Transported Asset Protection Association

TAPA TSR
Locking Systems Guidance

A TAPA Trucking Security Requirements Guidance Document for users of TAPA Standards

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CONTENTS

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1. Introduction

TAPA has produced this Locking Systems Guidance (LSG) to provide helpful and supporting information on locking systems for users the TAPA Trucking Security Requirements (TSR) Standard.

The idea for producing a TAPA guide on locking systems came from supply chain security professionals who are also members of TAPA. This guide covers many of the locking system options that are intended for road transport vehicles used in the supply chain industry.

TAPA has included images and information on products in the LSG. These products are available commercially and are considered examples of products that help protect vehicles and their cargoes, other products are available. TAPA does not endorse any of the products included in this document. TAPA cannot specify which product is appropriate for a TAPA TSR security level.

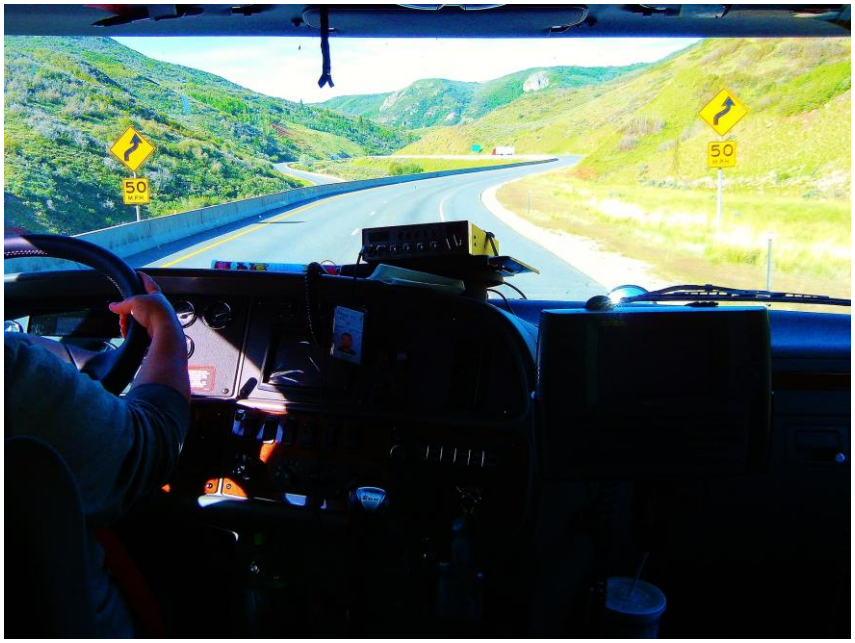
The purpose of this document is to:

- Provide additional detailed information on locking system solutions not covered in the TSR.
- Provide users with locking system categories that will help in selection and identification of suitable products.
- Provide suppliers examples of locking systems and their intended use

This document will be reviewed and updated as necessary, providing TSR users with up to date information on locking systems. The latest version will be available to download from the standards section of the TAPA website.

2. About TAPA

Cargo crime is one of the biggest supply chain challenges for manufacturers of valuable, high risk products and their logistics service suppliers.
The threat is no longer only from opportunist criminals. Today, organized crime rings are operating globally and using increasingly sophisticated attacks on vehicles, premises, and personnel to achieve their aims.



TAPA is a unique forum that unites global manufacturers, logistics suppliers, freight carriers, law enforcement agencies, and other stakeholders with the common aim of reducing losses from international supply chains. TAPA's primary focus is theft prevention through the use of real-time intelligence and the latest preventative measures.

TAPA's Mission

TAPA's mission is to help protect members' assets by minimizing cargo losses from the supply chain. TAPA achieves this through the development and application of global security standards, recognized industry practices, technology, education, benchmarking, regulatory collaboration, and the proactive identification of crime trends and supply chain security threats.

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3. TSR Overview

Locking systems are an important layer for protecting road transport vehicles and their cargo. However, it should be clear that they are just one of many countermeasures to be considered when selecting the deterrents and physical security measures to protect drivers, vehicles, and their cargo. Therefore, TAPA recommends to its members and the industry to adopt TAPA TSR as the standard for goods to be transported by road. Achieving TAPA TSR certification means that the operators road transport operations have been approved by an accredited certification body (TSR 1-3) or by TAPA (TSR 3).

