Air Spring Test Rig

CAPABILITY SHEET · A FALLING PRESSURE IS NOT ALWAYS A LEAK. · A LOADING FRAME, A REFERENCE VESSEL,

THE ONE IDEA

PRINCIPLE	A falling pressure is not always a leak.
WHY IT MATTERS	Filling squeezes the air and warms it, and the pressure falls as it cools back; a rubber bellows settles after loading, and a warm shop can hide a real leak.

THE RIG

FRAME AND HEIGHT	A stiff frame with a cylinder or a lifting table that sets the height and holds it against a stop, so that the height does not drift while the spring is read.
AIR AND REFERENCE	Clean dry air through a regulator and a slow valve, and a reference vessel that goes through the same filling, so that the cooling of the air is seen in both.
FORCE	A force cell in the load line and a height sensor record the force against the height, with the reservoir fitted or not.
LOGGER	A logger records the pressures, the temperatures, the height and the force, waits for the settle time and then applies the rule.

THE METHOD

ORDER	Duty, frame and height, air and reference, force and stiffness, logger and decision, build and prove. The air circuit with its reference and the blank run are the two that a quick job skips.
LIMITS	Pressures, loads, heights, settle times and limits come from the customer's duty, and are not printed here.

CONFIGURATIONS

LEAKAGE	A leakage bench: two stations on a lifting table, so that one spring is loaded while the other settles, with a reference vessel and a settle rule.
STIFFNESS	A load and stiffness rig: a cylinder, a force cell and a height sensor that record the force against the height, with the reservoir fitted or not.
SOAK	A multi-station soak bench: several springs in a row under one frame, each with its own pressure and height record.

SCOPE

SCOPE BOUNDARY	It is the air spring test rig: not a high-pressure leak testing machine, not a bogie test rig and not a spring testing machine.
STATUS	Neometrix engineers air spring test rigs to order, and no delivered air spring test rig is claimed.

DEFENCE PROGRAMMES DESK

sales@neometrixgroup.com · +91 7777 876 876 · neometrixgroup.com

Neometrix Defence Limited · E-148, Sector 63, Noida, Uttar Pradesh, India