**Essays on Mount Crosby - Scots and Watt**

An old engineer friend of mine, who is the type of man who notices things and has a good humour, once gave me a rule of thumb about the early days, "not all Scotsmen were engineers but all engineers were Scotsmen". Now since his observations were largely made at Mount Crosby, I suppose he can be forgiven for the stretch, because there was a distinctly Scottish flavour about the first employees of the Mount Crosby pumping station. Witness details of the Board's employees transcribed from the earliest surviving paysheet of the works:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Name* | *Duty* | *Period* | *Annual* | *£* | *s* | *d* |
| *Joseph Stewart* | *Chief Engineer* | *1 month* | *325* | *24* | *1* | *8* |
| *William Thompson* | *Second Engineer* | *1 month* | *250* | *20* | *16* | *8* |
| *James Glasgow* | *Third Engineer* | *1 month* | *225* | *18* | *15* | *0* |
| *Andrew Simpson* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *George McPhail* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *Eduard King* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *William Mayne* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *Tom Craddock* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *William Bowling* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *James Little* | *Fireman* | *1 month* | *120* | *10* | *0* | *0* |
| *Alex McDougall* | *Blacksmith* | *220 hrs* | *1/3d* | *11* | *0* | *0* |
| *Samuel McDonald* | *Striker* | *220 hrs* | *6d* | *5* | *17* | *4* |

Okay, I admit half English, but Stewart, Thompson, Glasgow, McPhail, McDougall and McDonald sound like men who knew what a kilt was. Someday I'll trace their ancestry and find, I am sure, that they arose in the land of haggis and hogmanay and steam engines. They are the kindred spirits of James Watt, Scotsman, who invented enough improvements to the steam engine to start a revolution (truly, no pun intended).

I'll warrant our engineers (and some of the others) came from a line of industrialised men that could thank Watt and Scotland's role in the industrial revolution for their education and livelihood. They were certainly no accidental passers-by, but men of steam that sought jobs in steam.

If you are a student of science or the humanities and haven't a role model these days, I commend James Watt to you. His engines are simultaneously art and science, and you will be closer to him when you hear he was proudest not of his celebrated engines, but for inventing the comparatively unobserved "Parallel Motion" linkage that enabled his engines to be used for rotative power.

I will try to explain what it is, but if words fail go to the hyperlink below and see the animation:

To be a useful source of power, the piston of a steam engine needs to push on the end of a beam (with a connecting rod). But, the piston moves up and down in a straight line (only) and the beam-end moves in an arc. One cannot push the other unless the arc of the beam-end is converted to a movement parallel to the line of the piston. The clever device that enables this is Watt's Parallel Motion.

<http://en.wikipedia.org/wiki/Parallel_motion#/media/File:Watt_Parallel_Motion_Simulation.gif>

There is a nice thing said about Watt by Aldous Huxley (1894-1963): "To us, the moment 8.17am means something - something very important if it happens to be the starting time of our daily train. To our ancestors, such an odd eccentric instant was without significance - did not even exist. In inventing the locomotive, Watt and Stephenson were part inventors of time."

Col Hester