Economic and Social Council

UN Economic Commission for Europe
Inland Transport Committee

BIC presentation at the
Working Party on Customs Questions affecting Transport
130th session

Topics

- Short introduction of BIC

- Possible relation Custom Convention on Containers (1972) and ISO 1496/1

- Recent ISO Standards on container supply chain and security

About BIC

Bureau International des Containers et du Transport Intermodal" (B.I.C.) was established in 1933 by the Paris based International Chamber of Commerce (I.C.C.) with the mission to promote the development of intermodal transport.

BIC today

BIC is the worldwide player in container identification and monitoring. BIC is also involved in most of the on-going projects related to standardization and regulation for containerisation and intermodal transport.

BIC has over 1,700 members in 115 countries among container owners or operators.

Structure

- The Board

  The board consist of voluntary members appointed by the intermodal transportation industry organisations.

- General Secretariat in Paris

- National Registration Organisations

- Permanent representation at WCO

General Secretariat in Paris

- **General Secretary and staff responsible for registration, maintenance and publishing of the:**

  - *ISO 6346, four character Owner Identification Code (Container Prefix)*
  - *ISO 9897 CEDEX, communication and terminology codes*
  - *ISO 9897 CEDEX party identification and location codes*

- **Maintenance of the liaisons**

- **CONTAINERS, *the quarterly BIC magazine***

- **Organisation of industry events**

ISO 6346 - BIC Codes renewal process since 2010

Based on the new Customs Convention on Containers and security regulations BIC issues a certificate of registration with each years code renewal

BIC Main liaisons

- ISO – *International Standards Organisation*
- WCO – *World Customs Organisation*
- IMO – *International Maritime Organisation*
- COA – *Container Owners Association*
- UIC – *Union Internationale des Chemin de fer*
- IANA – *Intermodal Association of North America*
- UNECE – *WP30 and WP24*
- WSC – World Shipping Council

ISO – International Standards Organisation

- **BIC role at ISO TC104 – Technical Committee on Containers**

- **Chairmanship of TC104 subcommittee:**

- *TC 104/SC 1 – General Purpose Containers*

- *TC 104/SC 4 - Identification and Communication*

- **Chairmanship of TC104 subcommittee working groups:**

- *TC104/SC1/WG1 – General purpose containers: ratings, dimensions and design.*

- *TC104/SC4/WG3 – Communication and Terminology: ISO 9897, Container Equipment Data EXchange (CEDEX)*

ISO 1496/1 and Custom Convention on Containers (1972)

1. ISO 1496/1 – Series 1 freight containers – Specification and testing: Chapter 5.7, *Door Opening amended in 2006. Responsible party ISO TC104/SC1*

2. Customs Convention on Containers, 1972 (CCC): Chapter V - <u>EXAMPLES OF CUSTOMS SEALING DEVICES</u>. The most common seal location on containers will vary according to when the container was built. *Responsible party WCO*

1. ISO 1496/1 Chapter 5.7 Door opening

Container doors should be designed so that entry into the container via either of the doors can be detected by verifying the condition of the seal that has been affixed to the container. **All door openings shall be fitted to accept an ISO-compliant high security seal (see ISO 17712) in a manner that precludes opening or gapping of either of the doors without first removing the seal.** The design of the container shall be such that the door constrained by the seal must be opened before the other door can be opened. The mechanism in which the seal is fitted shall either be welded to a significant structural member of the container or otherwise be constructed so that the mechanism or seal cannot be removed and the door opened or gapped without first having to break the seal. Seal-affixing mechanisms that do not meet these basic requirements shall not be fitted onto the container.

ISO 1496/1 Chapter 5.7 Door opening continued

A securing plate (also known as a "Customs Plate") shall be installed on the inside, above the mid-point, of the left door in order to prevent the left door from being opened without first opening the right hand door. This plate shall be painted a contrasting colour so it is readily visible when the right hand door is open. Other design features that form an interlock" between the two doors or otherwise preclude manipulation and opening of the unsealed door without breaking the seal would be equally acceptable. **The door hinges shall either be welded to the door panel or, if affixed with fasteners, affixed with TIR-approved fasteners** that are further protected from removal by a suitable shield or equivalent design feature. Hinge pins shall be welded in place or otherwise protected to preclude their removal.

ISO 1496/1 Chapter 5.7 Door opening continued

An elongated door handle hub (sometimes referred to as a security hub) that extends at least 25 mm below the rivet hole or pivot point, shall be used on the right hand door to prevent the handle from being removed even if the rivet is removed.

