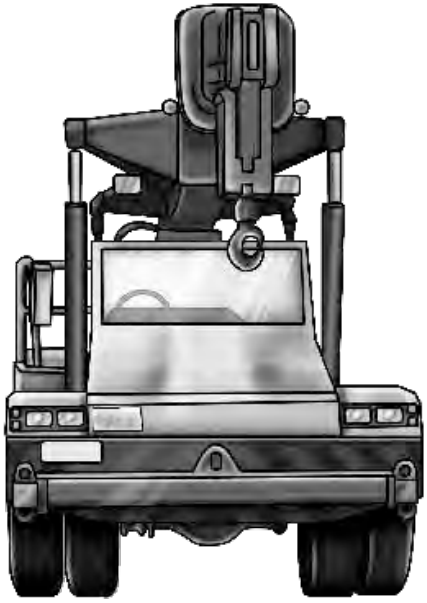
NON-SLEWING MOBILE CRANE INFORMATION BOOK

LLN READY

Training support material for:



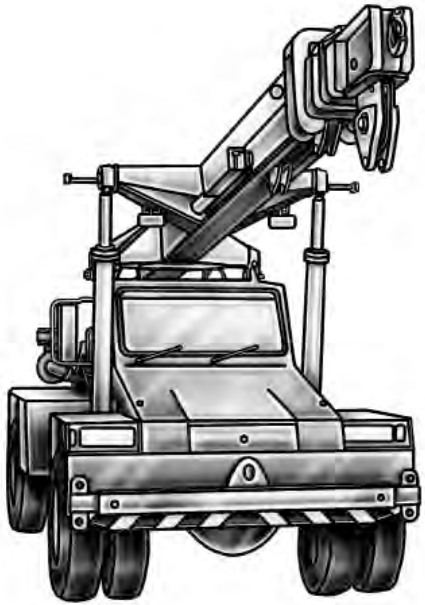
Licence to operate a non-slewing mobile crane

(Greater than 3 tonnes capacity)

Produced by:

EASY GUIDES
Australia Pty Ltd

INTRODUCTION TO NON-SLEWING MOBILE CRANE

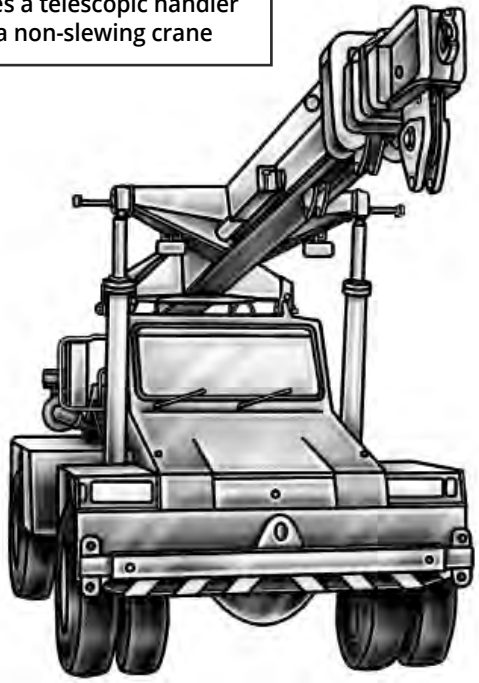


What is a non-slewing mobile crane?

