



CD/K/051-1:2008
ICS 43.040.40

EAST AFRICAN STANDARD

Pneumatic braking system connections between drawing and drawn vehicles — Part 1: Contact type couplings

EAST AFRICAN COMMUNITY

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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Pneumatic braking system connections between drawing and drawn vehicles — Part 1: Contact type couplings

1 Scope

This part of the specification covers the dimensional requirements necessary to ensure the correct mating of contact type couplings intended for connecting the pneumatic braking systems of drawing vehicles to trailers or semi-trailers.

It covers the requirements for a self-sealing valve, and an operating adaptor to be fitted to one or the other of the members of the coupling to enable it to be used on the control line or on the supply line of a two-line pneumatic braking system.

2 Requirements

2.1 Type

A coupling shall be male or female, and with or without a self-sealing valve, as required. A female non-self-sealing coupling shall have an operating adaptor (see 2.4).

2.2 Dimensions

2.2.1 General

A coupling shall conform to the dimensions given in the relevant of Figures 1 to 5 (inclusive).

2.2.2 Thread

The hose coupling thread shall be fully formed for a length of at least 15 mm and shall conform to the dimensions and tolerances for an M22 x 1.5 thread given in ISO 965-2-6.

NOTE The thread identification grooves shown in Figures 1 to 5 serve to indicate metric threads and thus, that thread adaptors are necessary when the couplings are used in conjunction with imperial threaded lines and hoses.

2.3 Self-sealing valve

A male coupling fitted with a self-sealing valve shall be so arranged that the valve will only open when the assembly is connected to a female coupling fitted with an operating adaptor. A female coupling fitted with a self-sealing valve shall be so arranged that the valve will only open when the assembly is connected to a male coupling.

2.4 Operating adaptor

An operating adaptor fitted to a female coupling shall be of the type shown in Figure 3 and shall incorporate an integral tip. The tip shall be so arranged that it will open the self-sealing valve in a male coupling when the couplings are connected. For this purpose, the integral tip of the adaptor shall

- a) be positioned in accordance with the dimension given in Figure 3,
- b) be so shaped that it projects into the nozzle of the male coupling without fouling it,
- c) offer the minimum restriction to the flow of air, and
- d) be sufficiently robust.

3 Packing and marking

3.1 Packing

The couplings shall be so packaged that the screw threads, mating surfaces and seals are protected from damage during normal transportation and handling.

3.2 Marking

The following information shall appear in legible and indelible marking

- a) on each coupling and on each package: The manufacturer's name or trade name or trade mark;
- b) on the package only:
 - 1) the words "Contact type coupling";
 - 2) a description of the type of coupling, i.e. whether male or female, whether with or without a self-sealing valve, and whether with an operating adaptor.

4 Inspection and measurement

4.1 Inspection

Inspect the couplings in the sample for compliance with those requirements of Clause 2 and Clause 3 that are not covered by 4.2.

4.2 Measurements

Using suitable measuring equipment of accuracy at least 0.025 mm, measure all the relevant dimensions of the sample and check for compliance with 2.2

