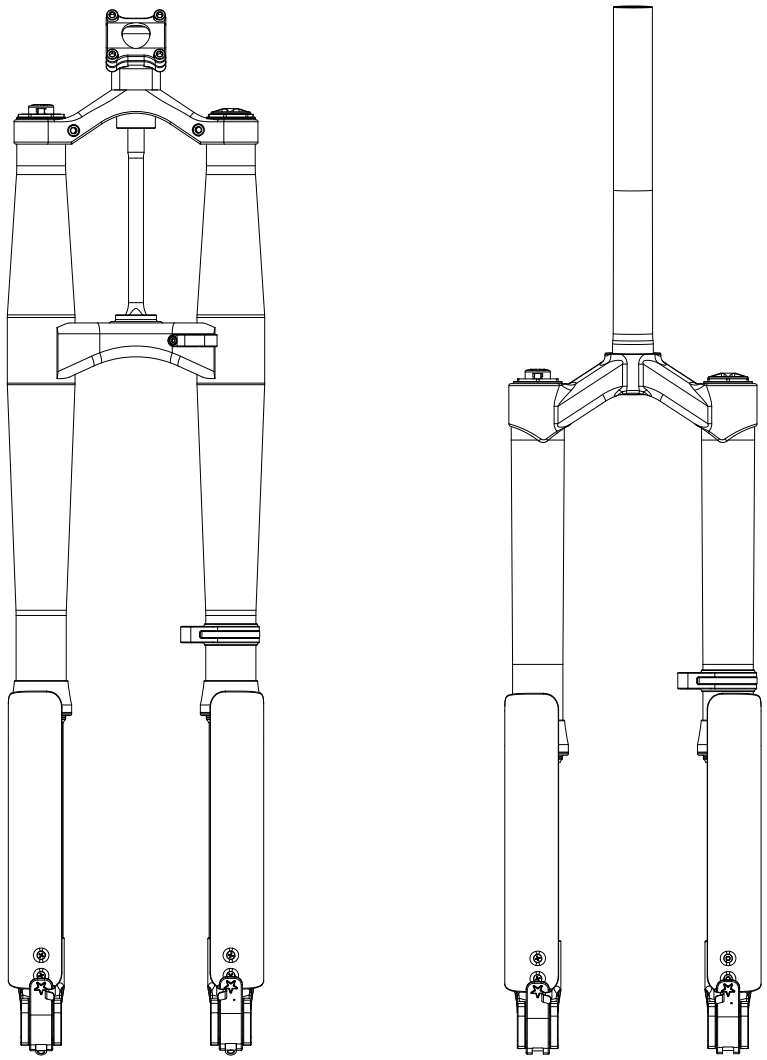


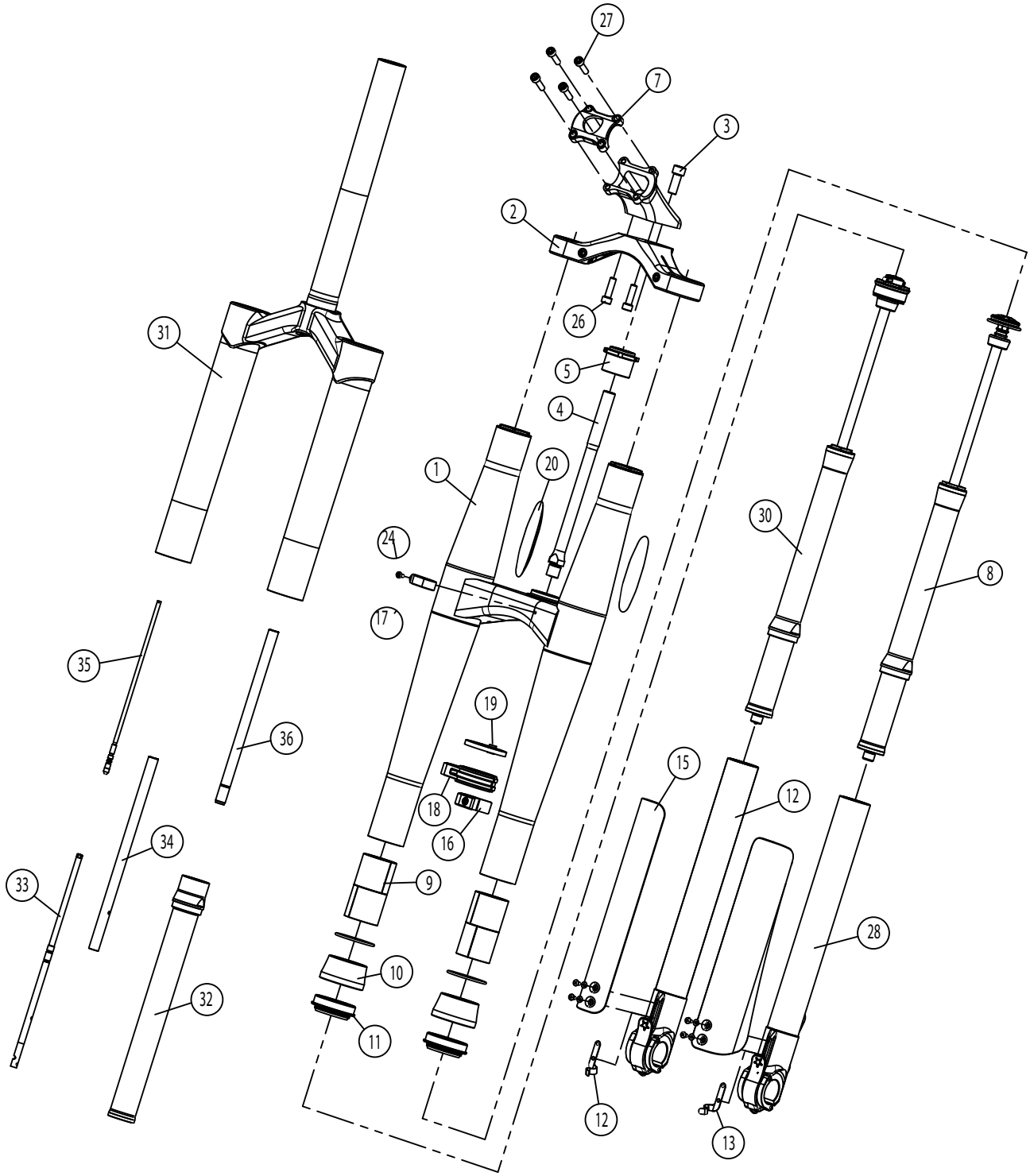
OVERVIEW

The internals of both the DUC32 and SC32 forks are generally the same, only the lengths of six internal parts are different to adjust for travel and the double or single crown configurations.

The right fork leg contains a low-pressure, oil damper cartridge that provides rebound and compression damping, and the ride height climbing mode adjustment feature.

