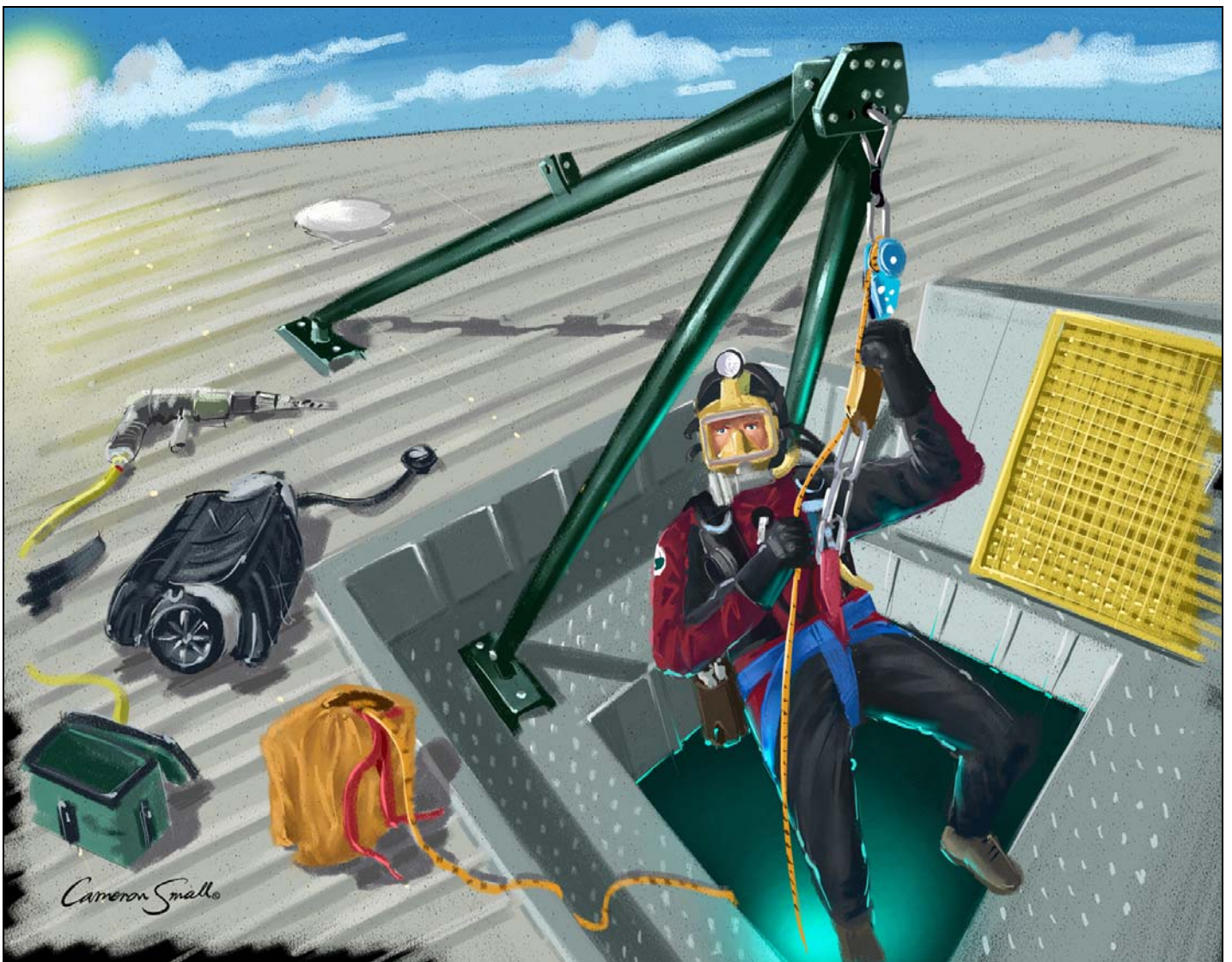


## Titan Arm Manual



## **CONFINED SPACES**

Confined Spaces are a significant hazard in the workplace and they account for a number of serious injuries and deaths to workers.

Many workplaces contain spaces that are considered to be confined and due to their enclosed nature can trap dangerous, poisonous or explosive gas mixtures and other contaminants (eg; dusts and fumes).

Confined Spaces may have restricted means of entry and exit, an atmosphere with potentially harmful contaminants, an unsafe level of oxygen or stored substances that may cause engulfment.

Confined Spaces may include storage tanks, process or pressure vessels, boilers, silos & other tank-like compartments, open-topped spaces of more than 1.5 metres in depth (such as pits & degreasers), pipes, sewers, shafts, ducts & similar structures.

