

DT125E/DT175E

OWNER'S MANUAL



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IMPORTANT: PLEASE READ THIS MANUAL CAREFULLY AND COM-PLETELY BEFORE OPERATING THIS VEHICLE.

Particularly important information is distinguished in this manual by the following notations:

- **NOTE:** A NOTE provides key information to make procedures easier or clearer.
- **CAUTION:** A CAUTION indicates special procedures that must be followed to avoid damage to the machine.
- **WARNING:** A WARNING indicates special procedures that must be followed to avoid injury to a machine operator or person inspecting or repairing the machine.

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INTRODUCTION

Congratulations on your purchase of the Yamaha DT125E/DT175E. This model represents the product of many years of Yamaha experience in the production of fine sporting, touring, and pace-setting racing machines. You can now appreciate the high degrees of craftsmanship and reliability that have made Yamaha a leader in these fields.

PLEASE READ THIS MANUAL CAREFU-LLY AND COMPLETELY BEFORE OPERA-TING YOUR NEW MACHINE. This manual will provide you with a good basic understanding of the features, operation, and basic maintenance and inspection items of this vehicle. If you have any questions regarding the operation or maintenance of your machine, please consult your Yamaha dealer. NOTICE: Some data in this manual may become outdated due to improvements made to this model in the future. If there is any question you have regarding this manual or your machine, please consult your Yamaha dealer.

SERVICE DEPT. INTERNATIONAL DIVISION YAMAHA MOTOR COMPANY, LTD.

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NOMENCLATURE



RIGHT SIDE





LEFT SIDE

- 1. Taillight
- 2. Muffler
- 3. Kick crank
- 4. Headlight
- 5. Front fender
- 6. Front wheel
- Brake pedal
- 8. Footrest
- 9. Front fork
- 10. Fuel tank

- 11. Rear wheel
- 12. Side stand
- 13. Change pedal
- 14. Clutch lever
- 15. Speedometer
- 16. Tachometer
- 17. Brake lever
- 18. Throttle grip
- 19. Main switch
- 20. Oil tank

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MACHINE IDENTIFICATION

Frame serial number

The frame serial number is stamped on the right side of the steering head stock.



1. Frame serial number

Engine serial number

The engine serial number is stamped into the raised part of the right rear section of the engine.



1. Engine serial number

NOTE:-

The first three digits of these numbers are for model identifications; the remaining digits are the unit production number. The engine and frame serial numbers are usually identical.

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CONTROL FUNCTIONS

Main switch

According to the main key position, the ignition and lighting systems can be used as follows:

Key position	Description	. Key removal
OFF	Engine cannot be started. Lights and horn cannot be operated.	Possible
ON	Engine can be started. Lights and horn can be operated.	Not possible



Hendlebar switches

The handlebar switches are located near the right and left handle grips and are used for the following functions:

"ENGINE STOP" switch

Make sure that the engine stop switch is turned to "RUN" position. The engine switch has been equipped to ensure safety in an emergency such as when the motorcycle is upset or trouble takes place in the throttle system. The engine will not start or run when the engine stop switch is turned to "OFF".



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"LIGHTS" switch

Turn the light switch to the "ON" position to turn on the headlight and the taillight.

"LIGHTS" switch (dimmer)

Turn to the "HI" position for the high beam and to the "LO" position for the low beam.



1. "LIGHTS" switch3. "HORN" switch2. "LIGHTS" switch (dimmer)4. "TURN" switch

"HORN" switch

Press button to sound the horn.

"TURN" switch

This is a three-way switch: the center position is off; turn to the "L" position for the left

flasher and to the "R" position for the right flasher.

Indicator lights

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"TURN" indicator light (orange):

This light flashes when either turn indicator is ON.

"NEUTRAL" light (green):

This light comes on when the transmission is in neutral.

"HIGH BEAM" indicator light (blue):

This light comes on when the headlight high beam is used.



"OIL" caution light (red):

The light comes on when there is little oil in the oil tank thus warning the rider. The rider can check the circuit by putting the machine in neutral. Both the neutral light and the oil caution light should come on.

NOTE: -

If the oil caution light will not light up during this test, have your Yamaha dealer check it. Of course, check the oil level first.

CAUTION: Do not run the machine until you known the machine has enough oil.



Speedometer

The odometer and trip odometer are built into the speedometer. The trip odometer can be reset to "0" by turning the reset knob.



Tachometer

The tachometer is provided so the rider can keep engine revolutions (rpm) within the ideal power range.

CAUTION: Do not operate in the red zone. Red Zone: 8,000 rpm and above.

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Fuel petcock

The fuel petcock supplys fuel from the tank to the carburetor while filtering the fuel. The fuel petcock has three positions:

- OFF: With the lever in this position fuel will not flow. Always return the lever to this position when the engine is not running.
- ON: With the lever in this position fuel flows to the carburetor. Normal riding is done with the lever in this position.



RES: This indicates "RESERVE". If you run out of fuel while riding, move the lever to this position. THEN, FILL THE TANK AT THE FIRST OPPORTU-NITY.

Starter knob

When cold, the engine requires a richer fuel mixture for starting. A separate starter circuit, which is controlled by the starter knob, supplies this mixture.

Pull the knob out to open the circuit for starting. When the engine has warmed up push the knob in to close the circuit.



1. Starter knob

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Kick starter

To start the engine, rotate the kick crank, push down lightly with your foot until the gears engage, and then kick with full strength. This model has a primary kick starter so the engine can be started in gear if the clutch is disengaged. As normal practices, however, shift to neutral before starting.



