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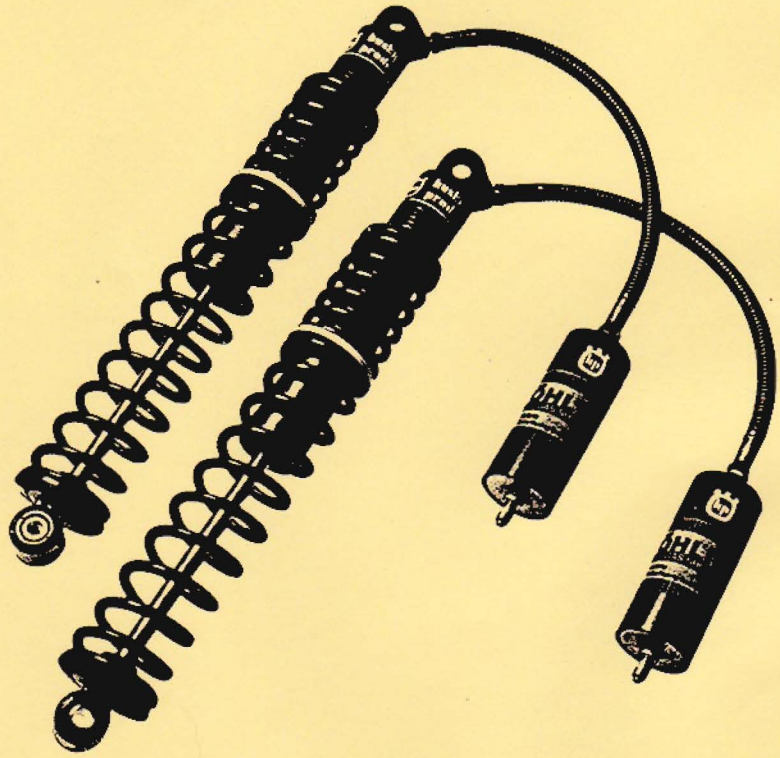
GAS SHOCKS



WORKSHOP MANUAL

DISTRIBUTED EXCLUSIVELY IN THE U.S. BY HUSKY PRODUCTS

4925 MERCURY ST., SAN DIEGO, CALIFORNIA 92111

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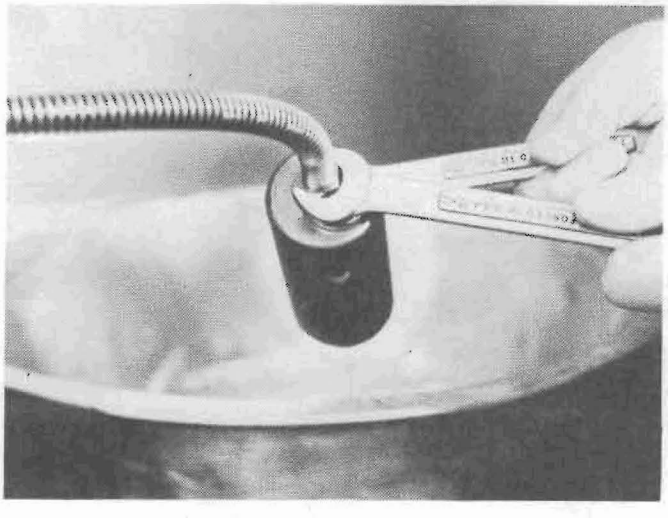
DISASSEMBLY OF SHOCK

1. Remove springs and retainers from shock assembly, and then RELEASE NITROGEN PRESSURE CHARGE FROM THE RESERVOIR BEFORE ANY FURTHER OPERATIONS.

2. Thoroughly clean exterior of the shock body and reservoir. Thoroughly clean the swivel joint and bushings. Clean all dirt and debris from area of shock eye and shaft that is covered by the bump rubber. The shock must be clean before disassembly to prevent dirt from getting into internal components and not being discovered prior to shock being assembled.

3. Place shock body in holding tool and clamp into place. Drain the oil from the shock and reservoir by removing the reservoir from the hose. Use two 14 mm open end wrenches. Do not remove the hose from the shock body unless the hose or body is to be replaced. Gently work shock to empty oil from body taking care to point hose into drain pan.



4. You can now refill the reservoir with oil. First check it carefully for cleanliness. Be very careful that the reservoir does not have particles of old teflon tape in the threads or inside the reservoir. Check that the piston in the reservoir is at the correct distance. The reservoir piston must be 28 to 30 mm below the surface that the hose threads into. If it is necessary to adjust the depth of the piston it can be displaced by gently pushing on it with a BLUNT screwdriver. If the piston is deeper than 30 mm in the reservoir it is necessary to remove the valve stem in order to

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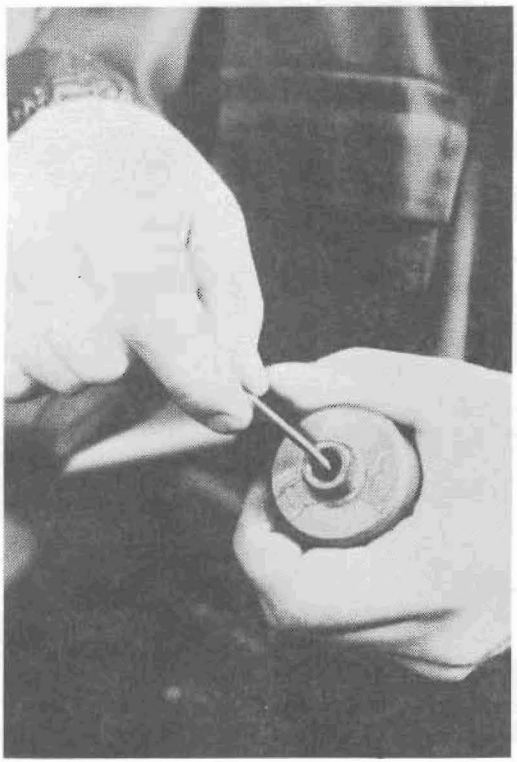
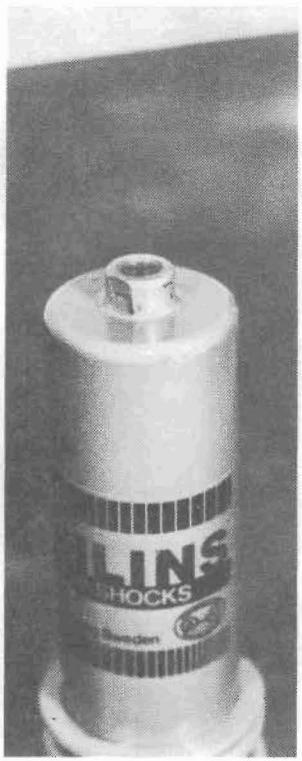
push the piston from the other side. With piston in the proper position fill the reservoir slowly to avoid air bubbles. Use only HUSQVARNA automatic transmission fluid, DO NOT SUBSITUTE! Fill the reservoir to the point of overflowing while it is an upright position. Gently rotate reservoir to allow all trapped air bubbles to escape. Refill reservoir until it is full and all air bubbles are gone. The short springs work well to hold the reservoir upright while you work on the rest of the shock.





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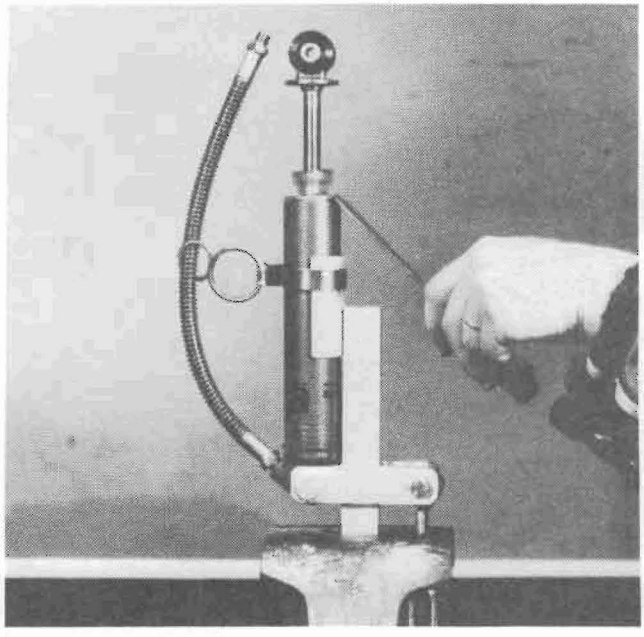
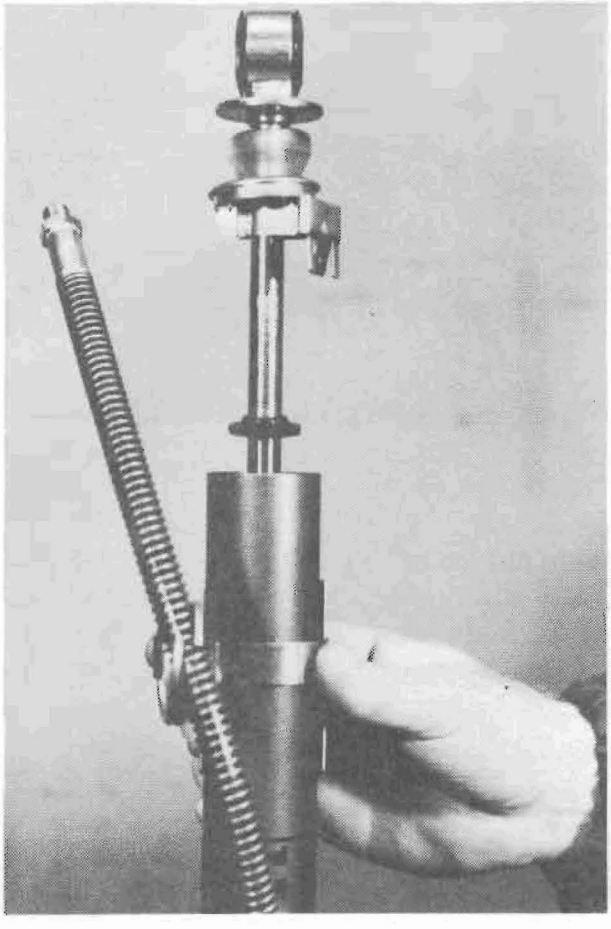
5. Remove shaft scraper retainer by placing a sharp edged tool (knife, gasket scraper, etc.) on joint of shaft scraper retainer and shock body and gently tap it on alternate sides with a plastic tipped hammer. This should pry the scraper retainer loose from the shock body.



6. Raise scraper retainer and rubber shaft scraper up against shock eye. It is helpful to use a clothes pin or clip to hold the parts against the shock eye during further operations.