The left leg contains an air-spring cartridge with a coil negative spring to reduce the initial spring force created by the air pressure.

The internals of both forks are quickly and easily serviceable using common shop tools.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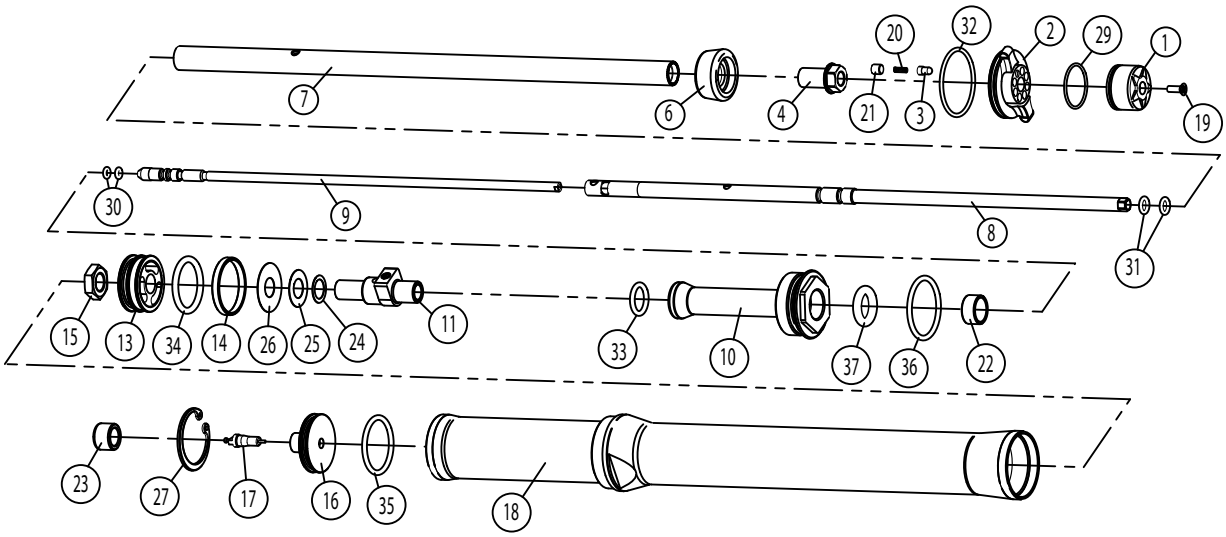
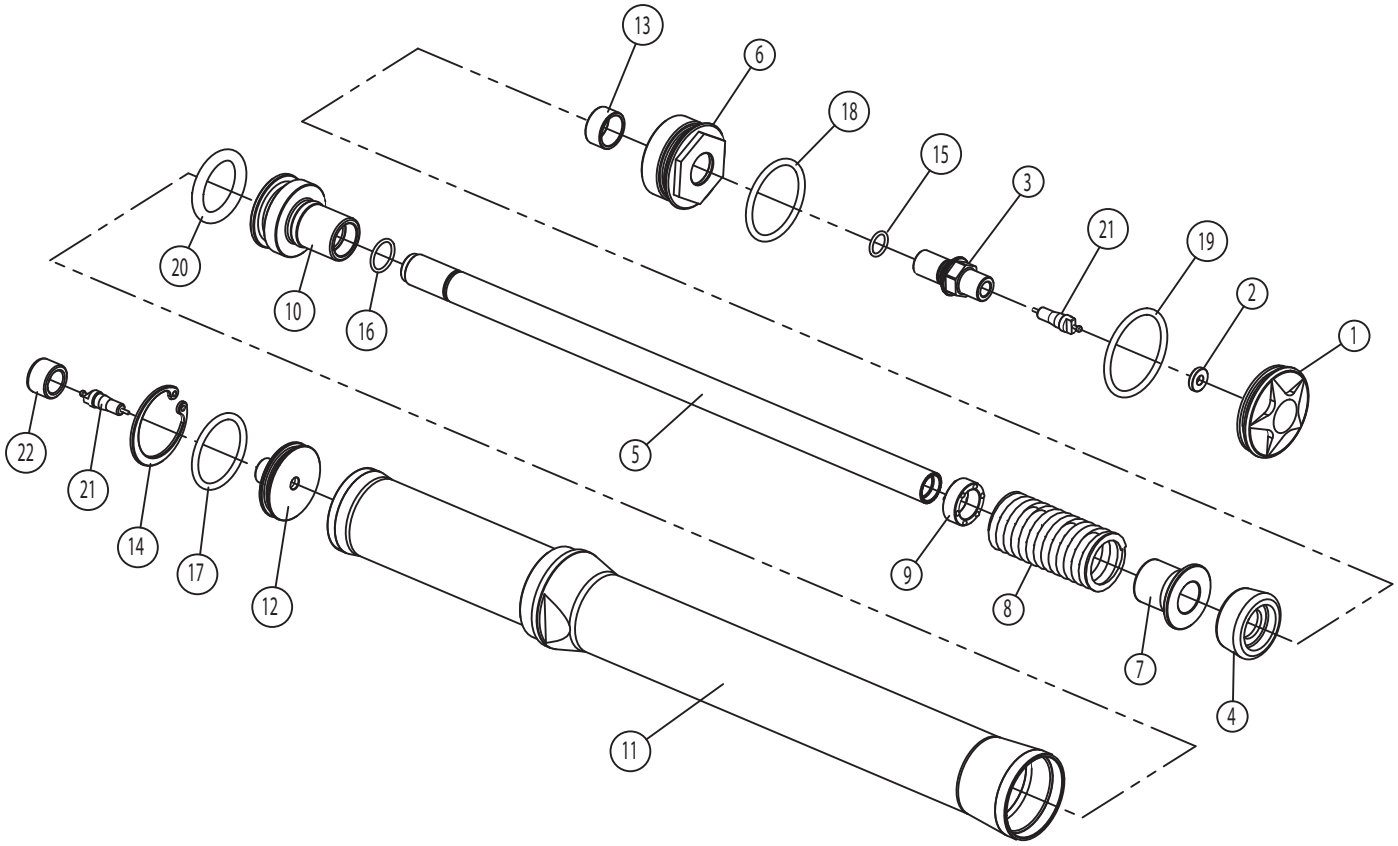
PART NUMBERS for DUC32 & SC32 FORKS

