

OPERATOR'S MANUAL



GIANT BEAD BREAKER

RESPONSIBILITY OF THE OWNER AND/OR THE END USER OF THIS DEVICE

This manual is an integral part of the BEAD BREAKER and must always accompany it, also in the case of its sale.

The owner and/or the end user of the BEAD BREAKER must follow the instructions for its use and the suggestions of the manufacturer, before using it. If the end user does not understand very well the language of this manual, instructions must be read and explained in his mother tongue, being sure that he understands their meaning.

The manufacturer is not liable for any damage to persons or things due to incorrect use of this BEAD BREAKER.

OPERATION

Connect the hydraulic pump (manual or air) to the bead breaker through the quick-couplers. If you use the air/hydraulic pump, you must connect it to a source of compressed air of 100-120 psi. (See separate manual of the air/hydraulic pump!) Test the beadbreaker before you attach it to the rim. Release all air from tire, remove cap and valve and the valve extension included. Verify that the tire is completely deflated!

ATTENTION! DANGER!
IT IS ABSOLUTELY FORBIDDEN to use the bead breaker with inflated tyres.

ATTENTION! SAFETY REGULATIONS

- Always deflate tyres before starting disassembling operations
- Use the proper tools
- Always use protection means (accident-prevention shoes, etc.)
Do not forget that there are always crushing risks!
- Lock the safety rods on articulated vehicles.
- Safety valve is set and sealed by the manufacturer.
It is absolutely forbidden to tamper with it and change its calibration.

The INCOMPLIANCE or these INSTRUCTIONS can cause damages and/or breakage to the BEAD BREAKERS with consequent damages to persons and things.

MAINTENANCE:

Check the tools before their use. In case of oil leaks, replace the seals.
For pump maintenance, see its instruction manual.

CHECKS

- a) a visual control must be carried out every time you want to use the BEAD BREAKER, checking leaks, damages, missing or loose parts, worn parts, etc.
- b) all the BEAD BREAKERS must be carefully checked if it has suffered a damage or a clash.

We suggest that skilled personnel yearly check the bead breaker and that all defective parts, worn parts etc. are replaced by using original spare parts supplied by the manufacturer (see spare parts list)

DAMAGED TOOLS

All damaged tools, worn tools or incorrectly operating ones **MUST BE PUT OUT OF ORDER**. We suggest that necessary repairs are carried out by skilled personnel authorised by the manufacturer.

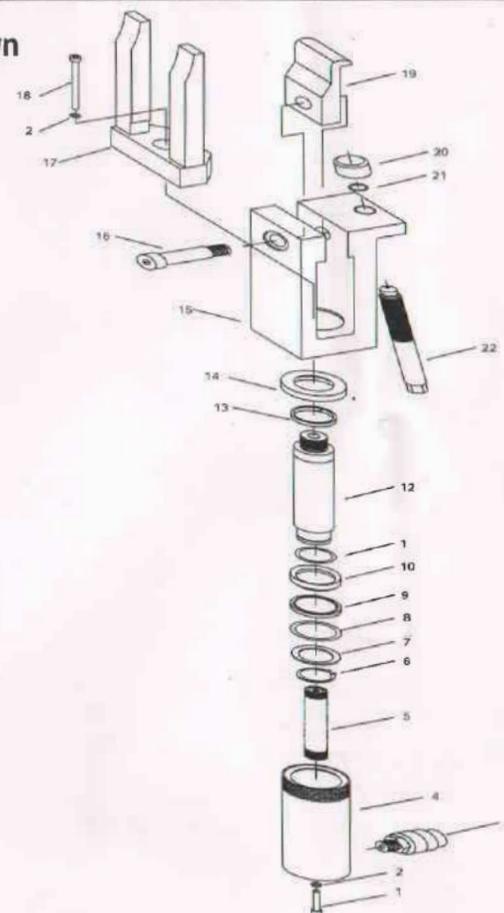
BEAD BREAKER SCRAPPING

When your bead breaker, after many years of use, must be scrapped, you must remove oil from the cylinder and from the pump. Oil must be recycled according to the regulations in force.

