COMP
SERVICE 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	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	Pads
Rotors		

INTRODUCTION

This manual is intended to provide the information necessary for installation, set-up, normal maintenance and service of the Manitou Mattoc Comp suspension fork. We highly recommend installation be performed by a qualified mechanic. These instructions can be downloaded from the Hayes Disc Brake website at www.manitoumtb.com

⚠WARNING⚠

We highly recommend that service to this brake 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 brake or the manual itself should be directed to Hayes Customer Support at:

Phone: 888-686-3472
Email: techsupport@hayesbicycle.com

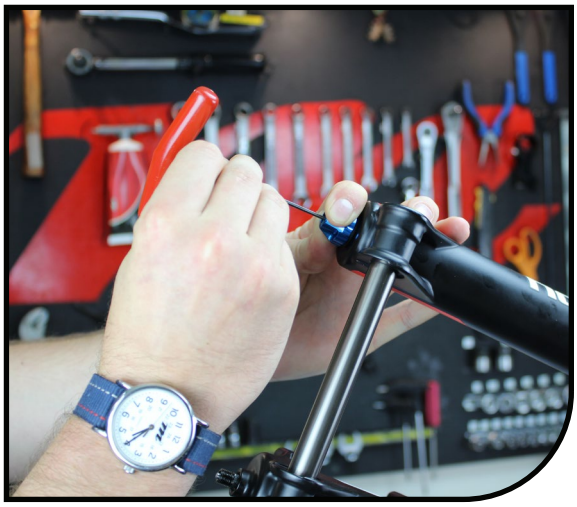
TABLE OF CONTENTS

TOOLS AND MATERIALS

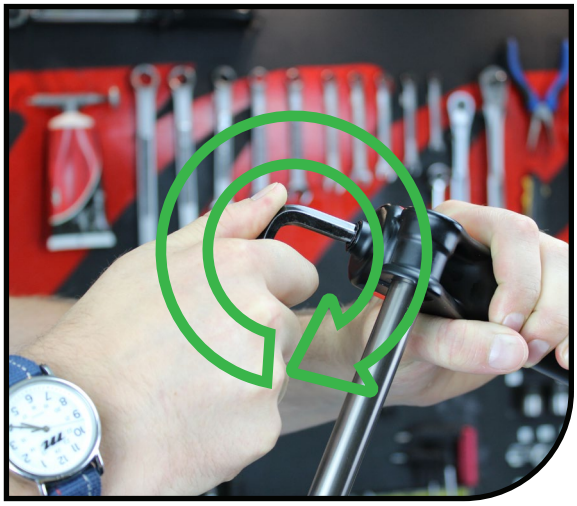
- Safety Glasses
- Nitrile Gloves
- Lint-Free Rags
- Slickoleum™ Grease
  10-Oz Tub – Manitou Part Number 20-32929
  5Ml Tube – Manitou Part Number 141-33604-K001
- Semi-Bath Oil, 5/40W Synthetic
  Manitou Part Number 85-0022
- 5W Maxima Fork Oil
  Manitou Part Number 85-0023
- 34mm Seal Press
  Manitou 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
- Standard Cassette Tool (Recommended - Park Tool # FR-5.2)
- 2mm Hex Wrench
- 1” Socket
- 8mm Hex Socket
- 12mm Socket
- 20mm Socket
- 24mm Socket
- 22mm Box End Wrench
- 12mm Box End Wrench
- Torque Wrench Ratchet
- Socket Wrench
- 22mm Crow’s Foot
- Fork/Shock Pump
- Pick
- Adjustable Wrench
- Downhill Tire Lever Or Flat Blade Screwdriver

CASTING REMOVAL & SERVICE

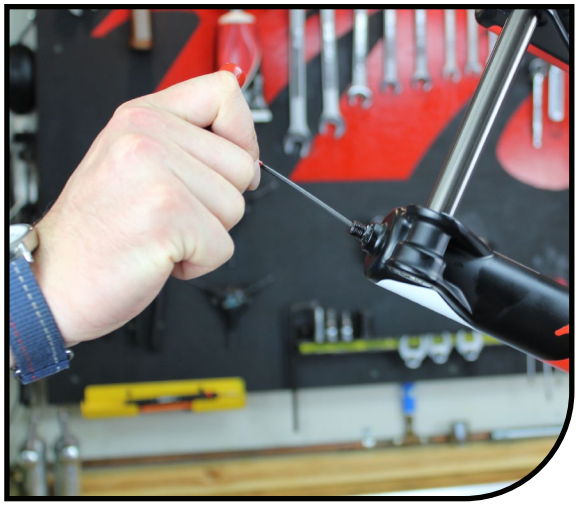
1 Remove rebound knob using a 2mm Hex wrench.



2 Insert a 8mm Hex wrench into the end of the rebound rod and loosen **clockwise** until rebound rod disengages from the casting threads.



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. Clean seal area with Isopropyl alcohol. Using the Manitou 34mm Seal Press or large socket press in the dust seals. Reinstall springs onto seals.

AIR SPRING SERVICE

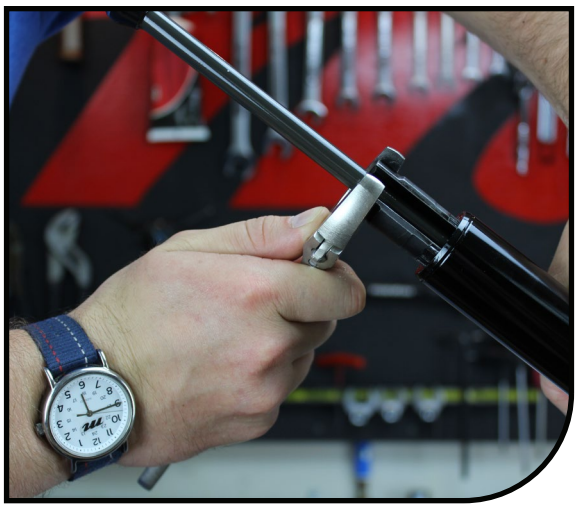
1 Remove IVA using a 24mm socket.

NOTICE

Make sure to apply top down force on the tool to prevent slipping.

