



Delta Secondary School
Home of the Pacers

Lab

Technology Education

Mr. Mynott

Tire Mounting

Your Mission:

- Understand the parts of the tire mounting machine.
- Understands the safety aspects to using the tire mounting machine.
- Be able to identify parts of the tire machine.
- Be able to remove a tire from a wheel (rim). **IN CLASS**
- Be able to mount a tire on a wheel (rim). **IN CLASS**

Safety



**Eye protection
must be worn**

- **Always wear eye protection** – although it might seem remote that the tire machine poses any safety risks, it is able to exert much force and the results could potentially lead to dangerous flying particles.

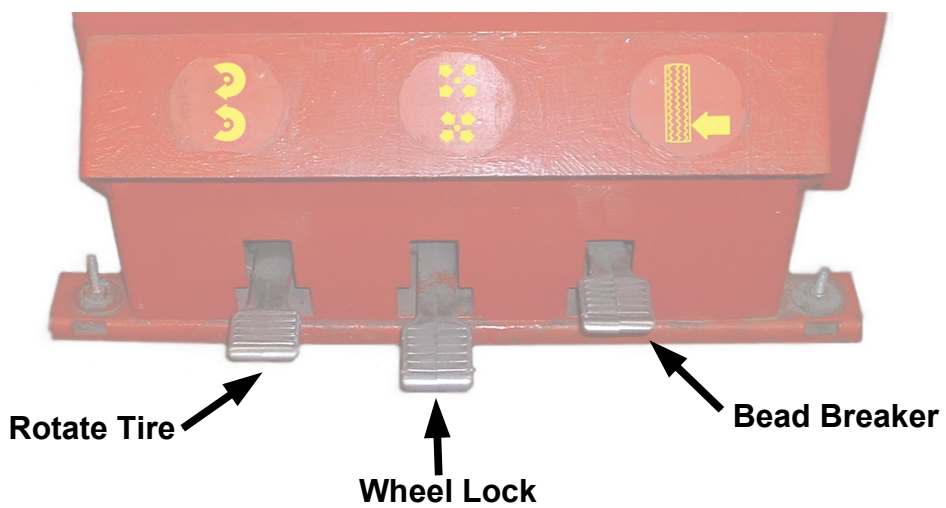
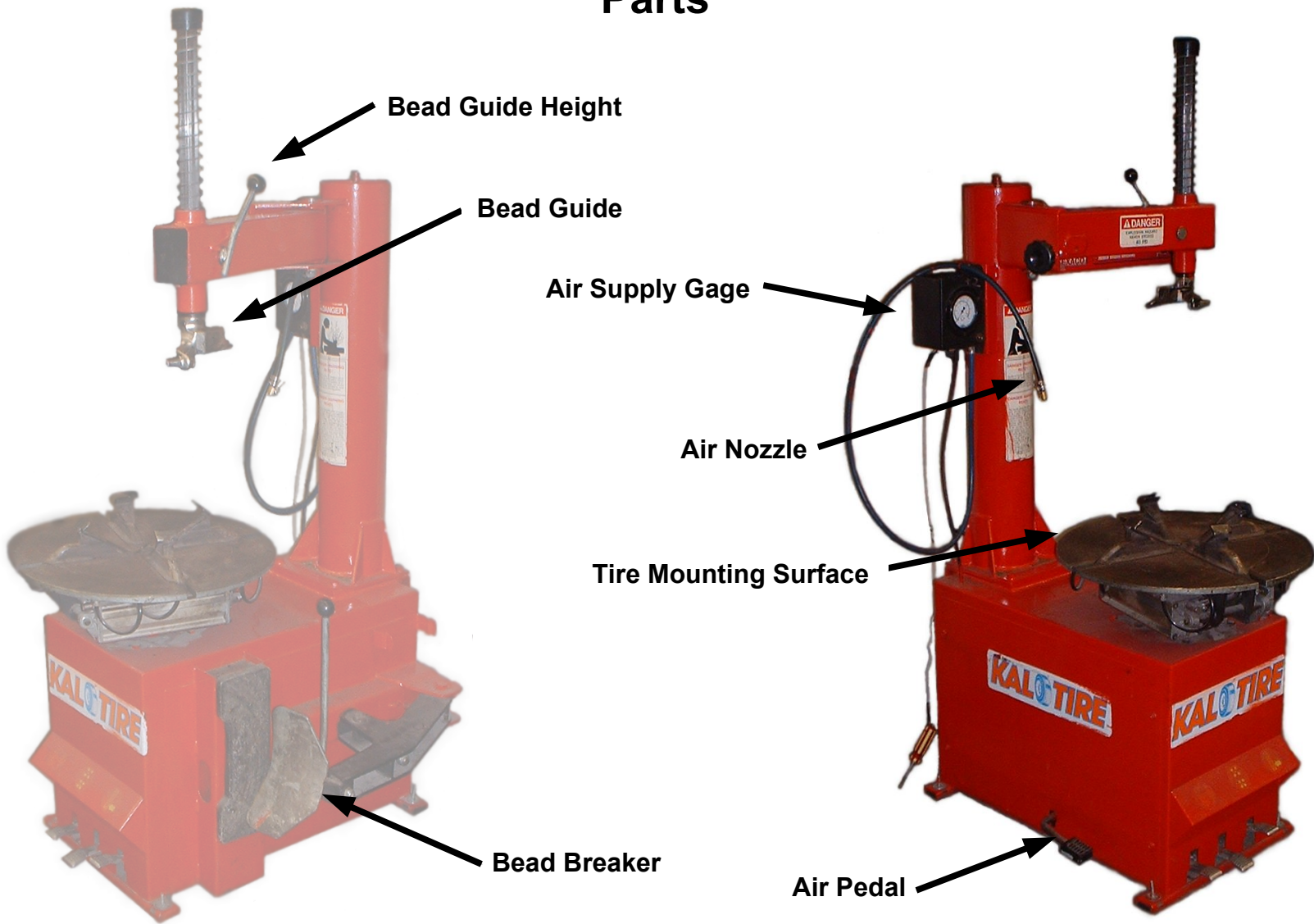