NO.	PART NAME	Part No.	QTY.
1	DUC32 Assy, Upper Weldment		1
2	DUC32 Upper Crown, Medium	30104	1
3	DUC32 Bolt, Steerer	90138	1
4	DUC32 Steerer Shaft	90155	1
5	DUC32 Nut, Steerer Shaft	90141	1
6	DUC32 Stem 25.4 90-35	30102	1
7	DUC32 Stem Cap 25.4	90156	1
8	DUC Assy, Air Spring	99170	1
9	ML7 Bushing, Main	90060	4
10	DUC32 Seal Head, Main	90145	2
11	Wiper, 32mm	90166	2
12	DUC32 Assy, DropOut Right	99003	1
13	DUC32 Assy, Drop-Out Left	99004	1
14	DUC32 Leg Guard, Left	90168	1
15	DUC32 Leg Guard, Right	90169	1
16	DUC32 Cable Guide, Set	50004	1
17	DUC32 Cable Guide, Upper	90104	1
18	SC32 Cable Guide	90103	1
19	Cable Tie	Gardner Bender 47-108UVB	1
20	DUC32 Bumper, Frame	90140	2
21	O-Ring 2.0 X 37	90071	2
22	Screw Phillips Panhead 3 x 6	90737	4
23	Washer, 3 mm Lock	90738	4
24	Bolt, 3 X 5	90794	1
25	Bolt, 5 X 25	90028	2
26	Bolt, 6 X 20	90087	2
27	Bolt, 5 X 18	90027	4
28	DUC32 Inner Tube	90139	2
30	DUC32 Assy, Damper	99171	1
31	SC32 Assy, Upper	90219	1
32	SC32 Damper Tube	90091	1
33	SC32 Lock Tube	90089	1
34	SC32 Damper Rod	90088	1
35	SC32 Adjuster Rod	90090	1
36	SC32 Spring Rod	90092	1



NO	DUC / SC DAMPER CARTRIDGE	PART NO	QTY.
1	DUC32 Knob, Bleed Adjust	90125	1
2	DUC32 Knob, Lockout	90126	1
3	DUC32 Index Pin	90124	1
4	DUC32 Bolt, Damper Rod	90119	1
5	DUC32 TopCap	90133	1
6	DUC32 Bottom Bumper	90117	1
7	DUC32 Damper Rod (SC Damper Rod)	90121 (90088)	1
8	DUC32 Lock Tube (SC Lock Tube)	90127 (90089)	1
9	DUC32 Adjuster Rod (SC Adjuster Rod)	90116 (90090)	1
10	DUC32 SealHead, Damper	90131	1
11	DUC32 Stud, Damper Piston	90130	1
12	DUC32 Pin, LockTube	90129	1
13	DUC32 Damper Piston	90120	1
14	DUC32 Glide Ring	90123	1
15	DUC32 Nut, Damper Piston	90128	1
16	DUC32 Base Cap, Damper Tube	90118	1
17	Schrader Valve Core	90147	1
18	DUC32 Damper Tube (SC Damper Tube)	90122 (90091)	1
19	Screw, Phillips Flathead 2.5 X 6	90017	1
20	DUC32 Spring, Index	90132	1
21	SetScrew 4 X 4	90025	1
22	DU Bushing 10 X 12 X 6	90032	1
23	Schrader Valve Cap	90735	1
24	Shim - 8 X 12 X.20	90033	1
25	Shim - 8 X 16 X.15	90034	1
26	Shim - 8 X 21 X.15	90035	1
27	Snap-Ring, 5008-093	90002	1
28	O-Ring 2.0 X 31	90069	1
29	O-Ring 1.0 X 17	90005	1
30	O-Ring 1.5 X 2	90008	2
31	O-Ring 1.5 X 4.5	90010	2
32	O-Ring 1.5 X 26	90009	1
33	O-Ring 2.0 X 10	90011	1
34	O-Ring 2.5 X 19	90070	1
35	O-Ring 2.0 X 21	90013	1
36	O-Ring 2.0 X 23	90014	1
37	O-Ring 3.5 X 10	90019	1
38	O-Ring 1.5 X 10	90068	1



