



*A corner of the final assembly section, with hundreds of Raleigh cycles ready for the road*

## BRITISH INDUSTRY GETS DOWN TO IT

# Raleigh Industries Export Drive

“THIS story reveals the manner in which the whole of the company's resources and capacity were placed at the country's disposal, and the magnitude of the work which was done. It indicates, too, how the total nature of the swing-over to war has unavoidably retarded the change back to peacetime products, a problem which is being resolutely overcome.” So reads the paragraph on the fly-leaf of the book, “Thus We Served,” which is the history of the wartime activities of Raleigh Industries

By R. H. THOMAS

Ltd. In these few brief words is summarized the completeness of the change-over of Raleigh Industries from peacetime production to the manufacture of the munitions of war, the magnitude of the task of reconversion to cycle manufacture, and the spirit in which this is being accomplished.

More than 95 per cent of the factory was devoted to the making of war stores. The size of this task is further emphasized when it is realized that the wartime products necessitated technique and plant

different from that required for cycle manufacture. Cycle production for the armed Services was maintained only on a very small scale throughout the period.

Much of the pre-war special and semi-special plant had to be moved out and stored, and in the main all this equipment had to be overhauled in the works' own reconditioning department before re-installation. Automatic and semi-automatic machine tools required tooling and setting up for the war effort. Such general purpose machines ran continuously on three eight-hour shifts during the war years and consequent upon this heavy usage the purchase of new machinery from the Government and overseas and the installation thereof was necessitated.

### New Conveyor System

Before the war, the factory was fed by an up-to-date conveyor system, much of which was ripped out. This was one of the greatest factors in breaking down cycle production in large quantities. After the war, the Raleigh factory was faced with a gigantic task in order to get back to normal cycle production. A bold decision was taken by the directorate to replan factory layout to increase and speed up production, and the lessons learned from war-time activities have been incorporated.

Broadly speaking, the plan will provide line production in shop sequence with the products being moved from shop to shop by an entirely redesigned conveyor system, thus obviating a high proportion



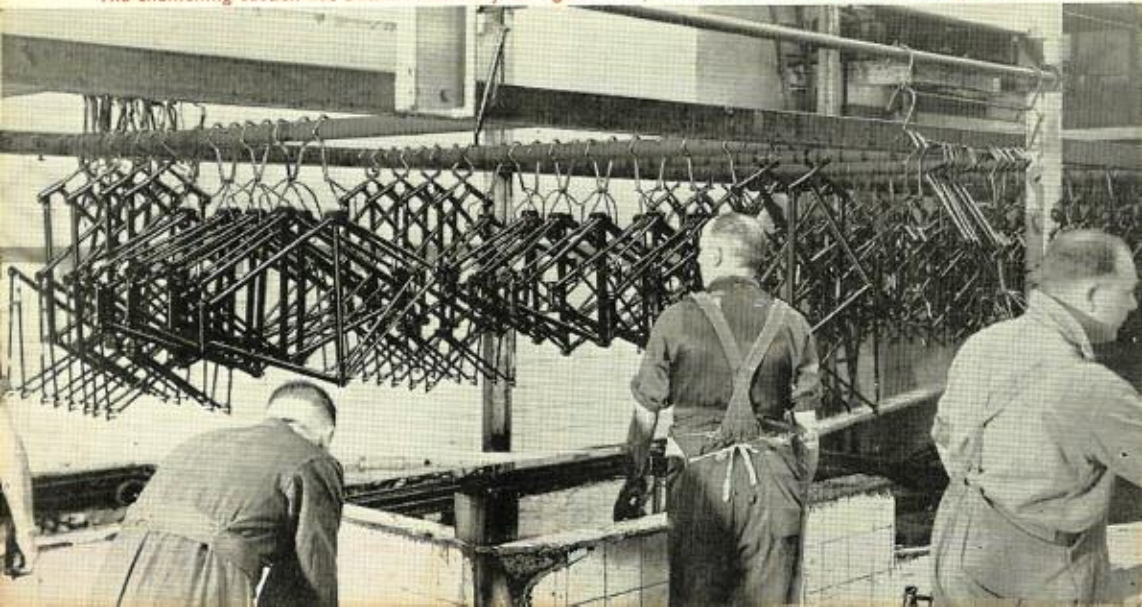
*A workman wearing protective clothing engaged in a cubicle of the shot blasting departments*

of internal transport and handling. This has necessitated the moving of many entire departments.

Twenty-four conveyors were ripped out at the beginning of the war and many new ones put in for Government work. Since the war, 39 conveyors have been stripped down and re-sited and many additions are being made.

