YAMAHA

RD125LC '85

1GU-SE1

SERVICE INFORMATION

NOTICE

This manual has been written by Yamaha Motor Company for use by Authorized Yamaha Dealers and their qualified mechanics. In light of this purpose it has been assumed that certain basic mechanical precepts and procedures inherent to our products are already known and understood by the mechanic. Without such basic knowledge, repairs or service to this model may render the machine unsafe, and for this reason we must advise that all repairs and/or service be performed by an Authorized Yamaha Dealer who is in possession of the requisite basic product knowledge. Yamaha Motor Company, Ltd. is continually striving to further improve all models manufactured by the company. Modifications are therefore inevitable and changes in specifications or procedures will be forwarded to all Authorized Yamaha Dealers and will, where applicable, appear in future editions of this manual.

RD125LC

1st Edition, March 1985

Printed in Holland

FOREWORD

This Service Information has been prepared to introduce new service and data for the RD125LC ('85) For complete service information procedures it is necessary to use this publication together with the following microfiche service manual:

RD125LC Service Manual 1GU-ME1

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

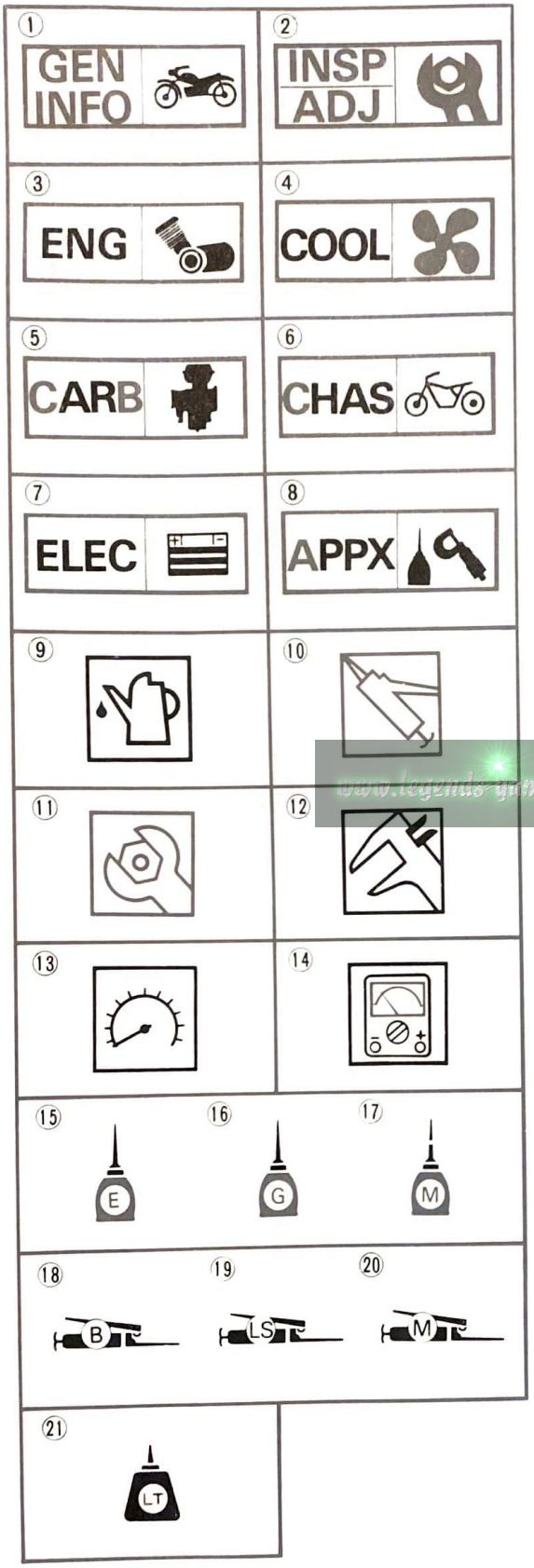
All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspection operations.
In this revised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

- Bearings;

Pitting/Damage→Replace.

EXPLODED DIAGRAM

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



SYMBOL MARKS

(Refer to the illustration)

Symbol marks ① to ⑧ are designed as thumb tabs to indicate the chapter's number and content.

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

Symbol marks ⑨ to ⑭ indicate specific data as the following items:

⑨ Filling fluid
⑩ Lubricant
⑪ Tightening
⑫ Wear limit, clearance
⑬ Engine speed
⑭ Ω, V, A

Symbol marks ⑮ to ㉑ in the exploded diagram indicate grade of lubricant and location of lubrication point.

⑮ Apply engine oil
⑯ Apply gear oil
⑰ Apply molybdenum disulfide oil
⑱ Apply wheel bearing grease
⑲ Apply lightweight lithium-soap base grease
⑳ Apply molybdenum disulfide grease
㉑ Apply locking agent (LOCTITE®)

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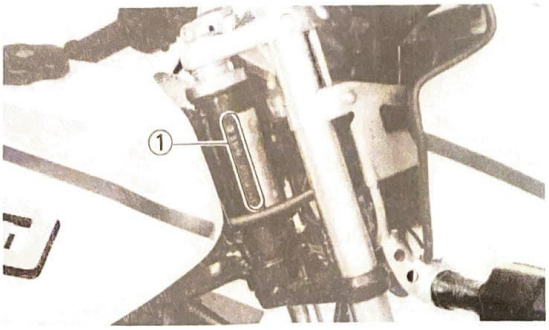
WIRING DIAGRAM

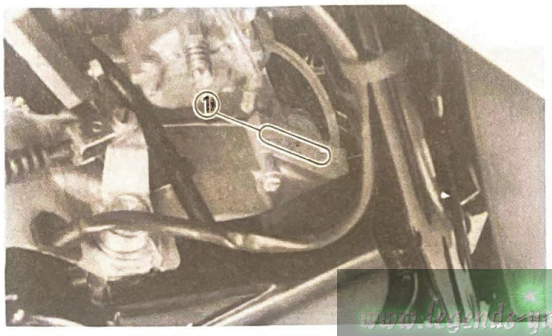
GENERAL INFORMATION

MOTORCYCLE IDENTIFICATION



FRAME SERIAL NUMBER

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



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:

Switzerland	1GU-000101
France	1GW-000101
Finland/Sweden	1GX-000101
England	1GM-000101
Belgium/Denmark/ France	1GX-003101

NOTE:

Designs and specifications are subject to change without notice.

PERIODIC INSPECTIONS AND ADJUSTMENTS

INTRODUCTION

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

PERIODIC MAINTENANCE/LUBRICATION

Unit: km (mi)

ITEM	REMARKS	BREAK-IN 1,000 (600)	EVERY 6,000 (4,000) or 6 months	EVERY 12,000 (8,000) or 12 months
Spark plug	Check/Clean or replace.	○	○	○
Air filter	Clean. Replace if necessary.		○	○
Carburetor*	Check/Adjust/idle speed, starter operation.	○	○	○
Fuel line*	Check fuel hose for cracks or damage.		○	○
Transmission oil	Replace (Warm engine before draining) every, 24,000 (16,000) or 24 months.	REPLACE	CHECK	CHECK
Autolube pump*	Check/Adjust*/Air bleeding.*	○	○	○
Brake*	Check operation/fluid leakage/See NOTE/Adjust if necessary.	○	○	○
Clutch*	Check operation/Adjust if necessary.		○	○
Rear arm pivot shaft*	Check rear arm assembly for looseness. Clean and Lube***	CHECK	○	○
Wheels*	Check balance/damage/runout/spoke tightnes.		○	○
Wheel bearings*	Check bearings assembly for looseness/damage. Replace if damaged.		○	○
Steering bearing*	Check bearings aassembly for looseness. Moderately repack every 24,000 (16,000) or 24 months.**	CHECK		CHECK
Front forks*	Check operation/oil leakage.		○	○
Rear shock absorber*	Check operation/oil leakage.		○	○
Cooling system*	Check/Repair as required/Replace coolant every 24,000 (16,000) or 24 months.		CHECK	CHECK
Drive chain	Check tension/alignment/clean/lube.	EVERY 500 (300)		
Fittings/Fasteners*	Check all chassis fittings and fasteners.	○	○	○
Battery*	Check specific gravity. Check breather pipe for proper operation.		○	

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

NOTE:

Brake fluid replacement.

1. When disassembling the master cylinder or caliper cylinder, replace the brake fluid. Normally check the brake fuild level and add the fluid as required.
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.

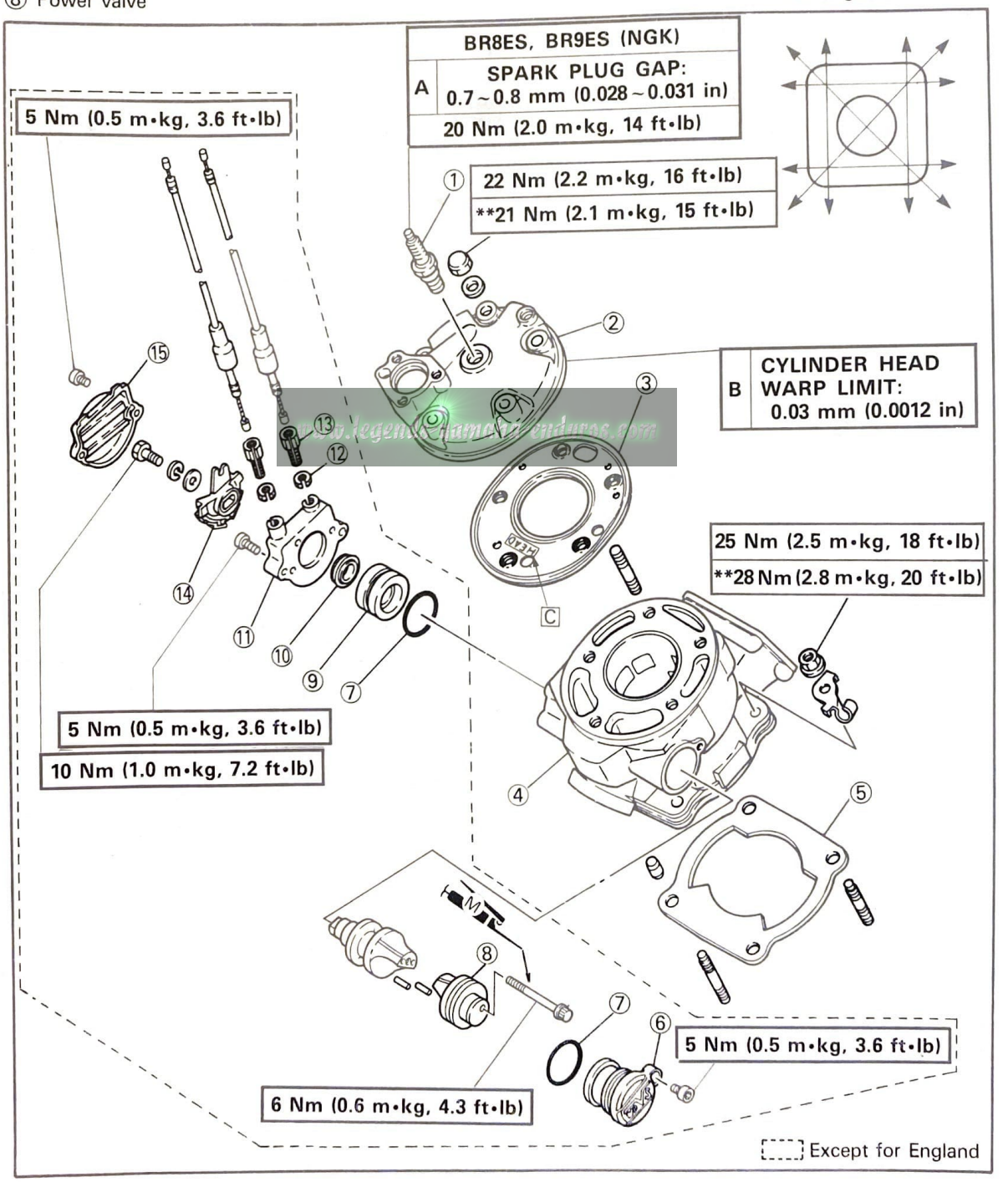
EXPLODED DIAGRAMS

CYLINDER HEAD/CYLINDER (The shape of the model manufactured for the U. K. market differs slightly from those for other markets.)

① Spark plug
② Cylinder head
③ Cylinder head gasket
④ Cylinder
⑤ Cylinder gasket
⑥ Power valve holder (Left)
⑦ O-ring
⑧ Power valve
⑨ Power valve holder (Right)
⑩ Oil seal
⑪ Power valve cover
⑫ Locknut
⑬ Adjuster
⑭ Pulley
⑮ Power valve cap

[C] The "HEAD" mark on the gasket must point to the front of the engine.

