

KAWASAKI

KXT250

NOTE: Metric fasteners are used throughout vehicle.

CONDENSED SERVICE DATA

MODELS	KXT250-A1, A2 KXT250-B1, B2
General	
Engine Make	Own
Engine Type	Liquid-Cooled; Two-Stroke
Number of Cylinders	1
Bore	70 mm (2.75 in.)
Stroke	64.9 mm (2.55 in.)
Displacement	249 cc (15.2 cu. in.)
Compression Ratio	8.3:1
Engine Lubrication	Fuel: Oil Premix
Engine Fuel: Oil Ratio:	
A1 & A2	30:1
B1 & B2	20:1
Engine Oil Recommendation	See Text
Transmission Oil	
Recommendation	SAE 10W-30 or 10W-40
Forward Speeds	5
Reverse Speeds	N/A
Tire Size-Front:	
A1 & A2 Models	22x11-10
B1 & B2 Models	23x9-11
Rear:	
A1 & A2 Models	22x11-10
B1 & B2 Models	20x11-10
Tire Pressure (cold)—	
Front:	
A1 & A2 Models	41 kPa (6 psi)
B1 & B2 Models	35 kPa (5 psi)
Rear:	
All Models	28 kPa (4 psi)
Dry Weight:	
A1 & A2 Models	130 kg (286 lbs.)
B1 & B2 Models	127 kg (279 lbs.)
Tune-Up	
Engine Idle Speed	See Text
Spark Plug:	
Type	NGK B8ES
Electrode Gap	0.7-0.8 mm (0.027-0.031 in.)

**MODELS
Tune-Up (Cont.)**

**KXT250-A1, A2
KXT250-B1, B2**

Ignition:	
Type	Capacitor Discharge
Point Gap	Pointless
Timing:	
A1 & A2 Models	17° BTDC
	@ 6000 rpm
B1 & B2 Models	13° BTDC
	@ 6000 rpm
Carburetor:	
Make	Mikuni
Model:	
A1 & A2 Models	VM32SS
B1 & B2 Models	VM34SS
Float Height	15.1-19.1 mm (0.59-0.75 in.)
Main Jet:	
A1 & A2 Models	#230
B1 & B2 Models	#270
Pilot Jet:	
A1 & A2 Models	#45
B1 & B2 Models	#35
Jet Needle:	
A1 & A2 Models	6FJ50
B1 & B2 Models	6FL56
Clip Position:	
A1 & A2 Models	Fourth Groove From Top
B1 & B2 Models	Third Groove From Top
Throttle Valve Cutaway:	
A1 & A2 Models	2.5
B1 & B2 Models	3.0
Throttle Lever Free Play	2-3 mm (0.079-0.118 in.)
Sizes-Clearances	
Reed Petal Stand Open (Max.)	0.2 mm (0.008 in.)
Cylinder Head Distortion (Max.)	0.05 mm (0.002 in.)
Cylinder Bore Diameter	70.015-70.030 mm (2.7565-2.7571 in.)
Wear Limit	70.10 mm (2.7598 in.)
Piston-to-Cylinder Wall Clearance	0.049-0.059 mm (0.0019-0.0023 in.)
Piston Diameter— Measured 5 mm (0.2 in.) from Skirt Bottom and 90° to Pin Bore	69.961-69.976 mm (2.7544-2.7549 in.)
Piston Ring End Gap in Standard Bore:	
Top & Second Ring— A1 & A2 Models	0.2-0.4 mm (0.008-0.016 in.)
B1 & B2 Models	0.15-0.2 mm (0.006-0.008 in.)

**KXT250-A1, A2
KXT250-B1, B2**
MODELS
Sizes-Clearances (Cont.)

Piston Ring Side Clearance:	
Top & Second Ring	Semi-keystone
Connecting Rod Big End Side Clearance	0.45-0.55 mm (0.018-0.022 in.)
Maximum Allowable	0.7 mm (0.027 in.)
Connecting Rod Big End Radial Clearance	0.037-0.049 mm (0.0014-0.0019 in.)
Maximum Allowable	0.1 mm (0.004 in.)
Crankshaft Runout (Max.)	0.1 mm (0.004 in.)

Capacities

Fuel Tank:	
A1 & A2 Models	13.8 L (3.6 gallons)
B1 & B2 Models	8.5 L (2.2 gallons)
Cooling System:	
A1 & A2 Models	1.1 L (1.17 qt.)
B1 & B2 Models	1.5 L (1.59 qt.)
Transmission Sump:	
A1 & A2 Models	0.7 L (0.74 qt.)
B1 & B2 Models	0.8 L (0.85 qt.)

Tightening Torques

Front Axle Nut or Screw:	
A1 & A2 Models	69 N·m (51 ft.-lbs.)
B1 & B2 Models	125 N·m (94 ft.-lbs.)
Rear Axle Nut	135 N·m (100 ft.-lbs.)
Change Drum Holder Screw	23 N·m (17 ft.-lbs.)
Clutch Nut	59 N·m (43 ft.-lbs.)
Clutch Spring Screws	8.3 N·m (74 in.-lbs.)
Cylinder Head:	
6 mm Screws	9.8 N·m (87 in.-lbs.)
8 mm Nuts—	
Initial	11 N·m (95 in.-lbs.)
Final	25 N·m (18 ft.-lbs.)
Cylinder Nuts	34 N·m (25 ft.-lbs.)

MODELS
Tightening Torques (Cont.)

Wheel Retaining Nut:

A1 & A2 Models	41 N·m (30 ft.-lbs.)
B1 & B2 Models	49 N·m (36 ft.-lbs.)

Standard Fasteners:

5 mm	3.4-4.9 N·m (30-43 in.-lbs.)
6 mm	5.9-7.8 N·m (52-69 in.-lbs.)
8 mm	14-19 N·m (10-13.5 ft.-lbs.)
10 mm	25-39 N·m (19-25 ft.-lbs.)
12 mm	44-61 N·m (33-45 ft.-lbs.)
14 mm	73-98 N·m (54-72 ft.-lbs.)
16 mm	115-155 N·m (83-115 ft.-lbs.)
18 mm	165-225 N·m (125-165 ft.-lbs.)
20 mm	225-325 N·m (165-240 ft.-lbs.)

