YAMAHA

XJ600SD '92

4EA-SE1

SERVICE INFORMATION

FOREWORD

This Service Information has been prepared to introduce new service and data for the XJ600SD. For complete service information procedures it is necessary to use this publication together with the following microfiche service manual.

XJ600SD/XJ600SDC SERVICE MANUAL: 4EA-ME1

XJ600SD
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.

HOW TO USE THIS MANUAL

PARTICULARLY IMPORTANT INFORMATION

This material is distinguished by the following notation.

⚠ The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ WARNING Failure to follow WARNING instructions could result in severe injury or death to the motorcycle operator, a bystander, or a person inspecting or repairing the motorcycle.

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

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

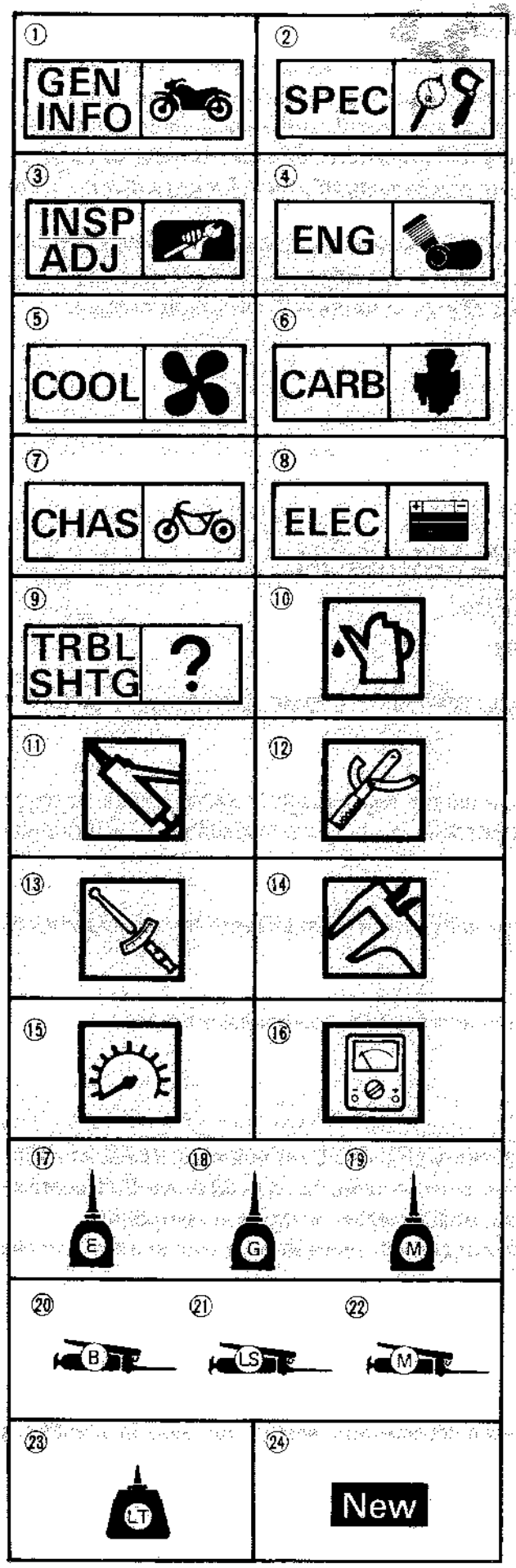
MANUAL FORMAT

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

- Bearings
  Pitting/Damage →Replace.

EXPLODED DIAGRAM

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



ILLUSTRATED SYMBOLS (Refer to the illustration)

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

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

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

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

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

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

CONTENTS

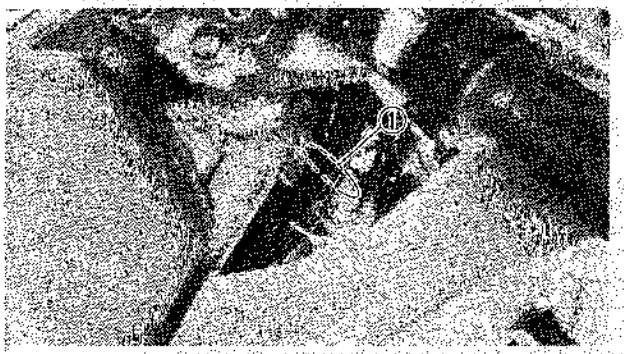
GENERAL INFORMATION 1
- MOTORCYCLE IDENTIFICATION 1

SPECIFICATIONS 2
- GENERAL SPECIFICATIONS 2
- MAINTENANCE SPECIFICATIONS 5
- GENERAL TORQUE SPECIFICATIONS 18
- LUBRICATION POINT AND GRADE OF LUBRICANT 19
- CABLE ROUTING 21

PERIODIC INSPECTION AND ADJUSTMENT 26
- INTRODUCTION 26
- PERIODIC MAINTENANCE/LUBRICATION 26

EXPLODED DIAGRAM 28
- CAMSHAFT, VALVE AND TIMING CHAIN 28
- CRANKSHAFT AND STARTER CLUTCH 29
- TRANSMISSION AND SHIFT CAM/SHIFT FORK 30
- OIL PUMP AND OIL STRAINER 31
- CLUTCH 32
- CYLINDER, PISTON AND PISTON RING 33
- CYLINDER HEAD AND CYLINDER HEAD COVER 34
- CARBURETOR 35
- FRONT WHEEL 37
- REAR WHEEL 38
- FRONT AND REAR BRAKE 39
- FRONT FORK 41
- STEERING HEAD AND HANDLEBAR 42
- REAR SHOCK ABSORBER AND SWINGARM 43
- DRIVE CHAIN AND SPROCKETS 44
- ELECTRICAL COMPONENTS 45
- STARTER MOTOR 47

XJ600SD WIRING DIAGRAM



YB211001

GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

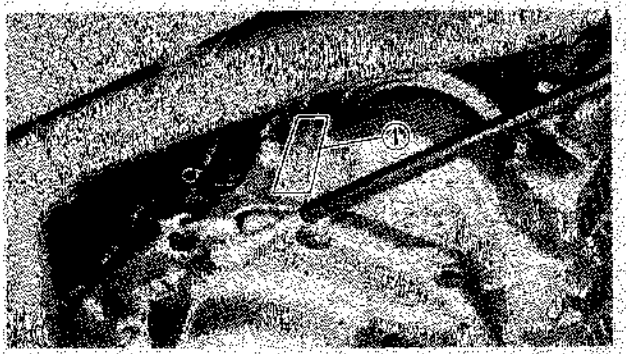
VEHICLE IDENTIFICATION NUMBER

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

Starting serial number:
JYA4DUEO*NA000101 (USA)
JYA4DUCO*NA013101 (California)
JYA4DUNO*NA012101 (CDN)
JYA4EATO*NA000101 (AUS)

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 the engine.

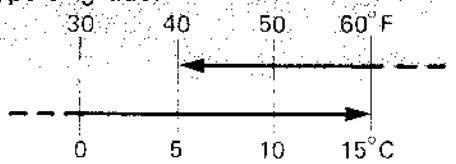
Starting serial number:
XJ600SD .....4DU-000101 (USA)
XJ600SDC ...4DU-013101 (California)
XJ600SD .....4DU-012101 (CDN)
XJ600SD .....4EA-000101 (AUS)

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	XJ600SD/XJ600SDC
Model code number:	XJ600SD: 4DU1 (USA) XJ600SDC: 4DU2 (California) XJ600SD: 4DU3 (CDN) XJ600SD: 4EA1 (AUS)
Vehicle identification number:	JYA4DUEO*NA000101 (USA) JYA4DUCO*NA013101 (California) JYA4DUNO*NA012101 (CDN) JYA4EATO*NA000101 (AUS)
Engine starting number:	4DU-000101 (USA) 4DU-013101 (California) 4DU-012101 (CDN) 4EA-000101 (AUS)
Dimensions: Overall length Overall width Overall height Seat height Wheelbase Minimum ground clearance	 2,095 mm (82.5 in) 750 mm (29.5 in) 1,170 mm (46.1 in) 770 mm (30.3 in) 1,445 mm (56.9 in) 150 mm (5.91 in)
Basic weight: With oil and full fuel tank	 197 kg (434 lb)
Minimum turning radius:	2,600 mm (102 in)
Engine: Engine type Cylinder arrangement Displacement Bore × stroke Compression ratio Compression pressure Starting system	 Air cooled 4-stroke, gasoline, DOHC 4-cylinder parallel 599 cm³ (USA, California) 598.8 cm³ (CDN, AUS) 58.5 x 55.7 mm (2.30 x 2.19 in) 10.0 : 1 1,100 kPa (11.0 kg/cm², 156 psi) Electric starter
Lubrication system:	Wet sump
Engine oil type or grade:  	 Yamalube 4 (20W40) or SAE 20W40 type SE motor oil Yamalube 4 (10W30) or SAE 10W30 type SE motor oil
Engine oil capacity: Periodic oil change With oil filter replacement Total amount	 2.2 L (1.9 Imp qt, 2.3 US qt) 2.5 L (2.2 Imp qt, 2.6 US qt) 2.9 L (2.6 Imp qt, 3.1 US qt)
Air filter:	Dry type element

GENERAL SPECIFICATIONS

SPEC

Model	XJ600SD/XJ600SDC	
Fuel:		
Type	Unleaded fuel (USA, California) Regular unleaded gasoline (CDN) Unleaded fuel only (AUS)	
Tank capacity	17.0 L (3.74 Imp gal, 4.49 US gal)	
Reserve amount	3.5 L (0.77 Imp gal, 0.92 US gal)	
Carburetor:		
Type x quantity	BDS 26 x 4 (USA, California) BDST28 x 4 (CDN, AUS)	
Manufacturer	MIKUNI	
Spark plug:		
Type/Manufacture	for USA, California CR7E (NGK), U22ESR-N (N.D.) CR8E (NGK), U24ESR-N (N.D.) for CDN, AUS CR8E (NGK), U24 ESR-N (N.D.)	
Gap	0.7 ~ 0.8 mm (0.028 ~ 0.031 in)	
Clutch type:	Wet, multiple-disc	
Transmission:		
Primary reduction system	Spur gear	
Primary reduction ratio	23/24 x 65/28 (2.224) (USA, California) 23/24 x 65/28 (2.225) (CDN, AUS)	
Secondary reduction system	Chain drive	
Secondary reduction ratio	48/16 (3.000)	
Transmission type	Constant mesh 6-speed	
Operation	Left foot operation	
Gear ratio 1st	41/15 (2.733)	
2nd	32/18 (1.777) (USA, California) 32/18 (1.778) (CDN, AUS)	
3rd	28/21 (1.333)	
4th	29/27 (1.074)	
5th	21/23 (0.913)	
6th	23/28 (0.821)	
Chassis:		
Frame type	Double cradle	
Caster angle	25°	
Trail	97 mm (3.82 in)	
Tire:	Front	Rear
Type	Tubeless	Tubeless
Size	110/80-17 57H	130/70-18 63H
Manufacture (Type)	YOKOHAMA (F209) DUNLOP (K275F)	YOKOHAMA (R209) DUNLOP (K275)

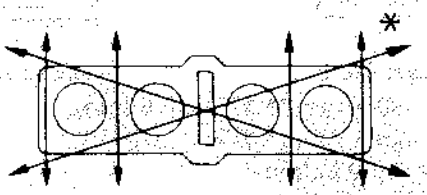
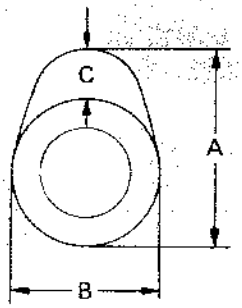
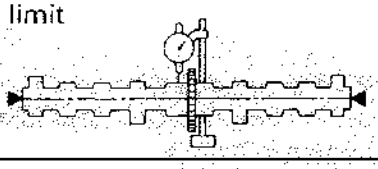
GENERAL SPECIFICATIONS

SPEC

Model		XJ600SD/J600SDC	
Tire pressure (Cold tire):			
Basic Weight:			
With oil and full fuel tank		197 kg (434 lb) (USA, CDN, AUS) 198 kg (437 lb) (California)	
Maximum load*		200 kg (441 lb) (USA, CDN, AUS) 199 kg (439 lb) (California)	
Cold tire pressure:		Front	Rear
Up to 90 kg (198 lb) load*		200 kPa (2.0 kg/cm², 28 psi)	225 kPa (2.25 kg/cm², 32 psi)
90 kg (198 lb) ~ Maximum load*		200 kPa (2.0 kg/cm², 28 psi)	250 kPa (2.5 kg/cm², 36 psi)
High speed riding		200 kPa (2.0 kg/cm², 28 psi)	250 kPa (2.5 kg/cm², 36 psi)
		*Load is the total weight of cargo, rider, passenger, and accessories.	
Brake:			
Front		Single disc brake	
Operation		Right hand operation	
Rear		Single disc brake	
Operation		Right foot operation	
Suspension:			
Front suspension		Telescopic fork	
Rear suspension		Swingarm (Monocross)	
Shock absorber:			
Front shock absorber		Coil-spring/ Oil damper	
Rear shock absorber		Coil-gas spring/Oil damper	
Wheel travel:			
Front wheel travel		140 mm (5.51 in)	
Rear wheel travel		110 mm (4.33 in)	
Electrical:			
Ignition system		T.C.I. (Digital ignition)	
Generator system		A.C. magneto generator	
Battery type or model		YTX9-BS, GTX9-BS	
Battery capacity		12V 8AH	
Headlight type:		Quartz bulb (Halogen)	
Bulb wattage x Quantity:			
Headlight		12V 60W/55W	
Tail/brake light		12V 5W/21W	
Flasher light		12V 27W x 4 (USA, California, CDN) 12V 21W x 4 (AUS)	
Parking/Running light		12V 8W x 2 (USA, California, CDN)	
Licence light		12V 5W x 2	
Meter light		12V 1.7W x 3	
Indicator light:			
Wattage x quantity	"NEUTRAL"	12V 3.4W x 1	
	"HIGH BEAM"	12V 3.4W x 1	
	"TURN"	12V 3.4W x 1	
	"OIL LEVEL"	12V 3.4W x 1	

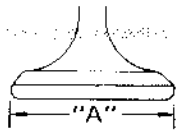
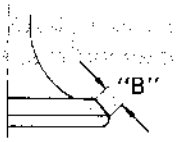
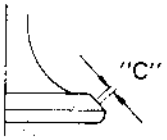
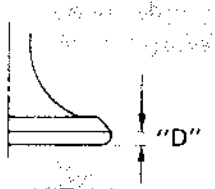
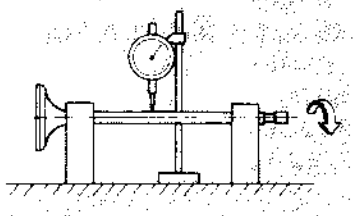
MAINTENANCE SPECIFICATIONS

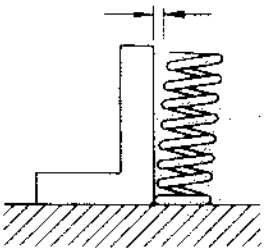
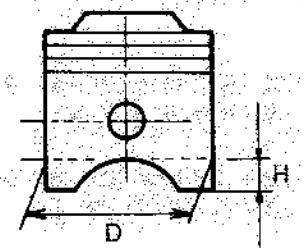
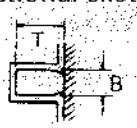
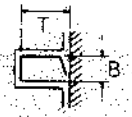
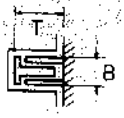
ENGINE

Model	XJ600SD/XJ600SDC
Cylinder head: Warp limit*	0.03 mm (0.0012 in) *Lines indicate straightedge measurement.
	
Cylinder: Bore size Taper Limit Out of Round Limit	 58.505 ~ 58.545 mm (2.3033 ~ 2.3049 in) 0.05 mm (0.002 in) 0.01 mm (0.0004 in)
Camshaft: Drive method Cam cap inside dia. Camshaft Outside Dia. Shaft-to-cap clearance <Limit> Cam dimensions: Intake "A" <Limit> "B" <Limit> "C" <Limit> Exhaust "A" <Limit> "B" <Limit> "C" <Limit> Camshaft runout limit	 Chain drive (Center) 25.000 ~ 25.021 mm (0.9843 ~ 0.9859 in) 24.967 ~ 24.980 mm (0.9830 ~ 0.9835 in) 0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in) <0.16 mm (0.0063 in)> 35.75 ~ 35.85 mm (1.404 ~ 1.411 in) <35.7 mm (1.4 in)> 27.95 ~ 28.05 mm (1.100 ~ 1.104 in) <27.9 mm (1.1 in)> 7.8 mm (0.31 in) <7.6 mm (0.30 in)> 35.45 ~ 35.55 mm (1.396 ~ 1.400 in) <35.4 mm (1.4 in)> 27.95 ~ 28.05 mm (1.100 ~ 1.104 in) <27.9 mm (1.1 in)> 7.5 mm (0.30 in) <7.3 mm (0.29 in)> 0.05 mm (0.002 in)
	
	
Cam chain: Cam chain type/No. of links Cam chain adjustment method	 82-RH 2010/144 Auto

MAINTENANCE SPECIFICATIONS

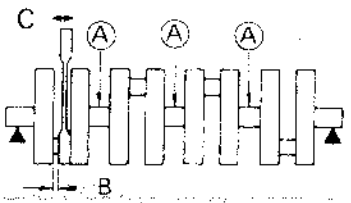
SPEC

Model		XJ600SD/XJ600SDC
Valve, valve seat, valve guide:		
Valve clearance (Cold):	IN.	0.11 ~ 0.15 mm (0.004 ~ 0.006 in)
	EX.	0.21 ~ 0.25 mm (0.008 ~ 0.010 in)
Valve dimensions:		
 Head Dia.	 Face Width	 Seat Width	 Margin Thickness
"A" Head dia.	IN.	29.9 ~ 30.1 mm (1.177 ~ 1.185 in)
	EX.	25.9 ~ 26.1 mm (1.020 ~ 1.028 in)
"B" Face width	IN.	2.26 mm (0.089 in)
	EX.	2.26 mm (0.089 in)
"C" Seat limit 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.	<2.0 mm (0.08 in)>
	EX.	<2.0 mm (0.08 in)>
"D" Margin thickness limit	IN.	1.0 mm (0.039 in)
	EX.	1.0 mm (0.039 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 (0.195 in)>
	EX.	<4.920 mm (0.194 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.	<5.045 mm (0.199 in)>
	EX.	<5.020 mm (0.198 in)>
Stem-to-guide clearance	IN.	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.	0.025 ~ 0.052 mm (0.001 ~ 0.002 in)
<Limit>	IN.	<0.1 mm (0.004 in)
	EX.	<0.1 mm (0.004 in)>
Stem runout limit		0.03 mm (0.0012 in)
		
Valve seat width	IN.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
	EX.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
<Limit>	IN.	<2.0 mm (0.08 in)>
	EX.	<2.0 mm (0.08 in)>
Valve spring:		
Free length		
Inner spring	IN.	38.33 mm (1.51 in)
	EX.	38.33 mm (1.51 in)
Outer spring	IN.	38.52 mm (1.52 in)
	EX.	38.52 mm (1.52 in)
Installed length (valve closed):		
Inner spring	IN.	32.5 mm (1.28 in)
	EX.	32.5 mm (1.28 in)
Outer spring	IN.	33.4 mm (1.31 in)
	EX.	33.4 mm (1.31 in)

Model		XJ600SD/XJ600SDC
Tilt limit:		
Inner spring	IN. and EX.	2.5/1.7 mm (0.067 in)
Outer spring	IN. and EX.	2.5/1.7 mm (0.067 in)
		
Direction of winding (Top view):		Inner spring: IN. and EX. — Counter Clockwise 
		Outer spring: IN. and EX. — Clockwise 
Piston:		
Piston size "D"		58.47 ~ 58.51 mm (2.302 ~ 2.304 in)
Measuring point "H"		4.0 mm (0.16 in)
Piston-to-cylinder clearance:		0.025 ~ 0.045 mm (0.0010 ~ 0.0018 in)
<Limit>		<0.15 mm (0.006 in)>
Piston ring:		
Sectional sketch	Top ring	Barrel B = 1.0 mm (0.04 in) T = 2.3 mm (0.09 in)
	2nd ring	Taper B = 1.2 mm (0.05 in) T = 2.5 mm (0.10 in)
	Oil ring	Expander B = 2.5 mm (0.10 in) T = 2.8 mm (0.11 in)
		