2 Pull IVA assembly straight out.

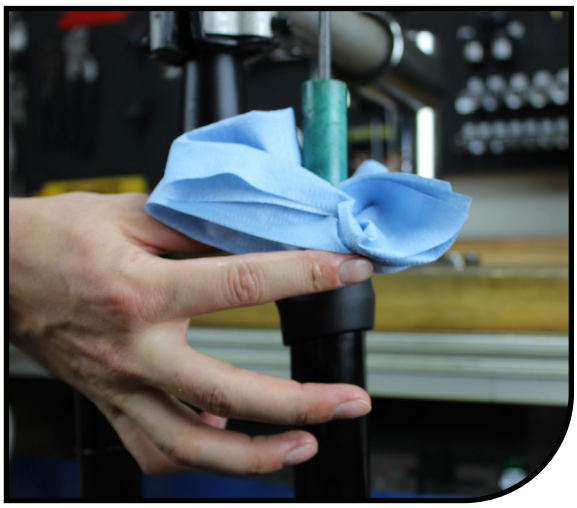
3 Invert the fork and use Manitou cassette tool with adjustable wrench to unthread the air spring assembly from the stanchion.



AIR SPRING SERVICE

3 Remove Air Spring Assembly, clean with isopropyl, and re-grease.

4 Once the air spring assembly is 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.



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

AIR SPRING SERVICE

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

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

8 Liberally grease the IVA piston seal and outer surface with Slickoleum™ grease. Apply Slickoleum™ grease to the threads of the stanchion.

9 Install IVA into stanchion.
Torque to 220 in lbs [25 N m].

NOTICE

Make sure to apply top down force on the tool to prevent slipping.

DAMPER SERVICE

1 Using a 2mm Hex wrench remove the screw of the MC2 knob.

2 Remove the black compression knob.

3 Use a standard cassette tool, 1” socket, and socket wrench to unthread the compression damper assembly from the stanchion.

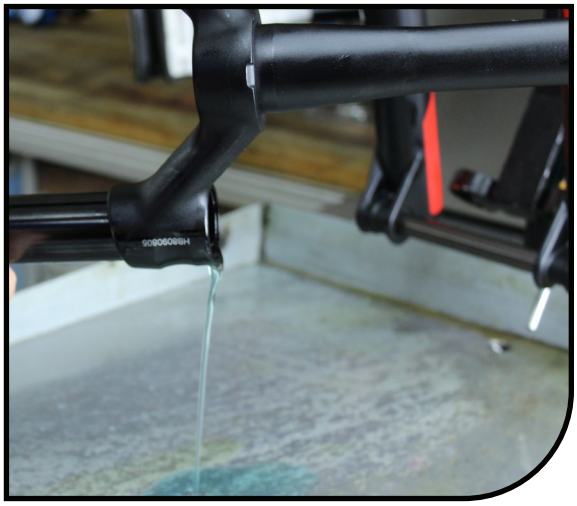
NOTICE

Only a standard cassette tool is to be used to prevent slipping. Make sure to apply top down force on the tool to prevent slipping.

DAMPER SERVICE

4 Remove compression damper assembly from the stanchion.

5 Pour fork oil into a catch pan.

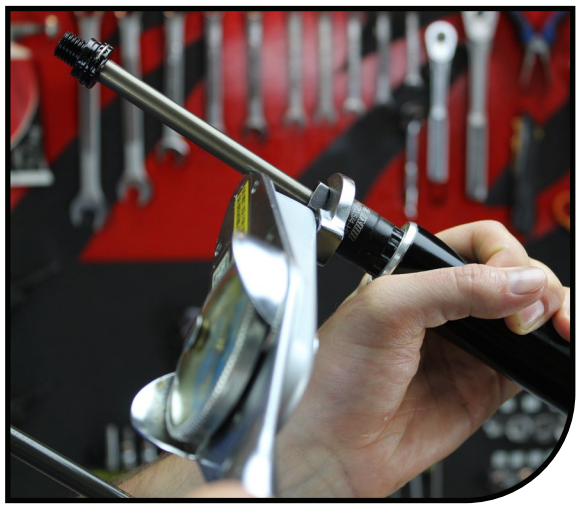


6 Using a Manitou cassette tool and adjustable wrench, unthread the rebound damper assembly from the fork stanchion.

DAMPER SERVICE

7 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 and replace if necessary.

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

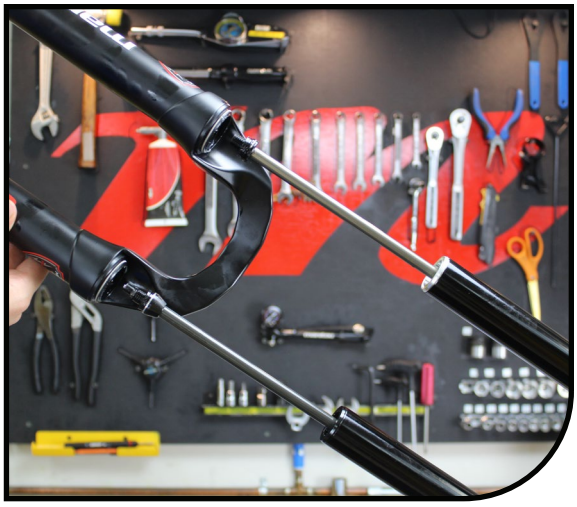


CASTING INSTALL

1 Before filling the fork with fork oil and installing the MC2 compression damper, we must first install the casting. This ensures a correct oil level. First apply a generous amount of Slickoleum™ grease to the oil seal/dust seal area of the casting.

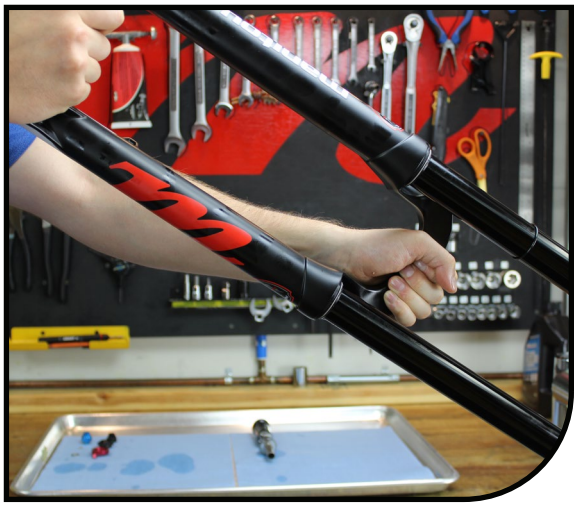
2 Make sure the air chamber is filled with air (60PSI). This will extend the air spring assembly and make casting installation easier.