The TSR requires a layered approach to protecting vehicles and includes:

- Scalable security levels to assist the operator in the selection risk mitigation countermeasures.
  - TSR Level 3 provides basic countermeasures and procedures that help to provide deterrents and protection for vehicles from criminal interest.
  - TSR Levels 1 and 2 provide more robust countermeasures and procedures and are more suited to protect high value and/or vulnerable loads.
  - Where the vehicle is deemed to be at high risk the then TSR can also be used for additional enhancements to cover electronic monitoring, security escorts, additional locking controls and IT/Cyber threat measures

TAPA TSR – Locking systems and the TSR standard.
TAPA is not a testing and compliance organisation and therefore cannot certify, confirm, or reject any security products that are used to help operators meet the requirements of TAPA security standards. Despite claims by some providers of locking systems, no locking systems have been certified by TAPA to meet TAPA standards. This does not mean that suitable locking systems are not available, it just means TAPA cannot certify or endorse them. Identifying locks that meet or exceed TAPA TSR requirements can sometimes be a challenge for auditors and the end users. TAPA TSR describes the features and capabilities that a locking system is required to meet as part of the certification audit. This is what is currently required in the TSR for locking systems:

Level 1 = High-quality, stainless, or hardened steel, heavy weight high security locking device permanently installed on all cargo compartments doors. No chains, cables, light- weight bars, removable bolts/brackets etc. to be used.

Locking devices must be utilized and locked during the entire journey.

Level 2 = High-quality, stainless or hardened steel, heavy weight high security locking device permanently installed on all cargo compartment doors OR use of temporary devices such as chains, cables, light-weight bars, removable bolts/brackets etc. to be used. Locking devices must be utilized and locked during the entire
journey.

Level 1 & 2 = Locks must be:

- Electronically, automatically or manually operated
- Unique (duplicated codes/keys/passwords to open different locks not permitted)
- Locks and fixing devices must be able to withstand substantial force and be tamper evident.

Level 3 = Doors secured in line with LSP's/ Applicant's own internal policy.

There are also requirements for seals, which can be used to complement the locking system:

As with locking systems no seals have been certified by TAPA to meet TAPA requirements. TAPA TSR levels 1, 2 & 3 require that tamper evident seals be used on all direct, non-stop shipments. Seals shall be certified to ISO 17712 (I, S or H classification). The LSP/Applicant shall have a documented procedure in place to ensure the seals are controlled and who (user, warehouse operator or LSP etc.) is responsible for applying and removing the seals.

In addition, the TSR has optional locking enhancements that can be added to the certification:

- Internal or protected door hinges on cargo compartment doors.
- Cargo compartment doors cannot be opened independently, first door must hold the second door in place.
- Cargo compartment fitted with internal rear door lock-down system, operated remotely.

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4. Vehicle Threats and Risk Assessment

Transporting cargo by road is efficient but threats and risks must be managed.

The value and attractiveness of cargo transported by road has been referenced in many supply chain studies. It is generally accepted that up to 80% of all supply chain losses occur during the road transport segments. The value and accessibility of goods that can easily be turned into cash attracts both opportunist and serious organised criminals. Modern road cargo transportation methods must be timely and cost efficient to meet the demands of the manufacturers, the logistic service suppliers, and consumers. However, appropriate security countermeasures should be considered when designing and managing road transportation systems. Protecting the driver, the vehicle and the cargo being carried should be the designed into the transportation methodology being used (e.g TAPA Standards). It is through good design and planning that deterrents can be introduced that help prevent or minimise impacts of cargo loss.

The external threat

Just as security professionals complete risk assessments to protect road transport vehicles and their cargo. Criminals are also carrying out their risk assessment. Is the risk of being caught worth the potential reward? When it comes to attacking vehicles, criminals do not like to make noise, take too long to access their target cargo, or be interrupted. In most incidents organized criminals will have the knowledge to

- Attack the vehicle when it is in vulnerable location
- Access the cargo compartment by defeating or avoiding the physical measures in place.
- Have a plan for neutralizing or ignoring any electronic sensors they know will be in place.
- Calculate how much time they need to complete their operation and make their escape with their targeted cargo.

The opportunist threat

The lack of secure parking locations or the transport providers reluctance to use them, often result in vehicles parking in inappropriate unsecured locations. These unsecured locations are often targeted by opportunist criminals. Incidents can occur regardless of the driver taking a rest in their vehicle cab or being or absent from the vehicle. The vehicles onboard security is often the only protection and the locking system provides the first line of defence against the criminal.

The internal threat

Often the easiest way for a criminal to gain access to the cargo is with the assistance of a person from within the Logistics Service Suppliers own organization. It is an unfortunate fact that employee's collaboration with criminals is still a common risk. Procedures to control shipping information, keys, pin codes and unsupervised access to the cargo are also important factors to consider in protecting the cargo from internal threat.

The impact

The consequences of not considering the threat from criminal enterprise unfortunately go far beyond the value of a stolen cargo. Injuries to drivers, significant supply chain disruption and loss of revenues are all potential impacts that can result from a successful criminal incident.

Data, data, data …….

The availability of good data is crucial to the risk assessment and preplanning for protecting cargo transported by road. The location and details of historic criminal activity are key considerations when designing suitable countermeasures for a transport vehicle. Therefore, identification of criminal hotspots, use of safe routes, best available parking locations and pre-approved rest stops should all be part of the risk assessment process.