End gap (Installed):	Top ring	0.15 ~ 0.30 mm (0.006 ~ 0.012 in)
	<Limit>	<0.7 mm (0.028 in)>
	2nd ring	0.15 ~ 0.35 mm (0.006 ~ 0.014 in)
	<Limit>	<0.7 mm (0.028 in)>
	Oil ring	0.2 ~ 0.7 mm (0.008 ~ 0.028 in)
Side clearance	Top ring	0.035 ~ 0.07 mm (0.0014 ~ 0.0028 in)
	<Limit>	<0.15 mm (0.006 in)>
	2nd ring	0.02 ~ 0.06 mm (0.0008 ~ 0.0024 in)
	<Limit>	<0.15 mm (0.006 in)>
	Oil ring	—

MAINTENANCE SPECIFICATIONS

SPEC

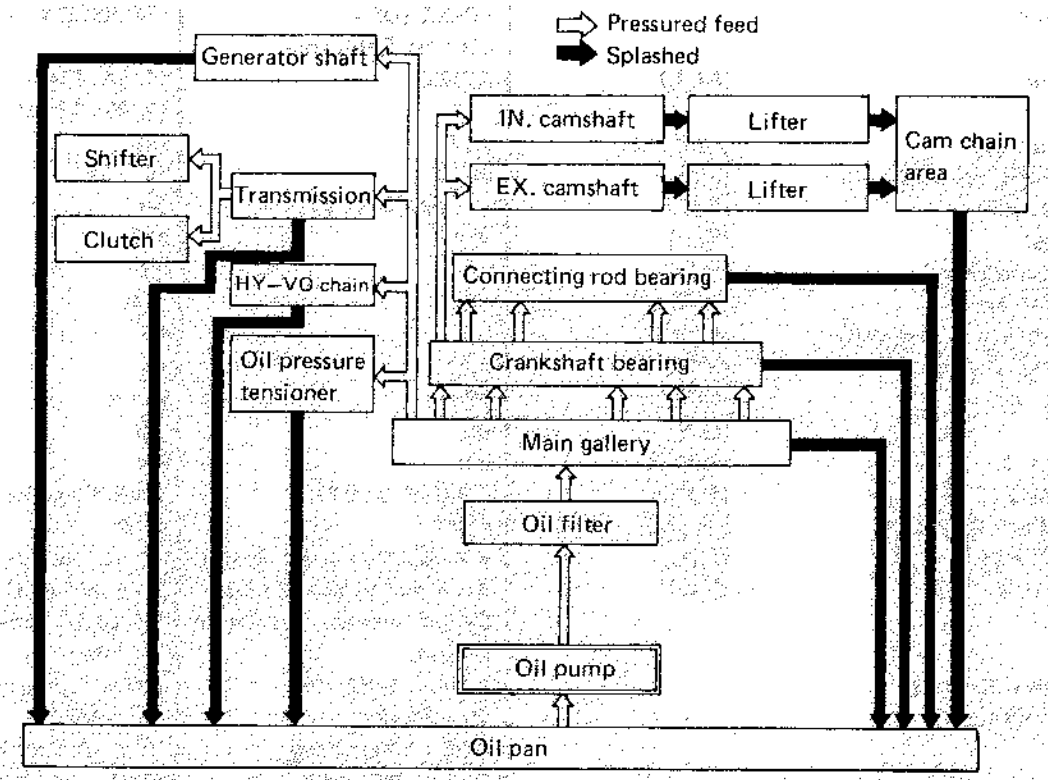
Model	XJ600SD/XJ600SDC
Connecting rod:	
Oil clearance	0.026 ~ 0.060 mm (0.0010 ~ 0.0024 in)
<Limit>	<0.08 mm (0.003 in)>
Crankshaft:	
	
Runout limit "A"	0.03 mm (0.0012 in)
Big end side clearance "B"	0.160 ~ 0.262 mm (0.0063 ~ 0.0103 in)
<Limit>	<0.5 mm (0.02 in)>
Big end radial clearance "C"	0.026 ~ 0.060 mm (0.0010 ~ 0.0024 in)
<Limit>	<0.08 mm (0.003 in)>
Main journal oil clearance	0.014 ~ 0.053 mm (0.0006 ~ 0.0021 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 8
<Wear limit>	<2.7 mm (0.106 in)>
Clutch plate:	
Thickness x Quantity	1.5 ~ 1.7 mm (0.060 ~ 0.067 in) x 7
<Warp limit>	<0.15 mm (0.006 in)>
Clutch spring:	
Free length x Quantity	42.8 mm (1.69 in) x 5
Minimum length	41.8 mm (1.65 in)
Clutch housing:	
Thrust clearance	0.12 ~ 0.39 mm (0.005 ~ 0.0115 in)
Radial clearance	0.015 ~ 0.043 mm (0.0006 ~ 0.0017 in)
Clutch release method	Outer pull, rack & Pinion pull
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

MAINTENANCE SPECIFICATIONS SPEC

Model		XJ600SD/XJ600SDC	
Carburetor:			
Type/Manufacture x quantity		BDS26/MIKUNI x 4	BDST28/MIKUNI x 4
I.D. mark		4DU00 (USA), 4DU 10 (California)	4BR00(CDN, AUS)
Main jet	(M.J.)	#102.5	#1, #4 : #105/ #2, #3 : #102.5
Main air jet	(M.A.J.)	ø1.5	#70
Jet needle-clip position	(J.N.)	4B10	5CT-3.5
Needle jet	(N.J.)	#1, #4:0-4 #2, #3: 0-2	0-4
Pilot jet	(P.J.)	#17.5	#15
Pilot outlet size	(P.O.)	0.8	0.8
Pilot air jet	(P.A.J.)	#145	#145
Pilot screw (turns out)	(P.S.)	2	2
Valve seat size	(V.S.)	1.5	1.5
Starter jet	($G.S_1$)	#20	#47.5
	($G.S_2$)	0.7	0.6
Bypass 1	(B.P.1)	0.8	0.8
Bypass 2	(B.P.2)	0.8 (B.P. 3 : 0.8)	0.8 (B.P. 3 : 0.8)
Throttle valve size	(Th. V.)	#140	#130
Float height	(F.H.)	6.2 ~ 8.2 mm (0.24 ~ 0.32 in)	11 ~ 13 mm (0.43 ~ 0.51 in)
Fuel level	(F.L.)	4 ~ 6 mm (0.16 ~ 0.24 in) Below from the float chamber line	3 ~ 5 mm (0.12 ~ 0.20 in) Above from the float chamber line
Engine idle speed		1,200 ~ 1,400 r/min	1,150 ~ 1,250 r/min
Intake vacuum		29 ~ 30 kPa (220 ~ 230 mmHg, 8.66 ~ 9.06 inHg)	34 ~ 36 kPa (260 ~ 270 mmHg, 10.24 ~ 10.64 inHg)
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		80 ~ 120 kPa ($0.8 \sim 1.2$ kg/cm^2, 11.4 ~ 17.1 psi)	
Relief valve operating pressure		450 ~ 550 kPa ($4.5 \sim 5.5$ kg/cm^2, 64.0 ~ 78.2 psi)	
Oil pressure (Hot)		80 kPa (0.8 kg/cm^2, 11.4 psi)/1,200 r/min	
Pressure check location		Main gallery	

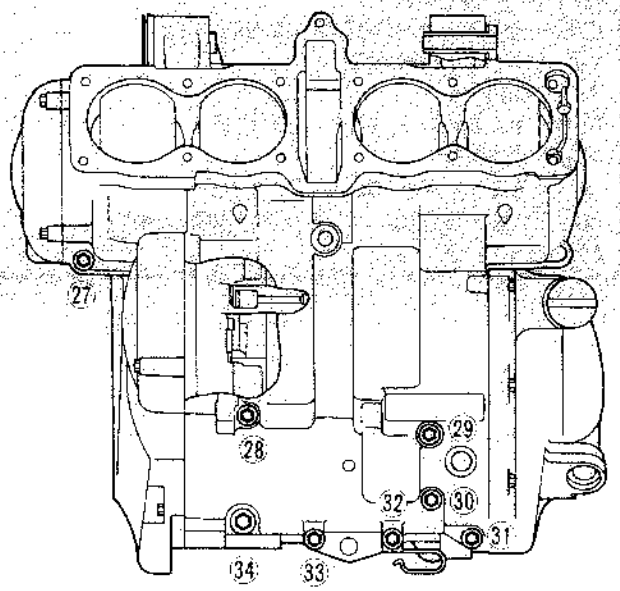
Model	XJ600SD/XJ600SDC

Lubrication Chart:

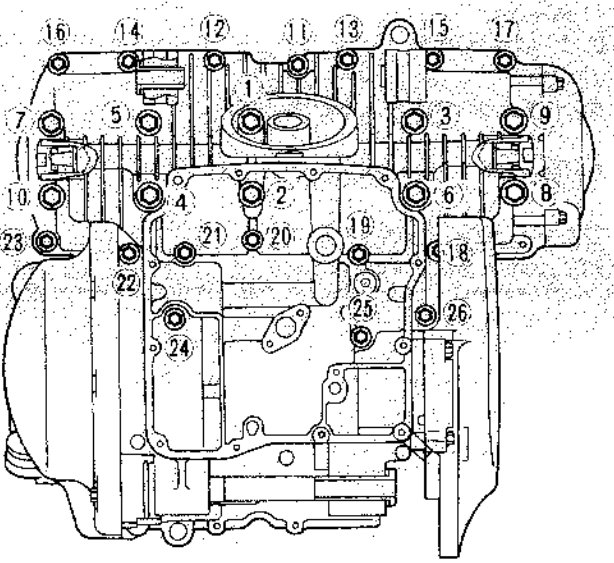


Crankcase Thghtening Sequence:

Upper case



Lower case

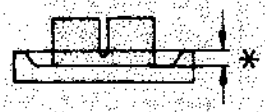


TIGHTENING TORQUE:

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque Nm	m·kg	ft·lb	Remarks
Camshaft	Bolt	M 6	24	10	1.0	7.2	Tighten in 3-stages
Cylinder head (cam chain)	Stud bolt	M 6	4	5	0.5	3.6	
Cylinder head (exhaust pipe)	Stud bolt	M 6	8	15	1.5	11	
Cylinder head	Cap nut	M 8	12	22	2.2	16	
Spark plug	—	M 10	4	12.5	1.25	9.0	
Cylinder head cover	Bolt	M 6	8	10	1.0	7.2	
Cylinder and crankcase	Nut	M 8	1	20	2.0	14	
Cylinder head	Nut	M 6	4	10	1.0	7.2	
Connecting rod	Nut	M 7	8	25	2.5	18	
Cam sprocket	Bolt	M 7	4	24	2.4	17	
Cam chain tensioner	Bolt	M 6	2	10	1.0	7.2	
	Cap bolt	—	1	20	2.0	14	
Cam chain guide	Bolt	M 6	1	7	0.7	5.1	
Oil pump rotor housing	Screw	M 6	1	7	0.7	5.1	
Oil pump	Screw	M 6	3	7	0.7	5.1	
Oil pump strainer	Bolt	M 6	2	10	1.0	7.2	
Oil pan	Bolt	M 6	12	10	1.0	7.2	
Oil filter	Union bolt	M 20	1	17	1.7	12	
Drain bolt	Plug	M 14	1	43	4.3	31	
Oil filter housing	Union bolt	M 20	1	50	5.0	36	
Intake manihold	Bolt	M 6	8	10	1.0	7.2	
Air filter cover	Screw	M 5	4	5	0.5	3.6	
Air filter	Bolt	M 6	1	10	1.0	7.2	
Exhaust pipe	Nut	M 8	8	20	2.0	14	
Muffler	Bolt	M 10	2	25	2.5	18	
	Bolt	M 8	2	20	2.0	14	
Exhaust pipe joint	Bolt	M 8	2	20	2.0	14	
Crankcase	Stud bolt	M 8	12	13	1.3	9.4	
Crankcase (upper and lower)	Bolt	M 8	11	24	2.4	17	
	Bolt	M 6	22	12	1.2	8.8	
Timing plate cover	Bolt	M 6	4	8	0.8	5.8	
Magneto cover	Bolt	M 6	3	10	1.0	7.2	
Crankcase (main gallary blind plug)	Plug	M 20	2	12	1.2	8.8	
Sleeve tensioner	Bolt	M 6	4	10	1.0	7.2	
HI-VO chain guide (upper)	Bolt	M 6	2	8	0.8	5.8	
Clutch pressure plate	Bolt	M 6	5	8	0.8	5.8	
Clutch boss	Nut	M 20	1	70	7.0	50	
Primary drive gear	Nut	M 16	1	50	5.0	36	
Drive sprocket	Nut	M 18	1	110	11.0	80	
Camshaft segment	Screw	M 6	1	12	1.2	8.8	
Shift shaft stopper lever	Screw	M 8	1	22	2.2	16	
Shift arm	Bolt	M 6	1	10	1.0	7.2	
Stopper plate	Screw	M 6	1	7	0.7	5.1	
Shift pedal adjuster	Nut	M 6	1	10	1.0	7.2	Left hand thread
	Nut	M 6	1	10	1.0	7.2	
Rotor	Bolt	M 10	1	80	8.0	58	
Pickup coil base	Screw	M 6	2	8	0.8	5.8	
Timing plate	Bolt	M 10	1	45	4.5	32	
Neutral switch	Screw	M 5	3	4	0.4	2.9	

CHASSIS

Model		XJ600SD/XJ600SDC
Steering system:		
Steering bearing type		Ball bearing
No./Size of steel balls:	Upper	14 pcs/0.28 in
	Lower	14 pcs/0.31 in
Front suspension:		
Front fork travel		140 mm (5.51 in)
Front spring free length		476.5 mm (18.8 in)
<Limit>		<471.5 mm (18.6 in)>
Spring rate:	K1	45 N/mm (0.45 kg/mm, 25.2 lb/in)
	K2	80 N/mm (0.8 kg/mm, 44.8 lb/in)
Stroke:	K1	0 ~ 80 mm (0 ~ 3.15 in)
	K2	80 ~ 140 mm (3.15 ~ 5.51 in)
Optional spring		No.
Oil capacity		379 cm³ (13.3 Imp oz, 12.8 US oz)
Oil level (Fully compression)		111 mm (4.37 in)
		Below the top of inner fork tube without fork spring
Oil grade		Fork oil 10W or equivalent
Rear suspension:		
Shock absorber travel		37 mm (1.46 in)
Spring free length		170.5 mm (6.71 in)
<Limit>		<165 mm (6.51 in)>
Spring rate:	K1	1,800 N/mm (18 kg/mm, 1,008 lb/in)
Stroke:	K1	0 ~ 37 mm (0 ~ 1.46 in)
Optional spring		No.
Adjusting position		Hard: 7, 6, 5, 4 / STD: 3 / Soft: 2, 1
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		17 × MT2.50
Rim material		Aluminum
Rim runout limit:	Radial	2.0 mm (0.08 in)
	Lateral	2.0 mm (0.08 in)
Rear wheel:		
Type		Cast wheel
Rim size		18 × MT3.50
Rim material		Aluminum
Rim runout limit:	Radial	2.0 mm (0.08 in)
	Lateral	2.0 mm (0.08 in)
Drive chain:		
Type/Manufacturer		520VL2/DAIDO
No. of links		110
Chain free play		30 ~ 40 mm (1.2 ~ 1.6 in)

Model	XJ600SD/XJ600SDC
Front disc brake:	
Type	Single
Disc outside diameter × thickness	320 × 6 mm (12.6 × 0.24 in)
Pad thickness Inner	6.2 mm (0.24 in)
<Limit>*	<0.8 mm (0.03 in)>
Pad thickness Outer	6.2 mm (0.24 in)
<Limit>*	<0.8 mm (0.03 in)>
	
Master cylinder inside diameter	14 mm (0.55 in)
Caliper cylinder inside diameter	30.2 + 33.3 mm (1.19 + 1.31 in)
Brake fluid type	DOT #3 or #4
Rear disc brake:	
Type	Single
Disc outside diameter × thickness	245 × 5 mm (9.6 × 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	12.7 mm (0.5 in)
Caliper cylinder inside diameter	38.18 mm (1.5 in)
Brake fluid type	DOT #3 or #4
Clutch lever:	
Clutch lever free play	2 ~ 3 mm (0.08 ~ 0.12 in)
Brake lever and brake pedal:	
Brake pedal position	40 mm (1.6 in) Below the top of the footrest

TIGHTENING TORQUE:

Part to be tightened	Thread size	Tightening torque Nm	Tightening torque m·kg	Tightening torque ft·lb	Remarks
Handle crown and inner tube	M 8 x 1.25	23	2.3	17	
Handle crown and steering stem	M 22 x 1.0	110	11.0	80	
Steering stem and ring nut	M 25 x 1.0	18	1.8	13	See NOTE.
Inner tube and under bracket	M 8 x 1.25	38	3.8	2.7	
Under bracket and brake hose holder	M 6 x 1.0	10	1.0	7.2	
Brake hose and union bolt	M 10 x 1.25	30	3.0	22	
Upper cowl and stay	M 5 x 0.8	0.5	0.05	0.4	
Upper cowl and screen	M 5 x 0.8	0.5	0.05	0.4	
Cowl stay and frame	M 8 x 1.25	16	1.6	11	
Meter and stay	M 6 x 1.0	7	0.7	5.1	
Handlebar and grip end	M 16 x 1.5	26	2.6	19	
Front master cylinder and bracket	M 6 x 1.0	9	0.9	6.5	
Front master cylinder and cap	M 4 x 0.7	1.5	0.15	1.1	
Handle crown and holder upper	M 8 x 1.25	23	2.3	17	
Handle crown and main switch	M 6 x 1.0	7	0.7	5.1	
Front flasher light and stay	M 12 x 1.25	4	0.4	2.9	
Head light and stay	M 8 x 1.25	7	0.7	5.1	
Upper cowl and frame	M 5 x 0.8	0.5	0.05	0.4	
Upper cowl (left and right)	—	1.5	0.15	1.1	
Engine mount (upper)	M 10 x 1.25	60	6.0	43	
(lower)	M 10 x 1.25	60	6.0	43	
(rear)	M 12 x 1.25	88	8.8	64	
Engine stay and frame	M 10 x 1.25	46	4.6	33	
Pivot shaft and nut	M 14 x 1.5	91	9.1	66	
Rear shock absorber and rear arm	M 12 x 1.25	64	6.4	46	
Rear shock absorber and frame	M 12 x 1.25	64	6.4	46	
Chain case and rear arm	M 6 x 1.0	7	0.7	5.1	
Seal guard	M 6 x 1.0	7	0.7	5.1	
Fuel cock and fuel tank	M 6 x 1.0	7	0.7	5.1	
Fuel tank bracket and fuel tank	M 6 x 1.0	7	0.7	5.1	
Fuel tank bracket and frame	M 6 x 1.0	10	1.0	7.2	
Fuel tank and frame	M 8 x 1.25	15	1.5	11	
Rotor assembly and frame	M 6 x 1.0	7	0.7	5.1	
Rear fender and frame	M 6 x 1.0	7	0.7	5.1	
Tail light	M 6 x 1.0	7	0.7	5.1	
Rear fender cover and side cover	M 6 x 0.8	4	0.4	2.9	
Rectifier/Regulator	M 6 x 1.0	7	0.7	5.1	
Side cover	M 5 x 0.8	4	0.4	2.9	
Rear fender stay and frame	M 6 x 1.0	10	1.0	7.2	
Ignitor unit	—	1.5	0.15	1.1	
Fuse box	—	1.5	0.15	1.1	
Rear flasher light	M 12 x 1.25	5	0.5	3.6	
Front wheel axle	M 16 x 1.5	59	5.9	43	
Rear wheel axle and nut	M 16 x 1.5	105	10.5	75	
Front caliper and front fork	M 10 x 1.25	35	3.5	25	
Rear caliper and caliper bracket	M 10 x 1.25	35	3.5	25	
Caliper bracket and compression bar	M 8 x 1.25	30	3.0	22	
Rear arm and compression bar	M 8 x 1.25	30	3.0	22	
Brake disc and wheel (front and rear)	M 8 x 1.25	20	2.0	14	LT
Rear wheel sprocket and clutch hub	M 10 x 1.25	60	6.0	43	
Bleed screw and caliper	M 7 x 1.0	6	0.6	4.3	
Front wheel axle pinch bolt	M 8 x 1.25	20	2.0	14	
Front fender and front fork	M 6 x 1.0	9	0.9	6.5	