NO.	DUC / SC AIR CARTRIDGE	PART NO.	QTY.
1, 2, 19	DUC32 Cover-Schrader Valve (90148), Washer (90146) and O-Ring	99172	1
3	DUC32 Schrader Valve	90154	1
4	DUC32 Bottom Bumper	90117	1
5	DUC32 Air Spring Rod (SC Air Spring Rod)	90153 (90092)	1
6	DUC32 SealHead, SpringTube	90152	1
7	DUC32 Collar, Neg Spring	90151	1
8	DUC32 Negative Spring (5nm, Standard)	90149	1
9	DUC32 Bumper,Top-out	90101	1
10	DUC32 Piston, Air Spring	90150	1
11	DUC32 Air Tube (SC Air Tube)	90122 (90091)	1
12	DUC32 Base Cap, Damper Tube	90118	1
13	DU Bushing 10 X 12 X 6	90032	1
14	Snap-Ring, 5008-093	90002	1
15	O-Ring 1.0 X 6	90006	1
16	O-Ring 1.0 X 9	90007	1
17	O-Ring 2.0 X 21	90013	1
18	O-Ring 2.0 X 23	90014	1
19	O-Ring 2.0 X 25	90015	1
20	O-Ring 3.5 X 17	90020	1
21	Schrader Valve Core	90147	2
22	Schrader Valve Cap	90735	1

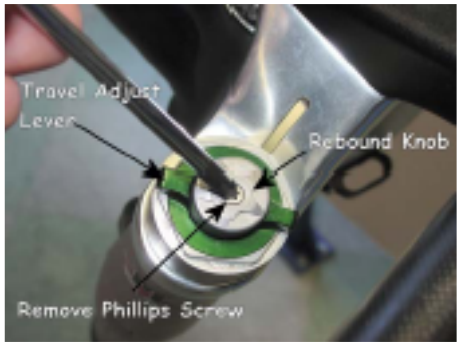
SERVICE PROCEDURES

Notes:
1) The majority of service to the DUC32 and SC32 can be done with the fork is installed. It is very rare to have to completely remove the fork from the bike.

2) The Top Cap should never be removed from the fork unless it is damaged and needs replacement. All service work can be performed with the Top Cap remaining in the Upper Tube. It is bonded in place and is difficult to remove.

The fork Top Cap should not be removed for regular service.

DAMPER SERVICE

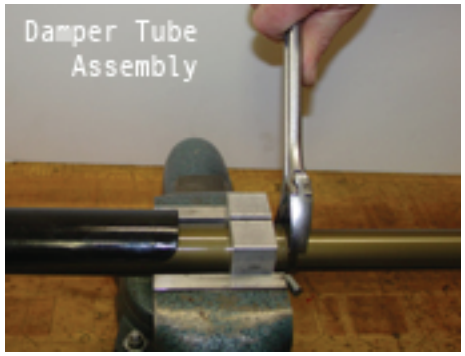


Remove the Phillips screw to take off the two knobs.

Remove the Damper Rod Bolt using a 10 mm socket.

Pull the Stanchion Tube Assembly out of the Upper Tube.

There is 5-10 ml of lubrication oil that will run out unless the fork is held horizontally. (DUC=10ml; SC=5ml) If the fork has more than 50 hours on it, replace the oil.



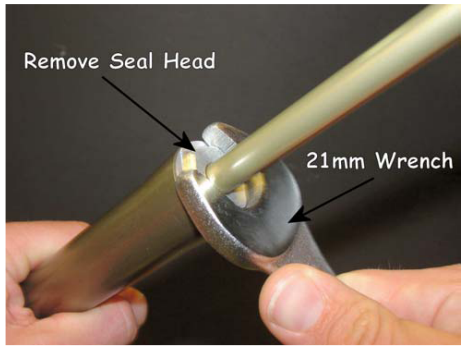
Gently clamp the Damper Tube in a 32mm vise clamp wrench and unscrew the Stanchion Tube.

Note: the two parts are Locktited together and may be difficult to turn.

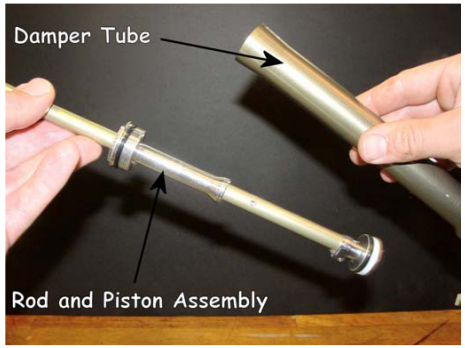
The Damper Tube is very thin-walled and over tightening the vise will damage it.

