

# STAUN

INTERNAL BEADLOCK  
PNEUMATIC BEAD LOCK SYSTEM

installation instructions

NEW  
EASY FIT



STAUN INTERNAL BEADLOCK™ IS IDEAL FOR USE WHEN COASTAL SAND DRIVING, DESERT SAND DRIVING, ROCK CLIMBING & MUD DRIVING.

- PNEUMATIC
- LIGHTWEIGHT
- EASY TO FIT
- DOESN'T AFFECT WHEEL BALANCE
- NO SPECIAL RIMS REQUIRED
- LONG LASTING
- 5 YEAR WORKMANSHIP & MATERIAL WARRANTY
- BOTH BEADS SECURED
- PROUDLY AUSTRALIAN MADE

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PRODUCTS

TESTED UNDER  
EXTREME CONDITIONS

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# installation

# STAUNO

INTERNAL BEAD LOCK  
PNEUMATIC BEAD LOCK SYSTEM



**1) Locate position for the tube valve stem hole:** The beadlock tube valve stem hole should be 150 to 200 mm (5.905 to 7.874") clockwise from the standard valve stem hole and as near to the center of the rim as practical without interfering with the brakes and associated components if the tube valve stem is located inboard/brake side of the rim. Ensure that the proposed inside and outside rim tube valve stem hole surfaces are flat, parallel (to accommodate both tube valve stem O-rings) and less than 13mm (0.519") thick. (If your new Staun Internal Beadlocks are being fitted to Staun manufactured rims, the tube valve stem hole has been predrilled. Proceed to step 3).

**2) Drill and chamfer the tube valve stem hole:** Drill an 8 mm (0.315") hole at the chosen position. Chamfer the drop center side of this hole to receive the inner O-ring. The chamfer face should be 2 to 3 mm (0.079 to 0.118") wide. A screw countersinking tool at slow rotating speed is best to make the chamfer. Clean all, metal chips off the rims, all beadlock components and from within the tyres. Chips can cause tube failure.

**3) Prepare the rims:** The rims should be clean and free from all rough edges to ensure that the tube is not damaged during installation. All rust and labels, and their adhesive should be removed from the rims.

**4) Prepare the tyres:** The inside edge of the tyre bead should be checked for sharp edges and buffed smooth as necessary. This is particularly true of tyres 36 inches and larger. This is mandatory for all tyres with beads greater than 16 mm (0.629") regardless of diameter.

**5) Powder all components:** Powder the beadlock cap, tube, air channel and the rims' drop center. Pay particular attention to the inside and outside of both beadlock beads (the black webbing at the ID of the cap).

**6) Contour the air channel:** Select the proper size rubber grommet for your rims' tyre valve stem holes and discard the other. Temporarily, and without force, hold an air channel up to the existing valve stem hole noting the shape necessary to fit to the inside of the rim assuming the tyre bead is in position. Without using the metal portion, bend/pre-contour the air channels to the shape if necessary. Set these aside for step 12.

**7) Mount the first tyre bead:** Mount the first tyre bead as normal. A Windex-like product is recommended in place of conventional tyre lubricants. This ensures that if rewetted in actual use, the rim will not spin within the tyre.





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**8) Elevate the tyre:** Elevate the tyre 75 to 100 mm (2.952 to 3.937") with wooden blocks to provide working space between the outside tyre bead (unmounted portion of the tyre) and the outside of the rim (now inside the tyre) for the balance of the beadlock installation.

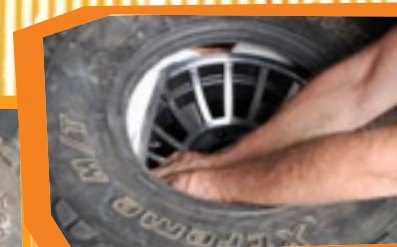
**9) Mount the first beadlock bead:** Mount the first beadlock bead in a manner similar to the first tyre bead. Position the tread overlap (sewn portion) opposite (180° across from) the air channel valve stem hole to compensate for the weight of the air channel.

**10) Mount the inner tube:** Check to make sure that the smaller, inner O-ring (only) is at the base of the tube valve stem. Lay the tube flat on the tyre with the valve stem pointing up unless the valve stem hole is inboard of the center of the rim. In that case, the valve stem should be pointing towards the inside (brake side) of the rim. Insert the tube valve stem through the newly drilled hole; install the outer (larger) O-ring and cone washer on the outside of the rim, and thread the nut half way down. After inserting the balance of the tube, check to ensure that there are no folds, wrinkles and twists in the tube, or strain on the valve stem.

**11) Mount the outside beadlock bead:** Mount the outside beadlock bead over the rim using the drop center as normal. By running your hand around the inside of the beadlock cap, ensure that there are no wrinkles or folds in the beadlock cap and that the tube is still not stressed in any manner.