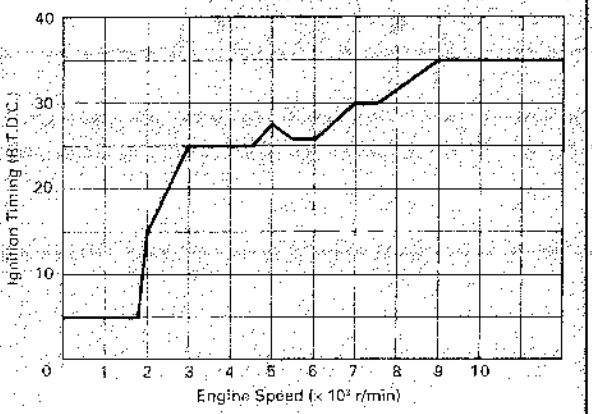
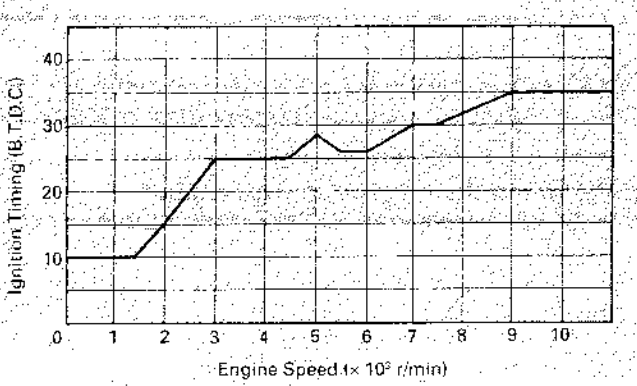
TIGHTENING TORQUE:

Part to be tightened	Thread size	Tightening torque			Remarks
		Nm	m • kg	ft • lb	
Brake hose holder and front fork	M 6 x 1.0	7	0.7	5.1	
Sidestand	M 10 x 1.25	40	4.0	29	
Sidestand and lock nut	M 10 x 1.25	40	4.0	29	
Rear master cylinder	M 8 x 1.25	23	2.3	17	
Rear brake reservoir tank	M 6 x 1.0	4	0.4	2.9	
Footrest bracket and footrest	M 10 x 1.25	30	3.0	22	
Shift pedal	M 8 x 1.25	30	3.0	22	

NOTE:

1. First, tighten the ring nut approximately 52 Nm (5.2 m • kg, 37 ft • lb) by using the torque wrench, then loosen the ring nut one turn.
2. Retighten the ring nut to specification.

ELECTRICAL

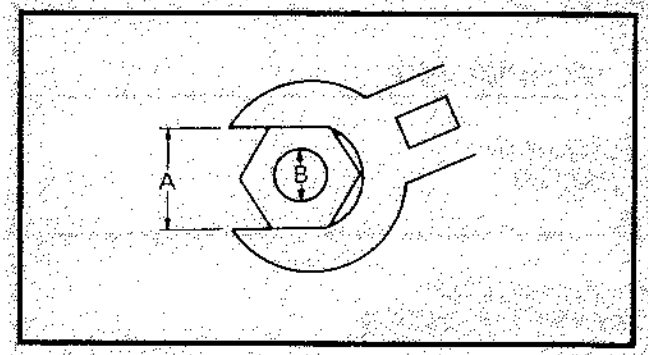
Model	XJ600SD/XJ600SDC
Voltage: Ignition system: Ignition timing (B.T.D.C.) Advanced timing (B.T.D.C.) Advancer type For USA, California  	12V 5° at 1,300 r/min (USA, California) 10° at 1,200 r/min (CDN, AUS) 35° at 9,000 r/min Electrical For CDN, AUS 
T.C.I.: Pickup coil resistance (Color) T.C.I. Unit/Manufacturer	 304 ~ 456Ω at 20°C (68°F) (White/Red – White/Black) 4DU/YAMAHA (USA, California) 4BR/YAMAHA (CDN, AUS)
Ignition coil: Model/Manufacturer Minimum spark gap Primary winding resistance Secondary winding resistance	 4BR/YAMAHA 6 mm (0.24 in) 1.92 ~ 2.88Ω at 20°C (68°F) 9.52 ~ 14.28 kΩ at 20°C (68°F)
Spark plug cap: Type Resistance	 Resin type 10 kΩ
Charging system: Type	 A.C. magneto generator
A.C. Generator: Model/Manufacturer Nominal output Stator coil resistance	 F4BR/YAMAHA 14V, 21A at 5,000 r/min 0.32 ~ 0.48 Ω at 20°C (68°F) (White – White)
Voltage regulator: Type Model/Manufacturer No load regulated voltage	 Semi conductor – short circuit SH629/SHINDENGEN 14.3 ~ 15.3V
Rectifier: Model/Manufacturer Capacity Withstand voltage	 SH629/SHINDENGEN 25A 200V
Battery: Capacity Specific gravity	 12V, 8AH 1.320

Model	XJ600SD/XJ600SDC
Electrical starter system:	
Type	Constant mesh type
Starter motor:	
Model/Manufacturer	SM-13/MITSUBA
Output	0.8 kW
Armature coil resistance	0.011 ~ 0.013Ω at 20°C (68°F)
Brush — Overall length	12.5 mm (0.49 in)
<Limit>	<4 mm (0.16 in)>
— Spring force	340 ~ 460g (12.0 ~ 16.2 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	4BP/HITACHI
Amperage rating	100A
Coil winding resistance	3.9 ~ 4.7Ω at 20°C (68°F)
Horn:	
Type/Quantity	Plane type/1 pc.
Model/Manufacturer	YF-12/NIKKO
Maximum amperage	2.5A
Flasher relay (Relay assembly):	
Type	Semi transistor type
Model/Manufacturer	FB249M/NIPPON DENSO
Self cancelling device	No
Flasher frequency	75 ~ 95 cycle/min
Wattage	21W x 2 pcs + 3.4W
Oil level switch:	
Model/Manufacturer	4BR/NIPPON DENSO
Starting circuit cut-off relay:	
Model/Manufacturer	G8R-30Y/OMRON
Coil winding resistance	180 ~ 270Ω at 20°C (68°F)
Diode	Yes
Circuit breaker:	
Type	Fuse
Amperage for individual circuit x quantity:	
MAIN	30A x 1
HEAD	15A x 1
SIGNAL	15A x 1
IGNITION	10A x 1
RESERVE	30A x 1, 15A x 1, 10A 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
Oil seal lips	LS
O-ring	LS
Bearing	E
Piston surface	E
Piston pin	E
Crankshaft pin	E
Crankshaft journal	E
Connecting rod bolt/nut	M
Camshaft cam lobe/journal	M
Valve stem (IN, EX)	M
Valve stem end (IN, EX)	E
Valve lifter	E
Oil pump rotor (Inner/outer), housing	E
Oil strainer assembly	E
Idle gear surface	E
Starter idle gear	E
Starter idle gear shaft	E
Starter clutch (outer/roller)	E
Crakcase cover (pull rod hole)	M
Primary driver gear/damper	E
Transmission gear (Wheel/pinion)	M
Axle (Main/drive)	M
Pull rod (bearing/washer)	LS
Shift cam	E
Shift fork/guide bar	E
Shift shaft assembly	E

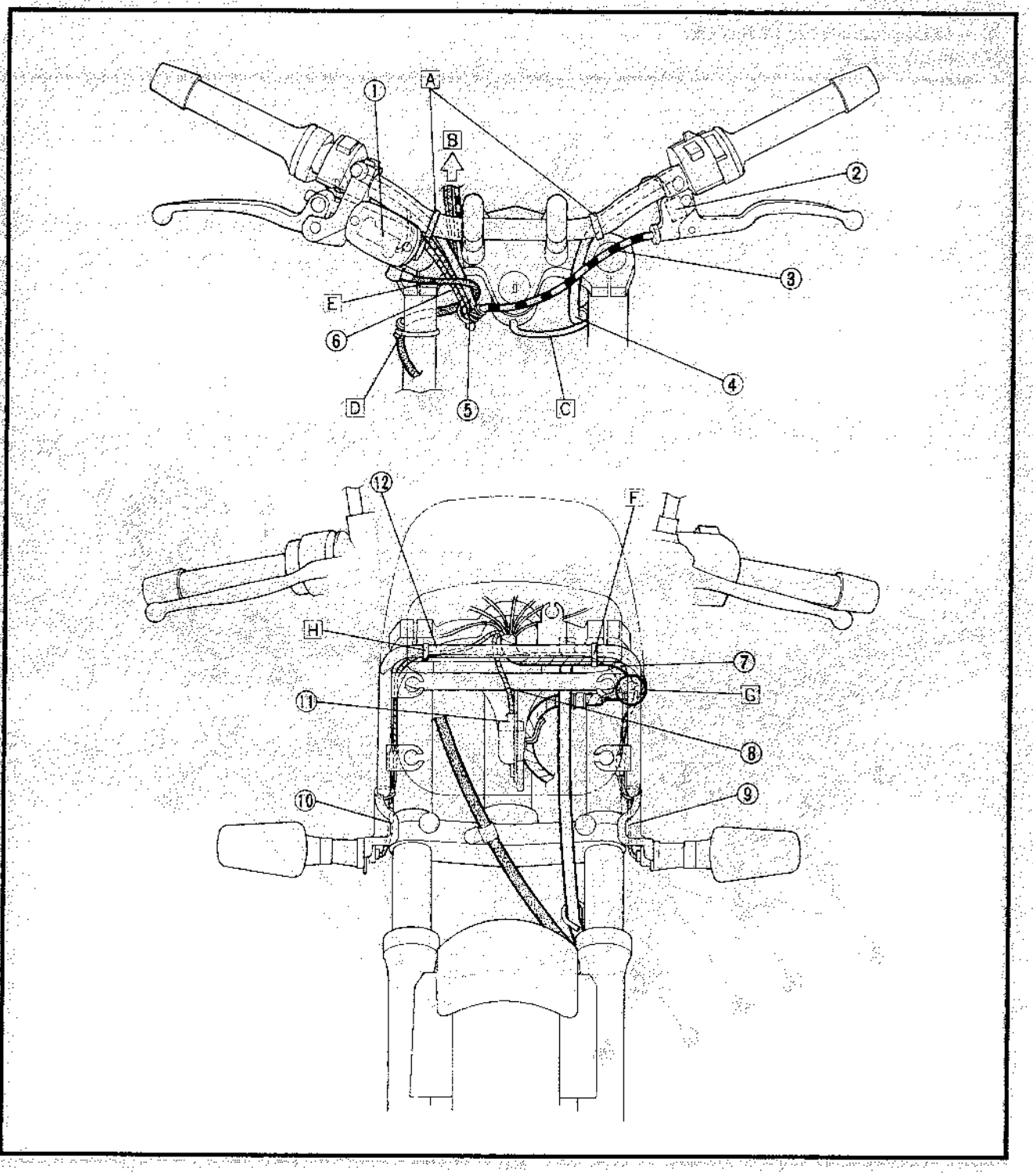
LUBRICATION POINT AND GRADE OF LUBRICANT

CHASSIS

Lubrication Point	Symbol
Steering bearing (upper/lower)	LS
Front wheel oil seal (right/left)	LS
Rear wheel oil seal	LS
Clutch hub oil seal	LS
Clutch hub fitting area	LS
Rear brake pedal shaft	LS
Shift pedal	LS
Center stand sliding surface	LS
Side stand sliding surface	LS
Tube guide (throttle grip) inner surface	LS
Clutch cable end (lever side)	LS
Brake lever bolt, sliding surface	LS
Clutch lever bolt, sliding surface	LS
Rear shock absorber (lower-collar/oil seal)	M
Swingarm pivot bearing	M
Pivot shaft	M
Swing arm (thrust cover)	M

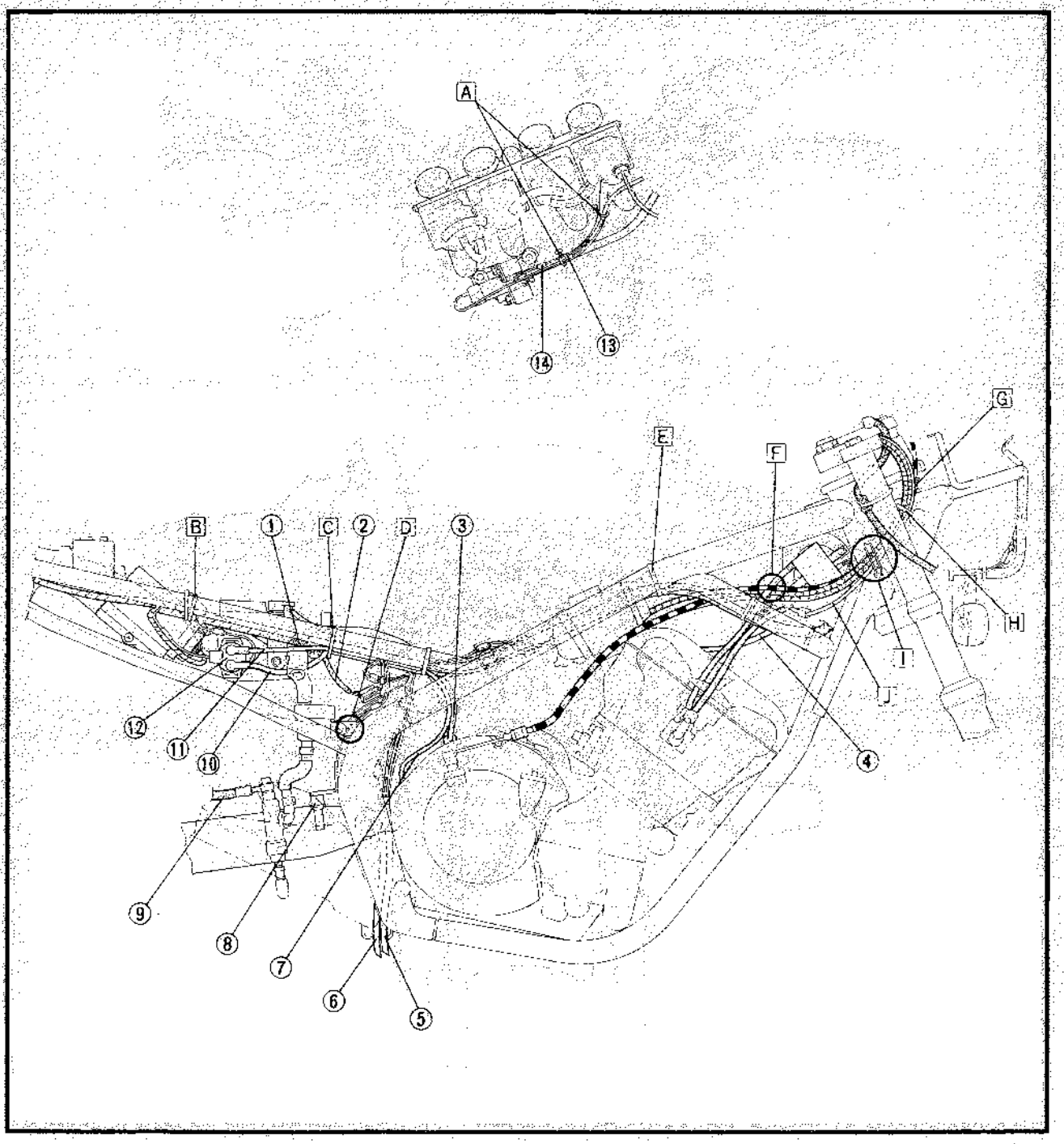
CABLE ROUTING

① Front brake switch
② Clutch switch
③ Clutch cable
④ Handlebar switch lead (left)
⑤ Handle bar switch lead (right)
⑥ Throttle cable
⑦ Meter light lead
⑧ Headlight lead
⑨ Flasher light lead (left)
⑩ Flasher light lead (right)
⑪ Headlight coupler
⑫ Cowling stay
[A] Clamp the handlebar switch lead (left and right)
[B] Under the fuel tank
[C] Clamp the main switch lead to the handlebar switch (left).
[D] Clamp the brake hose.
[E] Pass the brake hose between the cables and handle crown.
[F] Clamp the meter light lead to the cowling stay.
[G] Keep the couplers on the inside of the cowling stay.
[H] Clamp the flasher light lead (right) to the cowling stay.



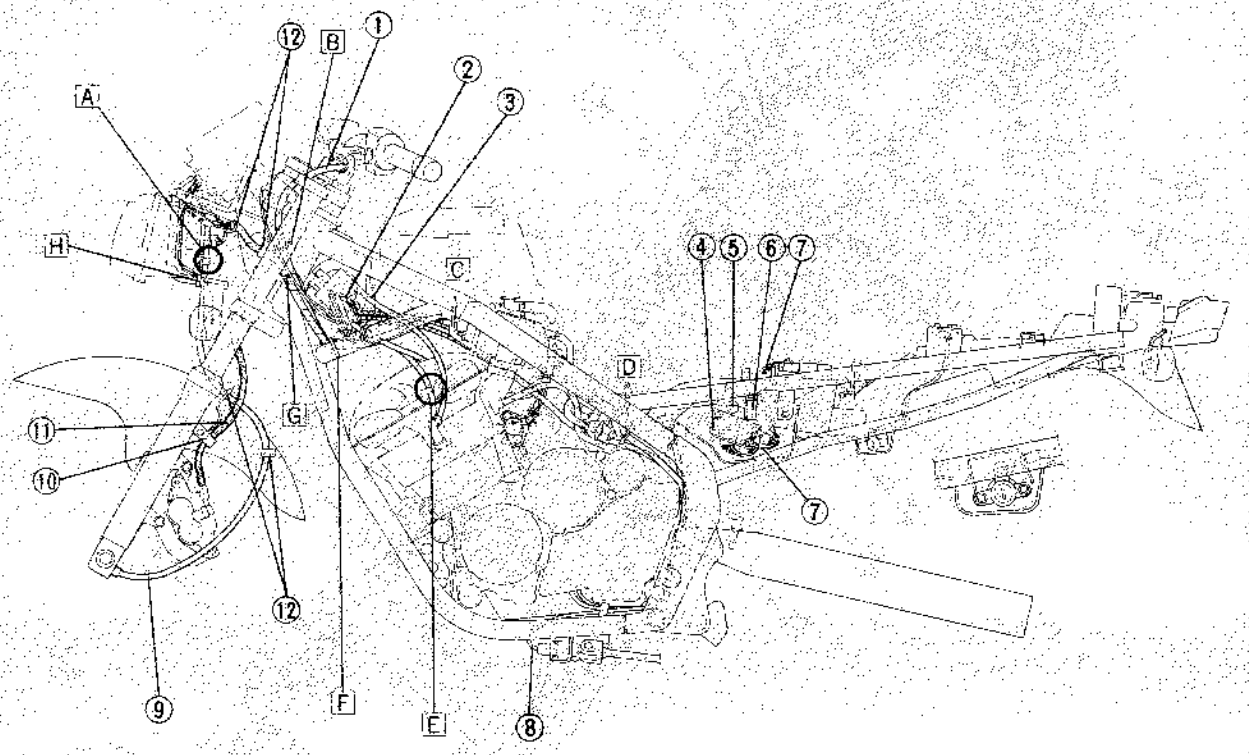
① White tape
② Relay lead
③ Starter motor lead
④ High tension cord
⑤ Fuel tank breather hose
⑥ Air filter drain hose
⑦ Ground lead
⑧ Rear brake switch
⑨ Brake hose
⑩ Positive lead
⑪ Negative lead
⑫ Starter relay
⑬ Solenoid coupler (for CDN, AUS)
⑭ Ground coupler

[A] Clamp the hose and solenoid ground lead. (for CDN, AUS)
[B] Clamp the wireharness.
[C] Clamp the wireharness and starter motor lead.
[D] Pass the rear brake switch lead on the inside of the reservoir tank bracket.
[E] Clamp the wireharness.
[F] Pass the high tension cord (#3) on the outside of the throttle cables.
[G] Clamp the clutch cable (grommet) and throttle cable 2 (no adjuster).
[H] Clamp the clutch cable, throttle cables and handlebar switch lead (right).
[I] Clamp the handlebar switch lead (right), clutch cable and throttle cables.
[J] Pass the handlebar switch lead (right) on the left side of frame.

