

Owner's Manual

FOX

FACTORY

FORX

DESIGNED BY FOX FACTORY INC.
DISTRIBUTED BY MOTO-X-FOX, INC.

INTRODUCTION

Congratulations! You now own the strongest and finest forks ever produced for motocross.

FOX FORX represent a no-compromise design which sets new standards for strength and rigidity. The tubes are 44mm heat-treated chrome-moly steel—by far the largest, strongest, and stiffest fork tubes ever made! The triple clamps are *forged* (not cast) aluminum . . . even stronger than billet. The sliders are also *forged* (not cast) aluminum, to provide a combination of high strength and light weight, even superior to parts machined out of solid billet.

FOX FORX also set new standards for adjustability and tuneability. Four different main spring rates are available. Four different negative spring rates are available. Three different rebound damping rates are available. In addition, of course, air pressure and oil volume can be varied to suit personal preferences and riding styles.

To ensure that you get the maximum performance and long service life these forks are designed for, take the time now to read this Owner's Manual carefully.

If you have any questions, comments, or problems, drop me a note.

Good luck and good racing,

A handwritten signature in black ink that reads "Bob Fox". The signature is stylized, with the "B" and "F" being particularly prominent and connected to the rest of the name.

Bob Fox
President, Fox Factory

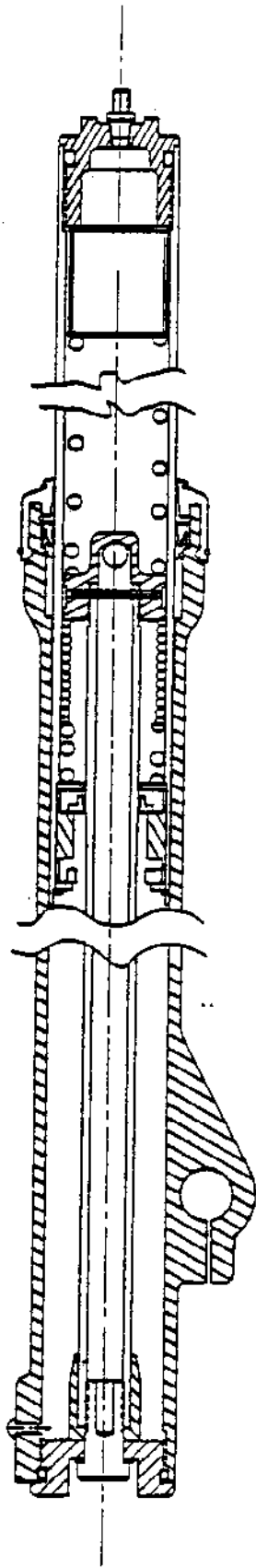


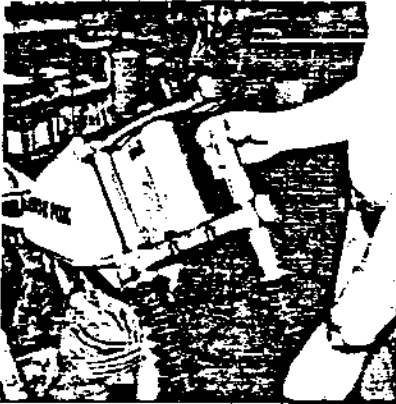
TABLE OF CONTENTS

I	INSTALLATION SUMMARY	1
II	INSTALLATION	4
III	TUNING	14
IV	MAINTENANCE	16
V	DISASSEMBLY	17
VI	ASSEMBLY	20
VII	PARTS LIST	22

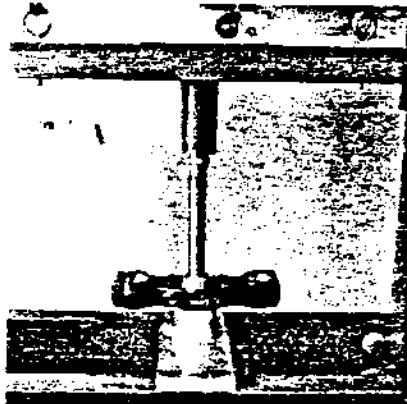
SECTION I

INSTALLATION SUMMARY

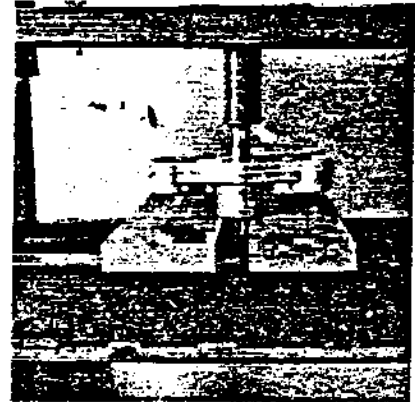
WARNING: This summary is for general reference only. Be sure to read the detailed instructions for each step as provided in the following pages of this manual. Failure to do so could result in damage to your forks, your bike, your body, or "all of the above."



1. Remove stock forks.



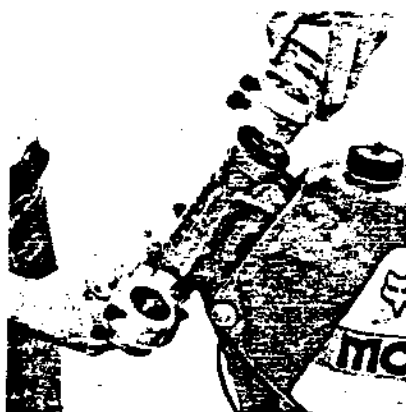
2. Remove stock stem.



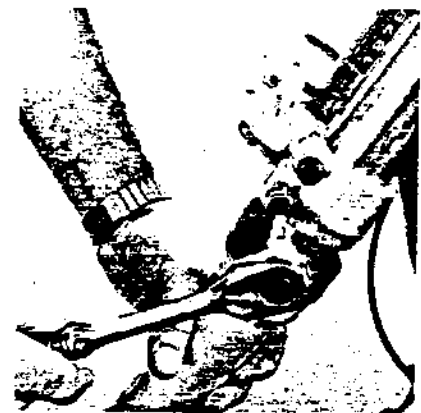
3. Install stock stem in Fox lower clamp.



4. Install bottom triple clamp on bike.



5. Install top triple clamp.



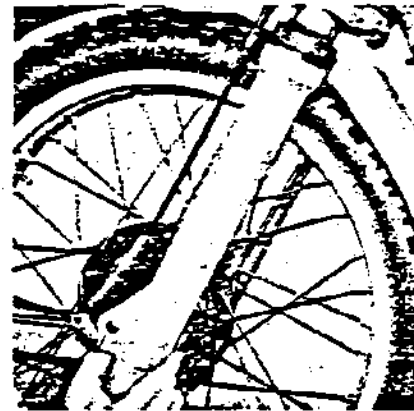
6. Install fork tubes in triple clamps.



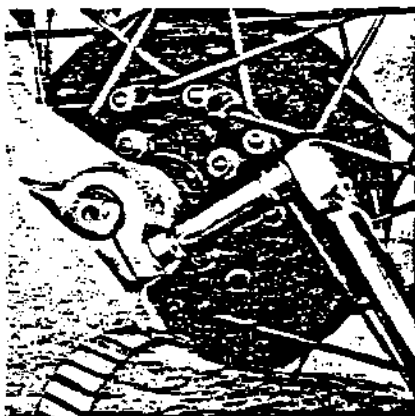
7. Install front fender.



8. Install wheel assembly.
(Do not tighten axle pinch nuts yet.)



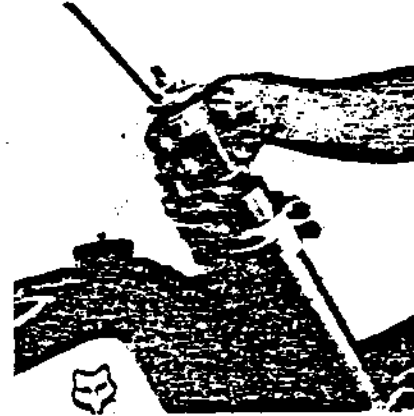
9. Set tube height. Tighten lower triple clamp bolts only.



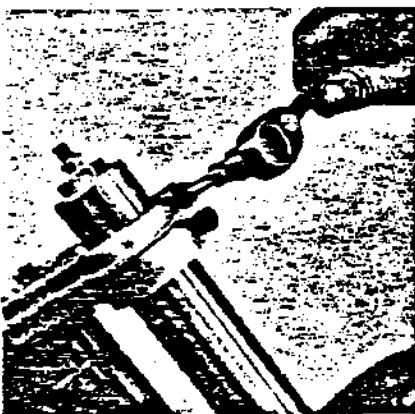
10. Tighten axle pinch nuts.



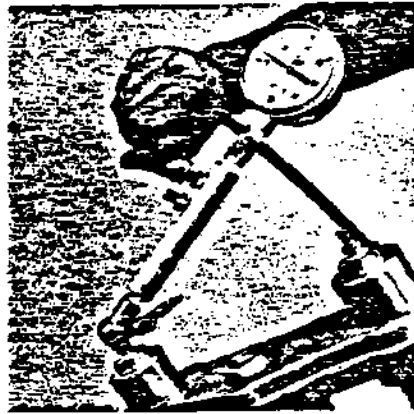
11. Add oil; set oil level.



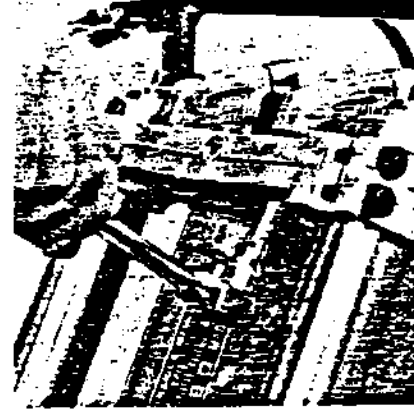
12. Install main spring, washer, spacer and tube cap.



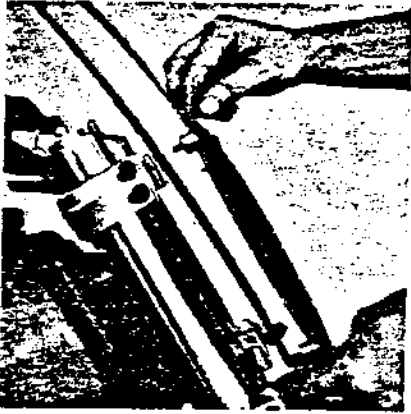
13. Tighten top triple clamp bolts.



14. Pressurize forks.



15. Install handle bar clamps.



16. Install front number plate.



17. Clamp front brake cable to left fork leg.

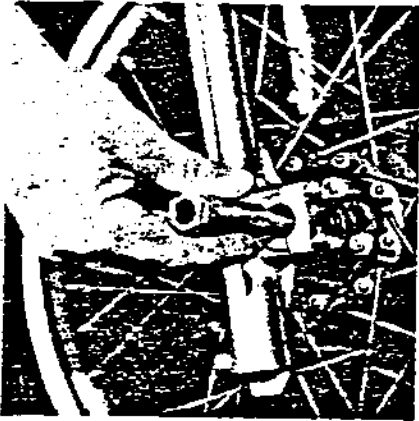


18. Install upper cable guide.

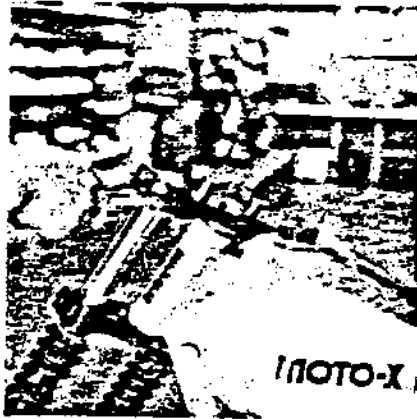
19. Perform final check, tighten bolts etc. before riding.

SECTION II INSTALLATION

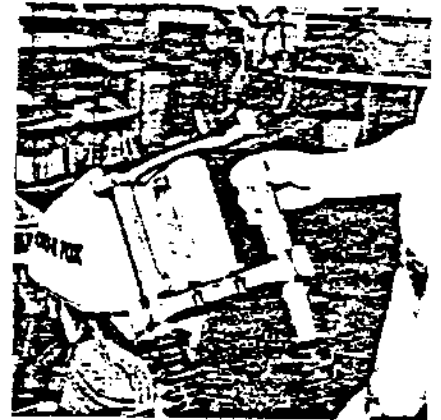
STEP 1 REMOVE STOCK FORKS



a. Remove front wheel assembly.



b. Loosen top and bottom triple clamp pinch bolts.



c. Slide stock fork legs from triple clamps.



d. Remove stem bolt/nut.



e. Remove top triple clamp.



f. Hold bottom triple clamp up and remove bearing jam nut.

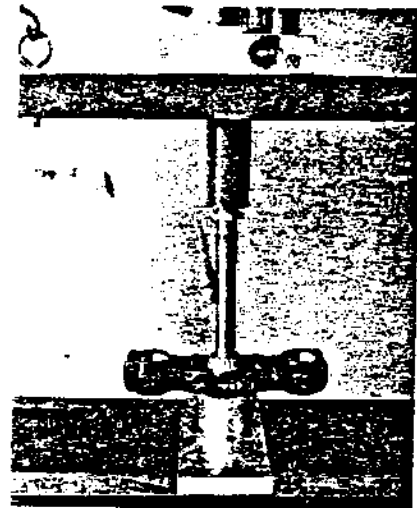


g. Slide bottom clamp out of frame neck. Be careful, some bikes have loose bearings. Don't lose any!

STEP 2 REMOVE STEM FROM STOCK LOWER TRIPLE CLAMP

NOTE: The stock stem must be removed from your stock forks and installed in your new Fox Factory lower triple clamp. This is a very delicate operation, so if your local shop has a press, as most of them do, have them install the stem. If you have access to a press and wish to do the work yourself, carefully follow these instructions.

- a. Loosen stem pinch bolt on stock bottom clamp, if applicable.
- b. Place stem/clamp assembly in press as shown. Bottom clamp should be supported as close as possible to the stem. (WARNING: Due to high forces involved, triple clamp may be permanently bent if it is not supported close to stem during press operation.) Install bolt or nut, as the case may be, on the top of stem. This is to prevent "mushrooming" or damaging the threads on the stem. Make sure the stem has a free path to exit the bottom of the clamp. With the stem as straight as possible, start pressing the stem out. It is very important to have the stem straight, since any side load may bend it.
- c. Clean stem thoroughly. Remove all burrs with light sandpaper. Now is a good time to clean and grease both the top and bottom bearings.

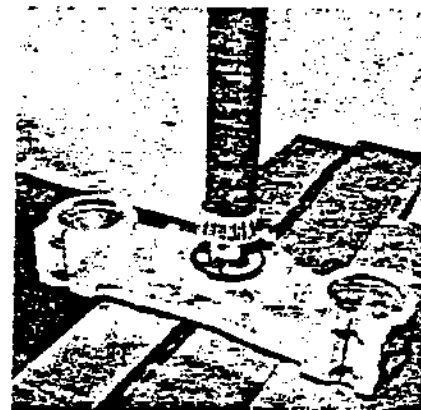
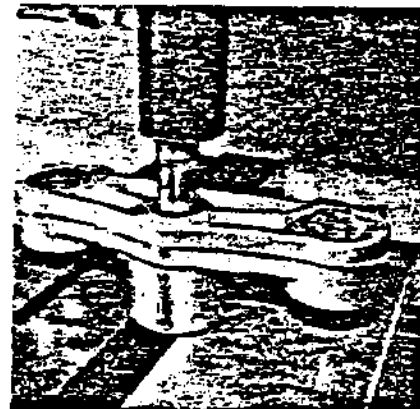


STEP 3 INSTALL STEM IN FOX FACTORY TRIPLE CLAMP

a. Place your Fox lower clamp in an oven set at 400° F for 15 minutes. This is not absolutely necessary, but will make the stem installation much easier. **DO NOT UNDER ANY CIRCUMSTANCES USE AN OXY-ACETYLENE TORCH OR ANY OTHER HEAT SOURCE THAT GETS HOTTER THAN 400° F. THIS COULD SEVERELY WEAKEN THE CLAMP.**

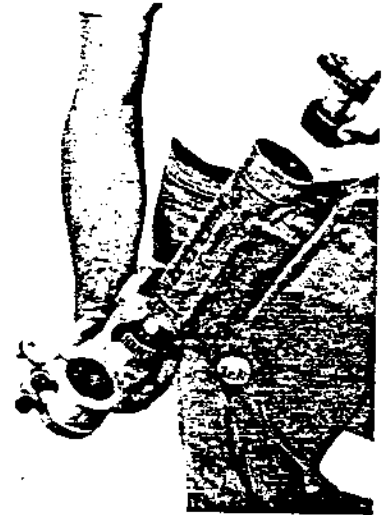
b. Place warm clamp in press, supported as close as possible to the stem hole. (WARNING: CLAMP MAY BE PERMANENTLY BENT IF NOT SUPPORTED PROPERLY.) MAKE SURE YOU ARE PRESSING THE STEM IN FROM THE BOTTOM SIDE OF CLAMP. (TOP SIDE DOWN AS SHOWN) Drop stem into clamp and line up as close as possible. Gently start pressing stem into clamp until it bottoms out.
WARNING: DO NOT USE EXCESSIVE FORCE WHEN IT BOTTOMS.

c. Slide bearing dust cover over stem (if applicable). Slide the bottom bearing over the stem. Turn this assembly over and press bearing on, using a support on the bearing race.



STEP 4 INSTALL BOTTOM TRIPLE CLAMP ON BIKE

- a. With top bearing, dust cover, and bearing jam nut in one hand, and lower triple clamp assembly in the other, slide stem through frame neck. Be careful not to ding the threads on the way up. Place top bearings over stem and push down until it is in its race. Install dust cover, if applicable, and bearing jam nut. Rotate clamp and tighten jam nut until slight binding is felt. Loosen bearing jam nut until there is no binding or play.

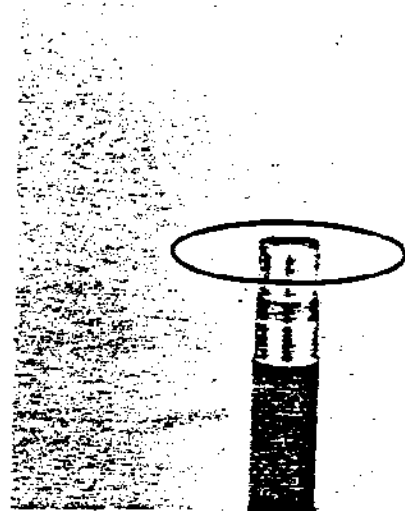


STEP 5 INSTALL TOP TRIPLE CLAMP

- a. Clean top portion of stem that the top triple clamp rides on. Slide top clamp onto stem with it lined up as close as possible to the bottom clamp. It may be necessary to tap the top clamp down with a soft mallet. (Heating top clamp to 400° F will help.) Install top stem bolt/nut. Do not tighten.

