



FOUR-STROKE

OWNER'S MANUAL

1997-1998

Updated 02/2015

ATK
WAY TO GO™

THE NEW ATK

Most American motorcyclists share a common dream—to manufacture an American-made motorcycle that sets new standards for quality, performance, creative design and fresh engineering concepts. That dream, and a commitment to transform the dream into reality, gave birth to ATK Motorcycles back in 1983.

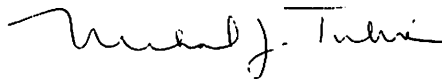
The first ATK model, a light-weight four-stroke Single, caused a great deal of excitement among the press and anxious buyers. Additional ATK models followed, including two-stroke Singles. As the demand for ATK's unique, no compromise motorcycles grew, production facilities became crowded.

ATK's factory moved to larger quarters in L.A. during 1990, and then to Centerville, Utah, just north of Salt Lake City, in 1993. New management and additional financial backing also joined The New ATK Team in Utah. Millions of dollars have been committed to expanding ATK's impact in the market place by growing the dealer network, increased funds and technology for Research and Development, better production techniques, a larger budget for advertising and promotion, and a professional, responsible business management team.

Your beautiful new ATK four-stroke motorcycle is proof that the New ATK is right on target. Only the creative thinking of ATK could conceive and commit to building such a machine. Compromising the design's integrity and quality with the use of anything less than the best components was never considered. That's why every new ATK is fitted with Answer Protaper handlebars, billet aluminum triple clamps and wheel hubs, chrome-moly steel swingarms, WP forks and shocks, stainless steel brake rotors and brake hoses, nickel-plated or stainless steel exhaust systems, Dunlop tires and completely maintenance-free rear suspension systems.

We at ATK are extremely proud of our motorcycles. An ATK's level of sophistication and quality sets new standards for manufacturers in Japan, Italy and Austria to try to achieve. But, we'll let you in on a secret, we don't think they can. The dream that gave birth to ATK is still being dreamed, and you won't believe what we are seeing.

Sincerely,



Michael L. Tullis
Chairman

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Congratulations on your purchase of an American-made ATK motorcycle. This manual explains operation, inspection, basic maintenance and tuning of your machine. All information in this manual is based on the latest product information available at the time of publication. If you have any questions about this manual or your machine, please contact your ATK dealer.

We recommend that you read this manual carefully and thoroughly before operating your new motorcycle. And that you adhere to the recommended safety checks and maintenance schedules described within this manual.

Warning

Please read this manual carefully and completely before operating this machine. Do not attempt to operate this machine until you have attained a satisfactory knowledge of its controls and operating features, and until you have been trained in safe and proper riding techniques. Regular inspections and careful maintenance, along with good riding skills, will ensure that you safely enjoy the capabilities and the reliability of this machine.

Important Notice

This machine is designed strictly for competition use, on a closed course. It is illegal for this machine to be operated on any public street, road or highway. Off-road use on public lands may also be illegal. Please check local regulations before riding.

Safety Information

- 1) This machine is to be operated by an experienced rider only. Do not attempt to operate this machine at maximum power until you are totally familiar with its characteristics.
- 2) This machine is designed to be ridden by the operator only. Do not carry passengers on this machine.
- 3) Always wear protective apparel. When operating this machine, always wear an approved helmet with goggles or a face shield. Also wear heavy boots, gloves, and protective clothing. Always wear proper fitting clothing that will not be caught in any moving parts or controls of the machine.
- 4) Always maintain your machine in proper working order. For safety and reliability, the machine must be properly maintained. Always perform the pre-operation checks indicated in this manual. Correcting a mechanical problem before you ride may prevent an accident.
- 5) Gasoline is highly flammable and can cause injury or death. Always turn off the engine while refueling. Take care not to spill any gasoline on the engine or exhaust system. Never refuel in the vicinity of an open flame, or while smoking. If you should swallow gasoline, inhale excess gasoline vapors or allow gasoline to get into your eyes, contact a doctor immediately.
- 6) Operate the machine in an area with adequate ventilation. Exhaust fumes are poisonous. The fumes contain carbon monoxide, which by itself is odorless and colorless. Carbon monoxide is dangerous gas which can cause unconsciousness or can be lethal.
- 7) Park the machine carefully.
- 8) Properly secure the machine before transporting it. When transporting the machine in another vehicle, always be sure it is properly secured in an upright position. Otherwise, fuel may leak out of the carburetor or fuel tank.

SPECIFICATIONS 1997 605/350

ATK 605/350

Engine type:

Air-cooled sohc four-stroke, four-valve Single
 Displacement598 / 348cc
 Compression ratio9.5:1 / 10.0:1
 Carburetion40 / 34mm Dell'Orto
 IgnitionNippondenso 190w
 Spark plugNGK D8EA
 Transmission5 / 6-speed
 Starting systemelectric and /or kick
 Fuel capacity3.6 gallons
 Fuel requirements90 + octane

Cylinder bore size:

60597.0mm
 35079.5mm

Standard piston size:

60596.99mm
 35079.49mm

Valve sizes:

605
 Intake36mm
 Exhaust30mm
 350
 Intake30mm
 Exhaust27mm

Valve lash clearance

intake & exhaust002 inch (05mm),
 engine cold

Stroke:

60581.0mm
 35070.4mm
 Wheelbase59.0 inches
 Rake / trail27 degrees / 4.7 inches
 Seat height36.5 inches
 Ground clearance13.0 inches
 Footpeg height15.9 inches
 Footpeg to seat top20.5 inches
 Swingarm length22.2 inches

Weight, wet no fuel:

605 CC260 pounds
 605 ES275 pounds
 605 DSES280 pounds
 350 CC258 pounds
 350 ES273 pounds
 350 DSES278 pounds

Front tire90 / 90-21

Rear tire120 / 90-18 or 110 / 100-18

Tire pressure14-21 psi front & rear

Front wheel travel11.8 inches

External adjustmentscompression &
 rebound damping

Standard compression
 adjuster setting14

Standard rebound
 adjuster setting14

Standard fork springs0.44 kg / mm

Optional fork springs0.42; 0.46 kg / mm

Rear wheel travel13.2 inches

External adjustmentscompression
 & rebound damping, spring preload

Standard compression
 adjuster setting3

Standard rebound
 adjuster setting6

Rear suspension sag3.6 inches (92mm)

Standard shock spring9.7 kg / mm

Optional shock springs9.2 / 10.5 /
 11.0 kg / mm

Front brakeBrembo dual piston,
 10.4 inch (260mm) stainless steel rotor

Rear brakeBrembo single piston,
 8.8 inch (220mm) stainless steel rotor

Final drive ratio:

605 Dual Sport15-44
 605 Cross Country15-46
 350 all models15-46

Optional sprockets:

Countershaft14-T, 16-T
 Rear40-T, 42-T, 44-T, 46-T, 48-T

Drive trainD.I.D. 520 V.6 O-ring chain

Engine oil capacity2.5 to 3.0 quarts

Oil weight / type10w /40, 20w /50
 Spectro motorcycle engine oil

Brake fluidGolden Spectro Supreme
 DOT 4, (DOT 5.1
 non-silicone specifications)

Internal Transmission Ratios

605

Primary drive32 / 76 2.375
 1st32 / 11 2.910
 2nd24 / 12 2.000
 3rd21 / 15 1.400
 4th19 / 17 1.120
 5th21 / 23 0.910

350

Primary drive32 / 76 2.375
 1st34 / 10 3.400
 2nd30 / 13 2.308
 3rd27 / 16 1.688
 4th25 / 19 1.316
 5th23 / 21 1.095
 6th21 / 22 0.955

Torque Specifications

Item	Torque LB/FT
Triple clamp pinch bolts.....	20
Steering stem bolt (aluminum).....	15
Handlebar clamp bolts.....	16
Front axle bolt.....	20
Front axle pinch bolts.....	7
Fork guard protector screws.....	5
Chain guide bolts.....	12
Rear axle.....	50
Shock mounting bolts.....	35
Swingarm pivot bolt.....	50
Brake hose banjo bolts.....	15
Caliper bolts.....	25
Front brake rotor.....	15
Rear brake rotor.....	30
Rear sprocket bolts.....	30
Brake pedal pivot bolt.....	15
Fuel tank mounting bolts.....	15
Seat mounting bolts.....	15
Side panel / front & rear fender mounting bolts.....	15
Subframe / engine mounting bolts:	
10mm bolts.....	50
8mm bolts.....	30
6mm bolts.....	15
Exhaust mounting bolts:	
8mm bolts.....	30
6mm bolts.....	15

Engine Torque Specifications

Head:

10mm stud nuts.....	15
Exhaust flange nuts.....	26
8mm stud nuts.....	30
Top timing belt cog gear bolt.....	25
Bottom timing belt cog gear nut.....	80
Valve cover screws.....	15
Clutch nut.....	80
Balance shaft nut.....	65
Crankshaft primary gear nut.....	65
Ignition flywheel nut.....	70

PRE-RIDE INSPECTION CHECKLIST

The following inspection ritual **MUST** be performed prior to each riding session:

- ☐ A thorough "walk around" of the motorcycle for visible signs of loose, broken or worn parts, nuts and bolts, tires, wheel hubs, spokes etc.
- ☐ An in-depth check of the following components using the proper tools, equipment and knowledge to perform the job.
- ☐ Engine oil level.
- ☐ Engine for oil leaks and/or case damage.
- ☐ The smooth and effective operation of the throttle, clutch, front brake, rear brake, and kill button.
- ☐ Steering smoothness and steering head bearings for proper adjustment.
- ☐ Handlebars for proper adjustment and tightness.
- ☐ Control cable routings for binding or interference with the bike's steering and operation.
- ☐ Brake pads and brake rotors for damage or wear.
- ☐ Brake fluid levels and the hydraulic hoses for damage and their attachment bolts for tightness.
- ☐ Tire condition and inflation.
- ☐ Spoke condition and tightness.
- ☐ Wheel hubs and rims for cracks or damage.
- ☐ Suspension components—shock, forks, triple clamps—for signs of oil leakage, crash damage and general integrity.
- ☐ Exhaust system for cracks, damage and mounting hardware tightness and condition.
- ☐ Front and rear axles tightness and correct torque.