3 Fully extend the rebound damper rod.



CASTING INSTALL

4 Slide casting onto the stanchion assembly. Only slide the casting down about halfway at this point. Take care that the seal lips do not fold over upon installation.

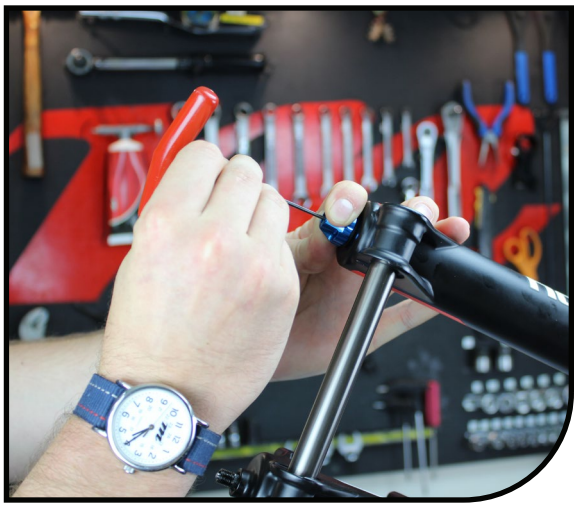


5 Insert 7cc of semi-bath into each casting leg. Once the semi-bath is in the legs slide the casting the rest of the way onto the stanchion assembly.

6 Using an 8mm Hex wrench tighten the rebound damper rod to 35–40 in lb [3.95–4.5 N m] by turning them **counter-clockwise.** 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.



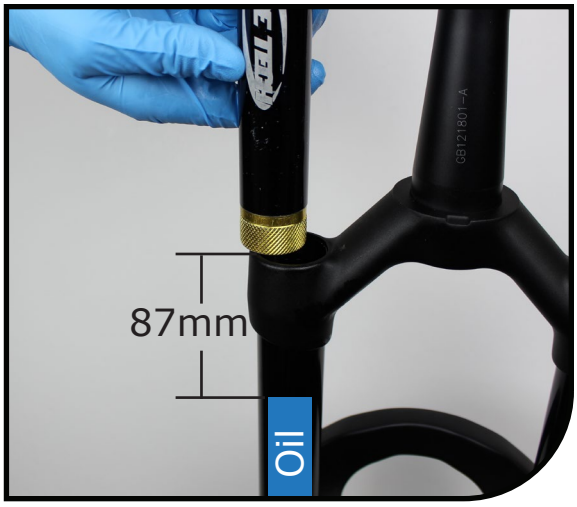
8 Using the Manitou 8mm Thin Wall Socket, turn the compression rod **counter-clockwise.** Torque to 30-40 in lbs [3,4-4,5 N m]. Do not overtighten, doing so can damage the end of the rods.

COMPRESSION DAMPER INSTALL

1 Pour 5wt Maxima fork oil into the damper leg. Fill it up about ¾ full.

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 (space from the top of the damper leg to the top of the oil) is set at the proper level of **87mm**. An oil height setting tool used for motorcycle forks similar to the one pictured makes this job easier.



COMPRESSION DAMPER INSTALL

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

5 Using the standard cassette tool, 1” socket, and torque wrench to tighten down the VTT at a torque of 220 in lbs [25 N m].

NOTICE

Only a standard cassette tool is to be used to prevent slipping. Apply top down force on the tool to prevent slipping.

6 Place the silver spacer onto the MC2 damper, flat side facing up.

COMPRESSION DAMPER INSTALL

7 Clean fork and use a shock pump to set to desired pressure. Lightly pull the casing away from the CSA as you add air. Pressure chart below for reference.

Rider Weight		Air Pressure	
LBS	KGS	PSI	[BAR]
>220	>100	76-84	5.2-5.8
200	91	65-76	4.5-5.2
170	77	53-65	3.7-4.5
140	64	42-53	2.9-3.7
12	55	34-42	2.3-2.9
! WARNING !			
MAX PRESSURE NOT TO EXCEED 120 PSI [8.3 BAR]			

PRO & COMP

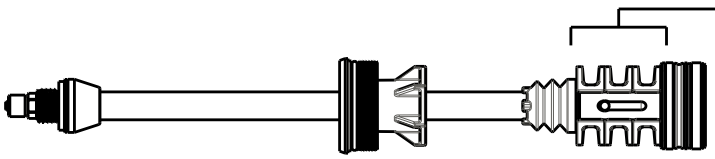
TRAVEL CHANGE GUIDE

MATTOC TRAVEL CHANGE

In order to change the travel of your Mattoc Pro & Comp (26-27.5-29+), first remove the compression rod assembly. For instructions on how to do this refer to page 16. Once the rod is removed arrange the travel spacers into the desired amount of travel using the following charts.

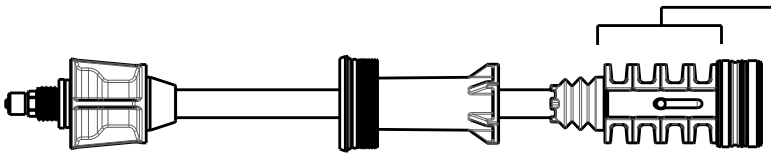
Mattoc 110mm "Boost" Hub Spacing

27.5"



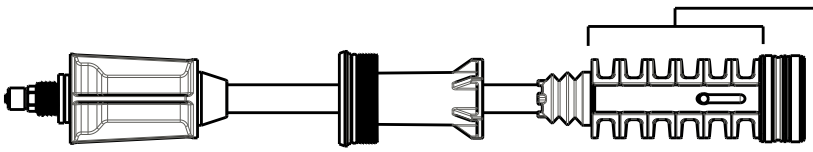
TRAVEL	SPACERS
170	0
160	1
150	2
140	3

27.5+/29"