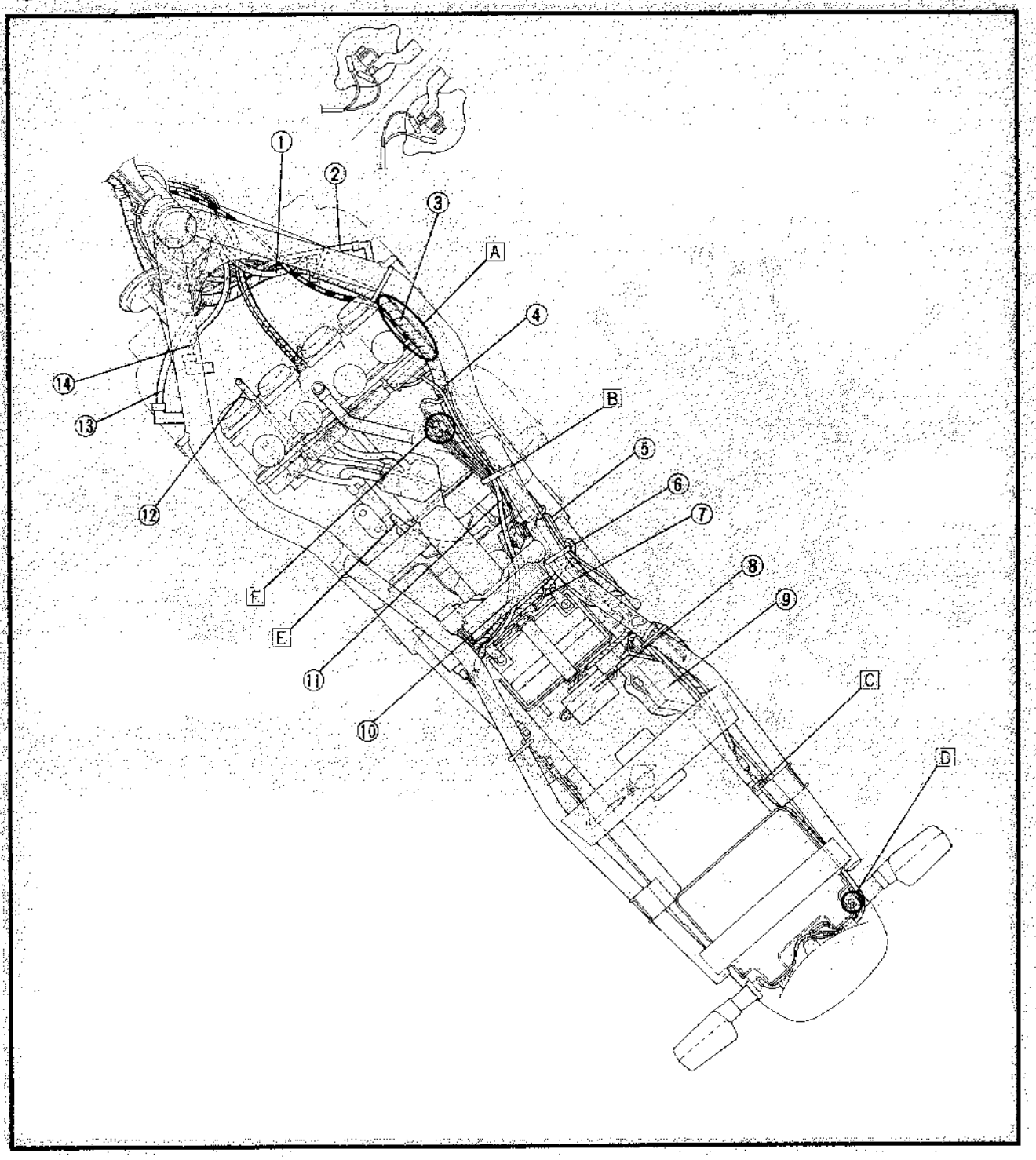


① Handlebar switch lead (left)
② Horn lead
③ High tension cord
④ Rectifier/regulator
⑤ Relay assembly
⑥ Flasher relay assembly
⑦ Ground lead
⑧ Sidestand switch lead
⑨ Speedometer cable
⑩ Brake hose holder
⑪ Brake hose
⑫ Clamp

[A] Pass the speedometer cable on the inside of the headlight adjuster.
[B] Clamp the main switch lead and handlebar switch lead (left).
[C] To air cleaner
[D] To fuel tank
[E] Pass the high tension cord (#2, #3) through the hole in the rubber plate.
[F] Clamp the handlebar switch lead (left) and wireharness (white tape).
[G] Clamp the wireharness and handlebar switch lead (left).
[H] Clamp the flasher light leads (left and right) to the cowling stay.

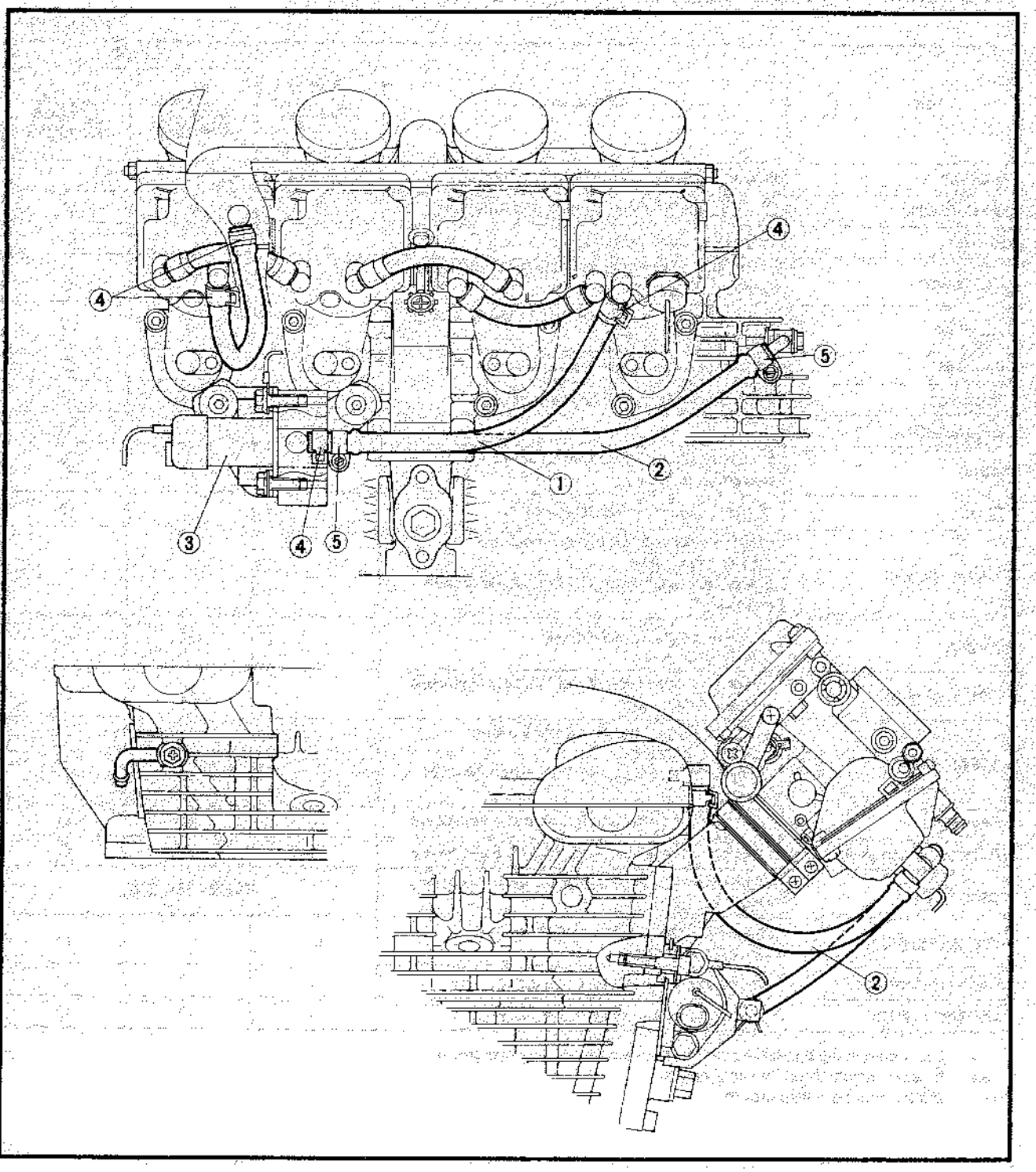


① High tension cord (#3)
② High tension cord (#4)
③ Wireharness
④ Clamp
⑤ Rear brake switch lead
⑥ Regulator lead
⑦ Ground lead
⑧ Fuse box
⑨ Ignitor unit
⑩ Relay lead
⑪ Starter motor lead
⑫ Air filter drain hose
⑬ High tension cord (#1)
⑭ High tension cord (#2)
[A] Pass the wireharness above the carburetor.
[B] Clamp the wireharness, starter motor lead, ground lead, AC magneto leads, thermo switch lead, pick up lead, sidestand switch lead, and neutral/oil level switch lead.
[C] Clamp the tail light lead.
[D] Pass the flasher light lead (left and right) through the hole in the rear fender.
[E] Pass the fuel tank breather hose over the starter motor lead.
[F] Keep the AC magneto lead, pick up lead, sidestand switch lead and neutral/oil level switch lead connector in the guide.



for CDN, AUS

① Hose (solenoid valve-carburetor)
② Hose (cylinder head-solenoid valve)
③ Solenoid valve
④ Clip
⑤ Clamp



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 vehicle already in service as well as new vehicle that are being prepared for sale. All service technicians should be familiar with this entire chapter.

PERIODIC MAINTENANCE/LUBRICATION (for CDN, AUS)

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
Valve(s)*	Check valve clearance. Adjust if necessary.	EVERY 24,000 (16,000) or 24 months		
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 if necessary.			○
Engine oil	Replace (Warm engine before draining).	○	○	○
Engine oil filter*	Replace	○		○
Brake*	Check operation/fluid leakage/See NOTE. Correct if necessary.		○	○
Clutch	Check operation. Adjust if necessary.		○	○
Rear arm pivot*	Check rear arm assembly for looseness. Correct if necessary. Moderately repack every 24,000 (16,000) or 24 months.***			○
Wheel*	Check balance/damage/runout. Repair if necessary.		○	○
Wheel bearings*	Check bearings assembly for looseness/damage. Replace if damaged.		○	○
Steering bearings*	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.		○	○
Drive chain	Check chain slack/alignment. Adjust if necessary. Clean and lube.	EVERY 500 (300)		
Fittings/Fasteners*	Check all chassis fittings and fasteners. Correct if necessary.	○	○	○
Center and sidestand*	Check operation. Repair if necessary.	○	○	○
Sidestand switch*	Check operation. Replace if necessary.	○	○	○

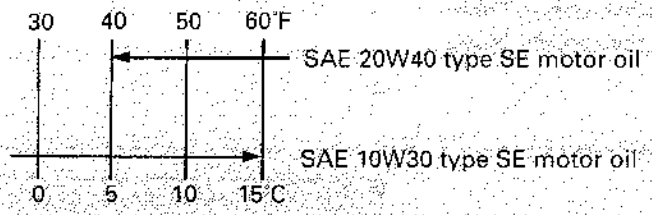
* : It is recommended that these items be serviced by a Yamaha dealer.
** : Medium weight wheel bearing grease.
*** : Molybdenum disulfide grease.

NOTE:

Brake fluid replacement:

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

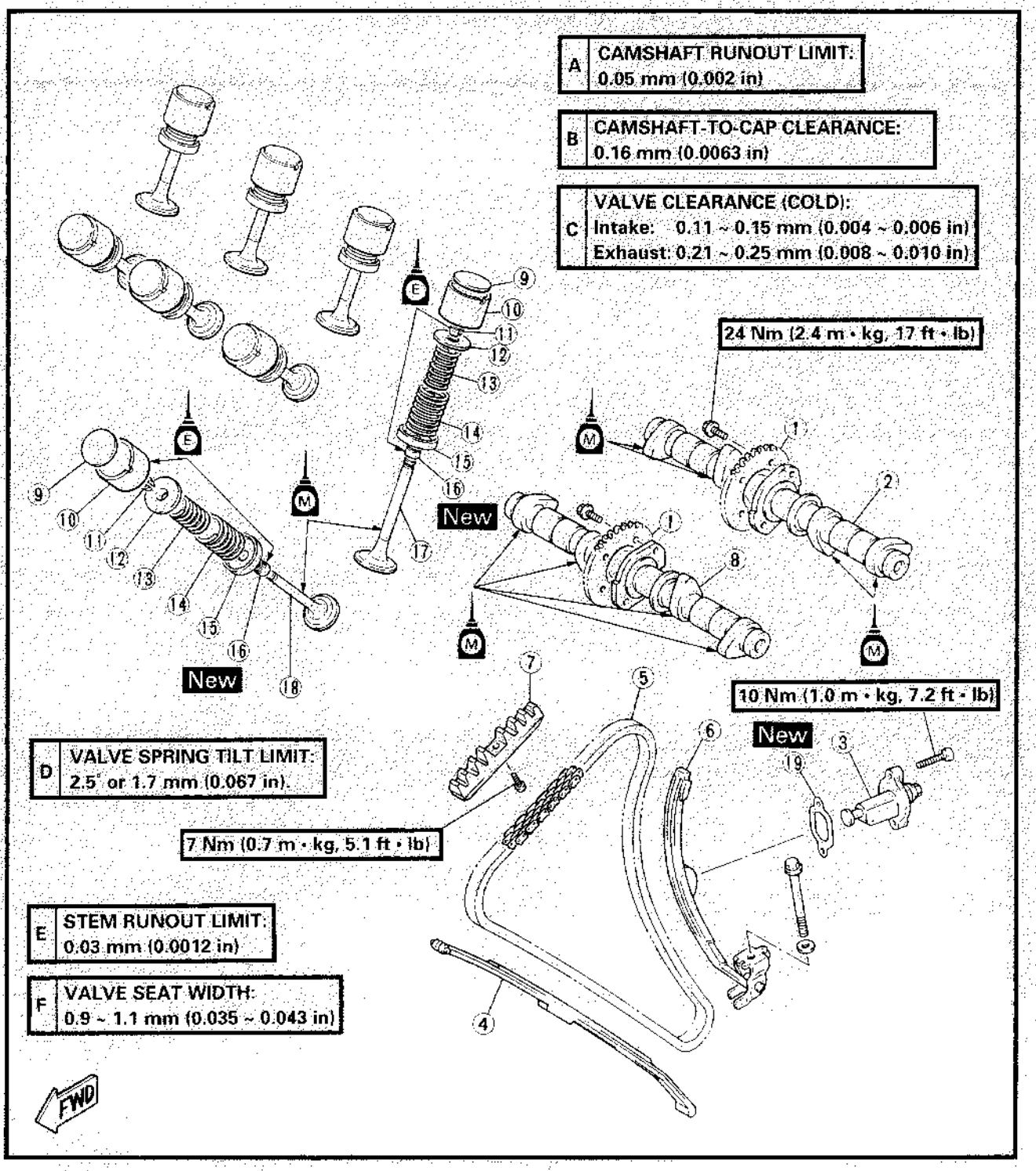
Engine oil:



EXPLODED DIAGRAM

CAMSHAFT, VALVE AND TIMING CHAIN

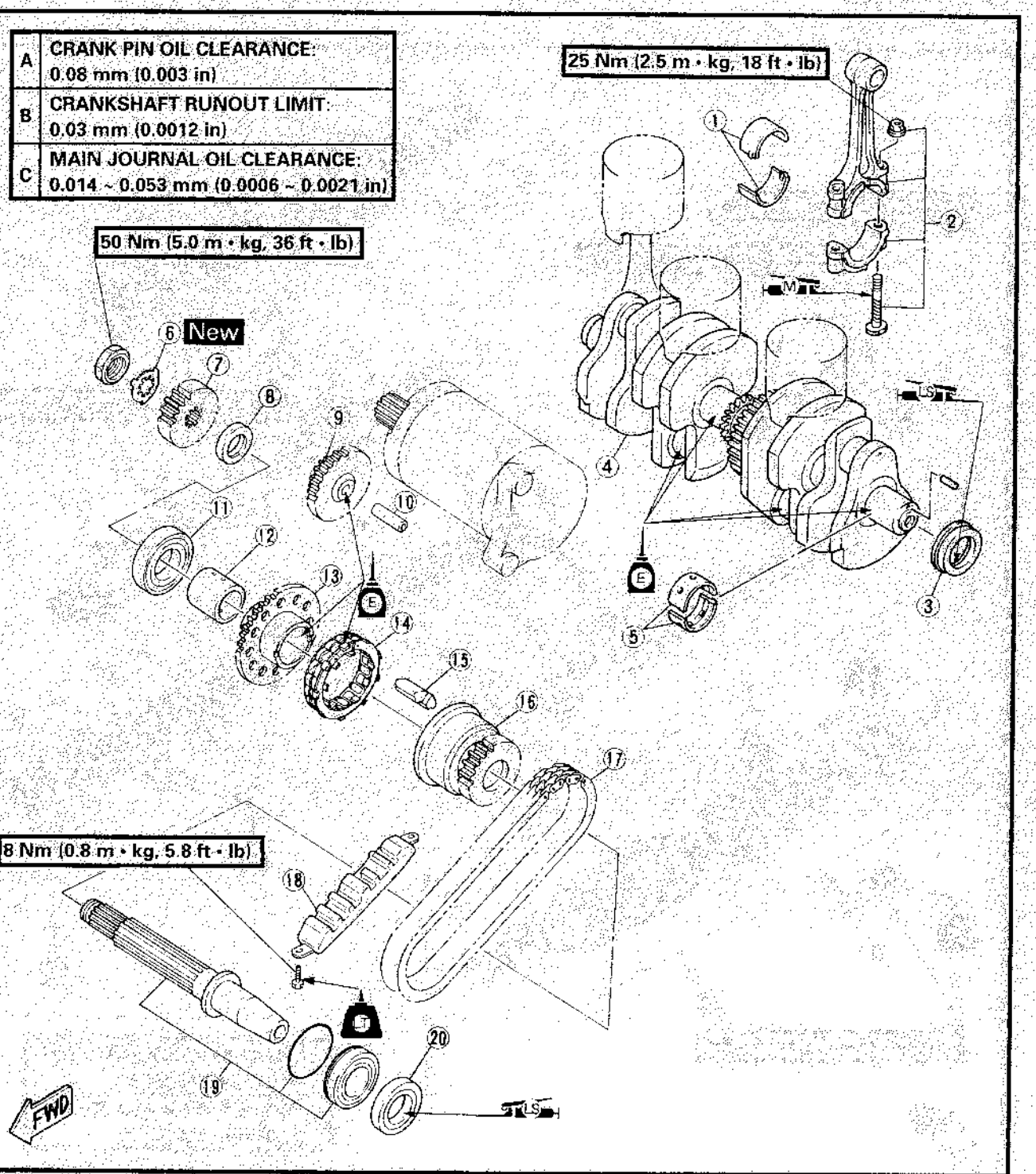
① Cam sprocket
② Camshaft (intake)
③ Chain tensioner
④ Chain guide (exhaust)
⑤ Timing chain
⑥ Chain guide (intake)
⑦ Chain guide (upper)
⑧ Camshaft (exhaust)
⑨ Valve pad
⑩ Valve lifter
⑪ Valve cotter
⑫ Valve retainer
⑬ Valve spring (inner)
⑭ Valve spring (outer)
⑮ Spring seat
⑯ Valve stem seal
⑰ Intake valve
⑱ Exhaust valve
⑲ Gasket