- ☐ Swingarm pivot nuts for proper torque.
- ☐ Drive chain, sprockets, chain rollers and chain rub pad for wear and/or damage, and the chain for alignment and adjustment.
- ☐ All bolts and nuts for tightness and correct torque.
- ☐ Frame, subframe and swingarm for cracks, breakage and/or crash damage.
- ☐ Check the condition of the front and rear wheel bearings by trying to rock the wheel assembly. There should be no noticeable looseness or rocking when the bearings are in good condition.
- ☐ Fuel tank, fuel cap, fuel petcock and fuel lines for leaks and/or damage.
- ☐ Carburetor clamps for tightness and the carburetor for leakage.

NOTE: If any of the above checks show a need for attention, perform the necessary repair/ replacement/ adjustment(s) prior to riding the motorcycle.

ATK Four-Stroke Motorcycle Break-In

Taking the time to properly break-in your new ATK four-stroke motorcycle will reward you with a bike that provides maximum performance and life. ATK's Rotax engines are set-up with very tight engine tolerances that require a 500-mile break-in period. Other components on your new ATK also require break-in.

Brakes:

The Brembo brakes on your new ATK will provide superior stopping power and longevity if you apply the brakes lightly, allowing for a cooling period, during the first hour of operation. Doing so ensures that the brake pads and stainless steel brake rotors seat properly without glazing. Your reward for taking the time to properly break-in the motorcycle's brakes will be stronger, longer-lasting brake components.

Engine and Transmission:

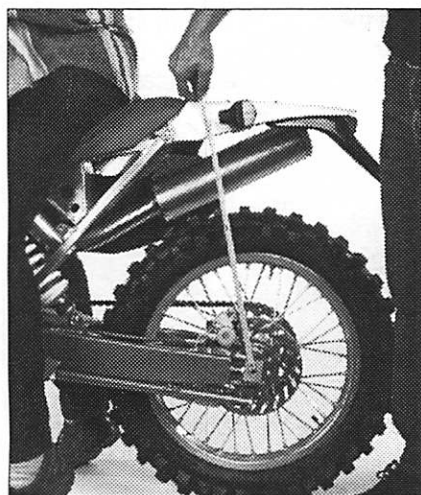
The most important thing to remember when breaking-in your new ATK four-stroke motorcycle is to stay away from deep sand, high-speed straights, extended freeway travel and any riding situation where the engine is required to run at full power or a steady rpm for an extended amount of time. During the break-in period vary the throttle setting often and shift the transmission carefully. Let the engine cool for 5 minutes after every hour of use during the first 100 miles of break-in. The engine can be used more aggressively after the first 100 miles of break-in, but all-out, go-for-it riding should be avoided during the first 500 miles of use. Change the engine oil after the first 500 miles of use.

Suspension:

Take the time to set the rear suspension's sag to 3.60 inches (92mm) and the shock and fork damper adjustments prior to riding your new motorcycle. ATK's VWP suspension components will deliver a rather harsh ride for the first 4-to-5 hours of use until the oil seals and bushings break-in. No special procedure needs to be carried out during the break-in period.

Rear suspension sag:

Setting the rear suspension's sag is the most important, and first step, in adjusting your new ATK's suspension for you. To set the sag, place the motorcycle on a bike stand or box that raises the rear tire completely off the floor, then measure the distance from the center of the rear axle to the center of the seat bolt, or the edge of the rear fender where it meets the side number panel.



Record that distance on a pad, then remove the bike from the stand, sit on the bike's seat in a normal riding position and bounce on the bike a few times to loosen up the swingarm and shock pivots. Remain seated in your normal riding position and have an assistant remeasure the distance between the axle and top measuring point. The difference between the two measurements is the sag. The proper sag for your 1996 ATK 605 or 350 four-stroke is 92mm (3.6 inches).

If adjustment is needed, replace the bike on a stand, loosen the shock spring's locking ring (the top ring), with a spanner wrench or drift punch and hammer. Rotate the lower spring retainer ring using a spanner wrench to change the spring's preload. If less sag is needed, turn the adjuster ring toward the spring, if more sag is desired, turn the ring away from the spring. Leave the top locking ring loose, remove the bike from its stand and remeasure the distance while the rider is setting on the bike. Repeat these steps until the sag is correct, then tighten the top locking ring against the

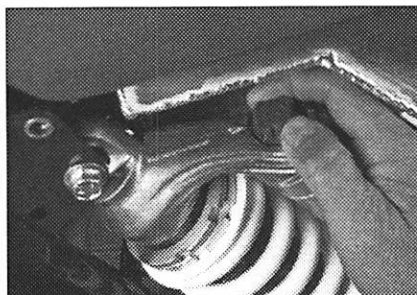
adjuster ring securely to keep it from moving during bike operation.



The standard shock spring on the four-stroke models (9.7 kg / mm) will easily adjust to accommodate rider's who weigh between 170 to 230 pounds. If you weigh more than 230 or less than 170 pounds, an optional spring with a heavier (10.5 kg / mm) or lighter (9.2 kg / mm) rate will be required to properly set the sag.

Shock compression damping:

Compression damping controls the speed at which the shock compresses. The compression adjuster knob is located at the top of the shock's reservoir. The plastic compression adjuster knob is numbered 1, 3, 5 and 7 in the recesses between 4 raised knobs. The unmarked, raised knobs between the numbers indicate positions 2, 4, and 6.



Each adjustment position is provided with a spring detent that can be felt and heard. A

raised arrow head on the shock' reservoir carrier indicates the compression adjuster knobs position. The recommended compression adjuster setting for the '96 four-stroke models is number 3. Moving the adjuster knob to a higher number results in a firmer ride and reduces bottoming. Moving the adjuster knob to a lower number softens the ride. When adjusting the compression damping move the knob one number at a time until the desired ride is produced.

Shock rebound damping:

Shock rebound damping controls the speed at which the shock returns to its extended length after being compressed. Rebound damping is adjusted via a knurled plastic ring located just above the lower shock mount. The adjuster ring is numbered from 1 to 11.

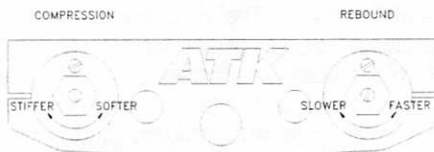


A punch mark on the rear side of the shock eye, just below the adjuster ring, denotes the adjuster's position. The standard rebound adjustment position is number 6. Turning the adjuster knob to a higher number slows the shock's rebound. Turning the adjust ring to a lower number quickens the rebound damping. The rebound adjuster should be adjusted one position at a time until the rebound is correct for your riding style and speed. If the bike's rear wheel kicks after hitting a sharp bump, the rebound is too fast. If the rear suspension tends to stay down after hitting a compression bump, the rebound is too slow.

When riding a lot of terrain with small, closely spaced bumps at high speed (washboard roads, for example), it is often advantageous to reduce rebound damping by one number—from 6 to 5, etc.—to increased ride smoothness. The opposite is the case when riding terrain with numerous G-outs (gullies and such) to prevent rear-wheel kicking (number 6 to position 7, etc.).

Fork compression damping:

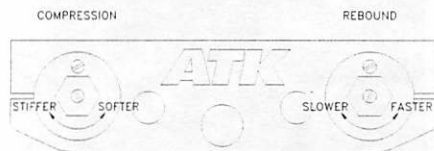
Your new ATK four-stroke is fitted with premium WP forks that features the latest development in damper design and external damping adjustment control. The compression damping is adjusted by turning a slot-head screw on top of the left fork cap (while seated on the bike). Twenty-two compres-



sion detent positions are available. The standard setting is 14 detent positions counter clockwise from a fully seated clockwise position. Setting the adjuster to fewer detent positions (12 or 13), stiffens the ride and helps prevent bottoming. Setting the adjuster to a higher number of detents (15, 16 etc.) provides a softer ride.

Fork rebound damping:

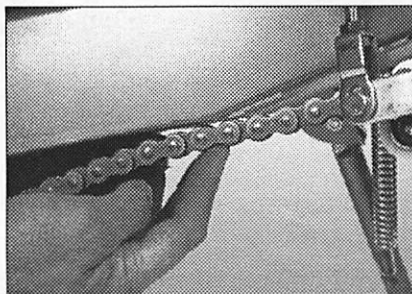
Fork rebound damping is adjusted by turning a slot-head screw on the top of the right fork cap. Twenty-two detent positions are provided. The standard rebound setting is 14 detent positions counter clockwise from a fully seated clockwise position.



