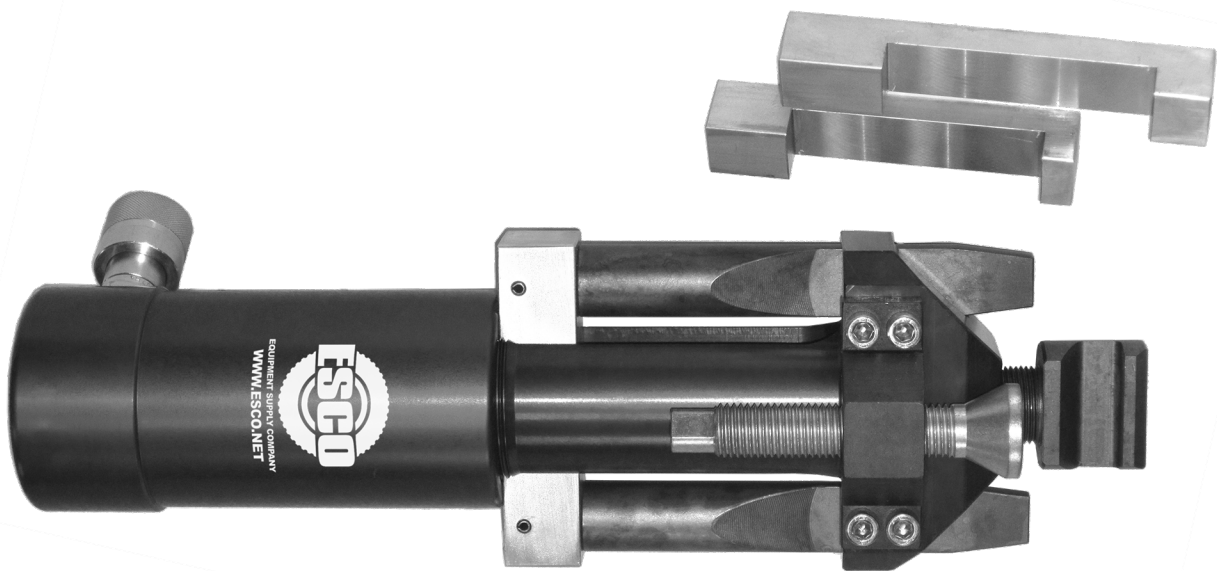




USE AND MAINTENANCE MANUAL



BEAD BREAKER

Model:

40802

Serial number:

Construction year:

UNDER LAW TERMS, NO PART OF THIS MANUAL MAY BE REPRODUCED NOR COMMUNICATED TO THIRD PARTIES WITHOUT THE MANUFACTURER'S WRITTEN CONSENT.

1. PRELIMINARY INFORMATION

This use and maintenance manual, hereafter called “manual”, contains the information needed for use and maintenance of the machine to which the manual refers.

1.1. WARNING



This manual must be considered an integral part of the machine to which it refers.
The Manual must be stored carefully by the user and must remain with the machine for the entire life of the latter.

1.2. CONFIDENTIALITY

It is forbidden to disclose, even partially, any and all of the contents in this manual to third parties not involved in the use and/or maintenance of the captioned machine.

1.3. CONDITIONS FOR GUARANTEE VALIDITY

The manufacturer is not responsible for any action or damage caused by:

- improper use of the machine;
- incorrect use of the machine not according to instructions
- faulty supply of any energy or fluid necessary;
- lack of maintenance;
- alterations or unauthorised action, including any for improving safety; any and all actions on the machine must be agreed with and authorised by the Manufacturer;
- use of non-original spare parts;
- failure to follow the instructions in this manual;

1.4. INFORMATION ON MAINTENANCE ASSISTANCE

For any problem concerning use or maintenance of the machine, you can get information and technical assistance by contacting the Manufacturer’s head office. When contacting the Manufacturer, please quote all the data shown on the machine identification plate.

1.5. DEFINITIONS OF PERSONNEL QUALIFICATIONS

OPERATOR

This term indicates personnel who are able to operate the machine under normal conditions of use, excluding any and all maintenance activities. The operator must be an expert tyre repairer and must know how to remove and refit tyres on tyre rims using correct procedures.