Steering lock

To lock the steering, turn the handlebars to the right, insert the key into the steering lock and turn the key about 1/8 turn counterclockwise. Then push the key in and turn it about 1/8 turn clockwise. Check to see that the lock has engaged, then remove the key from the lock. To release the lock, reverse the above steps.



1. Steering lock

Helmet holder

To open the helmet holder, insert the key in the lock and turn it clockwise.

To lock the helmet holder, place the holder in its original position.

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1. Helmet holder 2. Open 3. Lock

Front brake lever

The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake.

Rear brake pedal

The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to activate the rear brake.



1. Rear brake pedal



1. Front brake lever

Clutch lever

The clutch lever is located on the left handlebar and disengages or engages the clutch.





Pull the clutch lever to the handlebar to disengage the clutch and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth operation.

Gear shifting

The gear ratios of the constant mesh 6 speed transmission are ideally spaced. The gears are shifted by using the change pedal on the left side of the engine.



1. Change pedal

PRE-OPERATION CHECKS

Before using this motorcycle please check the following points:

ltem	Routine	Page
Brakes	Check operation/adjustment	27~30
Clutch	Check operation/lever adjustment	27
Fuel	Check fuel level/top-up as required	11
Autolube tank (Engine oil)	Check oil level/top-up as required	21
Transmission oil	Check oil level/Fill before every trip	21~23
Drive chain	Check alignment/adjustment/lubrication	30~32
Throttle	Check for proper throttle and autolube cable operation	26,27
Wheels and tires	Check pressure/runout/spoke tighteness/axle nuts	11,12
Lights/signals	Check headlight/tail – brakelights/flasher lights/horn	

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. The added safety it assures is more than worth the time involved.

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Fuel

Make sure there is sufficient fuel in the tank.

Recommended fuel: Regular or low lead gasoline Fuel tank capacity: 7.0 lit (1.8 US. gal.)

Engine oil

Make sure there is sufficient engine oil in the oil tank. Add oil as necessary.

Recommended oil: See page 21 "Engine oil section" Oil tank capacity: 1.0 lit (1.1 gt.)

Transmission oil

Make sure the transmission oil is at the specified level. Add oil as necessary.

Recommended oil: Yamalube 4-cycle or SAE 10W/30 type "SE" motor oil Oil quantity: 650 ± 50cc (22.1±1.7 oz)

Tires

Check the tire pressure and check the tires for wear.

Tire Pressure

	Front tire	Rear tire
Off-road	1.0 kg/cm ² (14 psi)	1.2 kg/cm ² (17 psi)
On paved road	1.7 kg/cm ² (24 psi)	2.0 kg/cm ² (28 psi)
With passenger	1.7 kg/cm ² (24 psi)	2.3 kg/cm ² (33 psi)

If a tire tread shows cross-wise lines, it means that the tire is worn to its limit. Replace the tire.



WARNING: It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have your Yamaha dealer replace the tire immediately.

Brakes

Check for correct play in the brake lever and pedal and make sure they are working properly. Check the brakes at low speeds shortly after starting out.

Switches and lights

Check for proper operation.

OPERATION AND IMPORTANT RIDING POINTS

CUATION: Before riding this motorcycle, become thoroughly familiar with all operating controls and their function.

Consult your Yamaha dealer regarding any control or function you do not thoroughly understand.

Starting a cold engine

- 1. Shift transmission into neutral.
- 2. Turn the fuel petcock to "ON".
- 3. Turn the ignition key to "ON" position.

NOTE:

At this time, both neutral and oil indicator lights should be on. If lights do not come on ask Yamaha dealer to inspect.

- Turn the engine stop switch to the "RUN" position.
- 5. Operate the carburetor starter jet (choke) knob and completely close the throttle grip.
- 6. Kick the kick crank with full strength to start the engine.
- After the engine starts, warm up for one or two minutes. Make sure the starter jet (choke) knob is returned to the original position before riding.

Starting a warm engine

To start a warm engine, the starter knob is not required.

Warming up

To get maximum engine life, always "warmup" the engine before riding the machine. Never accelerate hard with a cold engine! To see whether or not the engine is warm, see if it responds to throttle normally with the starter jet (choke) turned off. CAUTION: See "Break-in Section" prior to operating engine for the first time.

Shifting and acceleration

This model has a 6-speed transmission. The transmission allows you to control the amount of power you have available at a given speed or starting accelerating, climbing hills, etc. To shift into NEUTRAL, repeatedly depress the change pedal to the end of its travel (you will feel a stop when you are in first gear.), then raise it slightly.

To start out and accelerate, proceed as follows:

- 1. Pull the clutch lever to disengage the clutch.
- 2. Shift into FIRST gear.
- 3. Open the throttle gradually, and at the same time, release the clutch lever slowly.



1. Change pedal

- 4. At 16 to 24km/h (10 to 15mph), close the throttle, and at the same time, pull in the clutch lever quickly.
- 5. Shift into SECOND. Be careful not to shift into neutral.
- 6. Open the throttle part way and gradually release the clutch lever.
- 7. To accelerate or decelerate, use the same procedure to shift into next higher or next lower gear.

Engine break-in

There is never a more important period, in the life of your motorcycle, than the period between zero and 800 km. (500 mi.). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first several hours of running. During the first 400 km. (250 mi.) the various parts in the engine wear and polish themselves to the correct operating clearances. During this period prolonged full throttle operation, or any condition which might result in excessive heat of cylinder, must be avoided.

