



ref SB144 Split Rings

SERVICE BULLETIN NUMBER 144, issue 2.

TITLE	Split Rings
CLASSIFICATION	P&M Aviation have classified this service bulletin essential.
COMPLIANCE	Inspection before further flight.
APPLICABILITY	All Pegasus, Mainair and P&M types including

BM2	Gemini Sprint
BM3	Tri-Flyer Sprint
BM4	Gemini Flash
BM5	Panther XL-S
BM9	Pegasus XL-R
BM10	Pegasus Flash
BM17	Pegasus Flash 2
BM14	Gemini Flash 2
BM16	Scorcher
BM17	Pegasus Flash 2
BM23	Gemini Flash 2 Alpha
BM25	Pegasus XL-Q
BM27	Chaser S
BM28	Pegasus Photon
BM31	Chaser S 1000
BM33	Chaser S 508
BM37	Chaser S 447
BM38	Pegasus Quasar
BM42	Pegasus Quasar - TC
BM43	Mainair Mercury
BM44	Pegasus Quasar 2 TC
BM45	Cyclone AX3/503
BM46	Pegasus Quantum 15 (Rotax 2-stroke engines)
BM47	Mainair Blade
BM50	Pegasus Quantum 15-912
BM51	Mainair Blade 912
BM53	Cyclone AX2000
BM54	Mainair Rapier
BM56	Pegasus Quantum 15-HKS
BM60	Mainair Blade 912S
BM65	Flight Design CT2K (rudder control)
BM66	Pegasus Quik
BM70	Quik GT450
BM72	Flight Design CTSW (rudder control)
BM77	QuikR
BM80	Quik GTR
BM81	PulsR
BM83	Flight Design CTSL (Rudder control)

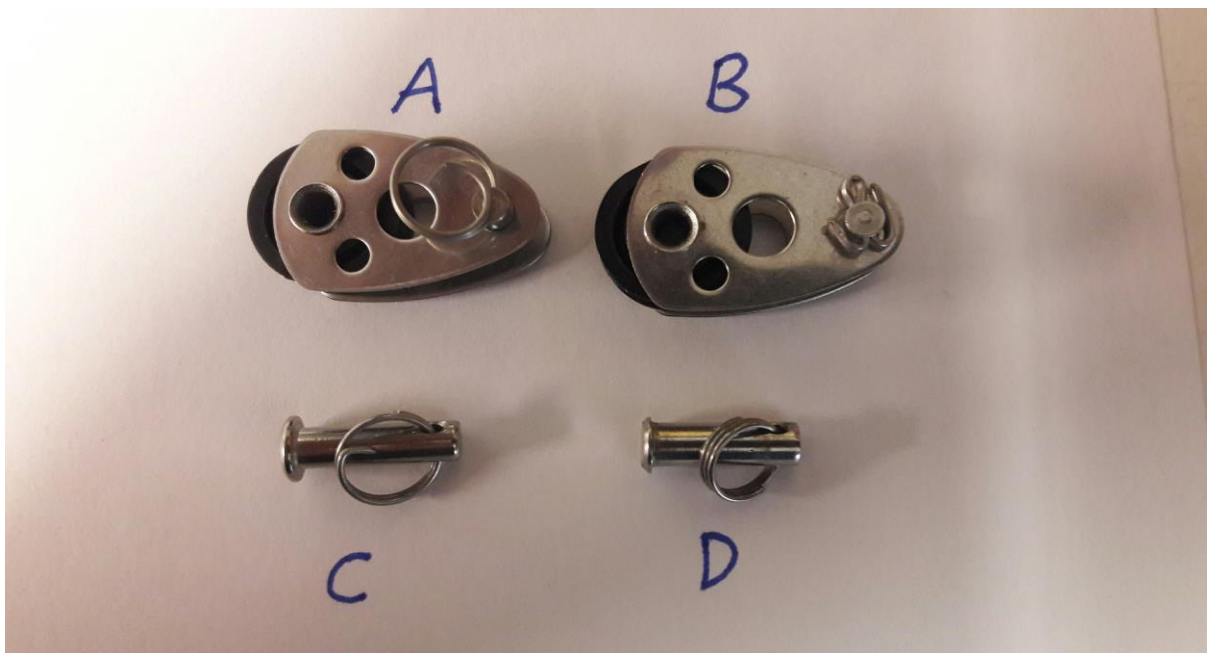
1) INTRODUCTION

Following maintenance, a clevis pin came out of the RP-4 roll trim system pulley on a QuikR causing a left turn. The split ring securing the clevis pin had come out. It is not known if the ring was disturbed during the maintenance.

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The split ring which came out was the same "spiral start" pattern as that which has caused trouble before (see Service Bulletin 139). This pattern of ring has no positive stop, so that simple rotation of the ring (e.g. caused by it getting caught on something) will cause it to disengage. See A below, showing the ring starting to disengage.

Type C is better having a 90 degree positive stop. Type D is used on the QuikR and GTR washout rod universal joints and the most secure type of ring, having no starting ramps and 2 complete turns through the hole. All type A split rings have been discarded at the Factory.



2) ACTION

Split rings of the spiral start pattern "A" above must be removed in all locations and be replaced with stainless steel split pins or rings to pattern C or D. The small 4mm clevis pins used in the RP-4 pulley take a 1/16" split pin, part no. FPSP-002. Larger clevis pins take 5/64" stainless steel 316 split pins, part no. FPSP-005.

The ends of the split pin should be trimmed and curled over so as to minimise the possibility of snagging.

3) Documentation


The aircraft technical log must be signed "Service bulletin SB144 (split rings) carried out" by a qualified inspector and/or an owner/operator.

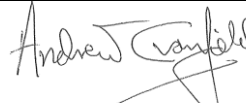
4) Continued Airworthiness

At each permit revalidation, the inspector must check the service bulletin has been carried out, that there are no split rings of the "spiral start" type on the airframe and that the correct split rings or pins have been installed securely.

ISSUED BY W.G.Brooks

DATE

Approved		Date 19/10/16
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Checked		Date 27/10/16
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