YAMAHA

DT50MX '86–'87

1JY-SE1

SERVICE INFORMATION

FOREWORD

This Service Information has been prepared to introduce new service and data for the DT50MX ('86 ~ '87). For complete service information procedures it is necessary to use this publication together with the following microfiche service manual.

DT50MX '86 ~ '87 SERVICE MANUAL: 1JY-ME1

DT50MX
SERVICE INFORMATION

1st Edition, August 1987

Printed in Japan

NOTICE

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

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

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

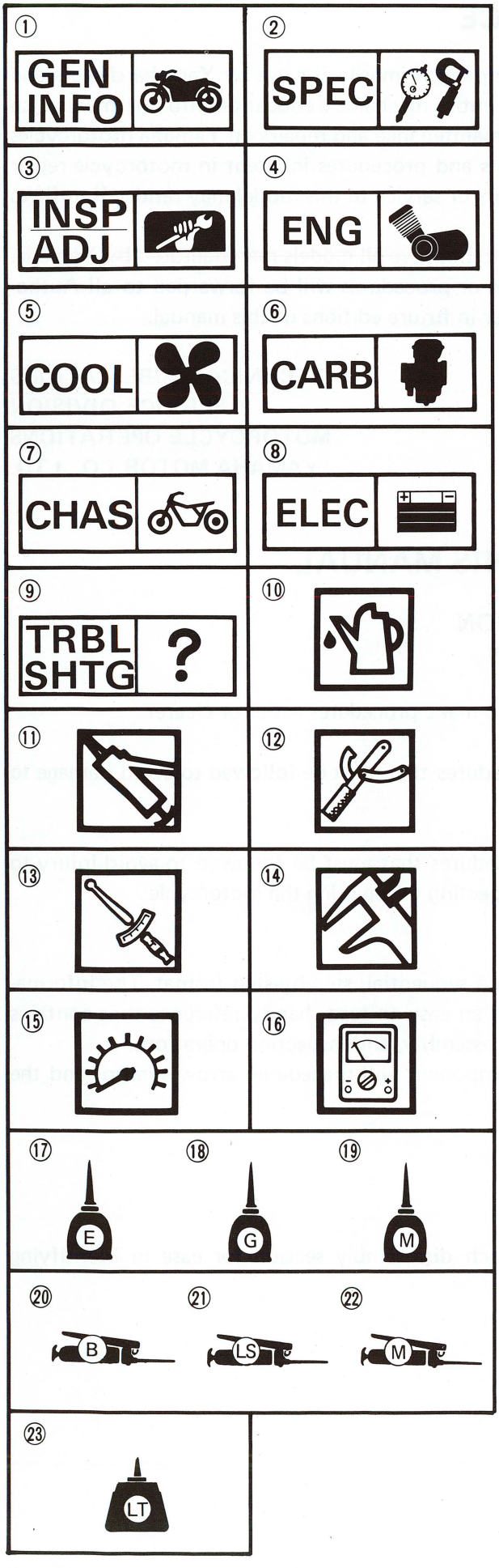
All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspection operations.

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

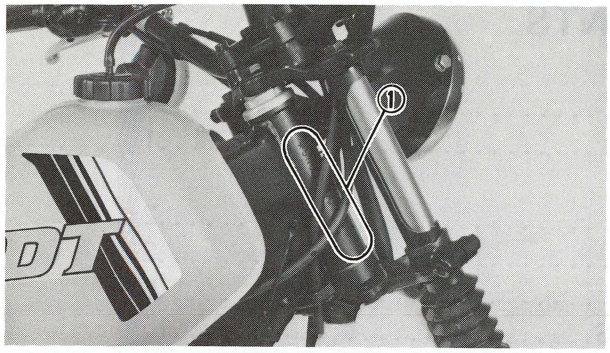
Illustrated symbols ⑩ to ⑯ are used to identify the specifications appearing.

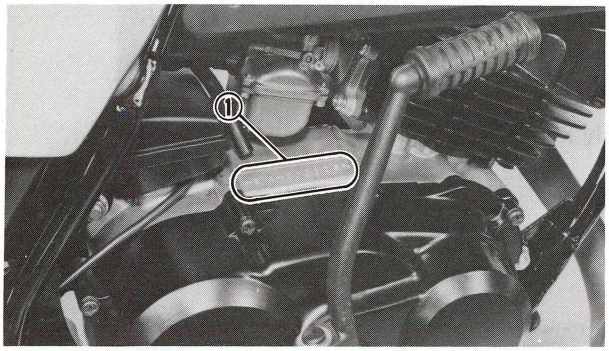
⑩ Filling fluid
⑪ Lubricant
⑫ Special tool
⑬ Tightening
⑭ Wear limit, clearance
⑮ Engine speed
⑯ Ω, V, A

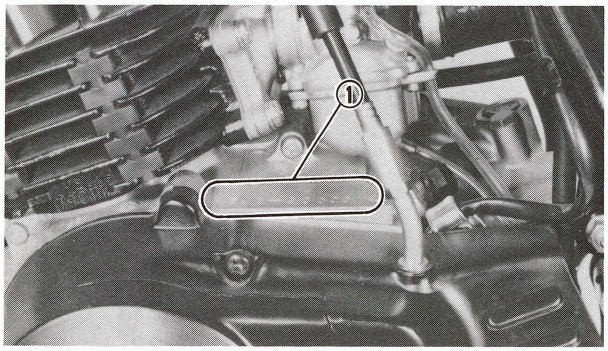
Illustrated symbols ⑰ to ㉓ in the exploded diagram indicate grade of lubricant and location of lubrication point.

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®)

CONTENTS







GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION

FRAME SERIAL NUMBER

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

ENGINE SERIAL NUMBER

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

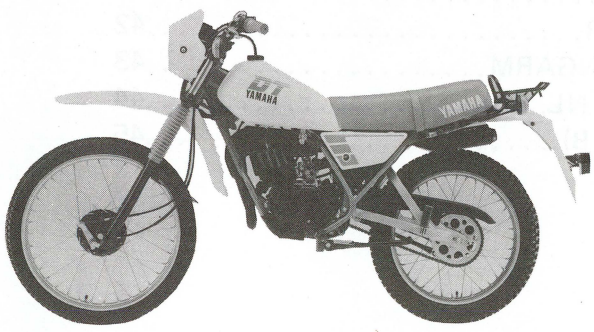
NOTE:

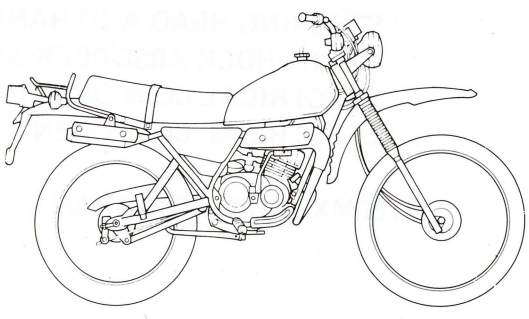
The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.

Starting Serial Number:	
1RE-000101	(F)
1JY-005101	(NL)
5M6-065101	(GB)
29J-004101	(S)
29H-007101	(B)

NOTE:

Designs and specifications are subject to change without notice.





SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	DT50MX
Model Code Number:	1RE (F), 1JY (NL), 5M6 (GB), 29J (S), 29H (B)
Frame Starting Number:	1RE-000101 (F) 1JY-005101 (NL) 5M6-065101 (GB) 29J-004101 (S) 29H-007101 (B)
Engine Starting Number:	1RE-000101 (F) 1JY-005101 (NL) 5M6-065101 (GB) 29J-004101 (S) 29H-007101 (B)
Dimensions:	
Overall Length	2,055 mm (80.9 in) (F, GB) 2,120 mm (83.5 in) (NL, S, B)
Overall Width	835 mm (32.9 in) (F, GB, S) 745 mm (29.3 in) (NL, B)
Overall Height	1,125 mm (44.3 in) (F) 1,115 mm (43.9 in) (NL) 1,135 mm (44.7 in) (GB, S, B)
Seat Height	820 mm (32.3 in) (F, GB, S, B) 810 mm (31.9 in) (NL)
Wheelbase	1,280 mm (50.4 in)
Minimum Ground Clearance	190 mm (7.48 in) (F) 255 mm (10.0 in) (NL) 260 mm (10.2 in) (GB, S, B)
Basic Weight:	
With Oil and Full Fuel Tank	88 kg (194 lb) (F, S) 87 kg (192 lb) (NL) 90 kg (198 lb) (GB, B)
Engine:	
Engine Type	Air cooled 2-stroke
Induction System	Reed valve
Cylinder Arrangement	Forward inclined single cylinder
Displacement	49 cm^3 (2.99 cu.in)
Bore x Stroke	40.0 x 39.7 mm (1.5748 x 1.5630 in)
Compression Ratio	7.0 : 1 (F) 7.4 : 1 (NL) 6.6 : 1 (GB, B) 5.8 : 1 (S)
Starting System	Kick starter
Lubrication System:	
Type	Separate lubrication (Yamaha Autolube)
Engine Oil Type	Yamaha oil 2T or air cooled 2T engine oil
Transmission Oil Type	SAE 10W30 type SE motor oil

GENERAL SPECIFICATIONS

SPEC

Model	DT50MX
Oil Capacity:	
Engine Oil (Oil Tank)	1.3 L (1.14 Imp. qt 1.4 US. qt) (F) 1.2 L (1.06 Imp. qt 1.3 US. qt) (NL, S, B) 1.0 L (0.88 Imp. qt 1.1 US. qt) (GB)
Transmission Oil	
Periodic Oil Change	0.2 L (0.18 Imp. qt 0.21 US. qt) (F) 0.6 L (0.53 Imp. qt 0.63 US. qt) (NL, GB, S, B)
Total Amount	0.25 L (0.22 Imp. qt 0.26 US. qt) (F) 0.65 L (0.57 Imp. qt 0.69 US. qt) (NL, GB, S, B)
Air Filter:	
Type	Wet element
Fuel:	
Type	Regular gasoline
Fuel Tank Capacity	8.5 L (1.87 Imp. gal, 2.25 US. gal)
Reserve Amount	2 L (0.44 Imp. gal, 0.53 US. gal)
Carburetor:	
Type x Quantity	Y14P x 1 (F, GB) Y16P x 1 (NL, S, B)
Manufacturer	TEIKEI
Spark Plug:	
Type	BR6HS (F, S, B) B6HS (NL) B7HS (GB)
Manufacturer	NGK
Spark Plug Gap	0.6 ~ 0.7 mm (0.024 ~ 0.028 in) (F, GB, S) 0.5 ~ 0.6 mm (0.020 ~ 0.024 in) (NL, B)
Clutch:	
Type	Dry, centrifugal automatic (F) Wet, multiple-disc (NL, GB, S, B)
Transmission:	
Type	Single-speed automatic (V-belt type) (F) Constant mesh 4-speed (NL, S) Constant mesh 5-speed (GB, B)
Primary Reduction System	Spar gear (F) Helical gear (NL, GB, S, B)
Primary Reduction Ratio	44/16 x 41/17 (6.632) (F) 68/19 (3.578) (NL, GB, S, B)
Secondary Reduction System	Chain drive
Secondary Reduction Ratio	38/14 (2.714) (F) 47/11 (4.273) (NL) 48/11 (4.364) (GB) 50/10 (5.000) (S) 49/12 (4.083) (B)
Operation	Centrifugal automatic type (F) Left foot operation (NL, GB, S, B)
Single-speed Automatic Gear Ratio	2.914 ~ 0.913 : 1 (F)
1st	39/12 (3.250) (NL, GB, S, B)
2nd	34/17 (2.000) (NL, GB, S, B)
3rd	30/21 (1.428) (NL, GB, S, B)
4th	27/24 (1.125) (NL, GB, S, B)
5th	25/26 (0.961) (GB, B)

GENERAL SPECIFICATIONS

SPEC

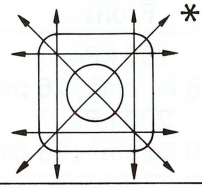
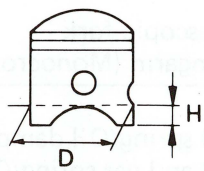
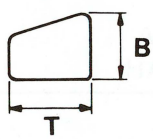
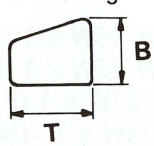
Model	DT50MX	
Chassis:		
Frame Type	Semi double cradle	
Caster Angle	30°	
Trail	132 mm (5.21 in)	
Tire:		
Type	With tube	
Size		
Front	2.50-21-4PR	
Rear	3.00-18-4PR	
Tire Pressure (Cold tire):	Front	Rear
Up to 90 kg (198 lb) load*	180 kPa (1.8 kg/cm², 26 psi)	200 kPa (2.0 kg/cm², 28 psi)
90 kg (198 lb) ~ Maximum [196 kg (432 lb)] load*	200 kPa (2.0 kg/cm², 28 psi)	230 kPa (2.3 kg/cm², 32 psi)
Brake:		
Front Brake Type	Drum brake	
Front Brake Operation	Right hand operation	
Rear Brake Type	Drum brake	
Rear Brake Operation	Left-hand Operation (F) Right foot operation (NL, GB, S, B)	
Suspension:		
Front Suspension Type	Telescopic fork	
Rear Suspension Type	Swingarm (Monocross)	
Shock Absorber:		
Front Shock Absorber	Coil spring/Oil damper	
Rear Shock Absorber	Coil and gas spring/Oil damper	
Wheel Travel:		
Front Wheel Travel	160 mm (6.3 in)	
Rear Wheel Travel	130 mm (5.12 in)	
Electrical:		
Ignition System	Flywheel magneto (F, NL, GB) C.D.I. (S, B)	
Generator System	Flywheel magneto	
Battery:		
Type	6N4B-2A	
Capacity	6V 4.5AH	
Headlight:		
Type	Bulb	
Bulb Wattage x Quantity:		
Headlight	6V, 15W/15W x 1 (F, S) 6V, 25W/25W x 1 (NL, GB, B)	
Tail/Brake Light	6V, 5W/21W x 1 (F, GB, S) 6V, 2W/5W x 1 (NL) 6V, 5.3W/17W x 1 (B)	
Flasher Light	6V, 10W x 4 (F, NL, B) 6V, 21W x 4 (GB, S)	
License Light	6V, 5W x 1 (F, GB, S) 6V, 2W x 1 (NL) 6V, 5.3W x 1 (B)	
Meter Light	6V, 3W x 1	

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

Model		DT50MX
Indicator Light: Wattage x Quantity	"NEUTRAL" "TURN"	6V, 3W x 1 6V, 3W x 1

MAINTENANCE SPECIFICATIONS

ENGINE

Model		DT50MX
Cylinder Head: Warp Limit		0.03 mm (0.0012 in) *Lines indicate straightedge measurement.
Cylinder: Bore Size Taper Limit Out of Round Limit		40.00 ~ 40.02 mm (1.575 ~ 1.576 in) 0.05 mm (0.002 in) 0.01 mm (0.0004 in)
Piston: Piston Size "D" Measuring Point "H"		39.94 ~ 40.00 mm (1.572 ~ 1.575 in) 5 mm (0.2 in)
Piston Off-Set/Off-Set Direction Piston-to-Cylinder Clearance < Limit > Over Size 1st Over Size 2nd		0.2 mm (0.008 in)/IN-side 0.040 ~ 0.045 mm (0.0016 ~ 0.0018 in) < 0.1 mm (0.004 in) > 40.25 mm (1.585 in) 40.50 mm (1.594 in)
Piston Ring: Sectional Sketch	Top Ring  2nd Ring 	Keystone type B = 1.2 mm (0.047 in) (F, NL, B) T = 1.6 mm (0.063 in) (F, NL, B) B = 1.5 mm (0.059 in) (GB, S) T = 1.8 mm (0.071 in) (GB, S) Plain type (F, NL, B) B = 1.2 mm (0.047 in) (F, NL, B) T = 1.6 mm (0.063 in) (F, NL, B) Keystone type (GB, S) B = 1.5 mm (0.059 in) (GB, S) T = 1.8 mm (0.071 in) (GB, S)
End Gap (Installed)	Top Ring 2nd Ring	0.15 ~ 0.30 mm (0.006 ~ 0.012 in) (F, NL, B) 0.15 ~ 0.35 mm (0.006 ~ 0.014 in) (GB, S) 0.15 ~ 0.30 mm (0.006 ~ 0.012 in) (F, NL, B) 0.15 ~ 0.35 mm (0.006 ~ 0.014 in) (GB, S)
Side Clearance	Top Ring 2nd Ring	0.02 ~ 0.06 mm (0.008 ~ 0.0024 in) 0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in) (F, NL) 0.02 ~ 0.06 mm (0.008 ~ 0.0024 in) (GB, S, B)

MAINTENANCE SPECIFICATIONS

SPEC

Model		DT50MX		
Crankshaft:				
Crank Width "A"		37.90 ~ 37.95 mm (1.492 ~ 1.494 in)		
Runout Limit "C"		0.03 mm (0.0012 in)		
Big End Side Clearance "D"		0.2 ~ 0.7 mm (0.008 ~ 0.028 in)		
< Limit >		< 1.0 mm (0.039 in) >		
Small End Free Play "E"		0.8 ~ 1.0 mm (0.032 ~ 0.039 in)		
< Limit >		< 1.0 mm (0.039 in) >		
Automatic Centrifugal Clutch:		(F)		
Clutch Shoe Thickness		4 mm (0.158 in)		
Wear Limit		2.5 mm (0.098 in)		
Clutch Shoe Spring Free Length		31.4 mm (1.24 in)		
Clutch-In Revolution		2,600 r/min		
Clutch-Stall Revolution		4,300 ~ 4,500 r/min		
Clutch:		(NL, GB, S, B)		
Friction Plate Thickness x Quantity		3.5 mm (0.138 in) x 2		
Wear Limit		3.2 mm (0.126 in)		
Clutch Plate Thickness x Quantity		2 mm (0.079 in) x 1		
Warp Limit		0.05 mm (0.002 in)		
Clutch Spring Free Length x Quantity		34 mm (1.339 in) x 4		
Minimum Free Length		31 mm (1.22 in)		
Clutch Release Method		Inner push, Screw push		
Push Rod Bending Limit		0.15 mm (0.006 in)		
Transmission:				
Main Axle Runout Limit		0.08 mm (0.003 in)		
Drive Axle Runout Limit		0.08 mm (0.003 in)		
Shifter:				
Type		Cam drum and guide bar		
Guide Bar Bending Limit		0.03 mm (0.0012 in)		
Kick Starter:				
Type		Kick and mesh type		
Kick Clip Friction Force		0.2 ~ 0.4 kg (0.44 ~ 0.88 lb) (F)		
		1.8 ~ 2.6 kg (3.97 ~ 5.73 lb) (NL, GB, S, B)		
Air Filter:				
Oil Grade		Form air filter oil or SAE 10W30 SE		
Carburetor:				
Destination		(F)	(NL)	(GB)
I.D. Mark		5N6 00	1JY 00	5M6 00
Main Jet	(M.J)	# 114	# 86	# 88
Air Jet	(A.J)	2.5	2.5	2.5
Jet Needle	(J.N)	3S41-2	3N20-4/5	059-2
Needle Jet	(N.J.)	#80	2.085	2.080
Cutaway	(C.A)	1.0	2.0	1.0
Pilot Jet	(P.J)	#40	#40	#40
Bypass 1	(B.P. 1)	1.0	1.0	1.0
Air Screw	(A.S)	1-1/2	1-1/8	1-1/2
Valve Seat Size	(V.S)	1.4	1.4	1.4
Starter Jet	(G.S)	#50	#40	#50
Float Height	(F.H)	18 ~ 20 mm (0.709 ~ 0.787 in)		
Idle Speed		1,200 ~ 1,300 r/min		

MAINTENANCE SPECIFICATIONS

SPEC

Model		DT50MX	
		(S)	(B)
Destination			
I.D. Mark		29J 00	29H 00
Main Jet	(M.J)	#88	#100
Air Jet	(A.J)	2.0	2.5
Jet Needle	(J.N)	049-2	4I5-2
Needle Jet	(N.J)	2.080	E-6
Cutaway	(C.A)	1.5	2.5
Pilot Outlet	(P.O)	–	0.9
Pilot Jet	(P.J)	#34	#27.5
Bypass 1	(B.P. 1)	1.1	–
Air Screw	(A.S)	1-3/4	1-1/4
Valve Seat Size	(V.S)	1.4	1.2
Starter Jet	(G.S)	#50	#30
Float Height	(F.H)	20 ~ 22 mm	18 ~ 19 mm
Idle Speed		1,200 ~ 1,300 rpm	
Reed Valve:			
Valve Thickness		0.15 mm (0.006 in) (F, NL, GB, S) 0.203 mm (0.08 in) (B)	
Valve Stopper Height		7 mm (0.276 in) (F) 7.7 ~ 8.3 mm (0.303 ~ 0.327 in) (NL, GB, S) 8 mm (0.315 in) (B)	
Valve Bending Limit		0.3 mm (0.012 in) (F) 0.8 mm (0.032 in) (NL, S, B) 0.2 mm (0.008 in) (GB)	
Lubrication System:			
Autolube Pump			
Destination		(F)	
Color Code		Pink	
Minimum Stroke		0.30 ~ 0.35 mm (0.012 ~ 0.014 in)	
Maximum Stroke		1.95 ~ 2.15 mm (0.077 ~ 0.085 in)	
Minimum Output/200 Stroke		0.75 cm^3	
Maximum Output		5.4 cm^3 (0.33 cu.in)	
Pully Adjusting Mark		At Idle	
Destination		(NL)	
Color Code		Black	
Minimum Stroke		0.20 ~ 0.25 mm (0.008 ~ 0.010 in)	
Maximum Stroke		1.41 ~ 1.80 mm (0.057 ~ 0.071 in)	
Minimum Output/200 Stroke		0.19 ~ 0.24 cm^3 (0.012 ~ 0.015 cu.in)	
Maximum Output/200 Stroke		1.40 ~ 1.64 cm^3 (0.085 ~ 0.1 cu.in)	
Pully Adjusting Mark		At Idle	
Destination		(GB)	
Color Code		Black	
Minimum Stroke		0.20 ~ 0.25 mm (0.008 ~ 0.010 in)	
Maximum Stroke		1.45 ~ 1.80 mm (0.057 ~ 0.071 in)	
Minimum Output/200 Stroke		0.38 cm^3 (0.023 cu.in)	
Maximum Output/200 Stroke		3.27 cm^3 (0.120 cu.in)	
Pully Adjusting Mark		At Idle	
Destination		(S)	
Color Code		Orange	
Minimum Stroke		1.00 ~ 1.05 mm (0.039 ~ 0.041 in)	
Maximum Stroke			
Minimum Output/200 Stroke		0.38 cm^3 (0.023 cu.in)	
Maximum Output/200 Stroke		3.27 cm^3 (0.2 cu.in)	
Pully Adjusting Mark		At Idle	

