

ISO 11439:2000-09 (E)

Gas cylinders - High pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Service conditions	5
5 Approval and certification	7
6 Requirements for type CNG-1 metal cylinders	10
7 Requirements for type CNG-2 hoop-wrapped cylinders	17
8 Requirements for type CNG-3 fully-wrapped cylinders	27
9 Requirements for type CNG-4 all-composite cylinders	37
10 Marking	46
11 Preparation for dispatch	47
Annex A (normative) Test methods and criteria	48
Annex B (normative) Ultrasonic inspection	56
Annex C (informative) Approval and certification procedures	60
Annex D (informative) NDE defect size by flawed cylinder cycling	62
Annex E (informative) Report forms	63
Annex F (informative) Environmental test	66
Annex G (informative) Verification of stress ratios using strain gauges	71
Annex H (informative) Manufacturer's instructions for handling, use and inspection of cylinders	72