

YZ125C

OWNER'S SERVICE MANUAL

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537-28199-10

NOTICE

Yamaha Motor Company is confident you will enjoy your new Yamaha to the utmost. We have made every effort to provide you with a safe, well-engineered and constructed product.

This Owner's Service Manual will acquaint you with several features and maintenance procedures concerning your Yamaha. However, if you are unfamiliar with the product, or the features or procedures outlined within this manual, we strongly urge you to consult your Authorized your Yamaha Dealer for additional information.

YZ125C OWNER'S SERVICE MANUAL

1975

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FOREWORD

Yamaha's YZ125C is completely new model designed solely for the rigors of Motocross competition. Production is limited. Each unit is assembled and checked according to the same rigorous principles as our championship road racing models.

This Owner's Service Manual is included to provide basic information for operation and maintenance. Additional information regarding major repairs, such as crankcase disassembly, can be found within the DT100A/125A/175A Service Manuals and various other information and training manuals available from your Authorized Yamaha Dealer.

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YAMAHA MOTOR COMPANY, LTD. SERVICE DEPARTMENT OVER SEAS ENGINEERING DIVISION IWATA, JAPAN

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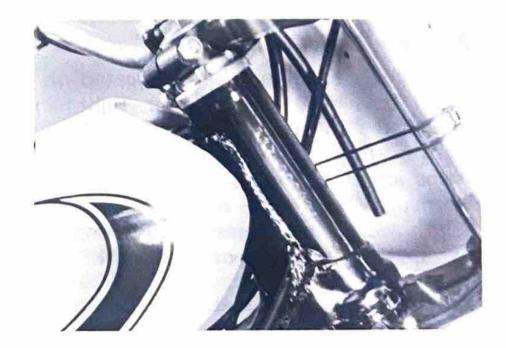




SECTION A. MACHINE IDENTIFICA-TION

1. Frame Serial Number

The frame serial number is located on the right-hand side of the headstock assembly. The first three digits identify the model. This is followed by a dash. The remaining digits identify the production number of the unit. Yamaha production begins-000101.



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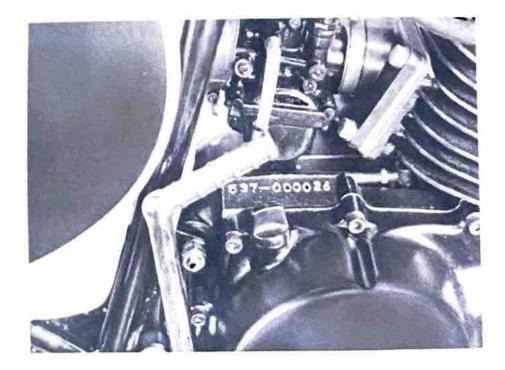
2. Engine Serial Number

The engine serial number is located on a raised boss on the upper rear, right-hand side of the engine on the YZ125C. Engine identification follows the same code as frame identification.

Normally, both serial numbers are identical; however, on occasion they may be two or three numbers off.

NOTE: -

Always check your registration papers against the actual machine serial numbers. If any discrepancy is found, have it corrected immediately.



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SECTION B. GENERAL SPECIFICATIONS

These specifications are for general use. For a more complete list, refer to Maintenance Specifications and/or the Service Manuals.

DIMENSIONS/WEIGHT	
Overall length	90.91 in (2,055 mm)
Overall width	38.78 in (985 mm)
Overall height	43.90 in (1,115 mm)
Wheelbase	53.94 in (1,370 mm)
Minimum ground clearance	10.24 in (260 mm)
Seat height (Unloaded)	28.48 in (845 mm)
Machine net weight	184 lbs (83.5 kg)
ENGINE	
Туре	Air cooled, 2-stroke, single
Bore/Stroke	2.20 in x 1.97 in (56x50 mm)
Displacement	7.51 cu. in. (123 cc)
Compression ratio	7.5 : 1
Starting system	Kick starter
Lubricating system	Mixed Gas 15 : 1
CARBURETION	
Manufacturer/Type	MIKUNI VM 30 SS
Effective venturi size	www.legends-yumaka-en1n18 in (30 mm)
Main jet	# 190
Needle jet	P - 4

GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS	
Jet needle Pilot jet Air screw (Yurns out) Cut sway Float level Air cleaner type	6DP1-3 #60 1½ 3.0 0.59 ± 0.04 in (15.0±1 mm) Oiled foam rubber x 2 PCS.
CLUTCH Type Primary drive system Primary drive ratio	Wet multipe disc type Spur gear 74/19 3.894
TRANSMISSION Type Reduction ratio 1st 2nd 3rd 4th 5th 6th	33/132.53829/151.93328/181.55526/201.30024/211.14223/221.045
SECONDARY DRIVE Drive/Driven sprocket Type/Size Reduction ratio	45/14 Chain HD 428 112L 3.214
ELECTRICAL Ignition type/Manufacturer Coil/Manufacturer C.D.I. unit/Manufacturer	C.D.I. Magneto M100–17 6V HITACHI HITACHI CM61–20u HITACHI TIA 01–06

4

GENERAL SPECIFICATIONS

CHASSIS	
Frame type	Tubular steel double cradle
Front suspension/Travel	7.68 in (195 mm)
Front fork spring free length	19.53 in (496 mm)
Rear suspension /Travel	6.30 in (160 mm)
Rear cushion spring free length	8.03 in (204 mm)
Caster/Trail	58°30'/5.51 in (140 mm)
Front tire Size	3.00-21 – 4PR
Thread type	Full konbby
Nominal pressure (Psi)	0.9
Rear tire Size	4.10-18 – 4PR
Thread type	Full knobby
Nominal pressure (Psi)	1.1
Front brake type	Drum (Leadingtrailing)
Actuating method	Cable
Rear brake type	Drum (Leading trailing)
Actuating method	Link rod
VOLUMES/TYPE FLUID	
Gasoline tank/Type (Ratio)	1.3 gal. (5 lit) Premium (15 : 1)
Transmission/Type	650 ± 50 cc (SAE 10W30)
Front fork (each)/Type	190.5 cc 10, 20, 30 wt Fork oil
Rear shock nitrogen gas pressure (Psi)	14 * [14 to 30]

*[ALLOWABLE]

NOTE:-

The Research and Engineering Departments of Yamaha are continually striving to further perfect all models. Improvements and modifications are therefore inevitable. In light of this fact, the foregoing specifications are subject to change without notice to the owner. Information regarding changes is forwarded to all Authorized Yamaha Dealers as soon as available. If a descrepancy is noted, please consult your dealer.

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SECTION C. MAINTENANCE SPECIFICATIOS

CDI IGNITION	
Secondary ignition coil Resistance (Primary) Secondary ignition coil Resistance (Secondary) Ignition timing Spark plug constant Hi-speed Normal Spark plug gap	0.61 $\Omega \pm 10\%/20^{\circ}$ C 6.0 K $\Omega \pm 20\%/20^{\circ}$ C 0.08 in \pm 0.001 in (2.0 \pm 0.15 mm) B.T.D.C. NGK B-10EV NGK B- 9EV 0.016~0.020 in (0.4 ~ 0.5 mm)
ENGINE – TOP END Piston clearance Piston wear limit Ring end gap (Installed) Connecting Rod/Piston pin side clearance Connecting Rod/Crank side clearance	0.0016 - 0.002 in (0.040-0.050 mm) 0.004 in (0.1 mm) 0.016 - 0.020 in (0.4 - 0.5 mm) 0.031-0.039in (0.8-1.0mm) *[0.079in (2mm)] $0.002\sim0.010$ in (0.04 \sim 0.25 mm)
ENGINE – CLUTCH Friction plate thickness Clutch plate warp allowance Clutch spring free length	0.121 in (3.0 mm) *[0.11 in (2.7 mm)] None 1.417 in (36 mm) *[1.378 in (35 mm)]

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MAINTENANCE SPECIFICATIONS

CHASSIS	
Front brake shoe diameter	5.118 in (130 mm)
Front brake shoe replacement limit	0.079 in (2 mm)
Rear brake shoe diamenter	5.118 in (130 mm)
Rear brake shoe replacement limit	0.079 in (2 mm)
Wheel run-out limits vertical	0.079 in (2 mm)
Wheel run-out limits lateral	0.079 in (2 mm)
Front fork spring free length	19.53 in (496 mm)
Rear shock spring free length	8.032 in (204 mm)
TORQUE VALUES	
(Also see Torque chart page 7)	
Cylinder head holding nut	14.47 ft-Ib M8 (2 m-kg)
Clutch bass securing nut	21.70 - 36.12 ft-lb M12 (3.0 - 5.0 m-kg)
Primary drive gear securing nut	21.70 - 36.12 ft-lb M12 (3.0 - 5.0 m-kg)
Drive sprocket securing nut	47.02 – 72.33 ft-lb M16 (6.5 – 10.0 m-kg)
Engine mounting nut (Front)	10.13 – 15.91 ft-lb M8 (1.4 – 2.2 m-kg)
(Rear upper)	10.13 – 15.91 ft-lb M8 (1.4 – 2.2 m-kg)
Engine mounting bolt (Rear lower)	21.70 - 34.72 ft-lb M10 (3.0 - 4.8 m-kg)
Front fork tube pinch bolt	5.79 – 9.40 ft-lb M8 (0.8 – 1.3 m-kg)
Steering shaft pinch bolt	5.79 – 9.40 ft-lb M8 (0.8 – 1.3 m-kg)
Steering shaft securing bolt www.le	gends-yamaha-endur30.38 - 47.02 ft-16 M14 (4.2 - 6.5 m-kg)
Steering shaft nut	43.40 - 68.71 ft-lb M25 (6.0 - 9.5 m-kg)
Handle secruing bolt	5.79 - 9.40 ft-lb M8 (0.8 - 1.3 m-kg)
Front wheel shaft securing nut	50.63 - 72.33 ft-lb M14 (7.0 - 10.0 m-kg)

Pivot shaft securing nut	25.32 - 36.12 ft-lb M12 (3.5 - 5.0 m-kg)
Rear wheel shaft securing nut	50.63 – 79.56 ft-lb M14 (7.0 – 11.0 m-kg)
Driven sprocket securing nut	7.96 – 12.30 ft-lb M8 (1.1 – 1.7 m-kg)
Tension bar and brake plate bolt	7.23 – 12.30 ft-lb M8 (1.0 – 1.17 m-kg)
Tension bar and rear arm bolt	7.96 – 12.30 ft-lb M8 (1.1 – 1.7 m-kg)
Rear cushion unit holding nut (frame)	27.50 - 43.40 ft-lb M14 (3.8 - 6.0 m-kg)
Rear cushion unit holding nut (rear arm)	7.96 – 15.91 ft-lb M8 (1.4 – 2.2 m-kg)
Muffler stay securing bolt	5.79 – 9.40 ft-lb M8 (0.8 – 1.3 m-kg)
C.D.I. Rotor securing bolt	28.93 – 32.55 ft-lb M18 (4.0 – 4.5 m-kg)

*[ALLOWABLE]

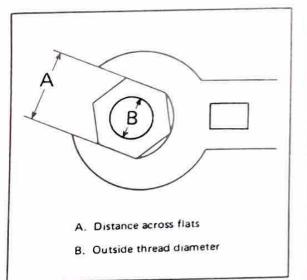
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SECTION D. TORQUE CHART

The chart covers those stud/bolt sizes with standard I.S.O. pitch threads. Torque specifications for components with thread pitches other than standard are given within the applicable chapter.

Torque specifications are for dry, clean threads. Components such as the cylinder

or cylinder head should be at room temperature prior to torquing. A cylinder head or any other item with several fasteners should be torqued down in a cross-hatch pattern in successive stages until torque specification is reached. The method is similar to installing an automobile wheel and will avoid warping the component.



-		TORQUE SPECIFICATION				
A	В	m-kg	ft-lb	in-lb		
10 mm	6 mm	1.0	7.2	85		
12(13) mm	8 mm	2.0	15	175		
(14) mm	(8) mm	2.0	15	175		
14(17) mm	10 mm	3.5 - 4.0	25 — 29	300 — 350		
17(19) mm	12 mm	4.0 - 4.5	29 — 33	350 - 400		
19(22) mm	14 mm	4.5 — 5.0	33 — 36	400 – 400		
22 mm	16 mm	5.5 — 6.5	41 – 49	480 – 570		
(26) mm/ds		5.8 — 7 <i>.</i> 0	42 — 50	500 - 600		
24(27) mm	18 mm	5.8 — 7.0	42 — 50	500 - 600		
27(30) mm	20 mm	7.0 – 8.3	50 - 60	600 - 700		

SECTION E. MAINTENANCE AND LUBRICATION SCHEDULE

The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals. You must take into consideration that weather, terrain, geographical locations, and a variety of individual uses all tend to demand that each owner alter this time schedule to match his

environment. For example, if the motorcycle is continually operated in an area of high humidity then all parts must be lubricated much more frequently than shown on the chart to avoid rust and damage. If you are in doubt as to how closely you can follow these time recommendations, check with the YAMAHA dealer in your area.



MAINTENANCE AND LUBRICATION SCHEDULE CHART - NOTES

- No.1 At ambient temperatures of 45° 90° F, use Motor oil 10W/30. Do not use "additives" in oil.
- No.2 Use 10W/30 "SE" Motor oil (If desired, specialy lubricants of quality manufacture may be used.) Drive chains – lube every 150–200 mi (250–350 km) In severe conditions every

50–100 mi (80–150 km)

- No.3 Use cable/chain lubricant (speciality types available-use name-brand, quality manufacture).
- No.4 Light duty: smooth, light-weight, "white" grease.

Heavy duty: soft chassis lube grease (do not use lube grease on throttle/ housing).

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- No.5 Use a soft chassis lube grease (short fiber).
- No.6 Meduim-weight wheel bearing grease of quality manufacture (preferably waterproof).
- No.7 Lightweight machine oil.
- No.8 Air filters foam element air filters must be damp with oil at all times to function properly. Clean and oil monthly or according to mileage. In severe conditions, clean and lube daily. Do not over-oil.
- No.9 Use 10 30W fork oil (nonfoaming hydraulic fluid).

MAINTENANCE AND LUBRICATION SCHEDULE CHART

Page	Item	Every meet	Every second	Every third	Every heat (moto)	Every 6 months of racing	As required
	PISTON						
72 – 73	 Inspect 	x					
	Clean	x					
	Replace						x
	PISTON RING						
74 - 76	Replace	x					
	CYLINDER						
70 - 71	 Inspect (Compression Check) 	x					
	Clean	x					
	Replace						x
	 Check head bolt torque 				X		
	CLUTCH						
33 – 34	 Adjust 	×					
85 - 95	 Replace (Plates) 	x					
	TRANSMISSION						
24 – 25	Change Oil	1 * 6	X(1)				
96 – 99	Inspect gears	gends-yamah	a-enduros .con	ā.		×	
	Replace bearings					×	
	 Inspect shift forks 					×	

RACE/MEET INTERVAL

RACE/MEET INTERVAL

Page	Item	Every meet	Every second	Every third	Every heat (moto)	Every 6 months of racing	As required
	ENGINE MAIN BEARINGS					10 P	
104	Replace					×	
	CONNECTING ROD						
76 – 80	 Check bearings 	×					
	 Replace big end bearing 					×	
68	 Replace small end bearing 						х
	CARBURETOR						
36 - 38	 Check/Adjust/Tighten 	×					
50 - 60	 Clean & Inspect 	×					
	PISTON PIN						
	 Inspect 	×					
	Replace						х
	EXHAUST SYSTEM						
	 Inspect 	×					
	FLYWHEEL NUT						
	Torque	oww.legends- A maha	enduros com				
	KICK STARTER						
85 - 93	 Inspect idler gear 					x	
	Replace						x

Page	Item	Every meet	Every second	Every third	Every heat (moto)	Every 6 months of rading	As required
	FRAME						
	Clean & Inspect	×					
	SWING ARM						
125	Check	×					
	Lubricate			X(5)			
	CONTROLS & CABLES						
29 – 34	Check & Adjust	×					
	Lubricate	X(3)					
	BRAKES						
29 – 34	 Clean/Check/Adjust 	×					
110 - 113	Replace						×
	WHEELS AND TIRES		Ċ.				
115	 Check pressure 	×					
114	Check runout	×					
	 Check spoke tension 				×		
112	 Check bearings 	×					
	 Replace bearing 	www.legends-yamak	a-enduros.con	ŧ			×
	STEERING HEAD						
18 – 120	Check	×					
	 Clean and repack 			X(6)			

Page	Item	Every meet	Every second	Every third	Every heat (moto)	Every 6 momths of rading	As required
	CDI WIRING						
82 – 84	 Check connections 	×					
	AIR FILTER						
46 - 49	Clean and oil	X(8)					
	Replace						х
	SPARK PLUG						
39 - 40	Replace				X		
	DRIVE CHAIN						
	 Clean & lubricate 				X(2)		
34 - 36	 Check tension and alignment 				X		
103 - 105	Replace						х
	FITTINGS AND FASTENERS						
×	• Tighten	×					
	FUEL TANK						
	 Clean/Flush 	×					
	Clean petcock filter	x					
	SHOCK ABSORBERS	.legends-yamah	n=endurae cam				
	Drain & refill		4. CHMRI 96.601/	X(2)			
118 – 119	 Retighting torque 			in a startwise	x	х	
	FRONT FORKS						
116 – 117	Drain & refill			X (9)			
	 Replace seals 			11 - 21 - 22			X

Page	Item	Every meet	Every second	Every third	Every heat (moto)	Every 6 months of racing	As required
	CLUTCH AND BRAKE SHAFTS Lubricate	X(4)		1			

NOTE: -

When replacing the oil or gas in the shockabsorber, consult your nearest Authorized Yamaha Dealer.



SECTION F. SPECIAL TOOLS

The maintenance procedures outlined within this manual require special tools and instruments. A comprehensive list of the special tools is given below.

- *1. Outside Micrometer (0 25mm)
- *2. Outside Micrometer (25 50mm)
- *3. Outside Micrometer (75 100mm)
 - 4. Magnetic Base
- *5. Cylinder Gauge (50 100 mm)
 - 6. Verner Calipers (0 150 mm)
 - 7. Torque Wrench
 - 8. Adjustable Wrench
- *9. Ring Nut Wrench
- *10. Clutch Holding Tool
- *11. Steering Nut Wrench
 - 12. Measuring Cylinder (0 250 cc, 10 cc increments)
- *13. Dial Gauge
- *14. Needle length=56mm
- *15. Dial Gauge Stand # 2
- *16. Flywheel Puller
 - 17. Thickness Gauge



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NOTE:-

Those items marked with an asterisk (*) available from Yamaha.

NOTE:-

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CHAPTER II. BASIC INSTRUCTIONS

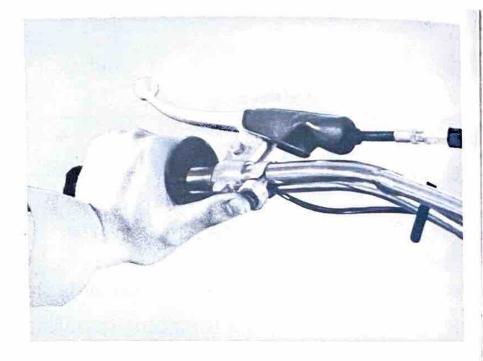
SECTION A. CONTROL FUNCTIONS

1. Enging Stop Button

The Engine stop button is located on the left handlebar. Push and hold for ignition off.

2. Fuel Tank and Petcock

The fuel tank incorporates a threaded plastic filter cap. The cap has a vent tube which is routed to the front of the tank and down alongside a frame down tube.





The fuel tank petcock is located on the rear left-side of the fuel tank. Turn the petcock lever to the vertical position and fuel will flow to the carburetor. Turn lever to the horizontal position to shut off fuel supply to the carburetor.

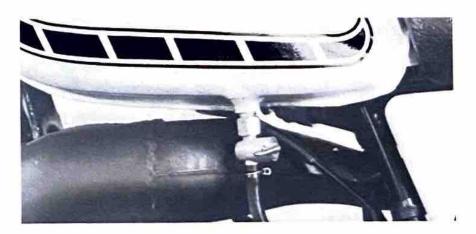
3. Front Brake Lever

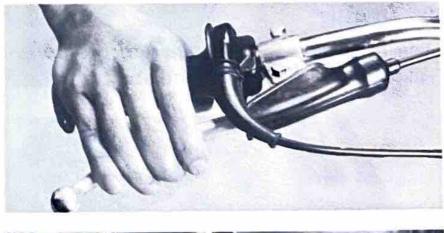
Located on the right handlebar. The front brake lever actuates the single leading-shoe front brake when brake lever is squeezed.

