

User instructions M21-4WDS

Check the windspeed, by pushing the arrow buttons on the radio remote control the actual wind speed can be read on the display.

1.1 Setting up the crane

1. Turn the selector switch at the side of the undercarriage control cabinet on the position "local power or generator".
2. Connect the crane with the right voltage source, local power or start up the generator.
3. Turn the selector switch at the side of the undercarriage control cabinet on the position 2 "undercarriage".
4. Connect the plug of the cable remote control with the corresponding connector and disengage the red emergency button. After approx. 10 seconds the electric motor of the hydraulic unit will start.
5. Drive the crane with the cable remote control to the designated workplace.
6. Check if the crane cannot come into contact with obstacles.
7. Pull out the 4 outrigger beams and lock them. Put the outrigger pads under the outrigger cylinders, with the carrying loop in the direction of the crane.
8. Level the crane by lowering the outrigger cylinders via the outrigger control on the undercarriage chassis.
9. Push the red emergency button on the cable remote control and store it in the crane cabinet on the right hand side.



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1.2 Erection of the crane

1. Check if the jib nose is in working position, if not, unfold the job nose.
2. Unpin the pulley block from the trolley, store the pin in the holder and secure it.
3. Check if the hoist and trolley ropes lie in the cable pulleys.
4. Open the crane control cabinet and turn the selector switch on the position "assembly/dismantling" and close the cabinet.
5. Turn the selector switch on the undercarriage control cabinet on position 1 "crane". Turn the main switch on the crane control cabinet on position "ON".
6. Switch on the crane radio remote control. (green light lights up and the electric motor of the hydraulic unit starts spinning).
7. Check if the pin which locks the slewing mechanism at the right side of the crane, is engaged.
8. Set the toggle switch on the radio remote control in the middle position and lower the pulley block about 0.3 ft above the ground by pushing the right joystick forward, function lowering hook slowly.
9. Push the toggle switch on the radio remote control to the left (erection jib)
10. Push the right joystick to the right in order to unfold the jib and stop immediately when the blue light lights up.
11. Push the toggle switch on the radio remote control to the right (erection tower)
12. Push the right joystick to the right to unfold the tower:

! PAY ATTENTION: IF THE TOWER WILL NOT UNFOLD, THE JIB IS NOT POSITIONED PROPERLY !
! PAY ATTENTION: THAT THE TROLLEY IS POSITIONED ON THE MARKINGS !
! PAY ATTENTION: THAT THE A-FRAME CAN PASS UNDER THE JIB !

When the unfolding of the tower is completed, release the joystick.

13. Push the toggle switch on the radio remote control to the left (erection jib)
14. Push the right joystick to the right to unfold the jib completely.
15. When the unfolding of the jib is completed, release the joystick.
16. Open the crane control cabinet and turn the selector switch on the position "horizontal jib" close the cabinet, lock it.
17. Switch on the crane radio remote control (green light lights up).
18. Disengage the pin which locks the slewing mechanism at the right side of the crane.
19. The crane is now ready for use.

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1.3 Crane in operation

1. Use common sense and ensure a safe working environment at all times. Above a wind speed of 31 mph, do not use the crane.
2. Functions of the joysticks:
 - a. The left joystick is used for trolley in / out, slewing left / right (with crane behind your back).
 - b. The right joystick is used for hoisting / lowering.
3. Check if the slewing brake is in operation. Give the command slewing with the left joystick, the electromagnetic brake produces a noticeable klick sound.
When not: turn the knob on the slewing motor a few turns counterclockwise. Repeat the check until the slewing brake is in operation.
4. Pay attention while working with the crane that the hoist rope stays under tension by the weight of the pulley block at all times. If the pulley block comes to rest on a surface, there is a risk that the hoist rope will come free from the winch drum. When this operator mistake is made, the winding of the hoist rope onto the winch drum must be checked immediately.

