



FOREWORD

This Arctic Cat Service Manual contains service, maintenance, and troubleshooting information for the 2011 Arctic Cat ATV 300 Utility/DVX 300. This manual is designed to aid service personnel in service-oriented applications.

This manual is divided into sections. Each section covers a specific ATV component or system and, in addition to the standard service procedures, includes disassembling, inspecting, and assembling instructions. When using this manual as a guide, the technician should use discretion as to how much disassembly is needed to correct any given condition.

The service technician should become familiar with the operation and construction of each component or system by carefully studying this manual. This manual will assist the service technician in becoming more aware of and efficient with servicing procedures. Such efficiency not only helps build consumer confidence but also saves time and labor.

All Arctic Cat ATV publications and decals display the words Warning, Caution, Note, and At This Point to emphasize important information. The symbol  **WARNING** identifies personal safety-related information. Be sure to follow the directive because it deals with the possibility of severe personal injury or even death. A **CAUTION** identifies unsafe practices which may result in ATV-related damage. Follow the directive because it deals with the possibility of damaging part or parts of the ATV. The symbol  **NOTE:** identifies supplementary information worthy of particular attention. The symbol  **AT THIS POINT** directs the technician to certain and specific procedures to promote efficiency and to improve clarity.

At the time of publication, all information, photographs, and illustrations were technically correct. Some photographs used in this manual are used for clarity purposes only and are not designed to depict actual conditions. Because Arctic Cat Inc. constantly refines and improves its products, no retroactive obligation is incurred.

All materials and specifications are subject to change without notice.

Keep this manual accessible in the shop area for reference.

**Product Service and
Warranty Department
Arctic Cat Inc.**

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General Information

■NOTE: Some photographs and illustrations used in this manual are used for clarity purposes only and are not designed to depict actual conditions.

General Specifications

CHASSIS	DVX	Utility
Dry Weight (approx)	177.3 kg (391 lb)	216 kg (477 lb)
Length (overall)	171.9 cm (67.7 in.)	187 cm (73.6 in.)
Height (overall)	113.5 cm (44.7 in.)	111.8 cm (44.0 in.)
Width (overall)	113.5 cm (44.7 in.)	105.1 cm (41.40 in.)
Suspension Travel (Front) (Rear)	15.5 cm (6.1 in.) 16.5 cm (6.5 in.)	12.7 cm (5.0 in.)
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake	
Tire Size (Front) (Rear)	AT21 x 7-10 AT20 x 11-9	AT22 x 7-10 AT22 x 10-10
Tire Inflation Pressure (Front) (Rear)	0.28 kg/cm ² (4 psi) 0.25 kg/cm ² (3.5 psi)	
MISCELLANY		
Gas Tank Capacity (rated)	12.5 L (3.3 U.S. gal.)	13 L (3.43 U.S. gal.)
Reserve Capacity	N/A	4.54 L (1.2 U.S. gal.)
Engine Oil Capacity	1.6 L (1.7 U.S. qt)	
Transmission (Overhaul) Lubricant Capacity (Change)	400 ml (13.5 fl/oz) 300 ml (10.1 fl/oz)	600 ml (20.3 fl/oz) 500 ml (16.9 fl/oz)
Gasoline (recommended)	87 Octane Regular Unleaded	
Engine Oil (recommended)	Arctic Cat ACX All Weather (Synthetic)	
Cooling System Capacity	1.4 L (1.5 U.S. qt)	
Rear Drive Capacity	N/A	150 ml (5 fl oz)
Rear Drive Lubricant	N/A	SAE Approved 80W-90 Hypoid
Brake Fluid	DOT 4	
Taillight/Brakelight	12V/5W/21W	
Headlight	12V/35W (2)	
Starting System	Electric	Electric w/Manual Recoil (Emergency)

Specifications subject to change without notice.

Torque Specifications

STEERING COMPONENTS			
Part	Part Bolted To	Torque	
		ft-lb	N-m
Handlebar Clamp Cap Screw	Steering Head	18	24
Steering Post Support Block	Frame	17	23
Steering Post Nut	Steering Post	50	68
Upper And Lower Ball Joint Nut	Steering Knuckle	22	30
Tie Rod End Nut	Steering Knuckle	15	20
Tie Rod Lock Nut	Tie Rod	15	20
ELECTRICAL COMPONENTS			
Starter Motor Lead Cable Nut	Starter	36 in.-lb	5
Starter Motor Mounting Bolt	Crankcase	9	12
EXHAUST COMPONENTS			
Exhaust Pipe	Engine	25	34
Muffler Mounting Bolt	Frame	25	34
BRAKE COMPONENTS			
Brake Hose Union Bolt	Master Cylinder/ Caliper	25	34
Brake Bleed Screw	Caliper	56 in.-lb	5
Brake Caliper Mounting Cap Screw	Steering Knuckle/ Swing Arm	25	34
Master Cylinder (Front)	Handlebar	13	18
Brake Pad Mounting Pin (Front/Rear)	Brake Caliper	13	18
Brake Caliper Slide Pin (Front/Rear)	Brake Caliper	25	34
Front Brake Line Nut	Brake Line/Junction Block	25	34
Brake Caliper (Rear)	Swing Arm Housing	25	34
SUSPENSION COMPONENTS (Front)			
A-Arm Pivot Nut	Frame	32	44
Front Shock Absorber Mounting Nut* (Upper/Lower)	Frame	29	39
SUSPENSION COMPONENTS (Rear)			
Left Pivot Bolt (Utility)	Swing Arm	36 in.-lb	5
Right Pivot Bolt (Utility)	Swing Arm	82	112
Left Pivot Lock Nut (Utility)	Left Pivot Bolt	82	112
Swing Arm Pivot Nut (DVX)	Frame	50	68
Rear Shock Absorber Mounting Nut (Upper/Lower)	Frame/Swing Arm	29	39
Axle Housing Cap Screw (Utility)	Final Drive Gear Case	40	54
Axle Housing Cap Screw (DVX)	Swing Arm	29	39
DRIVE TRAIN COMPONENTS			
Engine Mounting Through-Bolt	Frame	29	39
Engine Mounting Bracket Cap Screw	Frame	16	22
Rear Axle Housing (Utility)	Swing Arm	40	54
Rear Axle Housing (DVX)	Tube	29	39
Gear Case	Swing Arm	50	68
Pinion Nut	Shaft	72	98
Gear Case Cover (8mm) (10 mm)	Gear Case	19 36	26 49
Hub Nut (Front)	Front/Spindle	50	68
Wheel Lug Nut	Hub	32	44
Hub Nut (Rear)	Axle	72	98
Rear Axle Nut* (Utility)	Axle	72	98
Rear Axle Nut* (DVX)	Axle	86	117