KXT250-A1, A2
KXT250-B1, B2

LUBRICATION

All Models

ENGINE. The engine is lubricated by oil mixed with the fuel. Recommended oil is a petroleum-based, two-stroke racing oil mixed at a fuel: oil ratio of 30:1 on A1 and A2 models and 20:1 on B1 and B2 models.

TRANSMISSION. Recommended transmission oil is SAE 10W-30 or 10W-40 motor oil with an API classification of SE. The manufacturer recommends changing transmission oil after every 20 days of operation.

The transmission sump is filled through filler cap (F—Fig. K10-1) opening. Oil level should be maintained at middle of sight glass (G). Sump is drained by removing plug in underside of sump. Transmission sump capacity is 700 mL (23.8 oz.) on all A1 and A2 models and 800 mL (27.2 oz.) on B1 and B2 models. Tighten transmission sump drain plug to 20 N·m (14.5 ft.-lbs.).

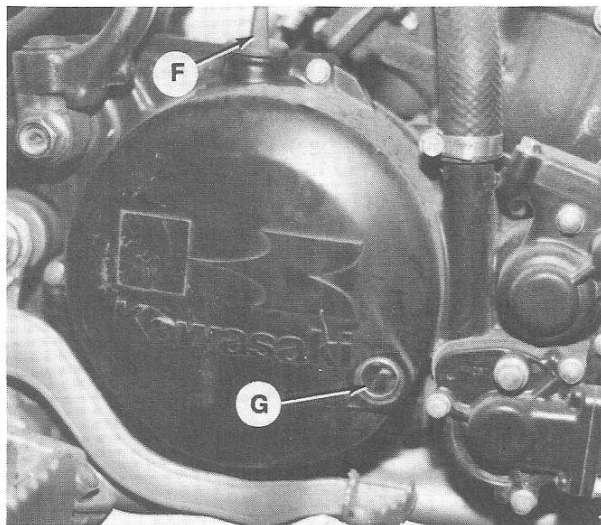


Fig. K10-1—Transmission sump oil level must be maintained at middle of sight glass (G). Add oil through filler cap (F) opening.

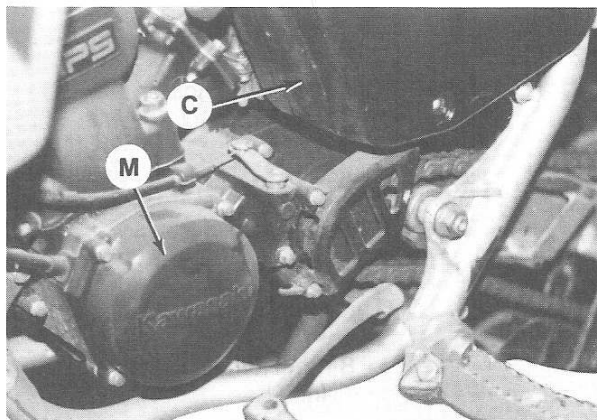


Fig. K10-3—Remove four screws retaining cover (C) to expose air filter element. Remove four screws retaining magneto cover (M) to expose flywheel and magneto base plate components located behind flywheel.

CABLES, LEVERS AND LINKAGE. All cables, levers and linkage should be inspected daily and lubricated as needed to provide proper operation.

AIR CLEANER ELEMENT

All Models

The air cleaner element should be removed and cleaned after every 10 hours of operation. To remove air cleaner element, remove the four screws retaining cover (C—Fig. K10-3) and remove wing nut to withdraw foam element.

Remove foam element from filter frame and thoroughly clean element in a nonflammable solvent. Compress element between hands to remove solvent. Saturate element in clean SAE 30 motor oil and compress element to remove excess oil. Apply grease to sealing end of element so a good seal between air cleaner housing and element is obtained, then reinstall foam element by reversing removal procedures.

NOTE: Manufacturer recommends renewing foam element if damage is noted, or after cleaning five times.

FUEL SYSTEM

All Models

CARBURETOR. A Mikuni VM32SS sliding valve type carburetor is used on A1 and A2 models and a Mikuni VM34SS sliding valve type carburetor is used on B1 and B2 models. Refer to CONDENSED SERVICE DATA for carburetor specifications.

Adjust idle speed screw (I—Fig. K10-5) to obtain the lowest smooth idle setting. After adjusting carburetor idle setting, check throttle lever free play as outlined in THROTTLE GRIP FREE PLAY section.

When servicing the carburetor, note the following: The jet needle clip should be located in the fourth groove from

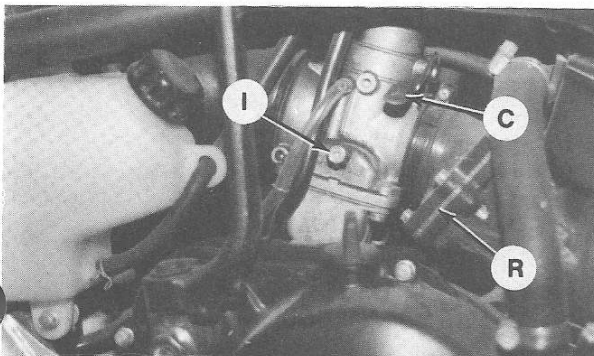


Fig. K10-5—View identifying choke lever (C), carburetor idle speed screw (I) and reed valve plate (R).

the top of the jet needle on A1 and A2 models and the third groove from the top on B1 and B2 models. Float height (A—Fig. K10-7) should be 15.1-19.1 mm (0.59-0.75 in.) as measured from gasket surface of carburetor body to lowest edge of float. Adjust the float level by bending tang (B) on float arm.

The fuel level is checked with the carburetor installed and vehicle operational. To check fuel level, attach Kawasaki fuel level gage 57001-202 (T—Fig. K10-8) or a suitable plug and clear hose equivalent in carburetor bowl drain plug opening. Hose should be of sufficient length to extend above the bottom edge of carburetor body without kinking the hose. Run the engine at idle speed until fuel level in hose stabilizes, then stop engine. Measure the distance from the bottom edge of carburetor body (float bowl contact surface) to fuel level in hose to determine fuel level as shown at (L). Fuel level check will not be accurate if hose is raised or lowered after fuel level has stabilized. Fuel level (L) should be 0-2 mm (0-0.08 in.). To adjust fuel level, the float bowl must be removed to carefully bend float arm tang (B—Fig. K10-7).

