

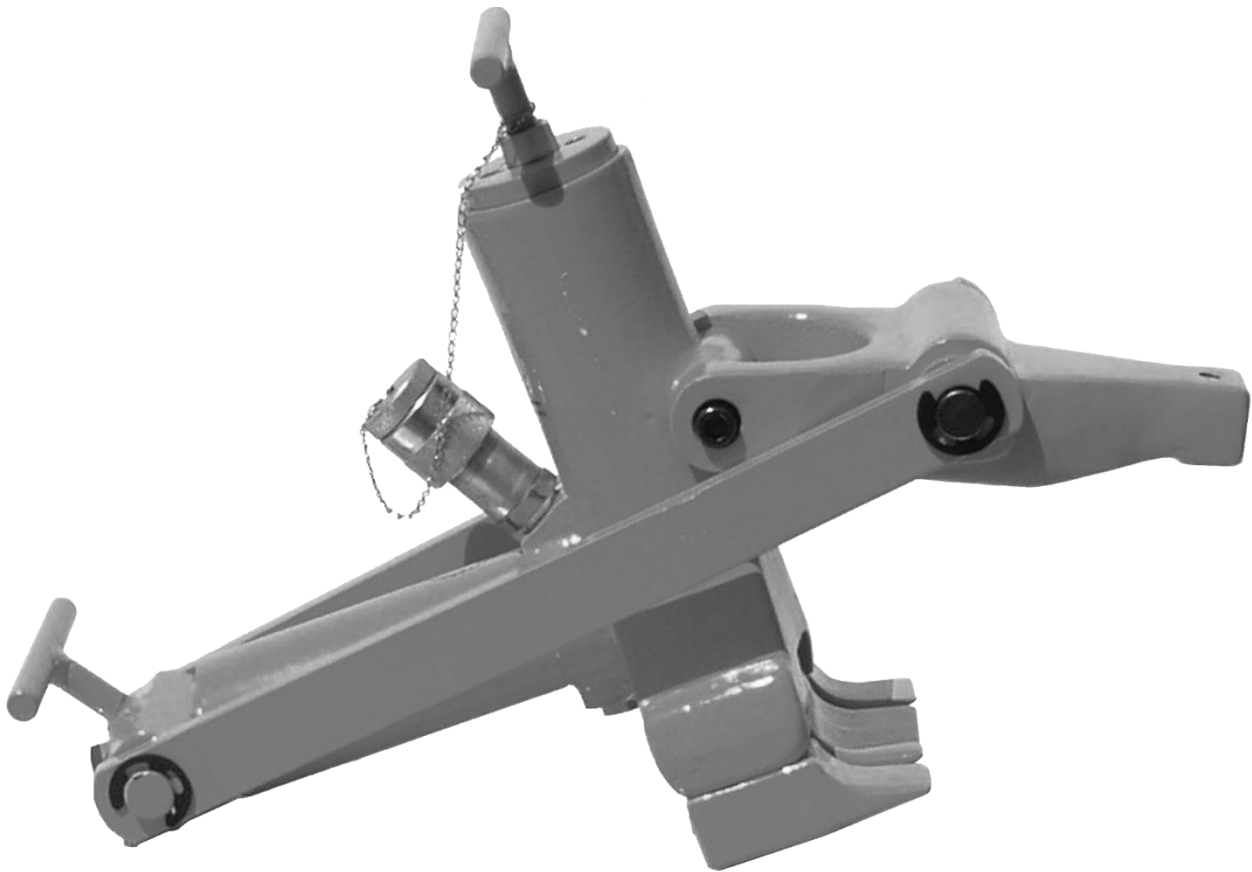


ESCO EQUIPMENT SUPPLY COMPANY

Manual & Parts List

Tire Bead Breaker

Model #10101



IMPORTANT RECEIVING INFORMATION

Visually inspect all parts for shipping damage. If you find shipping damage, notify the carrier at once. Shipping damage is not covered by your warranty. The carrier is responsible for all costs of replacement or repair caused by shipping damage.