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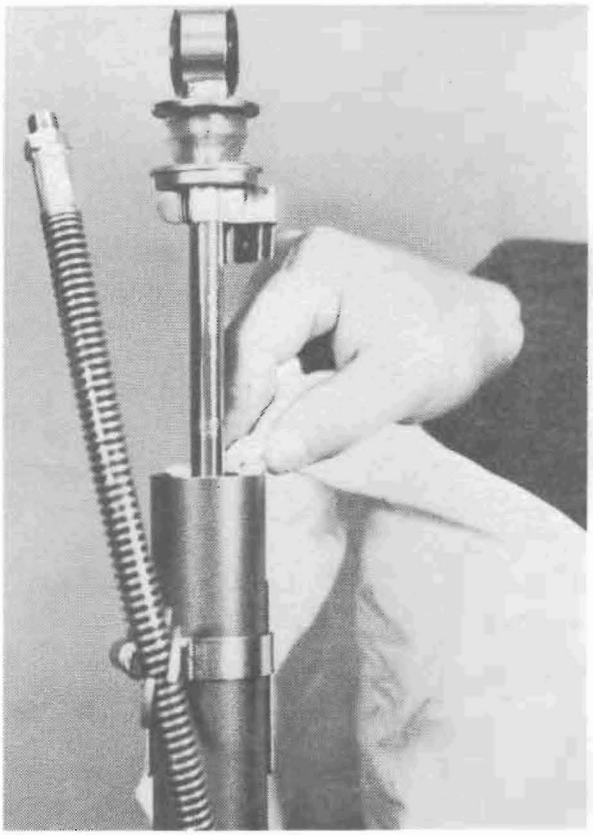
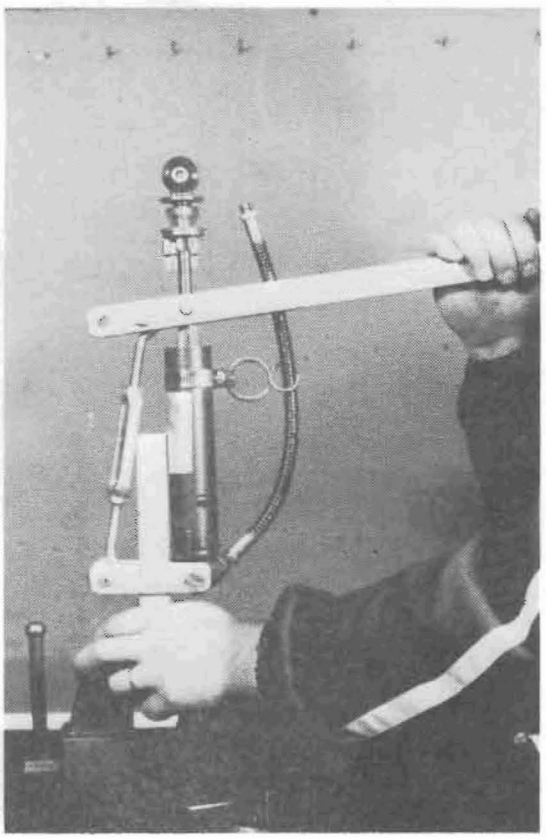
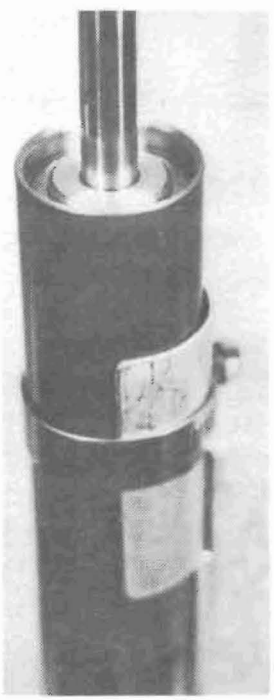
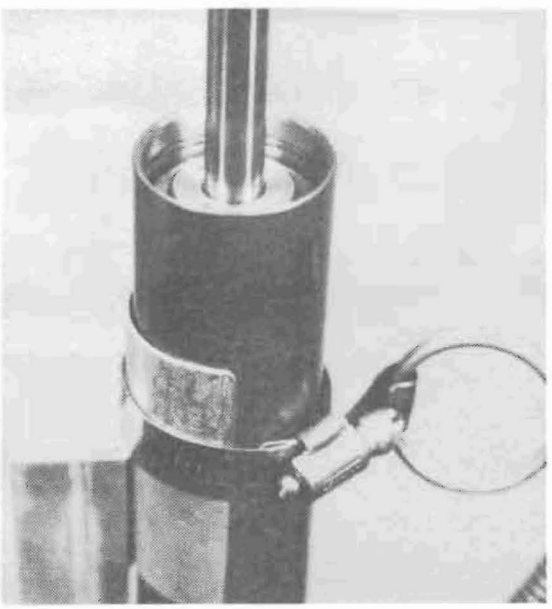
7. Clean grease from under scraper and retainer. Using shock tool, gently depress the brass bearing approx. ¼" or until you feel it slip then come to a positive stop.







Position of brass bearing before depressing with tool.



Position of brass bearing after depressing with tool.

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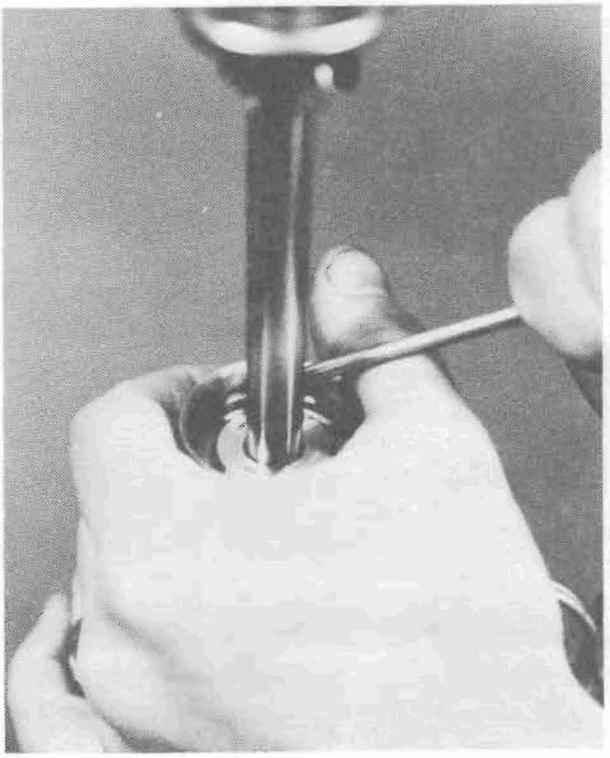
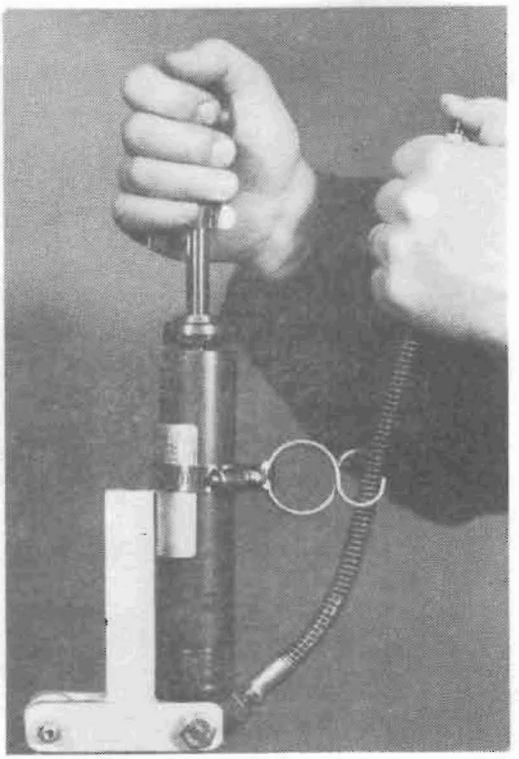
Remove first snap ring using specially shaped screwdriver.
Press down on top edge of snap ring end, removing it from groove.
Work your way around ring pushing it down below groove. Take care not to scratch inside of shock body. Remove snap ring by tilting open ends down and lifting snap ring straight up out of shock. Push shaft down, then hold thumb over end of hose and jerk sharply up on shaft. This should cause brass bearing to "pop" out. If inside of body is burred brass bearing will not "pop" out. Use small channel locks to remove bearing by pulling straight up. Hold pieces up with clip. Seal and seal holder should come out with brass bearing, if not use blunt screwdriver to tilt seal holder in body and remove by pulling straight up.





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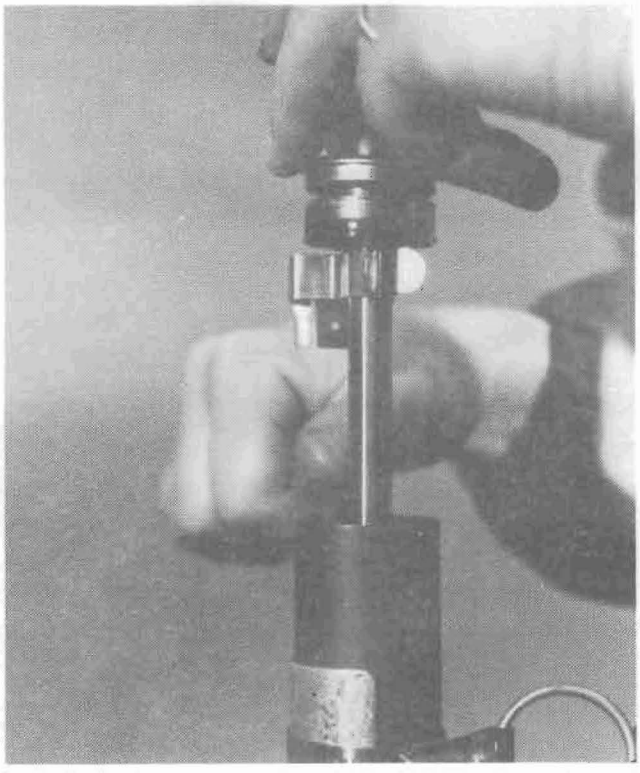
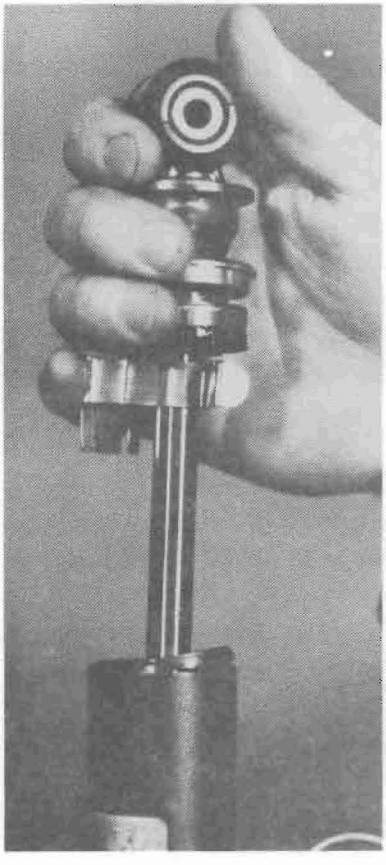
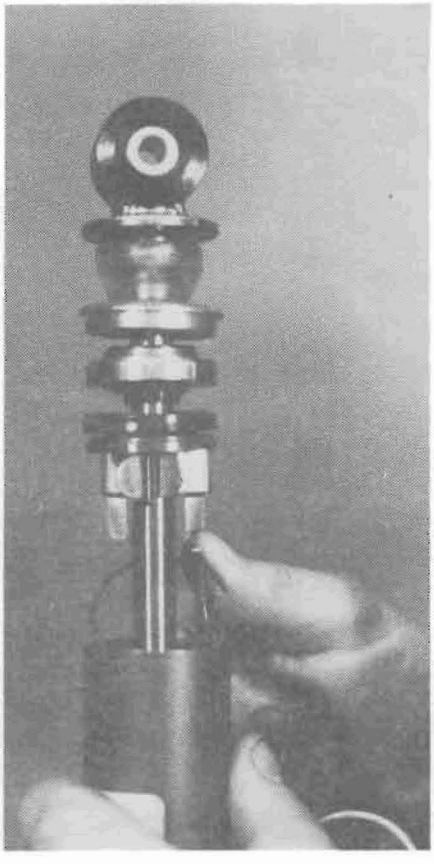
8. Second snap ring should now be exposed. Remove second snap ring using same method.