MAINTENANCE SPECIFICATIONS

SPEC

Model	DT50MX
Destination	(B)
Color Code	Pink
Minimum Stroke	0.30 ~ 0.35 mm (0.012 ~ 0.014 in)
Maximum Stroke	1.95 ~ 2.15 mm (0.077 ~ 0.085 in)
Minimum Output/200 Stroke	0.75 cm^3 (0.046 cu.in)
Maximum Output/200 Stroke	5.4 cm^3 (0.33 cu.in)
Pully Adjusting Mark	At Idle

MAINTENANCE SPECIFICATIONS

SPEC

Tightening Torque:							
Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m·kg	ft·lb	
Cylinder Head	Nut	M6	4	10	1.0	7.2	
Spark Plug	–	M14	1	25	2.5	18	
Stator Assembly	Screw	M6	2	9	0.9	6.5	
Flywheel Magneto Rotor	Nut	M12	1	43	4.3	31	(F)
Flywheel Magneto Rotor	Nut	M12		50	5.0	36	(NL,GB,S,B)
Autolube Pump	Screw	M5	2	4	0.4	2.9	(F)
Autolube Pump Cover	Screw	M6	2	4	0.4	2.9	
Reed Valve/Carburator Joint	Bolt	M6	4	9	0.9	6.5	
Crankcase (Right/Left)	Screw	M6	10	9	0.9	6.5	
Oil Seal Cover (Right/Left)	Screw	M6	4	9	0.9	6.5	(F)
Crankcase Cover (Right)	Screw	M6	5	9	0.9	6.5	(F)
Crankcase Cover (Right)	Screw	M6	9	9	0.9	6.5	(NL,GB,S,B)
Crankcase Cover (Left)	Screw	M6	4	9	0.9	6.5	
Generator Cover	Screw	M4	2	3	0.3	2.2	(F)
Generator Cover	Screw	M6	3	8	0.8	5.8	(NL,GB,S,B)
Autolube Pump Cover	Screw	M6	2	8	0.8	5.8	(NL,GB,S,B)
Drain Plug	Bolt	M6	1	8	0.8	5.8	(F)
Drain Plug	Bolt	M12	1	20	2.0	14	(NL,GB,S,B)
Kick Crank	Bolt	M6	1	12	1.2	8.7	
Clutch Housing	Nut	M10	1	35	3.5	25	(F)
Distance Collar	Screw	M6	2	9	0.9	6.5	(F)
Primary Sheave	Nut	M10	1	35	3.5	25	(F)
Primary Sheave Cap	Screw	M4	3	3	0.3	2.2	(F)
Air Shroud	Screw	M6	2	9	0.9	6.5	(F)
Primary Drive Gear	Nut	M12	1	60	6.0	45	(NL,GB,S,B)
Primary Driven Gear Comp.	Nut	M12	1	45	4.5	32	(Ditto)
Clutch Spring	Screw	M5	4	6	0.6	4.3	(Ditto)
Drive Sprocket	Nut	M12	1	40	4.0	29	(Ditto)
Bearing Stopper Plate	Screw	M6	2	10	1.0	7.2	(Ditto)
Neutral Switch	–	M10	1	4	0.4	2.9	(Ditto)
Shift Cam Stopper Spring	Screw	M14	1	10	1.0	7.2	(Ditto)
Shift Cam Stopper Plate	Screw	M6	2	10	1.0	7.2	(Ditto)
Shift Pedal	Bolt	M6	1	10	1.0	7.2	(Ditto)
Exhaust Pipe	Ring Nut	–	1	45	4.5	32	
Exhaust Pipe Bracket	Bolt	M8	1	15	1.5	11	
Silencer	Bolt	M8	1	15	1.5	11	
Engine Mounting (Front)	Bolt	M8	1	25	2.5	18	
(Rear Upper)	Bolt	M8	1	25	2.5	18	
(Rear Lower)	Bolt	M8	1	25	2.5	18	

MAINTENANCE SPECIFICATIONS

SPEC

CHASSIS

Model		DT50MX
Steering System:		
Bearing Type		Ball bearing
Bearing Size x Quantity		
Upper		0.1875 in x 22
Lower		0.25 in x 19
Front Suspension:		
Front Fork Travel		160 mm (6.3 in)
Fork Sri		385.5 mm (15.2 in)
< Limit >		380.5 mm (15.0 in)
Spring Rate	K1	2.49 N/mm (0.254 kg/mm, 14.2 lb/in)
	K2	4.17 N/mm (0.425 kg/mm, 23.8 lb/in)
Stroke	K1	0 ~ 130 mm (0 ~ 5.12 in)
	K2	130 ~ 170 mm (5.12 ~ 6.69 in)
Optional Spring		No
Oil Capacity		208 cm^3 (7.34 Imp oz, 7.03 US oz)
Oil Level		392 mm (15.4 in) Bellow the top of inner fork tube fully rebounded with fork spring
Oil Grade		Fork oil 10W or equivalent
Rear Suspension:		
Shock Absorber Travel		65 mm (2.56 in)
Spring Free Length		223 mm (8.78 in)
< Limit >		221.5 mm (8.72 in)
Fitting Length		217 mm (8.54 in)
Spring Rate	K1	70.4 N/mm (7.18 kg/mm, 402 lb/in)
	K2	74.9 N/mm (7.64 kg/mm, 428 lb/in) (S)
Stroke	K1	0 ~ 71 mm (0 ~ 2.80 in)
Optional Spring		No
Enclosed Gas Pressure		2,000 kPa (20 kg/cm^2, 284 psi)
< Minimum ~ Maximum >		< 1,900 ~ 2,100 kPa (19 ~ 21 kg/cm^2, 270.2 ~ 298.6 psi) >
Swingarm:		
Free Play Limit	End	1 mm (0.04 in)
	Side	1 mm (0.04 in)
Front Wheel:		
Type		Spork wheel
Rim Size		1.60 x 21
Rim Material		Steel
Rim Runout Limit	Vertical	1 mm (0.04 in)
	Lateral	0.5 mm (0.02 in)
Rear Wheel:		
Type		Spork wheel
Rim Size		1.60 x 18
Rim Material		Steel
Rim Runout Limit	Vertical	1 mm (0.04 in)
	Lateral	0.5 mm (0.02 in)
Drive Chain:		
Type/Manufacturer		DK420/DAIDO
Number of Links		104 (F), 110 (NL, GB, S), 112 (B)
Chain Free Play		20 ~ 30 mm (0.8 ~ 1.2 in)

MAINTENANCE SPECIFICATIONS

SPEC

Model	DT50MX
Front Drum Brake:	
Type	Leading, trailing
Brake Drum Inside Dia	110 mm (4.33 in)
< Wear Limit >	< 111 mm (4.37 in) >
Lining Thickness	4 mm (0.16 in)
< Wear Limit >	< 2 mm (0.08 in) >
Shoe Spring Free Length	34.5 mm (1.36 in)
Rear Drum Brake:	
Type	Leading, trailing
Brake Drum Inside Dia	110 mm (4.33 in)
< Wear Limit >	< 111 mm (4.37 in) >
Lining Thickness	4 mm (0.16 in)
< Wear Limit >	< 2 mm (0.08 in) >
Shoe Spring Free Length	34.5 mm (1.36 in)
Brake Lever and Brake Pedal:	
Brake Lever Free Play	5 ~ 8 mm (0.20 ~ 0.32 in) At lever pivot side
Brake Pedal Position	15 mm (0.60 in)
Brake Pedal Free Play	20 ~ 30 mm (0.8 ~ 1.2 in)
Clutch Lever and Throttle Grip:	
Clutch Lever Free Play	2 ~ 3 mm (0.08 ~ 0.12 in) At lever pivot side
Throttle Cable Free Play	2 ~ 5 mm (0.08 ~ 0.20 in) At grip flange

MAINTENANCE SPECIFICATIONS SPEC

Tightening Torque:

Part to be tightened	Thread size	Q'ty	Tightening torque			Remarks
			Nm	m·kg	ft·lb	
Front Axle and Nut	M12	1	45	4.5	32	
Steering Stem and Inner Fork Tube	M10	2	33	3.3	24	
Ring Nut and Steering Stem	M25	1				Refer to "NOTE"
Handle Crown and Steering Stem	M14	1	75	7.5	54	
Handle Crown and Inner Fork Tube	M8	2	26	2.6	19	
Handlebar	M8	4	20	2.0	14	
Swingarm Pivot Shaft and Nut	M10	1	44	4.4	32	
Rear Wheel Axle and Nut	M12	1	60	6.0	43	
Tension Bar and Brake Shoe Plate	M8	1	18	1.8	13	
Tension Bar and Brake Shoe Plate	M8	1	18	1.8	13	
Driven Sprocket and Wheel Hub	M8	4	25	2.5	18	

NOTE:

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

MAINTENANCE SPECIFICATIONS

SPEC

ELECTRICAL

Model		DT50MX
Voltage:		6V
Ignition System:		
Ignition Timing (B.T.D.C.)		16° (F) 22° (NL, GB) 19° /2,000 r/min (S, B)
Advancer Type		Centrifugal type (F, NL, GB) Electrical type (S, B)
Ignition (Flywheel Magneto):		(F, NL, GB)
Model/Manufacturer		FIT167/MITSUBISHI (F) FIT166/MITSUBISHI (NL, GB)
Contact-breaker-point gap		0.3 ~ 0.4 mm (0.012 ~ 0.016 in)
Spring Pressure		600 ~ 800 g (21.16 ~ 28.22 oz)
Condenser Capacity		0.25μF
Insulation Resistance		5MΩ
Source Coil Resistance		1.15 ~ 1.41Ω at 20°C (68°F) (Black/White – Black) (F) 1.48 ~ 1.80Ω at 20°C (68°F) (Black/White – Black) (NL, Gβ)
C.D.I.:		(S, B)
Magneto Model/Manufacturer		F3T152/MITSUBISHI
Pickup Coil Resistance		9 ~ 11Ω at 20°C (68°F) (White/Red – Black)
Charging Coil Resistance		270 ~ 330Ω at 20°C (68°F) (Black/Red – Black)
C.D.I. Unit Model/Manufacturer		20M-20/MITSUBISHI
Ignition Coil:		
Model/Manufacturer		F6T411/MITSUBISHI (F, NL, GB, B)
Minimum Spark Gap		7 mm (0.28 in)
Primary Winding Resistance		0.85 ~ 1.15Ω
Secondary Winding Resistance		5.0 ~ 6.8kΩ
Spark Plug Cap:		
Type		Resin type (F, GB, S, B) Noise-suppressor type (NL)
Resistance		5kΩ (F, GB, S, B) 5.5kΩ (NL)
Charging System:		
Type		Flywheel magneto (F, NL, GB)
Flywheel Magneto:		
Model/Manufacturer		F1T167/MITSUBISHI (F) F1T166/MITSUBISHI (NL, GB) F3T152/MITSUBISHI (S, B)
Charging Current – Day	Min.	0.9A/3,000 r/min (F)
	Min.	1.3A/3,000 r/min (NL, GB, S, B)
	Max.	2A/8,000 r/min (F, NL, GB, B)
	Max.	3A/8,000 r/min (S)
Charging Current – Night	Min.	0.8A/3,000 r/min (F, NL, GB, S, B)
	Max.	2.2A/8,000 r/min (F)
	Max.	2A/8,000 r/min (NL, GB, B)
	Max.	3A/8,000 r/min (S)

MAINTENANCE SPECIFICATIONS

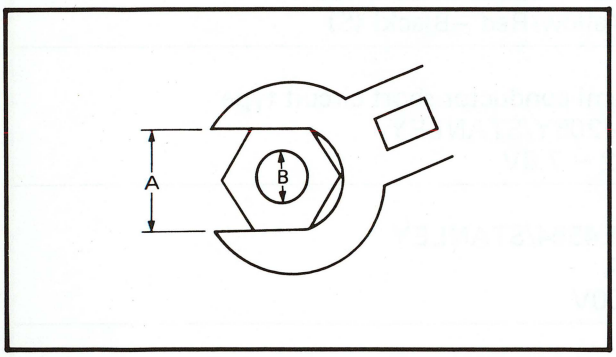
SPEC

Model		DT50MX
Charging Coil Resistance		0.30 ~ 0.36Ω at 20°C (68°F) (White – Black) (F) 0.32 ~ 0.40Ω at 20°C (68°F) (White – Black) (NL, GB, B) 0.23 ~ 0.29Ω at 20°C (68°F) (White – Black) (S)
Lighting Voltage	Min. Min. Max. Max. Max.	6V/2,500 r/min (F, S) 5.8V/2,500 r/min (NL, GB, B) 8.2V/8,000 r/min (F) 8.5V/8,000 r/min (NL, GB, B) 8.0V/8,000 r/min (S)
Lighting Coil Resistance		0.24 ~ 0.30Ω at 20°C (68°F) (Yellow/Red – Black) (F) 0.23 ~0.29Ω at 20°C (68°F) (Yellow/Red – Black) (NL, GB) (Yellow/Red – Ground) (B) 0.20 ~ 0.24Ω at 20°C (68°F) (Yellow/Red –Black) (S)
Voltage Regulator: Type Model/Manufacturer No load regulated voltage		 Semi conductor-short circuit type SU208Y/STANLEY 7.2 ~ 7.8V
Rectifier: Model/Manufacturer Capacity Withstand Voltage		 DE4504/STANLEY 4A 400V
Battery: Specific Gravity		 1.280
Horn: Type Quantity Model/Manufacturer Maximum Amperage		(F, GB, S, B) Plain type 1 YF-6/NIKKO (F) MF-6/NIKKO (GB, S, B) 3A (F), 1.5A (GB, S, B)
Bell: Type		(NL) Bell x 1 (NL)
Flasher Relay: Type Model/Manufacturer Flasher Frequency Wattage		 Condenser type (F, GB, S) Heat ribbon type (NL, B) FZ622SD/NIPPON DENSO (F, S) FZ650SD/NIPPON DENSO (GB) FR9T-13/MITSUBA (NL, B) 60 ~ 120 cyl/min. 10W x 2 + 3W (F, NL, B) 21W x 2 + 3W (GB, S)
Circuit Breaker: Type		 Fuse
Circuit (Fuse) x Quantity: "MAIN" Reserve		 10A 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 multifastener 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
10mm	6mm	6	0.6	4.3
12mm	8mm	15	1.5	11
14mm	10mm	30	3.0	22
17mm	12mm	55	5.5	40
19mm	14mm	85	8.5	61
22mm	16mm	130	13.0	94



A: Distance across flats
B: Outside thread diameter

DEFINITION OF UNITS

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

LUBRICATION POINTS AND LUBRICANT TYPE

ENGINE

Lubrication Points (Part name)	Lubricant Type
Oil seal lip	LS
O-ring	LS
Bearing (Crankshaft)	E
Bearing (Connecting rod)	E
Bearing (Main axle)	G
Bearing (Drive axle)	G
Piston	E
Piston ring	E
Piston pin	E
Crank pin	E
Cylinder (Inner surface)	E
Cam plate/Weights*	M
Boss (Secondary sliding sheave)*	M
Kick idle	M
Kick axle	G
Primary driven gear (Clutch housing)**	G
Push rod**	LS
Push lever**	G
Pinion gear (Transmission)	M
Wheel gear (Transmission)	M
Axle (Main/Drive)	M
Shift cam	G
Shift shaft assembly	G

* For F
** Except F

LUBRICATION POINTS AND LUBRICANT TYPE

SPEC

CHASSIS

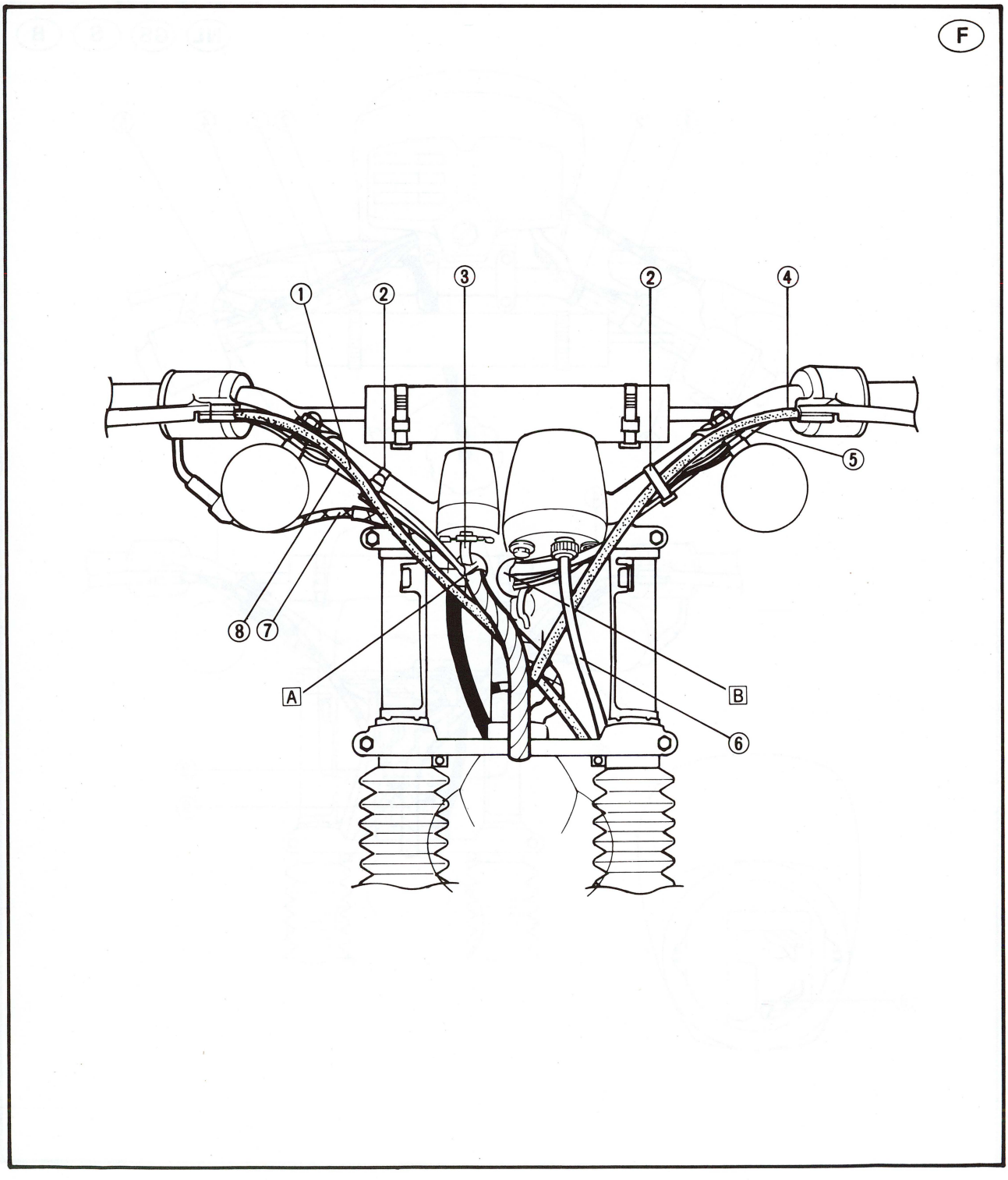
Lubrication Points (Part name)	Lubricant Type
Ball bearings (Steering shaft)	LS
Oil seal lips (Front wheel/Rear wheel)	LS
Pivoting point (Brake pedal)**	LS
Pivoting point (Mainstand*/Sidestand**)	LS
Throttle cable end (Throttle grip)	LS
Pivoting point (Clutch lever)**	LS
Clutch cable end (Clutch lever)**	LS
Pivoting point (Brake lever)	LS
Clevis pin (Rear shock absorber)	LS
Oil seal lips (Rear shock absorber)	LS
Pivot shaft (Swingarm)	LS
Front wheel axle	LS
Rear wheel axle	LS
Collar (Front wheel)	LS
Speedometer gear unit	LS

* For (F)
** For (NL, GB, S, B)

CABLE ROUTING

① Front brake cable
② Band
③ Lead (Main switch)
④ Rear brake cable
⑤ Lead (Handlebar switch – Left)
⑥ Speedometer cable
⑦ Throttle cable
⑧ Lead (Handlebar switch – Right)

