M A G N U M

M a g n u m R & M a g n u m

2 0 0 0

O w n e r ' s M a n u a l

p/n: 062490

• Betriebsanleitung • Manual del usuario
• Manuel de l'utilisateur • Manuale del proprietario
• Handleiding • Manual do proprietário • オーナーズマニュアル

A n s w e r P r o d u c t s , I n c
2 8 2 0 9 A v e n u e S t a n f o r d , V a l e n c i a , C a l i f o r n i a 9 1 3 5 5
P h o n e : 6 6 1 2 5 7 - 4 4 1 1 • S a l e s F a x 6 6 1 2 9 4 - 4 1 7 9

ANSWER PRECISION SUSPENSION

CONGRATULATIONS FOR CHOOSING THE LATEST STATE-OF-THE-ART MOUNTAIN BIKE SUSPENSION FORK AVAILABLE. THE 2000 MAGNUM AND MAGNUM R FORKS USE THE LATEST ONE-PIECE OUTER LEG/ARCH TECHNOLOGY. BOTH FORKS HAVE STATE-OF-THE-ART MCU/SPRING COMPRESSION SYSTEMS. THE MAGNUM R IS EQUIPPED WITH ANSWER'S NEWTPC (TWIN PIS - TON CARTRIDGE) SPORT HYDRAULIC DAMPING SYSTEM.

Your MAGNUM fork is fully assembled and ready to be installed onto your bicycle and comes equipped with a 1-1/8" threadless steer tube. MAGNUM and MAGNUM R are available with the V-brake cable hangerless arch, and have an optional attachable cable hanger which is available through yourdealer.

CONSUMER SAFETY INFORMATION

IMPORTANT: The MAGNUM fork is an off-road fork, and as such, does not come with proper reflectors for on-road use. Have your dealer or mechanic install proper reflectors to meet the Consumer Product Safety Commission's (C.P.S.C.) Requirements for Bicycles if the fork is going to be used on public roads at any time. If you have questions regarding C.P.S.C. Standards contact your dealer.

1. Never remove or have the steer tube or stanchions removed from the crown. The steer tube and stanchions (inner legs) are press fit assembled at the factory. Pressing them out will permanently damage the crown beyond repair and render it unsafe for any continued use.
2. Never attempt to thread a threadless steer tube. Machining threads will weaken the steer tube and cause an unsafe condition. The only safe thing to do is to obtain the proper crown/steerer from your dealer.
3. Any other alterations or modifications to your fork should be considered unsafe. Contact Answer Products Technical Support prior to modifying your fork in any way for safety information.
4. Do not use the MAGNUMor MAGNUM R forks if any parts are broken, bent, cracked, or damaged. Contact your dealer or Answer Products Technical Support, (661) 257-4411, if you have any questions concerning the integrity or condition of your fork.
5. Answer Products recommends that you periodically inspect your fork for wear and damage. Inspect the crown, inner legs, outer leg dropout and brake arch areas for cracks or damage. Before every ride check to ensure that the proper preload exists and that the positive rebound stop is in order to ensure that the fork can not overextend.

WARRANTY INFORMATION

Any Answer Products fork found by the factory to be defective in materials and/or workmanship within one year from the date of purchase will be repaired or replaced at the option of the manufacturer, free of charge, when received at the factory, freight prepaid. This warranty does not cover breakage, bending, or damage that may result from crashes or falls. This warranty does not cover any fork that has been subject to misuse or whose serial number has been altered, defaced or removed. This warranty does not cover paint damage. Any modifications made by the user will render the warranty null and void. This warranty is expressly in lieu of all other warranties, and any implied are limited in duration to the same duration as the expressed warranty herein. Answer Products shall not be liable for any incidental or consequential damages.

If for any reason warranty work is necessary, return the fork to the place of purchase. In the USA, dealers should call Answer Products for a return authorization number (RA#). At that time instructions for repair, return, or replacement shall be given. Customers in countries other than USAshould contact their dealer or local distributor.

INSTALLATION INSTRUCTIONS

Insure that the proper steer tube has been delivered on your MAGNUM. The steer tube may need to be cut to length to fit your bicycle head tube. If you are not familiar with this procedure or do not have the proper tools to cut the steer tube it is recommended that you seek a dealer with a qualified bicycle mechanic to perform installation.

(!) WARNING

The steer tube and stanchions (inner legs) are a one-time precision press fit at the factory and cannot be removed from the crown. Replacement of the entire crown/steerer assembly must be done to change steer tube lengths or diameters. Removing and replacing the steer tube or stanchions will result in an unsafe condition and should never be done.

