

TRYON SPRING SHACKLES

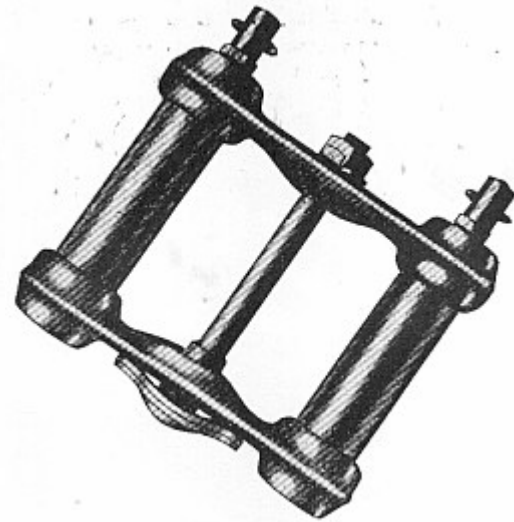
The use of Tryon Spring Shackles on W-O cars began in the fall of 1927. The last few thousand Whippet 93A's were so equipped, and the Whippet 96 got them after about the first twenty thousand of the 1928's. All Whippet 4's and 6's after January 1, 1928, used the Tryon Shackle. Other W-O cars using the same or similar Tryon Shackles are: WK 56, 70B, 87, 95, 66D, 66E, Falcon-Knight 12, 1930-33 Willys 6's and 8's, and 1933-35 Willys 77.

Thompson Products numbers for spring shackle kits for the above cars are:

All Whippets, WK 56, 70B, 87 66D through serial number 3181, Falcon-Knight, Willys 98B and 8-80, use: FRONT – T729, REAR – T708.

WK 95, 66D after serial number 3181, 66E, Willys 97, 98D, 6-90, 6-90A, 8-80D, 8-88, 8-88A, C-113, use: FRONT – T727, REAR – T-709. (Note: WK 66D-E and Willys 8's with 2" springs use T706 on front).

Willys 77 to serial number 42000 use: T734 FRONT AND REAR.



Shackle pin dimensions taken from our drawings:

All Whippets, WK 56, 70B, 87, 66D to SN 3181, Falcon-Knight, Willys 98B, 8-80, and possibly some early Willys 97 and 98D: OD of body = .877" (+/- .0005"), OD at ends = .668" to .679", Length = 2 15/16".

WK 95, 66D after SN 3181, 66E, Willys 97, 98D, 6-90, 6-90A, 8-80D, 8-88, 8-88A: OD of body and ends same as above, Length = 3 3/16". (Length of pins for 66D-E and Willys 8's with 2" springs - 3 7/16").

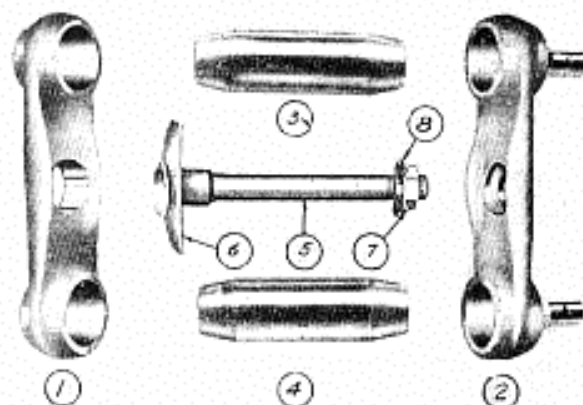
No dimensions available for Willys 77 at this time.

Illustrations on pages 15 and 16 are taken from W-O Service Letter #433, dated November 5, 1928, Service Letter #423, dated March 30, 1928, gives a little different measurements for the shackle bolt spring tension than that shown in the illustrations on page 16. Figures used in SL #423 are: Rear Shackle – not less than 1/32" nor more than 1/16"; Front Shackle – not less than 5/16" nor more than 11/32". The setting on this tension spring determines hardness or softness of ride. You can adjust them to your own liking.

