

# **Motorsport in TCR**











#### BILSTEIN MDS modular damper system





**BILSTEIN 2-way adjustment system** 

Maximum flexibility, maximum sport



#### BILSTEIN MDS modular damper system



With separately adjustable rebound and compression levels, the BILSTEIN Modular Damper System (MDS) offers a high degree of individuality. With the extensive BILSTEIN MDS damper program, you not only have a large selection of products but also access to a highly experienced team of specialists in the BILSTEIN Technical Centers, who can support you comprehensively with custom products, tailored solutions and expert service. Our BILSTEIN MDS dampers are available as coil-over dampers or as McPherson struts.

#### High performance in any form.

The dynamics of a race vehicle are the result of the vibration damping of sprung and un-sprung masses, aerodynamics and tire set-up. This interplay requires as much individual customization of the dampers on each vehicle as possible.

Our BILSTEIN MDS dampers are available in all designs, which is how we ensure that you will always get the perfect design for your vehicle – and of course, you can expect uncompromising BILSTEIN quality.





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# Product benefits at a glance

- Individual Damping Characteristic
- Configurable Adjustment Range
- 10 Well defined Clicks
- Low Hysteresis
- Low Friction
- Perfect Reproducibility
- Easy to Handle
- Configurable Standard Dimensions
- Dimensioning Regarding To Customer Request



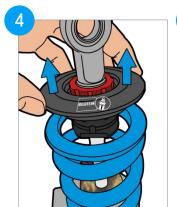


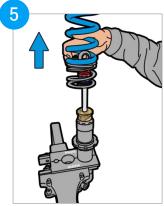
MDS Handling (1/3)











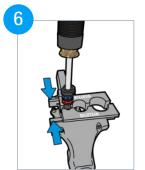
This is how you correctly change the bump stop and spring on the eye/eye damper:

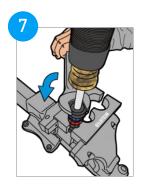
- Clamp the tube below the lower spring plate in the BILSTEIN clamping jaws.
- Press the upper spring plate down. If the spring is very preloaded, we recommend that you screw the lower spring plate downward (note the spring plate position).
- Using a flat slotted screwdriver, pry the snap ring out of the nut and remove it without bending it.
- Let the spring plate slide upward slowly and under counter-pressure over top eye.
- 5 Remove the main spring and the helper spring.



MDS Handling (2/3)

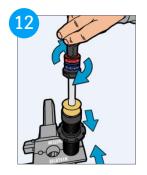












- Clamp the damper carefully onto the top eye with the flat side in the BILSTEIN clamping jaws.
- 7 Loosen the jam nut using a 32 mm open-end wrench.
- 8 Clamp the damper on the tube under the lower spring plate.
- Unscrew the top eye and the jam nut counterclockwise and make sure you do not damage the adjustment rods.
- 10 Replace the bump stop.
- 11 Mount the jam nut in a clockwise direction.

NOTE: The indentation must point in the direction of the screw eye!

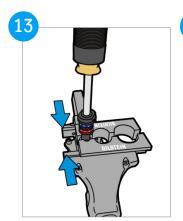
Turn the top eye by hand until it stops at the piston rod.

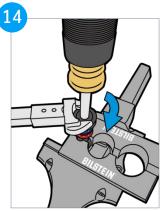
NOTE: The adjustment rods should slide into the adjustment head!



