



PRO
SERVICE & TRAVEL CHANGE GUIDE



Hayes Performance Systems
5800 W. Donges Bay Rd.
Mequon, WI 53092

Tel: 888.686.3472
Email: techsupport@hayesbicycle.com
Web: www.hayescomponents.com

Hayes Components Europe
Dirnismaning 20 a
85748 Garching (b. Munich)
Germany
ph: +49 (0)89 203237450

Email: techsupportEU@hayesbicycle.com
Web: www.hayescomponents.com

HAYES PERFORMANCE SYSTEMS WARRANTY

Limited Warranty:

HAYES warrants its products to be free from defects in materials or workmanship under normal intended use for a period of one year (two years in European Union countries) from the date of purchase, subject to normal wear and tear. Unless otherwise prohibited by law, any such defective products will be repaired or replaced at the option of HAYES when received with proof of purchase, freight prepaid. This warranty does not cover breakage, bending, or damage that may result from crashes or falls. This warranty does not cover any defects or damage caused by alterations or modifications of HAYES products or by normal wear, accidents, improper maintenance, damages caused by the use of HAYES products with parts of different manufacturers, improper use or abuse of the product, application or uses other than those set forth in the HAYES instruction manual or failure to follow the instructions contained in the applicable HAYES instruction manual. Instruction manuals can be found on-line at www.hayescomponents.com. Any modifications made by the BUYER or any subsequent user will render the warranty null and void. This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed from the product. The cost of normal maintenance or replacement of service items, which are not defective, shall be the BUYER's responsibility. If permitted by local law, this warranty is expressly in lieu of all other warranties (except as to title), express or implied, and in particular and without limitation HAYES disclaims the implied warranties of merchantability or fitness for purpose. If for any reason warranty work is necessary, return the component to the place of purchase or contact your dealer or local HAYES distributor. In the USA, contact HAYES for a return authorization number (RA#) at (888) 686-3472. At that time, instructions for repair, return, or replacement shall be given. Customers in countries other than the USA should contact their dealer or local HAYES distributor.

Limitation of Liability.

Unless required by mandatory law, HAYES shall not be liable for any incidental, indirect, special or consequential damages.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage through normal use, failure to service according to recommendations or riding in conditions other than recommended. The cost of normal maintenance or replacement of service items, which are not defective, shall be paid for by the original purchaser. Wear and tear parts that will not be replaced under warranty include but are not limited to the following:

Bushings	Dust Seals	Stripped or Worn Bolts
Rear Shock	Fork/Shock Air Seals and/or O-rings	Remote Lockout Cable
Mount Hardware	Bearings	Gloves
Handlebar grips	Upper Stanchion Tubes	Lower Stanchion Tubes(Dorado)
Tubeless Valves	Tubeless Tape	

INTRODUCTION

This manual is intended to guide the user through the steps necessary to fully service and maintain the Circus Pro suspension fork.

! WARNING !

We highly recommend that service to this fork be performed by a certified bicycle mechanic. Failure to follow instructions presented in this manual could lead to serious injury or death. Any questions about the servicing of this fork or the manual itself should be directed to Manitou Customer Support at:

Phone: 888-686-3472

Email: techsupport@hayesbicycle.com

! WARNING !

Suspension forks by design can contain pre-loaded springs, gases and fluids under extreme pressures. Warnings contained in this manual must be observed to avoid damage to fork, serious injury or even death.

TABLE OF CONTENTS

SECTION	PAGE NUMBER
Tools and Materials	6
Casting Removal & Service	7-9
Air Spring Service	10-13
Damper Service	14-16
Casting Installation	17-19
Compression Damper Install	20-22
Exploded Diagrams	23-24
Travel Settings (OPTIONAL)	10 & 25

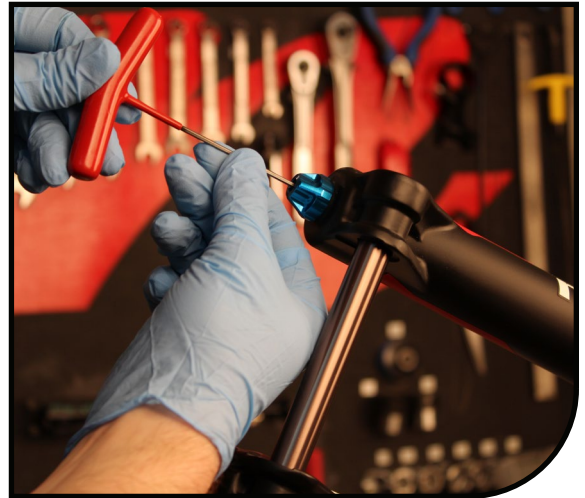
TOOLS AND MATERIALS

Below is a list of tools and materials necessary for servicing the Circus Pro fork.

