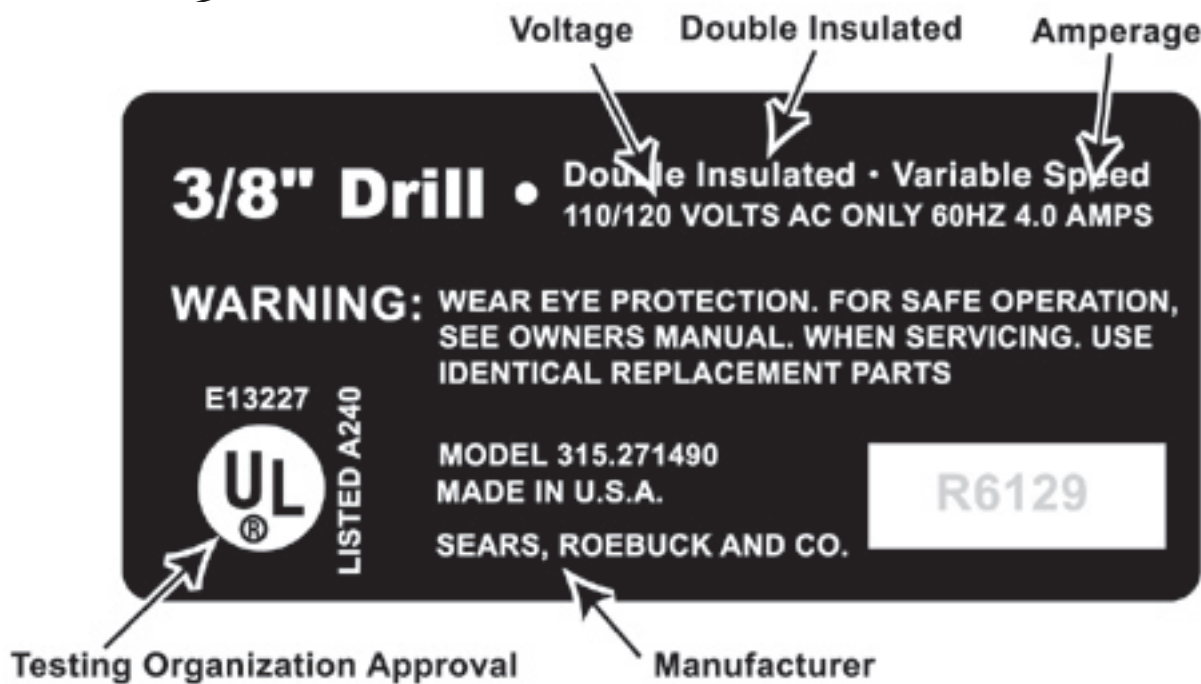
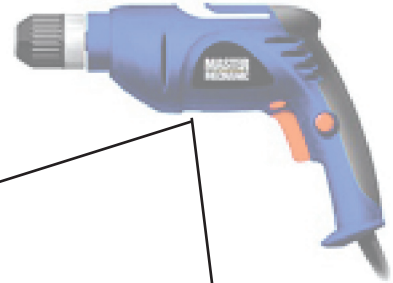


Electrical Safety - Understanding the Data

It is important to understand the tools you are using in the workplace, the risk they represent to your safety, and how to properly use the tools and protect yourself.

Typically there is some type of data plate on the tools you are using. This is an example of a data plate found on a drill.



Here are a few things we can learn from this label . . .

- * There is more than enough voltage and current to deliver a lethal shock.
- * The unit is double insulated. (Even though the unit is double insulated, it is important to inspect all power tools before use. In this case you would inspect the cord and plug for damage, and also the exterior shell of the drill to ensure it is not cracked.
- * There is no warning about the way to handle the drill, however you should never pick up the drill by the cord, or disconnect it from the receptacle by pulling on the cord.

Body Info

Important Facts about the Body

Electricity follows the path of least resistance. While the skin offers more resistance than the heart, foot or hand, the blood offers the least resistance. Electricity traveling through the blood can result in severe damage to internal organs, and cause burns that are not readily apparent to visual inspection.

The severity of shock to the body is dependant upon . . .

amount of current passing through the body

duration of the shock

path of current through the body

Electricity always wants to go to ground. If you grab hold of a bare wire that is energized and at the same time you are standing on a metal ladder, you will receive a shock because the electricity is seeking ground, the quickest way to ground in a case like this is through your body.

If the shock doesn't hurt you rest assured the fall from the ladder will! This fall results in a secondary injury.



Circuit Breakers and Fuses

Fuses and circuit breakers are designed to protect equipment. A person's first line of defense against shock is knowledge of electricity, an understanding of how to protect yourself from shock and a pro active attitude towards safe behavior.

Remember this about circuit breakers and fuses . . . they usually blow or trip because of overloads on the circuit, faulty equipment etc . . . Resetting breakers or replacing fuses without checking the equipment is dangerous.

Personnel who are qualified should investigate why breakers trip and fuses blow. Contact your supervisor when there are any questions in this area.