1. Remove old fork from bicycle.
2. Measure and cut the steer tube to fit your bicycle headtube.
3. Remove crown race from old fork and press onto MAGNUM steerer until seated on crown (Figure 1).
4. Clean and grease headset bearings and races of bicycle.
5. Install lower bearings on fork crown race.
6. Insert steer tube into head tube of frame.
7. Install upper bearings, spacers, and stem.
8. Install stem cap and screw, tighten until slack just disappears.
9. Install handlebars to desired height. Torque stem handlebar pinch screws and stem clamping system to manufacturer's instructions.
10. Install cantilever brakes and adjust per manufacturer's instructions.

NOTE: *All 2000 MAGNUM forks are equipped with a secondary catchdropout.*

11. Adjust front wheel quick release to clear the 0.275" (7mm) thick secondary catch dropout. The quick release must be tightened after it is properly seated into the dropout counter bores. Insure that there is adequate thread engagement (4 or more threads with the release adjusted to lock) due to the wider adjustment. Install front wheel to bicycle per manufacturer's specification.
12. Install brake cable per manufacturer 's instructions.

NOTE: *The MAGNUM fork comes equipped with a hangerless arch. Brake cable hangers that attach to the arch are available through your dealer. See Figure 2.*

(!) WARNING

When installing wheel or any new tire check the minimum tire clearance. Measure from the highest point on the tire to the bottom of the crown. The minimum clearance allowed is 3.1" (78.7 mm) for 76 mm travel forks. Any less clearance can result in serious injury or death. Figure 3.

MAINTENANCE

IMPORTANT: The MAGNUM should not be used if any parts appear to be or are damaged. Contact your local dealer or Answer Products for replacement parts.

IMPORTANT: Use of fork boots is required to keep your MAGNUM and MAGNUM R performing well and your warranty in effect. Use of this fork with the boots removed will shorten the life, reduce the performance and void the warranty.

MAGNUM and MAGNUM R forks require periodic maintenance, cleaning, and inspection. Moisture and contamination may build up inside the fork depending on the severity of riding conditions. To maintain top performance

it is recommended that the fork be periodically disassembled, cleaned, dried and re-greased using the Microlube grease ports located on the back of each outer leg. (Figure4).

IMPORTANT: When filling the fork with grease through the grease ports it is important to note the grease is being forced between the upper and lower bushings. If the area is overfilled the force of the grease may force the upper bushing and dust seal out.

IMPORTANT: Before every ride you should:
1. Ensure that quick release skewers are properly adjusted and tight.
2. Wipe the inner legs clean and check entire fork for any obvious damage.
3. Insure that the front brake cable is properly seated in the cable retainer and check brake adjustment.

IMPORTANT: Maintaining the proper oil level in your TPC is critical. Not enough oil will allow foaming and reduce the performance. Too much oil will restrict travel and may cause damage to the system and create an unsafe riding condition. Finish reading this entire section prior to making any changes to the oillevel.

To check the oil level remove only the compression assembly located in the top of the right leg. Leave the left side compression stack (adjuster, MCU, spring assembly) in place to keep the fork fully extended. Use a tape measure or "dip stick" to determine the oil level. Oil level should be between 3.2" and 5.2" (81.2 mm and 132 mm) below the top of the crown where the damping assembly screws in. The recommended starting oil level is 4.2" (106.6 mm). Use SAE5WT fork oil. (See Figure 5.)

ADJUSTING RIDE QUALITIES

MAGNUM and MAGNUM R forks offer a wide adjustment range to suit individual riding preference and rider weight by simply changing the MicroCellular Elastomer (MCU's). Fine tune adjustments can be made using the preload adjusters located on top of the fork crown. Softer blue and harder yellow elastomers are available from yourdealer.