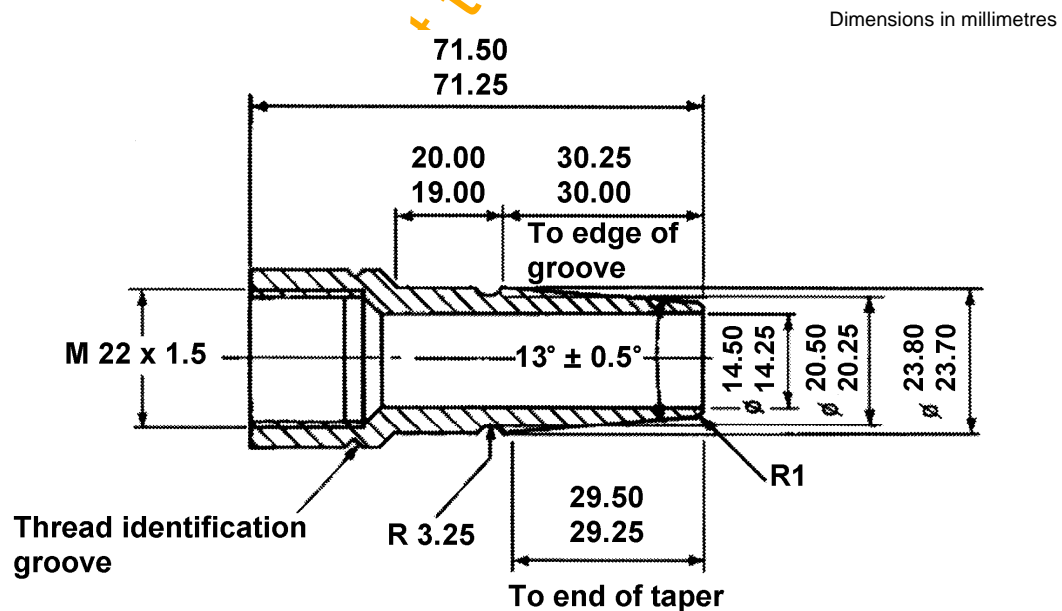
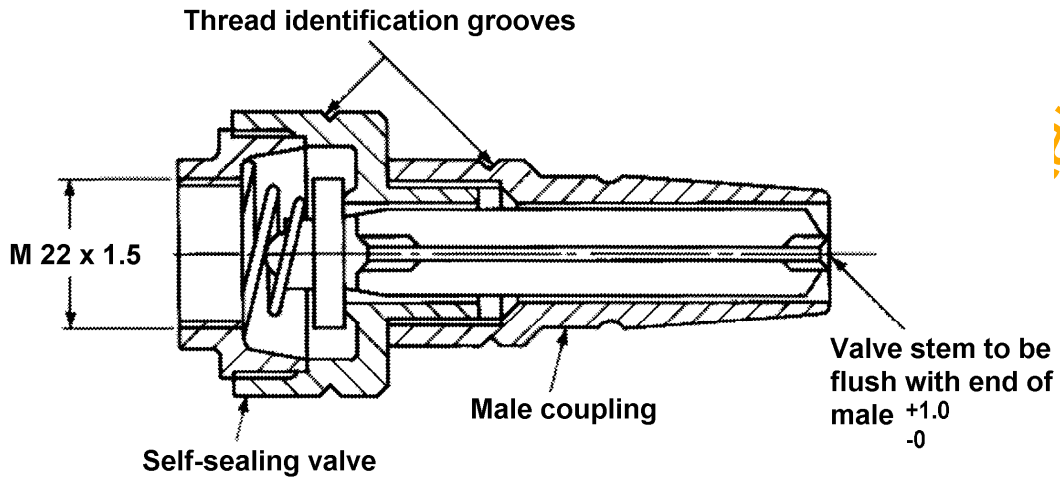


Figure 1 — Contact type male coupling



NOTE Detail dimensions for the coupling are given in Figure 1.

