

# ERA Convention 2012

*“Changing Rental”*

## COMMITTEE REPORT EQUIPMENT TECHNOLOGY AND THEFT

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## Equipment Technology and Theft Committee

- **Started in October 2010**
- **2 components:**
  - **Equipment Technology WG**
  - **Equipment Theft WG**

# Contents

## 1° Equipment Technology WG

- Participating organizations
- Deliverable: Total Cost of Ownership
- Telematics
- Accidents / Damages / Use-related Cost of Equipment
- Others issues discussed in the WG

## 2° Equipment Theft WG

- The ERA's position on combatting equipment theft in the EU

# Equipment Technology Working Group

- Participating Organizations**

Rental Companies		Equipment Manufacturers / Software Companies	
Aggreko	Loxam	Atlas Copco	Manitou
Boels	Zeppelin Rental	Caterpillar	Terex / Genie
Cramo	Ramirent	Hilti	Volvo
HSS Hire	Speedy Hire	Hitachi	Smartequip
Kiloutou		JCB	Trackunit
		Yanmar	

# Total Cost of Ownership

## Rationale:

**T**his guidance represents a common understanding among the rental companies and the construction equipment manufacturers of the drivers influencing the total cost of ownership of equipment including the three main phases of the lifecycle of equipment: acquisition, operations and maintenance and divestment.

# Total Cost of Ownership



	Product Costs (direct)	Process Costs (indirect)	Opportunity Costs (indirect)	Description / Related Activities	Cost Drivers	
<b>FIRST PRIORITY ISSUES</b>	Equipment cost			Depreciation over Lifetime	Purchase price – Economic life time	
		Transport / PDI cost		Inbound transport from supplier to warehouse	Delivery terms – Shipping mode	
		Administration cost		Registration of new equipment (asset booking)	Rental items	
<b>SECOND PRIORITY ISSUES</b>		Purchasing cost Handling cost Storage cost	Cost of capital	Demand planning, testing and selecting of new products Receiving and storing of new equipment Storage area and infrastructure Internal interest rate on tied-up capital	Type of investment – Size of investment Shipments - Rental items Rental items – Size and weight Payment terms – Internal interest rate	
<b>FIRST PRIORITY ISSUES</b>	Spare parts costs			Spare parts needed to service/repair equipment	Purchase price – Repair/service frequency	
		Handling cost - spare parts		Planning, ordering, receiving, storing and picking of spare parts	Spare parts – Repair/service frequency	
		Handling cost - equipment		Picking, packing, receiving and storing of rental equipment	Rentals	
		Service cost		Exchanging wear parts according to service schedule	Service frequency – Service cycle time	
		Repair cost		Exchanging broken parts	Repair frequency – Repair cycle time	
		Training cost		Training of sales and service personnel	Trainings – Product/application complexity – Hazardousness of equipment	
		Sales cost		Advising and training of customers	Active customers – Product / application complexity - Hazardousness of equipment	
		Marketing cost		Communication of product and service offering	Potential customers	
			Lost sales	Days equipment is not available to rent	Rentals (inspection frequency) – Inspection, repair, service cycle time	
<b>SECOND PRIORITY ISSUES</b>	Insurance cost	Inspection cost Transport cost Transfer cost Administration cost	Rental rates	Insurance fee for potential theft, damage Testing and cleaning of rental equipment Shipping equipment to & collecting from customers Transferring equipment among depots Administration cost Chargeable daily fees	Purchase price – Risk of damage / theft Rentals – Product design Rentals - Unplanned returns Transfers – Product availability Rentals Rental duration – Service offering – Brand recognition	
	<b>FIRST PRIORITY ISSUES</b>	Recycling cost			Fee for recycling of equipment	Recyclable materials – Product design (ease of separation) – Size and weight
				Second-hand sales	Revenue generated by selling off second-hand equipment	Second-hand sales price – Economic life time – Brand recognition
	<b>SECOND PRIORITY ISSUES</b>	Warranty cost	Transport cost Administration cost Handling cost Storage cost Sales cost Marketing cost		Accruals for potential liability claims Shipping to customer / recycling company Invoicing, book keeping... Picking, packing, shipping Providing storage area for excess equipment Acquiring and contacting potential customers Advertising of used equipment	Equipment claims Sell off equipment – Economic life time – Size & weight Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime – Size & weight Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime



# Total Cost of Ownership - Acquisition

ACQUISITION



FIRST PRIORITY ISSUES	Product Costs (direct)	Process Costs (indirect)	Opportunity Costs (indirect)	Description / Related Activities	Cost Drivers
		Equipment cost			Depreciation over Lifetime
		Transport/ PDI cost		Inbound transport from supplier to warehouse	Delivery terms – Shipping mode
		Administration cost		Registration of new equipment (asset booking)	Rental items
SECOND PRIORITY ISSUES		Purchasing cost Handling cost Storage cost	Cost of capital	Demand planning, testing and selecting of new products Receiving and storing of new equipment Storage area and infrastructure Internal interest rate on tied-up capital	Type of investment – Size of investment Shipments - Rental items Rental items – Size and weight Payment terms – Internal interest rate

# Total Cost of Ownership – Operations and Maintenance



<b>FIRST PRIORITY ISSUES</b>	<b>Product Costs (direct)</b>	<b>Process Costs (indirect)</b>	<b>Opportunity Costs (indirect)</b>	<b>Description / Related Activities</b>	<b>Cost Drivers</b>
	Spare parts costs			Spare parts needed to service/repair equipment	Purchase price – Repair/service frequency
		Handling cost -spare parts		Planning, ordering, receiving, storing and picking of spare parts	Spare parts – Repair/service frequency
		Handling cost - equipment		Picking, packing, receiving and storing of rental equipment	Rentals
	Service cost			Exchanging wear parts according to service schedule	Service frequency – Service cycle time
	Repair cost			Exchanging broken parts	Repair frequency – Repair cycle time
	Training cost			Training of sales and service personal	Trainings – Product/application complexity – Hazardousness of equipment
	Sales cost			Advising and training of customers	Active customers - Product / application complexity - Hazardousness of equipment
	Marketing cost			Communication of product and service offering	Potential customers
			Lost sales	Days equipment is not available to rent	Rentals (inspection frequency) – Inspection, repair, service cycle time
<b>SECOND PRIORITY ISSUES</b>	Insurance cost	Inspection cost Transport cost Transfer cost Administration cost	Rental rates	Insurance fee for potential theft, damage Testing and cleaning of rental equipment Shipping equipment to & collecting from customers Transferring equipment among depots Administration cost Chargeable daily fees	Purchase price – Risk of damage / theft Rentals – Product design Rentals - Unplanned returns Transfers – Product availability Rentals Rental duration – Service offering – Brand recognition



# Total Cost of Ownership - Divestment

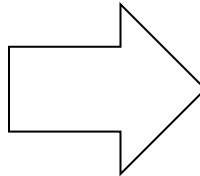


<b>FIRST PRIORITY ISSUES</b>	<b>Product Costs (direct)</b>	<b>Process Costs (indirect)</b>	<b>Opportunity Costs (indirect)</b>	<b>Description / Related Activities</b>	<b>Cost Drivers</b>
	Recycling cost			Fee for recycling of equipment	Recyclable materials – Product design (ease of separation) – Size and weight
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<b>SECOND PRIORITY ISSUES</b>	Warranty cost	Transport cost Administration cost Handling cost Storage cost Sales cost Marketing cost		Accruals for potential liability claims Shipping to customer / recycling company Invoicing, book keeping... Picking, packing, shipping Providing storage area for excess equipment Acquiring and contacting potential customers Advertising of used equipment	Equipment claims Sell off equipment – Economic life time – Size & weight Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime – Size & weight Sell off equipment – Economic lifetime Sell off equipment – Economic lifetime

# Telematics

## Objective: Easier interaction between equipment and rental management softwares

- AEMP Standard
- Request of additional data set by rental companies (discussed with AEMP and ARA)
- Discussion of options for system integration



Localization (regular information) and geofencing (alert in case of displacement outside of the set perimeter) and information provided by immobilization and safety devices (alerts);

Running hours (for maintenance and inspection purposes)

Running hours (for charging/invoicing purposes of rental companies, ie for operations during the WE, overtime...);

Technical data transfer for customer support:

Fuel status / fuel level;

Battery power level and charge history;

Air filter status (alert alarm)

Oil filter status (alert alarm)

Oil pressure (alert alarm)

Oil and water temperature (alert alarm)

Product group-specific

Overload information (for access platforms);

Attachment recognition (for excavators)

Voltage and Amperes (for generators)

# Accidents / Damage / Use-related Cost of Equipment

- Questionnaire to rental companies of most frequently reported accidents, damages and use-related costs to equipment
- Examples: poor maintenance (flat battery, lack of greasing, no oil / filter changes...), fall from height, handling mistakes...
- Next steps: Rental companies to draft list of priorities to be tackled together with manufacturers to seek reduction of damages and accidents (via improvement of equipment parts, better guidance to users, improved safety systems...).