Confined Spaces legislation and Australian Standards AS 2865-1995 'Safe Work in Confined Spaces' place obligations on the employer to ensure that no person enters a confined space or works inside or on the outside of a confined space if there is a risk to the persons safety or if there is a risk of fire or explosion.

Employers have responsibilities to ensure that the provisions of the risk management process for confined spaces in their workplace have been undertaken. This risk management process for confined spaces involves the following steps:

### **STAGE 1 IDENTIFICATION OF CONFINED SPACES**

Confined Spaces in the workplace must be identified. This identification process involves a site inspection, investigation and testing of the work areas and spaces in the workplace.

### **STAGE 2 IDENTIFICATION OF OTHER HAZARDS**

Additional hazards may be encountered with confined space works and they also need to be identified. These hazards may include exposure to noise, asbestos, chemicals and hazardous substances, heat stress, plant hazards (eg; operation of moving equipment), electrical hazards, explosion and fire.

### **STAGE 3 RISK ASSESSMENT**

The inherent risk of each confined space identified, the associated hazards and work activities carried out must be assessed so that the appropriate controls can be implemented to eliminate or minimise the risk.

### **STAGE 4 RISK CONTROLS & PROCEDURES**

The implementation of appropriate risk control measures for confined space entry and work must be in place at the employers workplace, regardless who enters the confined space or undertakes the works (i.e. contractors, employer's personnel, public or others).

As such, documented procedures or instructions for confined space entry and works need to be established and must outline the following requirements:

- Isolation and Lock-Out of hazardous services
- Entry permit system
- Stand-by persons requirements & responsibilities
- Atmospheric testing and monitoring
- Rescue and first aid equipment and emergency procedures
- Entry protection (signage and protective barriers)
- Safety and personal protective equipment
- Training program & supervision
- Record keeping

### **TITAN ARM POSITIONING**

The DBS "Titan Arm" should be fixed in the closed position when not in use by authorised personnel.

The locking pin has the provision to accept a padlock for added security.

Fall Arrestors and Harnesses should not be left on-site with the Titan Arm, as this may encourage the unauthorised use of the equipment.



### **THE "LUFFED" POSITION**

When injured personnel may be required to be safely lowered to ground level, the Titan Arm should be set in the "Luffed" position.

The backstay is merely extended to the suitable position to ensure the handrail is cleared.

When in the "Luffed" position, the backstay-locking pin must be refitted.



### **HATCH ACCESS POSITION**

The Fall Arresting Device (FAD) should be fitted to the masthead when the Titan Arm is partially erected to an accessible height.

When the FAD had been fitted to the Titan Arm mast head, the locking pin for the back-stay should be removed and the head should be tilted forward until the FAD is centrally located as close to the centre line of the access ladder.



### **READY FOR USE**

Depending upon your selection of FAD and the availability of an access ladder, the entry personnel is now ready to enter the tank.

Prior to entry all the required confined space entry checks should be performed and notated.

Only approved equipment should be used in conjunction with the DBS "Titan Arm"

***MATERIALS & EQUIPMENT SHOULD NOT BE LIFTED OR LOWERED WITH THE TITAN ARM***



## **ASSOCIATED RECOMMENDED EQUIPMENT**

Safety harnesses should be used when working, in high places, near any drop, over an open hole and whenever the possibility of a fall exists.

Safety harnesses must be used when working on Drill Rigs, Towers, Platforms or Ladder ways or similar types of equipment.

Always check that a safety is in good condition before use. All safety harnesses must be an approved type (no other gear must be used as a safety harness). All safety harnesses must carry the Australian Standards symbol which indicates that the harness complies with the appropriate standard for its manufacture.

Safety harnesses must not be removed from fixed locations.

All unsafe safety harnesses must be returned for replacement.  
Make sure safety harness rope is securely anchored.



### **Confined Space Entry Harness**

- *Lightweight & Comfortable*
- *Rear Attachment Point*
- *Fully adjustable leg, shoulder and chest straps*
- *AS1891.1 certified*
- *Rear breathable mesh panel*

*The rear "D" includes a 1.2M Webbing Restraint Lanyard*

### **3 Way Fall Arrest and Recovery Block**

*3 way winch up / down mechanism and fall arrest capability, 16 metre x 5mm stainless steel wire rope with aluminium housing. Generally used for confined space retrieval and fall arrest. Easily converts from fall arrest to winch function.*