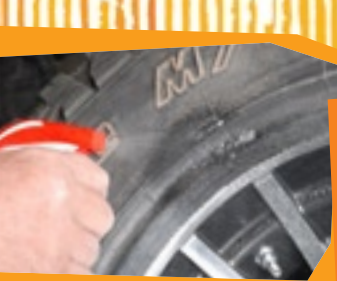
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**12) Install the air channel:** Remove the blocks and let the tyre rest on the rim. Tilt the tyre over the original valve stem hole to where you can freely access the tyre valve stem hole without stressing the tube valve stem. With the long end (the non valve stem end) of the air channel pointing outboard (up on a tyre machine), insert the metal portion of the pre-contoured air channel (step 7) into the original valve stem hole ensuring that the grommet seats properly into the rim and the short end (the valve stem end) of the air channel is pointing down and is totally seated (lying flat) between the tube and rim. Apply the washer and nut to the outside of the rim, and then tighten firmly (do not over tighten). Lift the tyre bead over the air channel and rest it squarely back on the rim. The long



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end of air channel will eventually end up between the beadlock bead and tyre bead pointing into the tyre's air chamber.

**13) Mount the final tyre bead:** Start mounting the outer tyre bead with this bead crossing over the rim lip at the air channel valve stem and continue mounting counterclockwise until the bead is about to drop over the rim above the valve stems. Support the tyre to avoid it stressing the air channel and continue bead mounting so that the tyre bead finally drops onto the rim above both valve stems.

**14) Tighten the tube valve stem nut:** Inflate tube to shape 2 psi (0.13 Bar) and then tighten the tube valve stem nut firmly and do not over tighten.

**14) Use the beadlock to bring the tyre beads into contact with the rim:** Lubricate both tyre beads with a Windex-like product before starting this step. Inflate the bead lock until both tyre beads are in full (air holding) contact with the rim. This will typically be less than 10 psi (0.66 bar) in the tube.

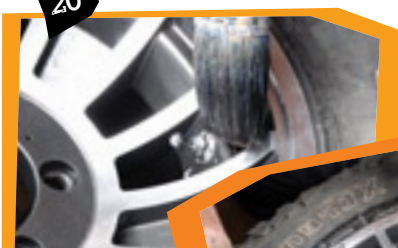
**16) Pop the tyre beads on the rim:** Using the tyre valve stem, pop both tyre beads onto the rim. In some rare cases when the bead will not pop on, use the beadlock to finish the job. Now, remove tyre valve core and deflate the tyre completely.

**17) Fully inflate the beadlock:** Inflate the beadlock to 40 psi (2.6 bar) cold. This leaves room for temperature, pressure expansion. The maximum beadlock pressure is 50 psi (3.3 bar).

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**18) Reinflate the tyre to desired pressure:** Under all circumstances, the tyre pressure should always be at least 5 psi less than the beadlock pressure and more difference is acceptable.

**19) Check air channel flow:** Depress the tyre valve stem for 5 seconds to ensure that air flows out of the tyre. Air should readily come out as will happen when airing down. If not, the air channel must be reinstalled.

**20) Check for tyre leaks:** With both beadlock and tyre inflated, and both valve stem nuts tight, using a mild soap and water solution, check both tyre beads and valve stems for leaks.



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# uninstalling



## Uninstalling The Beadlock And/Or Tyre

First, deflate the tyre and then the beadlock. You must deflate both the beadlock and tyre to uninstall either. Remove both valve stem nuts and push the valve stems out of the rim and into the tyre cavity. Taking care to not place the bead breaker tool over either valve stem (preferably 180° across from them), break both tyre beads. Ensure that neither valve stem is stressed while removing the tyre bead.

## disclaimer

For Off Highway Use Only. Staun Beadlocks may not be legal in all jurisdictions. Staun Products Pty. Ltd. and its distributors are not liable for Staun Internal Beadlocks incorrectly installed and/or misused in a manner for which they were not intended. Vehicles driven with low tyre pressures may result in unfamiliar and less predictable handling on or off highway, so drive accordingly. Staun does not accept responsibility or liability for misdrilled rims and/or pinched or damaged inner tubes.

First, confirm the suitability of your rims with qualified sales personnel prior to starting. Only one piece alloy or steel rims are acceptable. Conventional, mechanical beadlock rims are unacceptable.

Read the INSTALLATION instructions completely before starting. Installation can be dangerous. Safety is paramount! Use common sense and good, safe work practices throughout the entire installation process. Wear gloves and safety glasses. Be cautious with compressed air. Use tyre chocks before jacking the vehicle up and safety stands after it is up. Work sober! Keep these instructions in the vehicle for future reference. Others may need them to replace or repair your tyre or beadlock.

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## warranty

Staun Internal Beadlocks are guaranteed against defects in workmanship and materials for a period of five years from the date of original purchase by the original purchaser. The inner tube is guaranteed for a period of one year.

## part identification

Think of the beadlock cap as a tube type mini tyre, hence it has a tread, sidewalls, beads, and a separate air channel. The tread overlap area is where the tread is sewn together.

## technical assistance

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