



DEPARTMENT OF BUILDINGS

EXECUTIVE OFFICES

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TECHNICAL  
POLICY AND PROCEDURE NOTICE #16 /88

TO: DISTRIBUTION (See Attached List)  
FROM: Jacob Grill, P.E., Assistant Commissioner  
DATE: September 23, 1988  
SUBJECT: SAFETY DEVICES FOR CRAWLER TOWER CRANES

A) MANITOWOC 4000W, 4100W  
American 9280, 9310

1. Anti-Two Blocking Device

The mid point, the boom point and jib point load hoists falls shall be equipped with anti-two blocking devices which will cut off the load hoist power and automatically cause the hoist drum brakes to be applied when the load block or ball comes into contact with the safety device.

After October 31, 1988 no renewals of Certificates of Approval and Operation will be issued unless the device is installed, or an order has been placed with the crane manufacturer for this device. Until the anti-two blocking device is unstalled the full power detent position on the past version or the up dated version of the drum clutch control valve on the Manitowoc 4000W and 4100 shall be eliminated or cut-off.

2. Drum Clutch Interlock Control

The drum clutch interlock control prevents more than one load drum from being operated at the same time. The installation of the interlock will also act as a deterrent for the operator to depend on the anti two blocking device to prevent a load block from pulling the boom over the back of the machine if he inadvertently or forgetfully leaves a hoist control in an engaged hoist position. The interlock modification shall be made prior to any machine moving to a new location.

It is to be noted that the manufacturer does not permit simultaneous hoisting on separate falls.

### 3. Boom Hoist Cut-Off Limit Switch

For the Manitowoc and American Cranes the boom hoist cut-off limit switch which is mounted on the tower, and supplied by the manufacturer is acceptable. Also any device mounted on the gantry and made operable by the equalizer striking a limit switch arm shall be acceptable, if the horizontal or flat section of the equalizer strikes the arm or an extension of the limit switch arm. However, the extension of the limit switch shall be of a construction which does not allow the cut off position to be altered due to a flimsy or flexible extension arm.

The boom hoist cut off angle shall be set back 2° degrees. For the Manitowoc the new cut off angle shall be 72° and for the American machines the new cut off angle shall be 74°. The required modifications to the boom hoist cut-off switch or replacement of switches shall be made prior to moving the crane to a new site.

#### B) LINK BELT LS-718

##### 1. Anti-Two Blocking Device

The boom point and jib point load falls shall be equipped with anti-two blocking devices which will cut-off the load hoist power and automatically cause the hoist drum brakes to be applied when the load block or ball comes into contact with the safety device.

After October 31, 1988 no renewals of Certificates of Approval and Operation will be issued unless the device is installed, or an order has been placed with the crane manufacturer for this device.

The feasibility of the interlock control for the LS-718 machine is presently being reviewed. The hoisting drums are hydraulically actuated rather than air actuated as on the Manitowoc and American Models.

It is to be noted that the manufacturer of the LS-718 crawler tower crane models does not permit simultaneous lifts on separate falls, therefore we direct that no such hoisting shall be allowed.

3. Boom Hoist Cut-Off Limit Switch

The boom hoist cut-off limit switch as supplied by the manufacturer is acceptable (all Link Belt crawler tower cranes registered with the Department have this device installed.)

The boom hoist cut-off angle shall be set back from 80° to 78° and shall be made prior to moving the crane to a new site.