

CGA V-10—2015

**HIGH PRESSURE GAS TRAILER
CONNECTIONS**

FIFTH EDITION

CGA
Compressed Gas Association

The Standard For Safety Since 1913

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Work Item 15-001
Cylinder Valve Committee

NOTE—Technical changes from the previous edition are underlined.

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1 Introduction

This publication provides standard CGA connections for high pressure gas trailers. These connections allow the higher flow rates in trailer operations that are not be provided by existing connections in CGA V-1, *Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections* [1].¹ Although most, if not all, of the fittings in common use on high pressure gas trailers are believed to be designed and manufactured to be safe for their intended use, a high potential for hazardous cross-connections and incompatible uses of the various fittings exists due to the lack of standards.

Several incidents and numerous near misses related to the partial engagement of similar but not identical fittings and the use of adapters to interconnect the various trailer fittings in use have been reported. Also, since various gas providers and users did not have a common fitting for high pressure gas trailer service, they frequently removed fittings and replaced them to be able to perform filling or to use the trailer. Typically, these fittings are attached to the trailer or equipment by a standard tapered pipe thread. Tapered pipe threads are not designed for repeated use and therefore can become worn and unsafe with a high potential to catastrophically discharge when pressurized. Unsafe practices such as changing the fittings at every use to connect trailers or using equipment having different fittings can cause serious accidents due to worn threads or incompatible gases or equipment. These potentially hazardous situations can be minimized or eliminated by the adoption and promulgation of standard CGA connections for the various high pressure gas trailer services.

2 Scope

This publication provides guidelines for standard CGA connections for various high pressure gas trailer services. It defines the main outlet connection of the trailer unit only.

3 Definitions

For the purpose of this publication, the following definitions apply.

3.1 Publication terminology

3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

3.1.2 Should

Indicates that a procedure is recommended.

3.1.3 May

Indicates that the procedure is optional.

3.1.4 Will

Is used only to indicate the future, not a degree of requirement.

3.1.5 Can

Indicates a possibility or ability.

4 Standard connections

A reasonable attempt has been made to accept fittings already in common use after successful completion of specified manufacturing drawings and qualification testing as prescribed in CGA V-1 [1].

¹ References are shown by bracketed numbers and are listed in order of appearance in the reference section.