CRANKSHAFT AND STARTER CLUTCH

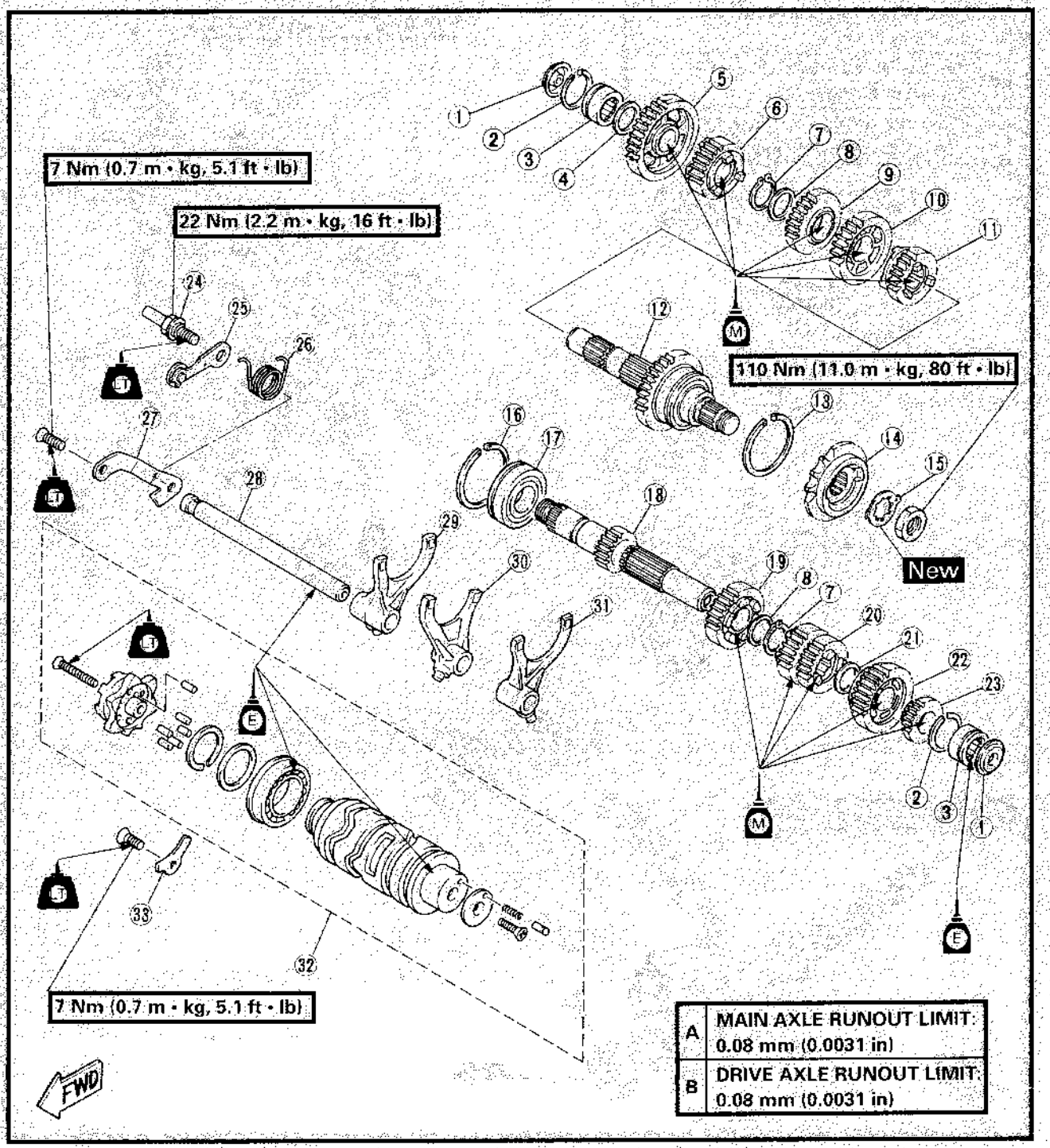
① Crank pin bearing
② Connecting rod
③ Oil seal
④ Crankshaft
⑤ Main journal bearing
⑥ Lock washer
⑦ Primary drive gear
⑧ Collar
⑨ Idle gear
⑩ Shaft
⑪ Bearing
⑫ Collar
⑬ Starter wheel gear
⑭ Starter clutch assembly
⑮ Absorber
⑯ Driven gear
⑰ HY-VO chain
⑱ Chain guide (HY/VO chain-upper)
⑲ Starter shaft
⑳ Oil seal

A	CRANK PIN OIL CLEARANCE: 0.08 mm (0.003 in)
B	CRANKSHAFT RUNOUT LIMIT: 0.03 mm (0.0012 in)
C	MAIN JOURNAL OIL CLEARANCE: 0.014 ~ 0.053 mm (0.0006 ~ 0.0021 in)



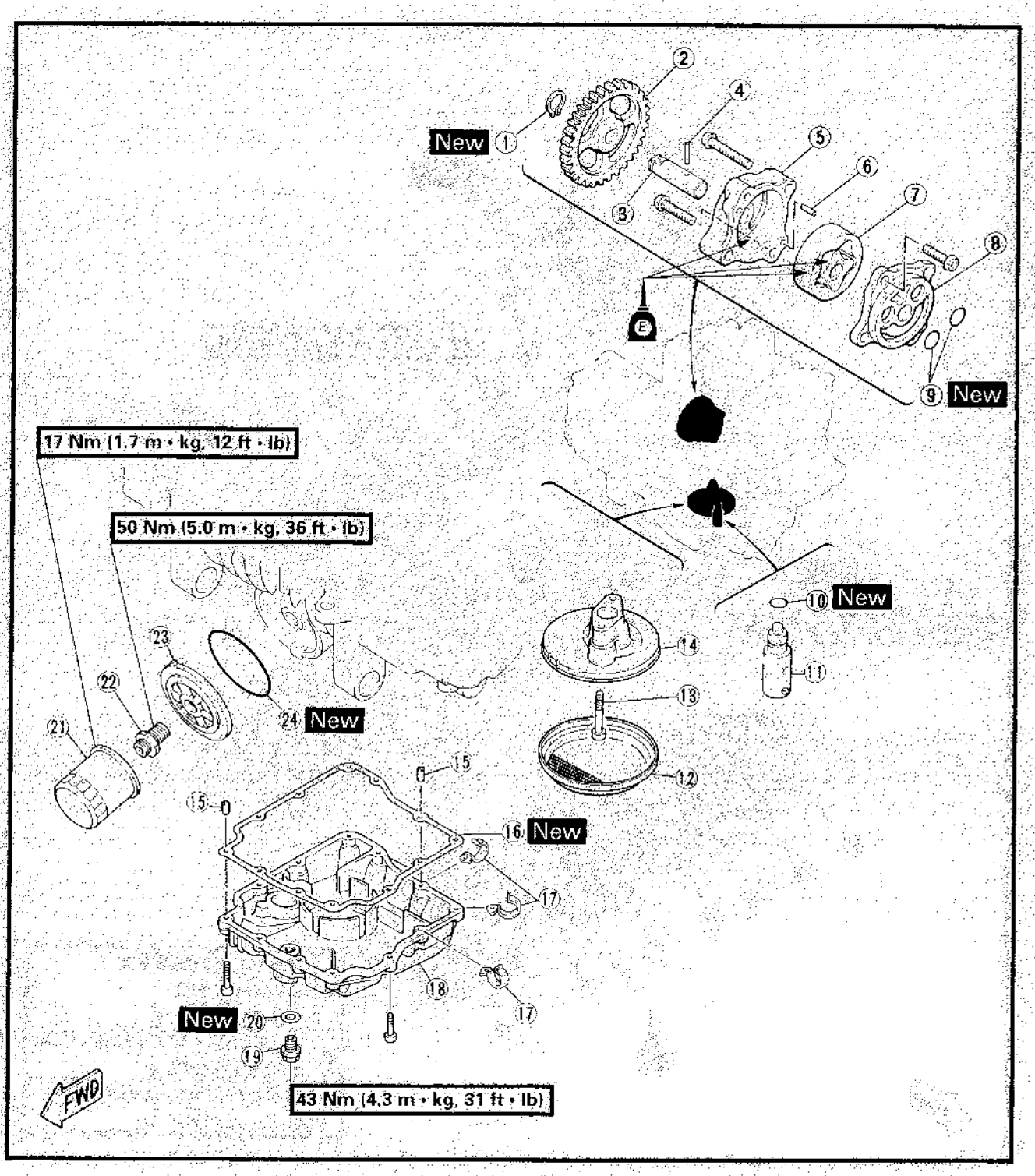
TRANSMISSION AND SHIFT CAM/SHIFT FORK

① Plug
② Circlip
③ Bearing
④ Plate washer
⑤ 1st wheel gear
⑥ 5th wheel gear
⑦ Circlip
⑧ Washer
⑨ 4th wheel gear
⑩ 3rd wheel gear
⑪ 6th wheel gear
⑫ Drive axle
⑬ Circlip
⑭ Drive sprocket
⑮ Lock washer
⑯ Circlip
⑰ Bearing
⑱ Main axle
⑲ 5th pinion gear
⑳ 3rd pinion gear
㉑ Plate washer
㉒ 6th pinion gear
㉓ 2nd pinion gear
㉔ Stopper screw
㉕ Stopper lever
㉖ Spring
㉗ Guide bar stopper
㉘ Guide bar
㉙ Shift fork 3
㉚ Shift fork 2
㉛ Shift fork 1
㉜ Shift cam
㉝ Bearing stopper plate



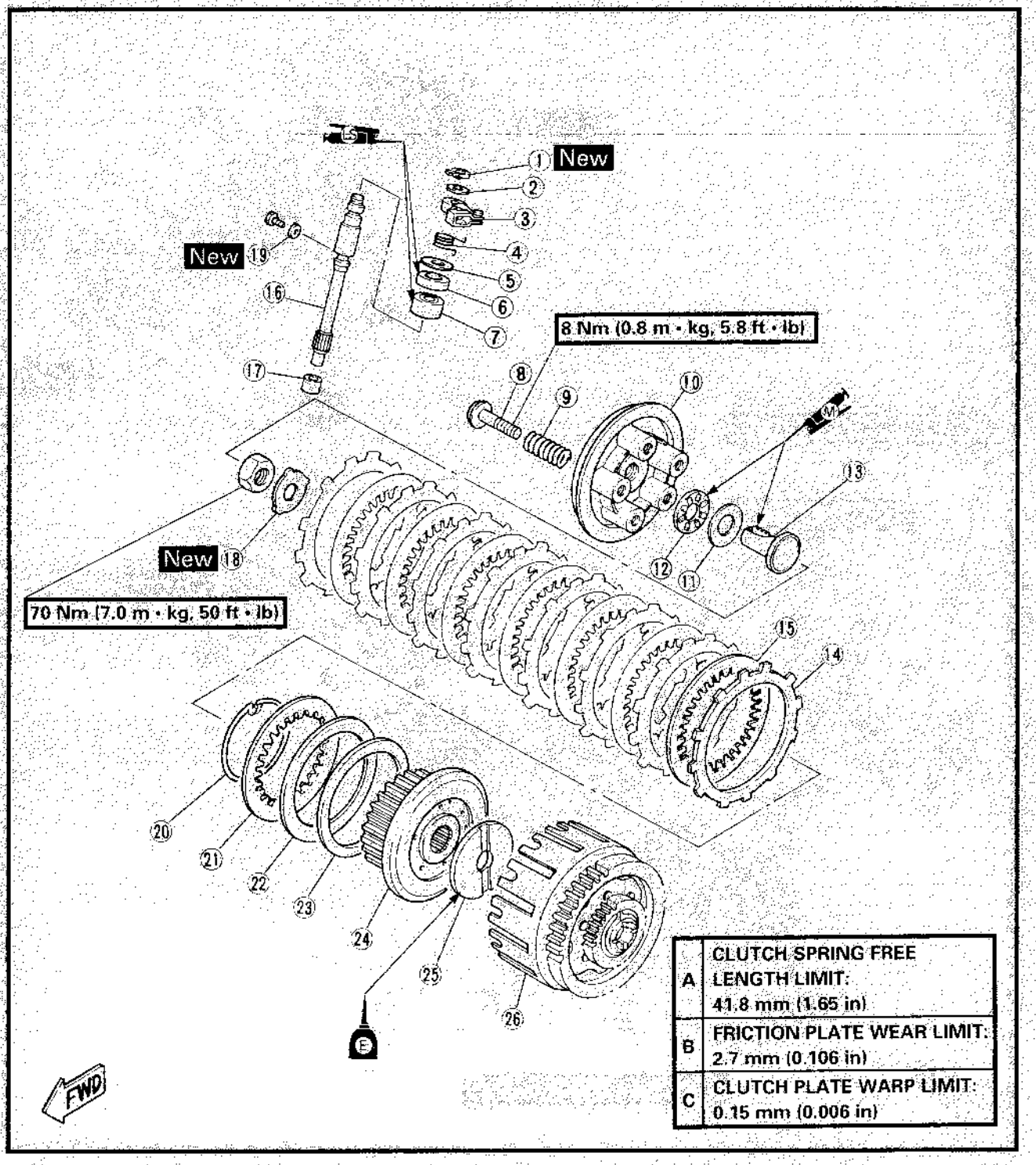
OIL PUMP AND OIL STRAINER

① Circlip
② Pump driven gear
③ Pump shaft
④ Dowel pin
⑤ Rotor housing
⑥ Dowel pin
⑦ Rotor assembly
⑧ Pump cover
⑨ O-ring
⑩ O-ring
⑪ Relief valve
⑫ Oil strainer
⑬ Bolt
⑭ Strainer housing
⑮ Dowel pin
⑯ Gasket
⑰ Clamp
⑱ Oil pan
⑲ Drain bolt
⑳ Gasket
㉑ Oil filter
㉒ Union bolt
㉓ Oil filter housing
㉔ O-ring



CLUTCH

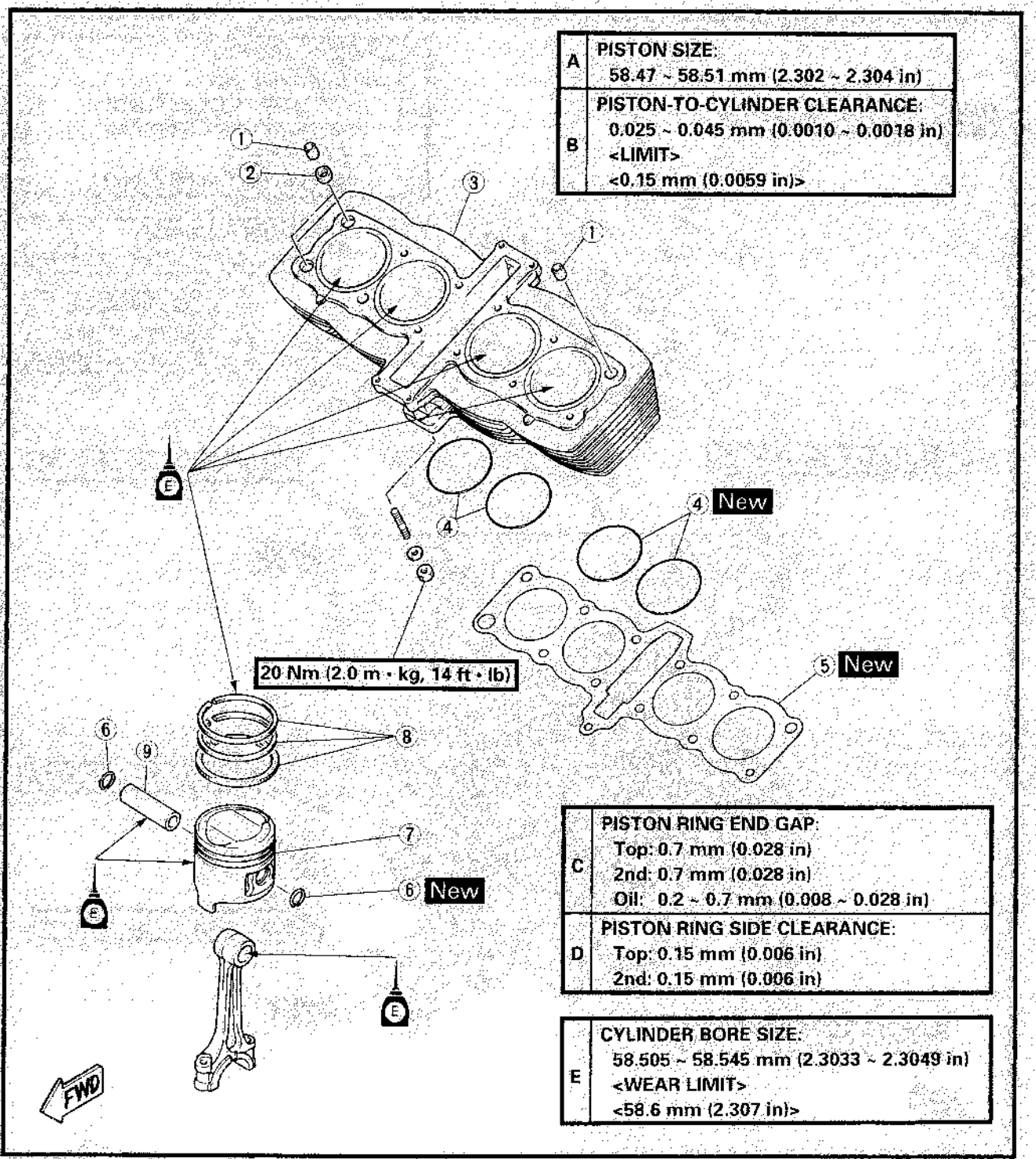
① Circlip
② Plate washer
③ Pull lever
④ Spring
⑤ Plate wahser
⑥ Oil seal
⑦ Bearing
⑧ Bolt
⑨ Clutch spring
⑩ Pressure plate
⑪ Plate washer
⑫ Thrust bearing
⑬ Pull rod
⑭ Friction plate
⑮ Clutch plate
⑯ Pull lever axle
⑰ Bearing
⑱ Lock washer
⑲ Gasket
⑳ Wire circlip
㉑ Clutch plate 1
㉒ Clutch boss spring
㉓ Seat plate
㉔ Clutch boss
㉕ Thrust plate
㉖ Clutch housing



A	CLUTCH SPRING FREE LENGTH LIMIT: 41.8 mm (1.65 in)
B	FRICTION PLATE WEAR LIMIT: 2.7 mm (0.106 in)
C	CLUTCH PLATE WARP LIMIT: 0.15 mm (0.006 in)