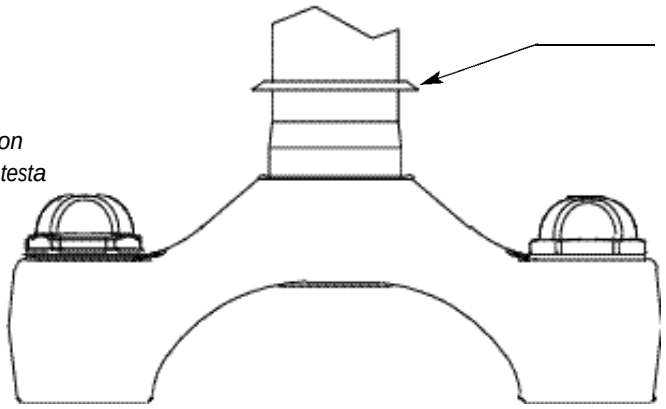
NOTE: *Since the 2000 MAGNUM R forks use a compression stack in the left leg only, MCU's and springs used in previous Manitou forks are NOT interchangeable with later versions of MAGNUM modelforks.*

Compression Spring Fine Tuning: Figure 6

Fine tuning adjustments to the spring rate are made by rotating the adjuster knobs located on top of the crown. The 2000 MAGNUM and MAGNUM R use a compression spring system in the left leg only. The left knob is used to adjust preload. Rotating the knobs clockwise will firm the ride, adding preload to the compression stack. Rotating the knobs counter clockwise will soften the ride. Four full revolutions will take the adjuster from full soft to the extreme firm setting. ■

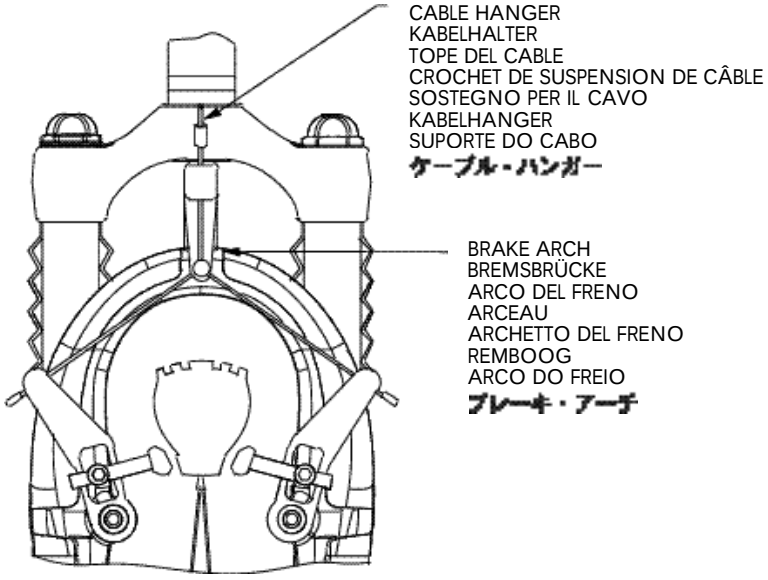
1

Race Installation
Einbau des Steuersatzrings
Instalación de la arandela
Installation du jeu de direction
Montaggio dell'anello della testa
Installatie van loopring
Instalação do canalete
レースの取り付け



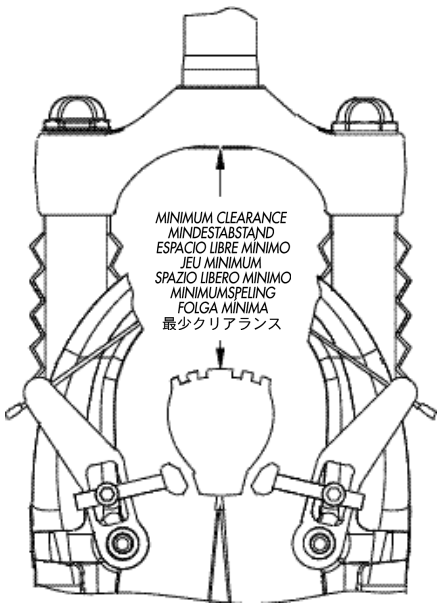
2

Brake cable routing
Bremskabelführung
Trayectoria del cable del freno
Disposition du câble de frein
Montaggio del cavo del freno
Remkabelroutering
Percurso do cabo de freio
ブレーキ・ケーブルの経路