*w/Red Loctite #271



ENGINE/TRANSMISSION			
Part	Part Bolted To	Torque	
		ft-lb	N-m
Cylinder Head	Cylinder	7	10
Cylinder Nut	Crankcase	7	10
Camshaft Holder	Cylinder Head	18	24
Bevel Drive Gear (Utility)	Driveshaft	72	98
Magneto Rotor/Flywheel	Crankshaft	47	64
Bevel Driven Gear (Utility)	Driven Shaft	72	98
Output Drive Sprocket Lock Plate (DVX)	Driveshaft	43	59
Crankcase Cap Screw	Crankcase	8	11
Engine Oil Screen/Filter Cap	Crankcase	11	15
Shift Cam Stopper Plug* (Utility)	Left Case	20	27
Shift Cam Stopper Plug* (DVX)	Transmission Case	35	48
Camshaft Chain Tensioner Adjuster	Cam Chain Tensioner	9	12
Cam Chain Tensioner Cover Bolt	Tensioner	24 in.-lb	3
Starter Ratchet	Crankshaft	68	92
Camshaft Chain Tensioner Mount	Cylinder Head	9	12
Camshaft Chain Tension Spring Holder Plug	Cam Chain Tensioner	36 in.-lb	4
Starter Ratchet	Crankshaft	68	93
Centrifugal Clutch Housing	Driveshaft	40	54
Timing Plug	Right Case	16	22
Driven Pulley Retaining Nut	Driven Shaft (Transmission)	43	59
Drive Plate Nut*	Fixed Driven Face	43	59
Drive Pulley Nut	Crankshaft	72	98
Engine Oil Drain Plug	Crankcase	21	29
Transmission Drain Plug	Transmission	21	29
Transmission Case Cover	Transmission	20	27

* w/Red Loctite #271

Torque Conversions (ft-lb/N-m)

ft-lb	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb	N-m
1	1.4	26	35.4	51	69.4	76	103.4
2	2.7	27	36.7	52	70.7	77	104.7
3	4.1	28	38.1	53	72.1	78	106.1
4	5.4	29	39.4	54	73.4	79	107.4
5	6.8	30	40.8	55	74.8	80	108.8
6	8.2	31	42.2	56	76.2	81	110.2
7	9.5	32	43.5	57	77.5	82	111.5
8	10.9	33	44.9	58	78.9	83	112.9
9	12.2	34	46.2	59	80.2	84	114.2
10	13.6	35	47.6	60	81.6	85	115.6
11	15	36	49	61	83	86	117
12	16.3	37	50.3	62	84.3	87	118.3
13	17.7	38	51.7	63	85.7	88	119.7
14	19	39	53	64	87	89	121
15	20.4	40	54.4	65	88.4	90	122.4
16	21.8	41	55.8	66	89.8	91	123.8
17	23.1	42	57.1	67	91.1	92	125.1
18	24.5	43	58.5	68	92.5	93	126.5
19	25.8	44	59.8	69	93.8	94	127.8
20	27.2	45	61.2	70	95.2	95	129.2
21	28.6	46	62.6	71	96.6	96	130.6
22	29.9	47	63.9	72	97.9	97	131.9
23	31.3	48	65.3	73	99.3	98	133.3
24	32.6	49	66.6	74	100.6	99	134.6
25	34	50	68	75	102	100	136

Tightening Torque (General Bolts)

Type of Bolt	Thread Diameter A (mm)	Tightening Torque
(Conventional or 4 Marked Bolt) 	5	12-36 in.-lb
	6	36-60 in.-lb
	8	7-11 ft-lb
	10	16-25 ft-lb
(7 Marked Bolt) 	5	24-48 in.-lb
	6	6-8 ft-lb
	8	13-20 ft-lb
	10	29-43 ft-lb

Break-In Procedure

A new ATV and an overhauled ATV engine require a “break-in” period. The first 10 hours (or 200 miles) are most critical to the life of this ATV. Proper operation during this break-in period will help assure maximum life and performance from the ATV.

During the first 10 hours (or 200 miles) of operation, always use less than 1/2 throttle. Varying the engine RPM during the break-in period allows the components to “load” (aiding the mating process) and then “unload” (allowing components to cool). Although it is essential to place some stress on the engine components during break-in, care should be taken not to overload the engine too often. Do not pull a trailer or carry heavy loads during the 10-hour break-in period.

When the engine starts, allow it to warm up properly. Idle the engine several minutes until the engine has reached normal operating temperature. Do not idle the engine for excessively long periods of time.

During the break-in period, a maximum of 1/2 throttle is recommended; however, brief full-throttle accelerations and variations in driving speeds contribute to good engine break-in.

After the completion of the break-in period, the engine oil and oil filter should be changed. Other maintenance after break-in should include checking of all prescribed adjustments and tightening of all fasteners.

Gasoline - Oil - Lubricant

RECOMMENDED GASOLINE

The recommended gasoline to use is 87 minimum octane regular unleaded. In many areas, oxygenates (either ethanol or MTBE) are added to the gasoline. Oxygenated gasolines containing up to 10% ethanol, 5% methane, or 5% MTBE are acceptable gasolines.

When using ethanol blended gasoline, it is not necessary to add a gasoline antifreeze since ethanol will prevent the accumulation of moisture in the fuel system.

CAUTION

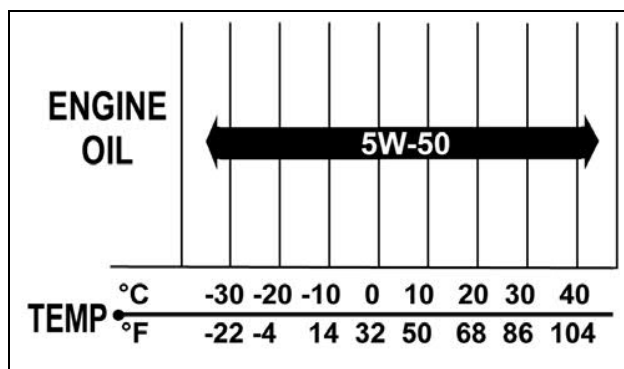
Do not use white gas. Only Arctic Cat approved gasoline additives should be used.

RECOMMENDED ENGINE OIL

CAUTION

Any oil used in place of the recommended oil could cause serious engine damage. Do not use oils which contain graphite or molybdenum additives. These oils can adversely affect clutch operation. Also, not recommended are racing, vegetable, non-detergent, and castor-based oils.

