



RIGGING ADVISORY CIRCULAR

Issue Date: 01 January 1990

RAC No. 809 Rev. B

SUBJECT: REPLACING THE RW-1-82/83 RINGS

STATUS: MANDATORY

IDENTIFIACITON: Large rings of the three-ring mechanism manufactured for the Relative Workshop and marked RW-1-82 or RW-1-83.

BACKGROUND: An unknown quantity of RW-1 rings manufactured in 1982 and 1983 may deform under a load below their rated load.

This occurred because a quantity were annealed (softened) in preparation for a de-burring process and were inadvertently omitted from the following tempering (hardening) process.

Rings affected are not readily identifiable, other than by conducting a Rockwell Hardness Test or a Proof Load Test.

This revision differs from Revision A by the addition of the section "APF Policy".

MANUFACTURER'S POLICY The Relative Workshop has made available a quantity of separable rings to manufacturers

The manufacturers will remove existing RW-1-82 and RW-1-83 rings and replace these with the separable rings.

The Relative Workshop has supplied instructions for remobing existing rings and installing replacement rings.

Owners of affected parachute harnesses should contact the manufacturer of the parachute harness for replacements rings.

APF POLICY: All RW-1-82 and RW-1-83 rings must be tested or replaced. If both rings on a harness are tested and found to be hard, no further action is required. If either or both rings fail the test, both rings are to be replaced.

Replacement of rings is to be performed by the holder of at least a Packer "A" rating, and in accordance with the instruction in this Rigging Advisory Circular.



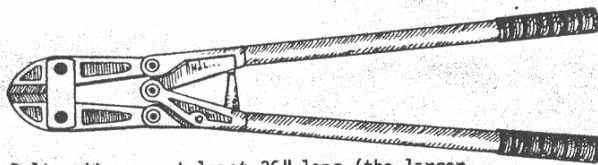
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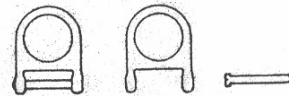
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Equipment needed



Bolt cutters - at least 36" long (the larger the better). Must be for cutting hardened steel. Cutters with the marking "soft and medium metals" are inadequate for the job.



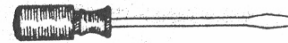
Two replacement rings (each should include main ring body and bottom bar)



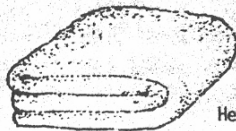
Needle nose pliers



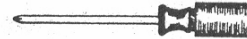
Safety goggles



One large straight head screw driver.

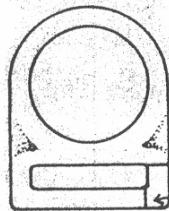


Heavy towel



One Phillips-head screw driver.

READ INSTRUCTIONS COMPLETELY BEFORE STARTING



RING CUTTING GUIDE

First cut

Second cut

Prepare rig and working area. This operation is best done on a flat hard surface such as the floor or a sturdy workbench. Remove main risers. Lay rig flat on working area and pull straight up on ring to be cut. Keep rig and surrounding webbing as far away as possible from the rest of the rig during the entire process. Make both cuts on the same side of the ring.

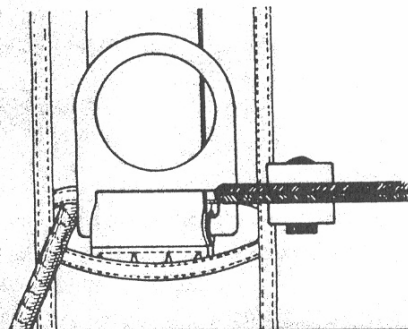
Make both cuts on the same side of the ring.

NOTE

Be very careful not to damage webbing during any part of the process. Any slight nick or cut will necessitate replacing the whole side of the harness - a major expense!

First cut

Push webbing as far away as possible from the area to be cut. Use only the very tip of the bolt cutters and set the edge at the very top of the slotted section of the ring (see cutting guide illustration). When the bolt cutters are in place, place a heavy towel over the area to be cut. The ring will usually stay put, but occasionally pieces can go flying; the towel will keep everything in place.

