Tyre Handling Equipment

FOR SURFACE AND UNDERGROUND MINING MACHINERY AND APPLICATIONS

- Innovative designs
- Safe solutions
- Comprehensive range
- Reliable operation
AUSTIN ENGINEERING HAS ESTABLISHED AN UNSURPASSED REPUTATION FOR INNOVATION, RELIABILITY, SAFETY AND VALUE IN TYRE HANDLING EQUIPMENT.

As industry leaders in the design of tyre manipulating technology, Austin Engineering significantly contributed to the development and evolution of the current standard from its beginnings in the early 1990s.

We design and manufacture a comprehensive range of dual-arm and unique three-arm tyre handlers, from 1,800kg to 15,000kg capacity.

Our tyre handler range is suitable for use on LHD, front end and wheel loaders, underground and articulated mine trucks. It is also suitable for use on quarry or mine class haul trucks, from small trucks through to ultra-class mine haul trucks.

All our units are backed by an extensive parts and service programme which ensures many years of safe and reliable operation.
Austin Dual-Arm Tyre Handlers

The Austin Dual-Arm Tyre Handler range has been engineered to provide cost effective tyre handling solutions across the entire tyre and rim spectrum, and has capability with the smallest vehicle possible. Our Dual-Arm Tyre Handlers provide a safer, more efficient way to perform tyre maintenance on earthmoving equipment on location, and are fully adaptable to loaders, telehandlers and tool carriers. They incorporate standard features such as body and pad rotation, combined with the availability of side shift and a quick hitch for convenience. They also have the ability to add on accessories such as crane jibs and fork frames.

AUSTIN TYRE HANDLER RANGE – DIMENSIONS & CAPACITY

<table>
<thead>
<tr>
<th>Feature</th>
<th>Th-1000</th>
<th>Th-2500</th>
<th>Th-4500</th>
<th>Th-6000</th>
<th>Th-8500</th>
<th>Th-10000</th>
<th>Th-15000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity**</td>
<td>1000Kg</td>
<td>2500Kg</td>
<td>4500Kg</td>
<td>6000Kg</td>
<td>8500Kg</td>
<td>10000Kg</td>
<td>15000Kg</td>
</tr>
<tr>
<td>Max. pad open (nominal)</td>
<td>2010mm</td>
<td>3000mm</td>
<td>3610mm</td>
<td>4500mm</td>
<td>4500mm</td>
<td>4500mm</td>
<td>4500mm</td>
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<tr>
<td>Min. pad closed (nominal)</td>
<td>910mm</td>
<td>1380mm</td>
<td>1310mm</td>
<td>650mm</td>
<td>650mm</td>
<td>670mm</td>
<td>670mm</td>
</tr>
<tr>
<td>Clamp style*</td>
<td>Telescopic</td>
<td>Telescopic</td>
<td>Telescopic</td>
<td>Parallelogram</td>
<td>Parallelogram</td>
<td>Parallelogram</td>
<td>Parallelogram</td>
</tr>
<tr>
<td>Weight of unit (approx.)</td>
<td>1200Kg</td>
<td>2000Kg</td>
<td>2850Kg</td>
<td>5800Kg</td>
<td>5800Kg</td>
<td>7800Kg</td>
<td>8200Kg</td>
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<tr>
<td>Unit length – dim. A (approx.)</td>
<td>1690mm</td>
<td>2650mm</td>
<td>3260mm</td>
<td>3890mm</td>
<td>3890mm</td>
<td>4050mm</td>
<td>4050mm</td>
</tr>
<tr>
<td>Unit width – dim. B (approx.)</td>
<td>1860mm</td>
<td>2150mm</td>
<td>3210mm</td>
<td>2900mm</td>
<td>2900mm</td>
<td>2900mm</td>
<td>2900mm</td>
</tr>
<tr>
<td>Unit height – dim. C (approx.)</td>
<td>1110mm</td>
<td>1250mm</td>
<td>1250mm</td>
<td>1520mm</td>
<td>1520mm</td>
<td>1620mm</td>
<td>1620mm</td>
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<tr>
<td>Standard connection</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
<td>Quick coupler</td>
</tr>
</tbody>
</table>