3

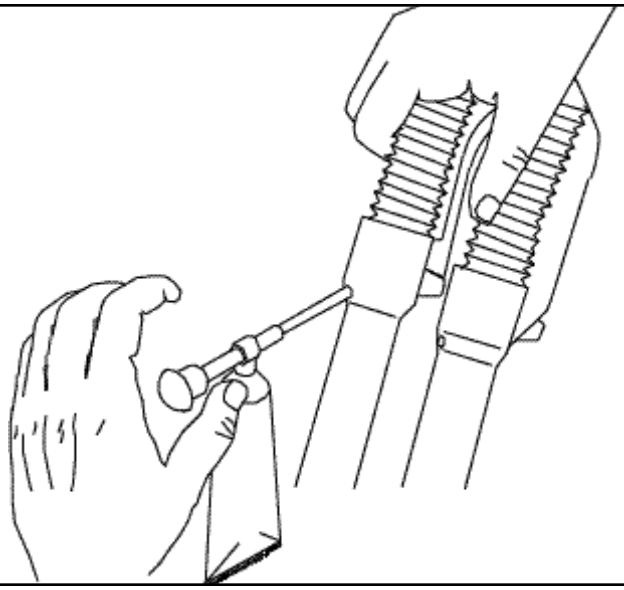
Tire clearance
Reifenabstand
Espacio libre de la cubierta
Distance arceau/pneu
Spazio libero del pneumatico
Bandspeling
Folga do pneu
タイヤクリアランス



FORK MODEL GABELMODELL MODELO DE HORQUILLA MODÈLE DE FOURCHE MODELLO DI FORCELLA VORKMODEL MODELO DO GARFO フォーク・モデル	MINIMUM CLEARANCE MINDESTABSTAND ESPACIO LIBRE MÍNIMO JEU MINIMUM SPAZIO LIBERO MINIMO MINIMUMSPELING FOLGA MÍNIMA 最少クリアランス
MAGNUM & MAGNUM R 76 mm travel forks	3.1" (78.7 mm)
MAGNUM und MAGNUM R Gabel mit 76 mm Auslenkung	78,7 mm
Horquillas MAGNUM y MAGNUM R con recorrido de 76 mm	78,7 mm
Fourches MAGNUM et MAGNUM R ayant une course de 76 mm	78,7 mm
Forcelle MAGNUM e MAGNUM R con corsa da 76 mm	78,7 mm
MAGNUM & MAGNUM R loop van 76 mm	78,7 mm
MAGNUM e MAGNUM R curso de 76 mm	78,7 mm
マグナムとマグナム R 76 mm	78.7 mm

4

Grease port
Schmieröffnung
Orificio de engrasado
Graisseur
Apertura per l'ingrassaggio
Smeergat
Orifício de lubrificação
グリース・ポート

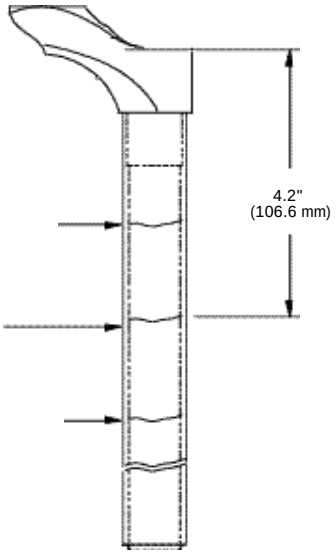


5

Oil level
Ölstand
Nivel del aceite
Niveau d'huile
Livello dell'olio
Oliepeil
Nível do óleo
オイルの量

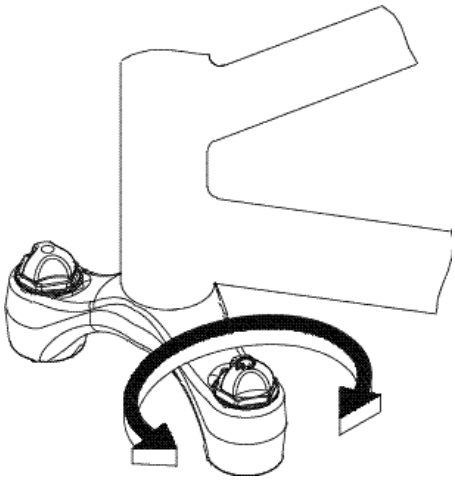
RECOMMENDED LEVEL
EMPFOHLENER ÖLSTAND
NIVEL RECOMENDADO
NIVEAU RECOMMANDÉ
LIVELLO RACCOMANDATO
AANBEVOLEN PEIL

MIN. 5.2" (132 mm)