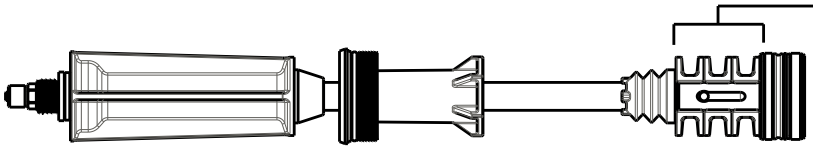
TRAVEL	SPACERS
140	0
130	1
120	2
110	3
100	4

29+



TRAVEL	SPACERS
120	2
110	3
100	4
90	5
80	6

29+ TREK

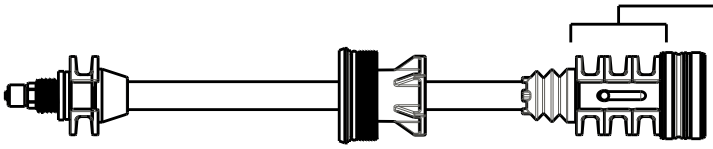


TRAVEL	SPACERS
110	0
100	1
90	2
80	3

MATTOC TRAVEL CHANGE

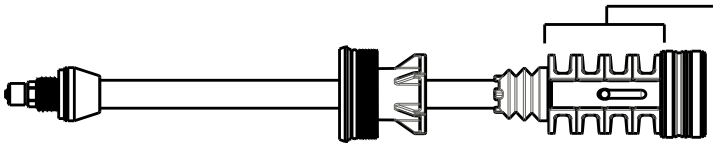
Mattoc 100mm Hub Spacing

27.5”



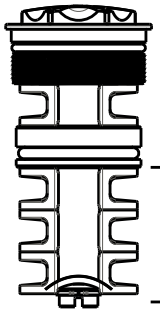
TRAVEL	SPACERS
160	0
150	1
140	2

26”