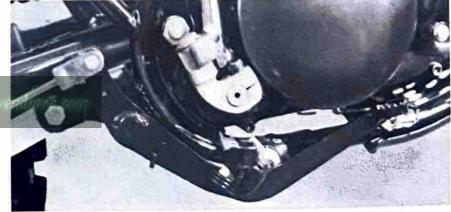
4. Rear Brake Pedal

Located directly in front of the right-hand rider's foot rest. The rear brake pedal actuates the single leading-shoe rear brake memory when the pedal is depressed.









5. Clutch Lever

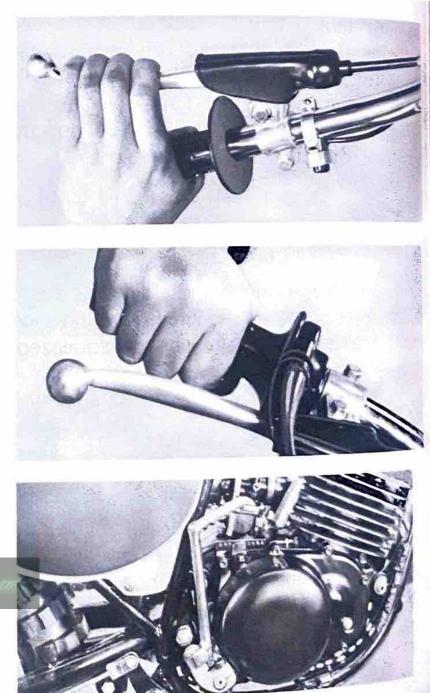
Located on the left handlebar. The clutch lever will disengage the wet-type, multiplate clutch when the lever is squeezed.

6. Throttle

The throttle is the positive-return type, and is located on the right handlebar.

7. Kick Crank

The kick starter crank is located on the right, rear side of the engine. Rotate the crank out, press your foot upon it firmly, push down until the gears engage the primary drive train and kick briskly to start the engine. Fold the crank in after engine starts.



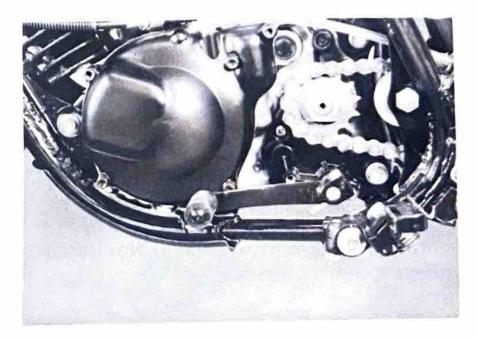
8. Shift Lever

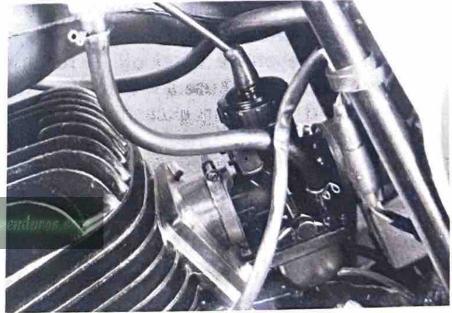
The transmission shift lever is located on the left-hand side of the machine directly in front of the rider's foot rest. The shift mechanism is of the ratcheting type and controls gear selection for the 6-speed transmission.

9. Carburetor Starter Jet

The carburetor starter jet is located on the left side of the carburetor assembly. The jet is designed to supply an extra-rich fuel/air mixture for cold engine starts. It is actuated by starter lever on the YZ125C. When the starter lever is turned downward, the starter jet opens.

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SECTION B. FUEL AND OIL

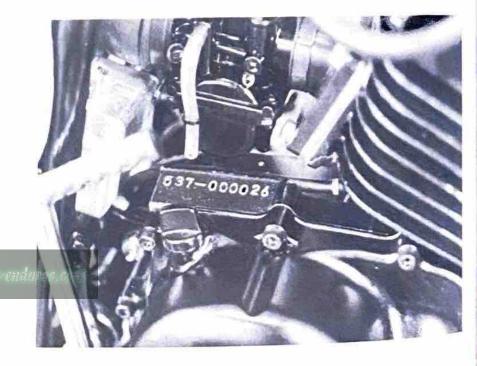
1. Fuel

Use premium gasoline with an octane rating of 90+ mixed with oil at a gas/oil ratio of 15:1. Always use fresh, name-brand gasoline.

Always mix a fresh batch of fuel the morning of the race and do not retain a mixed batch overnight.

2. Oil

- a. Engine Mixing Oil. We recommend that your first choice be R-30 and sheel super M (vegetable base) oil. If for any reason you should use another type, the oil should meet or exceed BIA certification "TC-W". Check the container top or label for service specification and mixing ratios.
- b. Transmission Oil. The transmission filler plug is located above the kick-starter. Recommended oil: 10W/30 SAE type "SE" name-brand motor oil.



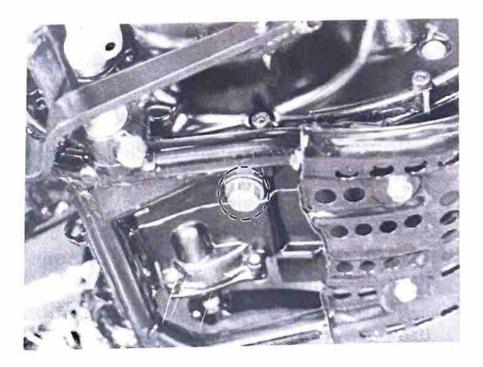
On the bottom of the engine there is a drain plug. Remove it and drain all the oil from the transmission. Reinstall the drain plug (make sure it is tight). Add oil through filler hole.

Transmission oil capacity: 39.7 ± 3.05 cu. in (650 ± 50 cc)

The transmission should be drained and refilled every second race meet.

NOTE:-

Do not add any chemical additives. Transmission oil also lubricates the clutch and additives could cause the clutch to ship.



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CHAPTER III. OPERATION

CAUTION:-----

- 1. Before riding this motorcycle, become throughly familiar with all operating controls and their function. Consult your Yamaha Dealer regarding any control or function you do not throughly understand.
- 2. This model is designed for competition use only. It is not equipped with highway approved lighting, mirrors, horn or directional signals. In most instances, it is illegal to ride this model (either day or night) on any public street or highway.
- 3. Observe the break-in procedures to preclude mechanical failures.



SECTION A. PRE-OPERATION CHECK LIST

ITEM

ROUTINE

BRAKESCheckCLUTCHCheckFUEL TANKFill wTRANSMISSIONChangDRIVE CHAINCheckSPARK PLUGReplaceTHROTTLECheckAIR FILTERFoamWHEELS & TIRESCheckFITTINGS/FASTENERSCheck

Check operation/adjustment Check operation/lever adjustment Fill with proper fuel/oil mix Change oil as required Check alignment/adjustment/lubrication Replace each race (moto) Check for proper cable operation Foam type—must be clean and damp with oil always Check pressure/runout/spoke tightness/axle nuts Check all/tighten as necessary

NOTE:-

Pre-operation checks should be made each time the machine is used. Such an inspection can be thoroughly accomplished in a very short time and the added safety it assures is more than worth the time involved.

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SECTION B. BREAK-IN PROCEDURE

- Prior to starting, fill tank with a break-in gasoline/oil mixture of 12:1 to 14:1.
- After fueling and pre-operational checks have been made, refer to Starting and Operation (Section C) and start engine.
- Allow engine to warm up. Check engine idle speed. Check operating controls and "Engine stop" button operation.
- Operate machine is lower gears at moderate throttle settings for 3 – 5 minutes. Check spark plug condition.
- Allow engine to cool. Repeat procedure, running for 5 minutes. Very briefly, shift to higher gears (4th, 5th or 6th) and check full throttle response. Check spark plug condition.
- Allow engine too cool. Repeaterpromate enduros com cedure, running for 5 minutes. Full throttle and higher gears may be used, but avoid sustained full throttle operation. Check spark plug condition.

- 7. Allow engine too cool. Remove top end and inspect. Remove "high" spots on piston with No. 600 grit, wet sandpaper. Clean, and carefully reassemble.
- Remove break-in fuel/oil mixture from tank. Refill with 15:1 operation fuel/oil mixture. Check entire unit for loose or mis-adjusted fittings/controls/fasterns.
- Re-start engine and check through entire-operating range thoroughly. Stop. Check spark plug condition. Re-start. After 10 – 15 minutes operation, machine is ready to race.

SECTION C. STARTING AND OPERA-TION

CAUTION: _____

Prior to operating the machine, perform steps listed in pre-operation check list.

NOTE:-----

Observe break-in procedures for initial operation. Agitate machine prior to starting and fuel prior to filling to provide correct mixture. Never leave the fuel in tank for long periods. The fuel/oil mix will denature. Turn fuel pet-cock lever to open (vertical) position.

1. Starting Cold

Lift and rotate the starter shaft on the YZ125C models. Keep the throttle completely closed. Engage the kick starter and start the engine.

The kick mechanism is of the primary type. There-fore, the engine may be started in any gear, provided the clutch is disengaged. The engine may be started in neutral with clutch engaged or disengaged.

2. Starting with Engine Warm

Do not engage starter jet. Open throttle slightly. Engage the kick starter and start the engine.

3. Warm-up

Run the engine at idle or slightly higher using the starter jet as required until the engine is warm. This procedure normally takes 1 to 2 minutes. To check, see if the engine responds normally to throttle with starter jet off.

CAUTION: _____

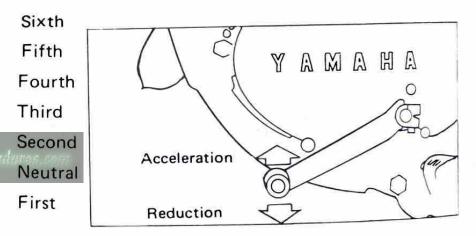
up periods.

4. Shifting

A 6-speed transmission is used. Low gear is at the bottom of the shift pattern; high hear at the top of the shift pattern; neutral is located half-way between first and second positions.

The shift mechanism is of the ratcheting type common to most motorcycles. Allow the lever to return to its "at rest" position prior to selecting another gear. Neutral is selected by pulling up or depressing on the shift lever halfway between first and second gears.

With the engine running in the neutral position, disengage the clutch (pull in clutch lever), press down on the shift lever until low gear is engaged, remove foot from shift lever, increase engine speed slightly, slowly release clutch lever while advancing throttle. Repeat procedure for remaining gears.



CHAPTER IV. MECHANICAL ADJUSTMENTS

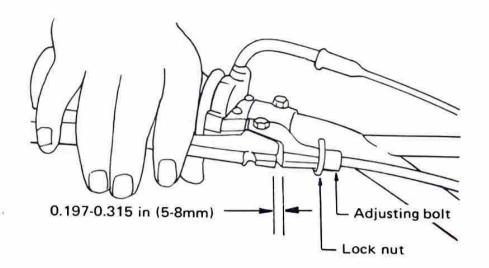
SECTION A. BRAKES

1. Front Brake

Front brake should be adjusted to suit rider preference with a minimum cable slack of 0.197 - 0.315 in (5 - 8 mm) play at the brake lever pivot point.

Adjustment is accomplished at one of two places; either the handle lever holder or the front brake hub.

- a. Loosen the adjuster locknut.
- b. Turn the cable length adjuster in or out until adjustment is suitable.
- c. Tighten the adjuster locknut.

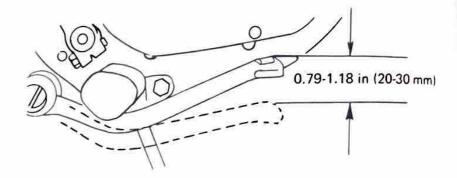




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2. Rear Brake

Adjust rear brake pedal play to suit, providing a minimum of 0.79 - 1.18 in (20 - 30 mm) freeplay. Turn the adjustment nut on the rear brake ferrule in or out until brake pedal freeplay is suitable.



NOTE: -

Rear brake pedal adjustment must be checked anytime chain is adjusted or rear wheel is removed and then reinstalled.

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SECTION B. CLUTCH

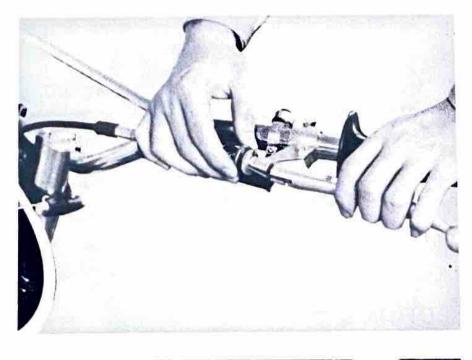
Proper clutch adjustment requires two separate procedures.

- Loosen cable adjusting screw locknut (at lever).
- 2. Turn clutch cable adjuster all the way into the lever.

NOTE:-

The above procedure provides for maximum cable freeplay to allow for proper clutch actuating mechanism adjustment.

- 3. Remove crankcase side cover (L).
- Loosen adjuster locknut. Back the nut off 2 or 3 turns.
- 5. Using a Phillips screwdriver, turn adjuster screw in or out until adjust arm (located on top of the engine directly above the adjust screw) is directly in line with the main axle center line.



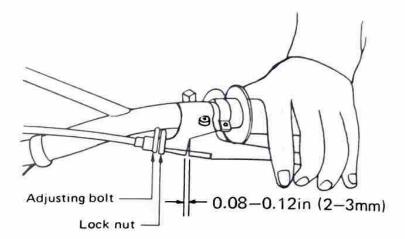


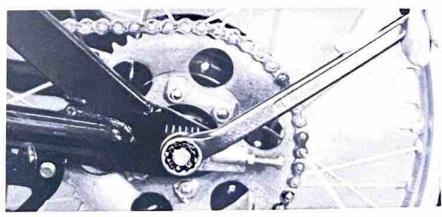
- 6. Tighten locknut while holding adjust screw in place.
- At clutch lever assembly, left handlebar, turn cable length adjuster in or out until freeplay at lever pivot equals 0.04 – 0.12 in (2 – 3 mm).
- 8. Tighten adjusting bolt locknut.
- 9. Reinstall the crank case cover (L).

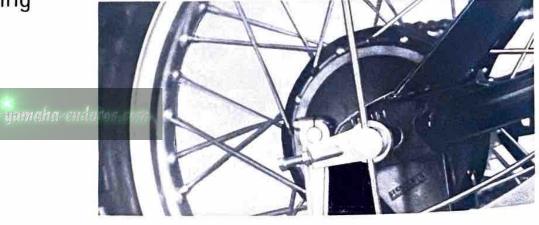
SECTION C. DRIVE CHAIN

To adjust drive chain, proceed as follows:

- Straighten the cotter pin, and pull it off using pliers.
- 2. Loosen axle securing nut whilyholding the opposite side with a cross bar.







- 3. With rider in position on machine, both wheels on ground, set axle adjusters until there is 0.79 0.98 in (20 25 mm) slack in the drive chain at the bottom of the chain at a point midway between the drive and driven axles.
- Turn adjust bolts both left and right until the adjust marks on the adjusters are aligned with the adjust marks on the swing arm. Tighten locknuts on adjust bolts.
- 5. Tighten the rear axle securing nut.

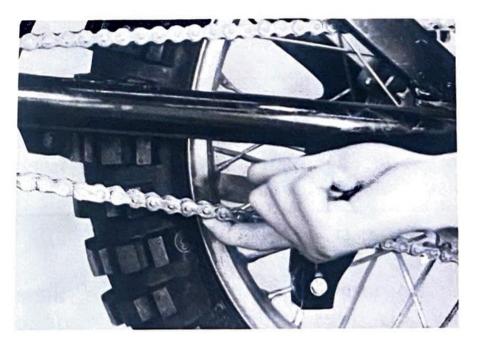
Install the cotter pin.

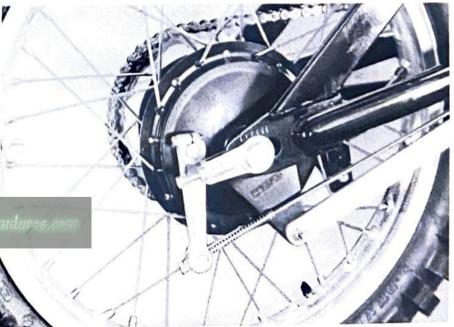
NOTE:-

Always use a new cotter pin.

Torque: 50.63-72.33 ft-lb (7-10 m-kg)

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6. Check brake pedal freeplay.

CAUTION:-

Whenever the chain is adjusted and/or the rear wheel is removed, always check the rear axle alignment and brake pedal free-play.

SECTION D. CARBURETOR

Under normal operating conditions, there are only three adjustments to be made to the carburetor.

- 1. Throttle cable adjustment:
- a. Slide the rubber cover off the top of the carburetor.
- b. Grasp the outer cable housing. Lift it up.

Slack should equal 0.039 in (1 mm) at the adjuster. If slack is incorrect, loosen and adjusting bolt locknut and turn adjusting bolt in or out as required to achieve correct slack. Tighten the adjusting bolt locknut. Reinstall the cap cover.



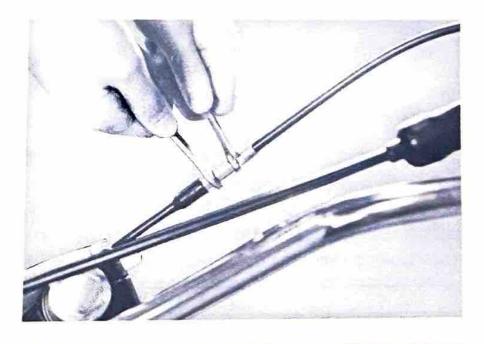
c. Grasp the throttle cable housing at the adjuster on the throttle cable near the handle bar, pull in out. Slack should equal 0.039 in (1 mm). If not loosen cable length adjuster locknut and adjuster cable length as required.

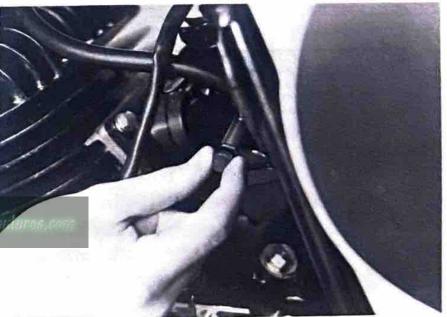
- 2. Idle speed and idle air adjustments:
- a. Turn idle air screw in until lightly seated.
- b. Back out 1-1/2 turns.
- c. Turn the idle speed adjust screw until idle is at desired rpm.

NOTE:-

A locknut is incorporation on the YZ125C screws for positive retention.

Lock nut tighten torque: 1.085–1.447 ft-lb. (0.15–0.2 m-kg)





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- d. Turn the idle air mixture screw in or out until idle speed is at highest rpm.
- e. Turn the idle speed adjust screw in or out until idle speed is at desired rpm.

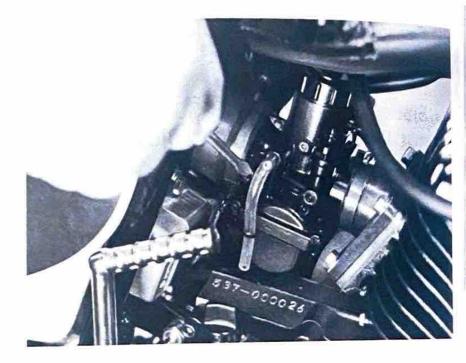
NOTE:-

Idle air mixture and idle speed adjustment screws should be so adjusted that engine response to throttle changes from idle position is rapid and without hesitation.

Idle air screw: Back out 1-1/2 turns.

Idle speed: As desired.

If the engine, when warm, hesitates after adjusting as described, turn the idle air mixture screw in or out in 1/4 durn he enders com increments until the problem is eliminated.



SECTION E. SPARK PLUG

The spark plug in your machine indicates how the engine is operating. If the engine is operating correctly, and the machine is being ridden correctly, then the tip of the white insulator around the positive electrode of the spark plug will be a medium to light tan color. If the porcelain "donut" around the positive electrode is a very dark brown or black color, then a plug with a hotter heat range may be required. This situation is quite common during the engine break-in period.

If the insulator tip shows a very light tan or white color or is actually pure white or if the electrodes show signs of melting, then a spark plug with a colder heat range is required.

Remember, the insulator area surrounding the positive electrode of the spark plug must be a medium-to-light tan color. If it is not, check carburetion, timing, and ignition adjustments. If the situation persists, consult your Authorized Yamaha Dealer.

Do not attempt to experiment with different heart range spark plugs. This takes an experienced eye to gauge the proper spark plug heat range to use and to determine if the spark plug itself is at fault.

For constant high speed operation use: NGK B10EV.

For normal operation use: NGK B9EV.