**For England



CRANKSHAFT/PISTON/BALANCER

① Balancer gear
② Bearing
③ Straight key
④ Balancer weight
⑤ Bearing
⑥ Drive gear
⑦ Oil seal
⑧ Collar
⑨ Bearing
⑩ Piston ring set
⑪ Piston
⑫ Piston pin
⑬ Piston pin clip
⑭ Cylindrical bearing
⑮ Straight key
⑯ Crank (Right)
⑰ Washer
⑱ Connecting rod
⑲ Crank pin
⑳ Cylindrical bearing
㉑ Crank (Left)
㉒ Woodruff key
㉓ Bearing
㉔ Oil seal

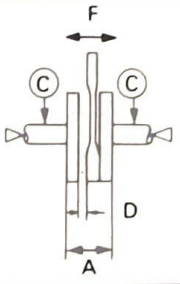
* For England

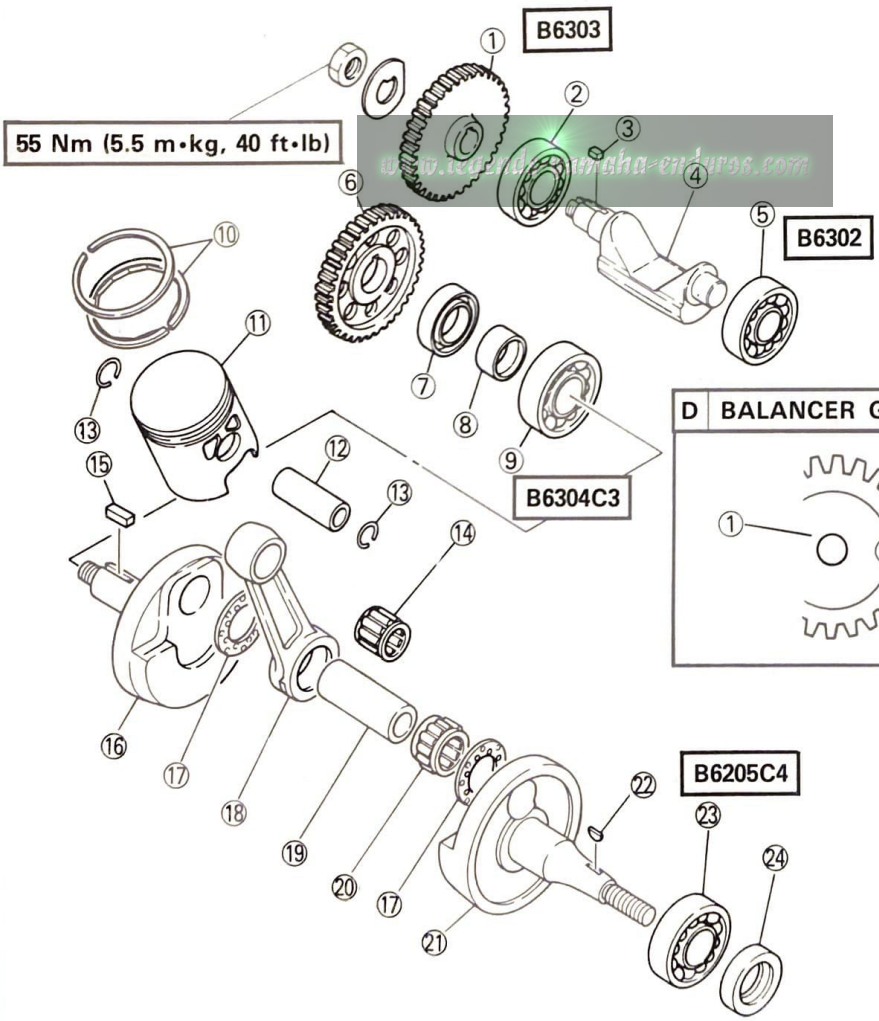
A PISTON TO CYLINDER CLEARANCE:
0.055 ~ 0.060 mm (0.0022 ~ 0.0024 in)
*0.050 ~ 0.055 mm (0.0020 ~ 0.0022 in)

B END GAP (INSTALLED):
Top ring
0.30 ~ 0.45 mm (0.012 ~ 0.018 in)
2nd ring
0.30 ~ 0.50 mm (0.012 ~ 0.020 in)

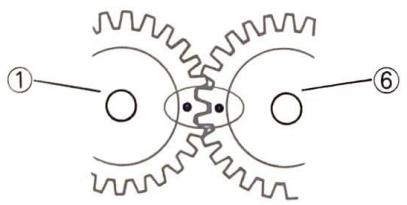
C CRANKSHAFT:

A: $56.00^{-0.05}_{-0.10}$ mm ($2.205^{-0.0020}_{-0.0040}$ in)
C: 0.03 mm (0.0012 in)
D: 0.2 ~ 0.7 mm
(0.008 ~ 0.028 in)
F: 2 mm (0.08 in)





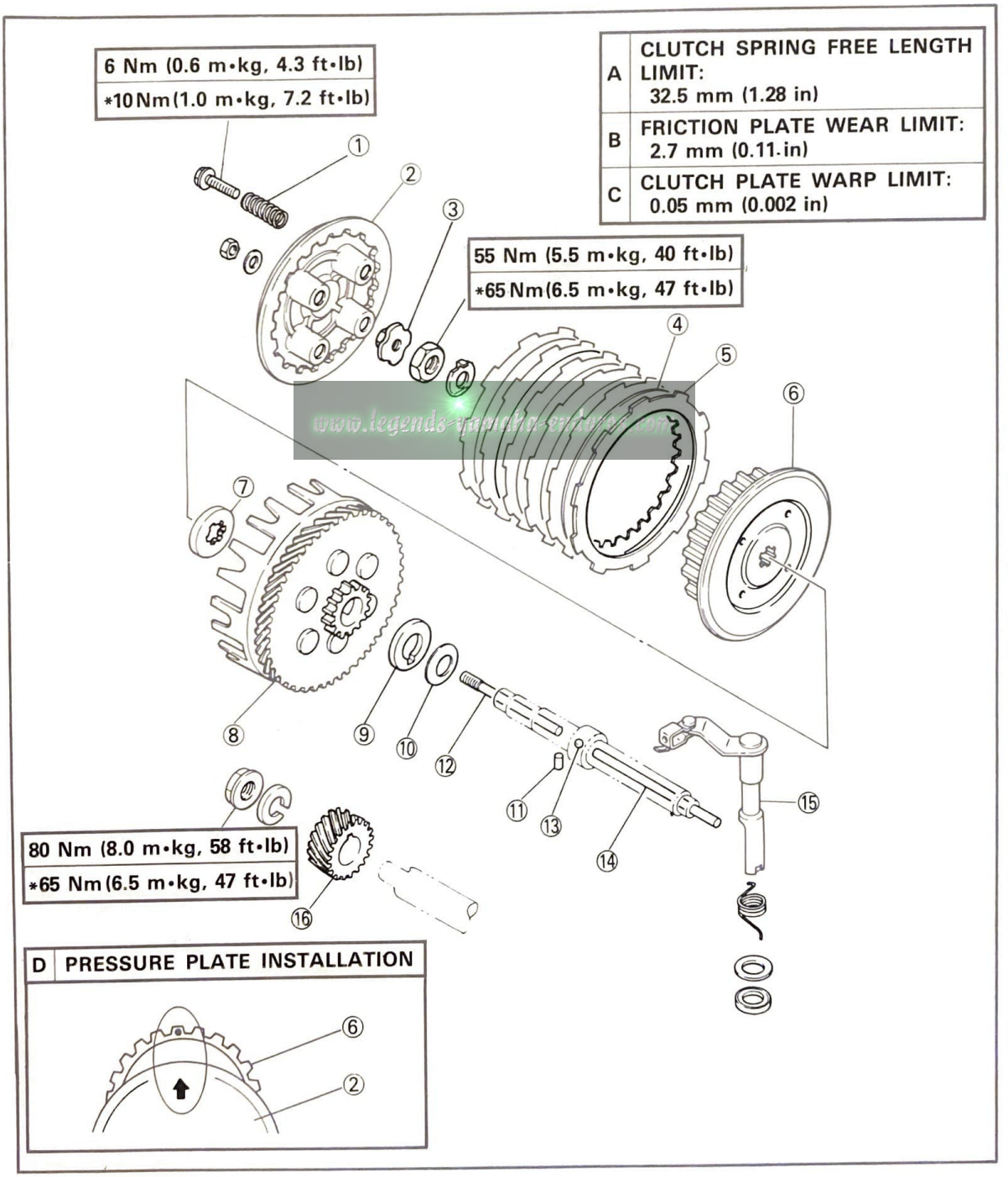
D BALANCER GEAR INSTALLATION



CLUTCH

① Clutch spring
② Pressure plate
③ Push plate
④ Clutch plate
⑤ Friction plate
⑥ Clutch boss
⑦ Holding plate
⑧ Clutch housing
⑨ Spacer
⑩ Conical spring washer
⑪ Knock pin
⑫ Push rod #1
⑬ Ball
⑭ Push rod #2
⑮ Push lever axle
⑯ Primary drive gear

*For England

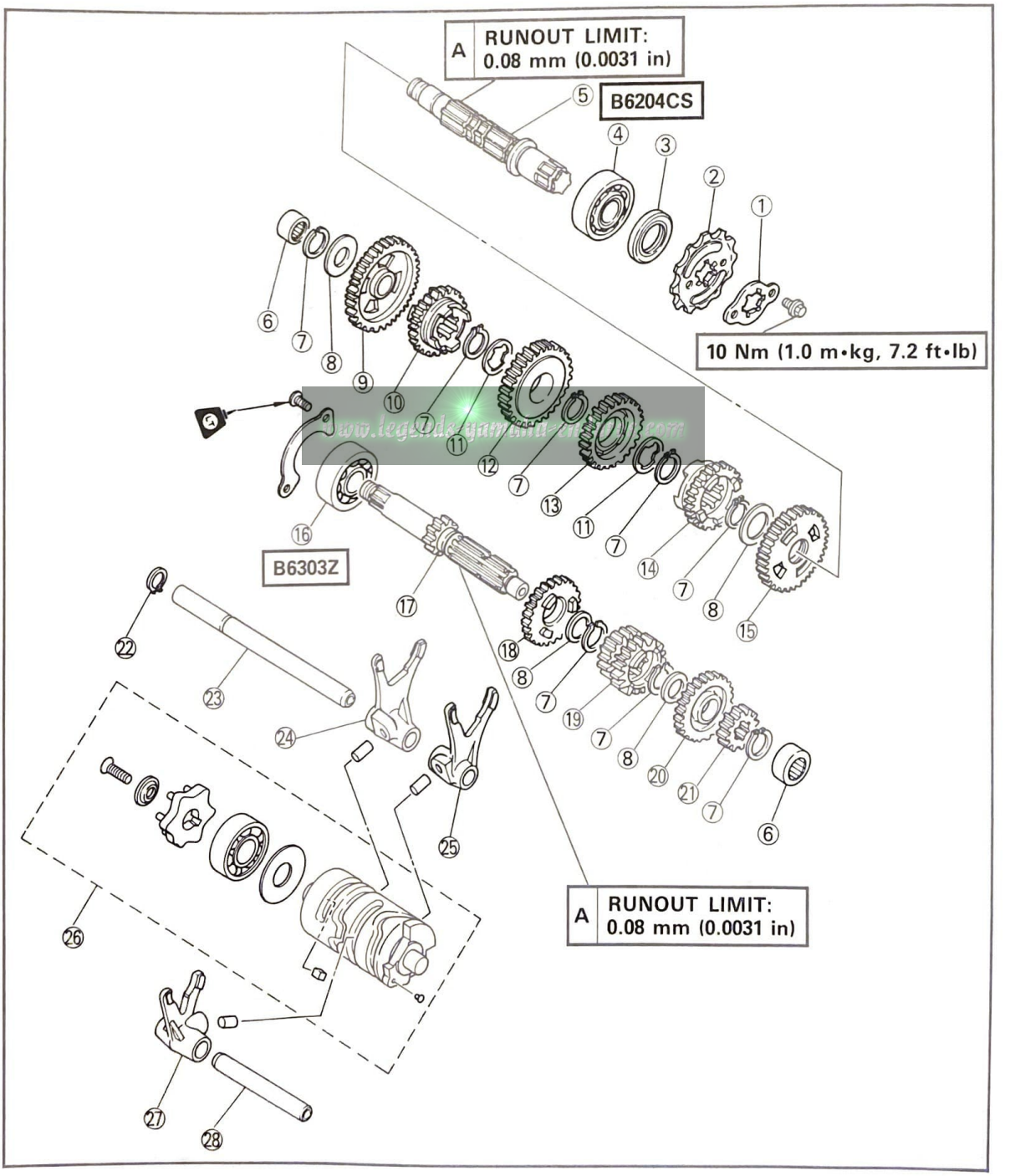


ENG

TRANSMISSION/SHIFTER

TRANSMISSION

① Holding plate
② Drive sprocket
③ Oil seal
④ Bearing
⑤ Drive axle
⑥ Cylindrical bearing
⑦ Circlip
⑧ Plain washer
⑨ 1st wheel gear (34T)
⑩ 5th wheel gear (23T)
⑪ Special washer
⑫ 3rd wheel gear (26T)
⑬ 4th wheel gear (24T)
⑭ 6th wheel gear (22T)
⑮ 2nd wheel gear (29T)
⑯ Bearing
⑰ Main axle (12)
⑱ 5th pinion gear (23T)
⑲ 3rd/4th pinion gear (19T/21T)
⑳ 6th pinion gear (24T)
㉑ 2nd pinion gear (16T)
㉒ Circlip
㉓ Guide bar 1
㉔ Shift fork (#3)
㉕ Shift fork (#1)
㉖ Shift cam assembly
㉗ Shift fork (#2)
㉘ Guide bar 2

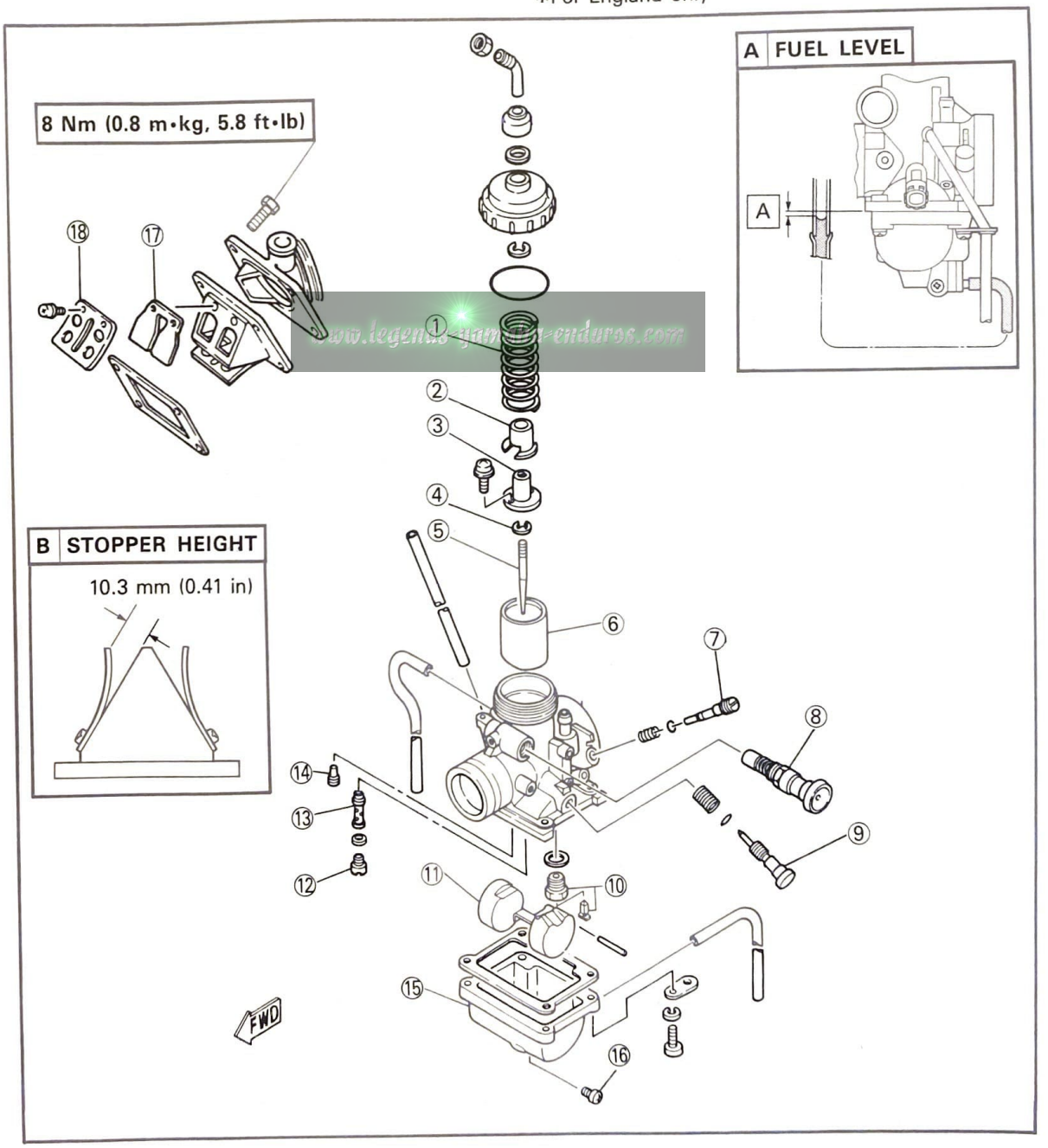


CARBURETOR/REED VALVE

① Throttle valve spring
② Spring seat
③ Jet needle cap
④ Clip
⑤ Jet needle
⑥ Throttle valve
⑦ Pilot air screw
⑧ Startor plunger
⑨ Throttle stop screw
⑩ Needle valve assembly
⑪ Float
⑫ Main jet
⑬ Main nozzle
⑭ Pilot jet
⑮ Float chamber
⑯ Drain screw
⑰ Reed valve
⑱ Stopper plate