ISO 17172 High Security Seals

Three major features of this standard:

- Testing of physical strenght

- Auditing of manufacturers' security related business practices

- Testing a seal's ability to indicate evidence of tampering

ISO 17172 High Security Seals

Ask for proof of compliance.

Ask the supplier for copies of compliance certificates for product testing and security related business practices (Annex A). The certificates are usually summary stamped cover pages from test and audit reports.

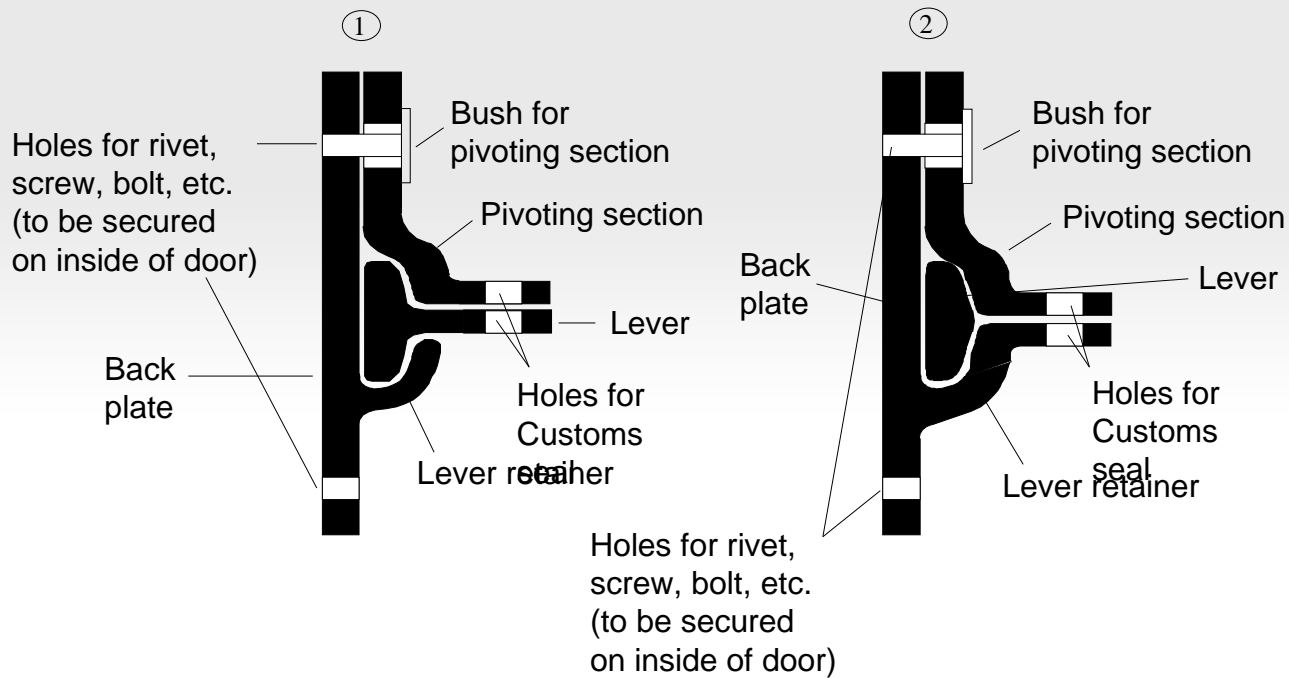## 2. **Sealing location on containers built before ISO 1496-1 / Amendment 5**