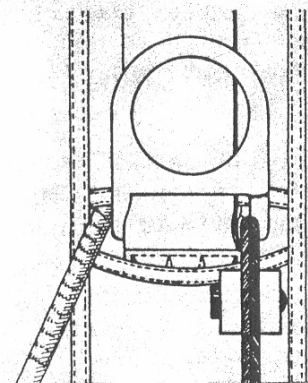


WEAR SAFETY GOGGLES WHEN USING BOLT CUTTERS!

Second cut

Again, push the webbing as far to the side as possible. Line the bolt cutters up parallel to the side of the ring with the cutting edge as close to the corner as possible (see cutting guide illustration). Use only the very tip of the cutters; cover with towel before cutting.

Remove ring very slowly and carefully to avoid damaging webbing. Soft rings especially will tend to mush out when cut, making a sharp edge. You may want to crimp these sharp ends with a pair of pliers before pulling the ring out.



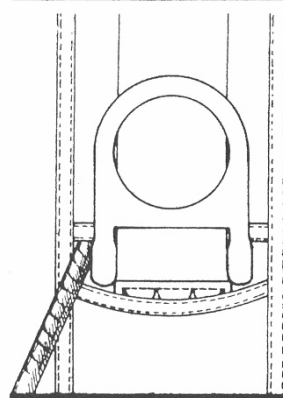
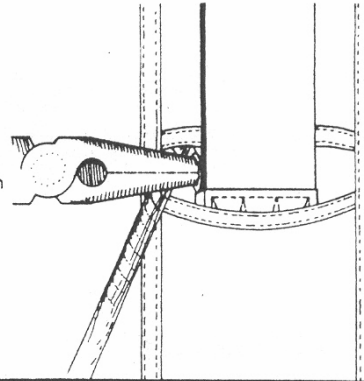


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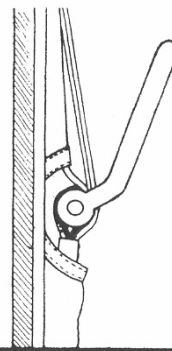
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Use the needle nose pliers to slightly widen the end of the ring attachment loop. Check your rings at this point; they can only be put together from one direction since the thread on the bar must match with the threading on the ring. Widen only the side through which the bar will pass first.

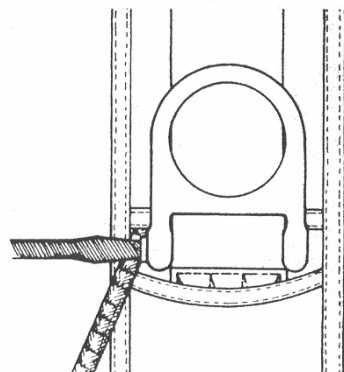
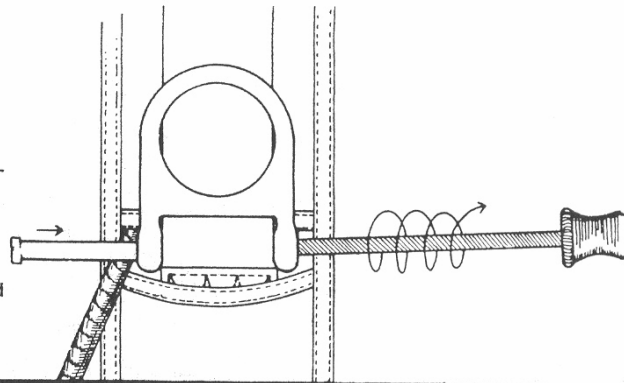


Side view



Place ring in correct position. Note angle of ring in side view; the top of the ring points back towards harness.

Insert bar through hole in ring and ring attachment loop. On most Wonderhogs, the ring attachment loop will be quite snug around the bar. To help slide the bar through easily, put the phillips head screw driver through the ring end and attachment loop from the other side and wiggle the screw driver while moving the bar through.



When bar is through, be sure no piece of webbing is pinched between bar and ring end. Carefully thread bar into ring end - tighten till snug (both ends of the bar should be almost flush with ring ends). Do not over tighten - this may strip threads.

NOTE: be sure bar has a small dot of greenish fibre lock on the threaded end. This helps keep it securely tightened into ring end.



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EFFECTIVE DATE: Immediately

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