

TOOLBOX TOPIC – APRIL 2010 (All Departments/Projects)



CORKE INSTRUMENT ENGINEERING (AUSTRALIA) PTY. LTD.

**BLADE TOOL & CABLE STRIPING
AWARENESS**

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- This presentation is designed to give a general understanding of the requirements associated when working with Blade Tools and Stripping Cables.
- This presentation is a company training awareness toolbox and is applicable to all employees, it is designed to give all employees an understanding of the need for protection and awareness when working with Blade Tools and Stripping Cables.
- Please be advised that specific procedures surrounding Blade Tools and Stripping Cables may be applicable at client sites that you work on and these requirements should be followed whilst working on those sites. If you are not sure, ASK.



General Safety Precautions

- Firstly when using blade tools you must always wear safety gloves. If this is not practicable, reasons so must be detailed in your job safety analysis.
- Hazards in the workplace involving the use of blade tools are cause for concern .
- A wound caused by a cutting edge, though not usually life threatening, can have serious long term consequences, particularly to the use of the hands which have minimal muscle depth to protect tendons and bones.
- Accidental cuts occur mostly to the other hand, i.e. to the hand not holding the tool, along with other extremities of the body and or a near by person.
- In almost every case, they are the result of a sudden uncontrolled movement which occurs when the tool unexpectedly slips.



Blade & Cable Stripping Tools Misuse

- The key word is UNEXPECTED. Given that the forces applied to the tool are deliberate and obvious, it is more accurate to say that the user failed to predict the course of the blade if a slip occurred and/or failed to re-adjust the method of use so as to control the movement.
- The way to avoid accidental injury when using a cutting blade is to analyse where the blade will be directed if a slip occurs.
- The next step is to take action to avoid any resultant injury.
- To “control” the blade is a far better method than to “contain” the slip.



Select The Right Tool for The Job

Select an appropriate tool:-

- Small electrical cables may be stripped with a cable stripping tool.
- A junior hacksaw is light enough to be carried in a tool bag for cutting small to medium sized cables.
- Blade tools should not be used for levering, or as screwdrivers.
- Side cutting pliers are often more convenient and safe for cutting cord and rope etc.

- The design of a knife is important in its selection for a job. “Stanley” type knives (with retractable blade) have a short, brittle blade not designed for sawing actions. They are designed for pressing cuts, forward and downward. Past experience has shown that this (“Stanley” type, with retractable blade) is the best option for stripping cables providing the blade is sharp (*if not excessive force may need to be applied*) and its use is controlled in the correct way.



Select The Right Tool for The Job

- Blades which fold and have no lock should not be used for any job where force is to be applied - they have no application on an industrial site.
- Fixed blade knives which may be used for sawing actions should be equipped with a handle designed to prevent fingers slipping on to the blade.
- The past common industrial practise of utilising a piece of hacksaw blade with an insulation tape handle - hence no finger protection, is bad practice and has been responsible for many permanent hand injuries. **This type of tool must not be used.***



Control Cutting Methods

Control Movements:-

- Having decided the knife to be the most appropriate tool for the job, analyse the method to be used so that, should the tool slip, movement of the blade will be safely controlled.
- Flexible items such as cord or rope should be held taut and cut with a steady sawing action. A better method is to use a cutting board.
- A poor method is to loop the rope and try and slice the blade through the rope, as this usually results in an uncontrolled swing of the arm and blade as the cord is cut. Unfortunately, this method is very popular on family camping trips and often results in a trip to hospital for stitches.



General Cable Stripping Guide

- Again a method should be chosen which allows control of blade movement in the event of it slipping from the cable.
- keep the knife hand away from the body.
- ring the cable in the appropriate position.
- engage the knife into the casing of the cable in a manner comfortable to the worker.
- work so that if the knife becomes displaced from the cable it will **not** make contact with the body.
- near completion of strip ease pressure on knife for final removal of casing.

For cables small enough to be lifted in one hand:

- cup the cable in the left hand (for right handed people) with thumb forward.
- place the right hand, holding the knife above the left hand and grip the knuckles of the knife hand with fingers of the cable hand forming a double grip.
- hands locked together.
- keeping the cable taut draw both hands and knife along the cable to make a cut.



General Cable Stripping Guide

Heavy cable:-

- leave the cable on the ground.
- keep the knife arm well extended.
- back along the cable while making the cut (make sure there are no trip hazards).
- if the other hand is used, lock it to the knife hand in a double grip to ensure the knife hand cannot move independently off the support hand if a slip occurs.

When cable of any dimension is placed in a position other than the above, i.e. hanging from the ceiling, extra consideration of hazards is required:

Awareness of the following:

- diameter of the cable
- position of the cable
- surrounding structures that may impede the work
- Environment (other people working near by)
- use of the correct tool, i.e. stripping tool or “Stanley” type knife, with sharp (retractable) blade.



General Cable Stripping Guide

The grip used on the knife is important and depends on the application to the job.

- Remember - predict what may happen in the “worst case” should your grip slip.
 - Consider line of fire type injuries.
 - Avoid the use of knives with no hilt or poor handle design.
 - Avoid using blunt blades (*this can lead to excessive pressure being applied*).
 - Downward “stabbing” movements are only suitable for the entertainment business. They are a hazard to fingers, the other hand or wrist tendons etc and have no place in the construction industry.
 - Remember, any knife with a blade has the potential to cut or injure, “Stanley” type knives are no exception, planning the work is essential.
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- Take the time to plan your job correctly by completing a Job Safety Analysis and Step Back 5 x 5.