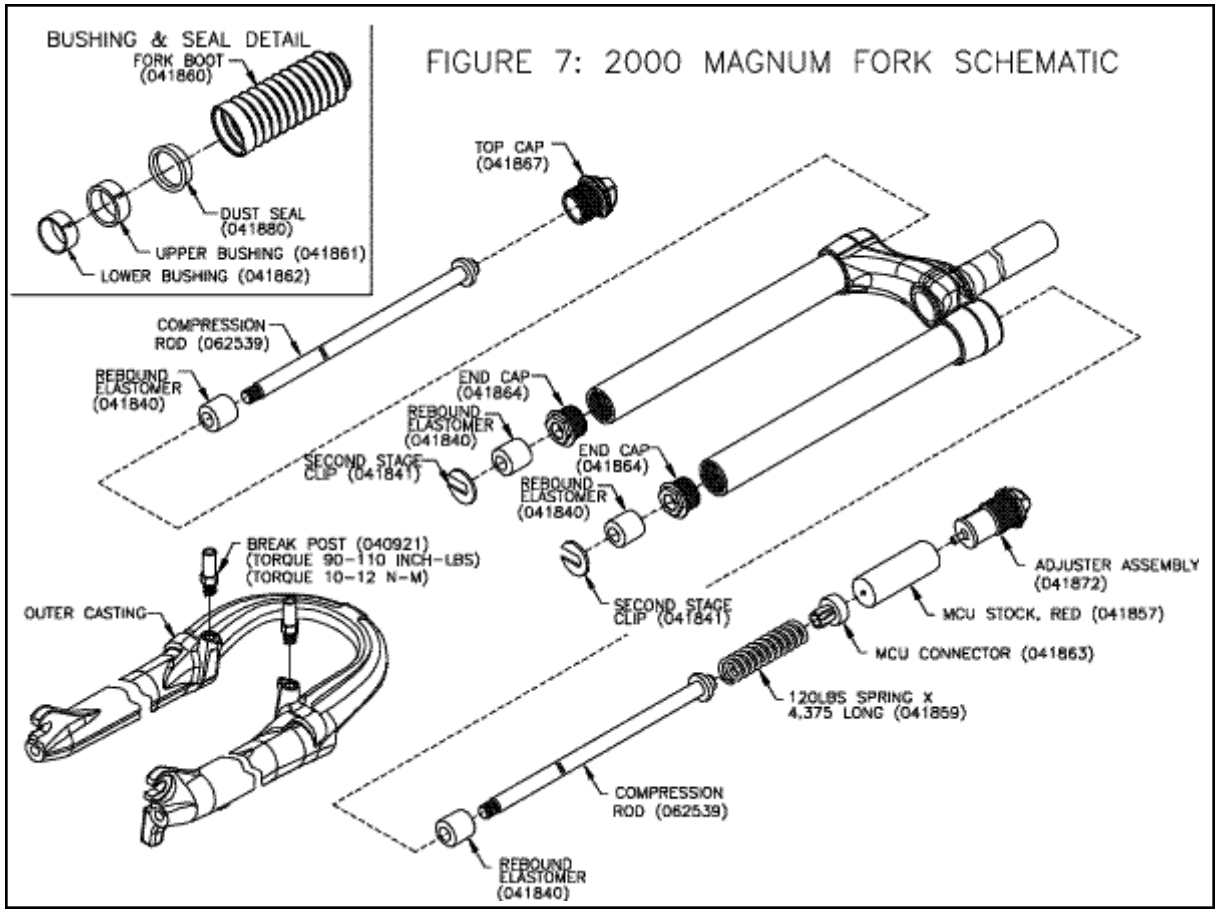


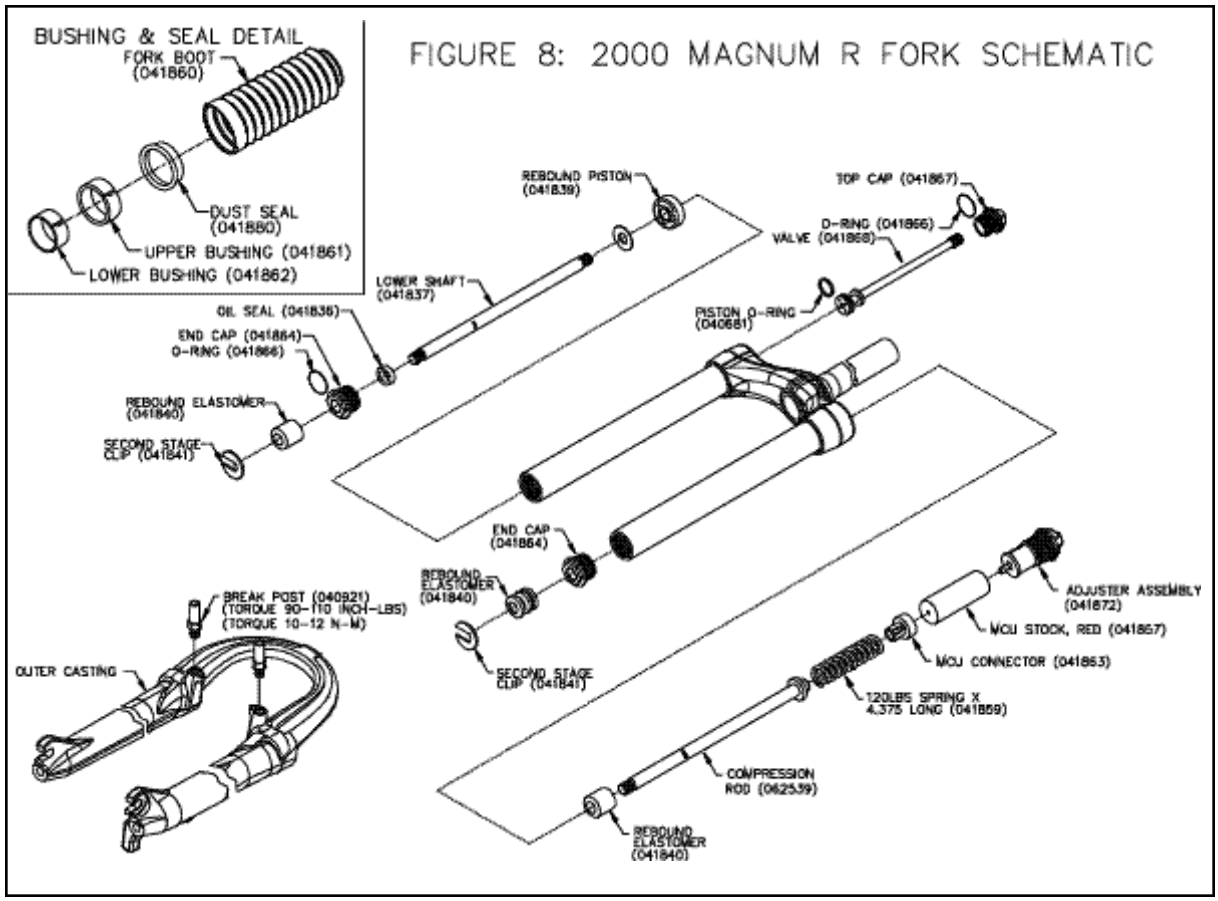
6

Fine tuning compression spring
Feinabstimmung der Druckfeder
Ajustes de precisión al resorte de compresión
Réglages fins des ressorts de compression
Messa a punto della molla di compressione
Fijnafstelling van drukveer
te preciso
圧縮スプリングの微調節



ROTATE
DREHEN
GIRAR
TOURNER
RUOTARE
DRAAIEN
GIRAR
回す


BUSHING & SEAL DETAIL
FORK BOOT (041860)
DUST SEAL (041880)
UPPER BUSHING (041861)
LOWER BUSHING (041862)
FIGURE 7: 2000 MAGNUM FORK SCHEMATIC
TOP CAP (041867)
COMPRESSION ROD (062539)
REBOUND ELASTOMER (041840)
END CAP (041864)
REBOUND ELASTOMER (041840)
SECOND STAGE CLIP (041841)
END CAP (041864)
REBOUND ELASTOMER (041840)
BREAK POST (040921) (TORQUE 90-110 INCH-LBS) (TORQUE 10-12 N-M)
OUTER CASTING
SECOND STAGE CLIP (041841)
ADJUSTER ASSEMBLY (041872)
MCU STOCK, RED (041857)
MCU CONNECTOR (041863)
120LBS SPRING X 4.375 LONG (041859)
COMPRESSION ROD (062539)
REBOUND ELASTOMER (041840)


BUSHING & SEAL DETAIL
FORK BOOT (041860)
DUST SEAL (041880)
UPPER BUSHING (041861)
LOWER BUSHING (041862)
FIGURE 8: 2000 MAGNUM R FORK SCHEMATIC
REBOUND PISTON (041839)
TOP CAP (041867)
O-RING (041866)
VALVE (041868)
LOWER SHAFT (041837)
PISTON O-RING (040681)
OIL SEAL (041838)
END CAP (041864)
O-RING (041866)
REBOUND ELASTOMER (041840)
SECOND STAGE CLIP (041841)
END CAP (041864)
REBOUND ELASTOMER (041840)
BREAK POST (040921) (TORQUE 90-110 INCH-LBS) (TORQUE 10-12 N-M)
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