

BI-02D.53 Operator display specifications are detailed for mobile equipment

Expectations

Operator displays provide the information necessary for safe and productive outcomes.

Specify

Specifications for equipment operator displays are provided to OEMs/Suppliers and site maintainers. These consider:

- Operator size range
- Operating conditions e.g. lighting levels, background noise
- Communicating routine machine status information (gauges, warning lights, etc.)
- Key controls including those related to abnormal/emergency situation

Where there is more than one driving position, the display should be similar at each.

Required information

- Speed
- Pressure of pneumatic or hydraulic brake systems;
- Parking brake applied

Additional information

- Fuel level or battery charge;
- Hydraulic reservoir level;
- Engine oil pressure;
- Temperature of oil-immersed brakes;
- Pressure in hydrostatic drives if service braking is hydrostatic;
- Cooling water temperature;

- Hydraulic transmission temperature;
- Running time or distance travelled meter;
- Service hour meter;
- Fire suppression system operating pressures;
- Hydraulic oil temperature;
- Transmission oil pressure;
- System voltage;
- Engine oil temperature;
- Brake circuit charging pressure;
- Hydraulic oil pressure;
- Slope indicator.

Reference:

- Section 4.7 of ISO 19296 Mining - Mobile machines working underground - Machine Safety First edition 2018-11
- Each display shall be marked by clear symbols in accordance with ISO 6405-1 and ISO 6405-2.
- The limits of normal operation shall be clearly identified.
- Additional operator symbols should be sourced from ISO 7000 and JEC 60417.

Implement

Ordering / selection of equipment is based on meeting specifications.

All equipment in use is approved and documented. The details of equipment being used are listed in asset registers.

OEM provided asset documentation is added to Plant Safety File. Maintenance planners review *introduction to site records* and add work orders for the maintenance of key systems.