An alternate way to separate the Damper and Stanchion Tubes is to clamp the Stanchion to the axle.

Before disassembling the Damper, first release the air pressure inside by holding the cartridge upside down and then depressing the Schrader valve.



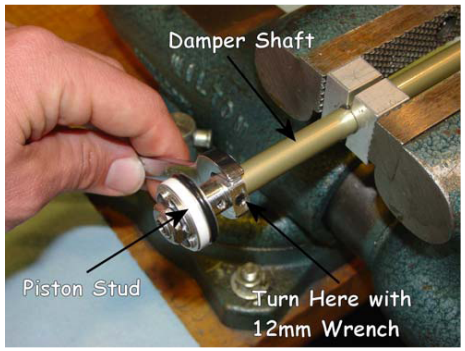
Unscrew the Seal Head using a 21mm wrench. It may be necessary to hold the Damper Tube in a vise (or with a wrench) across the flats.



Pull the Rod and Piston and Rod assembly out of the Damper Tube.

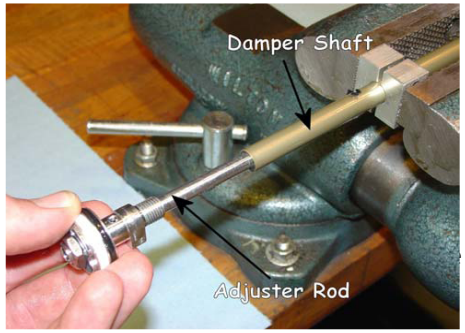
> For oil replacement only, proceed to to page 11. Otherwise, go to next step below.

PLEASE DISPOSE OF OIL PROPERLY



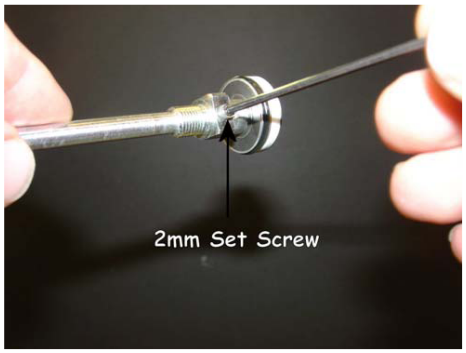
Adjuster Rod and Lock Tube Removal:

Clamp the Damper Shaft in a vise using a set of 10mm shaft blocks (available from Maverick). Turn the Piston Stud with a 12mm wrench.

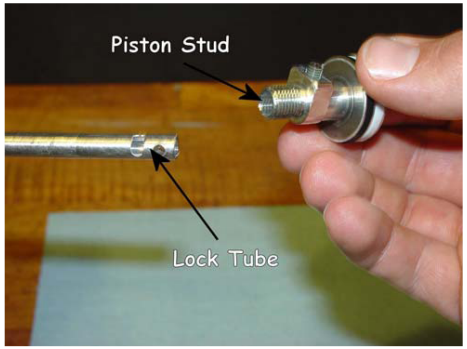


Be careful of the O-rings on the Lock Tube. Insert the Rod slowly and press O-rings down with small Allen wrench to prevent their catching on the holes in the Damper Shaft.

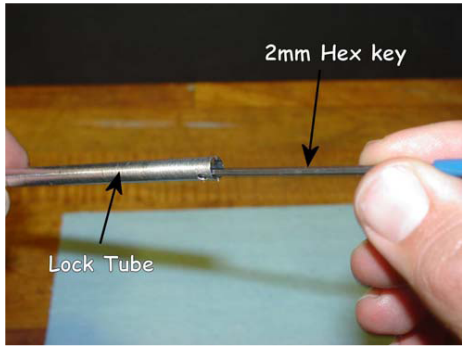
Note: The Piston assembly and Damper can be cleaned with solvent or mineral spirits. Soap and water may be used but be sure to dry parts well before reassembling.



With a 2mm hex key, unscrew the Lock Tube Pin from the Piston Stud.

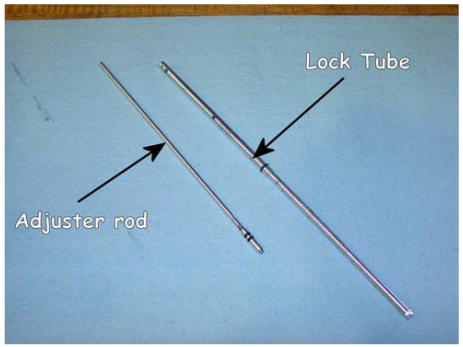


The Lock Tube can now be separated from the Piston Stud.

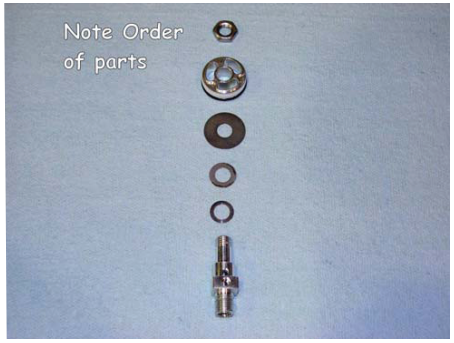


The Adjuster Rod has a 2mm hex socket at the bottom end for removing it from the Lock Tube. Insert a hex key into the bottom end of the Lock Tube and engage it with the Adjuster Rod.