Suitable and sufficient management systems

Management commitment to support security policy and procedures in place that enforce the selection of the mitigation options should be in place as standard practice.

Locking systems - Designing out the risks.

Vehicle locking systems should be designed to assist in supporting the basic security principles of deter, detect, delay, respond and when used in conjunction with additional security measures such as electronic sensors and alarms can provide a high level of confidence in the security design. Unsuitable locking systems such as plastic seals or low-grade padlocks/chains etc. will invite the attention of criminals. Even minor upgrades in locking systems could improve protection of the cargo. Examples to consider are:

- Protecting the cargo compartment door and lock v the lock mechanism
- Permanently installed heavy duty lock v enclosed padlock
- Enclosed padlock v a bolt seal,
- Bolt seals v a plastic seal
- Padlock v a no lock policy.

Risk assessment

Most security practitioners will advise use of a risk assessment process to help select the countermeasures that can help mitigate the threat of theft to an acceptable level. The selection of a suitable locking system should be aided by the risk assessment process.

- What features/protection the locking system must provide
- The consequences of the locking system being defeated.
- Does the locking system compliment the measures that support the protection of the driver, the vehicle, and the cargo? These can include a combination of pre-defined emergency/operational procedures, physical locking systems, alarm sensors, tracking/signalling technology
- Supporting procedures that allow for event management and emergency response.

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5. Locking Systems

It is reasonable to expect that a good locking system will ensure the door to the cargo compartment remains locked and closed until opened by authorised means. When we refer to a locking system in this document, we are not just focused on a single type of lock, cable, chain, bar, bolt etc. We are focused on all the component parts that create the locking system. This may also include elements of the cargo compartment, the cargo compartment door and any other associated devices that hold the door closed.

Fit for purpose

The enemy of the road transport criminal is time and noise. By installing high quality locking systems, you are deterring some criminals from even trying to make an attempt.

To be considered:

- The locking system could be installed in or on suitable doors and/or frames of the vehicle, so that the cargo compartment door and frame are incorporated into the locking system providing additional protection to the vehicle.
- High security locks should not be able to be detached from the vehicle by cutting or forcing the adjacent fixings. Examples of a robust installation include use of concealed bolts and/or the lock being welded to steel plates or similar, attached to the vehicle.
- Fit for purpose can also mean the combination of requirements changes depending on the vehicle, its load and routes being used. High grade steel locks affixed to external door bars may be judged as sufficient if the vehicle does not stop before reaching its destination. However, if the vehicle must stop one or more times on route, this may create an opportunity for a criminal attack. Trailer external door bars, the door bar fixings or the door hinges can easily be cut rendering the lock ineffective. In this example, the use of just a high-grade lock may not be sufficient to deter an attack. The locking system could be upgraded with additional features such as sensors connected to the telematics system and/or a different locking solution incorporated into the design of the door and frame could be considered.

Quality and conformance tests

There are a wide range of suitable locking systems available for road transport vehicles and vans from a large number of suppliers. Unless you are a lock system expert or have access to one, the message is “user beware”. Use reputable suppliers and/or expert consultants to source your locking needs. Unfortunately, there are many questionable locking solutions that at first glance may appear to

be adequate, but in fact may do little to deter or delay criminals in their desire to access the vehicle cargo compartment. Users with a limited knowledge of locking systems may often look for products that come with a conformance test certificate. Official test certificates for lock products are a good indication of quality and can help you to source products (see 7.2) . Tested products will indeed offer some assurance that the locking systems they are considering meet or exceed their expectations. You should know however, that the conformance test process can fall short in proving the complete locking system is fit for its intended purpose. This can happen when only part of that product has been tested and not the complete design. Testing is often restricted to traditional padlocks and key cylinders. These are single components that are incorporated into the overall locking system. It could be the associated lock fixings are untested or unsuitable for their intended purpose.

Locking System Categories

In this document in we have categorized locking systems into five areas. The features included in this document are not TAPA requirements but are good indications of what to look for when selecting suitable products. In addition to traditional locking systems, we also provide examples of specialist or customized locking systems that can immobilize the vehicle or use other innovative means to secure the cargo compartment.

Locking systems have been categorized as follows and include features that should be considered when selecting suitable products.