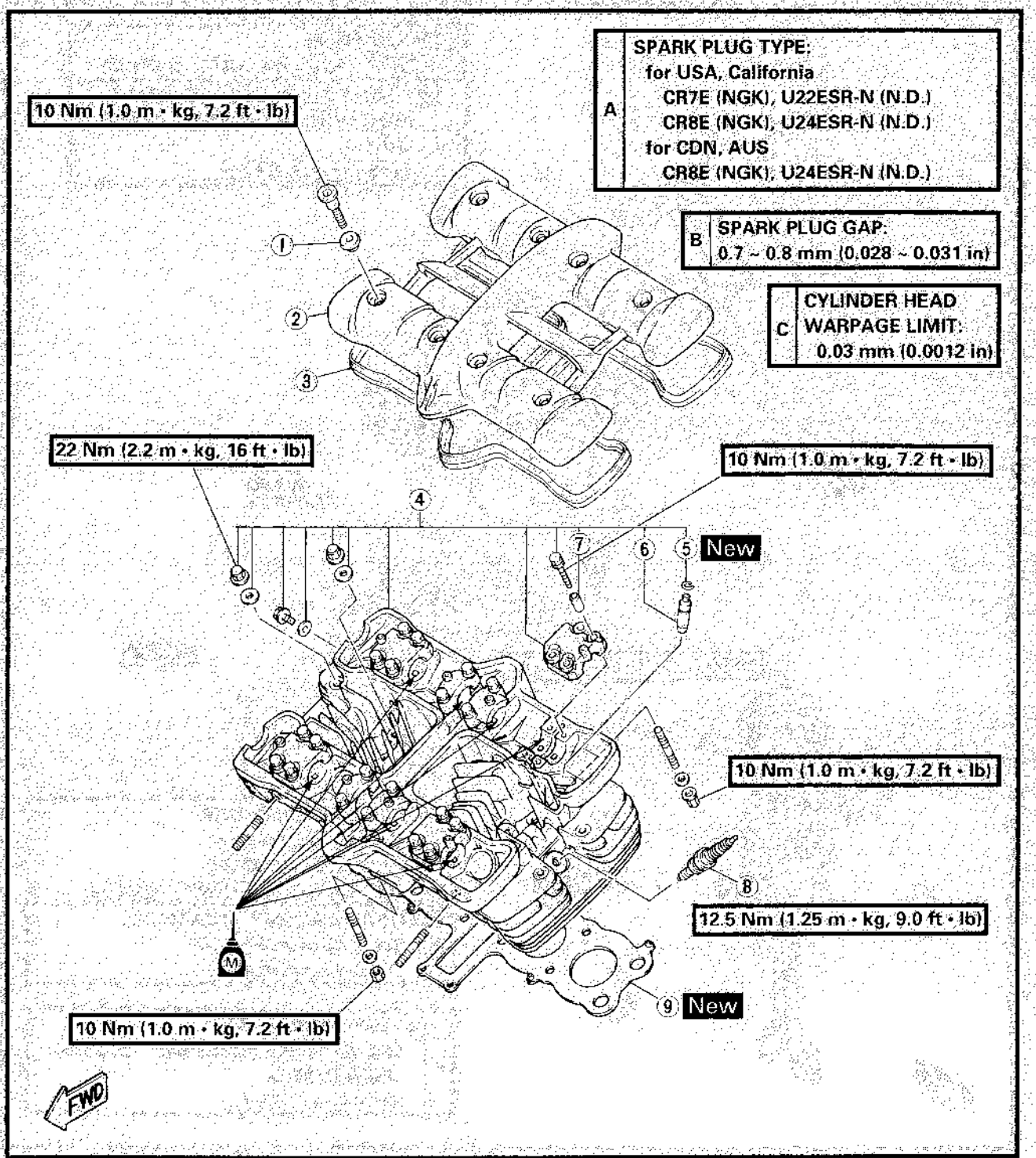
CYLINDER, PISTON AND PISTON RING

① Dowel pin
② Gasket
③ Cylinder
④ O-ring
⑤ Gasket
⑥ Piston pin circlip
⑦ Piston
⑧ Piston ring set
⑨ Piston pin



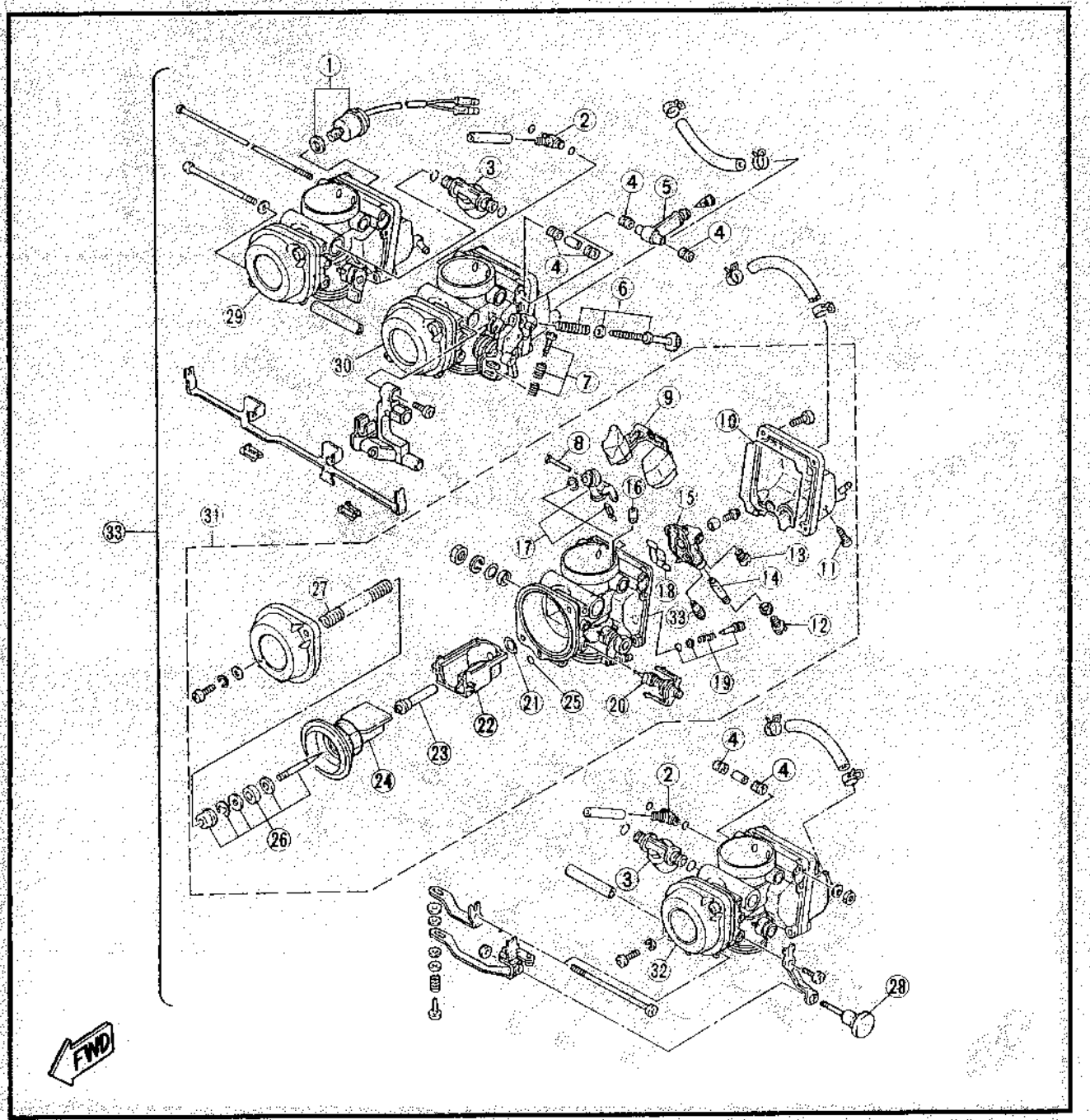
CYLINDER HEAD AND CYLINDER HEAD COVER

① Rubber
② Cylinder head cover
③ Cylinder head gasket
④ Cylinder head assembly
⑤ Circlip
⑥ Valve guide
⑦ Dowel pin
⑧ Spark plug
⑨ Gasket



CARBURETOR (for CDN, AUS)

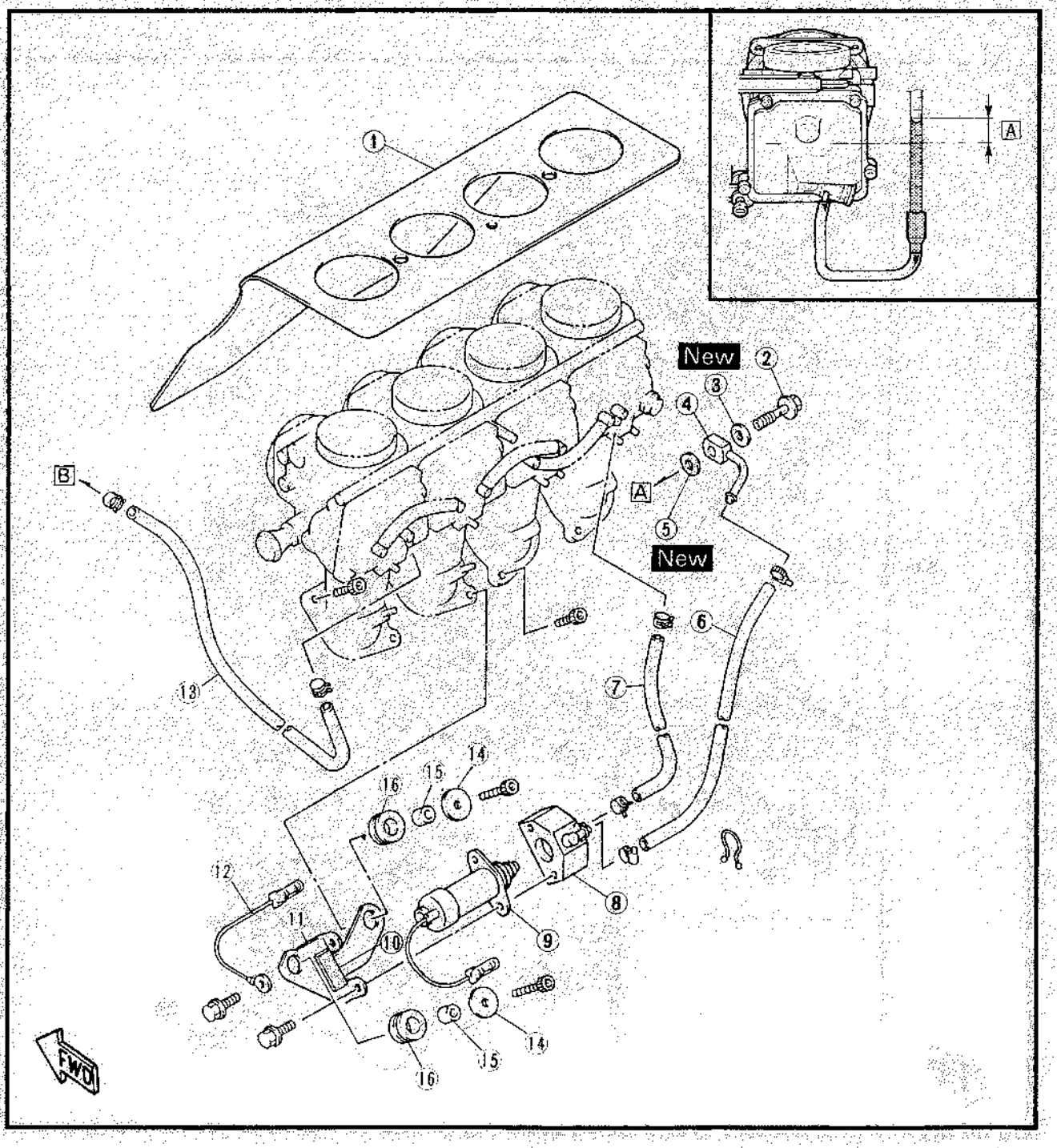
① Thermo switch assembly
② Joint (overflow)
③ Joint (ventilation)
④ Gasket
⑤ Joint (fuel hose)
⑥ Throttle stop screw
⑦ Stop screw
⑧ Float pin
⑨ Float
⑩ Gasket
⑪ Drain screw
⑫ Main jet
⑬ Starter jet
⑭ Holder
⑮ Jet housing
⑯ Pilot air jet
⑰ Needle valve set
⑱ O-ring
⑲ Pilot screw
⑳ Starter plunger
㉑ O-ring
㉒ Throttle valve support
㉓ Needle jet
㉔ Throttle valve assembly
㉕ O-ring
㉖ Jet needle set
㉗ Spring
㉘ Starter lever knob
㉙ Carburetor #4
㉚ Carburetor #3
㉛ Carburetor #2
㉜ Carburetor #1
㉝ Carburetor assembly



① Heat protector
② Union bolt
③ Copper washer
④ Pipe
⑤ Copper washer
⑥ Hose
⑦ Hose
⑧ Body
⑨ Solenoid valve
⑩ Damper
⑪ Holder
⑫ Lead
⑬ Hose
⑭ Plate washer
⑮ Collar
⑯ Grommet

[A] to cylinder head
[B] to cylinder head cover

SPECIFICATIONS	
ID MARK	4BR00 (CDN, AUS)
MAIN JET	#1, #4:#105/#2, #3:#102.5
MAIN AIR JET	#70
PILOT JET	#15
PILOT AIR JET 1	#145
JET NEEDLE	5CT-3.5
PILOT SCREW	2 turns out
THROTTLE VALVE	#130
ENGINE IDLE SPEED	1,150 ~ 1,250 r/min
FUEL LEVEL [A]	3 ~ 5 mm (0.12 ~ 0.20 in)

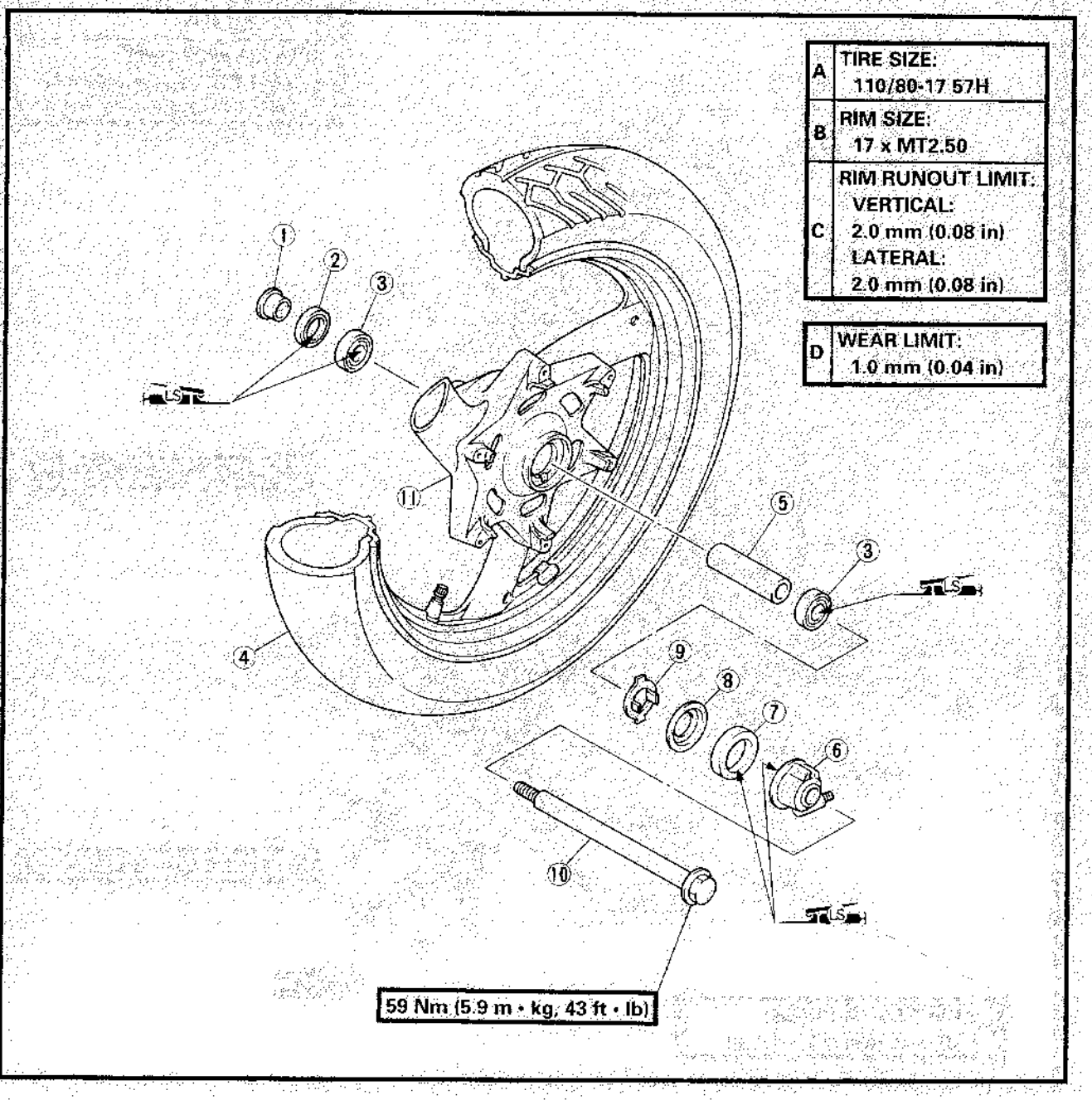


FRONT WHEEL

① Collar
② Oil seal
③ Bearing
④ Tire
⑤ Spacer
⑥ Gear unit assembly
⑦ Oil seal
⑧ Clutch retainer
⑨ Speedometer clutch
⑩ Wheel axle
⑪ Front wheel

TIRE AIR PRESSURE (COLD):		
Cold tire pressure	Front	Rear
Up to 90 kg (198 lb) load*	200 kPa (2.00 kg/cm², 28 psi)	225 kPa (2.25 kg/cm², 33 psi)
90 kg (198 lb) ~ 200 kg (441 lb)* 199 kg (439 lb) California	200 kPa (2.00 kg/cm², 28 psi)	250 kPa (2.50 kg/cm², 36 psi)
High speed riding	200 kPa (2.00 kg/cm², 28 psi)	250 kPa (2.50 kg/cm², 36 psi)

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

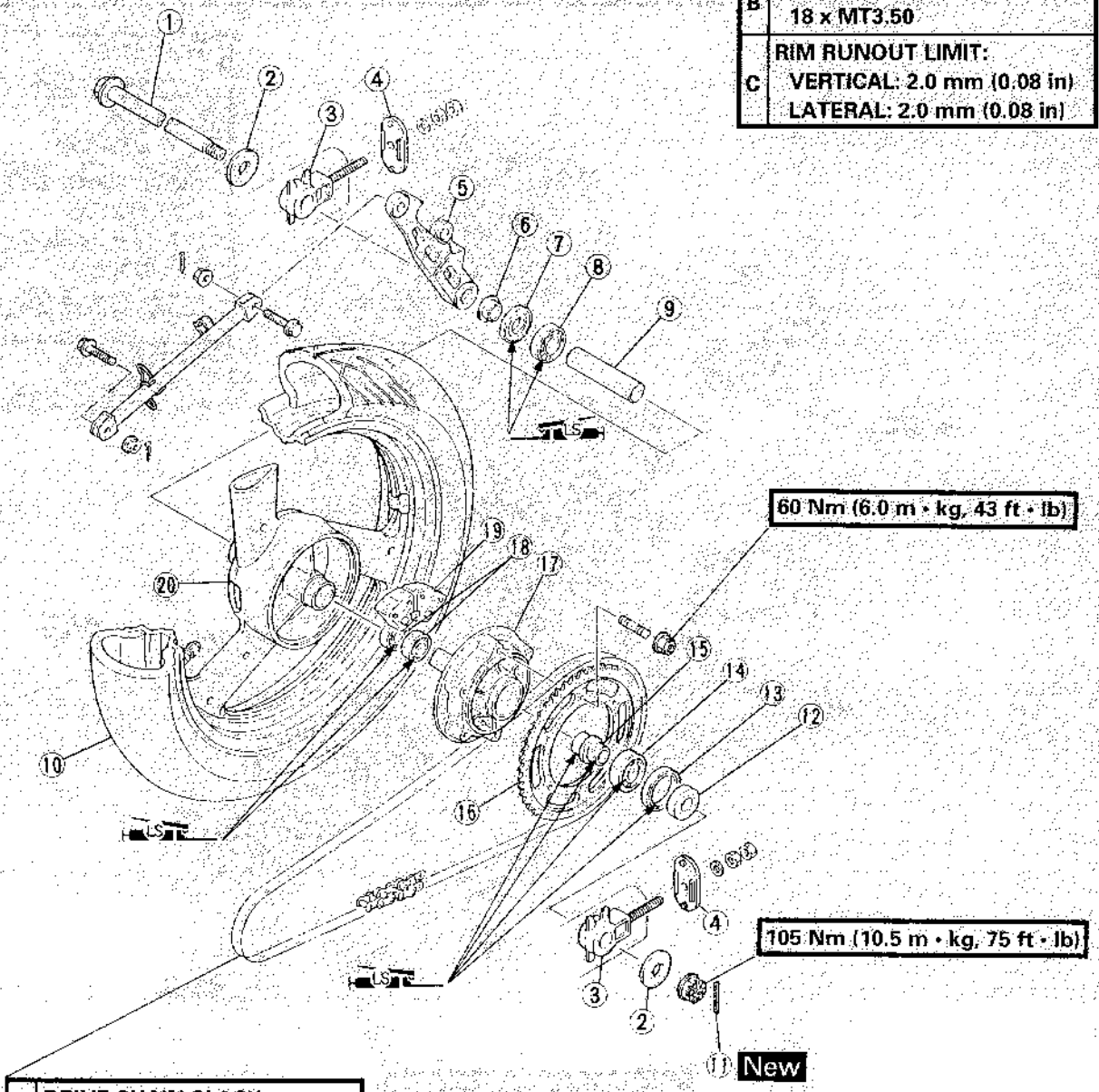


REAR WHEEL

① Wheel axle
② Plate washer
③ Chain puller
④ End plate
⑤ Caliper bracket
⑥ Collar
⑦ Oil seal
⑧ Bearing
⑨ Spacer
⑩ Tire
⑪ Cotter pin
⑫ Collar
⑬ Oil seal
⑭ Bearing
⑮ Collar
⑯ Rear sprocket wheel
⑰ Clutch hub
⑱ Bearing
⑲ Clutch damper
⑳ Rear wheel