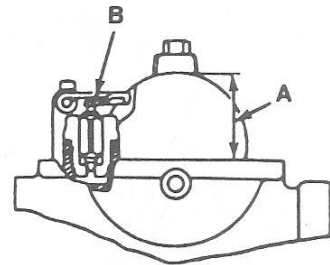


Fig. K10-7—Float height is measured at (A). Gently bend float arm tang (B) to adjust. Float height (A) should be 15.1-19.1 mm (0.59-0.75 in.).

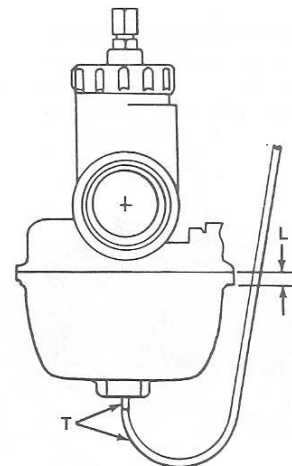


Fig. K10-8—The fuel level (L) is measured from the bottom edge of carburetor body. Install Kawasaki fuel level gage 57001-202 (T) or a suitable equivalent and refer to the text for test procedures.

Kawasaki KXT250

REED VALVE. A "V" type reed valve assembly located between the intake manifold and engine cylinder is used. Reed valve assembly is accessible after removing the carburetor and intake manifold.

Reed petal seats must be smooth and flat. Renew reed petals if bent, broken or otherwise damaged. Do not attempt to straighten bent pedals.

Reed valve petals may stand open a maximum of 0.2 mm (0.008 in.) at the tip (Fig. K10-10). The reed petals and stops can be renewed as individual components.

Install reed valve assembly with arrow on reed plate pointing down.

FUEL STRAINER. A strainer is mounted on the end of the "ON" pickup tube and the "RES" (reserve) pickup tube of the fuel valve assembly mounted on the fuel tank. A strainer is also located behind the fuel valve control level. To inspect the strainers, the fuel in the fuel tank must be drained. Disconnect the fuel hose from the fuel valve. Unscrew the two screws securing the fuel valve to the fuel tank and carefully remove the fuel valve from the tank. Clean and inspect the strainers. The strainers are not available separately, only as a part of the valve hous-

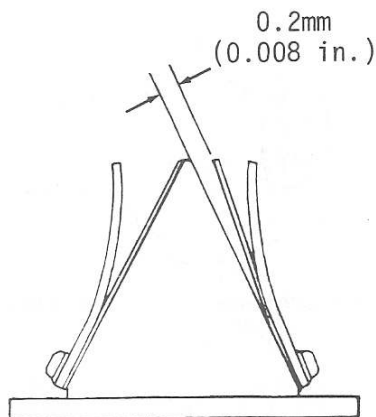


Fig. K10-10—View showing maximum limit of reed petal stand open.

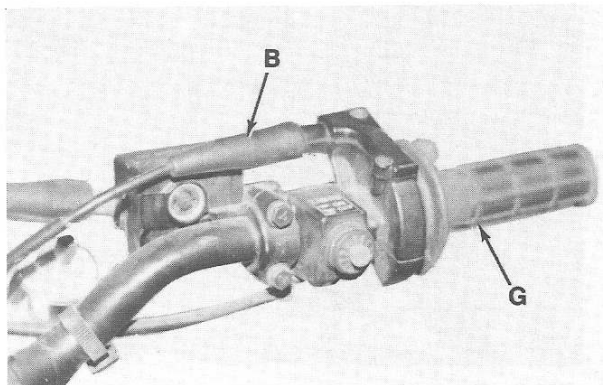


Fig. K10-12—Throttle grip (G) should have 2-3 mm (0.079-0.118 in.) of free play. To adjust, slide boot (B) down cable to expose adjuster nut and locknut.

ing. Reinstall the valve assembly while noting that nylon washers are used on the two retaining screws to prevent fuel leakage.

THROTTLE GRIP FREE PLAY. Throttle grip (G—Fig. K10-12) should have 2-3 mm (0.079-0.118 in.) of free play. Throttle grip free play can be adjusted by sliding boot (B) down cable to expose outer adjuster nut and inner locknut. Loosen locknut and rotate adjuster nut until 2-3 mm (0.079-0.118 in.) free play is obtained. Secure adjustment with locknut and reinstall boot (B).

If adjustment cannot be obtained at throttle grip, then cable adjuster at carburetor must be used to complete adjustment.

COOLING SYSTEM

All Models

INSPECTION. The engine assembly is liquid-cooled. On A1 and A2 models, a one-piece radiator is used and on B1 and B2 models, a two-piece radiator is used. Renew any hoses that are cracked, split or show any other damage. Inspect all other cooling system components and renew if leakage or damage is noted.

CHANGING COOLANT. The manufacturer recommends using a 57 percent water to 43 percent antifreeze mixture in the cooling system on A1 and A2 models. Cooling system capacity on A1 and A2 models is 1.1 L (1.17 qt.). The manufacturer recommends using a 50 percent water to 50 percent antifreeze mixture in cooling system on B1 and B2 models. Cooling system capacity of B1 and B2 models with reservoir tank at full level is 1.5 L (1.59 qt.).

To drain coolant on A1 and A2 models, remove radiator cap (C—Fig. K10-14) and drain plug in water pump housing (below water pump housing outlet neck) and allow coolant to drain into a suitable container. On B1 and B2 models, remove radiator cap (C) and drain plug (D—Fig. K10-15) in water pump housing and allow cool-

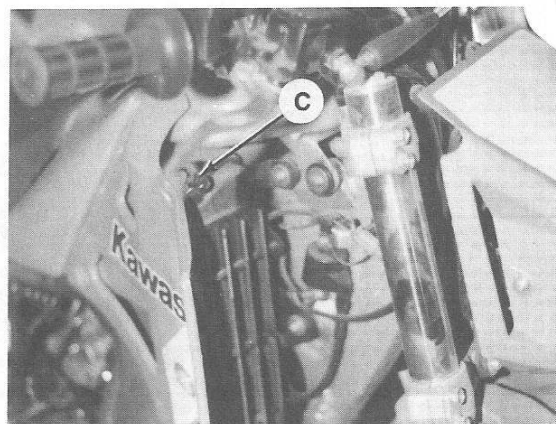


Fig. K10-14—View identifying location of radiator cap (C).

ant to drain into a suitable container. On B1 and B2 models, a plug located on right-side of engine cylinder behind exhaust pipe expansion chamber can be removed and the vehicle tilted to the right to completely drain the engine cylinder water jacket.

