

TECH NOTE HEADSHOK, DL80/DLR80

2005 and Later Headshok DL80/DLR80 Damping Cartridge Air Cylinder Repair Kit - KH005/

Kit Information

Cannondale kit KH005/ is an air cylinder sleeve repair kit for forks with a worn (scratched, scaly) inner tube I.D. resulting in air loss. The kit only fits 2005 and later Headshok forks with DL80 or DLR80 damping cartridges. Following kit installation, set fork pressure according to the table below. The kit Schrader plug included in the kit is blue indicating revised air pressure. Kit KH022/ is a seal kit for the air cylinder.

Cannondale Tools Needed

Headshok Cartridge (Castle) Tool - HDTL146/ Headshok ½" Shaft Clamp Tool - HDTL187/

Kit Installation

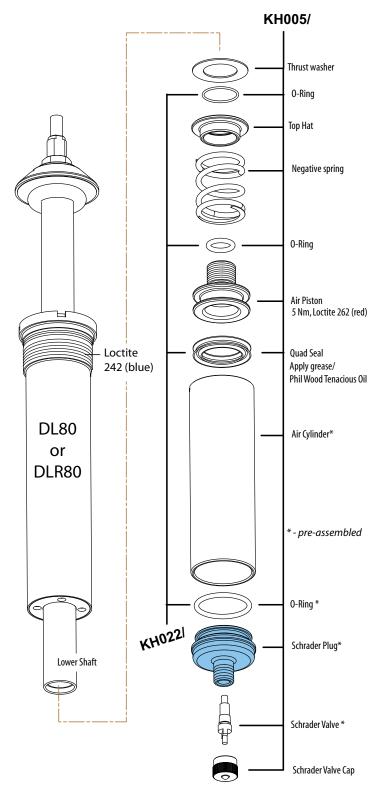
This kit should only be installed by a professional bike mechanic. Follow the steps on page two. Damper removal is NOT described in this Tech Note.

Air Pressure

RIDER WT.		AIR PRESSURE		NEGATIVE SPRING
lbs	kg	psi	bar	Color/Desc
120	54	80	5.5	
130	59	85	5.9	GREEN/SOFT
140	63	90	6.2	
150	68	95	6.6	
160	72	100	6.9	BLUE/STD
170	77	105	7.2	
180	81	110	7.6	
190	86	120	8.3	
200	90	130	9.0	RED/FIRM
210	95	135	9.3	
220	100	140	9.7	
MINIMUM		75	5.2	
MAXIMUM		150	10.3	

WARNING

This Tech Note may include procedures beyond the scope of general mechanical aptitude. Special tools, skills, and knowledge may be required. Improper mechanical work increases the risk of an accident. Any bicycle accident has risk of serious injury, paralysis or death. To minimize risk we strongly recommend that owners always have mechanical work done by an authorized Cannondale retailer.



CANNONDALE USA (CUSA)

Cannondale Bicycle Corporation 172 Friendship Road Bedford, Pennsylvania 15522 (Voice): 1-800-BIKEUSA (Fax): 814-623-6173 custserv@cannondale.com

CANNONDALE AUSTRALIA (CA)

Unit 6, 4 Prosperity Parade
Warriewood N.S.W 2102
Australia
Phone: (02) 9979 5881
Fax: (02) 9979 5688

CANNONDALE JAPAN (CJ)

12-5 Harayamadai 5-cho Sakai City Osaka, Japan 590-0132 (Voice): 011.81.722.99.9399 (Fax): 0722-93-6166 cicustsery@cannondale.com

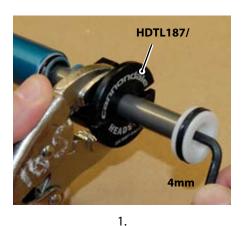
CANNONDALE EUROPE (CE)

mail: Postbus 5100
visits: Hanzepoort 27
7570 GC Oldenzaal
Netherlands
(Voice): + 41 61.4879380
(Fax): 31-5415-14240
servicedeskeurope@cannondale.com

Installation

- 1. Clamp the damping cartridge lower shaft with Cannondale tool HDTL187/. Figure 1. The air piston is installed with Loctite 262; with heat gun, carefully apply heat to the lower shaft piston connection to loosen the Loctite bond. Insert a 4mm allen key into the piston and turn counter-clockwise to remove it and then remove the negative spring assembly. parts from the lower shaft.
- Now, install the kit thrust washer, O-Ring, and the top hat with the small end toward the end of the lower shaft onto the lower shaft. Select the correct negative spring according to rider weight and install it onto the lower shaft.
- 4. Assemble the kit quad seal and O-ring onto the kit air piston and apply Loctite 262 (red) to the piston threads. Figure 2.

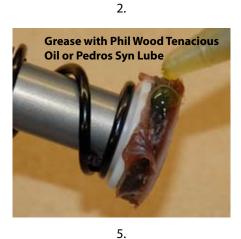
- 5. Clamp the lower shaft with tool HDTL187/. Apply O-Ring grease to the small O-Ring and install the air piston onto the lower shaft end. Figure 3. Tighten to 5Nm. Figure 3.
 - Make sure the O-Ring is not pinched and is full seated into the lower shaft. Figure 4.
- 6. Apply grease to air piston quad seal and coat lightly the greased seal with Phil Wood Tenacious Oil. Figure 5.
- 7. Apply a few drops of Phil Wood Tenacious Oil to the inside of the air cylinder. Figure 6.
- 8. Insert the damping cartridge completely into air cylinder. Figure 7. The completed assembly is shown in Figure 8.
- 9. Before installing the completed cartridge into the fork (Figure 9), wipe clean the oil cylinder threads and apply Loctite 242 (blue).







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