The recommended oil to use is Arctic Cat ACX All Weather synthetic engine oil, which has been specifically formulated for use in this Arctic Cat engine. Although Arctic Cat ACX All Weather synthetic engine oil is the only oil recommended for use in this engine, use of any API certified SM 5W-50 oil is acceptable.



OILCHART1

RECOMMENDED REAR DRIVE LUBRICANT (Utility)

The recommended lubricant is Arctic Cat Gear Lube or an equivalent gear lube which is SAE approved 80W-90 hypoid. This lubricant meets all of the lubrication requirements of the Arctic Cat ATV rear drive.

CAUTION

Any lubricant used in place of the recommended lubricant could cause serious rear drive damage.

RECOMMENDED TRANSMISSION LUBRICANT

The recommended lubricant is Arctic Cat Gear Lube or an equivalent gear lube which is SAE approved 80W-90 hypoid. This lubricant meets all the lubrication requirements of the Arctic Cat ATV front differential and rear drive.

CAUTION

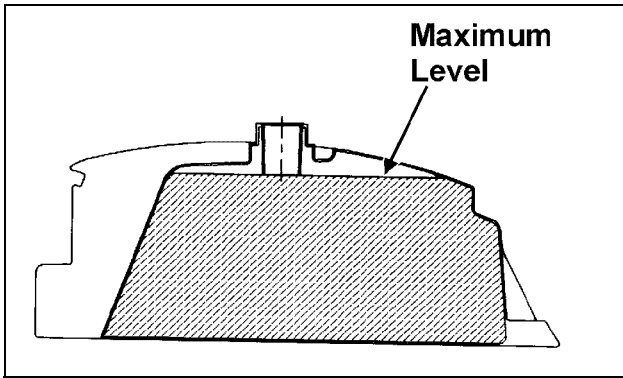
Any lubricant used in place of the recommended lubricant could cause serious front differential/rear drive damage.

FILLING GAS TANK

⚠ WARNING

Always fill the gas tank in a well-ventilated area. Never add fuel to the ATV gas tank near any open flames or with the engine running. DO NOT SMOKE while filling the gas tank.

Since gasoline expands as its temperature rises, the gas tank must be filled to its rated capacity only. Expansion room must be maintained in the tank particularly if the tank is filled with cold gasoline and then moved to a warm area.



ATV0049B

⚠ WARNING

Do not overflow gasoline when filling the gas tank. A fire hazard could materialize. Always allow the engine to cool before filling the gas tank.

⚠ WARNING

Do not over-fill the gas tank.

Tighten the gas tank cap securely after filling the tank.

Genuine Parts

When replacement of parts is necessary, use only genuine Arctic Cat ATV parts. They are precision-made to ensure high quality and correct fit. Refer to the appropriate Illustrated Parts Manual for the correct part number, quantity, and description.

Preparation For Storage

CAUTION

Prior to storing the ATV, it must be properly serviced to prevent rusting and component deterioration.

Arctic Cat recommends the following procedure to prepare the ATV for storage.

1. Clean the seat cushion (cover and base) with a damp cloth and allow it to dry.
2. Clean the ATV thoroughly by washing dirt, oil, grass, and other foreign matter from the entire ATV. Allow the ATV to dry thoroughly. **DO NOT** get water into any part of the engine or air intake.
3. Either drain the gas tank or add Fuel Stabilizer to the gas in the gas tank. Remove the air filter housing cover and air filter. Start the engine and allow it to idle; then using Arctic Cat Engine Storage Preserver, slowly inject the preserver into the air filter opening for a period of 10 to 20 seconds; then stop the engine. Install the air filter and housing cover.

CAUTION

Rapid induction of oil or any liquid into a four-cycle engine can cause "hydraulic-lock" resulting in severe engine damage.

CAUTION

If the interior of the air filter housing is dirty, clean the area before starting the engine.

4. Drain the carburetor float chamber.
5. Plug the exhaust hole in the exhaust system with a clean cloth.
6. Apply light oil to the upper steering post bushing and plungers of the shock absorbers.
7. Tighten all nuts, bolts, cap screws, and screws. Make sure rivets holding components together are tight. Replace all loose rivets. Care must be taken that all calibrated nuts, cap screws, and bolts are tightened to specifications.
8. Fill the cooling system to the FULL line in the cooling system reservoir with properly mixed coolant.
9. Disconnect the battery cables; then remove the battery, clean the battery posts and cables, and store in a clean, dry area.

CAUTION

This maintenance-free battery should be charged at the recommended rate every 30 days or permanent damage may occur if the battery completely discharges.

10. Store the ATV indoors in a level position.

CAUTION

Avoid storing outside in direct sunlight and avoid using a plastic cover as moisture will collect on the ATV causing rusting.

Preparation After Storage

Taking the ATV out of storage and correctly preparing it will assure many miles and hours of trouble-free riding. Arctic Cat recommends the following procedure to prepare the ATV.

1. Clean the ATV thoroughly.
2. Clean the engine. Remove the cloth from the exhaust system.
3. Check all control wires and cables for signs of wear or fraying. Replace if necessary.
4. Change the engine oil and filter.
5. Check the coolant level and add properly mixed coolant as necessary.
6. Charge the battery; then install. Connect the battery cables.

CAUTION

The ignition switch must be in the OFF position prior to installing the battery or damage may occur to the ignition system.

CAUTION

Connect the positive battery cable first; then the negative.

7. Check the entire brake systems (fluid level, pads, etc.), all controls, headlights, taillight, brakelight, and headlight aim; adjust or replace as necessary.

- 8. Tighten all nuts, bolts, cap screws, and screws making sure all calibrated nuts, cap screws, and bolts are tightened to specifications.
- 9. Check tire pressure. Inflate to recommended pressure as necessary.
- 10. Make sure the steering moves freely and does not bind.
- 11. Check the spark plug. Clean or replace as necessary.

Periodic Maintenance/ Tune-Up

SPECIAL TOOLS

A number of special tools must be available to the technician when performing service procedures in this section. Refer to the current Special Tools Catalog for the appropriate tool description.

Description	p/n
Compression Tester Kit	0444-213
Tappet Adjuster	0444-189

■NOTE: Special tools are available from the Arctic Cat Service Parts Department.