Before refilling cooling system, install and tighten drain plugs. On B1 and B2 models, an air bleed screw is located on top of cylinder head housing. Loosen air bleed screw. On all models, pour recommended coolant mixture into radiator cap (C—Fig. K10-14) opening. On B1 and B2 models, tighten air bleed screw when coolant mixture begins to flow from around screw threads. Pour in recommended amount of coolant mixture.

NOTE: The vehicle may need to be operated and allowed to cool in order to remove any air pockets within system. After system has cooled, remove radiator cap (C) and complete filling of cooling system.

On B1 and B2 models, the coolant level in the cooling system reservoir (R—Fig. K10-15) should be maintained at "FULL" mark or approximately half full. Remove filler cap (P) to add coolant.

RADIATOR CAP. Radiator cap (C—Fig. K10-14) should have a relief opening pressure of 93-123 kPa (13.5-17.8 psi).

IGNITION AND ELECTRICAL

All Models

IGNITION SYSTEM. A breakerless Capacitor Discharge Ignition (CDI) system is used. The standard spark plug is a NGK B8ES. Spark plug electrode gap should be 0.7-0.8 mm (0.027-0.031 in.). Spark plug should be removed, cleaned and electrode gap set after

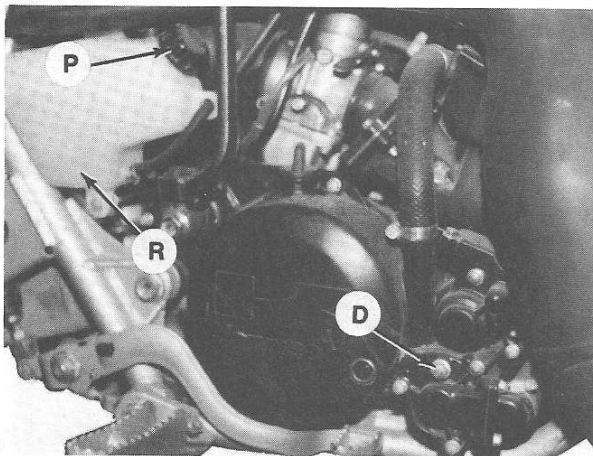


Fig. K10-15—On B1 and B2 models, remove filler cap (P) to add coolant to cooling system reservoir (R). Remove radiator cap (C—Fig. K10-14) and drain plug (D) to drain cooling system.

every 10 hours of operation. Renew spark plug if damage and excessive electrode wear is evident.

Ignition timing can be checked after removing magneto cover (M—Fig. K10-3) located on engine left side. Connect a suitable timing light. Start and allow engine to warm-up to normal operating temperature. Accelerate engine to 6000 rpm while noting flywheel timing marks and crankcase pointer.

NOTE: Only maintain engine rpm long enough to note position of flywheel timing marks and crankcase pointer.

On A1 and A2 models, the center timing mark (C—Fig. K10-17) should align with crankcase pointer (P). On B1 and B2 models, the right-hand timing mark (R) should align with crankcase pointer (P). If not, remove flywheel retaining cap screw and use a suitable puller to withdraw flywheel. Note timing marks on magneto base plate. On A1 and A2 models, the one magneto base plate timing mark (T—Fig. K10-18) should align with crankcase pointer (P). On B1 and B2 models, the right-hand magneto base plate timing mark (H—Fig. K10-19) should align with crankcase pointer (P). Loosen the two magneto plate mounting screws (S—Fig. K10-18 and K10-19) to adjust. Tighten flywheel retaining cap screw to 22 N·m (16 ft.-lbs.).

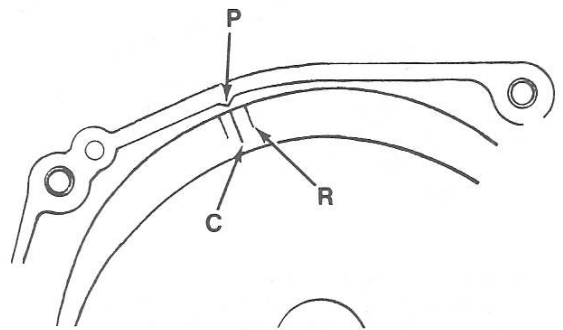


Fig. K10-17—For correct ignition timing, timing mark (C) on A1 and A2 models and timing mark (R) on B1 and B2 models should align with crankcase pointer (P) when engine is operated at 6000 rpm.

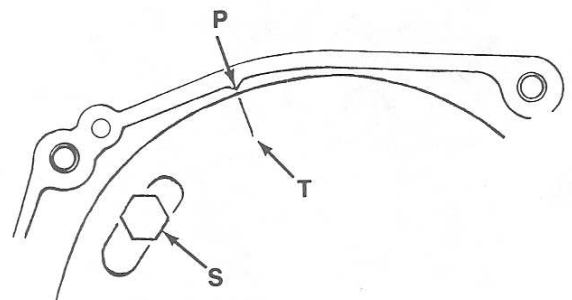


Fig. K10-18—On A1 and A2 models, magneto base plate timing mark (T) should align with crankcase pointer (P). Loosen two screws (S) to adjust.

Kawasaki KXT250

To test CDI components, use an ohmmeter and proceed as follows: Disconnect the connectors for the wires leading from the magneto. To check the exciter coil, connect one ohmmeter lead to the black lead and the other ohmmeter lead to the blue lead from the magneto. Resistance reading should be 170-250 ohms. Connect one ohmmeter lead to the black lead and the other ohmmeter lead to the white/red lead from the magneto. Resistance reading should be 185-280 ohms. Connect one ohmmeter lead to the blue lead and the other ohmmeter lead to the white/red lead from the magneto. Resistance reading should be 20-30 ohms. Ignition coil primary winding resistance should be 0.8-1.2 ohms on A1 and A2 models and 0.25-0.35 ohm on B1 and B2 models. Secondary winding resistance should be 5600-8400 ohms on A1 and A2 models and 5000-7500 ohms on B1 and B2 models.

