

Bead Seater

Operating and Maintenance Instructions

Preparing the BEAD SEATER for use:

Check the BEAD SEATER has arrived in good condition, with no signs of shipping damage, and that you can identify each of the parts named in figure 1. The product should arrive fully assembled except for the barrel (1) which must be fitted before use. To fit the barrel (1), thread it firmly onto the Air Release Valve (2). Read the following instructions and safety information before use.

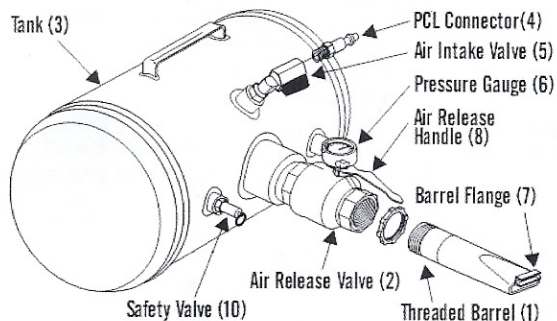


Figure 1

General Principle of Operation of the bead seater

Ordinary air supply lines for inflating tires do not deliver air quickly enough to expand a large or inflexible tire sufficiently to seal the tire bead onto the wheel rim. The BEAD SEATER includes a tank (3) of compressed air which is delivered by a quick-acting Air Release Valve (2) and a large diameter barrel (1) into the tire. Because a larger volume of air is delivered very quickly, the tire bead is lifted onto the rim, creating an air tight seal and so allowing the tire to be inflated.

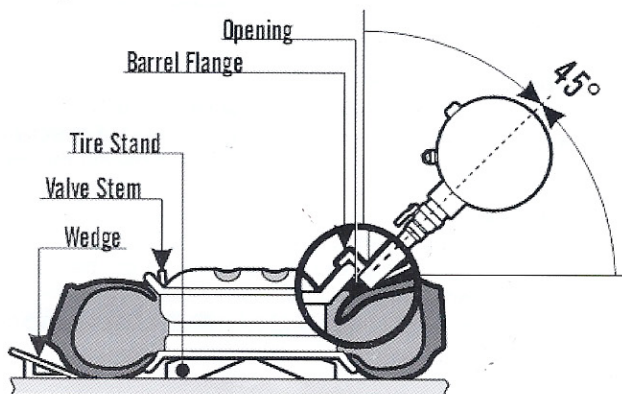
FILLING THE BEAD SEATER

The BEAD SEATER can be filled from any general commercial compressed air source. Refer to the Tank Pressure Information Table. Decide which Tire Type in the table most closely matches the tire you intend to inflate and identify the Suggested Tank Pressure. Ensure the Air Release Valve (2) is closed, attach the supply air line to the connector (4) on the BEAD SEATER then open the Air Intake Valve (5) to fill the BEAD SEATER. When the Pressure Gauge (6) indicates the Suggested Tank Pressure has been reached, close the Air Intake Valve (5) and disconnect the supply air line.

USING THE HORIZONTAL TIRE AND WHEEL:

Place the wheel and tire flat on a tire stand so the lower side wall of the tire is slightly off the floor. Seat the lower tire bead on the bottom (narrow) flange of the wheel. Fit a supply air line to the tire valve to complete tire inflation after the bead is seated. Rotate the barrel (1) so the barrel Flange (7) is on top (i.e. the same side as the Air Release Handle (8) - as shown in figure 2). Hold the bead seater at about 45 degrees from the vertical and rest the barrel Flange (7) on the upper edge of the wheel rim opposite the tire valve and so that the barrel (1) is pointing into the opening between tire and rim. Check no-one is too close and warn others that you are about to release the air from the bead seater. Hold the bead seater Handle (9) firmly in one hand and with the other turn the Air Release Handle (8) to fully open in one movement, so releasing the air into the tire. When the bead has seated, use the supply air line to inflate the tire to its operating pressure.

