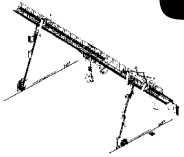




UPDATE



Spring, 1998

SAME P&H PRODUCTS! SAME EXPERT PERSONNEL! NEW NAME!

Harnischfeger Industries has announced the sale of 80% of P&H Material Handling to a New York City financial investment firm. P&H Material Handling employs approximately 2000 people in 60 locations worldwide with 1997 net sales of \$353 million. Company personnel remain nearly 100% intact from the top down, and the P&H products manufactured with the famous P&H trademark will continue to bear the brand name of P&H into the foreseeable future. The deal also requires that the company take a new name and after many months of research, management concluded that the name of our British counterpart, Morris Mechanical Handling, who has also been in business since 1884 with a rich heritage similar to the P&H heritage, would be the best possible choice.

Morris Material Handling, Inc. has been adopted worldwide as the new company name. While we are under new ownership, we are essentially the same high quality and dependable material handling equipment service provider we have been for over 100 years. So don't be alarmed by the new name of our company. You will still be seeing the same faces in your day to day dealings with us and you will still be getting the P&H portal cranes, overhead cranes, hoists, and product support that continue to rank P&H number one in the North American material handling industry.

Portal Cranes Serve Many Markets

The P&H portal crane has been put to work in a wide variety of applications, generally where round the clock, high duty cycle, reliable performance is required. P&H now has portal cranes at work in paper mills, lumber mills, steel mills (handling scrap), railroad rail welding plants, and most recently in ports and intermodal yards handling containers up to 44 tons. The combined P&H and Morris product lines fill nearly every material handling need with reliable material handling solutions.

Storm Brake Update

The P&H Dynamic System Storm Brake user list continues to grow.

Storm brakes perform three vital functions:

1. Risk management against excessive crane damage and extended downtime.
2. Production efficiency enhancement by allowing safe operations to continue

when threatening weather is forecast but not an immediate danger, where crane tie downs would otherwise be applied and the crane idled.

3. Maintenance tool as a jacking device to allow for quick repairs and PM inspections. If your crane is not equipped with P&H Dynamic Storm Brakes, call your P&H Portal crane representative and ask for information on these invaluable braking devices.

P&H User Meeting Minutes

S.D. Warren/SAPPI reported having 98% uptime using 4 hours of PM per week plus two major inspections by P&H per year.

Weyerhaeuser, Grande Prairie reported having 97% overall uptime for their two cranes. Their GPS based anti-collision system works well and shows that their cranes travel 600 miles per month! That is over 100,000 miles since new.

1997 P&H Portal Crane User Meeting

The 1997 meeting was held in Milwaukee with 8 mills and 11 cranes represented by 15 mill personnel. Our open discussion period on problems and solutions proved to be a winner once again with many useful maintenance tips being discussed and shared. A summary of the discussions is included in the maintenance tips section of this newsletter.

In addition to the many P&H product support, engineering and sales personnel present, valued suppliers such as Mack Manufacturing, Gatrex Corp., Siemens, Taylor and Gramling were present to add another layer of support to the users present.

Perhaps the most interesting portion of the meeting remains the video tape review session, where each mill is asked to bring a short tape of their yard and crane. This is like getting a mini tour of all of the mills present in just a few hours, while being able to discuss the applications, problems and solutions that can help others in attendance.

As always, our customers left Milwaukee well equipped to go home and further improve their crane's productivity. P&H NuLife unveiled its motor rewind program with an excellent video presentation and demonstration by Rick Steinke and Dave Doe. This new program has taken off rapidly and is providing our valued customers with fast and competitive motor rewinds on a national basis with tremendous success.

The 1998 meeting is set for Sept. 9-10-11, in Milwaukee, WI. Mark your calendars for these dates and plan to attend this valuable meeting. Details and agenda will be included in the next UPDATE.

Ted Volmar Retires

Ted Volmar retired from the P&H portal crane service department following over 25 years of service at P&H. Ted had a wealth of portal crane knowledge that he passed on to his co workers in the service department and assisted many portal users with trouble shooting tips. He is missed and we wish him a very happy and long retirement.

