STRAIGHT FACTS

Öhlins MCJ series

Coil-over, high performance stock car shock absorber

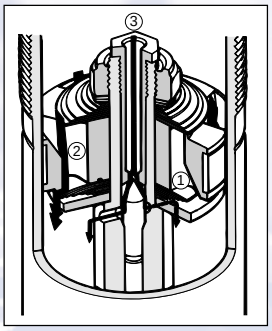
Mike Stefanik
1998 NASCAR Featherlite Modified Champion.

Key features:

- ✔ **Fits classes like Modified and DASH.**
- ✔ **Light weight, aluminum body.**
- ✔ **Large reservoir for better cooling.**
- ✔ **Double acting damping adjuster.**
- ✔ **Quick response for best handling.**
- ✔ **Optimum consistency on long runs.**
- ✔ **Easy to dial-in, reshim, rebuild and service.**
- ✔ **Professional technical support.**

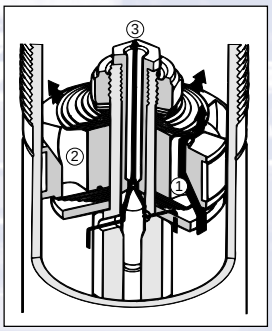
ÖHLINS®
ADVANCED SUSPENSION TECHNOLOGY

Compression stroke



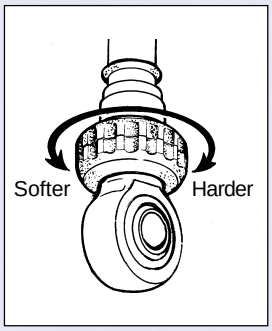
1.
The oil flow in the shock absorber body and ...

Rebound stroke



2.
The oil flow in the shock absorber body and ...

External adjuster



3.
The external adjuster affects both rebound- and compression damping.

How the shock works

Compression stroke

During a compression stroke path ***1, fig 1***, is closed, and the oil can only flow through the paths ***2 and 3***. The damping forces at a certain compression speed are determined by the flow restrictions in these paths.

The flow restriction through path ***2, fig 1***, is determined by how much the oil pressure can open the compression shims which are shut close whenever the pressure is too low or the shock is not moving in a compression mode. These shims resistance to opening are decided by their numbers, thickness' and diameters.

Path ***3, fig 1***, is the main bleed valve. The larger the orifice, the less oil flows through path ***2*** making the main valve compression forces lower.

Rebound stroke

During a rebound stroke path ***2, fig 2***, is closed and oil can pass through paths ***1 and 3***.

Damping forces are determined by the flow restriction in paths ***1 and 3***. The flow restriction through path ***1*** is determined by how much the oil pressure can open the rebound shims which are shut close whenever the pressure is too low or the shock is not moving in a rebound mode.

The compression and the rebound shims are carefully chosen to give the best setup.

Path ***3, fig 2***, is the main bleed valve. The larger the orifice, the less oil flows through path ***1*** making the main valve rebound forces lower.

External adjusters

The main bleed valve adjuster, ***fig 3***, easy to reach on the piston shaft just above the eyelet, is connected to the valve via an aluminum rod that runs inside the shaft. When the temperature in the damper increases the rod expands more than the shaft, closing the bleed adjuster. This system helps prevent fading caused by loss of oil viscosity at higher temperatures.

The adjuster affects the low speed damping on both rebound and compression.

Options

The following options are available to tune the performance of the Öhlins MCJ shock absorber:

Base plate and jets
Makes the shock work smoother, safer and eliminates the risk of cavitation without the need of increased gas pressure.

Double digressive piston
Produces damping curves with a steep low speed part and a flat highspeed part.

High frequency piston
Excellent for traction and grip on flat tracks.

One-way shaft jets
Allows the compression bleed to be smaller than the rebound bleed.

Parallel compression valve
Allows the rebound bleed to be smaller than the compression bleed.

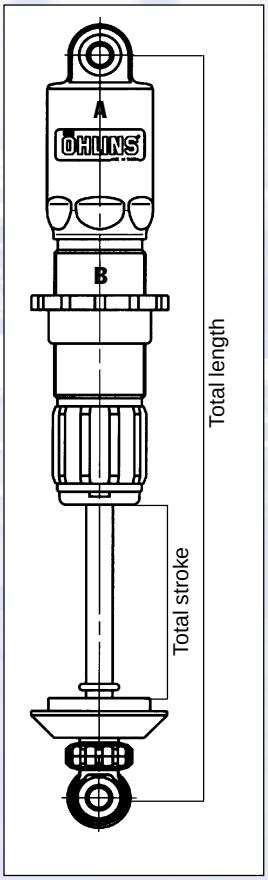
Parallel compression valve shaft and jets
Makes it possible to produce double-knee curves.

Getting started

Suspension tuning recommendations are available and we can help you with personal set-ups, rebuilds and we have the spares in stock for you.

Give us a call or drop us a line and we'll tell you all about the success of the Öhlins MCJ stock car shock absorber.

Technical information



MCJ 16/4
Length/
stroke:
16,5/4,2"
(420/106 mm)

MCJ 19/5
Length/
stroke:
19,6/5,6"
(498/142 mm)

MCJ 22/6
Length/
stroke:
22,0/6,7"
(560/171 mm)

MCJ 26/8
Length/
stroke:
26,4/8.9"
(670/226 mm)

Diameter:
A: 2,5"
(64 mm)
B: 2,0"
(51 mm)

ÖHLINS®
ADVANCED SUSPENSION TECHNOLOGY

Öhlins USA, Inc., 703-C Old Spartanburg Road, Hendersonville, N.C. 28792. Phone 828-692-4525. Fax 828-692-0595. E-mail ohlinsusa@aol.com

ÖHLINS AUTHORIZED DEALERS

BSR Products, Inc. Charlotte, N.C. Phone 704-547-0901. Fax 704-547-8823.
Motorsports Spares International, Inc. Indianapolis, IN. Phone 317-241-7500. Fax 317-241-0823.
Howe Racing Enterprises, Inc. Beaverton, MI. Phone 517-435-7080. Fax 517-435-3331.
AMF Motorsports, Inc. W. Chesterfield, N.H. Phone 603-256-6800. Fax 603-256-8142.
Racing Chassis Services, Inc. New York, N.Y. Phone 212-567-1767. Fax 212-942-7045.