If any abnormality is noticed during this period, ask your Yamaha dealer to check.

1. $0 \sim 160$ km. ($0 \sim 100$ mi.):

Avoid operation above 4,000 rpm. Allow a cooling off period of 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one, set throttle position.

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- 160 ~ 400 km. (100 ~ 250 mi.): Avoid prolonged operation above 5,000 rpm. Allow the motorcycle to rev freely through the gears but do not use full throttle at any time.
- 3. $400 \sim 800$ km. (250 \sim 500 mi.): Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 6,000 rpm.
- 800 km. (500 mi.) and beyond: Avoid prolonged full throttle operation. Avoid engine speeds in excess of 7,000 rpm. Vary speeds occasionally.

CAUTION: If any engine trouble should occur during the break-in period, consult your Yamaha dealer immediately.

Going uphill

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When starting to climb a gentle grade, open the throttle little by little to avoid loosing engine speed and power. When climbing a steep grade, shift down from THIRD to SECOND or from SECOND to FIRST as required.



Going downhill

On a long downgrade or sharp descent, don't rely on the brakes alone, but use the engine compression as a brake; shift into THIRD or SECOND as required by the grade and close the throttle. CAUTION: Never turn off the ignition switch on a long hill. This may cause the spark plug to foul, in addition to being unsafe.

NOTE: -----

When using engine braking for long periods, it is very important not to exceed maximum recommended rpm (tachometer red zone). It is also necessary to open the throttle occasionally because the engine relies on the fuel for internal cooling.

Stopping

There are several ways to stop. Pulling in the clutch lever and twisting the throttle grip in the close direction will permit you to gradually glide to a stop.

Downshifting through the gears, using the drag of the engine to slow down is another. However, the best method, and the one most

universally used, is to use both engine compression (downshifting through the gears as the machine slows) and the front and rear brakes.

When stopping, gradually apply the rear brake while twisting the throttle grip in the closed direction. After the rear brake starts to take hold, gradually apply the front brake. As the machine continues to slow, shift down through the gears using engine compression to aid the slowing effect. When shifting down, watch the tachometer to see that the engine does not over-rev.

NOTE:-----

During periods of inclement weather such as snow, rain, sleet, or ice or on poor road surfaces where traction is minimal, or in a sharp corner, IT IS NOT ADVISABLE TO FIRMLY APPLY THE FRONT BRAKE. While it is true that the front brake supplies the greater portion of braking power, it is also true that stability can be lost very easily if it is not used cautiously under the above conditions.

Parking

When parking, stop the engine and remove the ignition key. Make it a habit to turn the fuel petcock to "OFF" whenever stopping the engine.

NOTE:-

Select a parking place where the motorcycle is not apt to fall.

Cruising

A frequently asked question is "What speed should I cruise at ?". The BREAK-IN section provides limitations when the motorcycle is new, but once the engine has been broken in, then we suggest that you follow these guide lines. For sustained load and throttle conditions, such as those encountered on open highways, cruise at 3/4 throttle. Always bear in mind, though, the maximum allowable speed limit for the area through which you are riding. This is a recommendation, not a "hard and fast" rule. Any modification or personalization of the running gear could possibly change the operating range most comfortable and most efficient for the engine.

Off-road riding

When riding your motorcycle off-road, safety parts may break or fall off due to shock from the ground or due to accidents such as falling, and breakage or loss of parts may result. It is advisable to remove all safety parts before you start riding.

Parts to be removed: Headlight, Tail/Stoplights. Flasher lights and meters, etc.

PERIODIC MAINTENANCE AND MINOR REPAIR

Periodic inspection, adjustment and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The most important points of motorcycle inspection, adjustment and lubrication are explaned on the following pages.

CAUTION: If the owner is not familiar with motorcycle service, this work should be done by a Yamaha dealer.

Tool Kit

The servicing information included in this manual is intended to provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are sufficient for this purpose, except that a torque wrench is also necessary to properly tighten nuts and bolts.



1. Tool box

2. Tool kit

PERIODIC MAINTENANCE

Unit: km (mile)

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	Domorka		Ir	nitial		Thereafter every		
item			800 (500)	1,600 (1,000)	3,200 (2,000)	1,600 (1,000)	3,200 (2,000)	6,400 (4,000)
Cylinder head/Exhaust pipe	Decarbonize *				0			0
Spark plug	Inspect/Clean or replace as required	0	0	0			0	
Air filter	Clean/Replace as required *	0		0		0		
Carburetor	Check operation/Adjust as required*		check		0		0	
Brake system (complete)	Check/Adjust as required-Reapir as required*		0	0			0	
Wheels and tires	Check pressure/Wear/Balance/Runout*	0	0	0		0		
Fuel petcock	Clean/Flush tank as required	0		C		0		
Autolube pump	Check/Adjust/Air bleeding*		check	0		0		
Battery	Top-up/Check specific gravity and breather pipe*	0	0	0		0		
Ignition timing	Adjust/Clean or replace as required*		0	check			0	
Lights/Signals	Check operation/Replace as required	0	0	0		0		
Fittings/Fasteners	Tighten before each trip and/or	0	Э	0		0		
Drive chain	Check tension/Alignment/Adjust as required	0	0	0		0		
Clutch	Check/Adjust		0	0			0	
Suspension system	Check/Adjust/Repair as required	_	0		o		0	

* Items for your Yamaha dealer to service,

LUBRICATION INTERVALS

Unit: km (mile)