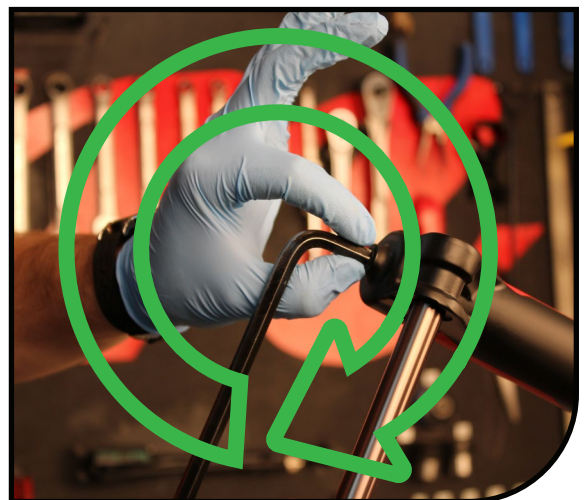
- Safety Glasses
- Nitrile Gloves
- Lint-Free Rags
- Slickoleum™ Grease
 - 10-Oz Tub – Manitou Part Number 20-32929
 - 5MI Tube – Manitou Part Number 141-33604-K001
- Semi-Bath Oil, 5/40W Synthetic
 - Manitou Part Number 85-0022
- 5W Maxima Fork Oil
 - Manitou Part Number 85-0023
- 34mm Seal Press
 - Manitou Part Number 172-31123
- 34mm Rebuild Kit
 - Manitou Part Number 141-28528-K008
- Manitou Tool Kit - Manitou Part Number 172-31133 (Includes The 3 Tools Below)
 - Manitou Cassette Tool
 - Manitou Thin Walled 8mm Socket
 - Manitou 24mm Flat Ground Socket
- 8mm Hex Socket
- 2mm Hex Wrench
- 12mm Socket
- 20mm Socket
- 24mm Socket
- 22mm Box End Wrench
- 12mm Box End Wrench
- Torque Wrench Ratchet
- 22mm Crow's Foot
- Fork/Shock Pump
- Pick
- Adjustable Wrench
- Downhill Tire Lever Or Flat Blade Screwdriver

CASTING REMOVAL & SERVICE

- 1 Remove rebound knob using a 2mm hex wrench.



- 2 Insert an 8mm hex wrench into the end of the rebound damper rod and turn the rod **clockwise** until it is disengaged from the casting and can be pushed into the casting.



- 3 Unscrew air cap and depress Schrader valve a few times to ensure all air is released.



CASTING REMOVAL & SERVICE

4

Using the Manitou 8mm Thin Wall Socket, turn the compression rod clockwise until compression rod is disengaged from the casting threads.



5

Remove casting from fork. It is recommended this be done over a drain pan as the lower casting contains semi-bath oil. Allow oil in casting to drain out before continuing to next step.



6

Using a downhill tire lever or similar tool, gently pry the dust seals out of the casting.



CASTING REMOVAL & SERVICE

7

Remove old foam wiper rings. Apply semi-bath fluid to the new foam wiper rings and install into fork casting.



8

Remove springs from lip of dust seals. Using the Manitou 34mm Seal Press (Manitou part number 172-31123) or large socket press in the dust seals. Reinstall springs onto seals.



AIR SPRING SERVICE

1

Release air from the fork. Depress Schrader valve a few times to ensure all air is released.



2

Use Manitou cassette tool with adjustable wrench to unthread the air spring assembly from the stanchion.



3

Remove Air Spring Assembly, clean with isopropyl, and re-grease. **(OPTIONAL)** If you wish to change the travel of the fork check page 25 for spacer settings.



AIR SPRING SERVICE

4

Remove IVA using a 24mm socket.



5

Pull IVA assembly straight out.



6

Once the air spring assembly and IVA are removed clean the inside of the stanchion with isopropyl alcohol and a lint free towel (Be careful to not scratch the inner surface of the stanchion). Inspect the inside and outside of the stanchion for scratches or other damage.