MAINTENANCE MECHANIC

A qualified technician who can work on mechanical parts of the machine in order to carry out adjustments, maintenance work and repairs as needed to guarantee good machine operation.

MANUFACTURER’S TECHNICIAN

A qualified technician made available by the Manufacturer.

1.6. DESCRIPTION OF PICTOGRAMS

Here is a list of the communication symbols appearing on the machines and in this manual.



This symbol represents a particularly important warning which if unheeded can cause important damage or serious danger for persons.



Warns of a very important note the contents of which must be absolutely taken account of.



Shown when use of the machine requires a **MAINTENANCE MECHANIC**



The operator must wear suitable working clothes



Shown when use of the machine requires a **MANUFACTURER’S TECHNICIAN**



Crushing and injury hazard to hands



It is compulsory to use boots with non-slip soles and reinforced toe caps



Work on the machine with more than one person is prohibited



Hazardous substances



It is compulsory to use hand-protection gloves



Machine adjustment and lubrication is forbidden with the machine in operation



Crushing and injury hazards to feet



It is compulsory to disconnect the machine supplies (electric, air etc)



Do not remove protections and safety devices

2. MACHINE DESCRIPTION

TECHNICAL DATA

Hydraulic working pressure:	700 bar
Maximum hydraulic pressure:	710 bar
Maximum oil supply flow rate	0,7 l/min
Oil content	0,5 l approx.
Uses hydraulic oil type:	MOBIL DTE 11, SHELL TELUS OIL T 15, or equivalent
Weight:	kg 6,5
Oil hose fitting	1/7NTP

The actuator uses single effect cylinders.



Components:

- 1 – tooth resting on the bead remover;
- 2 - guide claw resting on the rim;
- 3 – bead remover body with hose fitting;
- 5 – oil hose fitting;

Operation characteristics

The equipment is designed and built to separate the inside and outside beads of OTR tyres. Any other use can cause danger not foreseen by the manufacturer and serious damage.



Noise

The equipment does not make any noise.

Vibration

The equipment does not cause any vibration.

3. CONDITIONS OF USE AND GENERAL SAFETY WARNINGS



It is indispensable that the user be aware of the indications in this Manual for all the foreseen operations.

3.1.CONDITIONS OF USE

Type of environment	Industrial and/or handcraft environment: conforming to general safety standards, protected against the weather. Professional use.
Environmental temperature	From -5 to +40 °C
Environmental relative humidity	20 - 60 %
Altitude	From -10 to + 1.000 m above sea level
Lighting level in the area of use	Higher than 300 lux
Explosive atmosphere	Use of the machine in explosive atmospheres is prohibited
Fire risk	The equipment contains inflammable hydraulic oil and must not be used near sources of heat and open flames.
Electromagnetic fields	The machine is not equipped with any electronic devices.
Environment ventilation	Ventilated environment conforming with general safety standards
Minimum dimensions of the installation area	At least 2 m radius around the operating position.
Professional capabilities of the user	Aged 18 at least Not disabled See the various chapters
Supply sources	The equipment must be connected to a oil-hydraulic unit with command and control systems that guarantee safe use. The supply characteristics must not exceed those shown in the technical data specifications.

Use of the machine under conditions differing from those stated above can be a cause of danger.

3.2.SAFETY MEASURES



Main warnings on use of the machine

- Any repair or maintenance work on the machine must be done with the machine switched off and disconnected from all supplies.
- Maintenance, repair and use of the machine must be entrusted to personnel trained for these jobs.
- The user must not, on his own initiative, carry out any operation or action on the machine that is not contemplated in this manual.
- Use of the machine without the safety systems is absolutely forbidden.
- Do not modify the machine or its parts for any reason at all.
- Ask the manufacturer directly for any modifications to the machine.

In order to reach the above conditions it is necessary that:

- This Manual be available near the machine;
- Only adequately trained persons, with knowledge of the working process in which the equipment is used, be assigned to the machine

Precautions that can reduce residual hazards

Residual hazards (which cannot be removed using technical solutions) have been identified using conventional symbols. These symbols are present both on the machine and in the Instruction Manual.