Table 1: Locking system categories (CKOS)

1. Conventional Key Operated Systems
a. Cylinders
i. Preferably certificated to: EN/BS/DIN/CEN12320 Grade 5, or ASTM 883-5 Type P01 or Alternative. **ii.** Captive Key when unlocked. **iii.** Minimum of Key Differs: 30.000. **iv.** Corrosion resistant to ISO 9227. **v.** Locking Cycles Grade 5: 75.000. **vi.** Shackle to be hardened to Ca. 3.500kg/ 7.700 LBS cutting force. vii. Testing Institutes accredited to DIN/EN/ISO/IEC 17065. viii. Devices, Bracket or HASP are housings for Cylinders / Padlocks or Electronically Powered Locking Pins.
b. Housings
i. Device, Bracket or HASP are housings for Cylinders / Padlocks or Electronically Powered Locking Pins. ii. Devices material to be: Stainless steel, Surface Hardened Steel, Casted Steel. iii. Devices to be robust, either milled, welded or casted with minimum 7 mm between outer gladding and the mechanical cylinder part (Barrel).

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iv. Heavy weight Devices (minimum 6kg) consist of 2 elements:
    1. Device, Bracket, HASP
    2. Locking Cylinder or Locking Cylinder inside a Padlock

c. Application/Product Types

i. Cargo compartment doors
    a. Swing Doors: Both doors locked. The right door is permanently locked, the left door externally or internally held behind the right door.
        i. Door bar lock (removable)
        ii. Permanently fixed door-to-door lock
        iii. Permanently fixed lock door-to-frame lock
        iv. Hinge protection by adding fixed pins near the hinges, inside the cargo compartment. Locked during the entire journey.
    b. Rollup/Shutter Doors: Cannot be forced, even with help of a forklift. Locked during the entire journey.
        i. Permanently fixed locking system
        ii. Removable locking system
        iii. Sliding door: Permanently fixed locking system
    c. key management in place

Table 2: Locking system categories (KOS)

2. Keyless Operated Systems

a. Application/Product Types

i. Cargo compartment doors
    a. Swing Doors: Both doors locked. The right door is permanently locked, the left door externally or internally held behind the right door.
        i. Permanently fixed door-to-door lock
        ii. Permanently fixed lock door-to-frame lock
        iii. Hinge protection by adding fixed pins near the hinges, inside the cargo compartment. Locked during the entire journey.
        iv. Remotely operated electronic locking system (by third party)
        v. Driver operated electronic locking system (verification procedures in place)
    b. Rollup/Shutter Doors: Cannot be forced, even with help of a forklift. Locked during the entire journey.
        i. Permanently fixed. Remotely operated electronic locking system (by third party)
        ii. Permanently fixed. Driver operated electronic locking system (verification procedures in place)

Table 3: Locking system categories (Seals)

3. Seals

a. ISO 17712 - Uniform procedures for the classification, acceptance, and

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withdrawal of mechanical freight container seals.
i. 17712 I = Indicative – not recommended for security application ii. 17712 S = Security – not recommended for security application iii. 17712 H = High Security – CTPAT minimum
a. E Seals
i. Permanently fixed. Integrated electronic seal and locking device. Variants include remote controlled release or keys pads. See also Table 2. ii. Removable. Used in place of a conventional ISO 17712 seal. Variants include remote controlled release or keys pads
c. **Application/Product Types.** Seals are not a suitable as a locking device on their own, their main purpose is as an indication of tampering.
i. Cargo compartment doors a) Swing Doors: Both doors locked. The right door is permanently locked, the left door externally or internally held behind the right door. i. Bolt seals class H. ii. One-way bracket seals class H. Steel door bar, bracket and locking cable. iii. Cable seals class H. b) Rollup/Shutter Doors: i. Cable seals class H.

Table 4: Locking system categories - Customized Locking Systems

4. Customized Locking Systems
a. Application/Product Types
i. Cargo compartment doors a) Swing Doors: Both doors locked. The right door is permanently locked, the left door externally or internally held behind the right door. i. Permanently fixed. Locking systems integrated with telematics systems. ii. Permanently fixed. Multi-point door locking system. iii. Hinge protection by adding fixed pins near the hinges, inside the cargo compartment. Locked during the entire journey. b) Rollup/Shutter Doors: Cannot be forced, even with help of a forklift. Locked during the entire journey. i. Permanently fixed. Locking systems integrated with telematics systems. c) Sliding door: Permanently fixed locking system i. Permanently fixed. Locking systems integrated with telematics systems. ii. Permanently fixed. Multi-point door locking system.

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Table 5: Locking system categories - Immobilizing Systems

4. Immobilizing and Monitoring Systems
a. Application/Product Types
i. Vehicle a) Air-brake locks. key operated. b) Engine shut off device. Vehicle stationary activation
ii. Trailer a) King pin lock. Key operated b) Draw bar locks. Key operated c) Swap-body/landing gear locks. Key operated

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6. Frequently Asked Questions

When you compare the road transport vehicles and methods of securing them in the Americas v EMEA or APAC you will often see different vehicle types and locking systems solutions available in one region but not in the others. This is further compounded by a lack of global locking system conformance standards that can be applied to the whole locking system and not just the component parts.

