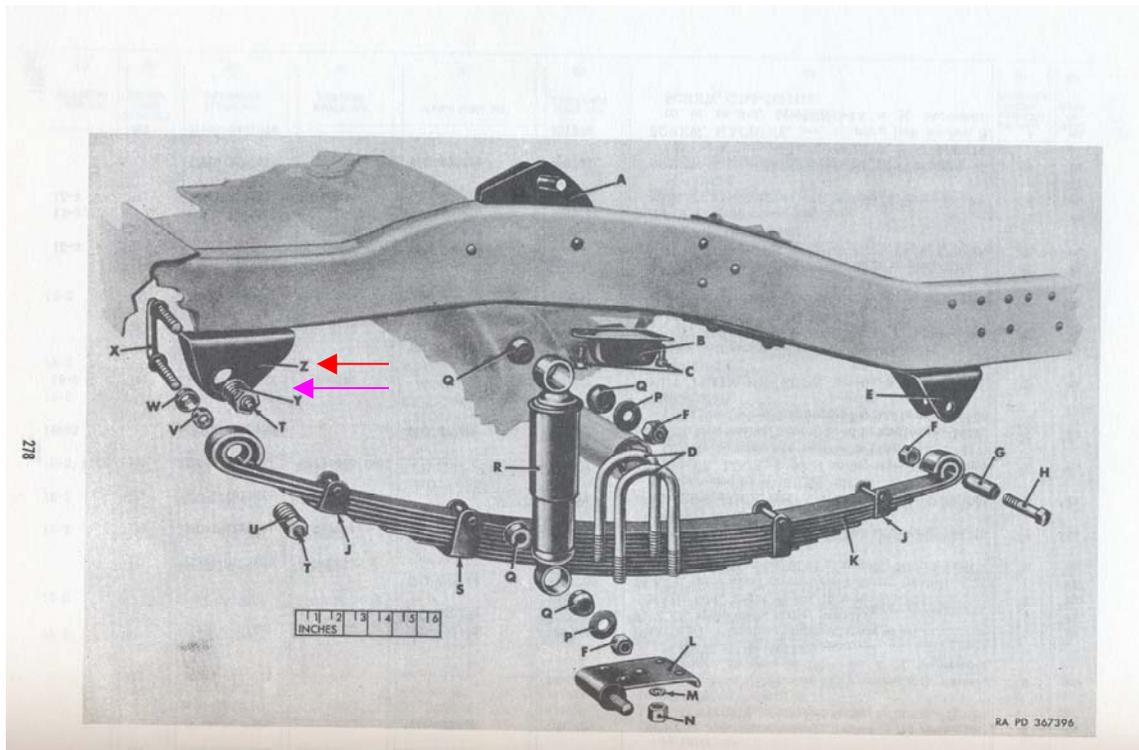


## M38 frame bracket leaf spring shackle repair guide

This guide is intended to help owners of the military Jeep, M38 1950-1952 with repair of the spring shackle upper frame side threaded bushing for the front and rear leaf springs without having to cut the old bracket off of the frame. The original bracket is attached with two large rivets and then welded on each side. To remove the original bracket can be time consuming and then reattaching the new bracket can be difficult due to the inner frame pieces that do not allow access to the inside of the frame rail.

This technique is an alternative and will save the original bracket (part "Z") with its attachments to the frame while removing the cylinder (threaded portion) and then replacing it with a new cylinder.



- 1) The first step is to assess the threaded portion inside the cylinder for excess wear. If your shackle bracket part "Y" was not fully screwed into place or would easily work its way out, then chances are you will need to replace the threaded cylinder inside of bracket "Z". Look for flat spots or very worn threads.
- 2) Obtain a replacement shackle bracket (part Z), and make sure that you can easily screw part "Y" in and out of the new bracket.
- 3) Use the 3 inch grinder with the metal cutoff wheel to cut the two small spot welds that are holding the threaded cylinder on the old bracket and the new bracket. You should now be able to slide the cylinder out of the bracket. See Fig 1,2, & 3

Fig 1 3 inch grinder with thin metal cutoff wheel – your primary tool



Fig 2 Areas of the cylinder where it is spot welded to the inside of the bracket. Demonstrated with what is left of the original cylinder and the new bracket.



Being careful not to damage the cylinder on the new bracket and not to damage the original bracket.

The original cylinder is not of great concern as it is worn out. If the worn out original cylinder does not want to slide out very easily, then using the 3 inch grinder, you can cut a section out of the middle of the worn out cylinder. Now you can knock out the two ends with hammer/ punch or squeeze them with a pair of largechannel lock pliers(Fig 3).

Fig 3 Old cylinder with section cut out of the middle to facilitate removal. Demonstrated with what is left of the new bracket. **Do not make this cut to your new cylinder as you want to keep it intact to put in the original bracket.**



Remember you want to do as little damage (hammering, cutting) as possible to the original bracket (and to the new cylinder) as you will want to save them. Remember you are not going to disturb the original bracket attachments to the frame.

With the new bracket assembly, once you have cut the spot welds and the cylinder does not want to come out easily, you can make two small cuts on either side of the bracket as shown in fig 4.

Fig 4 Two small cuts on the new bracket that can help in removal of the cylinder you are trying to save in order to replace it in the original bracket that is still attached to the frame. **Do not make these cuts on the original bracket and do not cut into the cylinder.**



- 4) Now with the cylinders removed, you can clean up the old spot welds on the new cylinder and the original bracket still attached to the frame rail.
- 5) Next, slide the new cylinder into the original bracket that is still attached to the frame rail and spot weld it to the bracket. See Fig 5

Fig 5 Finished Product