9. To remove steel retainer and top out rubber, hold the shaft (do not pull up) and oscillate it in the shock body. This will cause the steel retainer to work up out of the shock body. When using shock tool depress the brass bearing the top out rubber was pushed beyond the last snap ring. Therefore you must first remove the third snap ring and then topout rubber. Pull piston shaft assembly from shock body.





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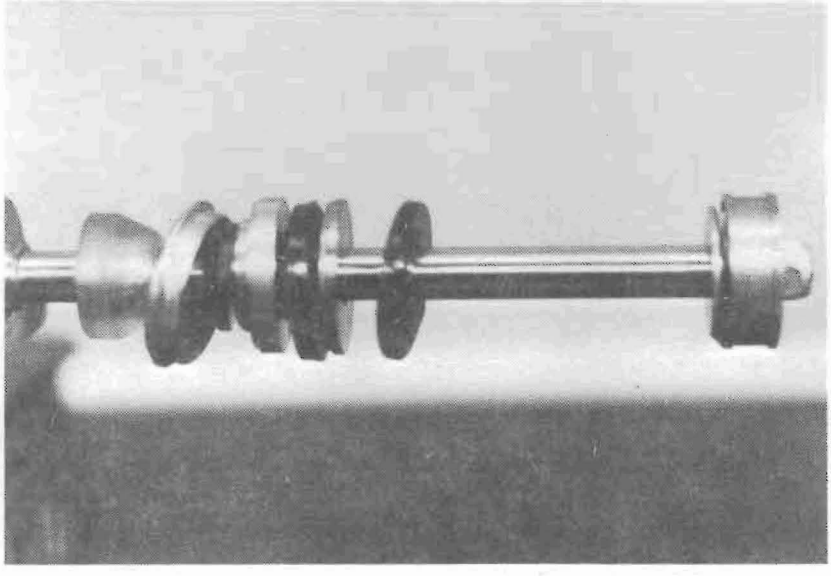
PISTON SHAFT COMPONENTS

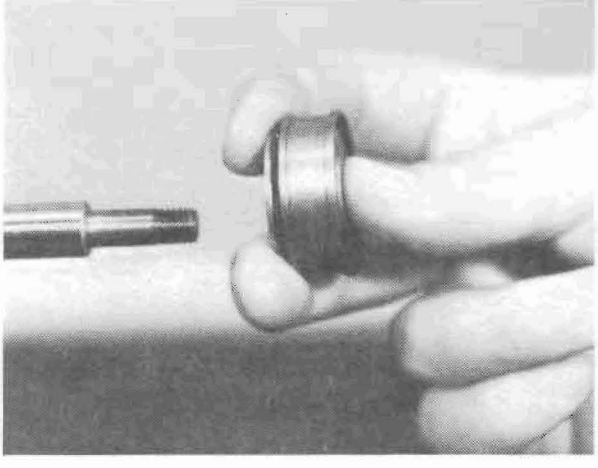
Disassemble and reassemble one set of components at a time. By doing this you retain an example of the assembly you are working on.

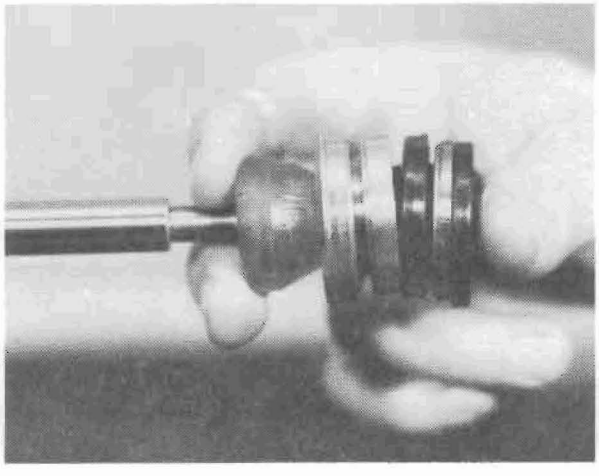
Disassembly of piston shaft components

1. Clamp shock eye in vise with shaft horizontal and remove teflon sealing ring.



2. Using a 13 mm box end wrench remove 8 mm nyloc nut that retains piston valve assembly. Remove piston valve assembly as one unit, carefully placing it on a clean surface, Remove seal retainer group from shaft.





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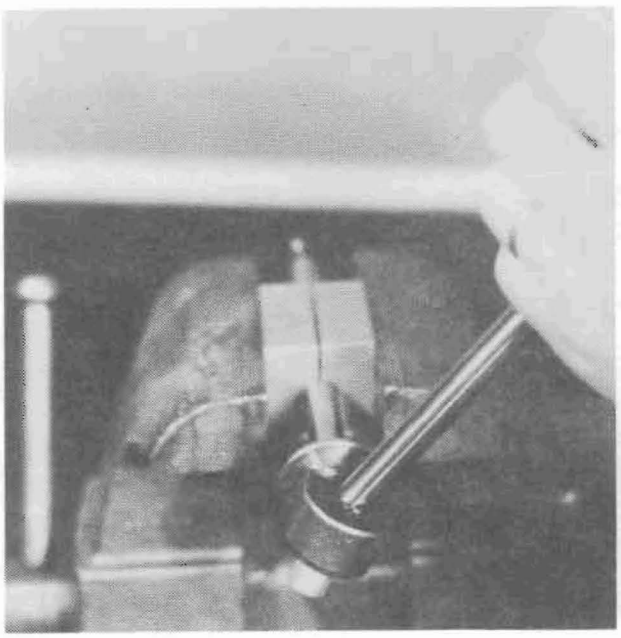
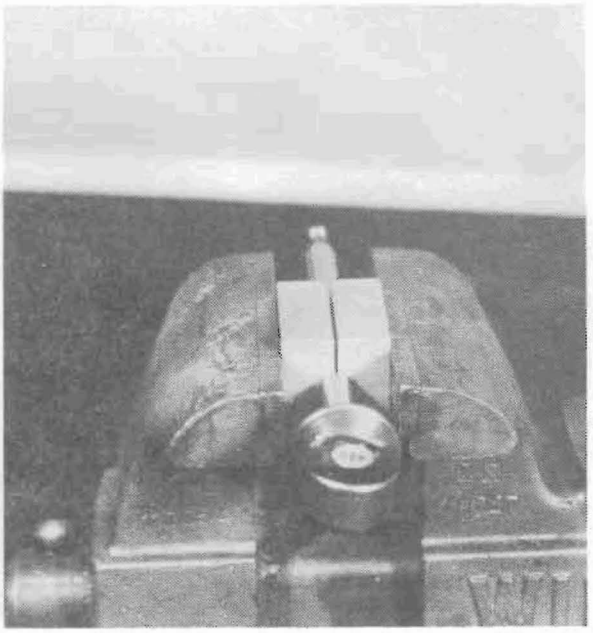
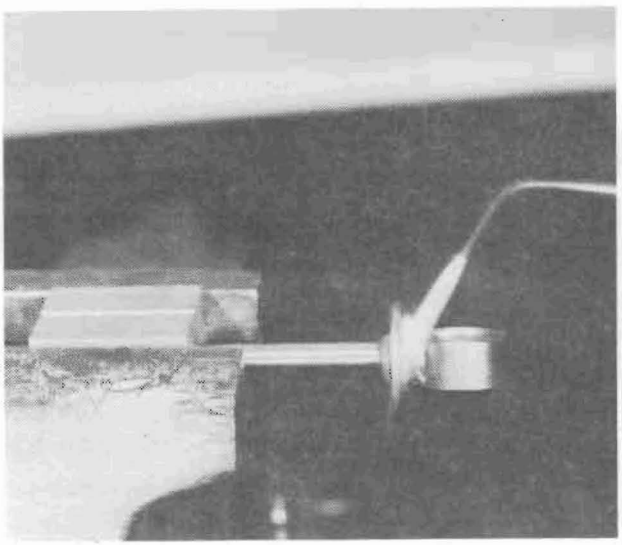
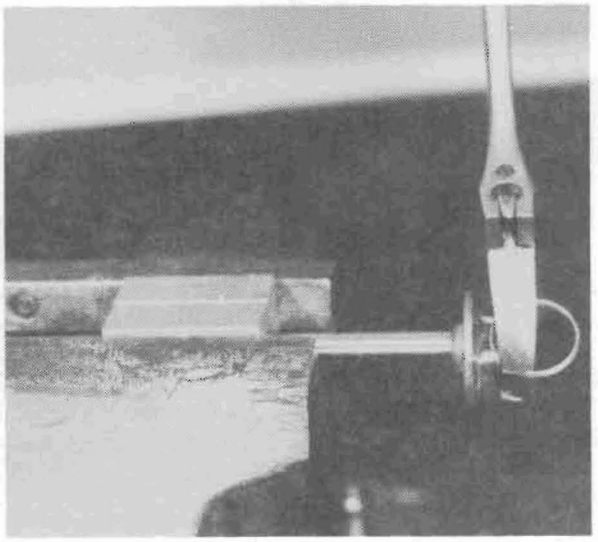
3. If it is necessary to replace shaft at this time, clamp the shaft with the tools provided. Then remove the aluminum distance spacer and the rubber bushing from the shock eye. Heat the shock eye using a propane or welding torch to approx. 250-300 degrees. Use an extra large crescent wrench to unscrew shock eye from shaft.









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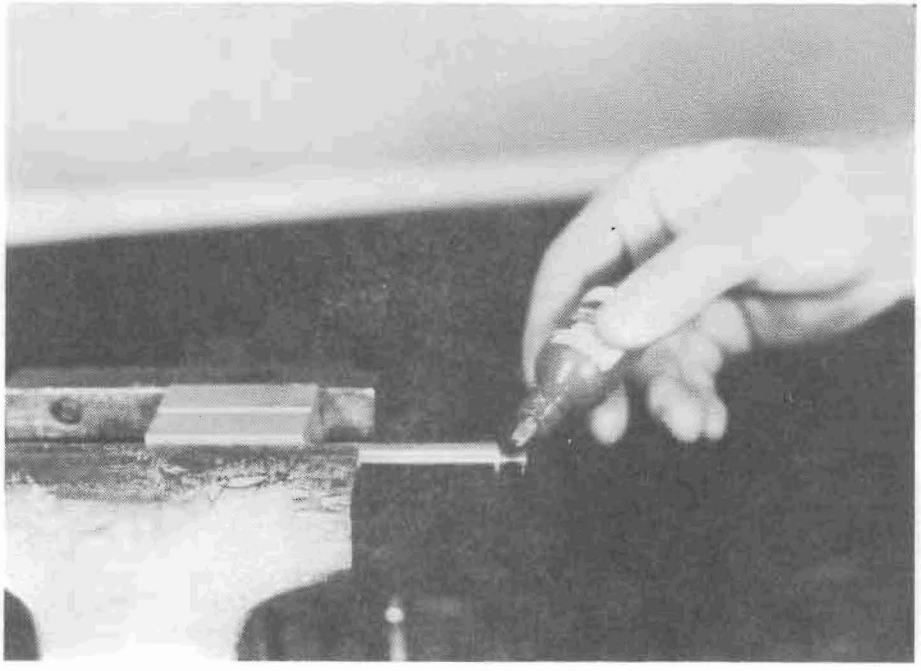
4. Place new shaft in tool and reclamp in vise. Clean shock eye and shaft threads using contact cleaner. Reassemble using red stud and bearing mount loctite. Do not subsitute. Reinstall rubber bushing and distance spacer. Prior to reassembling the shock it is necessary to scrupulously clean every part of the shock assembly. It is mandatory that the highest standards of cleanliness be maintained when working on the Ohlins shock. If any dirt is in the shock it will become trapped in the valving due to the action of the oil within the shock. Pay particular attention to particles of old teflon tape on threaded surfaces.