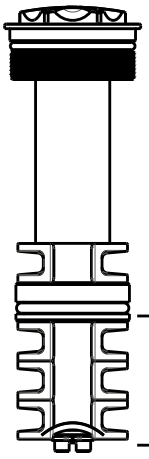


TRAVEL	SPACERS
170	0
160	1
150	2
140	3

Mattoc Comp IVA



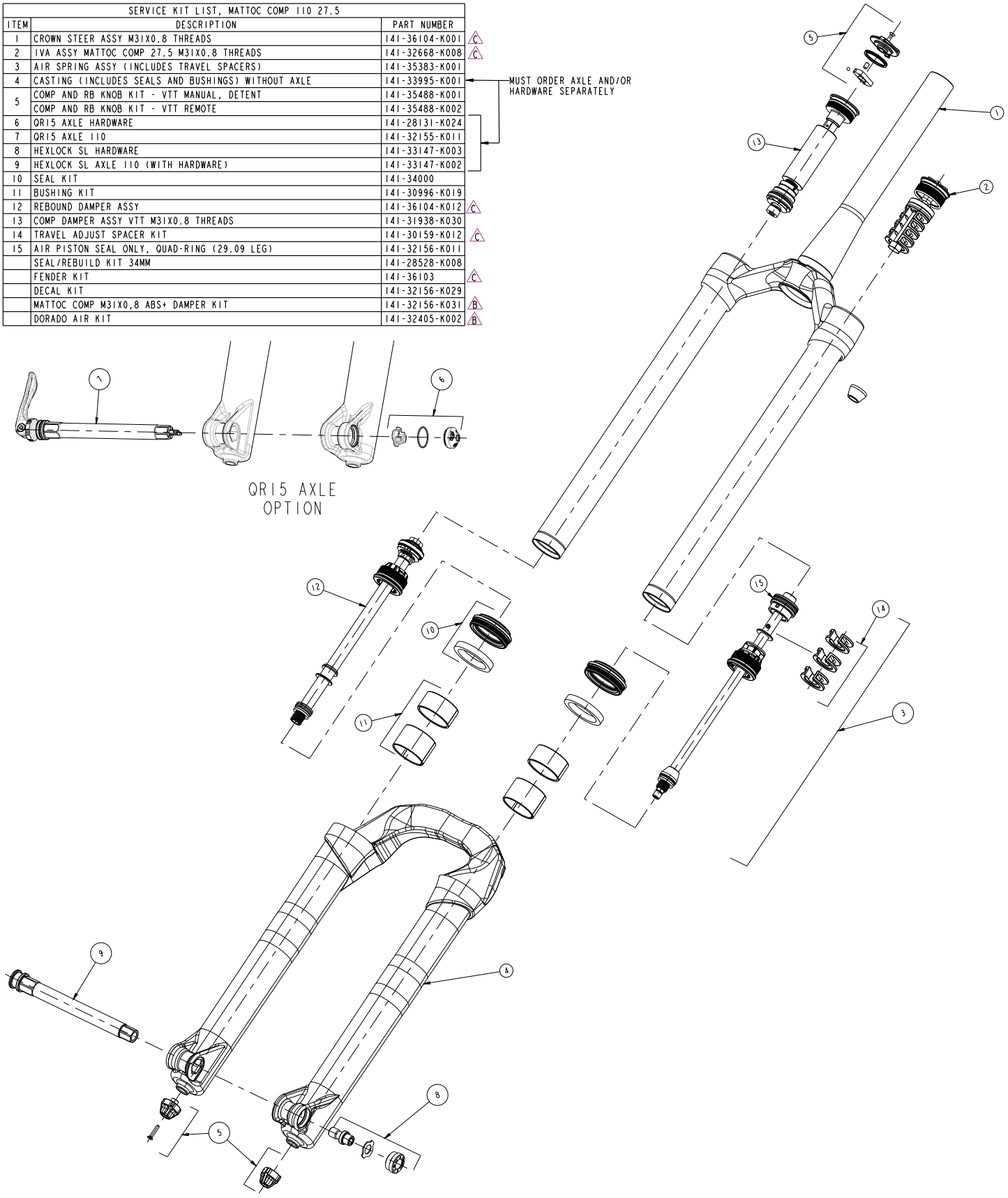
TRAVEL	SPACERS
170	0
160	1
150	2
140	3



TRAVEL	SPACERS
140	4
130	4
120	3
110	3
100	2
90	2
80	1

MATTOC COMP 110 27.5 EXPLODED VIEW

SERVICE KIT LIST, MATTOC COMP 110 27.5			
ITEM	DESCRIPTION	PART NUMBER	
1	CROWN STEER ASSY M31X0.8 THREADS	141-36104-K001	C
2	IVA ASSY MATTOC COMP 27.5 M31X0.8 THREADS	141-32668-K008	C
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	141-35383-K001	
4	CASTING (INCLUDES SEALS AND BUSHINGS) WITHOUT AXLE	141-33995-K001	MUST ORDER AXLE AND/OR HARDWARE SEPARATELY
5	COMP AND RB KNOB KIT - VTT MANUAL, DETENT	141-35488-K001	
	COMP AND RB KNOB KIT - VTT REMOTE	141-35488-K002	
6	QR15 AXLE HARDWARE	141-28131-K024	
7	QR15 AXLE 110	141-32155-K011	
8	HEXLOCK SL HARDWARE	141-33147-K003	
9	HEXLOCK SL AXLE 110 (WITH HARDWARE)	141-33147-K002	
10	SEAL KIT	141-34000	
11	BUSHING KIT	141-30996-K019	
12	REBOUND DAMPER ASSY	141-36104-K012	C
13	COMP DAMPER ASSY VTT M31X0.8 THREADS	141-31938-K030	
14	TRAVEL ADJUST SPACER KIT	141-30159-K012	C
15	AIR PISTON SEAL ONLY, QUAD-RING (29.09 LEG)	141-32156-K011	
	SEAL/REBUILD KIT 34MM	141-28528-K008	
	FENDER KIT	141-36103	C
	DECAL KIT	141-32156-K029	
	MATTOC COMP M31X0.8 ABS+ DAMPER KIT	141-32156-K031	B
	DORADO AIR KIT	141-32405-K002	B