The situation is clearer on seals as ISO 17712 provides a classification system that is widely followed and required by CTPAT and TAPA requirements. It is still the case that many seals used today are of the wrong type for the cargo that is being transported or are being used as a locking device which is not their primary purpose.

This section seeks to provide comment on some of the questions we receive on locking systems and seals.

6.1. How can I ensure a locking system suppliers products are suitable for my needs?

Response: Ask your supplier for certification and testing evidence for the products you are considering. It is the lock manufacturer who invests time and effort in obtaining test certificates to validate and promote their products. Once tested by an accredited testing institution (ISO/IEC 17065), the lock should display the test number that was issued with the certificate.

Many specialist locking systems cannot be tested by conventional means because they incorporate several components that cannot be tested as part of a complex lock design. These locks may still have test certificates for the cylinder and padlock components, but the casing, hasps, bolts, and other fixing components may not have been strength or tamper tested. Reputable suppliers of specialist locking systems (with or without partial component test certificates) will have additional material, including customer endorsements available to support the quality of their products.

Sourcing lower cost, unbranded or an unknown manufacturers product can lead to unsuitable or unreliable products being purchased.

6.2. **Do global conformance tests for road transport vehicles locking systems exist?**

Response: Internationally recognized tests for road cargo transport vehicles locking systems do not exist. Assessment and test criteria for locking components that may be used in road transport vehicles locking systems are available. These standards are used by accredited testing institutions (ISO/IEC 17065) and will produce test certificates for padlocks and cylinders that meet the appropriate assessment and test criteria.

These include (there are others test standards with similar/same requirements) CEN 1303 - to establish assessment and test criteria for the measuring of a key cylinder's resistance to physical attack, key security, fire resistance and durability. Following the test, the cylinder will be graded. The security grading test will be for resistance to drilling, resistance to chisel attack (no of blows), resistance to extraction (pulling) and the torque resistance.

CEN 12320 –An assessment and test criteria for the measuring of padlocks and their fittings resistance to physical attack typically used by criminals. The locks are graded up to level 6. The higher the grade the stronger the lock. The padlock will be used in conjunction with a hasp, staple, door bolt, outer casing, or other fitting. These fittings are not normally tested and can become the weak point in the locking system.

6.3. **Apart from test certificates and a supplier's customer endorsements are there other features that can help in the selection of a good locking system for a road transport vehicle?**

Response:

- The locking system should visually deter interest in the vehicle (heavy, hard to defeat, seek a softer target)
- Locking system design features will require significant time to defeat with hand tools or portable power tools
- Will create noise whilst being attacked
- When selecting a suitable locking system, in addition to the locking device it is equally important to pay attention to the quality of the hasp/bracket/housing that the lock will be attached to.

6.4. **What does it mean when I see a suppliers locking system product**

advertised as CTPAT or TAPA compliant?

Response: TAPA does not certify or endorse any lock suppliers' products. If a lock supplier state that their products are TAPA compliant, this is their assessment that their products are suitable for use to meet TAPA requirements and not an endorsement by TAPA.

6.5.**How can I ensure High Security Seal products are suitable for my needs?**

Response: To ensure a High Security Seal meets the necessary requirements. It must be certified as ISO 17712 and marked with an "H". To validate the seal is genuine you should ask your supplier to provide evidence and ISO certificates that includes the following:

- The manufacturer of the seal is certified to ISO 9001
- An accredited testing institution (ISO/IEC 17065) has tested the seal by performing tests against the ISO 17712 scope and have produced a certificate of conformance for the seal.
    - The mechanical strength of the seal and its resistance to tampering must meet or exceed the requirements of Clauses 5 and 6 of High-Security Seal category.

7. Useful links

7.1. TAPA Members - Security Service Providers (locking systems)

- www.babaco.com
- www.blockshaftgroup.it/en/
- www.locks4vans.co.uk
- www.maplefleetservices.co.uk
- http://www.protect-vehicle.eu/pl/
- www.sealock.com
- https://tydenbrooks.com/
- www.wabco-auto.com/emea/home

7.2. Information on Standards

- **ISO 17712** www.iso.org/standard/62464.html
- **CEN 1303 Cylinders** www.locksonline.co.uk/community/what-is-bs-en-1303-cylinder-locks-explained.html
- **CEN 12320 Padlocks** www.locksonline.co.uk/community/bs-en-12320-the-new-updated-standard-for-padlocks.html

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8. Appendix A: Locking Systems Examples

8.1. Conventional Key Operated Systems

Ref CKOS	Product	Description
CKOS - 01	Truck Lock II	Automatic lock in which the catch plate can be welded or bolted to the truck body which makes it compatible with various body types such as steel or aluminium. Locks when door is closed
	Babaco Alarm Systems Inc http://www.babaco.com 	
CKOS - 02	Truck Lock III	This is a replacement for the easily defeated factory installed J-Hook. Truck-Lok III® is made from stainless steel body and constructed with a high security cylinder. The unit locks when door is closed.
	Babaco Alarm Systems Inc http://www.babaco.com 	