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Itam	Bomarks	Remarks (Recommended lubricants) 40 (25		Ini	tial		Thereafter every		
item	nemarks			800 (500)	1,600 (1,000)	3,200 (2,000)	1,600 (1,000)	3,200 (2,000)	6,400 (4,000)
Transmission oit	Replace/Warm engine before draining	 Yamalube 4 cycle oil SAE 10W/30 type "SE" motor oil 	check	0	0		check	0	
Control/Meter cables	Apply thoroughly	Yamaha chain and cable lube or SAE 10W/30 motor oil			0	0		0	
Throttle grip/ Housing	Apply lightly*	Lithium base grease	1			0		0	
Front forks	Drain completely—Check specifications	telyCheck Yamaha fork oil 10W, 20W, 30W check			0	check		0	
Steering bearings	Inspect thoroughly/Pack moderately*	Medium-weight wheel bearing grease				check			0
Speedometer gear housing	Inspect thoroughly/Pack moderately*	Lithium base grease				0			0
Rear arm pivot shaft	Apply grease fully*	Medium-weight wheel bearing				0			0
Wheel bearings	Do not over-pack*	Medium-weight wheel bearing grease	Medium-weight wheel bearing grease			0	check	0	
Drive chain	Clean and lube	Yamaha chain and cable Lube or SAE 10W/30 motor oil	Every 400 km (250 mile)						
Brake pedal shaft	Apply lightly	Lithium base grease			0			0	
Stand shaft pivot	Apply lightly	Lithium base grease			0			0	
Point cam lubri- cation wick(s)	Apply very lightly * (DT125E)	Light-weight machine oil	0			0			

* Items for your Yamaha dealer to service,

Engine oil

We recommend Yamalube 2-cycle oil (available at most Yamaha dealers) but, if other oils are used, select from the following list which is given in order of preference.

- 1. 2-stroke engine oil labelled "BIA certified for service TC-W".
- SAE 30W, detergent type automobile engine oil with an "SE" rating. This last oil should be used only as an emergency measure when 2-stroke oils are not available.

NOTE: -

Oil viscosity increases in very cold weather (where the normal temperature is below 0° C (32°F)) and oil does not flow as well. In such areas, consult your Yamaha dealer.

NOTE: -

Install the oil tank filler cap and push it fully into the filler.



1. Oil tank filler cap

Transmission oil

The only servicing for you to do is to check and fill the transmission lubricating oil.

To check the level, warm the engine up for several minutes, screw the dip stick completely out and then just rest the stick in the hole.

NOTE: -

When checking transmission oil level with the dip stick, let the unscrewed dip stick just rest on the case threads. Also, be sure the machine is positioned straight up and on both wheels.

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1. Dip stick 2. Maximum level 3. Minimum level

The dip stick has a minimum and a maximum mark, and the oil level should be between the two. If the level is lower, then add sufficient oil to raise it to the proper level.

Recommended oil: Yamalube 4-cycle oil or SAE 10W/30 motor oil, type "SE"

During the break-in period, you should replace the transmission oil 30 days or 800 km (500 mi) after the date of first use. The transmission should be drained and refilled approximately every 3,200 km (2,000 mi).

Oil quantity: 650 ± 50cc (22 ± 1.7 oz)

On the bottom of the engine there is a drain plug. Remove it and drain all the transmission oil out.



1. Drain plug

Reinstall the drain plug (make sure it is tight). Add oil through the dip stick hole.

NOTE:

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

Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug reflects the running condition of the engine.

For example, a very white center electrode porcelain color could indicate an intake tract air leak or carburetion problem for that cylinder. Do not attempt to diagnose such problems yourself. Instead, take the machine to your Yamaha dealer.

You should periodically remove and inspect the spark plug because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with one of the proper type.

Standard spark plu	g:
DT125E: B-8ES	Champion
DT175E: B-8ES	Champion

Before installing any spark plug, measure the electrode gap with a wire thickness gauge and adjust to specifications.

Electrode gap:
DT125E: $0.6 \sim 0.7 \text{ mm} (0.024 \sim 0.028 \text{ in})$
DT175E: 0.6 ~ 0.7 mm (0.024 ~ 0.028 in)



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When installing the plug, always clean the gasket surface and use a new gasket. Wipe off any grime from the threads and torque the spark plug properly.

Spark plug torque: 2.0 m-kg (14 ft-lb)

Air filter

The air filter protects the engine from dirt which can enter with the intake air and cause rapid engine wear. This dirt is filtered from the air by the air filter element.

- 1. Removal
- a. Remove the side cover, and remove the air filter case cap by removing the pan head screws (5).



b. Pull out the element from its case, remove element from guide.



1. Air filter element

2. Cleaning method

Clean the element with solvent. After cleaning, remove the remaining solvent by squeezing the foam rubber. Then apply 30W motor oil to the entire surface and squeeze out the excess oil. Foam should be wet but not dripping. Coat the sealing edges of the filter element with light grease.



3. Reassembly by reversing the removal procedure. Check whether the element is seated completely against the case.

4. The air filter element should be cleaned once a month or every 1,600 km. (1,000 mi.).

It should be cleaned more often if the machine is operated in dusty or wet areas.

CAUTION: The engine should never be run without the air cleaner element installed; excessive piston and/or cylinder wear may result.

Carburetor adjustment

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following point may be serviced by the owner as part of his usual maintenance routine. CAUTION: The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed without having technical knowledge, poor engine performance and damage may result.

Idling r.p.m. adjustment

Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2,000 r.p.m., occasionally raising to 4,000 to 5,000 r.p.m. for a few seconds. When the engine responds quickly, the warm up is complete.