As it is impossible for the Manufacturer to prevent all improper and incorrect use of the machine, any damage to persons and property due to failure to observe instructions or to incapacity or lack of knowledge on the part of the operators, is to be considered as a residual hazard, therefore the equipment must be used only by qualified operators.

Risks deriving from incorrect use

The instructions in this Manual, if followed and respected scrupulously by the operators, allow correct use of the machine and optimisation of its functions.

Any operation differing from those described, carried out on the personal initiative of the operator, must be considered INCORRECT USE.

Incorrect use of the machine as also the failure to respect accident prevention and safety standards, can determine dangerous conditions for persons and compromise the integrity of the machine itself.

The extent of the risks deriving from incorrect use is to be considered a consequence of the type of incorrect use and is difficult to estimate *a priori*.

Precautions that can prevent human error

To prevent error it is recommended to follow some suggestions, that can be considered forms of prevention meant to limit possible human error deriving from lack of knowledge of the most suitable procedures for the above mentioned operations:



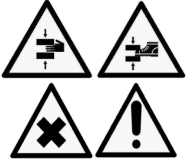





- Supply of correct information to operators as to safety problems;
- Manipulation of the machine under safe conditions, whether packaged or unpackaged, avoiding collisions and exposure to corrosive substances;
- Correct use of the machine as to the work to be done;
- Detailed knowledge of the machine operation and of its limits;
- Correct use of the machine under safe conditions.

Forbidden uses



- Use of the machine for functions differing from those for which it was designed and built is absolutely forbidden;
- Use of the machine by personnel whose knowledge, competence and responsibility are not consistent with the required operator qualification is forbidden;
- Entrusting machine control or maintenance to operators or maintenance personnel with insufficient specific training, even if provided with adequate general knowledge, competence and responsibility, is absolutely forbidden;
- Replacing worn, damaged or broken parts with spare parts other than the original ones is forbidden;
- Operating the machine with incomplete documentation is forbidden;
- Use of the equipment before completion with a command and control system and components that make it useable under safe conditions and until the complete assembly has not been declared conforming to the norms of Directive 98/37/CE.

3.3.INDIVIDUAL PROTECTION DEVICES AND SAFETY DESCRIPTIONS

Operation	Risk	Individual protection device (IPD)	Prescription
Machine handling	<ul style="list-style-type: none"> - injuries to lower limbs; - injuries to upper limbs. 	<ul style="list-style-type: none"> - working clothes suitable for use in the environment where the operations take place; - machine handling gloves that guarantee a firm and safe hold; - boots with reinforced toe caps to avoid crushing; 	<ul style="list-style-type: none"> - hold the machine firmly by the handles, using gloves that guarantee a safe hold on the device.
Cleaning and maintenance on and in the machine	<ul style="list-style-type: none"> - injuries to lower limbs; - injuries to upper limbs; - ejection of compressed air; - ejection of compressed oil. 	<ul style="list-style-type: none"> - working clothes suitable for use in the environment where the operations take place; - gloves for handling objects with sharp edges and cleaning and lubrication products; - boots with reinforced toe caps; - check also whether other IPDs are needed, according to the type of operation to be carried out (see the chapter on Maintenance). 	<ul style="list-style-type: none"> - disconnect the compressed air supply; - employ specialised personnel (see the chapter on Maintenance); 
Use of the machine	<ul style="list-style-type: none"> - there are risks deriving from the working environment; - the equipment works at high pressure, generating high forces and danger of explosion; - feet can be crushed by falling objects; - hands can be crushed by incorrect operation. 	<ul style="list-style-type: none"> - clothing and protection devices as to the product and the working environment<, - gloves for handling sharp objects and lubrication and cleaning products; - boots with reinforced toe caps to avoid crushing; 	<ul style="list-style-type: none"> - follow the warnings and instructions in this manual and the safety procedures; see instructions for use - do not modify any machine parts; - use of the equipment must be limited to a single person; other persons must remain at a safe distance of at least 2 m; - use the equipment within its limits of performance: maximum hydraulic pressure 700 bar. 

4. INSTRUCTIONS FOR USE



Important notes

Personnel who are employed to use this machine must be:

- aged 18 at least;
- of healthy and robust constitution.

