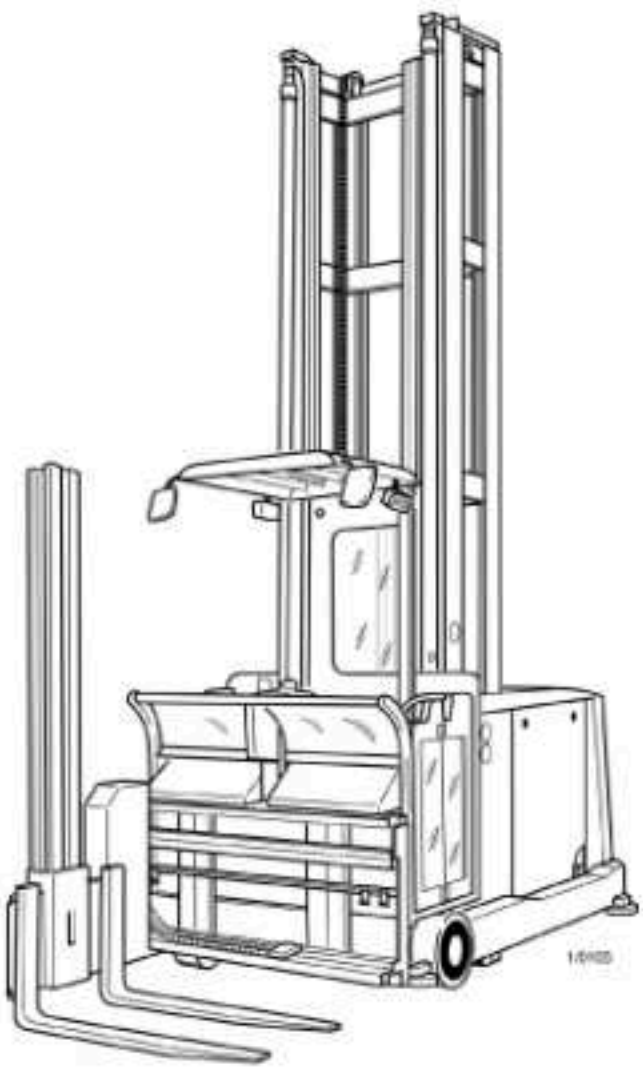
Workshop Manual MX15-3

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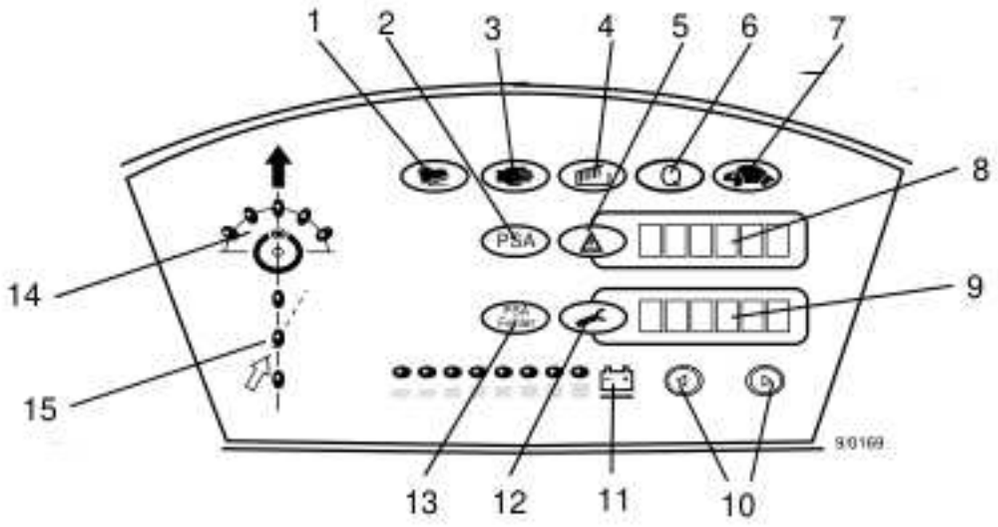
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Operating console display

General

The purpose of the display printed circuit board is to show the operating modes of the vehicle. Information from various sources is evaluated and displayed in the form of status displays, maintenance instructions and pieces of service information.