Figure 2



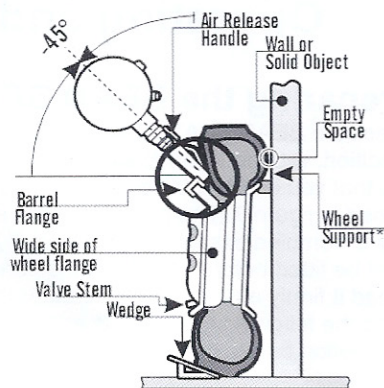
USING THE BEAD SEATER VERTICAL/UPRIGHT TIRE AND WHEEL (EXTRA CARE NEEDED):

Use this vertical/upright method when there is a large gap between the wheel rim and tire bead or if the tire is particularly heavy.

Safety Note: the tire and wheel must be leaning slightly back and be secured by a wedge. **IMPORTANT!** Support the wheel away from the wall so that the inflated tire will not be touching the wall. Otherwise, when inflating, the tire may push against the wall and cause the wheel and tire to fall forwards on top of the operator.

The back bead of the tire (furthest from the operator) should be seated against the wheel rim to trap the air. The front or wide flange of the wheel should be facing the operator. The valve stem should be at the bottom of the tire. Fit a supply air line to the tire valve to complete tire inflation after the bead is seated. Rotate the barrel (1) so the barrel Flange (7) is underneath (i.e. the opposite side from the Air Release Handle (8) - as shown in figure 3). Hold the BEAD SEATER at about 45° from the horizontal and locate the barrel Flange (7) against the edge of the wheel rim near the top of the wheel, and opposite the valve stem, so that the barrel (1) is pointing into the opening between tire and rim. Check no-one is too close and warn others that you are about to release the air from the BEAD SEATER. Hold the Handle (9) firmly in one hand and with the other hand turn the Air Release Handle (8) to fully open in one movement, so releasing the air into the tire.

Figure 3



HELPFUL HINTS

PRESSURE

The pressures listed in the Tank Pressure Information Table can be used as a starting point and then adjusted up or down as necessary. Adjust the pressure downwards if, when the BEAD SEATER is applied, the tire bead appears to seat at first and then falls off again (this happens because too much air in the BEAD SEATER has pushed the tire back off the rim after it has seated). Adjust the pressure upwards if the BEAD SEATER does not lift the tire bead far enough.

LUBRICATE

Lubricate all tire beads properly before using the BEAD SEATER. It can seem the BEAD SEATER is failing as it lifts the bead or the bead can fall off once seated. This may be due to poor bead lubrication.

ANGLE TO APPLY BEAD SEATER BARREL (1)

The angle at which the BEAD SEATER is applied is important. Too steep, and the air will hit the outside of the tire, and push it away from the rim. Too shallow and the air hits the rim and does not go into the tire. Angle the BEAD SEATER so that the barrel (1) points directly into the gap between the tire and rim.

WHERE TO APPLY BEAD SEATER

The most effective position to apply the BEAD SEATER is opposite the tire valve. This results in both sides of the tire receiving an air supply. Another factor is the size of the gap between wheel rim and tire bead. The BEAD SEATER should be applied at the place where the gap is largest. This ensures that the maximum amount of air enters the tire, creating the maximum lift, in the area with the worst problem. If a wedge has been properly used, the largest gap should be opposite the valve.

USE OF A WEDGE

A wedge, such as included in the BEAD SEATER Accessory Pack is used to ensure that the air from the supply line going into the valve is not wasted directly in to the air. Position the wedge under the tire close to the valve stem (figures 2&3). Try to position the tire to cover the valve.

AIR LINE SAFETY

The air line supplied with the BEAD SEATER Accessory Pack is designed to deliver the maximum volume of air and let the operator have both hands free to operate the BEAD SEATER. The air line supplied with the BEAD SEATER Accessory Pack must only be used for the initial seating of the bead. Do not use the air line supplied with the BEAD SEATER Accessory Pack for the inflation of tires beyond 12 psi (0.8 bar).

OPERATING THE AIR RELEASE HANDLE (8)

The Air Release Handle (8) should be turned quickly and fully in one movement.

STORAGE

The BEAD SEATER should be stored by hanging by the handle with the valve open. This allows any moisture to drain from the tank when the BEAD SEATER is not in use. It also protects the barrel (1) and other attachments on the BEAD SEATER from damage.

SAFETYNOTES - IMPORTANT!

