

Indicators of Our Past

It's marvellous the things people find in the attic, or pushed into the back of a cupboard. Objects long forgotten, and sometimes about which nothing was known. During a recent cleanout at the Machine Shop Leading Hand John Green came upon a box of instruments that no one present could identify. That was until Fitter, and ex-marine Engineer, Stan Johnson came upon the scene. The box contained a set of two indicators which are used to check the condition of steam engines.

It was first thought that the indicators could have been used on the steam locomotives which were on the Works up until the early 1960's. However, dates on two of the indicator diagrams revealed that they were made in 1921, viz 27 June and 9 July. This prompted a further look into our past and it was found that until 1927 Sulphide used steam engines to generate its own electrical power.

Through a variety of sources including a 1909 Works brochure, clippings from a Vacuum (now Mobil) Oil Company publication, and a record kept by ex-Works Accountant, the late Perce Jepson, we were able to piece together quite a bit of information.

From the 1909 brochure:—

"The Corporation has a very complete central Generating Station on the Works, capable of an output of 1000 HP, and from here electrical current is distributed to drive the motors operating the various plants. In one instance the current is transmitted for a distance of about a mile, where it operates a pumping station on the banks of Cockle Creek. All the water required for cooling the water jackets is pumped from this station".

Perce Jepson recorded the installation of:

- a new Babcock & Willcox boiler in 1920 and
- a Thompson steam engine with an American generator in April 1921 which "started and broke down".

In his record he also notes that the Generating Station closed down at 2.15 pm on 12 December 1927 and Sulphide "transferred over to purchased power".

The Vacuum Oil Company's publication indicated that our generating capacity was 1350 HP at 250 volts DC. Possibly after the installation of the new engine.

RETURNING TO THE INDICATORS

The indicator on a steam engine is an attachment which, through pressure in the cylinder and movement of the connecting rod, is used to trace an indicator diagram. Checks of these diagrams taken at regular intervals allows the Engineer, aboard ship, in a powerhouse, or wherever, to gauge the efficiency and condition of an engine. Minor adjustments can then be made, if necessary, possibly resulting in large fuel savings. This made the indicator an important tool in the economy of operating reciprocating steam engines.



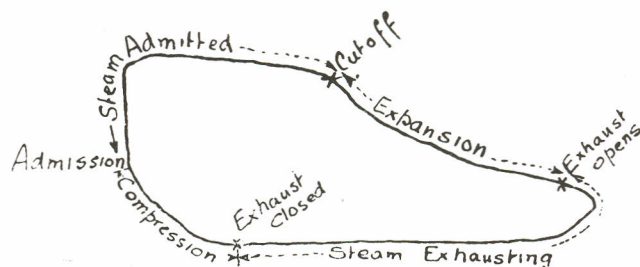
The two indicators in their box. By the time this photo was taken the box had been refurbished by our Carpenters and Painters.

Although steam is still a major source of power for ships, and electrical power generation it has been found more efficient to utilise the steam turbine. With less moving parts, and a completely different style of operation, the steam turbine has no use for the indicator which served so well in maintaining the efficiency of our old reciprocating engines.

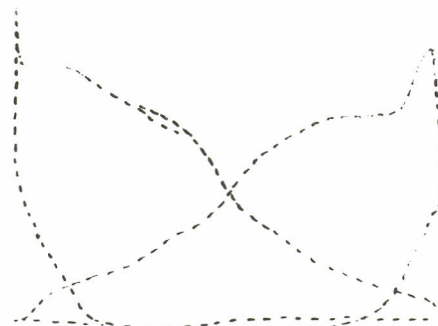
It now looks as though another item of our past is to become a museum piece.



Fitter Stan Johnson (left) and Leading Hand John Green look at one of the indicators.



Indicator diagram from a text book showing the various valve opening and closing points.



One of the diagrams found with the indicators giving the operating detail.

'NEWS' REVERTS TO BLACK AND WHITE PHOTOGRAPHS

In an endeavour to reduce our overhead costs it has been decided to revert to black and white photographs in the Cockle Creek News. This reduces printing costs by approximately one half and produces some considerable saving in these difficult times.