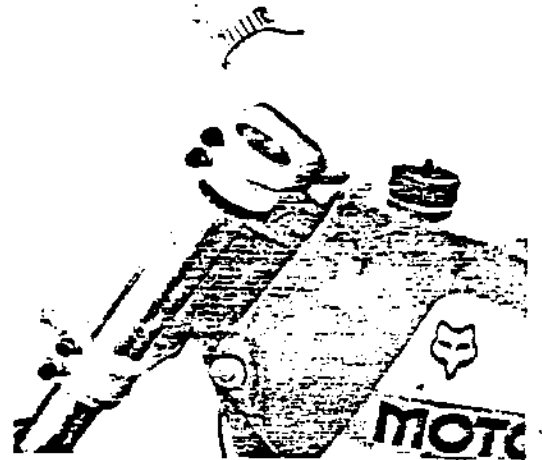


NOTE: YAMAHA STEMS, AS OF THIS WRITING, COME WITH A SLIGHT "MUSHROOM" ON THE TOP OF THE STEM. THIS MUST BE REMOVED BEFORE TOP CLAMP INSTALLATION. WITH A FILE OR ROUGH SANDPAPER, REMOVE ABOUT .005" (the thickness of this paper) FROM THE TOP 1/4" OF THE STEM. THE TOP TRIPLE CLAMP SHOULD SLIDE ON WITH LIGHT TAPPING WITH A SOFT Mallet.

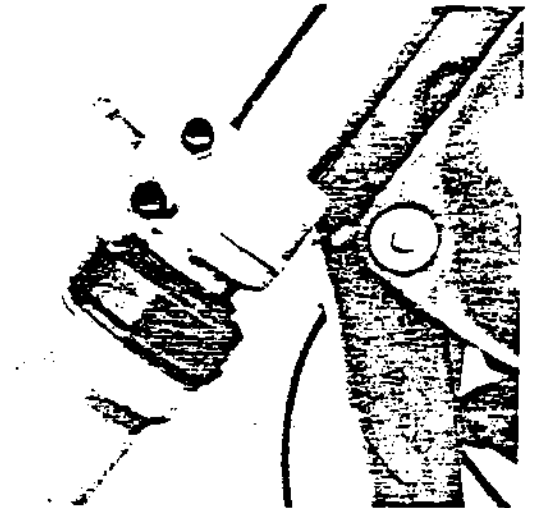


STEP 6 INSTALLATION OF FORK TUBES

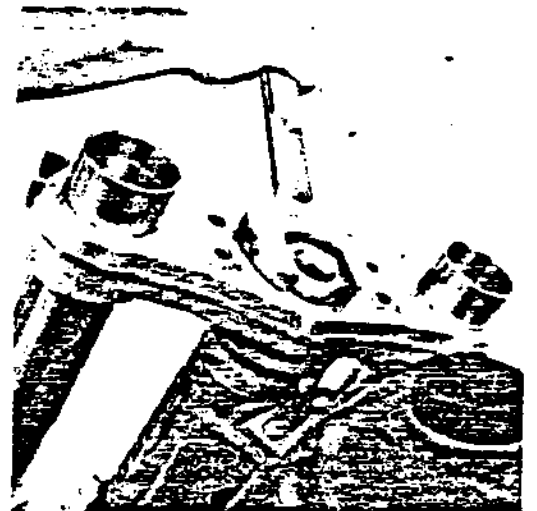
- a. Slide one fork tube assembly into bottom triple clamp. Align top clamp so the fork tube slides through. Do not use excessive force. REMEMBER: The fork assembly with the brake lug goes on the left side of bike.



- b. Completely bottom out one fork leg, then slide tube up or down in triple clamps until the rubber dust cover is 1/4" from the bottom clamp. Now snug up bolts on the bottom clamp to prevent the assembly from sliding out. Repeat this procedure for the other fork leg.

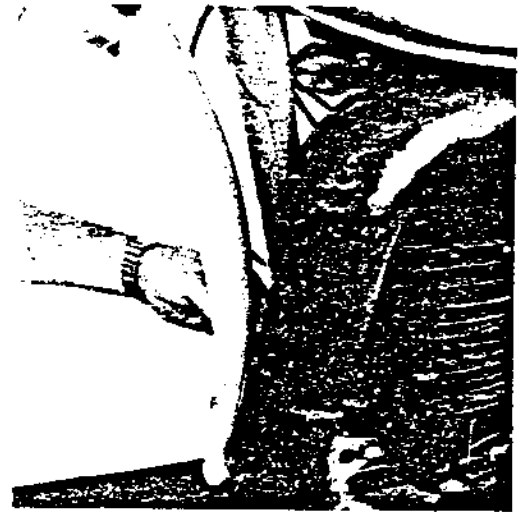


- c. Tighten stem nut/bolt.



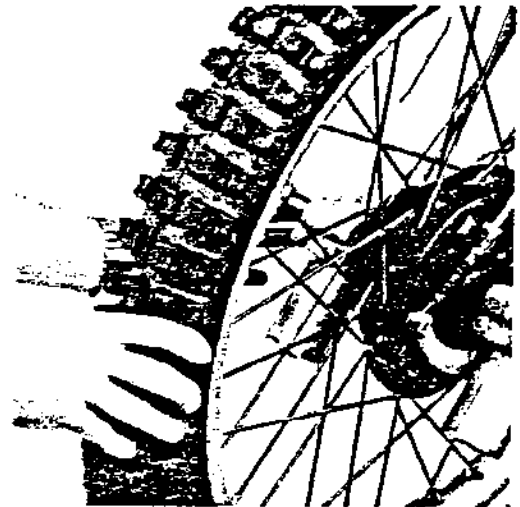
STEP 7 INSTALLING FRONT FENDER

Position front fender on bottom clamp so it is evenly spaced between fork tubes and clears the exhaust pipe and/or frame by at least 1/4". Drill fender for bolt holes using bolt pattern template on last page of this manual. Bolt fender on bottom clamp using #1/4-20 hex head bolts and 3/4" diameter flat washers. Put a drop of Loctite on each fender bolt. Cycle the sliders up and down to make sure the rubber dust covers do not hit fender.



STEP 8 INSTALL WHEEL ASSEMBLY

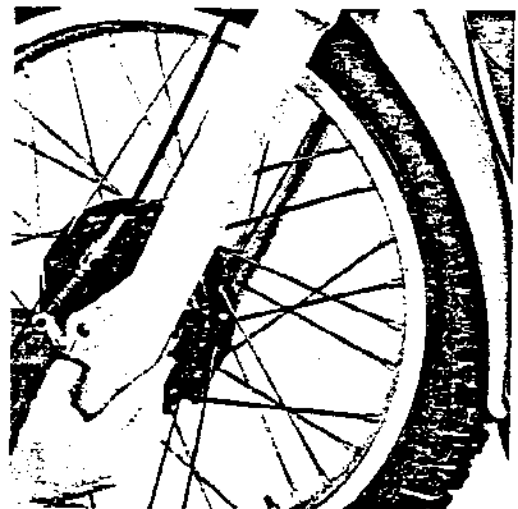
Place wheel into position with lug on slider in backing plate groove. Line up wheel and push axle through. **DO NOT USE A HAMMER.** The Axle will slide through if the wheel is lined up. Tighten axle, but leave axle pinch nuts loose for now. (The pinch nuts on the axle nut side, left side, should always be tight.)



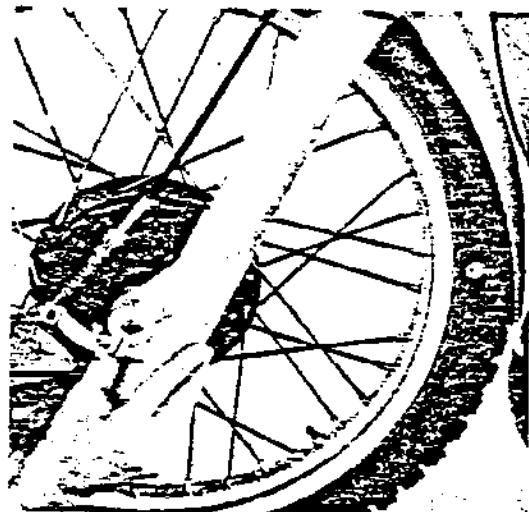
STEP 9 SET TUBE HEIGHT

Bottom out forks completely, that is, metal to metal contact. Check the following:

- a. at least 1/4" clearance between the tire and fender or tire and fender bolts.
- b. at least 3/8" clearance between frame down tubes and the tire.
- c. at least 3/8" clearance between exhaust pipe and tire.



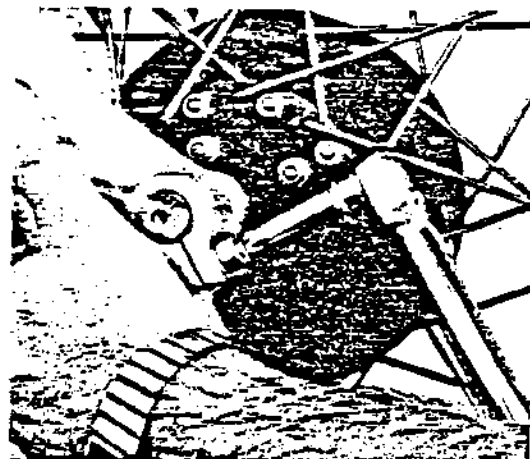
Turn the forks through their full arc to check for clearances. If any of the aforementioned clearance requirements are not met, lower the tubes 1/4". The grooves on the top of the tube are exactly 1/4" apart, so move both tubes down one full groove. Make sure both tubes are set at the same level. Now tighten bottom triple clamp bolts and re-check all clearances. Repeat procedure as required to obtain the proper clearance.



WARNING: SETTING TUBE HEIGHT IS CRITICAL. IF THE TIRE WERE TO HIT SOMETHING AT BOTTOM-OUT, IT WOULD MEAN A TRIP OVER THE BARS!

STEP 10 TIGHTEN AXLE PINCH NUTS

Compress forks to bottom out position. Tighten axle pinch nuts to 15 ft-lbs max. **IMPORTANT: AXLE MUST BE TIGHTENED BEFORE PINCH NUTS.... See Step 8.**



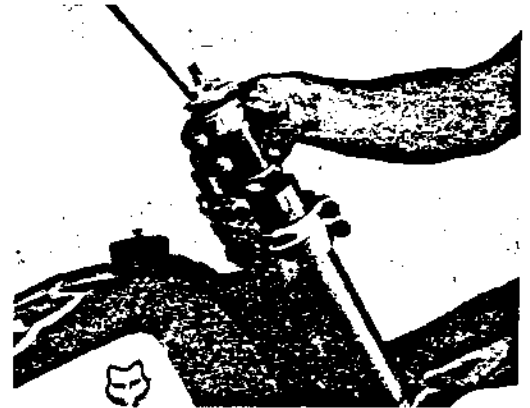
STEP 11 ADD OIL/SET OIL LEVEL

Put 400 cc of Spectro 5w (or equivalent) into each fork leg. Cycle forks up and down to distribute oil into lower chambers. Now completely bottom forks and add oil until it is exactly 6" from the top of tube. Cycle forks again and re-check oil level at bottom-out.

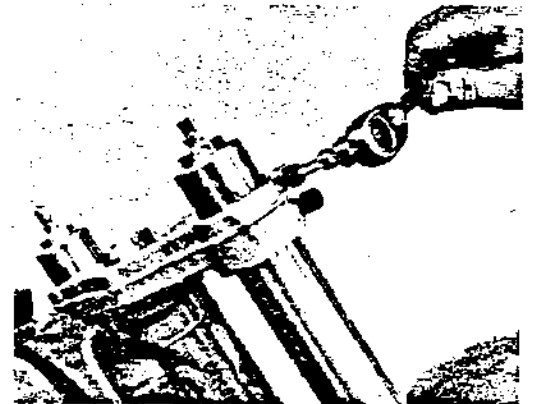


**STEP 12 INSTALL MAIN SPRING,
WASHERS, SPACER, TUBE CAP**

Place main spring, short spring spacers and washers into tubes. Install tube caps. Do not over-tighten tube caps. When the top triple clamp bolts are tightened, it will squeeze the tube caps.

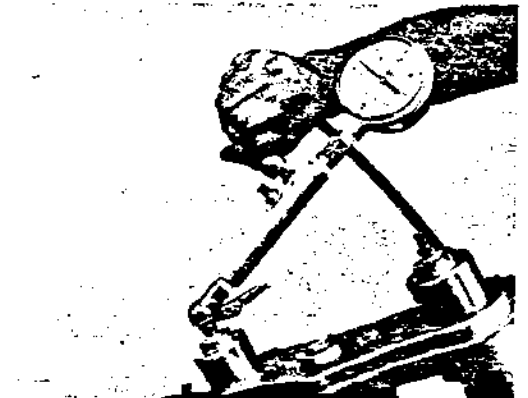


**STEP 13 TIGHTEN TOP TRIPLE CLAMP
BOLTS**



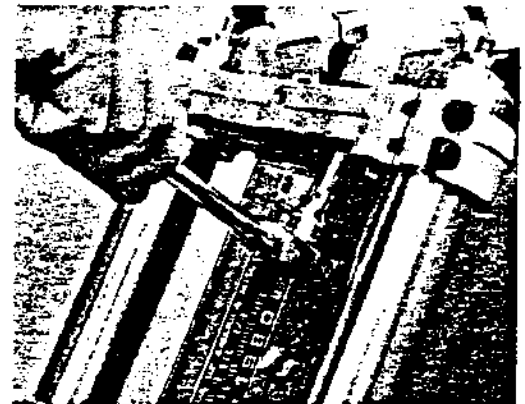
STEP 14 PRESSURIZE FORKS

Set pressure at 12 psi. The forks must be topped out when setting pressure. DO NOT PRESSURIZE FORKS WITH A WELDING OUTFIT. USE AIR OR NITROGEN. DO NOT PRESSURIZE TO MORE THAN 100 PSI FOR ANY REASON.



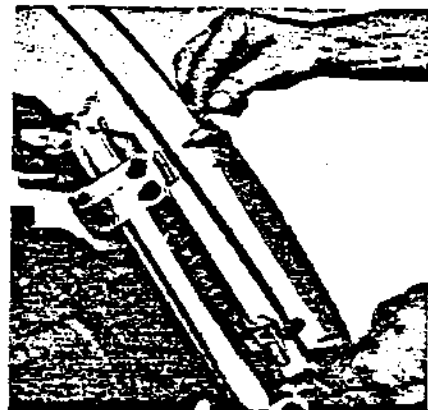
STEP 15 INSTALL HANDLE BAR CLAMPS

Install handle bar clamps on top triple clamp. Leave bolts slightly loose for now. Install handle bars. Tighten handle bar pinch bolts. Now finish tightening the bolts that hold on the handle bar clamps. Loctite is recommended on the bolts.



STEP 16 INSTALL FRONT NO. PLATE

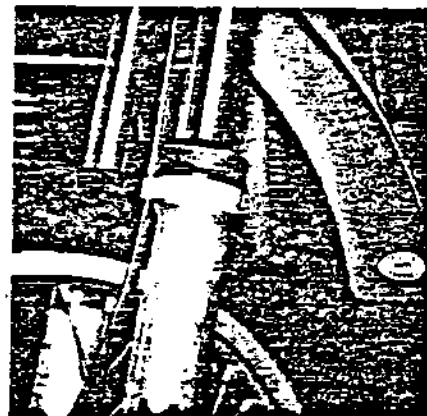
Install front number plate. Use #1/4-20 x 1" long hex head bolts with the 1/2" spacers between the triple clamps and number plate.



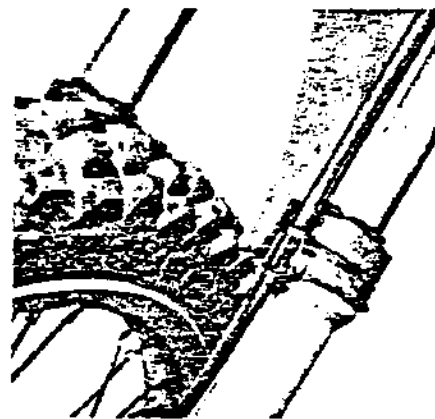
STEP 17 CLAMP FRONT BRAKE CABLE TO LEFT FORK LEG

There are two ways to clamp the cable to the fork leg.

a. Tape cable to fork leg.



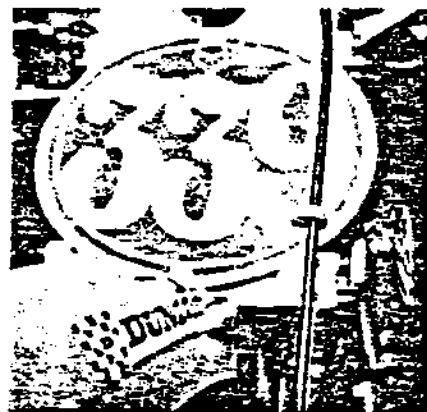
b. Use stock steel clamp with minor modifications. This is the best method but you must pinch the clamp ends so that they will tighten down on the cable. Safety wiring cable to clamp, as shown, is a good idea.



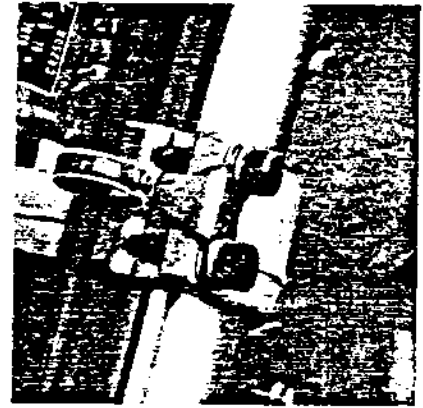
STEP 18 INSTALL UPPER CABLE GUIDE

There are two ways to install a cable guide.

a. Install stock cable guide on front number plate. If this method is used, the guide must be located as low on the number plate as possible.

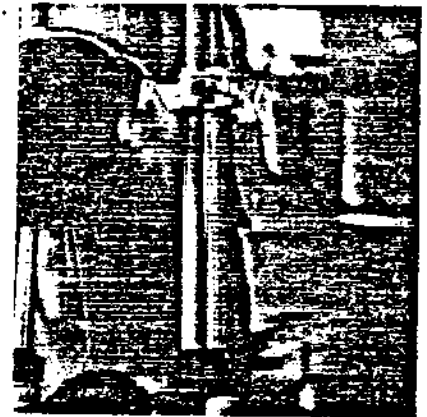


- b. Attach stock cable guide to the bottom triple clamp. This method is the best. 5/16" washers should be installed between triple clamp and guide to space it out.



Regardless of the method used, the cable clamp and guide must line up. This will prevent kinking the cable at the bottom-out.

WARNING: CABLE ROUTING IS CRITICAL. IF THE CABLE BINDS AT ANY PLACE IN ITS TRAVEL, IT'S A TRIP OVER THE BARS.



STEP 19 PERFORM FINAL CHECK, TIGHTEN BOLTS, ETC. BEFORE RIDING

SECTION III

TUNING

The recommended air pressure, oil volume (put forth in the installation section), and stock spring settings should be close for the majority of riders and applications.

Every owner of these forks should attempt to fine tune the forks for their own individual requirements.

The adjustable items are:

1. Oil volume
2. Air pressure
3. Main spring
4. Negative spring
5. Main spring preload
6. Rebound damping

OIL VOLUME

Air pressure and oil volume are the most critical items to the proper operation of the forks. Oil volume determines the bottom-out position of the forks. If the forks do not get full travel over a rough track, remove oil in 1/2" increments. If the forks seem to bottom too much, add oil in 1/2" increments. Never change air pressure to change bottom-out position. In general, the oil volume changes the last part of travel only. All oil measurements are taken with the forks bottomed out.

