

## Load Considerations

1. **Load Weight:** what is the *real* weight of the of the load to be lifted.
2. **Load Radius:** the horizontal distance between the center of the crane rotation to center of the load.
3. **Ground Stability:** ground conditions must be able to support the combined weight of the crane and the load being lifted
4. **Weight of load-handling devices:** ball, block, and/or any necessary rigging must be included when calculating total weight of the load to be lifted
5. **Weight of any attachments:** jib, lattice extension or auxiliary boom point must also be taken into consideration
6. **Boom Length:** including the jib, swing away extension or any other attachments that may increase length of the boom
7. **Boom Angle:** the angle formed between the horizontal plane of rotation and center line of the boom.
8. **Parts of Line:** ensure line capacity exceeds load to be lifted
9. **Quadrant of Operations:** the area of operation that the lift is being made in relative to crane setup; *note..* different quadrants may have lower lifting capacities.

## Operational Considerations

- 1.) Loads shall not be allowed to exceed crane-rated load capacity and/or working radius.
- 2.) When working at boom lengths or radii between the figures shown on the load capacity chart, the next lower capacity rating should be used. It is dangerous to guess the capacity for boom lengths or radii between those listed on the rating page.
- 3.) It is very dangerous to lift a load without knowing whether it is within the rated capacity while expecting the crane to start to tip to warn of an overload. Cranes may suddenly tip over or the boom may collapse if the load is too heavy.
- 4.) Always stay within the rated capacity. Operators must reduce the load under adverse field conditions until it is determined the machine can safely handle the lift.