

# INSTALLATION, OPERATION, AND MAINTENANCE MANUAL

Launcher LCH-TC002 Tire Changer



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## INTRODUCTION

### Thank you for your purchase of this fully automatic tire changer.

This guide is compiled in order to supply owners (and users) of this machine, with basic instructions required for correct use.

Read this guide carefully before using the machine and follow the instructions given by this guide carefully to grant the machine a correct function, efficiency and a long service life.

**INTENDED USE:** This automatic tire changer has been designed and manufactured specially for mounting and demounting tires onto/from rims.



Any other use is to be considered incorrect and unreasonable. Canada Auto Solutions will not hold responsibility for any damage caused from using of this tire changer for purposes other than those specified in this manual and therefore inappropriate, incorrect and unreasonable.

### MAIN COMPONENTS:

- A: Mounting bar
- B: Locking handle
- C: Air inflation
- D: M/D head
- E: Jaw
- F: Turntable
- G: Foot pedal, tilting arm
- H: Foot pedal, jaw holder control
- I: Foot pedal, bead breaker
- J: Foot pedal, turntable control
- K: Crowbar
- L: Wheel support
- M: Bead breaker
- N: Soap reservoir
- O: Water/oil separator
- P: Tilting arm
- Z: Locking push button

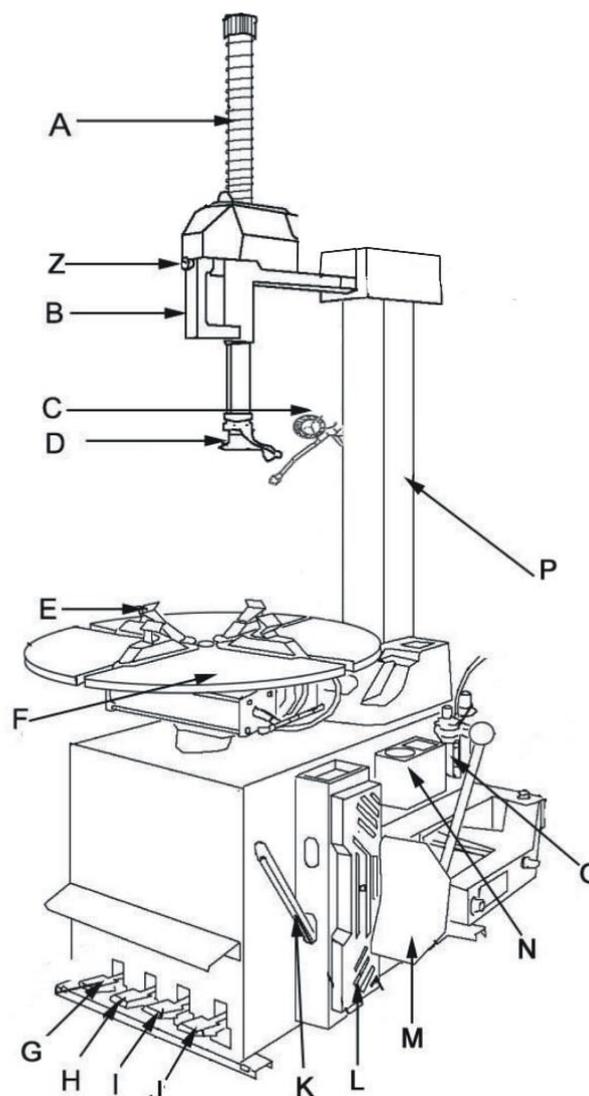


Fig.1

## TRANSPORTATION

The tire changer must be transported in its original packing and kept in the position shown on the package itself. The packaged machine may be moved by means of a forklift truck of suitable capacity.

## UNPACKING

Remove the protective cardboard and the plastic bag.

Please refer to Fig. 1 to determine if the equipment in perfect condition, making sure that no parts damaged or missing.

If in doubt, do not use the machine and contract your retailer.

## INSTALLATION

### SPACE REQUIRED

When choosing the place of installation be sure that it complies with current safety at work regulations.

The tire changer must be connected to the electrical power supply and the compressed air system.

