Georg Küffner (Ed.) On Motion and Dynamics

Contents

.

"Hidden Champions" of Our Technical Society
Publisher's Preface

"lck bun all dor!"

Editorial by Sten Nadolny

Introduction

Everyday life—since primeval times simply unimaginable without drive technology

MG.

Moving History
The History of Drive Technology

Steam Engine, Bicycle & Co. Far from Boring: at Home or on the Road— Mankind is Always Driven

Drive Technology Moves the World A Geographical Overview of the Chapters in this Book

Mobility, Transport and Logistics

Daily manaport of paople and goods allys tealinglogy as a backbone

Of Skyscrapers and Rolling Fridges A Conversation with Essa Abdul Rahman Al Dosari, CEO of Dubai's Public Transport Agency of Roads & Transport Authority RTA

Fit for Olympia—With a Twist London Gears up for Rush of Visitors

The Red Fleet A Conversation with Edgar Enrique Sandoval, Founding President Trans Milenio Bogotá, Colombia

"It Definitely Beats Flying"—With the Super High-Speed Train Across the Castilian High Plateau A Conversation with Manolo Crespo Cid, Talgo Train Driver

Hot Route with Cold Brakes Ideal Speed Killers: Retarder and Engine Brake are the Perfect Match

Driving through Hong Kong's High-Rise Jungle in a Double-Decker Bus A Conversation with Chan Oi Ming, Bus Captain at Kowloon Motor Bus Company 11:04:

"Flexibility is the First Commandment" A Conversation with Hans-Peter Kempf, Technical Director of MWB Mittelweserbahn GmbH

198

After 70,000 Hours, the First Voith Locomotive Was Ready to Roll How an Idea Turned Into a Success Story

22/2

Global Logistics in Real Life: DB Schenker A Conversation with DB Schenker's CEO Dr. Norbert Bensel, Board Member for Transport and Logistics of DB Mobility Logistics AG

236

Pirouettes in the Harbor A Conversation with Derek LeDuff, Pilot of the Los Angeles Harbor Fire Department

Raw Material Extraction and Energy

Raw materials of the world—made available to manking through drive technology

U1-U

Steadily on Course in Rough Seas
In the North Sea Onboard the Platform Supply Vessel
"Edda Fram"

230

More Exciting Than Ours*
A Conversation with Emmanuel Engelmann, Vice
President of Technology of the mineral oil group Total

Precious Metal From the Desert

"I Cannot Imagine an Industry that is

Copper Mining in Chile—a Challenge for Man and Machine

Coal from the Desert Southwest

A Convetsation with Scott Jones, Director of San Juan Mine in New Mexico, USA

High-Feeh for High Outputs

Vorecon Planetary Gear Ensures Optimum Speeds

Gold Rush Fever on Canada's Oil Sand Fields

A Conversation with Bernie Billingsley, Maintenance Manager at Albian Sands Energy

-330

Against Wind Fluctuations
WinDrive Generates Electricity in Power Station Quality

Processing Industry

Raw material processing with the help of drive technology

1500

Unique Steel Specimens from 12,000 Tons of Pressure A Conversation with Dieter Bokelmann of Saarschmiede GmbH Freiformschmiede in Völklingen, Germany

Micrometer Precision at 84 Kilometers per Hour

ThyssenKrupp Steel Produces Super-Thin Steel Sheets in Duisburg-Beeckerwerth, Germany

Shall engles and Perspectives

(Charle Will, din 12 paceptic in The future? Course capturality and like expressionati

4:53

Despite all Shortcomings: Trucks Win on the Domestic Front A Conversation with Martin Schmied, Öko-Institut Freiburg/Berlin, Germany

490 Glossary

494 Index

500 The Authors

501 Credits

504 Imprint

Research and Development Working on the Future Questions of Drive Technology

Fighting Traffic Gridlock A Conversation with Prof. Dr.-Ing. Manfred Boltze, Head of the Section Transport Planning and Traffic Engineering of TU Darmstadt, Germany

An Issue Concerning Man and Environment Power Transmission and Environment