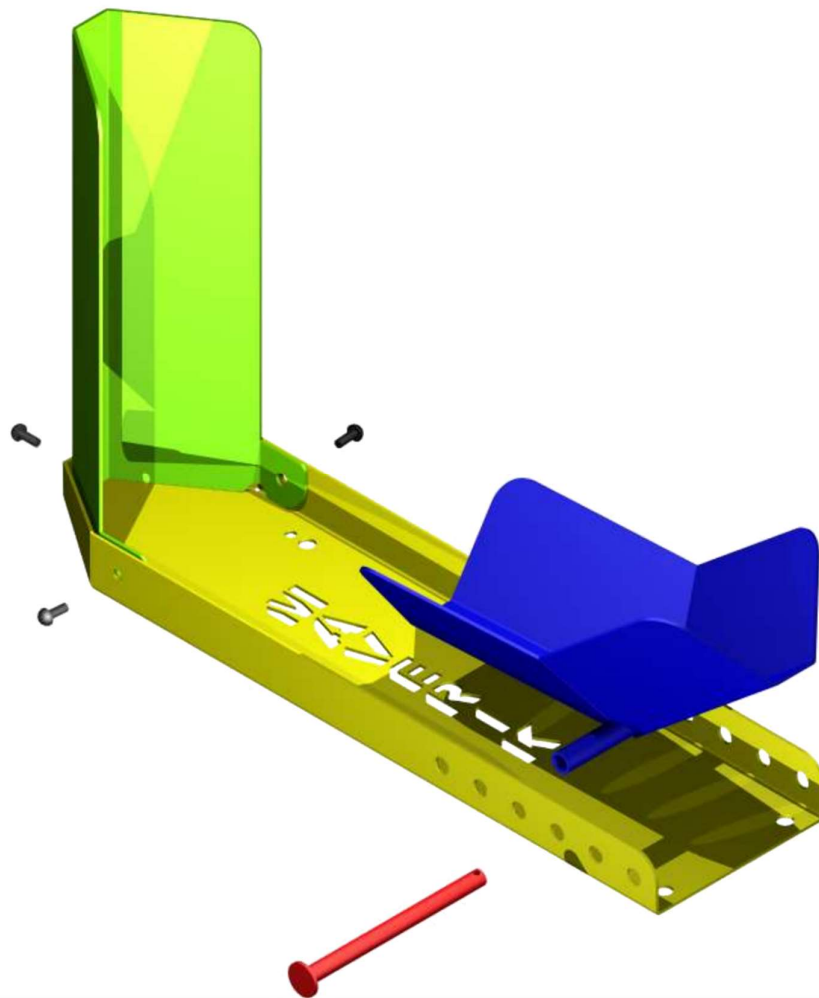


MAVERIK HEAVY-DUTY FRONT WHEEL CHOCK

Strapping a motorcycle to a trailer with a wheel chock is best accomplished by rolling the front wheel into the chock to hold it upright, then securing the bike with four ratchet straps—two at the front triple tree and two at the rear frame/footpegs—tightened down to pull the suspension securely.



This comprehensive technical document outlines the engineering specifications, structural logic, and operational procedures for the **MAVERIK Heavy-Duty Front Wheel Chock**.

MAVERIK HEAVY-DUTY FRONT WHEEL CHOCK

TECHNICAL SPECIFICATION DATASHEET

The MAVERIK Wheel Chock is a precision-engineered motorcycle retention system designed for the demanding South African motorcycle transportation and workshop environments. Utilizing high-grade laser-cut components and CNC-formed geometry, it provides superior vertical stability for motorcycles ranging from lightweight enduro bikes to heavy-weight adventure tourers.

1. Structural Load Ratings

Application	Maximum Motorcycle Mass (GVM)	
Static Workshop Use	600 kg (1,320 lbs)	Bolted securely to the floor
Transit / Transport	400 kg (880 lbs)	Bolted securely to trailer/vehicle surface.

2. Engineering Architecture

- **Chassis Construction:** 2.4mm Hot Rolled Steel, CNC laser-cut and bent with a **2mm internal radius** via press-brake and then Epoxy Powder Coated. This radius bend maintains grain continuity, providing maximum resistance to lateral "levering" forces.
- **Variable-Pivot Logic:** Multiple 13mm adjustment holes allow for the relocation of the swivel axis to accommodate wheel diameters from **17" to 21"+**.
- **Reinforced Swivel Spine:** The cradle features a **120° "Deep-Pocket" geometry**. A 16mm x 1.6mm steel tube is precision-welded through the lower part of the 2.4mm tyre cradle, acting as a structural beam that distributes loads across the full 150mm width of the 12mm solid pivot rod.
- **Fixed Front Stop:** A vertical stop-plate handles longitudinal kinetic energy during vehicle deceleration as well as assisting with lateral stability.

3. Operational Logic: The "Over-Centre" Lock

The MAVERIK system relies on **mechanical leverage** rather than friction.

1. **Entry:** The front tyre enters the 120° cradle, continue with a forward motion so the motorcycle causes the transition stage.
2. **Transition:** The tyre rolls over the 12mm pivot axis (The "Cam" Point).
3. **Lock:** The cradle flips forward until the tyre meets the fixed vertical stop. At this point, the 120° geometry "wraps" the tire, providing three points of contact: The front and rear of the cradle, and the front vertical stop.

4. Setup & Calibration Guide

To ensure the safety of your motorcycle and the longevity of the chock, follow these calibration steps for your specific tire size.

Step 1: Selecting the Tyre Cradle Pivot Hole

- **Forward holes (Closest to Stop):** Best for 17" wheels (Road/Supermoto).
- **Centre holes (Middle):** Best for 19" wheels (Scrambler/Dual-Sport).
- **Back holes (Furthest):** Best for 21" wheels (Enduro/Adventure).

Step 2: The "Zero-Load" Verification

Once the bike is loaded, perform the following check:

- **The Goal:** The forward facing part of the tyre cradle must be horizontal and as close as possible to the horizontal base plate and the back of the cradle must be in contact with the tyre.
- **Why?** If the tyre cradle is hovering, the entire weight of the bike is suspended on the 12mm pivot rod. If the tyre cradle is horizontal to the base, the weight is distributed more evenly and holds the tyre in position better.
- **Adjustment:** If the cradle hovers and is not horizontal with the base of the chock, move the pivot pin **one hole further from** the front stop thus dropping the cradle towards the base. (repeat as necessary)

Step 3: Extraction Calibration

- If the bike is too difficult to pull out and the front wheel is hovering, the pivot is likely too close to the stop, creating excessive "clamping." Move the pin **one hole further back** to reduce the extraction effort while maintaining stability.
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5. Safe Transport Checklist

- **Bolts:** Verify all 4 x M12 mounting bolts are tightened securely to the vehicle/trailer floor.
 - **Pin Security:** Ensure the 12mm pivot rod is locked with its R-clip.
 - **Tire Pressure:** Check that front tire pressure is within spec; a flat tire will reduce the effectiveness of the mechanical lock.
 - **Tie-Downs:** While the MAVERIK chock provides excellent vertical support, 2-point or 4-point tie-downs are **mandatory** for transportation to manage lateral G-forces. (Tie-downs not included)
 - **The MAVERIK Chock** holds the bike upright, making it easier to strap down on your own; the straps hold the bike down and prevent any swaying.
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