Turn counter-clockwise to remove the Adjuster Rod. DO NOT USE a ball-end Allen wrench because the Adjuster Rod hex socket can become rounded out. Use a standard 2mm Allen wrench only.

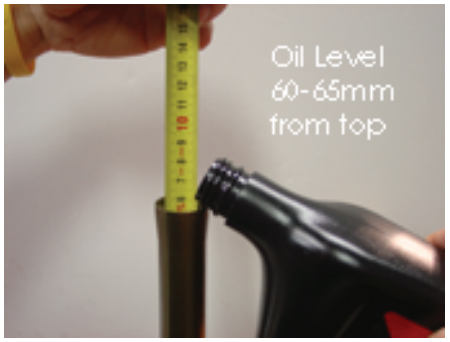


To disassemble the Piston and Shims, clamp the Piston Stud in a flat jawed vise and loosen the Piston Nut.



Be sure to note the direction of the Piston and order of the Shims when disassembling.

The Teflon Glide Ring can only be removed from the Piston by slicing it with knife. In general it should only be removed if replacement is needed.



Once the parts are reassembled, fill the empty Damper Tube with 5wt oil. The amount of oil is determined by the level it is from the top of the empty Damper Tube. The correct level is 63 mm from the top of both the DUC & SC.

Face the Schrader Valve upwards and cycle the cartridge, then pressurize the Damper Cartridge through the Schrader Valve at the bottom to 60 psi.

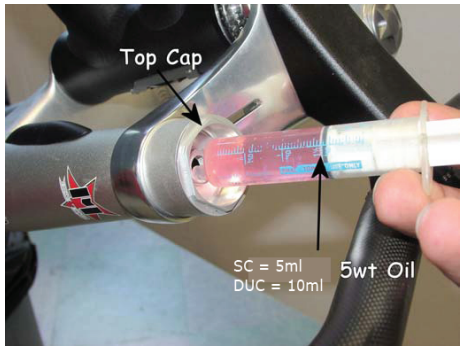
DAMPER TORQUE VALUES

Piston Nut:	50 in/lbs	Blue Loctite
Piston Stud:	55 in/lbs	Blue Loctite
Lock Tube Pin:	Screw in until flush with Stud	
Damper Seal Head:	70 in/lbs	No Loctite
Damper Tube/Stanchion	135-155 in/lbs	Blue Loctite
Damper Rod Bolt:	50 in/lbs	No Loctite

DO NOT EXCEED RECOMMENDED TORQUE

REINSTALL THE DAMPER CARTRIDGE - Insert the Stanchion/Damper Cartridge assembly into Upper tube.
A small amount of lubrication oil should be first wiped on the seals.

You will need to wobble the tube to get it past the lips of the Wiper. Be careful not to invert or damage the sealing lips.



Before pushing the Damper Rod all the way into the Top Cap, inject 5 wt lube oil through the bolt hole for bushing lubrication. SC = 5ml; DUC = 10ml

Now push the lower assembly up to engage the Damper Rod into the Top Cap. Thread in the Damper Rod Bolt and tighten. Apply 1-1/2 wraps of Teflon tape to upper bolt and bolt head on pre-2005 forks.

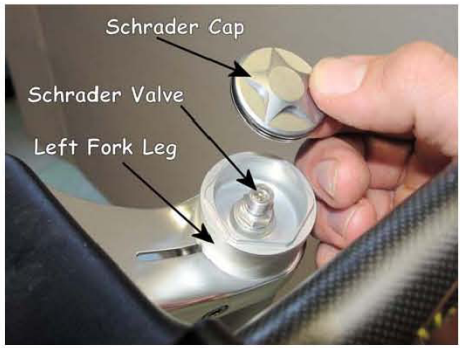
Re-install the Rebound & Lock Knobs. The Lock Knob can be positioned as desired on the hex interface.

Pay attention that the O-ring around the knob is not pinched between the Top Cap.

When connecting the Rebound Knob, be sure it connects properly with the flats on the Adjuster Rod.

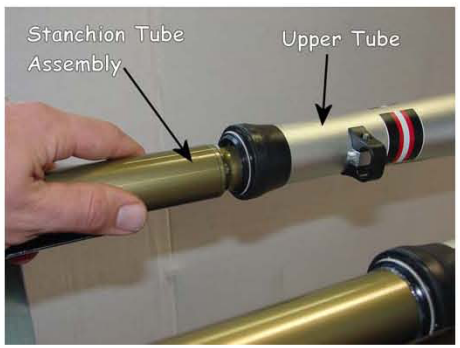
This is best done by installing the screw 1/2 way and turning the knob counter-clockwise while pushing down gently. It should drop into place when it lines up with the flats.

AIR SPRING SERVICE



Remove the Schrader Cap on the left side of the fork and release the air pressure.

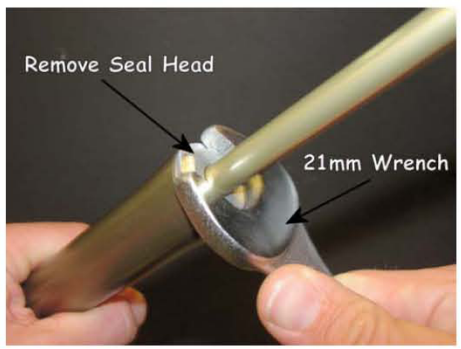
Remove the Schrader Valve with a 10mm socket.