The below sketches 1-4 and the accompanying photos illustrate the affixing of a bolt seal in the seal eyes on the container door handle of a container built before ISO 1496-1/Amendment 5 from 2006 took effect.
If the container was built *before* ISO 1496-1/Amendment 5 from 2006 took effect, the typical location for affixing a bolt seal would be in the seal eyes on the container door handles. At the time of publication of this 2012 version of the Container Handbook, the majority of the global fleet of containers was built before ISO 1496-1/Amendment 5 took effect.
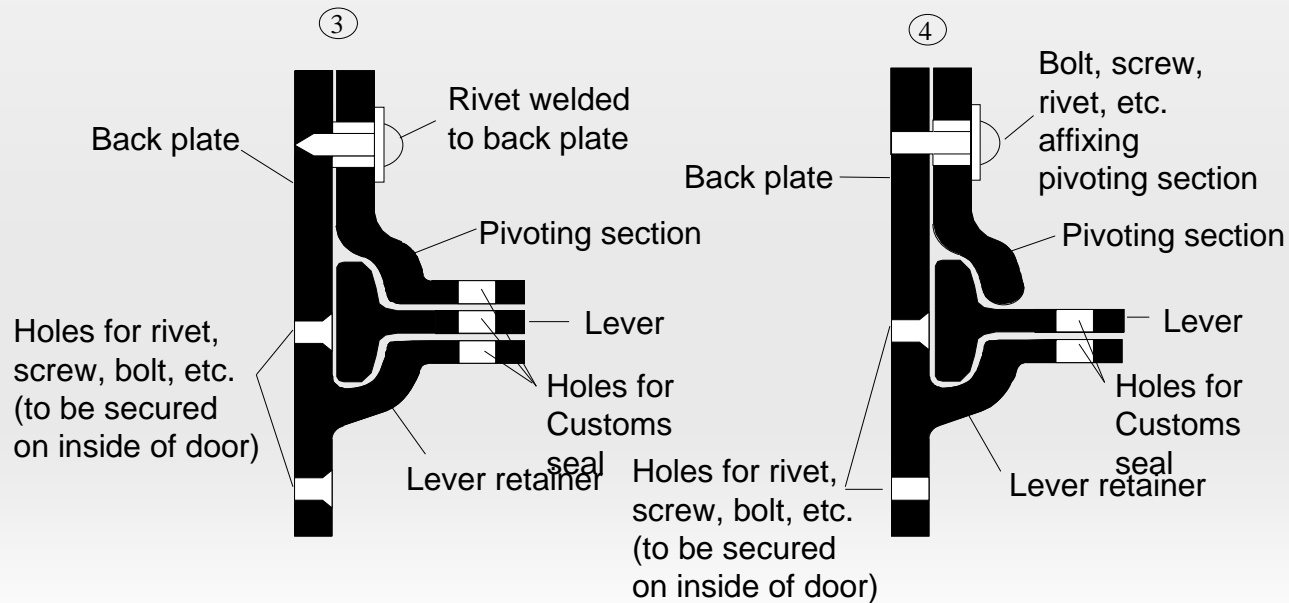
Example of a Customs sealing device