AIR PRESSURE

Air pressure should always be set when the forks are fully extended and the front wheel off the ground. Sometimes it is necessary to physically extend forks when setting pressure.

MAIN SPRING

There are four springs available from Moto-X-Fox. Their part numbers are as follows:

- Part # 94-0047 X-Firm
- # 94-0048 Firm
- # 94-0049 Medium
- # 94-0050 Light

The springs that your forks came with have the number marked on the box.

MAIN SPRING PRELOAD

The forks are shipped with four spacers. Two are 1-1/2" long and two are 2-1/2" long. The short spacers are for no main spring preload and the long spacers (2-1/2") are for one inch preload. We recommend using the 1-1/2" spacer when

first setting up your forks. Later, if you want more preload, you can change to the 2-1/2" spacers.

NOTE: *The forks should "sack" about 1" under the bike's weight. Under no circumstances should both spacers (1-1/2" and 2-1/2") be used to preload the springs.*

NEGATIVE SPRING

There are four negative springs available. Their part numbers are:

- Part # 94-0061 Extra firm
- # 94-0062 Firm
- # 94-0063 Medium
- # 94-0064 Light

The negative springs that your forks came with are marked on the box. The negative spring affects only the first 3-1/2" of travel. The negative spring affect on the forks is directly related to the main spring, so if you change the main spring you may want to change the negative spring. In general, if you install a stiffer main spring, you should also install a stiffer negative spring.

REBOUND VALVE

Rebound damping is controlled by the main valve. There are three sizes available. Their part numbers are:

- Part # 94-0076 Heavy
- # 94-0077 Light
- # 94-0078 Std.

The rebound valve your forks came with is indicated on the box. If you wish to experiment with more or less rebound damping, the above parts are available from Moto-X-Fox.

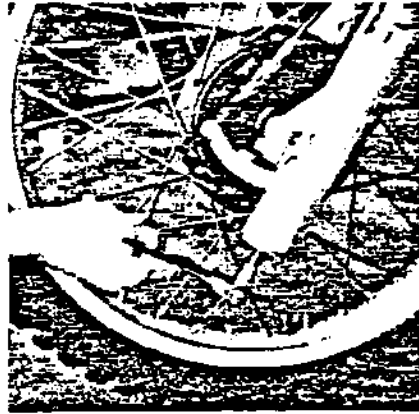
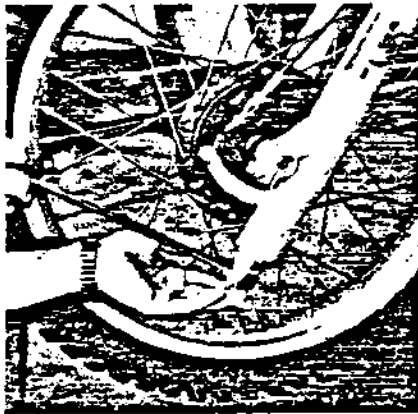
SECTION IV

MAINTENANCE

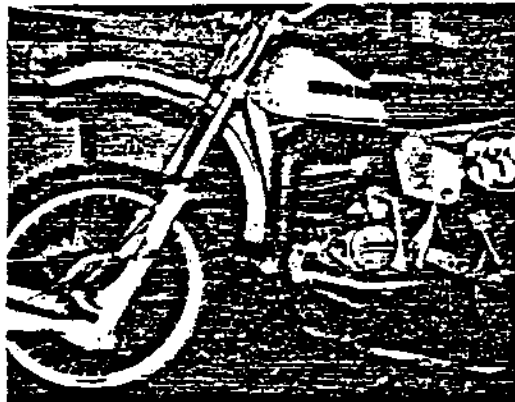
BETWEEN-MOTO MAINTENANCE

After every race check the following:

1. Inspect tubes for rock dings. Although unlikely, it is possible to have a large rock impact off the tube and ding it. Small dings in the tube can be sanded down or removed with a hand stone. If the tube has a large, sharp ding you must check the slider for damage. If there is a groove in the slider, remove the high spots with sand paper. If the seal has been damaged, replace it.
2. Wipe mud off the tubes after every use. Keeping the tubes clean will increase the life of the seals and dust covers.
3. Check slider cap and damping rod for tightness.



4. Check stem bearings for proper adjustment (no play).

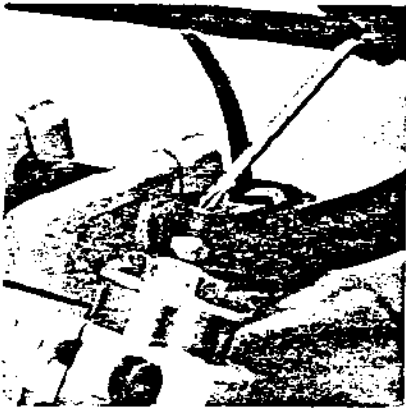


PERIODIC MAINTENANCE

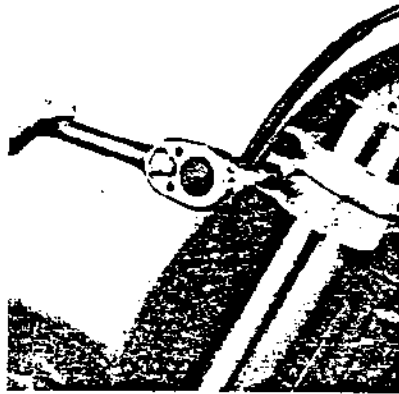
Change oil in forks every 5 or 6 races. The best method is to disassemble the forks and completely clean them. If this is not possible, just draining the oil is adequate. To change oil, remove drain plug on lower part of sliders and drain old oil. After all the old oil has drained, replace the plug. Use Loctite on plug. This method of changing oil does not remove a small amount of oil which is below the plug. It is this oil that is the dirtiest.

SECTION V

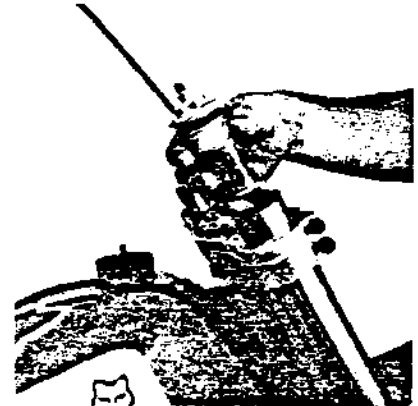
DISASSEMBLY OF FORKS



1. Depressurize.



2. Loosen top triple clamp bolts.



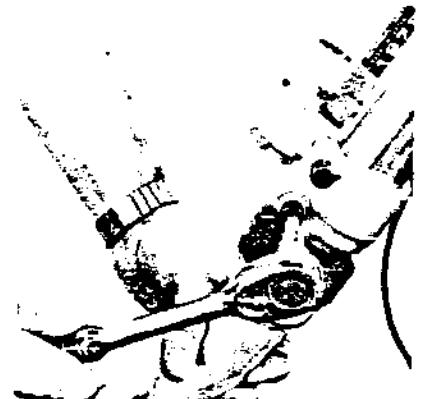
3. Remove tube cap, spacer, washers and spring.



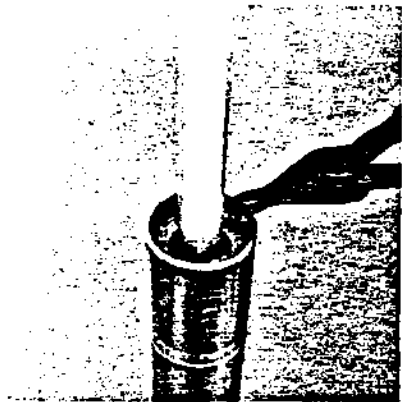
4. Unscrew slider cap with special tool, drain oil.



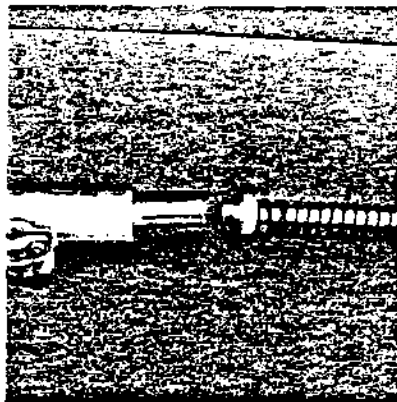
5. Remove wheel assembly.



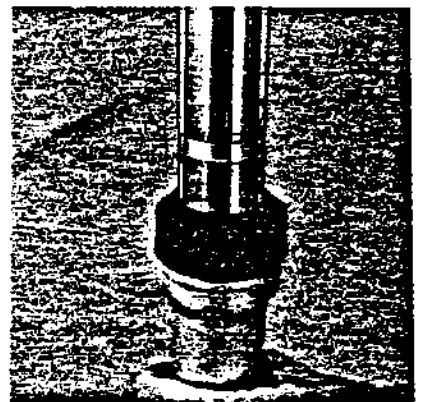
6. Loosen pinch bolts on bottom triple clamp, remove fork legs.



7. Remove snap ring in the bottom of fork tube.



8. Slide damping rod assembly out.



9. Slide slider off tube from the bottom. Be careful not to damage seal.

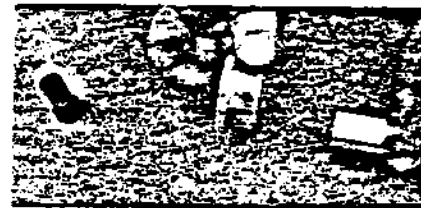
DAMPING ROD DISASSEMBLY



1. Loosen damping rod bolt-hold damping rod as shown.



2. Remove bolt and washer.



3. Remove slider cap.



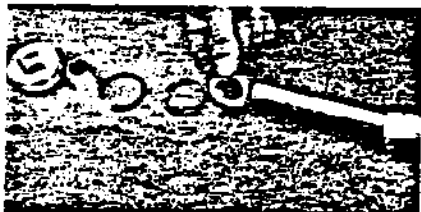
4. Remove bottom out cone.



5. Remove snap ring.



6. Remove bottom out valve retainer washer-note the difference between top and bottom.



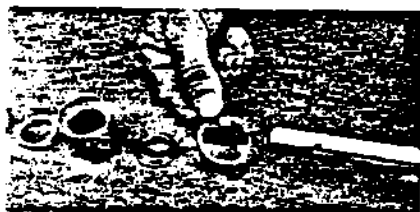
7. Remove bottom out valve.



8. Remove valve body.



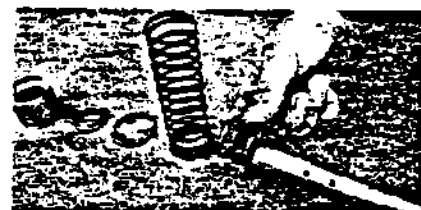
9. Remove main valve.



10. Remove top retainer washer.



11. Remove negative spring.



12. Remove top out spring.

SEAL/DUST COVER REMOVAL



1. Remove dust cover by expanding retainer ring and sliding cover off.



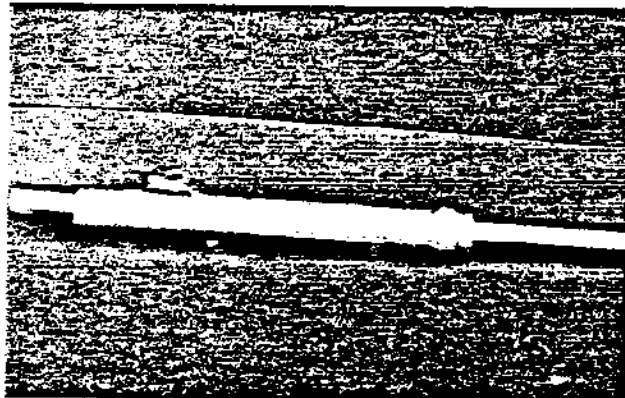
2. Remove seal retainer ring by prying the ring inward and lifting up on the tool. Remove seal washer.



3. Place a piece of wood on the edge of slider. With a screwdriver or similar tool, pry up on the inside of the seal. Be careful not to scratch the slider bore or seal groove.

Clean all parts thoroughly. NOTE: Seals, dust cover, and other rubber parts should not be cleaned in trichlorethylene, acetone, or any strong cleaning fluid. To be safe, wipe rubber parts off with a clean cloth. Some chemical compounds dissolve rubber. A convenient method of cleaning fork tubes and sliders is placing a paper towel in the respective part and pushing the towel through with a broom handle or a similar tool. Blow off all parts with air. Clean, as best as you can, the old Loctite from the damping rod threads in the bottom of the rod. Inspect parts for abnormal wear. Check o-rings for tears or defects.

If the bike has been crashed or experienced abnormal abuse, check tubes for straightness. The tube should slide freely through the slider. If the tube is bent, straighten or replace it.



SECTION VI

ASSEMBLY OF FORKS

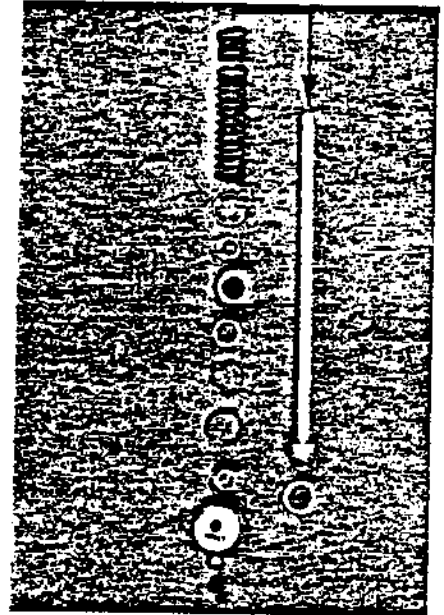
DAMPING ROD ASSEMBLY

Lay out all damping rod parts in their assembly order, that is:

1. Top out spring
2. Negative spring
3. Top retainer washer (the two retainer washers are different, watch out!)
4. Main valve (large diameter down)
5. Valve body (both sides are the same)
6. Bottom out valve
7. Bottom out valve retainer
8. Snap ring
9. Bottom out cone
10. Slider cap/w o-ring
11. Fiber washer
12. Bolt

Slide these parts on the damping rod in this assembly order (reverse disassembly procedure, page 18). Apply Loctite to damping rod bolt. Tighten bolt by holding piston with screwdriver.

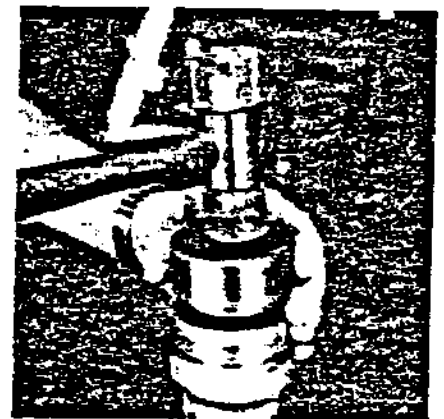
NOTE: THIS BOLT IS VERY CRITICAL . . . IF IT WERE TO COME LOOSE, THE FORKS COULD FALL OFF!



SEAL INSTALLATION

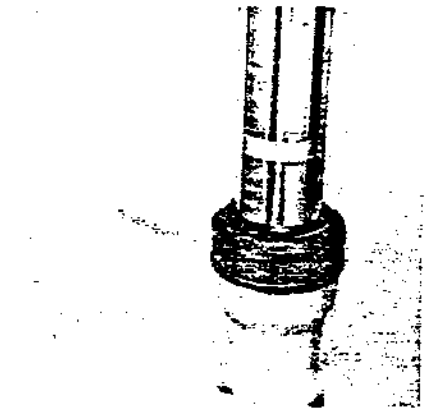
Never reinstall a used seal. Once they have been taken out they are not reusable. Inspect counterbore for scratches. Remove all scratches with light sandpaper. Lightly grease seal counterbore. Place seal on top of slider, in line with bore.

Place seal installation tool, part #94-8000, on the seal as shown. Make sure it is not on the wiper portion of the seal. Drive seal into counterbore as straight as possible until it bottoms. Do not use excessive force when it bottoms, light tapping with a mallet only. Install seal washer and snap ring. Make sure the snap ring is completely in its groove.



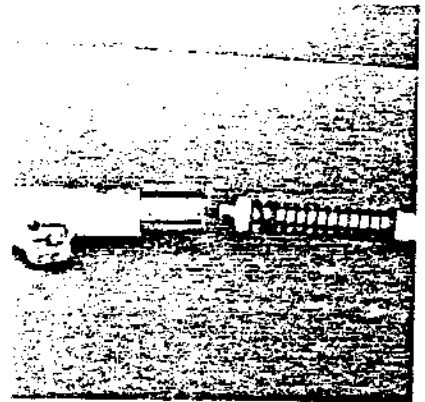
INSTALL SLIDER

Apply grease or fork oil to seal and bottom of tube. Gently slide tube through slider from top. Be careful not to damage seal lips. A slight rotating motion will help.

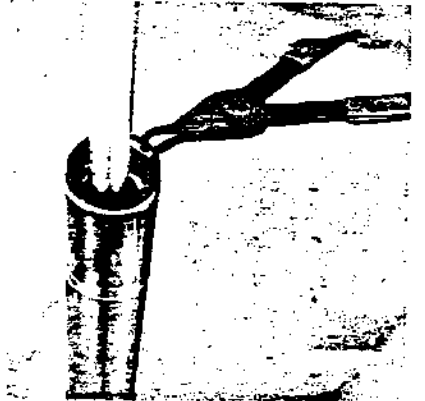


INSTALLING DAMPING ROD ASSEMBLY

Slide tube through slider so it extends through the bottom of the slider. Slide damping rod assembly into tube. Do not use excessive force as this will damage the teflon piston ring. Slide valving assembly into tube counterbore.

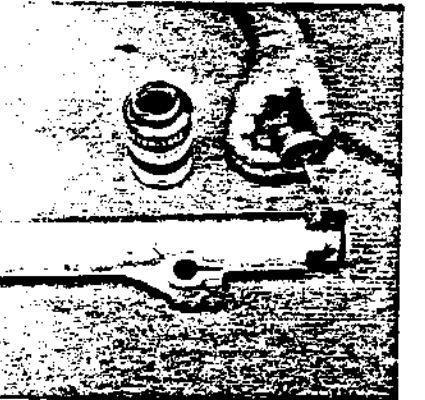


Install snap ring. **THIS SNAP RING IS VERY IMPORTANT. MAKE ABSOLUTELY SURE THAT THE RING IS ALL THE WAY IN ITS GROOVE. THE FORKS WILL COME APART IF THIS SNAP RING IS NOT PROPERLY INSTALLED.**



Oil slider cap o-ring. Put "ANTI-SEIZE" on slider cap threads before screwing into slider. Tighten slider cap with wrench adapter. If "ANTI-SEIZE" is not available, use chain lube on threads.