Parts list

Index	Description	Size, mm	Q'ty	Index No.	Description	Size, mm	Q'ty
1	Screw	M6x35	1	12	Ram piston		1
2	Washer		2	13	Pilot ring		1
3	Tie-in assy.	3/8"-18	1	14	Bound ring		1
4	Cylinder		1	15	Toe housing		1
5	return spring assy.		1	16	Table pin		1
6	Snap ring	32	1	17	Toe body		1
7	Washer		1	18	Screw	M6x90	1
8	O-ring	39x4.6	1	19	Toe		1
9	Sealing washer		1	20	Top cap		1
10	Piston ring		1	21	Snap ring		1
11	O-ring	31.5x3.55	1	22	Screw		1

Parts Breakdown



Flema Products Ltd.

Operation Instructions for:
FPL1800
Tire Bead Breaker

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.

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DESCRIPTION

The bead breaker is used on 25"-51" multi-piece rims with pry bar pockets. It is designed to break earthmover tire beads on any rim. It can equivalent 10,000 psi [700 bar] Pumps

Model No	FPL1800
Stroke [in.(cm)]	4.25(10.8)
Capacity [U.S.Tons]	14

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 Flema at 1-800-437-4422. If you are Outside the U.S., contact your local government officials.
4. Flema 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 Flema when in doubt about safety precautions or applications.

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.

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 Flema.

OPERATING INSTRUCTIONS

REMOVING THE WHEEL

1. Chock the wheel 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.

⚠ DANGER

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

4. Remove the valve core; deflate tire 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.

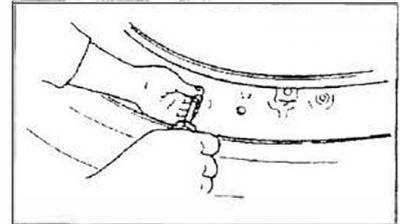


Figure 1

⚠ 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 Step 1 below, "Positioning the Bead Breaker."
- 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 Step 1 below, "Positioning the Bead Breaker." On pages 2 and 3

USING THE FPL1800 BEAD BREAKERS

Positioning the Bead Breaker

1. Place the bead breaker into the continuous pry bar pocket, with hooks under the lip of the bead seat hand. (See Fig. 2.)
2. Position the bead breaker so that it is about 30° or at least 12 inches [0.3m], to one side of the flange butt weld.
3. Adjust the ram adjusting screw so that bead breaker is perpendicular (90°) to the wheel. (See Fig. 2.)
4. Stand to one side of the bead breaker. Hold the bead breaker with one hand. (See Fig. 3.)

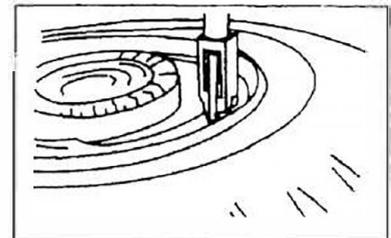


Figure 2

⚠ 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. If it is not seated properly and flies off the rim, the bead breaker could cause serious injury or death.

Activating the Bead Breaker

⚠ 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. Turn on the hydraulic pump to activate the bead breaker.
2. Apply enough hydraulic pressure to the bead breaker to push the flange about 1/2-3/4 inch [13-19 mm] from the lip of the bead seat hand.

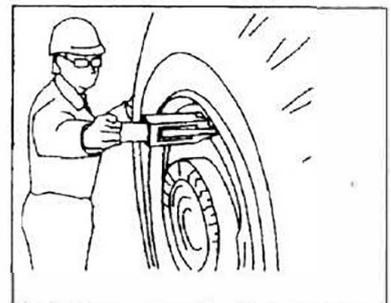


Figure 3

3. If the bead breaker moves and is no longer vertical, readjust the ram adjusting Screw. You must release pressure before adjusting the screw.
4. Continue applying hydraulic pressure until the flange is about 3/4-1 inch [19-25 mm] from the lip of the bead seat band.
5. Place a nut or similar object between the flange and the lip of the bead seat band. (See Figure 4)

⚠ WARNING

To prevent personal injury, lay the nut on the flange and slide it into position with two screwdrivers. Do not put your fingers under the bead seat band.

6. Release hydraulic pressure.

Continuing to Break the Tire Bead

1. Move the bead breaker away from the flange butt weld, 2-3 feet [0.5-1.0 m] from its present position.
2. Follow the steps in "Activating the Bead Breaker" above.
3. Continue advancing the bead breaker around the rim, 2-3 feet [0.5-1.0 m] at a time, breaking the tire bead.
4. Stop breaking the tire bead when you have moved the bead breaker about 3/4 of the way around the rim. (See Fig. 5.)