If the ignition system does not operate properly after checking all components except the CDI unit, replace the CDI unit with a new or known good unit and recheck the system. Be sure all wiring and connectors are good.

ELECTRICAL SYSTEM. A lighting coil is located behind the flywheel to provide power for the lights. The lighting coil should produce at least 10.2 volts AC on A1 and A2 models and 9 volts AC on B1 and B2 models with

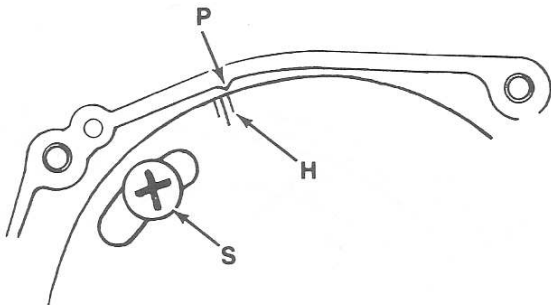


Fig. K10-19—On B1 and B2 models, right-hand magneto base plate timing mark (H) should align with crankcase pointer (P). Loosen two screws (S) to adjust.

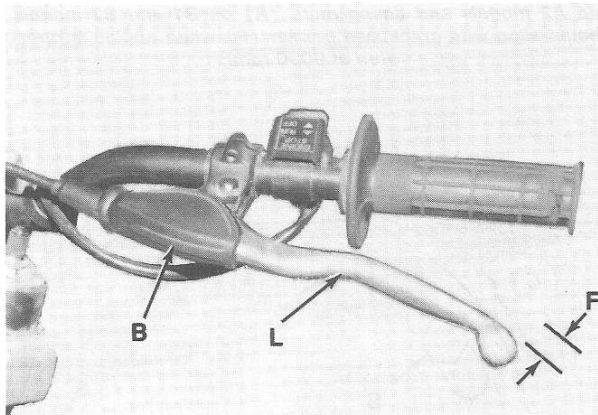


Fig. K10-21—Measure clutch lever (L) free play at (F). Slide dust boot (B) down cable to expose cable adjuster nut and locknut.

the engine running at 2500 rpm. Lighting coil resistance should be 0.47-0.71 ohm checked between the yellow lead from the magneto and a good engine ground. The headlight is a 12 V 50 W unit on A1 and A2 models and a 12 V 60/55 W halogen unit on B1 and B2 models. The taillight is a 12 V 8 W unit on all models.

FASTENERS

All Models

The vehicle should receive an overall inspection after the first 10 hours of operation and every 10 days of operation thereafter. All cap screws, nuts and fasteners should be checked and tightened to proper torque specification listed in CONDENSED SERVICE DATA section or in the appropriate MAINTENANCE section.

CLUTCH

All Models

All models are equipped with a multiple-disc type clutch manually actuated by left handlebar lever. The clutch lever adjustment should be checked daily.

The clutch lever should have 2-3 mm (0.079-0.118 in.) of free play measured at clutch lever (L—Fig. K10-21) end as shown at (F). Clutch lever free play can be adjusted by sliding dust boot (B) down cable to expose adjuster nut and locknut. Loosen locknut and rotate adjuster nut until 2-3 mm (0.079-0.118 in.) free play is obtained. If adjuster nut is near or has reached adjustment limit, then loosen locknut (N—Fig. K10-22) and rotate adjuster nut (A) to add or remove cable slack as needed. Secure adjuster nut (A) setting with locknut (N). Complete adjustment at clutch lever adjuster nut and tighten locknut. Reinstall dust boot (B).

Properly operated, the clutch should disengage and engage freely. Difficulty in shifting, clutch grabbing or slipping may indicate disassembly and repair of clutch unit is required.

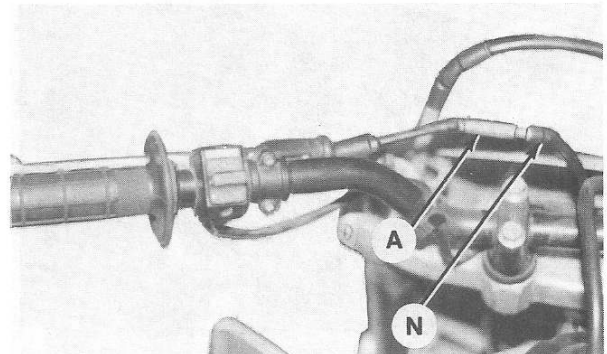


Fig. K10-22—If clutch lever free play cannot be adjusted at clutch lever, then loosen locknut (N) and rotate adjuster nut (A) to add or remove cable slack as needed.

FRONT AXLE

A1 And A2 Models

The front axle is supported by two sealed bearings. To remove the axle assembly, first suitably support front of vehicle so front wheel is off the ground. Detach front brake cable from brake lever and mounting bracket on front wheel. Remove cotter pin and axle nut, then withdraw axle shaft to separate the axle and wheel assembly from the front forks.

To remove bearings, remove the brake assembly and dust cap. Apply a small amount of heat to portion of axle housing which contacts the bearing to be removed (too much heat will damage bearing seals and spacer "O" rings). Drive against the opposite end of spacer to force out the bearing. Inspect spacer "O" rings and renew if needed. Position "O" rings 40 mm (1.57 in.) from ends of spacer. When installing bearings, note that snap ring end is outermost. Notch in brake plate must engage retaining flange on fork leg when installing axle assembly. Tighten axle shaft nut to 69 N·m (51 ft.-lbs.).

B1 And B2 Models

The front axle is supported by two roller bearings. To remove the axle assembly, first suitably support front of vehicle so front wheel is off the ground. Remove front wheel brake caliper retaining cap screws and withdraw brake caliper. Remove axle shaft to separate the axle and wheel assembly from the front forks.