The machine is designed for use by expert professional tyre maintenance personnel.

4.1. USE OF THE MACHINE

Before use

Before using the machine always check all components. All components must be in perfect condition, there must be no oil leaks, dents or marks on the cylinder or other parts and no deformation to the levers or the cylinder.

Connect the equipment to an oil-hydraulic system with adequate control systems and with a maximum pressure not higher than 700 bar. A single-effect supply is sufficient as the actuator uses single-effect cylinders.

The pump-control system assembly must be declared conforming, otherwise the equipment cannot be used.

For the connections, use hoses in new and undamaged condition, with a protective sleeve and suitable fittings.

Bead remover connection

Connect the bead remover to the single effect command circuit, with suitable control systems, using the fittings provided.

The system must operate at a pressure no higher than 700 bar and with a flow rate no higher than 0.7 l/min.

How to remove the bead

- Check that the thrusters are pushed back
- Find the insertion notch on the rim and insert the claw into the notch.
- Act on the screw so as to position and lock the bead remover as shown in the figure.
- Actuate the pump: the two thruster must push on the rim.
- When the rim has moved a few centimetres, insert a shim and then release the bead remover.
- Reposition the bead remover at another insertion notch and repeat the operations.

Precautions

The tyre must be completely deflated.

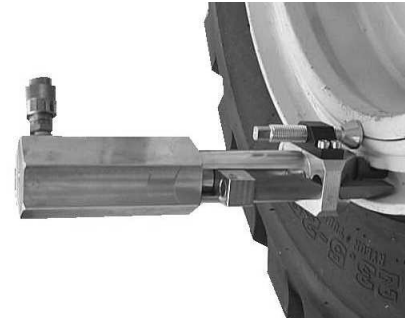
Work only on tyres that are locked in position and cannot rotate or turn, to avoid uncontrolled movement.

Keep the bead remover always perpendicular as in the figure, to avoid bad operation.

Hold the bead remover up with one hand and do not leave it simply hooked on. Any sudden movement of the rim ring can cause the device to fall off the rim and drop to the ground.

Wear strong gloves and boots with reinforced toe caps.

Keep other personnel at a safe distance of at least 2 m.



4.2. ANOMALIES AND TROUBLE SHOOTING

Anomalies to mechanical parts of the machine such as cracks, fissures, elongation are a sign of excess loads and any parts that show such anomalies must be replaced and no longer used.

If there is any anomaly, call in the Manufacturer. Acting on the bead remover yourself can be dangerous as the equipment operates at high pressure and the various components work under high loads. Incorrect assembly can cause serious accidents and injuries.





5. MACHINE MAINTENANCE

For all maintenance operations we suggest you call in the Manufacturer. During maintenance operations the machine must be disconnected.



Maintenance programme

Period	Action	How
8 hours	Control of the machine general conditions.	Inspect the general condition of the machine; all components must be in good conditions and able to guarantee efficient operation.
Monthly even if the machine is not operating	Clean the machine and remove dust.	Vacuum the dust and/or remove with a dry rag; do not use solvents.
	If the machine is not in use, start it for a few minutes and operate the controls.	Switch the machine on and operate the controls.
3000 hours	Overhaul of all mechanical parts.	Check for correct operation of all mechanical components; replace as necessary.



6. HANDLING AND STORAGE

6.1. HANDLING

The machine and its components must be put in a case and carried using the handles on the case. Do not stack the cases.



6.2. STORAGE

The machine must be stored in an area protected against the weather, at a temperature between +10 °C and +40 °C. Do not stack the packing cases or the equipment.



WARNING!

IF THE EQUIPMENT SUFFERS FALLS, COLLISION OR OTHER ACCIDENTS, IT MUST BE CHECKED CAREFULLY TO IDENTIFY ANY DAMAGE. IF THE EQUIPMENT IS DAMAGED, IT MUST BE PUT OUT OF SERVICE AND IT CAN BE USED ONLY AFTER REPAIR. IT IS DANGEROUS TO USE DAMAGED EQUIPMENT.



7. DEMOLITION

If the equipment is demolished, you must follow the procedures dictated by current legislation. In particular, the bead remover must be drained of oil and this oil must be disposed of separately.