
AN UNUSUAL SATURDAY AFTERNOON

Visiting British Steel's Scunthorpe works



Today, I had the opportunity to visit my local steelworks. The works has recently been re-named following its acquisition by Greybull Capital from Tata Steel. Historically, it was the Appleby Frodingham Steelworks, founded in 1875, and from 1918, one of the United Steel Companies which had its headquarters in Sheffield. The visits are arranged by the Appleby Frodingham Railway Preservation Society (RPS) but you must book through the Tourist Office in Brigg. As it's a railway tour in two carriages, it is suitable for everyone, whether you are interested in industry or its archaeology, railways, or just want to amuse your young relatives for the afternoon. Youngsters can even ride in the engine cab after the tour, a real thrill!

Park for free next to Frodingham station (Gate E) where the tour starts. The works site is huge and has over 100 miles of railway track. The tour circles the works twice, covering about 15 miles. You get good external views of both operational and mothballed facilities, including the impressive blast furnace complex, coke ovens, steel plant and rail rolling mills. After the tour,

Scunthorpe's large blast furnaces, Queen Victoria and Queen Anne, in continuous operation.

Two other "Queenies", Bess and Margaret, are on the site. Bess is currently in reserve and Margaret is shut down.

the train pulls into Appleby platform, the home of the RPS, where you can get welcome refreshments, tour the shed and get those train rides for the children.

Scunthorpe specialises in ‘long products’, typically railway lines which are rolled in the mills on site. It is an integrated works, which means it makes its own pig iron for steelmaking. It also casts large steel slabs, which are sent to other works for processing. The basic raw material, iron ore, is imported through the docks at Immingham and transferred by rail to the ore tippler in the works. Limestone is obtained from a local quarry and oxygen from British Oxygen (BOC) in Scunthorpe. Apart from these materials and electricity, the works is entirely self sufficient. There are four blast furnaces for smelting iron ore but only two are in continuous operation. Coke fuel for the furnaces is made from coal at the Appleby coke ovens.

Before the ore goes to the furnaces, it is prepared in the sinter plant by roasting it with limestone and coke breeze (dust) to form a type of pellet. The pellets and coke make up the charge for the furnaces. The blast furnaces are tapped (cast) at intervals and the molten iron is carried to the nearby steel plant in pre-heated long tubular vessels, locally known as “torpedoes”. These carry about 250 tons of iron and are mounted on railway bogies. Slag from the smelting process is also tapped off and used to make other products.

How is iron and steel made at Scunthorpe?

The steel plant, known as the “BOS”, and its triple chimney is an enormous building which may be seen from the adjacent A18 Scunthorpe to Grimsby road. Steel is made using the basic oxygen (L.D.) process using two converter vessels each with a 300 ton capacity. A third converter is in reserve. L.D. process converters are a similar shape to Bessemers and are charged with molten iron, steel scrap and other additives. The difference is that high pressure oxygen (not air) is blown onto the surface of the charge via a retractable water cooled oxygen lance, when the converter is in the vertical position. Blown steel is tapped from the converter into a ladle in the horizontal position and the slag residue poured out afterwards. The steel is either cast into slabs in the plant, or goes to the rail and section mill for rolling. The BOC oxygen is supplied to the plant via a pipeline. This is slung



Diesel Electric loco made by Yorkshire Engine Company Ltd., Sheffield, c.1956.

The RPS operates a similar HUNSLET loco and two steam saddle tanks. Any loco can pull the train.

A former United Steel steam loco is being restored in the engine shed.

You will see modern locos in operation during your tour, shunting rolling stock which transfer to the national railway network to deliver products and import iron ore.

below a very large diameter pipe, carrying coal gas from the coke ovens. The high level pipeline runs around the north and east of the works for several miles.

The works has many support sections, including a laboratory, mechanical engineering centre, torpedo repair bay and rail service centre. Only about one third of the site is in use. The bloom and billet mill and plate mills are closed. Towards the north east end is an area once occupied by the Redbourne steelworks. Beyond that is the historic area of North Lincolnshire's iron ore deposits which started off the iron and steel making operations almost 150 years ago.