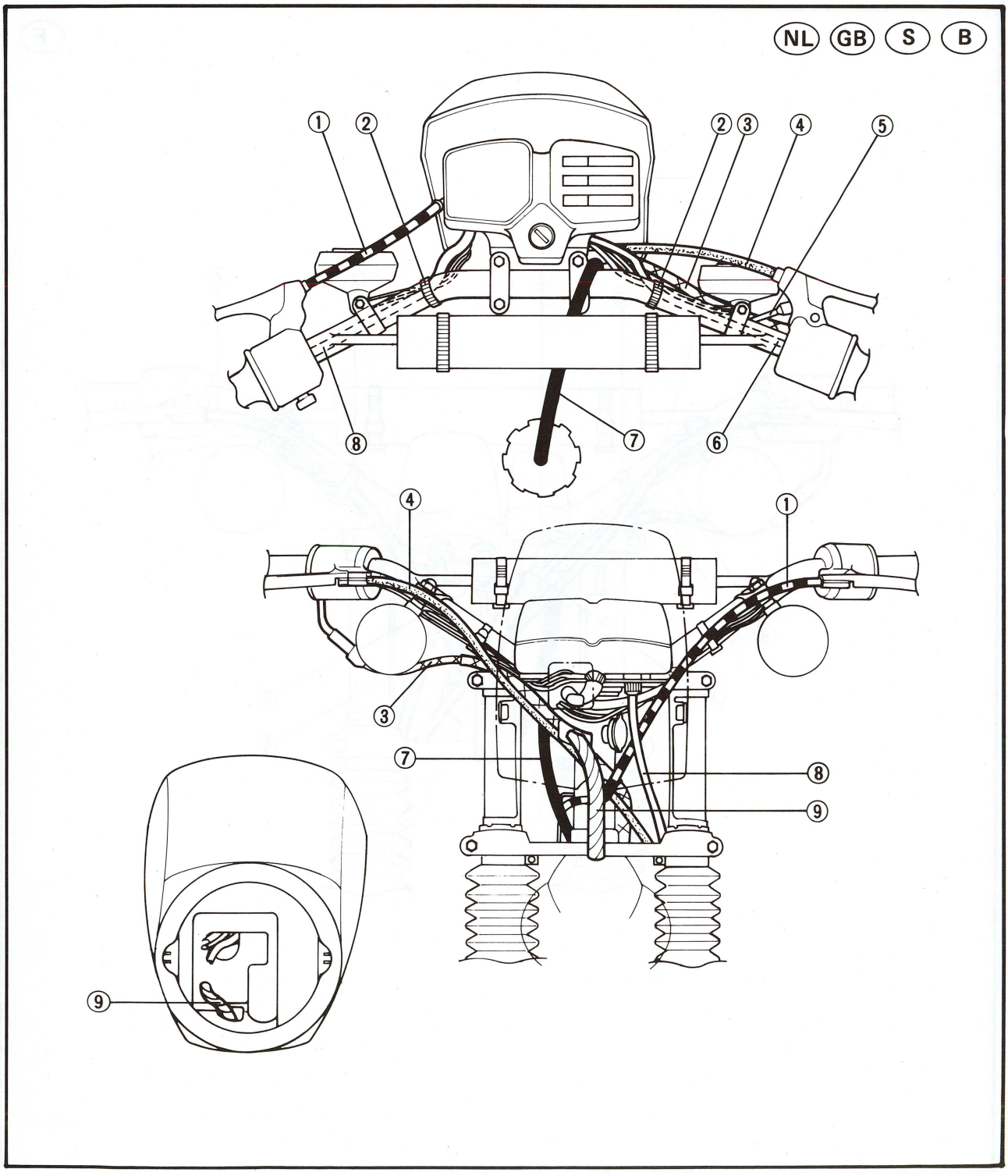
[A] Pass the leads and wire harness through the right hole on the headlight body.
[B] Pass the leads through the left hole on the headlight body.



CABLE ROUTING

SPEC

① Clutch cable
② Band
③ Throttle cable
④ Front brake cable
⑤ Lead ("ENGINE STOP" switch)
⑥ Lead (Handlebar switch)
⑦ Breather hose (Fuel tank)
⑧ Speedometer cable
⑨ Wire harness

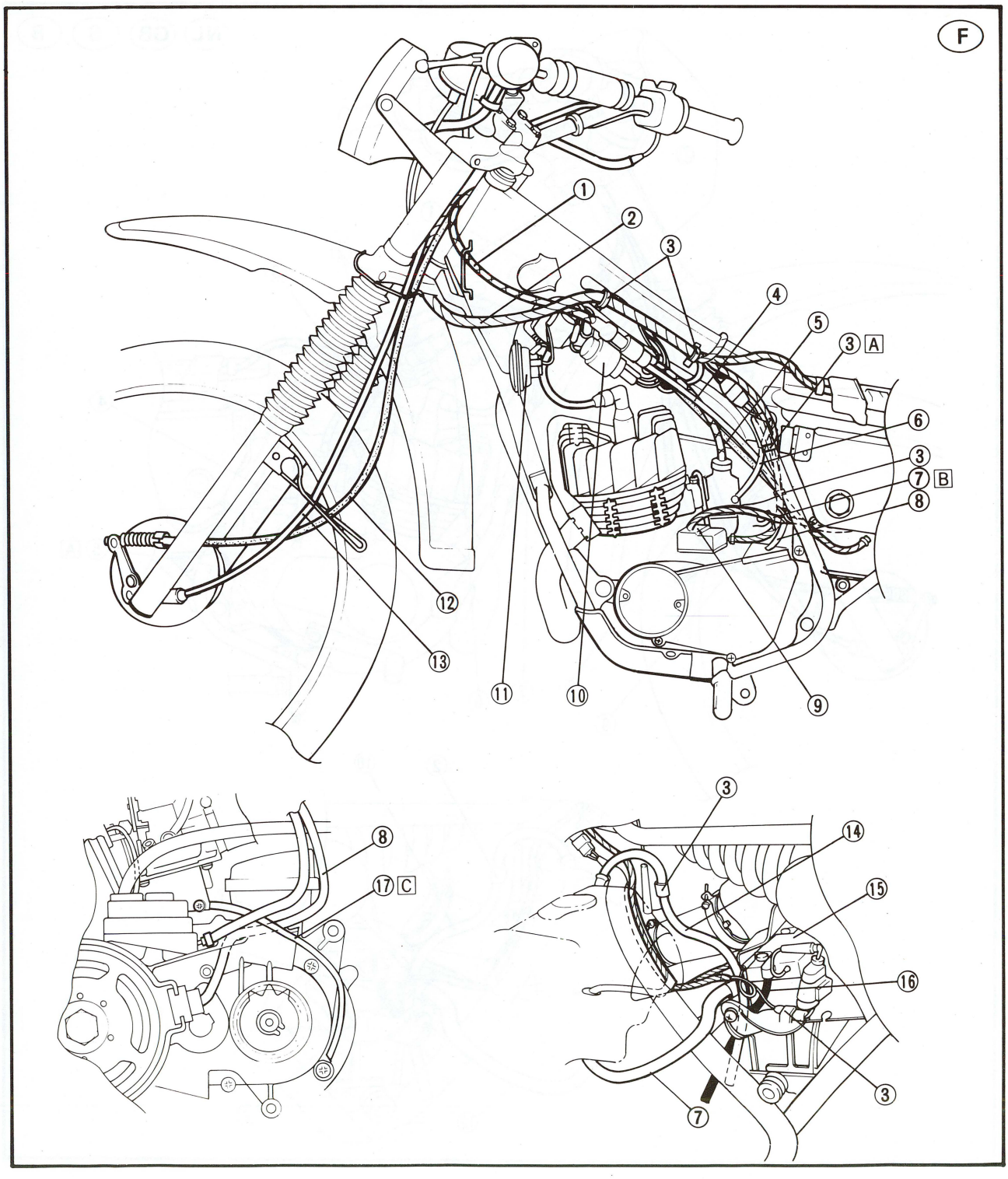


CABLE ROUTING

SPEC

① Throttle cable
② Wire harness
③ Clamp
④ Oil pump cable
⑤ Rear brake cable
⑥ Air vent hose
⑦ Oil hose
⑧ Lead (Flywheel magneto)
⑨ Oil delivery hose
⑩ Flasher relay
⑪ Horn
⑫ Front brake cable
⑬ Speedometer cable
⑭ Breather hose (Oil tank)
⑮ Battery
⑯ Breather hose (Battery)
⑰ Over flow hose (Carburetor)

[A] Pass the air vent hose through the rear shock absorber bracket.
[B] Pass the oil hose onside of cross frame.
[C] Insert the hose end into the groove on the crankcase rear end.

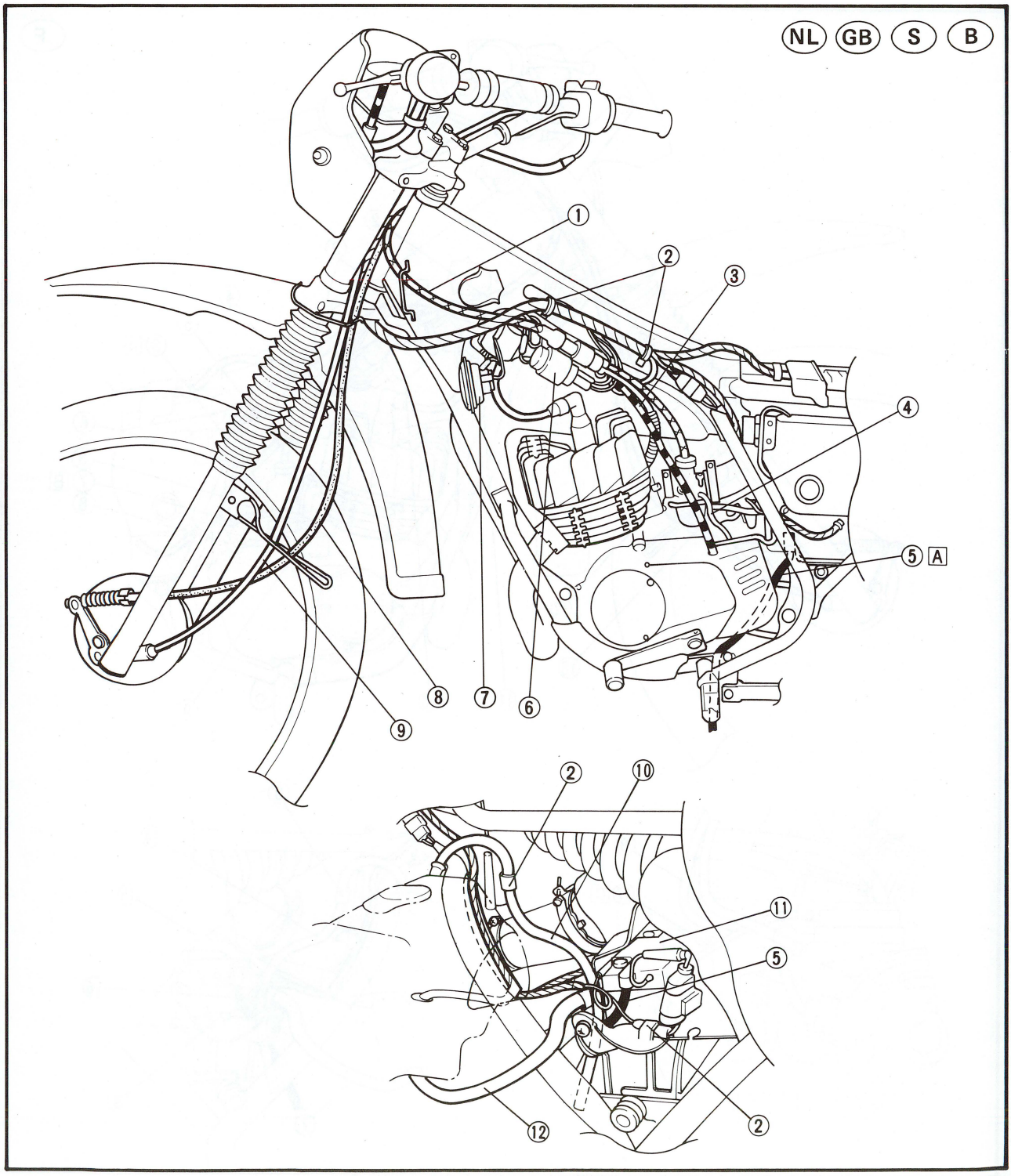


CABLE ROUTING

SPEC

① Throttle cable
② Clamp
③ Clutch cable
④ Air vent hose
⑤ Breather hose (Battery)
⑥ Flasher relay
⑦ Horn (Except NL)
⑧ Front brake cable
⑨ Speedometer cable
⑩ Breather hose (Oil tank)
⑪ Battery
⑫ Oil hose

[A] Route the breather hose

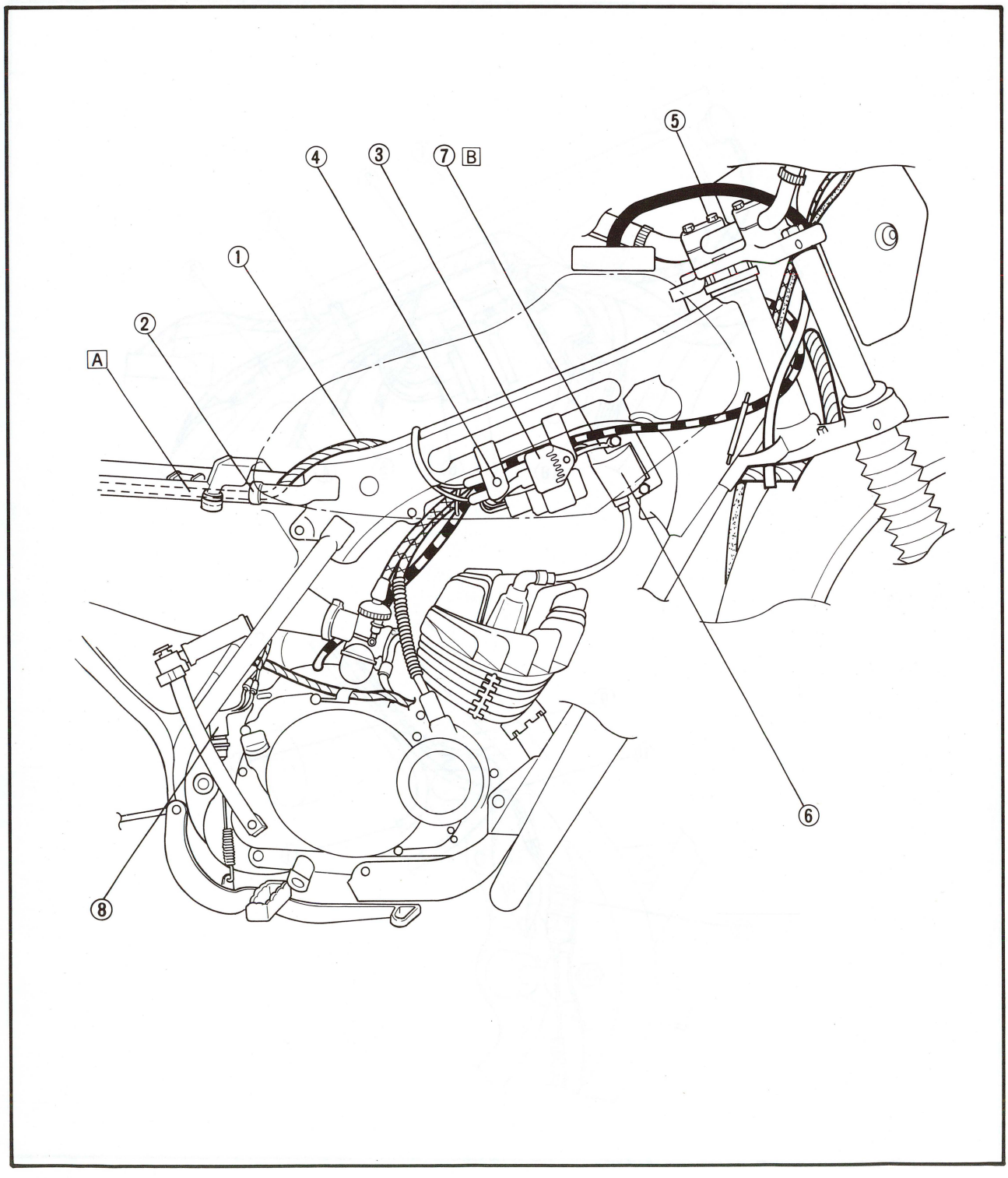


CABLE ROUTING

SPEC

① Wire harness
② Band
③ Rectifier
④ Voltage regulator
⑤ Breather hose (Fuel tank)
⑥ Ignition coil
⑦ Grounded lead
⑧ Stop switch (Rear brake)

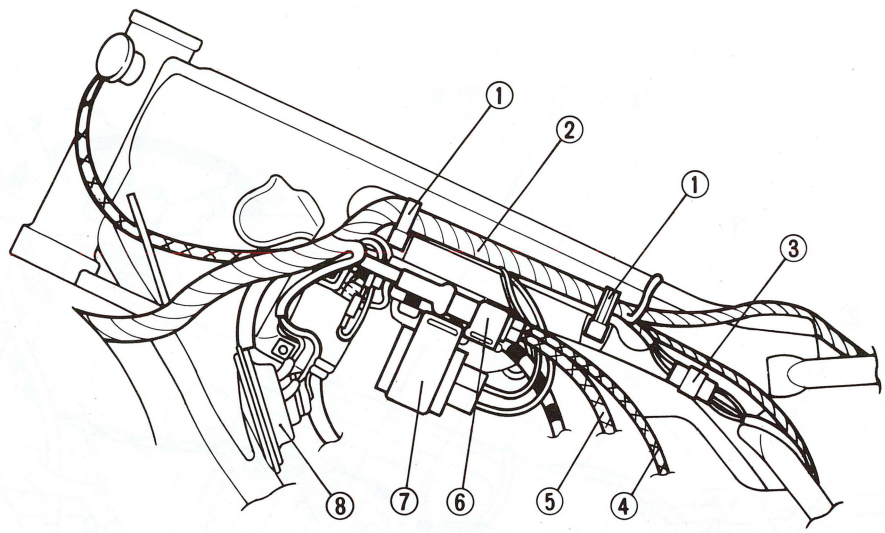
[A] Remove the wire harness slack to prevent it from touching with the muffler.
[B] Tighten the grounded lead together with the ignition coil.

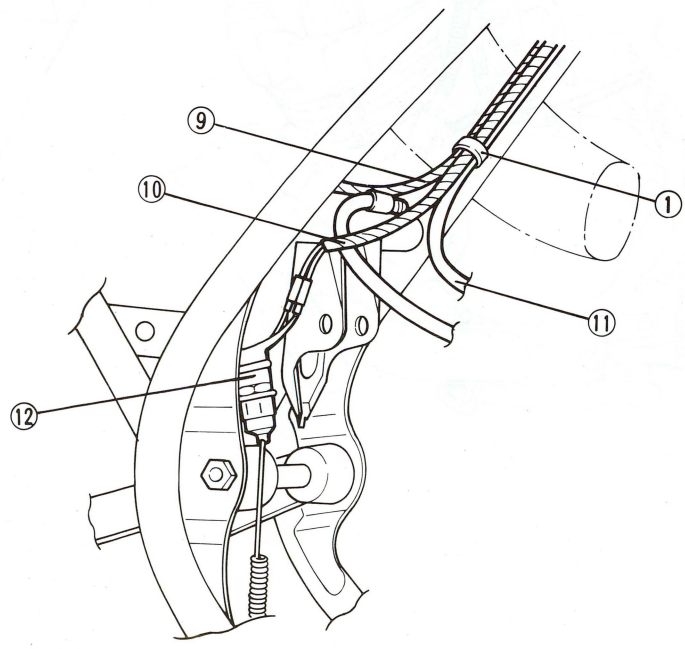


CABLE ROUTING

SPEC

① Clamp
② Wire harness
③ Coupler (Flywheel magneto lead)
④ Throttle cable
⑤ Oil pump cable
⑥ Cable cylinder
⑦ Flasher relay
⑧ Horn (Except NL)
⑨ Lead (Battery)
⑩ Lead (Stop switch)
⑪ Lead (Flywheel magneto)
⑫ Stop switch (Rear brake)





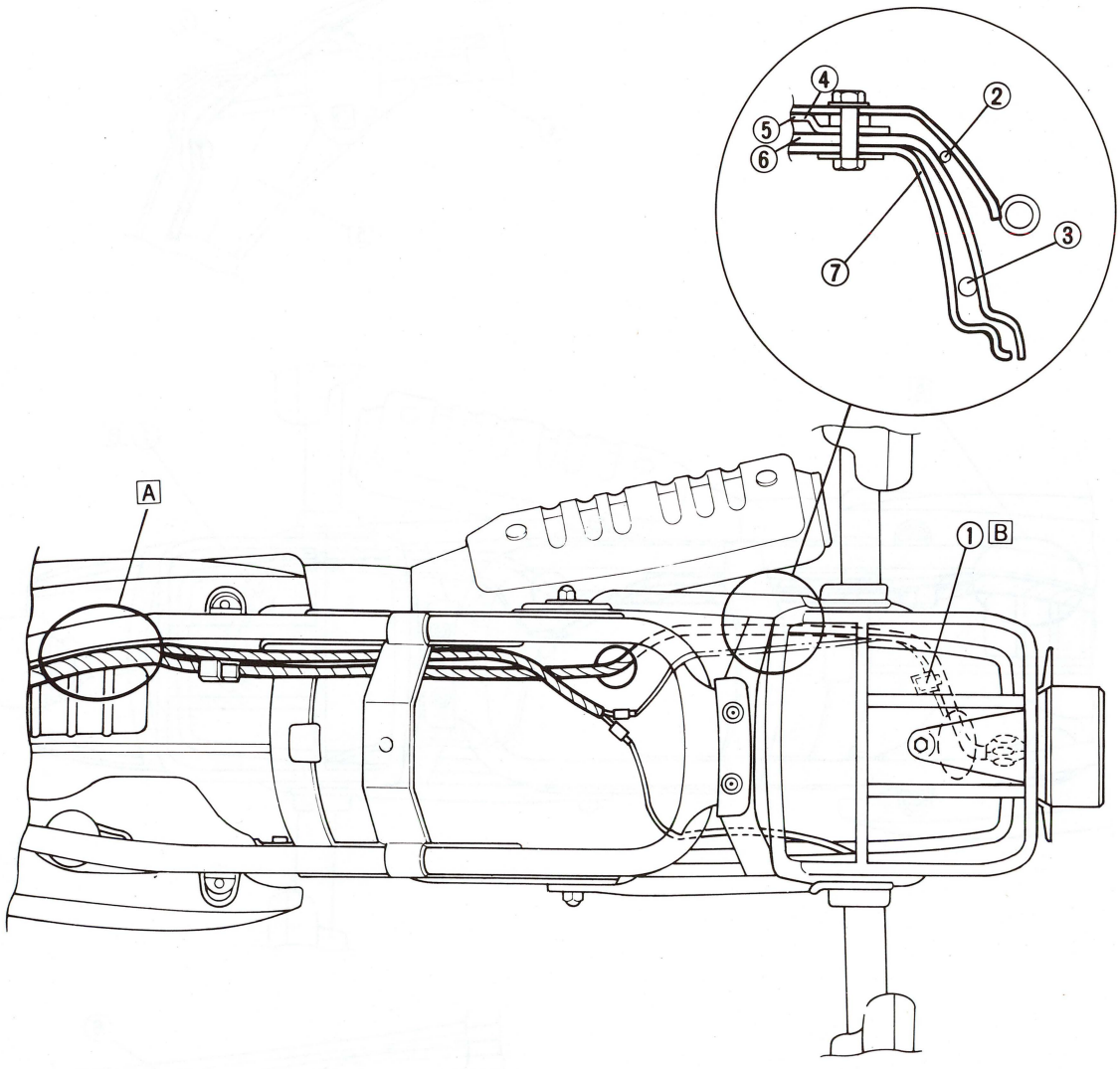
CABLE ROUTING

SPEC

① Clamp
② Lead (Rear flasher – Right)
③ Lead (Tail/Brake light)
④ Carrier
⑤ Bracket (Fender – Rear)
⑥ Fender (Rear)
⑦ Reinforcement (Fender – Rear)

[A] Remove the wire harness slack to prevent it from touching with the muffler.
[B] Route the tail/brake light lead through the groove on the reinforcement of rear fender.