To slow down the rebound damping (the speed at which the fork returns to its extended position after being compressed), reduce the number of detents (13, 12 etc.). To quicken the rebound damping, increase the number of detent positions (from 14 to 15 or 16). Like the shock, it is often advantageous to make minor rebound damping adjustments to fine-tune the suspension to the terrain you are riding.

Drive chain adjustment:

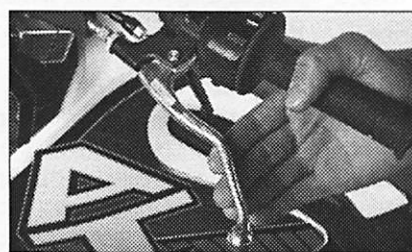
To check or adjust the drive chain, place the motorcycle on a bike stand with its rear wheel off the ground. Push up on the chain in the area just below the end of the swingarm rub pad. When properly adjusted the chain should become taught 1/4-inch before making contact with the swingarm. A top-of-the-line D.I.D. O-ring chain is stock and should stretch very little after the break-in period.



To adjust the chain loosen the axle nut and the locknut on each adjuster screw. Turn each adjuster screw an equal amount by counting the flats on the screw's head and then recheck the chain play. Next, place an end wrench between the top of the rear sprocket and the chain, rotate the rear wheel backward until the chain becomes taught, and sight down the top of the chain from the rear of the bike. If the chain appears to be curved, readjust one adjuster screw at a time until the chain is straight. Recheck and adjust the chain play a final time, then, with the end wrench still holding tension on the chain, torque the rear axle to 50 foot pounds. Remove the end wrench from the chain/sprocket and turn each adjuster screw tightly against the axle adjuster block while tightening the lock adjuster nut with a second end wrench.

Clutch lever:

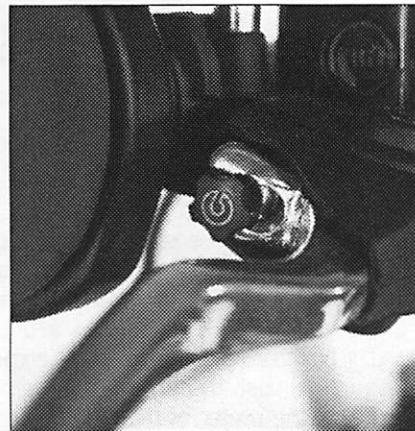
The clutch lever should be adjusted to provide about 1/8 to 1/4-inch of freeplay at its ball end.



To adjust the freeplay loosen the knurled lock nut, then turn the adjuster screw into or out of the clutch perch. When the adjustment is complete, retighten the lock nut.

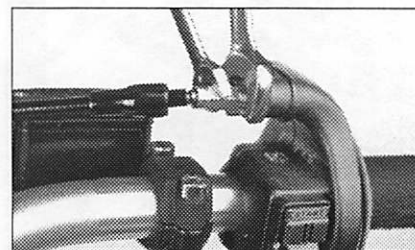
Front brake lever:

The front brake lever has an adjuster knob on its rear side that allows adjustment of the lever's engagement point. Adjust the engagement point to your preference.



Throttle:

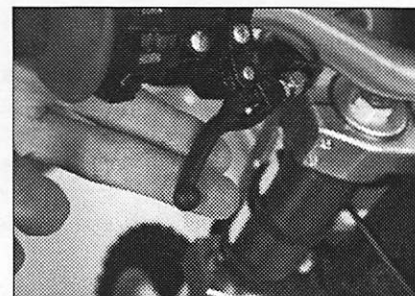
The throttle should have a small amount of freeplay in it. To adjust the throttle freeplay, slide the rubber boot away from the throttle housing about 3-inches, then loosen the locknut and turn the adjuster screw.



After adjustment is complete, set the locknut and slide the rubber boot into place.

Compression release:

The compression release should be adjusted for 1/4-inch of freeplay at its end when the engine is on a compression stroke.

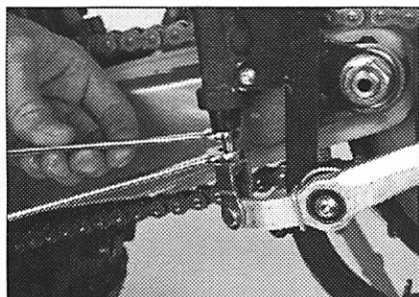


Before checking or adjusting the compression release, kick the engine over slowly until it becomes difficult to move the kick-start lever.

Caution: If the compression release is adjusted too tight the exhaust valve will remain open slightly after the engine starts, resulting in a burned valve. Perform this adjustment carefully, or have it done by an ATK dealer.

Rear brake pedal:

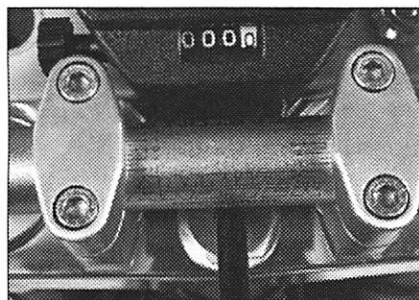
The static height of the rear brake pedal should be adjusted to rider preference while wearing your right boot.



To adjust the pedal's height, loosen the locknut above the clevis, then turn the adjuster screw using an 10mm end wrench. Set on the bike and check the position several times before setting the locknut.

Handlebar adjustment:

The Protaper handlebar can be adjusted for height and reach. To adjust the handlebar loosen the handlebar clamp screws using an 8mm Allen wrench.



Rotate the handlebar rearward to lower its height and reduce the reach. To raise the handlebar and increase the reach, rotate the handlebar forward. The handlebar has a built-in scale for a reference. After adjustment is complete, tighten the screws and torque them to 16 foot pounds.

Gearing:

The final drive gearing was carefully chosen for your ATK 605 and 350 to provide maximum performance in a variety of riding conditions. Should your personal preference or riding conditions require a gearing change, use the GEARING CHART as a guide.

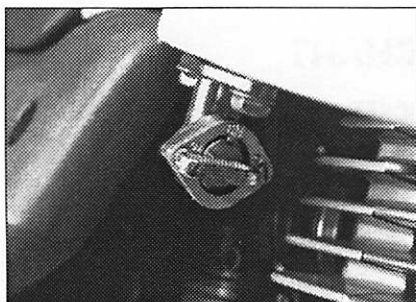
GEARING CHART

COUNTERSHAFT SPROCKET	REAR SPROCKET	SPROCKET GEAR RATIO
14-T	40-T	2.86:1
14-T	42-T	3.00:1
14-T	44-T	3.14:1
14-T	46-T	3.29:1
14-T	48-T	3.43:1
15-T	40-T	2.67:1
15-T	42-T	2.80:1
15-T	44-T	2.93:1
15-T	46-T	3.07:1
15-T	48-T	3.20:1
16-T	40-T	2.50:1
16-T	42-T	2.63:1
16-T	44-T	2.75:1
16-T	46-T	2.88:1
16-T	48-T	3.00:1

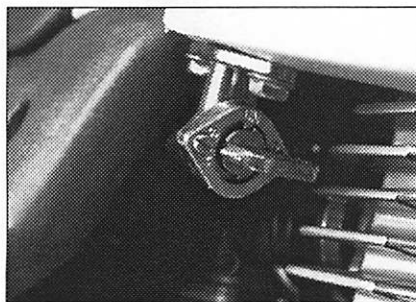
STARTING PROCEDURES

Fuel petcock:

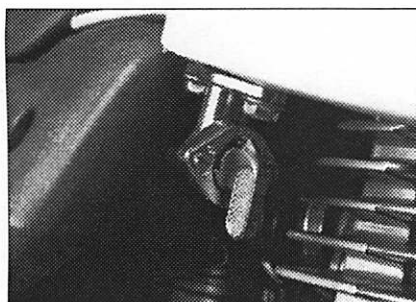
The fuel petcock has three positions: ON / OFF / RESERVE. For normal use the bike should be ridden with the petcock in the ON position:



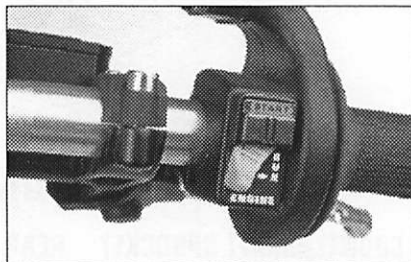
thereby leaving the RESERVE position for emergency use.



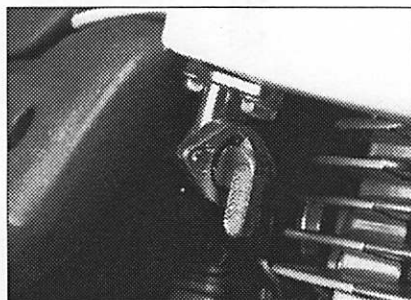
It is good practice to turn the petcock to its OFF position when the motorcycle is not in use.



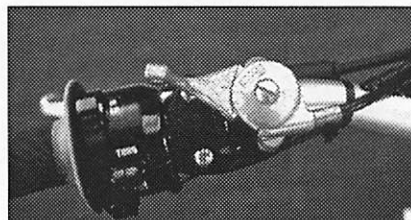
Cold engine, kickstart models:



- 1) Move the Run/Off switch to Run (the red thumb lever covering Run).



- 2) Turn the fuel petcock to its On position.



- 3) Position the choke control to its full-on position.