AIR SPRING SERVICE

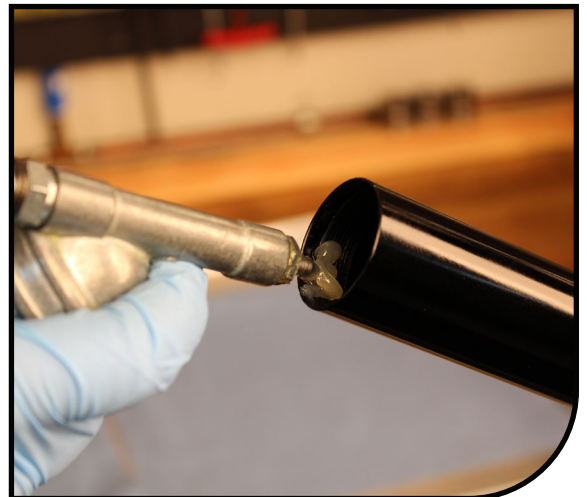
7

Liberal grease the piston quad seal and outer surface with Slickoleum™ grease. Add 8cc's of Slickoleum™ grease to the top of the air piston.



8

Add Slickoleum™ grease to the stanchion threads before inserting the air spring assembly. Spread grease across entire thread surface.



9

Install air spring assembly into stanchion. Using a 26mm crow's foot and Manitou cassette tool, torque to 60-80 in lbs [6.8-9.0 N m]



AIR SPRING SERVICE

- 10** Install IRT into stanchion.
Torque to 60-80 in lbs
[6.8-9.0 N m]

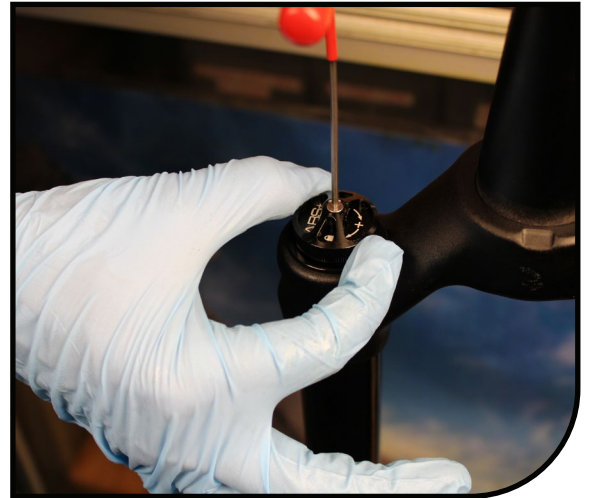


- 11** Attach a shock pump and inflate air leg to 60PSI. This will aid in installing the casting later.



DAMPER SERVICE

- 1 Remove ABS+ knob using a 2mm hex wrench. Remove knob carefully as there are two detent ball bearings on springs below the knob.



- 2 (ABS+ knob detent ball and springs.)



- 3 Unthread ABS+ compression damper assembly from the stanchion using a 24mm socket and ratchet.



DAMPER SERVICE

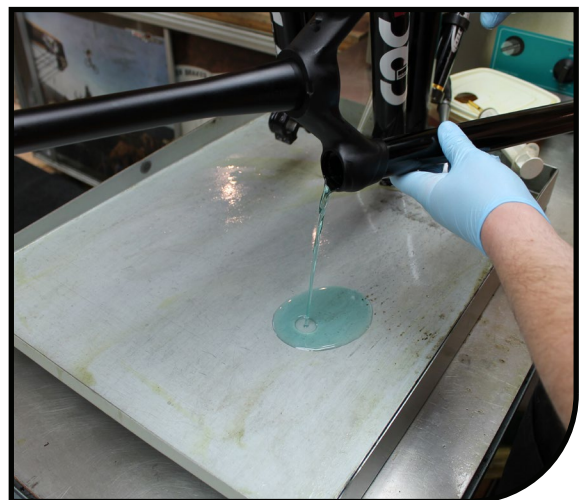
3

Remove ABS+ compression damper assembly from the stanchion.



4

Pour damper oil into a catch pan.



5

Push in the damper rod. Use Manitou cassette tool with adjustable wrench to unthread the air spring assembly from the stanchion.



DAMPER SERVICE

6

Remove rebound damper assembly from the fork. Once the damper assembly is removed, clean the inside of the stanchion with isopropyl alcohol and a lint free towel. Inspect the inside and outside of the stanchion for scratches and other damage. Inspect rebound damper for damage as well. Replace if necessary.



7

Use a 26mm crow's foot, Manitou cassette tool, and torque wrench to install the rebound damper assembly. Torque to 60-80 in lbs [6.8-9.0 N m]



CASTING INSTALL

- 1 Before filling the fork with fork oil and installing the ABS+ compression damper, the casting must first be installed. This ensures correct oil level. First apply a generous amount of grease to the oil seal/dust seal area of the casting.