SPECIFICATIONS			
Main Jet	(M.J.)	#190	*#195
Main Air Jet	(M.A.J.)	φ1.2	*φ2.5
Jet Needle	(J.N.)	406-4	*5GN36-4
Needle Jet	(N.J.)	P-2	*O-2
Pilot Jet	(P.J.)	#25	*#20
Pilot Air Screw	(P.A.S.)	1 and 1/2	
Float Height	(F.H.)	*21.0±1.0 mm (0.83±0.04 in)	
Fuel Level	(F.L.)	0.5±1.0 mm (0.02±0.04 in)	
Engine Idling Speed		1,300±50 r/min	

*For England only

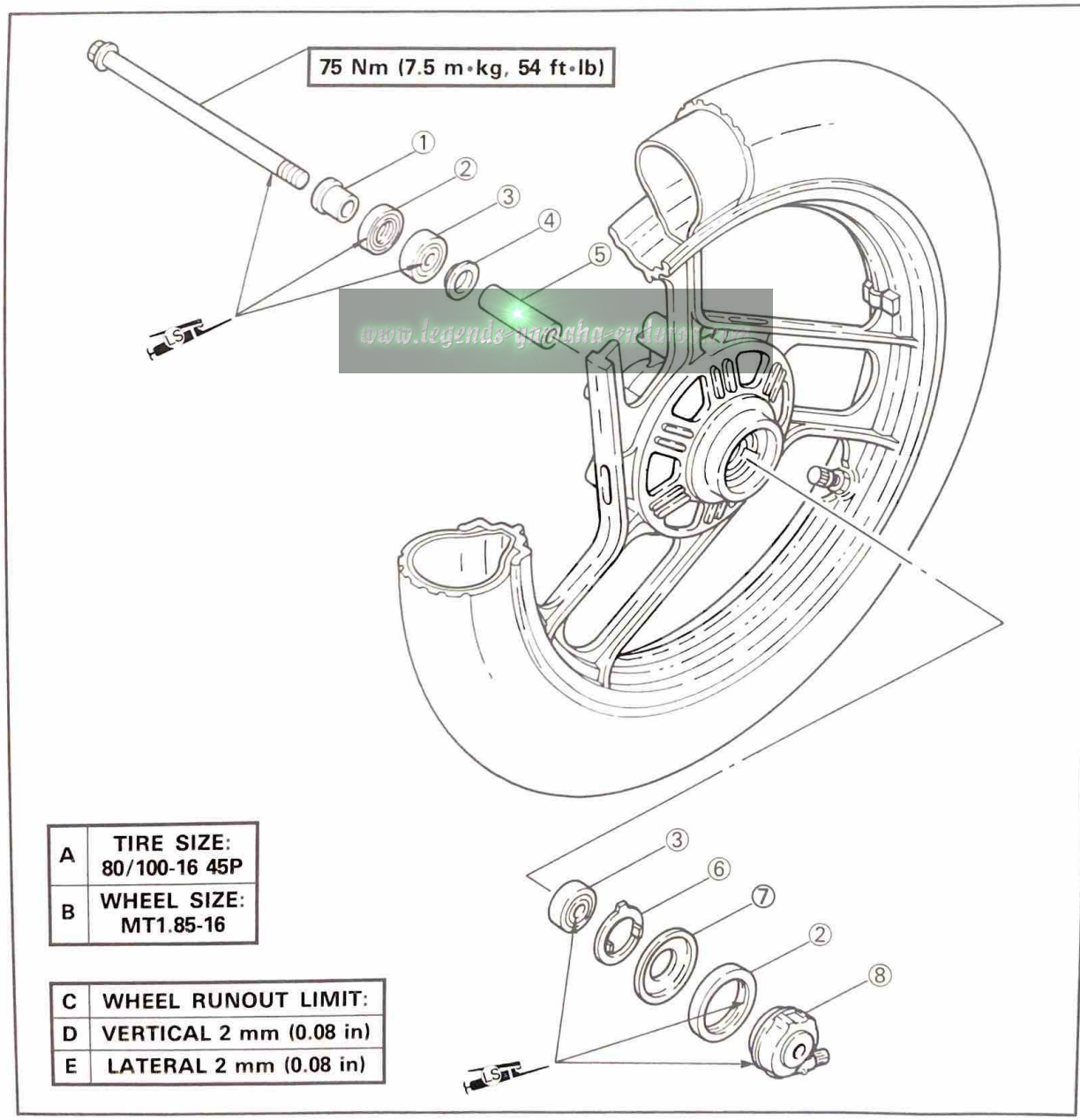


FRONT WHEEL

① Collar
② Oil seal
③ Bearing
④ Spacer frange
⑤ Spacer
⑥ Meter clutch
⑦ Clutch retainer
⑧ Gear unit assembly

TIRE AIR PRESSURE		
Basic weight: With oil and fuel tank	112 kg (247 lb)	
Maximum load*	178 kg (392 lb)	
Cold tire pressure	Front	Rear
Up to 90 kg (198 lb) load*	177 kPa (1.8 kg/cm², 26 psi)	196 kPa (2.0 kg/cm², 28 psi)
90 kg (198 lb) ~ Maximum load*	177 kPa (1.8 kg/cm², 26 psi)	226 kPa 2.3 kg/cm², 32 psi)

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

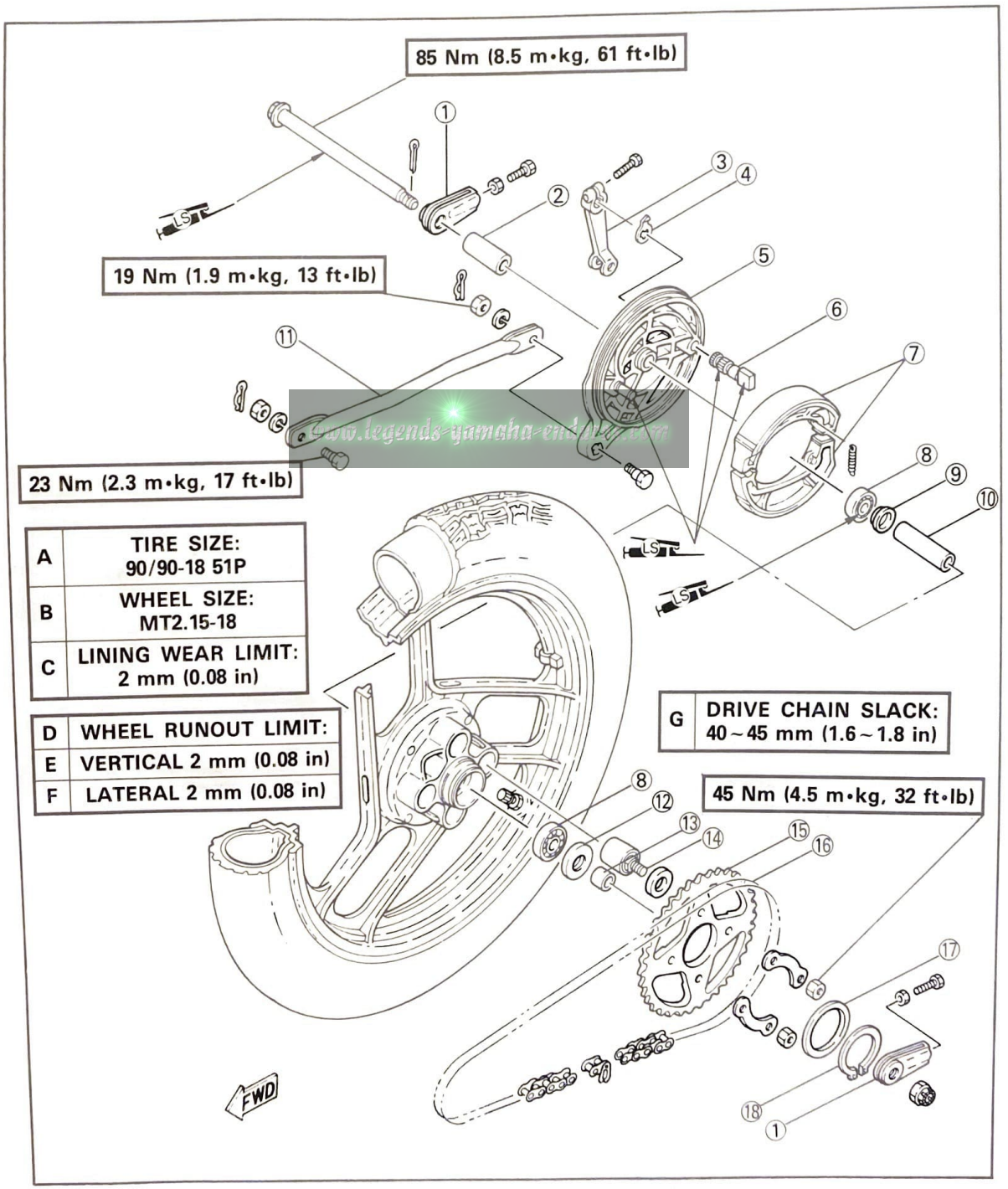


A	TIRE SIZE: 80/100-16 45P
B	WHEEL SIZE: MT1.85-16

C	WHEEL RUNOUT LIMIT:
D	VERTICAL 2 mm (0.08 in)
E	LATERAL 2 mm (0.08 in)

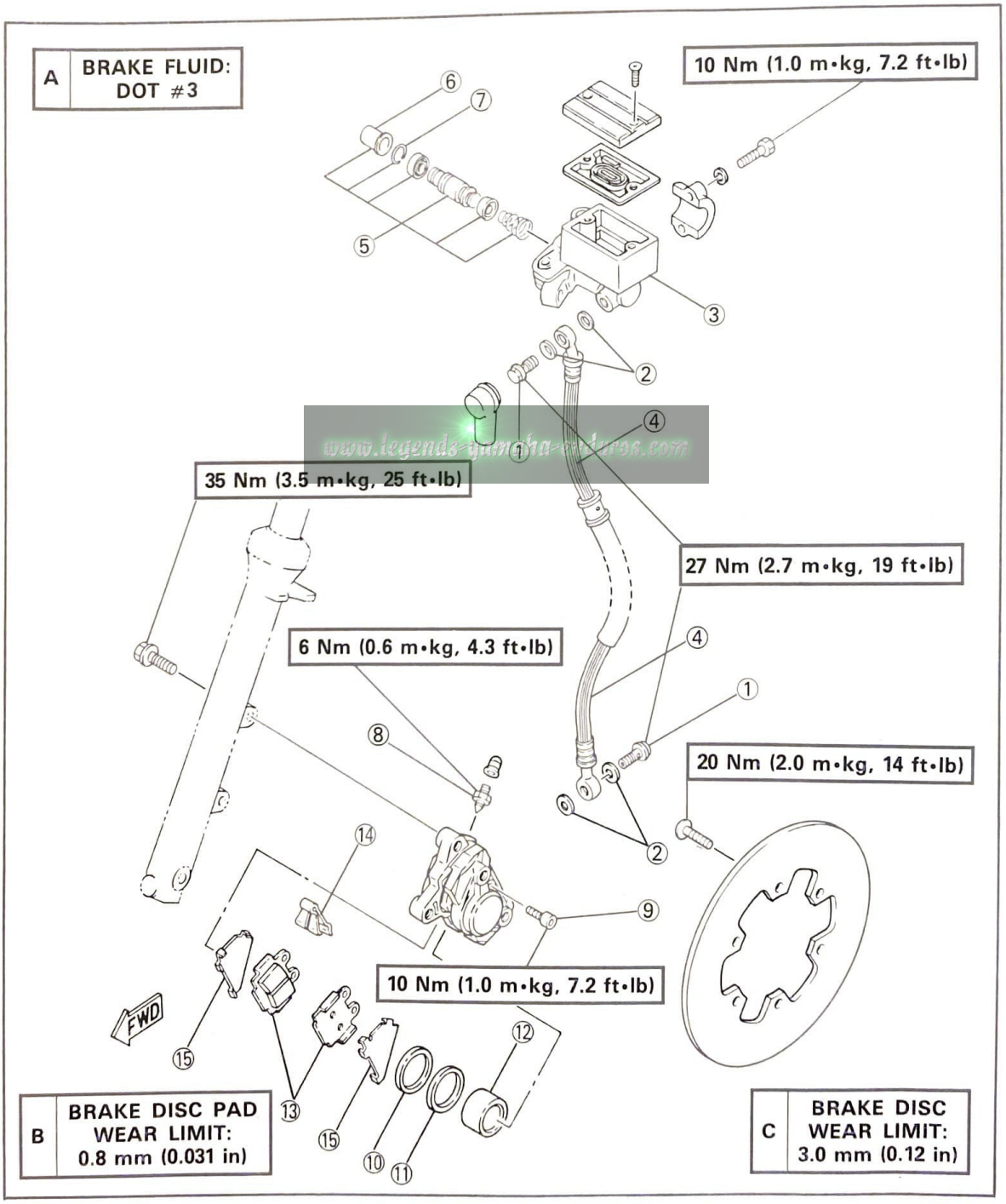
REAR WHEEL

① Chain puller
② Spacer
③ Camshaft lever
④ Wear indicator
⑤ Brake shoe plate
⑥ Camshaft
⑦ Brake shoe lining
⑧ Bearing
⑨ Spacer flange
⑩ Spacer
⑪ Tension bar
⑫ Oil seal
⑬ Collar
⑭ Damper
⑮ Driven sprocket
⑯ Drive chain
⑰ Washer
⑱ Circlip