The place of installation must also provide at least the space shown below to allow all parts of the machine to operate correctly and without any restriction.

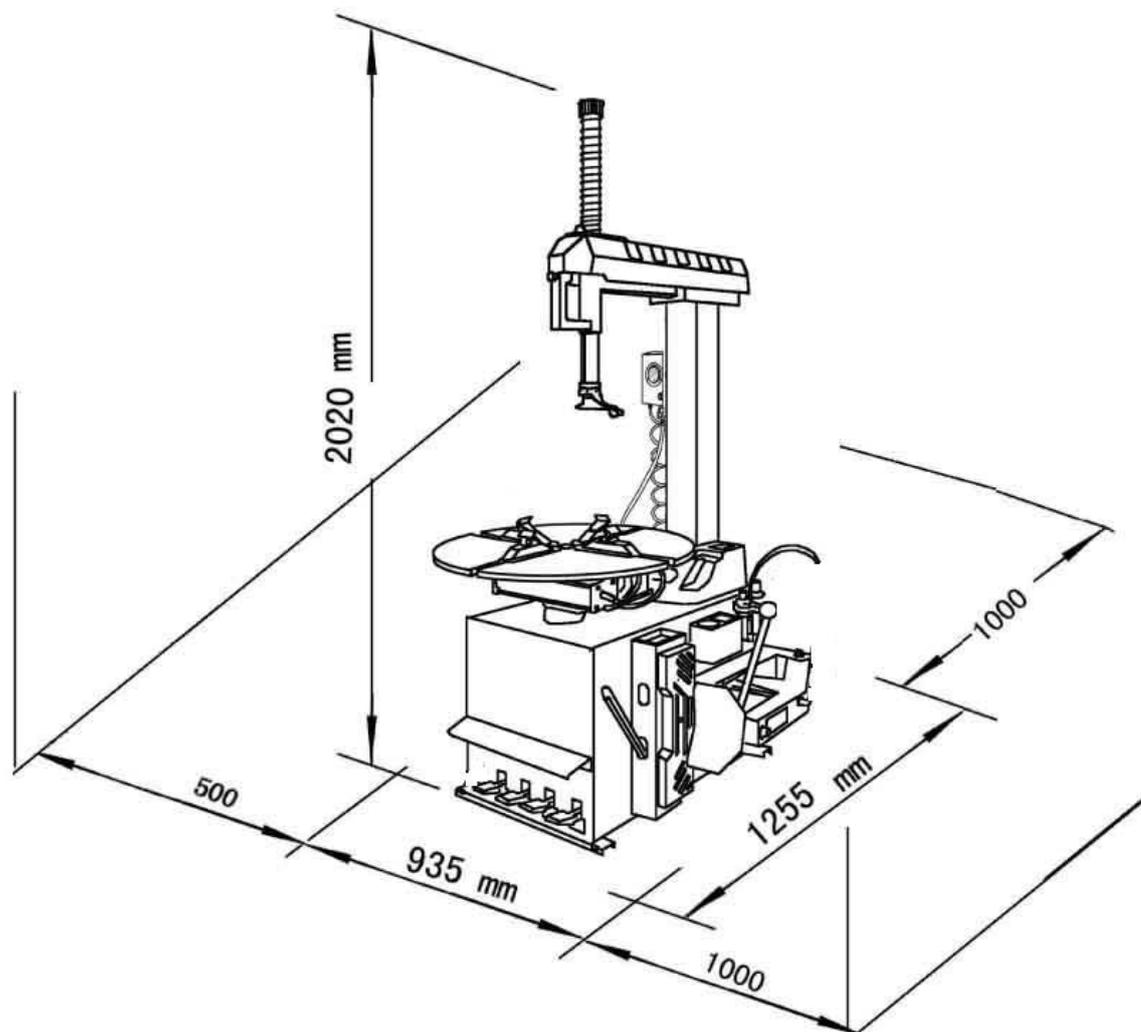


Fig. 2

## PARTS ASSEMBLY

- Unscrew the bolts on package and locate the tire changer in Suitable place.
- Assemble the changer as shown in Fig. 3