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CKOS - 03	**Truck Lock V**	**This solution for trucks with swing outdoors, this lock locks every time the door is closed, and the handle is put in the secure position.**
	Babaco Alarm Systems Inc http://www.babaco.com 	
CKOS - 04	Seal Lock	This is a unique device that combines a high security padlock with a patented design enclosure. The SEAL LOK® when placed on a door and locked provides protection against tampering and the door hardware being cut.
	Babaco Alarm Systems Inc http://www.babaco.com 	
CKOS - 05	BDL - Barn Door Lock	**Externally mounted for swing doors. Manual locking and unlocking.**
	Maple https://www.maplefleetservices.co.uk/ 	

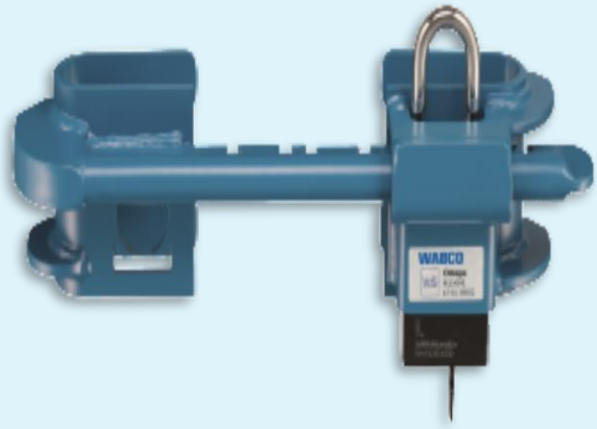
CKOS-06	**Turtle - Barn Door Lock**	**Robust, heavy-duty, external mounted on swing doors. Manual locking and unlocking.**
	Maple https://www.maplefleetservices.co.uk/ 	
CKOS-07	**Cobra Container Lock**	**Flexible, heavy-duty container door bar lock**
	Maple https://www.maplefleetservices.co.uk/ 	
CKOS-08	**FreightLock**	**Internally mounted, heavy duty, multi point locking application pneumatic operated. Locks when door is closed.**
	Maple https://www.maplefleetservices.co.uk/ 	

CKOS-09	BondLock	**Powerful and versatile locking mechanism installed on the inside of the cargo area, suitable for all vehicle and door types.**
	Maple https://www.maplefleetservices.co.uk/ 	
CKOS – 10	**GATELOCK VAN - SMALL series**	**External locking solution for commercial vehicles; Free-drilling solution and locking solution for Box Van with tail lift**
	Block Shaft https://www.blockshaftgroup.it/en/ 	
CKOS - 11	**GATELOCK VAN - MEDIUM series**	**High security external locking solution for LCV's with emergency release on loading area.**
	Block Shaft https://www.blockshaftgroup.it/en/ 	

CKOS – 12	GATELOCK VAN - LARGE series	High security external locking solution for box van & trucks
	Block Shaft https://www.blockshaftgroup.it/en/ 	
CKOS – 13	XL VAN	High security external locking solution for LCV's with emergency release on loading area.
	Block Shaft https://www.blockshaftgroup.it/en/ 	
CKOS – 14	GVLC	External locking solution for container
	Block Shaft https://www.blockshaftgroup.it/en/ 	

CKOS – 15	L4V Heavy Duty shutter Lock	Heavy duty shutter lock for HGV roller shutter doors. Used by major logistics operators.
	Locks4Vans www.locks4vans.co.uk 	
CKOS – 16	L4V Narrow Slat shutter Lock	Narrow Slat shutter lock for LGV roller shutter doors with narrow slats. Used by major logistics and fleet operators.
	Locks4Vans www.locks4vans.co.uk 	
CKOS – 17	L4V Slamlock	The L4V Slamlock safeguards against the driver forgetting to lock the doors. Once the door is shut it locks automatically and can only be opened using the L4V Slamlock key, dramatically reducing the chances of theft
	Locks4Vans www.locks4vans.co.uk 	

CKOS – 18	**L4V Hooklock**	**The L4V Hook Lock is a mechanical deadlock operating independently from the manufacturers' locking system. Operated by its high-security external key under full control of the driver.**
	Locks4Vans www.locks4vans.co.uk 	
CKOS – 19	**L4V Statement Lock**	**The L4V Statement Lock mounts externally to the doors of the vehicle, bracing them together while providing an effective visual deterrent.**
	Locks4Vans www.locks4vans.co.uk 	
CKOS – 20	**PV-02 CUBE Trailer Lock**	**Revolving doors and containers universal lock**
	DG CORP / Protect-Vehicle Security http://www.protect-vehicle.eu/ 	