Tighten or loosen the throttle stop screw as required to obtain the specified engine r.p.m. while watching the tachometer.

Standard idling r.p.m. DT125E . . . 1,450 ~ 1,550 r.p.m. DT175E . . . 1,300 ~ 1,400 r.p.m.



1. Throttle stop screw

NOTE:-

If the specified idling speed can not be obtained after performing the above adjustment, consult your Yamaha dealer.

Inspection and adjustment of play in throttle cable

Check play in turning direction of throttle grip. The play should be 5 - 7 mm (0.2 - 0.28 in) at grip flange. Loosen the locknut and turn the wire adjuster to make the necessary adjustment. After adjusting, be sure to tighten the locknut properly.



1. Adjuster 2. Locknut

Clutch adjustment

This model has a clutch cable length adjustor and a clutch mechanism adjuster. Adjustment at the clutch lever is normally recommended. Loosen the locknut and turn the adjustor to adjust the clutch lever. The clearance between the clutch lever and lever holder should be 2 - 3 mm (0.08 - 0.12 in). After adjusting, be sure the locknut is tightened firmly. When it is impossible to make an adjustment at the clutch lever, ask a Yamaha dealer for mechanism adjustment.



1. Adjuster 2. locknut

Front brake adjustment

Front brake should be adjusted to suit rider preference with a minimum cable slack of 5 - 8 mm (0.2 - 0.32 in) 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.

- 1. Loosen the adjuster locknut.
- 2. Turn the cable length adjuster in or out until adjustment is suitable.
- 3. Tighten the adjuster locknut.

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When it is impossible to make an adjustment at the brake lever, ask a Yamaha dealer for adjustment at the brake shoe plate.



1. Adjuster 2. Locknut

Brake pedal position adjustment

The position of the rear brake pedal should be adjusted to suit the rider. Loosen the locknut and adjust the pedal height by turning the adjuster.



1. Adjuster 2. Locknut

After adjusting, check for correct rear brake play and brake light operation. Do not forget to tighten the locknut.

Rear brake adjustment

Adjust rear brake pedal play to suit rider, providing a minimum of 20 mm (0.8 in) freeplay. Adjust as follows:

Turn the adjuster on the rear brake ferrule in or out until brake pedal freeplay is suitable (20~30 mm (0.8~1.1 in) freeplay).



1. Adjuster

CAUTION: Always check whether or not the brakelight operates correctly after rear brake adjustment.

Brake lining inspection

The specified thickness of the brake lining when new is 4 mm. (0.16 in). The lining should be replaced when the brake lining material wears to less than 2 mm. (0.079 in) thickness.

To inspect, remove the plug from the inspection hole on the brake shoe plate and check the thickness of the lining. If worn out, ask your Yamaha dealer to install a new set of brake shoe. Be sure to replace the plug properly so water cannot enter the shoe plate.



1. Inspection hole (Front) 1. Inspection hole (Rear)

Brakelight switch adjustment

The brakelight switch is operated by movement of the brake pedal. To adjust, hold the main body of the switch so it does not rotate and turn the adjuster. Proper adjustment is achieved when the brake starts to take effect and the brakelight illuminates simultaneously.



1, Main body 2, Adjuster

Fuel petcock cleaning

- First turn the petcock lever to "OFF" position, then remove the filter cup and the filter net. Clean the bottom of cup with solvent.
- When reassembling, be careful not to clamp the filter cup too tightly as this may cause the O-ring to become unseated resulting in fuel leakage.



1. Filter cap

Drive chain tension check

Inspect the drive chain with both tires touching the ground. Check the tension at the position shown in the illustration. The normal vertical deflection is approximately $40 \sim 50$ mm. (1.6 \sim 2.0 in.). If the deflection exceeds 50 mm. (2.0 in.) adjust the chain tension.

NOTE:-

Tension inspection and adjustment should be made with the tensioner in the relaxed position (not touching the chain).



Drive chain tension adjustment

- 1. Loosen the rear brake adjustor.
- 2. Remove the rear axle cotter pin.
- 3. Loosen the rear wheel axle nut.
- 4. Turn chain puller cam both left and right, until axle is situated in same cam slot position.

NOTE: -

Before adjusting, rotate rear wheel through several revolutions and check tension several times to find the tightest point. Adjust chain tension with rear wheel in this "tight chain" position.



1. Chain puller cam 2. Axle nut 3. Cotter pin

5. Tighten the rear axle nut.

Axle nut torque: 10.0 m-kg (72 ft-lb)

- Insert the new cotter pin into the rear wheel axle nut and bend the end of cotter pin. If the nut notch and pin hole do not match, tighten the nut slightly to match.
- 7. In the final step, adjust the play in the brake pedal.



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CAUTION: Do not over tighten the chain. Excessive chain tension will overload the engine and other vital parts; keep the tension within the specified limits. Also, replace the rear axle cotter pin with a new one.

Drive chain lubrication

The chain consists of many moving parts. If the chain is not maintained properly, it will wear out rapidly. Without lubrication the chain could wear out very quickly. Therefore, form the habit of periodically servicing the chain. This service is especially necessary when riding in dusty conditions.

 Use YAMAHA CHAIN/CABLE LUBE or any of the many brands of spray type chain lubricant. First, remove dirt and mud from the chain with a brush or cloth and then spray the lubricant between both rows of side plates and on all center

sector and the sector and the sector of the

rollers. This should be performed every 400 km. (250 mi.) or whenever the chain becomes dry.