Periodic Maintenance Chart

A = Adjust I = Inspect C = Clean L = Lubricate D = Drain R = Replace T = Tighten

Item	Initial Service After Break-In (First Month or 100 Miles)	Every Day	Every Month or Every 100 Miles	Every 3 Months or Every 300 Miles	Every 6 Months or Every 500 Miles	Every Year or Every 1500 Miles	As Needed
Battery	I		I				C
Air Filter/Drain Tube	I	I	C*				R
Valve/Tappet Clearance	I				I		A
Spark Plug	I			I			R (4000 Mi or 18 Mo)
Muffler/Spark Arrester					C		R
Gas/Vent Hoses	I	I					R (2 Yrs)
Gas Tank Valve						I	C
Throttle Cable	I	I			C-L		A-R
Carb Float Chamber				D*			
Engine RPM (Idle)	I				I		A
Engine Oil Level		I					A
Engine Oil - Screen	C				C*		C
Drive Chain (DVX)	I	I					C-L
Rear Drive Lubricant (Utility)	I			I		R	A
Transmission Lubricant	I			I		R	A
Tires/Air Pressure	I	I					A-R
Steering Components	I	I		I			R
V-Belt	I					I	R
Suspension (Ball joint boots, tie rods, differential and rear drive bellows)	I	I		I*			R
Nuts/Cap Screws/Screws	I		I				T
Ignition Timing						I	
Headlight/Taillight-Brakelight	I	I					R
Switches	I	I					R
Shift Lever					I		A-L
Choke Cable		I			C-L		R
Recoil Starter (Utility)		I					C-R
Handlebar Grips		I					R
Handlebars	I	I					R
Gauges/Indicators	I	I					R
Frame/Welds/Racks	I		I		I		
Electrical Connections					I		C
Complete Brake System (Hydraulic and Auxiliary)	I	I		C			L-R
Brake Pads	I			I*			R
Brake Fluid	I			I			R (2 Yrs)
Brake Hoses	I			I			R (4 Yrs)
Coolant/Cooling System	I		I				R (2 Yrs)

* Service/Inspect more frequently when operating in adverse conditions.

Lubrication Points

It is advisable to lubricate certain components periodically to ensure free movement. Apply light oil to the components using the following list as reference.

- A. Throttle Lever Pivot/Cable Ends
- B. Brake Lever Pivot
- C. Auxiliary Brake Pivot/Clevis
- D. Choke Cable Upper End
- E. Shift Lever/Ball Joints
- F. Idle RPM Screw (Carburetor)

Air Filter

Use the following procedure to remove the filter and inspect and/or clean it.

CLEANING AND INSPECTING FILTER

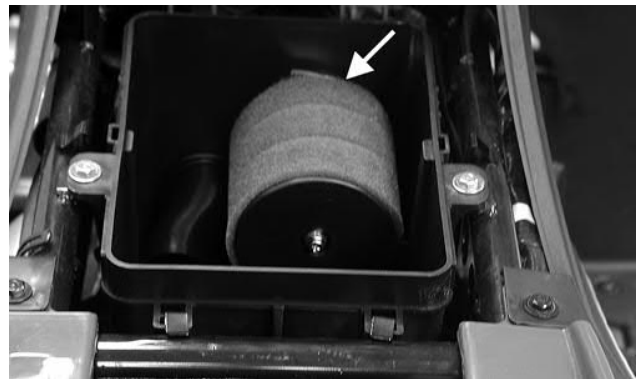
CAUTION

Failure to inspect the air filter frequently if the vehicle is used in dusty, wet, or muddy conditions can damage the engine.

1. Remove the seat.
2. Remove the air filter housing cover from the retaining clips.



3. Loosen the clamp; then remove the filter.



4. Fill a wash pan larger than the filter with a non-flammable cleaning solvent; then dip the filter in the solvent and wash it.

■NOTE: Foam Filter Cleaner and Foam Filter Oil are available from Arctic Cat.

5. Dry the filter.
6. Put the filter in a plastic bag; then pour in air filter oil and work the filter.

CAUTION

A torn air filter can cause damage to the ATV engine. Dirt and dust may get inside the engine if the element is torn. Carefully examine the element for tears before and after cleaning it. Replace the element with a new one if it is torn.

7. Clean any dirt or debris from inside the air cleaner. Make sure no dirt enters the carburetor.
8. Place the filter in the air filter housing making sure it is properly seated and secure with the clamp.
9. Install the air filter housing cover and secure with the retaining clips; then install the seat making sure it locks securely.

CHECKING/DRAINING DRAIN TUBE

Periodically check the drain tube for gasoline or oil accumulation. If noticed, remove the drain tube cap from beneath the housing and drain the gasoline or oil into a suitable container; then install and secure the tube cap.



Valve/Tappet Clearance

To check and adjust valve/tappet clearance, use the following procedure.

■NOTE: The seat assembly, side panels, and gas tank must be removed for this procedure.

1. Remove the timing inspection plug; then remove the cylinder head cover (see Engine/Transmission - Removing Top-Side Components).
2. Rotate the crankshaft so the “T” mark on the flywheel aligns with the index mark on the right-side crankcase cover.

■NOTE: At this point, the round hole in the camshaft gear should be up.

3. Place Tappet Adjuster onto the jam nut securing the tappet adjuster screw; then rotate the adjuster dial clockwise until the end is seated in the tappet adjuster screw.
4. While holding the adjuster dial in place, use the adjuster handle and loosen the jam nut; then rotate the tappet adjuster screw clockwise until friction is felt.
5. Align the adjuster handle with one of the marks on the adjuster dial.
6. While holding the adjuster handle in place, rotate the adjuster dial counterclockwise until proper valve/tappet clearance is attained.

■NOTE: Refer to the appropriate specifications in Engine/Transmission for the proper valve/tappet clearance.

■NOTE: Rotating the adjuster dial counterclockwise will open the valve/tappet clearance by 0.05 mm (0.002 in.) per mark.

7. While holding the adjuster dial at the proper clearance setting, tighten the jam nut securely with the valve adjuster handle.
8. Place the cylinder head cover with a new O-ring into position; then tighten the cover securely.



KM703

9. Install the timing inspection plug.

Testing Engine Compression

To test engine compression, use the following procedure.

1. Remove the high tension lead from the spark plug.
2. Using compressed air, blow any debris from around the spark plug.

WARNING

Always wear safety glasses when using compressed air.

3. Remove the spark plug; then attach the high tension lead to the plug and ground the plug on the cylinder head well away from the spark plug hole.
4. Attach the gauge from Compression Tester Kit.

■NOTE: The engine must be warm and the battery must be fully charged for this test.

5. While holding the throttle lever in the full-open position, crank the engine over with the electric starter until the gauge shows a peak reading (five to 10 compression strokes).

■NOTE: The compression should be within a range of 210-230 psi in the full-open throttle position.

