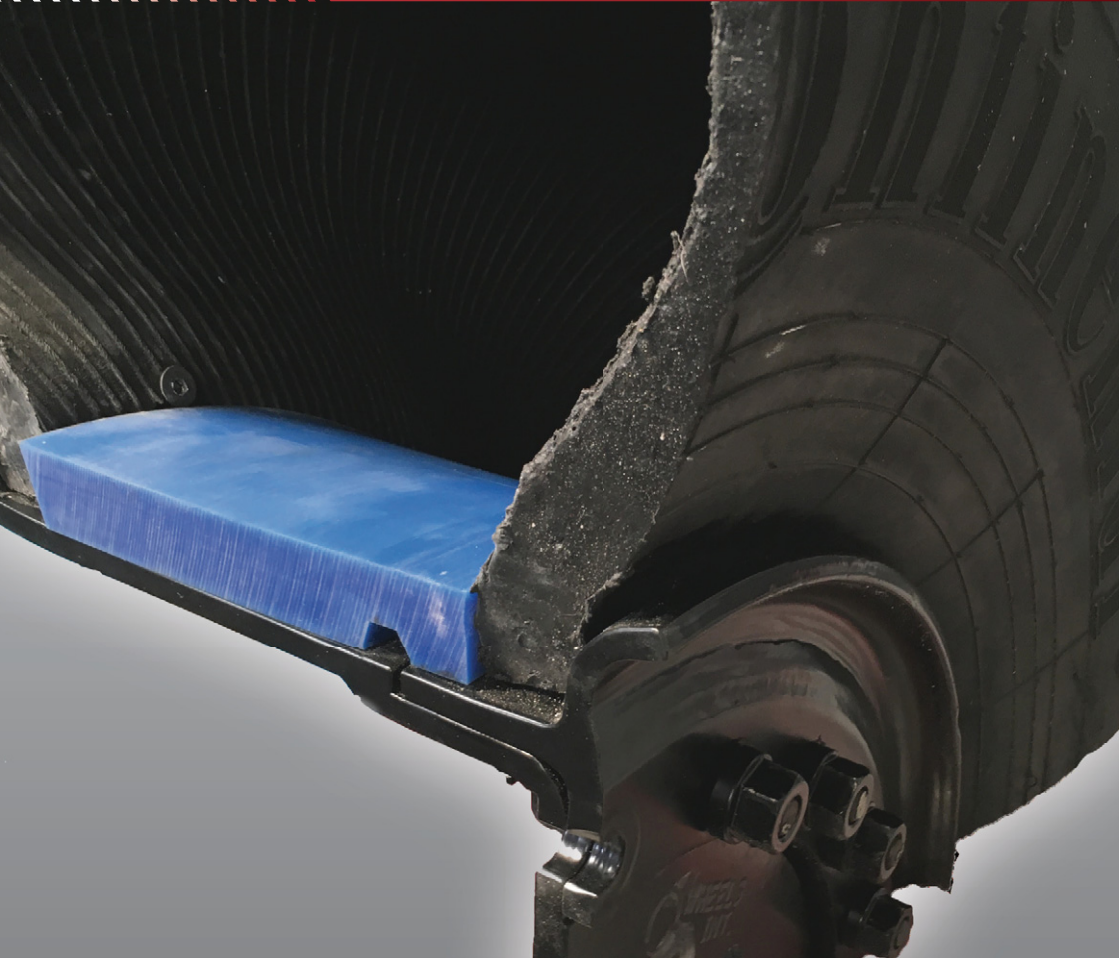


MOBILITY & SECURITY EXPERTS



BEADLOCK SYSTEMS

FITTING INSTRUCTIONS AND USER GUIDE

(Remember to carry fitting instructions & fitting tools with the vehicle tool kit)

FITTING TOOLS

Beadlock systems are designed to be fitted to multi piece wheels (either 2 piece bolt together or 3 piece demountable flange) and tubeless tyres.

These instructions apply to Beadlock systems manufactured by RunFlat International.

EQUIPMENT NEEDED FOR FITTING:

- A) STATIC FITTING RIG**
(Required for 3 Piece Demountable Flange Wheels, Optional for 2 Piece Bolt Together Wheels)
- B) COMMERCIAL TYRE FITTING MACHINE**
- C) BEADSPREADER**
(Only required if no fitting rig available)



STATIC FITTING RIG
PART NO. RFI 043



BEADSPREADER
PART NO. RFI 016/A

BEADLOCK SYSTEMS

USER GUIDE

If Beadlock systems are fitted in accordance with these fitting instructions they will give good service.