Pull the Stanchion Tube and Air Spring Assembly out of the Upper Tube.

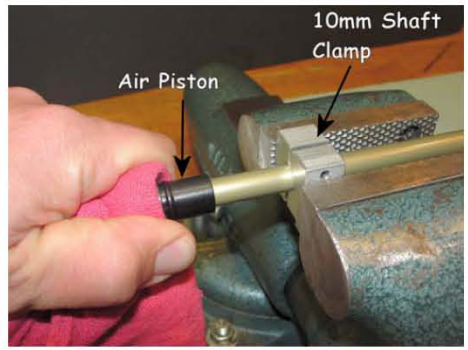
There is 8-10 ml of oil that will run out unless the fork is held horizontal.

If the fork has more than 50 hours on it, then replace the oil.



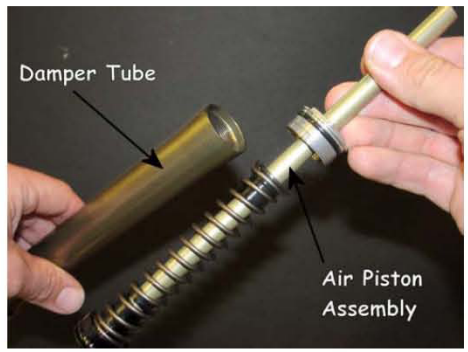
Remove the Seal Head with a 21mm wrench. It may be necessary to clamp the shipping axle into the Drop Out.

There is lubrication oil above and below the Piston. Discard the oil if the fork has more than 30 hours on it.



If it is necessary to remove the Air Piston, hold the Rod with a 10mm shaft clamp (available from Maverick) and turn the Piston by holding it with a rag. The threads are Locktited, so it will be hard to turn.

Remove the dried Locktite and replace the O-ring on the Rod before reassembling.

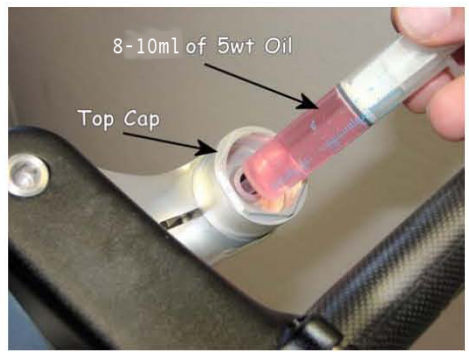


RE-ASSEMBLY:
Clean the parts in solvent or mineral spirits. Soap and water may be used, but be sure the parts are dry before re-assembling.
BE SURE THE PARTS ARE ABSOLUTELY CLEAN BEFORE PUTTING TOGETHER!

Add 5ml of 5-15wt oil into the Damper Tube before inserting the Piston, and 3ml between the Piston and Seal Head
SEE TUNING GUIDE FOR ADDITIONAL TIPS

Insert the Stanchion assembly into the Upper Tube. A small amount of lubrication oil should be first wiped on the seals.

You will need to wobble the tube to get it past the lips of the Wiper. Be careful not to invert or damage the sealing lips.



Before pushing the Air Spring Rod all the way into the Top Cap, inject 8-10 ml of 5-7 wt lubrication oil through the bolt hole. Do not inject the oil into the Air Spring Rod

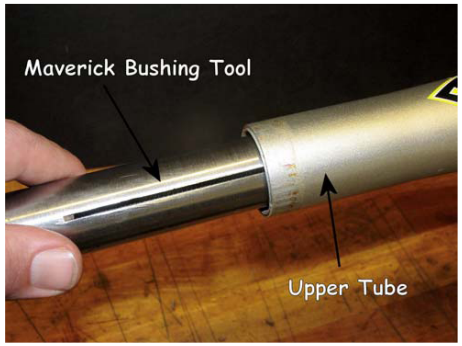
Now push the lower assembly up to engage the Rod into the Top Cap. Thread in the Schrader Valve and tighten. Torque the Schrader Valve to 70 in/lbs.; no Loctite.

WIPER REMOVAL:
Insert a small screw driver under the shoulder of the wiper and gently push it out of the Seal Head.

You will need to do this at several points to work the Wiper out straight.

SEAL HEAD REMOVAL:
It is necessary to destroy the Seal Head to remove it. Do this by cutting it as shown in the picture.

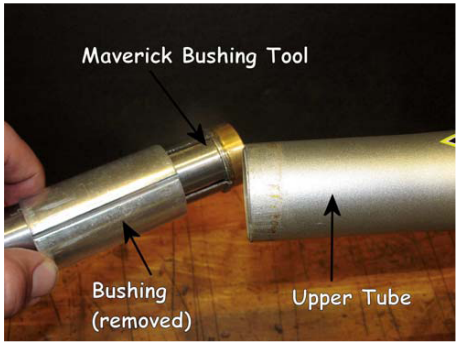
The Seal Head is also glued in place and may require pliers to grab and pull it off.



BUSHING REMOVAL:
Insert the Maverick Bushing Tool into the Bushing.

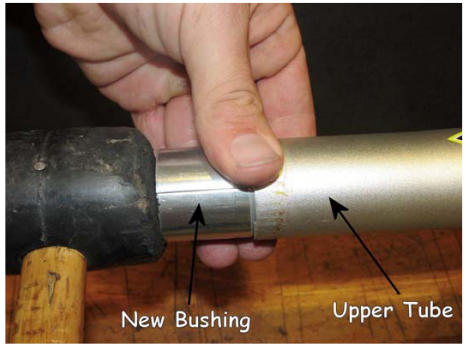
Tighten the nut on the Bushing Tool just enough to expand the end larger than the inside of the Bushing.