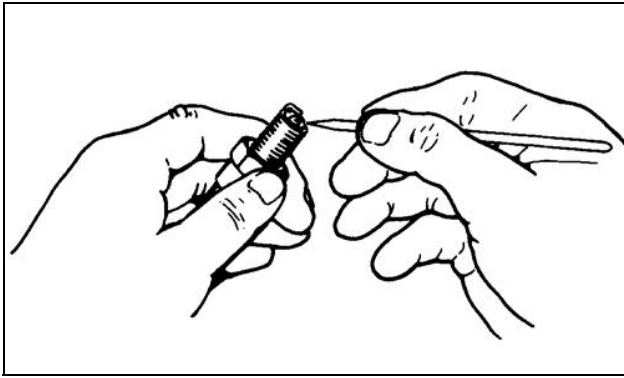
6. If compression is abnormally low, verify the following items.
 - A. Starter cranks engine over.
 - B. Gauge functions properly.
 - C. Throttle lever in the full-open position.
 - D. Valve/tappet clearance correct.
 - E. Valve not bent or discolored.
 - F. Valve seat not discolored.

■NOTE: To service valves, see Engine/Transmission.

7. Pour 29.5 ml (1 fl oz) of oil into the spark plug hole, attach the gauge, and test compression.
8. If compression is now evident, service the piston rings (see Engine/Transmission).

Spark Plug

A light brown insulator indicates that the plug is correct. A white or dark insulator indicates that the engine may need to be serviced or the carburetor may need to be adjusted. To maintain a hot, strong spark, keep the plug free of carbon.

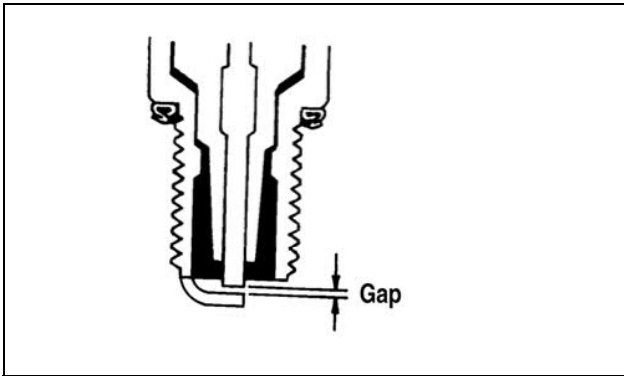


ATV-0051

CAUTION

Before removing the spark plug, make sure to clean the area around the spark plug. Dirt could enter engine when removing or installing the spark plug.

Adjust the gap to 0.8-0.9 mm (0.032-0.036 in.) for proper ignition. Use a wire feeler gauge to check the gap.



ATV0052B

When installing the spark plug, make sure to tighten it securely. A new spark plug should be tightened 1/2 turn once the washer contacts the cylinder head. A used spark plug should be tightened 1/8-1/4 turn once the washer contacts the cylinder head.

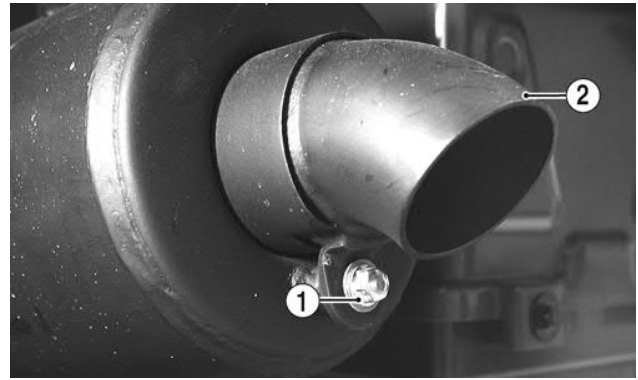
Muffler/Spark Arrester

The muffler has a spark arrester which must be periodically cleaned. At the intervals shown in the Periodic Maintenance Chart, clean the spark arrester using the following procedure.

WARNING

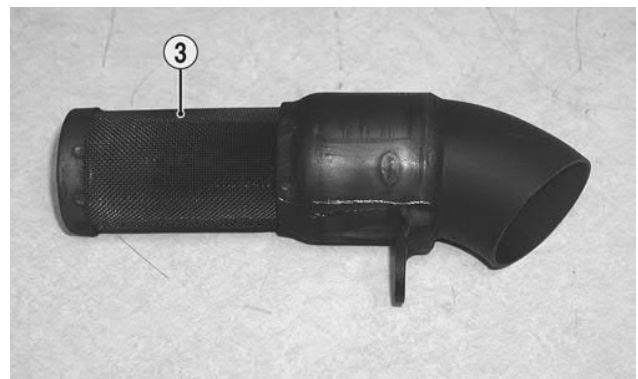
Wait until the muffler cools to avoid burns.

1. Remove the cap screw (1) securing the spark arrester (2) to the muffler assembly; then carefully remove the spark arrester.



KM139A

2. Using a soft wire brush, clean the carbon from the screen (3) taking care not to tear or damage the screen.



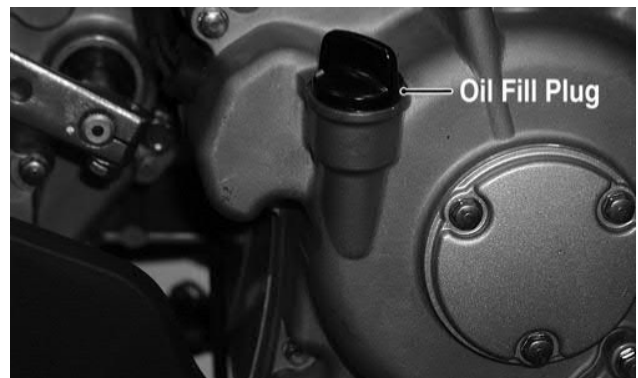
KM140B

3. Install the spark arrester and secure with the cap screw. Tighten securely.

Engine Oil - Filter

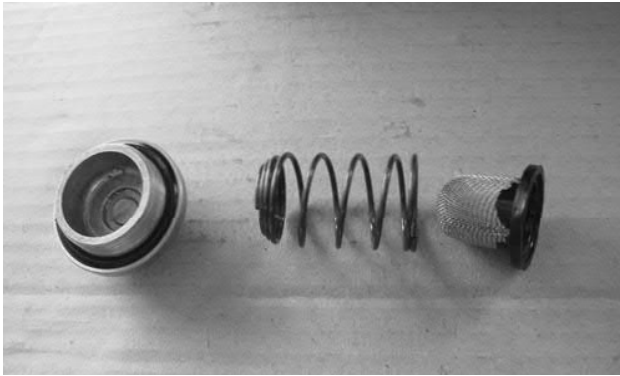
Replace the engine oil and clean the screen/filter at the scheduled intervals. The engine should always be warm when the oil is changed so the oil will drain easily and completely.