- 4) Pull the compression release full and kick the engine through three times with the throttle closed.



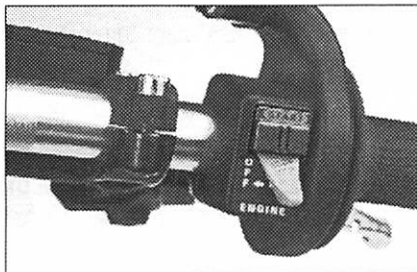
- 5) Release the compression release lever and move the kickstart pedal until it becomes difficult to push. Then pull the compression release lever and push

the kickstart pedal 2-inches (at its end). Release the compression lever.

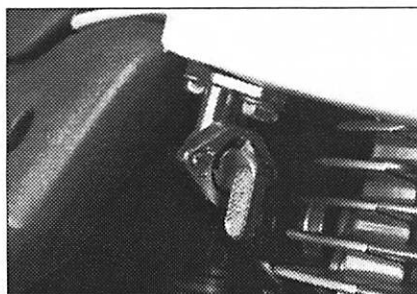
- 6) Let the pedal return to the top of its stroke, then kick the pedal briskly and completely through its entire stroke, being careful to keep the throttle completely closed.
- 7) If the engine doesn't start, repeat steps 5 and 6.
- 8) After the engine warms up, return the choke control to its off position.

Cold engine, electric start models:

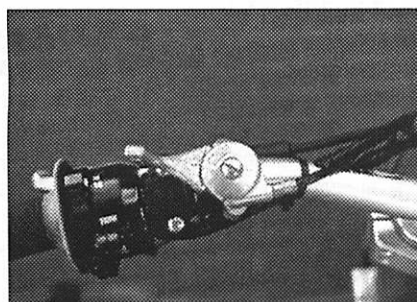
- 1) Turn the key switch clockwise one or two notches (the first notch activates the ignition only, the second position activates the ignition and the lights).



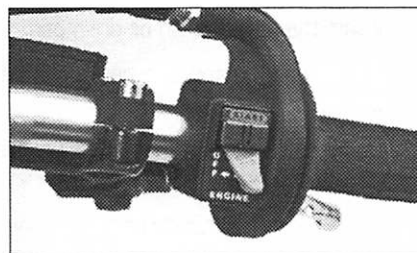
- 2) Move the Run/Off switch to Run (the red thumb lever covering Run).



- 3) Turn the fuel petcock to its On position.



- 4) Position the choke to its full-on position.



- 5) Push the Start button on the throttle assembly (just above the On/Off thumb switch.), being careful to keep the throttle completely closed.

- 6) After the engine has warmed up, return the choke to its off position.

Warm engine, kickstart models:

- 1) Follow the same steps as outlined for starting a cold engine, disregarding steps 3 & 8.

Warm engine, electric start models:

- 1) Follow the same steps as outlined for starting a cold engine, disregarding step 4 & 6.

Engine stop:

To stop the engine on Cross Country models, move the red thumb lever located on the throttle housing to the left so that it covers OFF. On Dual Sport models perform the above procedure plus turn the key switch to its OFF position.



SUSPENSION INFORMATION

Fork oil rating:

Your new ATK is delivered with premium 5w WP fork oil from the factory. The WP fork is designed and valved to use 5 weight oil, although 7.5w fork oil may be used if a firmer overall ride is desired.

Fork oil level:

Minimum oil level 6.77 inches (172mm)

Maximum oil level 4.72 inches (120mm)

Stock oil level 5.10 inches (130mm)

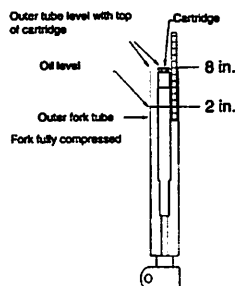
Effects of oil level:

Raising the fork oil level increases the forks resistance to bottoming and generally makes the fork feel firmer during the last half of its travel. Lowering the oil level softens the overall feel of the suspension.

Setting the fork oil level:

The fork legs must be removed from the motorcycle to accurately set the oil level. Prior to fork removal, the fork caps should be loosened a couple of turns (after loosening the top triple clamp's pinch bolts). When setting the fork's oil level, cleanliness is imperative.

- 1) Place the bike on a bike stand or crate that raises the front tire off the ground.
- 2) Loosen the axle pinch bolts on the right fork leg.
- 3) Remove the axle pinch bolts and hydraulic brake hose clamp from the left fork leg.
- 4) Remove the plastic fork guards from both fork legs.
- 5) Remove the front axle and front wheel from the bike.
- 6) Remove the front brake caliper's mounting bolts.
- 7) Remove the front brake caliper from the fork leg. Leave the hydraulic hose attached to the caliper and let the caliper hang.
- 8) Loosen the top triple clamp's pinch bolts.
- 9) Loosen the fork caps a couple of turns.
- 10) Loosen the lower triple clamp's pinch bolts.



- 11) Remove the fork legs from the motorcycle and lean them against a corner of a wall.
- 12) Remove the fork cap from one of the fork legs.
- 13) Push the outer tube down a couple of inches and remove the spring-retainer clips and the plastic spring-preload spacers.
- 14) Slowly remove the fork spring from the fork leg.
- 15) Slowly pull the fork cartridge (the part the fork spring clips fit into) to its full extension, then to its fully bottomed position. Repeat this procedure three times to insure the damper is filled with oil.
- 16) Push the damper cartridge and the outer tube to the bottom of their travel.
- 17) Holding the fork leg perpendicular, insert a narrow steel ruler into the fork between the cartridge tube and the wall of the outer tube, stopping the ruler at its 8-inch mark.
- 18) Carefully remove the ruler and note the oil height on it. Subtracting the oil level mark on the ruler from 8 gives the oil level within the fork.
- 19) If a higher oil level is desired, add a small amount of oil (1 ounce or so), then remeasure the level.
- 20) If a lower oil level is needed, remove a small amount of oil from the fork, then remeasure the level.
- 21) Install the fork spring, spring preload spacers (after checking the spring preload—see Fork spring preload:) and spring retainer clips.

22) Replace the fork cap (do not over tighten!).

23) Repeat steps 11 through 21 on the second fork leg.

24) Install forks onto bike and torque the triple clamp's pinch bolts to 20 foot pounds.

25) Install the fork guards, front wheel, caliper, hydraulic brake hose clamp and axle pinch bolts but DO NOT tighten the axle pinch bolts yet.

26) Remove the motorcycle from the bike stand or crate. Apply the front brake and push the forks as far into their travel as possible several times to align the fork tubes, then tighten the axle pinch bolts.

27) Recheck the tightness of all bolts and the routing of the front brake's hydraulic hose.

Changing fork oil:

Fork oil change schedules are determined by the severity of the motorcycle's use. A rider who seldom rides his Dual Sport bike in the dirt may be able to go 5000 miles between fork oil changes. But a hard-charging, off-road expert rider who seldom rides on the street, may need to change the fork oil every 1000 miles, or sooner. To change the fork oil, perform the following steps:

- 1) Follow steps 1 through 14 in the Fork oil level: section.
- 2) Invert the fork over an oil drain pan.
- 3) Compress the fork's outer tube completely.
- 4) Pump the fork cartridge until all of the oil is removed.
- 5) Place the fork vertically on the floor and extend its outer tube and damper cartridge to full extension.
- 6) Pour 16 ounces of a HIGH QUALITY suspension fluid (WP, Bel Ray HVI, Spectro, etc.) 5 weight or its equivalent, into the fork.
- 7) Compress the outer fork tube, then pump the damper cartridge until heavy resistance is noticed, indicating that the damper cartridge is full of oil.

- 8) Refer to the Setting the fork oil level: chapter and follow steps 16 through 27.

Fork oil level:

Minimum oil level 6.77 inches (172mm)

Maximum oil level 4.72 inches (120mm)

Stock oil level 5.10 inches (130mm)

Fork spring preload:

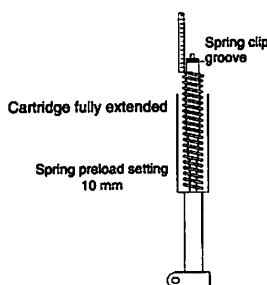
Fork spring preload refers to the distance the fork spring is compressed when it is installed in the fork with the fork fully extended.

Effects of fork-spring preload:

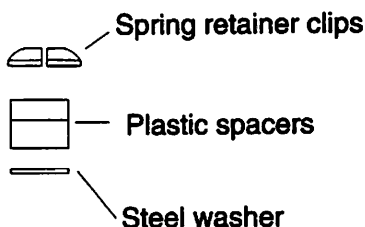
Fork spring preload effects the motorcycle's ride height and the bikes suspension compliance to bumps. Increasing the spring preload raises the front of the bike and makes the fork feel stiffer. Decreasing the spring preload softens the fork and lowers the ride height. Fork spring preload between 5mm and 20mm is acceptable, but our testing has determined 10mm of preload to be ideal for most situations. The factory-set spring preload on all models of ATK motorcycles is 10mm. Note: The fork spring preload should be same for both forks.

Setting the fork spring preload:

- 1) Follow steps 1 through 13 in the section titled Setting the fork oil level:



- 2) Holding the damper cartridge fully extended, measure the distance from the bottom spring clip groove on the damper cartridge to the top of the spring. Record that measurement on a note book.



