

Jobsite: \_\_\_\_\_  
Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_  
G.C. \_\_\_\_\_

**SMOHIT Body Maintenance**  
Toolbox Talks for the Sheet Metal Industry

### Forceful Exertion

- Forceful exertions can be caused by tasks such as handling materials and gripping hand tools.
- Ergonomically sound methods to counter forceful exertions include the use of:
  - Manual and Mechanical devices (duct lifts, pulleys).
  - Two or more workers to lift equipment and materials.
  - Spring-loaded tools.
  - Extended handles to reduce bending and reaching.
  - Casters/swivels or wheels.
- The more force you use, the more you stress your body, and the more you risk fatigue and injury.
- Forceful movements such as pushing, pulling, tugging, and sliding objects places strain on your lower back. It can also stress muscles, tendons, and joints of your shoulders, arms, upper back, and legs.
  - Pulling is worse for your body and pushing.
  - Pushing allows you to use your body weight to your advantage.
  - Pushing or pulling above shoulder height or below waist height requires a lot of force because of the awkward posture.
- The amount of force you apply during movements and to hand tools can be affected by:
  - The type of grip you use.
  - The position of your hands and arms.
  - Cold, slippery handles and gloves.
  - The length of time you keep your body in one position.
  - The amount of rest your muscles get.

**Notes:**

### Instructor Tips

- **Stress the importance of only using equipment on which you have been properly trained.**
- **Ask workers to discuss which methods listed in the second bullet, they use.**
- **Remind workers that it will require more force to use a hand tool when their wrist is bent backwards, down, or to one side.**
- **Remind workers that a hand tool with too small a grip will cause them to grip more tightly, which will lead to fatigue.**

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Ergonomics (3)