

Joseph Evans Reliable Horizontal Pump

Object ID	1114729
Object Name	Joseph Evans Reliable Horizontal Pump
Object Date	1938-01-01
Works Number	30934
Location	Unknown
Category	Steam Machinery
Acquired	2018-03-21
Status	Not on display
Description	<p>Type 680, 4" steam cylinder, 3" pumping cylinder, (fitted with a 2½" liner), with 4" stroke and 24" diameter heavy duty flywheel-double acting</p> <p>This pump was supplied new to the Caerphilly Tar Plant in 1938 as the standby reflux pump for the No.2 distillation unit. It was fitted with a Pickering governor driven from a second smaller flywheel on the crankshaft.</p> <p>The pumping valves are of the butterfly or poppit type, being spring-loaded and the piston block runs in a stainless steel liner of 3" outside diameter and 2½" internal diameter. This pump remained in service until the end of tar distillation at Caerphilly in December 1985. Early in 1986 this pump was donated by Thomas Ness Limited to the Welsh Industrial & Maritime Museum, Cardiff Docks as a typical small industrial steam pump used in the Welsh Gas, Coke and By-Products Industries.</p> <p>In 2004 this pump was also found dumped in a skip outside the Welsh Industrial & Maritime Museum in the same skip as No. 24247 (see above). It was complete, although the Pickering governor had been removed and the governor flywheel had been broken. Unlike coal tar, which acts as a metal preservative, crude benzole is a powerful solvent and degreaser and the pump had seized solid with rust after 20 years of inactivity.</p> <p>The pump was carefully dismantled, cleaned and has been fully restored to working order. New piston rods have been made, but otherwise most other parts were salvaged and reused. Restoration was completed November 2006, but it did not run very well. Examination has found that the cylinder bore has worn along with deep grooving to the valve face. The cylinder has since had the valve face re-milled, meanwhile a new oversized piston block and new rings have been made. The pump now works much better with greatly reduced air consumption - as vast improvement.</p>
Manufacturer	Joseph Evans and Co Ltd
Manufactured	Wolverhampton, England
Condition	Working
Core	true
Accession No	IF:2018:1
Collection Id	Internal Fire Core Collection
Shortman	NULL
Image	