

Tech-Tips for Difficult-to-Service Wheels

Form 5072-T, 10/08
Supersedes 5072-T, 3/06

Servicing difficult O.E.M. and custom aftermarket wheels, low-profile tires and runflats can generate exceptional profits with minimal investment. But, to help avoid potential injuries and costly mistakes, proper equipment and training are necessary. Begin by keeping in mind the following tips...

Bead Loosening

There are two types of bead looseners commonly available: bead rollers that roll against the tire wall as it rotates loosening the bead with minimal stress and shovel-type looseners that push a steel blade against the tire sidewall. When using a shovel-type bead loosener, extra caution must be exercised:

- Position the blade on the tire sidewall as near as possible to the rim edge without touching. Avoid pressure at the middle of the tire sidewall – the weakest part of the tire.
- Use short strokes and rotate the tire to avoid permanently deforming the bead or tire shoulder.

Tire Pressure Monitoring Systems (TPMS) use air pressure sensors that are easily damaged during bead loosening. Keep the bead-loosening blade away from the sensor location and use caution.

- Some TPMS use strap mounted sensors in the drop-center, usually located 180° away from the valve stem.
- Sensors in other wheels are integrated into the valve stem design.

Wheels with reverse drop-centers are increasingly popular – especially 20-in. and larger SUV/LT aftermarket wheels.

- While loosening the bead, examine the wheel to determine the location of the reverse drop-center before beginning the demount procedure.

Clamping

When servicing custom wheels, protecting the tire and rim from damage is second only to safety. Use a tire changer that provides *damage-free rim clamping* and is capable of clamping both *internally* and *externally* without steel-jaw-contact damage.

- To prevent wheel damage when using a “tabletop” changer, clamp the wheel from the outside only, using plastic or rubber protectors as required.
- Clamp wheels from the inside or outside when using a “tulip” design clamp.
- Reverse drop-center wheels must be clamped inverted when mounting and demounting the tire.



Bead rollers loosen the bead with minimal stress on the tire.



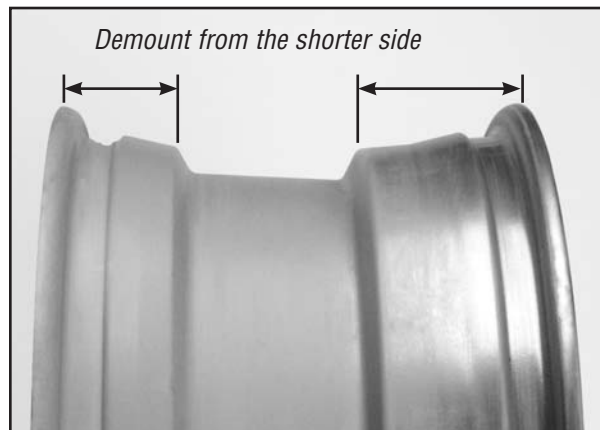
Extra caution is required when using a bead loosening blade.



This “tulip” clamping system provides “soft grip” internal and external clamping.



When used properly, it virtually eliminates the wheel damage inherent with steel jaw clamps.



Identifying the location of the drop-center before beginning service on the wheel prevents damage. When servicing, the drop-center should always face up. Reverse drop-center wheels should always be clamped upside down.

HUNTER
Engineering Company

Mounting

These four steps, in no particular order, must be completed in order to successfully mount a tire on a rim. If mounting is difficult, check to ensure that each of these steps is being completed.

- Position the bead on top of the left lip of the mount/demount head.
- Position the bead under the right lip of the head.
- Twist and lock the tire to the rim so both turn together.
- Lubricate and push the bead down so it slips into the drop center.
- The most difficult tires require some type of pusher or press system to push the tire into the wheel drop center and keep it there.

Demounting

A well designed bead lever is critical to damage-free wheel service.

- It can significantly reduce stress on the tire bead and the technician during demounting.
- It allows the technician to determine by feel the degree of stress being placed on the bead during demounting.

Lubrication

Insufficient lubrication is the most frequent cause of damage to the tire or rim during wheel service. Lubrication must not only provide a slippery surface on the tire bead, but also stay in place and be non-caustic to custom rim clear coats.

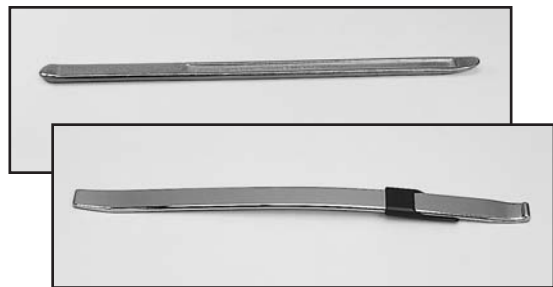
- Start every operation by cleaning the tire changer's wheel-contact parts of any excess lubrication, dirt or grime and note any existing damage to the wheel.
- The tire needs lubrication when loosening the bead – a step frequently overlooked when removing a tire.
- Too little lubrication can cause damage and mounting-related vibration at highway speeds. Too much lubrication (or improperly mixed liquid lube) can cause wheel slippage and corrosion.

Have a Game Plan for Custom Wheels and Low-Profile Tires

Invest in quality equipment with features and accessories to handle custom wheels, low-profile tires and runflats without damage.

Arrange training for your technicians on the equipment they will be using. Hands-on technical training and education are critical for shops wishing to provide top-level wheel service.

Take advantage of additional service opportunities. Vehicles equipped with aftermarket wheels frequently have accompanying brake, alignment and ride harshness problems. Use Hunter's Customer Vehicle Information form to help uncover problem areas and needed service. Visit our website at www.hunter.com/largewheels to download your free copy today.



Bead lever design and performance varies widely. The high-performance lever (lower picture) is curved for maximum leverage, has rounded ends so not to pierce the tire sidewall and is finished in chrome to eliminate binding.



This non-marking, polymer bead depressor tail is a simple and effective way to hold low-profile tires in the drop-center during mounting and demounting when hand pressure doesn't work.



Press systems range from single- to multi-point for the most difficult wheels and tires.

HUNTER

Engineering Company

11250 Hunter Drive, Bridgeton, MO 63044
800-448-6848 • 314-731-3020 • FAX: 314-731-1776

Visit our Website at:
www.hunter.com/largewheels