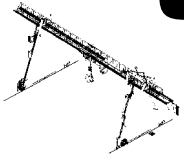




UPDATE



Summer 1991

2ND ANNUAL P&H PORTAL CRANE USERS MEETING SET FOR SEPTEMBER 11-13

P&H will be holding its 1991 Users Meeting on September 11-13 in Milwaukee. Plans call for Wednesday arrival with an evening social hour, Thursday meetings for morning and afternoon, and Friday discussions until noon.

As a P&H portal crane user or a future portal crane user, you are invited to attend this valuable meeting and share in the open exchange of ideas and solutions to problems that can improve your crane's uptime and ease of maintenance.

Topics for discussion include: Operator comfort, training, cab improvements, wind safety ideas/storm brakes, gantry drives, PM schedules, cable reels, grapples and trolley drive maintenance.

We will have all our portal crane service technicians on hand to listen and learn from your experiences as well as offer solutions to problems and answer your questions. Mack Manufacturing will also have a representative on hand to answer questions regarding grapples.

P&H product support personnel will attend to discuss parts and service issues. Many of the 1990 and 1991 improvements in product support services will be highlighted.

The objective of the meeting just as is the objective of the Woodyard UPDATE, will be to share information that can benefit you and your company and make your job a little easier.

A registration form is enclosed with this issue and if you need more information, please call P&H. There will be no fees associated with the meeting and P&H will host 5:00-7:00 social hours on Wednesday and Thursday evenings as well as lunch and dinner on Thursday. Meetings will be held at the Midway Motor Lodge, across the street from the Milwaukee airport, with free transportation to and from the airport. We ask that you make your room reservations through P&H since a block of rooms is being held for the group.

We are looking forward to your participation and ask that you bring any ideas or solutions to share.

MAINTENANCE TIPS

Kitchen Tests

The Hot Plate Test: To check hydraulic oil for any water content, heat a hot plate to 250° and place a few drops of oil on the plate. If water is present the oil will sizzle when it contacts the plate.

The Coffee Filter Test: Drain the fluid through a coffee filter. The filter will collect the particles that may not be caught by the screen. Spread the collected particles evenly and wash them with solvent or gasoline so that only the metallic particles remain. Once cleaned, you can examine the particles and determine if they may be coming from failing components, seal particles, ferrous metals, etc.

Taste Test: A slight sweet taste may indicate that oil contains glycol. If the oil does taste sweet, it should then be sent out for more detailed analysis. Glycol could enter the oil through a heat exchanger or cooler.

The Color of Oil

A "milky" color of hydraulic oil indicates the presence of water, anti freeze, etc. These are contaminants to the oil. "Healthy" oil has a gray color.

Cookie Sheet Test: When the filter is removed from the equipment, cut the ends off and spread the filter out on a cookie sheet for a visual inspection. Because contaminants and wear particles are collected in oil filters, proper diagnosis of their condition can reveal potential problems in equipment. As an aid to diagnosing hydraulic problems, lubricant suppliers will perform laboratory analysis of oil filters. If unusual wear particles are found and you want more information, send a sample of the oil to a laboratory where a complete analysis can be made.

Drum Storage

Tip the drum up on a 2 X 4 to prevent water from collecting and covering the bungs. Store the drum off the ground on its side, with the bungs at 3 and 9 o'clock, so the air inside can't escape and later be drawn back inside with moisture.

Trolley wheel Alignments

By Frank Kemp, Portal Crane Specialist

Due to a variety of conditions, such as track settlement, working forces on girder, or just plain cussedness, trolley wheel flanges will ride to one side of the trolley rails. This in itself is no real cause for concern, unless the wheels run hard enough against the edge of the rail so that the flanges suffer rapid wear. Even in these cases, the wheels will sometimes settle and stabilize in a wear pattern, before the flanges wear to the minimum recommended thickness of 0.5".

Murphy's Law will stipulate that there will be a condition arising that will necessitate carrying out some adjustment to the trolley wheels.

A change in design of the trolley wheel housings adopted some time back allows for the "toeing in or out" of individual trolley wheels. A procedure for checking the existing alignment of the wheels is available in the service manual, but unless the wheels are way out of alignment, a simple "rule of thumb" alignment can generally cure the problem.

According to which side the trolley wheels are riding, one drive wheel is adjusted, then the trolley is driven over the length of the girder and brought back to the same position to check if the adjustment has given any positive effect. It is recommended to carry out the adjustment in small increments, and if adjusting one drive wheel is not having any measurable effect, then adjust the other drive wheel before arriving at the maximum adjustment. The idler wheels can also be adjusted.

To carry out the adjustment, the following is required:

- Button head jack overall height not exceeding 4.75", stroke 1", capacity 10 ton
Open ended wrench 1 15/16", 1 7/8"
Tape
Miscellaneous hand tools
- **Procedure:**
 1. Place jack under trolley wheel housing so that the trolley wheel can be jacked up clear of the trolley rail
 2. Loosen rear bearing block retaining bolts.
 3. By means of screwing out adjusting bolt A, and screwing in adjusting bolt B, the angular deflection of the wheel can be adjusted.
 4. Tighten up on rear block retaining bolts.
 5. Let off on jack.

Notes:

The adjustment of the wheel is achieved by moving the rear bearing block which will take up the allowable movement of the main trolley wheel taper roller bearing assembly, mounted just behind the wheel in the trolley head block weldment.

It is suggested that before carrying out any adjustments, the measurement between the block and adjusting bolt weldment should be recorded. In this way, a check can be made of the actual movement of the block.

The rear bearing housing block retaining bolt holes are slotted to allow for lateral movement of the block. It should be noted, however, that if this adjustment is being carried out for the first time, this block may be frozen in position by paint, etc. The paint should be cleaned off the main trolley block, both adjusting bolts backed off and the block checked for free movement.

It is most important that while carrying out this work that proper safety procedures are applied, in particular the proper use of safety belts and keep hands and limbs clear of the trolley while jacked up. Also, the proper observation of lock out procedures is required.

A Frequently Overlooked Maintenance Item . . .

Generally, the oil dashpoted overloads used in the hoist and gantry controllers work so well that they tend to be overlooked as a maintenance item. In fact they should be examined at least once a year for contact follow up, tightness of connections and in particular the dashpot unit itself.

The dashpot unit should be unscrewed from the body of the unit and the oil checked for denaturing and sludge. After some time, the oil becomes denatured and a heavy deposit falls to the bottom of the dashpot armature cup. The old oil should be removed, the dashpot body and armature cup cleaned out, and the oil replaced. Oil can be obtained from our parts group, ref. #1045Z1.

On examining the dashpot armature cup, you will see three holes of varying size. The rotating slide in the bottom of the armature cup should be adjusted to leave the smallest hole uncovered.

In addition, the knurled locking ring, which locks the adjustment for the armature of the overload, should be checked for tightness. As a rule of thumb, the value of the setting is a 33% over the full load running current data plate value, i.e. with a F.L.I. of 100 amps, setting would be 133 amps.