Overriding this replanning is a long term policy of workers being employed on day shift only, except in heat treatment

*The enamelling section has been considerably enlarged. All frames are rust-proofed before being dipped*



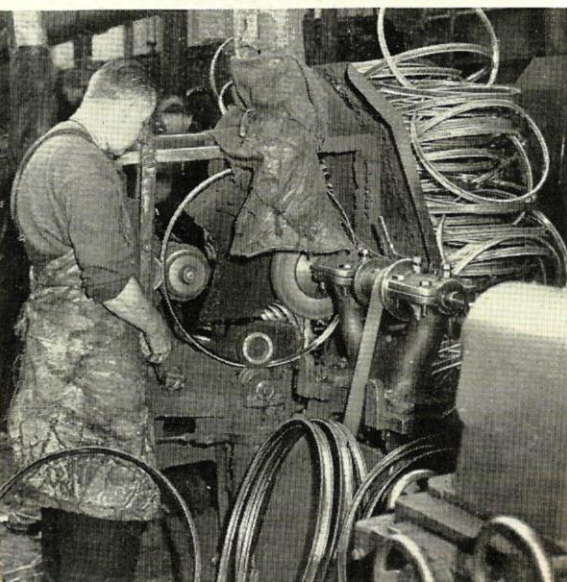


*Another view of Raleigh factory, showing how frames are fed into the brazing ovens*

departments where the heat has to be maintained continuously. This has necessitated providing extra floor space, some of which is nearly ready for occupation, and has been obtained by moving the works canteen to new premises erected during the war for the extra workers. Due to the fuel position at the present moment it will not be possible to implement this policy until fuel supplies are once more normal.

Much has been done : much remains to be done. That is obvious from a tour of the works. Production is going well and the number of machines coming off the lines must surely be a matter of satisfaction to those concerned. It is easy to visualize the final arrangement of the

*Glazing rims in preparation for plating operations*



factory when the shop sequence scheme is finalized. At the present moment some departments have been moved and the shops completed. Other departments are in the process of being transferred to their new location in the scheme of things, yet, despite all movement of machinery and alterations to the fabric of the factory, production continues without interruption. It is obvious that the completed scheme will raise the production capacity of the plant considerably.

## Frame Building Section

An excellent example of the size of the task of reconstruction of the plant is illustrated by the frame-building department. During the war this extensive shop was filled with machinery for the production of fuses for the Government. All this machinery has been moved out, the frame-building plant installed, floors remade and the conveyor system put in.

Two rows of brazing hearths roar continually in the centre of the shop. Frames are swung in, dipped, and then away by conveyor to the next operation. By the side of the hearths which are in use are the millwrights working at top speed installing yet more hearths. Gas and air supplies had to be laid on and the fume extractor plant installed. Nearby are the electrical and chemical de-brassing vats also moved

in after the war. The shot-blasting house has also been erected in this shop. Extensive renovations to improve working conditions have been carried out and a new louvered roof installed over a considerable portion of this plant. Fork and handlebar production will soon be moved in to complete this part of the changeover. In the meantime these components are still being made in the old premises while

the builders gut the shop and relay the floor without interruption to production.

Enamelling plant has been considerably increased and all parts are rustproofed before enamelling commences. Old plant has been re-installed in a new site and new plant added. During the war the colour section was lacquering fuses. Colour spray plant has now replaced the wartime equipment and the capacity of the colour department increased to give greater numbers of an increased colour range.

### More Forging Machines

More machines are on order for the forging section which is not being moved. When installed, production will rise to keep in line with the rest of the plant.



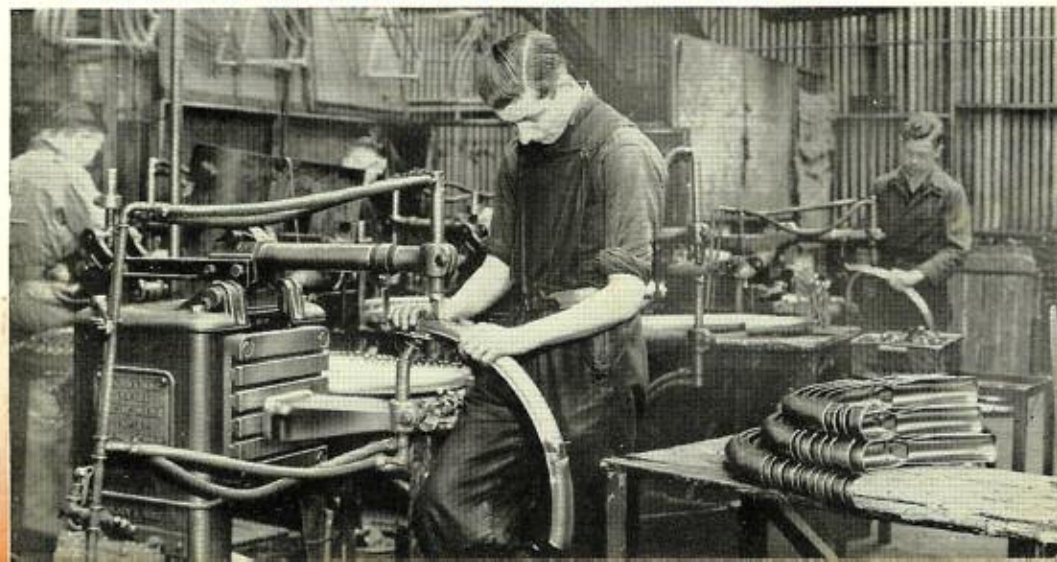
*Automatic hearths are used in the stay brazing department*