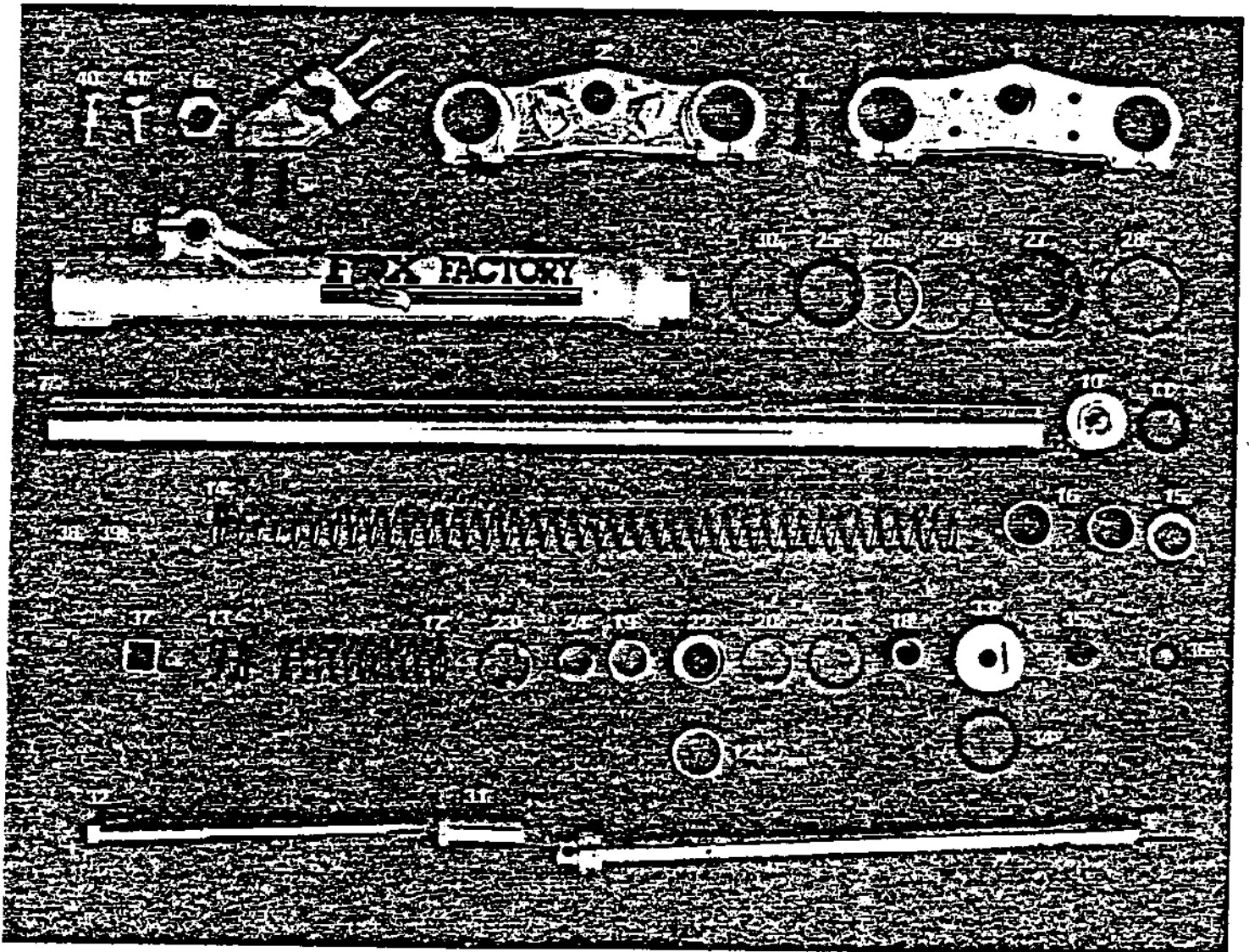
WARNING: DO NOT USE LOCTITE ON THREADS . . . if Loctite is used here, you probably will never be able to remove the slider cap again since the aluminum threads will probably gall.



CONTINUE ASSEMBLY PER THE INSTALLATION SECTION OF THIS MANUAL.

SECTION VII

PARTS LIST

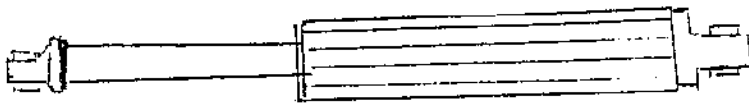


ITEM	PART #	DESCRIPTION	PRICE/QTY
1.	94-0001	Top Triple Clamp—Honda	\$64.00/ea.
	94-0002	Top Triple Clamp—Suzuki	\$64.00/ea.
	94-0003	Top Triple Clamp—Yamaha	\$64.00/ea.
2.	94-0004	Bot. Triple Clamp—Honda	\$64.00/ea.
	94-0005	Bot. Triple Clamp—Suzuki	\$64.00/ea.
	94-0006	Bot. Triple Clamp—Yamaha	\$64.00/ea.
3.	94-0017	Triple Clamp Bolts	\$ 1.00/ea.
4.	94-0018	Handle Bar Clamp	\$13.80/ea.
5.	94-0019	H.B. Clamp Bolt Set (4)	\$ 4.00/ea.
6.	94-0021	Honda Stem Nut	\$ 7.50/ea.
7.	94-0022	Fork Tube	\$68.00/ea.
8.	94-0023	Slider—Honda—Left	\$84.00/ea.
	94-0024	Slider—Honda—Right	\$84.00/ea.
	94-0025	Slider—Yamaha—Left	\$84.00/ea.
	94-0026	Slider—Yamaha—Right	\$84.00/ea.
	94-0027	Slider—Suzuki—Left	\$84.00/ea.
	94-0028	Slider—Suzuki—Right	\$84.00/ea.

ITEM	PART #	DESCRIPTION	PRICE/QTY
9.		Damping Rod W/Piston:	
	94-0039	-12" Travel	\$22.00/ea.
	94-0040	13" Travel	\$22.00/ea.
10.	94-0043	Tube Cap W/Air Valve	\$11.25/ea.
11.	94-0044	Tube Cap O-Ring	\$ 1.00/pr.
12.	94-0045	Piston Ring	\$ 3.50/ea.
13.	94-0046	Top Out Spring	\$ 2.00/ea.
14.	94-0047	Main Spring—Extra Firm	\$16.40/pr.
	94-0048	Main Spring—Firm	\$16.40/pr.
	94-0049	Main Spring—Medium	\$16.40/pr.
	94-0050	Main Spring—Light	\$16.40/pr.
15.	94-0055	Spring Washers	\$ 4.00/pr.
16.	94-0056	Preload Spacer—1.5"	\$ 2.50/pr.
	94-0057	Preload Spacer—2.5"	\$ 2.50/pr.
17.	94-0061	Negative Spring—Extra Firm.	\$ 6.00/pr.
	94-0062	Negative Spring—Firm	\$ 6.00/pr.
	94-0063	Negative Spring—Medium	\$ 6.00/pr.
	94-0064	Negative Spring—Light	\$ 6.00/pr.
18.	94-0070	Bottom—Out Cone	\$ 7.50/ea.
19.	94-0071	Bottom—Out Valve	\$ 4.50/ea.
20.	94-0072	Bottom Out Retainer Washer	\$ 2.50/ea.
21.	94-0073	Snap Ring	\$ 1.50/pr.
22.	94-0074	Valve Body	\$10.00/ea.
23.	94-0075	Main Valve Retainer Washer	\$ 2.50/pr.
24.	94-0076	Heavy Rebound Main Valve	\$ 4.00/pr.
	94-0077	Light Rebound Main Valve	\$ 4.00/pr.
	94-0078	STD Rebound Main Valve	\$ 4.00/pr.
25.	94-0079	Seal	\$ 3.50/ea.
26.	94-0080	Seal Washer	\$ 3.50/pr.
27.	94-0081	Dust Cover	\$ 3.50/ea.
28.	94-0082	Dust Cover Retainer ring	\$ 1.00/pr.
29.	94-0083	Seal Retainer Ring	\$ 1.00/pr.
30.	94-0084	Bearing Retainer Ring	\$ 1.00/pr.
31.	94-0085	Axle Nut	\$ 8.00/ea.
32.	94-0086	Axle—Honda	\$16.00/ea.
	94-0087	Axle—Yamaha	\$16.00/ea.
	94-0088	Axle—Suzuki	\$16.00/ea.
33.	94-0093	Slider Cap	\$ 8.00/ea.
34.	94-0094	Slider O-Ring	\$ 1.00/ea.
35.	94-0095	Damping Rod Bolt	\$ 6.00/ea.
36.	94-0096	Damping Rod Bolt Washer	\$ 1.00/pr.
37.	94-0097	Slider Cap Wrench Adaptor	\$ 1.00/ea.
38.	94-0098	Drain Screw	\$ 1.00/pr.
39.	94-0099	Drain Screw Washer	\$ 1.00/pr.
40.	94-0100	Number Plate Bolt Set (2 W/Spacers)	\$ 2.00/set
41.	94-0101	Fender Bolt Set (4 W/Washers)	\$ 2.00/ea.

ACCESSORY ITEMS:

PART #	DESCRIPTION	PRICE/QTY
94-7000	Owner's Manual	\$ 2.95/ea.
94-8000	Seal Installation Tool	\$10.95/ea.
98-2030	Deluxe Gauge W/Hose, 0-30psi	\$39.50/ea.
94-9000	REBUILD KIT (includes 2 fork seals, 2 slider dust covers, complete set of o-rings, 2 piston rings, and 2 damping rod bolt seals).	\$19.95/ea.



F MODEL INSTRUCTIONS

(Supplement to Owner's Manual)

This sheet contains the necessary revisions to the Owner's Manual for the "F" model shock.

SECTION I INSTALLATION

2. Pressure Hose Hole Location.

Yamaha YZ 250F/400F: The pressure hose should exit the shock cavity on the left side just in front of the tank. Locate the hole in the circular section approximately 2½ inches forward of the front shock mount pin. Follow the drilling procedure outlined on Page 8.

SECTION II PRESSURIZING

Recommended Pressures

Table 2. Fox Mono Airshock Pressure Recommendations (psi) for Yamaha YZ F Models.

SHOCK PRESSURE (psi)	RIDER WEIGHT (lbs)										
	120	130	140	150	160	170	180	190	200	210	220
250 F	173	179	186	192	199	205	212	218	226	231	238
400 F	179	186	192	199	205	212	218	226	231	238	244

SECTION IV MAINTENANCE

Oil Refill Quantities

11" F Model Fox Mono Airshock (2 spacers)	434cc	oil
12" F Model Fox Mono Airshock (1 spacer)	438cc	
13" F Model Fox Mono Airshock (no spacer)	442cc	

F MODEL INSTRUCTIONS (cont'd)

SECTION V PARTS LIST

All part numbers remain unchanged, except for item #6, Body. The F Model Body is part number 99-5061. Price remains at \$124.

SECTION VI DISASSEMBLY

Travel Modifications

Your Fox Mono Airshock was shipped from the factory to give either 11, 12, or 13 inches of rear wheel travel (as printed on the end of the carton it came in). If you want to change the travel, follow the instructions below:

The amount of travel is controlled by the number of spacers under the top out plate. For each spacer removed, add 4cc oil. Reduce the oil volume by 4cc for each spacer added.

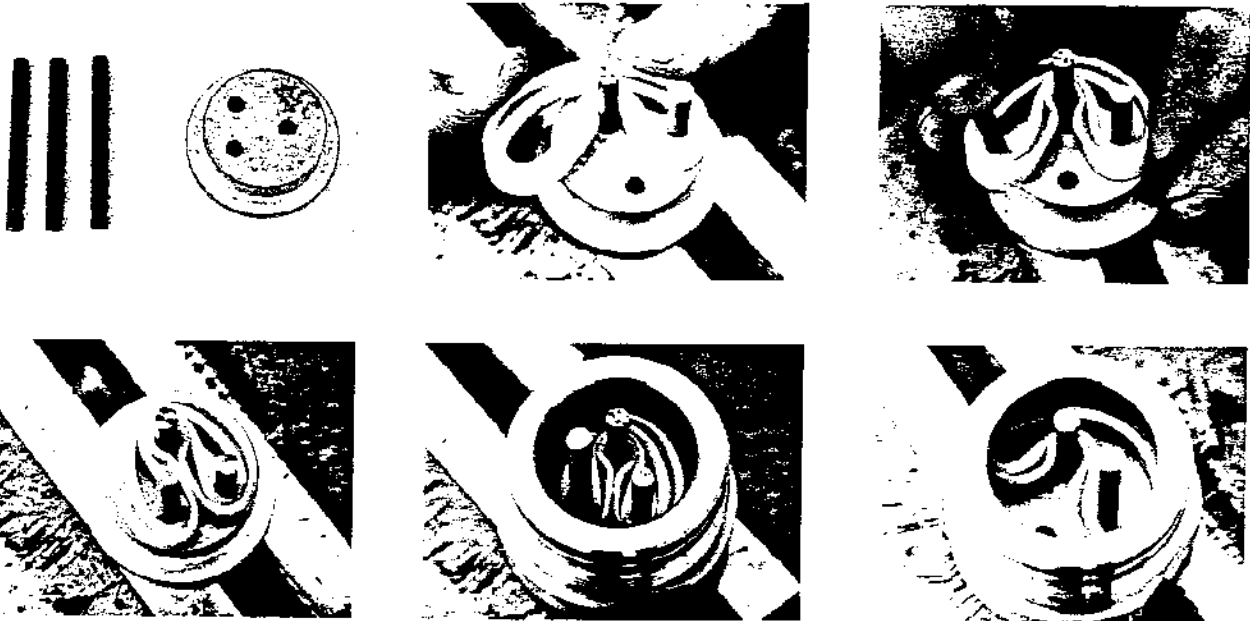
11" rear wheel travel- 2 spacers

12" rear wheel travel- 1 spacer

13" rear wheel travel- 0 spacers

To change the number of spacers, remove the piston as described on Page 22 of the Owner's Manual.

3. Wash bearing thoroughly in solvent. Make sure there is no dirt in grooves.
4. Mount new seal on Seal Installation Tool (Part #99-5330), and install in bearing. Use vise to hold two of the pins as shown in photos. Pull pins out and help seal into groove with your fingers.



5. Install new wiper. This can be done without tools. Use your thumbs as shown.
6. Before reinstalling bearing on shaft, check shaft very carefully for possible damage . . . large dings, nicks, etc. Touch up any small defects with fine sandpaper. Any major defects may require replacement of the shaft. New seals should give at least 6 months service unless shaft flaws cause premature failure.



SECTION VII

TROUBLESHOOTING

It is unlikely that you will have any serious trouble with your FOX MONO AIRSHOCK. However, here are some possible problems with suggested solutions.

1. **Problem:** "The shock is losing pressure."

Solution: First, be sure this is really happening. This is very unusual. Possibly a "practical joker" let some air out, or something else unusual happened.

If shock really does lose pressure, most likely cause is a loose, dirty, or defective air valve. No Teflon tape on air valve threads could also do it. Bad O-ring or shaft seal also possible.

*Any signs of oil loss? Try to locate leak with "saliva test" on air valves. If nothing else works, take shock off bike and immerse in bucket of water (or bathtub!).

2. **Problem:** "The shock is bottoming-out hard."

Solution: a. Is the pressure way below the recommended value?

b. Have you been riding several months without changing oil? Oil level will be low. You must change oil periodically. See section on Maintenance.

c. You may have to add about 5 cc oil to the shock. See "Tuning Oil Fill".

d. Did a lot of oil accidentally squirt out of the pressure valve when adjusting pressure? If a lot of oil is ever lost, shock should be taken apart, drained, and refilled.

3. **Problem:** "The shock isn't getting full travel."

Solution: a. Is the pressure way above the recommended value?

b. Check for interference with frame, swingarm or shock bracket preventing full travel.

c. Is track you are riding on rough enough to expect full travel?

d. You may have to remove about 5cc oil from the shock. See "Tuning Oil Fill".

4. **Problem:** "The shock is topping-out."

Solution: A *slight* topping feeling is normal, particularly if you run relatively high pressures. However, if topping is severe, something is wrong. Most likely cause is dirt or metal chip jamming open the damping valve on the piston.

5. **Problem:** "The shock is leaking oil."

Solution: Where is the leak?

Leaking shaft seal is shown by oil on shaft. This seal should normally last at least 6-12 months. If your shock is newer than that, check for nicks or dings in shaft as cause of seal failure.

Oil on shaft could also be caused by defective O-ring on shaft bearing. If you trace oil leak path to the junction between the bronze shaft bearing and the shock body, then this O-ring is the problem.

Oil leaking at big end of shock indicates defective O-ring on large end cap.

SECTION VIII

QUIZ

1. When reassembling, how much Loctite should you put on the bearing threads?
2. How much torque should you use on the piston locknut?
3. You have just reassembled your shock after changing the oil . . . the shaft is very hard to push in and out with the shock depressurized. What happened?
4. The pressures you are running seem about right, but the shock bottoms-out hard in a few places. What do you do, and how do you do it?
5. How can you check to see if the shock is using full travel?
6. If the pressure seems about right, but you don't get full travel even off big jumps, what can you do?
7. How much oil should you refill the shock with? What kind?
8. What visual check should you make after tightening down the piston locknut?
9. Piston ring should be replaced if it measures less than _____"?
10. Extreme torque on bearing flats could damage what part?
11. Should Loctite be used on piston locknut? On shaft cap threads?
12. After riding, you feel the pressure setting is too soft. You connect the Moto-X Fox "mono-gauge" and it reads 170 psi. So you increase it to 175 psi and go back out. *What did you do wrong????*

ANSWERS

1. About 2 or 3 drops . . . *not more*, or you may never get it off again!
2. About 40 to 45 ft-lbs . . . *not more*, or you could "bow" the compression damping washer.
3. Excessive torque or improper wrench fit has deformed bearing. The bearing must now be replaced.
4. Add 5 cc oil to the shock. Use eyedropper. Remove valve core from the pressure valve and add oil there. See Section III for correct procedure.
5. Pull black rubber shaft bumper up an inch or two on shaft before riding. Check position again after riding.
6. Remove 5cc oil for each 1/4" short of full travel. See Section III for correct procedure.
7. See Refill Oil Quantity Table in Section IV. Use Bel-Ray LT-100 only.
8. Check that compression damping washer sets flat on other side of piston. Make sure it isn't "bowed". If washer seems to have a slight permanent "bow" in it, replace with new one. In emergency, turn washer over so it "bows" *toward* piston, rather than away from it.
9. Replace if less than about 1.883" dia. while mounted on piston. New rings are about 1.890 to 1.895.
10. This could damage the bearing. You would notice "wrinkles" on top of bearing by flats. If this happens, it squeezes the wiper too tightly against the shaft, giving excess friction. You will see deformed area easily if it happens. Replace bearing.
11. Yes, use plenty on locknut. On shaft cap, use about 2 drops.
12. This was a trick question. You probably wouldn't know the answer unless you had a "mono-gauge" and had read the instructions that come with it. Here's what happened:

You actually decreased pressure, you did not increase it! *Always remember* that when you get a reading with *any* gauge, *it takes away some of the pressure*. For example, a FOX MONO gauge takes about 10 psi from the pressure chamber when connected. Thus, when the gauge reads 170 psi, the pressure was really about 180 psi (170 + 10) . . . when you set at 175 psi you actually decreased the pressure from before.

INTRODUCTION

Congratulations! You now own the strongest and finest forks ever produced for motocross.

FOX FORX represent a no-compromise design which sets new standards for strength and rigidity. The tubes are 44mm heat-treated chrome-moly steel—by far the largest, strongest, and stiffest fork tubes ever made! The triple clamps are *forged* (not cast) aluminum . . . even stronger than billet. The sliders are also *forged* (not cast) aluminum, to provide a combination of high strength and light weight, even superior to parts machined out of solid billet.

FOX FORX also set new standards for adjustability and tuneability. Four different main spring rates are available. Four different negative spring rates are available. Three different rebound damping rates are available. In addition, of course, air pressure and oil volume can be varied to suit personal preferences and riding styles.