F GB NL

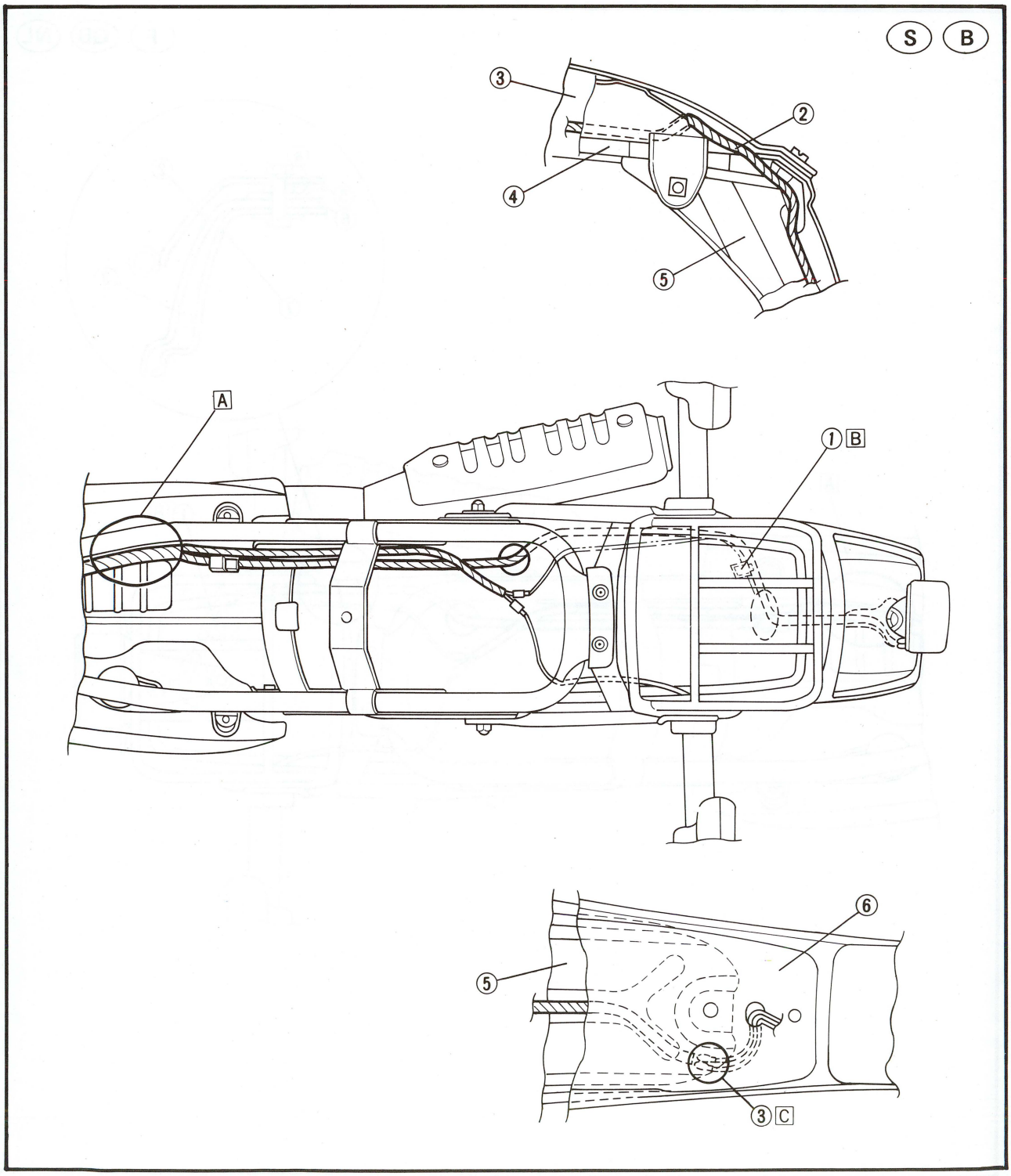


CABLE ROUTING

SPEC

① Clamp
② Lead (Tail/Brake light)
③ Fender (Rear)
④ Reinforcement 1
⑤ Reinforcement 2
⑥ Flap (Fender – Rear)

[A] Remove the wire harness slack to prevent it from touching with the muffler.
[B] Route the tail/brake light lead through the groove on the reinforcement of rear fender.
[C] Place the connecters between the rear fender flap and reinforcement.



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

Unit: km (mi)

Item	Remarks	Initial		Thereafter every		
		500 (300)	1,500 (1,000)	3,000 (2,000)	3,000 (2,000)	6,000 (4,000)
*Cylinder head/ Exhaust pipe	Decarbonize			○		○
Spark plug	Inspect/Clean or replace as required.	○	○	○	○	
Air filter	Clean/Replace as required.		○	○	○	
*Carburetor	Check operation/Adjust as required.		○	○	○	
*Brake system (Complete)	Check/Adjust as required – Repair as required.	○	○	○	○	
*Wheels and tires	Check pressure/Wheel/Balance/Runout.	○	○		○	
Fuel cock	Clean/Flush tank as required.			○		○
*Autolube pump	Check/Adjust/Air bleeding.	○	○	○		○
*Battery	Top-up/Check specific gravity and breather pipe.	○	○	○	○	
*Ignition timing	Adjust/Clean or replace as required.	○				○
Lights/Signals	Check operation/Replace as required.	○		○	○	
Fittings/Fasteners	Tighten before each trip and/or.....	○			○	
Drive chain	Check chain slack/Alignment	Every 500 (300)				
Clutch	Check/Adjust	○	○		○	
Suspension system	Check/Tighten	○			○	
V-belt**	Inspect for cracks and wear	Every 6,000 (4,000)				

* It is recommended that these item be serviced by a Yamaha dealer.
** For only (F).

LUBRICATION INTERVALS

Unit: km (mi)

Item	Remarks	Type (Recommended lubricants)	Initial			Thereafter every	
			500 (300)	1,500 (1,000)	3,000 (2,000)	3,000 (2,000)	6,000 (4,000)
Transmission oil	Replace/Warm engine before draining	SAE 10W/30, type "SE" motor oil	○		○	○	
Control/Meter cables	Apply lightly	SAE 10W30 motor oil		○	○	○	
Throttle grip/ Housing	Apply lightly	Lithium base grease	○		○	○	
*Steering bearings	Inspect thoroughly/ Pack moderately	Medium-weight wheel bearing grease			Check		○
*Speedometer gear housing	Inspect thoroughly/ Pack	Lithium base grease			○		○
Rear arm pivot shaft	Apply grease fully	Medium-weight wheel bearing grease			○		○
*Wheel bearings	Do not over-pack	Medium-weight wheel bearing grease			○		○
Drive chain	Clean and lube	SAE 10W/30 type "SE" motor oil	Every 500 (300)				
Brake pedal shaft	Apply lightly	Lithium base grease		○	○	○	
Stand shaft pivot	Apply lightly	Lighium base grease					○
*Point cam lubrication wick**	Apply very lightly	Light-weight machine oil			○	○	

* It is recommended that these items be serviced by a Yamaha dealer.
** For (F, NL, GB)

EXPLODED DIAGRAMS

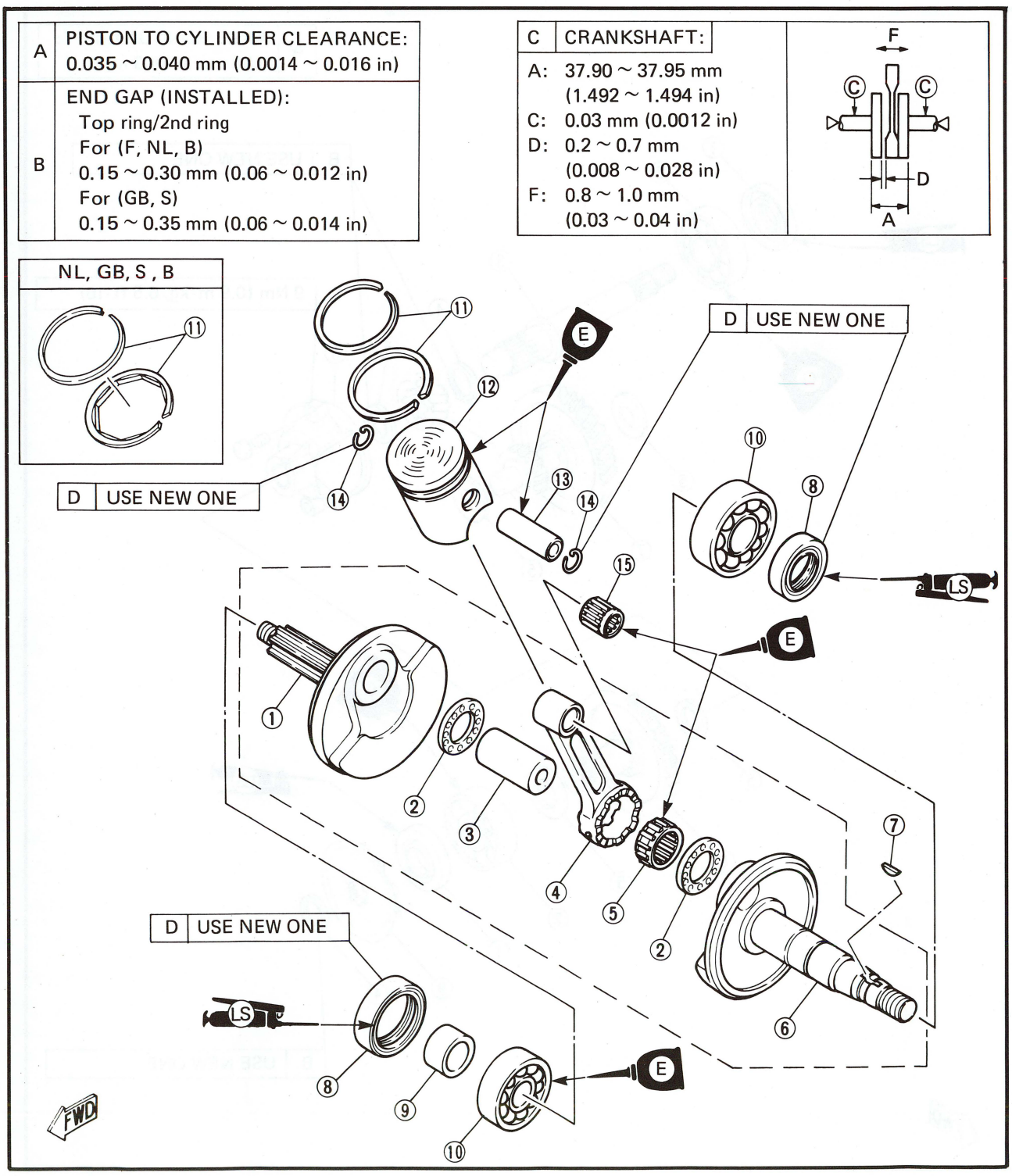
CRANKSHAFT/PISTON

① Crank (Right)
② Washer
③ Crank pin
④ Connecting rod
⑤ Big end bearing
⑥ Crank (Left)
⑦ Woodruff key
⑧ Oil seal
⑨ Collar
⑩ Bearing
⑪ Piston ring set
⑫ Piston
⑬ Piston pin
⑭ Piston pin clip
⑮ Small end bearing

A	PISTON TO CYLINDER CLEARANCE: 0.035 ~ 0.040 mm (0.0014 ~ 0.016 in)

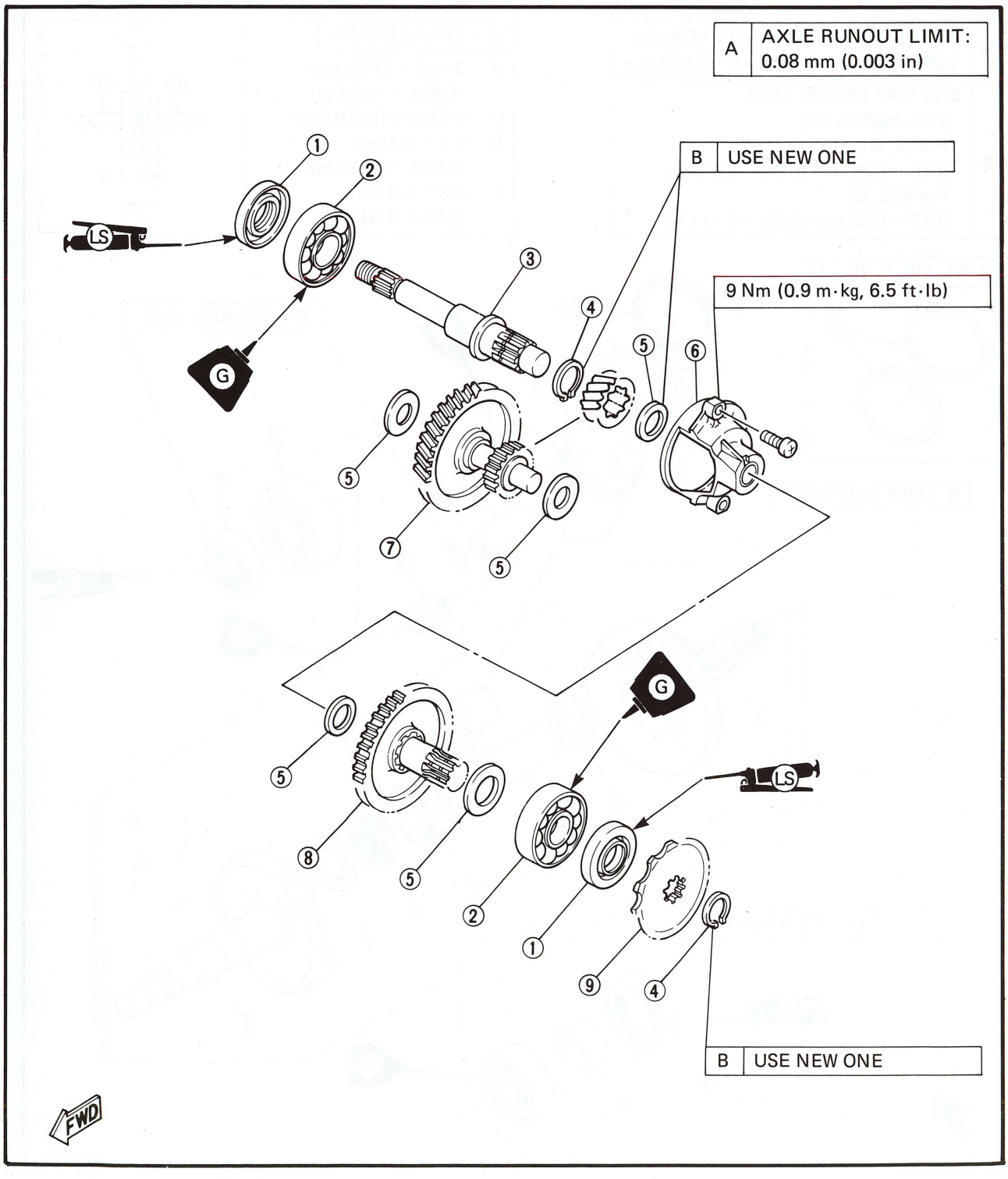
B	END GAP (INSTALLED):
	Top ring/2nd ring
	For (F, NL, B)
	0.15 ~ 0.30 mm (0.06 ~ 0.012 in)
	For (GB, S)
	0.15 ~ 0.35 mm (0.06 ~ 0.014 in)

C	CRANKSHAFT:
A:	37.90 ~ 37.95 mm (1.492 ~ 1.494 in)
C:	0.03 mm (0.0012 in)
D:	0.2 ~ 0.7 mm (0.008 ~ 0.028 in)
F:	0.8 ~ 1.0 mm (0.03 ~ 0.04 in)



TRANSMISSION For (F)

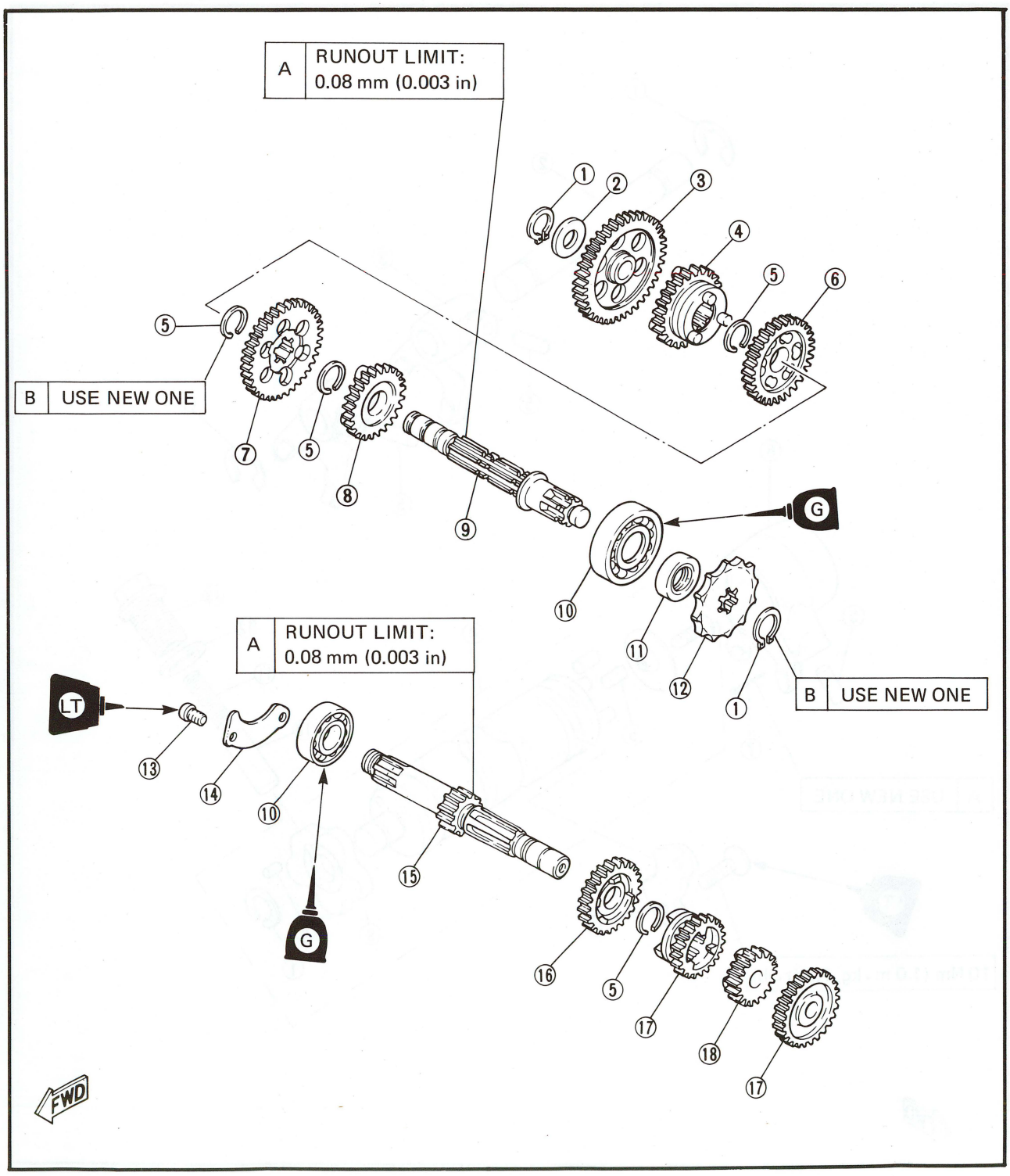
① Oil seal
② Bearing
③ Drive axle
④ Circlip
⑤ Washer
⑥ Distance collar
⑦ Counter axle
⑧ Drive axle
⑨ Drive sprocket