Fill oil connections with 600W oil or its equivalent. DO NOT USE HARD GREASE. The shackle pins, being hollow, act as reservoirs and hold sufficient oil to keep them thoroughly lubricated over a long period.

INSTRUCTIONS FOR INSTALLATION AND CARE OF TRYON SPRING SHACKLES

The Tryon Spring Shackles are composed of the following parts:



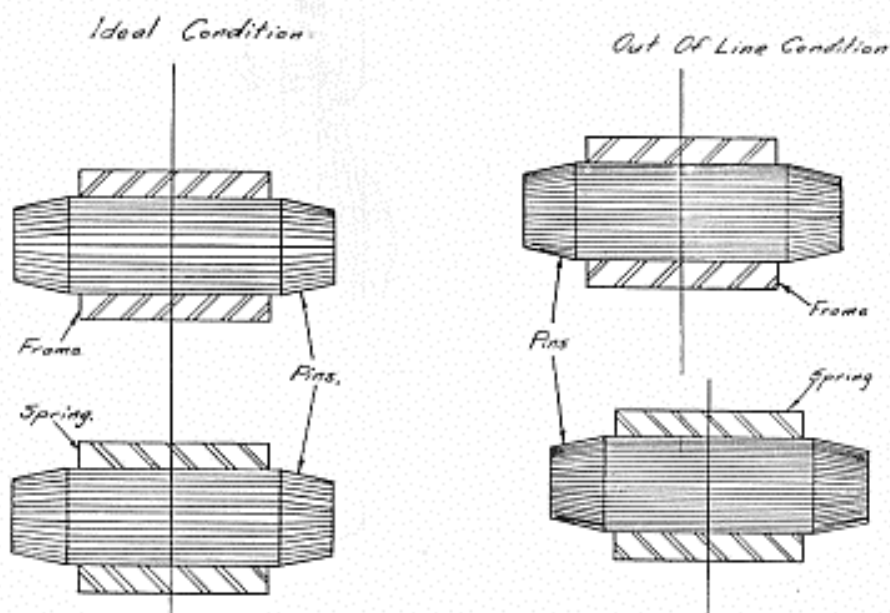
COMPONENT PARTS

Part No.	Description
1.	Inner Side Link.
2.	Outer Side Link with oil connections.
3.	Spring Shackle Pin.
4.	Spring Shackle Pin.
5.	Bolt.
6.	Tension Spring.
7.	Nut.
8.	Nut Lock.

INSTALLATION INSTRUCTIONS

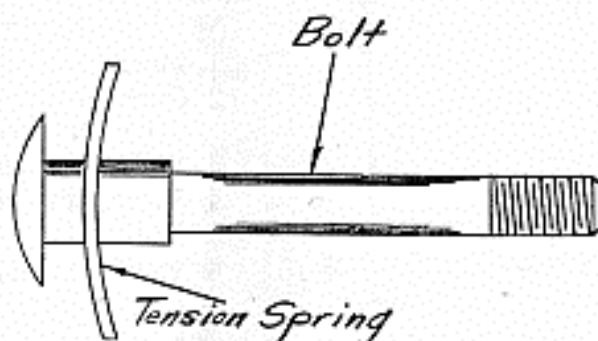
Jack up the frame of the car to take the weight off the springs. After the old shackles have been removed, then drive Spring Shackle Pins Nos. 3 and 4 into frame bracket eye and spring eye by placing the taper of the Side Link over the tapered end of the Pin and then strike with a hammer. These Pins must be tight under at least 1500 pounds pressure and driven through until the tapered ends protrude an EQUAL DISTANCE on each side of the frame or spring eye.

The Pin through the frame eye should be in direct line with the Pin through the spring eye, however the construction of the Tryon Spring Shackle is such that a variation of NOT TO EXCEED $1/16$ " can easily be taken care of without affecting the functioning of the Shackle.



The Pin in the frame eye and the Pin in the spring eye can be brought into the desired alinement by loosening the nuts on the U bolts which clamp the spring to the axle and moving the rear end of the spring to the right or left as the case may be.