DESCRIPTION

The 10101 Bead Breaker is used on all types of rims except 5-piece earthmover rims. It is ideal for use with truck, farm tractor, grader, combine, and skidder tires. The 10101 can be used with a model 10500, 10502, 10504, or equivalent 10,000 psi [700 bar] pump.

SAFETY INFORMATION

To avoid personal injury or property damage while using this product, read and follow all **DANGERS, WARNINGS, CAUTIONS, and INSTRUCTIONS** that are attached to, or included with, this product.

1. **Follow the instructions of the tire manufacturer and the vehicle manufacturer when deflating, demounting, mounting, and inflating tires.**
2. **These operating instructions do not apply to any specific rim. Therefore, contact the rim manufacturer for the correct procedure for your rim.**
3. **For the publication, “Multipiece Rim Matching Chart” contact the United States Department of Labor, Occupational Safety, and Health Administration (OSHA), Washington, DC, 20210, 202-219-6091, or contact ESCO at 1-800-352-9852. If you are outside the U.S., contact your local government officials.**
4. **ESCO cannot be held responsible for damage or injury resulting from unsafe use of this product; lack of maintenance; or incorrect product and system application.**
5. **Contact ESCO when in doubt about safety precautions or applications.**

A CAUTION

The bead breaker, and all tire tools, should be used only by persons properly trained according to OSHA Regulation #29CFR1910.177, “Servicing Single-Piece & Multi-Piece Wheels.” Free copies of this regulation are available upon request from ESCO.

A WARNING

To avoid serious personal injury, always wear proper protective gear, such as hard hats, safety glasses, gloves, and steel toe shoes when using hydraulic equipment.



REMOVING THE WHEEL

1. Chock the wheels opposite the jack.
2. Jack up the vehicle.
3. Crib the vehicle with safety stands or blocking devices after jacking it up. Do not work under an unblocked load.

A DANGER

Failure to chock the wheels and crib the vehicle can result in serious injury or death.

4. Remove the valve core; deflate tires completely. (See Fig. 1.)
5. Insert a thin piece of wire through the valve stem to make sure air is flowing freely and the valve stem is not blocked.

NOTE: Deflate both tires if you have a dual mounting.

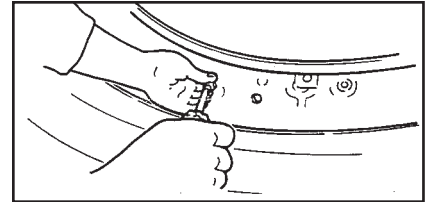


Figure 1

A DANGER

Always deflate tires before removing a wheel, a rim, or part of a rim, such as a rim clamp or nut. If you do not deflate the tire, the tire could explode, causing serious injury or death.

- 6a. If you are breaking the tire bead with the wheel on the vehicle: Proceed to “Positioning the Bead Breaker” below.
- 6b. If you are breaking the tire bead with the wheel off the vehicle: Remove the tire/rim assembly from the vehicle and place it flat on the ground with the gutter side up. Then proceed to “Positioning the Bead Breaker” below.

USING THE 10101 BEAD BREAKER

Positioning the Bead Breaker

Position the bead breaker, so that the wedge-shaped teeth will grab evenly under the rim flange when the clamping jaw tightens. (See Fig. 2.)

NOTE: Make sure the bead breaker is about 30°, or at least 12 inches [0,3 m], to one side of the flange butt weld.

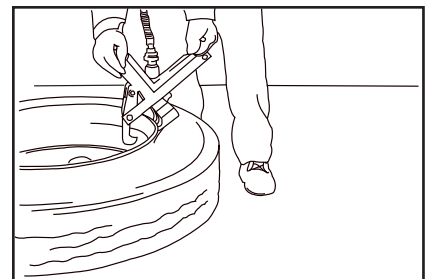


Figure 2

Activating the Bead Breaker

A CAUTION

The bead breaker uses a long stroke and high force. Be careful not to damage or bend rim parts, such as the flange butt weld, when using the bead breaker.

1. Run the air hydraulic pump so that the clamping jaw begins to tighten against the rim. (See Fig. 3.) Make sure the wedge-shaped teeth are placed well into the tire bead and against the rim flange.

