

HARTFORD Shock Absorbers

On MMM cars
Peter Hentschel

The Hartford friction type shock absorbers, as used on the MMM MG cars, were most commonly of two design-types. Within those two designs shocks were made in several different plate diameters and with several different arm lengths.

Earlier type - as used on the PA up to PA 2143:

Identifiable characteristics

- Outer edges of arm plates have rolled edges and plates are 4.900"OD
- Spider spring has parallel sided legs with rounded ends
- Pressed Silent Bloc ends are riveted to the plate arms
- Correct nameplate disc is marked "306"

Internal working-design differences

- Between each set of plates there is only 1 wood disc of 5mm thickness with a 1 ½" inner hole
- Between each set of plates there is 1 brass disc with flanged outer edge riveted with 3 rivets to the inner plate using a steel fixing washer (1 1/2" ID 13/16" OD).
- There is 1 wood disc floating inside this brass disc and centered by the 1 ½" fixing washer
- There is a bronze center pivot bolt bush (9/16" ID and 13/16" OD) going thru the assembly
- The center bolt is 9/16"

Late type - after PA 2143 and all PB's:

Identifiable characteristics

- Outer edges of arm plates are flat and plates are 4.500"OD
- Spider spring has pointed star-shaped arms
- Silent bloc ends are tubes integrated into the plate arms without rivets
- Correct name-disc is marked "506"
- Name-disc has 2 holes near outer edge to fit over punched tangs in arm blades

Internal working-design differences

- Between each set of plates there are 2 wood discs of 2.5 – 3mm thickness with a 1 ½" inner hole
- Between each set of wood discs there is 1 brass disc with flanged outer edge and 1 ½" center hole.
- Each set of (3) discs float on a steel fixing washer (1 1/2" OD 13/16" ID) which is riveted to the inner plate with 3 rivets
- There is a bronze center pivot bolt bush (1/2" ID and 13/16" OD) going thru the assembly
- The center bolt is 1/2"

Model designations:

The rolled edge style shocks used on MMM cars up to PA 2143 were **306S and 306M models**. Some current vendors seem to call these a "506 rolled edge model" and currently sell them with an early style label but with "506" printed as the model number; however, Hartford Shocks never actually manufactured a 506 rolled edge model during the 30's.

The 506 model superseded the 306 after PA 2143 and had flat blades and a different internal construction. Some vendors have stated that the 506 model was originally designated 502 by the Hartford Shock company; however, the 502 model was actually a flat-bladed shock with a smaller diameter blade than the 506.

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MMM cars before PA 2143

Type 298, 3 175" OD woods

Type 302, 3 460" OD woods

Type 306, 4 440" OD woods



Correct Name disc marked "306"

Correct 306 Spider Spring



Correct 306 Assembly with riveted Silent-Bloc ends and rounded disc edge

(Sports and vintage use a pre-1935 label graphic disc on their rolled-edge shocks with type "506" noted on the label - Hartford never made this name disc)

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MMM cars before PA 2143

Multi-disc versions



Correct 306 Front & Rear assemblies with riveted Silent-Bloc ends and rounded disc edge

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MMM cars after PA 2143

Type 502, 3.260" OD woods

Type 506, 4.260" OD woods



Correct Name disc marked "506"



Correct 506 tapered Spider Spring



Correct 506 Assembly with integral Silent-Bloc ends and flat disc edge – BUT wrong name disc

NOTES: from MMM Register posts

Simon Johnston

United Kingdom
3628 Posts

Posted - 27/09/2017 : 19:44:57  

I think there's an argument can be made that the 306s were fitted initially to the PA (at the front) and that the 506s were introduced sometime in 1934 by T.B. André (who made them). The 306s have the rolled edge which partially provides some protection from dirt getting in between the friction discs. You can view the various types here - <http://www.vintageandclassicshockabsorbers.co.uk/new-hartfords-for-sale/4578203974>

Simon J
J3437

Richard Hardy

United Kingdom
1714 Posts

Posted - 01/10/2017 : 00:49:56  

Simon is actually correct on this!

The designation 506 was incorrectly introduced many many years ago by MMM parts suppliers when it should have been kept to 306 for the rolled edge units. The number then stuck unfortunately and has confused the situation ever since to the point where people have not heard of 306 units.

For clarification to an earlier post, the Vintage MG Parts units are 306 rolled edge units although branded as 506 simply as otherwise the multitude would possibly not purchase them through general confusion. Maybe now is the time to go back to 306.

I am pretty sure Graham Brown would also back up Simon's comments

Richard

Vintage MG Parts

NOTES: sent from Vintage & Classic Shock Absorbers

Before 1935 ish,

- 9/16" center bolt
- rolled outer blades
- parallel legged spider spring (as photo from our website)
- brass discs riveted to single blade of s models and 2 blade of m models
- 1 fixed brass and 1 wood 5mm thick per space
- type 298, 3 175" od woods
- type 302, 3 460" od woods
- type 306, 4 440" od woods
- 298 302 306 name discs as on our website no holes near outer edge
- the 306 rolled edge blades measure 4.900"od

After 1935 ish,

- 1/2" center bolt
- all flat blades
- taper legged spiders
- floating brasses, 2 woods both 2.5 - 3mm thick & 1 brass per space
- type 502 3 260" od woods
- type 506 4 260" od woods
- 502 506 name disc as on our website with 2 holes near outer edge to fit over punched tangs in arm blades
- Sports and Vintage make a pre 1935 looking name disc but with type 506 and the 2 outer holes, Hartford never made this name disc
- the 506 flat blades measure 4.500"od

I hope this helps any questions please ask

Kind regards,

Michael, VCSA, Vintage & Classic Shock Absorbers