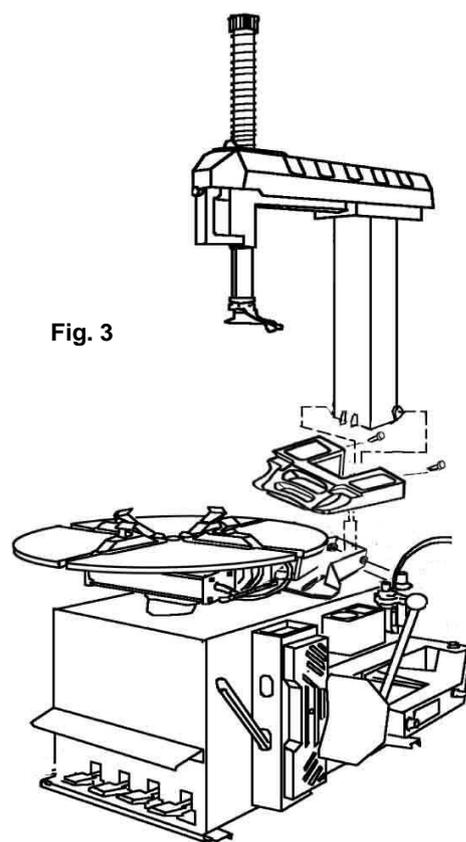


Fig. 3

## POWER & AIR SOURCE CONNECTING

**Before making the connections, check that the characteristics of your systems correspond to those required by the machine.**

**Even small jobs done on the electrical system must be carried out by professionally qualified personnel.**

Steady state voltage: 0,9-1,1 of nominal voltage.

Frequency: 0.99-1.01of nominal frequency continuously; 0.98-1.02 short time.

HVF:≤ 0.02.

Site Operating Conditions:

- a. Altitude are not exceeding 1 000 m,
- b. Maximum ambient air temperature is +40 °C, minimum ambient air temperature is not less than 0 °C,
- c. Storage and transportation temperature range is -15°C ~40°C.
- d. The relative humidity does not exceed 50% at a maximum temperature of +40 °C, higher relative humidity may be permitted at lower temperature (e.g. 90%@ 20°C).
- e. The splitter can be stored or transported under ambient temperatures between -25°C and +55°C.

1. Connect the machine to the electric network with the protection device of under-voltage, over-voltage, which must be provided with line fuses, a good earth plate in compliance with regulations in force and it must be connected to an automatic circuit breaker with RCD setting set at 30 mA.
2. Connect the machine to the compressed air system by means of the air connection that protrudes from the rear section of the machine.

**Note:** Should the tire-changer be lacking in electric plug, so the user must set one, which is at least 16 A and conforms to the voltage of the machine, in compliance with the regulations in force.

***TECHNICAL DATA:***

<b>External locking rim dimensions</b>	<b>10-22"</b>
<b>Internal locking rim dimensions:</b>	<b>12- 24"</b>
<b>Max. tire diameter:</b>	<b>1040mm/41"</b>
<b>Max. tire width</b>	<b>410mm/16"</b>
<b>Table top rotation speed</b>	<b>7 /Min</b>
<b>Bead breaker Force (10bar)</b>	<b>2500kg/5500LBS</b>
<b>Working pressure</b>	<b>0.8Mpa</b>
<b>Power supply voltage:</b>	<b>110V/60HZ, 220V/50HZ, 220V/60HZ 380V/50HZ</b>
<b>Motor power:</b>	<b>0.75 kW</b>
<b>Dimensions:</b>	<b>1150×1000×1170mm</b>
<b>Net weight:</b>	<b>220kg</b>
<b>Working noise:</b>	<b>&lt;70 dB</b>

**Before connecting, make sure the power you will connect meets the machine requirement.**

**Check from the nameplate behind the machine.**

## OPERATION

This part of the operating instructions shows basic operation and use of control. All operators should know clearly the instructions before using the machine to prevent damaging machine and injured standby.

**Before carrying out any operation, deflate the tire and take off all the wheel balancing weights.**

To ensure safe operation, try to operate the machine several times without tire.

