

NGV-CYL-SP12

IMPACT DAMAGE TESTING MACHINE

DESCRIPTION OF MACHINE

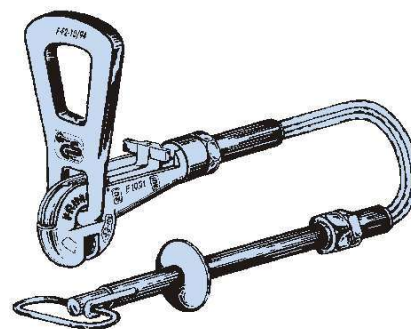
The jib crane is used to lift the test cylinder to the required height. Then remote release mechanism will release the cylinder to floor by the operator command. The cable fixture is fixed to the ends of the cylinder for lifting. The jib crane has access area of about 6 m diameter circular area. So the lifting and dropping position can be moved around this area.

ISO 11439 Statement

One or more finished cylinders shall be drop tested at ambient temperature without internal pressurization or attached valves. The surface on to which the cylinders are dropped shall be a smooth, horizontal concrete pad or flooring. One cylinder shall be dropped in a horizontal position with the bottom 1,8 m above the surface on to which it is dropped. One cylinder shall be dropped vertically on each end at a sufficient height above the floor or pad so that the potential energy is 488 J, but in no case shall the height of the lower end be greater than 1,8 m. One cylinder shall be dropped at a 45° angle on to a dome, from a height such that the centre of gravity is at 1,8 m; however, if the lower end is closer to the ground than 0,6 m, the drop angle shall be changed to maintain a minimum height of 0,6 m and a centre of gravity of 1,8 m.

Following the drop impact, the cylinders shall then be pressure cycled between 20 bar and 260 bar at ambient temperature, initially for 3 000 cycles, then followed by an additional 12 000 cycles.

The cylinder shall not leak or rupture within the first 3 000 cycles, but may fail by leakage during the further 12 000 cycles. All cylinders which complete this test shall be destroyed.



Remote Release Mechanism

SPECIFICATIONS

1. The machine can be used to test the CNG cylinders according to ISO11439 Annex A (normative) Test methods and criteria A.20. Natural gas cycling test.
2. The machine can be used to test the CNG cylinder of size: diameter 406.4 mm and length 1,400 mm or bigger.
3. The jib crane is used to lift the test cylinder to a maximum height of 4 m. Then remote release mechanism will release the cylinder to floor by operator.
4. Three cable fixtures are provided that the cylinder can be positioned horizontally or vertically or 45 degree to horizontal before release.
5. The height and position mentioned in above specifications 3 and 4 can be adjusted automatically by remote control.
6. The test cylinder can be moved around in the circular area of 6 m diameter.
7. The steel reinforced concrete (RC) floor is designed to withstand the impact energy of 1000J.
8. The steel reinforced concrete (RC) doom is designed to withstand the impact energy of 1000J.
9. Column mount jib crane
Capacity : 250 KG.
Slewing Arm : 360 degree with limit switch
Slewing Speed : 2 RPM by 0.75 kw.
Gearmotor with inverter
Column Height : 5 M.
Hook Path : 4 M.
Arm Reach : 3 M.
Power Supply : 380 v, 3 ph, 50 hz
Control Supply : 48 v.
Control Pendant : 6 Push control with mobile control