E	WEAR LIMIT: 1.0 mm (0.04 in)

A	TIRE SIZE: 130/70-18 63H
B	RIM SIZE: 18 x MT3.50
C	RIM RUNOUT LIMIT: VERTICAL: 2.0 mm (0.08 in) LATERAL: 2.0 mm (0.08 in)

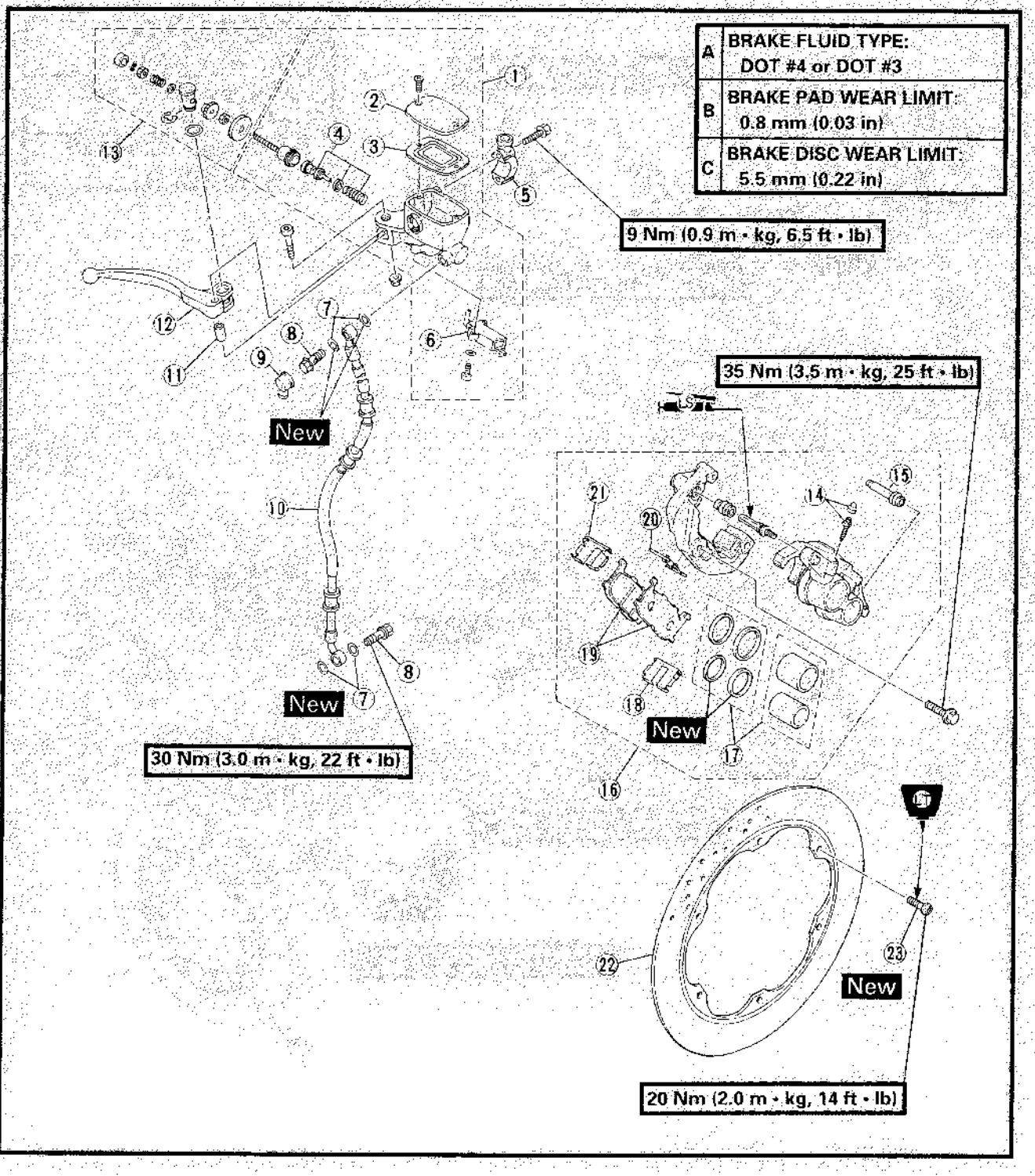


D	DRIVE CHAIN SLACK: 30 ~ 40 mm (1.2 ~ 1.6 in)

FRONT AND REAR BRAKE

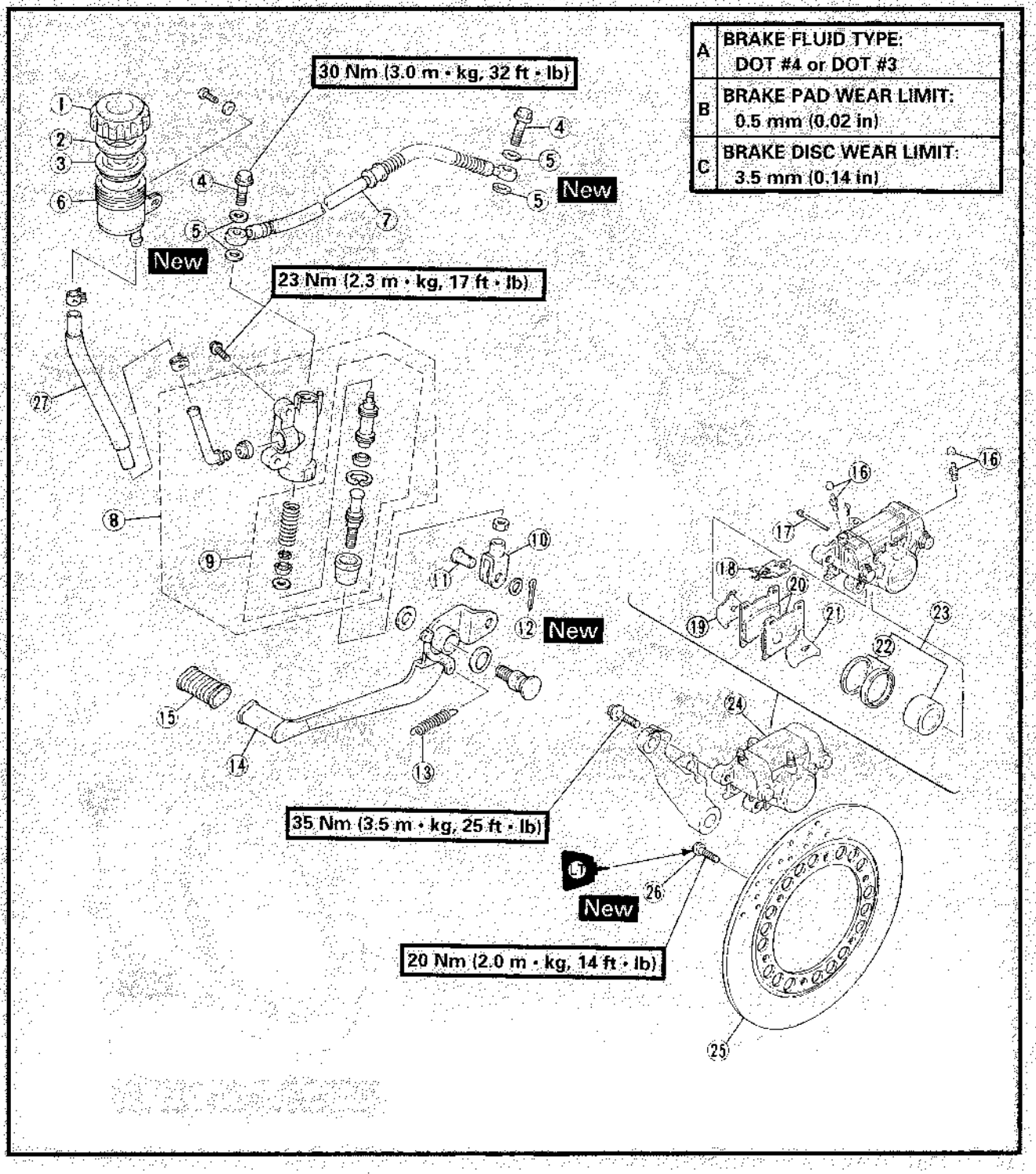
FRONT BRAKE

① Master cylinder assembly
② Master cylinder cap
③ Diaphragm
④ Master cylinder kit
⑤ Master cylinder bracket
⑥ Front brake switch
⑦ Copper washer
⑧ Union bolt
⑨ Dust cover
⑩ Brake hose
⑪ Collar
⑫ Brake lever
⑬ Master cylinder screw kit
⑭ Bleed screw
⑮ Retaining bolt
⑯ Caliper assembly
⑰ Caliper piston assembly
⑱ Pad spring
⑲ Brake pad
⑳ Pad spring
㉑ Pad spring
㉒ Brake disc
㉓ Bolt



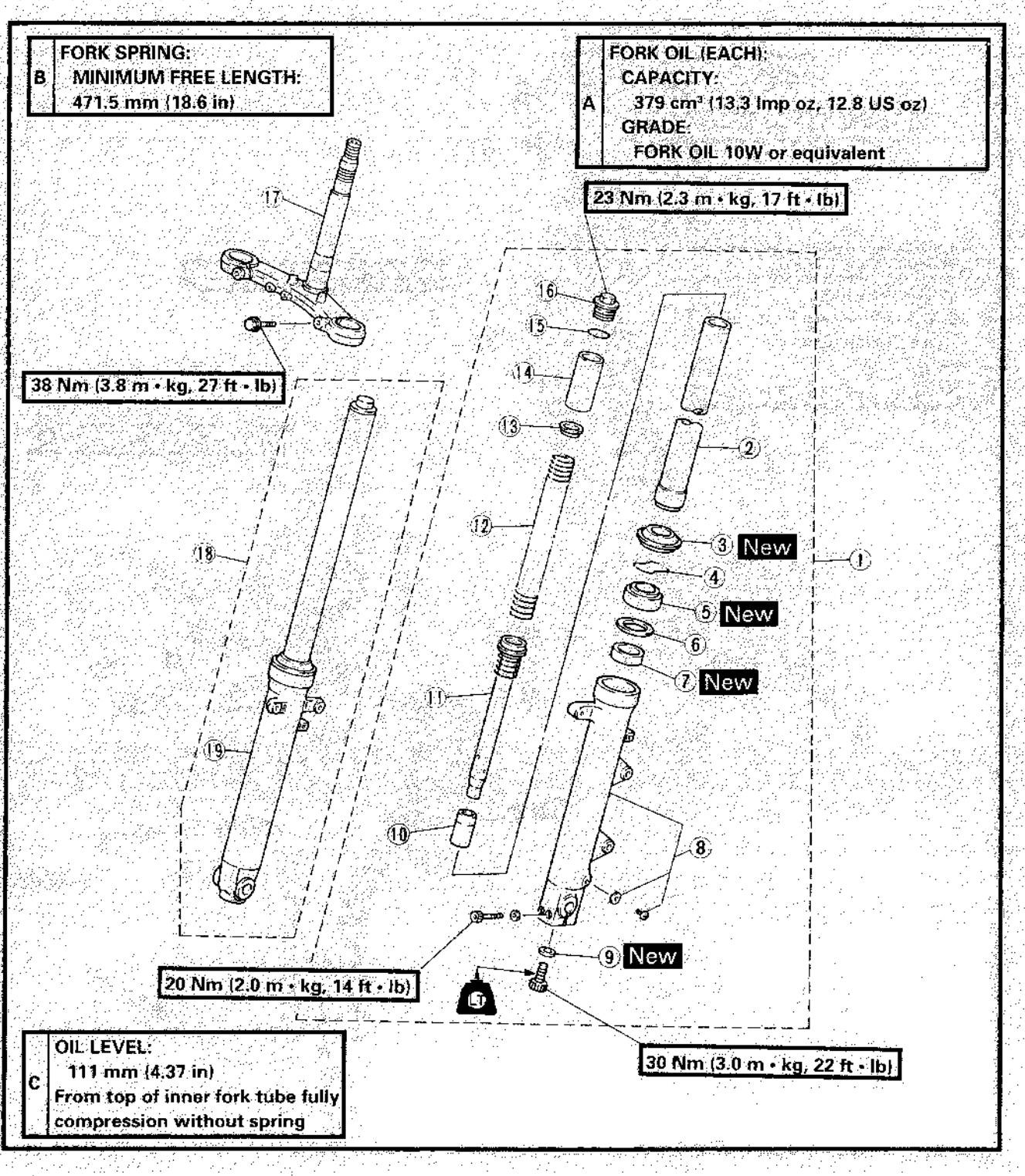
REAR BRAKE

① Reservoir cap
② Bush
③ Diaphragm
④ Union bolt
⑤ Copper washer
⑥ Reservoir tank
⑦ Brake hose
⑧ Master cylinder assembly
⑨ Master cylinder kit
⑩ Joint
⑪ Crevis pin
⑫ Cotter pin
⑬ Spring
⑭ Brake pedal
⑮ Cover
⑯ Bleed screw
⑰ Retaining bolt
⑱ Pad spring
⑲ Shim
⑳ Brake pad
㉑ Shim
㉒ Piston seal
㉓ Caliper piston assembly
㉔ Caliper assembly
㉕ Brake disc
㉖ Bolt
㉗ Reservoir hose



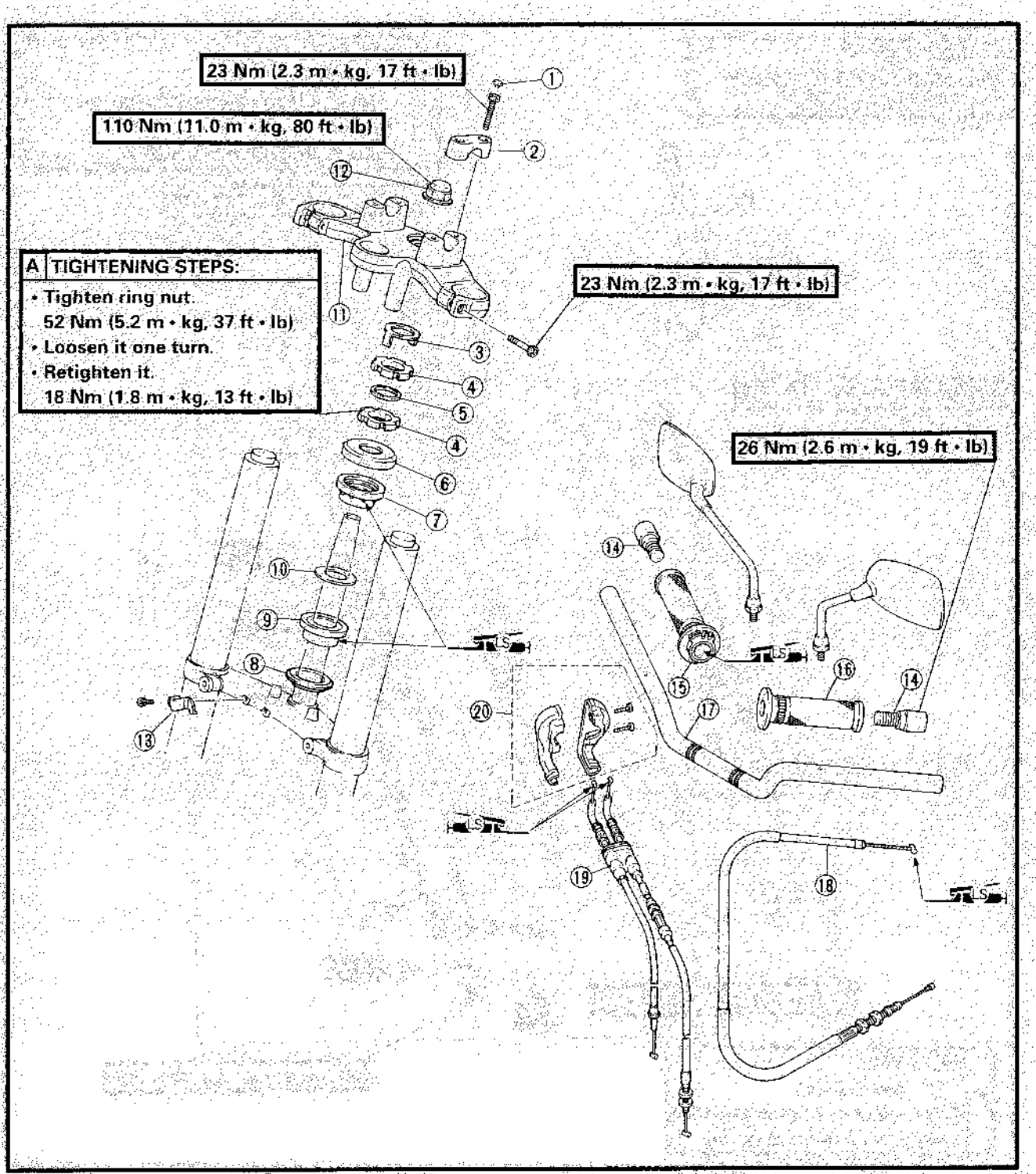
FRONT FORK

① Front fork assembly (left)
② Inner tube
③ Dust seal
④ Retaining clip
⑤ Oil seal
⑥ Washer
⑦ Slide metal
⑧ Outer tube
⑨ Copper washer
⑩ Oil lock piece
⑪ Damper assembly
⑫ Fork spring
⑬ Spring seat
⑭ Spacer
⑮ O-ring
⑯ Cap bolt
⑰ Under bracket
⑱ Front fork assembly (right)
⑲ Outer tube



