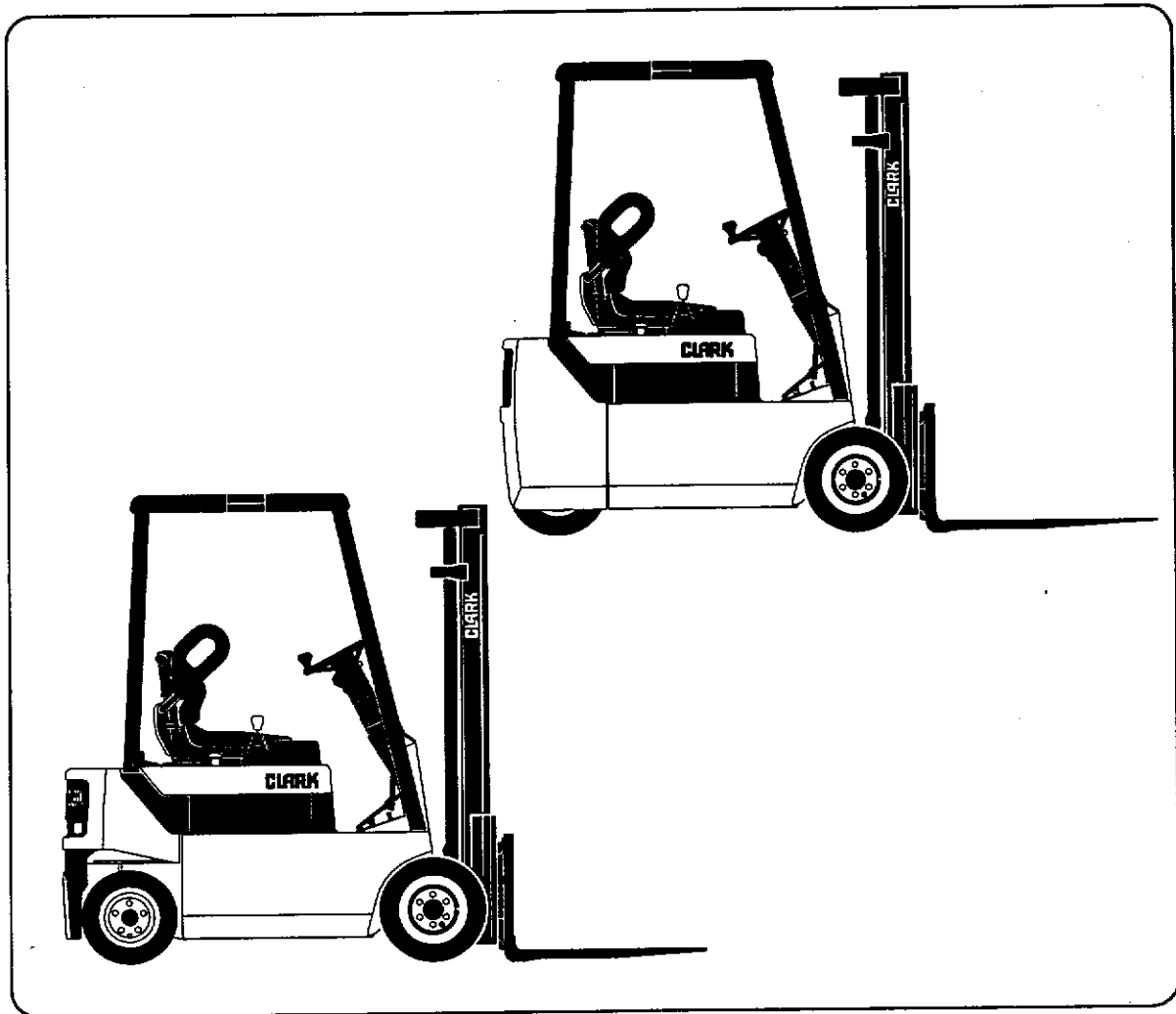


CLARK Material Handling

CTM/CEM 10-20
Lot No. 7096 / 7101
with HPB1 - Control



**Training Manual Electr. System
incl. Trouble Shooting with LC-Display**

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Introduction

Starting with 1995 the lift trucks of the CTM/CEM 10-20 family will be equipped and delivered with new electronic controls (HPB1 & LT200D). These lift trucks have the new **Lot No. 7096 / 7101**

The respective control are located at the rear-part of the lift truck, protected between battery and counterweight. They are directly accessible with opening the cover. This manual describes an HPB1 microprocessor-control.

That means, that the internal operations will be controlled with an microprocessor. The control of drive speed, hydraulic and torque ensues with transistor-technic.

The fault finding and also part of the maintenance and setting work may be done with in to the Dash Panel integrated LCD (liquid-crystal display).

The electronic components which are not part of the actual control unit itself should be also checked with the LC-Display.

The purpose of this manual is to enable service mechanics and other technically interested staff

- to become familiar with the control's components,
- to learn about the internal functional sequences,
- to perform fault finding by using of the LC-Display and exchange the defective components.

Therefore, you will also find in this manual the part numbers of the control's components, which are not listed in the parts catalogue.