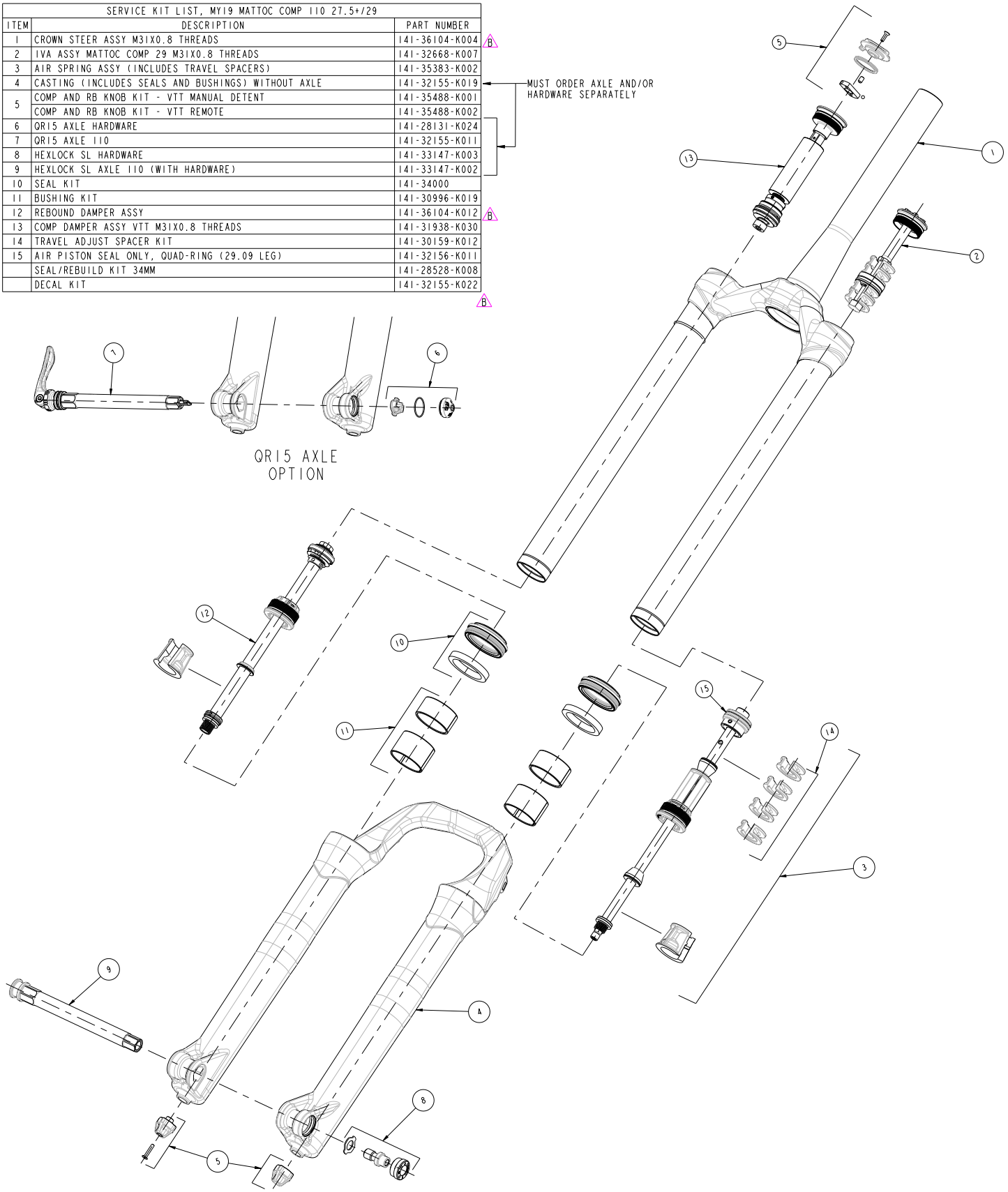


MATTOC COMP 110 27.5+ & 29 EXPLODED VIEW

SERVICE KIT LIST, MY19 MATTOC COMP 110 27.5+/29			
ITEM	DESCRIPTION	PART NUMBER	
1	CROWN STEER ASSY M31X0.8 THREADS	141-36104-K004	B
2	IVA ASSY MATTOC COMP 29 M31X0.8 THREADS	141-32668-K007	
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	141-35383-K002	
4	CASTING (INCLUDES SEALS AND BUSHINGS) WITHOUT AXLE	141-32155-K019	
5	COMP AND RB KNOB KIT - VTT MANUAL DETENT	141-35488-K001	
	COMP AND RB KNOB KIT - VTT REMOTE	141-35488-K002	
6	QR15 AXLE HARDWARE	141-28131-K024	
7	QR15 AXLE 110	141-32155-K011	
8	HEXLOCK SL HARDWARE	141-33147-K003	
9	HEXLOCK SL AXLE 110 (WITH HARDWARE)	141-33147-K002	
10	SEAL KIT	141-34000	
11	BUSHING KIT	141-30996-K019	
12	REBOUND DAMPER ASSY	141-36104-K012	B
13	COMP DAMPER ASSY VTT M31X0.8 THREADS	141-31938-K030	
14	TRAVEL ADJUST SPACER KIT	141-30159-K012	
15	AIR PISTON SEAL ONLY, QUAD-RING (29.09 LEG)	141-32156-K011	
	SEAL/REBUILD KIT 34MM	141-28528-K008	
	DECAL KIT	141-32155-K022	B

MUST ORDER AXLE AND/OR HARDWARE SEPARATELY

QR15 AXLE OPTION

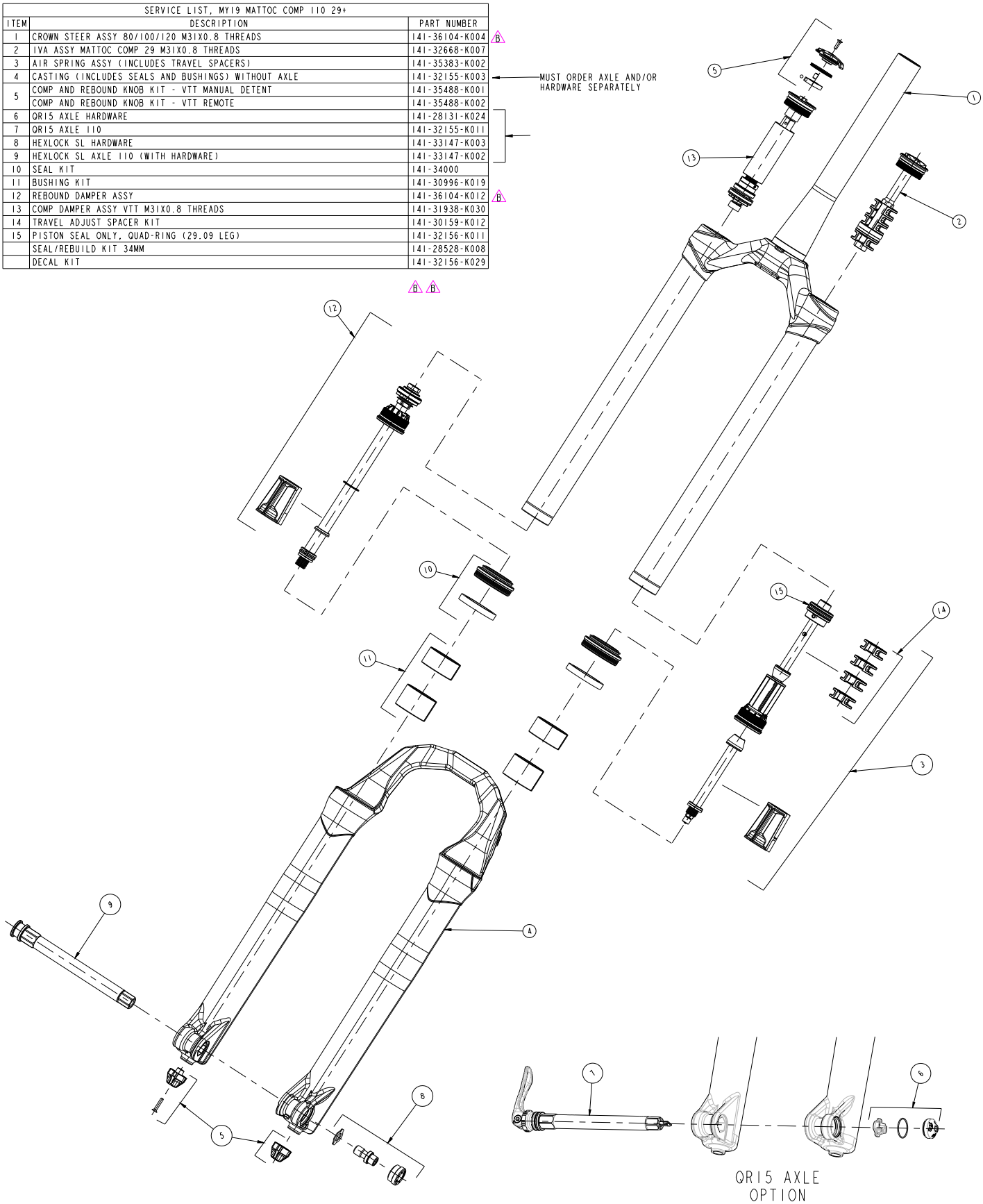


MATTOC COMP 110 29+ EXPLODED VIEW

SERVICE LIST, MY19 MATTOC COMP 110 29+		
ITEM	DESCRIPTION	PART NUMBER
1	CROWN STEER ASSY 80/100/120 M31X0.8 THREADS	141-36104-K004 B
2	IVA ASSY MATTOC COMP 29 M31X0.8 THREADS	141-32668-K007
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	141-35383-K002
4	CASTING (INCLUDES SEALS AND BUSHINGS) WITHOUT AXLE	141-32155-K003
5	COMP AND REBOUND KNOB KIT - VTT MANUAL DETENT	141-35488-K001
	COMP AND REBOUND KNOB KIT - VTT REMOTE	141-35488-K002
6	QR15 AXLE HARDWARE	141-28131-K024
7	QR15 AXLE 110	141-32155-K011
8	HEXLOCK SL HARDWARE	141-33147-K003
9	HEXLOCK SL AXLE 110 (WITH HARDWARE)	141-33147-K002
10	SEAL KIT	141-34000
11	BUSHING KIT	141-30996-K019
12	REBOUND DAMPER ASSY	141-36104-K012 B
13	COMP DAMPER ASSY VTT M31X0.8 THREADS	141-31938-K030
14	TRAVEL ADJUST SPACER KIT	141-30159-K012
15	PISTON SEAL ONLY, QUAD-RING (29.09 LEG)	141-32156-K011
	SEAL/REBUILD KIT 34MM	141-28528-K008
	DECAL KIT	141-32156-K029