One of the longest moves was that of the turnery machine shop. Now occupying the site of the pre-war glazing and tube department, all machines had to be carried nearly a quarter of a mile to the new site, which had to be enlarged and have a new floor.

Under the reorganization scheme the three-speed assembly shop will also be moved, enlarged, and have conveyors installed, and the new layout is calculated to give greatly increased output. One section which remains as before is the automatic lathe department, though here, also, the number of machines has increased greatly since 1939.

Considerable expansion will be made in the three-speed machining department.

*Mudguards receiving their clips on these compact and efficient spot welding machines*



When I toured the works the new site was ready. Plant is modernized and latest production methods will give increased output from the same labour force.

Expansion is also taking place in the press department, which is not being moved. In fact, this shop is really the starting point of the new layout, which has been planned round this section. To meet increased production demands presses are being moved in the shop and new machinery being installed.

Plating plant was idle during the war and this had to be cleared out and overhauled before it went into action once more.

Sections of cycle assembly have been moved completely and the cycle packing and despatch department re-sited to give a clear run on to the loading bays, so that finished machines can be despatched with even greater speed.

### Glazing Shop

Another department which necessitated a lot of alterations when moving is the glazing shop, dealing with cranks, chain wheels and small parts. All the polishing machines were moved in and this called for the installation of a complete dust extractor plant.

As I walked round the works the high production level was obvious. There was no apparent disruption due to alterations. Builders and bicycle operatives were working well, often side by side, without interruption to each other. Millwrights were busy installing plant and the

quantities of cycles going through the stock rooms bore striking testimony to the production of the factory.

Although before the war Raleigh and Humber bicycles and Sturmey Archer gears were exported in considerable quantities to all parts of the world, the directors realized long before the cessation of hostilities that a considerable increase in exports would be vitally necessary in the national interests, and consequently made plans for reorganizing their export packing department. Immediately the war was over and bicycle production recommenced, arrangements were made to supply ever increasing quantities of their products, now including Rudge-Whitworth bicycles, to their pre-war overseas customers.

### Fair Allocation

Difficulties were considerable and owing to the shortage of shipping it was some considerable time before a regular flow commenced to all destinations. Although the demand still far exceeds the supply potential, Raleigh Industries have allocated their production on a fair and equitable basis to all markets, bearing in mind their pre-war business as well as the present necessity to give priority to certain hard currency markets.

Closing the factory during the fuel crisis in February had a disastrous effect on the export business of the company, but attempts are being made to minimize this loss to the country's exports by increasing the quantity of Raleigh products during the remainder of the year.

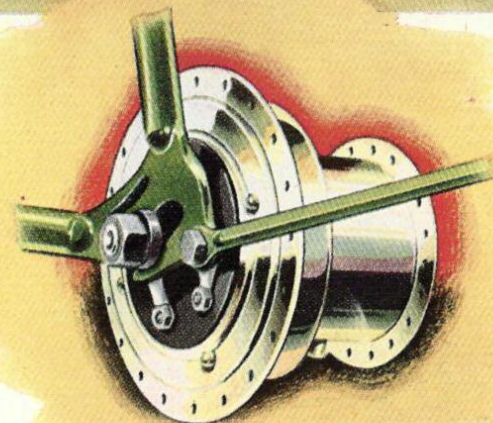
*A glimpse of the export department. Here machines are crated ready for despatch to all parts of the world*



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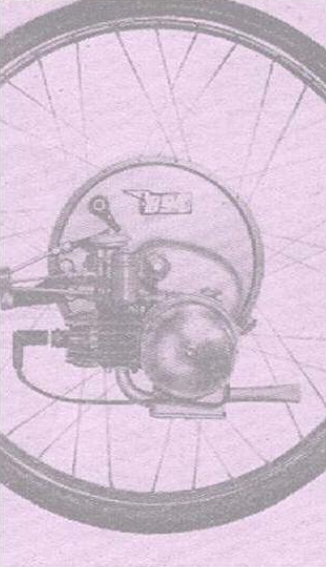
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