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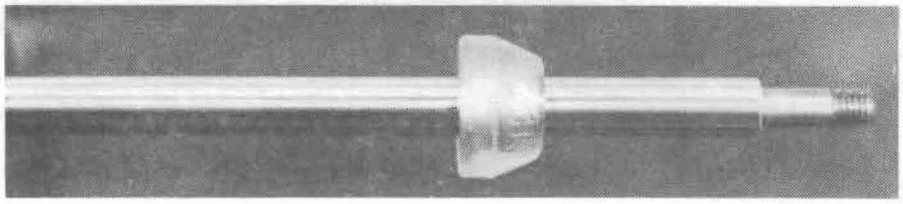
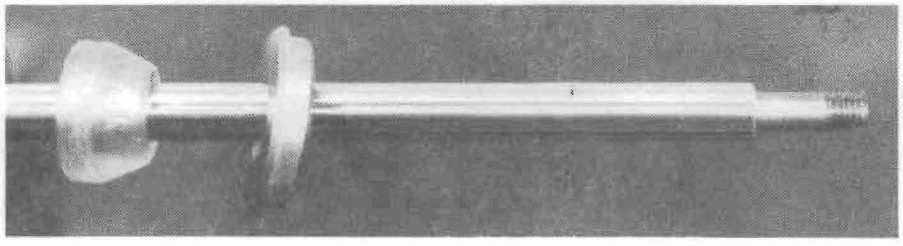
REASSEMBLY OF PISTON SHAFT COMPONENTS

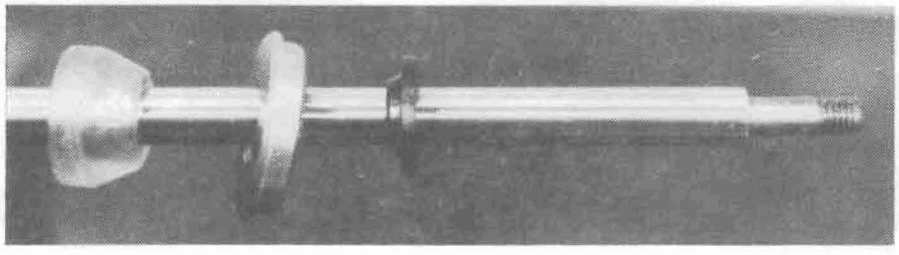
1. With shock eye clamped vise and shaft hotizontal, clean, and reinstall bottoming stop.



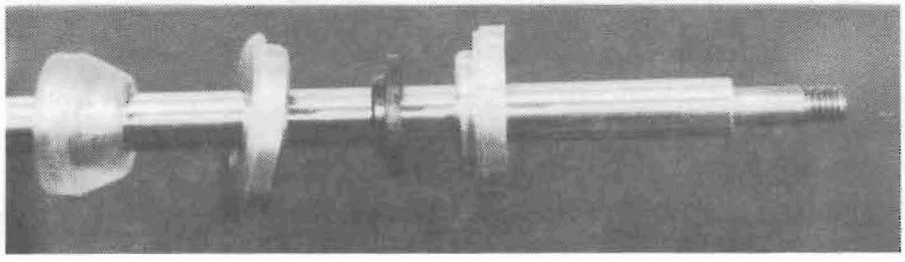
2. Install seal retainer group in the following order:
   a. shaft scraper retainer part # S-102-01



   b. shaft scraper part # S-122-01
   Step side towards shock eye. Inspect edge of shaft scraper, it should be sharp. Replace if necessary.



   c. Brass shaft bearing-part # S-112-01-step side towards shock eye. Brass bearing should only be replaced if clearance on shaft is greater than .004 thousandths.



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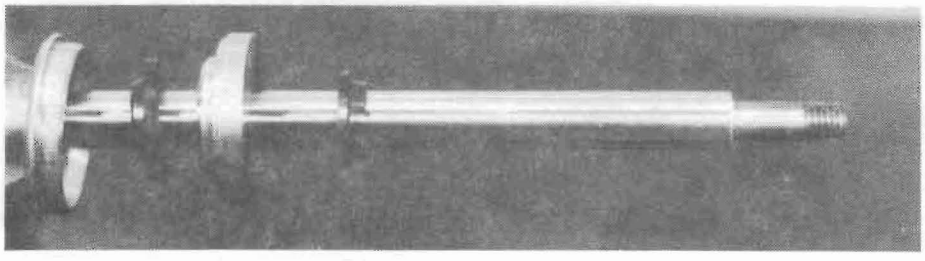
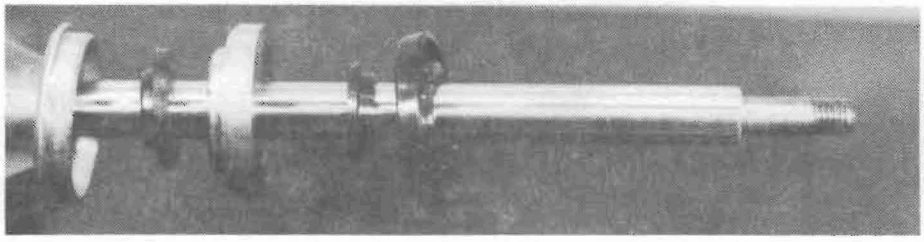
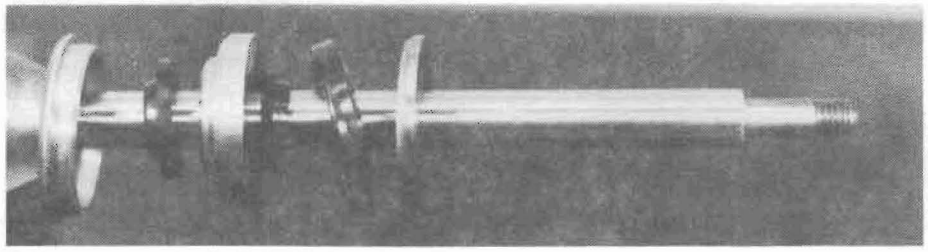
d. Install NEW shaft seal-part # S-127-01-step side away from shock eye. Unless shocks are brand new do not reuse the seal. Install carefully over sharp end of shaft.



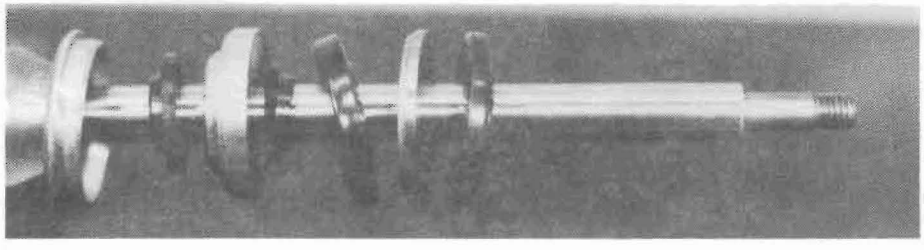
e. Shaft seal holder-part # S-132-01 letters towards shock eye, (do not install items D and E as an assembly.)



f. Steel retainer-part # S-109-01 snap ring groove towards shock eye.



g. Top out rubber-part # S-133-01 letters towards shock eye.



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Install piston valve assembly according to shock application. Refer to application chart for proper arrangement of this assembly.

Proper sequence of assembly of the piston valve assembly for the Ohlin shock identified as HBA-3-4

Assemble the piston valve assembly, starting with pieces closest to the seal retainer group and working towards the 8 mm nyloc nut on the end of the shaft. This sequence will be exactly opposite the individual disassembly of the piston valve assembly. The sequence of assembly is as follows with compression first and then rebound.

Valve Stop - Flat side towards shock eye. 8° is gold , 6° is chrome, 10° is natural.
Valve Washer - 21 mm O.D.- . 2 mm thick.
Valve Washer - 24 mm O.D. -. 2 mm thick
Triangular Valve Washer - Two holes in two of the points. This washer is .2 mm thick. This washer will cover only the six round holes in the side of the piston towards this washer. Each point of this washer should cover two of the round holes on this side of the piston. Position both holes in this washer over two of the six round holes in the piston.

Piston - The flat side with six round holes towards the shock eye.
Triangular Valve Washer - No holes in this washer. The washer is .2 mm thick. Each point of this washer will cover one of the three round holes in the recessed side of the piston.

Valve Washer - 27 mm O.D. - .25 mm thick
Valve Washer - 24 mm O.D. - .25 mm thick
Valve Washer - 21 mm O.D. - .25 mm thick
Valve Washer - 18 mm O.D. - .30 mm thick

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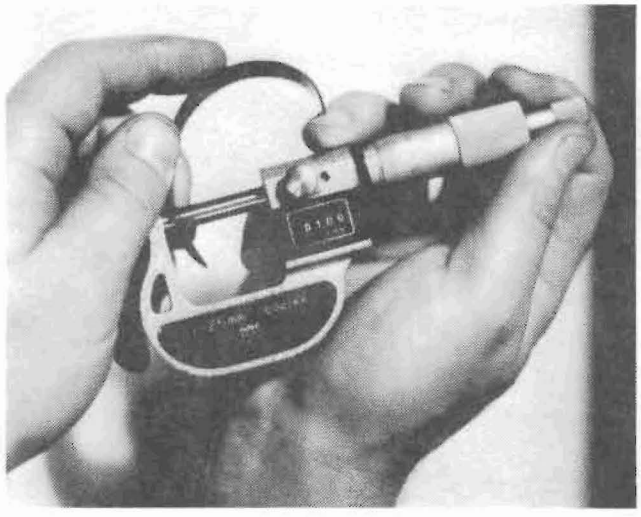

This completes the assembly of the piston valve assembly.

3. Fasten piston valve assembly on shaft with a NEW 8 mm nyloc nut. Do not reuse old nut. DO NOT USE LOCTITE ON THIS NUT. Be sure that valving washers are properly aligned on piston and DO NOT MOVE during the tightening of 8 mm nyloc nut. Do not hold the washers with a screwdriver while tightening , this can bend valve washer.

4. Check to see that holes in triangular washer are properly aligned by holding shaft assembly up against light, and sighting through piston to see holes in triangular washer. Triangular washer should be equally covering slots on both sides of piston.

5. Measure piston sealing ring using micrometer, be sure it is with in tolerance 1 mm^{+10mm}_{-10mm} thick. Replace if necessary. Install piston sealing ring on piston. Normal end gap will be approximately 2 mm wide. Piston shaft assembly is now ready for installation in the shock body.

