



# RIGGING ADVISORY CIRCULAR

Issue Date: 28 May 1992

RAC No. 815 Rev. A

SUBJECT: TYPE 17 (1") RISERS WITH RESERVE STATIC LINE CONFIGURATION

STATUS: MANDATORY

IDENTIFICATION: Relative Workshop Type 17 mini risers with RSL  
Rigging Innovations Type 17 mini risers with RSL  
SSK Industries Inc. mini 3-ring risers with RSL

BACKGROUND: On 21 May 1992, the Relative Workshop issued Service Bulletin # 010592 on their type 17 risers with the RSL system after a pair of risers failed in the field.

On 27 May 1992, Rigging Innovations issued Service Bulletin # 1519 because of similarities in construction techniques and materials of Rigging Innovations type 17 risers and those of the Relative Workshop.

On 28 May 1992, Stewart Systems issued Service Bulletin SB-104 to clarify their position on the use of type 17 risers with RSL on the Sweethog harness/container system.

The background of the problem is outlined in the Relative Workshop's Service Bulletin:

- Jumpers are falling faster due to tighter jumpsuits, and are jumping smaller canopies which, because of their smaller square footage and/or zero porosity fabric, open faster. (Faster fall rate plus faster opening equals greater opening shock.)
- Microline, unlike dacron, will not stretch. Consequently, much more of the opening shock is now transmitted directly to the risers instead of being absorbed by the suspension lines.
- Microline, due to its small bulk, may not always be held securely by standard rubber bands or Tube Stoes. (This condition may be aggravated by too-small a line bight.) This may cause out of sequence deployments, hard openings and uneven riser loading.
- The new generation of collapsible, zero porosity pilot chutes may cause accelerated bag-snatch and line-dump which also result in out-of sequence deployments, hard openings and uneven riser loading.



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- The practice of rolling all the nose in the same direction will often cause one side of the canopy to inflate before the other, which again results in uneven riser loading.
- These type 17 (mini 1") risers are designed to withstand loads up to 2500 pounds. It is apparent that newly designed canopies with microcline used by heavier jumpers occasionally exceed this design limit. These risers, on average, appear to be stronger than the canopies they are attached to. Scores of canopies have blown up during this period without damaging type 17 (mini 1") risers. While a main canopy breaking may be unsettling, breaking a type 17 (mini 1") riser with a reserve static line (RSL) may be fatal. It may deploy the reserve canopy into the now malfunctioning main canopy.

MANUFACTURERS' ADVICE: Relative Workshop (Service Bulletin # 010592)

Those persons using a Relative Workshop product incorporating type 17 (Mini 1") main risers must immediately disconnect the reserve static line (RSL) from the type 17 (Mini 1") main riser. Have a currently rated Parachute Rigger cut the reserve static line attachment ring off the riser. Then attach the snap shackle end of the reserve static line (RSL) around either the adjacent short or long cutaway housing. You may continue to jump the system set up in this way until you install replacement type 8 (1 $\frac{3}{4}$ ") risers set up for reserve static line. These are much stronger and have never broken in use. Contact Relative Workshop or your dealer with the serial number of your system and the Relative Workshop will supply you with type 8 (1 $\frac{3}{4}$ ") risers at no cost, if your RSL was installed by the Relative Workshop.

If your RSL is an after-market installation, Relative Workshop will supply you with the recommended type 8 (1 $\frac{3}{4}$ ") risers at a reasonable cost.

Rigging Innovations (Service Bulletin 1519)

Pending further test data availability, Rigging Innovations is placing a weight limitation on type 17 main risers with the RSL option in use, of 175lb (80kg) body weight, or 200lb (90kg) gross weight. Those individuals who exceed this weight must disconnect the RSL release shackle. It is recommended that a licensed Rigger remove the lanyard entirely until further data is available. It is not necessary to have the reserve repacked to remove the lanyard. Removal of the lanyard may be accomplished, the reserve resealed, and an appropriate note made on the packing card by an appropriately rated and licensed rigger.



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This Service Bulletin does not affect type 17 main risers that do not have an RSL installation configuration.

## SSK Industries (Service Bulletin 104)

No action needs to be taken at this time, other than verifying that any Sweethog harness/container system equipped with an RSL system is indeed a factory installed system, and uses our original equipment (OEM) RSL lanyard main risers. Specifically, verify that the type 8 (1¾" width webbing) mini-ring risers (1" ring at end) have not been substituted for the originally supplied risers on any Sweethog equipped with an RSL system. If there is any question concerning the RSL system installation authenticity, please contact SSK by phone or fax with the system serial number so that SSK can check the data in the history file for the particular system.

APF POLICY: Harness container systems manufactured by the Relative Workshop, Rigging Innovations or SSK Industries must be processed as directed by the manufacturer. Where the manufacturer specifies action by a Rigger, the work must be carried out by the holder of at least a valid Packer "A" rating.

All other parachute harness/container systems which incorporate an RSL in combination with 25mm (1") risers are to be inspected immediately, and thereafter before each jump ,for signs of webbing separation or failure around the grommet.

Any evidence of structural weakness must be referred to a Rigger "B" to determine if the risers should be withdrawn from service.

A Rigger "B" who finds it necessary to withdraw a particular pair of risers from service should report the matter to the APF on the Equipment Defect Report form that accompanies RAC 212, so that the appropriate manufacturer can be notified.

COMPLIANCE DATE: Immediately, prior to the next jump.

AUTHORITY: Relative Workshop: Product: Service Bulletin # 010592  
Rigging Innovations: Sandy Reid, President  
SSK Industries: Cliff Schmucker, President  
Australian Parachute Federation: Director Riggers

DISTRIBUTION: APF members through Newsletter  
RAC holders