To ensure that you get the maximum performance and long service life these forks are designed for, take the time now to read this Owner's Manual carefully.

If you have any questions, comments, or problems, drop me a note.

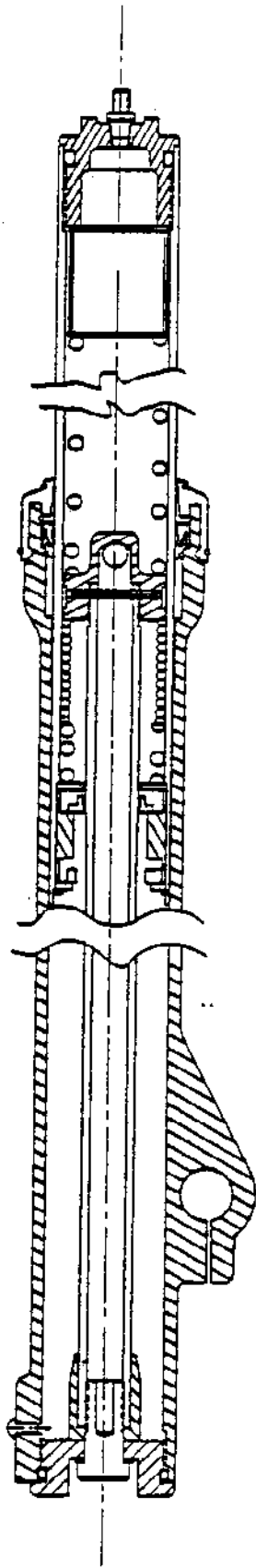
Good luck and good racing,

A handwritten signature in black ink that reads "Bob Fox". The signature is stylized, with the "B" and "F" being particularly prominent and connected.

Bob Fox
President, Fox Factory

TABLE OF CONTENTS

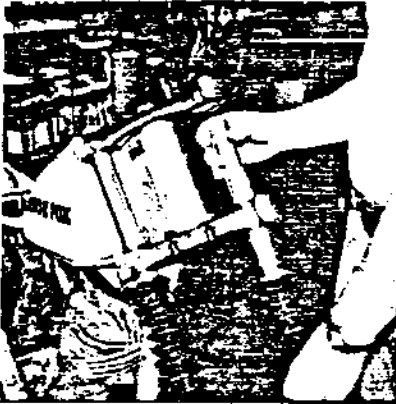
I	INSTALLATION SUMMARY	1
II	INSTALLATION	4
III	TUNING	14
IV	MAINTENANCE	16
V	DISASSEMBLY	17
VI	ASSEMBLY	20
VII	PARTS LIST	22



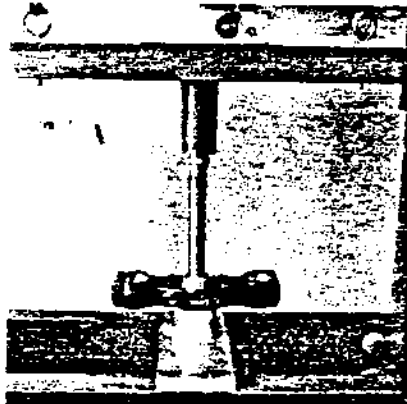
SECTION I

INSTALLATION SUMMARY

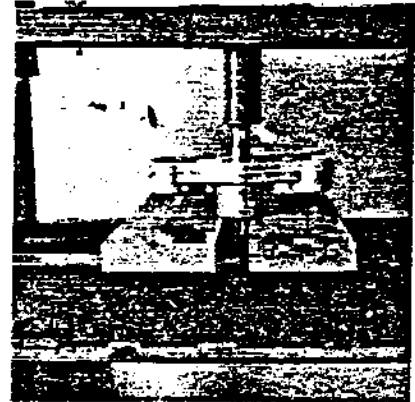
WARNING: This summary is for general reference only. Be sure to read the detailed instructions for each step as provided in the following pages of this manual. Failure to do so could result in damage to your forks, your bike, your body, or "all of the above."



1. Remove stock forks.



2. Remove stock stem.



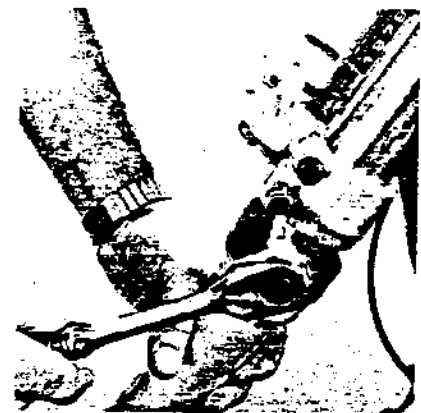
3. Install stock stem in Fox lower clamp.



4. Install bottom triple clamp on bike.



5. Install top triple clamp.



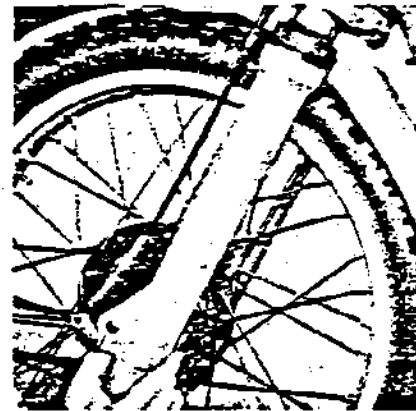
6. Install fork tubes in triple clamps.



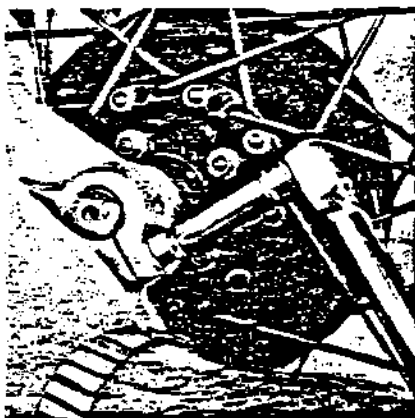
7. Install front fender.



8. Install wheel assembly.
(Do not tighten axle pinch nuts yet.)



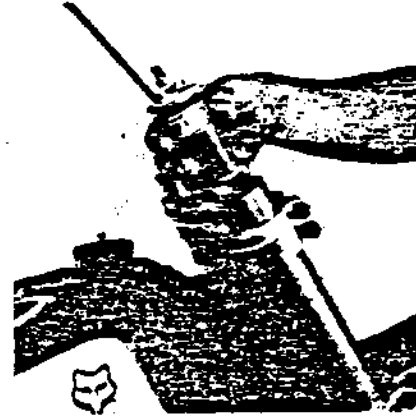
9. Set tube height. Tighten lower triple clamp bolts only.



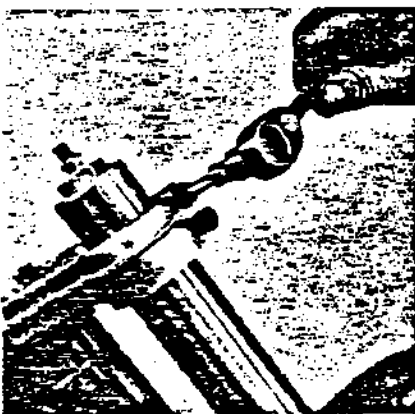
10. Tighten axle pinch nuts.



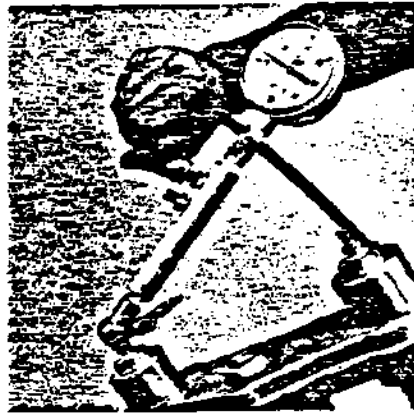
11. Add oil; set oil level.



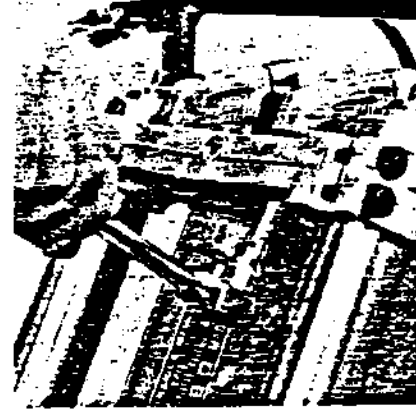
12. Install main spring, washer, spacer and tube cap.



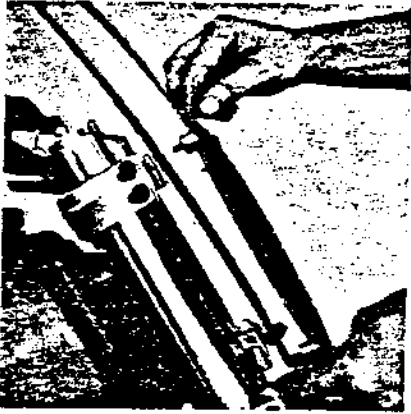
13. Tighten top triple clamp bolts.



14. Pressurize forks.



15. Install handle bar clamps.



16. Install front number plate.



17. Clamp front brake cable to left fork leg.

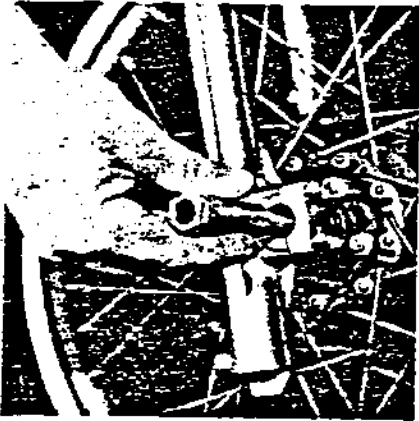


18. Install upper cable guide.

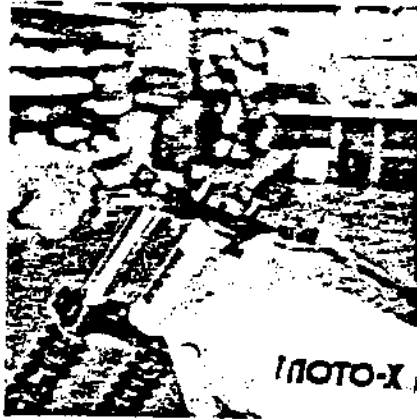
19. Perform final check, tighten bolts etc. before riding.

SECTION II INSTALLATION

STEP 1 REMOVE STOCK FORKS



a. Remove front wheel assembly.



b. Loosen top and bottom triple clamp pinch bolts.



c. Slide stock fork legs from triple clamps.



d. Remove stem bolt/nut.



e. Remove top triple clamp.



f. Hold bottom triple clamp up and remove bearing jam nut.

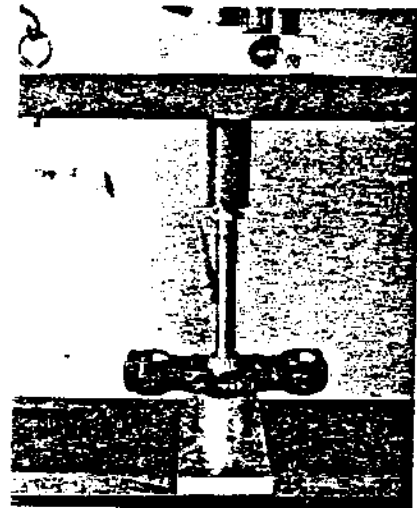


g. Slide bottom clamp out of frame neck. Be careful, some bikes have loose bearings. Don't lose any!

STEP 2 REMOVE STEM FROM STOCK LOWER TRIPLE CLAMP

NOTE: The stock stem must be removed from your stock forks and installed in your new Fox Factory lower triple clamp. This is a very delicate operation, so if your local shop has a press, as most of them do, have them install the stem. If you have access to a press and wish to do the work yourself, carefully follow these instructions.

- a. Loosen stem pinch bolt on stock bottom clamp, if applicable.
- b. Place stem/clamp assembly in press as shown. Bottom clamp should be supported as close as possible to the stem. (WARNING: Due to high forces involved, triple clamp may be permanently bent if it is not supported close to stem during press operation.) Install bolt or nut, as the case may be, on the top of stem. This is to prevent "mushrooming" or damaging the threads on the stem. Make sure the stem has a free path to exit the bottom of the clamp. With the stem as straight as possible, start pressing the stem out. It is very important to have the stem straight, since any side load may bend it.
- c. Clean stem thoroughly. Remove all burrs with light sandpaper. Now is a good time to clean and grease both the top and bottom bearings.

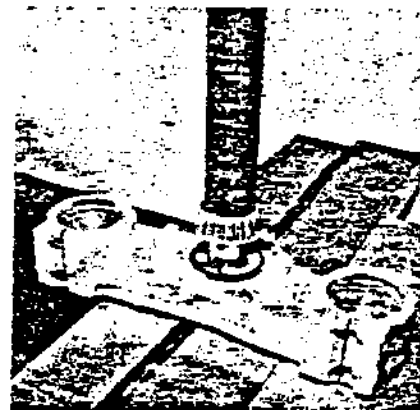
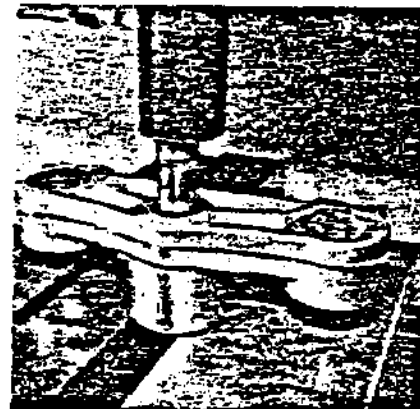


STEP 3 INSTALL STEM IN FOX FACTORY TRIPLE CLAMP

a. Place your Fox lower clamp in an oven set at 400° F for 15 minutes. This is not absolutely necessary, but will make the stem installation much easier. **DO NOT UNDER ANY CIRCUMSTANCES USE AN OXY-ACETYLENE TORCH OR ANY OTHER HEAT SOURCE THAT GETS HOTTER THAN 400° F. THIS COULD SEVERELY WEAKEN THE CLAMP.**

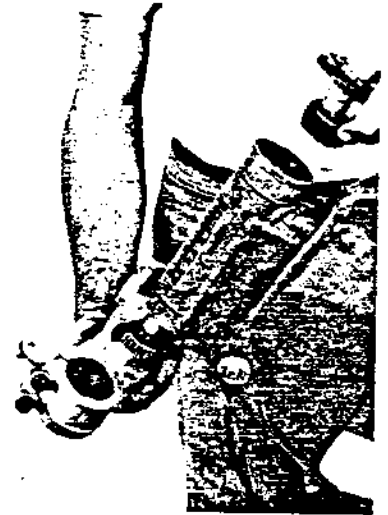
b. Place warm clamp in press, supported as close as possible to the stem hole. (WARNING: CLAMP MAY BE PERMANENTLY BENT IF NOT SUPPORTED PROPERLY.) MAKE SURE YOU ARE PRESSING THE STEM IN FROM THE BOTTOM SIDE OF CLAMP. (TOP SIDE DOWN AS SHOWN) Drop stem into clamp and line up as close as possible. Gently start pressing stem into clamp until it bottoms out.
WARNING: DO NOT USE EXCESSIVE FORCE WHEN IT BOTTOMS.

c. Slide bearing dust cover over stem (if applicable). Slide the bottom bearing over the stem. Turn this assembly over and press bearing on, using a support on the bearing race.



STEP 4 INSTALL BOTTOM TRIPLE CLAMP ON BIKE

- a. With top bearing, dust cover, and bearing jam nut in one hand, and lower triple clamp assembly in the other, slide stem through frame neck. Be careful not to ding the threads on the way up. Place top bearings over stem and push down until it is in its race. Install dust cover, if applicable, and bearing jam nut. Rotate clamp and tighten jam nut until slight binding is felt. Loosen bearing jam nut until there is no binding or play.

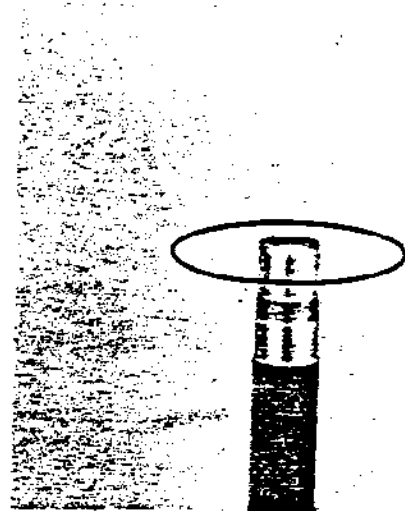


STEP 5 INSTALL TOP TRIPLE CLAMP

- a. Clean top portion of stem that the top triple clamp rides on. Slide top clamp onto stem with it lined up as close as possible to the bottom clamp. It may be necessary to tap the top clamp down with a soft mallet. (Heating top clamp to 400° F will help.) Install top stem bolt/nut. Do not tighten.

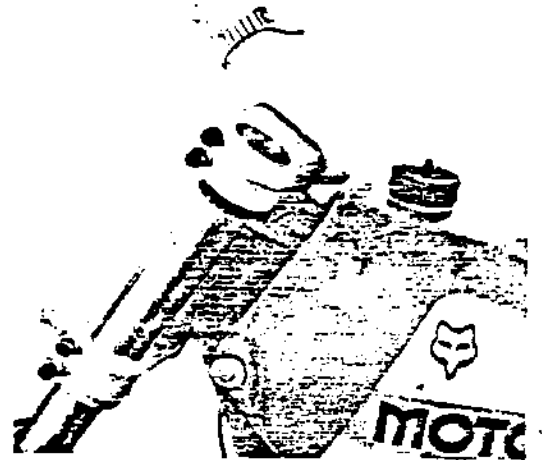


NOTE: YAMAHA STEMS, AS OF THIS WRITING, COME WITH A SLIGHT "MUSHROOM" ON THE TOP OF THE STEM. THIS MUST BE REMOVED BEFORE TOP CLAMP INSTALLATION. WITH A FILE OR ROUGH SANDPAPER, REMOVE ABOUT .005" (the thickness of this paper) FROM THE TOP 1/4" OF THE STEM. THE TOP TRIPLE CLAMP SHOULD SLIDE ON WITH LIGHT TAPPING WITH A SOFT MALLET.

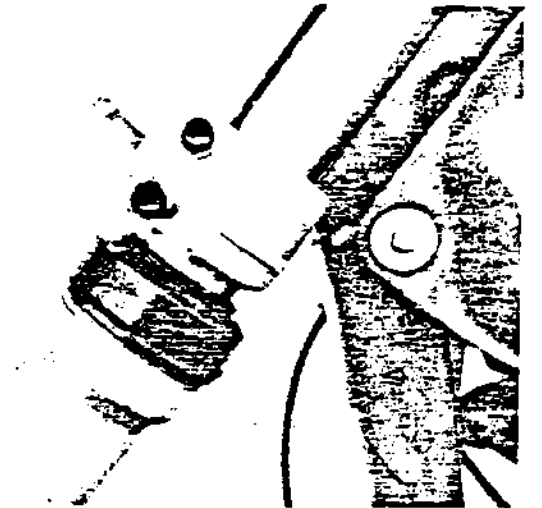


STEP 6 INSTALLATION OF FORK TUBES

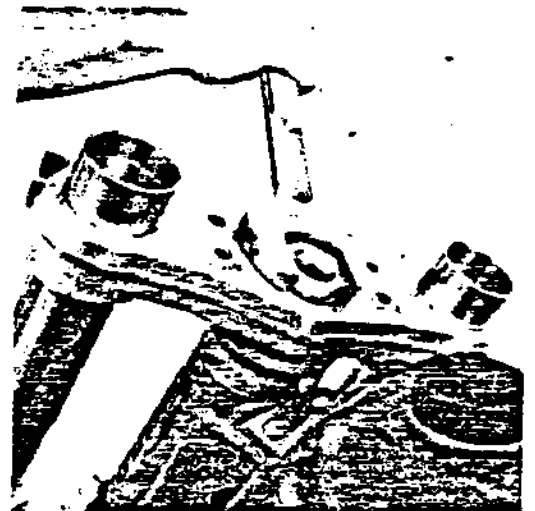
- a. Slide one fork tube assembly into bottom triple clamp. Align top clamp so the fork tube slides through. Do not use excessive force. REMEMBER: The fork assembly with the brake lug goes on the left side of bike.



