

**TYRE HANDLER
UTILITY VEHICLE
and
Tyre handling safety**

MV-U40D-TH



MV-U40D-TH TYRE HANDLER

The MV-U40D-TH has been developed over the past 5 years in conjunction with mines that utilize underground equipment that have tyre sizes between 12:00 x 20 to 26,5 x 25 tyres.

It has been recognized that handling these tyres underground pose a serious risk to personnel and needs to be “mechanized”.



MV-U40D-TH TYRE HANDLER PROTOTYPE – IN FIELD TESTING



MV-U40D-TH TYRE HANDLER – LATEST VERSION

INFORMATION OBTAINED FROM MINING SAFETY .CO.ZA**Maintenance Guide for Earthmover Tyres: Tyre Handling and Storage****Tyre handling*****Preliminary remarks***

Improper handling can cause irreparable damage to tyres. With a view to reducing (or eliminating) the risk of damaged beads and their consequences, follow the following advice.

Recommendations

“Do not lift a tyre directly with the hook of a crane (to avoid causing irreparable damage to the bead).

“Use flat straps (and not metallic slings or chains) to avoid damaging the tread.

“Lift the tyre under the tread and not at the bead when using a forklift truck (avoids causing irreparable damage to the bead).

Alternatively, use specially adapted handling equipment (lift truck with clamps).

Caution! If a tyre-handler is used, holding the tyre too tightly will distort it and, subsequently, prevent its correct positioning on the rim.

“For tubeless tyres supplied with bead protectors, leave the protectors in place until the tyre is to be mounted (to avoid damaging the bead). (Keep the protectors; they can be refitted to the beads of the tyre if it has to be removed temporarily for repair or retreading).

Never stand under or near a suspended tyre. Always assure the lifting equipment correspond to the tyre weight.

INFORMATION OBTAINED FROM MINING SAFETY .CO.ZA



| Seat diameter | Sizes |
|----------------|-----------------|
| 24 " | 21.00 and above |
| 25 " | 750/55 21.00 |
| 29 " | 33.25 |
| 33 " | 18.00 33/65 |
| 35 " and above | All |

Table showing the sizes that should be handled with the aid of mechanical equipment.

KEY RISKS ASSOCIATED WITH HANDLING TYRES UNDERGROUND

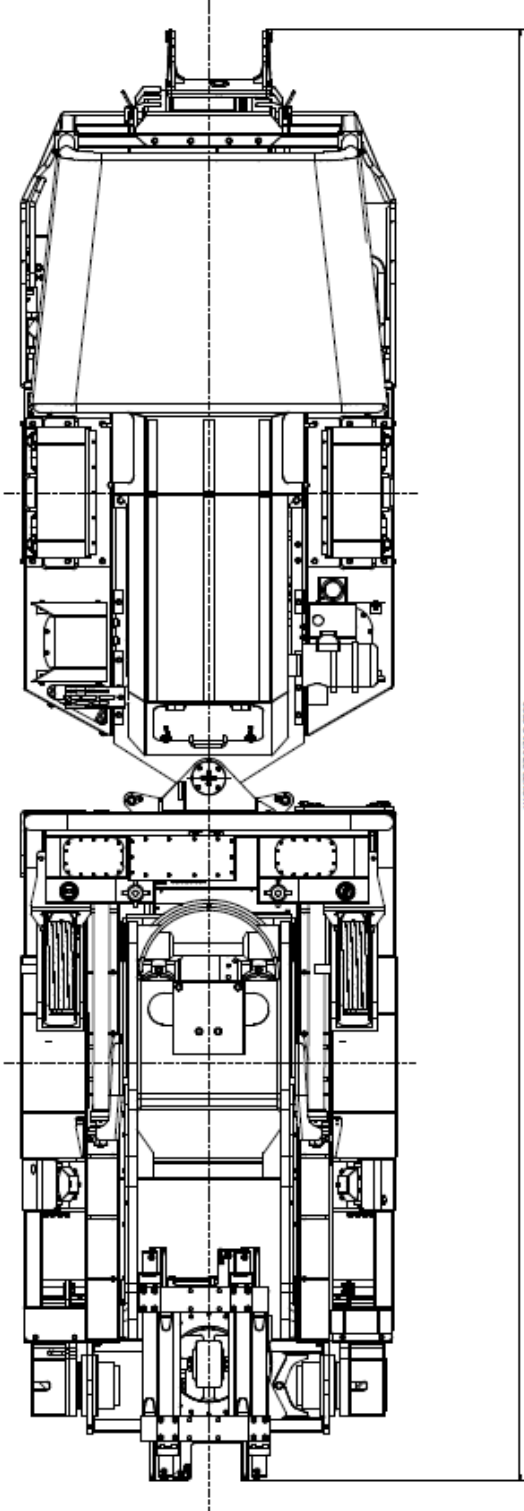
1. Tyre lock ring blows off during handling/inflating.
2. Flat tyre damaged further because the machine had to tram to workshop
3. Tyre falls off vehicle hub, and injures or kills technician.
4. Tyre is removed from hub and rolls down an incline causing fatalities or damaging equipment.

KEY SAFETY BENEFITS FROM USING THE MV-U40D-TH TYRE HANDLER

1. Remote control keeps operator clear of tyre during handling operation.
2. Grab assembly forms a “cage” around the tyre, for greater protection from “blow outs”
3. Tyres can be changed underground without the need to tram to a workshop.
4. The risk of the tyre rolling down an incline is eliminated.
5. Tyre pressures can be checked and adjusted using the MV-U40D-TH ‘s on board compressor.
6. Quicker tyre changing time = less downtime of equipment = more production



Top view of Vehicle



View on Left side of Vehicle