Spark plug gap : 0.016 – 0.020 in (0.4 – 0.5 mm)

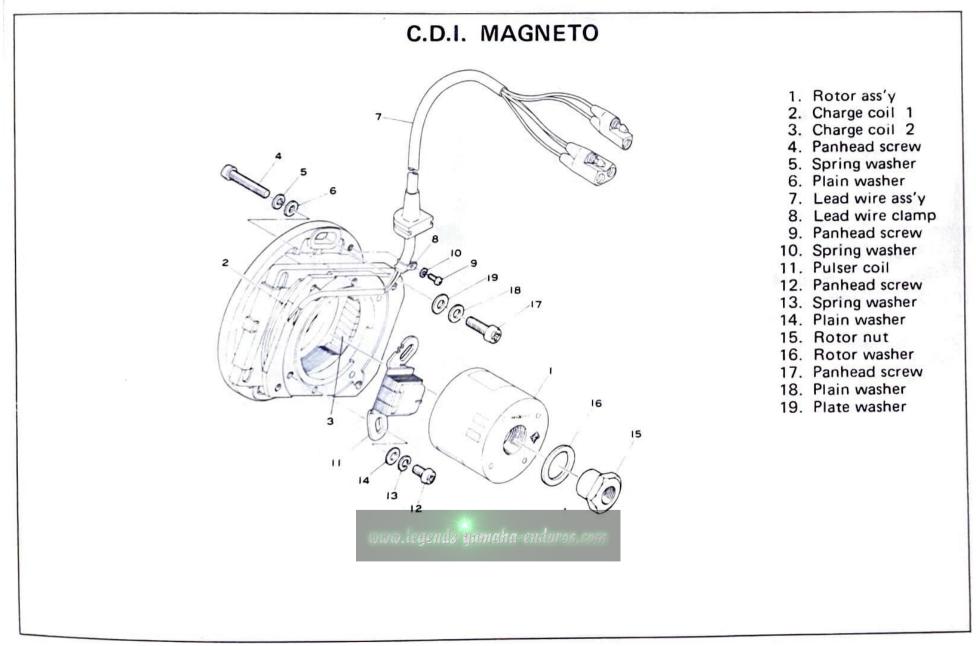
Engine conditions will cause any spark plug to slowly break down and erode. If erosion begins to increase, or if the electrodes finally become too worn, or if for any reason you believe the spark plug is not functioning correctly, replace it.

When installing the plug, always clean the gasket surface, use a new gasket, wipe off any grime that might be present on the surface of the spark plug, torque the spark plug properly.

Spark plug torque: 19.5 - 21.0 ft-lb (2.7 - 2.9 m-kg)

The spark plug must be removed and checked prior to using the machine. Check electrode wear, insulator color, and negative to positive electrode gap.

SECTION F. IGNITION TIMING



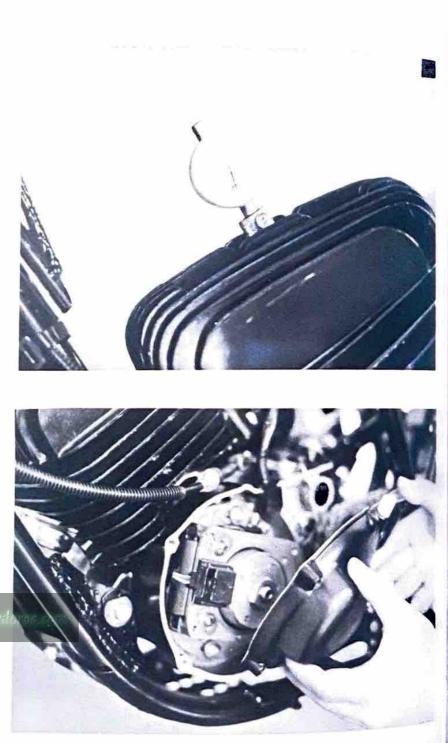
Ignition timing must be set with a dial gauge (to determine piston position). Proceed as follows:

- 1. Remove the muffler assy.
- Remove spark plug and screw Dial Guage Stand #2 into spark plug hole.
- Insert Dial Gauge Assembly into stand #2.

NOTE:-

Install the needle (2.184 in, (56 mm)) on the dial gauge.

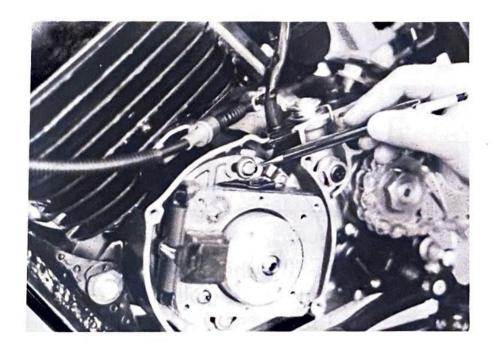
4. Remove left engine crankcase cover.

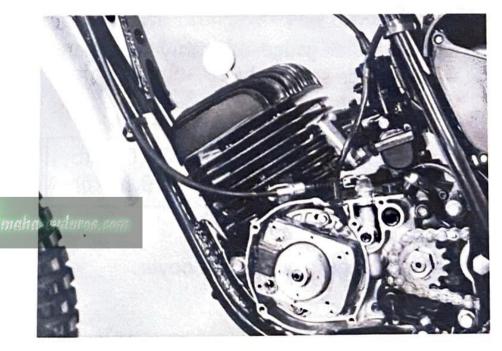


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5. Check to see that pulse coil is centered in adjustment slots – Center if required.

6. Rotate rotor until piston is at top-dead center (T.D.C.). Tighten set screw on spark plug stand to secure dial gauge assembly. Set the zero on dial gauge face to line up exactly with dial gauge needle. Rotate flywheel back and forth to be sure that gauge needle does not go past zero.



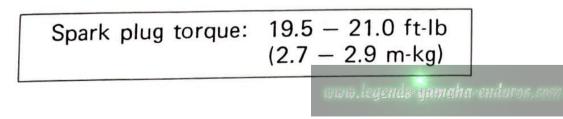


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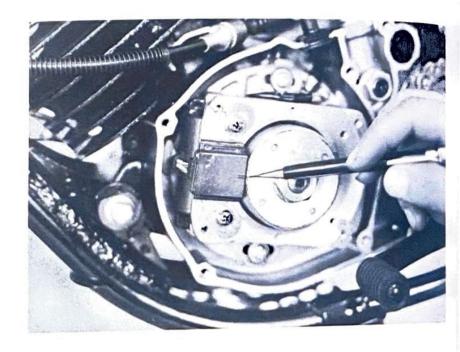
 Starting at T.D.C., rotate fly wheel clockwise until dial indicator reads approximately 0.08 in (2.0 mm).

Ignition timing: 0.08 in (2.0 mm) B.T.D.C.

- Check to see that the rotor timing mark aligns with the pulse coil timing mark. To adjust, loosen the two pulse coil retaining screws and rotate the pulse coil. Tighten screws.
- Remove dial gauge assembly and stand #2. Replace spark plug.



10. Replace engine crankcase cover.



CHAPTER V. ENGINE MAINTENANCE AND MINOR REPAIRS

SECTION A. AIR FILTER

The following sections provide information for the disassembly, troubleshooting, and maintenance of various components of the machine. If you do not have the necessary tools and an understanding of the mechanical principles involved, please refrain from attempting repairs. The use of improper tools and/or procedures can cause major damage to units with resultant additional repair costs. To properly understand the procedures outlined, we suggest you consult the Service Manuals and the various other technical publications produced by Yamaha Motor Company or Yamaha International Corporation.

Finally, we suggest you consult your Yamaha Dealer prior to attempting any repair procedures.

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1. Air Filter

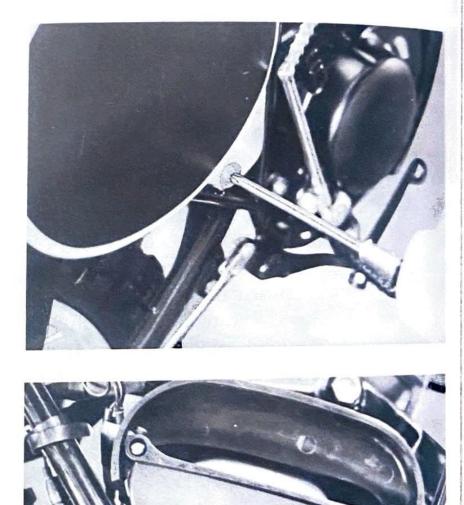
The filter is a split-type which can be separated into the two sections, right and left. Therefore, it can be replaced one by one.

a. Remove the screws (1) and number plate.

 b. To remove the air filter, first remove the Phillips-head screw (3) from the filter case.

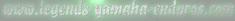
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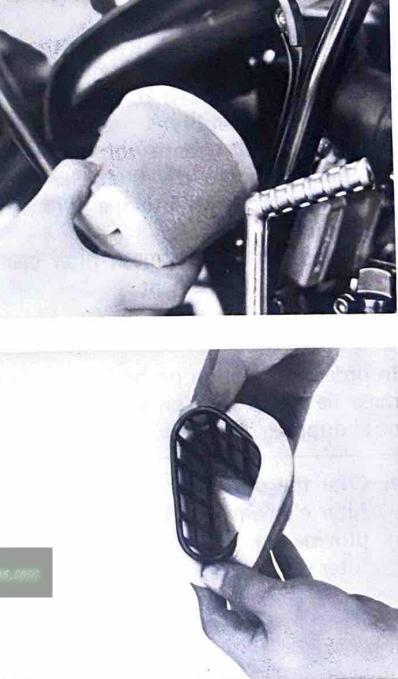
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c. Remove the air filter from the filter case.

d. Slip the filter from the wire mesh guide.





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2. Air Filter Cleaning

- Wash the element gently, but thoroughly, in solvent.
- b. Squeeze the excess solvent out of the element and let dry.
- c. Pour a small quantity of 10-30W "SE" motor oil onto the filter element and work thoroughly into the porous foam material.
- d. Re-insert the wire mesh filter element guide into the element.

NOTE:

In order to function properly, the element must be damp with oil at the times.....but not "dripping" with oil.

e. Coat the upper and lower edges of the filter element with light grease. This will provide an air-tight seal between the filter case cover and filter seat. legends gamaha endur



f. Reinstall the element assembly and parts removed for access.

NOTE: ----

Each time filter element maintenance is performed, check the air inlet to the filter case for obstructions. Check the air cleaner joint rubber to the carburetor and manifold fittings for an air-tight seal. Tighten all fittings thoroughly to avoid the possibility of unfiltered air entering the engine.

CAUTION: ------

Never operate the engine with the air filter element removed. This will allow unfiltered air to enter causing rapid wear and possible engine damage. Additionally, operation without the filter element will affect carburetor jetting with subsequent poor performance and possible engine overheating.



SECTION B. CARBURETOR AND REED VALVE

1. Carburetor

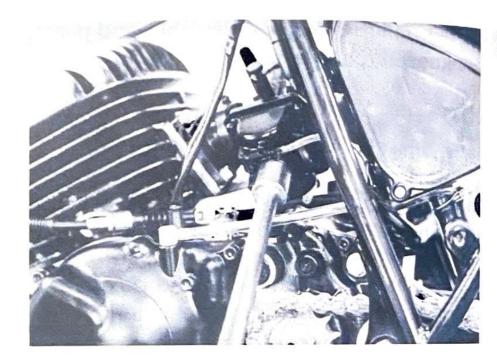
- a. Turn fuel petcock lever to the "OFF" position.
- b. Remove the gasoline tank fuel into from the fitting at the carburetor.
- c. Loosen the manifold and inlet joint bands (hose clamps).

NOTE: ---

For carburetor main jet replacement only, follow steps a through c then:

- Rotate carburetor, exposing main jet cover bolt.
- Remove bolt. Main jet is located directly behind bolt.





WARNING

Removing the main jet cover bolt will allow the fuel in the float bowl to drain. Do not remove if engine is hot. Place a rag under carburetor to catch overflow. Remove bolt in well-ventilated area. Do not remove near open flame. Always clean and dry machine after aeassembly.

 Using a 7mm socket or "Spin-tite," remove the main jet. Change as required. Reinstall cover bolt and reassemble, reversing steps 1 through 3.

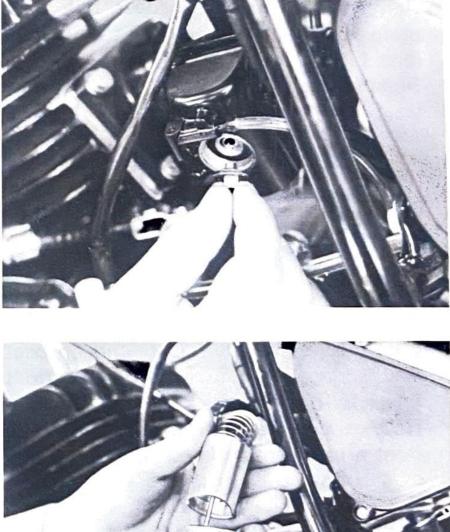
Main jet:

#190

- d. Push the air cleaner joint (hose) off the carburetor inlet.
- e. Rotating the carburetor body, work it off the cylinder manifold joint.
- f. Nothing the presence, location, and routing of all vent and overflow tubes, pull the carburetor toward you.

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g. Unscrew the mixing chamber top. Remove the slide and needle assembly.

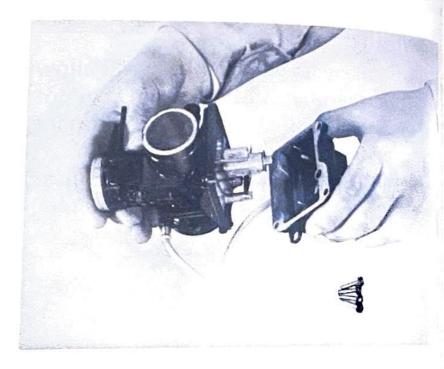


- h. Remove the main jet cover bolt and drain the float bowl fuel into suitable receptacle.
- i. Remove the Phillips screws (4) holding float bowl to body. Remove float bowl.

 Carefully set body aside and inspect each independent float within the float bowl cavity.

Note their installation position. The float arm pin must be on the lower side of the float and in, towards the center.

k. Remove each float. If fuel has entered a float, replace it. If a pin is loose or missing, or if the floats are damaged in any fashion, replace them.

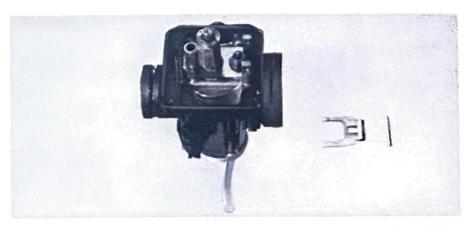


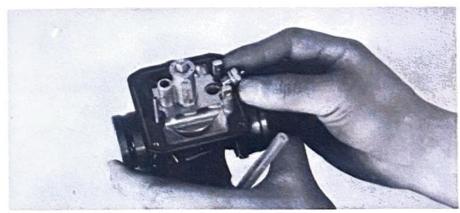


I. On the carburetor body, remove the pin securing the float arm. Remove the arm.

- m. Remove the inlet needle directly beneath the float arm tang. Inspect the needle and seat for signs of excessive wear or attached foreign particles. Replace as required. Replace inlet needle and inlet valve seat as an assembly.
- n. Remove, in order, the following components.
 - 1) Main jet and Washer.



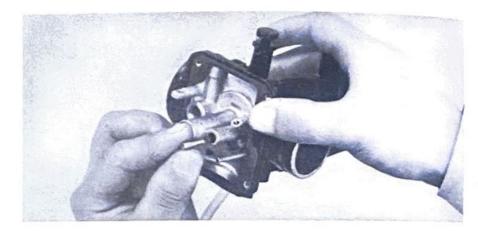


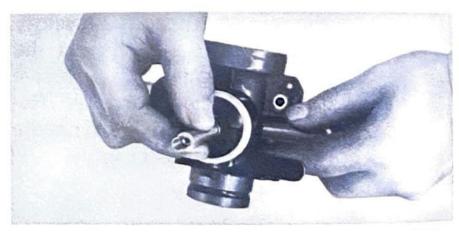




2) Main Nozzle (push from bottom through venturi).

3) Pilot jet





4) Throttle Screw (Idle Speed Screw)

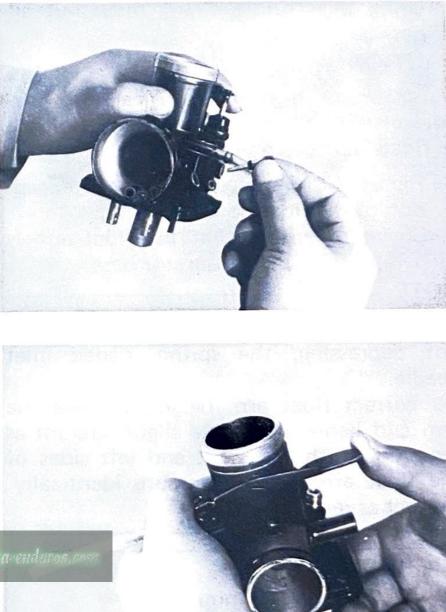
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5) Air Adjusting Screw (Idle Mixture Screw)

- Actuate the Starter Jet control to open the circuit.
- p. When the carburetor in mild solvent.
 Wash all associated parts.

NOTE:-

It is rarely necessary to "boil" the carburetor in a warm or hot carburetor bath. If deposits warrant this procedure, remove the Starter Jet Assembly to avoid damaging the jet's neoprene valve seat.



q. Using high pressure air, blow out all passages and jets.

CAUTION:

Never direct high pressure air into carburetor with float bowl installed. Damage to floats may occur.

- Reinstall components, with the exception of the float bowl.
- s. Check to ensure that the float arm is parallel with the carburetor base.

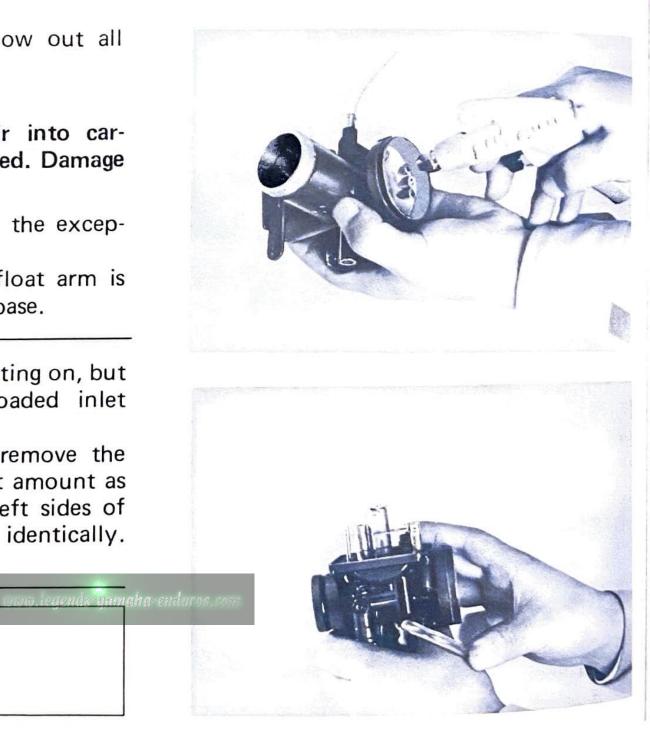
NOTE:-

The float arm should be just resting on, but not depressing, the spring loaded inlet needle.

To correct float arm height, remove the arm and bend the tang a slight amount as required. Both the right and left sides of the float arm should measure identically. Correct as required.

Float arm height: 0.585 in (15 mm)

Level with carburetor base

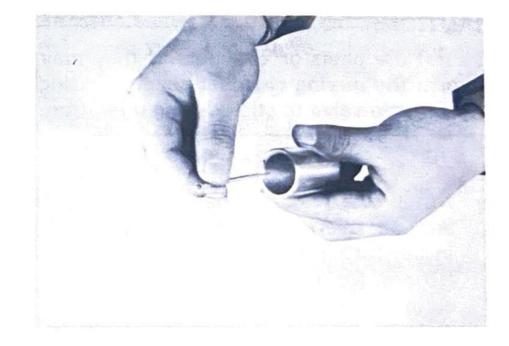


- t. Install the float bowl and main jet cover bolt.
- u. Moving to the machine, push needle out of seat in throttle valve (slide). Inspect for signs of bending, scratches or wear. Replace as required.
- v. Check needle clip position. Clip position is counted starting with the first clip groove at the top of the needle.

Jet needle type: 6DP1-3

Clip position: No. 3Groove

- w. Check throttle valve (slide) for signs of wear. Insert into carburetor body and check for the movement. If slide, or body, is out of round causing slide to stick, replace as required.
- Install throttle valve and needle assembly in carburetor mixing chamber. Tighten mixing chamber top as tight as de yanghe endured as possible by hand.



CAUTION:-

Do not use pliers or vise-grips as they may deform the mixing chamber shape, causing the throttle valve to stick during operation.

y. Install the mixing chamber top cover and all overflow and vent tubes. Reinstall carburetor. Check tightness of all fittings. Make sure carburetor is mounted in a level position.

NOTE: -

After installation, check throttle cable adjustment and check to ensure that slide is free by turning and releasing throttle.