The BEAD SEATER uses compressed air. Please ensure that it is only used for the purpose for which it was designed. The following safety procedures must be observed. Ensure that the BEAD SEATER is

only charged immediately before use. **NEVER STORE OR TRANSPORT A CHARGED TANK!**

CONSTRUCTION

The barrel is threaded on to the air intake valve to allow for rotation. Check when operating the BEAD SEATER the barrel is orientated in accordance with the manual and the barrel has been tightened. Note that the pressure gauge accuracy is +/- 10%.

AIR SUPPLY

The BEAD SEATER is a high quality tool, approved to CE, ASME, TÜV and BS EN 286 standards. It has been tested by the manufacturer to 165 psi (11 bar), and has a pressure release valve which will not allow it to exceed that pressure. The BEAD SEATER must be charged from a clean, oil-free, dry air supply. The BEAD SEATER should only be charged from a low pressure airline system (up to 165 psi/11 bar). The BEAD SEATER should never be filled with anything other than air at ambient temperature.

HEARING PROTECTION

Ear defenders must be worn at all times when discharging the BEAD SEATER. The BEAD SEATER produces high level noise which can seriously damage hearing. The recommended defenders are: Foamed polymer ear plugs. Consideration must also be given to people working close to the BEAD SEATER.

Noise Specification (Assuming the BEAD SEATER is used, on average, 6 to 10 times per day):
Average Equivalent Noise Level (L/AEq) < 70 dB.
Peak C Weighted Instantaneous Sound Pressure = 135 dB = 112.46 Pa.

(Measurements were taken discharging the BEAD SEATER into free air. The noise level is reduced when discharged at a tire and rim.)

EYE PROTECTION

Eye protection must be worn whenever the BEAD SEATER is discharged. Dust, swarf, rust and other particles may be blown back into the user's eyes.

TIRES - EXPLOSION RISK

Before using the BEAD SEATER on a tire or inflating any tire consider:
Tire Damage - Inspect the tire for damage. Do not inflate damaged tires.
Split Rims - Ensure that any locking ring is firmly in place.
Inflation - Do not over inflate the tire.
Use a safety cage for inflating large tires or tires at high pressures.

OTHER USES

Under no circumstances use the BEAD SEATER for any purpose other than that for which it was designed. In particular:

Do not store or transport a charged tank.

Do not use it for dusting down equipment or people.

Do not discharge the BEAD SEATER towards anyone.

Do not clean a tire with a flammable solvent before using the BEAD SEATER.

Do not subject the tank to any stress or impact that might weaken it.

MAINTENANCE

NOTE: DROP DAMAGE WILL NOT BE COVERED UNDER WARRANTY!

Check the BEAD SEATER regularly for damage or signs of wear. The tank must be maintained in accordance with BS EN 286 Part 1. To comply with regulations, and for insurance purposes ensure that the tank is inspected inside and out by a competent person every 12 months. Check that:

- There are no cracks in the tank, or any of the fittings.
- The barrel (1) is not damaged or bent and there are no obstructions to the barrel.

The recommended maintenance period is every year. Never tighten or loosen fittings while the cylinder is charged.

DRAINING

Ensure the BEAD SEATER tank is drained regularly. This is best done by hanging up with the Air Release Handle (8) open and the barrel (1) pointing down.

ACCESSORIES AND SPARE PARTS

The BEAD SEATER bead seating tool has associated accessories which can make it more convenient to use. A BEAD SEATER Accessory Pack includes one each of the following.

TIRE STAND

A tire stand designed to hold the wheel and tire in the best position for applying the BEAD SEATER is also available.

TIRE WEDGE

The tire wedge is used to support the tire to maximize bead contact with the rim. Place the wedge under the side of the tire near to the valve. This ensures that air entering through the valve goes into the tire, and does not escape straight away.