Figure 2

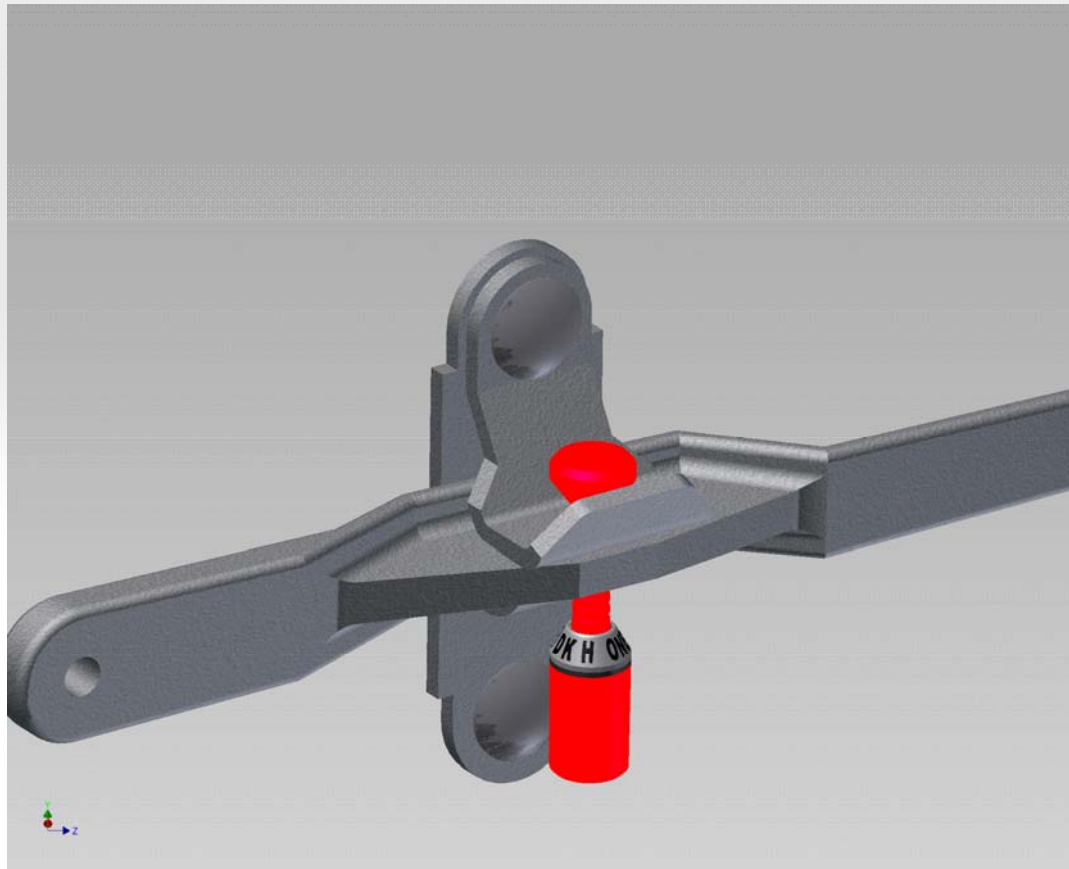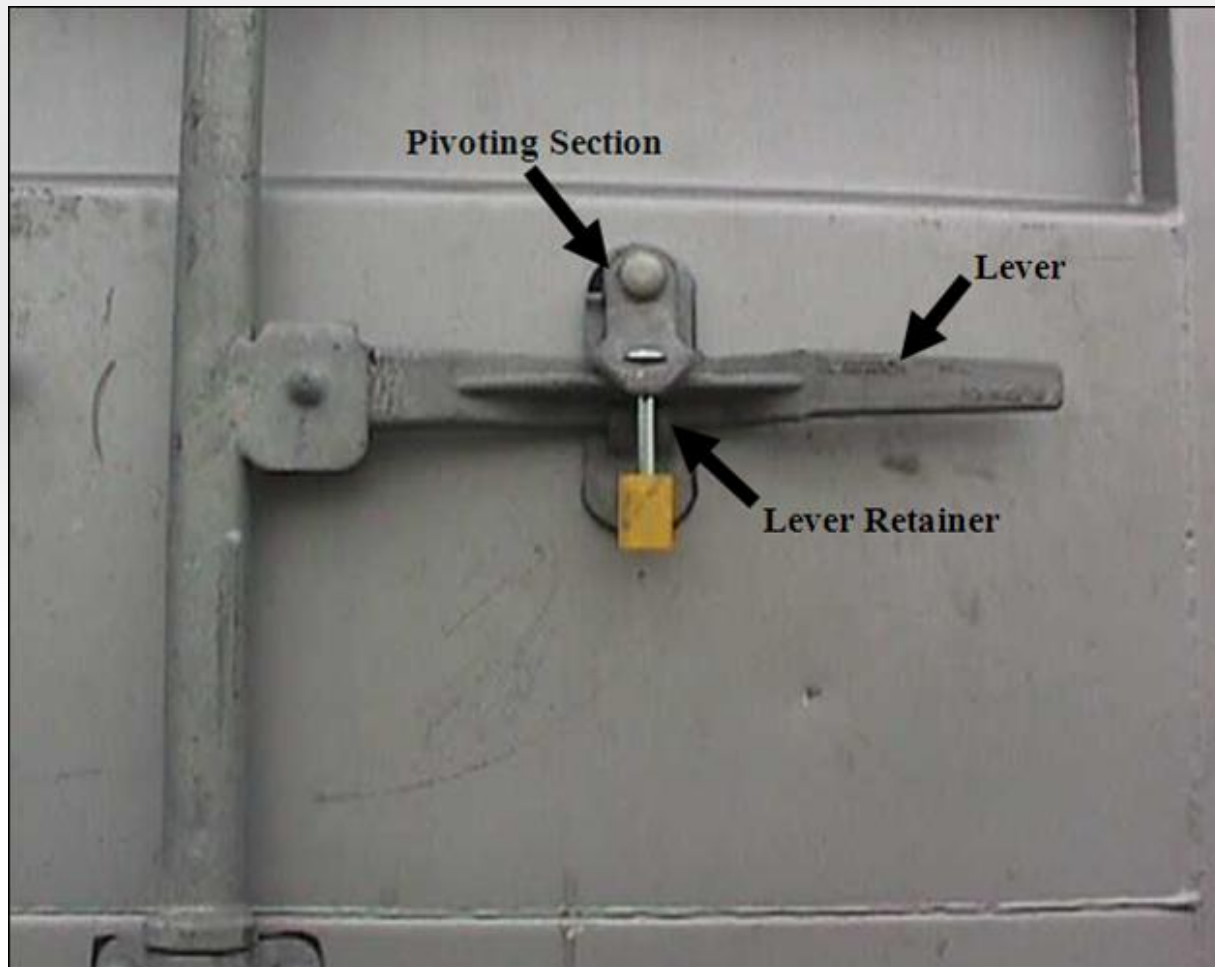# *Example of a Customs sealing device*