NOTE: To grab the rim flange evenly, you may have to try several times. Do not force the bead breaker when grabbing the flange.

2. Continue to apply hydraulic pressure until the bead breaking ram extends about 1/4 inch [6,35 mm] from the bead breaker. (See Fig. 4.)

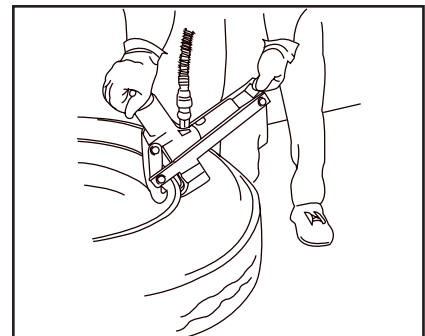


Figure 3

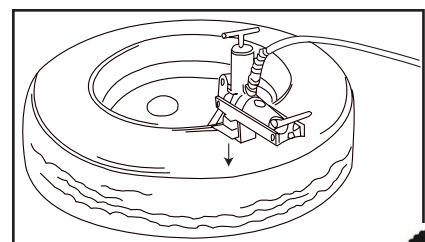


Figure 4

3. Maintain the bead breaker, so that it is nearly perpendicular (90°) to the rim. (See Fig. 5.) If necessary, adjust the position of the bead breaker.
4. Step away from the bead breaker. (See Fig. 6.)

A DANGER

Always stand to one side of the rim when using the bead breaker. Standing to one side of the bead breaker allows you to maintain control of the bead breaker.

Do not hold the bead breaker when breaking the tire bead. If it is not seated properly and flies off the rim, the bead breaker could cause serious injury or death.

5. Continue to apply hydraulic pressure until the bead breaking ram extends about 1/2 - 3/4 inch [13-19 mm] from the bead breaker. (See Fig. 7.)

NOTE: Never try to break the tire bead with only one push. Instead, proceed to “Continuing to Break the Tire Bead” below.

Continuing to Break the Tire Bead

1. Move the bead breaker 8-12 inches [0,2-0,3 m] from its current position.
2. Repeat steps, starting with “Positioning the Bead Breaker”, until the rim is completely separated from the tire bead.

Breaking the Bead on the Other Side

1. Turn the tire over on the other side.
2. Repeat all steps, starting with “Positioning the Tire Bead” on page 2.

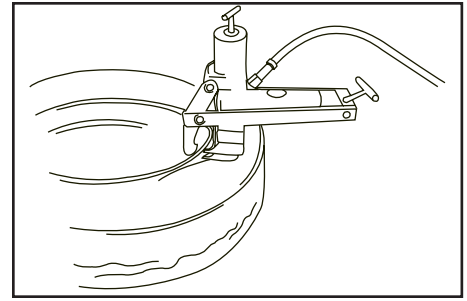


Figure 5

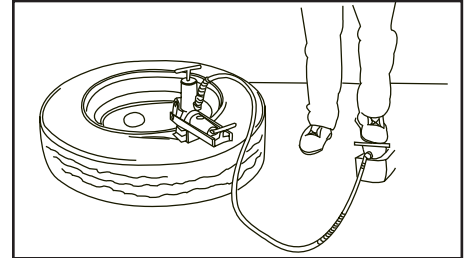


Figure 6

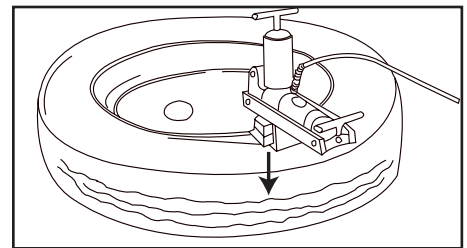


Figure 7

MOUNTING AND INFLATION

Jacking Up the Vehicle

1. Chock the wheels opposite the jack.
2. Jack up the vehicle.
3. Crib the vehicle with safety stands or blocking devices after jacking it up. Do not work under an unblocked load.

A DANGER

Failure to chock the wheels and crib the vehicle can result in serious injury or death.