TROUBLESHOOTING

A Motocross machine requires immediate, predictable throttle response over a wide operating range. Cylinder porting, combustion chamber compression, ignition timing, muffler design, and carburetor size and component selection are all balanced to achieve this goal. However, variations in temperature, humidity and altitude, to name a few, will affect carburetion and consequently, engine performance.

The followilist gives each of the major components of the carburetor that can be readily changed in order to modify performance if required. If you are unfamiliar with carburetor theory, we suggest you refrain from making changes. Quite often, a performance problem is caused by another related component, such as the exhaust system, ignition timing or combustion chamber compression.

NOTE:-

See MECHANICAL ADJUSTMENTS for additional carburetor adjustments.

Idle Air Mixture Screw:

Controls the ratio of air-to-fuel in the idle circuit. Turning the screw in decreases the air supply giving a richer mixture.

OPERATING RANGE MOST AFFECTED BY THIS ADJUSTMENT: ZERO TO 1/8 THROTTLE.

Pilot Jet:

Controls the ratio of fuel-to-air in the idle circuit. Changing the jet to one with a higher number supplies more fuel to the circuit giving a richer mixture.

OPERATING RANGE MOST AFFECTED BY THIS JET: ZERO TO 1/8 THROTTLE.

Throttle Valve (Slide):

Throttle values are numbered according to the angle of the cutaway. The higher the number, the more cutaway, the leaner the mixture.

OPERATING RANGE MOST AFFECTED BY THE THROTTLE VALVE: 1/8 to 1/4 (+) THROTTLE.

Jet Needle:

The jet needle is fitted within the throttle valve. The tapered end of the needle fits into the main nozzle outlet. Raising the needle allows more fuel to flow out of the nozzle outlet giving a richer mixture. There are five circlip grooves at the top of the needle. Moving the needle clip from the first, or top groove, through the fifth, or bottom groove, will give a correspondingly richer mixture.

OPERATING RANGE MOST AFFECTED BY THE JET NEEDLE: 1/4 to 3/4 (+)

The throttle valve (slide) has a portion of jameh THROTTLE. the base cut away to control air flowing

over the main nozzle. A wider angle (more "cutaway") will create a leaner mixture.

Main Jet:

The main jet controls overall fuel flow through the main nozzle. Changing the jet to one with a higher number supplies more fuel to the main nozzle giving a richer mixture.

OPERATING RANGE MOST AFFECTED BY THE MAIN JET: 3/4 TO FULL THROTTLE.

NOTE: _____

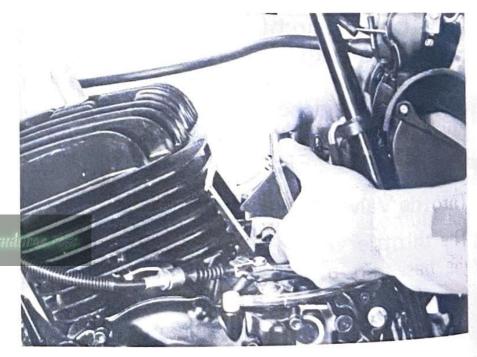
Excessive changes in main jet size can affect performance at all throttle positions.

CAUTION: -

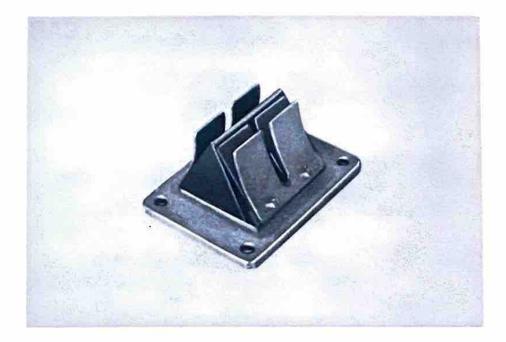
The fuel/air mixture ratio is a governing factor upon enging operating temperature. Any carburetor changes, whatsoever, must be followed by a thorough spark plug test.

2. Reed Valve

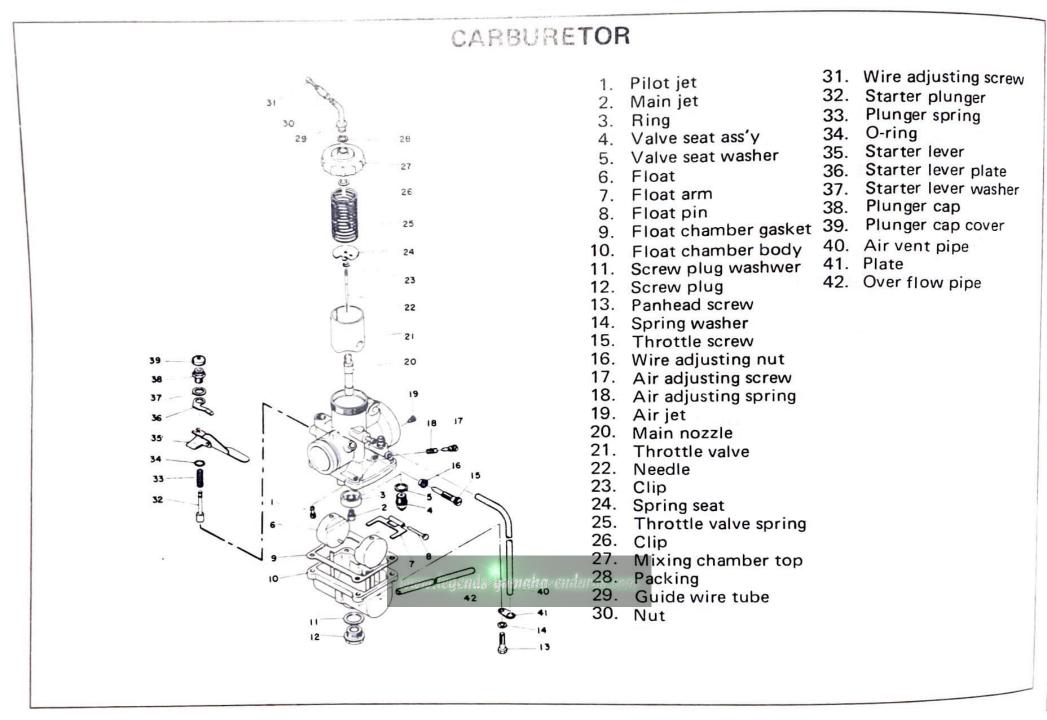
a. With carburetor removed, remove the set of four (4) bolts holding the intake manifold and reed value assembly to the cylinder. Remove the reed value assembly.



- b. Inspect reed petals for signs of fatigue cracks. Reed petals should fit flush or nearly flush against neoprene seats. If in doubt as to sealing ability, apply suction to carburetor side of assembly. Leakage should be slight to moderate.
- c. If disassembly of the reed valve assembly is required, proceed as follows:
 - Remove philips screws (3) securing stopper plate and reed to reed block. Handle reed carefully. Avoid scratches and do not bend. Note from which side of the reed block the reed and stopper plate were removed. Reinstall on same side.



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2) During reassembly, clean reed block, reed, and stopper plate thoroughly. Apply a holding agent, such as "Lock-Tite," to threads of phillips screws. Tighten each screw gradually to avoid warping. Tighten the screws thoroughly.

CAUTION:

securing screws, Do not over-tighten stopper plates may warp.

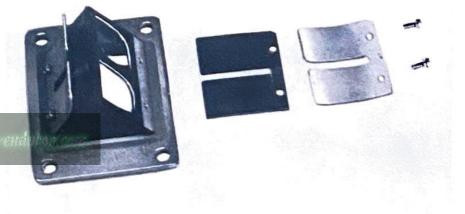
Securing screw torque: 0.32 in-lb

(8.0 cm-kg)

NOTE:-

During reassembly, observe the cut in the lower corner of the reed and stopper plate. Use as aid to direction of reed installation.

d. During reassembly of the reed valve yangha end assembly and manifold, install new gaskets and torque the securing bolts gradually and in pattern.



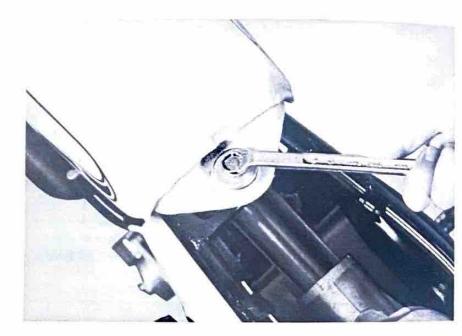
SECTION C. TOP END AND MUFFLER

- 1. Muffler and Cylinder and Head Removal (Carburetor Removed)
- a. Remove the two bolts and remove seat.
- Remove the securing bolt from fuel tank.

c. Lift rear of fuel tank up and pull back to clear frame mounts. Remove tank.

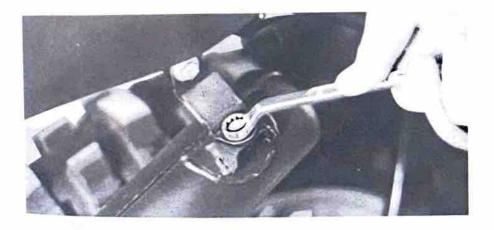
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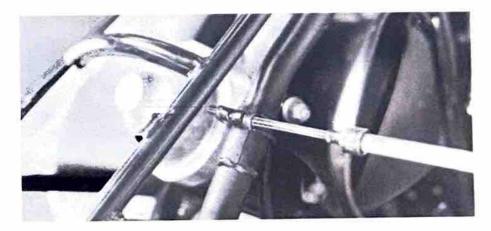
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d. Remove the muffler mounting four bolts.





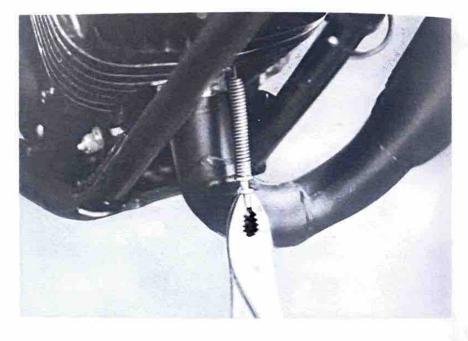


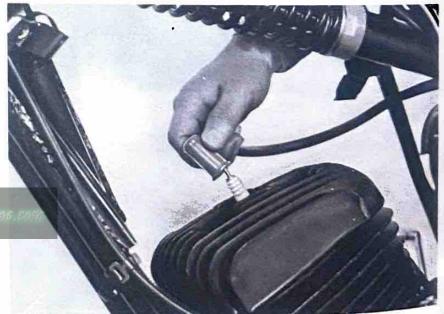
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e. Remove coil spring at muffler to cylinder joint and remove muffler.

f. Remove spark plug lead wire. Loosen, but do not remove spark plug.





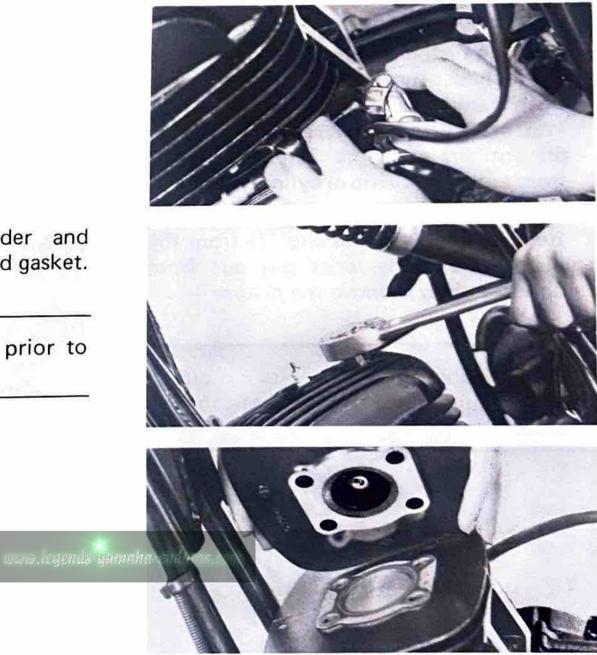
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g. Remove the clutch wire.

h. Remove nuts securing cylinder and head. Remove cylinder head and gasket.

NOTE:

Break each nut loose (1/4 turn) prior to removing.

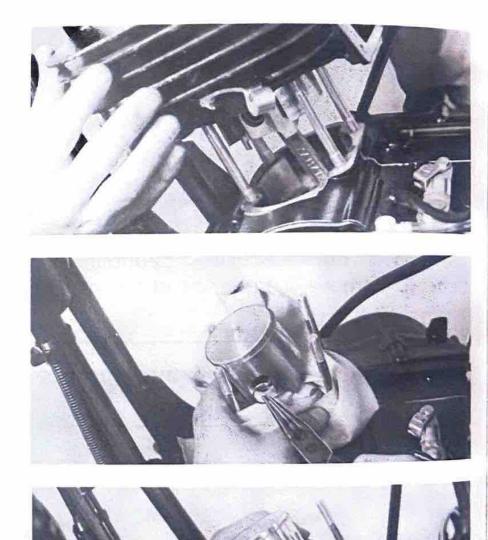


2. Cylinder Removal

- a. With the piston at top dead center, raise the cylinder until the cylinder skirts clear crankcase. Stuff a clean shop rag into crankcase cavity, around rod, to prevent dirt and other foreign particles from entering. Remove cylinder.
- b. Remove the wrist pin clip (1) from the piston. Push the wrist pin out from opposite side. Remove the piston.

NOTE:-

If the pin hangs up, use a wrist pin puller. Do not pound on pin as damage to rod, piston and bearing will result.





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3. Exhaust Pipe Maintenance

 a. Using a rounded scraper, remove excess carbon deposits from manifold area of exhaust pipe.

Check muffler gasket condition. The gasket seat is located around the cylinder exhaust port.

- b. Carbon deposits within the silencer may be removed by lightly tapping the outer shell with a hammer and then blowing out with compressed air. Heavy wire, such as a coat hunger, may be inserted to break loose deposits. Use care.
- c. Reinstall muffler.

4. Maintenance-Cylinder Head

- a. Remove spark plug.
- b. Using a rounded scraper, remove carbon deposits from combustion chamber. Take care to avoid damaging the spark plug threads. Do not use a sharp damage and instrument. Avoid scratching the metal surface.



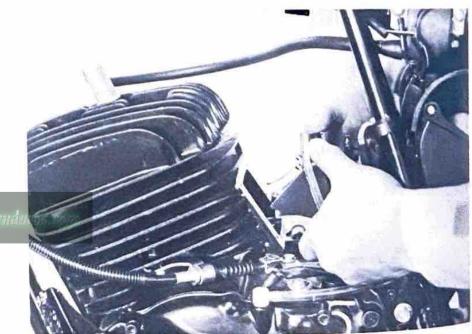
- c. Place the head on a surface plate. There should be no warpage. Correct by re-surfacing. Place 400 600 grit wet emery sandpaper on surface plate and re-surface head using a figure-eight sanding pattern. Rotate head several times to avoid removing too much material from one side.
- d. Clean the spark plug gasket mating surface thoroughly.
- e. Wash the head in solvent and wipe dry.
- f. Install new cylinder head gasket during reassembly.

Cylinder head bolt torque: 8 mm bolts – 14.5 ft-lb (2.0 m-kg)

5. Maintenance-Cylinder

a. Remove reed valve assembly.

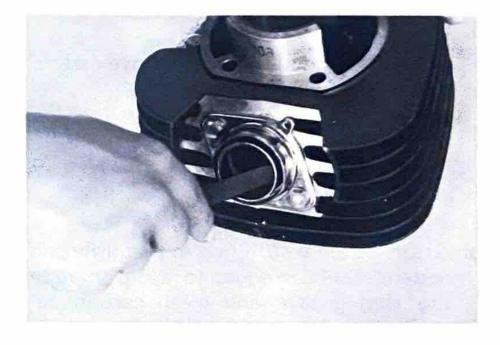
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- b. Using a rounded scraper, remove carbon deposits from exhaust port.
- c. Remove cylinder base gasket and clean gasket seat on clyinder and crankcase thoroughly.
- d. Check cylinder bore. Using a cylinder hone, remove any scoring, hone lightly, using smooth stones.

Hone no more than required to avoid excess piston clearance.

- e. Using a cylinder gauge set to standard bore size. Measure the cylinder. Measure at six points; at top, center, and from bottom of skirts. Compare minimum and maximum mesurement. If over tolerance. And not correctible by honing, re-bore to next over size.
- f. Clean cylinder in solvent, then wash with hot soapy water. Dry. Coat walls with light oil film.
- During re-assembly always use a new cylinder base gasket.





6. Maintenance-Piston

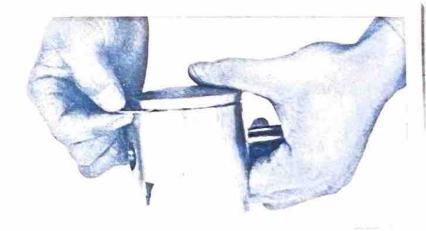
a. Using a rounded scraper, remove carbon deposits from piston crown.

b. Break a used piston ring in two. File end square. De-burr edges to avoid scratching ring groove and clean carbon deposits from ring groove.

Solution: Solution with the second second

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- d. Wash piston in solvent and wipe dry.
- e. Using an outside micrometer, measure piston diameter. The piston is camground and tapered. The only measuring point is at right-angles to the wrist pin holes about 0.5 in (12.7 mm) bottom of the piston skirts. Compare piston diameter to cylinder bore measurements (bottom two measurements at right angles to wrist pin line).

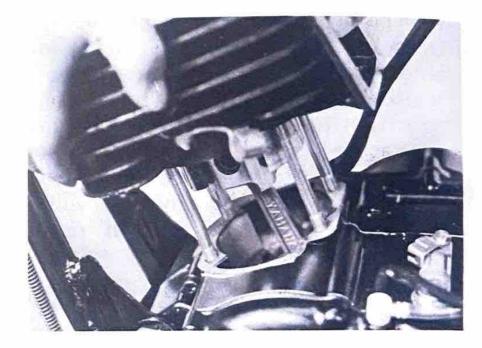
Piston maximum diameter subtracted from minimum cylinder diameter gives piston clearance. If beyond tolerance, replace piston or cylinder as required.

Nominal piston clearance: 0.0016 - 0.0020 in (0.040 - 0.050 mm) Maximum wear limit: 0.0039 in (0.1 mm)

f. During re-assembly, coat the piston skirt areas liberally with two-stroke oil.

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- g. Install new wrist pin circlips and make sure they are fully seated within their grooves.
- h. Take care during installation to avoid damaging the piston skirts against the crankcase as the cylinder is installed. Note the arrow on piston dome must face forward.
- i. Make sure the ring is properly seated as the cylinder is installed.

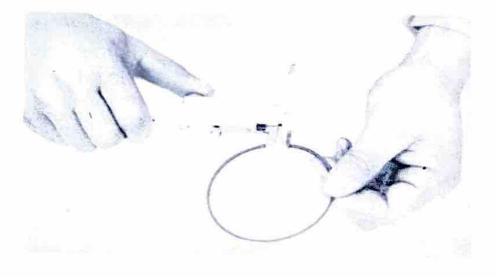


- 7. Maintenance-Piston Ring
- a. Remove ring from piston.



b. Measure ring end gap in free position. If beyond tolerance, replace.

Ring end gap, free: 0.276 in (7 mm)



c. Insert ring into cylinder. Push down approximately 3/4" using piston crown to maintain right-angle to bore. Measure installed end gap. If beyond tolerance, replace.

Ring end gap, installed: 0.016 - 0.020 in (0.4 - 0.5 mm)gend symmetry



- d. Holding cylinder towards light, check for full seating of ring around bore. If not fully seated, check cylinder. If cylinder not out-of-round, replace it.
- e. During installation, make sure ring ends are properly fitted around ring location pin in piston groove. Apply liberal coating of two-stroke oil to ring.

NOTE:-

New ring requires break-in. Follow first portion of new machine break-in procedure.

8. Maintenance—Wrist Pin, Bearing and Connecting Rod

- a. Check the pin for signs of wear. If any wear is evident, replace pin and bearing.
- b. Check thypin and bearing for signs of heat discoloration. If excessive (heavily blued), replace both.
- c. Check the bearing cage for excessive wear. Check the rollers for signs of flat spots. If found, replacypin and bearing.
- Apply a light film of oil to pin and bearing surfaces. Install in connecting rod small end.

Check for play. There should be no noticeable vertical play. If play exists, check connecting rod small end diameter and wear. Replacy pin and bearing or all as required.