③

Back plate

Rivet welded
to back plate

Pivoting section

Holes for rivet,
screw, bolt, etc.
(to be secured
on inside of door)

Lever

Holes for
Customs
seal

Lever retainer

④

Bolt, screw,
rivet, etc.
affixing
pivoting section

Back plate

Pivoting section

Lever

Holes for
Customs
seal

Holes for rivet,
screw, bolt, etc.
(to be secured
on inside of door)

Lever retainer

Handle mounted high security seal

Photo in Chapter V of the CCC

Containers built after ISO 1496-1 / Amendment 5

Not all containers built *after* ISO 1496-1/Amendment 5 took effect may have seal eyes in the door handles for affixing a bolt seal. However, containers built after the ISO 1496-1 Amendment became effective will typically, and irrespective of whether they have seal eyes in their door handles, have an alternative sealing device for bolt seals that is commonly referred to as the "SecuraCam". Such containers can also accommodate usage of cable (or wire) seals as an alternative to, or in combination with, bolt seals.

These differences between sealing devices and locations according to when a container was built are described in detail in the draft CCC and illustrated by the photos below.
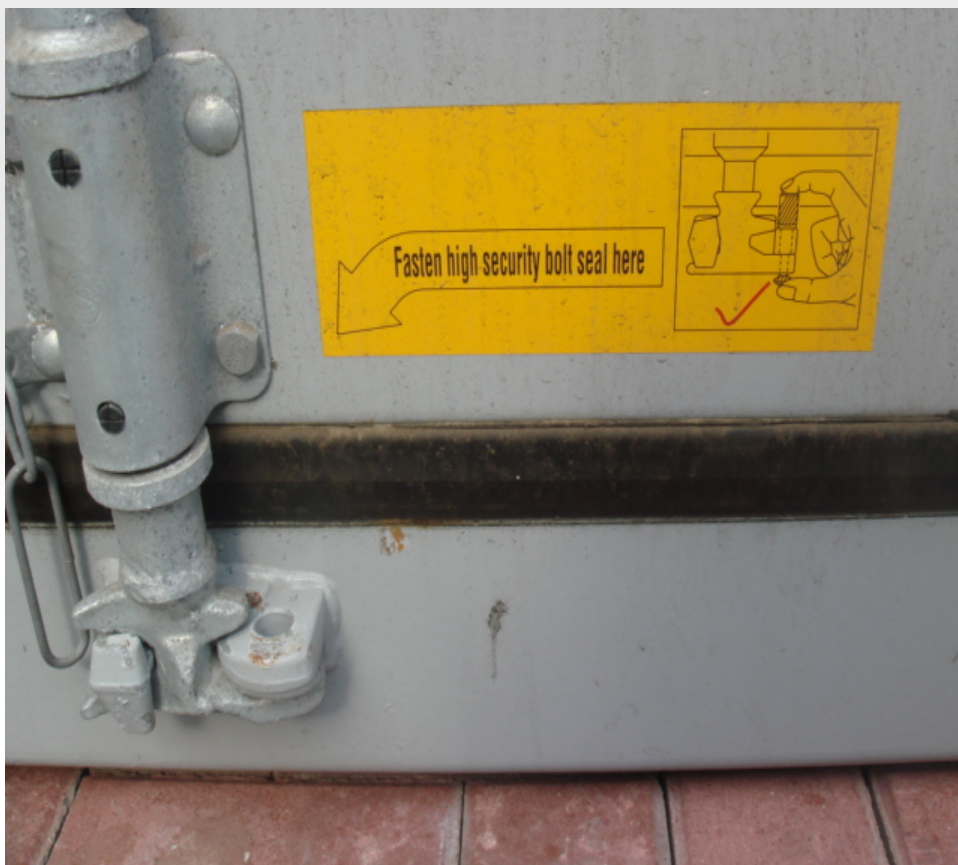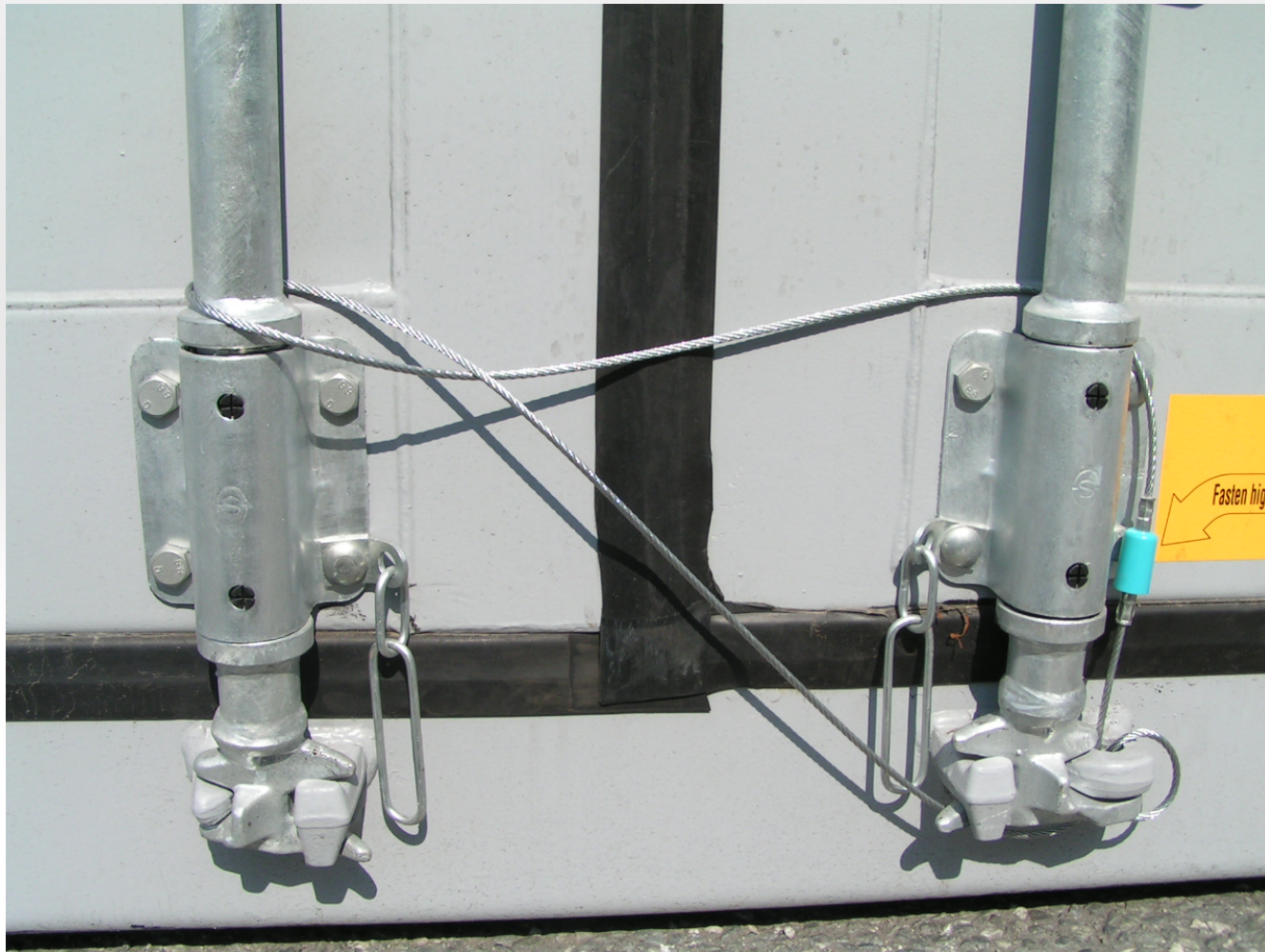
SecuraCam proposed scketch
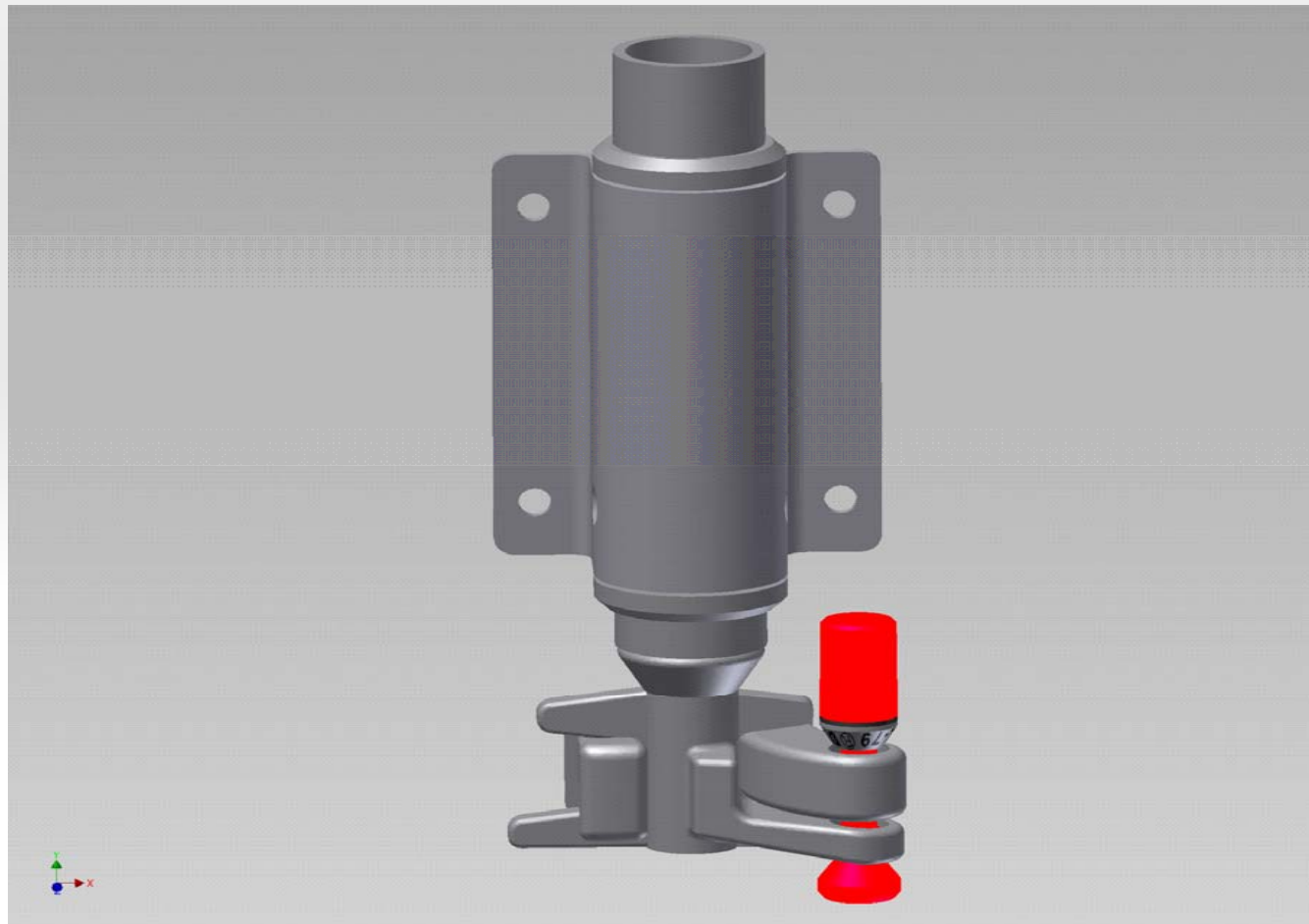
SecuraCam proposed photo