## A Platform for Exchanges

- In addition to its activities, the Committee is also a platform for exchanges, to allow Members of the Committee to learn from each other and exchange views on issues of joint interest (in the strict framework set by the ERA's code of conduct), such as:
  - Gains in efficiency for spare parts management
  - Rental metrics
  - Models used by rental companies for the maintenance of equipment
  - Priorities of rental companies for equipment design

## Equipment Theft – Status at EU Level

Following advocacy by the ERA, CECE, Leaseurope and FIEC, the European Commission is finally considering to take action on equipment theft. A working group on this issue has been set-up with EU-Member States law enforcement agencies.

The ERA:

- Arranged a meeting between the relevant official and the WG on Equipment Theft to present measures taken in different countries to combat theft;
- Has adopted its own position paper on theft, which it puts forward to authorities to participate in the debate.

## Equipment Theft – The ERA’s Position

We strongly believe that efforts to combat equipment theft should be a joint effort of all involved stakeholders: public authorities, stakeholders in the construction equipment industry (including rental companies), insurance companies, auctioneers and companies specialized in offering theft prevention and equipment recovery solutions. Also, policies designed to combat equipment theft could take inspiration from policies taken in past decades to reduce theft in passenger cars, which have proven successful.

**Measures to combat equipment theft in Europe should focus on the following main areas for action, which we believe are all equally important:**

- Theft prevention
- Identification of Equipment
- Tracking, registration and improved recovery of stolen equipment
- Facilitation of the restitution of recovered stolen equipment

# Equipment Theft – The ERA’s Position

## THEFT PREVENTION

For pieces of equipment of medium to high value (for example as from a catalogue value of 10,000 EUR), measures to be taken to prevent equipment theft should include:

- Awareness-raising among professionals in the construction industry to ensure equipment is secured adequately;
- Measures to encourage the securitization of construction sites and equipment depots (such as for example fencing, alarm systems, access control);
- Measures to secure construction equipment including notably:
  - Unique “keys” for construction equipment, which can take different forms (physical keys, chip cards, keypads...).
  - Encouragement of the fitting of theft prevention and immobilization devices, meeting industry standards and requirements of performance;
  - Encouragement of the fitting of geofencing and geolocalisation technologies. This may require setting a standard allowing for exchange of data between technologies and the equipment’s onboard electronics;

# Equipment Theft – The ERA’s Position

## IDENTIFICATION OF EQUIPMENT

Unlike passenger cars, the identification of both the construction equipment and its owner is today relatively difficult. We believe that the following measures would contribute to solving this issue:

- A unique identification number stamped on different parts of the equipment in such a way that it cannot easily be tampered with (for example according to ISO standard 10261). Other forms of identification could be considered if justified for high value equipment;
- Harmonized ownership documentation of equipment, containing the same information in all EU Member States;



# Equipment Theft – The ERA’s Position

## RECOVERY OF STOLEN EQUIPMENT

We believe that the following measures should be considered:

- Adoption by EU Member States of national strategies to combat equipment theft and regular assessment of the effectiveness of these strategies;
- Encouragement of the voluntary registration of stolen construction equipment in harmonized national databases, which should be interlinked in the EU and accessible to all police forces and stakeholders involved in the resale and purchase of stolen equipment (auctioneers, distributors...). Recognizing some progress on this matter already achieved by some private operators, these registration schemes could take the form of public-private partnerships in some Member States;

# Equipment Theft – The ERA’s Position

## **RECOVERY OF STOLEN EQUIPMENT (Continued)**

- Checks of the national database (and beyond to other Member States’ databases it would be linked with) by professional resellers of used equipment before reselling used equipment;
- Establishment of a national contact point for stolen equipment in every EU Member State, which would be responsible a. o. for facilitating exchanges between the police forces of other Member States;
- Cooperation with industry during research operations (notably through access to geolocalisation information when available) should be encouraged;
- Consideration of the possibility to seize assets of convicted thieves and of better monitoring of dubious income that may be derived from the theft and resale of stolen equipment.

# Equipment Theft – The ERA’s Position

## **FACILITATION OF THE RESTITUTION OF RECOVEREDSTOLEN EQUIPMENT**

Some of the measures outlined above (on identification notably) should help police forces to identify the lawful owners of stolen equipment. However, it is currently still difficult for owners to obtain the restitution of their equipment from Member States other than their own, even if they could be identified. The European Commission should therefore consider putting rules in place to facilitate asset recovery between EU Member States, and where possible envisage cooperation on this matter also with Third Countries.



EUROPEAN  
RENTAL  
ASSOCIATION

**THANK YOU!**