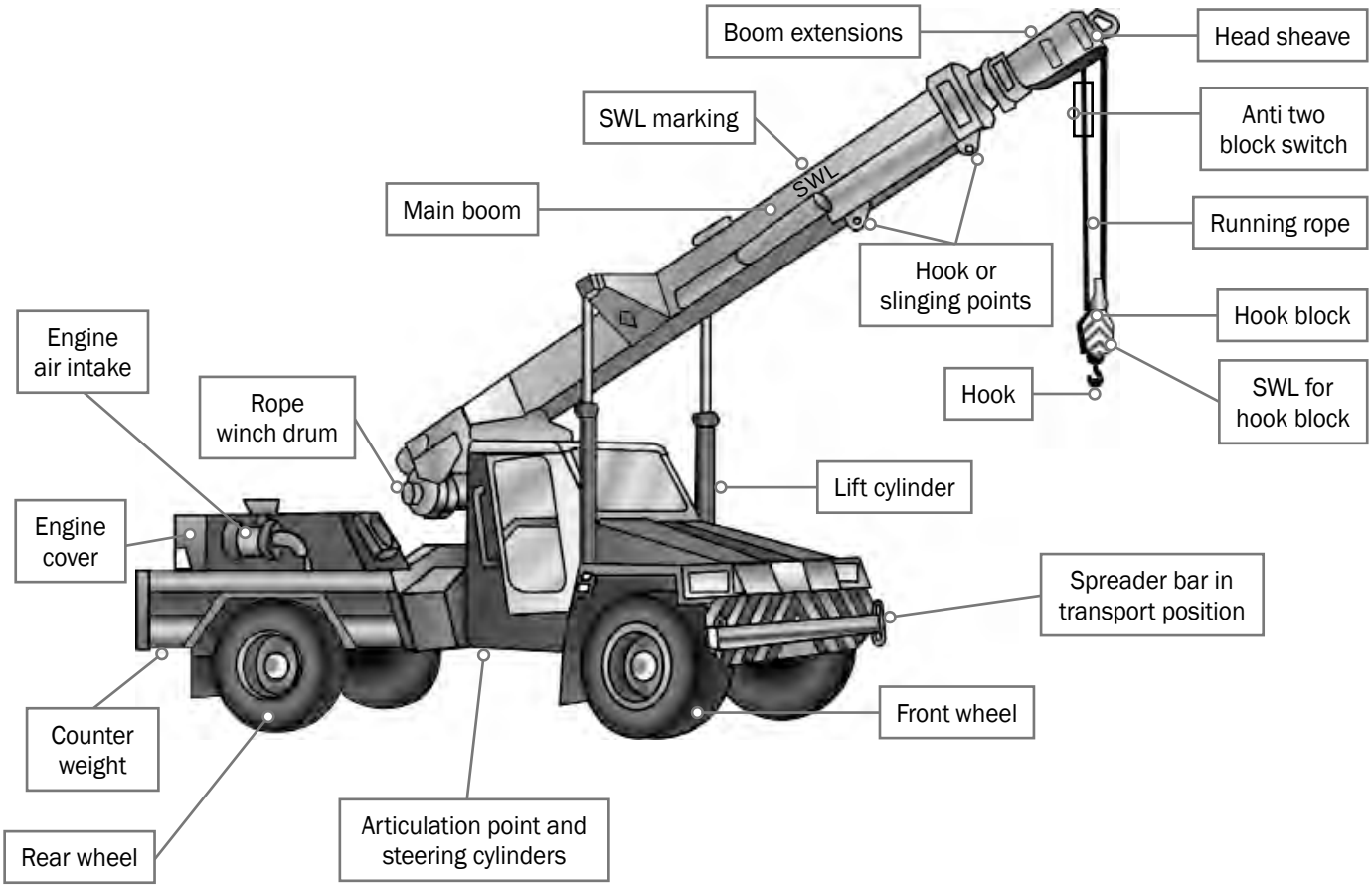
A non-slewing mobile crane is a powered crane which features a boom or jib that does not slew.

The boom can only luff up and down and telescope in and out. The crane is mounted on a vehicle.

In some states a telescopic handler is classed as a non-slewing crane



Parts of a non-slewing crane



PLAN THE LIFT

Part 4

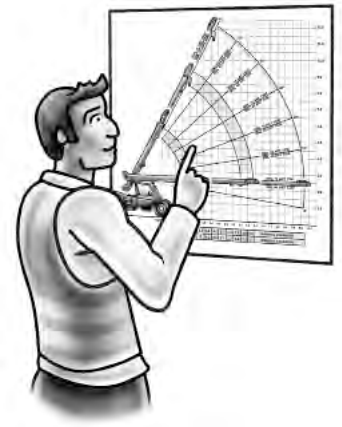
Plan the lift

This section covers the kinds of planning you will do **before moving** the load.
Including:

- Working out the weight of the load
- Choosing the crane
- Reading load charts
- Planning the path you'll take
- Checking ground conditions.

Identify and estimate the weight of the load

- Make sure you know the weight of the load you are to lift.
- Before you move a load, find out its weight and size.
- Think about how different types of loads will affect your crane.