- b. Completely bottom out one fork leg, then slide tube up or down in triple clamps until the rubber dust cover is 1/4" from the bottom clamp. Now snug up bolts on the bottom clamp to prevent the assembly from sliding out. Repeat this procedure for the other fork leg.

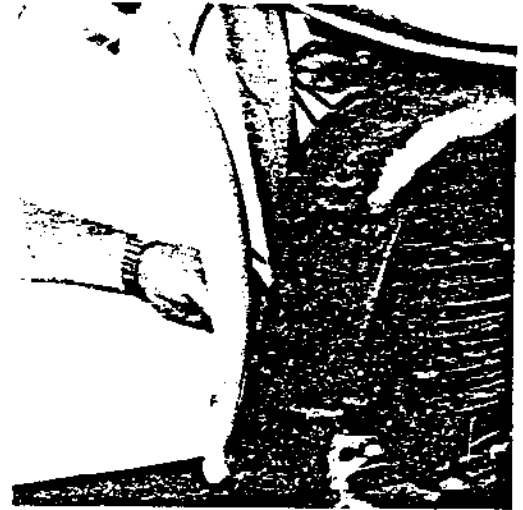


- c. Tighten stem nut/bolt.



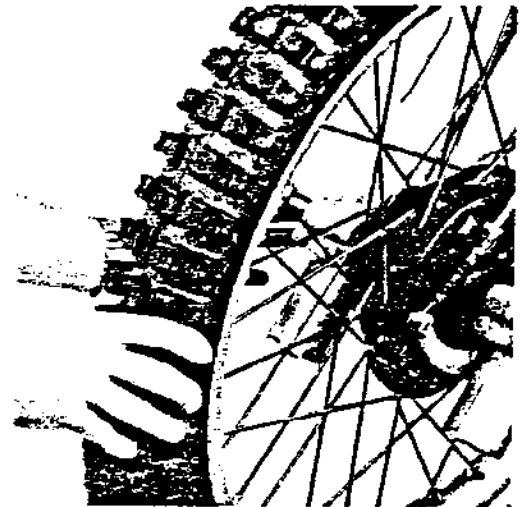
STEP 7 INSTALLING FRONT FENDER

Position front fender on bottom clamp so it is evenly spaced between fork tubes and clears the exhaust pipe and/or frame by at least 1/4". Drill fender for bolt holes using bolt pattern template on last page of this manual. Bolt fender on bottom clamp using #1/4-20 hex head bolts and 3/4" diameter flat washers. Put a drop of Loctite on each fender bolt. Cycle the sliders up and down to make sure the rubber dust covers do not hit fender.



STEP 8 INSTALL WHEEL ASSEMBLY

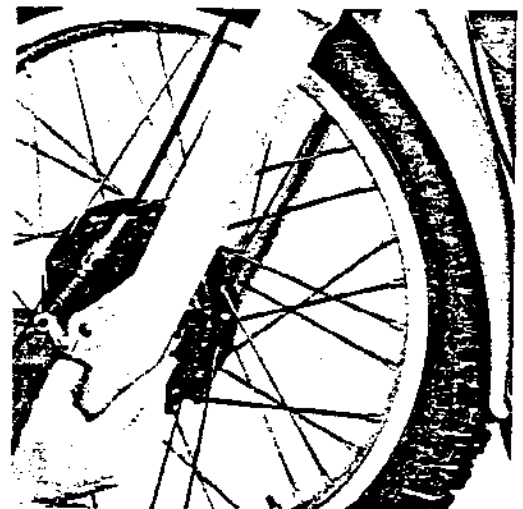
Place wheel into position with lug on slider in backing plate groove. Line up wheel and push axle through. **DO NOT USE A HAMMER.** The Axle will slide through if the wheel is lined up. Tighten axle, but leave axle pinch nuts loose for now. (The pinch nuts on the axle nut side, left side, should always be tight.)



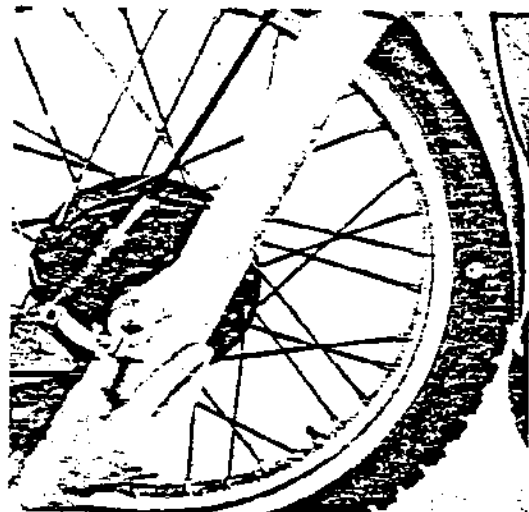
STEP 9 SET TUBE HEIGHT

Bottom out forks completely, that is, metal to metal contact. Check the following:

- at least 1/4" clearance between the tire and fender or tire and fender bolts.
- at least 3/8" clearance between frame down tubes and the tire.
- at least 3/8" clearance between exhaust pipe and tire.



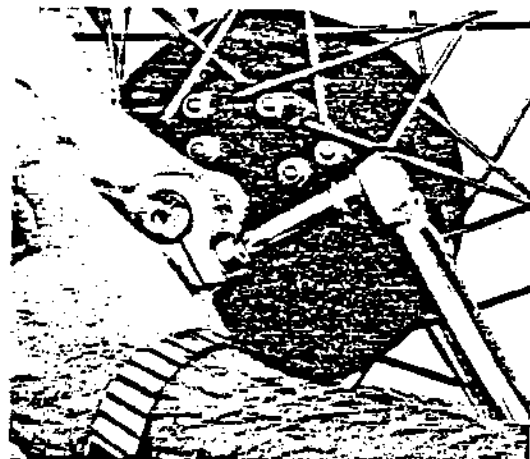
Turn the forks through their full arc to check for clearances. If any of the aforementioned clearance requirements are not met, lower the tubes 1/4". The grooves on the top of the tube are exactly 1/4" apart, so move both tubes down one full groove. Make sure both tubes are set at the same level. Now tighten bottom triple clamp bolts and re-check all clearances. Repeat procedure as required to obtain the proper clearance.



WARNING: SETTING TUBE HEIGHT IS CRITICAL. IF THE TIRE WERE TO HIT SOMETHING AT BOTTOM-OUT, IT WOULD MEAN A TRIP OVER THE BARS!

STEP 10 TIGHTEN AXLE PINCH NUTS

Compress forks to bottom out position. Tighten axle pinch nuts to 15 ft-lbs max. **IMPORTANT: AXLE MUST BE TIGHTENED BEFORE PINCH NUTS.... See Step 8.**



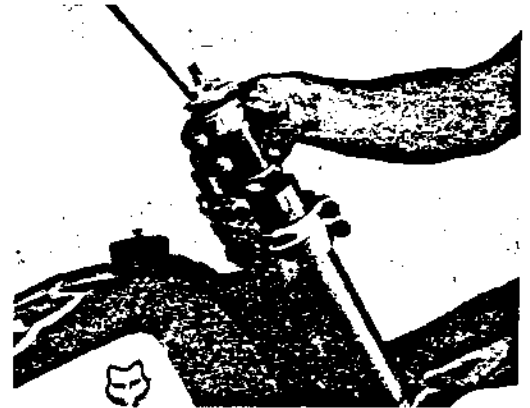
STEP 11 ADD OIL/SET OIL LEVEL

Put 400 cc of Spectro 5w (or equivalent) into each fork leg. Cycle forks up and down to distribute oil into lower chambers. Now completely bottom forks and add oil until it is exactly 6" from the top of tube. Cycle forks again and re-check oil level at bottom-out.

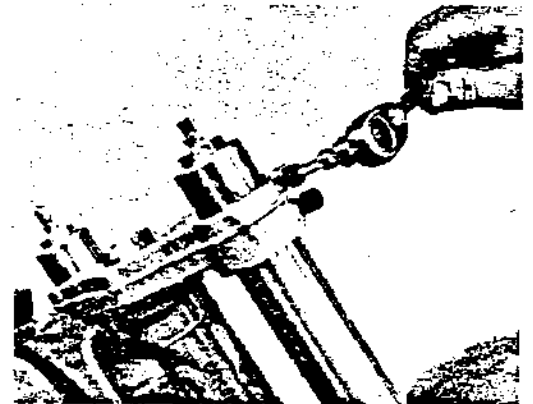


**STEP 12 INSTALL MAIN SPRING,
WASHERS, SPACER, TUBE CAP**

Place main spring, short spring spacers and washers into tubes. Install tube caps. Do not over-tighten tube caps. When the top triple clamp bolts are tightened, it will squeeze the tube caps.

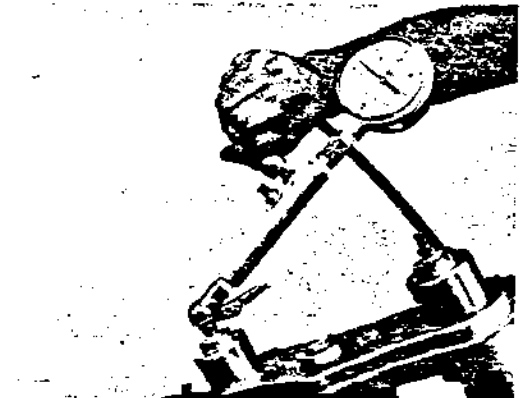


**STEP 13 TIGHTEN TOP TRIPLE CLAMP
BOLTS**



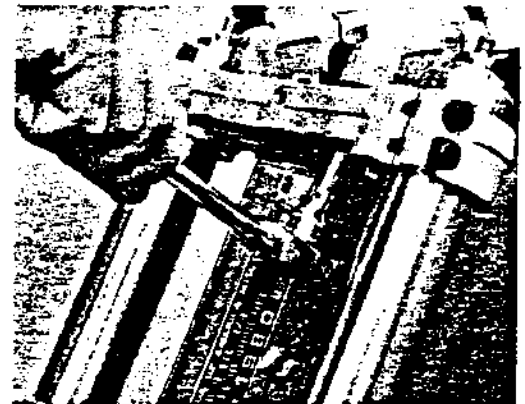
STEP 14 PRESSURIZE FORKS

Set pressure at 12 psi. The forks must be topped out when setting pressure. DO NOT PRESSURIZE FORKS WITH A WELDING OUTFIT. USE AIR OR NITROGEN. DO NOT PRESSURIZE TO MORE THAN 100 PSI FOR ANY REASON.



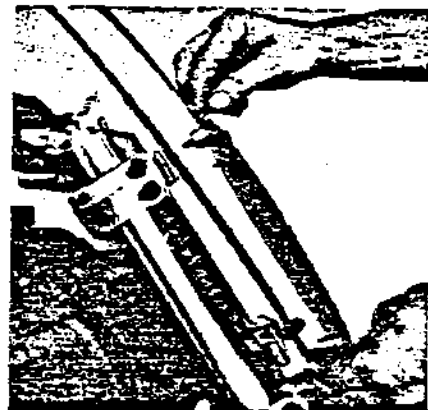
STEP 15 INSTALL HANDLE BAR CLAMPS

Install handle bar clamps on top triple clamp. Leave bolts slightly loose for now. Install handle bars. Tighten handle bar pinch bolts. Now finish tightening the bolts that hold on the handle bar clamps. Loctite is recommended on the bolts.



STEP 16 INSTALL FRONT NO. PLATE

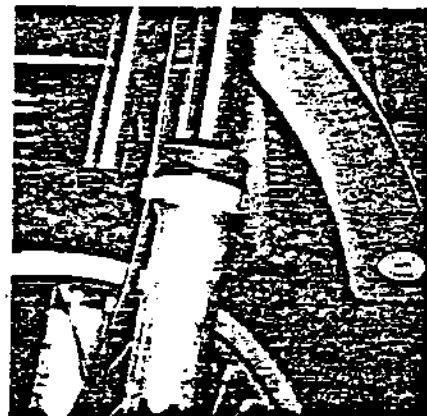
Install front number plate. Use #1/4-20 x 1" long hex head bolts with the 1/2" spacers between the triple clamps and number plate.



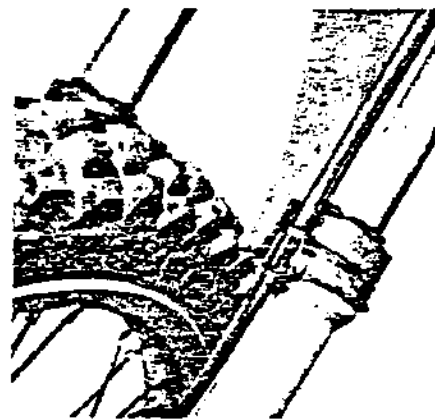
STEP 17 CLAMP FRONT BRAKE CABLE TO LEFT FORK LEG

There are two ways to clamp the cable to the fork leg.

a. Tape cable to fork leg.



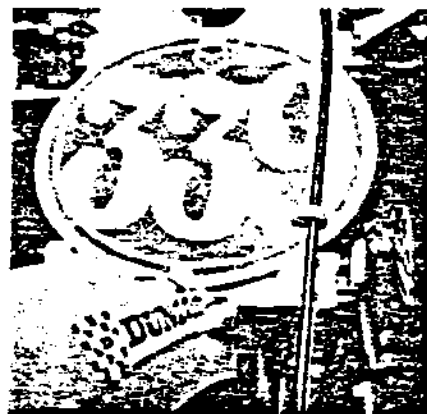
b. Use stock steel clamp with minor modifications. This is the best method but you must pinch the clamp ends so that they will tighten down on the cable. Safety wiring cable to clamp, as shown, is a good idea.



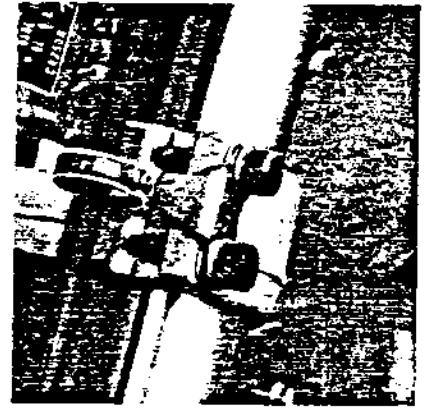
STEP 18 INSTALL UPPER CABLE GUIDE

There are two ways to install a cable guide.

a. Install stock cable guide on front number plate. If this method is used, the guide must be located as low on the number plate as possible.

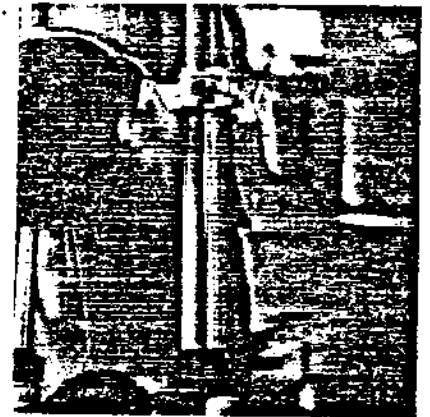


- b. Attach stock cable guide to the bottom triple clamp. This method is the best. 5/16" washers should be installed between triple clamp and guide to space it out.



Regardless of the method used, the cable clamp and guide must line up. This will prevent kinking the cable at the bottom-out.

WARNING: CABLE ROUTING IS CRITICAL. IF THE CABLE BINDS AT ANY PLACE IN ITS TRAVEL, IT'S A TRIP OVER THE BARS.



STEP 19 PERFORM FINAL CHECK, TIGHTEN BOLTS, ETC. BEFORE RIDING

SECTION III

TUNING

The recommended air pressure, oil volume (put forth in the installation section), and stock spring settings should be close for the majority of riders and applications.

Every owner of these forks should attempt to fine tune the forks for their own individual requirements.

The adjustable items are:

1. Oil volume
2. Air pressure
3. Main spring
4. Negative spring
5. Main spring preload
6. Rebound damping

OIL VOLUME

Air pressure and oil volume are the most critical items to the proper operation of the forks. Oil volume determines the bottom-out position of the forks. If the forks do not get full travel over a rough track, remove oil in 1/2" increments. If the forks seem to bottom too much, add oil in 1/2" increments. Never change air pressure to change bottom-out position. In general, the oil volume changes the last part of travel only. All oil measurements are taken with the forks bottomed out.

AIR PRESSURE

Air pressure should always be set when the forks are fully extended and the front wheel off the ground. Sometimes it is necessary to physically extend forks when setting pressure.

MAIN SPRING

There are four springs available from Moto-X-Fox. Their part numbers are as follows:

- Part # 94-0047 X-Firm
- # 94-0048 Firm
- # 94-0049 Medium
- # 94-0050 Light

The springs that your forks came with have the number marked on the box.

MAIN SPRING PRELOAD

The forks are shipped with four spacers. Two are 1-1/2" long and two are 2-1/2" long. The short spacers are for no main spring preload and the long spacers (2-1/2") are for one inch preload. We recommend using the 1-1/2" spacer when

first setting up your forks. Later, if you want more preload, you can change to the 2-1/2" spacers.

NOTE: *The forks should "sack" about 1" under the bike's weight. Under no circumstances should both spacers (1-1/2" and 2-1/2") be used to preload the springs.*

NEGATIVE SPRING

There are four negative springs available. Their part numbers are:

- Part # 94-0061 Extra firm
- # 94-0062 Firm
- # 94-0063 Medium
- # 94-0064 Light

The negative springs that your forks came with are marked on the box. The negative spring affects only the first 3-1/2" of travel. The negative spring affect on the forks is directly related to the main spring, so if you change the main spring you may want to change the negative spring. In general, if you install a stiffer main spring, you should also install a stiffer negative spring.

REBOUND VALVE

Rebound damping is controlled by the main valve. There are three sizes available. Their part numbers are:

- Part # 94-0076 Heavy
- # 94-0077 Light
- # 94-0078 Std.

The rebound valve your forks came with is indicated on the box. If you wish to experiment with more or less rebound damping, the above parts are available from Moto-X-Fox.