Expanding too much may cause the tool to engage the shoulder inside the Upper Tube.

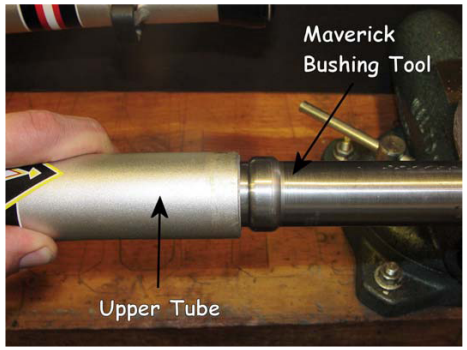


Pull the bushing out of the Upper Tube.

It may be necessary to hold the tool in a vise and pull hard on the Upper Tube.



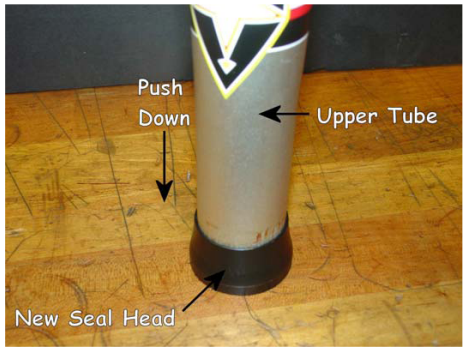
Install the Bushing by gently pushing it into the Upper tube.



Check the fit of the Stanchion Tube inside the installed Bushing. If it is tight, the Bushing will need to be "sized".

This is done with the other end of the Bushing Tool.

Lubricate the Tool and push it through the installed Bushing serveral times.



To install a new Seal Head, spread a small amount of blue Locktite* on the outer surface of the Upper Tube and push the Seal Head on as shown.

Be sure the Seal Head is fully on and straight.

Do not push too hard or you can break the Seal Head.

NOTE: BUSHING REPLACEMENT IS NOT NORMALLY REQUIRED DURING ROUTINE FORK SERVICE. DO NOT REMOVE THE WIPER SEALS UNLESS YOU ARE SURE THAT THE BUSHINGS NEED TO BE REPLACED.

*LET LOCTITE DRY FOR 24 HRS. BEFORE COMPLETING ASSEMBLY - BE SURE SURFACES ARE COMPLETELY CLEAN BEFORE USING LOCTITE

TROUBLE SHOOTING GUIDE

PROBLEM	Fork bottoms out too often
FIRST CHECK	Make sure enough air pressure is being used. When seated in riding position, the fork should sag approximately 35-40mm.
THEN TRY	**Add** 5wt shock oil into the air spring as detailed in the owner's manual. Do not over fill.

PROBLEM	Fork tops-out hard
FIRST CHECK	Make sure the rider is not running too much air pressure to achieve proper sag
THEN TRY	If the rider must run >150psi to achieve proper sag, change out the negative spring to the stiffer, 6 N.m version.
THEN TRY	Feel if there's a loss of damping at the top of the travel. If so, the damper may be low on oil. This is rare and may be from a leaking O-ring on the Adjuster or Lock Tube rod.

PROBLEM	Headset tightens when turned or after short ride.
FIRST CHECK	The headset adjustment tightens slightly when the Steerer Shaft Bolt is cinched down. Try loosening the Steerer Shaft Nut ¼ turn and re-tighten the Shaft Bolt.
THEN TRY	Check to see if the Upper Crown is on straight. Loosen the two pinch bolts and wobble the crown around (best done by grasping the handlebars) until the crown is even on the two Upper Tubes and the headset is straight.

PROBLEM	Fork creeps up while in Lock-down mode
FIRST CHECK	Does it creep more than 6mm per minute? This is our standard allowable rate of creep.
THEN TRY	Possible contamination in the Damper Assembly which can hold the Valve Shim slightly open. This may be from dirt or towel lint - especially if it was just rebuilt.
THEN TRY	One of the O-rings in the damper is damaged or missing. This can be one the Piston or inside the Seal Head.

PROBLEM	Air Spring looses pressure
FIRST CHECK	Is the loss from attaching the pump? When you remove the pump, the pressure in the shock is what reads on the gauge. When you re-attach the pump, about 3 psi is lost to fill the volume of the pump.
THEN TRY	If the pressure loss is greater than 5 psi in one ride or in one week, then there may be a leak in the system. This may be a damaged O-ring or scratches in the Damper tube. Return to Maverick for diagnosis if necessary.

PROBLEM	Main Seal leaks
FIRST CHECK	A small amount of oil weeping is OK and helps keep the Wiper Seal lubricated. If it leaks to the point that oil runs down the Stanchion tube, then it needs to be cleaned or replaced. To clean, just remove the Stanchion Tube and wipe the sealing lips with a clean rag.
THEN TRY	If cleaning doesn't cure it, and the Wiper Seal is BLACK, then updating to the newer BLUE Wiper is recommended.

PROBLEM	Wiper Seal pops out of the Seal Head
FIRST CHECK	If the wiper was just replaced, be sure it wasn't installed with grease on the outer surface.
THEN TRY	Inspect all the O-rings for damage and the bore of the damper tube for scratches. (The air cartridge may be leaking)