- 3) Add the amount of fork spring preload desired to the figure derived in 2 above to determine the length of preload spacer that is needed.

NOTE: Spring preload spacers are available from ATK dealers or White Bros. Or they can be made cheaply by cutting measured lengths of Schedule 40 PVC sprinkler pipe. A tubing cutter makes nice square cuts. If making your own preload spacers, always debur the inside and outside ends of the plastic pipe, then wash the finished product to get rid of chips that could foul the damper shims.

- 4) Follow steps 22 through 27 in the Setting the fork oil: section of this manual.

The latest model Brembo brake components are used on your new ATK. The front brake caliper is a 2-piston model, the rear caliper is a single-piston model. Both calipers feature quick-change brake pads. The brake rotors, a 260mm (10.4-inch) front and 220mm (8.8-inch) rear, are made of heat-treated stainless steel.

Brake fluid:

Using the cheapest, lowest-cost brake fluid that'll get the job done, is a standard practice for most motorcycle manufacturers.

ATK uses premium Golden Spectro Supreme DOT 4 (DOT 5.1 non-silicone specifications), in every motorcycle we build. It makes no sense at all to build a motorcycle with premium brake components (Stainless steel hydraulic hoses, stainless steel rotors and Brembo master cylinders and calipers), then fill that system

with cheapo brake fluid. To maintain the superior brake performance of your new ATK, we suggest you continue to use premium brake fluid such as Golden Spectro Supreme DOT 4.



Brake pads:

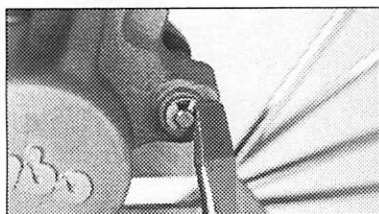
Replace the brake pads when the friction material is worn to 1/8-inch in thickness. Replacement brake pads in a variety of friction compounds are available from your ATK dealer.

Brake pad replacement:

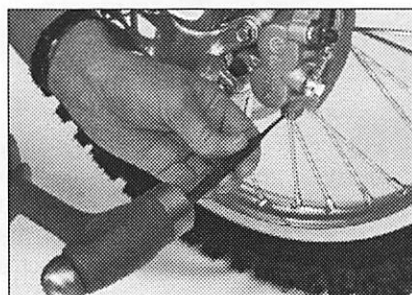
Note: This procedure may be accomplished without removing the front wheel.

Front brake pad removal:

- 1) Put a screwdriver between each brake pad and the brake rotor, then using a twisting motion push each brake pad away from the rotor (this makes room for the new, thicker pads).



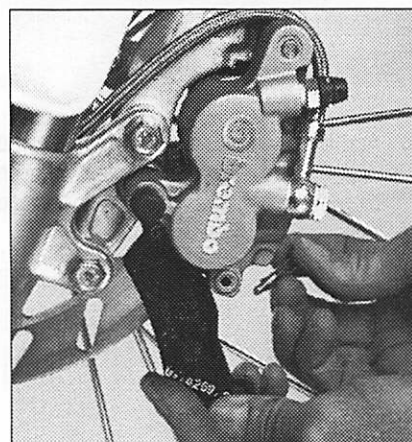
- 2) Remove the C-clip from the brake pad pin located on the lower right outside of the caliper.



- 3) Push the brake pad pin toward the wheel using a drift punch and small hammer; then pull it from the caliper.

- 4) Remove the pads by hand.

Front brake pad installation:



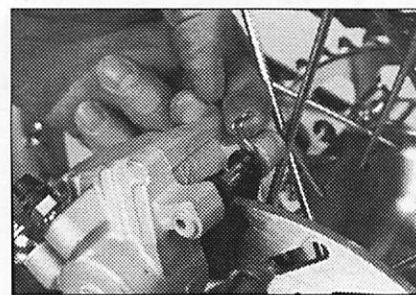
- 1) Place each brake pad in its proper position in the caliper and hold them in place while the brake pad pin is inserted by hand.
- 2) Set the brake pad pin firmly in place using a drift punch and small hammer.
- 3) Install the C-clip into the brake pad pin.
- 4) Pull the front brake lever repeatedly until the brake pads contact the brake rotor and the front brake feels solid.

Rear brake pad removal:

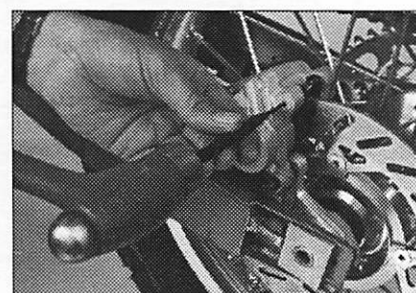
Note: This procedure may be accomplished without removing the rear wheel.

- 1) Put a screwdriver between the brake rotor and each brake pad, then using a

twisting motion push each brake pad away from the rotor (this makes room for the new, thicker brake pads).



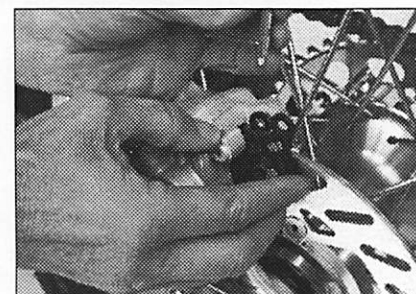
- 2) Remove the spring clip from the brake pad pin located at the top right rear of the brake caliper.



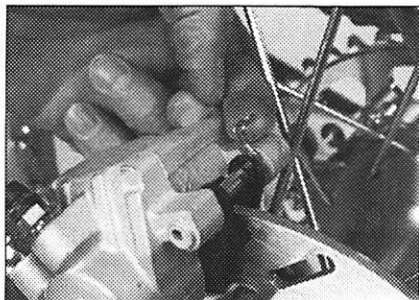
- 3) Push the brake pad pin toward the wheel using a drift punch and small hammer; then pull it from the caliper.

- 4) Remove the brake pads by hand.

Rear brake pad installation:



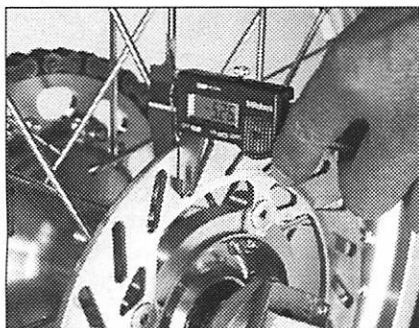
- 1) Place each pad in its proper position in the caliper and replace the brake pad pin.
- 2) Set the brake pad pin firmly in place using a drift punch and small hammer.



- 3) Install the spring clip into the brake pad pin.
- 4) Push the rear brake pedal repeatedly until a firm brake pedal is felt.

Brake rotor condition:

The brake rotors should be inspected carefully every time the brake pads are replaced. If the rotor(s) are bent, warped or heavily grooved, they should be replaced. The brake rotor's thickness should be checked with a micrometer at least once a year. If the disc(s) are thinner than the service limits, they must be replaced.



Brake pad and rotor deglazing:

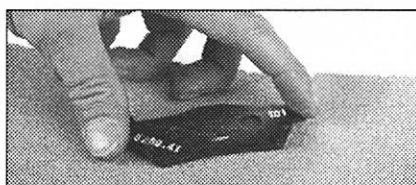
Glazed brake pads and rotors can decrease braking performance significantly. If the brakes are performing poorly even though the pads are within serviceable limits, the pads and rotors are probably glazed. Glazed brake pads and rotors result from a too rapid break-in of new pads and rotors, or a severe overheating of these parts. To bring the brake's performance up to standard, follow the procedure below:

- 1) Follow the steps outlined in the Brake pad replacement: section of this manual to remove the brake pads.

Brake rotor thickness:

Rotor	New	Service limit
Front	3.18mm (0.125 in.)	2.75mm (0.108 in.)
Rear	4.45mm (0.175 in.)	4.00mm (0.157 in.)

- 2) Place a sheet of 220 wet or dry emery cloth on a flat surface such as a table top or surface plate.



- 3) Working with one (1) brake pad at a time, place the pad friction side against the emery cloth while applying light pressure and moving the pad in a figure 8 motion.
- 4) The pad is ready to reuse when it looks clean.
- 5) After cleaning all of the pads, use a piece of 400 wet or dry emery cloth to clean the glaze from the rotors.
- 6) Set on a stool in a position where the rotor is easily reached.



- 7) Hold the 400 emery paper in your hand and use a figure eight motion against the braking surface of the rotor. Keep moving around the rotor to avoid and out-of-flatness situation.
- 8) When the rotor's braking surface you are working on appears shiny and clean, repeat the above steps on the other side of the rotor.
- 9) When all of the rotor's braking surfaces are shiny, clean them with contact cleaner, lacquer thinner or acetone.
- 10) Reassemble the brakes using the Brake pad replacement section of this manual.

Brake bleeding:

Periodic brake bleeding to remove trapped air in a brake system is good practice. A brake pedal or lever that feels spongy or inconsistent is an indication of air in the brake system. Bleeding is a necessity after replacing a brake line, rebuilding a brake cylinder or master cylinder, and after brake fluid replacement. Brake bleeding is similar for both the front and rear brake systems.

CAUTION: DO NOT MIX DIFFERENT RATINGS OF BRAKE FLUID. Your new ATK's brake system uses **Golden Spectro Supreme DOT 4 (DOT 5.1 non-silicone rating).**

- 1) Place an 11mm box-end wrench over the caliper's bleed valve in a position where the wrench can be turned in both directions.