1. Park the ATV on level ground.
2. Loosen the oil fill plug.



KM126A

3. Remove the screen/filter cap from the bottom of the engine and drain the oil into a drain pan. Account for a spring, O-ring, and screen/filter.



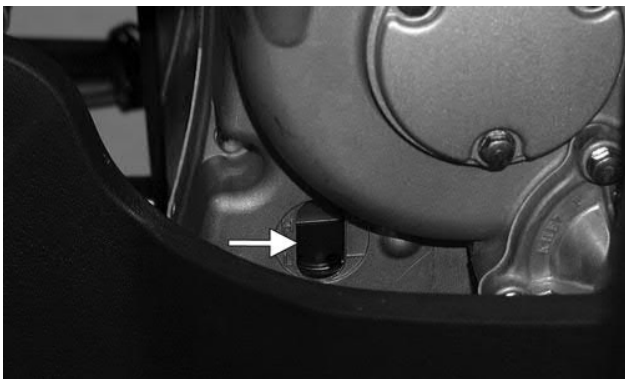
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4. Clean the screen/filter in parts-cleaning solvent; then inspect the O-ring and replace if damaged.
5. Install the screen/filter, spring, and screen/filter cap into the bottom of the engine and tighten to 11 ft-lb.
6. Remove the oil fill plug and pour in 1.6 L (1.7 U.S. qt) of the recommended oil into the fill hole; then install the oil fill plug.

CAUTION

Any oil used in place of the recommended oil could cause serious engine damage. Do not use oils which contain graphite or molybdenum additives. These oils can adversely affect clutch operation. Also, not recommended are racing, vegetable, non-detergent, and castor-based oils.

7. Start the engine (while the ATV is outside on level ground) and allow it to idle for a few minutes.
8. Turn the engine off and wait approximately one minute. Check the oil level in the engine oil inspection window. The oil level should be visible through the window. If oil is not visible, add recommended oil until the oil level is visible between the lines of the window.



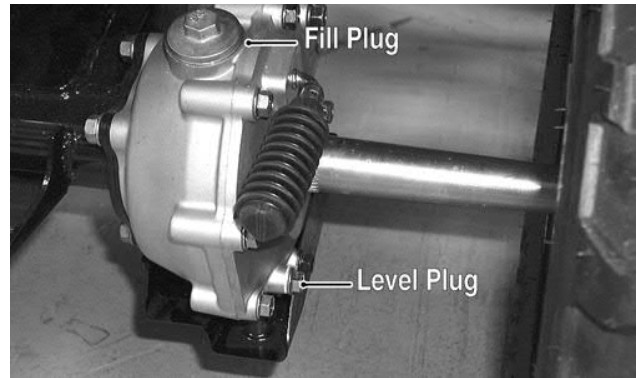
KM127A

9. Inspect the area around the screen/filter cap for leaks.

Rear Drive Lubricant (Utility)

Check and change the lubricant according to the Periodic Maintenance Chart. When changing the lubricant, use approved SAE 80W-90 hypoid gear lube. To check lubricant, use the following procedure.

1. Remove the rear drive level plug; the lubricant level should be at the threads of the plug.



KM131A

2. If low, add SAE approved 80W-90 hypoid gear lube as necessary.

To change the lubricant, use the following procedure.

1. Place the ATV on level ground.
2. Loosen the fill plug.
3. Remove the cap screws securing the rear drive gear guard; then remove the guard.
4. Drain the lubricant into a drain pan by removing the drain plug from the bottom of the rear drive.

■NOTE: If the rear drive lubricant is contaminated with water, inspect the drain plug, fill plug, and/or bladder.

5. After all the lubricant has been drained, install the drain plug and tighten securely. Install the rear drive gear guard and tighten the cap screws securely.
6. Pour the appropriate amount of recommended lubricant into the fill hole. Remove the level plug and check for appropriate level.
7. Install the fill plug.

CAUTION

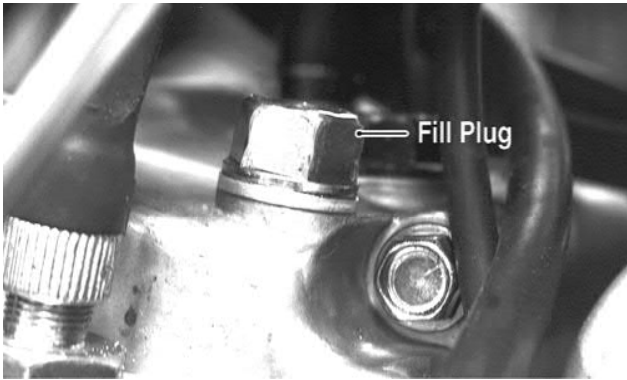
Water entering the outer end of the axle will not be able to enter the rear drive unless the seals are damaged.

Transmission Lubricant

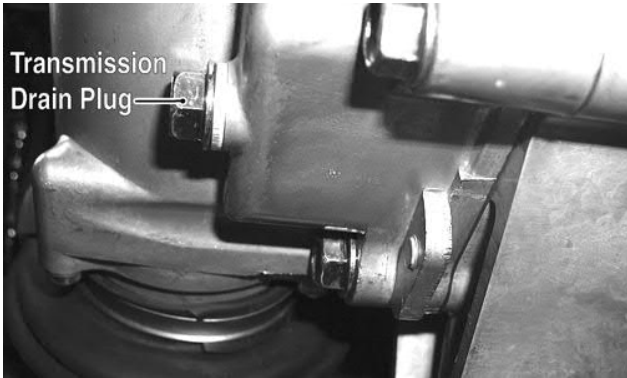
Change the lubricant according to the Periodic Maintenance Chart. When changing the lubricant, use approved SAE 80W-90 hypoid gear lube.

To change the lubricant, use the following procedure.

1. Place the ATV on level ground.
2. Loosen the fill plug; then remove the transmission drain plug and drain the transmission lubricant.



KM104A



KM106A

3. Install the drain plug and tighten securely.
4. Remove the fill plug and pour the appropriate amount of recommended lubricant into the fill hole.
5. Install the fill plug and tighten securely.
6. Check the area around the drain plug for leakage.

Drive Chain (DVX)

Drive chain condition and adjustment should be inspected each day before the ATV is operated. Always follow the following guidelines for inspecting and servicing the drive chain.

⚠ WARNING

Failure to inspect and maintain the drive chain can be hazardous. Operating the ATV with the drive chain in poor condition or improperly adjusted can cause an accident resulting in possible injury.

