

WRIGHT AHEAD

THE HEAD WRIGHTSON NEWS LETTER

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NO. 2

H.W. Service Scheme

It is appropriate that this issue of *Wright Ahead*, which shows our latest achievements in the field of nuclear power, should also mark progress in the good relations which have so long existed in Head Wrightson's.

I have always thought that it is a mistaken point of view to regard industry as having two sides. We are all in it together.

We are fortunate in that we have people of the third generation on the Board, and on the shop floor. This sort of continuity is invaluable, and cannot be replaced; and I hope that we are all workers. Our owners, in the old sense, are often institutions, such as insurance companies, who, incidentally, have some of our savings.

While this mistaken idea of "two sides" to industry still predominates, it is difficult to go beyond formal arrangements between employers' and employees' local and national arrangements. But we hope the gesture now being made will emphasise the modern need for co-operation, particularly when we are in world-wide competition, including nowadays with iron-curtain countries.

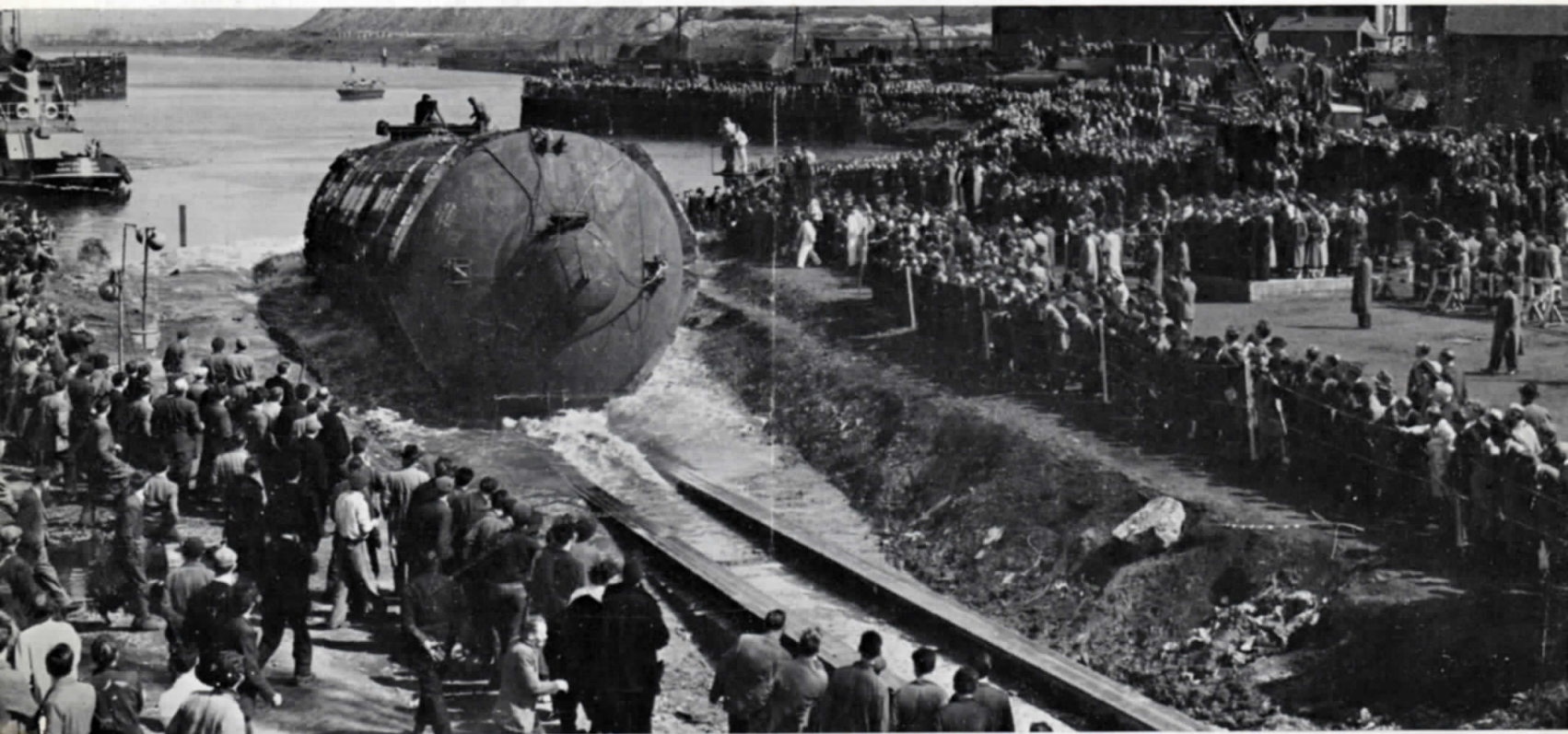
The Directors of the Parent Board have obviously got to be very careful when they add to our costs, and hence

weaken our competitive power; but in this case, the substantial addition to costs borne by the Company will be no doubt mitigated by the goodwill, which we sincerely hope should be maintained and improved, by the scheme we are now proposing.