- 2) Slide one end of a clear plastic hose over the bleed valve nipple, and place the other end of the hose into a plastic container.
- 3) Pour new brake fluid into the plastic container until it reaches a height that's adequate to keep the end of the plastic hose covered.
- 4) Remove the master cylinder's cover (a screw top for the rear, two screws and a cap on the front).



- 5) Open the caliper's bleed valve and slowly operate the master cylinder as you would during braking. Refill the master cylinder as needed, being careful to not let the master cylinder run out of fluid.
- 6) When air bubbles cease being expelled into the fluid in the plastic container, close the bleed valve.
- 7) Air is often trapped in the area of the brake caliper where the brake hose banjo and banjo bolt attach to the caliper and to the master cylinder.
- 8) Have a helper apply the brake and hold a steady pressure on it. Quickly loosen and retighten the banjo bolt at the master cylinder.
- 9) Repeat step 8 at the caliper-end of the brake hose.

- 10) Use contact cleaner to clean the brake fluid that was expelled onto the caliper, rotor and/or brake pads.
- 11) Fill the master cylinder with brake fluid and replace the master cylinder cap.

605 Carburetor specifications:

Type	Dell'Orto PHM40 MS
Size	40mm
Main jet	182
Cold start jet (choke jet)	60
Idle jet	60
Needle jet	AB262
Needle	K32
Needle clip position	2
Slide	50-1
Fuel bleed screw	1.5 turns

350 Carburetor specifications:

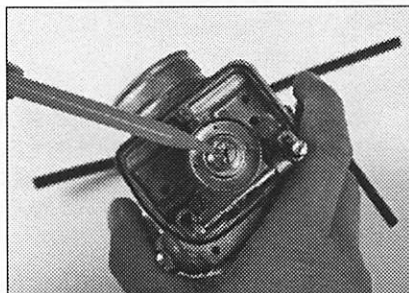
Type	Dell'Orto PHBE34
Size	34mm
Main jet	130
Choke jet	70
Idle jet	70
Needle jet	AB260
Needle	K32
Needle clip position	1
Slide	40
Fuel bleed screw	1/2 turn

Adjusting the carburetion:

Your ATK's carburetion is set at our Utah factory which has an elevation of 4000 feet, although numerous test sessions at various elevations confirmed that the 605 and 350 perform extremely well at a variety of elevations without need for rejetting. Rejetting may, however, be needed if you ride at extremely low or high elevations, the number of SuperTrapp silencer discs have been changed, the camshaft has been changed, or the engine has been modified to increase horsepower.

Main jet:

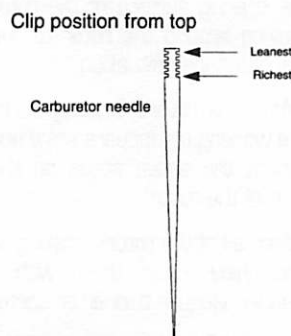
If the engine runs too rich or too lean during full throttle operation, change the main jet.



If the engine is lean, install progressively higher-numbered main jets until the engine runs correctly. If the engine is rich, install progressively smaller-numbered main jets until the engine runs correctly at full throttle. To access the main jet, remove the carburetor's float bowl by unscrewing the 21mm nut at its bottom.

Needle:

The needle is responsible for fine-tuning the engine's midrange operation between 1/4 and 3/4 throttle. If the engine is running rich in this range, lower the needle height by moving the C-clip one (1) notch higher on the needle.

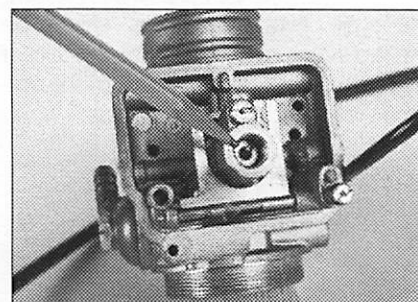


If a lean midrange condition exists, raise the needle by lowering the clip one (1) notch. To access the needle, remove the screws on the top of the carburetor and pull the carburetor top and slide from the carburetor body. Compress the slide's return spring toward the carburetor's top, then push the needle out of the slide. Reinstall the assembly in the reverse order, paying attention to the slide's guide slot located on the right side of the slide body. Tighten the carburetor top's screws snugly, then turn the throttle full open and let it return to its closed position. An audible click should be heard as the slide returns to its idle position. If not, recheck your work to

ensure that the slide is not binding. Do not attempt to start the engine until the slide returns fully to its closed position.

Needle jet:

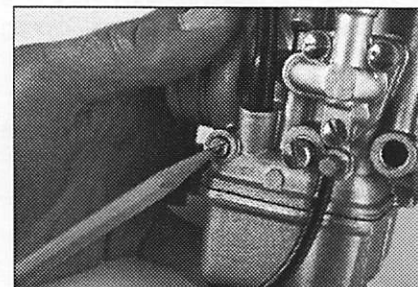
The needle jet is the long brass jet that the needle slides through. The needle jet size has been carefully chosen to perform well in a variety of conditions and elevations. But, should you be unable to adjust the engine's midrange power performance to your satisfaction by adjusting the needle, try a richer or leaner needle jet.



The needle jet is located in a cavity under the main jet. After removing the main jet and the fuel-splash pan, remove the needle jet using a medium-sized flatblade screwdriver.

Fuel bleed screw:

To fine tune the engine's idle mixture, adjust the fuel bleed screw located on the left side of the carburetor body. The standard adjustment is 1.5 turns out from a fully seated clockwise position. When correctly adjusted the engine will idle at a smooth, consistent speed.

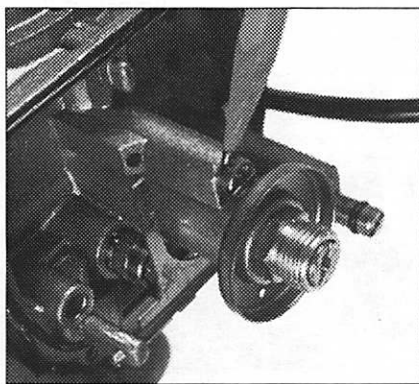


Turning the bleed screw clockwise leans the mixture, turning the bleed screw counter clockwise richens the mixture. When adjusting the fuel bleed always start with the adjuster at 1.5 turns out. Slowly turn the bleed screw 1/2 turn clockwise and note the engine's idle speed. Then return

the screw adjuster to 1.5 turns out and an additional 1/2 turn counter clockwise and note the idle speed. If the engine gained speed in the leaner or richer position, return the adjuster to that position.

Idle jet:

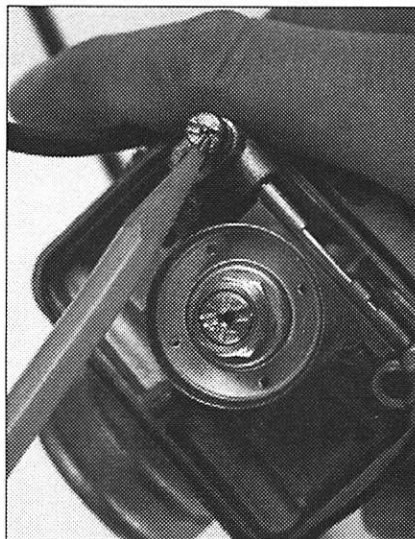
If the engine's idle mixture can not be adjusted correctly using the bleed adjuster, change the idle jet. When the bleed screw adjuster and idle jet are correctly adjusted and sized, the motorcycle will start easily, run smoothly at low throttle settings, idle at a consistent rpm, and the acceleration from idle into the midrange will be smooth and fluid.



If the engine surges when riding at slow speeds and it is difficult to start when it is warm, install a larger-numbered idle jet. If the engine runs rough, the exhaust blows blue smoke and the engine sounds rich when it is started, install a smaller-numbered idle jet. The fuel bleed screw should be readjusted after changing the idle jet. The idle jet is located just behind the main jet, under the fuel splash pan. Remove the main jet holder using a box-end 12mm wrench and the fuel splash pan for access.

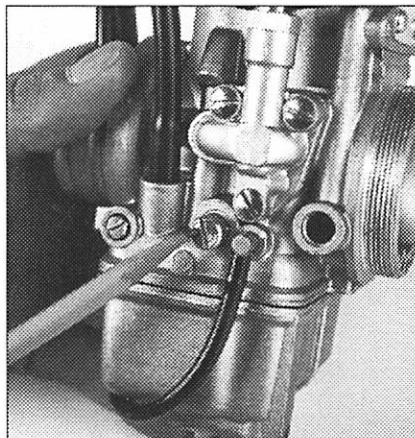
Cold start jet (choke jet):

The cold start jet controls the fuel supply when the choke lever is activated. If a richer (larger-numbered) jet, or leaner (smaller-numbered) jet is desired, remove the float bowl, and locate the cold start jet in the corner of the carburetor body. Remove and replace it with a flathead screwdriver.