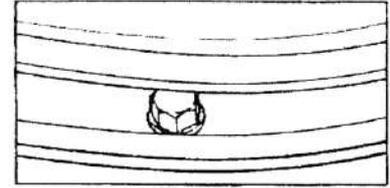


Figure 4

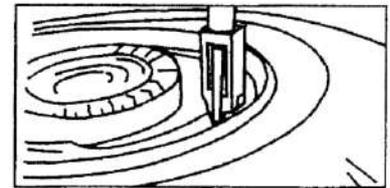


Figure 5

⚠ CAUTION

To prevent damage to the rim, do not use the bead breaker within 12 inches of the flange butt weld.

5. Apply enough pressure to the bead breaker to completely break the tire bead.
6. Release the hydraulic pressure.

NOTE: If you have gone all the way around the tire and the tire bead does not break: Repeat the steps in "Activating the Bead Breaker" and "Continuing to Break the Tire Bead" above, with more hydraulic pressure.

Removing the Lock Ring and O-Ring

1. Remove the lock ring with two pry bars, Start at the split in the ring and then work the tools around the ring (See Fig. 6.)
2. Place a pry bar or screwdriver under the o-ring and pull it out from the groove in the rim. Cut the o-ring with a knife to ensure that a new o-ring is used. (See Fig. 7.)

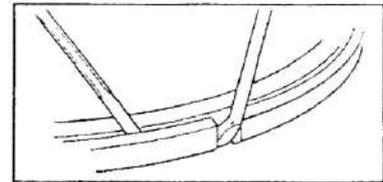


Figure 6

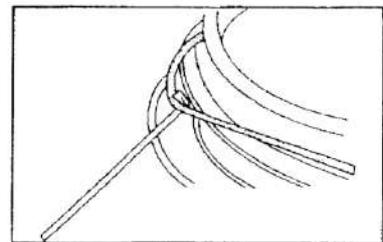


Figure 7

Removing the Bead Seat Band

1. Carefully lift the bead seat band off the rim. Use pry bars and the Flange Ring Puller
2. Carefully remove the flange from this side of the tire

Breaking the Bead on the Other Side

1. When the wheel is on the vehicle, use the bead breaker to Break the back tire bead, following the same procedure used on the front tire bead. If the wheel is on the vehicle, you may need to use a smaller ram, between the frame of the vehicle and the back flange(See Figure 8). Repeat the steps in "USING THE FPL1800 Bead Breaker" on pages 2 and 3.
2. If the tire is still on the vehicle: Remove the tire using the boom truck and tire sling
Remove the back flange to complete the disassembly.
3. Remove the rear rim flange from the rim.

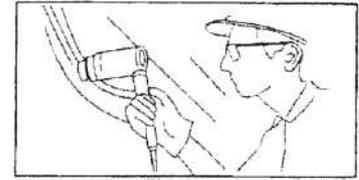


Figure 8

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.

⚠ DANGER

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

Inspecting the Tire and Rim

⚠ 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

⚠ 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.

⚠ 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 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, such as an Push Bar, before inflating the tire. 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 regulator that can be preset. Use Truck Tire Inflator.

DANGER

Always use a safety cage or restraining device, such as an Push Bar, 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 a starting fluid, ether, gasoline, or any other flammable material to lubricate, seal, or seat the bead of the 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. Make sure the o-ring does not slip out of its groove.
4. If tire/rim parts are not seated properly, deflate the tire and correct the problem before proceeding.

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.

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 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.

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], deflate the tire Completely.
5. Reinflate the tire slowly to the manufacturer's recommended pressure.