INSPECTING

Inspect the drive chain for any of the following conditions.

- A. Loose pins.
- B. Loose or cracked rollers.
- C. Dry or rusted links.
- D. Kinked or binding links.
- E. Excessive wear.

The presence of any of the conditions requires drive chain replacement.

■NOTE: If the drive chain is worn or damaged, the sprockets may also be worn or damaged. Inspect the sprockets for worn, broken, or damaged teeth. Always inspect the sprockets when a new drive chain is being installed.

CLEANING AND LUBRICATING

The drive chain should be cleaned and lubricated frequently to prolong chain and sprocket life. Use the following procedure to clean and lubricate the chain.

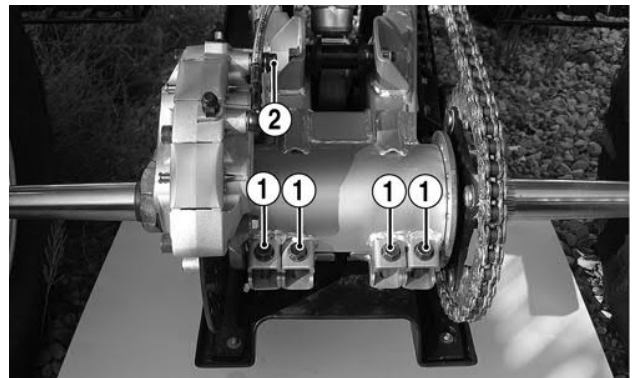
■NOTE: This ATV is equipped with an O-ring type roller chain. Each link incorporates small O-rings to seal out water and dirt. Care should be taken to choose cleaning solutions and lubricants that are suitable for O-ring type chains.

1. Using a suitable, nonflammable cleaning solution, thoroughly wash the chain and sprockets.
2. Allow the chain to dry; then apply a dry, graphite-based lubricant to the chain.

■NOTE: The drive chain should be lubricated with a dry, graphite-based chain lubricant. By using a dry, graphite-based chain lubricant, dirt build-up on the drive chain will be minimized.

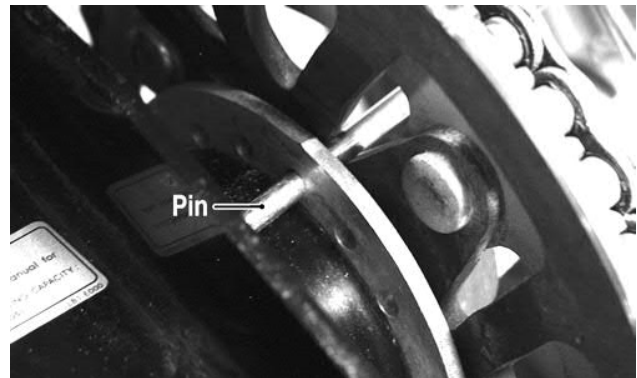
ADJUSTING TENSION

1. Loosen the four cap screws (1) at the rear of the axle housing; then loosen the cap screw (2) on the front of the brake caliper.



KM902A

2. Install an appropriate pin through the axle hub and rear sprocket.

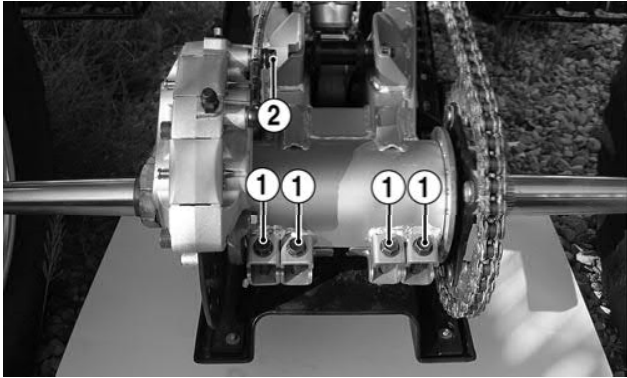


KM158A

3. With a person seated on the ATV, check chain tension at the mid-point of the chain.

■NOTE: Chain “slack” should be within a range of 30-40 mm (1.2-1.6 in.).

4. Push the ATV forward to tighten chain tension; push the ATV backward to loosen chain tension.
5. Tighten the four cap screws (1) to 29 ft-lb; then tighten the cap screw (2) to 29 ft-lb.



KM902A

Driveshaft/Coupling (Utility)

The following drive system components should be inspected periodically to ensure proper operation.

- A. Spline lateral movement (slop).
- B. Coupling not cracked, damaged, or worn.

Nuts/Bolts/Cap Screws

Tighten all nuts, bolts, and cap screws. Make sure rivets holding components together are tight. Replace all loose rivets. Care must be taken that all calibrated nuts, bolts, and cap screws are tightened to specifications.

Headlight/Taillight-Brakelight

Each time the ATV is used, lights should be checked for proper function. Turn the ignition switch to the LIGHTS position; the headlights and taillight should illuminate. Test the brakelight by compressing the brake lever. The brakelight should illuminate.

■NOTE: The bulb portion of the headlight is fragile. HANDLE WITH CARE. When replacing the headlight bulb, do not touch the glass portion of the bulb. If the glass is touched, it must be cleaned with a dry cloth before installing. Skin oil residue on the bulb will shorten the life of the bulb.

⚠ WARNING

Do not attempt to remove the bulb when it is hot. Severe burns may result.

To replace the headlight bulb, use the following procedure.

1. Remove the boot from the back of the headlight housing; then remove the three-wire connector from the bulb.
2. Using care not to bend or deform the spring clip, release the two ends of the spring clip from the light housing; then remove the bulb from the headlight housing.



KM192A

3. Install the new bulb into the headlight housing; then secure with the spring clip.
4. Connect the three-wire connector to the bulb; then install the boot.

To replace the taillight-brakelight bulb, use the following procedure.

1. Remove the two screws and remove the lens cover.
2. Push the bulb in and turn it counterclockwise.
3. Install the new bulb by turning it clockwise while pushing in.
4. Install the lens cover.

CAUTION

Tighten the lens cover screws only until they are snug.

Shift Lever



KM363A



KM124B

CHECKING ADJUSTMENT

Stop the ATV completely and shift the transmission into the R position. The reverse gear indicator light should be illuminated.

⚠ WARNING

Never shift the ATV into reverse gear when the ATV is moving as it could cause the ATV to stop suddenly throwing the operator from the ATV.

If the reverse gear indicator light does not illuminate when shifted to the reverse position, the switch may be faulty, the fuse may be blown, the bulb may be faulty, a connection may be loose or corroded, or the lever may need adjusting. To adjust, proceed to Adjusting Shift Lever.