TRANSMISSION For (NL, GB, S, B)

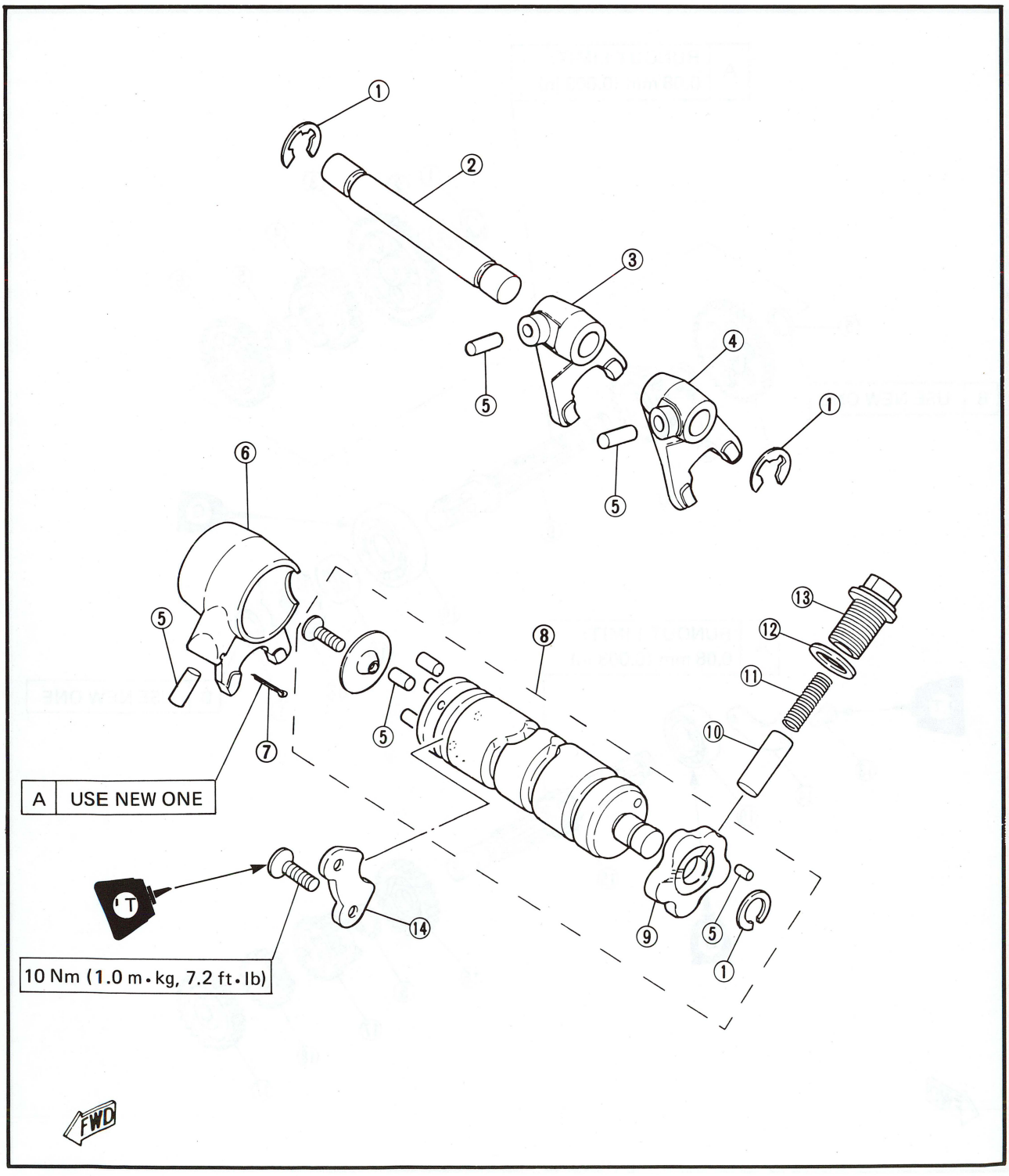
① Circlip
② Washer
③ 1st wheel gear (39T)
④ 4th wheel gear (27T)
⑤ Circlip
⑥ 3rd wheel gear (30T)
⑦ 2nd wheel gear (34T)
⑧ 5th wheel gear (25T)*
⑨ Drive axle
⑩ Bearing
⑪ Oil seal
⑫ Drive sprocket
⑬ Screw
⑭ Bearing stopper plate
⑮ Main axle (12T)
⑯ 4th pinion gear (24T)
⑰ 3rd pinion gear (21T)
⑱ 2nd pinion gear (17T)
⑲ 5th pinion gear (26T)*

* For GB, B



SHIFTER For (NL, GB, S, B)

① Circlip
② Guide bar
③ Shift fork 2
④ Shift fork 3
⑤ Pin
⑥ Shift fork 1
⑦ Cotter pin
⑧ Shift cam
⑨ Segmento
⑩ Shift cam stopper
⑪ Spring
⑫ Gasket
⑬ Bolt
⑭ Shift cam stopper plate

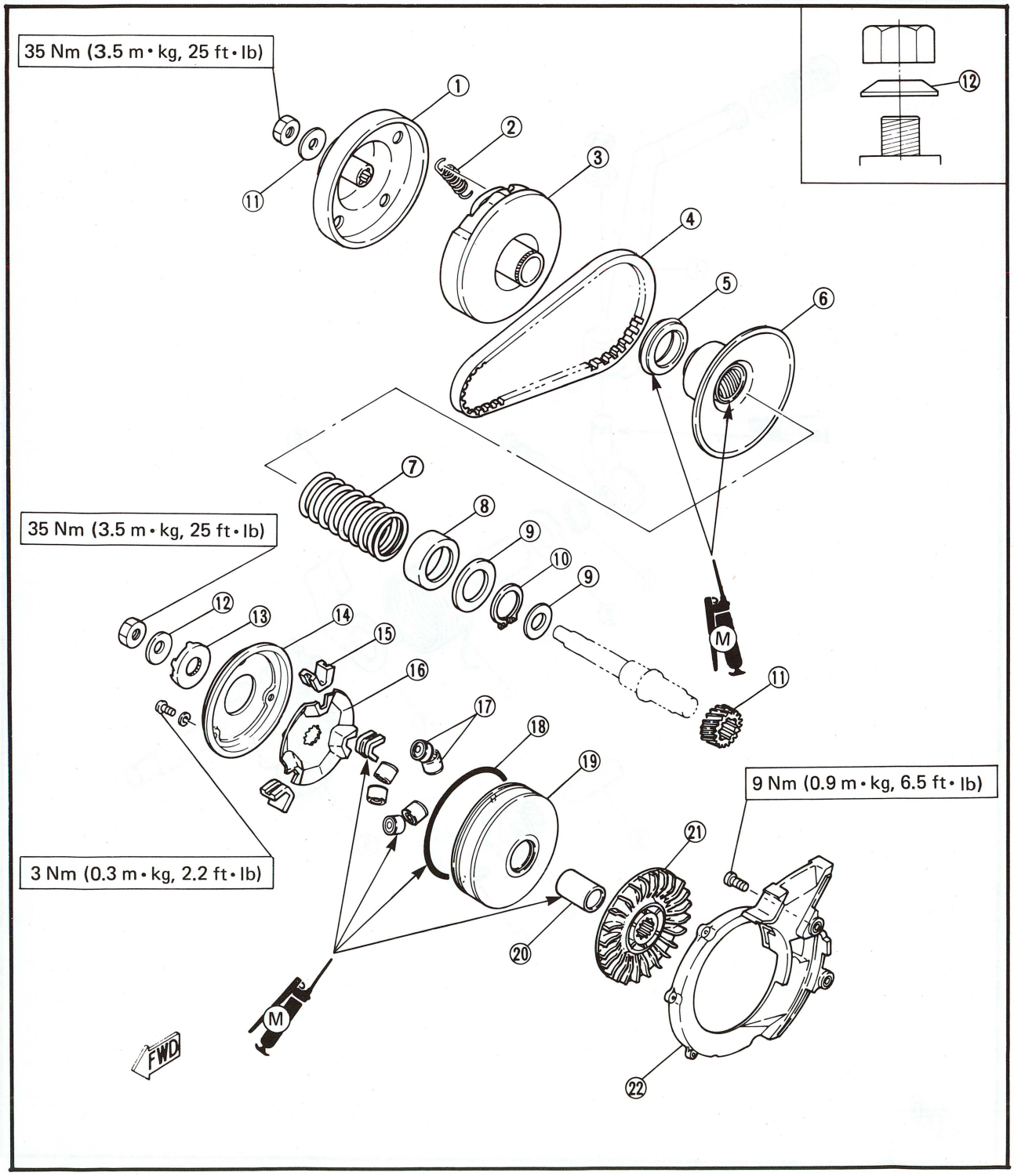


V-BELT DRIVE For (F)

① Clutch housing
② Spring (Clutch)
③ Clutch/Fixed sheave
④ V-belt
⑤ Oil seal
⑥ Secondary sliding sheave
⑦ Spring (Sliding)
⑧ Collar
⑨ Washer
⑩ Circlip
⑪ Primary reduction gear
⑫ Washer (Conical spring)
⑬ Holding plate
⑭ Primary sheave cap
⑮ Slider bushing
⑯ Cam plate
⑰ Weight
⑱ O-ring
⑲ Primary sliding sheave
⑳ Collar
㉑ Primary fixed sheave
㉒ Air shroud

CAUTION:

Be sure to remove the excessive grease with a thinner to prevent slipping of V-belt.

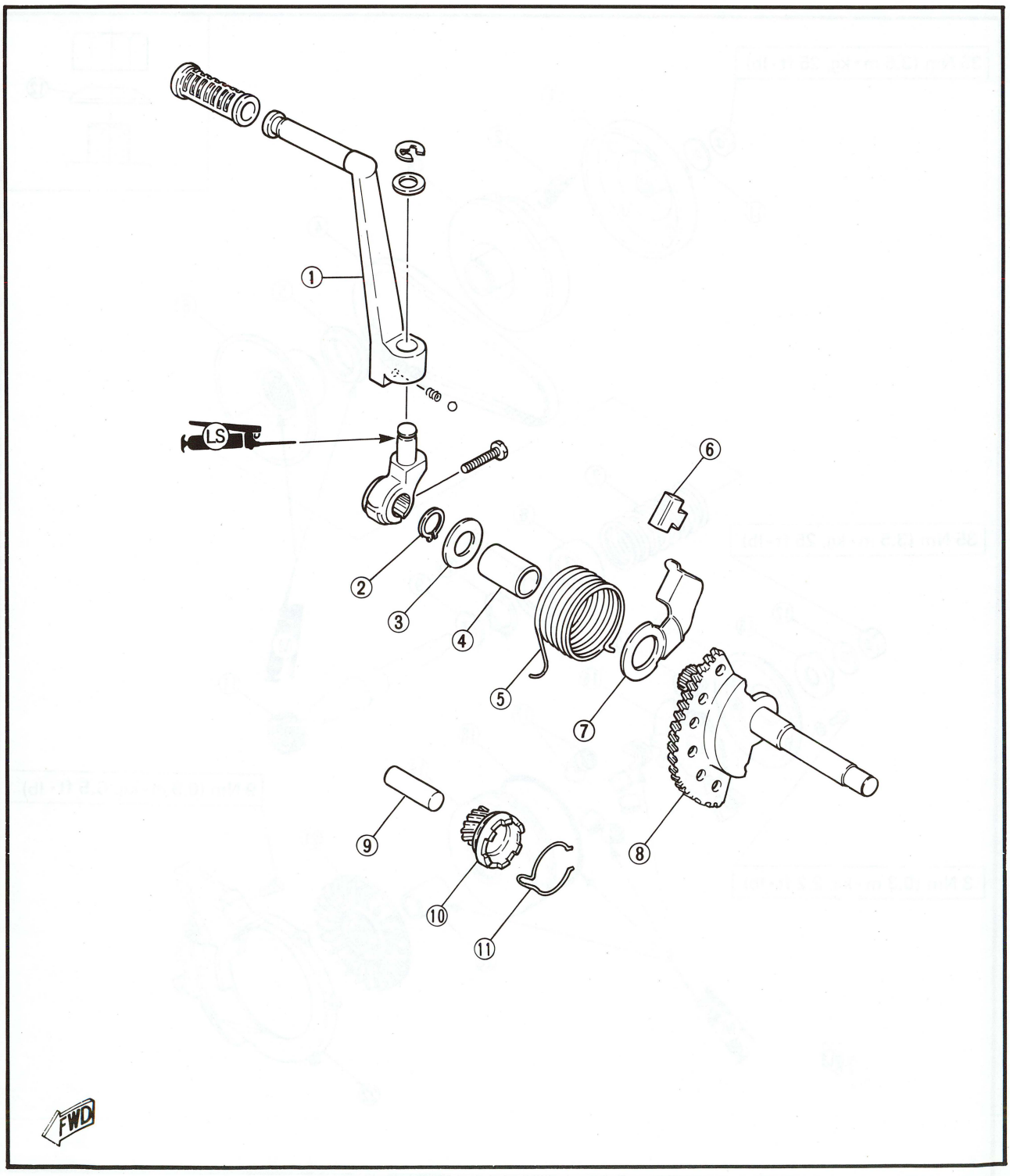


KICK STARTER

① Kick crank
② Circlip
③ Washer
④ Collar
⑤ Spring
⑥ Protecter
⑦ Retainer
⑧ Kick axle
⑨ Shaft (Kick pinion)
⑩ Kick pinion
⑪ Clip

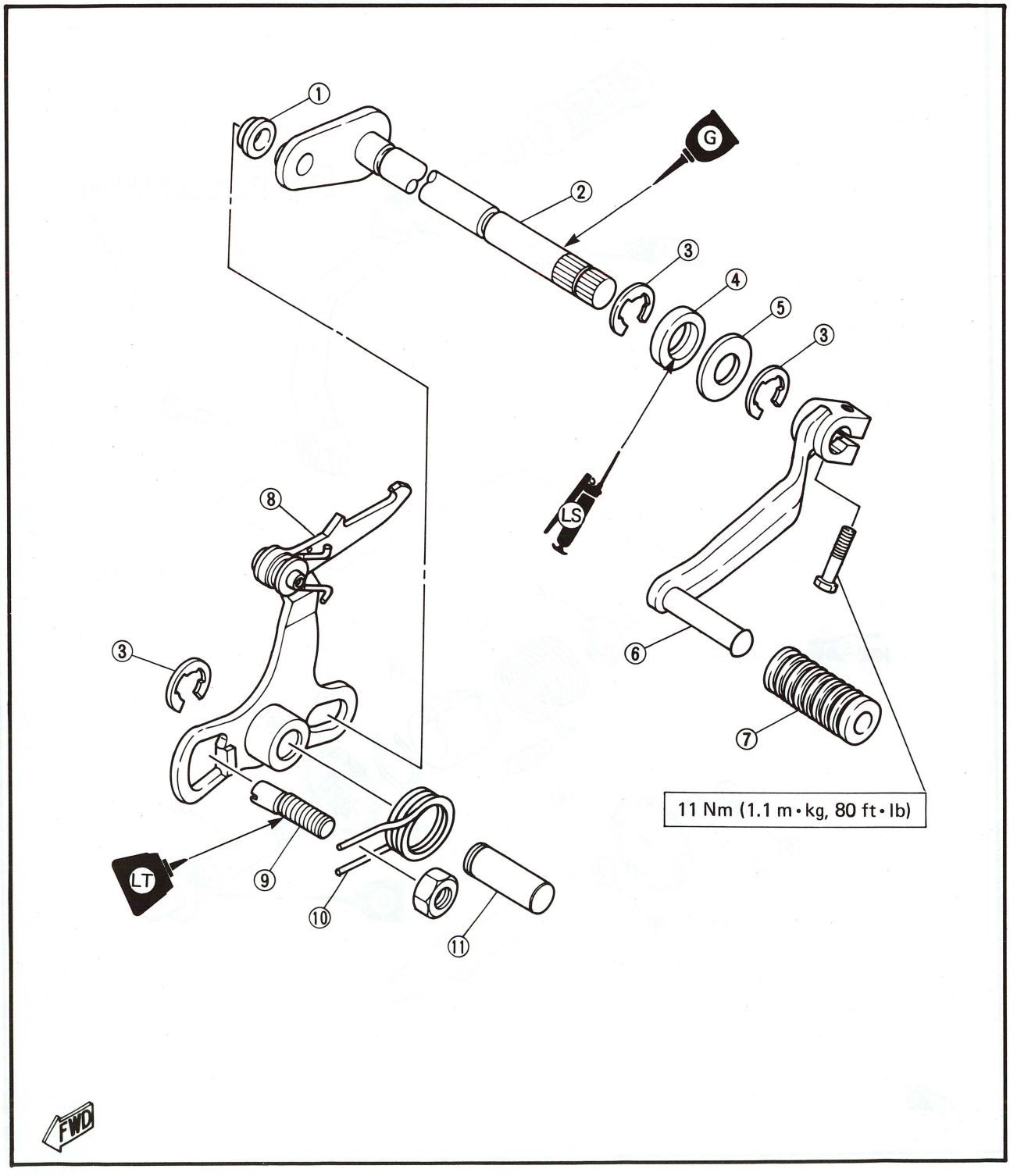
NOTE:
Lightly coat the teeth of the kick pinion and kick axle.

CAUTION:
Be sure to remove the excessive grease to prevent slipping of V-belt.



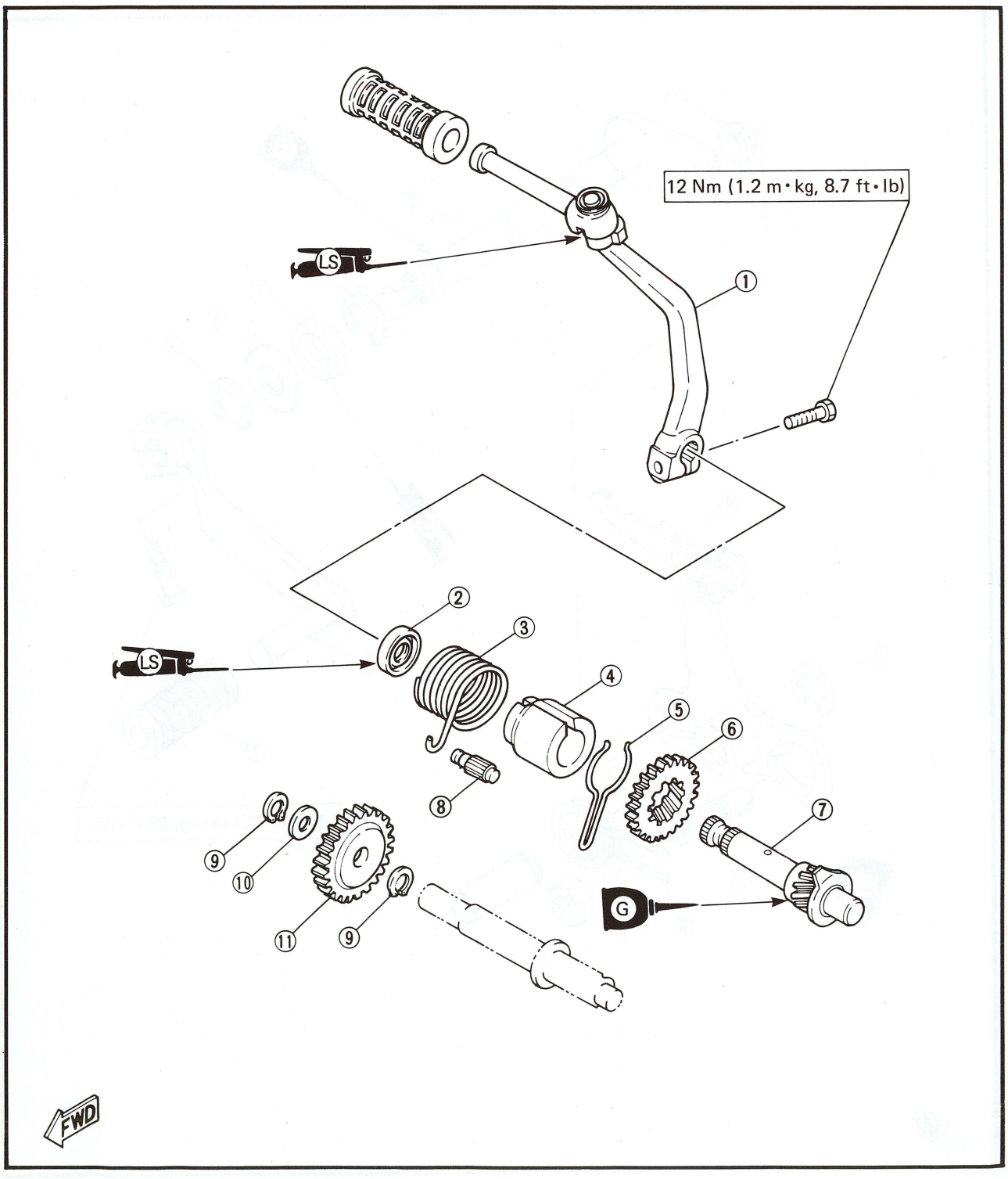
SHIFTER For (NL, GB, S, B)