2. To clean the entire chain, first remove the chain from the motorcycle, dip it in solvent and clean out as much dirt as possible. Then take the chain out of the solvent and dry it. After drying, lubricate the chain to prevent the formation of rust.

Front wheel removal

- 1. Elevate the front wheel by placing a suitable stand under the engine.
- 2. Remove speedometer cable from front brake shoe plate: First remove clip and then pull cable out.
- 3. Remove brake cable: loosen all cable adjusters and remove cable from handle lever holder. Then remove cable from cam lever at front brake shoe plate.

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4. Remove cotter pin from front wheel axle and remove axle nut.



- Cotter pin
 Axle nut
 Speedometer cable
 Axle holder nut
- 5. Loosen axle holder nuts at other end of axle.
- 6. Turn and pull out the front wheel axle; the wheel assembly can now be removed.

Front wheel installation

When installing front wheel, reverse the removal procedure taking care of the follow-ing points:

 Check for proper engagement of the boss on the outer fork tube with the locating slot on the brake shoe plate.



- 2. Always secure the front wheel axle as follows:
- a. Torque the front axle nut.

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Axle nut torque: 7.0 m-kg (50.6 ft-lb).

- b. Install a new cotter pin; discard old pin.
- c. Install the axle holder as shown. First tighten the nut on the front end of the axle holder, and tighten the nut on the rear end.



Axle holder nut torque: 2.0 m-kg (14.4 ft-lb)

d. Adjust the play in the brake lever.

Front fork oil change

1. Elevate front wheel by placing a suitable stand under the engine.

- 2. Remove cap bolts from inner fork tubes.
- 3. Place container under each fork tube. Remove drain screw from each outer tube.



1. Capbolt

1. Drain screw

- 4. After most of oil has drained, slowly raise and lower outer tubes to pump out remaining oil.
- 5. Replace drain screws.

NOTE: -

Check gasket, replace if damaged.

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

Recommended oil: Yamaha fork oil 10W, 20W

Quantity per leg: 146cc (4.9 oz)

NOTE: -

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

7. After filling, slowly pump the fork tubes up and down to distribute the oil.

NOTE: -

Adjust the oil levels in both right and left front forks so they are even.

- 8. Inspect O-ring on fork cap bolts and replace if damaged.
- 9. Install the fork cap bolts and torque to specification.

Fork cap bolt torque: 2.0 m-kg (14.4 ft-lb)



1. O-ring

Rear wheel removal

1. Elevate the rear wheel by placing a suitable stand under the engine.

- 2. Remove the brake adjuster and brake rod from the brake arm.
- 3. Remove the cotter pin from the axle nut and loosen the axle nut.
- 4. Remove the link clip and master link and remove the chain.
- 5. Remove the cotter pins (left and right). Then remove the clevis pins.
- 6. Pull the wheel backward, remove the rear wheel assembly.



1. Chain puller cam 2. Axle nut 3. Cotter pin



1. Cotter pin 2. Plain washer 3. Clevis pin

Rear wheel installation

The rear wheel can be reassembled by reversing the disassembly procedure. Take care of the following points.

1. When connecting the chain, make certain closed end of master link clip is facing direction of rotation.



2. Check for proper engagement of the boss on swing arm with the locating slot on brake shoe plate.



3. Make sure the rear axle nut is properly torqued.

Tightening torque: 9.0 m-kg (65 ft-lb)

- Make sure you adjusted the chain tension.
 See page 31 "Drive chain adjustment".
- 5. Adjust both brake pedal and brakelight switch.
- 6. Always use NEW cotter pins.

Rear shock (Monocross suspension "De Carbon" system)

WARNING: -READ CAREFULLY-This shock absorber contains highly compressed nitrogen gas.

Read and understand the following information before handling the shock absorber. The manufacturer cannot be held responsible for property damage or personal injury that may result from improper handling.

1. Do not tamper or attempt to open the cylinder assembly.

- 2. Do not subject shock absorber to an open flame or other high heat. This may cause the unit to explode due to excessive gas pressure.
- 3. Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.

Notes on disposal (Yamaha dealers only) Gas pressure must be released before disposing of shock absorber. To do so, drill a $2 \sim$ 3 mm (1/16 \sim 1/8 in) hole through the cylinder wall at a point 10 \sim 15 mm (2/5 \sim 3/5 in) above the bottom of the cylinder.

CAUTION: Wear eye protection to prevent eye damage from escaping gas and/or metal chips.



WARNING: To dispose of a damaged or worn out shock absorber, take the unit to your Yamaha dealer for this disposal procedure.

Adjustment

The spring preload of the rear shock absorber can be adjusted to suit rider preferance, weight and the course conditions.

When springing feels excessive and too hard:

• Decrease the spring pre-load.

When bottoming feels excessive and too soft:

Increase the spring pre-load.

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To adjust, use the special wrench (in the owner's tool kit) as shown. If the adjuster is raised, the spring becomes stiffer and if lowered the spring becomes softer.

- 1. Remove the seat.
- 2. Remove the adjuster stopper.



- Stiffer
 Spring seat stopper
 Softer
 Adjuster
- 3. Turn the adjuster in or out until adjustment is suitable.

NOTE: -

Make the adjustment by rotating the adjuster by 1/2 turn each time.

		lard			STD	So	ft
Adjusting Position	4	3	2	1	*	1	2
Turn(s)	2	1-1/2	1	1/2	*	1/2	1



1. Special wrench

- 4. Tighten the adjuster stopper.
- 5. Install the seat and tighten the securing bolt.