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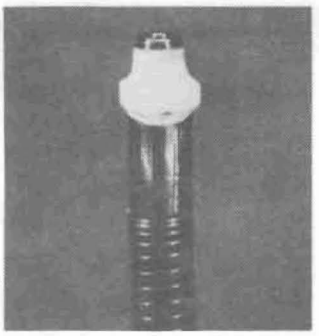
REASSEMBLY OF SHOCK

1. Place throughly cleaned and dried shock body in shock holding tool and secure.



2. Now apply three to four wraps of teflon tape to reservoir hose threads. Do not tape first threads on hose connection as this helps prevent teflon particles from contaminating oil.

3. Fill shock body with oil by pouring carefully down inside of shock body to avoid bubbles. Fill to 1" or 30 mm below lowest snap ring groove.

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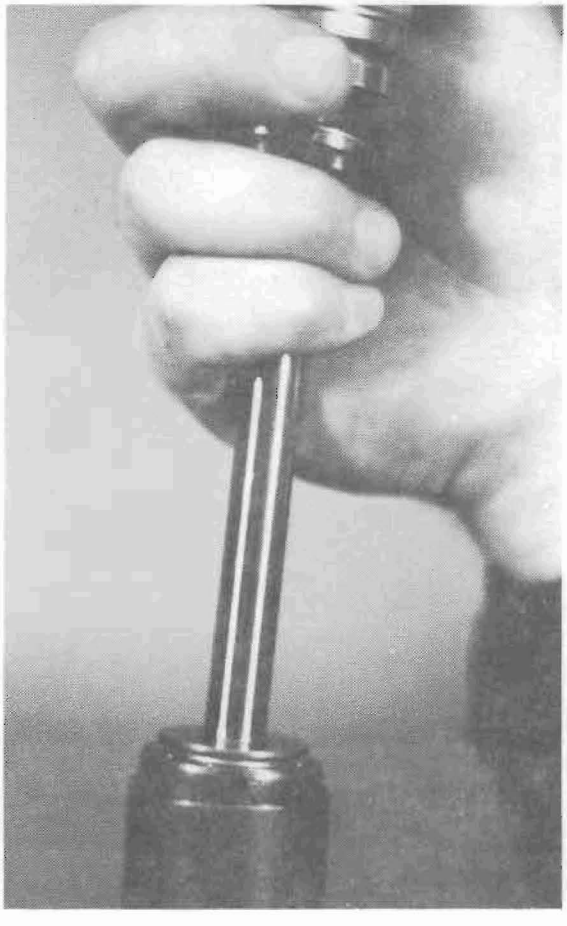
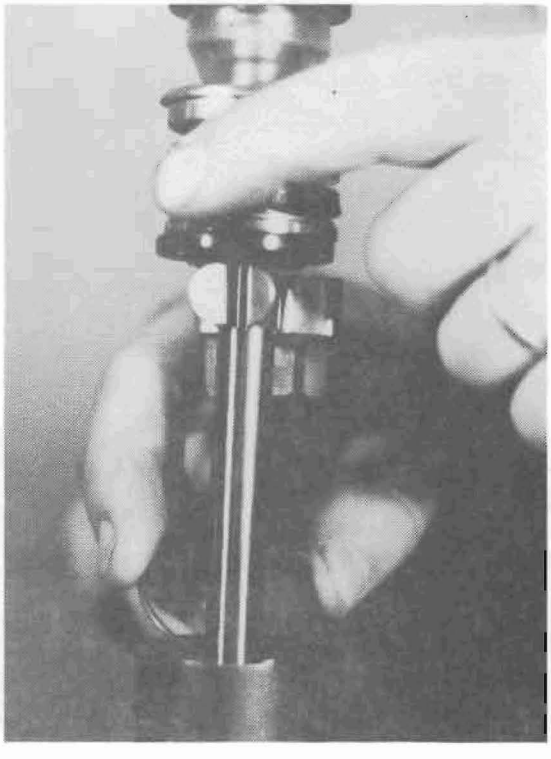
Install
piston shaft assembly into shock body, carefully tucking in ends of piston sealing ring. Allow piston valve assembly to slide down below last snap ring groove but above oil level. Grasp shaft and oscillate it slightly to seat piston sealing ring. Install snap ring by squeezing ring together and inserting open ends into shock body first. Push snap ring down past all three grooves and then gently work it into position by pulling up slowly on shock shaft. Hold shaft fully extended until assembly is complete.





4. Slide top out rubber then steel retainer down against first snap ring. Then install second snap ring.

5. MAKE CERTAIN SECOND SNAP RING IS IN IT'S GROOVE. The second snap ring is what holds the shock together. The other two snap rings are used only to keep certain parts in their respective positions.

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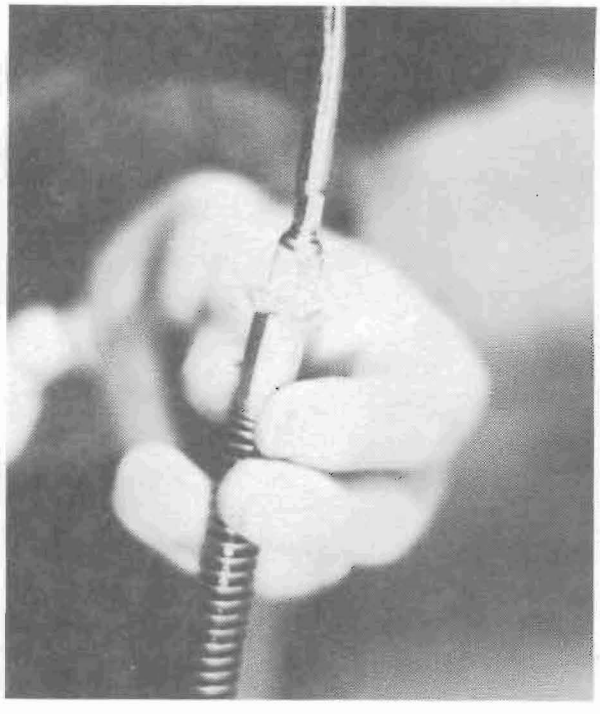
6. Now fill the shock body with oil in the following manner:
Hold the shock fully extended and lower the end of the hose slowly until oil starts to drip out. Using an oil squirt can pump oil through the hose and fill the shock body full to the level of the top snap ring groove. Pump the oil slowly with no air bubbles through the reservoir hose. Be sure that the oil squirt can is clean and uncontaminated for this operation.



7. Next hold reservoir hose in upright position with the end of the hose above the shock body. Using your thumb to block the open end of the hose, gently work the shock piston up and down using a maximum of one inch long strokes to release all air trapped by the piston assembly in the shock body.

THE SUCCESSFUL OPERATION OF THE SHOCK DEPENDS ON THE REMOVAL OF ALL AIR DURING THIS OPERATION. When all air is removed the piston will move up and down silently with no "squishing" noises, while thumb is held over end of hose.

The shock must be held fully extended from now until assembly is complete. We recommend the use of clothes pins or snap on tool clips to hold the shaft assembly fully extended. Secure the reservoir hose in an upright position. Gently break all air bubbles on top of the oil level in the shock body. Blowing lightly on the surface will break up the bubbles.

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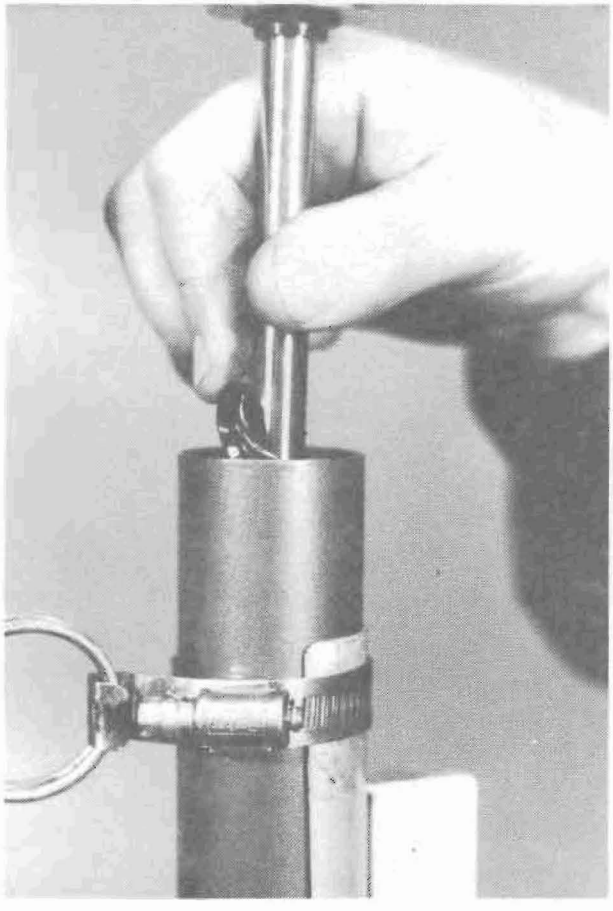
8. Next hold shaft seal holder at the steepest angle possible and lower into oil in shock body, allowing any trapped air to escape on high side of shaft seal holder. Then seat it flush against steel retainer. With a clean absorbent towel soak excess oil above shaft seal holder, leaving a slight amount of oil above shaft seal holder until installation of the shaft seal into the seal holder is complete.



9. To install the shaft seal, it facilitates the insertion of the shaft seal into the shaft seal holder if the shaft is slightly moved away from the area of the seal being inserted. Use caution when inserting shaft seal into the seal holder to avoid damaging the seal. Dry area above the shaft seal and holder of all excess oil.

10. Lower brass bearing into place and gently depress sufficiently, using shock tool to allow last snap ring to be installed. Use caution in this operation that you do not depress the brass bearing too far so that it pushes the top out rubber below the bottom snap ring.

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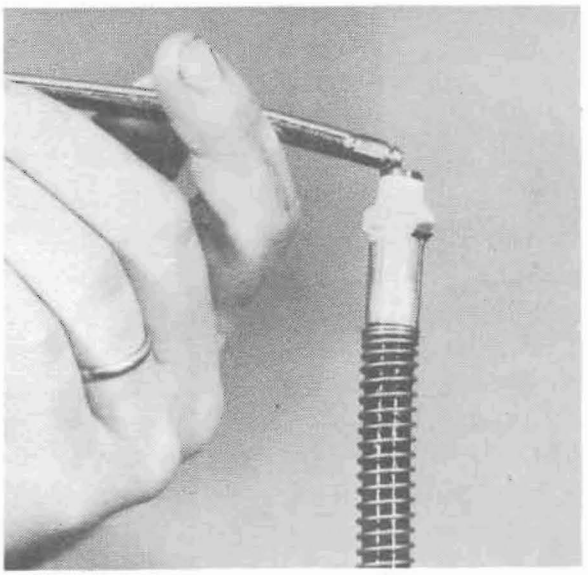
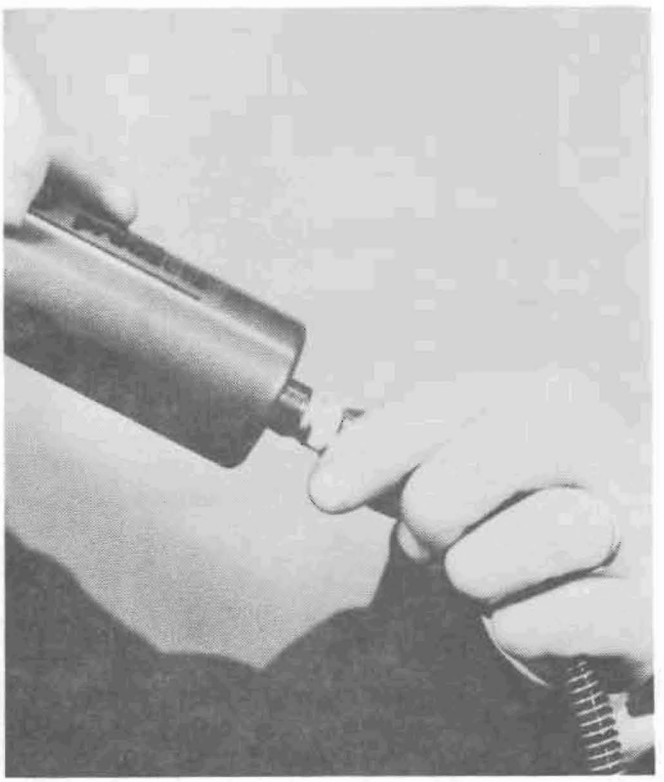
11. Cover the end of hose with a thumb and push down slowly on shaft. This should cause the brass bearing to rise fully against the snap ring. Do not push the shaft too far! Remove thumb and slowly pull shaft back up to fully extended position. Refill hose with oil can taking care not to trap air bubbles. Keep hose upright and lightly tap hose with a screwdriver to help remove air bubbles. Be sure hose is full.