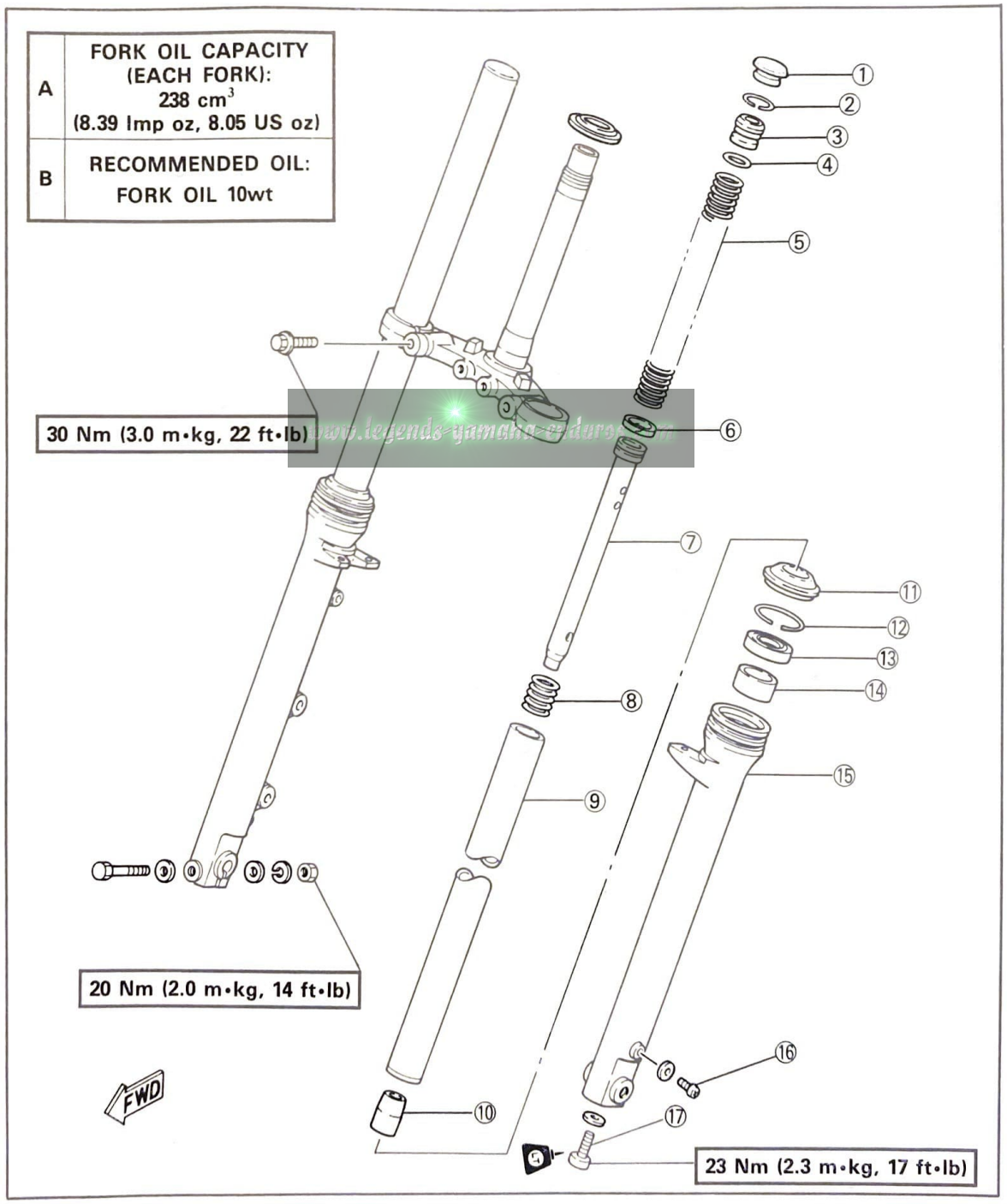
FRONT BRAKE

① Union bolt
② Copper washer
③ Master cylinder
④ Brake hose
⑤ Master cylinder kit
⑥ Dust boot
⑦ Circlip
⑧ Air bleed screw
⑨ Retaining bolt
⑩ Dust seal
⑪ Piston seal
⑫ Piston
⑬ Brake pads
⑭ Pad spring
⑮ Shim



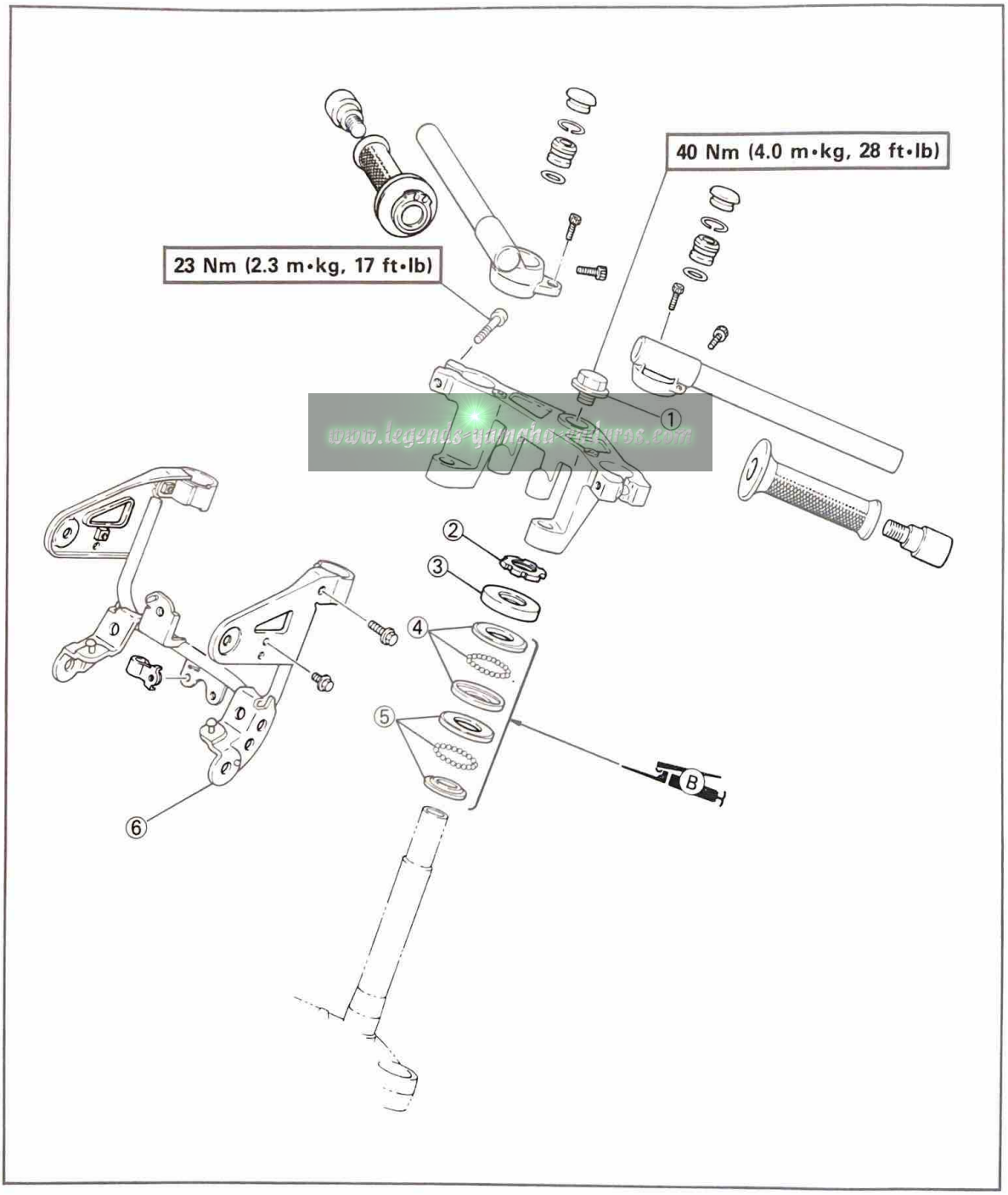
FRONT FORK

① Rubber cap
② Circlip
③ Cap bolt
④ O-ring
⑤ Fork spring
⑥ Damper rod ring
⑦ Damper rod (Cylinder complete)
⑧ Rebound spring
⑨ Inner tube
⑩ Taper spindle
⑪ Dust cover
⑫ Retaining clip
⑬ Oil seal
⑭ Guide bush
⑮ Outer tube
⑯ Drain screw
⑰ Securing bolt



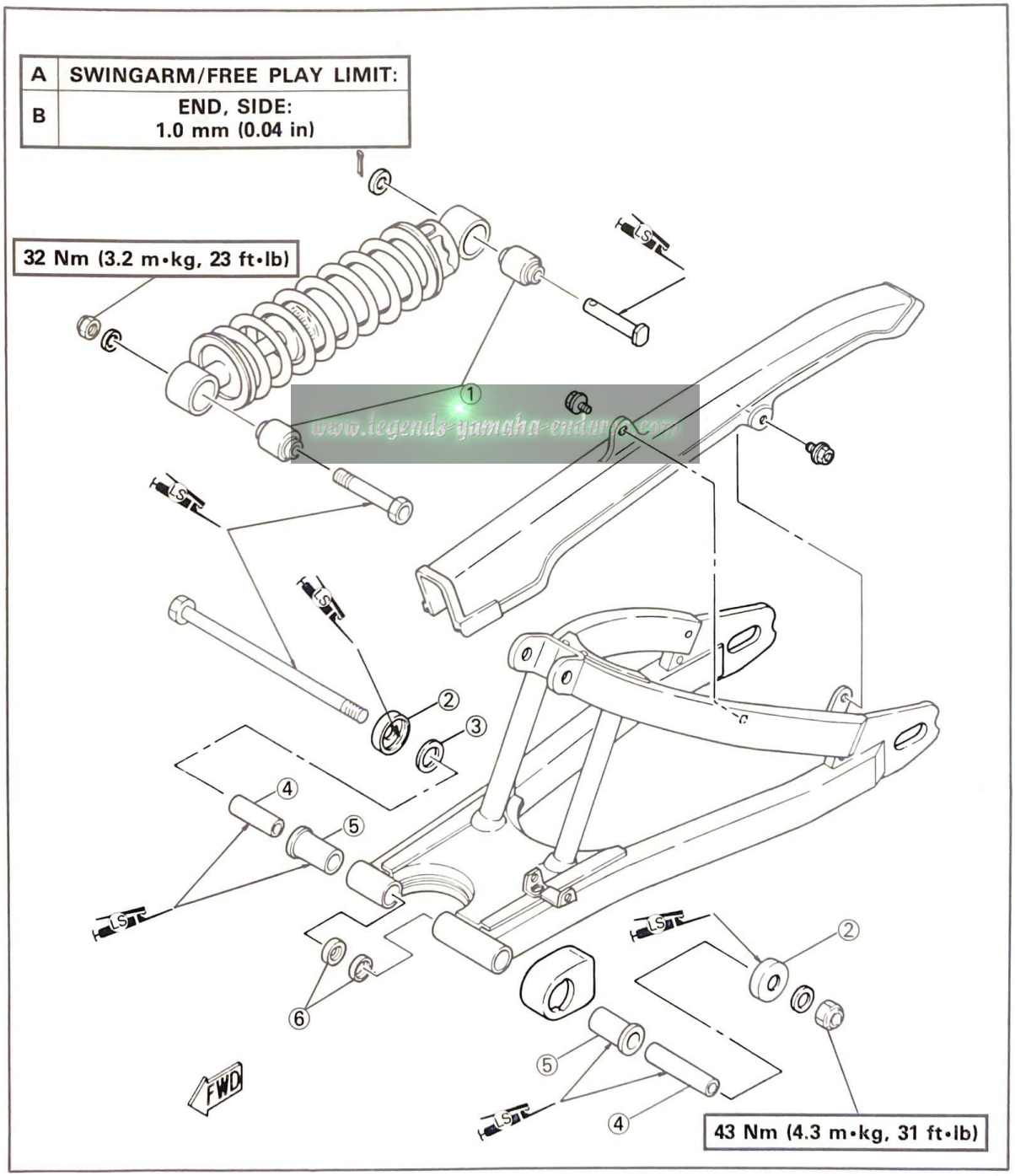
STEERING HEAD

① Steering fitting bolt
② Ring nut
③ Ball race cover
④ Ball bearing (Upper)(1/4 in/19 pcs)
⑤ Ball bearing (Lower)(1/4 in/19 pcs)
⑥ Headlight stay



