











### **Overview**

A trained operator is an important factor in the safe and efficient use of plant and equipment. Training is defined as the accumulation of skills and knowledge, and forms an integral part of the individual's learning process. Training can be divided into two areas – Basic and Advanced.

Basic training covers theoretical and practical principles detailed in the Learning Outcomes. Basic training, wherever it occurs, should take place independent of productive work using dedicated equipment and resources. Advanced training can take place during productive work, but following a managed supervision.

TCA Lifting have many years experience in the use and repair of a wide range of compact and mobile cranes. This experience combined technical knowledge allows us to offer excellent practical training which both meets the requirements of the CPCS A66 syllabus but also gives real skills for future careers operating compact cranes.

## **Training Attributes**

- \*To help candidates in learning the necessary skills for this category, it would be ideal if they possess one or more of the following:
- Construction or related experience
- Driving licence or driving experience
- · Able to calculate basic formula
- Able to record basic details
- Understand basic written words
- Have received site safety and induction training
- Possess good eye and hand co-ordination
- Have mechanical appreciation
- Medically able to operate machinery (including eyesight)
- \*Please note that lack of any of these attributes does not prevent anyone from being trained for this category

### **Duration/Ratio's**

To allow effective learning, these training times are recommended for this category. Candidates must be profiled to establish learning needs. Durations should be of a length to ensure the learning outcomes are met.









Experience	Recommended Training Hours
Novice operators with no industry or machine experience	35
Novice operators with industry experience but no machine experience 21	
Operators with unrelated (lifting) machine experience 14	
Operators with similar (lifting) machine experience 7	
All candidates must have received the equivalent to 7 hours of site safety and induction training	
For effective learning, the maximum recommended candidate / machine / instructor ratio for this category is:	
3 candidates : 1 machine : 1 instructor	

## **Outcomes**

Through a combination of targeted training & experience, an individual with a compact crane will be able to:

<b>D</b> .	
Roles and	Describe the nature of the sector of industry and their role and responsibilities as a
responsibilities	plant operator
Preparing for	Name and explain the purpose of principal components, the basic construction,
work	controls and terminology
	Conform with manufacturer's requirements as per the operator's handbook, other
	types of information source and relevant regulations and legislation
	Explain all relevant documentation
	Undertake all pre-use checks
Travelling &	Configure and set for travel
manoeuvring	Travel the crane to the work area
	Manoeuvre in confined spaces
Setting up for	Configure the crane for lifting duties
work	Programme / set-up Rated Capacity Indicators or Load Moment Indicators for lifting
	duties
	Identify weights and centres of gravity of loads
	Deploy outriggers to specification (where applicable)
	Explain the function use and limitations of jib extensions
	Explain action required for hazards, underground and overhead services









Working tasks	Lift various loads using the full radius and slewing or steering capabilities of the crane
	Accurately place loads
	Minimise the swinging of loads
	Comply with signals and instructions
	Move loads through machine travel (relevant endorsements only)
	List different types of lifting accessories compatible with compact crane use, and
	explain the limitations of slinging with compact cranes
Shutting down	Carry out shut down and securing procedures
	Explain loading and unloading procedures for machine transporting, procedures for
	lifting and/or towing

## **Category Description & Types**

CPCS defines a category as an item of plant or equipment used within the construction or allied industries and worked in accordance with the manufacturer's basic design. Although this category can have varying uses within industry, for CPCS training and assessment standards, the descriptions reflect basic core use. Endorsements are sub-categories that reflect the variations for this category by duties. This category has four endorsements.

To identify a machine within this category, a typical compact crane would normally have the listed features and be used within the described characteristics.

#### **Category Features**

- Towed or self-propelled wheeled or tracked chassis containing (in most cases) power, hydraulic and electrical units
- Multi-sectioned extending boom, all hydraulically operated
- Up to 10 tonne lifting capacity

#### **Category Characteristics**

- Compact in size
- Able to travel in forward and reverse and change direction during travel by steering the axles, tracks or towed by prime mover
- Lift loads by raising the hook
- Moves and places loads using various means as per the endorsement type









## **Endorsement characteristics**

• Endorsement A: Static-stabilisers – minimum of four outriggers extended, with a winch-operated metal-stranded hoist rope mounted on pulleys. Hook block suspended by hoist ropes and pulleys at the end of the boom. Places loads by using a combination of slew and linear motions within the confines of the operating radius, depth and height.



• Endorsement B: Mobile industrial— non-slewing, able to travel with a suspended load using forward to reverse direction, travels on hard surfaces with some types having off-road capability. Places loads by travelling.



• **Endorsement C:** Luffing static— trailer-mounted telescopic boom with luffing unit, hydraulically operated.



• Endorsement D: 360 Pick and carry – Winch-operated metal-stranded hoist rope mounted on pulleys. Hook block suspended by hoist ropes and pulleys at the end of the boom. Places loads by using a combination of 360 slew and linear motions within the confines of the operating radius, depth and height. Able to travel with a suspended load using forward to reverse direction.