A DANGER

Always replace damaged or badly worn tires. When replacing tires, always use a replacement of exactly the same diameter. Destroy old tires, so that they cannot be used. Using badly worn or damaged tires can result in serious injury or death.

1. Inspect all rim parts for damage.

A DANGER

Always replace rim parts that are bent, badly rusted, pitted from corrosion, cracked, worn, or damaged. Destroy old rim parts, so they cannot be used. Using damaged rim parts can result in serious injury or death.

Do not mix parts from one rim with parts from another rim. Always use replacement parts that you can positively identify as the CORRECT replacement parts. All replacement rim parts MUST match the replacement part numbers stamped on the rim parts. Rims with different part numbers cannot be interchanged. If in doubt about sizing, DO NOT reassemble the rim. Contact the rim manufacturer for more information.

2. Replace damaged parts.

A DANGER

Never weld on an inflated or partially inflated tire/rim assembly. Welding on an inflated tire/rim assembly can cause an explosion and serious injury or death.

Do not rework, weld, heat, or braze any rim parts for any reason. Reworking and welding damaged parts can result in serious injury or death.

3. Clean and repaint rim parts as necessary.

NOTE: Remove rust, dirt, and foreign material from rim parts. Repainting the rim parts and bare metal areas will make them last longer. Be careful to keep paint out of the lock ring groove in the gutter when repainting rim parts.

4. Visually inspect all tire and rim parts to make sure they are positioned properly.

Starting to Inflate the Tire

1. To comply with OSHA Regulation #29CFR1910.177, place the tire in a safety cage or other restraining device before inflating the tire. Use a clip-on air chuck and hose that is long enough to allow you to stand outside the wheel trajectory. The air line must be equipped with an in-line valve with pressure gauge or regulator that can be preset. Use ESCO Truck Tire Inflator Model 10951.

A DANGER

Always use a safety cage or restraining device when inflating a tire. Not using a safety cage or restraining device can result in serious injury or death.

Always use a clip-on air chuck and a hose that is long enough to allow you to stand outside the wheel trajectory. The air line must be equipped with an in-line valve with a pressure gauge or a regulator that can be preset.

Never use starting fluid, ether, gasoline, or any other flammable material to lubricate, seal, or seat the bead of a tubeless tire. Doing so can cause an explosion and serious injury or death.

2. Inflate the tire to 5 psi [0,345 bar].
3. Check all tire and rim parts again for proper positioning.
4. If tire/rim parts are not seated properly, deflate the tire and correct the problem before proceeding.



A WARNING

Never hammer, strike, or pry an inflated or partly inflated tire/rim assembly. If you must seat a part or correct a problem, always deflate the tire first.

A CAUTION

Do not use a steel hammer on rim or rim parts. This can damage the rim. If you must reposition tire or rim parts, use a rubber, plastic, or brass-faced hammer.

If a tire/rim assembly does not slide over a cast spoke wheel: Do not force the assembly by hammering. Instead, deflate the tire and inspect for warped or incorrectly seated parts, such as lock rings.

5. If tire and rim parts are seated properly proceed to “**Finishing the Tire Inflation**” below.

Finishing the Tire Inflation

1. Inflate the tire to 20 psi [1,38 bar].
2. Check the tire bead for proper seating.
3. Continue inflating the tire to 40 psi [2,76 bar]. If the tire bead is not fully seated, see the **Warning** below. If the tire bead is fully seated, continue with Step 4 below.

A WARNING

Never inflate a tire beyond 40 psi [2,76 bar] to seat a tire bead. If the tire bead is not fully seated at 40 psi [2,76 bar]: Stop! Deflate the tire and correct the problem.

4. Once you see that the tire bead is fully seated at 40 psi [2,76 bar], deflate the tire completely.
5. Reinflate the tire slowly to the manufacturer’s recommended pressure.

A DANGER

Inflate and load tires only to manufacturer’s specifications. Over-inflating and overloading tires can result in serious injury or death.

Never run a vehicle with only one tire of a dual assembly. Doing so can result in a collapse of the vehicle, leading to possible serious injury or death.