To service bearings, first pull grease seals from left and right axle housing bore. Note and remove snap ring behind grease seal on right side of axle housing. Ball bearings are now accessible for service. Note that no "O" rings are used on spacer. When installing ball bearing grease seals, drive seals into axle housing until recessed 1.5-2.5 mm (0.06-0.10 in.) with seal lip facing inward. Reassembly is reverse order of disassembly. Tighten axle shaft to 125 N·m (94 ft.-lbs.).

FRONT BRAKE

A1 And A2 Models

BRAKE LEVER FREE PLAY. Brake lever free play is adjusted by turning adjuster nut at the brake lever or at the bottom end of the brake cable. Brake lever free play measured at gap (A—Fig. K10-24) should be 4-5 mm (0.16-0.20 in.).

OVERHAUL. External determination of lining thickness is not possible. If excessive wear is suspected, then front brake assembly must be removed for examination.

The front brake assembly is accessible after removing the front axle. Renew the brake shoes if they are excessively worn or any other damage is noted. Renew the

brake drum assembly if the inside diameter is more than 140.75 mm (5.541 in.).

B1 And B2 Models

A disc brake assembly is used on the front wheel. As the disc or disc pads wear, the piston within the brake caliper assembly will move out to automatically compensate for the wear, so adjustment on the front brake is not required.

BRAKE LEVER FREE PLAY ADJUSTMENT. Front brake lever free play can be altered by an adjuster screw on the brake lever. Two adjustment settings are provided. Normal setting is aligning the one dot on the adjuster screw with the scribed line on the brake lever. Rotate adjuster screw until a click is heard and the two dots on the adjuster screw are aligned with the scribed line on the brake lever for the other setting.

BLEEDING. Make sure reservoir (R—Fig. K10-26) is full. Connect a bleed hose to bleed valve (B—Fig. K10-27) on front brake caliper assembly. Route the bleed hose into a suitable container. Operate brake lever (L—Fig. K10-26) until a hardness (fluid resistance) is felt, then open bleed valve (rotate counterclockwise). Close bleed valve prior to releasing brake lever. Continue bleeding procedure until no air bubbles are noted in discharged fluid from bleed valve.

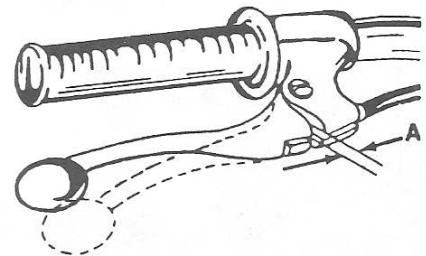


Fig. K10-24—Brake lever free play (A) on A1 and A2 models should be 4-5 mm (0.16-0.20 in.).

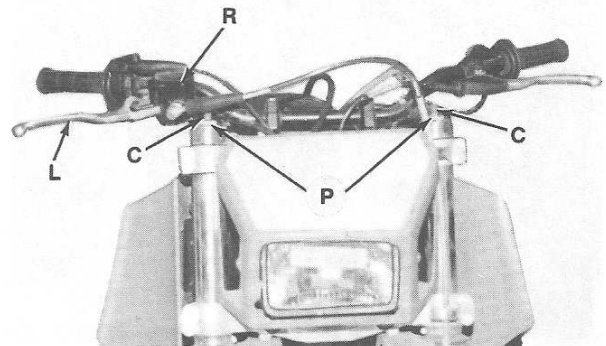


Fig. K10-26—View identifying front brake lever (L) and reservoir (R) on B1 and B2 models. Poppet valves for maintaining fork air pressure are protected by caps (C). Fork top plugs (P) must be removed to check fork fluid level. Refer to text.

Kawasaki KXT250

NOTE: Make sure reservoir (R) is kept full during bleeding procedure.

When bleeding procedure is completed, add brake fluid to reservoir until fluid level is at level line in reservoir. Approximately $\frac{3}{4}$ full as viewed through reservoir sight glass.

OVERHAUL. External determination of brake pad thickness is possible by viewing the brake pads. If more than 1 mm (0.039 in.) of brake pad is measured, then brake pads do not require replacement because of excessive wear. If brake pad is 1 mm (0.039 in.) or less in thickness, then both brake pads must be renewed.

Brake components are accessible after removing caliper mounting screws and withdrawing caliper. Push piston by hand back into caliper to allow clearance for new brake pads. Brake disc should be renewed if thickness is 3.5 mm (0.138 in.) or less or disc runout is 0.3 mm (0.012 in.) or more. After reassembly, operate brake lever until brake lever will not pump up after continuous operation. Do not operate vehicle until correct brake operation is noted.

FRONT FORKS

All Models

AIR PRESSURE. The recommended standard air pressure within the front forks is atmospheric pressure.

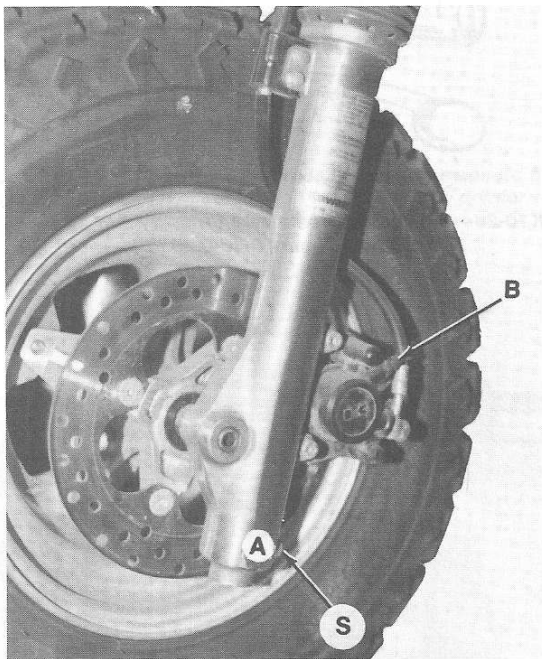


Fig. K10-27—View identifying caliper bleed screw (B) used on B1 and B2 models. Fork drain screw (S) is located as shown on B1 and B2 models and located in area (A) on A1 and A2 models.