- 2 Spread grease evenly along entire seal inner diameter.



- 3 Make sure the air chamber is filled with air (60PSI). This will extend the air spring assembly and make casting installation easier.



CASTING INSTALL

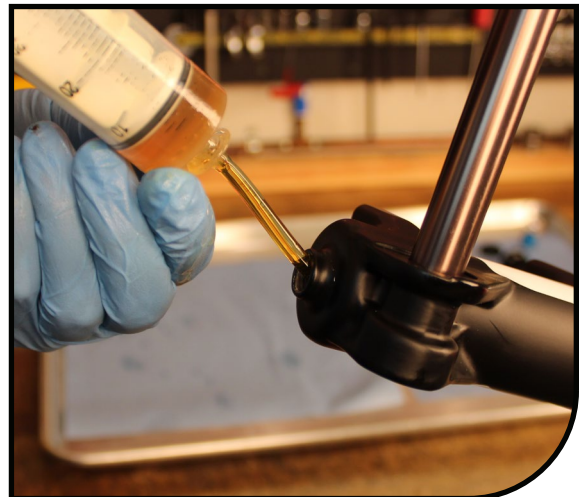
4

Slide casting onto the stanchion assembly. Only slide the casting down about halfway at this point. Take care that the seals do not get folded over on installation.



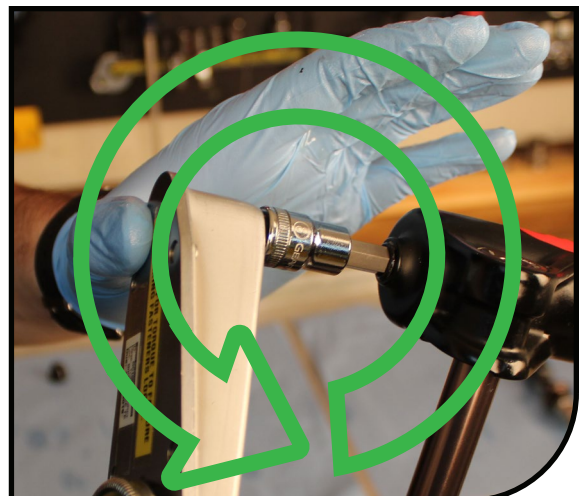
5

Insert 7cc's (7ml) of semi-bath into each casting leg. Once the semi-bath is in the legs slide the casting the rest of the way onto the stanchion assembly.



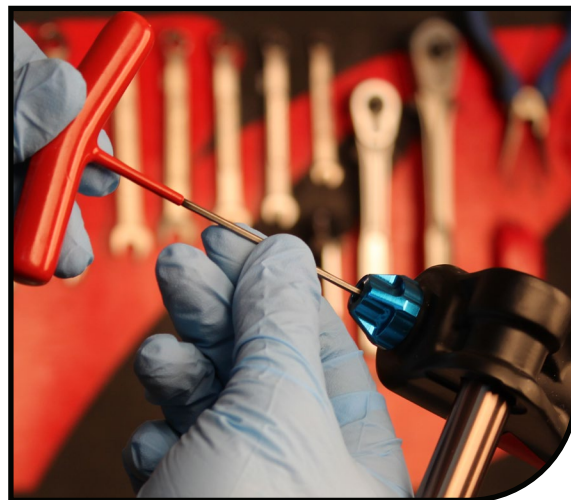
6

Using an 8mm Hex wrench tighten the rebound damper rod to 35–40 in lbs [3.95–4.5 N m] by turning them counterclockwise. Do not overtighten, doing so can damage the end of the rods.



CASTING INSTALL

- 7** Install the rebound knob using a 2mm hex wrench. Add a small drop of blue Loctite to the screw before installation to prevent the screw from backing out during riding.

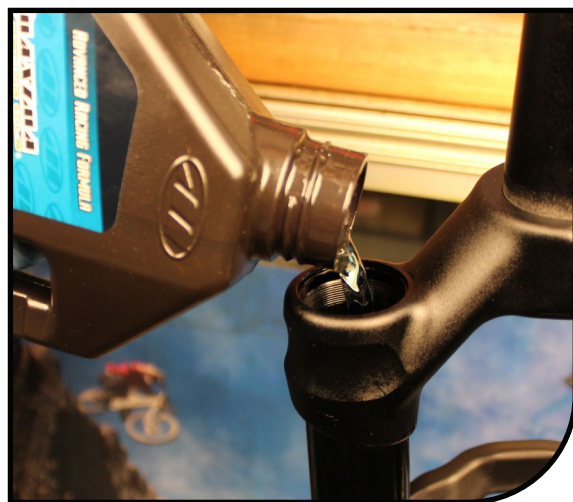


- 8** Using the Manitou 8mm Thin Wall Socket, turn the compression rod counter-clockwise. Do not overtighten, doing so can damage the end of the rods. Tighten to 35–40 in lbs [3.95–4.5 N m]



