Logistics and equipment operation

R.487 — Tower cranes (cat. 1, 2, 3)

Five days to operate a tower crane safely, from the cab or by remote control. Recommendation R.487 is the framework: categories 1, 2 and 3, load curves, limiters, wind and weathervane mode, interference between cranes, command signals, then precision manoeuvres on your site. The course ends with a theory test and a practical test for each category, the basis for the driving authorisation issued by the employer.

Duration : 5 days

Objectives

1. Distinguish R.487 categories 1, 2 and 3 and the mechanisms specific to each type of crane
2. Read the load curve and check that a lift stays within the crane's limits
3. Check the operation of limiters and limit switches at the start of the shift
4. Apply the rules on wind, taking the crane out of service and interference with other cranes
5. Carry out precise manoeuvres under load under the direction of a banksman

Programme

Day 1 — morning

• Typical accidents: overturning, failure, falling load, collision between cranes, people struck

• Roles of the crane operator, banksman, slinger, site manager and employer

• Categories 1 and 2 (cranes erected in sections, with trolley jib or luffing jib) and 3 (self-erecting cranes)

• Medical fitness, named attestation and driving authorisation

Day 1 — afternoon

• Technology: base, ballast, mast, jib, counter-jib, counterweight, trolley, hoisting, trolleying, slewing and travel mechanisms

• Load and moment limiters, limit switches, anemometer

• Cab operator station and remote control

• Crane documents: manual, load curve, log, inspection reports

Day 2 — morning

• Load curve: maximum load by radius, weight of the hook block and accessories

• Mass and centre of gravity of common site loads: formwork panels, concrete skips, pallets, reinforcement

• Reading exercises on the lifts planned in your schedule

• Loads with a large wind area

Day 2 — afternoon

• Wind: manufacturer thresholds, stopping work, weathervane mode when out of service

• Interference between cranes and no-fly zones, anti-collision devices

• Power lines and obstacles in the working area

• Site rules: working hours, set-down zones, pedestrian access

Day 3 — morning

• Access to the operator station and start-of-shift checks

• Unloaded tests of movements, brakes, limiters and limit switches

• Communication with the banksman: standard hand signals and radio

• Reporting a fault and stopping the crane

Day 3 — afternoon

• First manoeuvres unloaded, then under load

• Combined movements: hoisting, trolleying, slewing

• Stopping the swing of the load

• Debriefing of cab manoeuvres and radio exchanges

Day 4 — morning

• Precise set-down on a target, on a floor slab and in a congested area
• Lifts outside the crane operator's line of sight
• Remote control from the ground: operator position, visibility
• Working in coactivity with another crane

Day 4 — afternoon

• Self-erecting cranes (category 3): commissioning and folding according to the manual
• Luffing-jib cranes (category 2): radius variation and specific precautions
• End of shift: hook raised, weathervane mode, power supply switched off
• Analysis of tower crane incidents

Day 5 — morning

• Full exercise on a sequence of lifts from your site
• Review of the load curve and the wind rules
• Individual repeat of poorly mastered manoeuvres
• Quiz on the load curve, wind and interference

Day 5 — afternoon (workshop)

• Theory test: load curve, limiters, wind, interference
• Practical test by category: start of shift, manoeuvres, end of shift
• Individual feedback
• Handover of attestations for category 1, 2 or 3 and of the authorisation template

Teaching methods

• Manoeuvres on your site's own crane, outside production slots or in a reserved area
• Load curve reading exercises based on your real lifts
• Pairs of crane operator and banksman, in the cab and by remote control
• Case studies of tower crane incidents
• Radio exchanges and signals practised in French and Darija, as on site

Assessment and documents

A preparatory quiz, a theory test and a practical test for each category scored on a grid, and an end-of-course evaluation at D+1. A named attestation per category and a numbered training certificate that can be verified online for each crane operator. The company receives the training report and a driving authorisation template; the employer issues the authorisation.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

The course does not cover the erection and dismantling of cranes assembled in sections, which are carried out by specialised teams. The attestation is valid for 5 years; the refresher is done with the “Equipment operation refresher (all recommendations)” course.

Practical information

Duration	5 days
Audience	Crane operators, beginners or already in post, tower crane operators on building sites
Prerequisites	Medical fitness obtained beforehand, including fitness for work at height for cab operation
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Which category should we choose?
That of the crane the operator will drive: a crane erected in sections with a trolley jib (category 1) or a luffing jib (category 2), or a self-erecting crane (category 3). Several categories can be covered if the cranes are available.

Can the training take place on a working site?
Yes, by organising slots or a reserved area with the site manager. Manoeuvres under load use real loads, which makes the training directly useful.

Is remote control operation covered?
Yes. Half a day is devoted to driving from the ground: where to stand, how to keep the load in view, how to react to a loss of link.