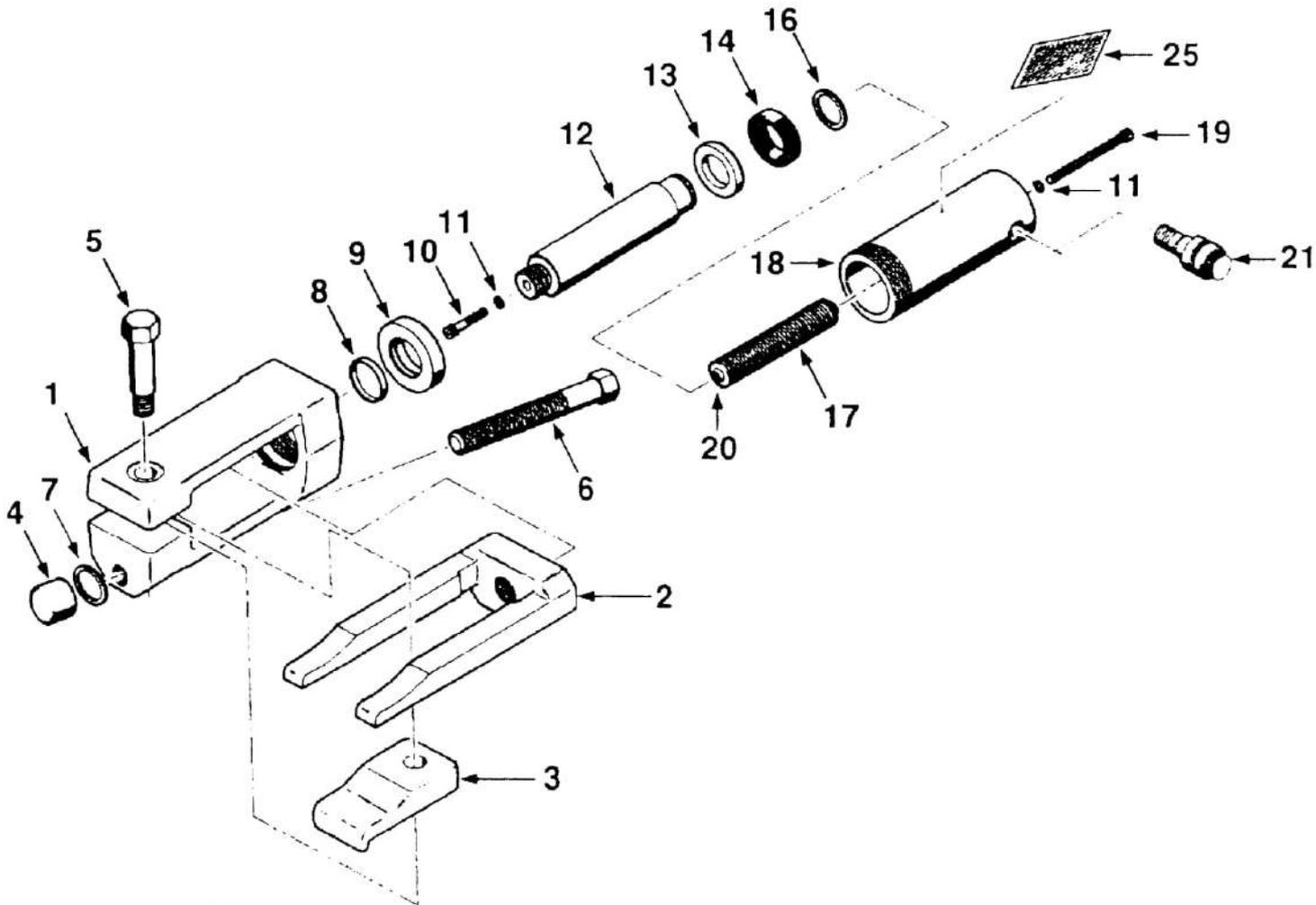
DANGER

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 and lead to serious injury or death.

BEAD BREAKER

Max. Capacity: 11.2 Ton At 10,000 PSI



Part No.	No. Req'd	Description
1	1	Frame
2	1	Clevis
3	1	Hooks
4	1	Foot
5	1	Set Screw(3/4 dia x 2-1/4 Lg)
6	1	Hex Hd.Screw
7	1	Retainer ring
8	1	Wiper
9	1	Guide Rod
10	2	Socket Head Cap Screw(1/4-20x1-1/4)
11	2	Washer Copper(.37x.25)
12	1	Rod Piston
13	1	Bearing Piston
14	1	U-Cup
16	1	Ring, Retainer(External)
17	1	Spring(.83 OD x 5.00 x .13WS)
18	1	Body, Cyliner
19	2	Socket Head Cap Screw(1/4-20x3-1/2)
21	1	Ram Half Coupler with Duts Cap
20	2	Retainer Spring
25	1	Decal

Refer to the Form operating instructions included with this product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected.