LAB – Tire Change

Students: 1. _____
2. _____
3. _____

Date: _____
Block: _____

SAFETY: TIRES ARE THE **ONLY** CONTACT YOU HAVE WITH THE GROUND FOR STEERING AND BRAKING. **NO TIRE SHALL BE INSTALLED** THAT SHOW **WEATHER CRACKING** AND/OR **DAMAGE** AND/OR **DEFECTS**.

SAFETY: TIRES AGE OVER TIME, EVEN IF THEY ARE NEVER USED. TIRES ARE RECOMMENDED TO BE REPLACED AFTER 6 YEARS, AND **SHOULD NOT BE USED** AFTER 10 YEARS.

LIABILITY: I don't care how trustworthy you think you are. The world does not run on a gentleman's agreement and a handshake, it runs on lawsuits and lawyers. I don't want yours.

BEFORE YOU BEGIN!

SHOW THE TIRES YOU ARE PUTTING ON, TO YOUR INSTRUCTOR, FOR APPROVAL

Last four digits of DOT Code: _____ *(ex: DOT U2LL LQLR **4010**, manufactured in 40th week of 2010)*

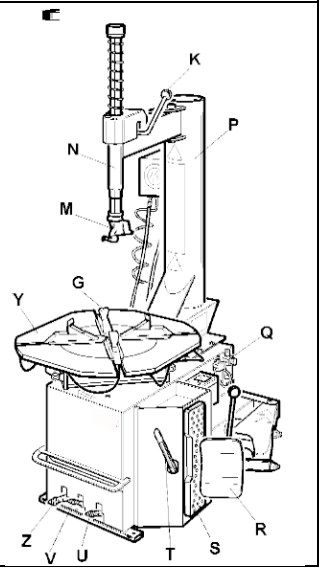
STOP!!!	INSTRUCTOR'S APPROVAL:	

TIRE IDENTIFICATION (FOUND ON SIDEWALL)			
Tire Size (ex P295/50R15):		Make (ex BF Goodrich):	
Model (ex Radial T/A):		Max Pressure (ex 44psi)	
Tread (ex 1 Polyester, 2 Steel):			
Sidewall (ex 1 Polyester 1 Nylon):			
Treadwear Rating (ex 400)			

There are a number of tire machines out there. They all pretty much work the same way.

In our shop, we have a CEMB 825 Mag Wheel Machine. It can do up to 44" tires, and has an air-assistance bar to help with large or stubborn tires.

You can also watch a quick demo of this machine on my YouTube channel
www.youtube.com/user/gwellwood



REMOVING

1

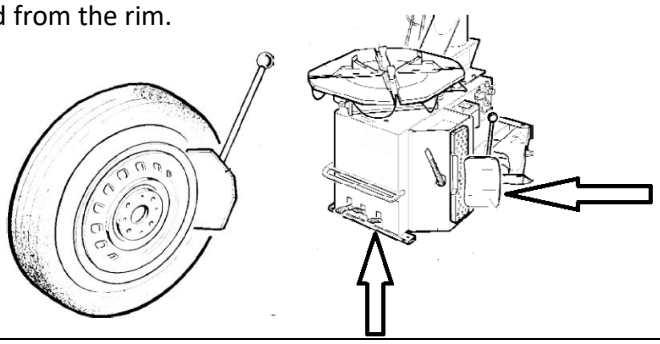
Remove the air from the tire using the core remover.

Place the tire between the BEAD BREAKER and machine, with the shovel against the bead of the TIRE close to the rim, but not ON the RIM

Press the RIGHT pedal to break the bead from the rim.

You MAY have to do this in more than one place.

You WILL have to do both sides.



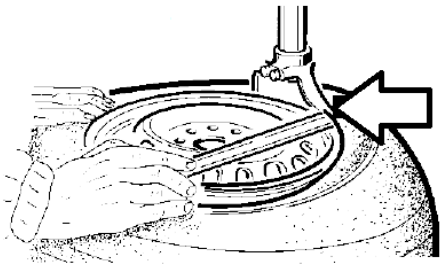
2

Place tire on turn table, and depress the MIDDLE pedal. This will lock the rim into place.

The machine won't grip the inside of 13" wheels, and may not grip the inside of 14" wheels – in these cases, you will need to grip the rim from the OUTSIDE.

REMOVE any wheel weights with wheel weight pliers.

Put some LUBEY-LUBE around the tire bead to ease removal – this reduces the chance of peeling the bead itself right off the tire, ruining it.



BACK OFF the arm screw (left side of post). Set the HORIZONTAL ARM down so that it MOUNTING BAR touches the rim, and lock the arm lever (this slightly raises the MOUNTING BAR). Adjust the ARM SCREW such that the MOUNTING BAR does not touch the rim.

Hook the CURVED end of the pry bar onto the inside of the bead on top, then LEVER the pry bar over the TANG of the MOUNTING BAR. <u>The opposite side of the tire MUST slip into the dropped center</u>. HOLD the pry bar so it doesn't fly across the room and skewer your friend.

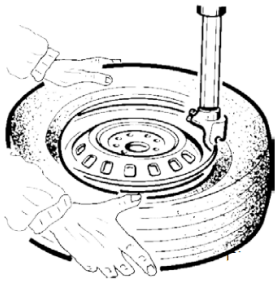
Press the LEFT pedal to rotate the turn table. The tire should easily remove as it rotates over the MOUNTING BAR. LIFT the pedal to reverse the rotation if you need to.

Repeat to do the bottom bead.

Swing the ARM out of the way, but do not change its adjustments.

Show your removed tire to your instructor.

STOP!!! **INSTRUCTOR'S INITIALS:**

INSTALLING	
3	Wire brush or wire wheel any ick on the wheel bead that might prevent sealing.  Note any required DIRECTION of the tire, or whitewall/blackwall preferences, and prepare accordingly. Put some LUBEY-LUBE on BOTH the wheel bead and the tire bead. This reduces the ripping the bead off the tire and ruining it. Place the tire over the rim, swinging the ARM back into position. Position the bottom tire bead OVER the MOUNTING BAR BUMP, and UNDER the MOUNTING BAR TANG, and <u>INTO the wheel's DROPPED CENTER.</u>  Press the LEFT pedal to rotate the turn table. The tire should easily install. It may need some extra pushing to make sure the tire stays in the dropped center. Our machine comes with an air-powered helper (ask for a demo). Repeat for top bead. Tire should now be ON the rim.
4	DO NOT insert the valve core into the valve stem yet. DO NOT PUT YOUR FINGERS IN THE BEAD AREA! Connect the tire inflator to the valve stem, and inflate the tire using the pedal on the LEFT SIDE of the machine. ALL THE WAY DOWN will blast air into the bead area to help seat the bead. MOST of the way down will just inflate. Watch the tire to confirm the tire has seated (often there are two "pops"). DO NOT EXCEED 50PSI trying to seat the bead. If the tire does not seem to be seating the bead at all, there are a few tricks. Ask your instructor for help. Once the tire has seated, there are two philosophies you may choose from: • Some like to bleed all the air out of the tire to let the tire relax against the rim, then inflate properly • Some feel this is a waste of time, and just put the core in and inflate Install the valve core, and inflate to the pressure recommended on the tire decal of the car (often on a door jamb). If you have no specs, 32psi is common.  Use SOAPY WATER to check for any leaks around both BEADS, the VALVE STEM, and in the VALVE CORE. Replace the VALVE STEM CAP.
STOP!!!	**INSTRUCTOR'S INITIALS:**