- **Always pay attention** – whether you are operating the tire machine or not you should be paying attention to what is going on around you. Only when you are paying attention will you be able to ensure your safety and know what to do in case of an emergency.



- **Always ask** – if you are not sure what to do or need assistance ask your instructor.

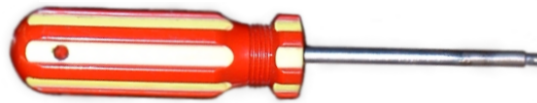
Parts



Tools



Tire Bead Pry Bar



Valve Core Remover



Valve Stem Installer

Dismounting / Mounting a Tire From a Wheel

Notes:

1. Wear appropriate safety equipment (eye and ear protection) before proceeding.
2. If you don't know or are unsure of how to accomplish mounting or dismounting a tire from a wheel ask you instructor. Failure to do so could result in personal injury, damage to the machine, or damage to the tire / wheel you are working with.
3. From this point forward the tire mounting / dismounting machine will be referred to as the machine. Also, the tire wheel assembly will be referred to as the tire.

Instructor Signature _____

Dismounting

Step 1.

Place tire on the machine, remove the valve cap, remove the valve core using the valve core tool provided, and remove any wheel weights that might be on either side of the wheel.

Step 2.

After all the air has been let out of the tire proceed to breaking the bead on either side of the rim using the bead breaker part of the machine. Make sure that the bead is broken all the way around the rim on either side.

Step 3.

Place the tire on the machine and lock the tire in place by pressing the locking pedal.

Step 4.

Spray the water / soap solution around both sides of the tire bead area. This will lubricate the tire to aid in its removal.