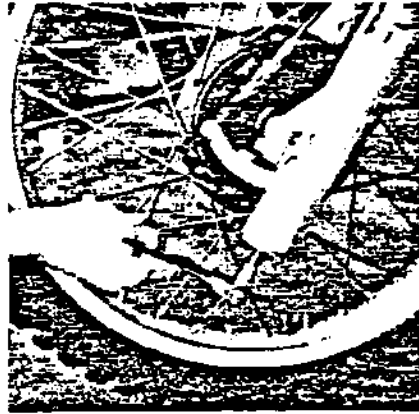
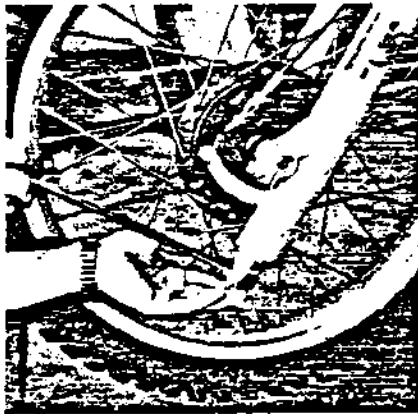
SECTION IV

MAINTENANCE

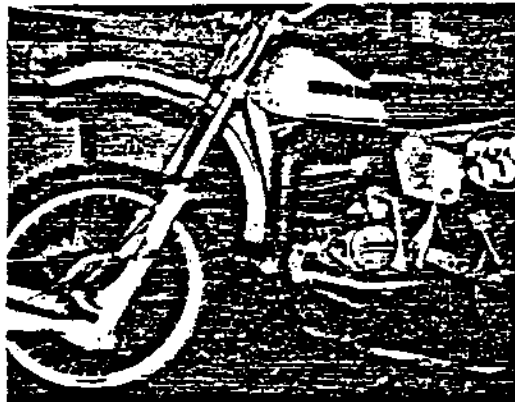
BETWEEN-MOTO MAINTENANCE

After every race check the following:

1. Inspect tubes for rock dings. Although unlikely, it is possible to have a large rock impact off the tube and ding it. Small dings in the tube can be sanded down or removed with a hand stone. If the tube has a large, sharp ding you must check the slider for damage. If there is a groove in the slider, remove the high spots with sand paper. If the seal has been damaged, replace it.
2. Wipe mud off the tubes after every use. Keeping the tubes clean will increase the life of the seals and dust covers.
3. Check slider cap and damping rod for tightness.



4. Check stem bearings for proper adjustment (no play).

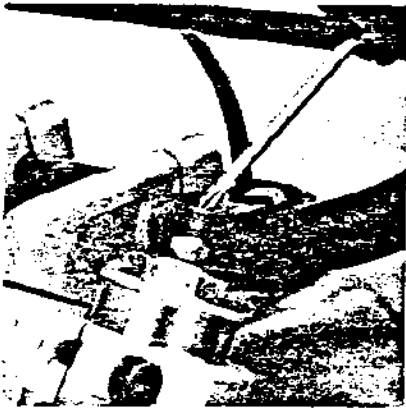


PERIODIC MAINTENANCE

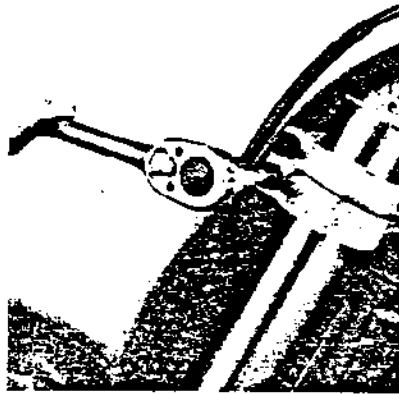
Change oil in forks every 5 or 6 races. The best method is to disassemble the forks and completely clean them. If this is not possible, just draining the oil is adequate. To change oil, remove drain plug on lower part of sliders and drain old oil. After all the old oil has drained, replace the plug. Use Loctite on plug. This method of changing oil does not remove a small amount of oil which is below the plug. It is this oil that is the dirtiest.

SECTION V

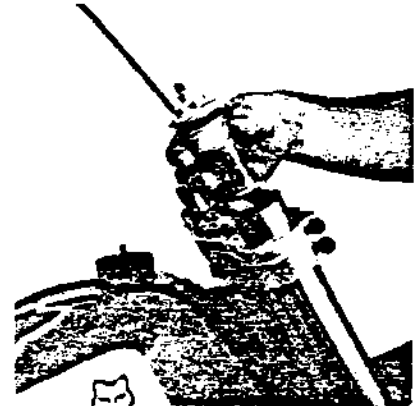
DISASSEMBLY OF FORKS



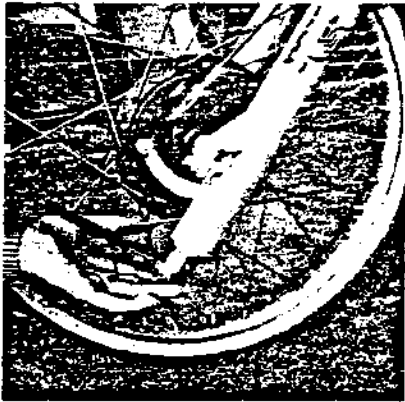
1. Depressurize.



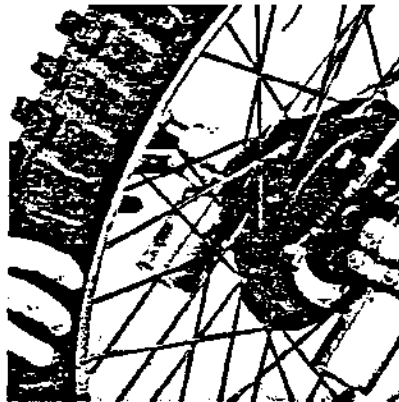
2. Loosen top triple clamp bolts.



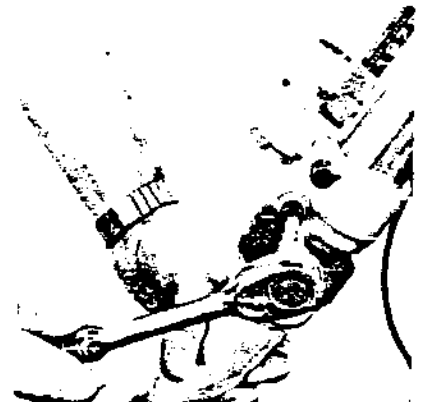
3. Remove tube cap, spacer, washers and spring.



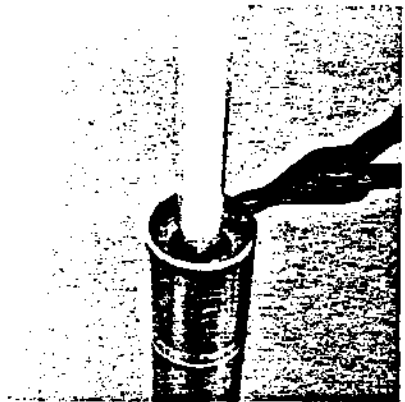
4. Unscrew slider cap with special tool, drain oil.



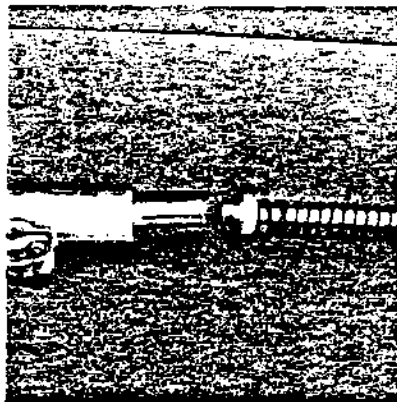
5. Remove wheel assembly.



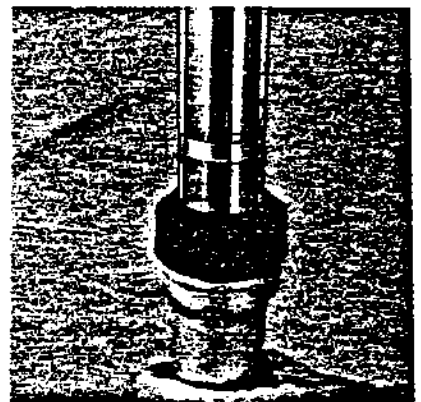
6. Loosen pinch bolts on bottom triple clamp, remove fork legs.



7. Remove snap ring in the bottom of fork tube.



8. Slide damping rod assembly out.

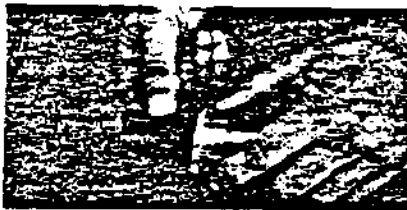


9. Slide slider off tube from the bottom. Be careful not to damage seal.

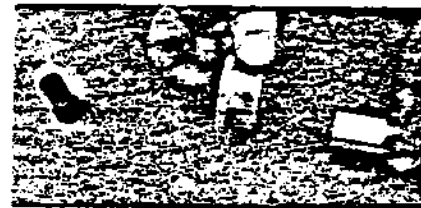
DAMPING ROD DISASSEMBLY



1. Loosen damping rod bolt-hold damping rod as shown.



2. Remove bolt and washer.



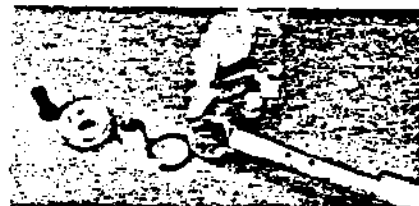
3. Remove slider cap.



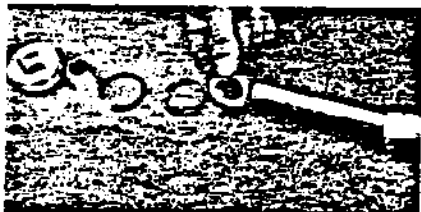
4. Remove bottom out cone.



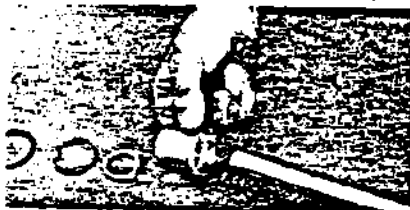
5. Remove snap ring.



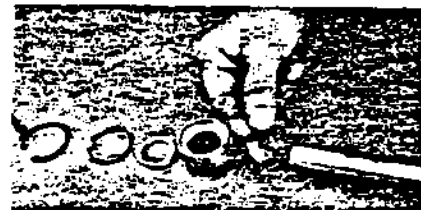
6. Remove bottom out valve retainer washer-note the difference between top and bottom.



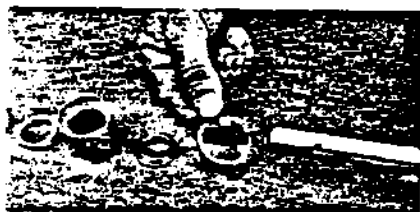
7. Remove bottom out valve.



8. Remove valve body.



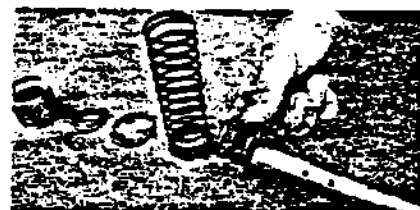
9. Remove main valve.



10. Remove top retainer washer.

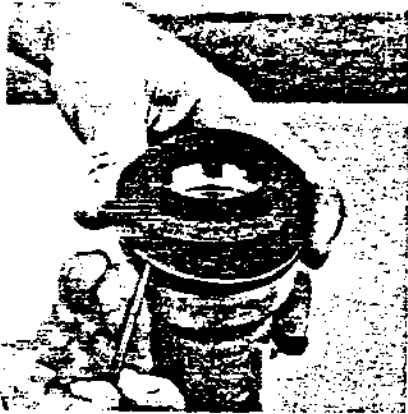


11. Remove negative spring.



12. Remove top out spring.

SEAL/DUST COVER REMOVAL



1. Remove dust cover by expanding retainer ring and sliding cover off.



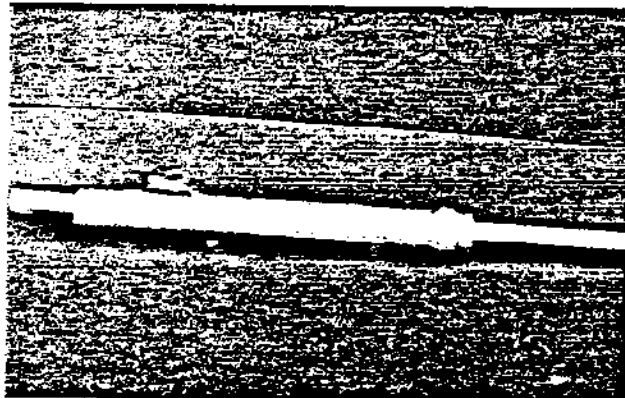
2. Remove seal retainer ring by prying the ring inward and lifting up on the tool. Remove seal washer.



3. Place a piece of wood on the edge of slider. With a screwdriver or similar tool, pry up on the inside of the seal. Be careful not to scratch the slider bore or seal groove.

Clean all parts thoroughly. NOTE: Seals, dust cover, and other rubber parts should not be cleaned in trichlorethylene, acetone, or any strong cleaning fluid. To be safe, wipe rubber parts off with a clean cloth. Some chemical compounds dissolve rubber. A convenient method of cleaning fork tubes and sliders is placing a paper towel in the respective part and pushing the towel through with a broom handle or a similar tool. Blow off all parts with air. Clean, as best as you can, the old Loctite from the damping rod threads in the bottom of the rod. Inspect parts for abnormal wear. Check o-rings for tears or defects.

If the bike has been crashed or experienced abnormal abuse, check tubes for straightness. The tube should slide freely through the slider. If the tube is bent, straighten or replace it.



SECTION VI

ASSEMBLY OF FORKS

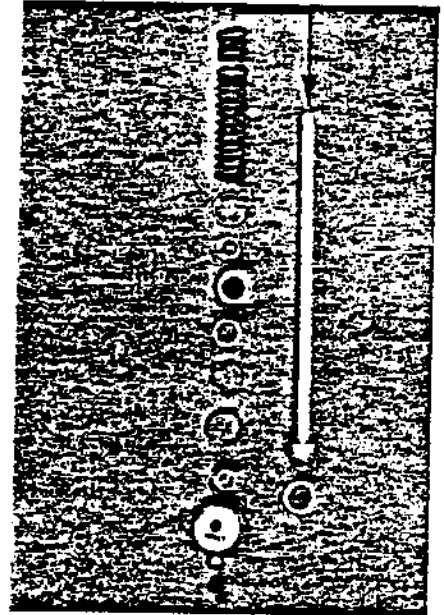
DAMPING ROD ASSEMBLY

Lay out all damping rod parts in their assembly order, that is:

1. Top out spring
2. Negative spring
3. Top retainer washer (the two retainer washers are different, watch out!)
4. Main valve (large diameter down)
5. Valve body (both sides are the same)
6. Bottom out valve
7. Bottom out valve retainer
8. Snap ring
9. Bottom out cone
10. Slider cap/w o-ring
11. Fiber washer
12. Bolt

Slide these parts on the damping rod in this assembly order (reverse disassembly procedure, page 18). Apply Loctite to damping rod bolt. Tighten bolt by holding piston with screwdriver.

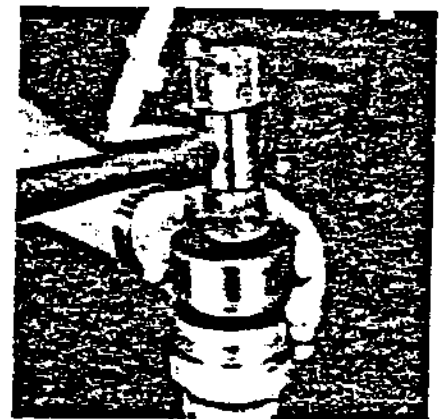
NOTE: THIS BOLT IS VERY CRITICAL . . . IF IT WERE TO COME LOOSE, THE FORKS COULD FALL OFF!



SEAL INSTALLATION

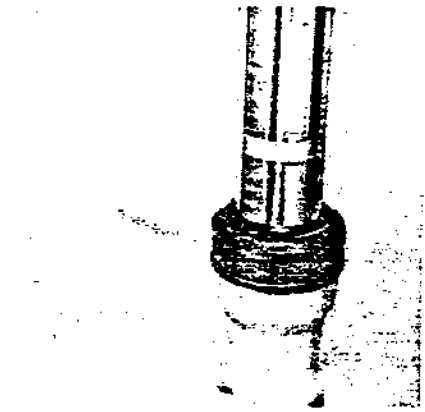
Never reinstall a used seal. Once they have been taken out they are not reusable. Inspect counterbore for scratches. Remove all scratches with light sandpaper. Lightly grease seal counterbore. Place seal on top of slider, in line with bore.

Place seal installation tool, part #94-8000, on the seal as shown. Make sure it is not on the wiper portion of the seal. Drive seal into counterbore as straight as possible until it bottoms. Do not use excessive force when it bottoms, light tapping with a mallet only. Install seal washer and snap ring. Make sure the snap ring is completely in its groove.



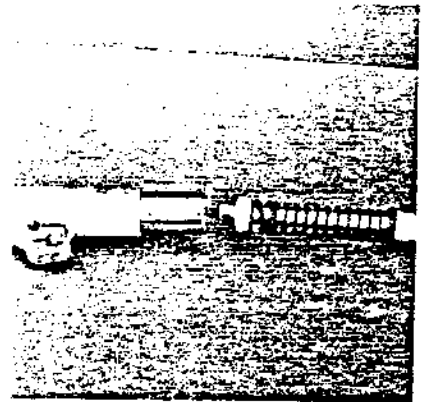
INSTALL SLIDER

Apply grease or fork oil to seal and bottom of tube. Gently slide tube through slider from top. Be careful not to damage seal lips. A slight rotating motion will help.

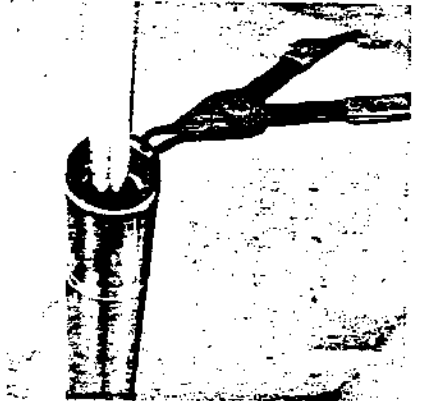


INSTALLING DAMPING ROD ASSEMBLY

Slide tube through slider so it extends through the bottom of the slider. Slide damping rod assembly into tube. Do not use excessive force as this will damage the teflon piston ring. Slide valving assembly into tube counterbore.

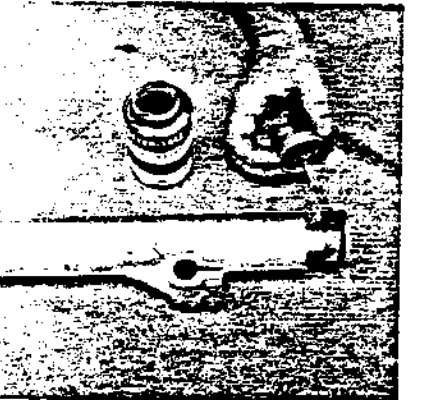


Install snap ring. THIS SNAP RING IS VERY IMPORTANT. MAKE ABSOLUTELY SURE THAT THE RING IS ALL THE WAY IN ITS GROOVE. THE FORKS WILL COME APART IF THIS SNAP RING IS NOT PROPERLY INSTALLED.



Oil slider cap o-ring. Put "ANTI-SEIZE" on slider cap threads before screwing into slider. Tighten slider cap with wrench adapter. If "ANTI-SEIZE" is not available, use chain lube on threads.

