UNC CHARLOTTE
Department of Engineering Technology

LABORATORY SAFETY ANALYSIS

OPERATING A METAL SHEAR

Location: Smith 128A/B

Required Training: Shears are designed and intended for use by properly trained and experienced operators. If you are not familiar with the proper and safe operation of a shear, do not use until proper training and knowledge have been obtained.

Required Personal Protective Equipment (PPE): Safety glasses, gloves (when handling material), closed toed shoes.

Reference Materials: Manufacturer's safety rules and operating instructions

PHOTOS	TASK	HAZARDS	CONTROLS
	Wear clear safety glasses with side shields.	Flying debris	• Students are required to provide their own safety glasses. • See laboratory instructor or laboratory manager if you do not have safety glasses before proceeding to use equipment.
	Inspect safety glasses for cracks, scratches or other damage. Ensure the ANSI standard Z87.1 is stamped into the side of glasses. If necessary inspect dust mask or face mask.	Flying debris	• If defects are found report this to your lab instructor before using.
	Put on PPE	Flying debris and sharp materials	• Always wear safety glasses. • Always wear gloves when handling sheet metal as edges can be sharp
	Inspect work area, walk around shear looking for debris and ensure proper lighting.	Slips, trips & falls	• Keep the work area around the shear free from scraps, dust, oil and grease.
	Inspecting shear, ensure the shear is stable (not rocking) on the floor.	Tip over, sliding, walking, struck by injuries	• Report any defect to your laboratory instructor or laboratory manager and ensure corrective action before operating. • Replace any warning labels that have become obscured or removed. • Be aware of guide rods and support rods protruding from shear

	Position material in shear	Lacerations, struck by injuries	• Wear gloves when handling stock. • Remain aware of support rod locations which can be hidden by larger pieces of stock. • Ask for assistance when handling large or heavy pieces of sheet metal. • Be aware of the presence of others in the area when moving larger pieces of stock
	Actuate shear	Slips, trips, struck by injuries	• Do not exceed the capacity of the shear. • Insure that others are clear of the blade, pedal area, and drop area where sheared material will fall. • Insure that the blade guard is in place and functions properly when the manual pedal is first depressed. • Maintain your balance when standing on and depressing pedal
	Remove material	Lacerations, struck by injuries	• Wear gloves whenever handling stock. • Remove unsheared stock to a safe storage location. • Pick up sheared stock from drop area as well as any waste pieces and properly discard waste.
	Clean work area and return all PPE to a clean storage area.	Injury	• Ensure adequate housekeeping measures to prevent accidents.

For more information about this LSA, contact the *Department of Engineering Technology* at UNC Charlotte (704) 687-2305

Please visit our website at: http://www.et.uncc.edu\

The development of Laboratory Safety Analyses is a very effective means of helping reduce incidents, accidents, and injuries in the workplace. It is an excellent tool to use for training purposes and can also be used to investigate "near misses" and accidents.