

EMPLOYEE TRAINING RECORD

TRAINING TITLE Ergonomics of Tool Design

KEY TEACHING POINTS

BEND THE TOOLS, NOT YOUR WRIST.

Hand tools should be designed so that the user can grasp, hold and manipulate the tool without bending the wrist to do the job.

MINIMIZE THE WEIGHT OF HAND TOOLS

Tools used on a repetitive basis and weighing over 1 pound should be counter balanced. The tool's center of gravity should be as close to the center of the grip as possible.

OPERATE hand tools within a range that allows the shoulder to be relaxed and the elbow to be close to the body with approximately 85-120° of movement allowed between the upper and lower arm.

HANDLES

- Choose handles with a broad cushioned gripping surface which is hard enough to prevent metal chips or other debris from becoming embedded in it.
- Choose handles that will not absorb oils and other liquids which could irritate the skin.
- Choose single handed tools with flanges. These can help prevent the hand from slipping off the tool
- Choose handles that let the hand wrap around the tool to avoid slippage.
- Do not use tools with handles that press into the palm of the hand.

CHOOSE TWO HANDED TOOLS WITH THESE FEATURES

- A means of opening the tools after use, such as a spring return. The spring force should be low enough so that it does not cause undue strain on the operator to keep the tool closed.
- Sufficient space between the handles to prevent palm or fingers from being pinched.

TEST

QUESTION	ANSWERS	
	TRUE	FALSE
1 Keep your wrists in a neutral posture, not bent.	<input type="checkbox"/>	<input type="checkbox"/>
2 Choose the right tool for the job.	<input type="checkbox"/>	<input type="checkbox"/>
3 Replace tools with broken handles.	<input type="checkbox"/>	<input type="checkbox"/>
4 The center of gravity for a good tool is in the middle of the handle.	<input type="checkbox"/>	<input type="checkbox"/>
5 The weight of a tool is not important.	<input type="checkbox"/>	<input type="checkbox"/>
EMPLOYEE'S NAME	EMPLOYEE'S SIGNATURE	DATE
INSTRUCTOR'S NAME	INSTRUCTOR'S SIGNATURE	DATE

1. True 2. True 3. True 4. False 5. False