12. The reservoir and hose are now ready to be assembled. Lower hose just a bit and quickly mate reservoir and hose together making sure not to trap any air during connection. Tighten reservoir to hose using approx. 15 ft.lbs.
DO NOT OVERTIGHTEN.



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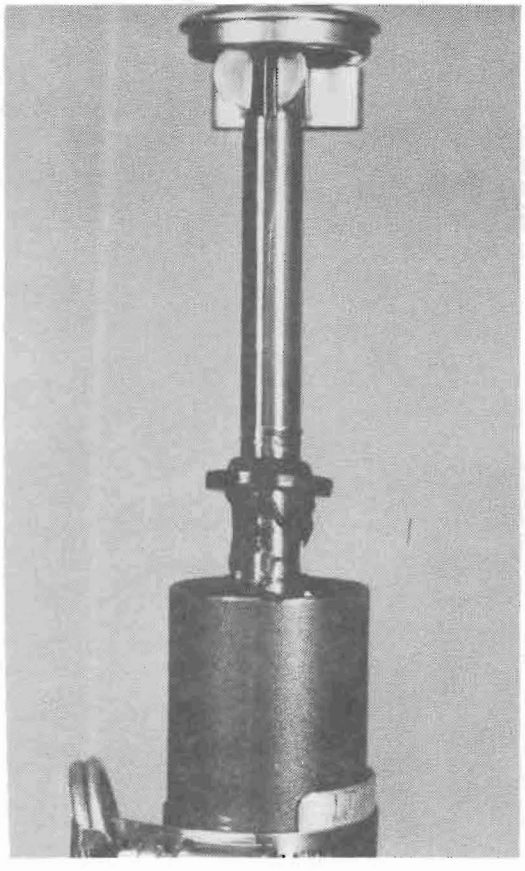
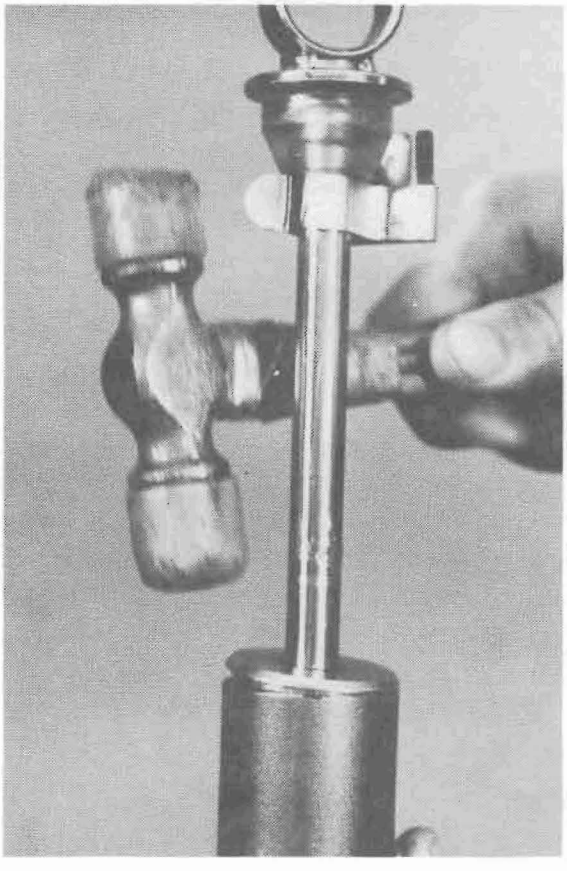
13. Lubricate shaft with graphite grease above brass bearing. Use sufficient grease to adequately lubricate the shaft scraper. Lower the shaft scraper against the brass bearing and then lower the scraper retainer into position and gently tap into place, using a plastic hammer.





14. IMPORTANT. Do not compress the shock until after you charge the reservoir with 185 P.S.I. check for proper functioning of the shock by compressing the shaft all the way. It should return smoothly.

15. Check swivel joint and bushings for proper lubrication and cleanliness. The heim joint should be cleaned regreased periodically during use of the shocks.

16. Reassemble retainers and spring on the shock.

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DAMPING CHANGES

A damping change in a Ohlin shock absorber is achieved by changing the stiffness of a shim package. There are two different shim packages, one for the compression stroke and one for the return stroke (rebound). These two valve systems are completely independent from one another. The shim package for the compression damping is located on top of the piston and the rebound damping on the bottom side of the piston (closest to the nyloc-nut).

For example, on compression the oil passes through the piston and forces the shims on top of the piston to open. How much they open depends on two factors. The first factor is the pressure on the oil underneath the piston which is determined by how fast the shock is compressed (the bigger the bump or the harder you land the faster the shock wants to compress). The second factor is the stiffness of the shim package. A stiff shim package will create a stiff or hard damping because it resists opening to allow oil to pass through. Consequently a soft package will result in soft damping.

The stiffness of a shim package can be changed in two ways. The most noticable way is to change the thickness of the shims. The thicker and larger the shims become the stiffer the shim package and the stiffer the damping. Another less noticable way to change the damping is to change the outside diameter of one or all of the shims.

The larger shims (closest to the piston) effect the low speed damping more than smaller shims, and the small shims effect the high speed damping more than the larger ones.

A valve stop is placed on top of the compression shim package to limit how much the shims can open. This stop is available in 6, 8 and 10 degrees. Generally if a very "soft" compression damping is used it usually needs a valve stop with less of an angle than if a "stiffer" damping is used. This is because the valve stop only effects the very high speed damping and if the damping is soft the shock reaches higher speeds more quickly therefore needing a "lesser degree" stop in order to prevent bottoming out.

On the rebound side there is no need for an angled stop since the force or speed on the shock is only a fraction of that which is exerted on the compression side.

This is a brief explanation of the damping characteristics of an Ohlin shock. Please refer to the Damping Chart for a step by step progression of damping.

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OHLINS SHOCK APPLICATION CHART

On each pair of shocks there is a series of letters and numbers stamped near the heim joint. Example HBA3-3

H=Husqvarna B=Total Length A= Compression Damping 3=Rebound Damping -3=One hole in Compression Washer

BIKE	TOTAL LENGTH	VALVE WASHER COMPRESSION	VALVE WASHER REBOUND
H Husqvarna	A 350 mm B 383	O. △ 0,20 Ø 24 0,20 Ø 18 0,20	1. △ 0,20 Ø 27 0,20 Ø 24 0,25 Ø 21 0,25 Ø 18 0,25
K KTM	C 400	A. △ 0,20 Ø 24 0,20 Ø 21 0,20	2. △ 0,20 Ø 27 0,25 Ø 24 0,25 Ø 21 0,25 Ø 18 0,25
M Maico	D 417 E 425	B. △ 0,20 Ø 24 0,20 Ø 21 0,20 Ø 18 0,20	
KA Kawasaki	F 365	C. △ 0,20 Ø 24 0,20 Ø 21 0,25 Ø 18 0,25	3. △ 0,20 Ø 27 0,25 Ø 24 0,25 Ø 21 0,25 Ø 18 0,30
HO Honda	G 390 H 450	D. △ 0,25 Ø 24 0,25 Ø 21 0,25 Ø 18 0,25	4. △ 0,25 Ø 27 0,25 Ø 24 0,25 Ø 21 0,30 Ø 18 0,30
MO Montesa	I 360	E. △ 0,25 Ø 24 0,25 Ø 21 0,25 Ø 18 0,30	5. △ 0,25 Ø27 0,25 Ø 24 0,30 Ø 21 0,30 Ø 18 0,30
C CCM	K 368 L 373		
CZ CZ			
O Ossa			
B Bultaco			
HE Hercules			
CA Can Am			

MORE DAMPING ↓

-3=One hole in △ Compression Washer

-4=Two holes in △ Compression Washer

*Most new shocks have -4. Just a single hole in the compression washer has been too stiff for most applications.

-5=New shaft Material used

-6=New seal Material used

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BIKE	VALVE WASHER COMPRESSION	VALVE WASHER REBOUND
S Suzuki	F. △ 0,25 Ø 24 0,25 Ø 21 0,30 Ø 18 0,30	6. △ 0,25 Ø 27 0,30 Ø 24 0,30 Ø 21 0,30 Ø 18 0,30
	G. △ 0,25 Ø 24 0,30 Ø 21 0,30 Ø 18 0,30	7. △ 0,30 Ø 27 0,30 Ø 24 0,30 Ø 21 0,30 Ø 18 0,30

All Above Combinations have
10° Valve Stops Stock

BUR 15 or Cross Country Damping

△ 0,20 Ø24 0,20 8° Valve Stop	△ 0,20 Ø 18 0,20 1.5 mm flat washer stop

ÖHLINS
GAS SHOCKS
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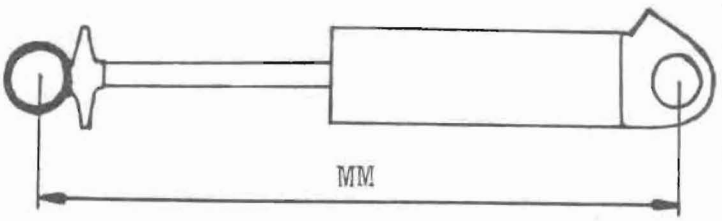
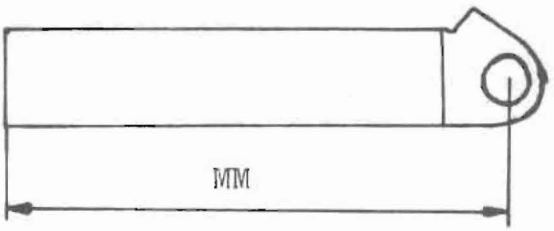
HOW TO MEASURE.