Idle speed:

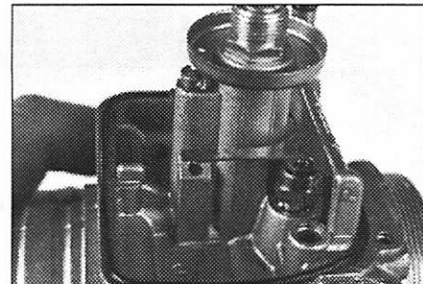
The idle speed adjuster screw is located on the left side of the carburetor. The adjuster screw can be reached by using a long-shank flatblade screwdriver through the hole in the top shock mount. Turning the screw adjuster clockwise increases the idle speed, turning it counter clockwise slows the idle speed. Set the idle speed to your preference.



Float level:

The carburetor's float level is preset at the factory but it should be readjusted if the carburetor leaks fuel while the petcock is on, or the bike's general performance indicates a rich running condition at all engine speeds. Follow these steps to set the float level:

- 1) Turn the fuel petcock to off.
- 2) Remove the carburetor.
- 3) Remove the 21mm nut at the bottom of the float bowl.

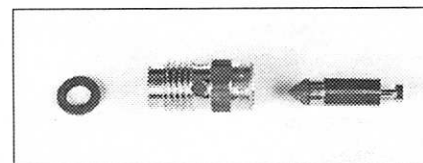


- 4) Remove the float bowl.
- 4) Invert the carburetor
- 5) If the float arms are parallel to the carburetor body where the float bowl seats, the float level is correct. If the float arms are too low or too high, bend the float arms until they are parallel.

Float needle and seat:

The float needle and seat valve regulates the flow of gasoline to the float bowl. A worn needle and seat, or one that is contaminated by foreign objects will cause carburetor flooding and poor engine performance. To check the needle and seat valve, follow the procedure below:

- 1) Remove the float bowl.
- 2) Remove the float arm's pivot pin using a pair of pliers or dikes.
- 3) Remove the float arms.
- 4) The float needle will fall out of the seat when the float arms are removed.
- 5) Remove the seat using a 9mm box-end wrench.
- 6) Inspect the needle and seat using a magnifying glass.
- 7) If the needle's tapered end appears worn or grooved, it and the seat must be replaced (the needle and seat are sold in matched pairs).



- 8) Inspect the seat's gasket (located between the seat and carburetor body) and replace it if necessary.
- 9) Reassemble the unit and set the float level.

Periodic Maintenance Schedule Chart

CODE:

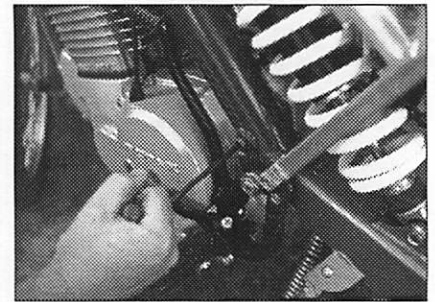
I:inspect **L:lubricate** **R:replace**
C:clean **A:adjust**

ITEM	AFTER EACH RIDE	1000 MILES	5000 MILES OR YEARLY
Spark plug			R
Drive chain & sprockets	I,L		I,L,R
Chain rollers	I		I,R
Swingarm rub pad	I		I,R
Chain guide block	I		I,R
Engine oil		R	
Engine oil filter			I,C,R
Air filter	I,C,L		I,C,L,R
Control cables & levers	I,L,A		I,C,L,R
Throttle		I,C,L,A	
Brake fluid level	I		
Brake pads	I	I,C,R	
Brake rotors, calipers & hoses	I		
Brake system operation	I		
Forks	I		
Fork oil, normal use			R
Fork oil, severe use		R	
Shock	I		
Shock oil, normal use			R
Shock oil, severe use		R	
Frame	I		
Subframe	I		
Swingarm	I		
Swingarm lubrication	NOT REQUIRED		
Steering head adjustment	I		
Steering head lubrication			I,C,L,A
Nuts, bolts	I		
Tire condition & inflation	I,A		
Spokes, hubs, rims	I		
Piston & rings			I,L,R
Valve lash, normal use			I,A
Valve lash, severe use		I,A	
Camshaft drive belt, normal use			I,C,A
Camshaft drive belt, severe use		I,C,A	
Replace silencer packing, normal use			R
Replace silencer packing, severe use			R
Clean carburetor, set float level			I,C,A
Battery water level			I,A
Headlight, taillight, brake light	I		
Speedometer cable	I	I,C,L	
Torque of all nuts and bolts			A

Engine oil change:

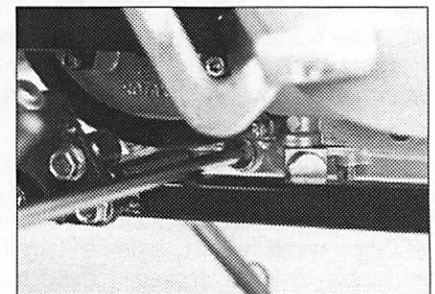
Engine oil should be changed every 1000 miles. Both the frame reservoir and engine crankcase have to be drained when an oil change is due.

First, remove the frame reservoir drain plug from the lower left side of the frame's main backbone tube (located just above the left swingarm pivot), using a 1/4-inch socket-head Allen, a 4-inch extension and 3/8-inch ratchet wrench.



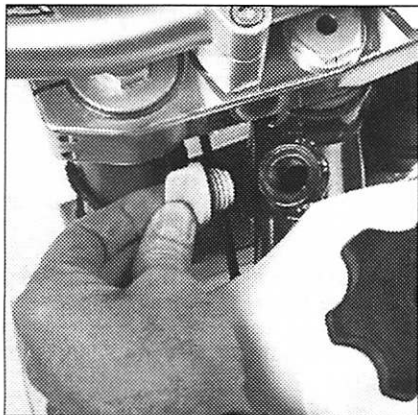
After draining, replace the drain plug and remove the skidplate using a 10mm socket, 4mm socket-head Allen and 3/8-inch drive ratchet.

Next, remove the engine oil drain plug from the bottom right side of the engine using a 6mm socket-head Allen and 3/8-inch drive wrench.



(CAUTION: DO NOT REMOVE the hex-head bolt with a 17mm head on the bottom, lower left of the engine to drain the oil—this bolt holds tension on the kickstarter return spring!)

Replace the engine drain screw after draining is complete. Next, add 1.75-quarts of oil to the frame's oil filler port that's located between the top triple clamp and the fuel tank. Replace the filler cap, start the engine and run it for one minute.



Shut off the engine and let the bike set for 1 minute. Remove the filler cap and check the oil level by looking into the filler hole. If no oil is present, slowly add oil until oil is visible. DO NOT fill the oil reservoir to its top. From 2.5 to 3.0 quarts of oil will be required for an oil change.

Oil specifications:

Type: Spectro four-stroke motorcycle engine oil

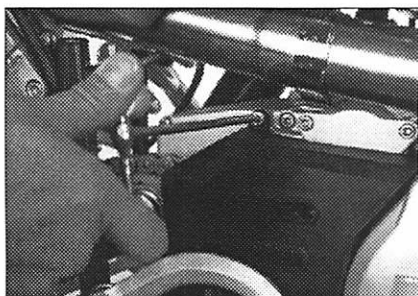
Oil weight:

Summer.....20w / 50
Winter.....10w / 40

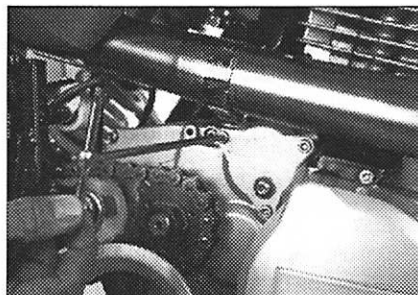
Oil filter change:

The oil filter should be changed every 5000 miles.

- 1) Remove the oil filter cover using a 5mm Allen wrench or 5mm socket-head wrench.



- 2) Remove the oil filter and discard.
- 3) Clean the oil filter cavity with a clean shop towel or paper towel.
- 4) Inspect the oil filter cap's O-ring and replace it if it is damaged.



- 5) Install the new oil filter and the filter cap.

Engine sump screen:

It is good practice to clean the engine's oil sump screen every 5000 miles. This procedure should be done after the engine and frame oil has been drained.

- 1) Remove the skidplate.
- 2) Drain the oil from the engine and frame.
- 3) Lay the motorcycle on its right side.
- 4) Remove the sump cover's screws using a 5mm socket-head wrench or 5mm Allen wrench.
- 5) Remove the oil sump screen and wash it and the sump cover thoroughly in cleaning solvent.
- 6) Install the sump screen and a new gasket.
- 7) Replace the sump cover's O-ring.
- 8) Install the sump cover and tighten its attachment screws snugly.
- 9) Place the motorcycle in a vertical position and follow the Engine oil change: section of this manual to replenish the oil.
- 10) Start the engine and check for oil leaks around the sump cover.
- 11) Replace the skidplate.

Drive chain:

Your new ATK is fitted with a Premium quality, long lasting D.I.D. O-ring chain. Except for and occasional chain tension adjustment, it will require little maintenance. As long as the O-rings are in good shape, the lube trapped within the chain can not escape, and externally applied lubricants, water and dirt can not enter. A light coat of WD40 will keep the outside of the chain from rusting, or use chain lube if you prefer. When the chain reaches a point where its side play is obviously excessive, it should be replaced.