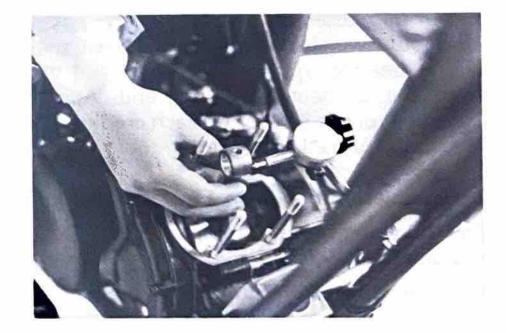
e. Mount the dial gauge at right angles to the connecting rod small end holding the bottom of rod toward the dial indicator, rock top of rod and measure axial play.

Connecting rod axial play: 0.031 - 0.039 in (0.8 - 1.0 mm)

f. Remove the dial gauge and slide the connecting rod to one side. Insert a feeler gauge between the side of the connecting rod big end and the crank wheel. Measure clearance.

Connecting rod/crank clearance: 0.016 - 0.020 in (0.4 - 0.5 mm)

g. If any of the above measurements and the above measurements exceed tolerance, crankshaft repair is required. Take the machine to your Authorized Dealer.



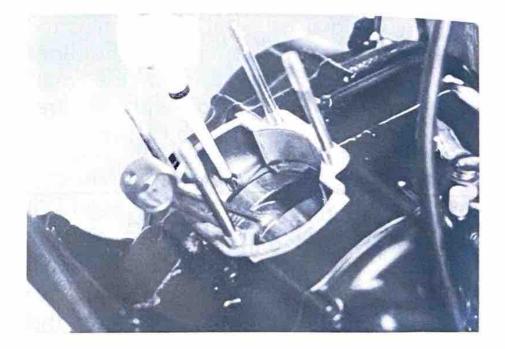


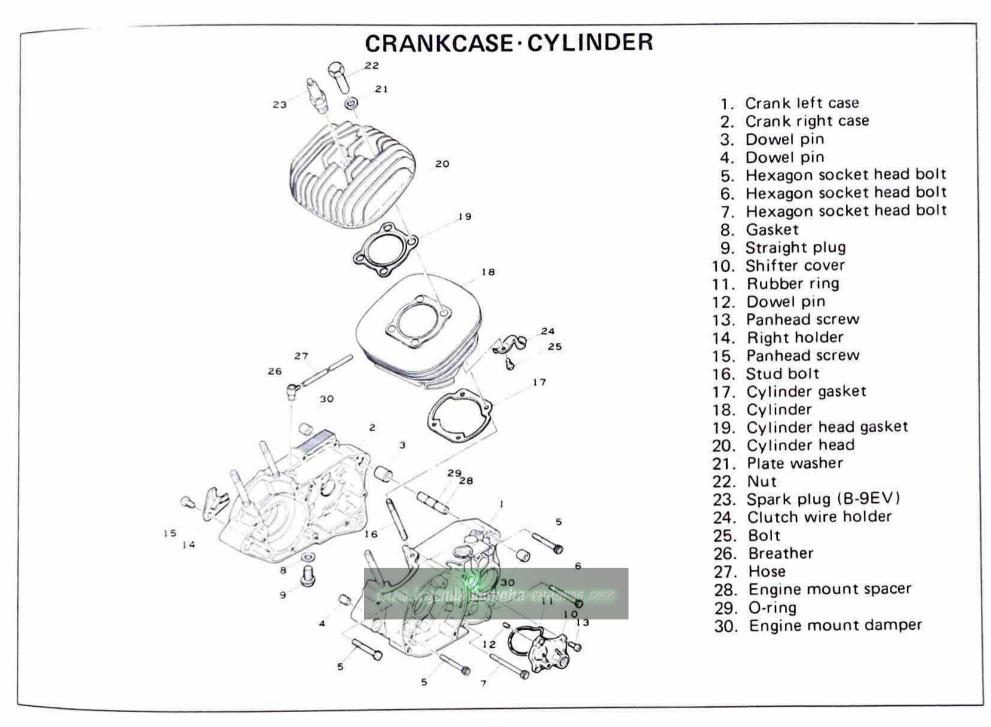
h. During reassembly, apply a liberal coating of two-stroke oil to the wrist pin and bearing. Apply several drops of oil to the connecting rod big end. Apply several drops of oil into each crankshaft bearing oil delivery hole.

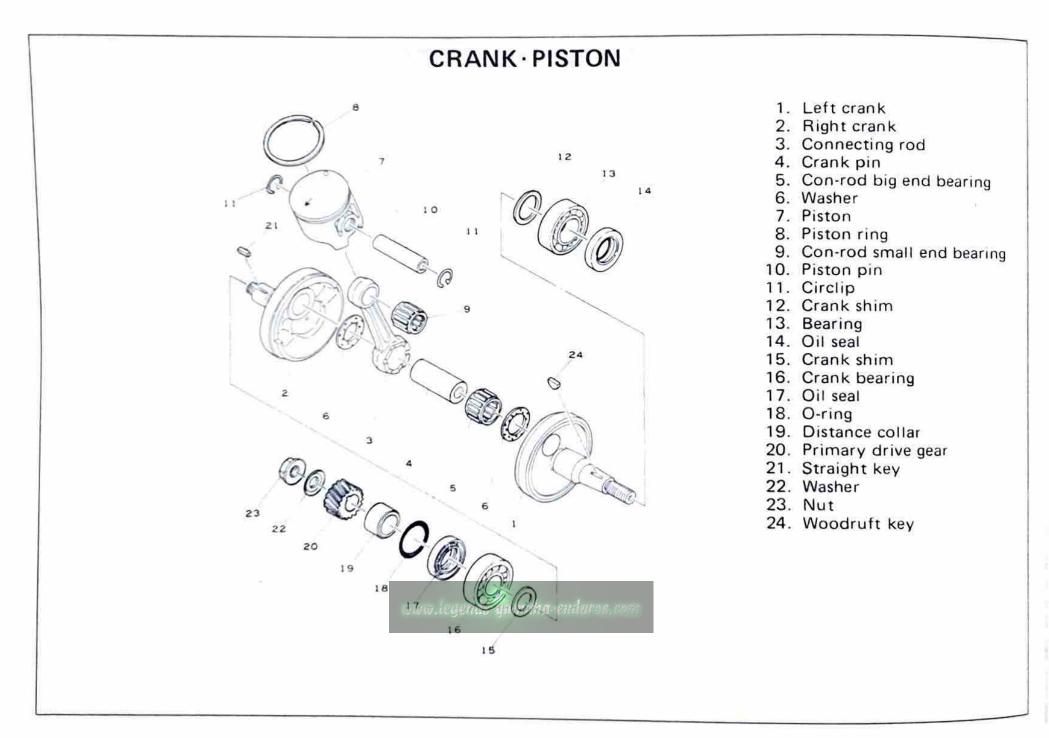
9. Troubleshooting-Top End and Muffler

The following procedure will indicate if top end disassembly is required.

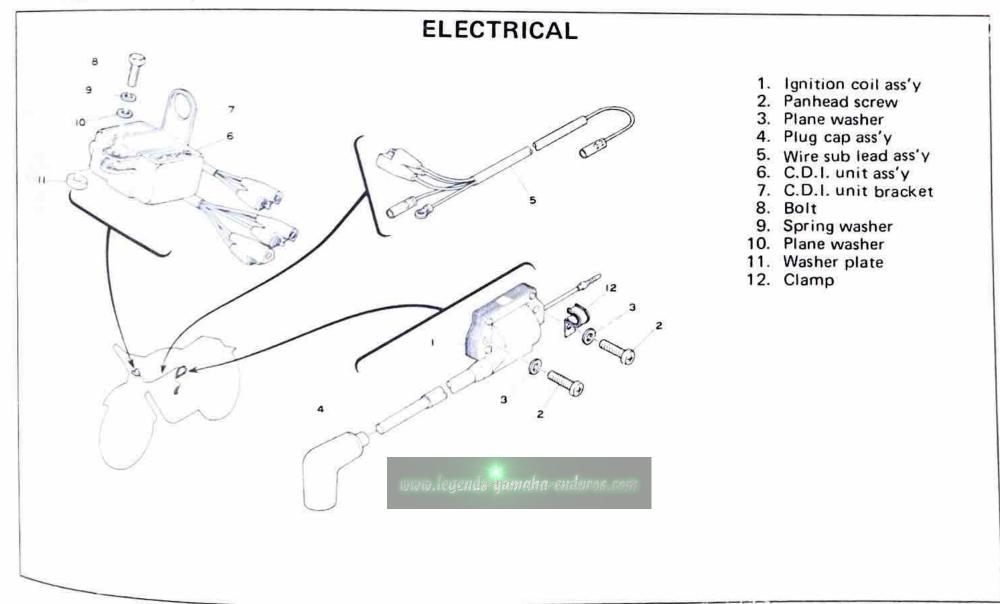
- a. Warm up engine. Insert compression gauge into spark plug hole. With ignition off and throttle on, kick engine over briskly several times. If compression measurement exceeds tolerances, disassemble top end complete.
- b. Make a spark plug reading. Adjust spark plug and or carburetion as required.
- c. Decarbonize muffler/spark arrester assembly. Remove cylinder head and make thorough visual inspection. De-pandra endorse carbonize cylinder head and piston crown. Take care that carbon does not drop into crankcase cavity or foul ring grooves. Reassemble.







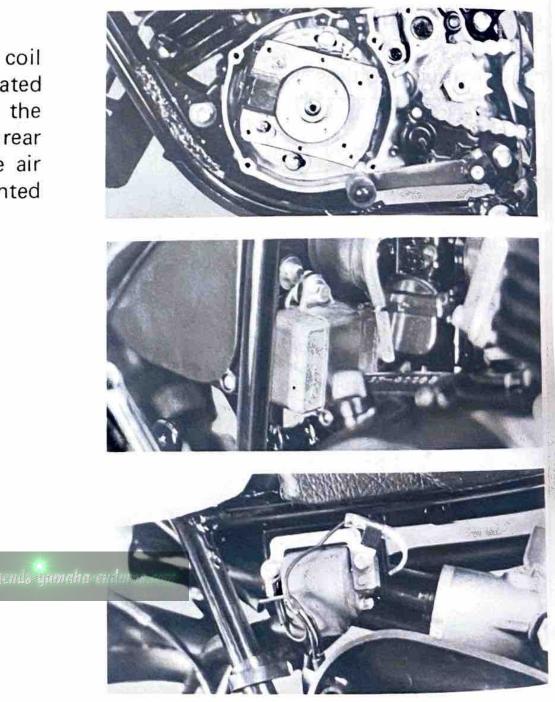
SECTION D. IGNITION



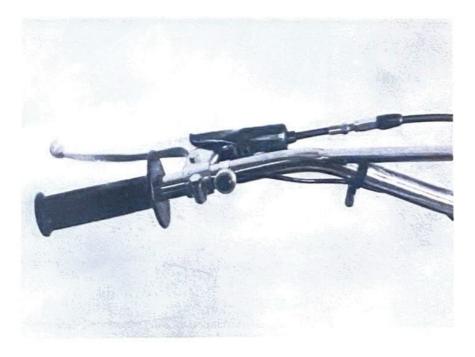
C.D.I. Ignition Requires No Periodic Maintenance

1. Location of Components

The system consists of a magneto, a coil and a C.D.I. unit. The magneto is located behind the case on the left side of the engine. The C.D.I. unit is located at the rear of the carburetor and secured to the air filter case, and the ignition coil is mounted on the frame left above the air filter.



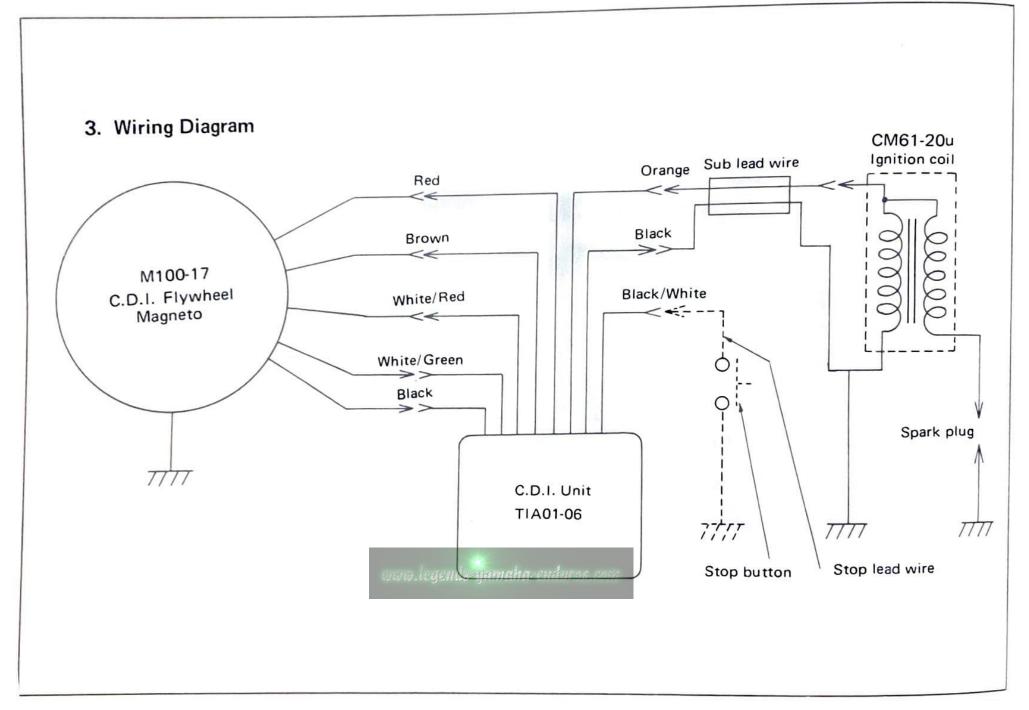
A Engine Stop switch is located on the left handle bar to stop the engine.



2. Troubleshooting

- Check for spark at spark plug—if no spark, check connectors.
- b. If connections are clean and tight, refer to Mechanical Adjustments, Ignition Timing. Ensure that the timing is correct.

Any further troubleshooting of the yamaha enduror con C.D.I. system must be performed by your Yamaha Dealer.



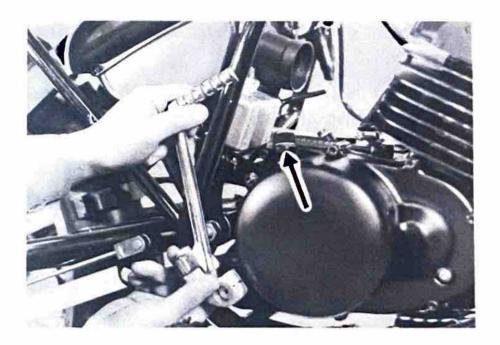
SECTION E. CLUTCH, SHIFTER, AND KICK STARTER

NOTE: -

Clutch adjustment is covered in Chapter V, "Mechanical Adjustments".

- 1. Kick Starter and Crankcase Cover (R) Removal
- a. Remove the kick starter lever and oil plug.
- b. Remove the drain plug (bolt) and drain the transmission oil.
- c. Remove the Allen bolts (9) holding the side cover in place and remove the cover.

Note the position of the dowel pins.

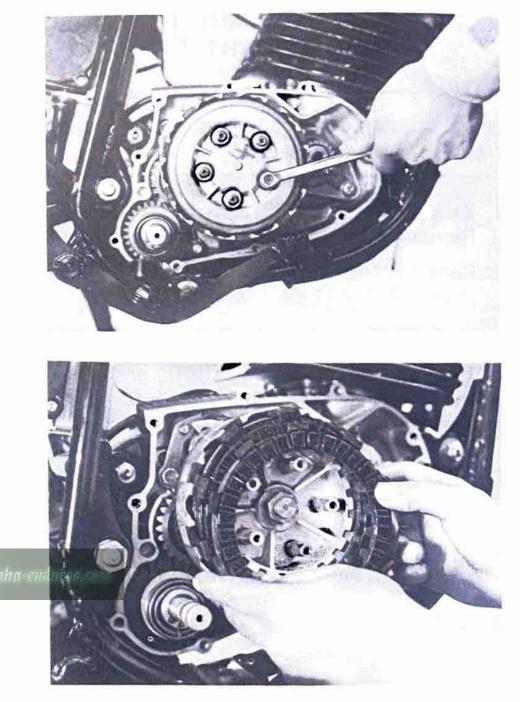




- Clutch and Kick Axle Assembly Removal
- a. Remove the phillips (hexagon) screws
 (6) holding the pressure plate. Remove the clutch springs (5) pressure plate and push rod. Remove the clutch plates and friction plates.

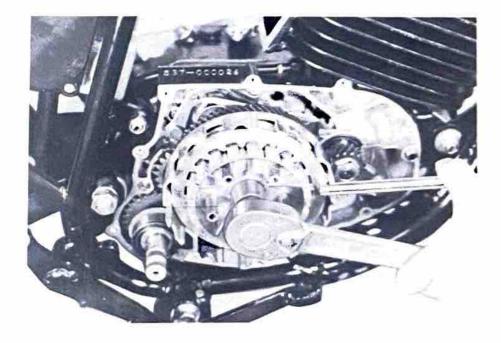
NOTE: -

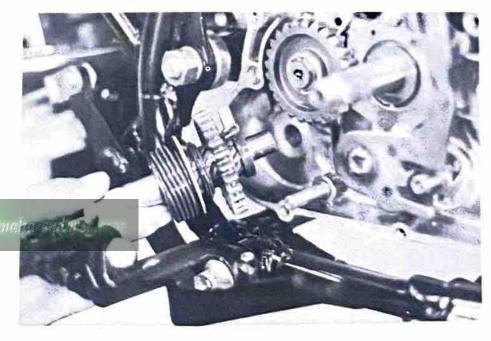
When removing phillips (hexagon) spring screws. loosen each screw in several stages working in a cross-hatch pattern to avoid any unnecessary warpage. Note the condition of each piece as it is removed and its location with the assembly.

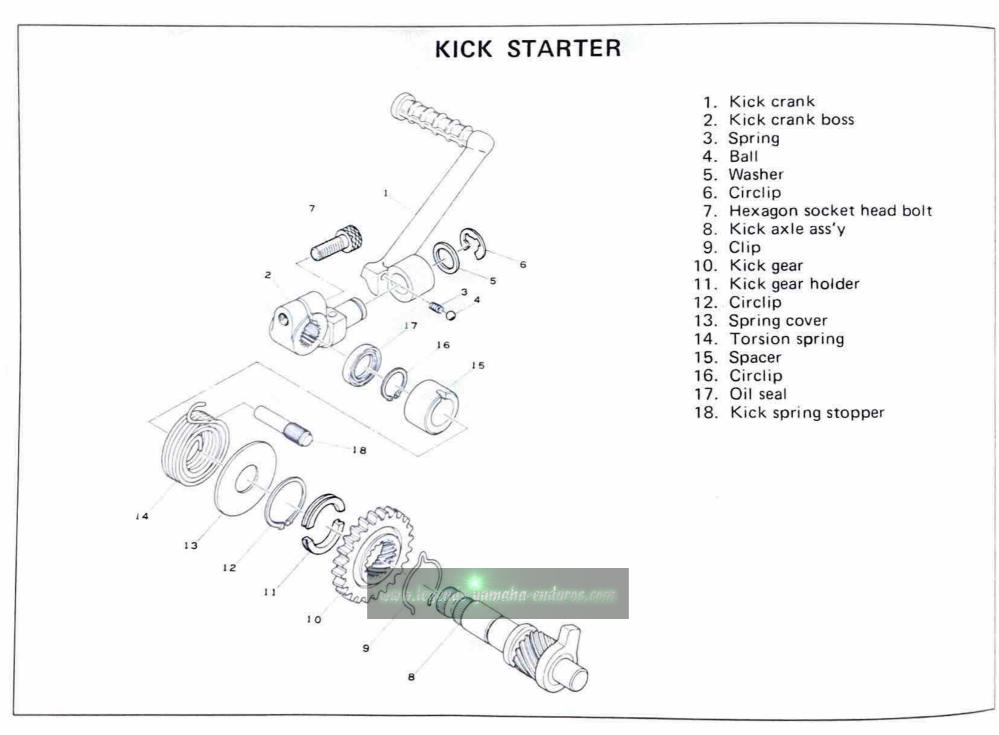


b. Using the clutch holding tool (special tool), remove the clutch securing nut and lockwasher. Remove the clutch boss and driven gear (clutch housing).

- c. If the clutch housing spacer remains on the transmission main shaft, remove it. Remove the thrust plate.
- d. Unhook the kick spring from its post in the crankcase. Allow it to relay. Then remove the kick axle assembly by rotating the shaft counter clockwise and then pulling out the entire assembly, check to see that the kick gear spirals of the freely on the worm shaft. Check the gear teeth for wear and breakage.







3. Troubleshooting-Clutch Assembly

a. Measure the friction plates at three or four points. If their minimum thickness exceeds tolerance, replace.

Friction plate thickness: 0.118 in (3 mm)

b. Check the plates for signs of warpage and heat damage, replace as required.