Cable inspection and lubrication

WARNING: Damage to the outer housing of the various cables may cause corrosion and often free movement will be obstructed. An unsafe condition may result so replace damaged cables as soon as possible. If the inner cables do not operate smoothly, lubricate them. If necessary, have your Yamaha dealer replace them.

Recommended lubricant: YAMAHA Chain and Cable Spray

Throttle cable and grip lubrication

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled coat the metal surfaces of the grip assembly with a suitable all-purpose grease to cut down friction. (See lubrication chart) After the installation, check to see that the throttle grip moves smothly. Lubrication of levers, pedals, etc.

- 1. Lubricate the pivoting parts of the brake and clutch levers with spray lubricant.
- 2. Lubricate the shaft of the brake pedal with lithium soap grease.

Steering inspection

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Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous.

Place a block under the engine to raise the front wheel of the motorcycle off the ground; then hold the lower end of the front fork and try to move forward and backward. If any freeplay can be felt, as a Yamaha dealer to inspect and adjust.

Inspection is easier if the front wheel is removed. Ask a dealer to lubricate the steering bearings every 6,400 km (4,000 mi.). More often in case of off road operation.



Battery

Check the level of the battery fluid and see if the terminals are tight. Add distilled water if the fluid level is low.

Replenishing the battery fluid

A poorly maintained battery will deteriorate quickly. The battery fluid should be checked at least once a month.

 The level should be between the upper and lower level marks. Use only distilled water if refilling is necessary.



1. Upper level 2. Lower level

NOTE: -----

Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.

 When the motorcycle is not to be used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reusing.

- 3. If the battery is to be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.
- Always make sure the connections are correct when putting the battery back in the motorcycle. The red lead is for the + terminal and the black lead is for the – terminal. Make sure the breather pipe is properly connected and is not damaged or obstructed.

Fuse replacement

If the fuse is blown, turn off the ignition switch and the switch in the circuit in question and install a new fuse of proper amperage.

Then turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, consult your Yamaha dealer.

CAUTION: Do not use fuses of a higher amperage rating than those recommended.



1. Fuse 2. Spare fuse

Replacing the headlight bulb

This motorcycle is equipped with a sealed beam headlight. If the headlight burns out, ask your Yamaha dealer for a lens unit replacement and adjustment.

Troubleshooting

Although Yamaha motorcycles are given a rigid inspection before shipment from the factory, trouble may occur in operation. If this happens check the motorcycle in accordance with the procedures given in the troubleshooting chart below. If repair is necessary, ask your Yamaha dealer.

The skilled technicians at your Yamaha dealer provide excellent service. For replacement parts, use only genuine Yamaha Parts. Imitation parts are similar in shape but often inferior in quality of materials and workmanship. Consequently, service life is shorter and more expensive repairs may be necessary. Any fault in the fuel, compression or ignition systems can cause poor starting or loss of power while riding. The troubleshooting chart describes quick and easy procedures for checking these systems.

Troubleshooting chart



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CLEANING AND STORAGE

A. CLEANING

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

- 1. Before cleaning the machine:
- Block off end of exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
- Make sure spark plug, fuel tank cap, oil tank cap, transmission oil filler cap are properly installed.
- If engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to chain, sprockets, or wheel axles.
- 3. Rinse dirt and degreaser off with garden hose, using only enough hose pressure to do the job.

CAUTION: Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brake drums, and transmission seals. Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washes.

- 4. Once the majority of the 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 hard-to-get-to places.
- 5. Rinse machine off immediately with clean water and dry all surfaces with compressed air chamois, clean towel, or soft absorbent cloth.
- 6. Chrome-plated parts such as handlebars, rims, spokes, forks, etc., may be further cleaned with automotive chrome cleaner.
- Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.

- 8. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar paint or protective finish on fuel and oil tanks.
- 9. After finishing, start the engine immediately and allow to idle for several minutes.

B. STORAGE

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

- 1. Drain fuel tank, fuel lines, and carburetor float bowl.
- 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 tablespoon of 10W to 30W oil in spark plug hole, and re-install spark plug. Kick

engine over several times (with ignition off) to coat cylinder walls with oil.

- 4. Lubricate all control cables.
- 5. Block up frame to raise both wheels off ground. (Main stainds can be used on machines so equipped.)
- 6. Tie a plastic bag over exhaust pipe outlet to prevent moisture entering.
- If storing in humid or salf-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or seat cover.

Remove battery and charge. Store in a dry place and re-charge once a month. Do not store battery in an excessively warm or cold place (less than $0^{\circ}C$ ($32^{\circ}F$) or more than $30^{\circ}C$ ($90^{\circ}F$)).

NOTE: -

Make any necessary repairs before storing the motorcycle.

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MISCELLANEOUS

Consumer Information

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STOPPING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.

Description of vehicles to which this table applies: Yamaha motorcycle DT125E/DT175E

A. Fully Operational Service Brake	<u>Load</u> Light			☐ 172(C ─ 174(C)T125E))T175E)	
	Maximum		·····	197 200	(DT125E) D(DT175E)	
		0	100	200	300	(feet)
		Stopp	ing distanc	e in feet i	from 60 mi/	′h

ACCELERATION AND PASSING ABILITY

This figure indicates passing times and distances that can be met or exceeded by the vehicles to which it applies, in the situations diagrammed below.

The low-speed pass assumes an initial speed of 20 mi/h. and a limiting speed of 35 mi/h. The high-speed pass assumes an initial speed of 50 mi/h. and a limiting speed of 80 mi/h.