Figure 2 — Contact type male coupling with self-sealing valve

Dimensions in millimetres

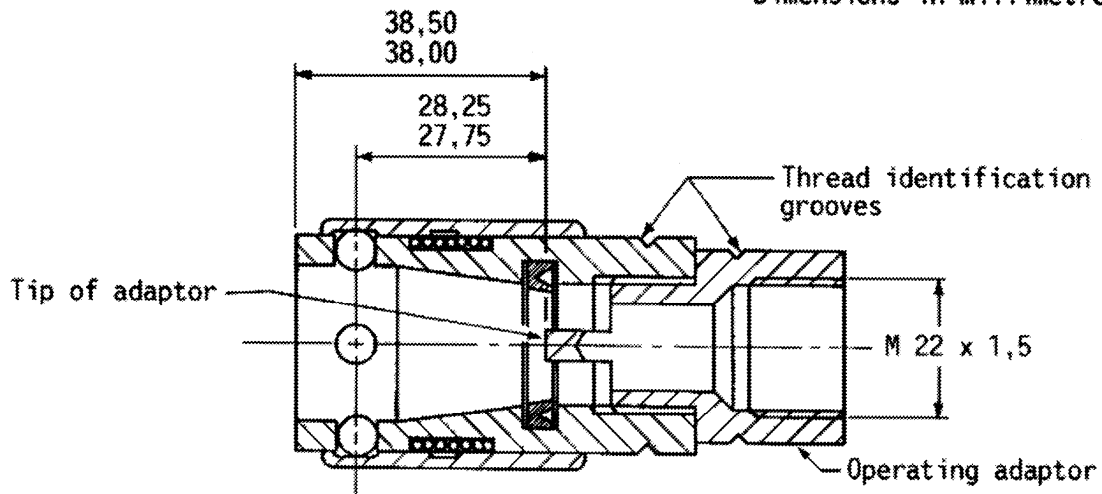


Figure 3 — Contact type female coupling with operating adaptor fitted

Dimensions in millimeters

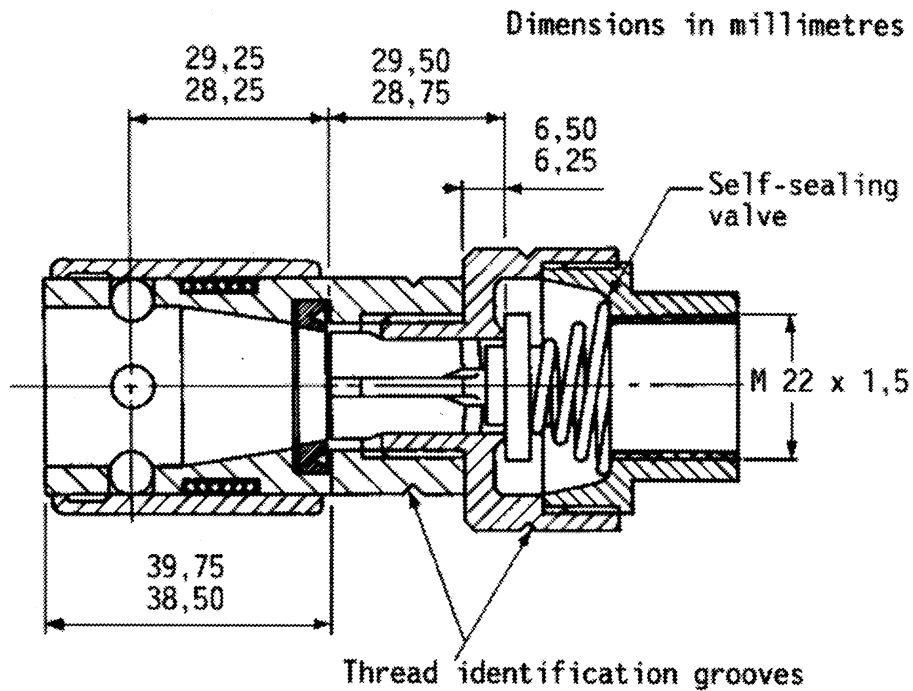


Figure 4 — Contact type female coupling with self-sealing valve fitted

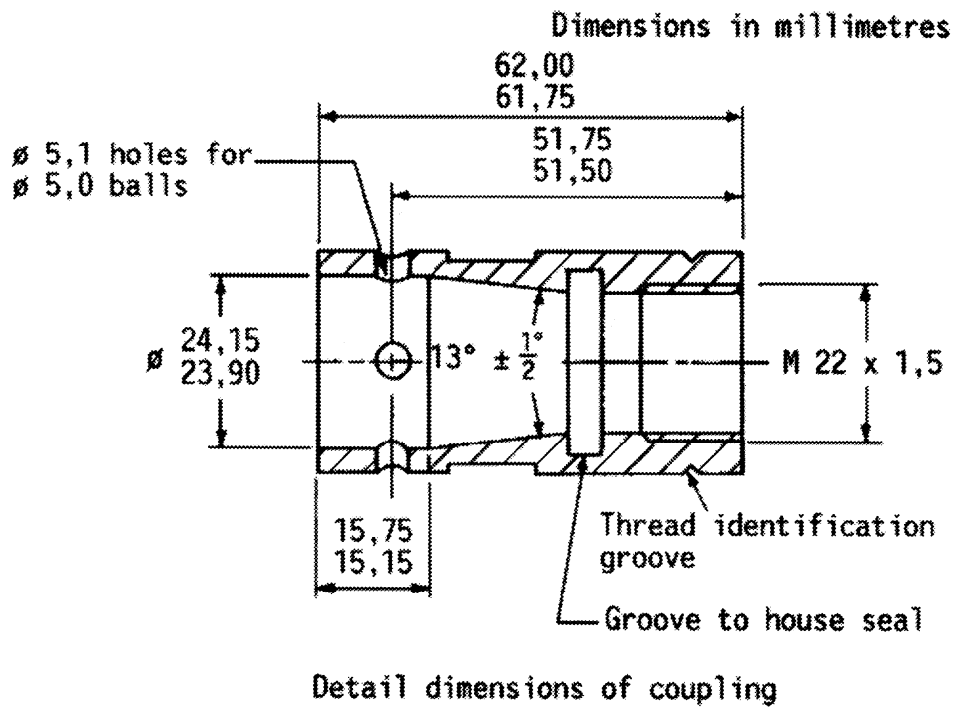


Figure 5 — Dimensions of main component of female coupling

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Appendix A
(informative)

Applicable standards

Reference is made to the latest issues of the following standards:

ISO 965-2-6, *Fasteners — Part 2: Screw threads — Section 6: ISO general purpose metric screw threads — Tolerances — Limits of sizes for general purpose external and internal screw threads — Medium quality*

ISO 9001, *Quality management systems — Requirements*

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Appendix B
(informative)

Notes to purchasers

B.1 The following requirements must be specified in tender invitations and in each order or contract:

- a) whether couplings are to be male or female (see 2.1)
- b) whether couplings are to have self-sealing valves (see 2.1)

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Appendix C
(informative)

Quality evaluation of contact type couplings

C.1 Quality verification

C.1.1 When a purchaser requires ongoing verification of the quality of contact type couplings it is suggested that, instead of concentrating solely on evaluation of the final product, he also direct his attention to the manufacturer's quality system. In this connection it should be noted that ISO 9001 covers the provision of an integrated quality system.

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