SWINGARM/REAR SHOCK ABSORBER

① Bush
② Seal gurd
③ Shim
④ Collar
⑤ Bush
⑥ Oil seal



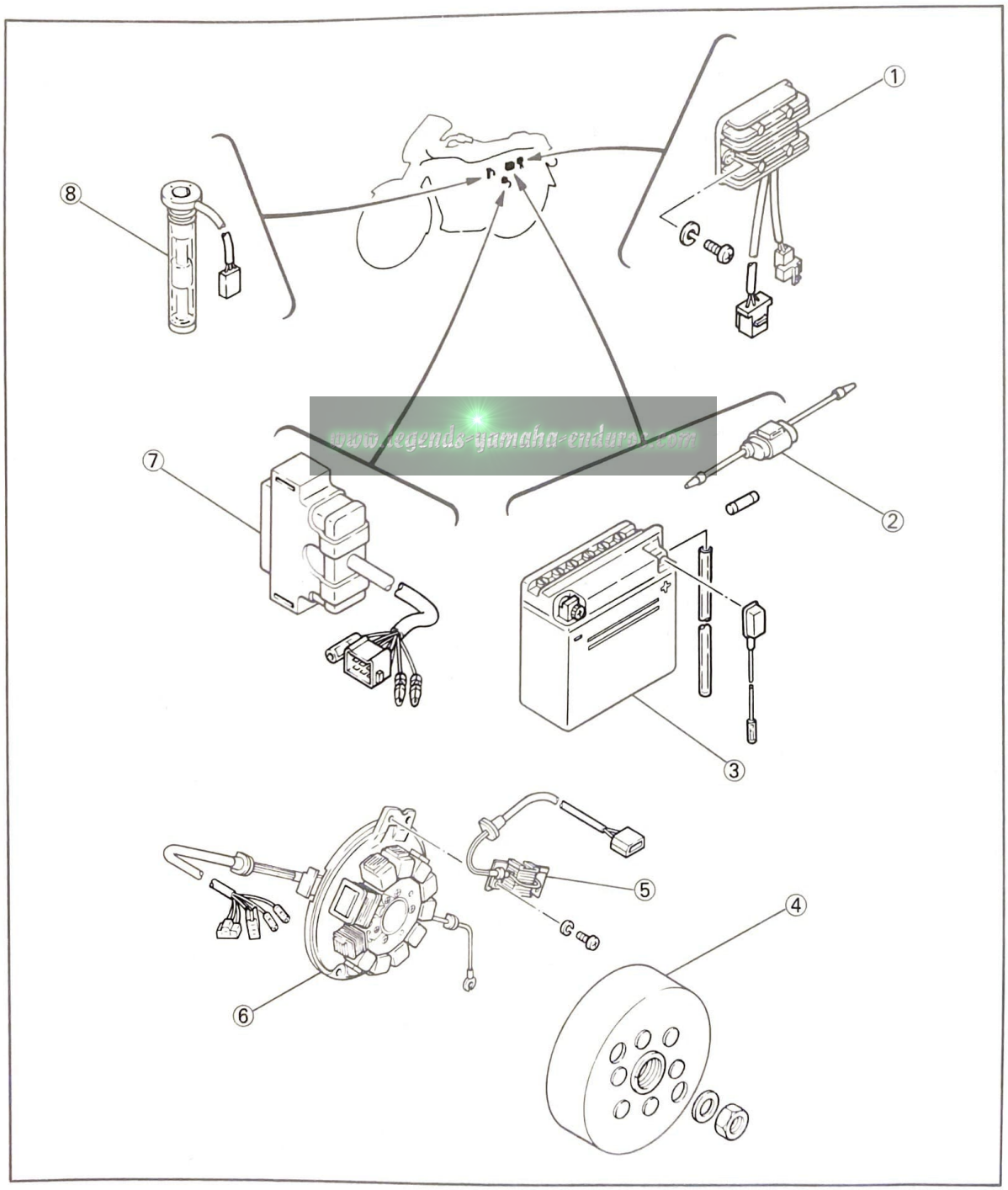
ELEC

ELECTRICAL COMPONENTS

ELECTRICAL COMPONENTS 1

① Rectifier/Regulator
② Fuse
③ Battery
④ Magneto
⑤ Pickup coil
⑥ Base assembly
⑦ C.D.I. unit
⑧ Oil level switch

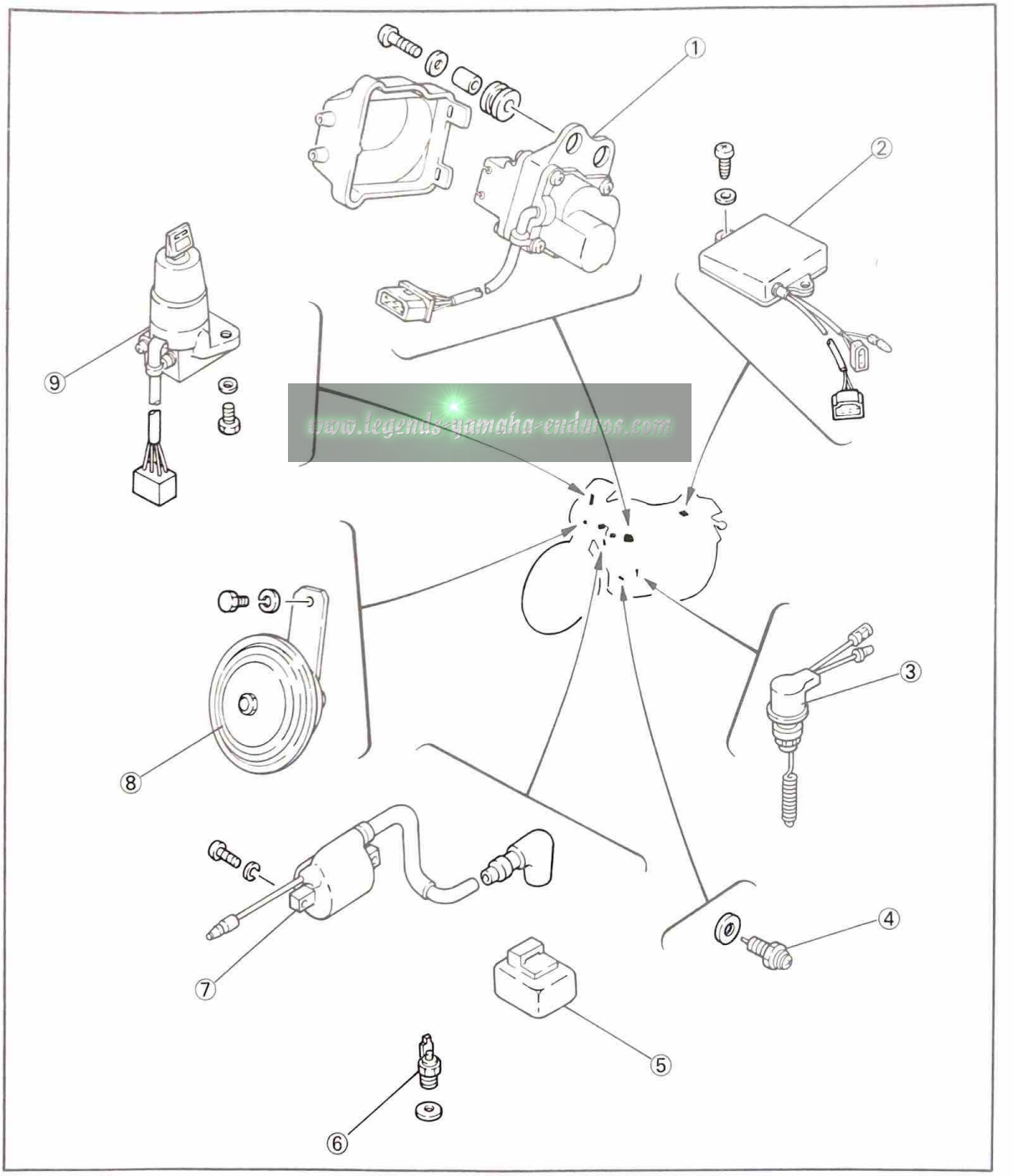
SPECIFICATIONS	RESISTANCE
PICKUP COIL	350Ω ± 20% (W/R—W/G)
SOURCE COIL 1	650Ω ± 20% (R/B—B)
SOURCE COIL 2	63Ω ± 20% (Y—Br)
CHARGING COIL	0.35Ω ± 20% (W—W)
BATTERY	12V5AH



ELECTRICAL COMPONENTS 2

① Servomotor
② Control unit
③ Rear brake switch
④ Neutral switch
⑤ Flasher relay
⑥ Thermo-unit
⑦ Ignition coil
⑧ Horn
⑨ Main switch

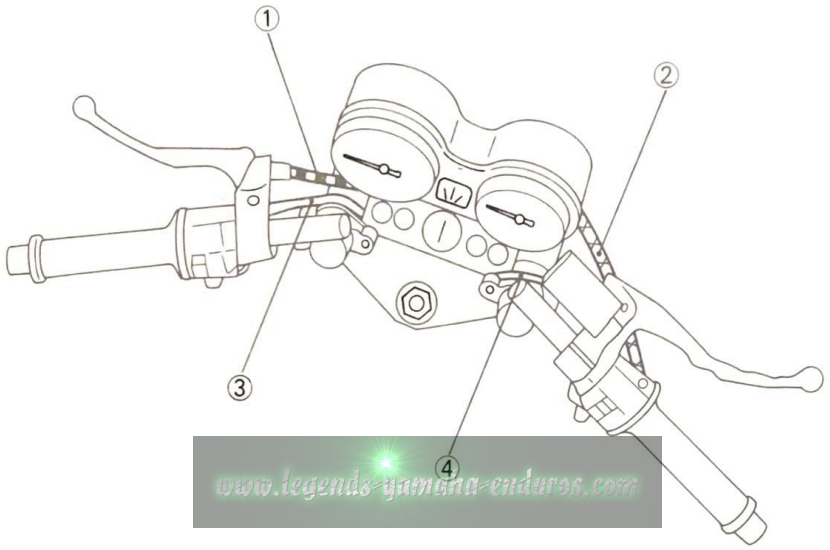
SPECIFICATIONS	RESISTANCE
IGNITION COIL:	
PRIMARY	1.6Ω ± 10%
SECONDARY	6.6kΩ ± 20%
POTENTIOMETER	7.5kΩ ± 30% (B/R — B/Y)

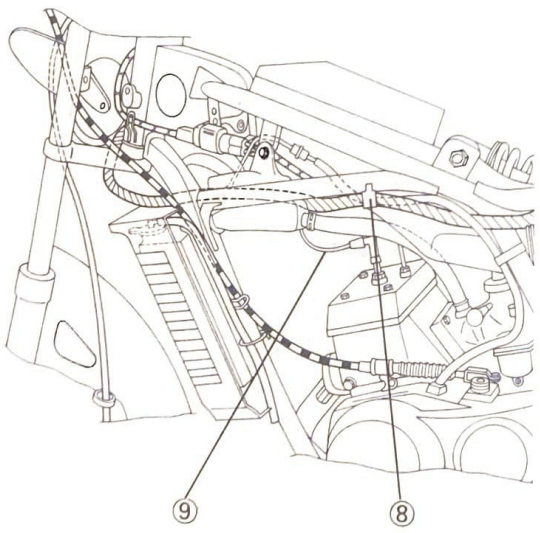


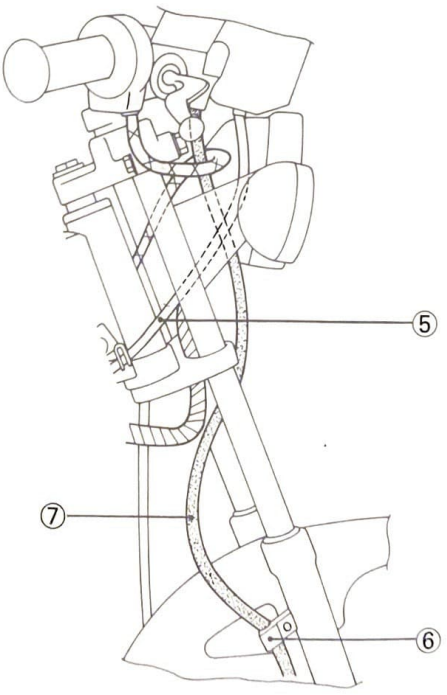
APPX  CABLE ROUTING

CALBE ROUTING

① Clutch cable
② Throttle cable
③ Handlebar switch lead (LH)
④ Handlebar switch lead (RH)
⑤ Tachometer cable
⑥ Holder
⑦ Brake hose
⑧ Flasher relay
⑨ Thermo-unit lead



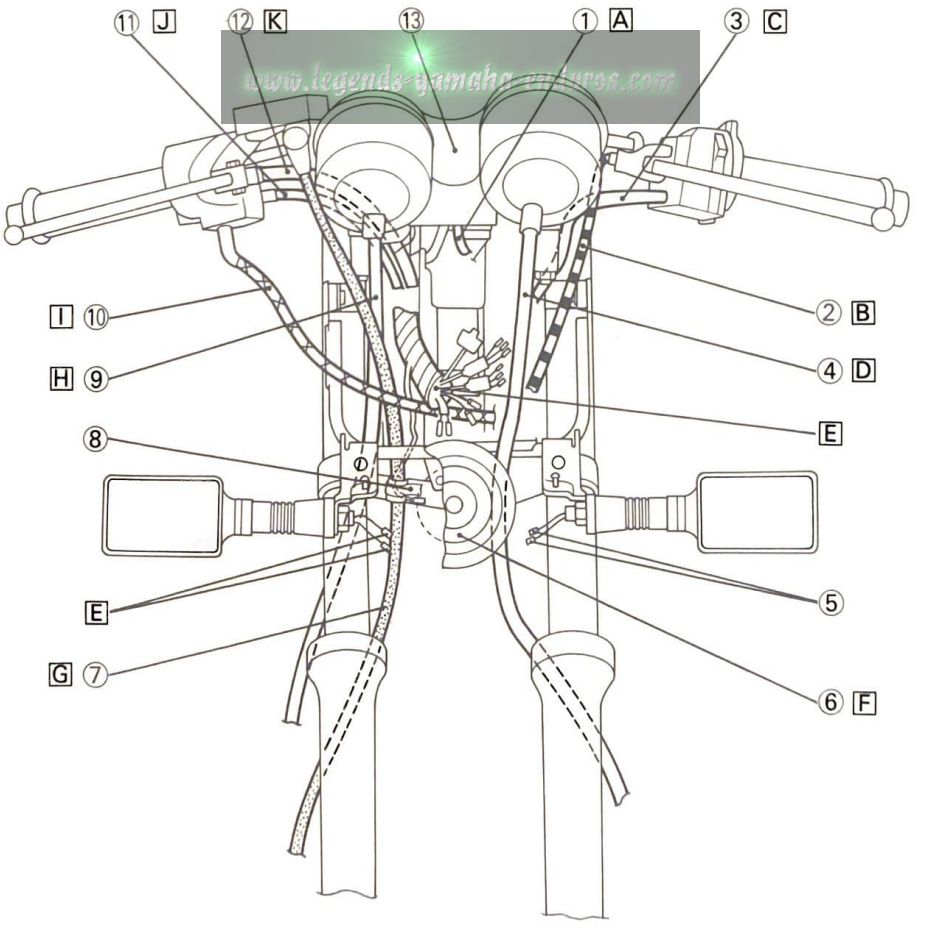




CABLE ROUTING

① Main switch
② Cluch cable
③ Handlebar switch lead (LH)
④ Speedometer cable
⑤ Main harness
⑥ Horn lead
⑦ Brake hose
⑧ Clamp
⑨ Tachometer cable
⑩ Throttle cable
⑪ Handlebar switch lead (RH)
⑫ Front brake switch lead
⑬ Meter assembly

