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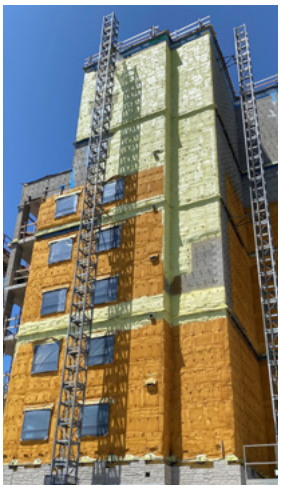
Work Safe for Life

GUIDELINE *for*
Mast climber best practices

General requirements



1. Check the local weather forecast prior to installing or beginning work for potential hazardous conditions[1]. Work on or from mast climbing work platforms is prohibited during adverse weather conditions.[2] [3] [4]

2. In the event the wind speed exceeds the in-service wind speed, the platform must be placed in the out-of-service position, normally stored at the base.

3. Check that the platform will be clear of all obstructions while being raised or lowered, and the specified horizontal and vertical minimum distances from energized power lines are observed.[5]

Obstructions can also include tie-backs to the structure. Ensure planks in the vicinity of the mast will not collide with tie-ins when traveling.

Stability, perimeter, and signage

1. Establish a perimeter around the base of the mast climber, including signage.[6]

2. Check the horizontal and vertical level[7], as well as both front and side faces of the mast structure base. Use outriggers/stabilizers where necessary.

3. Make sure the ground structure beneath the base is compact and stable and has not been washed out or compromised since the last use.

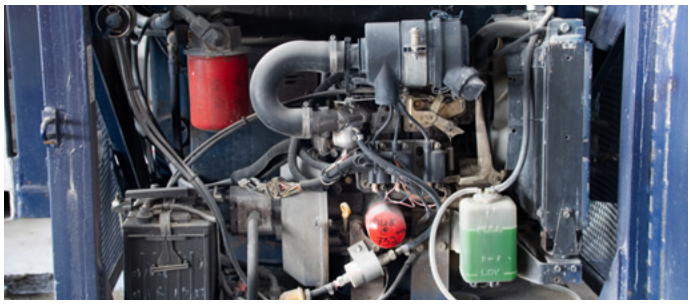
Check outrigger pads/blocks to confirm they are structurally sound, have not moved since last use, and have proper support under them. [8] [9] [10]

4. Along the length of the mast, starting at the ground level, check that the mast nuts/bolts are tight and welds are in good condition. Make sure connections between the mast sections are secure. Inspect the mast sections to make sure they are not bent or distorted in any way.

General and specific inspection, including maintenance of legal requirements, are referenced below.[11] [12] [13] [14]

Read more on recommended best practices here.

Mechanical considerations



1. Check fuel/engine and hydraulic oil levels. Inspect condition of hoses/wiring and check for any leaks or fraying of wires and that the battery and cables are secured. If the unit is electric, inspect

the condition of the power cable. Check that a 4A40BC fire extinguisher is present, inspected, and charged.[15]

2. Test the drive unit operation features as well as the emergency stop button functionality and emergency descent function, and any other applicable safety mechanisms. [16]

3. Ensure all warning signs, stickers, load chart, and placards are still in place and legible. [17] [18]

Inspection

1. Inspect the platform to ensure it is secured and supported in accordance with the manufacturer's specifications. Check that planks/extension decking is supported adequately from below the platform. Remember to check the condition of platforms for defects. [19]

Protect the mast climber platform from work processes to ensure that it is not unintentionally damaged.

2. Check that all guardrails and end plank guardrail sections are in place and secured. If mesh or debris netting is used, always consult the manufacturer's instructions and follow engineering best practices. [20] [21] [22] [23] [24]

The platform should not be overloaded or improperly loaded. Ensure the load is within the limits of the manufacturer's recommendation. The manufacturer's load chart should be available on each set up and easily visible. The total load incorporates the weight of all workers, tools, and working materials and will be indicated on the chart. It is important to consider not only the total load, but also distributed and concentrated loads as they pertain to the manufacturer's load charts. Make sure work materials are stored in a manner that does not present a hazard.