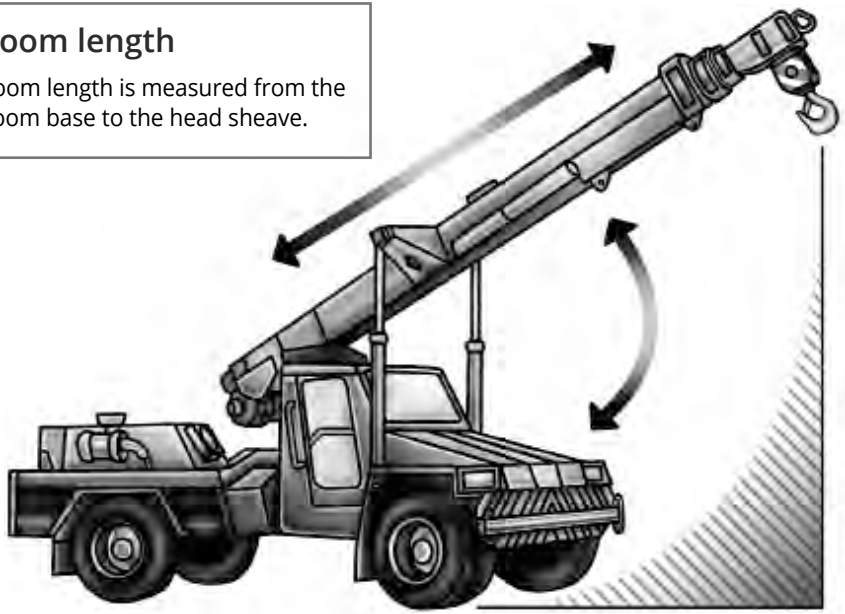


Understand a load chart

To read a load chart, you need to understand its features or different parts.

Boom length

Boom length is measured from the boom base to the head sheave.



Boom angle

Boom angle is measured from the boom to the horizontal.

Operating radius

The operating radius is how many degrees the crane is articulated. Measure the angle from a known point on the crane. For example, a wheel to directly under the hook.

Understand a load chart (continued)

Rated capacity

The **rated capacity** is the maximum load weight a crane can lift in different boom configurations.

Rope fall capacities (parts of line)

The load chart will tell you the rope fall capacities (number of parts of line) needed to lift loads at different boom lengths.