COMPRESSION DAMPER INSTALL

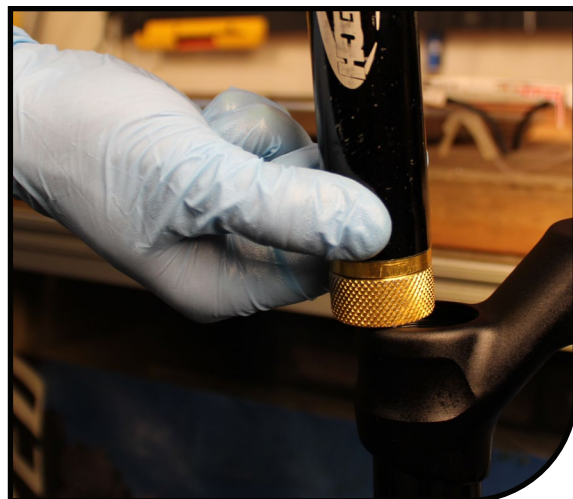
- 1 Pour 5wt Maxima fork oil into the damper leg. Fill it up $\frac{3}{4}$ of the way.



- 2 Place a lint-free towel over the opening in the damper leg and compress the fork 10-15 times.



- 3 Pour additional 5wt fork oil into the damper leg until the oil height is set at 87mm. An oil height setting tool used for motorcycle forks similar to the one pictured makes this job easier.



COMPRESSION DAMPER INSTALL

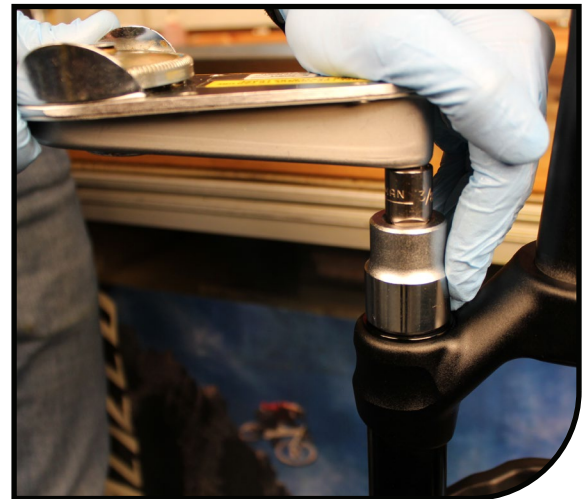
4

Insert the ABS+ compression damper into the damper leg. Ensure the damper is set in the unlocked position when installing.



5

Install the ABS+ damper using a 24mm socket and torque wrench, tighten the damper to 60–80 in lbs [6.8–9.0 N m].



6

Install springs and ball bearings into ABS+ top cap. A small dab of grease on top of the spring can help hold the ball bearings in place.



COMPRESSION DAMPER INSTALL

- 7** Using a 2mm hex wrench, install the ABS+ knob.