The surface on which the mast climbing platform is erected, or the structure to which it is attached, must support or resist all loads to which it is likely to be subjected. [25]

Fall protection

A fall protection system must be used when a worker is exposed to a fall hazard, including, but not limited to, the erection/disassembly of the mast climber unit, and when a worker is near an open/unguarded edge. [26]

Design specifications

1. Check anchor/tie connections.
a. Make sure all tie/anchor spacing is configured to the manufacturer's specifications and Engineer's drawings. [27] [28]

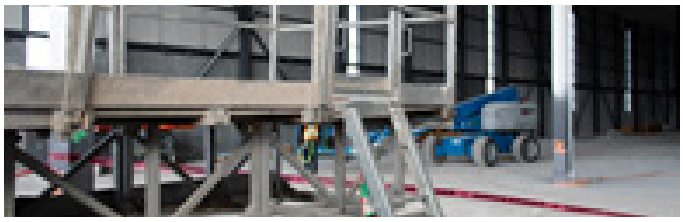
b. Ensure the anchors are secure per the manufacturer's requirements and installed per the engineer's instructions.

c. Make sure bolts and pins are in place, not damaged, and have not moved from last use. [29]

2. Check that all mechanical descent stops are in place and that the specific mast end cap is in position at the top of the mast.

See above for all applicable sections dealing with inspection, maintenance, general and specific requirements.

Hazard alert



Read more on recommended best practices here.

Access and egress

An adequate means of access to the work platform should be provided.[30] Ensure that the path of travel to and from the mast climber as well as the work platform is kept free of debris and maintained in a condition that does not endanger workers. [31] [32]

Worker training

Workers on the mast climber platform must be adequately trained to operate it. If workers will be using a method of fall protection, ensure Working at Heights training has been successfully completed and is up to date. [33]

CODE OF SAFE PRACTICE GUIDELINE FOR MAST CLIMBING WORK PLATFORMS (MCWP)

Note:

Users of MCWP platforms should ensure that:

- A MCWP is used only in accordance with the written instructions of the manufacturer. (s. 93)
- A MCWP is not overloaded or used in a manner that would affect the platform's stability or endanger a worker. Temp structure not overloaded (s. 31)
- The rated working load of the MCWP is indicated on a sign visible to the operator at its controls. OHSA 25 2 h
- A MCWP is maintained in such a way that the safety factors of the original design are maintained. S.145 owner duty
- A MCWP is inspected each day before use, in accordance with the manufacturer's instructions. S. 147, 144(3)(b)

References

1. O. Reg. 213/91, s. 93(2)(b), 93(3)
2. O. Reg. 213/91 s. 26
3. O. Reg. 213/91 s. 149
4. O. Reg. 213/91, s. 148(2)(a)
5. O. Reg. 213/91 s. 188(2)
6. O. Reg. 213/91 s. 44
7. O. Reg. 213/91, s. 144(8)(b)(c)
8. O. Reg. 213/91, s. 144 3(b)
9. O. Reg. 213/91, s. 144(8)(b)(c)
10. O. Reg. 213/91, s. 31(1)(b)
11. O. Reg. 213/91, s. 93(1)
12. O. Reg. 213/91, s. 144 3(b)
13. O. Reg. 213/91, s.145(1)
14. O. Reg. 213/91 s. 145(2)
15. O. Reg. 213/91 s. 52(2)(a)
16. O. Reg. 213/91 s. 93
17. O. Reg. 213/91, s. 144(8)
18. O. Reg. 213/91, s. 93(1)
19. O. Reg. 213/91 s. 134, 143, 145, 146
20. O. Reg. s. 135 (1)(c)
21. O. Reg. 213/91, s. 135(1)(c)
22. O. Reg. 213/91, s. 148(1)(d)
23. O. Reg. 213/91, s. 93(3)
24. O. Reg. 213/91, s. 31(1)
25. O. Reg.. 213/91, s. 31
26. O. Reg. 213/91, s. 26(1)
27. O. Reg. 213/91 s. 9
28. O. Reg. 213/91 s. 31(1)(b)
29. O. Reg. 213/91 s.31
30. O. Reg. 213/91 s. 70(1)
31. O. Reg. 213/91, s. 72
32. O. Reg. 213/91, s. 125. (1)
33. O. Reg. 213/91, s. 125. (1)

This guideline was developed, reviewed, and endorsed by the Masonry Labour-Management Health and Safety Committee in partnership with the Infrastructure Health and Safety Association (IHSA).