READ THIS USER GUIDE CAREFULLY AND BRING IT TO THE ATTENTION OF ALL DRIVERS USING VEHICLES FITTED WITH BEADLOCK SYSTEMS.

Vehicles are fitted with Beadlock systems for two purposes:

- 1 To assist a driver to run at low pressures; and
- 2 To enable a driver to continue travelling a short distance with a deflated tyre.

This Statement of Claim is the only claim to performance.

IMPORTANT:

Underinflated and fully deflated tyres fitted with Beadlock systems behave differently to fully inflated tyres and the handling of the vehicle is markedly different. Therefore do not attempt violent manoeuvres or sudden changes of direction with one or more tyres deflated.

IMPORTANT:

As a quality control measure, the following information should be recorded in the vehicle log or service book at the time of fitting of the Beadlock systems:

- i) Make and model of vehicle of vehicle and registration number.
- ii) Date, location of fitting agency and name or quality control stamp details of fitter.
- iii) Vehicle mileage at time of fitting.

STATIC FITTING RIG

SAFETY INSTRUCTIONS

The Static Fitting Rig has been designed to allow the installation of Static RunFlat systems and Beadlock systems into multi piece wheels (2 piece bolt together and 3 piece demountable flange wheels) and tubeless tyres. The compression bracket is required for 3 piece demountable flange wheels but not necessary for 2 piece bolt together wheels.

Type of wheel rim	3 piece wheels with demountable flange 2 piece bolt together wheels
Main tyre sizes	335/80R20, 365/80R20, 395/85 R20, 12.00R20, 14.00R20, 16.00R20
Nominal working pressure air supply	7.0 bar
Air supply connection	¼"
Max pressure exerted on wheel rim	10 T

SAFETY INSTRUCTIONS

RunFlat International always recommend to use the Static Fitting Rig for Static RunFlat system and Beadlock system installation as it makes the process safer, easier and quicker. Failure to follow the recommendations and working methods given here and ignore warnings can lead to serious injury to the operator and other persons.

If using the fitting rig, do not turn the device on before reading the instructions thoroughly and all information provided on it regarding safe work.

The device may only be operated by qualified persons authorised to operate it. A qualified operator is a person who has read the exact contents of these operating instructions, went through the appropriate training, has knowledge of work safety and service and adjusting the device.

It is forbidden to operate the device by persons who are under the influence of alcohol or drugs that worsen their physical or mental abilities.

Observe the following conditions:

- The operator must be able to read and understand all information contained in these operating instructions.
- The operator must have full knowledge of the functioning and characteristics of the unit.
- Unauthorised persons should maintain a safe distance from the operator unit.
- The device should be installed in accordance with the applicable regulations and standards.
- All persons operating the device must be properly trained in terms of its service.
- Any modifications to the device are made without authorisation and automatically relieves the producer from liability in the event of damage or accident.

STATIC FITTING RIG

Components of a Static Fitting Rig



FITTING RIG



METAL TYRE LIFTING ARM



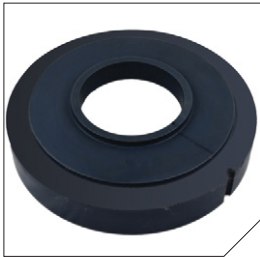
COMPRESSION BAR



LOCKING NUT



COMPRESSION BRACKET



TOP PIECE EXTENSION



COMPRESSION PLATES



HYDRAULIC PUMP



HYDRAULIC CYLINDER



HYDRAULIC HOSES



REMOVAL BLOCK

THE COMPONENTS OF A STATIC FITTING RIG INCLUDE:

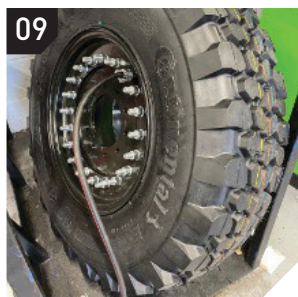
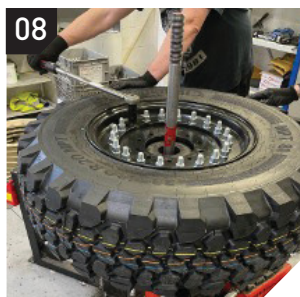
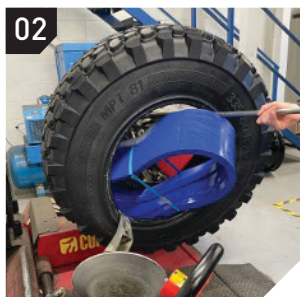
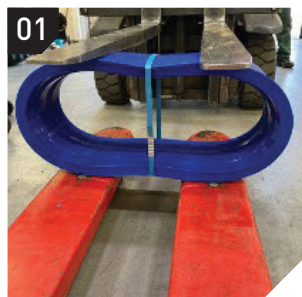
- A) FITTING RIG
- B) METAL TYRE LIFTING ARM
- C) COMPRESSION BAR
- D) LOCKING NUT
- E) COMPRESSION BRACKET
- F) TOP PIECE EXTENSION
- G) COMPRESSION PLATES
- H) HYDRAULIC PUMP
- I) HYDRAULIC CYLINDER
- J) HYDRAULIC HOSES
- K) REMOVAL BLOCK

FITTING INSTRUCTIONS

FOR BEADLOCK SYSTEM-BOLT TOGETHER WHEELS

Keep these instructions with the fitting tools in the vehicle tool kit

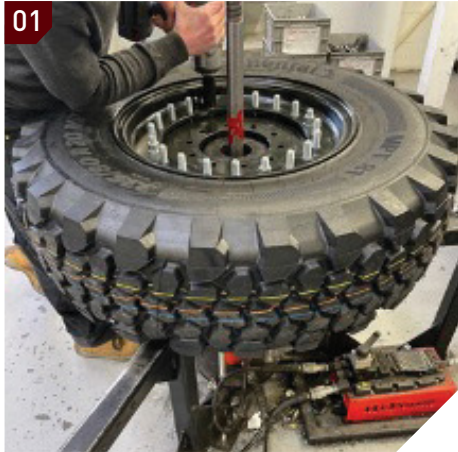
- 01** Compress beadlock to around half its original size and secure tightly with a strong strap.
- 02** Attach tyre to commercial tyre fitting machine and grease the inner edge of the tyre. Insert the compressed beadlock, using a tyre lever to help if necessary.
- 03** Once the beadlock has been inserted, remove the strap and centralise the beadlock within the tyre.
- 04** Place the wheel rim onto the fitting rig and grease the outer edge of the wheel rim
- 05** Place the tyre and beadlock over the wheel rim and push down to secure it. Ensure the beadlock valve groove is in line with the valve.
- 06** Fit the seal on the wheel (process will vary by wheel type).
- 07** Grease the inner edge of the tyre and place the demountable flange on top of the bolts. Compress the demountable flange and secure the accessible bolts tightly.
- 08** Remove all compression tools and secure the rest of the bolts. Use a torque wrench to ensure the bolts are tightened to the correct torque.
- 09** Remove wheel from fitting rig and inflate fully in tyre safety cage.



REMOVAL INSTRUCTIONS

FOR BEADLOCK SYSTEM-BOLT TOGETHER WHEELS

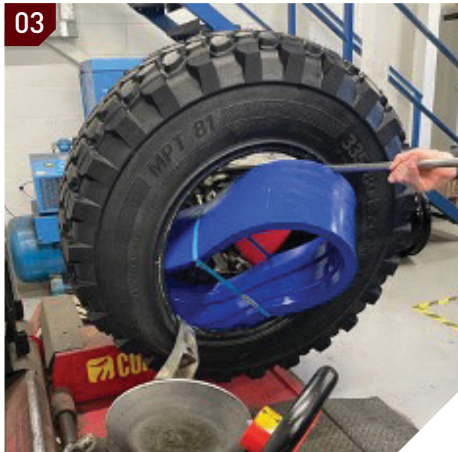
Keep these instructions with the fitting tools in the vehicle tool kit



01 Place deflated tyre on the Static Fitting Rig. Remove all the bolts and lift the demountable flange off the wheel.



02 Remove tyre and beadlock from wheel rim.



03 Remove beadlock from tyre.

Please see page 02 for Fitting Tools

FITTING INSTRUCTIONS

FOR BEADLOCK SYSTEM-3 PIECE WHEELS

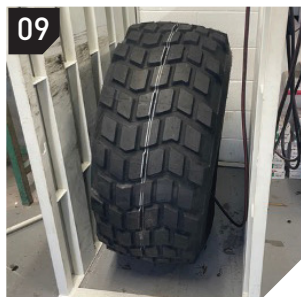
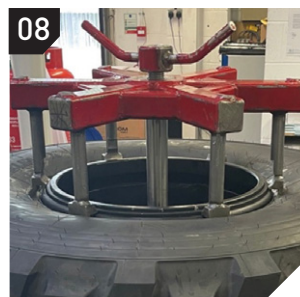
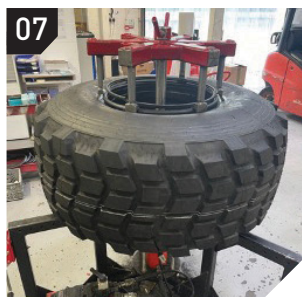
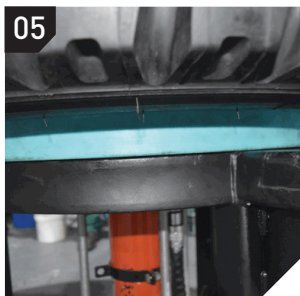
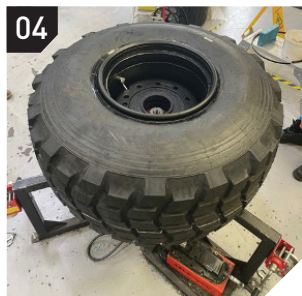
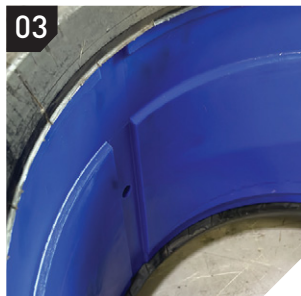
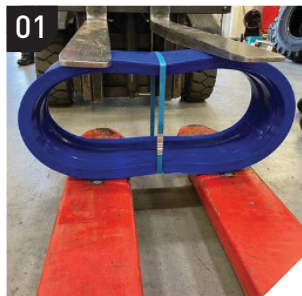
Keep these instructions with the fitting tools in the vehicle tool kit

- 01** Compress beadlock to around half its original size and secure tightly with a strong strap
- 02** Attach tyre to commercial tyre fitting machine and grease the inner edge of the tyre. Insert the compressed beadlock, using a tyre lever to help if necessary.
- 03** Remove the strap and centralise the beadlock within the tyre. Place the tyre above the wheel and make sure to line up the valve on the wheel with the valve groove on the beadlock. Apply pressure to insert the wheel rim.
- 04** Place tyre onto the fitting rig, grease the inner edge of the tyre and position the demountable flange, locking ring and seal on top of the wheel rim.
- 05** Place the compression plates under the wheel rim.
- 06** Screw in the compression bar and place the compression bracket on the demountable flange. Screw locking nut onto the compression bar. Compress the flange with the hydraulic piston.
- 07** Place seal in the correct position on the wheel.
- 08** Fit the locking ring and remove the compression bracket.
- 09** Remove tyre from fitting rig and inflate fully in tyre safety cage.

FITTING INSTRUCTIONS

FOR BEADLOCK SYSTEM-3 PIECE WHEELS

Keep these instructions with the fitting tools in the vehicle tool kit



REMOVAL INSTRUCTIONS

FOR BEADLOCK SYSTEM-3 PIECE WHEELS

Keep these instructions with the fitting tools in the vehicle tool kit



- 01** Screw in the compression bar and place the compression bracket on the demountable flange. Screw locking nut onto the compression bar. Compress the flange with the hydraulic piston.



- 02** Remove the locking ring and the compression bracket.



- 03** Remove tyre from the wheel.



- 04** Remove beadlock from the tyre.

Please see page 02 for Fitting Tools

INSPECTION & REUSE

Beadlock systems after operation.

Beadlock systems are designed to be returned to service, subject to the following conditions.