Correct mounting of high security seal in SecuraCam
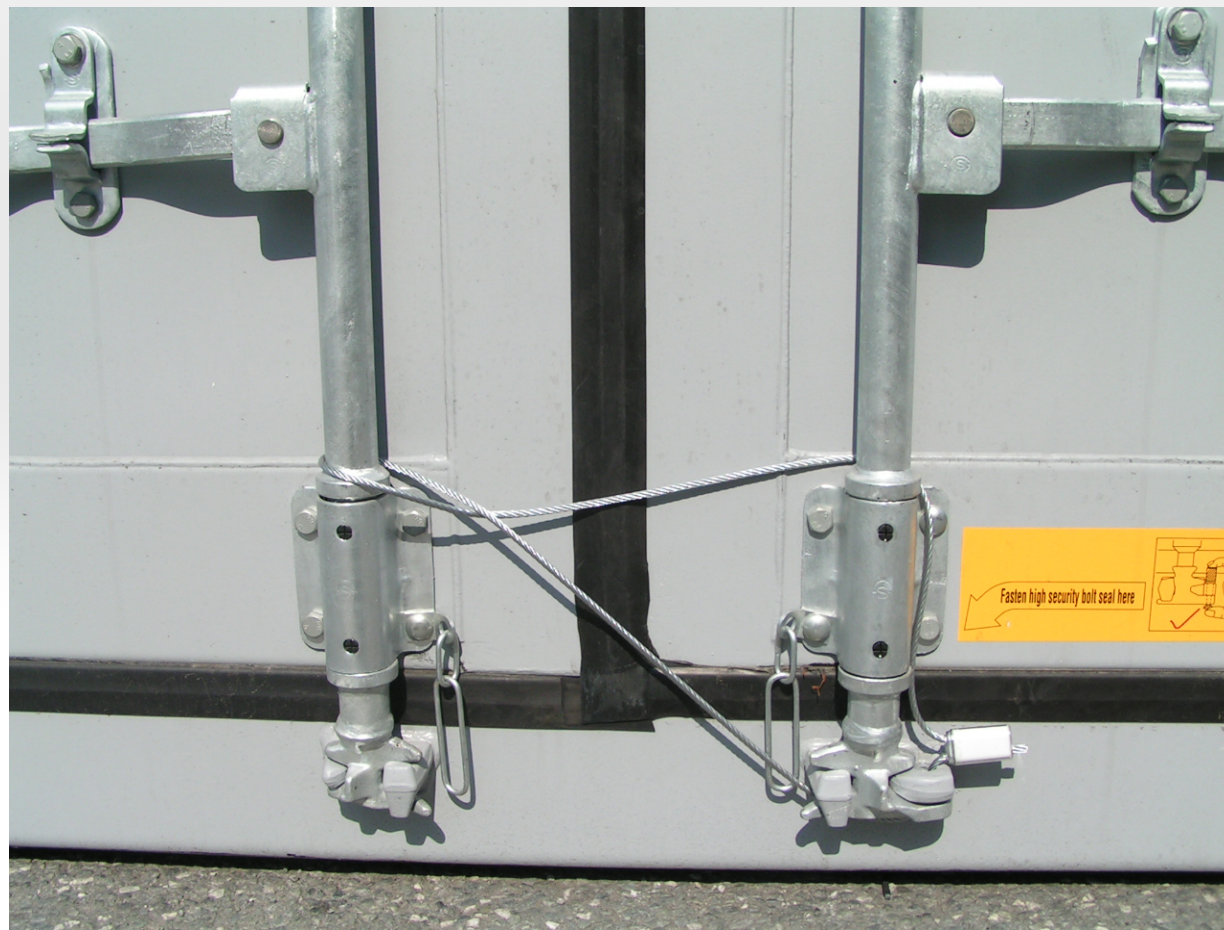