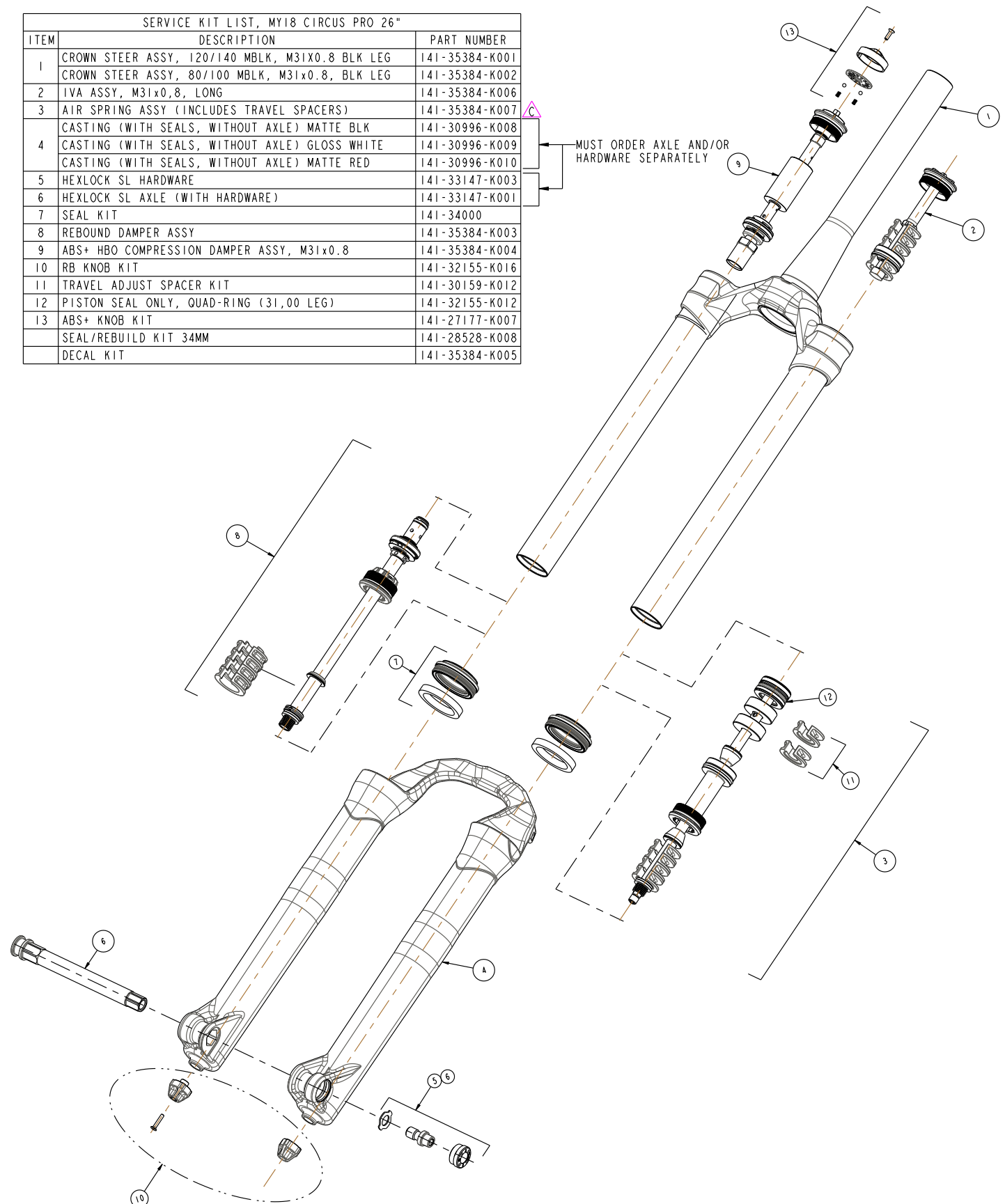
- 8** Clean fork and use a shock pump to set to desired pressure. Pressure chart below for reference.



