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ASSOCIATION DES  
PRODUCTEURS DE  
FILMS ET DE  
TÉLÉVISION DU  
QUÉBEC

## Camera dollies and cranes

1. Only the key grip and crane operator can determine the type of dolly or crane that is suitable for a filming or recording sequence.
2. The key grip and crane operator must assign the preparation of the equipment and support surfaces to an experienced grip.
3. A crane must never be left unattended. At least two grips must be exclusively responsible for the crane during its preparation, while the operator and one grip are responsible for it during filming or recording.
4. A copy of the "installation" section of the manufacturer's manual must be available on the site at all times.
5. If the crane is equipped with stabilizers, they must be used according to the manufacturer's instructions. Precautions must be taken to prevent the stabilizer feet from sinking into ground or asphalt, which could result in the crane tipping over.
6. Before using the equipment:
  - the dolly or crane must be inspected, and incomplete or damaged equipment must not be used;
  - the base and pedestal of the dolly or crane must be checked to ensure that they are level and plumb.
7. The crane or dolly must be installed on a uniform, practically flat tracking surface that can support a heavy load. Otherwise, a rigid and stable support structure must be installed (see points 21 to 26, *How to install a support structure*).
8. The crane or dolly track must be properly laid out and prepared according to the manufacturer's recommendations.
9. When the crane or dolly is installed on a curved track, appropriate precautions must be taken to ensure stability. Excessive speed may cause the equipment to tip over.
10. Stoppers must be installed at each end of the track (sand bags, wooden blocks, etc.).
11. Clearance equivalent to at least twice the width of the track must be provided on both sides of the track.
12. Any platform higher than 600 mm must have a railing. The use of a scaffold higher than 15 m is prohibited without a plan approved and signed by an engineer (see guideline 6.1).
13. The call sheet must include a note warning the production crew that a crane will be used for filming or recording and that the crane operator's instructions must be followed.
14. Before workers are allowed on the crane, the planned movement must be rehearsed.
15. Before filming or recording the sequence, the movement must be rehearsed again, this time with the camera operator on the crane. The key grip and the first assistant director must inform the members of the production crew near the crane about all the planned movement and specify that under no circumstances should they pass under the arm of the crane without the crane operator's permission. The crane operator must ensure that the people on the crane are sitting on seats and wearing safety belts.
16. Only the crane operator may authorize movement. The crane operator's permission must be obtained before getting on, leaving or modifying its equipment.
17. When work is done near high voltage power lines, the minimum recommended approach distances must be respected:

Voltage between phases (volts)	Approach distance
< 125,000	3 m
125,000 to 250,000	5 m
250,000 to 550,000	8 m
> 550,000	12 m

18. If the crane is used near suspended obstacles (scenery, lighting equipment, etc.), a sufficient distance must be maintained, always taking into account personnel safety.
19. The arm of the crane must always be counterbalanced.
20. The effect of wind, rain, heat and extreme cold must always be considered, as well as other atmospheric conditions, whether natural or man-made, because they may affect the stability of the crane and the safety of personnel.

### How to install a support structure

21. The support structure must be able to support a load that is at least equal to the total weight of the crane (including counterweights, personnel and accessories) without bending, which would compromise the crane's stability and balance. The manufacturer may specify that a load greater than the total actual weight of the crane must be used in designing the support structure (to be verified in the manufacturer's manual).
22. The span must be the shortest possible, ideally equal to the distance between the crane's wheel axles, in order to ensure that there is equal bending under each wheel and that the crane remains level.
23. The distance between the supports or the span must be the same for the beams supporting each rail, and the supporting points must be opposite each other, meaning that the structure must be identical on both sides to ensure equal bending.
24. To maintain a level tracking surface, the bending of the rail under the weight of the load must not exceed 1 in 1000, or 1 mm in 1 m (or 1/32 in. in 3 ft.). Note that a spirit level gives this measurement exactly.
25. To avoid any instability resulting from the deformation of a component, all the components of the structure supporting the track (beams, bearing blocks, etc.) must be secured and held in position by attachments. To prevent the beams from twisting under the load, it is recommended that the upper part of the beams be secured along their full length. Also, the clearance must be kept constant by using bracing installed along the full length of the beam.
26. The height of a beam's support point must not exceed twice the smallest dimension of the base.

### Reference

Guideline 6.1 on Scaffolds.

**Note.** – The information contained in this guideline is not exhaustive and does not replace current standards, laws and regulations.