① Roller
② Shift shaft
③ Circlip
④ Oil seal
⑤ Washer
⑥ Shift pedal
⑦ Cover
⑧ Shift lever
⑨ Screw
⑩ Spring
⑪ Shaft



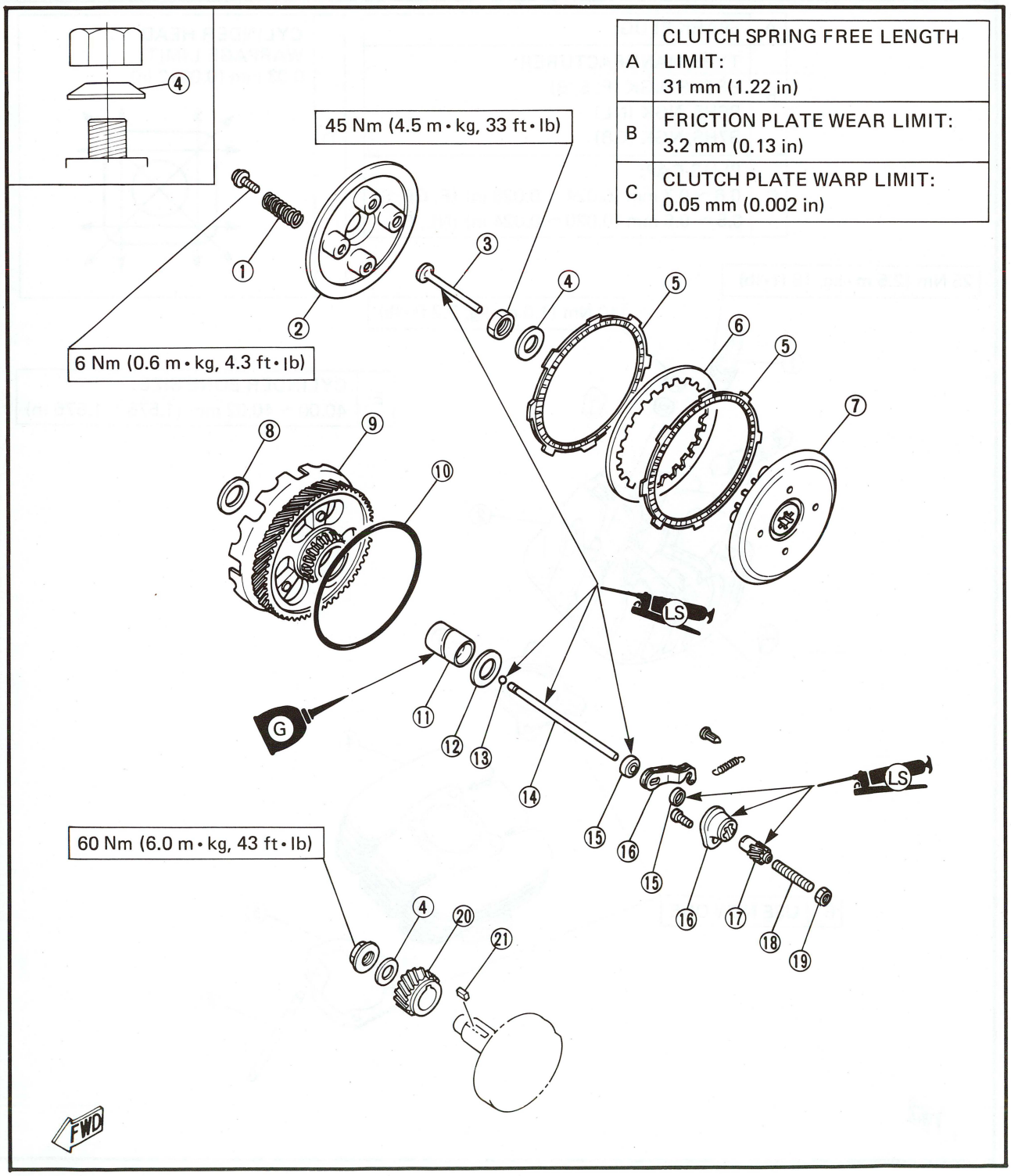
KICK AXLE For (NL, GB, S, B)

① Kick crank
② Oil seal
③ Spring
④ Collar
⑤ Clip
⑥ Kick gear (24T)
⑦ Kick axle
⑧ Spring stopper
⑨ Circlip
⑩ Washer
⑪ Kick idle gear (25T)



CLUTCH For (NL, GB, S, B)

① Clutch spring
② Pressure plate
③ Push rod #1
④ Washer (Conical spring)
⑤ Friction plate
⑥ Clutch plate
⑦ Clutch boss
⑧ Plain washer
⑨ Clutch housing
⑩ O-ring
⑪ Collar
⑫ Thrust washer
⑬ Ball
⑭ Push rod #2
⑮ Seal (Push rod)
⑯ Push lever
⑰ Push screw
⑱ Adjusting screw
⑲ Locknut
⑳ Primary drive gear (19T)
㉑ Straight key

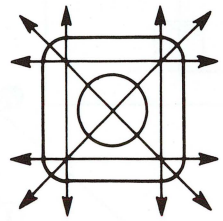


CYLINDER HEAD/CYLINDER

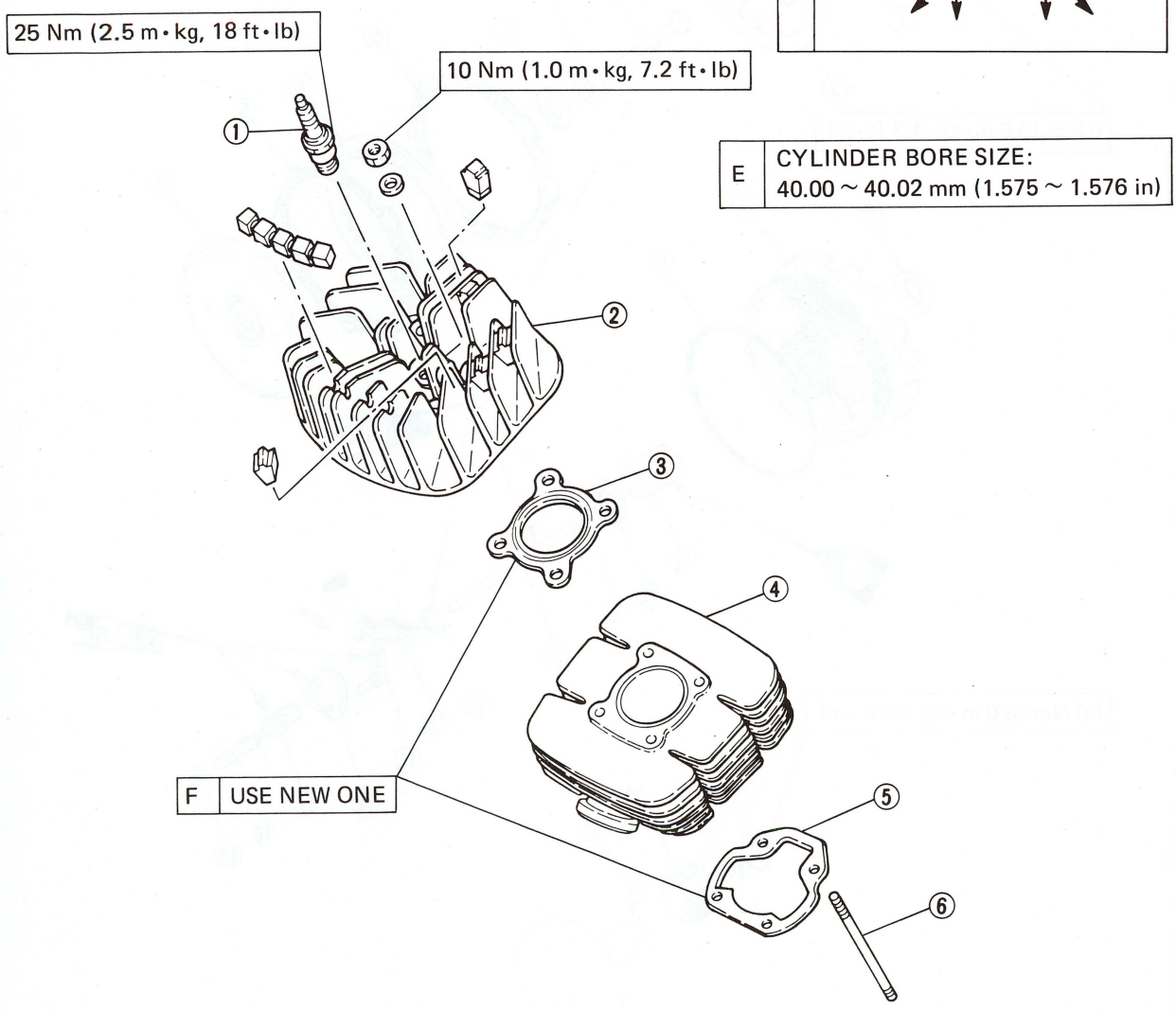
① Spark plug
② Cylinder head
③ Gasket (Cylinder head)
④ Cylinder
⑤ Gasket (Cylinder)
⑥ Stud bolt

A	SPARK PLUG:
B	TYPE/MANUFACTURER: BR6HS, NGK (F, S, B) B6HS, NGK (NL) B7HS, NGK (GB)
C	PLUG GAP: 0.6 ~ 0.7 mm (0.024 ~ 0.028 in) (F, GB, S) 0.5 ~ 0.6 mm (0.020 ~ 0.024 in) (NL, B)

D	CYLINDER HEAD WARPAGE LIMIT: 0.03 mm (0.0012 in)



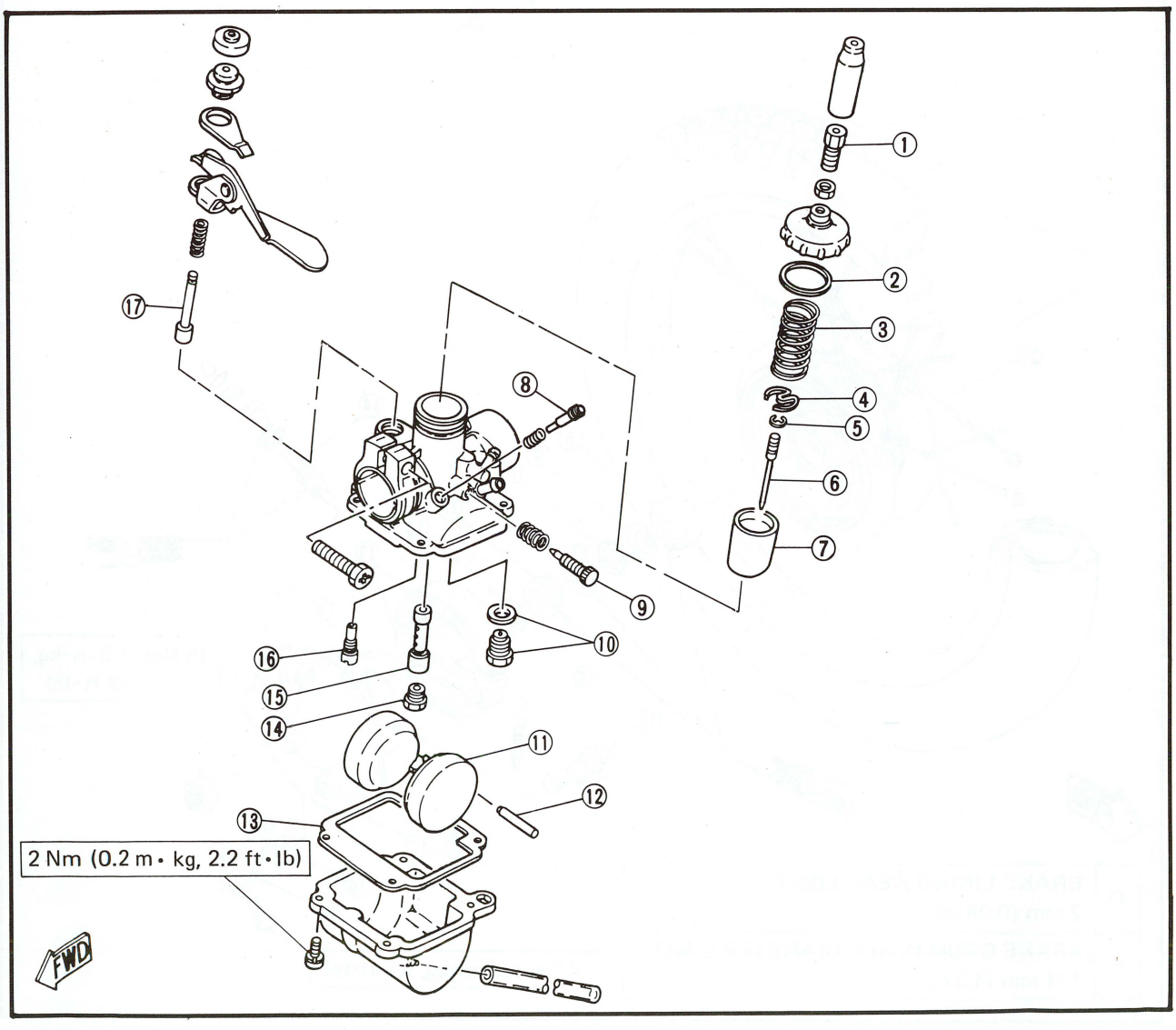
E	CYLINDER BORE SIZE: 40.00 ~ 40.02 mm (1.575 ~ 1.576 in)



CARBURETOR

① Cable adjusting screw
② Gasket
③ Spring (Throttle valve)
④ Spring seat
⑤ Clip
⑥ Jet needle
⑦ Throttle valve
⑧ Air screw
⑨ Throttle stop screw
⑩ Valve seat assembly
⑪ Float
⑫ Float pin
⑬ Gasket (Float chamber)
⑭ Main jet
⑮ Needle jet
⑯ Pilot jet
⑰ Starter plunger

SPECIFICATIONS						
DESTINATION		(F)	(NL)	(GB)	(S)	(B)
I.D. MARK		5N6 00	1JY 00	5M6 00	29J 00	29H 00
MAIN JET	(M.J)	#114	#86	#88	#88	#100
AIR JET	(A.J)	2.5	2.5	2.5	2.0	2.5
JET NEEDLE	(J.N)	3S41-2	3N20-4/5	059-2	049-2	4I5-2
NEEDLE JET	(N.J)	#80	2.085	2.080	2.080	E-6
CUT AWAY	(C.A)	1.0	2.0	1.0	1.5	2.5
PILOT JET	(P.J)	#40	#40	#40	#34	#27.5
AIR SCREW	(A.S)	1-1/2	1-1/8	1-1/2	1-3/4	1-1/4
STARTER JET	(G.S)	#50	#40	#50	#50	#30
FLOAT HEIGHT	(F.H)	18 ~ 20 mm (0.71 ~ 0.79 in)			20 ~ 22 mm	18 ~ 19 mm
ENGINE IDLE SPEED		1,200 ~ 1,300 r/min				

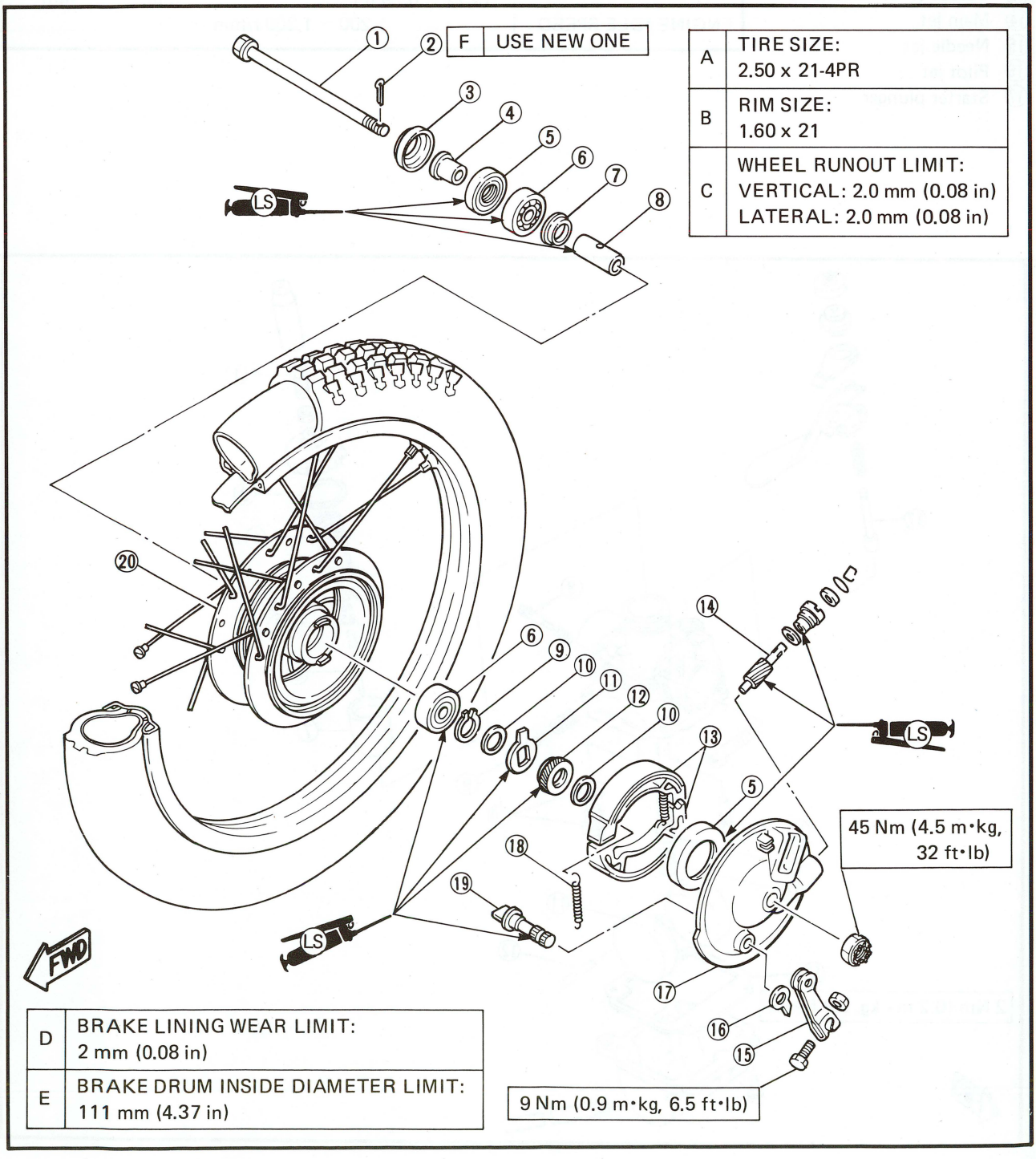


FRONT WHEEL

① Axle (Front)
② Cotter pin
③ Hub dust cover
④ Collar
⑤ Oil seal
⑥ Bearing
⑦ Frange spacer
⑧ Spacer
⑨ Circlip
⑩ Washer
⑪ Meter clutch
⑫ Drive gear
⑬ Brake shoe
⑭ Driven gear
⑮ Brake camshaft lever
⑯ Wear indicator
⑰ Brake shoe plate
⑱ Spring (Brake shoe)
⑲ Brake camshaft
⑳ Hub (Front)

TIRE PRESSURE (COLD):		
Load	Front	Rear
Up to 90 kg (198 lb) load*	180 kPa (1.8 kg/cm², 26 psi)	200 kPa (2.0 kg/cm², 28 psi)
90 kg (198 lb) ~ Maximum load*	200 kPa (2.0 kg/cm², 28 psi)	230 kPa (2.3 kg/cm², 32 psi)