Fasten high security bolt seal here

Proposed photo showing use of wire seal

Proposed photo showing use of wire seal

Proposed photo showing use of wire seal

TC104/SC4 – Identification and communication

- **Container RFID Standards :**

- ISO 18185, *Electronic Seals*

- ISO 18186, RFID Cargo Shipment Tag System

- ISO 17363, *Container RFID tag, supply chain "shippers tag"*

- ISO 10891, *Container RFID tag, "licence plate tag"*

DIS 18186 RFID Cargo Shipment Tag System

- The overall purpose of this standard is to **improve freight container logistic, transparency and efficiency** by using an RFID cargo shipment tag and an associated, internet-based information management system.

DIS 18186 RFID Cargo Shipment Tag System

The standard describes the **composition, application requirements and operational procedures** of an RFID cargo shipment tag and its relevant system used for improving transparency of the container transportation process. It identifies **data content and format** as well as **operational characteristics** of an RFID cargo shipment tag. It also provides a solution for **electronic transfer** of relevant information between an RFID cargo shipment tag and its associated information System platform.

Original seal

E-tag

Examples of smuggling cases

Stowaway Incidents Examples

Other potential threats

In 2011, in application of EU regulation (CE) N° 648/2005 and 1875/2006, BIC has implemented an interface between BIC database of registered prefixes and the risk assessment systems of French Customs.

The testing period proved successful and BIC is ready to implement this interface to any Customs administration interested by this service.

Data are provided under an easy to deal with format and totally free of any charges.

Contact Bertrand GEOFFRAY, bge@bic-code.org, +33 1 47 66 03 90 to know more and start the service.

THANK YOU!

www.bic-code.org