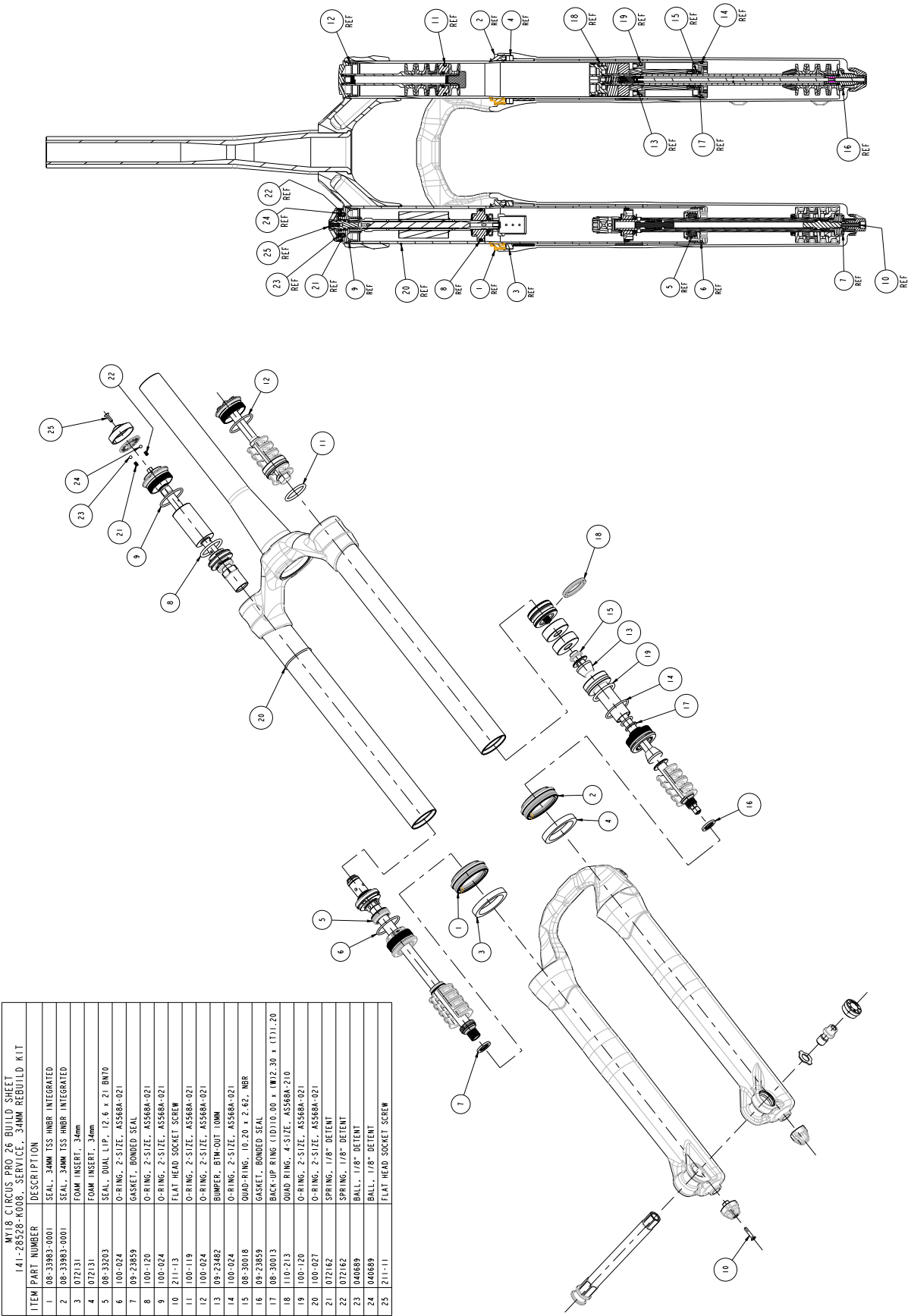
Rider Weight		Air Pressure	
LBS	KGS	PSI	[BAR]
>220	>100	94-102	6.5-7.0
200	91	80-94	5.5-6.5
170	77	68-80	4.7-5.5
140	64	64-68	3.7-4.7
12	55	46-54	3.2-3.7
! WARNING !			
MAX PRESSURE NOT TO EXCEED 120 PSI [8.3 BAR]			

CIRCUS PRO EXPLODED VIEW

SERVICE KIT LIST, MY18 CIRCUS PRO 26"		
ITEM	DESCRIPTION	PART NUMBER
1	CROWN STEER ASSY, 120/140 MBLK, M31x0.8 BLK LEG	I41-35384-K001
	CROWN STEER ASSY, 80/100 MBLK, M31x0.8, BLK LEG	I41-35384-K002
2	IVA ASSY, M31x0.8, LONG	I41-35384-K006
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	I41-35384-K007
4	CASTING (WITH SEALS, WITHOUT AXLE) MATTE BLK	I41-30996-K008
	CASTING (WITH SEALS, WITHOUT AXLE) GLOSS WHITE	I41-30996-K009
	CASTING (WITH SEALS, WITHOUT AXLE) MATTE RED	I41-30996-K010
5	HEXLOCK SL HARDWARE	I41-33147-K003
6	HEXLOCK SL AXLE (WITH HARDWARE)	I41-33147-K001
7	SEAL KIT	I41-34000
8	REBOUND DAMPER ASSY	I41-35384-K003
9	ABS+ HBO COMPRESSION DAMPER ASSY, M31x0.8	I41-35384-K004
10	RB KNOB KIT	I41-32155-K016
11	TRAVEL ADJUST SPACER KIT	I41-30159-K012
12	PISTON SEAL ONLY, QUAD-RING (31,00 LEG)	I41-32155-K012
13	ABS+ KNOB KIT	I41-27177-K007
	SEAL/REBUILD KIT 34MM	I41-28528-K008
	DECAL KIT	I41-35384-K005