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

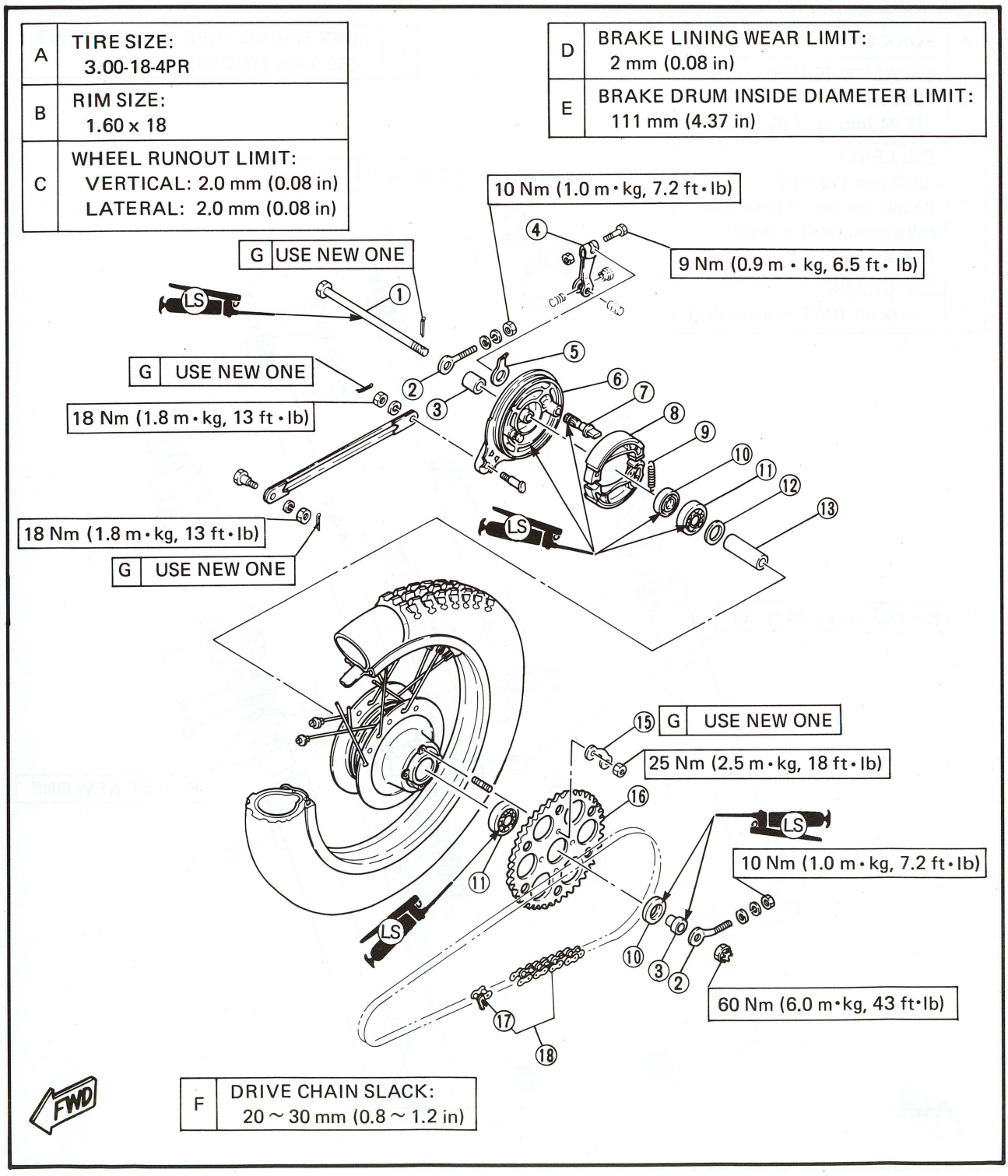


A	TIRE SIZE: 2.50 x 21-4PR
B	RIM SIZE: 1.60 x 21
C	WHEEL RUNOUT LIMIT: VERTICAL: 2.0 mm (0.08 in) LATERAL: 2.0 mm (0.08 in)

D	BRAKE LINING WEAR LIMIT: 2 mm (0.08 in)
E	BRAKE DRUM INSIDE DIAMETER LIMIT: 111 mm (4.37 in)

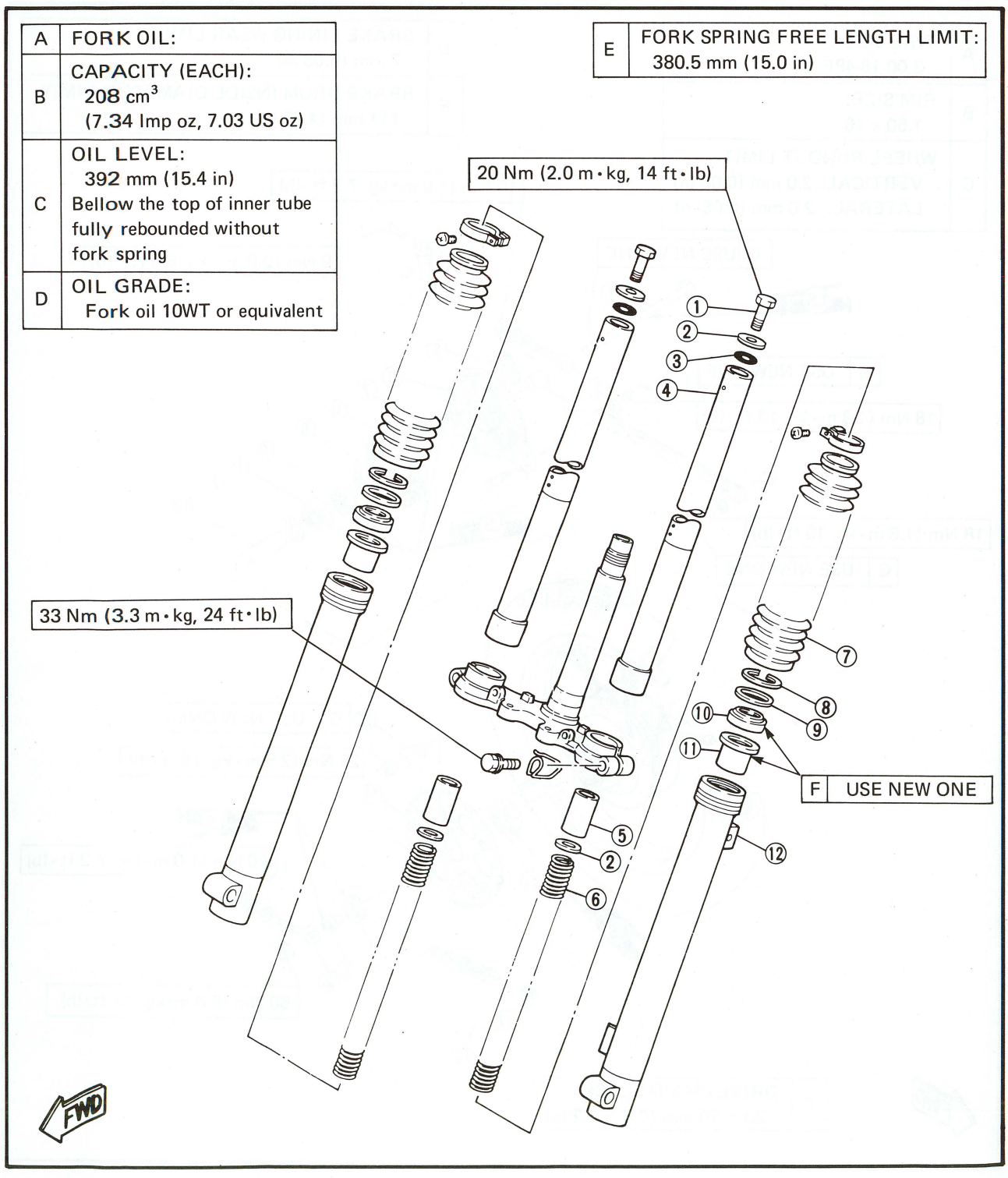
REAR WHEEL

① Axle (Rear)
② Chain puller
③ Collar
④ Brake camshaft lever
⑤ Wear indicator
⑥ Brake shoe plate
⑦ Brake camshaft
⑧ Brake shoe
⑨ Spring (Brake shoe)
⑩ Oil seal
⑪ Bearing
⑫ Washer
⑬ Spacer
⑭ Tension bar
⑮ Lock washer
⑯ Driven sprocket
⑰ Joint (Drive chain)
⑱ Drive chain



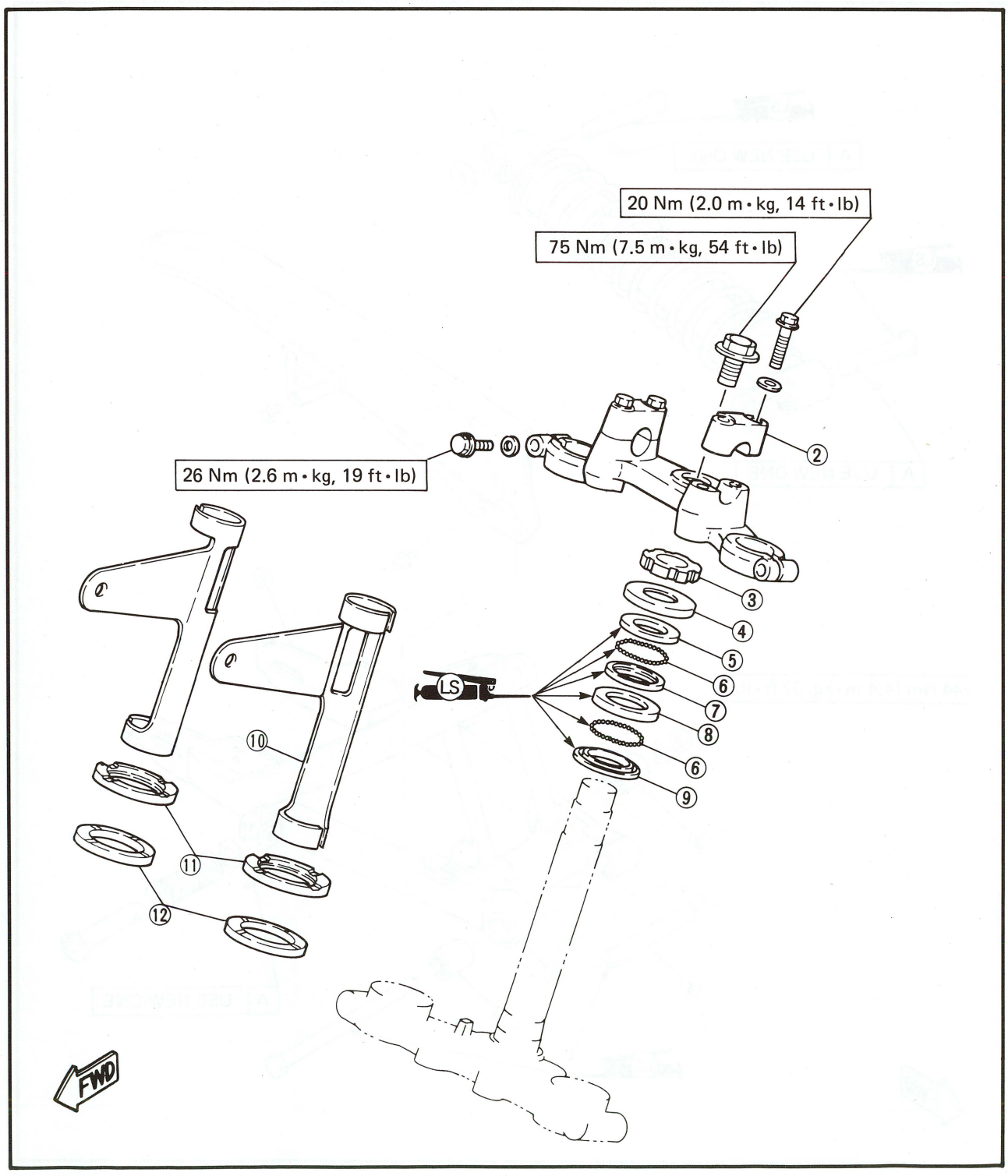
FRONT FORK

① Cap bolt
② Washer
③ O-ring
④ Inner tube
⑤ Spacer
⑥ Fork spring
⑦ Boot (Front fork)
⑧ Circlip
⑨ Washer
⑩ Oil seal
⑪ Slide bush
⑫ Outer tube



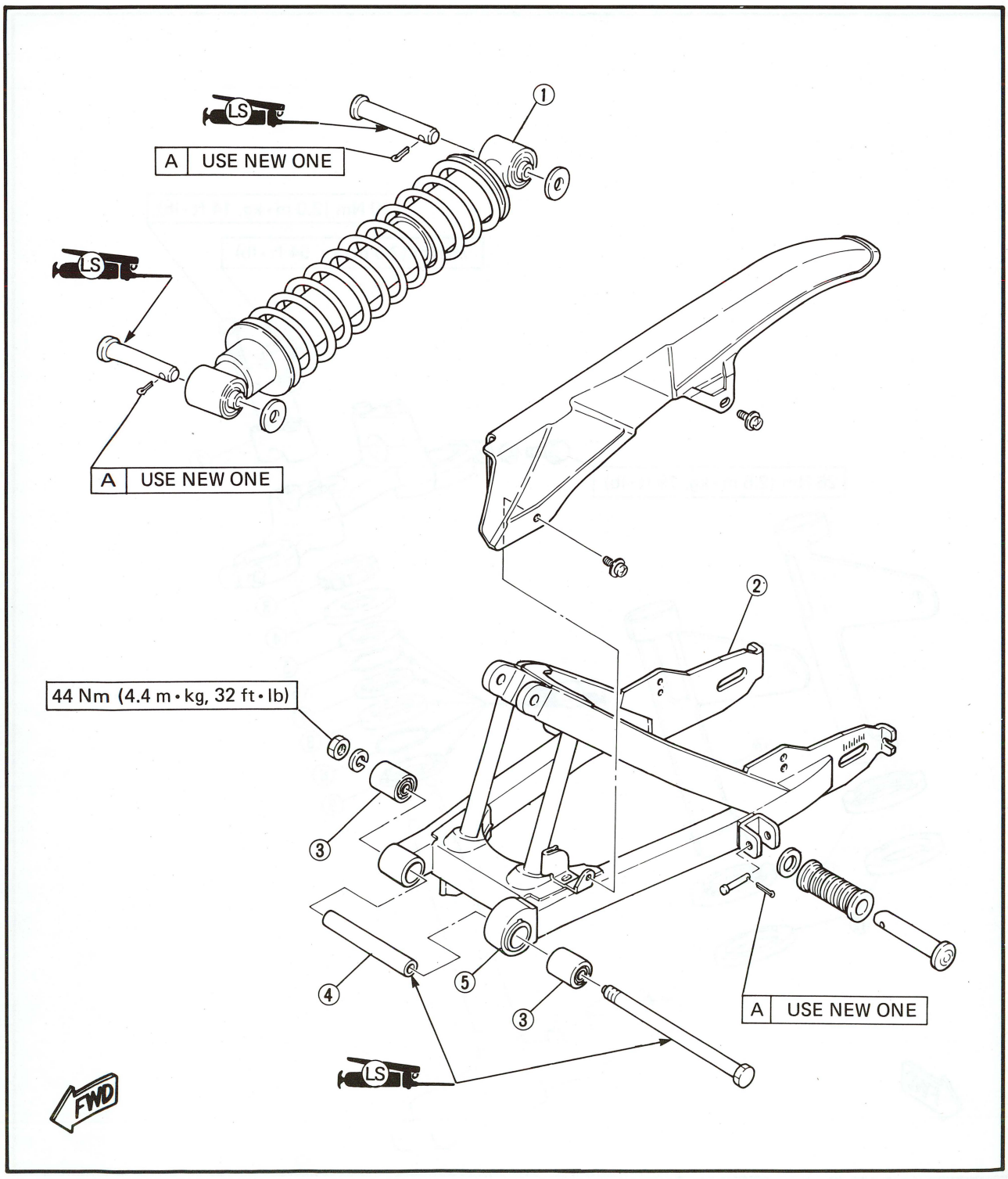
STEERING HEAD AND HANDLEBAR

① Handlebar
② Bracket (Handlebar)
③ Ring nut
④ Cover (Bearing race)
⑤ Bearing race 1 (Upper)
⑥ Bearing balls
⑦ Bearing race 2 (Upper)
⑧ Bearing race 2 (Lower)
⑨ Bearing race 1 (Lower)
⑩ Headlight stay
⑪ Washer
⑫ Gasket



REAR SHOCK ABSORBER AND SWINGARM

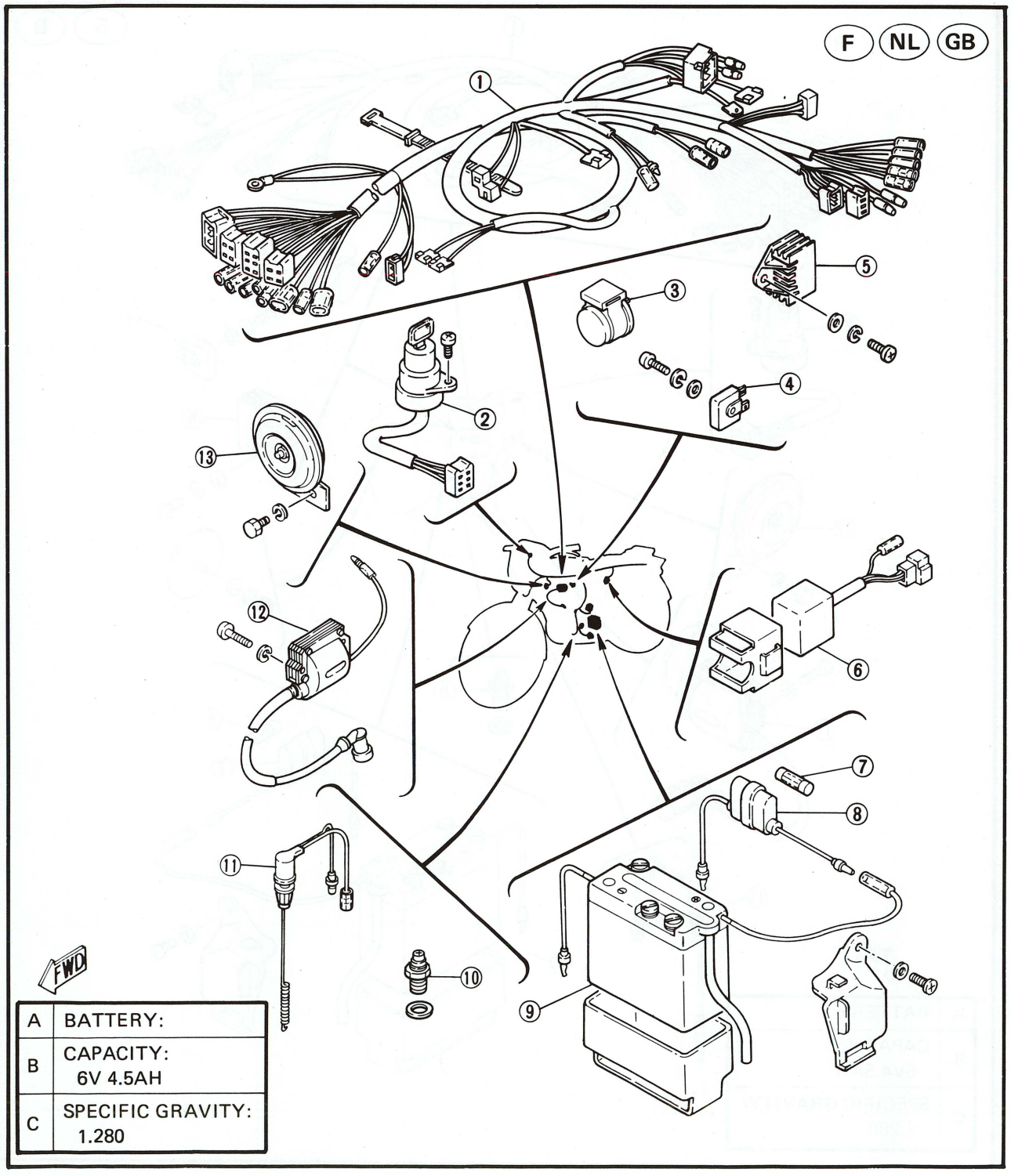
① Rear shock absorber
② Swingarm
③ Bush
④ Collar
⑤ Chain guide



ELECTRICAL COMPONENTS For (F, NL, GB)

① Wire harness
② Main switch
③ Flasher relay
④ Rectifier
⑤ Voltage regulator
⑥ CDI unit
⑦ Fuse
⑧ Fuse holder
⑨ Battery
⑩ Neutral switch
⑪ Rear brake switch
⑫ Ignition coil
⑬ Horn

SPECIFICATIONS	RESISTANCE
IGNITION COIL:	
PRIMARY	0.85 ~ 1.15Ω
SECONDARY	5.0 ~ 6.8kΩ
SPARK PLUG CAP:	5kΩ



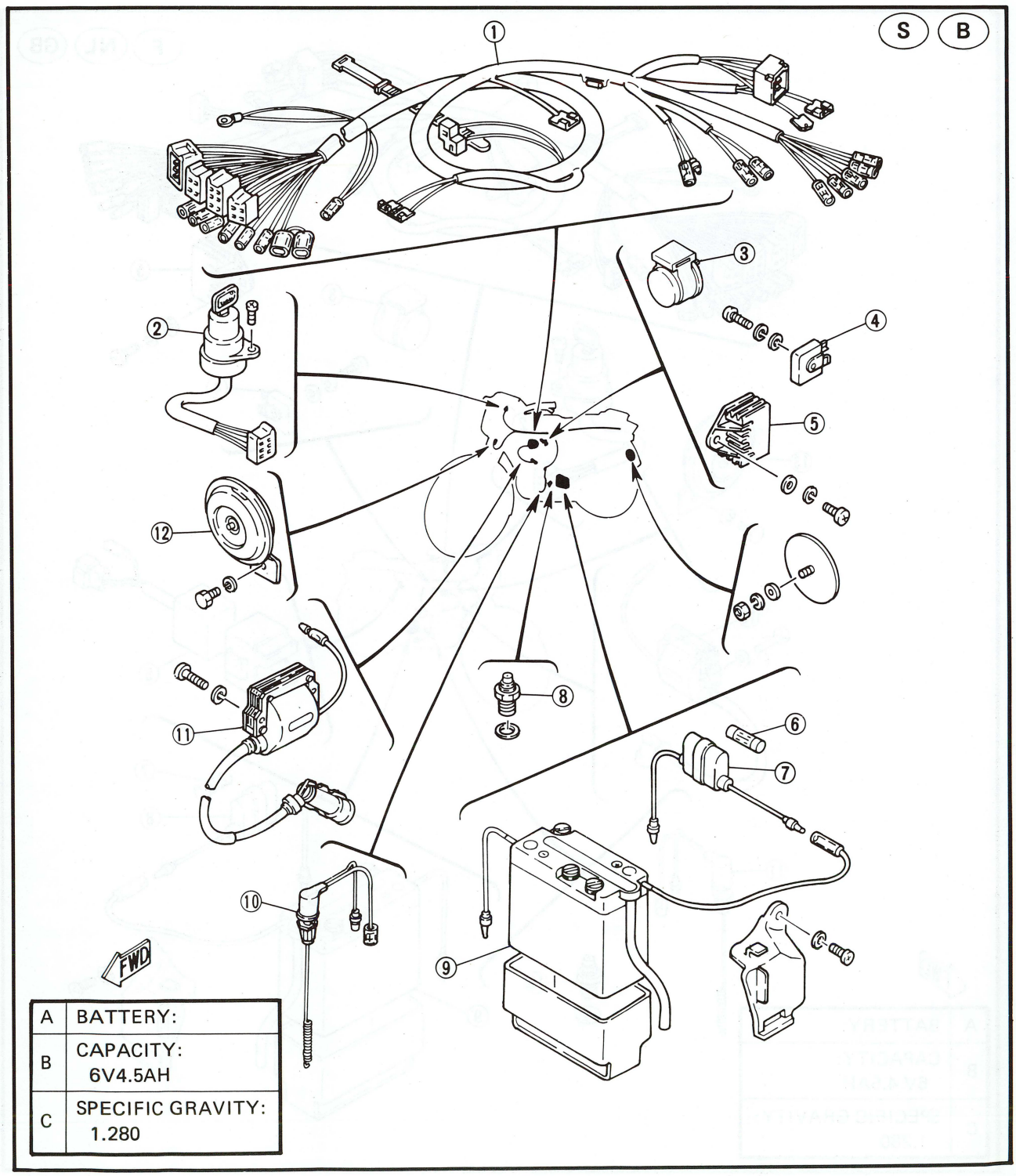
A	BATTERY:
B	CAPACITY: 6V 4.5AH
C	SPECIFIC GRAVITY: 1.280