**Features**

- **Body rotation 30 degrees**
  - Standard
- **Pad rotation 120 degrees**
  - Optional
- **Sideshift 200mm**
  - N/A
Austin Dual-Arm Tyre Handlers

1. Adaptable to custom designed Austin and OEM quick couplers, direct mount or fork mast
2. 30 degree main body rotation (hydraulic cylinder)
3. 120 degree pad rotation
4. Heavy duty slew ring for body rotation
5. 4 function control box for operation of Austin tyre handler and quick coupler
6. Supply of hydraulic kit which includes flow and pressure control module or equivalent
7. Safety fall back arrestors incorporate angle adjustable support arms, attached inside of tyre handler grab arms, to suit the full range of Austin tyre handlers. Fall back arrestors are designed to be a safe guard against the possibility of injury to a user if a tyre slips while being clamped by the tyre handler
8. Stop blocks on pad and body rotation act as a fail-safe in the event of a failure in the hydraulic actuating cylinders
9. An optional overpressure alarm system can be installed with a cabin console and audible alarm. The system is triggered by pressure switches or strain gauges mounted to the clamping cylinders which detect potentially unsafe clamping practices
10. Innovative clamp pads give greater grabbing force for wet and slippery tyres
11. Tyre and rim able to rotate from horizontal to vertical via the clamp pad rotation function
12. Side shift function to allow side ways movement in clamp mode - 200mm range
Austin Engineering has developed the innovative range of T3 three-arm tyre handlers.

The T3 Tyre Handler design no longer requires conventional pad rotation which substantially reduces the extended centre of gravity in tyre handling operations. It therefore allows smaller and more compact machine compatibility ideal for, but not restricted to, underground tyre maintenance operations.

Machine stability is also greatly improved.

Clamp cylinders are fully hidden to maximise visibility and accessibility around the tyre handler during tyre manipulation. If left in the clamp position when performing tyre/rim disassembly or servicing the unit will provide added protection and containment from flying debris in the case of a tyre explosion.

**T3 TYRE HANDLER RANGE – DIMENSIONS & CAPACITY**

<table>
<thead>
<tr>
<th></th>
<th>T3-S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td>2,500kg</td>
</tr>
<tr>
<td><strong>Max. pad open (nominal)</strong></td>
<td>2172mm</td>
</tr>
<tr>
<td><strong>Min. pad closed (nominal)</strong></td>
<td>1255mm</td>
</tr>
<tr>
<td><strong>Clamp style</strong></td>
<td>Telescopic</td>
</tr>
<tr>
<td><strong>Weight of unit</strong></td>
<td>1308kg</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>1750mm</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>1400mm</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>1250mm</td>
</tr>
</tbody>
</table>
Austin T3 Tyre Handlers

1. Ability to slew 30 degrees for correct alignment of rim stud holes and valve stems
2. Fully adjustable clamp arms cater for a range of tyre and rim combinations
3. 30 degree main body rotation (hydraulic cylinder)
4. Safety lock valves fitted to all cylinders
5. Heavy duty slew ring for body rotation
6. Low profile clamp pads allow easy access to confined clearances common around underground mine trucks and LHD’s (fuel tanks, mudguards etc.)
7. Optional high power LED work lights strategically incorporated for additional visibility underground or for working at night
8. Optional camera with cab mounted monitor
9. Arms positively clamp in three directions simultaneously to supply superior clamping force over conventional designs
10. Risk of tyre escape is virtually eliminated even in the unlikely event of system failure
11. The design also has the ability to compress tyre side walls to allow for safe removal of the bead seat band, locking ring and o-ring in a safe and contained manner without tyre side wall damage (requires optional quick attachment tooling)
12. Attachment lugs are configured to allow forward rotation sufficient to clamp the tyre situated on the ground in a horizontal position
13. Crowd back vertically to the required tyre mounting position and into a functional and safety carry/transit position. This eliminates the possibility tyre escape in transit.

* Alternative connections are available upon request, such as direct couple to a loader, or direct couple to a fork lift mast.

** It should be noted that the mass of rims can vary immensely and care should be taken to determine the actual weight of the tyre/rim combination if a rim is fitted to the tyre.