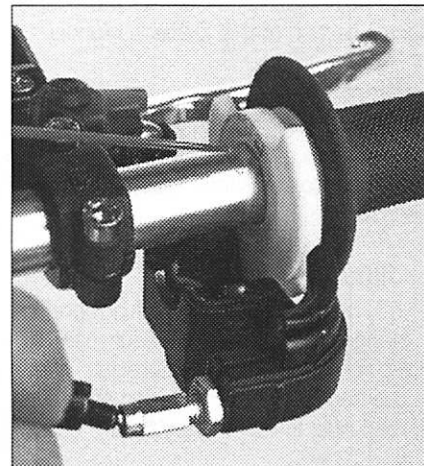
Drive sprockets:

ATK's sprockets, like the drive chain, are top-of-the-line parts that should provide

long life. When the sprocket teeth start looking thin or bent, replace the sprockets. It is good practice to replace the sprockets and chain at the same time as they wear at approximately the same rate.

Throttle and control levers:

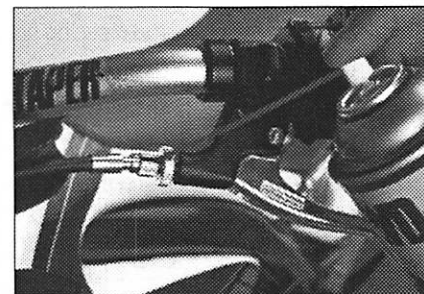
The throttle should be disassembled, all of its components cleaned in solvent, then lubricated with a light oil or silicone lubricant.



The throttle cable's barrel end should be coated with a light weight grease. The clutch, front brake and compression release levers should be lubricated at their pivot points and where the cable barrels rotate in the levers. A light weight grease or other lubricant may be used. The maintenance schedule for these items should be determined by the amount and severity of the bike's use.

Control cables:

All control cables should be lubed with cable lubricant to keep them working smoothly and easily.



Lubricating the cable's ends where they pivot in the control levers drastically reduces the effort that's required to operate the levers.

Camshaft belt:

The camshaft's cog-belt should be inspected and adjusted according the recommendations of the PERIODIC MAINTENANCE SCHEDULE CHART. To adjust or replace the camshaft belt, refer to the Repair Manual section of the Owner's Manual.

Valve lash adjustment:

The valve lash should be checked and adjusted every 5000 mile. To perform these adjustments, refer to the Repair Manual section of this Owner's Manual.

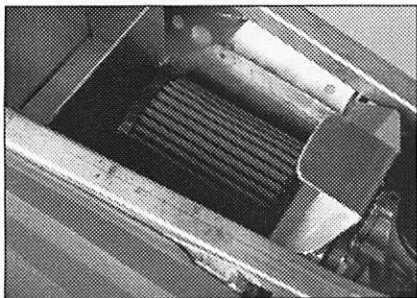
Ignition:

The electronic ignition on your ATK requires no maintenance. Should an ignition problem arise, refer to the Repair Manual section of this manual.

Air filter:

A K & N fabric air filter with a foam prefilter is standard equipment on your new ATK four-stroke. The filter and prefilter should be checked, cleaned and reoiled after every off-road ride. Follow the procedure below:

- 1) Remove the motorcycle's seat.
- 2) Loosen the air filter's hose clamp located at the rear of the carburetor.

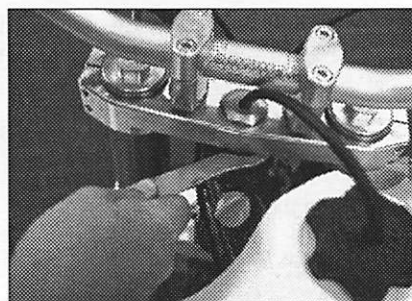


- 3) Pull the air filter from the airbox.
- 4) Pull the foam prefilter off of the K & N filter unit.
- 5) Clean the foam prefilter in cleaning solvent and let it air dry.
- 6) Lubricate the foam prefilter with foam filter oil.
- 7) Inspect the K & N filter and clean it if it appears exceptionally dirty. (If the prefilter is cleaned at regular intervals the K & N filter will stay clean a long time.)

- 8) To clean the K & N filter, pour cleaning solvent through it from the inside (this pushes the dirt out of the filter, not into it). Or, use K & N filter cleaner and follow the instructions on the can.
- 9) Let the K & N filter air dry.
- 10) Lubricate the K & N filter with K & N filter oil. Important: DO NOT use regular engine oil or foam filter oil, it'll clog the K & N's fabric. Use only K & N filter oil.
- 11) Let the K & N filter sit for a few hours so that its excess oil can drain off.
- 12) Clean the inside of the airbox thoroughly.
- 13) Slide the foam prefilter over the K & N filter.
- 14) Apply a coat of water-proof grease to the front of the K & N filter's housing where it contacts the airbox.
- 15) Install the air filter unit into the airbox and slide the filter's nose over the back of the carburetor.
- 16) Tighten the air filter's hose clamp.
- 17) Check to make sure that the filter's nose is properly installed over the carburetor's inlet and that the hose clamp is centered and positioned properly.

Steering head adjustment:

To check the steering head adjustment follow the procedure below:



- 1) Place the motorcycle on a box or bike stand so that its front tire is off the ground.
- 2) Sit down in front of the motorcycle, your legs straddling the front wheel.
- 3) Grab the lower fork legs and alternately push and pull on them.
- 4) When properly adjusted, there should only be a slight amount of play felt.

If the steering is obviously loose, follow the steps below:

- 1) Loosen the top triple clamp's fork pinch bolts.
- 2) Loosen the fork stem bolt.
- 3) Tighten the bearing preload ring under the top triple clamp.
- 4) Tighten the fork stem nut to 15 foot pounds (DO NOT overtighten this nut).
- 5) Torque the top triple clamp's fork pinch bolts to 20 foot pounds.
- 6) Recheck the steering head looseness as above, then make sure that the steering moves freely and smooth from right to left.

Electric Start Wiring Diagram



Electric Start Wiring Diagram



Washing Your Motorcycle

- ☐ It is good practice to thoroughly wash your ATK motorcycle after each ride. An exhaust plug or shop rag should be placed in the end of the silencer before washing to keep water from entering the exhaust system and engine, but no other preparation is necessary. Wash the bike using water and liquid dish soap, or if preferred, use a high-pressure washer at the quarter carwash. Unlike other off-road motorcycles you may have owned, there is no fear of water entering the rear suspension components of an ATK motorcycle thanks to its sealed bearings.
- ☐ After washing and drying the bike, spray a light coat of WD40 to all of the frame parts where the paint has worn off to prevent rusting. Also, after washing the machine, carefully ride the bike slowly and apply both brakes gently to dry them of condensation.
- ☐ The ignition cover should be removed periodically and left to set for a couple of days to dry the ignition parts. It is also good practice to spray WD40 into the inside of the ignition flywheel and coils to eliminate moisture and prevent rusting of the components.
- ☐ Lube the chain with WD40 or chain lube to prevent rust.
- ☐ A light coat of plastic polish will restore the shine to plastic components and make the bike easier to wash after the next ride. Do not use protective conditioners on the seat cover, however, as they make the seat cover very slippery.
- ☐ Lubricate the footpeg pivots, shift lever folding tip and kickstarter folding joint with WD40 or a light weight oil.

CAUTION:

- ☐ Never use a plastic or rubber conditioner on the tires. Doing so makes them look great. It also makes them dangerously slippery! DONT DO IT!!

Motorcycle Storage

If your ATK is going to be stored for an extended period of time, the following preparation should be performed:

- ☐ Wash the bike following the procedures outlined under the heading "WASHING YOUR MOTORCYCLE."
- ☐ Clean and oil the air filter.
- ☐ Drain ALL of the fuel from the fuel tank, fuel lines and carburetor.
- ☐ Place the bike on a motorcycle stand or crate that raises both wheels off the ground.
- ☐ Put an exhaust plug or shop rag in the end of the silencer to keep foreign objects from entering.
- ☐ Inflate the tires to 20psi (they will lose pressure while sitting).
- ☐ Lubricate all control cables using a cable oiler and appropriate lube.
- ☐ Cover the motorcycle with a motorcycle cover or tarp.

Preparing a Stored Motorcycle for Riding

After an extended storage period, follow the steps below before riding your motorcycle.

- ☐ Drain the oil from the engine and frame (refer to Engine oil change: section of this manual), and refill the transmission with 10-40 or 20-50 four-stroke engine oil.
- ☐ Inflate the tires to 14-20psi.
- ☐ Remove the exhaust plug or shop rag from the end of the silencer.
- ☐ Fill the fuel tank with fresh 90-plus octane unleaded fuel.

- ☐ Turn on the fuel petcocks and check the fuel lines, carburetor, fuel tank and fuel petcock(s) for leakage. Correct any fuel leakage problems which may occur before proceeding further.
- ☐ Start the motorcycle and let it run for a few minutes. DO NOT RIDE THE MOTORCYCLE YET.
- ☐ Drain the engine oil and refill with 10-40w or 20-50w oil.
- ☐ If the motorcycle has been stored for a considerable period of time, drain the brake fluid from both brake systems and replace it with fresh fluid. Bleed the brake systems carefully to remove all of the air.
- ☐ Perform the PRE-RIDE INSPECTION CHECK LIST.
- ☐ Put on your protective riding gear—helmet, boots, gloves, pants, jersey, chest protector and goggles.
- ☐ Start the motorcycle and carefully and slowly ride the bike, checking for correct function of brakes, throttle, clutch, shifting, steering and kill button.
- ☐ Correct any problems that the test ride may have indicated.
- ☐ Go ride.



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