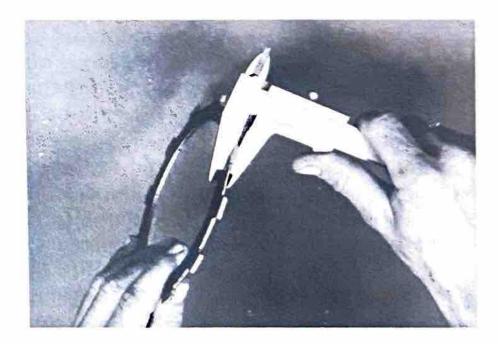
NOTE: -

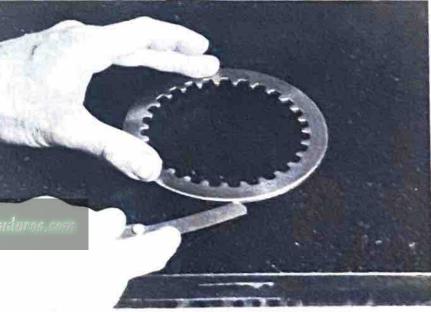
For optimum performance, if any plate requires replacement, it is advisable to replace the entire set.

c. Check each clutch plate for signs of heat damage and warpage. Place on surface plate (plate glass is acceptable) and use feeler gauge.

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Clutch plate warp allowance: None

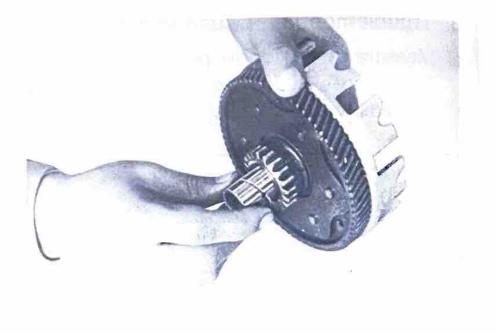




- d. Thoroughly clean the clutch housing and spacer. Apply a light film of oil on the bushing surface and spacer. Fit the spacer into the bushing. It should be a smooth, thumb-press fit. The spacer should rotate smoothly within the bushing. If appropriate measuring devices are available, measure the minimum I.D. of the bushing spacer. If beyond tolerance, have dealer replace bushing and refit.
- e. Check the bushing and spacer for signs of galling, heat damage, etc. If severe, replace as required.
- f. Apply thin coat of oil on transmission on main shaft and bushing spacer I.D. Slip spacer over main shaft. Spacer should fit with approximately same "feel" as in clutch housing. Replace as required.

See measurement tolerances.

g. Check dogs on driven gear (clutch housing). Look for cracks and signs of galling on edges. If moderate, deburr. If severe, replace.





 h. Check splines on clutch boss for signs of galling. If moderate, deburr. If severe, replace.

NOTE:-

Galling on either the friction plate dogs of the clutch housing or clutch plate splines of the clutch boss will cause erratic clutch operation.

- i. Fit the clutch thrust bearing (two pieces) against the thrust plate with a light film of oil on all parts. Check for smooth rotation. Check for signs of excessive wear, all parts. Replace as necessary.
- j. If clutch operation has been abnormal, and the above procedures show no major failures, install the clutch housing on the transmission main shaft with thrust plates, bearing spacer, and clutch boss in their proper positions for reassembly. Do not install clutch or friction plates. Install bevelled lock washer and clutch securing nut. Torque to standard assembly value.
- k. With transmission in neutral, primary driven gear stationary, clutch boss should turn without excessive drag within the clutch housing. If housing does not turn easily, indicating insufficient housing end play, check thrust plates and thrust bearing for incorrect thickness. Correct by installing thinner thrust plates. Clutch housing end play is given in table and can be measured with a dial gauge.

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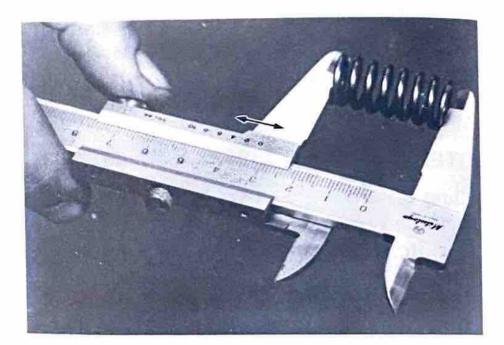
Measure each clutch spring. If beyond tolerance, replace.

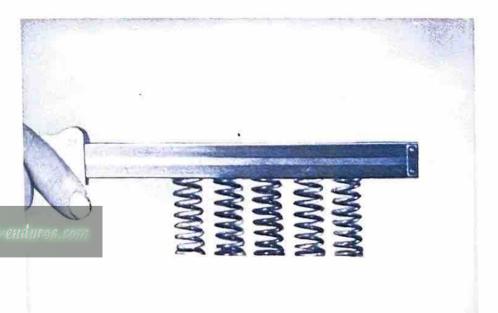
Clutch spring free length: 1.28 in (36 mm)

NOTE:-

For optimum clutch operation it is advisable to replace the clutch springs as a set if one or more are faulty.

m. Stack the clutch spring set on a level surface. Rotate each spring until all are at approximately the same vertical angle and maximum apparent height. Place straight edge across et. If any spring exceeds tolerance, replace that spring.





4. Reassembly

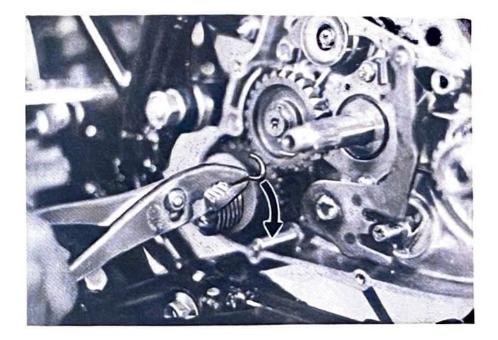
Install all parts with a heavy coat at 10W-30 motor oil on their mating surface.

a. The kick axle is fitted with the stopper, if axle is located in the wrong position to the case, it bits the stopper on the case side and cannot be correctly set. Fit the axle stopper within the limits shown in the illustration.

After that engage the end of the kick spring on the hook.

CAUTION: -

Do not forget to install the push rod (1) and steel ball.

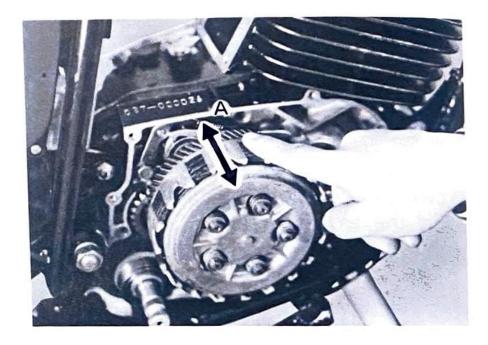


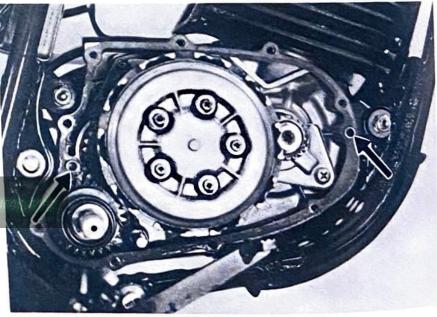
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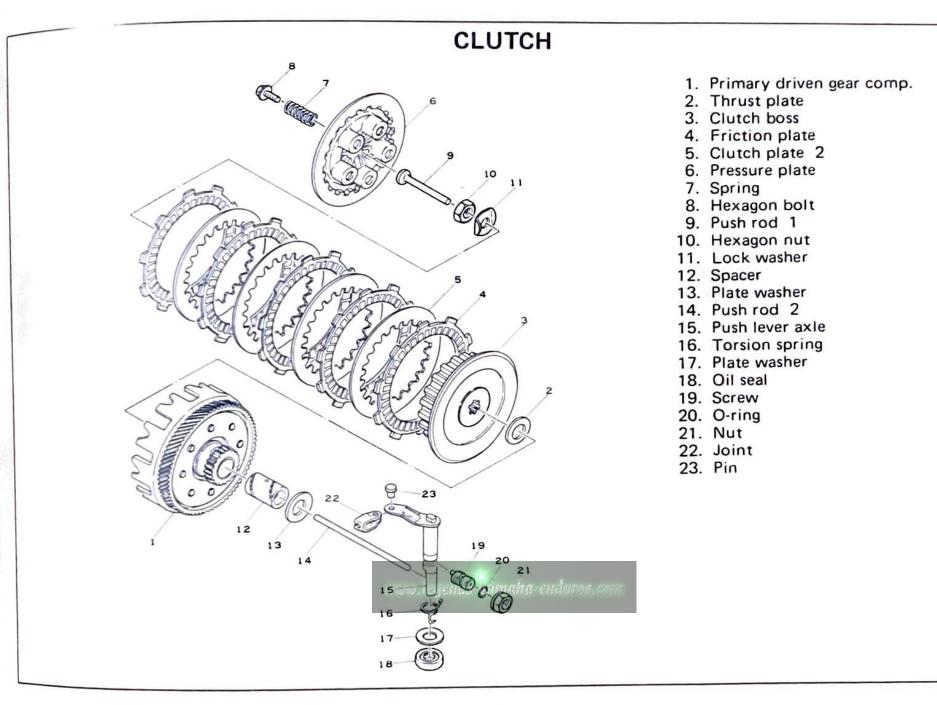
NOTE:-

- After installing the clutch plates, be sure to check the tightness of the A portion. If it is loose, the thrust plate or other parts are considered to be loose.
- When installing the crankcase cover (R) on the crankcase (R) use a new crankcase cover gasket. Make sure the twice dowel peins are in place.





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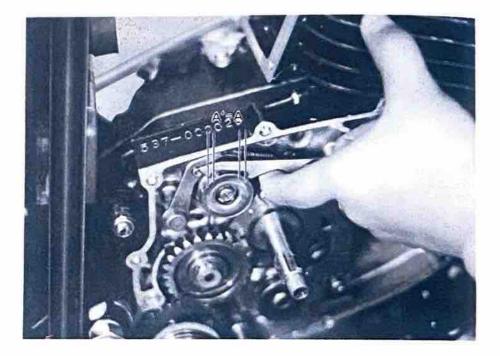
5. Shift Mechanism

NOTE: -----

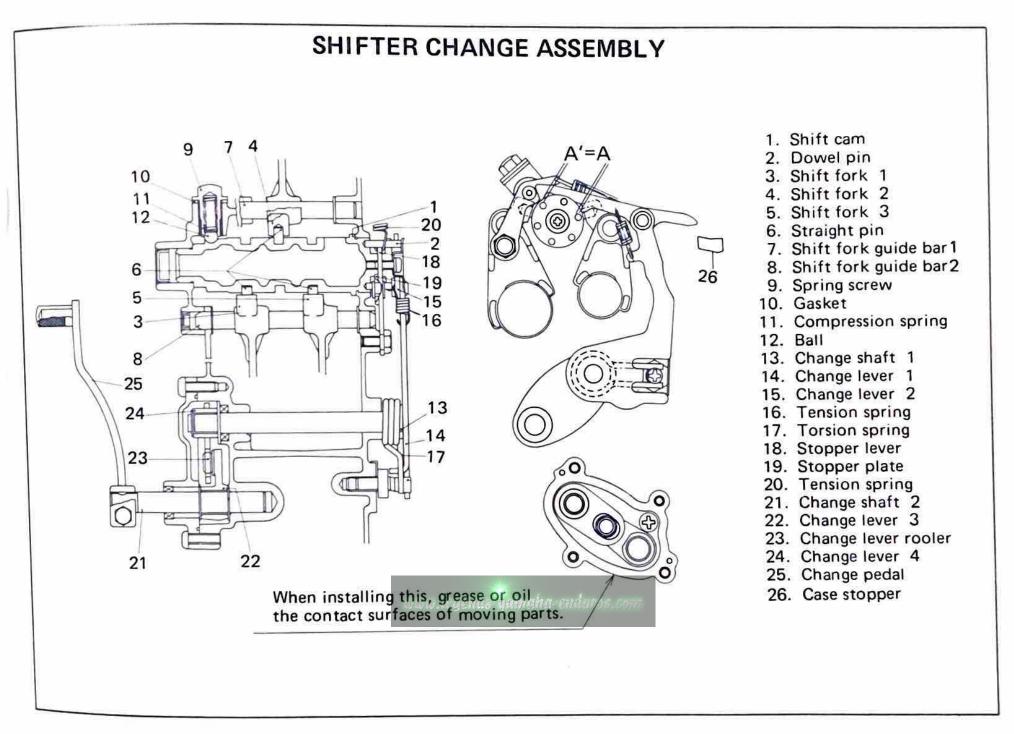
Shifter maintenance and adjustment should be performance with clutch assembly by removed.

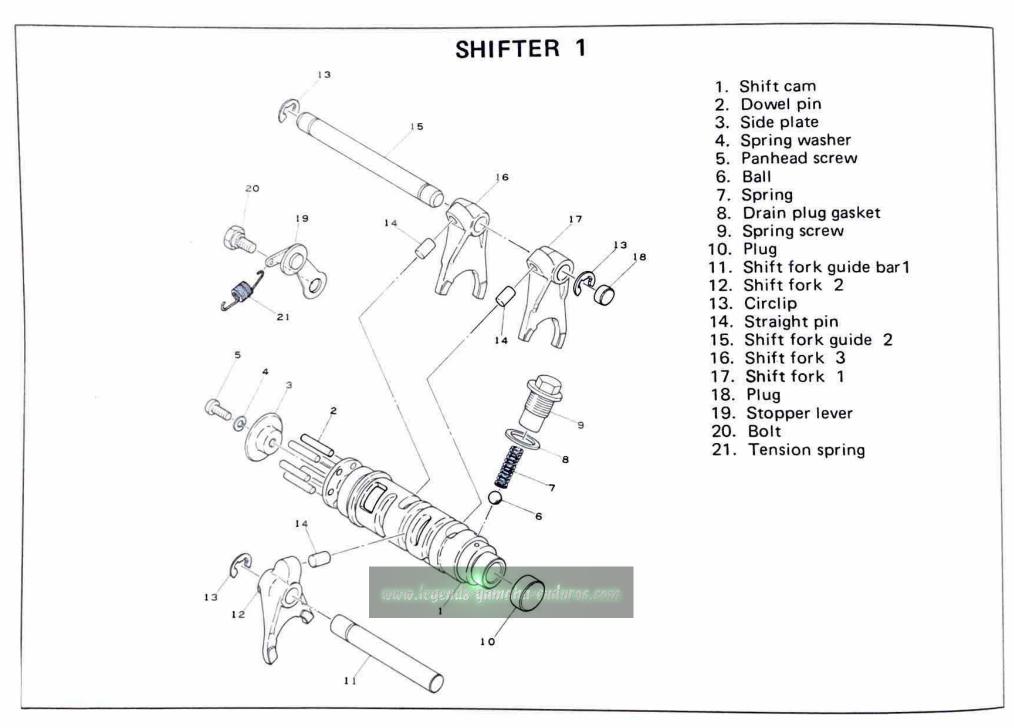
a. Adjusting the gear shift arm.

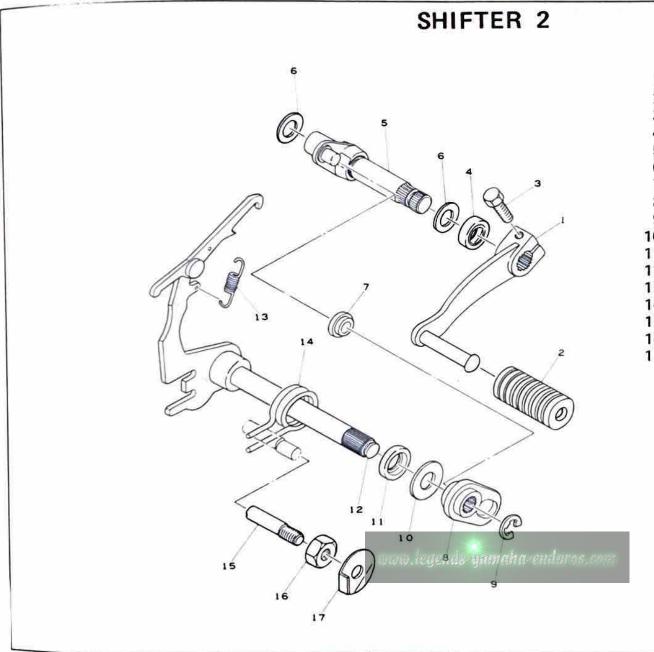
Adjusting or correcting the travel of the gear shift arm to prevent improper shafting progression (excess feed or insufficient feed of the gear shift arm) is accomplished by turning the gear shift return spring stop screw (eccentric bolt) in or out adjust the accentric bolt until distance A and A' are equal, adjust in 2nd, 3rd or 4th gear.











- 1. Change pedal
- 2. Change pedal cover
- 3. Bolt
- 4. Oil seal
- 5. Change shaft 2
- 6. Shim
- 7. Change lever roller
- 8. Change lever 4
- 9. Circlip
- 10. Plate washer
- 11. Oil seal
- 12. Change shaft 1
- 13. Tension spring
- 14. Torsion spring
- 15. Screw
- 16. Hexagon nut
- 17. Lock washer

SECTION F. DRIVE SPROCKETS AND CHAIN

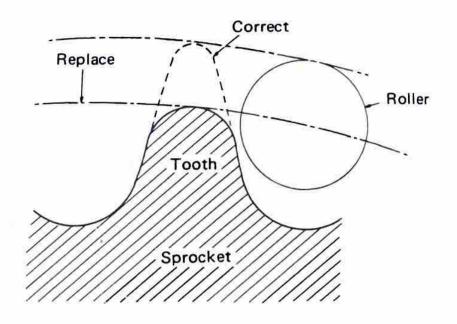
NOTE:-

Please refer to Maintenance Intervals and Lubrication Intervals charts located in Chapter I for additional information.

1. Drive Sprocket

- a. Using a blunt chisel, flatten the drive sprocket lock washer tab.
- b. With the drive chain in place, transmission in gear, firmly apply the rear brake. Remove the sprocket securing nut. Remove the sprocket.
- c. Check sprocket wear. Replace if wear discreases tooth height to a point approaching the roller center line.

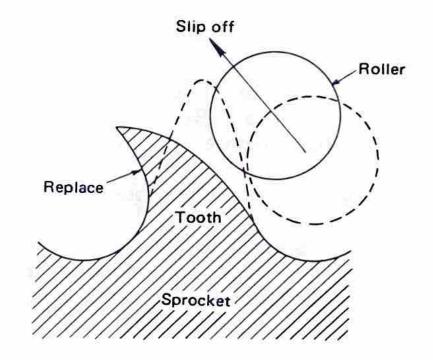




d. Replace if tooth wear shows a pattern such as that in the illustration, or as precaution and common sense dictate.

e. During drive sprocket reassembly, make sure the lock washer splines are properly stated on the drive shaft splines. Tighten securing nut thoroughly to specified torque value. Bend lock washer tab fully against securing nut flats.

Drive sprocket securing nut torque: 47 - 72 ft-lb (6.5 - 10 m-kg)



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2. Driven Sprocket and Drive Chain

With the rar wheel removed, proceed as follows:

- a. Using a blunt chisel, flatten the securing bolt lockwasher tabs. Remove the securing bolts (6). Remove the lock washers and sprocket.
- b. Check sprocket wear per procedures for the drive sprocket.
- c. Check the sprocket to see that it runs true. Do not heat and hammer to straighten. Use a press. If severely bent, replace.

d. During reassembly, make sure the sprocket and sprocket seat are clean. Tighten the securing bolts in a crosshatch pattern. Bend the tabs of the lock washers fully against the securing bolt flats.

