



Wheel, Beadlock, tire

► Tire protection

The Hutchinson Internal Beadlock is configured to fit the shape of the tire bead. It is easily installed on an appropriately sized two piece bolted together or three piece lock ring type wheel. Once the components are installed, increasing the footprint of the tire on the ground for improved traction is as easy as reducing the air pressure in the tires.



Beadlock insertion

► Compatibility

The Hutchinson Internal Beadlock complies **with all main flat rim standards and has been used with all major tire brands.**

It is standard equipment on many military OE platforms and specialty vehicles that require low pressure operation but do not have need for runflat capability or mine protection. It also adapts to most 2 and 3 piece wheel configurations which use CTIS.

The Hutchinson Internal Beadlocks are available for a wide range of rims and tires from 12" to 36".



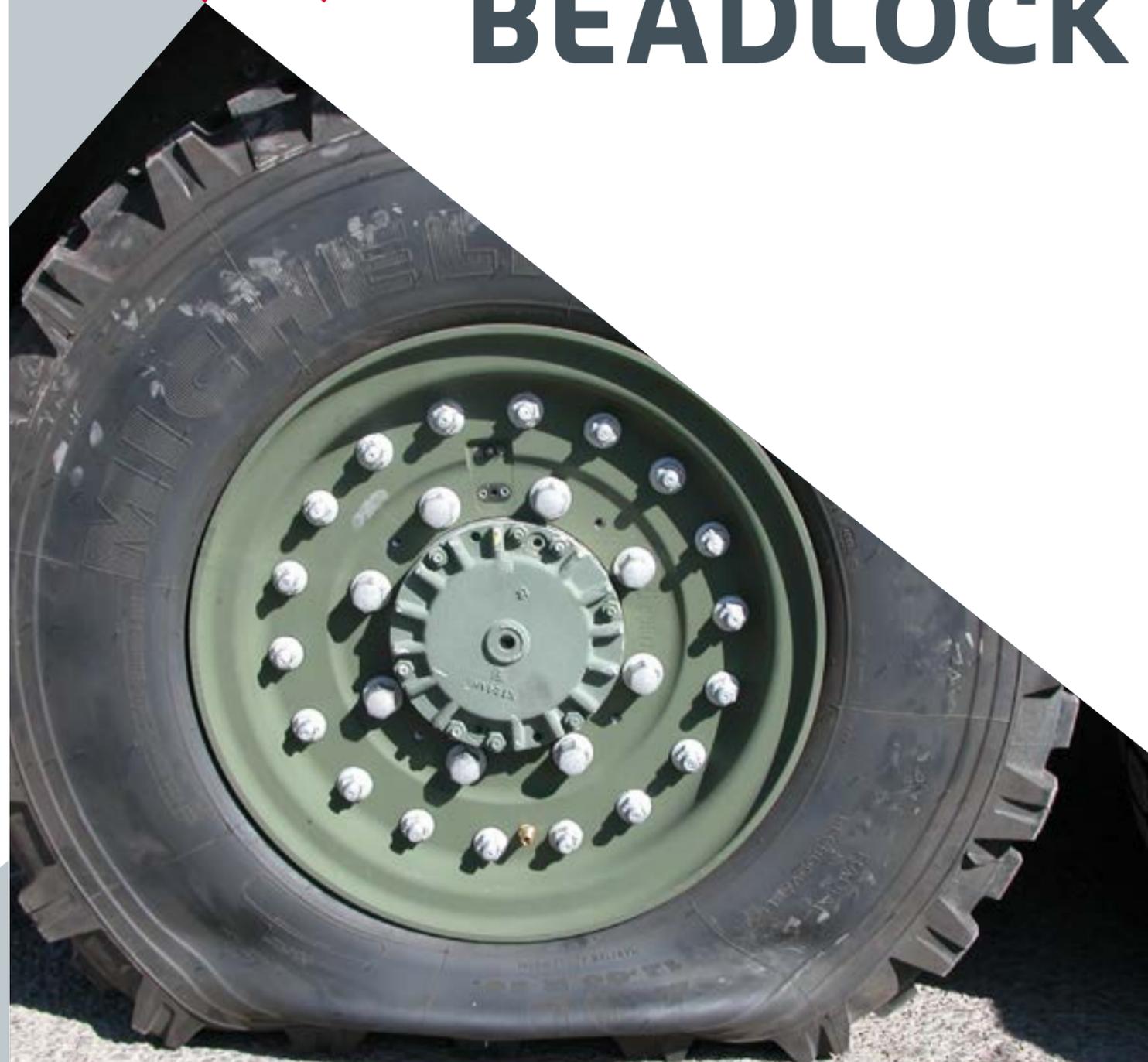
Hutchinson Beadlock mounted on a 3 piece lock ring wheel



Hutchinson Beadlock mounted on a 2 piece bolted together wheel

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BEADLOCK



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Hutchinson, the world leader in mobility systems, has provided solutions to the military and off-road markets for over 80 years.

The Hutchinson systems have proven to be the best in all terrains from arctic snow to desert sand.



Hutchinson Internal Beadlock

To increase the mobility of a wheeled vehicle operating in soft terrain such as sand, mud or snow, it is necessary to **increase the footprint** of the tires. This is achieved by the crew **decreasing the tires air pressure**. For example a 4x4 at low pressure can easily exceed the footprint of an 8x8 at service pressure.

This mobility is only achievable if the wheels are



Tire without Beadlock



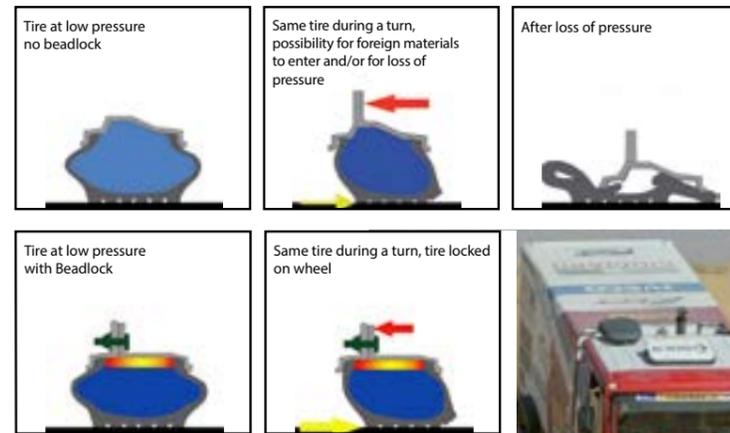
Low pressure operation with Beadlock

Service pressure

Cross country pressure

Sand pressure

Emergency pressure



Truck equipped with Hutchinson Beadlock

► Mobility in all terrains

The air inside a tire applies pressure on the tire walls. This pressure clamps the tire beads on the rim seats. At low pressure the clamping force on the tire beads decreases drastically, and is not sufficient **to prevent the tire from slipping on the wheel or unseating.**

► **Solution :** The Hutchinson **Beadlock ensures the clamping of the tire** beads on the rim at lowered or zero pressure. As a result the vehicle capabilities are enhanced by:

- Increased **traction** and **braking**
- Improved **steering control**
- **Minimal** chance of **rollover** caused by the unseating of the tire
- **Preventing foreign materials** from entering the tire.

Beadlock applications



All these safety features make the Hutchinson Internal Beadlock or the VFI with integrated **Beadlock mandatory on :**

- **all vehicles operating at low air pressure**
- **all vehicles equipped with a CTI system**