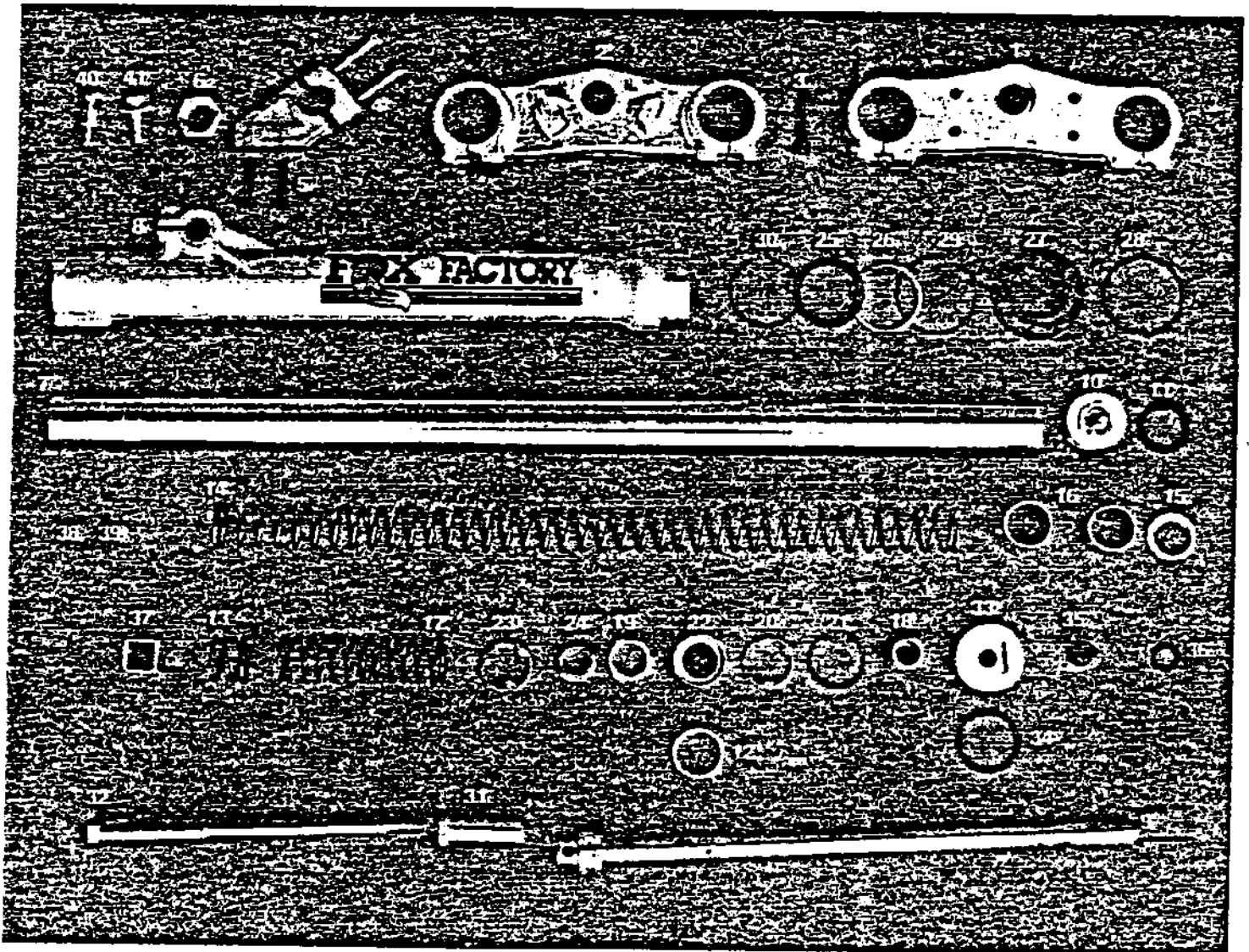
WARNING: DO NOT USE LOCTITE ON THREADS . . . if Loctite is used here, you probably will never be able to remove the slider cap again since the aluminum threads will probably gall.



CONTINUE ASSEMBLY PER THE INSTALLATION SECTION OF THIS MANUAL.

SECTION VII

PARTS LIST



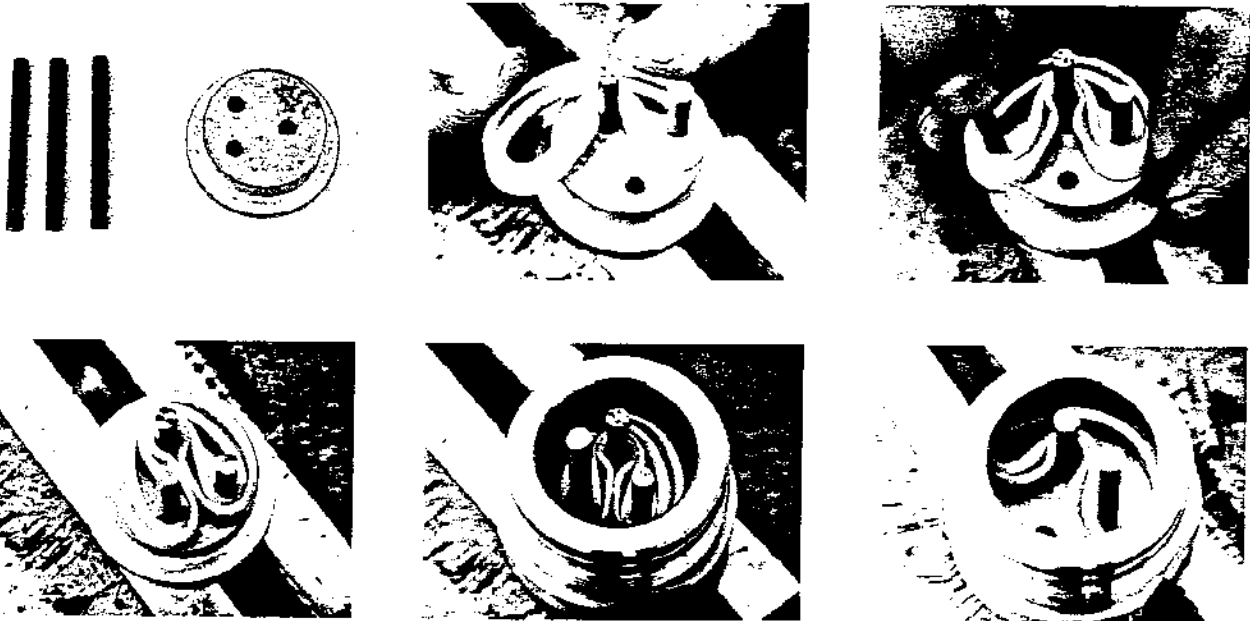
ITEM	PART #	DESCRIPTION	PRICE/QTY
1.	94-0001	Top Triple Clamp—Honda	\$64.00/ea.
	94-0002	Top Triple Clamp—Suzuki	\$64.00/ea.
	94-0003	Top Triple Clamp—Yamaha	\$64.00/ea.
2.	94-0004	Bot. Triple Clamp—Honda	\$64.00/ea.
	94-0005	Bot. Triple Clamp—Suzuki	\$64.00/ea.
	94-0006	Bot. Triple Clamp—Yamaha	\$64.00/ea.
3.	94-0017	Triple Clamp Bolts	\$ 1.00/ea.
4.	94-0018	Handle Bar Clamp	\$13.80/ea.
5.	94-0019	H.B. Clamp Bolt Set (4)	\$ 4.00/ea.
6.	94-0021	Honda Stem Nut	\$ 7.50/ea.
7.	94-0022	Fork Tube	\$68.00/ea.
8.	94-0023	Slider—Honda—Left	\$84.00/ea.
	94-0024	Slider—Honda—Right	\$84.00/ea.
	94-0025	Slider—Yamaha—Left	\$84.00/ea.
	94-0026	Slider—Yamaha—Right	\$84.00/ea.
	94-0027	Slider—Suzuki—Left	\$84.00/ea.
	94-0028	Slider—Suzuki—Right	\$84.00/ea.

ITEM	PART #	DESCRIPTION	PRICE/QTY
9.		Damping Rod W/Piston:	
	94-0039	-12" Travel	\$22.00/ea.
	94-0040	13" Travel	\$22.00/ea.
10.	94-0043	Tube Cap W/Air Valve	\$11.25/ea.
11.	94-0044	Tube Cap O-Ring	\$ 1.00/pr.
12.	94-0045	Piston Ring	\$ 3.50/ea.
13.	94-0046	Top Out Spring	\$ 2.00/ea.
14.	94-0047	Main Spring—Extra Firm	\$16.40/pr.
	94-0048	Main Spring—Firm	\$16.40/pr.
	94-0049	Main Spring—Medium	\$16.40/pr.
	94-0050	Main Spring—Light	\$16.40/pr.
15.	94-0055	Spring Washers	\$ 4.00/pr.
16.	94-0056	Preload Spacer—1.5"	\$ 2.50/pr.
	94-0057	Preload Spacer—2.5"	\$ 2.50/pr.
17.	94-0061	Negative Spring—Extra Firm.	\$ 6.00/pr.
	94-0062	Negative Spring—Firm	\$ 6.00/pr.
	94-0063	Negative Spring—Medium	\$ 6.00/pr.
	94-0064	Negative Spring—Light	\$ 6.00/pr.
18.	94-0070	Bottom—Out Cone	\$ 7.50/ea.
19.	94-0071	Bottom—Out Valve	\$ 4.50/ea.
20.	94-0072	Bottom Out Retainer Washer	\$ 2.50/ea.
21.	94-0073	Snap Ring	\$ 1.50/pr.
22.	94-0074	Valve Body	\$10.00/ea.
23.	94-0075	Main Valve Retainer Washer	\$ 2.50/pr.
24.	94-0076	Heavy Rebound Main Valve	\$ 4.00/pr.
	94-0077	Light Rebound Main Valve	\$ 4.00/pr.
	94-0078	STD Rebound Main Valve	\$ 4.00/pr.
25.	94-0079	Seal	\$ 3.50/ea.
26.	94-0080	Seal Washer	\$ 3.50/pr.
27.	94-0081	Dust Cover	\$ 3.50/ea.
28.	94-0082	Dust Cover Retainer ring	\$ 1.00/pr.
29.	94-0083	Seal Retainer Ring	\$ 1.00/pr.
30.	94-0084	Bearing Retainer Ring	\$ 1.00/pr.
31.	94-0085	Axle Nut	\$ 8.00/ea.
32.	94-0086	Axle—Honda	\$16.00/ea.
	94-0087	Axle—Yamaha	\$16.00/ea.
	94-0088	Axle—Suzuki	\$16.00/ea.
33.	94-0093	Slider Cap	\$ 8.00/ea.
34.	94-0094	Slider O-Ring	\$ 1.00/ea.
35.	94-0095	Damping Rod Bolt	\$ 6.00/ea.
36.	94-0096	Damping Rod Bolt Washer	\$ 1.00/pr.
37.	94-0097	Slider Cap Wrench Adaptor	\$ 1.00/ea.
38.	94-0098	Drain Screw	\$ 1.00/pr.
39.	94-0099	Drain Screw Washer	\$ 1.00/pr.
40.	94-0100	Number Plate Bolt Set (2 W/Spacers)	\$ 2.00/set
41.	94-0101	Fender Bolt Set (4 W/Washers)	\$ 2.00/ea.

ACCESSORY ITEMS:

PART #	DESCRIPTION	PRICE/QTY
94-7000	Owner's Manual	\$ 2.95/ea.
94-8000	Seal Installation Tool	\$10.95/ea.
98-2030	Deluxe Gauge W/Hose, 0-30psi	\$39.50/ea.
94-9000	REBUILD KIT (includes 2 fork seals, 2 slider dust covers, complete set of o-rings, 2 piston rings, and 2 damping rod bolt seals).	\$19.95/ea.

3. Wash bearing thoroughly in solvent. Make sure there is no dirt in grooves.
4. Mount new seal on Seal Installation Tool (Part #99-5330), and install in bearing. Use vise to hold two of the pins as shown in photos. Pull pins out and help seal into groove with your fingers.



5. Install new wiper. This can be done without tools. Use your thumbs as shown.
6. Before reinstalling bearing on shaft, check shaft very carefully for possible damage . . . large dings, nicks, etc. Touch up any small defects with fine sandpaper. Any major defects may require replacement of the shaft. New seals should give at least 6 months service unless shaft flaws cause premature failure.



SECTION VII

TROUBLESHOOTING

It is unlikely that you will have any serious trouble with your FOX MONO AIRSHOCK. However, here are some possible problems with suggested solutions.

1. **Problem:** "The shock is losing pressure."

Solution: First, be sure this is really happening. This is very unusual. Possibly a "practical joker" let some air out, or something else unusual happened.

If shock really does lose pressure, most likely cause is a loose, dirty, or defective air valve. No Teflon tape on air valve threads could also do it. Bad O-ring or shaft seal also possible.

*Any signs of oil loss? Try to locate leak with "saliva test" on air valves. If nothing else works, take shock off bike and immerse in bucket of water (or bathtub!).

2. **Problem:** "The shock is bottoming-out hard."

Solution: a. Is the pressure way below the recommended value?

b. Have you been riding several months without changing oil? Oil level will be low. You must change oil periodically. See section on Maintenance.

c. You may have to add about 5 cc oil to the shock. See "Tuning Oil Fill".

d. Did a lot of oil accidentally squirt out of the pressure valve when adjusting pressure? If a lot of oil is ever lost, shock should be taken apart, drained, and refilled.

3. **Problem:** "The shock isn't getting full travel."

Solution: a. Is the pressure way above the recommended value?

b. Check for interference with frame, swingarm or shock bracket preventing full travel.

c. Is track you are riding on rough enough to expect full travel?

d. You may have to remove about 5cc oil from the shock. See "Tuning Oil Fill".

4. **Problem:** "The shock is topping-out."

Solution: A *slight* topping feeling is normal, particularly if you run relatively high pressures. However, if topping is severe, something is wrong. Most likely cause is dirt or metal chip jamming open the damping valve on the piston.

5. **Problem:** "The shock is leaking oil."

Solution: Where is the leak?

Leaking shaft seal is shown by oil on shaft. This seal should normally last at least 6-12 months. If your shock is newer than that, check for nicks or dings in shaft as cause of seal failure.

Oil on shaft could also be caused by defective O-ring on shaft bearing. If you trace oil leak path to the junction between the bronze shaft bearing and the shock body, then this O-ring is the problem.

Oil leaking at big end of shock indicates defective O-ring on large end cap.

SECTION VIII

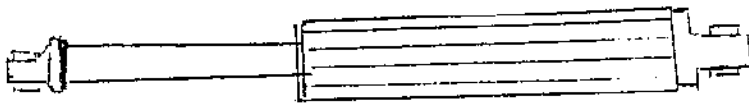
QUIZ

1. When reassembling, how much Loctite should you put on the bearing threads?
2. How much torque should you use on the piston locknut?
3. You have just reassembled your shock after changing the oil . . . the shaft is very hard to push in and out with the shock depressurized. What happened?
4. The pressures you are running seem about right, but the shock bottoms-out hard in a few places. What do you do, and how do you do it?
5. How can you check to see if the shock is using full travel?
6. If the pressure seems about right, but you don't get full travel even off big jumps, what can you do?
7. How much oil should you refill the shock with? What kind?
8. What visual check should you make after tightening down the piston locknut?
9. Piston ring should be replaced if it measures less than _____"?
10. Extreme torque on bearing flats could damage what part?
11. Should Loctite be used on piston locknut? On shaft cap threads?
12. After riding, you feel the pressure setting is too soft. You connect the Moto-X Fox "mono-gauge" and it reads 170 psi. So you increase it to 175 psi and go back out. *What did you do wrong????*

ANSWERS

1. About 2 or 3 drops . . . *not more*, or you may never get it off again!
2. About 40 to 45 ft-lbs . . . *not more*, or you could "bow" the compression damping washer.
3. Excessive torque or improper wrench fit has deformed bearing. The bearing must now be replaced.
4. Add 5 cc oil to the shock. Use eyedropper. Remove valve core from the pressure valve and add oil there. See Section III for correct procedure.
5. Pull black rubber shaft bumper up an inch or two on shaft before riding. Check position again after riding.
6. Remove 5cc oil for each 1/4" short of full travel. See Section III for correct procedure.
7. See Refill Oil Quantity Table in Section IV. Use Bel-Ray LT-100 only.
8. Check that compression damping washer sets flat on other side of piston. Make sure it isn't "bowed". If washer seems to have a slight permanent "bow" in it, replace with new one. In emergency, turn washer over so it "bows" *toward* piston, rather than away from it.
9. Replace if less than about 1.883" dia. while mounted on piston. New rings are about 1.890 to 1.895.
10. This could damage the bearing. You would notice "wrinkles" on top of bearing by flats. If this happens, it squeezes the wiper too tightly against the shaft, giving excess friction. You will see deformed area easily if it happens. Replace bearing.
11. Yes, use plenty on locknut. On shaft cap, use about 2 drops.
12. This was a trick question. You probably wouldn't know the answer unless you had a "mono-gauge" and had read the instructions that come with it. Here's what happened:

You actually decreased pressure, you did not increase it! *Always remember* that when you get a reading with *any* gauge, *it takes away some of the pressure*. For example, a FOX MONO gauge takes about 10 psi from the pressure chamber when connected. Thus, when the gauge reads 170 psi, the pressure was really about 180 psi (170 + 10) . . . when you set at 175 psi you actually decreased the pressure from before.



F MODEL INSTRUCTIONS

(Supplement to Owner's Manual)

This sheet contains the necessary revisions to the Owner's Manual for the "F" model shock.

SECTION I INSTALLATION

2. Pressure Hose Hole Location.

Yamaha YZ 250F/400F: The pressure hose should exit the shock cavity on the left side just in front of the tank. Locate the hole in the circular section approximately 2½ inches forward of the front shock mount pin. Follow the drilling procedure outlined on Page 8.

SECTION II PRESSURIZING

Recommended Pressures

Table 2. Fox Mono Airshock Pressure Recommendations (psi) for Yamaha YZ F Models.

SHOCK PRESSURE (psi)	RIDER WEIGHT (lbs)										
	120	130	140	150	160	170	180	190	200	210	220
250 F	173	179	186	192	199	205	212	218	226	231	238
400 F	179	186	192	199	205	212	218	226	231	238	244

SECTION IV MAINTENANCE

Oil Refill Quantities

11" F Model Fox Mono Airshock (2 spacers)	434cc	oil
12" F Model Fox Mono Airshock (1 spacer)	438cc	
13" F Model Fox Mono Airshock (no spacer)	442cc	

F MODEL INSTRUCTIONS (cont'd)

SECTION V PARTS LIST

All part numbers remain unchanged, except for item #6, Body. The F Model Body is part number 99-5061. Price remains at \$124.

SECTION VI DISASSEMBLY

Travel Modifications

Your Fox Mono Airshock was shipped from the factory to give either 11, 12, or 13 inches of rear wheel travel (as printed on the end of the carton it came in). If you want to change the travel, follow the instructions below:

The amount of travel is controlled by the number of spacers under the top out plate. For each spacer removed, add 4cc oil. Reduce the oil volume by 4cc for each spacer added.

11" rear wheel travel- 2 spacers

12" rear wheel travel- 1 spacer

13" rear wheel travel- 0 spacers

To change the number of spacers, remove the piston as described on Page 22 of the Owner's Manual.