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Modern Workshop Management : Equipment and Procedures

In the last few years, workshops in European transport companies have had to make strenuous efforts to adapt themselves to new technical, economical and societal developments. Electronics and environmentally friendly equipment have emerged as priorities, along with the need for better quality, alternative fuels etc.

This proposal to study modern workshops does not set out to draw up recommendations to members on how to design and build workshops and depots. Each country, each company has already its own recommendations and directives, its own experience and constraints.

Our goal is much more to share experience, to synthesize different approaches in order to improve workshop and depots operation, and in order to contribute to better cost-efficiency and quality in vehicle maintenance.

We propose to share this study into 4 main tasks, covering the main responsibilities of maintenance: evolution of tasks, quality, safety and environment, as can be seen from the table below.

A [working group](#) of the [UITP Bus Committee](#) reviewed existing literature, analysed it and provided:

- general conclusions available as a core brief (information letter) in [English](#), [French](#) and [German](#).
- English summaries of all literature analysed. The summaries can be retrieved from the table below.
When a bibliographic reference was exempt of copyright, it has been enclosed to the present product, at the end of the summary. In the opposite case, an e-mail order form to the UITP documentation centre was designed for user to have easier access to the reference.
- A trilingual lexicon (English, French, German) for Maintenance Terminology

Main topics and sub-topics	Literature Title	Year of Publication	Original language available	English summary
Work planning and respect of procedures				
Maintenance and repair preparing tasks. Servicing, diagnosis, listing	Maintenance on condition	1999	I	summary
	Bus Quality audits	1998	F	summary
	Modern and efficient bus fleet management	1994	F, E, D	summary
	Workshop organisation at STC Porto	2001	E	summary
	Computer-aided vehicle maintenance	1993	D	summary
	Maintenance lines		I	summary
Workshop capacity, planning, task sharing	Bus Quality audits	1998	F	summary
	Vehicle Reserve in Transport Companies	1998	D	summary
	Computer-aided vehicle maintenance	1993	D	summary
	Environmental Management with Transport Undertakings	1999	D	summary
	Computer-aided vehicle maintenance	1993	D	summary
	Characteristics for the need for Workshop Staff	1995	D	summary
Distribution of the programmed tasks	Maintenance lines		I	summary
	Computer-aided vehicle maintenance	1993	D	summary
	Managing Maintenance Via Computer	1999	E, F, D	summary
Record of tasks carried-out	Maintenance management to reduce costs at ACT Ferrara	1995	I	summary
	Workshop organisation at	2001	E	summary

	STC Porto			
Securing performance and quality.				
	Bus Quality audits	1998	F	summary
	Modern and efficient bus fleet management	1994	F, E, D	summary
	Characteristics for the need for Workshop Staff	1995	D	summary
	Maintenance organisation at TP Geneva	2002		summary
	Application of ISO 9001:2000	2001	E	summary
Access to technical recommendations and guidelines, incl. drawings and other graphical data	Environmental Management with Transport Undertakings	1999	D	summary
	Characteristics for the need for Workshop Staff	1995	D	summary
	Documents for Maintenance	2002	E	summary 1 - 2
Availability of spare parts and equipment tools	Maintenance on condition	1999	I	summary
	Workshop organisation at STC Porto	2001	E	summary
	Computer-aided vehicle maintenance	1993	D	summary
Use and control of diagnosis device and tools	Maintenance on condition	1999	I	summary
	Computer-aided vehicle maintenance	1993	D	summary
Cost-effectiveness	How to achieve global service - development of maintenance outsourcing	1998	I	summary
	Sub-contracting Maintenance	1998	E	summary
	Vehicle Reserve in Transport Companies	1998	D	summary
Staff's continuous training and safety				
	Qualification and Advanced Training of Workshop	1995	D	summary

	Vehicle Maintenance Staff			
	Gas powered buses	1999	E, F, D	summary
	How to create a maintenance training programme?	2001	E	summary
Relationships with staff. Communication inside depots	Closing The Knowledge Gap For Transit Maintenance Employees	1998	E	summary
	Environmental Management with Transport Undertakings	1999	D	summary
Guarantee for continuous training, quality and safety	Closing The Knowledge Gap For Transit Maintenance Employees	1998	E	summary
	Qualification and Advanced Training of Workshop Vehicle Maintenance Staff	1995	D	summary
	Environmental Management with Transport Undertakings	1999	D	summary
	Maintenance organisation at TP Geneva	2002		summary
Development and limits of staff versatility	Qualification and Advanced Training of Workshop Vehicle Maintenance Staff	1995	D	summary
	Controlling the maintenance costs of rolling stock	1998	E, F, D	summary E-F-D
	Characteristics for the need for Workshop Staff	1995	D	summary
	Maintenance organisation at TP Geneva	2002		summary
Need for environment-friendliness				
	Environmental Management with Transport Undertakings	1999	D	summary
	Implementing ISO 14000 certification in bus operation	2002		summary
Scrapping	Recommendation on Waste Utilisation and Disposal in Transport Companies	1999	D	summary
Fuel tanks	Leakless tank filling	1997	F	summary
Exhaust pipes	Modern and efficient bus fleet management	1994	F, E, D	summary

	Bus Centre: innovation is in the air	1999	F	summary
	Environmental Management with Transport Undertakings	1999	D	summary
	Implementing ISO 14000 certification in bus operation	2002		summary
Noise prevention	Modern and efficient bus fleet management	1994	F, E, D	summary
	New bus depot in Stuttgart	1997	D	summary
	Implementing ISO 14000 certification in bus operation	2002		summary
Management of waste waters, oils and other fluids	Recommendation on Waste Utilisation and Disposal in Transport Companies	1999	D	summary
	Environmental Management with Transport Undertakings	1999	D	summary
	Washing water recycling allows cost reduction	1999	D	summary
	Implementing ISO 14000 certification in bus operation	2002		summary
	New bus depot in Stuttgart	1997	D	summary
Maintenance softwares				
	Managing Maintenance Via Computer	1999	E, F, D	summary
	Workshop organisation at STC Porto	2001	E	summary
	Computer-aided vehicle maintenance	1993	D	summary
	Bus planning and operation software	2000	E	summary
	Maintenance organisation at TP Geneva			