

Transport instruction UN 3164, gas springs = dangerous goods?

Bansbach gas springs have not to be classified as dangerous goods!

Contrary to the general dangerous goods instruction UN3164, the IATA-DGR (special regulation A114) rules that goods that contain gas and are determined to function as shock absorbers (including energy-absorbing devices or pneumatic springs) are <u>not</u> subject to the transport instructions i. e. they are indemnified from the following requirements:

- a) each article has a gas volume which doesn't exceed 1.61 and a charge pressure not exceeding 280 bar, where the product of the capacity expressed in litres and charge pressure expressed in bars does not exceed 80 (e. g. 0.51 gas space and 160 bar charge pressure, 11 gas volume and 80 bar charge pressure, 1.61 gas volume and 50 bar charge pressure, 0.281 gas volume and 280 bar charge pressure)
- b) each article has a minimum burst pressure of 4 times the charge pressure at +20 °C for products not exceeding 0.5 l gas space capacity and 5 times the charge pressure for products greater than 0.5 l gas space capacity
- c) each article is made of material that won't fragment
- d) each article was manufactured in accordance to a quality assurance standard which is approved by the responsible national authority and
- e) it is proven and shown that the article relieves its pressure by means of a fire degradable seal or other pressure relief device such that the article will not fragment and that the article does not rocket

Bansbach gas springs correspond to the above mentioned points. Only theoretically, limit figures can be reached / exceeded. They are mounted in and on airplanes and are used as a safety element.

All airlines and forwarders known to us have agreed to the argumentation that gas springs are no dangerous goods.

Bansbach easylift 22nd November 2004