01 If the system has been subjected to any form of ballistic or explosive attack, it is recommended that the complete system should be changed. Alternatively, the Beadlock system may be returned to the local RunFlat International distributor or agent with an account of the incident for detailed inspection by the distributor or agent. On no account should it be returned to service without this inspection process.

02 The 20" systems should be replaced if they shrink by more than 8mm in width compared to its original dimension. This is to ensure that if refitted, the Beadlock fulfills its function in terms of compression.

03 Otherwise the following measures must be carried out by the workshop manager:

The system(s) should be cleaned and examined carefully for cracks, fissures or any mechanical damage sustained during operation. If there is any sign of damage the unit must be returned to the RunFlat International distributor or agent for detailed examination.



MISUSE OF BEADLOCK SYSTEM

To reduce the risk of misuse of Beadlock systems, advice sheets should be issued as follows:

- a) Do not reduce pressures below the tyre's recommended emergency pressure. This can be provided by RunFlat International and is dependant on vehicle load and tyre manufacturer.
- b) As soon as you become aware of a fully deflated tyre, **SLOW DOWN** immediately.
- c) If circumstances permit, stop immediately to establish the cause of the tyre failure.
- d) If an emergency requires you to continue, reduce speed to a maximum of 50km/h and drive to the nearest point of safety. Avoid sharp turns or other violent manoeuvres.
- e) At the first opportunity, stop and inspect the deflated tyre for damage. If there are obvious signs of serious tyre damage, do not continue, but change the wheel.
- f) After any fully deflated use, report the occurrence to the workshop manager, who will arrange for the system to be inspected by the authorised RunFlat International distributor.

VEHICLE DASHBOARD BEADLOCK SYSTEMS

For your safety and security the wheels on this vehicle are fitted with Beadlock systems inside the tyres. These help you to maintain control at low pressures, or to continue with a deflated tyre for a limited distance. **DO NOT** exceed 50km/h with a deflated tyre. Stop as soon as you can to change the wheel. Read the Operating Instructions in the Vehicle Logbook. Check tyre pressures daily.

VEHICLE LOGBOOK BEADLOCK SYSTEMS

For your safety and security the wheels on this vehicle are fitted with Beadlock systems. They give improved driver control at low pressure and allow the vehicle to continue in an emergency with a tyre deflated. Vehicles handle differently with deflated tyres. **DO NOT** swerve sharply or carry out violent manoeuvres with a deflated tyre. **DO NOT** exceed 50km/h with a deflated tyre. Stop as soon as possible to have the damaged wheel changed. Check your tyre pressures daily and report any beadlock issues to the Workshop Manager.

DRIVER'S RESTROOM BEADLOCK SYSTEMS

This vehicle is fitted with Beadlock systems for your safety and security. These assist in controlling the vehicle at low pressure and allow drivers to continue with a damaged tyre in an emergency. Vehicles handle differently with deflated tyres. Sudden turns or other violent manoeuvres with underinflated tyres can cause the vehicle to become unstable. For this reason, as soon as you become aware of a deflated tyre, **SLOW DOWN** immediately. **DO NOT** exceed 50km/h with a deflated tyre.

Ask for more details from the Workshop Manager

STORAGE

STORAGE OF BEADLOCK SYSTEMS

All systems must be stored before use in the following conditions:

- Temperature between 10°C and 35°C
- Relative humidity of 60 or higher.
- Out of direct sunlight and strong artificial light with high UV content.
- Not subject to water exposure, e.g. rain, floods.
- Covered to ensure systems are dust and contamination free, in low light levels.

FITTING CHECKLIST

CHECKLIST FOR FITTING STATIC BEADLOCK SYSTEMS

The following checklist is to ensure you have completed each stage of the fitting procedure.

Procedure	✓
Valve fitted and torqued	<input type="checkbox"/>
Wheel seal fitted	<input type="checkbox"/>
Bolts torqued	<input type="checkbox"/>
Beadlock fitted into tyre	<input type="checkbox"/>
Tyre Inflated	<input type="checkbox"/>

RunFlat International's products are regularly, arduously tested according to military standards such as Finabel as well as other standards established by certain countries and manufacturers (e.g TUV, Mercedes 150km, Plasan 300 km tests).

Originally designed and manufactured for highly demanding military requirements, RunFlat systems are now sold to broader markets (Police vehicles, VIP cars, high value cargo carriers, aid agency vehicles, etc) all around the World.



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