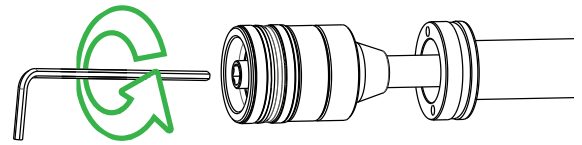


CIRCUS PRO SERVICE KIT EXPLODED VIEW

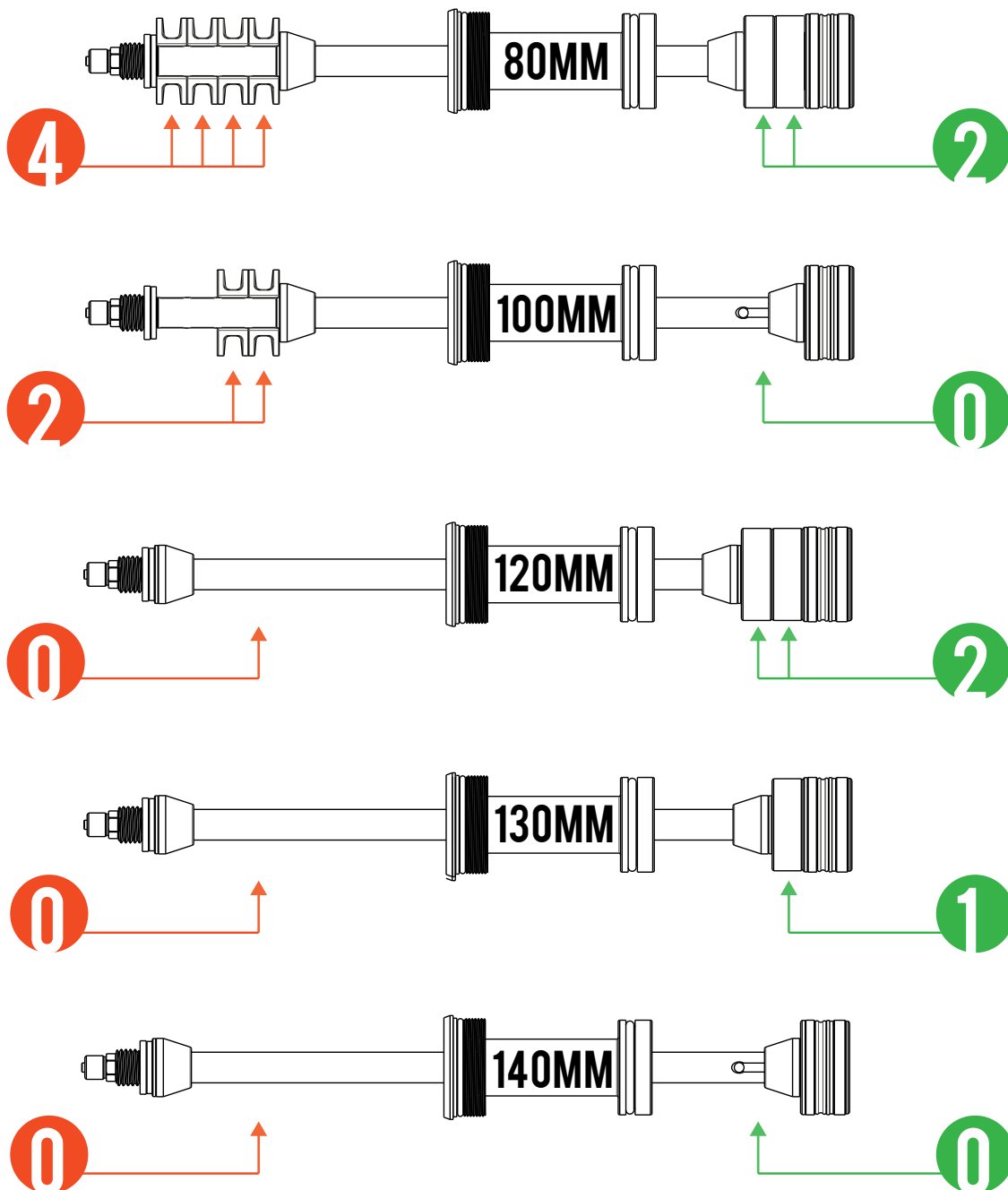


TRAVEL SETTINGS

Adjust the travel of the fork setting the spacer amounts as shown below. The 100mm can convert down to 80mm and the 120mm can convert up to 140mm. To adjust the green spacers first remove the air piston using a 6mm hex wrench (**Fig. A**). After adjusting spacers reinstall air piston and torque to 15-20 in-lb [1.5-2.2 N m] The orange spacers can be removed by hand.



(Fig. A)





WWW.MANITOUMTB.COM WWW.HAYESCOMPONENTS.COM
5800 W DONGES BAY ROAD MEQUON WI 53092