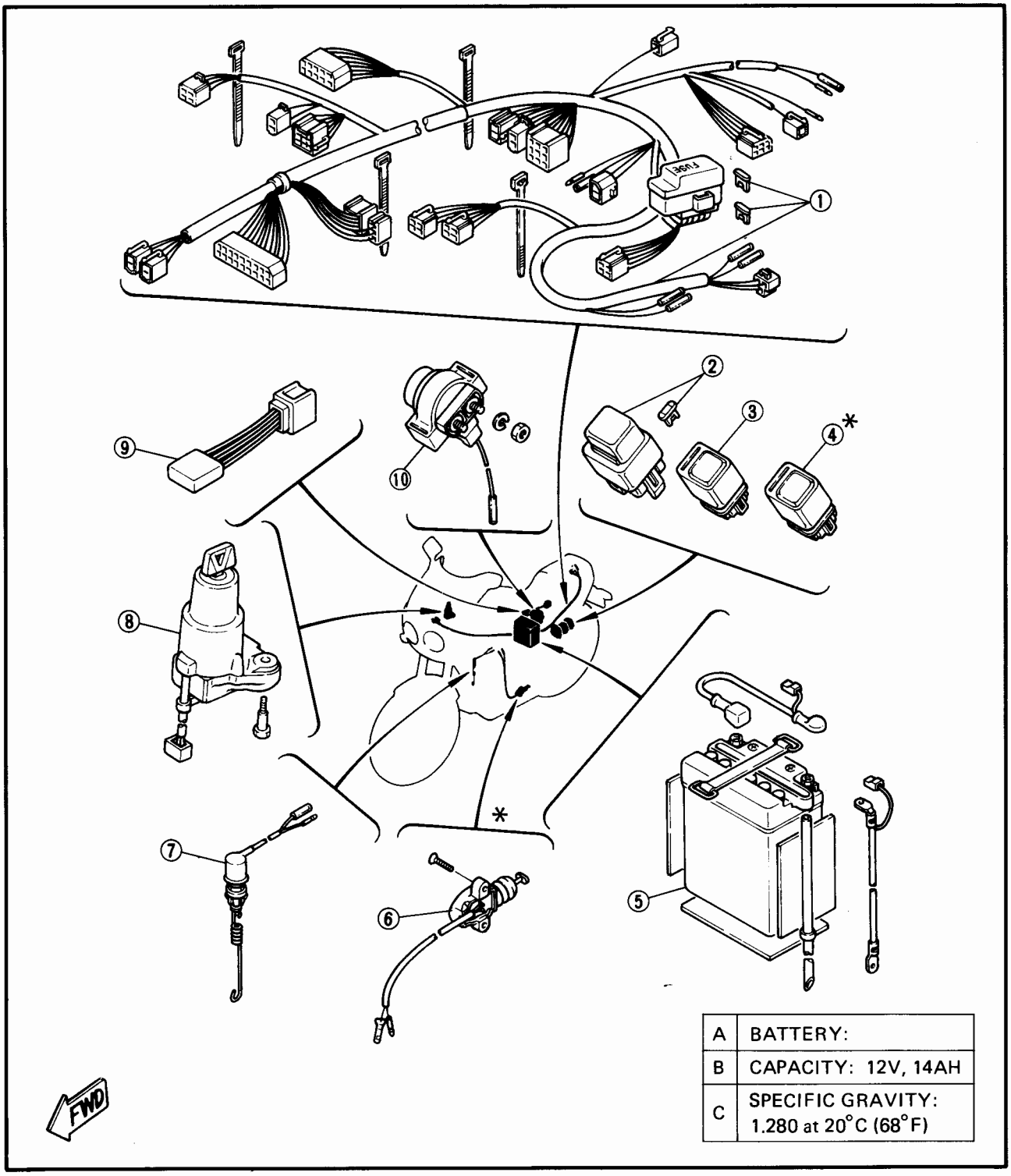
SPECIFICATIONS	RESISTANCE
IGNITION COIL:	
PRIMARY	1.8 ~ 2.2Ω
SECONDARY	9.6 ~ 14.4 kΩ
PICKUP COIL:	135 ~ 165Ω



ELECTRICAL COMPONENTS (2)

① Wire harness
② Fuse "MAIN"
③ Fuel pump relay
④ Sidestand relay*
⑤ Battery
⑥ Sidestand switch*
⑦ Rear brake switch
⑧ Main switch
⑨ Diode block
⑩ Starter relay