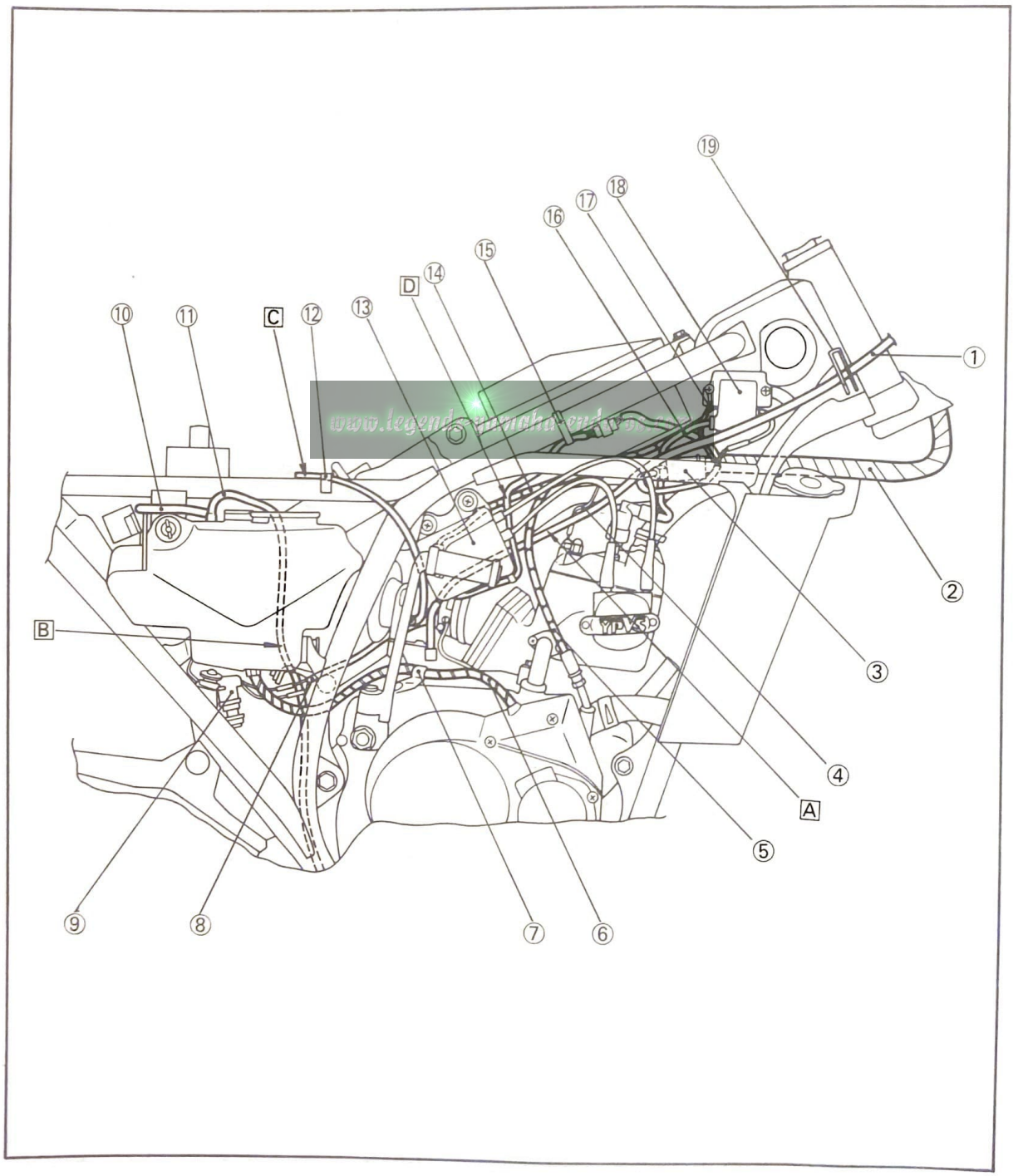
[A] Connect in the headlight ass'y.
[B] Route behind the speedometer cable and along the left side (through the cable guide) of the head pipe.
[C] Route under the clutch cable and connect in the headlight ass'y.
[D] Route before the front brake switch lead and
[E] handlebar switch leads (RH), route behind the throttle cable, and route between the headlight stay and under-bracket, then clamp.
[F] Route under the down-tube gusset and under-bracket, and route between the headlight stay and horn, then bring into the headlight ass'y.
[G] Route before the front brake switch lead and handlebar switch leads (RH), route behind the throttle cable, and route between the headlight stay and under-bracket, then clamp.
[H] Route before the throttle cable and behind the brake hose, and route along the right side of the head pipe and through the cable guide.
[I] Route behind the tachometer cable and before the brake hose, route behind the headlight ass'y, and route along the left side of the head pipe and through the cable guide.
[J] Route along the outer side of the front forks, route along the inner side of the brake hose and tachometer cable, and connect in the headlight ass'y.
[K] Route along the outer side of the front forks, route along the inner side of the brake hose and tachometer cable, and connect in the headlight ass'y.



CABLE ROUTING

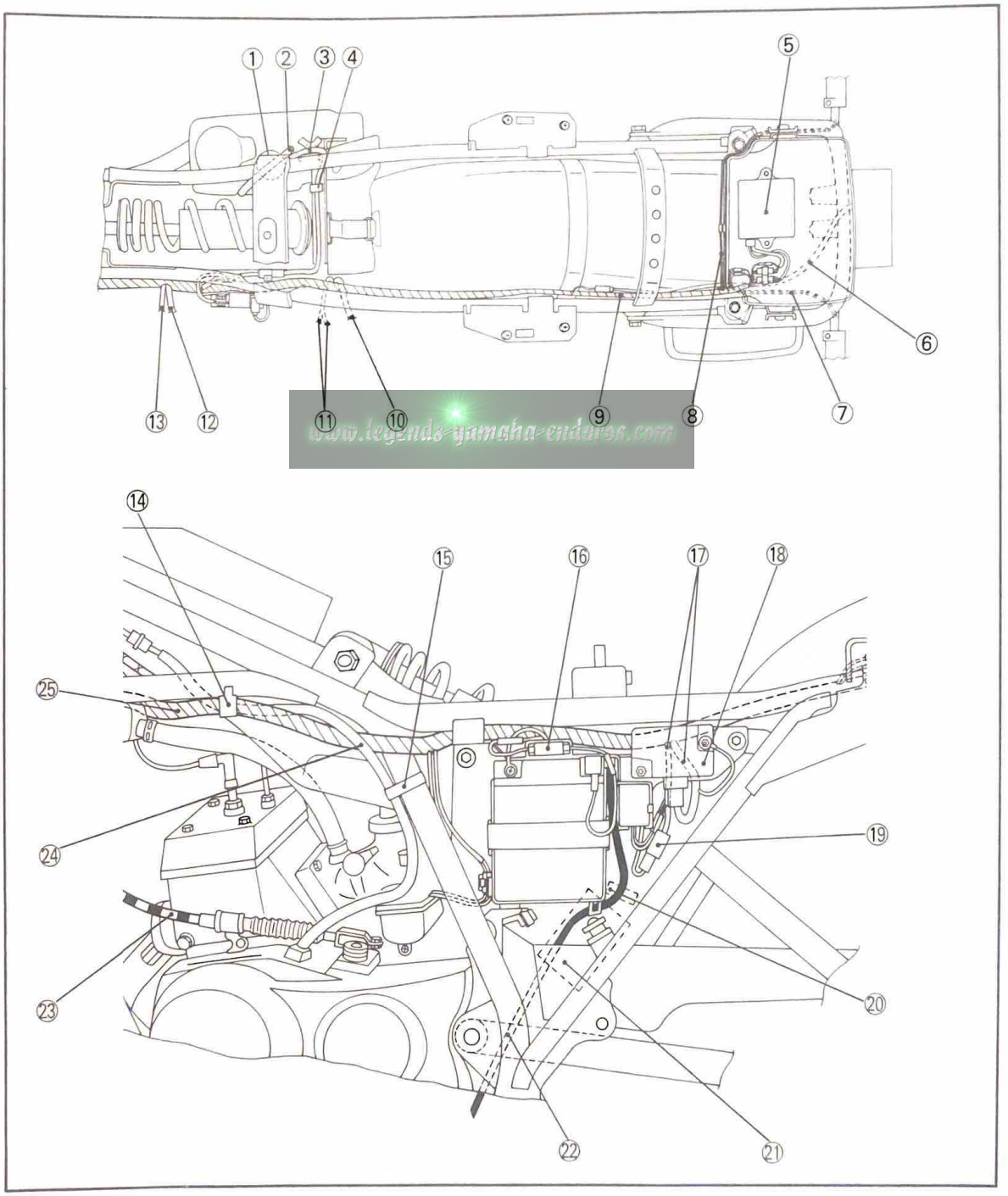
① Tachometer cable
② Wire harness
③ Flasher relay
④ Thermo-unit lead
⑤ Pump cable
⑥ Oil pipe
⑦ Holder
⑧ Wire harness
⑨ Brake switch
⑩ Oil level switch lead
⑪ Oil tank reservoir
⑫ Clamp
⑬ Servomotor
⑭ Throttle cable
⑮ Band
⑯ High tension cord
⑰ Earth lead
⑱ Ignition coil
⑲ Cable guide

[A] Route on the left side of the servomotor.
[B] Route through the hole in the air cleaner bracket.
[C] Carburetor air vent hose
Route between the frame and rear cushion and clamp.
[D] Leads coming from the servomotor.



CABLE ROUTING

① Oil level switch
② Oil tank breather pipe
③ Oil level switch lead
④ Clamp
⑤ Control unit
⑥ Taillight lead
⑦ Rear flasher light lead (Left)
⑧ Rear flasher light lead (Right)
⑨ Wire harness
⑩ Rectifier lead
⑪ Wire harness
⑫ To fuse
⑬ To brake switch
⑭ Clamp
⑮ Clamp
⑯ Fuse
⑰ Rectifier lead
⑱ Rectifier/Regulator
⑲ Wire harness
⑳ Guide (mud guard)
㉑ C.D.I. Unit
㉒ Battery breather pipe
㉓ Clutch cable
㉔ Pick-up coil lead
㉕ Main harness



(E): For England
(D): For Denmark
(F): For France
(B): For Belgium
(Fi): For Finland
(Sw): For Sweden
(S): For Switzerland

SPECIFICATIONS

1. GENERAL SPECIFICATIONS

Model	RD125LC
Model Code Number	IGU (S), IGW (F), IGX (Fi) (Sw), IGM (E), IGL (D)(F)(B)
Frame Starting Number	IGU-000101(S), IGW-000101(F), IGX-000101(Fi)(Sw), IGM-000101(E), IGX-003101(B)(D)(F)
Engine Starting Number	IGU-000101(S), IGW-000101(F), IGX-000101(Fi)(Sw), IGM-000101(E), IGX-003101(B)(D)(F)
Dimensions:	
Overall Length	1,990 mm (78.3 in) (S)(Sw) 1,940 mm (76.4 in) (F)(D)(B)(E) 2,030 mm (79.9 in) (Fi)
Overall Width	695 mm (27.4 in)
Overall Height	1,140 mm (44.9 in)
Seat Height	755 mm (29.7 in)
Wheelbase	1,275 mm (50.2 in)
Minimum Ground Clearance	165 mm (6.5 in)
Basic Weight:	
With Oil and Full Fuel Tank	112 kg (247 lb)
Minimum Turning Radius	2,500 mm (98.4 in)
Engine:	
Engine Type	Liquid cooled, 2-stroke, gasoline, torque induction
Cylinder Arrangement	Single cylinder, Forward inclined
Displacement	123 cm^3
Bore × Stroke	56.0 × 50.0 mm (2.205 × 1.969 in)
Compression Ratio	6.3 : 1 6.4 : 1 (E)
Starting System	Kick starter
Lubrication System:	Separate lubrication (Yamaha Autolube)
Oil Type or Grade:	
Engine Oil	Yamaha oil 2T or equivalent
Transmission Oil	SAE 10W30 type SE motor oil
Oil Capacity:	
Oil Tank (Engine Oil)	1.1 L (0.97 Imp qt, 1.16 US qt)
Transmission Oil	
Periodic Oil Change	0.55 L (0.48 Imp qt, 0.58 US qt)
Total Amount	0.63 L (0.55 Imp qt, 0.67 US qt)
Radiator Capacity:	
(Including All Routes)	1.0 L (0.88 Imp qt, 1.06 US qt)
Reservoir Tank Capacity	0.25 L (0.22 Imp qt, 0.26 US qt)
Air Filter	Wet type element

Model	RD125LC
Fuel:	
Type	Regular gasoline
Tank Capacity	13 L (2.86 Imp gal, 3.44 US gal)
Reserve Amount	1.9 L (0.41 Imp gal, 0.50 US gal)
Carburetor:	
Type/Manufacturer	VM26SS/MIKUNI VM24SS/MIKUNI (For England)
Spark Plug:	
Type/Manufacturer	BR8ES or BR9ES/NGK
Gap	0.7 ~ 0.8 mm (0.028 ~ 0.031 in)
Clutch Type:	Wet, multiple-disc
Transmission:	
Primary Reduction System	Gear
Primary Reduction Ratio	71/22 (3.227)
Secondary Reduction System	Chain drive
Secondary Reduction Ratio	45/16 (2.812)
Transmission Type	Constant mesh, 6-speed
Operation	Left foot operation
Gear Ratio 1st	34/12 (2.833)
2nd	29/16 (1.812)
3rd	26/19 (1.368)
4th	24/21 (1.142)
5th	23/23 (1.000)
6th	22/24 (0.916)
Chassis:	
Frame Type	Steel tube, double cradle
Caster Angle	25.5°
Trail	86 mm (3.39 in)
Tire:	
Type	With tube
Size (F)	80/100-16 45P
Size (R)	90/90-18 51P
Tire Pressure (Cold tire):	
Up to 90 kg (198 lb) load* (F)	172 kPa (1.8 kg/cm^2, 25 psi)
(R)	196 kPa (2.0 kg/cm^2, 28 psi)
90 kg (198 lb) load* ~ 210 kg (463 lb) load*	
(F)	172 kPa (1.8 kg/cm^2, 25 psi)
(R)	221 kPa (2.3 kg/cm^2, 32 psi)