NOTICE:

The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicles to which this table applies: Yamaha motorcycle DT125E/DT175E Summary table DT125E DT175E Low-speed pass 454 feet: 10.5 seconds 438 feet: 10.1 seconds High-speed pass 1,810 feet: 21.1 seconds 1,665 feet: 18.7 seconds LOW-SPEED **HIGH-SPEED** INITIAL LIMITING INITIAL LIMITING SPEED: 20 mi/h. SPEED: 35 mi/h. SPEED: 50 mi/h SPEED: 80 mi/h. TOTAL PASSING DISTANCE: FEET TOTAL PASSING DISTANCE, FEET TOTAL PASSING TIME, SECONDS TOTAL PASSING TIME, SECONDS -a 100 ins. 100 ins. 40 ins. 1940 ins. CONSTANT 50 mi/h. 55 ins. CONSTANT 20 mi/h. 55 ins. TRUCK TRUCK -48-

WARRANTY INFORMATION

Please refer to your copy of the Yamaha Owner's Warranty Guide O for details of the warranty offered on your new Yamaha.

The warranty Guide contains the warranty policy, an explanation of the warranty, and other important information. Becoming familiar with these policies will be to your advantage in making the best use of Yamaha's warranty programs.

There are certain requirements which you must meet in order to qualify for warranty coverage. FIRST, your new Yamaha must be operated and maintained properly, as explained in this manual. If you have any questions about any procedure in this manual, please consult your dealer. ABUSE AND NEGLECTED MAINTENANCE MAY LEAD TO MECHANICAL FAILURES WHICH CANNOT BE CONVERED UNDER WARRAN-TY.

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SECOND, IF ANY PROBLEMS OCCUR WHICH YOU FEEL SHOULD BE COVERED UNDER WARRANTY, NOTIFY YOUR DEALER IMMEDIATELY. Don't delay, as small problems left unrepaired can become large problems which may not be covered under warranty. We recommend that the Warranty Guide be used as a folder in which you may keep your registration and other important documents related to your new Yamaha.

 The Yamaha Owner's Warranty Guide is to be supplied by your Yamaha dealer at the time of purchase. If you did not receive one, or have lost yours, you may obtain extra copies upon request from your Yamaha dealer or by writing to:

> YAMAHA MOTOR CORPORATION, USA P.O.Box 6620 Buena Park, California 90622 Attn: Warranty Department

SPECIFICATION

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MODEL	DT125E	DT175E
DIMENSION:		
Overall length	2,095 mm (82.5 in)	←
Overall width	865 mm (34.1 in)	<
Overall height	1,120 mm (44.1 in)	<u>←</u>
Wheelbase	1,350 mm (53.1 in)	÷
Minimum road clearance	265 mm (10.4 in)	 ←
WEIGHT:		
Net	96 kg (212 lb)	98 kg (216 lb)
PERFORMANCE:		
Minimum turning radius	2,000 mm (78 in)	<i>←</i>
Climbing ability	30°	32°
ENGINE:		
Туре	Air-cooled, 2-stroke,	
	gasoline, Torque induction	~
Engine model	2A6	2A7
Cylinder	Single, Forward inclined	~
Displacement	123 cc (4.16 oz)	171 cc (5.78 oz)

MODEL	DT125E	DT175E	
Bore x Stroke	56 x 50 mm (2.2 x 1.9 in)	66 x 50 mm (2.6 x 1.9 in)	
Compression ratio Starting system Ignition system Gasoline tank capacity Oil tank capacity Lubricating system	7.2 Primary kick Magneto 7.0 lit (7.4 qt) 1.0 lit (1.0 qt) Separate lubrication (Yamaha Autolube)	6.8 ← C.D.I. ← ← ←	
BATTERY: Capacity Type Generator type Spark plug Clutch type Carburetor Air cleaner	6V, 6AH 6N6-3B-1 Flywheel magneto B-8ES Champion Wet, multi-disc type VM24SS Oiled, foam rubber	← ← C.D.I. magneto BP-8ES Champion ← ← ←	
TRANSMISSION: Primary reduction system Primary reduction ratio	Gear 71/22 3.227		

MODEL	DT1258			DT175E
Gear ratio 1st 2nd 3rd 4th 5th 6th Secondary reduction system Secondary reduction ratio	35/10 3.500 31/14 2.214 28/18 1.556 25/21 1.190 22/23 0.957 20/25 0.800 Chain 49/15 3.267	-	 ← ← ← ← ← ← ↓ 49/16 	3.063
STEERING: Caster Trail		30 [°] 126 mm (4.9	96 in)	2
TIRE SIZE: Front Rear	2.75–21–4PR 3.50–18–4PR			
SUSPENTION: Front Rear		Telescopic fo Monocross	ork	

MODEL	DT125E	DT175E		
SHOCK ABSORBER:				
Front	Coil spring,	Coil spring, oil damper		
Rear	Coil spring,	Coil spring, Gas, oil damper		
FRAME TYPE:	Tubular, do	Tubular, double cradle		
ELECTRICAL:				
Headlight	6V, 35/35V	6V, 35/35W		
Flasher light	6∨, 17W	6V, 17W		
Tail/stop light	6V, 5.3W/2	6V, 5.3W/25W		
Indicator light, TURN	6V, 3W	6V, 3W		
NEUTRAL	6V, 3W	6∨, 3W		
OIL	6∨, 3W			
HIGH BEAM	6∨, 3W			
Meter lights	6V, 3W × 2			



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