Driven sprocket securing nut torque: 8–13 ft-lb (1.1–1.8 m-kg)

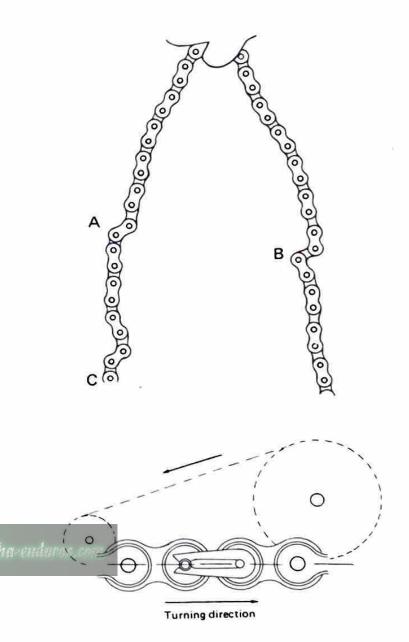


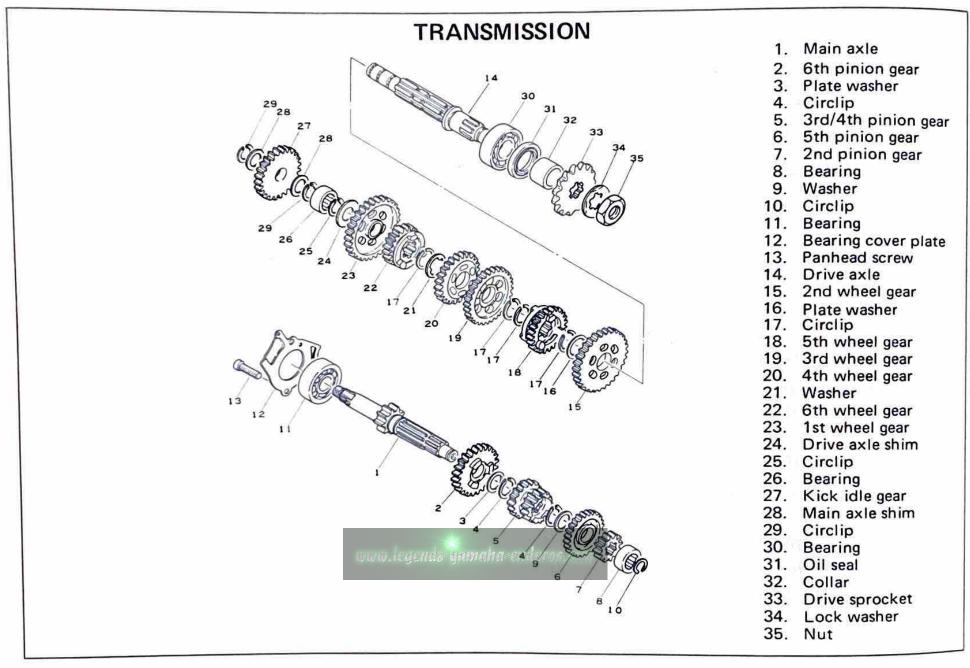
3. Chain

NOTE:-

Refer to Maintenance and Lubrication Charts located in Chapter I for additional information.

- Using a blunt-nosed pliers, remove the master link clip and side plate. Remove the chain.
- b. Check the chain for stiffness. Hold as illustrated. If stiff, soak in solvent solution, clean with medium bristle brush, dry with high pressure air. Oil chain thoroughly and attempt to wrok out kinks. If still stiff, replace.
- c. Check the side plates for visible wear. Check to see if excessive play exists in pins and rollers. Check for damaged rollers. Replace as required.
- d. During reassembly, the master link clip must be installed with the rounded end same and facing the direction of travel.





4. Troubleshooting

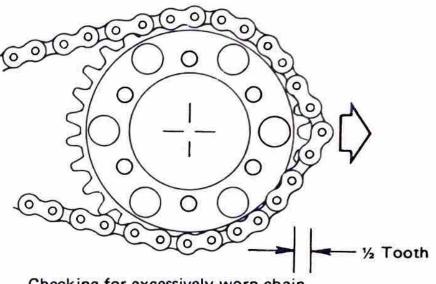
With the chain installed on the machine, excessive wear may be roughly determined by attempting to pull the chain away from the rear sprocket. If the chain will lift away more than one-half the length of the sprocket teeth, remove and inspect. If any portion of the chain shows signs of damage, or if either sprocket shows signs of excessive wear, remove and inspect.

5. Maintenance

The chain should be lubricated per the recommendations given in the Maintenance and Lubrication Schedule Chart located in Chapter I. More often if possible. Pre-ferably after every use.

 a. Wipe off dirt with shop rag. If accumulation is severe, use soft bristle brush, then rag.

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Checking for excessively worn chain

b. Apply lubricant between roller and side plates on both inside and outside of chain. Don't skip a portion as this will cause uneven wear. Apply thoroughly. Wipe off excess.

NOTE:-

Chain and lubricant should be at room temperature to assure penetration of lubricant into rollers.

Choice of lubricant is determined by use and terrain. SAE 20 wt or 30 wt may be used, but several specialty types by accessory manufacturers offer more penetration, corrosion resistance and shear strength for roller protection.

In certain areas, semi-drying lubricants are preferable. These will resist picking up and particles, dust, etc. Consult your Authorized Yamaha Dealer.

c. Periodically, remove the chain, wipe and/or brush excess dirt off. Blow off with high pressure air. d. Soak chain in solvent, brushing off remaining dirt. Dry with high pressure air. Lubricate thoroughly while off machine. Work each roller thoroughly to make sure lubricant penetrates. Wipe off excess. Re-install.

NOTE:-

See Maintenance and Lubrication Schedule Charts located in Chapter I for additional information.

6. Cables

Cable maintenance is primarily concerned with preventing deterioration through rust and weathering; and providing for proper lubrication to allow the cable to move freely within its housing.

Cable removal is straightforward and uncomplicated. Removal will not be discussed within this section. For details, see the individual maintenance section for which the cable is an integral part.

7. Maintenance

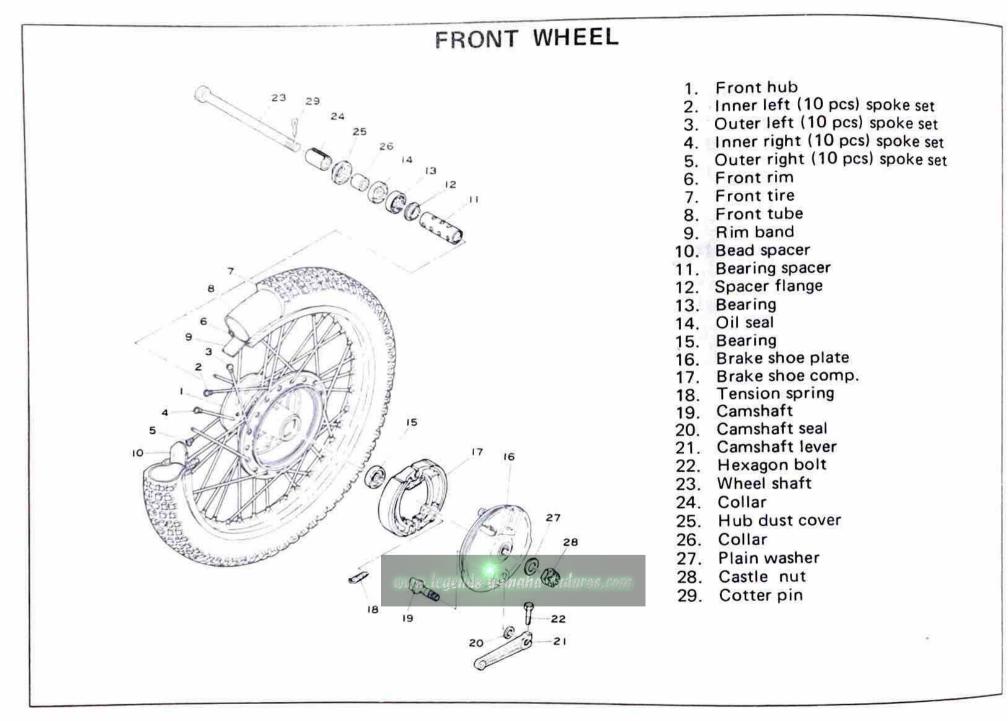
- a. Remove the cable.
- b. Check for free movement of the cable with its housing. If movement is obstructed, check for fraying of the cable strands. If fraying is evident, replace the cable assembly.
- c. To lubricate cable, hold in vertical position. Apply lubricant to uppermost end of cable. Leave in vertical position until lubricant appears at bottom end. Allow excess to drain and reinstall.

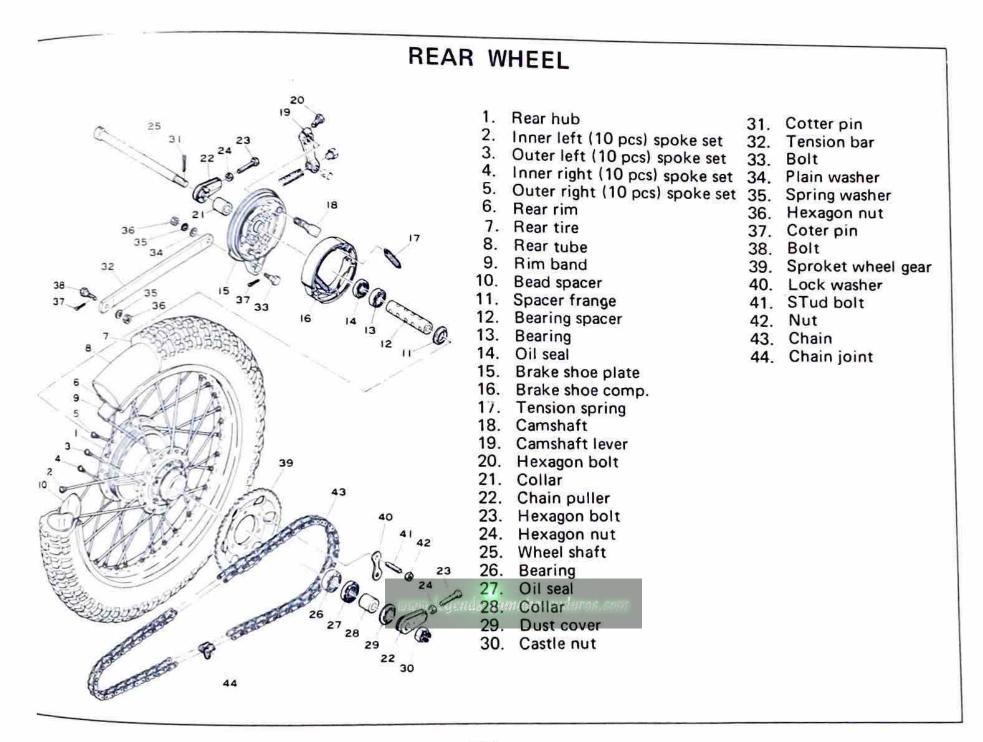
NOTE:-

Choice of lubricant depends upon conditions and preference. However, a semidrying, graphite-base lubricant will probably perform most adequately under most conditions.

Under certain conditions, a water displacing lubricant is more suitable. Check with the Authorized Yamaha Dealer in your area.







CHAPTER VI. CHASSIS MAINTENANCE AND MINOR REPAIRS

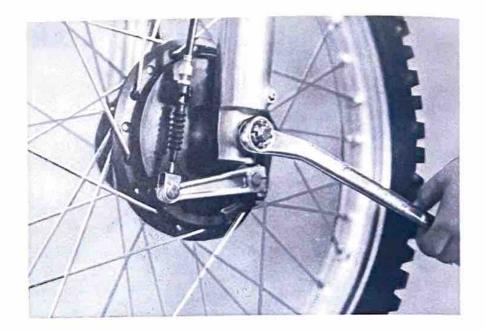
SECTION A. WHEELS, TIRES AND BRAKES

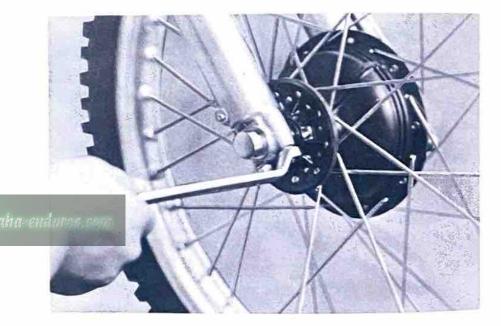
1. Front Wheel

 To remove the front wheel, disconnect the brake cable at the front brake lever, and remove the cotter pin and front wheel nut.

Then, loosen the front wheel axleholder nuts.

- b. Raise the front of the machine and set it on a box. Then remove the wheel assembly.
- c. Remove the front wheel axle by simultaneously twisting and pulling out on the axle.





2. Checking Brake Shoe Wear

Measure the outside diameter at the brake shoe with slide calipers. If it measures less than 5.039 in (128 mm) replace.

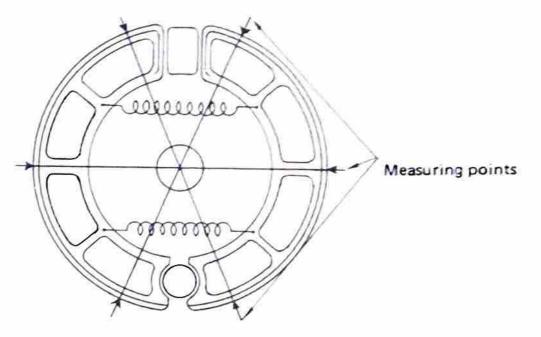
Front brake shoe diameter: 5.228 in (130 mm)

Replacement limit: 0.079 in (2 mm)

3. Brake Drum

Oil or scratches on thyinner surface of the brake drum will impair braking performance or result in abnormal noises. Remove oil by wiping with a rag soaked in lacquer thinner or solvent. Remove scratches by lightly and evenly rubbing with emery cloth.

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4. Replacing Wheel Bearings

If the bearings allow excessive play in the wheel or if it does not turn smoothly, replace the bearings as follows:

- a. First clean the outside of the wheel hub.
- b. Insert the bent end of the special tool into the hole located in the center of the bearing spacer, and drive the spacer out from the hub by tapping the other end of the special tool with a hammer. (Both bearing spacer and space flange can easily be removed.)
- c. Push out the bearing on the other side.
- d. To install the wheel bearing, reverse the above sequence. Be sure to grease the bearing before installation and use the bearing fitting tool (furnished by Yamaha).
- e. Check the lips of the seals for damage or warpage. Replace if necessary.

5. Spokes

Check the spokes. If they are loose or bent, tighten or replace them. If the machine is ridden in rough country often, or raced, the spokes should be checked regularly.

6. Rear Wheel

Removal

- Remove the tension bar and brake rod from rear shoe plate.
- Remove cotter pin from rear wheel shaft nut.
- 3) Remove the rear wheel shaft nut.
- Pull out the rear wheel shaft by simultaneously twisting and pulling out.
- 5) Remove the rear brake shoe plate.
- 6) Lean the machine to the left and remove the rear wheel assembly.

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7. Checking Brake Shoe Wear

Measure the outside diameter at the brake shoe with slide calipers. If it measures less than 5.039 in (128 mm) replace.

Rear brake shoe diameter: 5.228 in (130 mm) Replacement limit: 0.079 in (2 mm)

8. Brake Drum

Oil or scratches on the inner surface or the brake drum will impair braking performance or result in abnormal noises. Remove oil by wiping with a rag soaked in lacquer thinner or solvent. Remove scratches by lightly and evenly rubbing with emery cloth.

9. Replacing Wheel Bearings

Refer to front wheel section.

10. Checking Rims and Spokes (Front & Rear Wheels)

a. Checking for loose spokes

Loose spokes can be checked by bracing the machine off the ground so that the front wheel can slip free. Slowly revolve the front wheel and at the same time let the metal shaft of fairly heavy screwdriver bounce off each spoke. If all the spokes are tightened approximately the same then the sound given off by the screwdriver hitting the spokes should sound the same. If one spoke makes a dull flat sound, then check it for looseness.

b. Smooth out a rough shoe surface with sandpaper or with a file.

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c. Checking rim "run-out"

While you have the machine up in the air, you should check that the front wheel does not have too much run-out. "Run-out" is the amount the front wheel deviates from a straight line as it spins. Secure the front forks to keep them from turning. Set up a dial indicator or solidly anchor a pointer about 0.12 in (3 mm) away from the side of the rim.

As the wheel spins, the distance between the pointer and the rim should not change more than 0.079 in (2 mm) total. Any greater fluctuation means that you should remove this rim warpage by properly adjusting the spokes.

Run-out limits: 0.079 in (2 mm)

11. Tire Removal

- a. Remove valve cap, valve core, valve stem lock nut, and rim lock nuts.
- b. When all air is out of tube, separate tire bead from rim (both sides) by stepping on tire with your foot.
- c. Use two tire remove irons (with rounded edges) and begin to work the tire bead over the edge of the rim, starting 180° opposite the tube stem. Take care to avoid pinching the tube as you do this.
- d. After you have worked one side of the tire completely off the rim, then you can slip the tube out. Be very careful not to damage the stem while pushing it back out to the rim hole.

NOTE:-

If you are changing the tire itself, then finish the removal by working the tire off the same rim edge.

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12. Installing Tire

Re-installing the tire assembly can be accomplished by reversing the disassembly procedure. The only different in procedure would be right after the tube has been installed, but before the tire has been completely slipped onto the rim, inflate the tube. This removes any creases that might exist. Release the air and continue with reassembly. Also, right after the tire has been completely slipped onto the rim, check to make sure that the stem is squarely in the center of the hole in the rim.

SECTION B. FRONT FORKS AND STEERING HEAD

1. General

The front forks on your machine utilize chrome plated tubular steel fork legs (inner tubes) and tubular aluminum sliders (outer tubes). The bearing surface is the entire inside surface of the aluminum outer tube. The steering head pivot is supported by two sets of uncaged ball and race bearing assemblies.

Tire pressure for normal riding: Front-13 lb/in² (0.9 kg/cm²) Rear -15 lb/in² (1.1 kg/cm²)

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2. Front Fork Oil Change

a. With the front wheel removed or raised off the floor with a suitable frame stand, remove cap bolts on inner fork tubes.

NOTE: -

Check o-rings replace if damaged.

- Remove drain screw from each outer tube with open container under each drain hole.
- c. After most of oil has drained, slowly raise and lower outer tubes to pump out remaining oil.
- d. Replace drain screws.

NOTE: -

Check gaskets, replace if damaged.





e. Measure correct amount of oil and pour into each leg.

Recommended oil: Non-foaming hydraulic fluid 10, 20, 30 wt (for oil)

Quantity per leg: 11.63 cu in (190.5 cc)

NOTE:-

Select the weight oil that suits local conditions and your preference (lighter for less damping; heavier for more damping.

- f. After filling, slowly pump the outer tubes up and down to distribute the oil.
- g. Inspect O-ring on fork cap bolts and replace if damaged.
- h. Replace fork cap bolts and torque to specification.

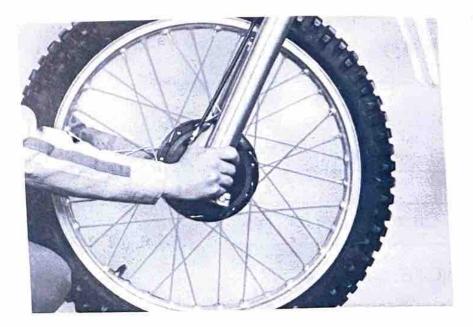
Fork cap bolt torque: 21.7 – 28.9 ft-lb (3.0 – 4.0 m-kg)



3. Steering Head Adjustment

a. With front wheel elevated, grasp bottoms of fork legs and gently push and pull to check steering head freeplay. There should be no noticeable freeplay.

- b. To adjust, first loosen upper stem pinch bolt.
- c. Loosen stem bolt.
- d. Use ring nut wrench to tighten adjust nut. Tighten until freeplay is eliminated.





CAUTION:-

Forks must swing from lock to lock without binding or catching.

e. Tighten stem bolt and torque to specification.