ADJUSTING SHIFT LEVER

1. Place the shift lever in the N (neutral) position; then set the engine stop switch to the STOP position and turn the ignition switch to the RUN position. The neutral indicator light should illuminate.

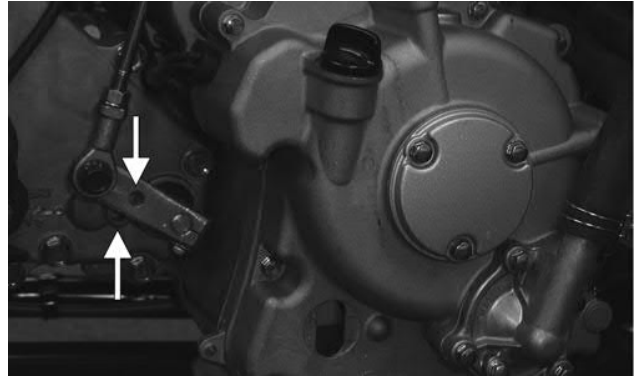
NOTE: If the neutral indicator light does not illuminate, adjustment of the shift linkage will be required. To adjust, proceed to step 2.

2. Loosen the jam nuts on both ends of the shift rod and turn the shift rod until the neutral light illuminates. Tighten the jam nuts securely.



KM313

NOTE: On the DVX, the neutral position in the transmission is indexed by passing a Phillips screwdriver through the transmission shift arm and into the index hole in the transmission cover.



KM179A

Hydraulic Brake Systems

CHECKING/BLEEDING

The hydraulic brake systems have been filled and bled at the factory. To check and/or bleed a hydraulic brake system, use the following procedure.

1. With the master cylinder in a level position, check the fluid level in the reservoir. If the level in the reservoir is not visible in the sight glass, add DOT 4 brake fluid.



KM113



KM137

2. Compress the brake lever/pedal several times to check for a firm brake. If the brake is not firm, the system must be bled.
3. To bleed the brake system, use the following procedure.

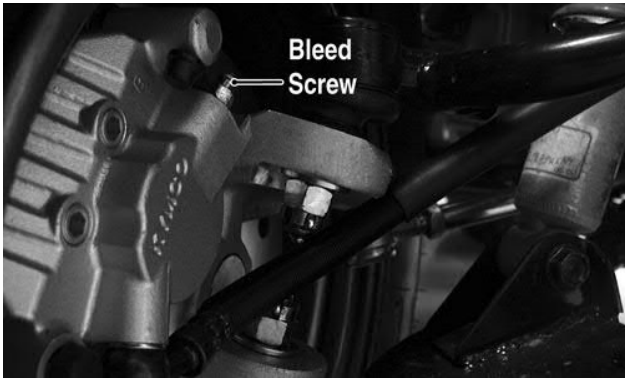
**Thank you very much
for your reading.**

**Please click here and go
back to the website.**

**Then, you can
download the complete
manual instantly.**

No waiting.

- A. Remove the cover and fill the reservoir with DOT 4 Brake Fluid.
- B. Install and secure the cover; then slowly compress the brake lever several times.
- C. Remove the protective cap, install one end of a clear hose onto one FRONT bleed screw, and direct the other end into a container; then while holding slight pressure on the brake lever, open the bleed screw and watch for air bubbles. Close the bleed screw before releasing the brake lever. Repeat this procedure until no air bubbles are present.



KM116A

■NOTE: During the bleeding procedure, watch the reservoir sight glass very closely to make sure there is always a sufficient amount of brake fluid. Failure to maintain a sufficient amount of fluid in the reservoir will result in air in the system.

- D. At this point, perform steps B and C on the other FRONT bleed screw; then move to the REAR bleed screw and follow the same procedure.
4. Carefully check the entire hydraulic brake system that all hose connections are tight, the bleed screws are tight, the protective caps are installed, and no leakage is present.

CAUTION

This hydraulic brake system is designed to use DOT 4 brake fluid only. If brake fluid must be added, care must be taken as brake fluid is very corrosive to painted surfaces.

INSPECTING HOSES

Carefully inspect the hydraulic brake hoses for cracks or other damage. If found, the brake hoses must be replaced.

CHECKING/REPLACING FRONT PADS

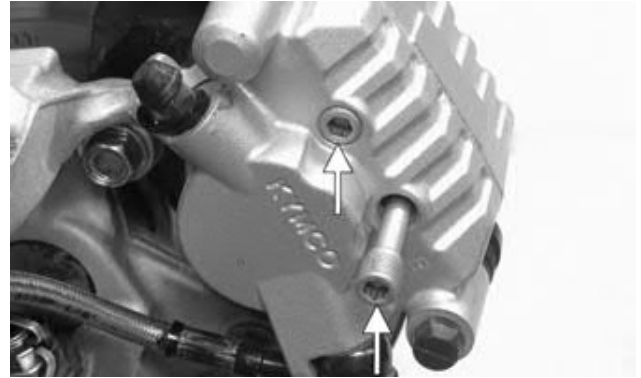
The clearance between the brake pads and brake discs is adjusted automatically as the brake pads wear. The only maintenance that is required is replacement of the brake pads when they show excessive wear. Check the thickness of each of the brake pads as follows.

1. Remove a front wheel.
2. Measure the thickness of each brake pad.

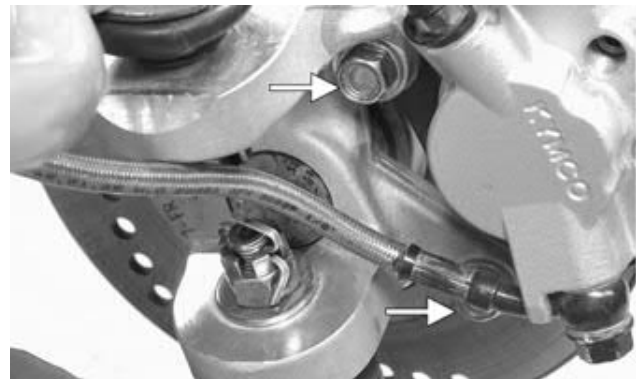
3. If thickness of either brake pad is less than 1.0 mm (0.039 in.), the brake pad must be replaced.

■NOTE: The brake pads should be replaced as a set.

4. To replace the brake pads, use the following procedure.
 - A. With the wheel removed, remove the brake pad alignment pins from the caliper; then remove the mounting cap screws.



KM265A



KM266A

- B. Remove the caliper from the disc; then compress the caliper holder and remove the brake pads.



KM267

- C. Install new brake pads; then install the two brake pad alignment pins.