B B

MUST ORDER AXLE AND/OR HARDWARE SEPARATELY

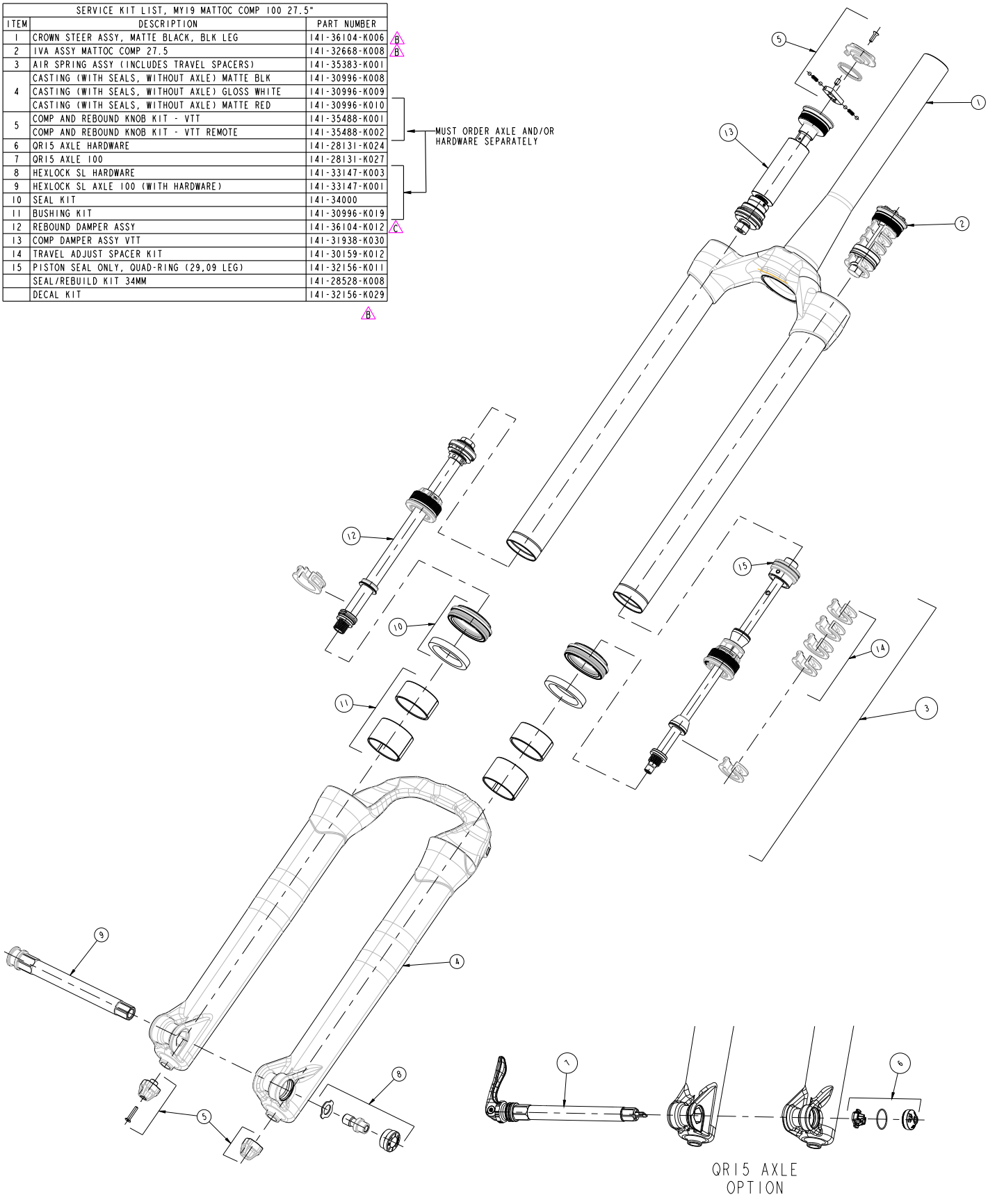


MATTOC COMP 100 27.5 EXPLODED VIEW

SERVICE KIT LIST, MY19 MATTOC COMP 100 27.5"		
ITEM	DESCRIPTION	PART NUMBER
1	CROWN STEER ASSY, MATTE BLACK, BLK LEG	141-36104-K006 B
2	IVA ASSY MATTOC COMP 27.5	141-32668-K008 B
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	141-35383-K001
4	CASTING (WITH SEALS, WITHOUT AXLE) MATTE BLK	141-30996-K008
	CASTING (WITH SEALS, WITHOUT AXLE) GLOSS WHITE	141-30996-K009
	CASTING (WITH SEALS, WITHOUT AXLE) MATTE RED	141-30996-K010
5	COMP AND REBOUND KNOB KIT - VTT	141-35488-K001
	COMP AND REBOUND KNOB KIT - VTT REMOTE	141-35488-K002
6	QR15 AXLE HARDWARE	141-28131-K024
7	QR15 AXLE 100	141-28131-K027
8	HEXLOCK SL HARDWARE	141-33147-K003
9	HEXLOCK SL AXLE 100 (WITH HARDWARE)	141-33147-K001
10	SEAL KIT	141-34000
11	BUSHING KIT	141-30996-K019
12	REBOUND DAMPER ASSY	141-36104-K012 C
13	COMP DAMPER ASSY VTT	141-31938-K030
14	TRAVEL ADJUST SPACER KIT	141-30159-K012
15	PISTON SEAL ONLY, QUAD-RING (29.09 LEG)	141-32156-K011
	SEAL/REBUILD KIT 34MM	141-28528-K008
	DECAL KIT	141-32156-K029