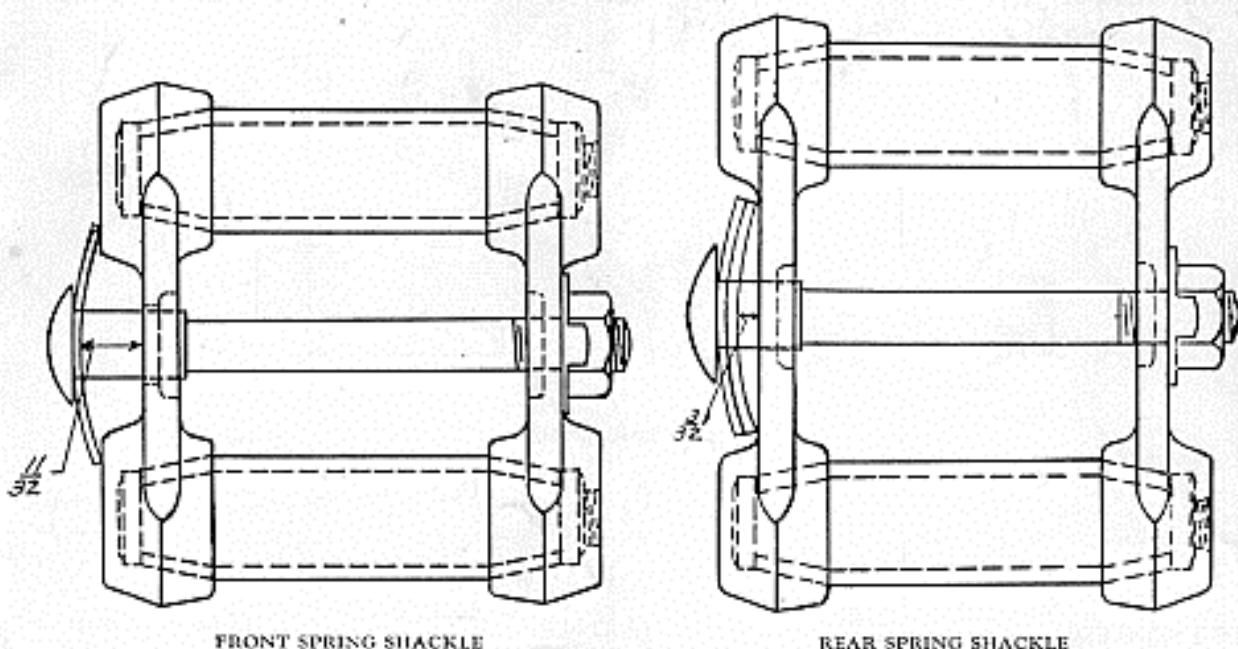
Assemble TWO Tension Springs No. 6 on Bolt No. 5 for REAR assembly and ONE Tension Spring No. 6 on Bolt No. 5 for FRONT assembly as shown in cut below.



Assemble Outer Side Link No. 2 so that the end of Pin No. 3 in frame eye and the end of Pin No. 4 in Spring eye fit into cups in ends of Side Link. Assemble Inner Side Link No. 1 as above on opposite ends of Pins Nos. 3 and 4.

Place Bolt No. 5 on which has been assembled Tension Spring No. 6 from left hand side on right shackle and right hand side on left shackle, through holes in Side Links Nos. 1 and 2.

Assemble Nut Lock No. 8 over threaded end of Bolt No. 5 so that prongs of Nut Lock are inserted in slots of Side Link. Then assemble Nut No. 7 on Bolt No. 5, tightening shackle, drawing Tension Spring No. 6 down to $\frac{3}{32}$ " of the Side Arm on the REAR Shackle and $\frac{11}{32}$ " of the Side Arm on the FRONT Shackle. Then bend up TWO wings of Nut Lock No. 8 against faces of Nut No. 7 to keep Nut from backing off.



FRONT SPRING SHACKLE

REAR SPRING SHACKLE

Showing dimensions under Spring and method of locking Nut.