

**STRAIGHT
FACTS**

Öhlins LMJ series

Light weight, 2-way adjustable stock car shock absorber



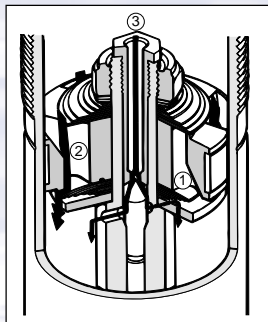
Kenny Tremont, ten times Dirt Modified Champion and Mr. Dirt Champion 1998, Lebanon Vally Speedway, NY.

Key features:

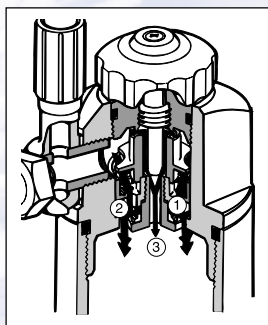
- ✓ **Fits classes like Late Model, Dirt Modified and Sprintcar.**
- ✓ **Light weight, aluminum body.**
- ✓ **Large reservoir for better cooling.**
- ✓ **2-way adjustable damping.**
- ✓ **Quick response for best handling.**
- ✓ **Easy to dial-in, reshim, rebuild and service.**
- ✓ **Professional technical support.**



Compression stroke

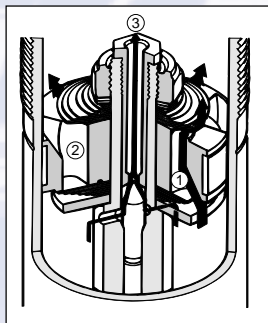


1.
The oil flow in the shock absorber body and ...

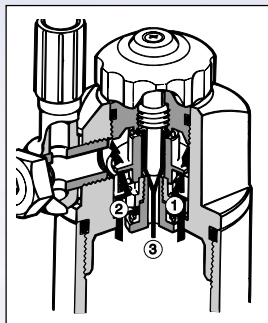


2.
in the reservoir during a compression stroke

Rebound stroke



3.
The oil flow in the shock absorber body and ...



4.
in the reservoir during a rebound stroke

How the shocks work

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, thicknesses and diameters and are carefully chosen to give the best setup.

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.

Oil displaced by the piston shaft is forced into the reservoir. At low piston velocities this flow is regulated by the reservoir compression bleed valve, path **3, fig 2**. At higher by a shim stack, path **1 and 2**, in parallel with the bleed valve.

Rebound stroke

During a rebound stroke the oil flows the opposite way. Path **2, fig 3**, is closed and oil can only pass through paths **1 and 3**.

The flow restriction through path **1**, is determined by the rebound shims and the flow through path **3**, by the main bleed valve.

To compensate for the displacement of the shaft a check valve in the reservoir, path **1 and 2, fig 4**, opens and the oil returns to the shock body.

External adjusters

The main bleed valve adjuster, easy to reach on the piston shaft, 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.

The compression bleed valve, on top of the reservoir, will add damping forces to the forces achieved by the shim stack and the main bleed valve.

Options

The following options are available to tune the

performance of the Öhlins LMJ shock absorber:

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

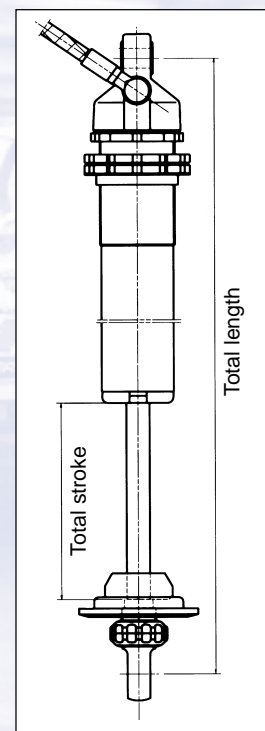
Makes it possible to produce double-knee curves.

Getting started

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

Give us a call or drop us a line and will tell you all about the success of the Öhlins LMJ stock car shock absorber.

Technical information



LMJ 17/5
Length/
stroke:
17,1/5,5"
(434/139 mm)

LMJ 19/7
Length/
stroke:
19,8/7"
(502,5/179 mm)

LMJ 23/9
Length/
stroke:
23,3/9"
(591,5/229 mm)

Spring seat:
2,5"
(64 mm)



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.
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