1.4 Crane out of service

1. Check if the slewing brake is out of service. Give the command slewing with the left joystick, the electromagnetic brake now produces no perceptible sound.
If yes: turn the knob on the slewing motor a few turns clockwise. Repeat the check until the slewing brake is out of service.
2. The crane is now in the weathervaning position.
3. Position the trolley between the markings on the jib and hoist the pulley block approximately 6.5 ft below the trolley.

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1.5 Dismantling of the crane

1. Position the trolley on the markings before the pivot point of the jib.
2. Hoist the pulley block approximately 6.5 ft below the trolley.
3. Position the crane with the ballast directly above the undercarriage, wait until the crane has come to a complete stop, then lock the slewing mechanism using the steel locking pin.
4. Open the crane control cabinet and turn the selector switch on the position "assembly/dismantling", push the enter button and close the cabinet.
5. Switch on the crane with the radio remote control.
(green light lights up and the electric motor of the hydraulic unit starts spinning).
6. Push the toggle switch on the radio remote control to the left (erection jib).
7. Push the right joystick to the left to fold the jib and immediately release the joystick when the blue light lights up.
8. Push the toggle switch on the radio remote control to the right (erection tower).
9. Push the right joystick to the left to fold the tower.

! PAY ATTENTION: A IF THE TOWER WILL NOT FOLD, THE JIB IS NOT POSITIONED PROPERLY !
! PAY ATTENTION: THAT THE TROLLEY IS POSITIONED ON THE MARKINGS !
! PAY ATTENTION: THAT THE A-FRAME CAN PASS UNDER THE JIB !

When the folding of the tower is completed, release the joystick.

10. Push the toggle switch on the radio remote control to the left (erection jib).
11. Push the right joystick to the left to fold the jib.
When the jib is completely lowered, release the joystick.
12. Set the toggle switch on the radio remote control in the middle position and hoist the pulley block SLOWLY against the trolley by pulling back the right joystick, function hoisting.
13. Remove the locking pin from the holder and pin the pulley block to the trolley.

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1.6 Driving with the crane in transport position

1. Turn the selector switch at the side of the undercarriage control cabinet on position 2 "undercarriage".
2. Connect the plug of the cable remote control with the corresponding connector and disengage the red emergency button. After approx. 10 seconds the electric motor of the hydraulic unit will start.
3. Raise the outrigger cylinders via the outrigger control on the undercarriage chassis of the crane.
4. Push the four outrigger beams inwards and lock them.
5. Place the outrigger pads in the designated storage boxes under the undercarriage chassis.
6. The crane is now ready to drive.

1.7 Driving with the crane in erected position

Driving with the crane in the erected position is exclusively permitted under the following conditions:

- underground is firm, levelled and stable
 - maximum 1° inclination
 - no load on the hook during driving
 - maximum wind speed during driving is 18 mph
1. Position the trolley 6.5 ft in front of the tower and hoist the pulley block 6.5 ft below the trolley.
 2. Position the crane with the ballast directly above the undercarriage, wait until the crane has come to a complete stop, and then lock the slewing mechanism using the steel locking pin.
 3. Turn the selector switch at the side of the undercarriage control cabinet on the position "undercarriage".
 4. Connect the plug of the cable remote control with the corresponding connector and disengage the red emergency button. After approx. 10 seconds the electric motor of the hydraulic unit will start.
 5. Raise the outrigger cylinders until they are approx. 0.16 ft clear of the underground.
 6. Check if the roadway is free of obstacles and move the crane with the cable remote control to the new location.
 7. Put the outrigger pads under the outrigger cylinders, with the carrying loop in direction of the crane.
 8. Level the crane by lowering the outrigger cylinders via the outrigger control on the undercarriage chassis.
 9. Push the red emergency button on the cable remote control and store it in the crane cabinet on the right hand side.
 10. Disengage the pin which locks the slewing mechanism at the right side of the crane.
 11. Turn the selector switch at the side of the undercarriage control cabinet on position 1 "crane".
 12. The crane is now ready for use.