

HAND TOOL (Non Powered) SAFETY

An operator (not working on a CEMEX site) was using a hand held grease gun to lubricate various grease points on earth moving plant. The operator was attempting to remove the grease gun from a grease nipple after pumping several times and found it difficult. In gripping the hose and manoeuvring it, the hose ruptured, injecting grease into his little finger. The operator felt a sharp pain to his little finger and on inspection noticed a small hole on his finger approximately one teaspoon of grease was injected. N.B. – gloves were not being used at the time.



The injured person (IP) was cutting a piece of conveyor belting to make a skirt rubber for a conveyor. The IP took a piece of conveyor into the workshop and was cutting the belt on the floor using a Stanley Knife. Whilst making the cut along its length the IP utilised a steel straight edge and made the cut alongside his body position. He was then required to make a perpendicular cut, to do this the IP shuffled around and placed his body in line with the cut. As he cut the belt, the knife went through the belt much easier than he expected and the force caused the knife to slip and go into his leg just above the right knee.



A Fitter was tensioning a conveyor using a 36mm open ended spanner. The lighting in the area was dim and to ensure that the spanner was fully located on the nut the fitter held the spanner with his left hand underneath it. He was wearing Latex type gloves but normally rigger type gloves would be worn for this type of activity. The Fitter applied his body weight in a downwards manner onto the spanner and it slipped off the nut and trapped the finger nail on his ring finger against the conveyor structure. His nail embedded itself in his nail bed and after he had received first aid he received treatment at the hospital where they removed the nail from his finger. The Fitter returned to work the next day and resumed work on restricted duties.



The IP was torquing (tightening) the wheel nuts on a Komatsu 405 Rigid Dump truck using a ratchet connected to a Torque Multiplier. When the correct torque is reached (nut fully tightened) the pressure has to be released from the Torque Multiplier by pushing a switch and allowing the ratchet to turn anticlockwise for approximately one revolution in a controlled manner. The IP inadvertently released the ratchet whilst under pressure, allowing it to rotate and strike the rear of his left hand causing breaks to two metacarpal bones leading to his middle and index fingers. The IP received hospital treatment where his hand was set in a cast pending further surgical treatment when the bruising subsides.



Tools and Equipment



Use the right, well maintained, tools/ equipment for the job. Never make do.

Hand Tool (Non Powered) Safety Rules

Preparation

This Stop and Think Talk can be used individually or with a group of people. It could be delivered in the workplace, perhaps in a workshop where tools are used. Take care that the area is suitable for people to hear and see what you are doing if you are carrying out a practical demonstration. Participants should receive a copy of the talk for their CPD files as well as signing the training declaration.

Introduction (After reading out the case studies)

There have been several incidents within the business and the wider industry resulting in serious injuries as a result of improper use of hand tools. Whilst each of these incidents had different contributory factors, they all had a common theme whereby people did not follow safe working practices designed to protect them and others. These events highlight the need for everyone to ensure that plant and tools are selected carefully, maintained in good order, and always used according to the manufacturers' guidelines.

THE Talk: Use the information below to discuss the general considerations required when using hand tools. It would be beneficial to talk through specific tasks involving hand tools, highlighting the necessary precautions. It is also worthwhile reviewing the work areas, such as workshops, and the available hand tools, discussing some of the specific guidance overleaf. Emphasise that we must Stop & Think before we pick up a tool and begin working, to ensure the required precautions have been considered and implemented.

General Considerations:

- **Stop and Think:** Do you have the right tools for the job?
- **Always wear the correct PPE** for the job according to the risk assessment, including eye protection.
- Don't wear loose clothing, jewellery or dangling objects and tie back long hair.
- Don't work with OILY or GREASY hands.
- **Ensure you are authorised**, if you are unsure or untrained on how to safely operate a tool, don't use it.
- Handle sharp-edged and pointed tools with care, carry pointed tools by your side with the points and heavy ends down.
- Use tool belts / bags to prevent objects falling from height.
- Never carry tools in your pockets.
- Secure all small work & short work with a vice or clamp.
- **DON'T use defective tools.**
- **Storage:** Store tools securely and where possible vertically, with the points and heavy end down.
 - After using a tool – Clean it and return it to its proper storage place.
 - If anything breaks or malfunctions – remove it from service at once (inform your supervisor).
 - NEVER place tools & materials where they hang on the edge of a bench or in a raised area likely to fall onto someone below.
- **Use the correct size tool for the job**
 - Do not use tools that are worn, twisted or bent.
 - Do not use pliers on over tightened bolt heads.
 - Never link spanners to apply extra force.
 - Do not use improvised secondary levers.
 - Never expose any wrench to excessive heat.
- **Posture:** Wherever possible avoid awkward postures that strain the neck, shoulders, wrists, hands or back. Bending, stooping, twisting and reaching are examples of awkward postures.



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Knives:



- Use safety knives where possible
- Wear anti cut gloves
- Keep the blade sharp, but ensure blades are retracted or protected when not in use.
- Cut away from your body
- Do not use knife blades as screwdrivers
- Avoid working in the same area when a co-worker is using a knife
- Use tools that are the **RIGHT SIZE & RIGHT TYPE** for your job.
- Follow the correct procedure for using every tool

Hammers and Chisels:



- Never use a hammer with a cracked shaft or loose head
- Ensure the striking face is flat and not rounded
- Use the correct hammer for the job
- Do not use a claw hammer as a "jimmy" bar
- **KEEP** your punches & chisels in good condition. Mushroomed heads can chip & cause injuries
- **DON'T** pry or hammer with a **FILE**. It may shatter.
- Cut away from yourself when you use chisels

Screwdrivers:



- **DON'T** use screwdrivers as chisels or lever bars.
- When using screwdrivers place the object on a flat surface or in a vice
- Avoid holding it in your hand
- Use the correct size driver for the screw
- Do not use screwdrivers with chipped tips
- **DON'T FORCE** screws; make sure that the correct screw for the job is being used

Spanners, Wrenches & Grips:



- Use the correct size tool for the job
- Do not use tools that are worn, twisted or bent
- Do not use pliers on over tightened bolt heads
- Never link spanners to apply extra force.
- Do not use improvised secondary levers
- Never expose any wrench to excessive heat
- Don't try to increase your leverage by using a "cheater", a second lever with a spanner / wrench
- Wrenches are designed at the right strength for their size and length

Grease Guns:



- Use a good quality device with no defects or cuts, use a strengthened woven mesh high pressure type flexible attachment and check all fittings are tight and secure prior to use.

Sledgehammers:



- Need to be checked before, during, and after use for signs of cracks on the handle, and tightness of the head
- Using a sledgehammer that is damaged or loose can potentially cause the head to fly off and injure those in the area
- Because of the change in weight distribution while using a sledgehammer, it can cause muscular back problems if not swung properly
- Sledgehammers should always be swung using two hands, lifting the weight of the head with the legs and core, not the back muscles



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