Eurodrive Alert

Many cranes built in recent years have been supplied with Eurodrive gantry drive packages which usually slide onto the axle shaft with a shrink disc coupling, and also Eurodrive trolley drives with keyed shafts. We have been advised by Eurodrive that all of the gearboxes used on P&H portal cranes have been discontinued in favor of a new style box. In most cases, the new series is not interchangeable with the old units in both gear ratios and replacement parts. P&H explained the problem to Eurodrive that this creates for portal users since the crane requires a complete matched set of drivers for all 8 or 12 drives used.

If a replacement is not available in the future when a unit is damaged perhaps by a log, it could result in the user having to buy a complete set of new style gearcases at a very high cost. Eurodrive has agreed to supply replacement internal parts for 10 years, but will only supply gearcases through June of this year. Written notices of this have been sent to all owners with the affected gearboxes, but we want to make sure that all users are aware of the situation and have an opportunity to order spare parts prior to the cut off date. If you need more information about this, or want to verify your crane is affected by the change, contact your portal crane parts representative.

Attention: Static Stepless Control Users

P&H now has a modification kit for static stepless crane control for use in high duty cycle crane applications such as log or scrap handling portal cranes, that increases brake lining life by braking on the Magnetorque rather than the brake linings when the master is returned to the off point rather than going to minimum speed/first point or plugging. The control option is described in P&H Bulletin ED-56 entitled "automatic Deceleration Control". If you are interested in this modification contact your P&H service representative or call Gary Otto.

Modernization Ideas

Modernization of your portal crane can increase productivity as well as enhance safe operation. Some ideas from recent orders are listed here for review. Call P&H for more information on any of these or for any ideas that you have.

- Adjustable frequency controls
- PLC interface/diagnostics
- Control houses
- Cab replacements/side entry doors/cab seats
- Guards over sill beams
- Drive truck guards
- Camera systems/wireless/color digital camers
- Cable reels with off set spokes
- Multi-roller cable reel guides
- Electric toilet
- Grapple maintenance stands
- Grapple quick disconnect
- Watering systems
- Mack low headroom grapples
- Maintenance hoists
- Trolley service platforms
- Trolley complete replacements
- Storm brakes
- Gantry drives
- Hydraulic bumpers
- Weighing/inventory management system

Emergency Escape Update

Many portal crane users have asked about the "Escape Rite" model RTC-1003. When properly applied with a full body harness, cradle and attach point, this system provides reasonably priced emergency egress with proven reliability, easy to use design, minimal training (video available) required, and UL listing/OSHA and Cal-OSHA approval/CSA approval. Refer to CSA Report No. LM 97631-1 for details on the Type 2, Class C certification

Call P&H for a system proposal for your crane. References are available.

MAINTENANCE TIPS

- Arcing and pitting on collector shoes for span conductor bar systems can sometimes be reduced by the simple application of some petroleum jelly. Dennis Gehrke offered this useful tip.
- New adjustable frequency controls prevent brake lining wear by dynamically stopping the motion prior to the brake set. This is a great improvement over the older control modes, but it also allows an excessive amount of rust buildup on the brake linings that could inhibit braking efficiency when truly needed. Several users suggested that periodic blowing out of the brakes and linings will help with the rust buildups.
- When adjustable frequency controls fault out, it is very common to simply reset and go, since in most cases this gets you going again. There usually is a good reason for the fault and it should be investigated. Repeated low voltage or phase problems indicate line problems that could do serious damage to your controls if not corrected. Other faults may give you a warning that a major failure is about to occur if corrective action is not taken. Keep a log of faults and watch for any repeated ones or trends that can head off a major downtime situation.
- Run oil analysis on a routine basis to track trends. A single check does not always tell the story. If a trend line is established, then a deviation can be detected and a problem identified early. Several users use 12 week intervals for testing.
- One user suggested placing the grapple control circuits on a separate breaker from the pumper motor. This allows for easy troubleshooting. Individually fused control wires also allow for quick identification of a problem.
- Danny Nunnery of GP Cedar Springs, GA had a follow up to the article last year regarding the cable reel to cable termination. Danny writes, "As you know, we have two (2) of your 32 ton portal cranes down here and we've experienced problems feeding the cable through the hub and making the connections inside the slipring during a power cable replacement. Our modification has saved a couple of hours of downtime and a lot of frustration and I'm sure your readers can sympathize with us. Our answer to the problem was simple. We mounted a fiberglass junction box to the center of the reel with a nipple through the back to the threaded hole where the cable enters the slipring. Next we cut to length and connected to the slipring a single wire per phase, plus the ground wire, and brought them out to the junction box from the slipring. We then terminated the power cable in the box using spaded wire lugs and bolts, connecting the four (4) cables individually, similar to making up an electric motor. What we've done is eliminate working inside the slipring during a power