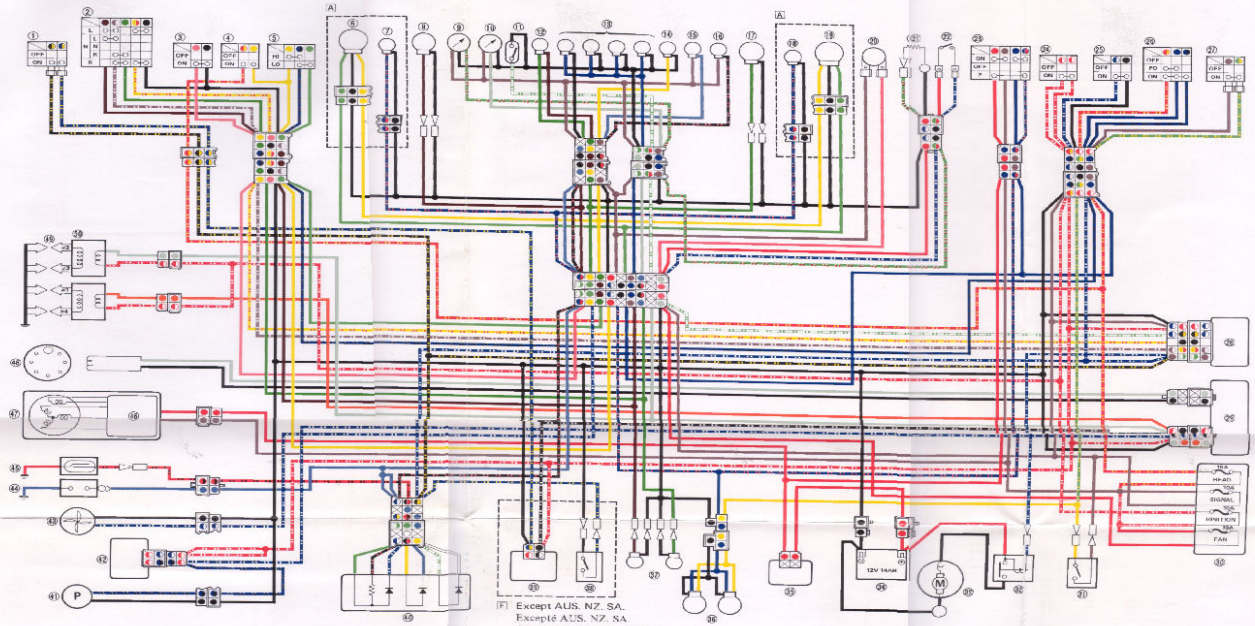
* Except AUS, NZ, ZA



A	BATTERY:
B	CAPACITY: 12V, 14AH
C	SPECIFIC GRAVITY: 1.280 at 20°C (68°F)

YAMAHA MOTOR CO.,LTD.
IWATA, JAPAN

PRINTED IN JAPAN
87 • 3 - 2.01 x 1 CR
(英)



[A] I
[B] B, D, F, S
[C] A, NL, SF
[D] CH

[E] OTHERS
AUTRES PAYS
ANDERE LÄNDER

FZR1000 WIRING DIAGRAM

① Clutch switch
② "TURN" switch
③ "HORN" switch
④ "PASS" switch
⑤ "LIGHTS" (Dimmer) switch
⑥ Headlight (Left)
⑦ Auxiliary light (Left)
⑧ Front flasher light (Left)
⑨ Temperature gauge
⑩ Tachometer
⑪ Reed switch
⑫ "TURN" indicator light
⑬ Meter light
⑭ "HIGH BEAM" indicator light
⑮ "NEUTRAL" indicator light
⑯ "OIL LEVEL" indicator light
⑰ Front flasher light (Right)
⑱ Auxiliary light (Right)
⑲ Headlight (Right)
⑳ Horn
㉑ Thermo unit
㉒ Thermo switch
㉓ Main switch
㉔ "ENGINE STOP" switch
㉕ "START" switch
㉖ "LIGHTS" switch
㉗ Front brake switch
㉘ Relay assembly
㉙ Digital ignitor unit
㉚ Fuse
㉛ Rear brake switch
㉜ Starter relay
㉝ Starter motor
㉞ Battery
㉟ Main fuse
㊱ Tail/brake light
㊲ Rear flasher light
㊳ Sidestand switch
㊴ Sidestand relay
㊵ Diode block
㊶ Fuel pump
㊷ Fuel pump relay
㊸ Fan motor
㊹ Neutral switch
㊺ Oil level switch
㊻ Rectifier/regulator
㊼ A.C. generator
㊽ Pickup coil
㊾ Spark plug
㊿ Ignition coil