LOW PRESSURE AIR HOSE

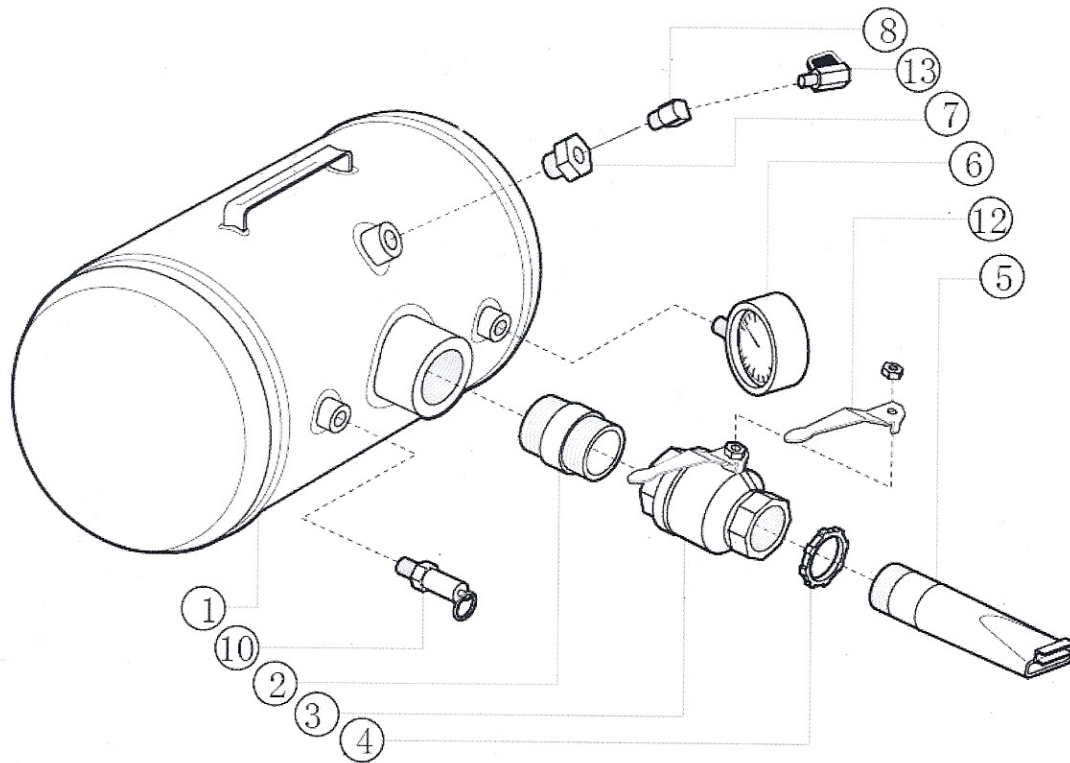
This is a ball-valve operated airline which enables the fitter to operate the airline connected to the tire valve stem easily while handling the BEAD SEATER. Improves the safety of the product as the operator is in full control of the air supply.

TANK PRESSURE INFORMATION TABLE

These are recommended pressures to start with. Individual circumstances may require somewhat higher or lower pressures.

VEHICLE TYPE	TIRE TYPE EXAMPLES	SUGGESTED TANK PRESSURE	TIPS
ATV	16-650-8 22-11-8 25-12-9 24-9-11	40 psi (2.7 bar)	Fit on stand, with stand in highest position. Can be fitted with the valve at the bottom.
Lawn Tractor	16-650-8 23-1050-12 26-12-12	40 - 50 psi (2.7-3.4 bar)	Use the stand in the highest position
Car	13" Rims 14" Rims	50 - 60 psi (3.4-4.1 bar)	If difficult, do not place on the stand - lean the rim against it. Ensure that valve is covered. Lubricate well.
4 X 4	15" Rims 16" Rims	60 - 80 psi (4.1-5.4 bar)	Fit in vertical position. Lubricate well. Ensure that the valve is covered by the tire
Truck	11-22-5 18-22-5	100 (6.8 bar) 120 (8.2 bar)	Can be fitted vertically - i.e. still on the truck. Rotate the BEAD SEATER Spout to the correct position. If using stand, use in the lowest position.
Tractor	Up to 28" Over 28"	100 psi (6.8 bar) 120 (8.2 bar)	Fit horizontally, position the bottom bead on the rim, use the tire wedge.
Large Tractor	Terra Tires 48-31-20 66-43-25	120 psi (8.2 bar)	Fit vertically. Roll tire until the back bead is in position. If you fit a lot of these, enquire about the larger BEAD SEATER

Exploded Drawing and Parts List



No.	Description	Qty
1	Air Tank	1
2	Pip Nipple	1
3	Discharge Valve	1
4	Lock Nut	1
5	Threaded Barrel	1
6	Gauge	1
7	Bushing	1
8	90 degree NPT	1
10	Safety Release Valve	1
12	Handle and Nut only	1
13	Ball Valve	1