To check air pressure within the front forks, first position vehicle on a level surface. Remove air valve caps (C—Fig. K10-26) and push inner poppet valves to open chambers. Relieve any excess air pressure, then release inner poppet valves and reinstall protective caps (C).

FLUID LEVEL. Fork fluid level should be maintained at 178-182 mm (7.0-7.2 in.) below top end of inner tube on A1 and A2 models and 152-156 mm (5.9-6.1 in.) below top end of inner tube on B1 and B2 models. To check fluid level, proceed as follows: Apply front brake and bounce front of vehicle up and down a few times to expel any air within the fork oil. Remove both air valve caps (C—Fig. K10-26) and push inner poppet valves to release any air pressure on the system. Remove top plug (P) on left and right fork and withdraw main spring in each fork tube. Fully compress forks, then use a tape measure or a suitable tool to measure distance from top end of inner tube to fork oil level. Add KAYABA G10 oil to obtain proper fluid level.

To change fork oil, remove screw (S—Fig. K10-27) at bottom of each fork and allow oil to drain into a suitable container. To refill, install and tighten screw (S) and add 225 mL (7.65 oz.) of KAYABA G10 oil to each fork on A1 and A2 models or 425 mL (14.45 oz.) to each fork on B1 and B2 models.

STEERING

All Models

ADJUSTMENT. Check the steering by supporting the vehicle so the front wheel is off the ground and the handlebars are free to turn. If pushed lightly the handlebars should continue to turn without binding. Check for roughness when turning which might indicate defective bearings. Push the fork legs forwards and backwards and check for play in the steering stem. If steering stem play is indicated, adjust steering as follows: Remove the fuel tank. Loosen the steering stem retaining screw and left and right fork lower clamp bolts. Rotate the slotted steering stem nut to remove steering play (tighten nut) or remove binding (loosen nut). Retighten steering stem retaining screw to 44 N·m (32.5 ft.-lbs.). Tighten fork lower clamp bolts to 20 N·m (14.5 ft.-lbs.).

OVERHAUL. To separate the steering stem assembly from the frame's steering head, proceed as follows: Remove the front wheel and axle assembly, fuel tank, handlebars and headlight. Remove left and right fork assembly, steering stem screw and remove steering bracket. Unscrew slotted nut, then remove dust cover and upper bearing cone and roller assembly from the steering stem. Lower the steering stem assembly away from the steering head.

If suitable tools are available, the bearing races in the steering head and the lower bearing assembly can be

removed and installed. Be sure to reinstall lower grease seal. Check the steering stem for straightness. Use a good quality grease to lubricate the bearing assemblies. Reassemble components by reversing the removal procedure. Note that the stepped side of the slotted nut should be down against the dust cover. Tighten the slotted nut to 39 N·m (29 ft.-lbs.) to preload the steering stem bearings, then loosen slotted nut and hand tighten until no end play or side play is noted.

REAR BRAKE ASSEMBLY

All Models

A single disc brake assembly is used for both rear wheels. The running brake is operated hydraulically by a foot pedal on the lower right side.

BRAKE PEDAL HEIGHT ADJUSTMENT. On A1 and A2 models, the brake pedal should be 20-30 mm (0.78-1.18 in.) below the footpeg in the released position when measured from the top of the footpeg to the top of the foot pad on the brake pedal. Adjust length of pedal stop screw to raise or lower pedal height. Check to make sure the master cylinder actuator rod is not applying pressure to the rear caliper brake pads when the brake pedal is in the released position. If brake drag is noted, shorten length of master cylinder actuator rod as needed.

On B1 and B2 models, brake pedal (P—Fig. K10-29) should be 0-10 mm (0-0.4 in.) higher than footpeg (T). To adjust, loosen locknut (N) and turn stop screw (S) in to create a clearance between pedal stop and head of stop screw. Remove cotter pin and clevis pin to detach

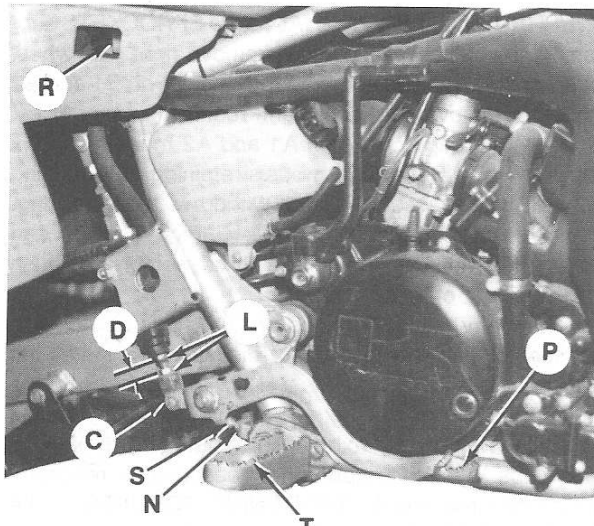


Fig. K10-29—View identifying rear brake components. Refer to text for measuring distance (D).

C. Clevis
L. Locknuts
N. Locknut
P. Brake pedal

R. Reservoir
S. Stop screw
T. Footpeg

clevis (C) from brake pedal. Measure distance (D) between the two master cylinder locknuts (L). A distance (D) of 8.5-10 mm (0.33-0.39 in.) should be between locknuts (L) to provide the correct pedal height. Adjust locknuts (L) to provide the correct distance, then reassemble and adjust head of stop screw (S) to touch pedal stop. Tighten locknut (N) to retain adjustment.

BLEEDING. Make sure reservoir (R—Fig. K10-29) is full. Connect a bleed hose to bleed valve (B—Fig. K10-30) on brake caliper assembly. Route the bleed hose into a suitable container. Operate foot pedal (P—Fig. K10-29) until a hardness (fluid resistance) is felt, then open bleed valve (B—Fig. K10-30) (rotate counterclockwise). Close bleed valve prior to releasing foot pedal. Continue bleeding procedure until no air bubbles are noted in discharged fluid from bleed valve.

NOTE: Make sure reservoir (R—Fig. K10-29) is kept full during bleeding procedure.

When bleeding procedure is completed, add brake fluid to reservoir (R) until fluid level is at upper level line on reservoir.