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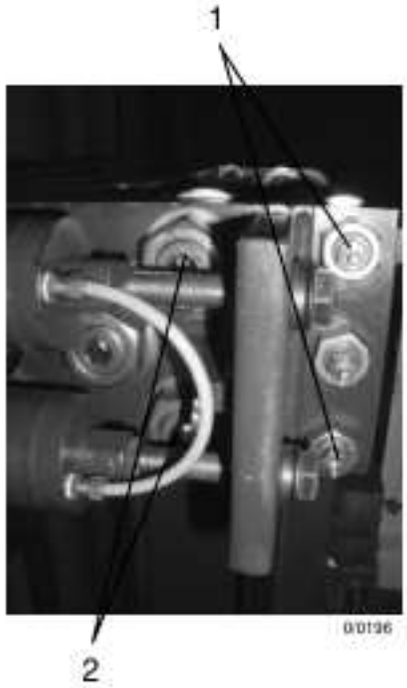
(1) Red display "Dead man switch not actuated"
(2) Display field not used
(with optional mobile personal safety equipment, yellow display "MPSE op. mode")
(3) Red display "2-handed operation not actuated"
(4) Red display "Barrier open"
(5) Red display "LR80 self-test" and "LR80 error" (central control unit LR80) - optional
(6) Red display "Acknowledgement required"
(7) Yellow display "Deceleration active" or or the maximum speed is limited to v=2.5km/h,
(8) Display field for LR80 operating modes and error messages
(9) Display field for operating hours and error codes (see sheet 10-07)
(10) Operating keys
(11) Battery discharge display
(12) Constant red display: "Maintenance interval has expired"
(13) Display filed not occupied
(with optional mobile personal safety equipment, yellow display "MPSE error")
(14) Wheel position display
(15) LR80 status display

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Adjusting work on the trilateral head

Adjusting the tooth profile play

- Once the small eccentric rollers (3) have been applied to the guide rail (so that the idler rollers can just be turned by hand, max. distance 0.1 mm), the upper guide block not including the overshift function is pre-adjusted.



Now the lower guide block must be adjusted:

- Ensure that the lower gearwheel is applied to the toothed rack (the hand lifting truck or hydraulic jack must be lowered).
- Apply the two outer smaller eccentric rollers (1) evenly to the guide rail.
- Turn these small eccentric rollers evenly back by approx. 1/8 of a turn.
- Use a feeler gauge to check the distance between the small eccentric rollers and the guide rail. The distance for each should be set to 0.5mm ± 0.1mm.
- Tighten the two larger outer eccentric rollers (2) evenly until the small eccentric rollers opposite are applied lightly (the idler rollers can still be turned by hand, max. distance 0.1mm). In order to tighten the rollers evenly, each roller should only be tightened so far that the other roller can still just be turned by hand. Now tighten this roller, etc...

Both the guide blocks are now pre-adjusted. The tooth profile play must be checked by selecting the hydraulic functions for side shifting and swivelling.

The tooth profile play is set too large:

- if the mast tilts too much during swivelling from left to right or vice versa.

The tooth profile play is set too small:

- if "rattling" noises occur when the hydraulic side shifting function is selected
- if the side shift carriage rises vertically when it is unloaded and the hydraulic side shifting function is selected, or if the side shift carriage no longer seated on the rail with the large vertical roller at any point across the width of the holder.

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Main lift function

- **FE307**
  Roof switch actuated
  The roof switch has been actuated. The electromagnetic brake becomes operative and all the hydraulic functions except the main lift lowering function are deactivated.

- **FE308**
  Chain breakage
  All the hydraulic functions except the main lift lifting function are deactivated. The max. travel speed is limited to v=1km/h.

- **FE309**
  Slack chain
  All the hydraulic functions except the main lift lifting function are deactivated. The max. travel speed is limited to v=1km/h.

- **FE310**
  The inductive encoder does not switch within its range
  The inductive encoder (reference switch) does not switch within the specified range for the potentiometer. The main lift lifting and lowering functions can only be executed at a reduced speed. The max. travel speed is limited to v=2.5km/h.

- **FE311**
  Lifting speed monitor movement without selection
  The incremental encoder for the height measuring system of the main lift is delivering pulses although the main lift function has not been selected and no valves have been triggered for this function. If this error occurs, an EMERGENCY-stop is initiated, so that the valves and pump motor can be switched off safely.

- **FE312**
  "Wire terminal monitor" lifting and lowering or cable breakage
  The incremental encoder for the height measuring system of the main lift is not delivering any pulses, although the pump motor is running and the relevant valves for this hydraulic function have been triggered. The main lift lifting function is only possible if the reference switch at the rear of the cab is actuated. The main lift lowering function can only be executed at a reduced speed and with the acknowledgement key pressed and held down on the operating console. The max. travel speed is limited to v=2.5km/h.

  This error code can also be displayed with the maximum pressure setting (see sheet no. 24-02).

- **FE313**
  Lifting speed monitor or cable breakage
  The speed for the main lift lifting and lowering functions (e.g. cable breakage in the height measuring system) is too high. The main lift lifting function is only possible if the reference switch at the rear of the cab is actuated. The main lift lowering function can only be executed at a reduced speed. The max. travel speed is limited to v=2.5km/h.

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