

Hydraulic Pump Division **SUCCESS STORY: Wallmasters**

PARKER IMPROVES CUSTOMER PRODUCTIVITY WITH CROSS-DIVISION SOLUTION

CUSTOMER

Wallmasters

CHALLENGE

Premature pump shaft spline wear on Palfinger crane

SOLUTION

Parker F1-081 pump/Chelsea 680 wet spline PTO

VALUE

Pump life extended at least three times; customer more productive, profitable

CUSTOMER

Wallmasters – a Middletown, Ohio-based foundation manufacturing service – purchases truck-mounted cranes from Tiffin Loader Cranes (Tiffin, Ohio). The hydraulic power for Tiffin Loader's Palfinger cranes is provided by a Parker bent-axis F1-081 pump driven by a Muncie PTO.



CHALLENGE

Wallmasters was experiencing pump shaft failure after only three months of service, due to excessive wear on the splines that drive the pump. Tiffin Loader contacted Parker mobile territory manager Dick Dickrede in October 2007 after a third consecutive pump installation yielded the same result.

HPD product manager Chad Todd and applications engineer Wes Jackson were dispatched to Middletown to resolve the issue.

SOLUTION

Todd and Jackson examined the failed pump shafts and diagnosed spline fretting – likely caused by a lack of lubrication – as the cause. They recommended a “wet spline” PTO to keep the splines constantly lubricated with transmission fluid.

Tiffin Loader investigated alternative product solutions while Wallmasters consulted with HPD

and Parker PTO applications engineer Nathan Knestrick. The Parker team decided to install a Chelsea 680 wet spline PTO to drive an F1-081 pump with 8-spline DIN shaft. Next, a field test program was established to study the effects of the new configuration over several months.

After two months the pump was pulled from the PTO, revealing no spline wear. In October 2008 – following a full year of service – the pump was again inspected and no significant wear was observed on the splines or mating surfaces, proving the HPD solution correct.

VALUE

Wallmasters is more productive and profitable thanks to a Parker solution that eliminated truck downtime by extending pump service life by at least three times. The cooperative HPD and Chelsea effort further demonstrated exceptional customer service and the value-added sales potential of Parker products.



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“When we place our next order for a truck and crane, we will not accept delivery unless it has a Chelsea Wet Spline PTO and Parker piston pump!” – Tom Kurtz, Wallmasters