The operation of the tire changer is divided into three parts:

- a) **BREAKING THE BEAD**
- b) **TIRE DEMOUNTING**
- c) **TIRE MOUNTING**

Turntable should turn clockwise when pedal (J) is pressed down.

Turntable should be run anticlockwise when pedal (J) is pulled up.

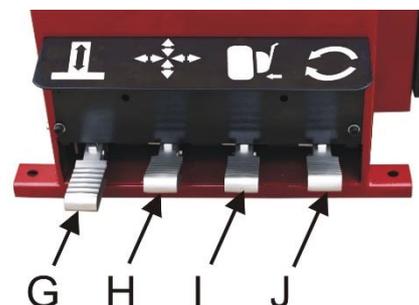


Fig. 4

**Note: If the turntable turns in the opposite direction to what is stated above, reverse two of the wires in the three-phase plug.**

Pressing the pedal (G) to tilt the arm; when the pedal is pressed again it returns to its normal position.

Pressing the pedal (H) to opens the four jaws, the jaw holders will close again when pedal pressed again.

Pressing the bead breaker pedal (I) to operate bead breaker, the breaker returns to its original position when pedal released. The mounting head positions itself automatically at the correct distance from the rim.

### BREAKING THE BEAD



**When the bead breaker pedal is operated, the bead breaker arm moves quickly and powerfully. Anything within its range of action can be in danger of being crushed.**

- Check that the tire is deflated. If not, deflate it.
- Close the turntable clamps completely
- Use the rubber bead breaker protection to protect the wheel rim.
- Position the wheel against the rubber stops on the right side of the tire changer.
- Position the bead breaker blade against the tire bead at distance of about 1 cm from the rim (fig.5). Pay attention to the blade, which must operate correctly onto the tire and not onto the rim.
- Press down the pedal (I) to activate the bead breaker and release it when the blade has reached the end of its travel or in any case when the bead is broken.
- Rotate the tire slightly and repeat the operation around the entire circumference of the rim and from both sides until the bead is completely detached from the rim

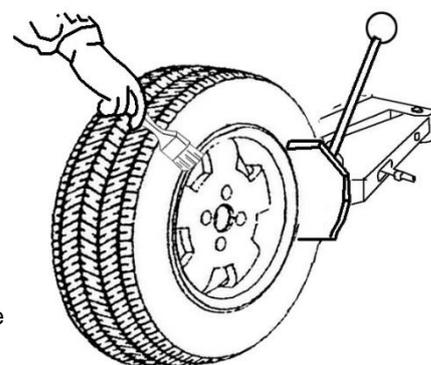


Fig 5

## TIRE DEMOUNTING

**Before any operation remove the old wheel balancing weights and check that the tire is deflated.  
Failure to use the grease supplied risks causing serious damage to the tire bead.**

- Press pedal (H) to tilt the arm thereby clearing the turntable
- Spread the supplied grease (or grease of a similar type) onto the tire bead.

**During rim locking NEVER keep your hands under the tire. For a correct locking operation set the tire exactly in the middle of turntable.**

### OUTER LOCKING

- Position the clamps according to the reference mark on the turntable by pressing pedal (I) down to its intermediate position.
- Place the tire on the clamps and, keeping the rim pressed down, press the pedal (I) as far as it will go.

### INNER LOCKING

- Position the clamps so that they are completely closed.
- Place the tire on the clamps and press down the pedal (H)
- Return the arm by pressing the pedal (G).

Position 1 of the locking button locks the mounting bar and arm.

Position 2 of the locking button unlocks the arms.

The mounting head positions itself automatically at the correct distance from the rim.

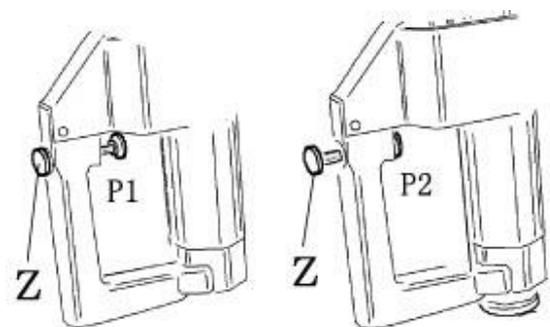


Fig 6

-Lower the mounting bar until the mounting/dismount head leans against the rim edge.

