

## **Pine End Works, Lydney Docks**

### **Stephen Mills**

It's been some years since I last visited Lydney Docks, and I was interested to see what had changed and what still looked the same. Although the docks themselves looked largely unaltered, the biggest change was the large expanse of open land on the left hand side of Harbour Road. This site was once packed with a series of industrial buildings, but apart from one brick-built structure, everything had been swept away. Apart from odd heaps of jumbled demolition wreckage comprising broken concrete and tangles of steel reinforcement, the 14 acre site was now largely empty.

What once stood here? It was the Pine End Works, built as a shadow factory during the dark years of the Second World War. First established in 1940, it operated for more than 60 years until it was finally closed around 15 years ago. During the war, the rest of the site once housed a large American Army storage and distribution depot.



***Wartime (1945) aerial photo showing the US storage depot and the Pine End Works***

The Pine End Works was originally set up to manufacture specialist types of plywood, targeted at military applications. At first sight, plywood may appear to be an unlikely material, but remarkably, variants manufactured at the Works were used in the production of aircraft such as the iconic De Havilland Mosquito. The plywood-balsa wood sandwich adopted for parts of the plane's construction was strong, lightweight, and involved the minimal use of metals, in short supply at the time.

Plywood was also famously used for Horsa gliders, towed behind powered aircraft and used as an economic solution to ferrying relatively large numbers of airborne troops. Termed a 'large assault glider', a major requirement was that construction should be mainly of wood in order to conserve critical supplies of metal and make it easy to build. The extensive use of wood meant that manufacture of sub-assemblies was often undertaken by companies more used to making furniture. The laminated plywood coming from Lydney formed an important raw material in the process.

The first bulk order for 400 Horsas came in February 1941 and by mid 1942, more than 2300 had been ordered by the Army. Many were towed across the English Channel as part of major wartime

operations such as Operation Overlord, and Market Garden, the failed military action undertaken in The Netherlands in September 1944. By the time production came to an end, between four and five thousand Horsas had been built. By the end of the war, the Works had been taken over by two large timber groups, William Mallison and Sons Ltd, and Gliksten Plywood Limited, later becoming Mallison-Denny (Lydney) Ltd.

In operation, logs destined for the works were transported in barges from the Severn, via Lydney Docks. These were hauled a short way up stream and unloaded by an overhead gantry crane. If they were too large to be maneuvered, logs were reduced in size on the side of the canal. They were then moved them across the road into the works, where they were soaked in steaming pits of hot water (to make them pliable) then peeled to produce thin wooden veneers. These were then dried, coated with glue, and pressed together to form plywood with the appropriate properties and thickness.



**Timber delivery to the Pine End Works, reputedly the biggest log delivered by barge to Lydney**



**The gantry crane traversed Harbour Road, moving logs into the works**



***A 1980s photo, showing just one stage of plywood manufacture***

Although the Pine End Works was not unique, it was an important supplier of specialised wooden products both during and after the Second World War, and was an important local employer for many years. Those days are long gone and it remains to see how the site might be redeveloped in the future. Current possibilities are centred on the development of a large fish processing facility, combined with an eel farm, restaurant, visitor and energy centres, and staff accommodation.

***Many thanks to Geoff Davis of SunGreen.co.uk for the use of the old photos used.***