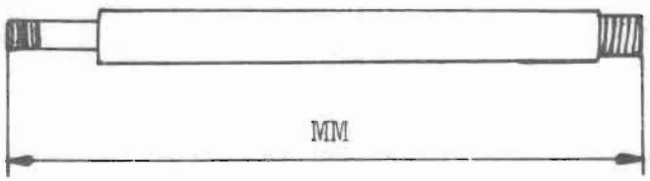
TOTAL LENGTH



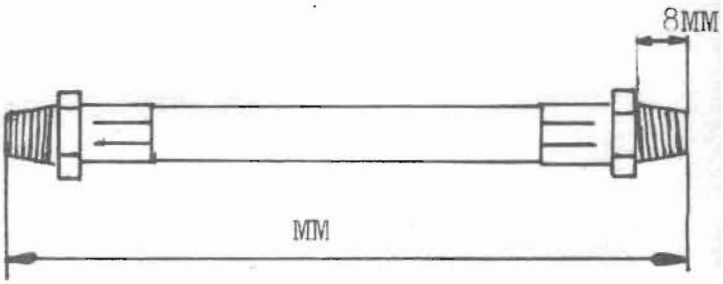
BODY



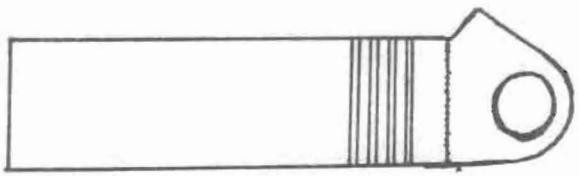
SHAFT



LINE



CIRCLIP PRELOAD



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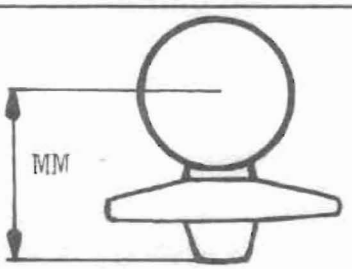
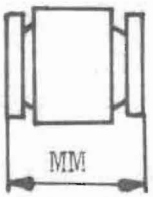


EYE ATTACHMENTS



BUSHING S-118 MOUNTED IN UNIBALL

LBS PER INCH RATINGS FOR OHLIN SPRINGS

FREE LENGTH/ COLOR CODE	NUMBER OF COILS	WIRE DIA.	AVG. RATE	COIL BOUND LENGTH	TRAVEL
70 MM BLUE	5.5	6.5 MM	200 lbs/in.	34 MM	36 MM
70 MM RED	5.5	7.0 MM	251 lbs/in.	35 MM	35 MM
70 MM ORANGE	5.0	7.0 MM	295 lbs/in.	32 MM	38 MM
70 MM VIOLET	5.0	7.5 MM	377 lbs/in.	36 MM	34 MM
90 MM BLUE	7.0	6.5 MM	146 lbs/in.	43.5 MM	46.5 MM
90 MM YELLOW	6.5	6.5 MM	158 lbs/in.	41.0 MM	49.0 MM
90 MM RED	6.0	6.5 MM	174 lbs/in.	38.0 MM	52.0 MM
90 MM GREEN	7.0	7.0 MM	183 lbs/in.	46.5 MM	43.5 MM
90 MM ORANGE	6.5	7.0 MM	204 lbs/in.	45.0 MM	45.0 MM
90 MM VIOLET	6.5	7.5 MM	285 lbs/in.	29.0 MM	41.0 MM
180 MM BLUE	8.5	8.0 MM	218 lbs/in.		3.5 inches
180 MM RED	8.5	8.5 MM	269 lbs/in.		3.5 inches
225 MM GREEN/ BLUE	10.5	8.0 MM	180 lbs/in.		4.0 inches
225 MM GREEN/ YELLOW	10.5	8.25 MM	201 lbs/in.		4.0 inches
225 MM GREEN/RED	10.5	8.5 MM	218 lbs/in.		4.0 inches
240 MM WHITE/RED	12.0	7.5 MM	117 lbs/in.		5.0 inches
240 MM ORANGE	14.0	8.0 MM	140 lbs/in.		4.0 inches
240 MM VIOLET	10.0	7.5 MM	146 lbs/in.		4.0 inches
240 MM YELLOW	12.0	8.0 MM	148 lbs/in.		5.0 inches
240 MM BLUE	11.0	8.0 MM	165 lbs/in.		5.0 inches
240 MM RED	10.25	8.0 MM	186 lbs/in.		4.0 inches
240 MM GREEN	13.0	8.0 MM	141 lbs/in.		5.0 inches
240 MM WHITE	10.25	8.5 MM	213 lbs/in.		5.0 inches
270 MM VIOLET/ WHT PROGRESSIVE	16.0	7.5 MM	85-141 lbs/in.		5.82 inches
270 MM BLUE/ WHT PROGRESSIVE	16.0	8.0 MM	110-179 lbs/in.		5.62 inches
270 MM YELLOW/ WHT PROGRESSIVE	16.0	8.25 MM	122-190 lbs/in.		6.50 inches
270 MM RED/ WHT PROGRESSIVE	16.0	8.5 MM	135-272 lbs/in.		5.20 inches

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GAS SHOCKS
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by Öhlins Racing Sweden

MARK - YEAR

CAN-AM 250/370 1978/79

TOT. LENGTH

383 mm

TRAVEL

140 mm

COMBINATION

AB8A-6

BODY

S-171-02
213 mm

SHAFT

S-103-02
207 mm

LINE

RIGHT	LEFT
S-137-05	S-137-05
340 mm	340 mm

DISTANCE UNIBALL

S-118-01

8 X 24

BUSHING

S-123-01

8 X 24

CIRCLIP POSITION

2

SPRING COMBINATION STAND

8 X 240/11 coils/blue
6.5 X 90/7 coils/blue

BUMP RUBBER

35 X 55

S-163-03

SPECIAL ATTENTIONS:

NOTES:

ÖHLINS
GAS SHOCKS
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by Öhlins Racing Sweden

MARK - YEAR

HONDA 79 CR 125 R

TOTAL LENGTH	TRAVEL	COMBINATION
447 mm	165 mm	HOH 2-6
BODY	SHAFT	LINE RIGHT / LEFT
S-171-07 253 mm	S-103-07 245 mm	S-137-08 / S-137-06 500 mm / 400 mm
DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-159-01	S-159-01	2
10 X 19	10 X 19	

SPRING COMBINATION STAND

270 mm/16 coils/7.5 wire dia/purple with white
90 mm/6.5 coils/6.5 wire dia/yellow

BUMP RUBBER

S-163-03

35 X 55

SPECIAL ATTENTIONS:

NOTES:

Internal travel limiter

S-157-01 15 mm

ÖHLINS
GAS SHOCKS
Made for husky products
by Öhlins Racing Sweden

MARK - YEAR

HONDA CR 250 R-78/79

TOT. LENGTH	TRAVEL	COMBINATION
445 mm	165 mm	H0H8A 14-6
BODY	**SHAFT**	**LINE**
		RIGHT LEFT
S-171-07 253 mm	S-103-07 245 mm	S-137-08 S-137-06 500 mm 400 mm
DISTANCE UNIBALL	**BUSHING**	**CIRCLIP POSITION**
S-159-01	S-159-01	2
10 X 19	10 X 19	

SPRING COMBINATION STAND

8 X 270 X 16 laps progressive/white with blue
6.5 X 90/6.5 laps
yellow

BUMP RUBBER

35-55 mm

SPECIAL ATTENTIONS:

NOTES:

Jerry Shark

ÖHLINS
GAS SHOCKS
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by Öhlins Racing Sweden

MARK - YEAR

HUSQVARNA 250/390 77-78

TOT. LENGTH

383 mm

TRAVEL

140 mm

COMBINATION

HBA 3-4

BODY

S-171-02
213 mm

SHAFT

S-103-02

LINE

Right	Left
S-137-02	S-137-02
240 mm	240 mm

DISTANCE UNIBALL

S-118-01

8 X 24

BUSHING

S-123-01

8 X 24

CIRCLIP POSITION

3

SPRING COMBINATION STAND.

8 X 240/12 laps
Marked with yellow

6.5 X 90/6.5 laps
Yellow

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

ÖHLINS
GAS SHOCKS
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MARK - YEAR

HUSQVARNA 79 250/390 CR

TOT. LENGTH	TRAVEL	COMBINATION
417 mm	160 mm	HD03-6

BODY	SHAFT	LINE RIGHT	LINE LEFT
S-171-04 230 mm	S-103-04 225 mm	S-137-04 310 mm	S-137-04 310 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-05	S-123-01	2
12 X 24	8 X 24	

SPRING COMBINATION STAND

255 mm/11 coils/8 mm wire dia/blue
105 mm/7 coils/6.5 wire dia/gold on black

BUMP RUBBER

S-163-03

35 X 55

SPECIAL ATTENTIONS:

NOTES:

ÖHLINS
GAS SHOCKS
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by Öhlins Racing Sweden

MARK - YEAR

HUSQVARNA 79 250/390 WR

TOT. LENGTH	TRAVEL	COMBINATION
383 mm	140 mm	14 B 8A-6

BODY	SHAFT	LINE Right	LINE Left
S-171-02 213 mm	S-103-02	S-137-04 310 mm	S-137-04 310 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-01 8 X 24	S-123-01 8 X 24	3

SPRING COMBINATION STAND

240 mm/14 coils/8 mm wire/orange with red
90 mm/ 7 coils/6.5 mm wire/blue with gold

BUMP RUBBER

S-163-03

35 X 55

SPECIAL ATTENTIONS:

NOTES:

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MARK - YEAR

HUSQVARNA 79 250/390 OR

TOT. LENGTH	TRAVEL	COMBINATION
428 mm	158 mm	
BODY	**SHAFT**	**LINE** RIGHT / LEFT
S-171-05 234 mm	S-103-04 225 mm	S-137-04 310 mm / S-137-04 310 mm
DISTANCE UNIBALL	**BUSHING**	**CIRCLIP POSITION**
S-118-05	S-123-01	2
12 X 24	8 X 24	

SPRING COMBINATION STAND

270 mm/16 coils/8 mm wire/blue with white
90 mm/6.5 coils/6.5 wire/yellow

BUMP RUBBER

S-163-03

40 X 45

SPECIAL ATTENTIONS:

NOTES:

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MARK - YEAR

KAWASAKI 125/250 78

TOT. LENGTH

427 mm

TRAVEL

165 mm

COMBINATION

KAE9A-5

BODY

S-171-05
234 mm

SHAFT

S-103-05
229 mm

LINE

Right	Left
S-137	S-137

DISTANCE UNIBALL

S-118-04

10 X 22

BUSHING

S-123-06

12 X 22

CIRCLIP POSITION

7

SPRING COMBINATION STAND.

7 X 245/12 laps
Marked with white/blue

6.5 X 90/7 laps
Blue

BUMP RUBBER

SPECIAL ATTENTIONS

125 Gas pressure 10kg
250 Gas pressure 14kg

NOTES:

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GAS SHOCKS
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MARK - YEAR

KTM 125 77-78

TOT. LENGTH

350 mm

TRAVEL

127 mm

COMBINATION

KAB 4-4

BODY

S-171-01
197 mm

SHAFT

S-103-01
192 mm

LINE

Right	Left
S-137-05	S-137-05
340 mm	340 mm

DISTANCE UNIBALL

S-118-02

8 X 22

BUSHING

S-123-02

8 X 22

CIRCLIP POSITION

2

SPRING COMBINATION STAND.

8 X 240/10.25 laps
Marked with red

6.5 X 70/5.5 laps
Blue

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

ÖHLINS
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MARK - YEAR

KTM 250/400 78

TOT. LENGTH

350 mm

TRAVEL

127 mm

COMBINATION

KAC 6-4

BODY

S-171-01
197 mm

SHAFT

S-103-01
192 mm

LINE

Right	Left
S-137-06	S-137-05
400 mm	340 mm

DISTANCE UNIBALL

S-118-02

8 X 22

BUSHING

S-123-02

8 X 22

CIRCLIP POSITION

2

SPRING COMBINATION STAND.

