

# **PREVENTIVE MAINTENANCE INSPECTION REPORT**

## **Overhead Type Pullout Holdout Device**

# OVERHEAD TYPE PULLOUT HOLDOUT DEVICE PREVENTIVE MAINTENANCE INSPECTION

It is the responsibility of the employer to "establish and follow a program of periodic and regular inspections" of all presses and devices "to ensure that all parts . . . are in safe operating condition and adjustment." (See OSHA Section 1910.217).

The following check list is intended to aid you with your inspections. The check points are guide lines only. They do not attempt to check list catastrophic damage, previous improper repairs, use of improper parts or such obvious matters as loose or improper fasteners. All nuts, bolts, lock washers, cotter pins and other fasteners must be checked as a routine part of your inspection, whether specifically indicated or not.

This check list cannot replace good mechanical judgement and competence on the part of the inspector. It is the responsibility of the employer to "insure the original and continuing competence" of personnel caring for, inspecting and maintaining this equipment.

Replace any part found not in safe operating condition, before allowing the device to be used as part of your operational method.

Lubrication: Add a few drops of SAE #10 oil to the oil cup daily. Never use heavy oil or grease. Other moving parts have porous bronze bushings and require a squirt of oil on the sides of the bushing about once a month. At the same time lubricate the cables by stretching the cable return springs and squirting a little light machine oil into them. Use spray chain lubricant on roller chains.

## SUGGESTED INSPECTION PROCEDURE

Numbers in brackets refer to Overhead Device parts list.

1. Check cable assembly (W43) for fatigue, wear and general damage. Check that cables are of equal length. Replace cables if there is any doubt about their condition. When installing new cables, tighten clamp screws in cable block and carrier assembly (W244) alternately, going repeatedly from one to the other until the clamp cuts through the nylon covering and grips the steel cable securely. Cut off free ends to 1" maximum length.
2. Check cable snap assembly for proper closing, wear, condition of protective spring and general condition.
3. Check wristlets (W38, W39, W40) for wear, fraying of the nylon and general condition. Check attaching rings for wear and breakage.
4. Check trombone spring assembly (W256) for stretched out or broken spring, missing ring, etc.
5. Check that cable clamp screws in cable block and carrier assembly (W244) are tightened according to procedure described in Item 1. If cable has slipped in clamp (due to improper tightening) remove clamp. Inspect projections on clamp and cable block. Replace both if there is any sign of abrasion. Check screws holding cable block to carrier.
6. Check cable block carrier bushing (W243) and guide rod (W239) for wear.
7. Check guide rod bumper (W242) and control screw bumper (W234) for damage.
8. Check tension of chain from ball sprocket (W210) to multiplying sprocket (W231). (Should be approximately 1/8" sag.) Check tension of chain from multiplying sprocket (W231) to cable block and carrier assembly (W244) (Should be 5/8" to 3/4" sag.) Adjust to proper tension if necessary.
9. Check rigidity of the mounting, including brackets, braces and all fasteners.
10. Check boom condition. If parts are bent from contact with fork trucks, etc., replace rather than straighten them.
11. Check bellmouth spring assembly (W275), tube support bar (W273), tubes (W274) and boom end (W264-1, W264-2) for general damage.
12. Check oil cup and record of daily lubrication.
13. Check chain retainer (W203). Must be in location and condition to avoid drive chain coming off drive sprocket (W213, W214, W215).
14. Check main shaft mechanism.
  - a. End play of ball sprocket (W210) not to exceed .015".
  - b. Mechanism travels through full cycle with control screw assembly (W238) turned to right to limit of its travel. (Cable block carrier assembly (W244) should not contact rubber bumper, but should move to within 1/2" of contacting the bumper.)
  - c. Mechanism should return freely. (Chain should be pulled by hand in making this inspection.)
15. Readjust device (refer to overhead adjusting card —Form AI-O).

## PROCEDURE FOR TIMING THE PULLOUT HOLDOUT DEVICE

To test the Overhead Pullout Holdout Device for proper timing, turn the adjusting crank (W238), clockwise all the way in as far as it can go. Next, using 3/4" wrench on hex of ram attachment, tension ram chain until unit goes into "dwell" (the point at which further shortening of the chain moves only the sprocket to which the chain is attached, not the adjacent one.) At this point the cableblock (W244), should be within 1/2" of the front bumper, (W242).

If the cableblock stops short of this point, or comes up to the bumper and hits solid with no further movement of the chain possible, then the device is out of time, and should be re-timed as follows: (the following will also apply if installing a new chain.)

1. As before, turn control crank (W238), clockwise all the way in.
2. Set mechanism on "dwell" as explained above.
3. Detach cableblock chain, (W270), from back of cableblock, but leave attached to front (end toward press). Remove the chain from multiplying sprocket (54 tooth, 35 chain) (W231) and let it hang beside it.
4. Locate cableblock as far forward as it will go (toward press).
5. Pull top side of multiplying sprocket toward cableblock, to take out backlash.
6. Install chain around multiplying sprocket, bring chain around idler sprocket (W249), and attach to rear of cableblock. Be sure chain is securely attached at both ends of cableblock, with plate and spring clip in good condition and secure.
7. If cableblock presses against rubber bumper (W242), move chain back one tooth on multiplying sprocket.
8. Adjust tension on cableblock chain by loosening the rail clamps that hold the idler assembly (W247) and the 1/2"-20 thd. nuts on the guide rod, (W239). Use the guide rod to move the idler assembly back until the chain has proper tension (see Item #8, Prevention Maintenance Inspection Report, Form IR-O.) Too loose a chain may possibly come off the sprocket accidentally, too tight a chain may distort the guide rod enough to keep the cableblock from working freely back and forth.

TO ASSIST IN PARTS IDENTIFICATION, REFER TO ILLUSTRATED OVERHEAD PARTS LIST.



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