ELECTRICAL COMPONENTS For (S, B)

① Wireharness
② Main switch
③ Flasher relay
④ Rectifier
⑤ Voltage regulator
⑥ Fuse
⑦ Fuse holder
⑧ Neutral switch
⑨ Battery
⑩ Rear brake switch*
⑪ Ignition coil
⑫ Horn**

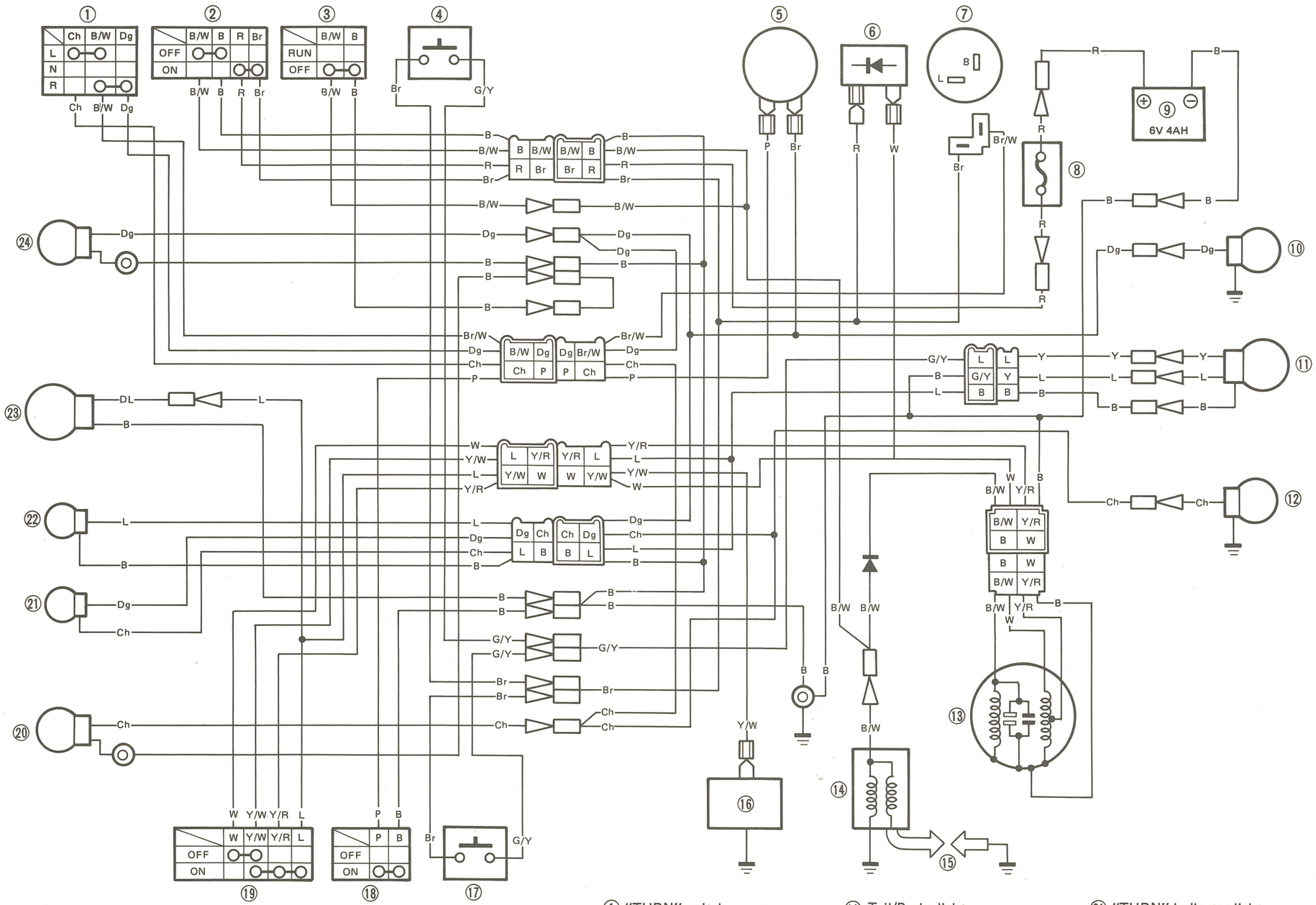
*: Except (F)
**: Except (NL)

SPECIFICATIONS	RESISTANCE
IGNITION COIL:	
PRIMARY	0.85 ~ 1.15Ω
SECONDARY	5.0 ~ 6.8kΩ
SPARK PLUG CAP:	5kΩ (F, GB) 5.5kΩ (NL)



A	BATTERY:
B	CAPACITY: 6V4.5AH
C	SPECIFIC GRAVITY: 1.280

DT50MX WIRING DIAGRAM (F)



① "TURN" switch
② Main switch
③ "ENGINE STOP" switch
④ Front brake switch
⑤ Horn
⑥ Rectifier
⑦ Flasher relay
⑧ Fuse
⑨ Battery
⑩ Rear flasher light (Right)

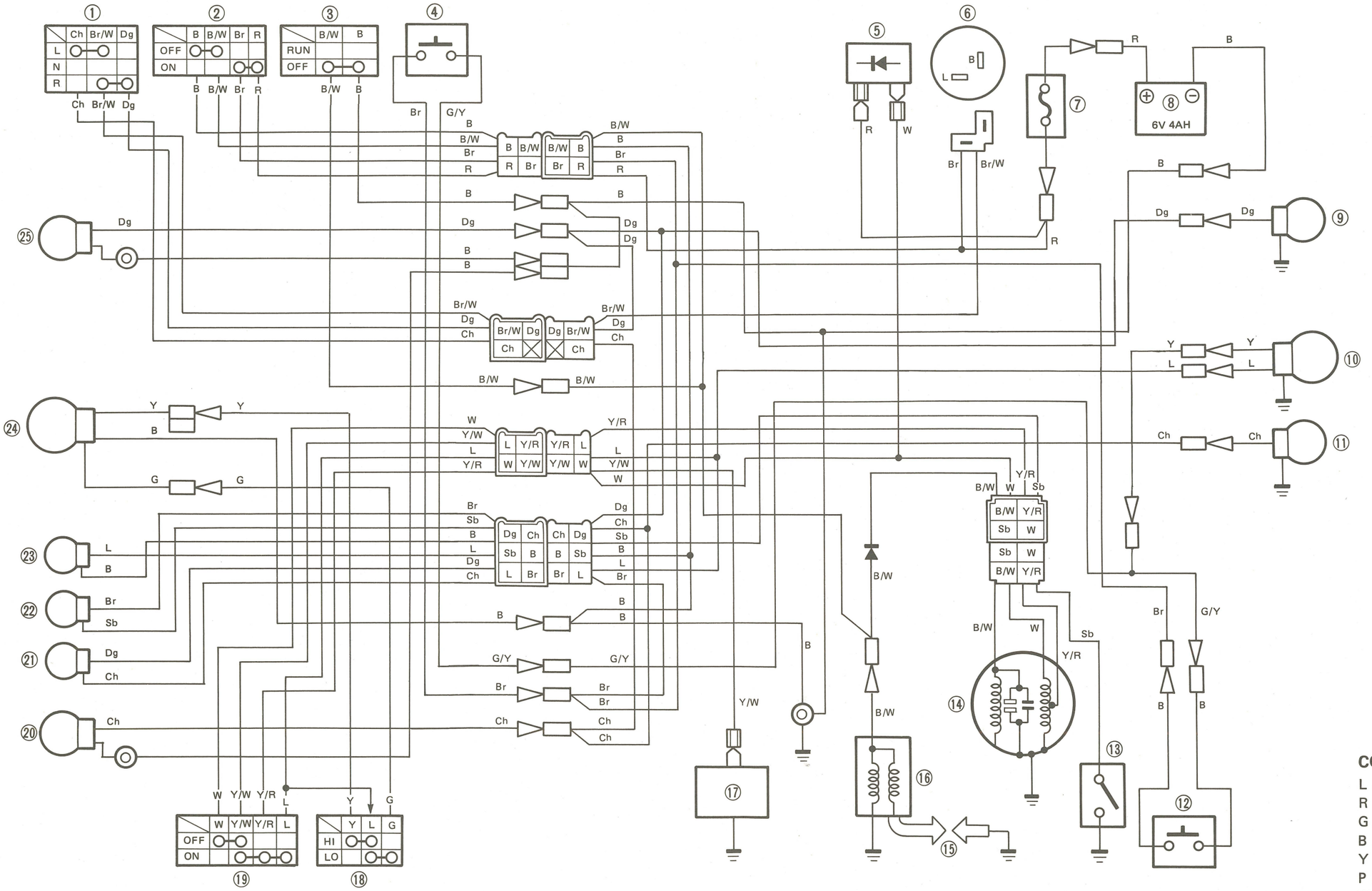
⑪ Tail/Brake light
⑫ Rear flasher light (Left)
⑬ Flywheel magneto
⑭ Ignition coil
⑮ Spark plug
⑯ Voltage regulator
⑰ Rear brake switch
⑱ Horn switch
⑲ "LIGHT" switch
⑳ Front flasher light (Left)

㉑ "TURN" indicator light
㉒ Meter light
㉓ Headlight
㉔ Front flasher light (Right)

COLOR CODE

L . . . . . .Blue
R . . . . . .Red
G . . . . . .Green
B . . . . . .Black
Y . . . . . .Yellow
P . . . . . .Pink
W . . . . . .White
Br. . . . . .Brown
Ch . . . . . .Chocolate
Dg . . . . . .Dark green
Sb . . . . . .Sky blue
B/W . . . . .Black/White
Br/W. . . . .Brown/White
G/Y . . . . .Green/Yellow
Y/W . . . . .Yellow/White
Y/R . . . . .Yellow/Red

DT50MX WIRING DIAGRAM (NL)



① "TURN" switch
② Main switch
③ "ENGINE STOP" switch
④ Front brake switch
⑤ Rectifier
⑥ Flasher relay
⑦ Fuse
⑧ Battery
⑨ Rear flasher light (Right)

⑩ Tail/Brake light
⑪ Rear flasher light (Left)
⑫ Rear brake switch
⑬ Neutral switch
⑭ Flywheel magneto
⑮ Spark plug
⑯ Ignition coil
⑰ Voltage regulator
⑱ "LIGHT" (Dimmer) switch

⑲ "LIGHT" switch
⑳ Front flasher light (Left)
㉑ "TURN" indicator light
㉒ "NEUTRAL" indicator light
㉓ Meter light
㉔ Headlight
㉕ Front flasher light (Right)

COLOR CODE

L . . . . . .Blue
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Ch . . . . . .Chocolate
Dg . . . . . .Dark green
Sb . . . . . .Sky blue
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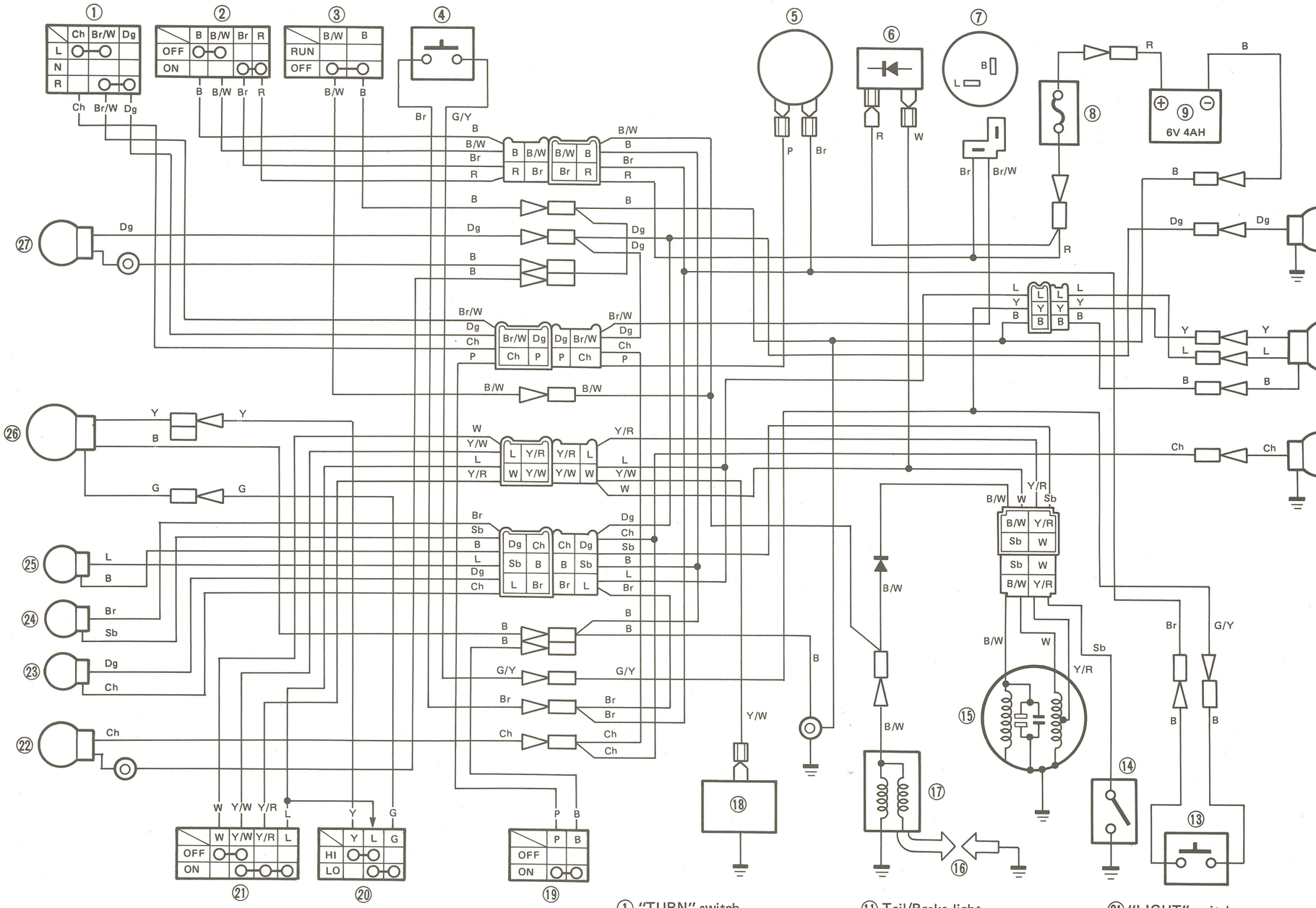
Br/W. . . . .Brown/White
G/Y . . . . .Green/Yellow
Y/W . . . . .Yellow/White
Y/R . . . . .Yellow/Red

DT50MX WIRING DIAGRAM (GB)



① "TURN" switch
② Main switch
③ "ENGINE STOP" switch
④ Front brake switch
⑤ Horn
⑥ Rectifier
⑦ Flasher relay
⑧ Fuse
⑨ Battery
⑩ Rear flasher light (Right)

⑪ Tail/Brake light
⑫ Rear flasher light (Left)
⑬ Rear brake switch
⑭ Neutral switch
⑮ Flywheel magneto
⑯ Spark plug
⑰ Ignition coil
⑱ Voltage regulator
⑲ "HORN" switch
⑳ "LIGHT" (Dimmer) switch

㉑ "LIGHT" switch
㉒ Front flasher light (Left)
㉓ "TURN" indicator light
㉔ "NEUTRAL" indicator light
㉕ Meter light
㉖ Headlight
㉗ Front flasher light (Right)

COLOR CODE

L . . . . . .Blue
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Ch . . . . . .Chocolate
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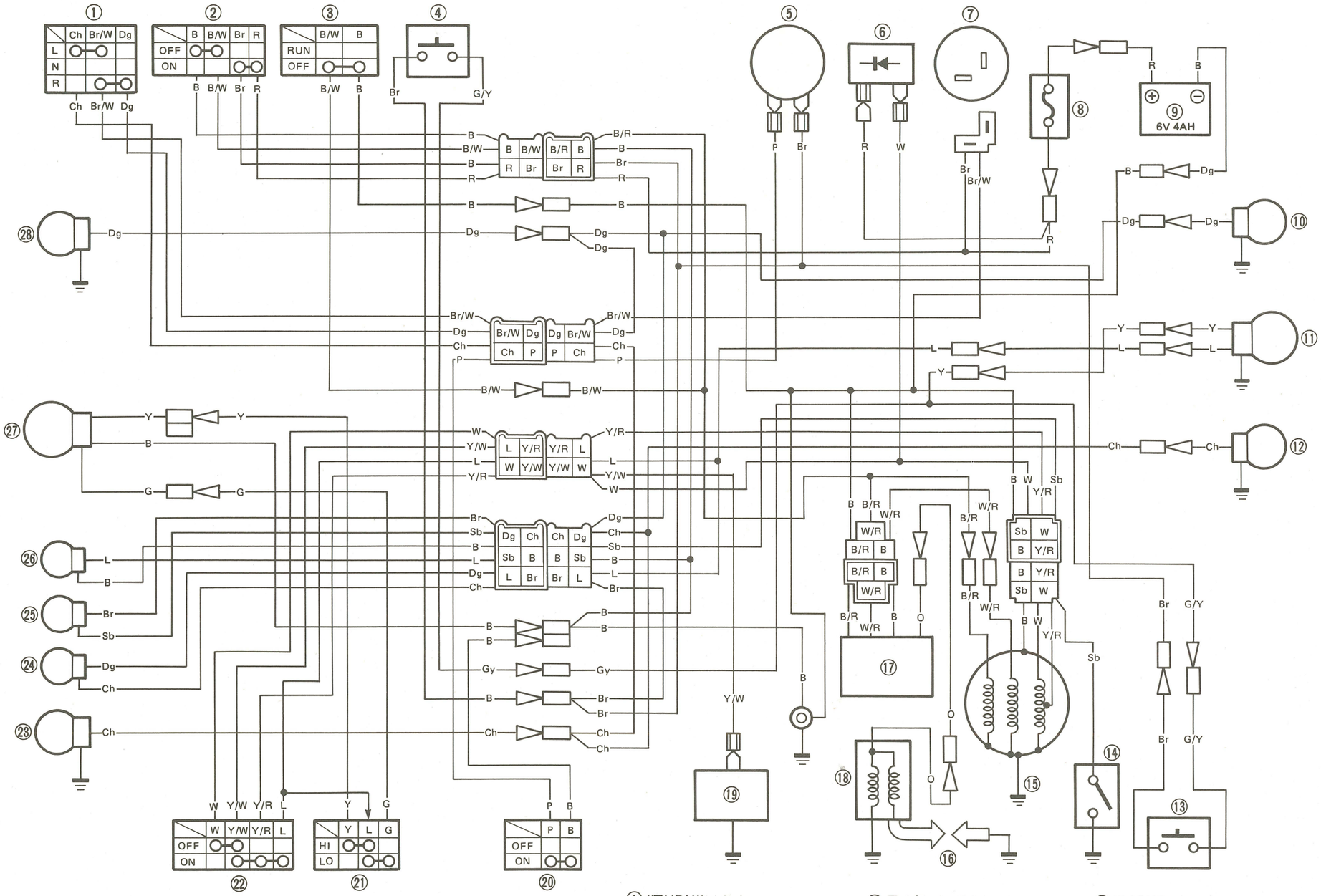
Br/W. . . . .Brown/White
G/Y . . . . .Green/Yellow
Y/W . . . . .Yellow/White
Y/R . . . . .Yellow/Red

DT50MX WIRING DIAGRAM (S) (B)



① "TURN" switch
② Main switch
③ "ENGINE STOP" switch
④ Front brake switch
⑤ Horn
⑥ Rectifier
⑦ Flasher relay
⑧ Fuse
⑨ Battery
⑩ Rear flasher light (Right)
⑪ Tail/Brake light
⑫ Rear flasher light (Left)
⑬ Rear brake switch
⑭ Neutral switch
⑮ C.D.I. magneto
⑯ Spark plug
⑰ C.D.I. unit
⑱ Ignition coil
⑲ Voltage regulator
⑳ "HORN" switch
㉑ "LIGHT" (Dimmer) switch
㉒ "LIGHT" switch
㉓ Front flasher light (Left)
㉔ "TURN" indicator light
㉕ "NEUTRAL" indicator light
㉖ Meter light
㉗ Headlight
㉘ Front flasher light (Right)

COLOR CODE

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

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IWATA, JAPAN

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