

1 / 12 · Site

Why not trust a firm-looking surface under an outrigger?

boomangle.com · free NCCCO written check

2 / 12 · Site

When does an outrigger float press hardest on the ground?

boomangle.com · free NCCCO written check

3 / 12 · Site

You learn of a void or tank under the planned setup. What now?

boomangle.com · free NCCCO written check

4 / 12 · Site

Why put a mat under an outrigger float?

boomangle.com · free NCCCO written check

5 / 12 · Site

A float pushes down 60,000 lb (invented figure). Pressure on a bare 2 ft by 2 ft float vs a 6 ft by 6 ft mat?

boomangle.com · free NCCCO written check

6 / 12 · Site

What does a thin or cracked mat do?

boomangle.com · free NCCCO written check

2 / 12 · Site

When the boom and load are over that float's corner. The ground has to carry the worst corner, not the average.

OSHA 29 CFR 1926.1402; IHSA Mobile Crane Manual and AEM Mobile Crane Safety Manual

boomangle.com · free NCCCO written check

1 / 12 · Site

Trenches, backfill, septic tanks, vaults, buried pipes and old foundations can collapse under a concentrated float load. A firm surface tells you nothing about what lies underneath.

OSHA 29 CFR 1926.1402

boomangle.com · free NCCCO written check

4 / 12 · Site

A mat spreads the float's force over a bigger area, so the pressure on the ground drops. It only works if it is stiff enough to spread the load across its whole area.

OSHA 29 CFR 1926.1402; IHSA Mobile Crane Manual and AEM Mobile Crane Safety Manual

boomangle.com · free NCCCO written check

3 / 12 · Site

Move the setup, or have the area assessed and supported before the crane goes on it.

OSHA 29 CFR 1926.1402

boomangle.com · free NCCCO written check

6 / 12 · Site

It bends and acts like a smaller mat, so the ground sees more pressure than you planned. Center the float on a stiff mat set on level, prepared ground.

IHSA Mobile Crane Manual and AEM Mobile Crane Safety Manual

boomangle.com · free NCCCO written check

5 / 12 · Site

Bare float: 60,000 divided by 4 sq ft is 15,000 psf. On the mat: 60,000 divided by 36 sq ft is about 1,667 psf.

IHSA Mobile Crane Manual and AEM Mobile Crane Safety Manual

boomangle.com · free NCCCO written check

7 / 12 · Site

During assembly, what distance to a line up to 350 kV triggers the power line precautions?

boomangle.com · free NCCCO written check

8 / 12 · Site

Protective options when assembly could come within 20 ft of a line

boomangle.com · free NCCCO written check

9 / 12 · Site

How do you treat a power line on the site?

boomangle.com · free NCCCO written check

10 / 12 · Site

Traveling near a power line with no load: key steps?

boomangle.com · free NCCCO written check

11 / 12 · Site

Workers could be struck or pinned by the rotating upper. What is required?

boomangle.com · free NCCCO written check

12 / 12 · Site

Who answers for ground conditions and for reporting known hazards under the setup?

boomangle.com · free NCCCO written check

8 / 12 · Site

De-energize and ground the line, keep the minimum clearance with control measures, or follow the table of clearances for the voltage.

OSHA 29 CFR 1926.1407

boomangle.com · free NCCCO written check

7 / 12 · Site

20 ft. If any part of the crane, load line or load could get that close, you need one of the protective options in the rule.

OSHA 29 CFR 1926.1407

boomangle.com · free NCCCO written check

10 / 12 · Site

Lower the boom, watch the route, and use a dedicated spotter when you get close. Uneven ground makes the boom tip bounce.

OSHA 29 CFR 1926.1411

boomangle.com · free NCCCO written check

9 / 12 · Site

As energized, until the utility or owner confirms otherwise and the line is visibly grounded at the work site.

OSHA 29 CFR 1926.1407 and 1926.1408

boomangle.com · free NCCCO written check

12 / 12 · Site

The controlling entity, usually the general contractor. The crane user and operator must still look for hazards and refuse to set up on ground they believe is unsafe.

OSHA 29 CFR 1926.1402

boomangle.com · free NCCCO written check

11 / 12 · Site

The swing radius must be barricaded or marked, and workers must be trained on the hazard. Know where people are before you swing.

OSHA 29 CFR 1926.1424

boomangle.com · free NCCCO written check