8 X 240/10.25 laps
Marked with red

7 X 70/5.5 laps
Red

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

ÖHLINS
GAS SHOCKS
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by Öhlins Racing Sweden

MARK - YEAR

KTM 79 250/400

TOT. LENGTH	TRAVEL	COMBINATION
349 mm	127 mm	KTP 2-6

BODY	SHAFT	LINE RIGHT	LINE LEFT
S-171-01 197 mm	S-103-01 192 mm	S-137-06 400 mm	S-137-06 400 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-02 8 X 22	S-123-02 8 X 22	1

SPRING COMBINATION STAND

240 mm/10.25 coils/8.25 wire/green with orange
70 mm/5.5 coils/7 wire/red

BUMP RUBBER

S-163-02

40 X 45

SPECIAL ATTENTIONS:

NOTES:

ÖHLINS
GAS SHOCKS
Made for husky products
by Öhlins Racing Sweden

MARK - YEAR

MAICO 250/400 76-77

TOT. LENGTH	TRAVEL	COMBINATION
350 mm	127 mm	MAC 5-4

BODY	SHAFT	LINE Right	LINE Left
S-171-01 197 mm	S-103-01 192 mm	S-137-01 185 mm	S-137-01 185 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-01 8 X 24	S-123-01 8 X24	1 .

SPRING COMBINATION STAND.

8 X 240/10.25 laps Marked with red	6.5 X 70/5.5 laps Blue

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

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MARK - YEAR

MAICO 250/400 78

TOT. LENGTH

368 mm

TRAVEL

133 mm

COMBINATION

MKC 5-4

BODY

S-171-06
203 mm

SHAFT

S-103-06
198 mm

LINE

Right	Left
S-137-05	S-137-05
340 mm	340 mm

DISTANCE UNIBALL

S-118-01

8 X 24

BUSHING

S-123-01

8 X 24

CIRCLIP POSITION

2

SPRING COMBINATION STAND.

8 X 240/11 laps
Marked with blue

7 X 70/5.5 laps
Red

BUMP RUBBER

SPECIAL ATTENTIONS

Eye attachment S-160-01 .32 mm

NOTES:

ÖHLINS
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MARK - YEAR

MAICO 79 250/400 MAGNUM

TOT. LENGTH	TRAVEL	COMBINATION
368 mm	133 mm	ML P1-6

BODY	SHAFT	LINE RIGHT	LINE LEFT
S-171-06 203 mm	S-103-06 198 mm	S-137-05 340 mm	S-137-05 340 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-01	S-123-01	1
8 X 24	8 X 24	

SPRING COMBINATION STAND

220 mm/10.25 coils/8.25 mm wire/green with orange
90 mm/6.5 coils/7 mm wire/orange

BUMP RUBBER

S-163-04

40 X 55

SPECIAL ATTENTIONS:

NOTES:

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MARK - YEAR

SUZUKI 125 76-78

TOT. LENGTH	TRAVEL	COMBINATION
390 mm	140 mm	SGO 2-4

BODY	SHAFT	LINE Right	LINE Left
S-171-03 224 mm	S-171-02 207 mm	S-137-05 340 mm	S-137-05 340 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-04 10 X 22	S-123-04 10 X 22	2

SPRING COMBINATION STAND.

7.5 X 240/12 laps Marked with white/red	6.5 X 90/7 laps Blue

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

ÖHLINS
GAS SHOCKS
Made for husky products
by Öhlins Racing Sweden

MARK - YEAR

SUZUKI 250/370 77

TOT. LENGTH	TRAVEL	COMBINATION
390 mm	140 mm	SGA 2-4

BODY	SHAFT	LINE Right	LINE Left
S-171-03 224 mm	S-103-02 207 mm	S-137-05 340 mm	S-137-05 340 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-04 22 X 10	S-123-04 22 X 10	3

SPRING COMBINATION STAND.

7.5 X 240/10.25 laps Marked with violet	6.5 X 90/7 laps Blue

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

ÖHLINS
GAS SHOCKS
Made for husky products
by Öhlins Racing Sweden

MARK - YEAR

SUZUKI 250/400 78

TOT. LENGTH	TRAVEL	COMBINATION
406 mm	150 mm	SJA 2-4

BODY	SHAFT	LINE Right	LINE Left
S-171-04 230 mm	S-103-03 215 mm	S-137-05 340 mm	S-137-05 340 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-04 10 X 22	S-123-04 10 X 22	3

SPRING COMBINATION STAND.

7.5 X 240/10.25 laps Marked with violet	6.5 X 90/7 laps Blue

BUMP RUBBER

SPECIAL ATTENTIONS

NOTES:

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MARK - YEAR

SUZUKI 79 RM-N 125

TOT. LENGTH

414 mm

TRAVEL

139 mm

COMBINATION

S D 2-6

BODY

S-171-03
224 mm

SHAFT

S-103-02
207 mm

LINE

RIGHT	LEFT
S-137-02 240 mm	S-137-02 240 mm

DISTANCE UNIBALL

S-118-01

8 X 24

BUSHING

S-123-01

8 X 24

CIRCLIP POSITION

2

SPRING COMBINATION STAND

240 mm/11 coils/8 mm wire/blue
90 mm/7 coils/7 mm wire/green

BUMP RUBBER

S-163-01

35 X 45

SPECIAL ATTENTIONS:

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MARK - YEAR

SUZUKI 79 RM-N 250/400

TOTAL LENGTH	TRAVEL	COMBINATION
394.5 mm	139 mm	SM 2-6

BODY	SHAFT	LINE RIGHT	LINE LEFT
S-171-03 224 mm	S-103-02 207 mm	S-137-02 240 mm	S-137-02 240 mm

DISTANCE UNIBALL	BUSHING	CIRCLIP POSITION
S-118-01 8 X 24	S-123-01 8 X 24	2

SPRING COMBINATION STAND

240 mm/10.25 coils/8.25 wire/green with orange
90 mm/6.5 coils/7 mm wire/ orange

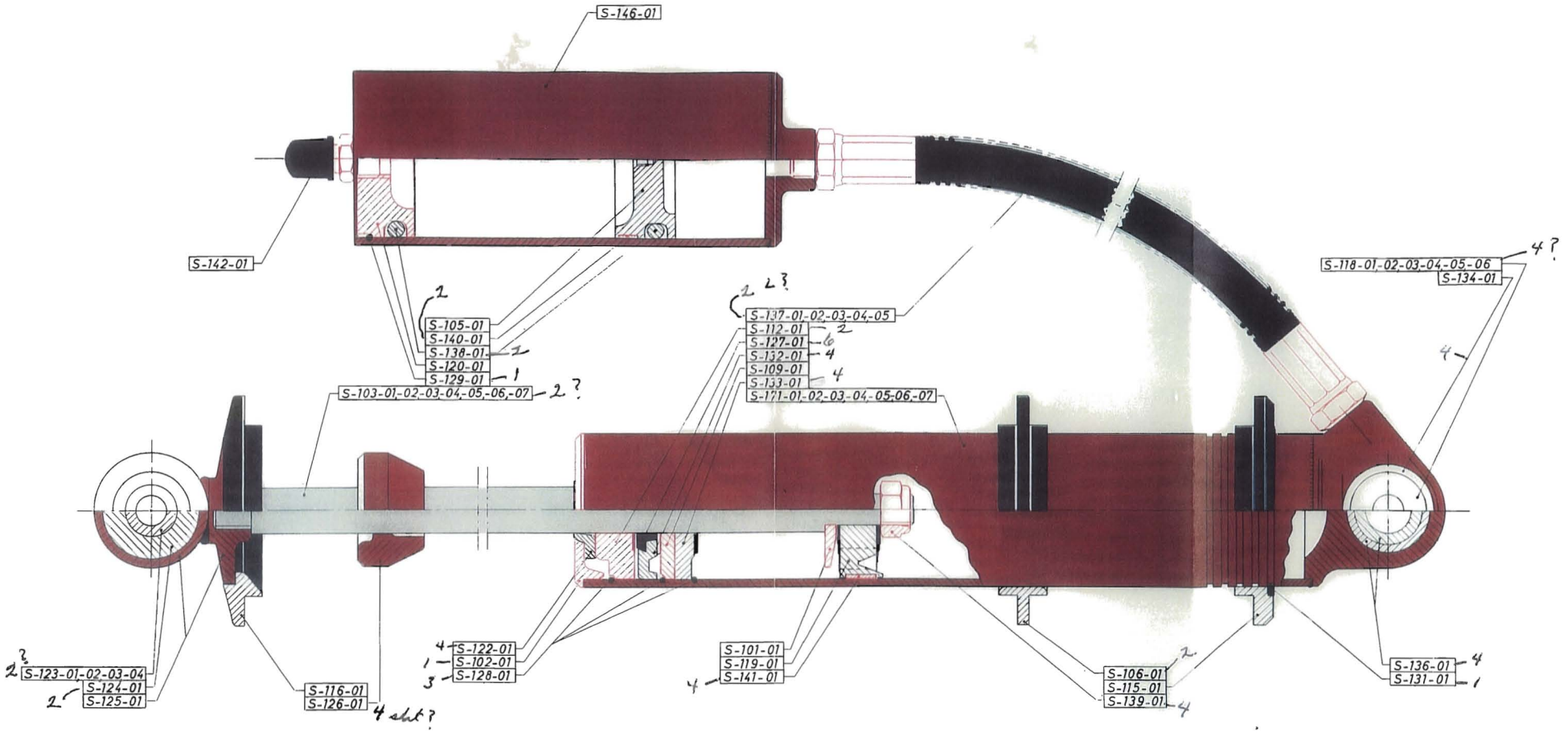
BUMP RUBBER

S-163-04

40 X 55

SPECIAL ATTENTIONS:

NOTES:



S-101-01 VALVE STOP 10	S-119-01 PISTON	S-134-01 RUBBERWASHER
S-101-02 VALVE STOP 08	S-120-00 RESERVOIR TOP	S-136-01 UNIBALL
S-101-03 VALVE STOP 06	S-122-01 SCRAPER	S-137-01,02,03,04,05,06,07,08 HOSE
S-102-01 SCRAPER RETAINER	S-123-01,02,03,04,05 ALUM. BUSHING	S-138-01 O-RING
S-103-01,02,03,04,05,06,07 SHAFT	S-124-01 RUBBER BUSHING	S-139-01 8MM NYLOC NUT
S-105-01 RESERVOIR PISTON	S-125-01 SHOCK EYE	S-140-01 TEFLON BAND
S-106-01 SPRING SPACER	S-126-01 BUMP RUBBER	S-141-01 TEFLON BAND
S-109-01 STOP WASHER	S-127-01 SHAFT SEAL	S-142-01 AIR VALVE COMPLETE
S-112-01 BRASS BEARING	S-128-01 CIRCLIP	S-146-01 RESERVOIR BODY ONLY
S-115-01 SPRING STOP	S-129-01 CIRCLIP	S-152-01 RESERVOIR COMPLETE
S-116-01 SPRING CAP	S-131-01 SPRING CLIP	S-153-01 MOUNTING
S-118-01,02,03,04,05,06 DISTANCE SPACER	S-132-01 SEAL HOLDER	S-171-01,02,03,04,05,06,07 BODY
	S-133-01 TOP OUT RUBBER	