OVERHAUL. External determination of brake pad thickness is possible by viewing the brake pads. If more than 1 mm (0.039 in.) of brake pad is measured, then brake pads do not require replacement because of excessive wear. If brake pad is 1 mm (0.039 in.) or less in thickness, then both brake pads must be renewed.

Brake components are accessible after removing caliper mounting screws and withdrawing caliper. Push piston by hand back into caliper to allow clearance for new brake pads. Brake disc should be renewed if thickness is

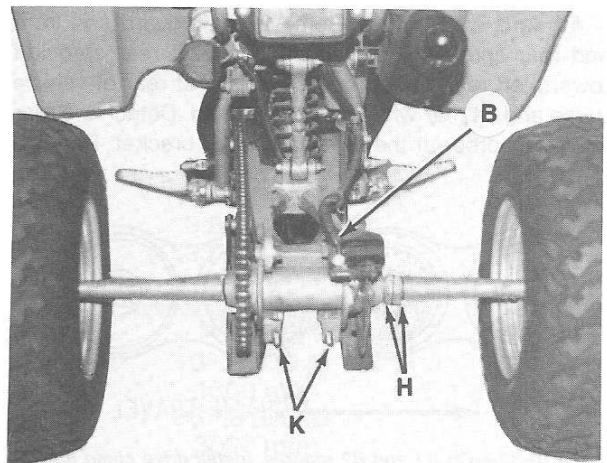


Fig. K10-30—View identifying location of rear brake caliper bleed screw (B), rear axle nuts (H) and outer locknuts (K) on axle housing drive chain adjusters. Two adjusters, as shown, are used on B1 and B2 models and one adjuster, located on the left-side, is used on A1 and A2 models.

Kawasaki KXT250

3.5 mm (0.138 in.) or less or disc runout is 0.3 mm (0.012 in.) or more. After reassembly, operate brake foot pedal (P—Fig. K10-29) until pedal will not pump up after continuous operation. Do not operate vehicle until correct brake operation is noted.

DRIVE CHAIN AND SPROCKETS

All Models

INSPECTION AND ADJUSTMENT. The final drive chain should be inspected and adjusted after every 30 days of operation. Improper maintenance and neglect can cause early failure of both drive chain and sprockets. An endless type drive chain is used on A1 and A2 models and a master link type chain is used on B1 and B2 models. Distance between 20 chain links should not exceed 324 mm (12.7 in.). Drive chain free play should be 30-45 mm (1.18-1.77 in.) on A1 and A2 models and 50-60 mm (1.97-2.36 in.) on B1 and B2 models measured midway between sprockets. Chain tension is adjusted by loosening upper and lower screws securing axle housing to left and right swing arms and loosening left and right locknuts (K—Fig. K10-30) and rotating inner nut (only one, a left adjuster screw assembly, is used on A1 and A2 models) until chain tension is within recommended limits. Tighten axle housing mounting screws to 74 N·m (54 ft.-lbs.) and recheck drive chain free play.

R&R AND OVERHAUL. Loosen upper and lower screws securing axle housing to left and right swing arms, then loosen adjuster screw or screws locknut and turn inner nut out. Push axle housing inward to create slack in drive chain.

A1 And A2 Models. Remove chain guard and front and rear sprocket guards. Lift chain off rear sprocket toward left rear wheel. Use a location at rear of vehicle frame and lift rear wheels off the ground. Detach the rear shock absorber at the lower mounting bracket. Remove

one swing arm shaft nut. Support swing arm and withdraw swing arm shaft towards end with nut still attached. Remove left rear wheel and withdraw drive chain.

Reassemble by reversing disassembly procedure while noting the following: Position "O" ring and spacer on output shaft and install engine sprocket (front sprocket) with raised shoulder side away from engine and retain with snap ring. Install final drive sprocket (rear sprocket) with stamped tooth number side facing outward, toward wheel. Tighten retaining nuts to 34 N·m (25 ft.-lbs.). Adjust chain tension as previously outlined in INSPECTION AND ADJUSTMENT section.

B1 And B2 Models. Remove master link clip and washer then withdraw master link. Remove drive chain and engine sprocket if needed. The left rear wheel must be removed to withdraw final drive sprocket.

During reassembly, install final drive sprocket with stamped tooth number side facing outward, toward wheel. Tighten retaining screws to 21 N·m (15 ft.-lbs.). Position "O" ring and spacer on output shaft and install engine sprocket with raised shoulder side away from engine and retain with snap ring. When reinstalling drive chain, install master link clip as shown in Fig. K10-32. Adjust chain tension as previously outlined in INSPECTION AND ADJUSTMENT section.

FINAL DRIVE ASSEMBLY

All Models

R&R AND OVERHAUL. Remove two cap screws securing rear brake caliper assembly and withdraw caliper. Remove drive chain as outlined under R&R AND OVERHAUL in the DRIVE CHAIN AND SPROCKETS section. To complete disassembly, remove right rear wheel on A1 and A2 models and both rear wheels on B1 and B2 models. Remove left and right rear hub assemblies. Remove four cap screws on A1 and A2 models and six cap screws on B1 and B2 models retaining axle housing to swing arm assembly and withdraw axle housing. Remove rear axle retaining nuts (H—Fig. K10-30) and flat washer, then withdraw brake disc assembly and push axle shaft out of axle housing.

Renew any seals, bearings or "O" rings as needed. Reassembly is reverse order of disassembly. Install flat washer located behind nuts (H) with chamfered side facing away from rear axle housing (flat side against housing). Tighten rear axle retaining nuts (H) to 98 N·m (72 ft.-lbs.). Refer to appropriate sections for reassembly procedures and to TIGHTENING TORQUES in the CONDENSED SERVICE DATA section for torque values not listed in maintenance sections.

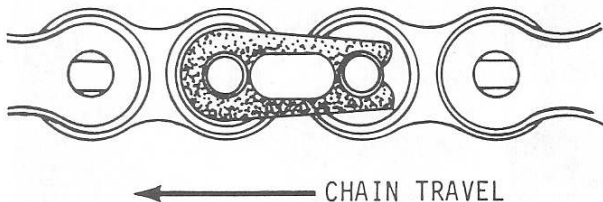


Fig. K10-32—On B1 and B2 models, install drive chain master link clip with closed end of clip towards normal direction of chain travel.