CKOS – 21	**Omega**	**Omega is a flexible tamper-proof designed mechanical door locking system for use with door bars.**
	WABCO Vertriebs GmbH & Co. KG https://www.wabco-auto.com/ 	
CKOS – 22	**TSR-2fiXX**	**TSR-2fiXX is a stainless steel fixed mounted door locking system for swing doors providing an anti-drill protection.**
	WABCO Vertriebs GmbH & Co. KG **https://www.wabco-auto.com/** 	

8.2. Keyless Operated Systems

Ref KOS	Product	Description
KOS-01	Integritas	Integrated electronic seal and locking system with full audit trail and access control capabilities. Self-powered solution enabling simple installation.
	Maple https://www.maplefleetservices.co.uk/ 	
KOS-02	FreightLock IQ	High security multi point locking solution with electronic seal. Has full audit trail and access control capabilities
	Maple https://www.maplefleetservices.co.uk/ 	

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KOS-04	GATELOCK VAN - MEDIUM series	Electro-mechanical locking solution for LCV's controlled by remote
	BlockShaft https://www.blockshaftgroup.it/en/ 	
KOS-05	GATELOCK VAN - LARGE series	Electro-mechanical locking solution for Box Van & trucks controlled by remote
	BlockShaft https://www.blockshaftgroup.it/en/ 	
KOS-06	ELB-Lock	ELB-Lock is an electronic door locking system enabling advanced security operations, which is invisibly installed and inaccessible from outside.
	WABCO Vertriebs GmbH & Co. KG https://www.wabco-auto.com/ 	

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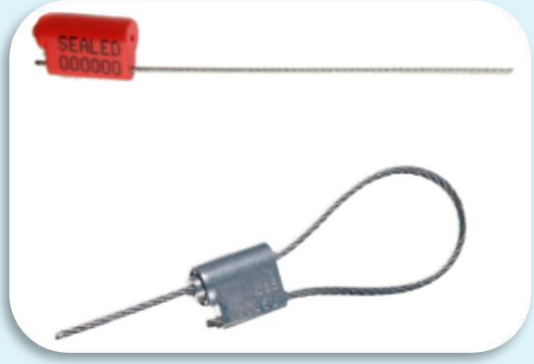
8.3.**Seals**

Ref S	Product	Description
S-01	Seal Protector	The device provides protection against tampering with an exposed Seal. The unit covers and protect seal and accommodates any Padlock
	Babaco Alarm Systems Inc http://www.babaco.com 	
S-02	Rotobloc Bolt Seal	Anti-Spin Carbon Steel Zinc & Chromate w/ABS Plastic
	Sealock https://www.sealock.com/ 	
S-03	CS 5mm	Pull Tight Cable Seal
	Sealock https://www.sealock.com/ 	

S-04	CS 3.5mm	Pull Tight Cable Seal
	Sealock https://www.sealock.com/	
		
	FlexSecure FS50	ISO 17712 Barrier Class Locking Cable Seal
	Tyden Brooks https://tydenbrooks.com/	
		
S-05	Snap Tracker	ISO 17712 Barrier Class Locking Bolt Seal
	Tyden Brooks https://tydenbrooks.com/	
		
S-06	EZ Loc 1/8" Cable Seal	ISO 17712 Barrier Class Locking Cable Seal
	Tyden Brooks https://tydenbrooks.com/	
		

S-07	Tyden Ball Seal	Fixed length flat metal strap seal
	Tyden Brooks https://tydenbrooks.com/ 	
S-08	Klicker 2K Bolt Seal	CTPAT and ISO 17712 H compliant unique 2-color molded anti-spin bolt seal.
	Mega Fortris https://www.megafortris.com/ 	
S-09	MCLZ350 Cable Seal	CTPAT and ISO 17712 H compliant fully molded cable seal that resists all known means of tampering
	Mega Fortris https://www.megafortris.com/ 	
S-10	Domino SP metal truck seal	Metal strap seal with superior tamper indicative features and polypropylene marking flag
	Mega Fortris https://www.megafortris.com/ 	