-Lock the mounting arm with pushing locking button and now the mounting/dismounting head should be about 2 mm to rim edge.



Fig 7

**NOTE: If it is tire with tube and in order to damage the tube, it is advisable to locate the tire valve about 10cm away with the mounting/dismounting head.**

- Insert the crowbar into the tire as right picture showing.
- Press foot pedal (J) to turn the turntable clockwise until the tire separated from the rim. Withdraw the tube, then repeat the operation with the other side.

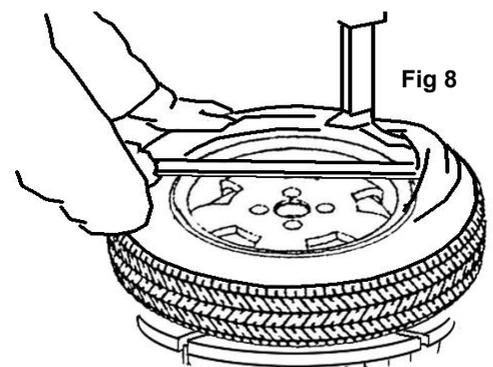


Fig 8

## TIRE MOUNTING

The checking of tire and rim is of the utmost importance to prevent tire explosion during the inflating operations.

Before beginning mounting operation make sure that:

The tire and the cord fabric are not damaged.

The rim is without dents and is not warped.

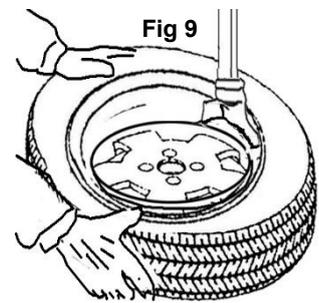
Pay attention to the alloy rims, dents cause internal micro-cracks not visible to the naked eye.

This can compromise the rim and can also be a source of danger especially during inflation.

The diameter of the rim and tire are exactly the same. **NEVER** try to mount a tire on a rim if you cannot identify the diameters of both.

Lubricate the tire beads with the special grease in order to avoid damaging them and to facilitate the mounting operations.

- Press the foot pedal (G) to tilt back the arm about 30° backwards, operate it back after the rim locked on the turntable.
- Pushing the tire into the rim groove by hand, press the foot pedal (J) to turn the table clockwise, until the upper part of tire seated into the rim. (Fig9).
- Locate the M/D head at the rim edge.
- Place one end of tire over rear part of M/D head, while the other end on the M/D head.
- Press foot pedal (J) to make turntable run clockwise until the lower part mounted onto the rim.
- Repeat the above operation to mount the upper part of the tire.



**Mounting first the tube (if applicable), then repeat the above operation if you are dealing with a tube tire.**

## INFLATING

The utmost attention should be paid when inflating the tires.

Strictly follow the instructions since the tire changer is NOT designed and built to protect the user or anyone else in the vicinity of the machine if the tire bursts accidentally.



A burst tire can cause serious injury or even death of the operator.

- Check carefully that the wheel rim and the tire are of the same size.
- Check the state of wear of the tire and that it has no defects before beginning the inflation stage.
- Inflate the tire with brief jets of air, checking the pressure after every jet.
- All our tire changers are automatically limited to a maximum inflating pressure of 0.35 MPa (51 psi).  
In any case NEVER EXCEED THE PRESSURE RECOMMENDED BY THE MANUFACTURER.
- Keep your hands and body as far away as possible from the tire.

### INFLATION WITH AIRLINE GAUGE

In the standard version our tire changers are supplied with an airline gauge.

To inflate a tire proceed as such:

- Connect the airline gauge fitting to the tire valve.
- Make a last check to be certain that tire and rim diameter correspond.
- Check to be certain that rim and beads are sufficiently lubricated. If necessary lubricate some more.
- Seat the beads with short jets of air. Between air jets, check the air pressure on the inflator gauge.
- Continue to inflate the tire with short jets of air and constantly checking the pressure between air jets until the required pressure has been reached.