Step 5.

Place the bead guide part of the machine firmly on the rim and lock it in place.

Step 6.

Place the pry bar under the bead of the rim and pry it over top of the head of the bead guide.

Instructor Signature _____

Step 7.

Making sure the tire is being pressed into the drop center of the wheel, press the rotate pedal to rotate the assembly to remove the top bead of the tire from the wheel.

Step 8.

Using the pry bar pry the lower bead of the tire over the head of the bead guide tool.

Step 9.

Press the rotate pedal on the machine to guide the lower bead of the tire over the top of the rim. The tire should now be off the wheel.

Mounting

- Mounting is the reverse steps of dismounting. When you get to the top bead of the tire ensure that the tire is well lubricated and that you are pressing the tire into the drop center as you guide it on the wheel.
- When you get to setting the bead ensure that the valve core is mount and that the air blast can get into the bottom of the tire. Also, remember to listen for two “POPS” as the air pressure seats the tire on the wheel.
- Make sure that you install the valve core and fill the tire to 20 psi before balancing.

Instructor Signature _____



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Wheel Balancing

Your Mission:

- Understand the parts of the wheel balancing machine.
- Understands the safety aspects to using the wheel balancing machine.
- Be able to identify parts of the wheel balancer.
- Be able to balance a wheel. **IN CLASS**

Safety



**Eye protection
must be worn**

- **Always wear eye protection** – although it might seem remote that the balancing machine poses any safety risks, it is able to spin wheels at great speeds and the results could potentially lead to dangerous flying particles.