PLC Training Now Offered

P&H has developed and implemented formalized training on the AB SLC 500 PLC operation and maintenance with specific application details for P&H portal cranes. Instructor, Karl Flierl, ran the first two sessions in January for 17 personnel. Topics covered included PLC basics, trouble shooting, hardware modules, AB Dataliner display, portal crane programs, and Esteem modems.

Most of the portal cranes that were build during the past 4 to 5 years have been furnished with the AB PLCs, offering diagnostic capability and elimination of the festoon system by use of radio modem communication between the trolley and gantry. While this new technology provides ease of maintenance and precise control of the crane functions, it also requires up to date training on the hardware and software. It is also highly recommended that users obtain a portable computer with interface software for long term maintenance.

If you are interested in PLC training for your portal crane maintenance personnel, contact the P&H Institute at (414) 821-4000 and ask for more information.

cable replacement. I wear an XXL". Thank you Danny for your ideas.

- Wire guards over the lower portions of your gantry legs can prevent damage from swinging loads. The cover is an MC 18 X 42.7 #X156" channel. Before welding on any structural member of your crane, contact the manufacturer for approval of the weld.
- Mack Manufacturing's John Loftin reported that a new 7 micron fiber filter is now available to replace the original 25 micron paper type filter in your log grapples. This filter is more expensive, but also has more benefits for the user. Contact Mack for more information on this at 334-653-9999.
- Maintenance of the encoders on your crane requires an oscilloscope or special tester from the manufacturer. Encoders are very difficult to test and many items are the cause of faults and intermittent problems. Water leakage into the connectors and the units has caused many failures too. New units off the shelf have been found to be faulty, so don't assume your problem is not the encoder by simply swapping out and seeing that the problem did not go away. Only proper testing can give you a for sure answer.
- Andy Lollar of Norbord in Guntown, MS reported that a short in his grapple cable allowed 480 volts to backfeed into his 120 volt cab circuits since the same transformer feeds the whole trolley. To eliminate this from recurring, they now have a separate transformer for the 120 volt circuits.

Weigh System is Proven Success

In 1996, P&H introduced a new load monitoring/weigh system for portal cranes that no longer requires the use of delicate special wires from the load sensing pin to the cab. The new system's load pin technology utilizes a pair of #12 wires in the existing Siemens Spreaderflex (usually 36CE13) grapple cable. Since its introduction, several installations now have had successful startups and excellent performance.

The system can perform routine overload protection or total inventory and throughput monitoring. A weight readout is available in the cab and options include a printer and RS232 output to customer data systems. Inputs to the inventory monitoring system are done by the operator through simple pushbuttons in the cab that indicate add or subtract from a designated inventory volume.

Diagonal Brace Modification

Since crane serial number PC-30452, P&H has been supplying P&H portal cranes with a new gantry girder to leg support design that utilizes a diagonal support link. This link eliminates the girder top cord side motion braces or horsehoes that originally limited the amount of top cord side movement while allowing unrestricted longitudinal movement. This new design can be retrofitted onto many of the older cranes to stiffen up the connection and reduce wear on the suspension pins and bores. If you are seeing excessive motion in the upper cord relative to the leg attach beam, contact P&H to see if this modification can help your crane's performance. In addition to the new cranes, 4 cranes have been fitted with the upgrade, all with total success.