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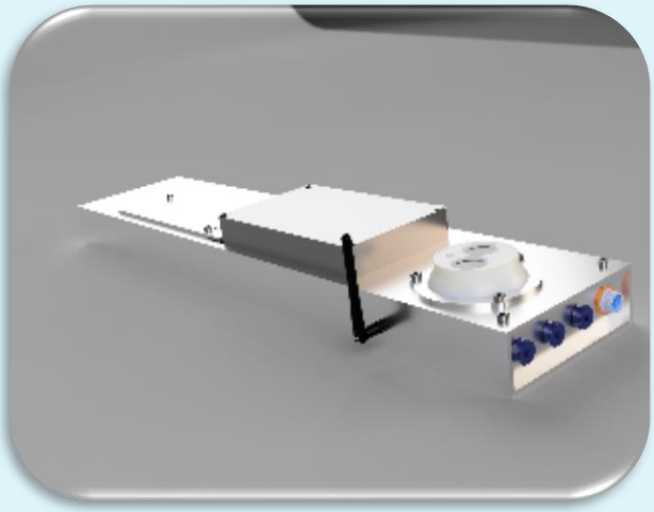
S-11	Flexi Klick Bolt Seal	CTPAT and ISO 17712 H compliant flexible bolt seal - tamper resistant, safe to use and a cost-saver.
		Mega Fortris https://www.megafortris.com/
S-12	Seal IQ	A self-powered, lockable, electronic seal
		Maple https://www.maplefleetservices.co.uk/
S-13	Integritas	Integrated electronic seal and locking system with full audit trail and access control capabilities. Self-powered solution enabling simple installation.
		Maple https://www.maplefleetservices.co.uk/

8.4. Keyless Operated Systems

Ref IMS	Product	Description
IMS-01	SafeWay FX2	Attack proof Artificial Intelligence internal and external CCTV with remote access, human recognition, unauthorized cargo movement detection, up to 6 cameras
		Sternkraft https://sternkraft.com/en/
IMS-02	SafeWay Global	New Age Truck CAN GPS Tracker with LTE CAT1 recognizes which trailer is connected, what is temperature and humidity and trailer door status
		Sternkraft https://sternkraft.com/en/
IMS-03	Andis 1100 KingPin Lock	Heavy duty, high security, King-Pin Lock that is manufactured to withstand a wide variety of attacks,
		Maple https://www.maplefleetservices.co.uk/

IMS-04	SafeConnect IQ	High Security Trailer Immobilization
	Maple https://www.maplefleetservices.co.uk/ 	
IMS-05	DriveLock	Driver recognition system that protects unattended vehicles against theft & unauthorized movement
	Maple https://www.maplefleetservices.co.uk/ 	
IMS-06	Block Shaft	Supplementary Locking of the steering wheel
	Blockshaft https://www.blockshaftgroup.it/en/ 	

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IMS-07	GLB	Locking device for Semi-trailer Landing Gear
	Blockshaft https://www.blockshaftgroup.it/en/ 	
IMS-08	PV-06 FX King Pin Lock	King-pin lock, steel-powdered.
	DG CORP / Protect-Vehicle Security http://www.protect-vehicle.eu/ 	

8.5. Customised Locking Solutions

Ref CLS	Product	Description
CLS-01	GPS Seal Protector	Automatic notification of seal access provides time and location of each seal opening and closing event
	Babaco Alarm Systems Inc http://www.babaco.com 	
CLS-02	LB3 Lock w Digital Seal	High security automatic roll up door lock integrated with Digital Cargo Seal
	Babaco Alarm Systems Inc http://www.babaco.com 	

CLS-03	LB5 Lock with Digital seal	High security automatic swing outdoor lock integrated with Digital Cargo Seal
	Babaco Alarm Systems Inc http://www.babaco.com	
		
CLS-04	Sealock Model SLX U-Bar	Dual Function "Hybrid" U-Shaped Steel Locking Bar
	Sealock https://www.sealock.com/	
		
	One-Way	One-Way is a single use keyless locking and sealing system for door bars.
	WABCO Vertriebs GmbH & Co. KG https://www.wabco-auto.com/	
		

CLS-05	Sealock Model SL J-Bar	Dual Function "Hybrid" J-Bar Steel Locking Bar
	Sealock https://www.sealock.com/ 	
CLS-06	GeoBolt	ISO 17712 GPS enabled locking bolt
	Tyden Brooks https://tydenbrooks.com/ 	
CLS-07	FreightLock IQ	High security multi-point locking solution with electronic seal and audit trail. Flexible solution that can be tailored for bespoke requirements
	Maple https://www.maplefleetservices.co.uk/ 	

CLS-08	BondLock	Powerful and versatile locking mechanism installed on the inside of the cargo area, suitable for all vehicle and door types.
	Maple https://www.maplefleetservices.co.uk/ 	
CLS-09	PV-10 Swap Body Lock	Anti-Theft Swap-Body Lock
	DG CORP / Protect-Vehicle Security http://www.protect-vehicle.eu/ 	
CLS-11	PV-07 Trailer Ring Lock	Trailer Ring Lock for eyes of draw-bar trailers
	DG CORP / Protect-Vehicle Security http://www.protect-vehicle.eu/ 	

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CLS-12	FreightLock IQ	High security multi point locking solution with electronic seal. Has full audit trail and access control capabilities
	Maple https://www.maplefleetservices.co.uk/