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

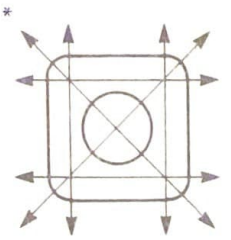
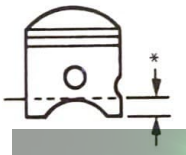
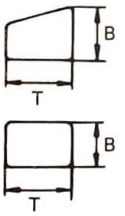
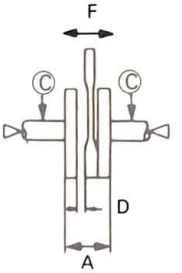
APPX

SPECIFICATIONS

Model	RD125LC
Brake:	
Front Brake Type	Disc brake (Single)
Operation	Right hand operation
Rear Brake Type	Drum brake
Operation	Right foot operation
Suspension:	
Front Suspension	Telescopic fork
Rear Suspension	Swingarm (Monocross suspension)
Shock Absorber:	
Front Shock Absorber	Coil spring/Oil damper
Rear Shock Absorber	Gas/Coil spring/Oil damper
Wheel Travel:	
Front Wheel Travel	140 mm (5.51 in)
Rear Wheel Travel	110 mm (4.33 in)
Electrical:	
Ignition System	C.D.I. Magneto
Generator System	A.C. Magneto Generator
Battery Type or Model	12N5-3B
Battery Capacity	12V 5AH
Headlight Type	Bulb
Bulb Wattage/Quantity:	
Headlight	45W/40W × 1
Auxiliary Light	3.4W × 1 (For England) 4W × 1 (For Others)
Tail/Brake Light	5W/21W × 1
Flasher Light	21W × 4
Meter Light	3W × 4
Indicator Light Wattage/Quantity:	
"NEUTRAL"	3W × 1
"HIGH BEAM"	3W × 1
"OIL"	3W × 1
"TURN"	3W × 1

II. MAINTENANCE SPECIFICATIONS

A. ENGINE

Model	RD125LC
Cylinder Head: Warp Limit 	<0.03 mm (0.0012 in)> *Lines indicate straightedge measurement.
Cylinder: Bore Size Taper Limit Out of Round Limit	$56.00^{+0.020}_{0}$ mm ($2.205^{+0.008}_{0}$ in) <0.05 mm (0.002 in)> <0.01 mm (0.0004 in)>
Piston: Piston Size/Measuring Point* Piston Clearance Oversize 1st 2nd Piston offset 	$56.0^{-0.06}_{-0.08}$ mm ($2.205^{-0.0024}_{-0.0031}$ in)/10 mm (0.4 in) 0.055 ~ 0.060 mm (0.0022 ~ 0.0024 in) 56.25 mm (2.215 in) 56.50 mm (2.224 in) 0 mm (0 in) 0.25 mm (0.01 in)/Ex side (For England)
Piston Ring: Sectional Sketch 	Top Ring Keystone B = 1.2 mm (0.047 in) T = 2.4 mm (0.094 in) 2.2 mm (0.087 in) (For England) 2nd Ring Plain B = 1.2 mm (0.047 in) T = 1.85 mm (0.073 in)
End Gap (Installed) Top Ring 2nd Ring Side Clearance (Installed) Top Ring 2nd Ring	0.30 ~ 0.45 mm (0.012 ~ 0.018 in) 0.30 ~ 0.50 mm (0.012 ~ 0.020 in) 0.02 ~ 0.06 mm (0.0008 ~ 0.0024 in) 0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)
Crankshaft:  Crank Width "A" Runout Limit "C" Connecting Rod Big End Side Clearance "D" Small End Free Play Limit "F"	$56.00^{-0.05}_{-0.18}$ mm ($2.205^{-0.0020}_{-0.0071}$ in) <0.03 mm (0.0012 in)> 0.2 ~ 0.7 mm (0.008 ~ 0.028 in) <2 mm (0.08 in)>

APPX SPECIFICATIONS

Model		RD125LC	
Clutch:			
Friction Plate Thickness/Quantity		3.0 mm (0.12 in) × 6	
Wear Limit		<2.7 mm (0.11 in)>	
Clutch Plate Thickness/Quantity		1.2 mm (0.05 in) × 5	
Warp Limit		<0.05 mm (0.002 in)>	
Clutch Spring Free Length/Quantity		34.5 mm (1.36 in) × 4	
Clutch Spring Minimum Length		<32.5 mm (1.28 in)>	
Clutch Housing Thrust Clearance		0 mm (0 in)	
Clutch Housing Radial Clearance		0.015 ~ 0.049 mm (0.0006 ~ 0.0020 in)	
Primary Reduction Gear			
Backlash Tolerance		172 ± 3 (B—B, C—C, D—D)	
Clutch Release Method		Inner push, cam push	
Push Rod Bending Limit		<0.15 mm (0.006 in)>	
Shifter:			
Shifting Type		Cam drum, Guider bar	
Kick Starter Type:		Kick and mesh type	
Kick Clip Friction Force <Min. ~ Max.>		P = 1.0 kg (2.2 lb) <0.8 ~ 1.2 kg (1.8 ~ 2.6 lb)>	
Air Filter Oil Grade (Oiled Filter)		Air cooled 2-cycle oil	
Carburetor:		EXCEPT FOR ENGLAND	FOR ENGLAND
Type/Manufacturer/Quantity		VM26SS/MIKUNI/1	VM24SS/MIKUNI/1
I.D. Mark		IGU-00	12A-01
Main Jet	(M.J.)	#190	#195
Main Air Jet	(M.A.J.)	φ1.2	φ2.5
Jet Needle-clip Position	(J.N.)	406-4	5GN36-4
Needle Jet	(N.J.)	P-2	O-2
Cutaway	(C.A.)	2.0	1.5
Pilot Jet	(P.J.)	#25	#20
Pilot Air Screw	(P.A.S.)	1 and 1/2	←
Valve Seat Size	(V.S.)	φ2.5	←
Starter Jet	(G.S.)	#25	←
Float Height	(F.H.)	21.0 ± 1.0 mm (0.83 ± 0.04 in)	←
Fuel Level	(F.L.)	0.5 ± 1.0 mm (0.02 ± 0.04 in)	←
Engine Idling Speed		1,300 ± 50 r/min	←
Reed valve:			
Thickness*		0.2 mm (0.008 in)	
Valve Stopper Height		10.3 mm (0.41 in)	
Valve Bending Limit		0.5 mm (0.020 in)	

Model	RD125LC
Lubrication System:	Separate lubrication (Yamaha Autolube Pump)
Autolube Pump	
Color Code	Red
Minimum Stroke	0.20 ~ 0.25 mm (0.008 ~ 0.010 in)
Maximum Stroke	1.85 ~ 2.05 mm (0.073 ~ 0.081 in)
Minimum Output/200 Stroke	0.38 ~ 0.48 cm^3 (0.0134 ~ 0.0169 Imp oz, 0.0128 ~ 0.0162 US oz)
Maximum Output/200 Stroke	3.56 ~ 3.94 cm^3 (0.126 ~ 0.139 Imp oz, 0.120 ~ 0.133 US oz)
Adjusting mark (at idle) 	At idle
Cooling:	
Radiator Core Size	
-Width	160 mm (6.30 in)
-Height	160 mm (6.30 in)
-Thickness	32.0 mm (1.26 in)
Radiator Cap Opening Pressure	88 ± 15 kPa (0.9 ± 0.15 kg/cm^2, 13 ± 2 psi)
Water Pump	Single-Suction Centrifugal Pump

APPX

SPECIFICATIONS

Tightening Torque

Parts to be tightened		Part name	Thread size	Q'ty	Tightening torque			Remarks
					Nm	m•kg	ft•lb	
Spark plug		—	M14	1	20	2.0	14	
Cylinder head		Crown nut	M 8	5	22	2.2	16	Except for England
		Crown nut	M 8	4	21	2.1	15	For England
Thermostatic valve cover		Screw	M 6	3	8	0.8	5.8	
Thermo-unit		—	M10	1	14	1.4	10	Except for England
		—	M10	1	10	1.0	7.2	For England
Cylinder		Nut	M 8	4	25	2.5	18	Except for England
		Nut	M 8	4	28	2.8	20	For England
YPVS	Valve holder (Left)	Bolt	M 5	1	5	0.5	3.6	
	Power valve	Bolt	M 5	1	6	0.6	4.3	
	Pulley	Bolt	M 6	1	10	1.0	7.2	
	Power valve cover	Screw	M 5	2	5	0.5	3.6	
	Power valve seal cap	Bolt	M 5	2	5	0.5	3.6	
Reed valve		Bolt	M 6	4	8	0.8	5.8	
Exhaust pipe		Nut	M 8	2	18	1.8	13	
		Stud bolt	M 8	2	10	1.0	7.2	
Crankcase		Screw	M 6	10	8	0.8	5.8	
Crankcase drain bolt		Bolt	M12	1	20	2.0	14	
Neutral switch		—	M10	1	4	0.4	2.9	
Crankcase cover (Left and right)		Screw	M 6	13	10	1.0	7.2	
Water pump cover		Screw	M 6	3	8	0.8	5.8	
Water pump cover drain bolt		Screw	M 6	1	10	1.0	7.2	
Oil pump cover		Screw	M 6	4	10	1.0	7.2	
Oil pump		Screw	M 5	2	5	0.5	3.6	
Primary drive gear		Nut	M12	1	80	8.0	58	Except for England
		Nut	M12	1	65	6.5	47	For England
Clutch assembly		Nut	M12	1	55	5.5	40	Except for England
		Nut	M12	1	65	6.5	47	For England
Clutch spring		Bolt	M 5	4	6	0.6	4.3	Except for England
		Bolt	M 5	4	10	1.0	7.2	For England

Tightening Torque							
Parts to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m•kg	ft•lb	
Balancer gear	Nut	M12	1	55	5.5	40	
Stopper plate (Oil seal)	Screw	M 8	1	16	1.6	11	
Stopper plate (Bearing)	Screw	M 6	2	10	1.0	7.2	
Kick crank boss	Nut	M12	1	65	6.5	47	
Stopper lever	Bolt	M 6	1	14	1.4	10	
Drive sprocket	Bolt	M 6	2	10	1.0	7.2	
Tachometer housing	Bolt	M 6	1	5	0.5	3.6	
Change pedal	Bolt	M 6	1	15	1.5	11	
CDI magneto	Nut	M12	1	83	8.3	60	
CDI base (Stator)	Screw	M 6	2	10	1.0	7.2	

APPX  SPECIFICATIONS

B. CHASSIS

Model		RD125LC
Steering System:		
Steering Bearing Type		Ball Bearing
No./Size of Steel Balls	Upper	19 pcs./ 1/4 in
Bearing Model	Lower	19 pcs./ 1/4 in
Front Suspension:		
Front Fork Travel		140 mm (5.51 in)
Fork Spring Free Length		515.1 mm (20.28 in)
<Limit>		510 mm (20.08 in)
Spring Rate/Stroke		K_1 = 3.68 N/mm (0.375 kg/mm, 21.0 lb/in)/ 0 ~ 113.5 mm (0 ~ 4.47 in)
		K_2 = 4.90 N/mm (0.500 kg/mm 28.0 lb/in)/ 113.5 ~ 151.5 mm (4.47 ~ 5.96 in)
Oil Capacity or Oil Level		238 cm^3 (8.39 Imp oz, 8.05 US oz)
		149 mm (5.87 in) (From top of inner tube fully compressed without spring)
Oil Grade		Fork oil 10 wt
Rear Suspension:		
Shock Absorber Travel		55 mm (2.17 in)
Spring Free Length		234.5 mm (9.23 in)
<Limit>		<232 mm (9.13 in)>
Spring Rate/Stroke		K_1 = 69.6 N/mm (7.1 kg/mm, 397 lb/in)/ 0 ~ 35 mm (0 ~ 1.38 in)
		K_2 = 98.1 N/mm (10.0 kg/mm, 560 lb/in)/ 35 ~ 55 mm (1.38 ~ 2.17 in)
Enclosed Gas Pressure		1471 kPa (15 kg/cm^2, 213 psi)
Wheel:		
Front Wheel Type		Cast Wheel
Rear Wheel Type		Cast Wheel
Front Rim Size/Material		MT1.85 × 16/Aluminum
Rear Rim Size/Material		MT2.15 × 18/Aluminum
Rim Runout Limit		
Vertical		<2.0 mm (0.08 in)>
Lateral		<2.0 mm (0.08 in)>
Rear Arm:		
Swing Arm Free Play Limit		
End		<1.0 mm (0.04 in)>
Side		<1.0 mm (0.04 in)>
Drive Chain:		
Type/Manufacturer		428/DAIDO
Number of Links		117 + joint
Chain Free Play		40 ~ 45 mm (1.6 ~ 1.8 in)

Model	RD125LC
Disc Brake:	
Type	Single disc
Outside Dia. × Thickness	245 × 4.0 mm (9.64 × 0.16 in)
<Limit>	<3.0 mm (0.12 in)>
Pad Thickness	5.5 mm (0.23 in)
<Limit>	<0.5 mm (0.02 in)>
Master Cylinder Inside Dia.	12.7 mm (0.50 in)
Caliper Cylinder Inside Dia.	38.1 mm (1.50 in)
Brake Fluid Type	DOT #3
Drum Brake:	
Type	Leading, trailing
Drum Inside Dia.	130 mm (5.12 in)
<Limit>	<131 mm (5.16 in)>
Lining Thickness	4 mm (0.2 in)
<Limit>	<2 mm (0.08 in)>
Shoe Spring Free Length	36.5 mm (1.44 in)
Brake Lever & Brake Pedal:	
Brake Lever Free Play	5 ~ 8 mm (0.2 ~ 0.3 in)
Brake Pedal Free Play	20 ~ 30 mm (0.8 ~ 1.2 in)
Brake Pedal Position	10 mm (0.4 in)(Vertical height below footrest top.)
Clutch Lever Free Play	2 ~ 3 mm (0.08 ~ 0.12 in)