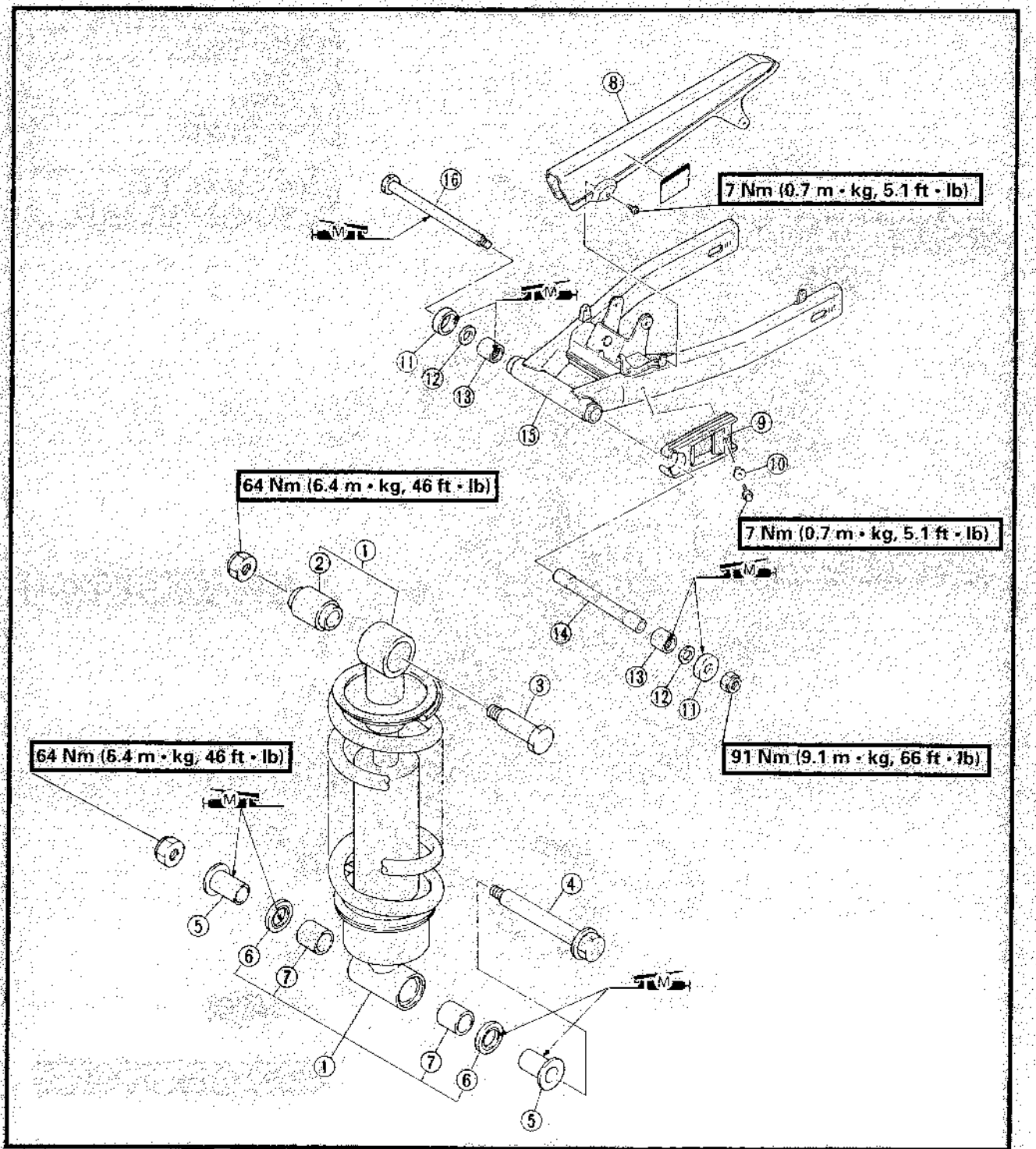
STEERING HEAD AND HANDLEBAR

① Cap
② Handlebar holder
③ Special washer
④ Ring nut
⑤ Rubber washer
⑥ Ball race cover
⑦ Bearing
⑧ Ball race
⑨ Bearing
⑩ Rubber seal
⑪ Handle crown
⑫ Nut
⑬ Brake hose holder
⑭ Grip end
⑮ Handlebar grip (right)
⑯ Handlebar grip (left)
⑰ Handleber
⑱ Clutch cable
⑲ Throttle cable
⑳ Cable connector



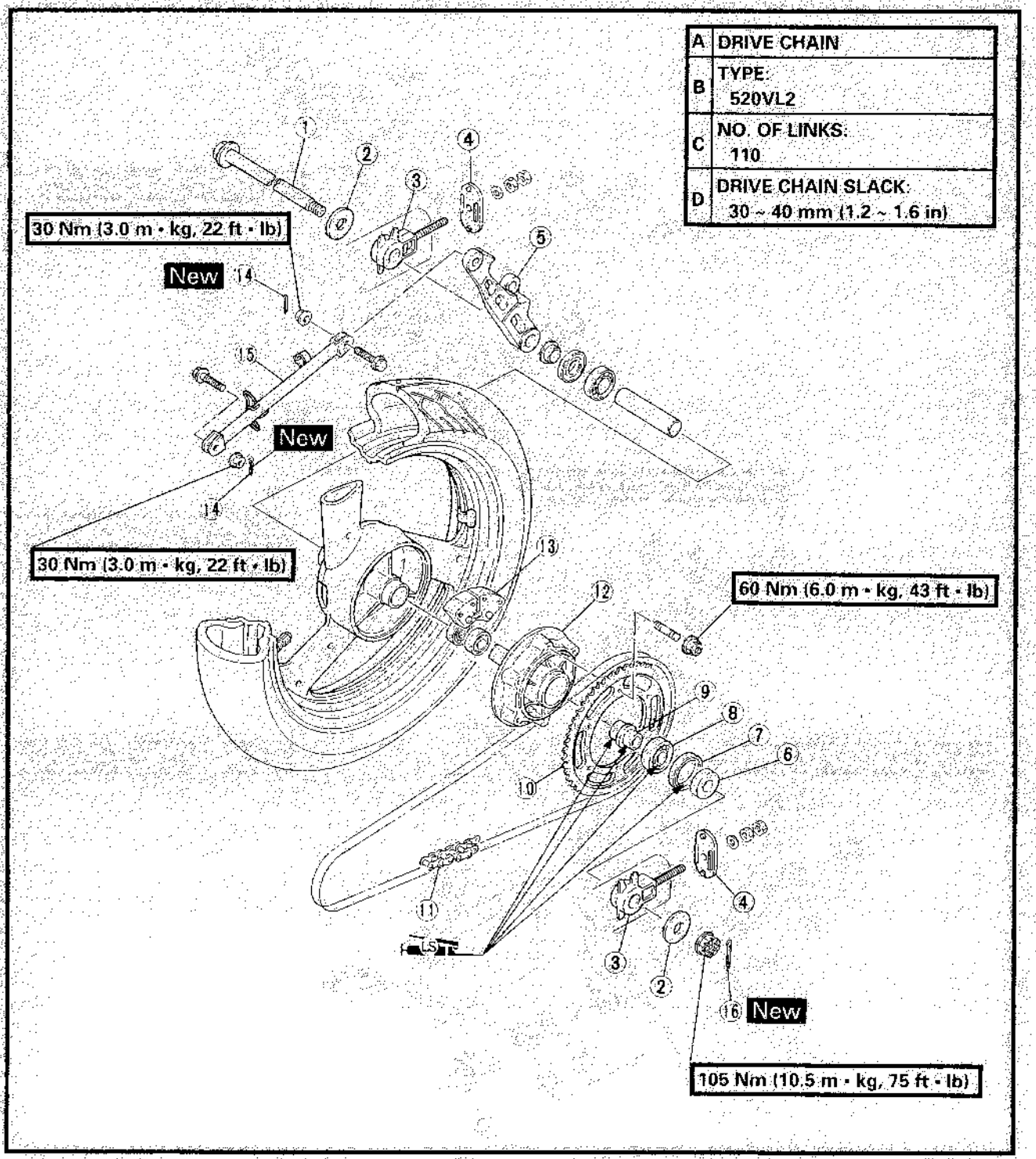
REAR SHOCK ABSORBER AND SWINGARM

① Rear shock absorber assembly
② Bush
③ Bolt
④ Bolt
⑤ Collar
⑥ Oil seal
⑦ Bush
⑧ Chain case
⑨ Chain protecter
⑩ Collar
⑪ Cover
⑫ Plate washer
⑬ Bearing
⑭ Bush
⑮ Swingarm
⑯ Pivot shaft



DRIVE CHAIN AND SPROCKETS

① Wheel axle
② Plate washer
③ Chain puller
④ End plate
⑤ Caliper bracket
⑥ Collar
⑦ Oil seal
⑧ Bearing
⑨ Collar
⑩ Rear sprocket wheel
⑪ Drive chain
⑫ Clutch hub
⑬ Clutch damper
⑭ Cotter pin
⑮ Compression bar
⑯ Cotter pin

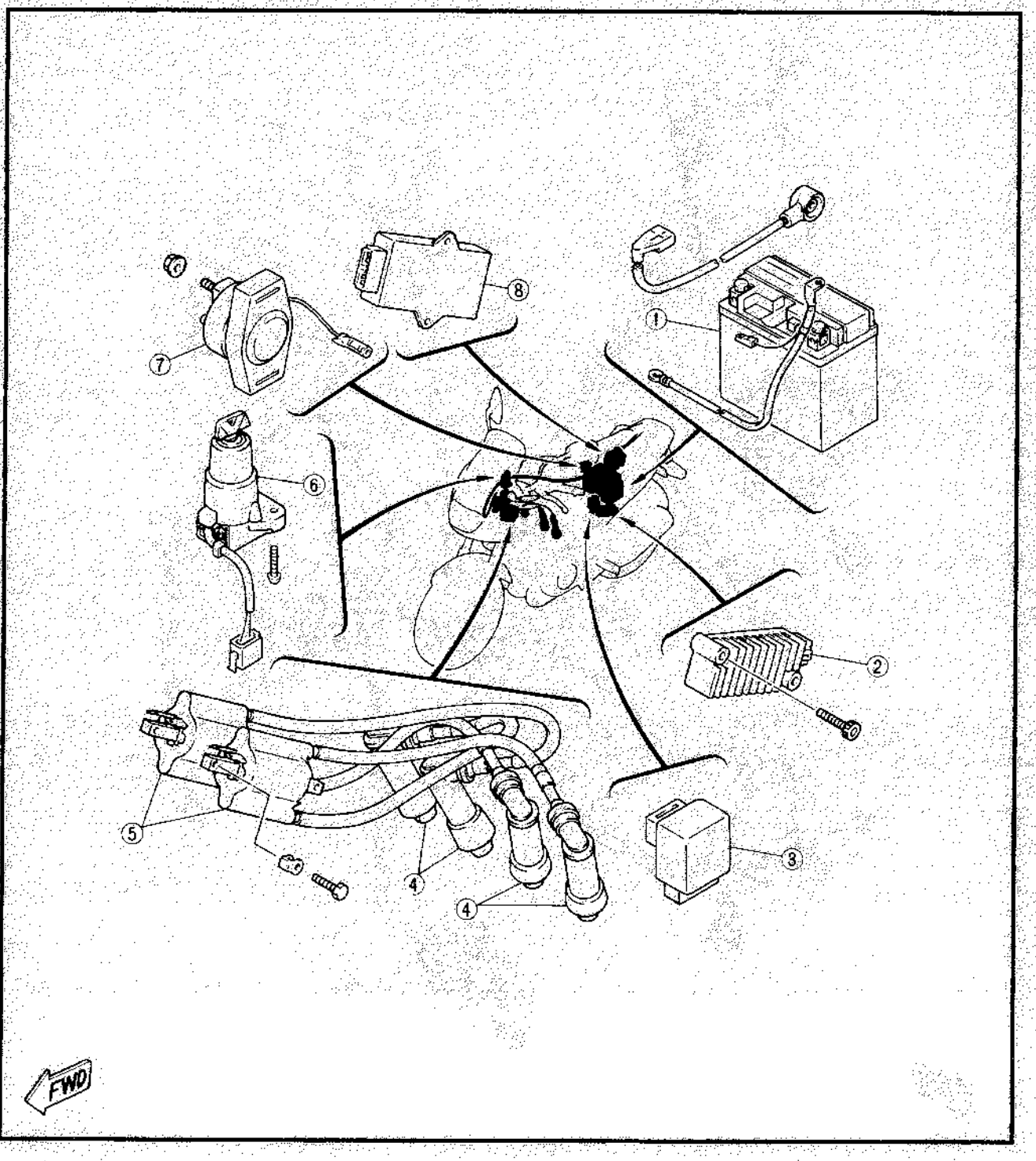


ELECTRICAL COMPONENTS

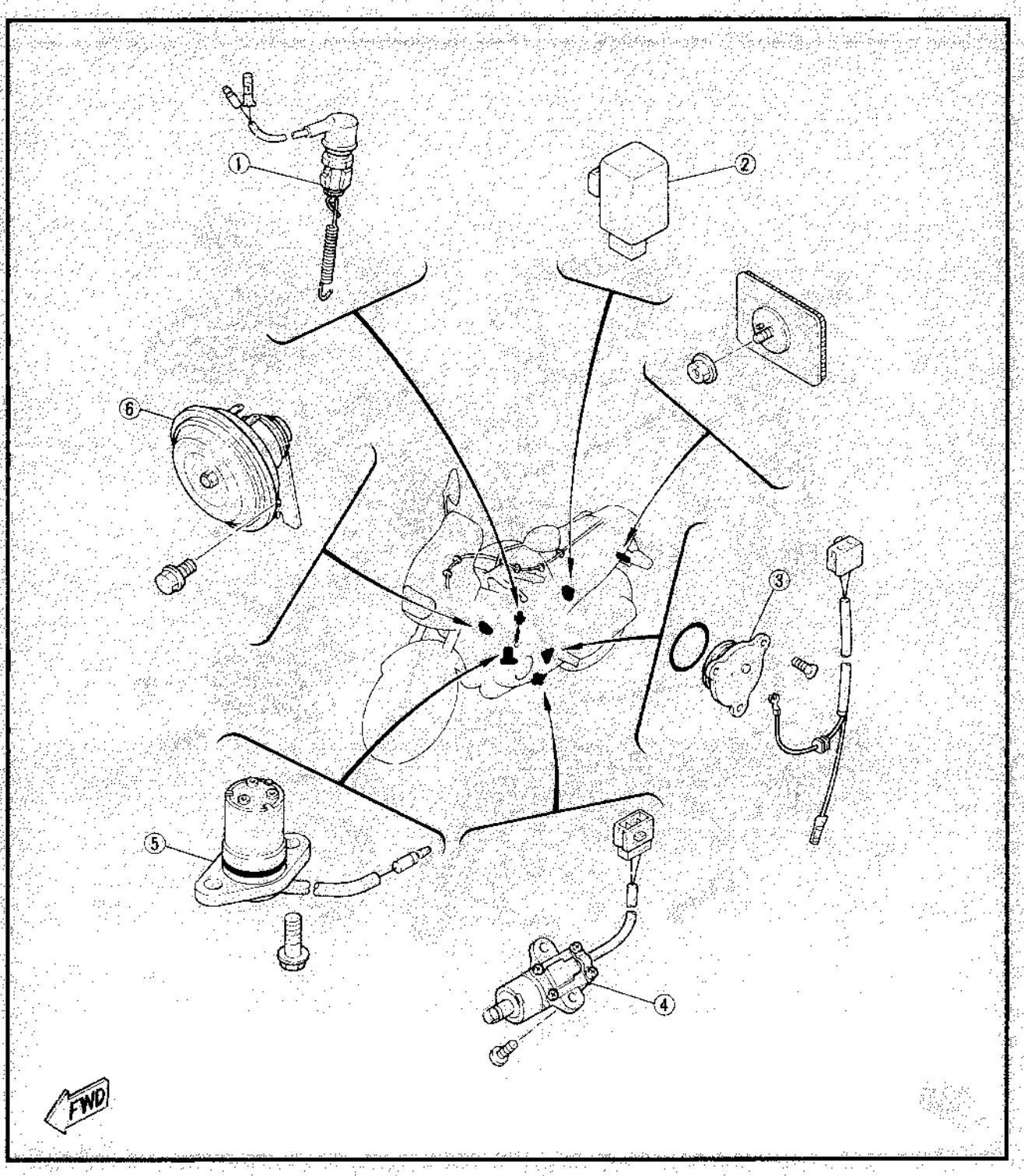
① Battery
② Rectifier/regulator
③ Relay assembly
④ Spark plug cap
⑤ Ignition coil
⑥ Main switch
⑦ Starter relay
⑧ Ignitor unit

BATTERY:
SPECIFIC GRAVITY: 1.32

IGNITION COIL:
PRIMARY COIL RESISTANCE:
1.92 ~ 2.88Ω at 20°C (68°F)
SECONDARY COIL RESISTANCE:
9.52 ~ 14.28kΩ at 20°C (68°F)



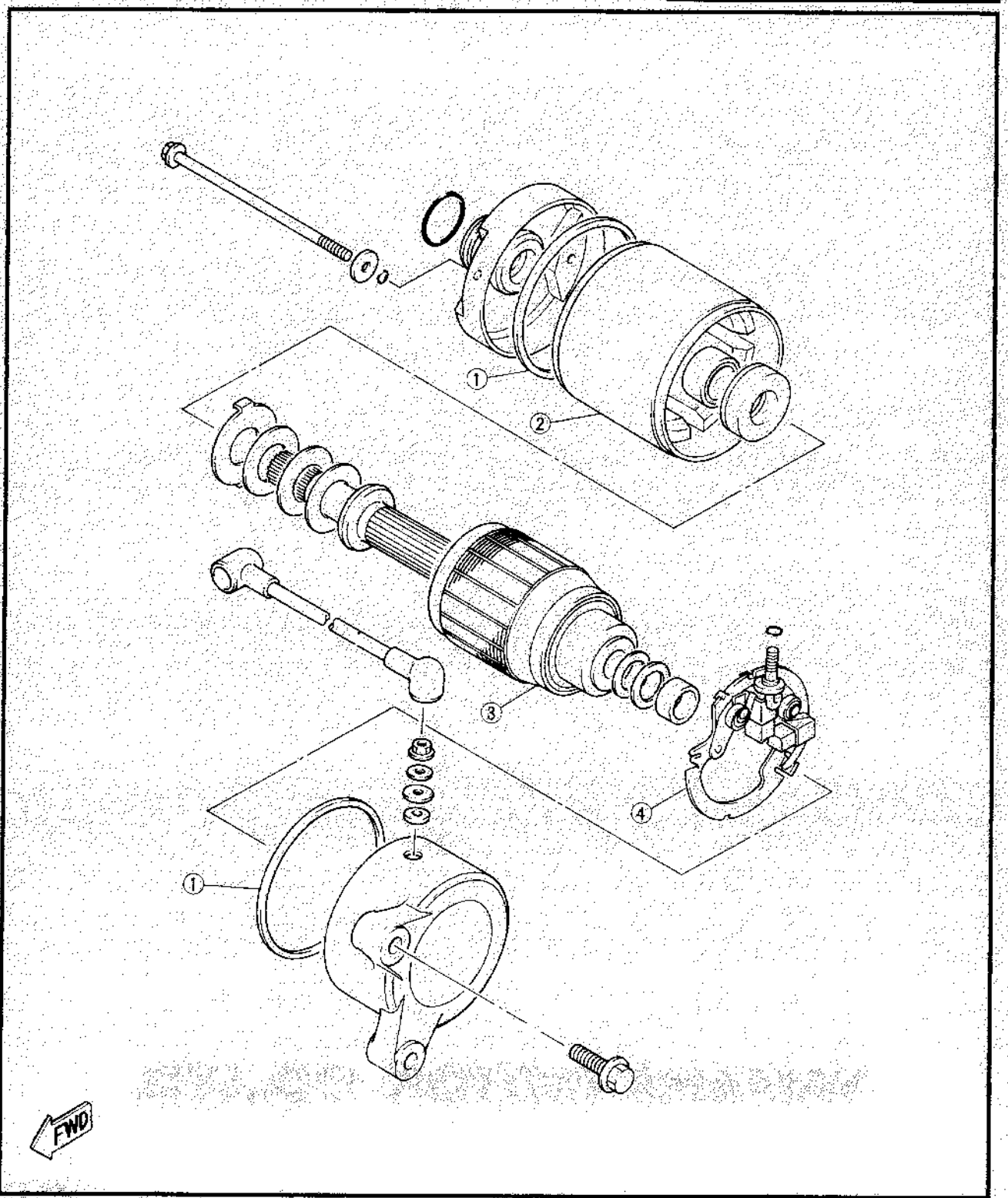
① Rear brake switch
② Flasher relay
③ Neutral switch
④ Sidestand switch
⑤ Oil level switch
⑥ Horn



STARTER MOTOR

① O-ring
② Yoke
③ Armature
④ Brush

A	ARMATURE COIL RESISTANCE: 3.9 ~ 4.7Ω at 20°C (68°F)
B	BRUSH WEAR LIMIT: 4 mm (0.16 in)
C	COMMUTATOR WEAR LIMIT: 27 mm (1.06 in)
D	MICA UNDERCUT: 0.8 mm (0.03 in)



XJ600SD '92
WIRING DIAGRAM