#### MDS Handling (3/3)











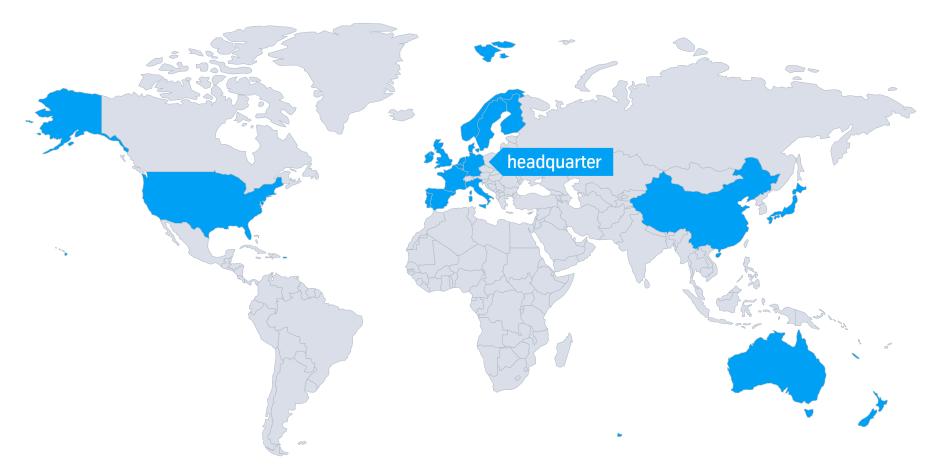
- Clamp the damper carefully onto the top eye with the flat side in the BILSTEIN clamping jaws.
- Turn the jam nut against the top eye and torque at 40 Nm.
- Mount the main spring and the helper spring. 15 NOTE: Note the installation position at this time!
- Put on the spring plate and press it downward.
- Place the snap ring into the jam nut groove. NOTE: The snap ring must sit cleanly into the groove; it cannot be bent!
- Allow the spring plate to slide slowly upward until the snap ring is covered. NOTE: Jamming is possible!
- Finally, perform a visual inspection and position the lower spring plate if this was moved.



#### **Our locations**



#### BILSTEIN Motorsport Service Center can revise and repair MDS Damper





#### Germany



#### Headquarter

thyssenkrupp Bilstein GmbH August Bilstein Str. 4

Div. Motorsport

58256 Ennepetal

Phone: +40 2333 791-4557





www.motorsport.bilstein.de motorsport@bilstein.de



#### Worldwide



Italy

N.T.P. Srl – Unipersonale

Via Artigiani, 18

I-39057 Appiano (BZ)

Tel.: 0471 663592 Fax: 0471 674041

www.ntp.it, btc@ntp.it

Belgium, Netherlands & Luxembourg R.TEC

Rue de Capilône, 1 - Zoning d'Heppignies II 6220

Heppignies – BELGIQUE

Tel.: +32 (0) 71 377 707

www.rtec.ws

France

Sebastien Genard

EUROFAC S.A.

21/23 Rue Henri Becquerel

E.A.E. de la Tuilerie

77645 Chelles Cedex

Tel.: 01.64.72.40.68 Fax: 01.64.21.41.22

seb@eurofac.fr

Spain & Portugal

**Tecnoshock Suspensions** 

Calle Edison, Nave 6C, Polígono Industrial Bufalvent

08243 Manresa (Barcelona)

Tel.: 93 874 50 08

info@tecnoshock.com

Sweden & Scandinavia

Sellholm Tuning AB

Gålby 731 94 Köping / Sweden

Tel.: +46(0)221-293 30 Fax: +46(0)221 109 76 E-

info@sellholm.se

**Great Britain & Ireland** 

thyssenkrupp Bilstein GmbH

**Unit 7 Vitruvius Way** 

Meridian Business Park Leicester | LE19 1WA |

England

Phone:+44 116 2898345

David.Masters@kruppbilstein.co.uk

https://uk.bilstein.com/en/



#### **Worldwide**



North America **Aaron Morey** thyssenkrupp Bilstein of America, Inc. 293 Timber Road Mooresville, NC 28115

Office: +1 858 386-5963 Mobile: +1 704 754-7241

Fax: +1 858 386-5263

scott.macdonald@thyssenkrupp.com Internet:

http://www.bilsteinUS.com

Australia & Oceania Jonathon McKinnon R & D Engineer - Bilstein Racing A Division of Sydney Shock Absorbers **461 Princes Highway** Sydenham NSW 2044 Australia Tel.: + 61 (2) 9557 5930 Fax: + 61 (2) 9550 3270

China Carol Cheng thyssenkrupp Bilstein China IAM A9-101, No. 3718, Yixian Rd., Baoshan, Shanghai 上 海市宝山区逸仙路3718号A9-101 Tel.: +86 21 6020 2354 Mobile: +86 1381 690 2677

chiachun.cheng@thyssenkrupp.com

Japan Kenji Izumi Abe Shokai LTD 3-2 Kanda Mitoshiro-cho Chiyoda-ku TOKYO, JAPAN Tel.: 81-3-3233-2671 k.izumi@abeshokai.co.jp

www.bilstein.com.au



# Thank you for your attention.