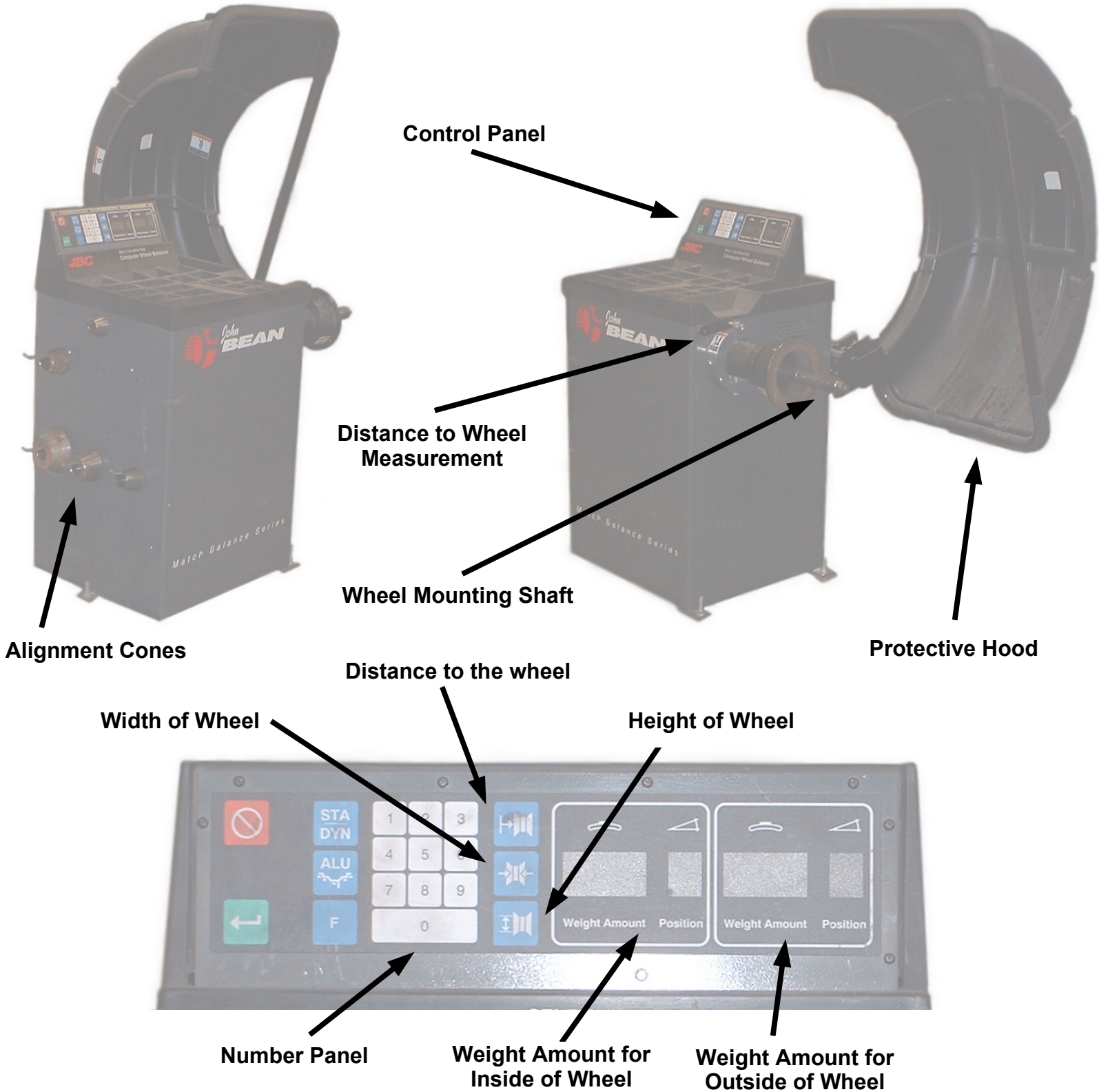


- **Always pay attention** – whether you are operating the tire balancing machine or not you should be paying attention to what is going on around you. Only when you are paying attention will you be able to ensure your safety and know what to do in case of an emergency.



- **Always ask** – if you are not sure what to do or need assistance ask your instructor.

Parts



Tools



Wheel Width Caliper



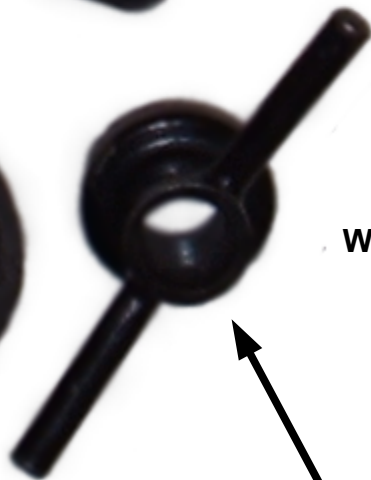
Wheel Weight Pliers



Alignment Spring



Wheel Retainer



Wheel Balancer Nut

Balancing

Step 1.

Being careful of the threads on the shaft of the machine and using the proper taper mount the assembly to the balancing machine. Ensure the the nut is firmly attached.

Instructor Signature _____

Step 2.

Enter the information of the assembly into the control panel on the machine. So, the distance to the wheel, the width of the wheel using the wheel calipers, and the height of the wheel.

Record the following information:

The Distance to Wheel is _____ mm.

The Width of Rim is _____ inches.

The Diameter of Wheel is _____ inches.

Step 3.

Lower the hood and allow the assembly to spin and come to a complete stop. Read the control panel to accurately put the appropriate amount of weight in the proper locations on the wheel.

Record the following information:

Weight on the left side of the assembly is _____ ounces

The position of the weight is _____

Weight on the right side of the wheel is _____ ounces

The position of the weight is _____

NOTE: Steel wheels use different weights than aluminum wheels.

Step 4.

Using the assembly weight pliers attach the weights to the wheel. Take care to put the weights in the proper positions.

Step 5.

Lower the hood again and allow the assembly to spin and come to a complete stop. The control panel should be reading all zero's which means the assembly is balanced.

Instructor Signature _____

THE END! ;D