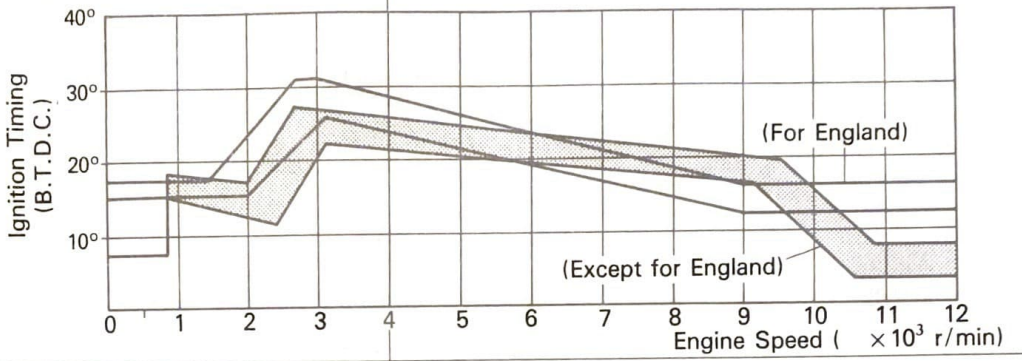
APPX

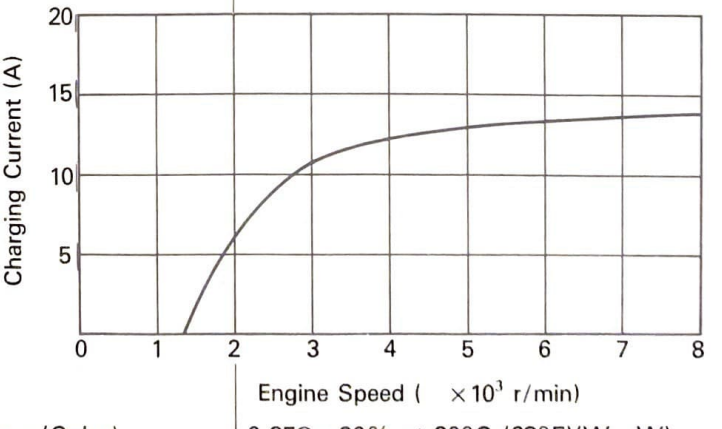
SPECIFICATIONS

Tightening Torque						
Parts to be tightened	Thread size	Q'ty	Tightening torque			Remarks
			Nm	m•kg	ft•lb	
Engine mounting	M 2	2	25	2.5	18	
Handle crown and inner tube	M 8	4	23	2.3	17	
Handle crown steering shaft	M10	1	40	4.0	28	
Handle crown and handlebar	M 6	2	10	1.0	7.2	
Handlebar and Inner tube	M 8	2	20	2.0	14	
Steering shaft and ring nut	M25	1	38	3.8	27	
Under bracket and inner tube	M 8	2	30	3.0	22	
Damper rod	M 8	2	23	2.3	17	S
Front wheel axle	M12	1	75	7.5	54	
Front wheel axle pinch bolt	M 8	1	20	2.0	14	
Disk brake	M 8	6	20	2.0	14	
Brake caliper and front fork	M10	2	35	3.5	25	
Master cylinder and brake hose	M10	1	27	2.7	19	
Brake hose and brake caliper	M10	1	27	2.7	19	
Pivot shaft and nut	M12	1	43	4.3	31	
Rear wheel axle and nut	M14	1	85	8.5	61	
Sprocket wheel and hub	M10	4	45	4.5	32	
Rear hub stud bolt	M 8	4	39	3.9	28	S
Rear shock absorber	M10	2	32	3.2	23	
Tension bar-Brake shoe plate	M 8	1	19	1.9	13	
Tension bar-Frame	M 8	1	23	2.3	17	

C. ELECTRICAL

Model	RD125LC
Voltage	12V
Ignition System: Ignition Timig (B.T.D.C.) Advanced Timing Advancer Type	 16° at 1,300 r/min 23.5° at 3,500 r/min 30° at 3,000 r/min Electrical (For England)
C.D.I.: Magneto-Model/Manufacture Pickup Coil Resistance (Color) Source Coil Resistance (Color) C.D.I. Unit-Model/Manufacturer	 F1GU/YAMAHA, F1GM/YAMAHA (For England) 350Ω ± 20% at 20°C (68°F) (W/R—W/G) 650Ω ± 20% at 20°C (68°F)(R/B—B) 63Ω ± 20% at 20°C (68°F)(R—Br) F1GU-MO/YAMAHA, F1GM/YAMAHA (For England)
Ignition Coil: -Model/Manufacturer Minimum Spark Gap Primary Winding Resistance Secondary Winding Resistance	 C2T4/YAMAHA 13 kV or more at 500 r/min 23 kV or less at 8,000 r/min 1.6Ω ± 10% at 20°C (68°F) 6.6kΩ ± 20% at 20°C (68°F)
Charging System: Type Charging Current Charging Coil Resistance (Color)	 A.C. Magneto Generator 0.35Ω ± 20% at 20°C (68°F)(W—W)





APPX

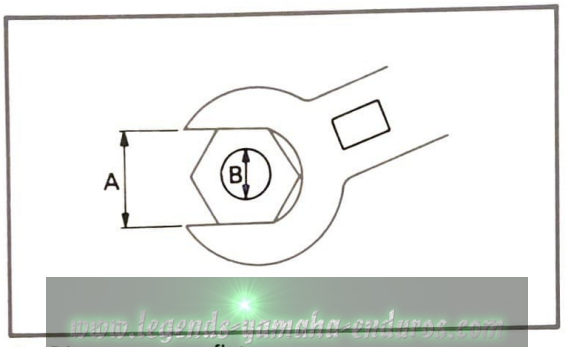
SPECIFICATIONS

Model	RD125LC
Voltage Regulator/Rectifier:	
Type	Short Circuit Type
Model/Manufacture	5H0/SHINDENGEN
No Load Regulated Voltage	14.5V
Battery:	
Capacity	12V5AH
Specific Gravity	1.280
Horn:	
Type/Quantity	Plain type × 1
Model/Manufacturer	CF-12/NIKKO
Maximum Amperage	2.5A
Flasher Relay:	
Type	Condenser
Model/Manufacturer	34L/NIPPONDENSO
Self Cancelling Device	No
Flasher Frequency	60 ~ 120 cycle/min
Wattage	21W × 2 + 3.4W
Oil Level Switch:	
Model/Manufacturer	4L0/STANLEY
Circuit Breaker:	
Type	Fuse
Amperage for Individual Circuit/Quantity	
Main	20A × 1
Reserve	20A × 1
Control Unit:	
Model/Manufacturer	IGU-MO/YAMAHA
Servo Motor Unit:	
Model/Manufacturer	IGU-00/YAMAHA
Potentiometer Resistance (Color)	7.5kΩ ± 30% at 20°C (68°F)(Y/L-W/B)

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 cross flats
B: Outside thread diameter

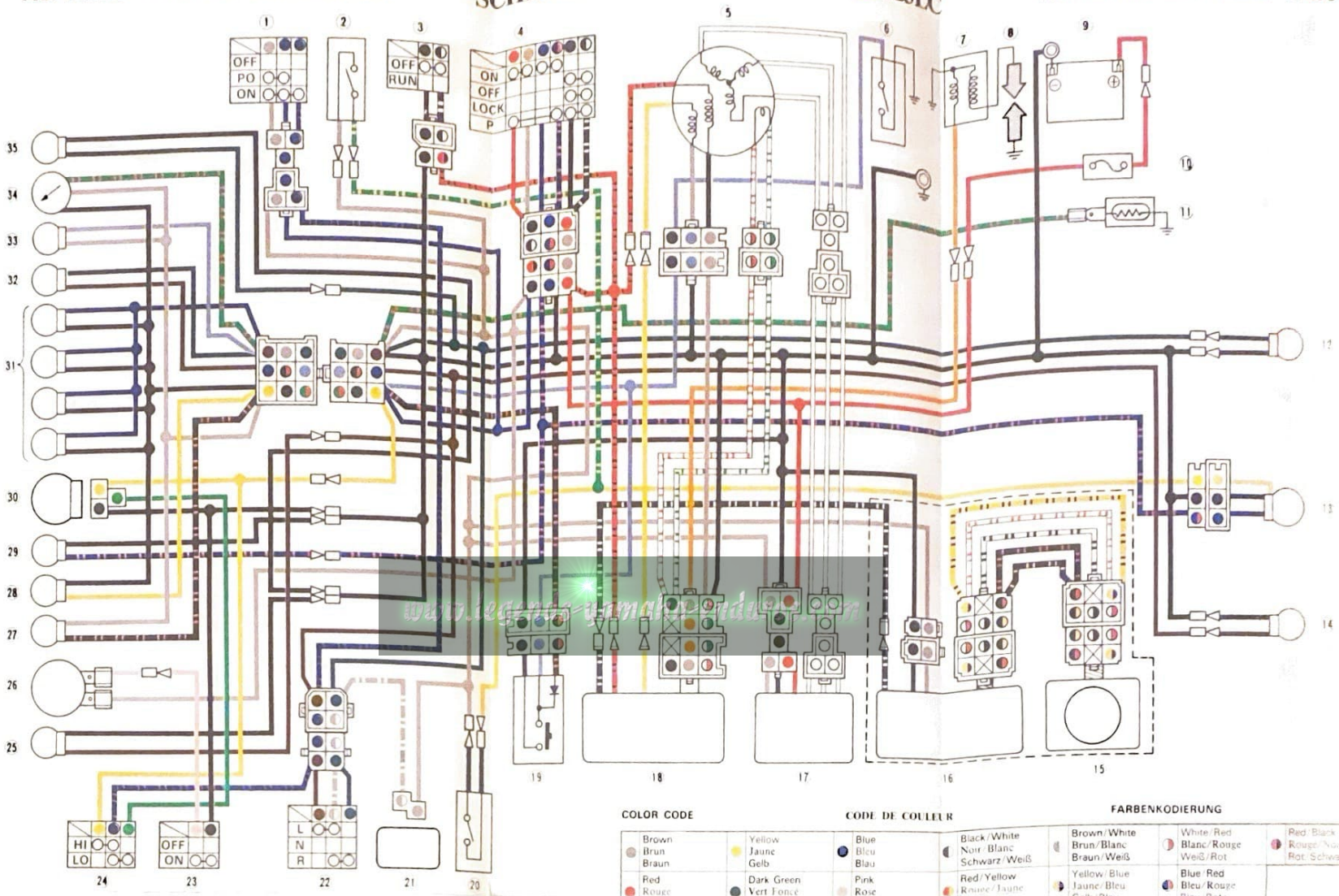
DEFINITION OF UNITS

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

RD125LC WIRING DIAGRAM

SCHEMA DE CABLAGE DE RD125LC

RD125LC SCHALTPLAN



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

1. "LIGHTS" switch
2. Front brake switch
3. "ENGINE STOP" switch
4. Main switch
5. C.D.I. Magneto
6. Neutral switch
7. Ignition coil
8. Spark plug
9. Battery
10. Fuse
11. Thermo switch
12. Rear flasher light (R)
13. Tail/brake light
14. Rear flasher light (L)
15. YPVS-Motor (Except England)
16. YPVS-control unit (Except England)
17. Rectifier/Regulator
18. CDI unit
19. Oil level switch
20. Rear brake switch
21. Flasher relay
22. "TURN" switch
23. "HORN" switch
24. "LIGHTS" (Dimmer) switch
25. Front flasher light (L)
26. Horn
27. "OIL" warning indicator light
28. "HIGH BEAM" indicator light
29. Auxiliary light
30. Head light
31. Meter light
32. "TURN" indicator light
33. "NEUTRAL" indicator light
34. Temperature gauge
35. Front flasher light (R)

1. Contacteur d'eclairage "LIGHTS"
2. Contacteurs avant du feu stop
3. Interrupteur de securité "ENGINE STOP"
4. Contacteur a clé
5. Magneto
6. Contacteur de point mort
7. Bobine d'allumage
8. Bougies
9. Batterie
10. Fusible
11. Sonde thermique
12. Clignoteur arriere (D)
13. Feu arriere/stop
14. Clignoteur arriere (G)
15. Moteur du YPVS (Excepté l'Grandle-Bretaque)
16. Bloc de commande du YPVS (Excepté l'Grande-Bretaque)
17. Redresseur/Régulateur
18. Bloc CDI
19. Contacteur de niveau d'huile
20. Contacteur arrière du feu stop
21. Relais des clignotants
22. Commutateur de clignotant "TURN"
23. Contacteur d'avertisseur "HORN"
24. Commutateur de feu de croisement "LIGHTS" (Dimmer)
25. Clignoteur avant (G)
26. Avertisseur
27. Lampe d'avertissement de niveau d'huile "OIL"
28. Lampe-témoin de feu de route "HIGH BEAM"
29. Témoin auxiliaire
30. Phare
31. Lampe de compteur
32. Témoin de clignotant "TURN"
33. Lampe-témoin de point mort "NEUTRAL"
34. Indicateur de température
35. Clignoteur avant (D)

1. Lichtschalter „LIGHTS"
2. Vorderrad-Bremslichtschalter
3. Motorstoppschalter „ENGINE STOP"
4. Hauptschalter
5. Magnetzünder
6. Leerlaufschalter
7. Zündspule
8. Zündkerze
9. Batterie
10. Sicherung
11. Thermo-Einheit
12. Hinteres Blinklicht (R)
13. Schluß-/Bremsleuchte
14. Hinteres Blinklicht (L)
15. YPVS-Motor (Außer England)
16. YPVS-Steuerung (Außer England)
17. Gleichrichter/Spannungsregler
18. CDI-Zündeinheit
19. Oistandschalter
20. Hinterrad-Bremslichtschalter
21. Blinkerrelais
22. Blinklichtschalter
23. Signalhornknopf „HORN"
24. Lichtschalter „LIGHTS" (Dimmer)
25. Vorderes Blinklicht (L)
26. Hupe
27. Öl-Warnanzeige „OIL"
28. Fernlicht-Kontrollampe „HIGH BEAM"
29. Nummernschildbeleuchtung
30. Scheinwerfer
31. Instrumenten-Kontrollampe
32. Blinkerkontrolleuchte „TURN"
33. Leerlauf-Kontrollampe „NEUTRAL"
34. Temperaturmesser
35. Vorderes Blinklicht (R)

YAMAHA MOTOR CO.,LTD.
IWATA JAPAN

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