① Contacteur d'embrayage
② Commutateur des clignotants "TURN"
③ Contacteur d'avertisseur "HORN"
④ Commutateur d'appel de phare "PASS"
⑤ Commutateur de feu de croisement "LIGHTS" (Dimmer)
⑥ Phare (Gauche)
⑦ Feu auxiliaire (Gauche)
⑧ Clignoteur avant (Gauche)
⑨ Indicateur de température
⑩ Compte-tours
⑪ Commutateur à lame
⑫ Lampe témoin de clignoteur "TURN"
⑬ Eclairage de compteur
⑭ Témoin de feu de route "HIGH BEAM"
⑮ Lampe témoin de point-mort "NEUTRAL"
⑯ Témoin de niveau d'huile "OIL LEVEL"
⑰ Clignoteur avant (Droit)
⑱ Feu auxiliaire (Droit)
⑲ Phare (Droit)
⑳ Avertisseur
㉑ Sonde thermique
㉒ Thermocontact
㉓ Contacteur à clé
㉔ Commutateur "ENGINE STOP"
㉕ Commutateur de démarreur "START"
㉖ Commutateur d'éclairage "LIGHTS"
㉗ Contacteurs avant de feu stop
㉘ Ensemble relais
㉙ Bloc allumeur numérique
㉚ Fusible
㉛ Contacteurs arrière de feu stop
㉜ Relais du démarreur
㉝ Commutateur de démarreur
㉞ Batterie
㉟ Fusible principal
㊱ Feu arrière/stop
㊲ Clignoteur arrière
㊳ Commutateur de la béquille latérale
㊴ Relais de béquille latérale
㊵ Bloc de diodes
㊶ Pompe à essence
㊷ Relais de pompe à essence
㊸ Moteur du ventilateur
㊹ Contacteur de point-mort
㊺ Contacteur de niveau d'huile
㊻ Redresseur/régulateur
㊼ Alternateur
㊽ Bobine d'excitation
㊾ Bougie
㊿ Bobine d'allumage

① Kupplungschalter
② Blinkl'chtschalter "TURN"
③ Signalhornschalter "HORN"
④ Lichthupenschalter "PASS"
⑤ Abblendlichtschalter "LIGHTS"
⑥ Scheinwerfer (Linker)
⑦ Nummernschildbeleuchtung (Linker)
⑧ Scheinwerfer (Linker)
⑨ Tamoteraturanzeige
⑩ Tacho meter
⑪ Zungenschalter
⑫ Blinkleuchte-Kontrollampe "TURN"
⑬ Instrumentenkontrollampe
⑭ Fernlicht-Kontrollampe "HIGH BEAM"
⑮ Leerlauf-Kontrollampe "NEUTRAL"
⑯ Ölstand-Kontrollampe "OIL LEVEL"
⑰ Blinklicht vorne (Rechte)
⑱ Nummernschildbeleuchtung (Rechter)
⑲ Scheinwerfer (Rechter)
⑳ Signalhorn
㉑ Thermoeinheit
㉒ Thermoschalter
㉓ Hauptschalter
㉔ Motorstoppschalter "ENGINE STOP"
㉕ Starknopf "START"
㉖ Lichtschalter "LIGHTS"
㉗ Vorderrad-Bremslichtschalter
㉘ Relaisgehäuse
㉙ Digitale Zündung
㉚ Sicherung
㉛ Hinterrad-Bremsschalter
㉜ Relaisschalter
㉝ Anlasser
㉞ Batterie
㉟ Hauptsicherung
㊱ Schluß-Bremsleuchte
㊲ Hinterblinkleuchte
㊳ Seitenständerschalter
㊴ Seitenständerrelais
㊵ Dioden block
㊶ Kraftstoffpumpe
㊷ Kraftstoffpumpenrelais
㊸ Gebläsemotor
㊹ Leerlaufkontrol
㊺ Ölstandschalter
㊻ Gleichrichter/Spannungsregler
㊼ Drehstrom-Lichtmaschine
㊽ Impulsspule
㊾ Zündkerze
㊿ Zündspule

COLOR CODE CODE DE COULEUR **FARBENKODIERUNG**

Blue / Bleu / Blau	Dark Green / Vert Foncé / Dunkelgrün	Red/Yellow / Rouge/Jaune / Rot/Gelb	Black/Red / Noir/Rouge / Schwarz/Rot
Red / Rouge / Rot	Gray / Gris / Grau	Red/Black / Rouge/Noir / Rot/Schwarz	Black/Yellow / Noir/Jaune / Schwarz/Gelb
Green / Vert / Grün	Brown / Brun / Braun	Blue/Red / Bleu/Rouge / Blau/Rot	Black/White / Noir/Blanc / Schwarz/Weiß
Black / Noir / Schwarz	Chocolate / Chocolat / Schokoladenfarbe	Blue/White / Bleu/Blanc / Blau/Weiß	Green/Red / Vert/Rouge / Grün/Rot
Yellow / Jaune / Gelb	Orange / Orange / Orange	Blue/Black / Bleu/Noir / Blau/Schwarz	Green/Yellow / Vert/Jaune / Grün/Gelb
Pink / Rose / Rosa	Yellow/Red / Jaune/Rouge / Gelb/Rot	Blue/Yellow / Bleu/Jaune / Blau/Gelb	White/Green / Blanc/Vert / Weiß/Grün
Sky Blue / Bleu Ciel / Himmelblau	Red/White / Rouge/Blanc / Rot/Weiß	Brown/White / Brun/Blanc / Braun/Weiß	White / Blanc / Weiß