

Hooking in to External Load Safety



The ability to winch people and cargo is one of a helicopter's greatest assets. But something as simple as the hook used can make a huge difference to what happens to that cargo.

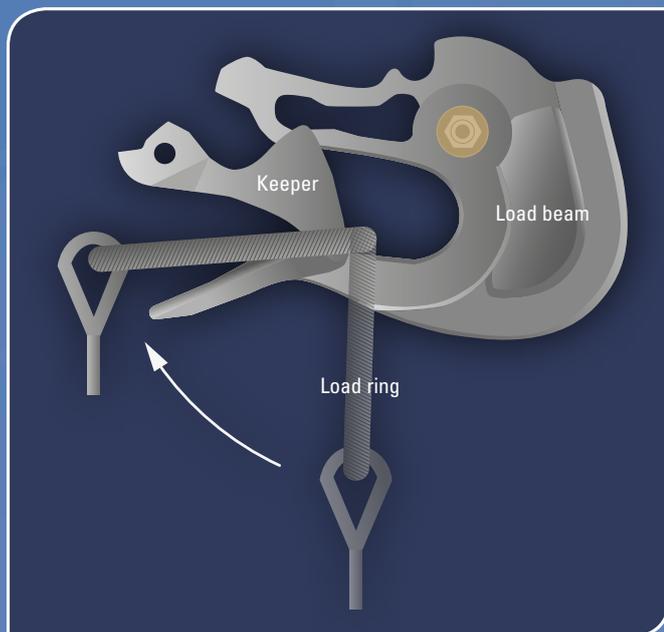
During the late 1990s and early 2000s, maintenance engineer Brett Purchase was heavily involved in helicopter rescue winches and cargo hook repairs, because he worked at Airwork, and a major American helicopter hoist and winch provider, Breeze Eastern.

"Back then, we had some issues with uncommanded sling load releases on helicopters we had operating at mines in Papua New Guinea and Indonesia. But when investigating these hooks, I was finding nothing wrong with them," says Brett.

"What it came down to was the sling loads not being secured using the correct load rings.

"That was a relatively known issue, especially after fatalities in the United States. Safety conferences I went to back then addressed the danger of having hooks whose keepers aren't 'pit pinned', or the danger of using the incorrect rings on cargo hooks."

Brett left aviation for some years, but was shocked on returning to the industry, five years ago, when he heard of several similar cases happening in New Zealand.



If your load ring is the wrong size, it could flip over the load beam and then move in against the keeper, forcing the keeper to rotate, allowing the ring to slip off, taking your load with it.

"I recently read of some unsecured load incidents, and was thinking, 'we shouldn't be having this same issue as 20 years ago'.

"I think it's just that people aren't as informed as they should be on how to use the equipment properly."

While operating manuals spell out exactly which load rings should be used, as well as limitations on what can be sling loaded, and in what conditions, Brett thinks that perhaps it's that Kiwi 'she'll be right' attitude at play.

"Like when you buy a DVD player or a new phone, and you start playing around with it but don't bother to read the instructions, because you think you know how it works," says Brett.

"It's the same with hooks: 'We'll just hook it to the bottom and she'll be right'. When actually how that hook performs depends on many things such as flight angles, loading configurations, wind, and of course having the right load ring fitted."

When he was working at Airwork, Brett recalls an incident involving a helicopter that lost a load of pipes that fell onto, and crushed, a hut, narrowly missing people in the next building.

"They wanted me to find out what went wrong. I was sent the hook and was told it was a 'hook fail'," says Brett.

"I couldn't find anything wrong with the hook itself but digging deeper, I found that they had been using a 'D' shackle ring that was too long. It had come over the safety keeper and then slung completely out of place."

Brett explained to the company what had happened, and then discovered they hadn't been using the operator's manual when setting up their sling loads.

"Maybe, with new people coming into the industry, some of these small, but key safety messages haven't been passed on?"

"Let's be proactive about this – this is just a friendly reminder to pass this knowledge on," says Brett. ■

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