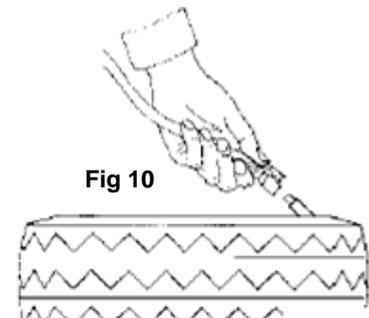


Fig 10

### INFLATION WITH AIR BOX

- Take down the air inflator from the arm.
- Inflate the tire, and constantly checking pressure until the required pressure has been reached.



Fig 11

## **MAINTENANCE**

### **GENERAL WARNINGS**

Unauthorized personnel are not allowed to carry out maintenance work.

Regular maintenance is required for correct operation and longevity of the tire changer.

If maintenance is not carried out regularly, the operation and reliability of the machine may be compromised, thus placing the operator and anyone else in the vicinity at risk.

Before carrying out any maintenance work, disconnect the electric and pneumatic supplies.

Moreover, it is necessary to break the bead load less 3-4 times in order to let the air in pressure go out of the circuit.

### **MAINTENANCE OPERATIONS**

1. Clean the turntable every two weeks and lubricate the sliding groove of jaw holders. (Fig. 12)
2. Clean the mounting bar to ensure smooth operation. (Fig. 13)
3. Pull the draining valve of water/oil separator to drain the water. (Fig. 14)
4. Replenish oil by checking the separator. Re-screw tightly Bolt A and B after the first 20 days of use. (Fig. 15)
5. Check the tension of belt as following if the turntable is not powerful enough to run. Unscrew the bolt from machine side, then dismount the board. Adjust the special bolt X to tighten the belt. (Fig 16)
6. Clean or replace the foot pedal valve. (Fig. 17)

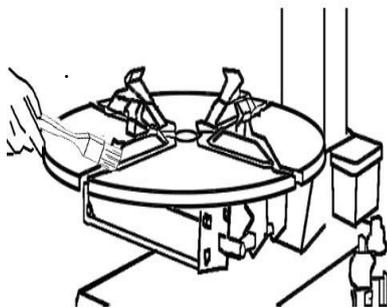


Fig 12

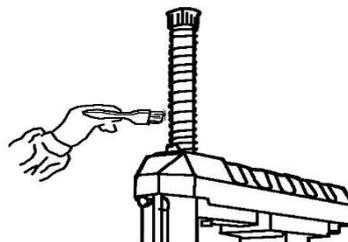


Fig 13

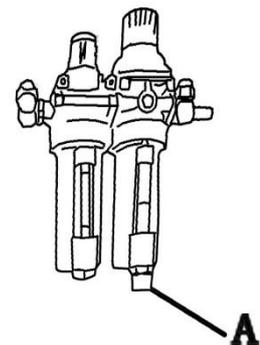


Fig 14

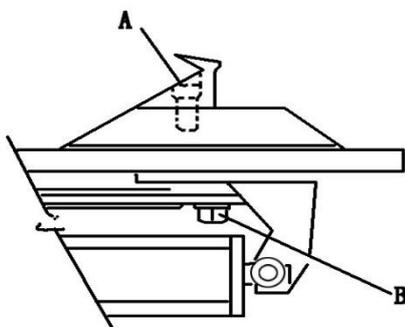


Fig 15

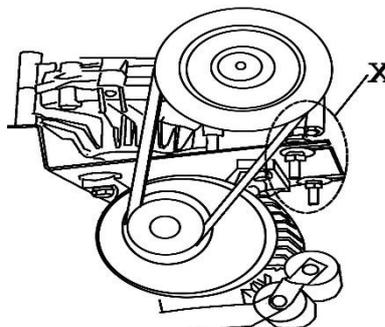


Fig16

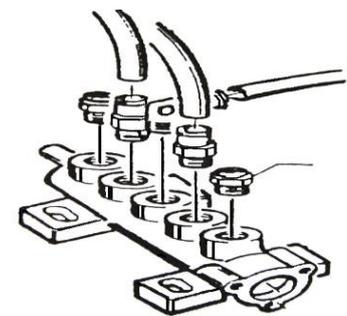


Fig 17