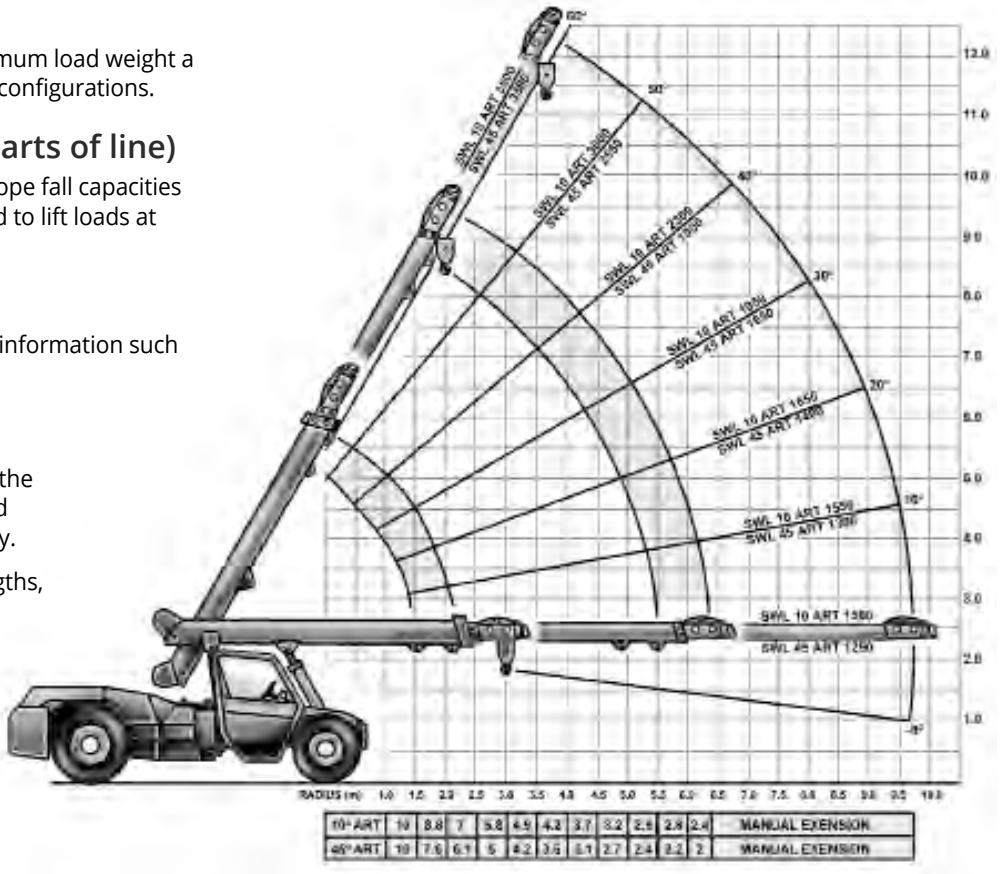
Hook blocks

The load chart may show other information such as the weight of hook blocks.

Range diagram

The **range diagram** shows you the crane's lifting configurations and how to set up the crane properly.

It shows the range of boom lengths, boom radius and hook heights.



Example of a range diagram

Understand a load chart (continued)

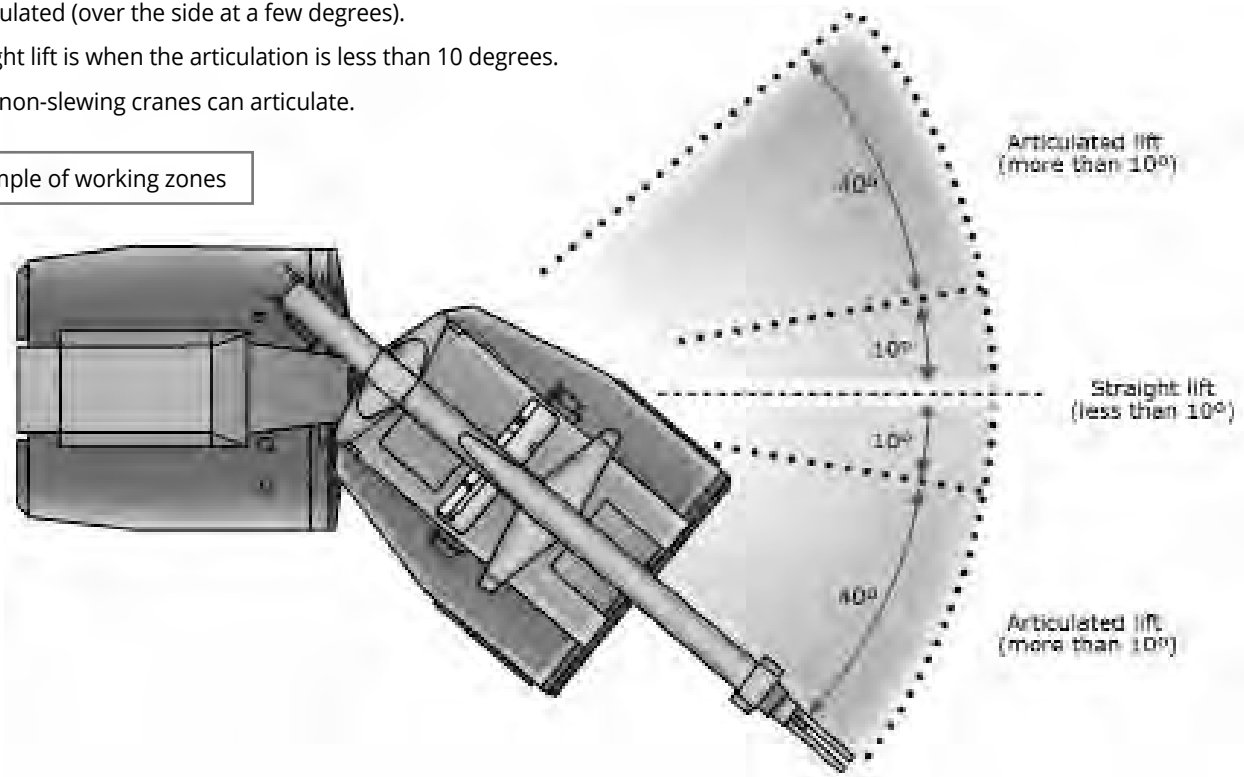
Working zones

The **working zone** for a non-slewing crane is either straight (over the front) or articulated (over the side at a few degrees).

A straight lift is when the articulation is less than 10 degrees.

Not all non-slewing cranes can articulate.

Example of working zones



SET UP THE CRANE

Part 5