B

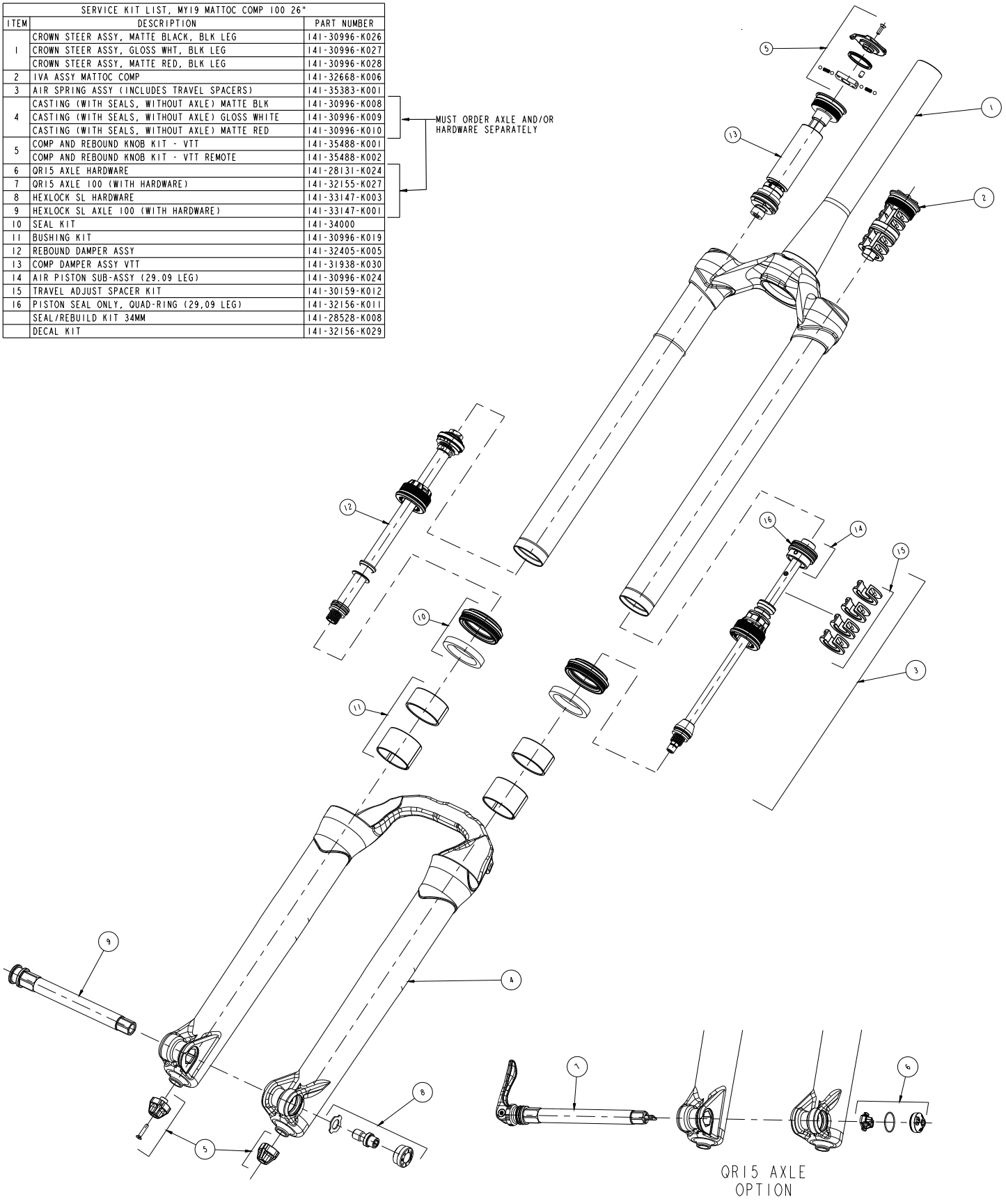
MUST ORDER AXLE AND/OR HARDWARE SEPARATELY



MATTOC COMP 100 26 EXPLODED VIEW

SERVICE KIT LIST, MY19 MATTOC COMP 100 26"		
ITEM	DESCRIPTION	PART NUMBER
1	CROWN STEER ASSY, MATTE BLACK, BLK LEG	141-30996-K026
	CROWN STEER ASSY, GLOSS WHT, BLK LEG	141-30996-K027
	CROWN STEER ASSY, MATTE RED, BLK LEG	141-30996-K028
2	IVA ASSY MATTOC COMP	141-32668-K006
3	AIR SPRING ASSY (INCLUDES TRAVEL SPACERS)	141-35383-K001
4	CASTING (WITH SEALS, WITHOUT AXLE) MATTE BLK	141-30996-K008
	CASTING (WITH SEALS, WITHOUT AXLE) GLOSS WHITE	141-30996-K009
	CASTING (WITH SEALS, WITHOUT AXLE) MATTE RED	141-30996-K010
5	COMP AND REBOUND KNOB KIT - VTT	141-35488-K001
	COMP AND REBOUND KNOB KIT - VTT REMOTE	141-35488-K002
6	QR15 AXLE HARDWARE	141-28131-K024
7	QR15 AXLE 100 (WITH HARDWARE)	141-32155-K027
8	HEXLOCK SL HARDWARE	141-33147-K003
9	HEXLOCK SL AXLE 100 (WITH HARDWARE)	141-33147-K001
10	SEAL KIT	141-34000
11	BUSHING KIT	141-30996-K019
12	REBOUND DAMPER ASSY	141-32405-K005
13	COMP DAMPER ASSY VTT	141-31938-K030
14	AIR PISTON SUB-ASSY (29.09 LEG)	141-30996-K024
15	TRAVEL ADJUST SPACER KIT	141-30159-K012
16	PISTON SEAL ONLY, QUAD-RING (29,09 LEG)	141-32156-K011
	SEAL/REBUILD KIT 34MM	141-28528-K008
	DECAL KIT	141-32156-K029

MUST ORDER AXLE AND/OR HARDWARE SEPARATELY



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