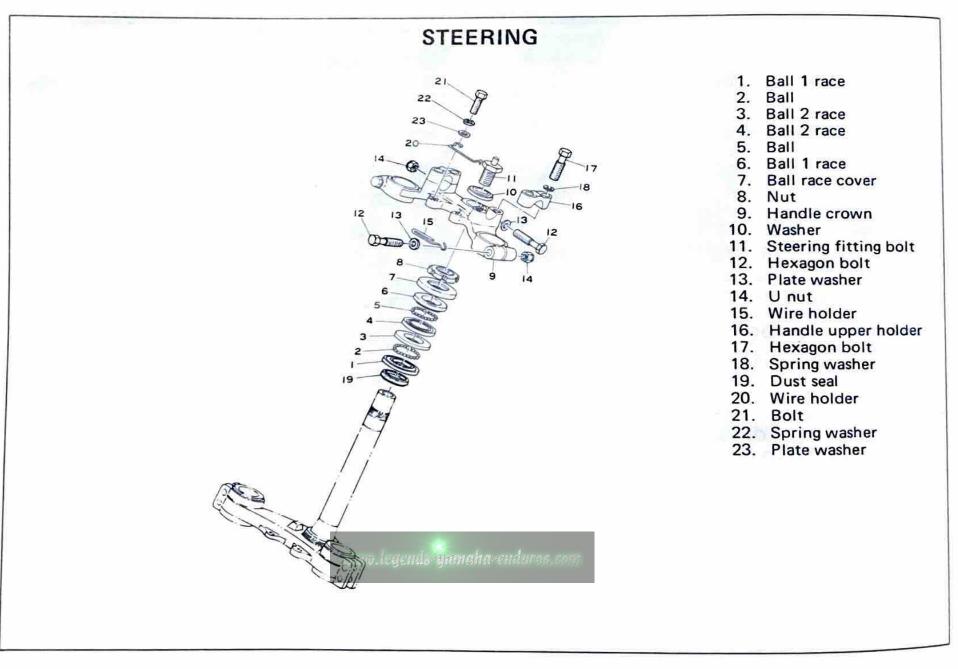
Stem bolt torque: .21.7 - 28.9 ft-lb (3.0 - 4.0 m-kg)

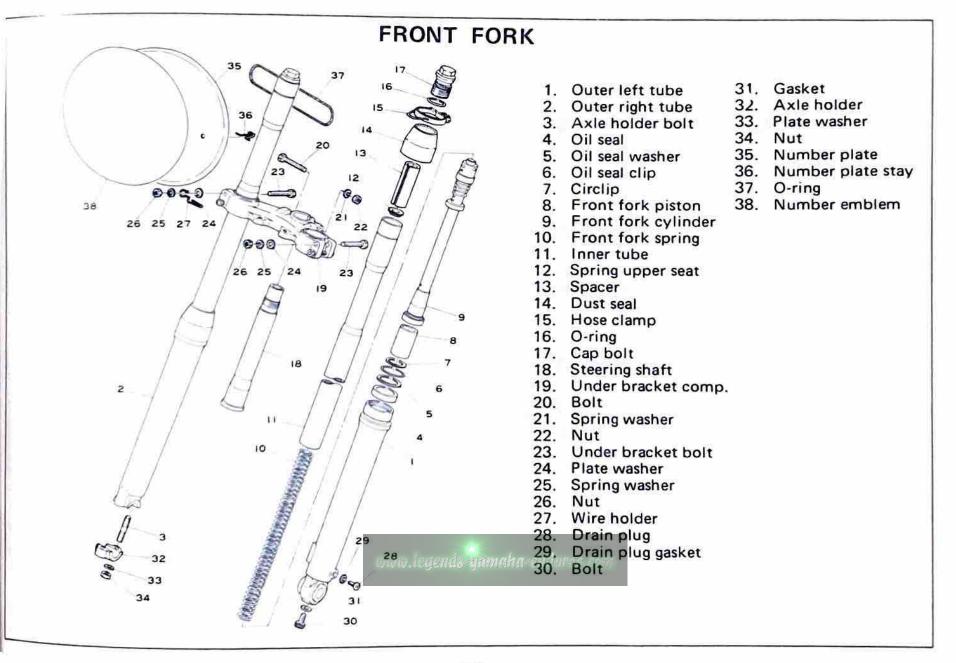
f. Tighten pinch bolts at fork crown and torque to specification.

Stem pinch bolt torque: 14.5 ft-lb (2.0 m-kg)

NOTE:

For steering head disassembly-refer to gends yangha enders com DT100A/125A/175A Service Manual for ^{correct} procedure.

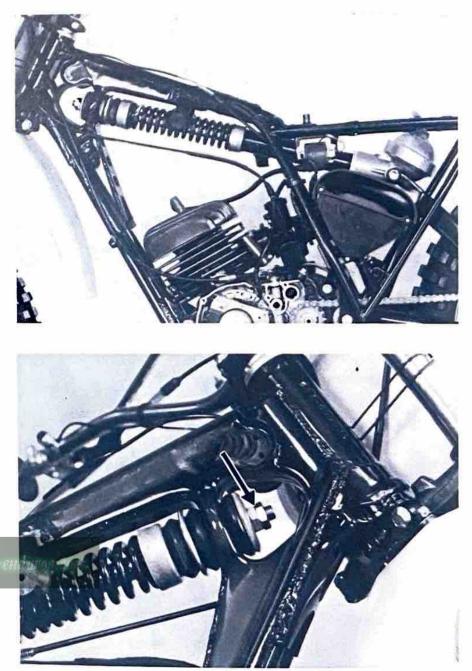




- SECTION C. REAR SHOCK (MONO-CROSS SUSPENSION) AND SWING ARM
- 1. Rear Shock (Monocross Suspension) Removal
- a. Remove the two bolts securing the rider's seat, the remove the seat. Remove the bolt holding the fuel tank, and remove the fuel tank (before this operation, the fuel petcock lever must be placed in OFF, and the fuel pipe must be removed at the carburetor side. The air vent pipe must also be removed). Lift up the rear of the fuel tank slightly.

and pull it backward. The two rubber dampers (on both sides of front bottom of the fuel tank) will come off the frame. (See page 64)

 b. Next, remove the two pivot shaft nuts on the front part of the rear shock (Monocross suspension), and remove the washer, and rubber.

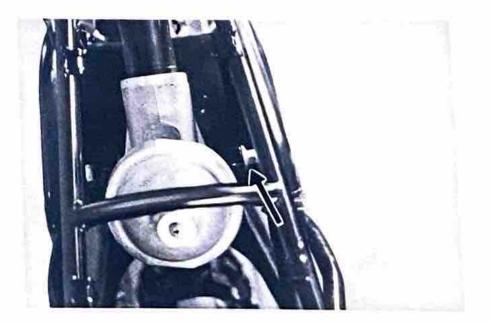


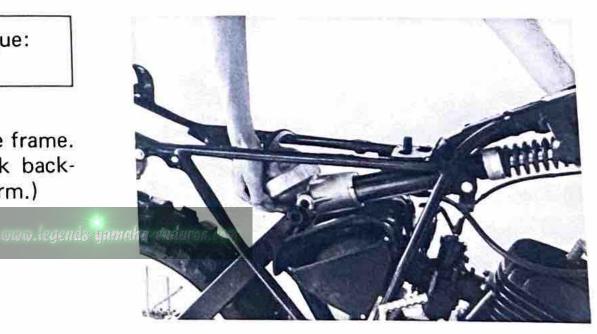
Pivot shaft nuts torque: 50.63 ft-lb (7 m-kg)

c. Next, remove the bolt securing the membrane housing to the rear of the frame. The bolt is held by a stopper so it does not turn when the nut is screwed out. Loosen the nut first, and remove the bolt. Take care so the two washer are not lost.

Membrane housing install nut torque: 14.47 ft-lb (2 m-kg)

 Remove the rear shock from the frame. (To remove, pull the rear shock backward while lifting up the swing arm.)



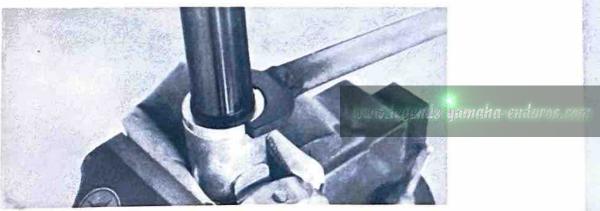


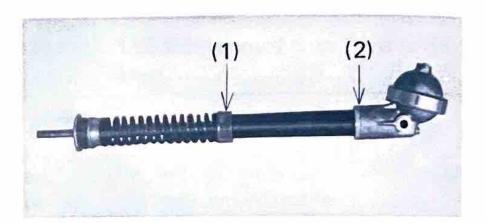
- 2. Retightening the Monocross Suspension Unit
- a. Checking points for tightness

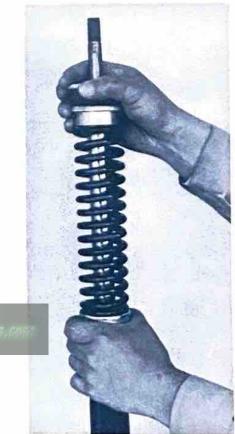
b. Retightening

Since the cylinder case may come loose, it should be tightened in the following order, whether (1) or (2) in the above photo is loose.

- 1) Remove the spring 1.
- 2) Loosen the ring nut (2).







3) Retighten the cap case (1).

Torque : 108 ft-lb (15 m-kg)

4) Retighten the ring nut (2).

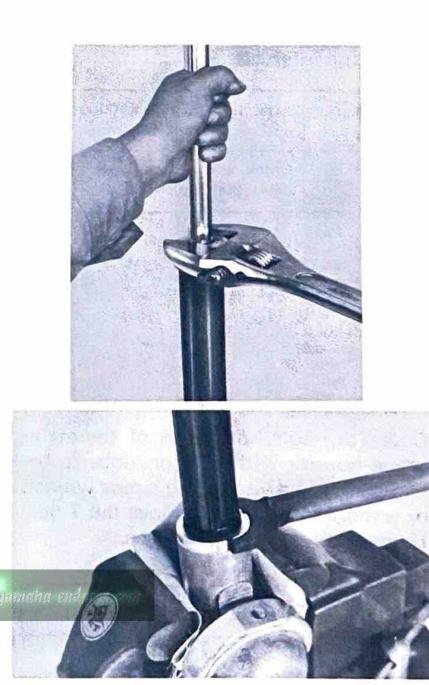
Torque: 146 ft-lb (20 m-kg)

5) Install the spring 1.

NOTE:-

Never tap the cylinder case with a pipe wrench. For retightening, the suspension unit must be removed from the machine. For easy operation, the membrane housing (A) of the suspension unit should be held and sumeha en by a vise.

1.1.1



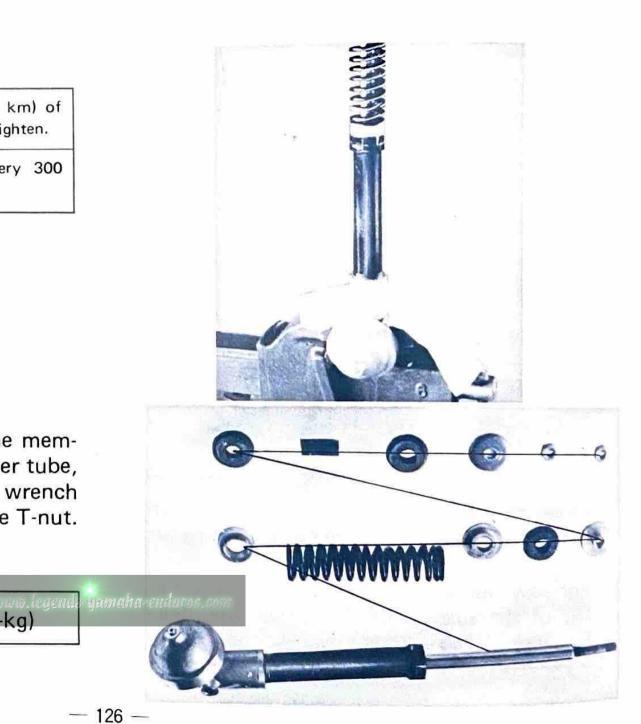
c. Inspection intervals

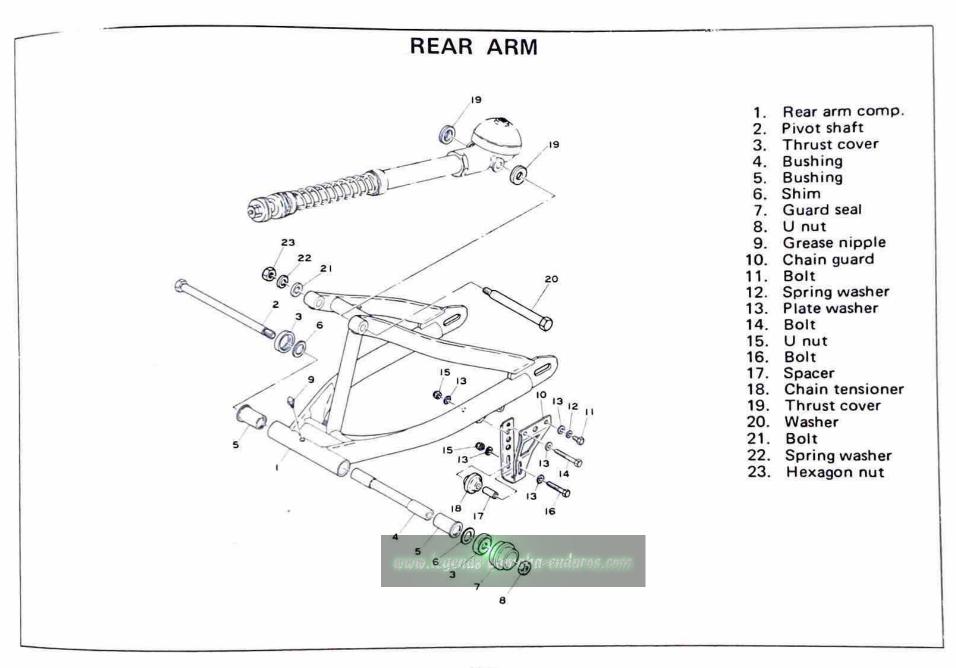
After-break-in inspection	After first 60 mile (100 km) of operation, check and retighten.		
Periodical inspection	Check and retighten every 300 mile (500 km).		

3. Rear Shock Spring Replacement

a. Cover the bolt hole areas of the membrane housing with a rag or rubber tube, and grip it in a vise. Using a pipe wrench or a monkey wrench, remove the T-nut. If any nut is damaged, replace.

T-nut Torque: 10.85 ft-lb (1.5 m-kg)





In addition to the standard type, two different type rear shock springs are sold. A proper type should be selected according to the conditions of a racing course or the weight of the rider.

Туре	Part No.	Spring constant kg/mm	Color cords
Soft	90501-80367	3.6	Painted white & yellow
Standard	90501-80362	3.8	None painted
Hard	90501-80368	3.9	Painted blue & yellow

* The spring for the YZ250B/360B or MX250B/400B can be installed as option according to the rider's choice. According to the rider's choice, the spring for the YZ250B/360B or MX250/400B can be installed as option in addition to the above spring.

NOTE: -

For assembly, the above-mentioned procedure should be reversed.

b. For adjustment or replacement of the nitrogen gas, or change of the shock absorber oil in the accumulator, or for assembly of the accumulator, or for disassembly of the accumulator, consult your authorized Yamaha dealer.

4. Swing Arm Inspection

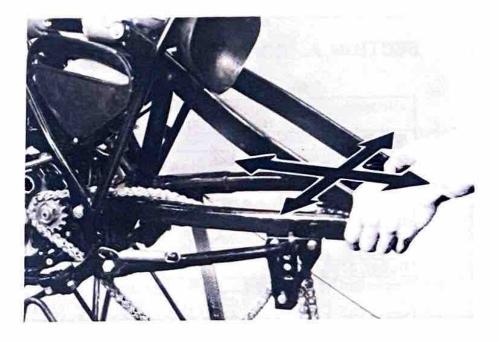
a. With the rear wheel and membrane housing bolt removed, hold the end of the swing arm, and check, free play by shaking it horizontally.

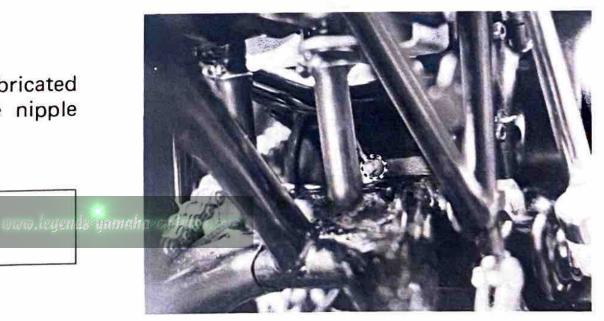
Swing arm freeplay: None

- b. If freeplay is excessive, remove swing arm and replace swing arm housing.
- 5. Swing Arm Pivot Lubrication

The swing arm of the YZ125C is lubricated by feeding grease into the grease nipple using a grease gun.

Recommended Lubricant: 90 wt, smooth lube grease





CHAPTER VII. MISCELLANEOUS

SECTION A. CONVERSION TABLES

	Metric to Inch Sy	stem	li I	nch to Metric Sys	tem
KNOWN	MULTIPLIER (Rounded off)	RESULT	KNOWN	MULTIPLIER (Rounded off)	RESULT
TORQUE			TORQUE		
m-kg.	7.233	ft-lb	ft-lb	0.1383	m-kg
m-kg	86.796	in-lb	ft-lb	13.8313	cm-kg
cm-kg	0.0723	ft-lb	in-lb	0.01152	m-kg
cm-kg	0.8679	in-lb	in-lb	1.1522	cm-kg
WEIGHT			WEIGHT		
kg	2.205	lb	lb	0.4536	kg
g	0.0353	oz	Oz	28.3286	g
FLOW/DISTA	NCE		FLOW/DISTANC	E	
km/lit	2.352	mpg	mi/gal	0.4252	km/lit
km/h	0.6214	mph	mi/h	1.6093	km/h
km	0.6214	mi	mi	1.6093	km
m	3.2809	ft	ft	0.3048	m
m	1.0936	yd	yd	0.9144	m
cm	0.3937	in	in	2.540	cm
mm	0.03937	in	in	25.40	mm
VOLUME/CAPACITY		VOLUME/CAPACITY			
c	0.03381	oz (U.S. liq)	oz (U.S. lig)	29.577	CC
CC	0.06103	cu.in	cu. in	16.385	cc
it	2.1134	pt (U.S. liq)	pt (U.S. lig)	0.4732	lit
it	1.057	qt (U.S. liq)	qt (U.S. lig)	0.9461	lit
it	0.2642	gal (U.S. liq)	gal (U.S. liq.)	3.7850	lit
MISC			MISC.	011000	
g/mm	55.9970	lb/in	Ib/in	0.01786	les les es
g/cm²	14.2233	psi (Ib/in²)	psi (lb/in ²)	0.07031	kg/mm kg/cm²
. Centigrade ((°C) + 32	Fahrenheit (°F)	5/9 . [Fehrenheit (°		Centigrade (°C

DEFINITION OF TERMS:

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m-kg g kg km	 Meter-kilogram: Usually torque. Gram. Kilogram: 1,000 grams. Kilometer. 	km/lit – Kilometer per liter: Mileage, km/lit – Cubic centimeter (cm³): Volume or capacity, kg/mm – Kilogram per millimeter: Usually spring com-
lit	– Liter.	pression rate. kg/cm ² – Kilogram per square centimeter: Pressure.

SECTION B. CLEANING AND STORAGE

Cleaning

Frequent thorough cleaning of your motorcycle will not only enhance its appearance, but will improve general performance and extend the useful life of many components.

- 1. Before Cleaning the Machine:
- a. Block off end of exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
- b. Remove air cleaner or protect it from water with plastic covering.

NOTE:-

With air cleaner removed make sure no water enters intake.

Make sure spark, plug, gas cap, transmission oil filler plug and drain plug are properly installed.

- If engine case is excessively greasy, apply degrasser with a paint brush. Do not apply degreser to chain, sprockets, or wheel axles.
- 3. Rinse dirt and degreaser off with garden hose, using only enough hose pressure to do the job. Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brake drums, and transmission seals. Many expensive repari bills have resulted from improper high-pressure detergent applications such as those available in coin-operated car washes.
- 4. Once the majority of dirt has been hosed off, wash all surfaces with warm water and mild detergent-type soap. An old tooth brush or bottle brush is handy to reach those hard to get to places.

- 5. Rinse machine off immediately with clean water and dry oil surfaces with a chamois skin, clean towel, or soft absorbent cloth.
- Immediately after washing, remove excess moisture from chain and lubricate to prevent rust.
- Chrome-plated parts such as handlebars, spokes, forks, etc. may be further cleaned with automotive chrome cleaner.
- 8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
- Automotive-type was may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may paint or protective finish on fuel.

10. After finishing, start the engine immediately and allow to idle for several minutes.

Storage

Long term storage (30 days or more) of your motorcycle will require some preventive procedures to insure against deterioration. After cleaning machine thr oughly, prepare for storage as follows:

- Drain fuel tank, fuel lines, and carburetor float bowl(s).
- Remove empty fuel tank, pour a cup of 10W to 30W oil in tank, shake tank to coat inner surfaces thoroughly and drain off excess oil. Re-install tank.

3. Remove spark plug, pour about one table-spoon of 10W to 30W oil in spark plug hole and reinstall spark plug. Kick engine over several times (with ignition off) to coat cylinder wall with oil.

- 4. Remove drive chain. Clean thoroughly with solvent and lubricate with graphitebase chain lubricant. Re-install chain or store in a plastaic bag (tie to frame for safe-keeping).
- 5. Lubricate all control cables.
- Block up frame to raise both wheels off ground. (Main stands can be used on machines so equipped).
- 7. Deflate tires to 12 lbs/in² (0.8 kgs/cm²)
- 8. Tie a plastic bag over exhaust pipe poutlet to prevent moisture entering.
- If storing in humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or seat cover.

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SECTION C. WARRANTY

The YZ models have been designed expressly for competition. Many components have been extensively lightened. The power produced by the engines is considerably above that of a "stock" unit. In light of these facts, and considering the use to which the machines will be put, Yamaha provides no warranty—either express or implied—on any YZ model motor-cycle.

If any questions arise regarding your YZ, consult your Authorized your Yamaha Dealer.

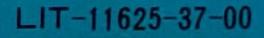


SECTION D.	MAINTENANCE I	RECORD		
DATE	MILE	ITEM	REMARKS	
-				
2				
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