That is to say, for our people with certain service, we intend to make an increase in pensions, life insurance, certain payments during sickness, and a month's notice should trade demand redundancies. The details appear later in this issue.

The new arrangements, I hope, will add to security and peace of mind, so that we can get on with our good work. It is hoped that at the present time, and in the future, they will be for the benefit of all of us, who are proud to be numbered amongst those who work for Head Wrightson's.

Richard Miles



The Launch — Friday, 16th May

First Heat Exchanger for Bradwell Power Station

The first of 12 Heat Exchanger Shells, forming the steam raising equipment for the Central Electricity Authority's 300 M.W. Nuclear Power Station at Bradwell, Essex, began the first stage of its 297 mile tow by sea when, on Friday, 16th May, our youngest apprentice, Trevor Gibson (15) of 8 Queen Street, Stockton, who joined the firm in January, 1958, pressed a button and sent the 95 ft. long vessel down the slipway to two waiting tugs, "Fiery Cross" and "Hutton Cross" of Middlesbrough.

With Sir John, Mr. Peter Wrightson and other members of the firm, Trevor watched from a covered dais as the heat exchanger shell, with a displacement of 202 tons, moved gracefully down the slipway into the River Tees to the roar of cheers from over 2,000 employees and guests assembled to see this unique event.

This launch marked the culmination of many months of hard, continuous and, sometimes anxious, effort by our staff and workpeople. The designs were first prepared by a special group of Head Wrightson staff who were seconded to Nuclear Power Plant Company, Knutsford, who worked in conjunction with our Nuclear Power Division at Yarm. The Research and Development Department also made valuable contributions in determining the type of steel to be used and many other specific problems. Finally the drawings were produced and Head Wrightson Teesdale Ltd. took over the task of translating the designs into actual manufacture.

The venture into this new field of design and fabrication was a challenge nobly met by the whole of our employees concerned and everyone was justifiably proud when this huge vessel was finally afloat on the River Tees ready for its tow to Bradwell.

This method of transportation was, in itself, unique and solved all the problems which would have been presented had the heat exchanger been sent by road in prefabricated shell sections. Throughout the operation, major roads would have been blocked and the problem of final fabrication and testing on site would have been extremely difficult. It was, therefore an advantage that the geographical position of our Thornaby Works and the site of the Power Station at Bradwell, both situated on rivers on the East Coast, offered the solution and we were thus enabled to fabricate completely and test this vessel under the best possible conditions in our workshops before launching.

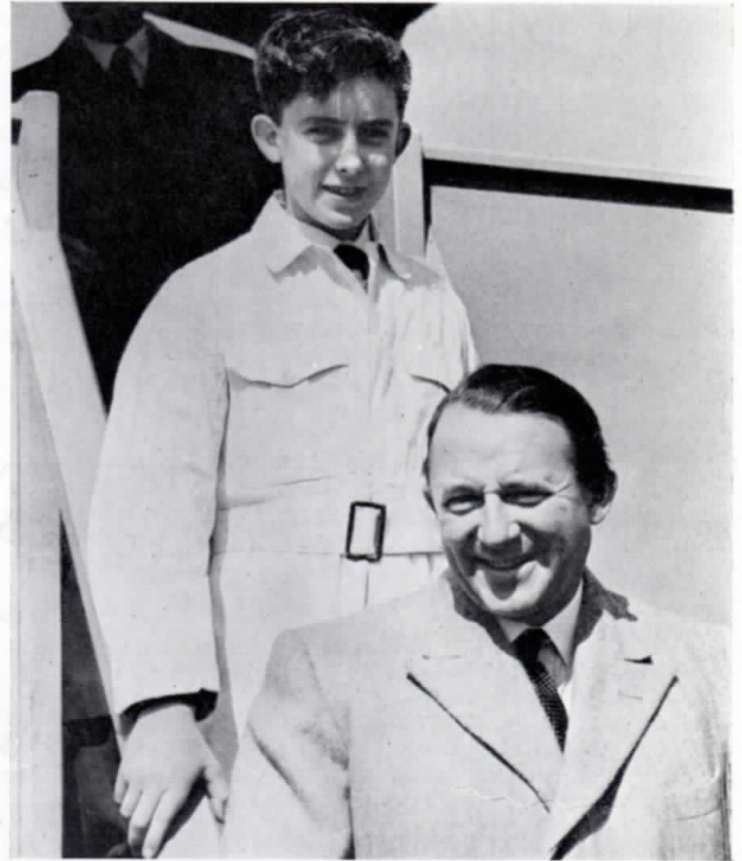
The importance and stringency of the tests specified called for all the plate material to be of a grade suitable for an operating temperature of approximately 700°F and this was supplied by Consett Iron Company.

On all plates received from the Rolling Mills, tests were carried out with Ultra Sonic Detection Apparatus to check for structural defects before being heat treated.

As these exchangers are built to the Lloyds Class 1 requirements for Fusion Welded Pressure Vessels, all welds are examined by radiography, or a combination of Magna Flux Crack Detection and Halogen Gas Testing methods before being subjected to a stress relieving operation.

Since they are too large to stress relieve in the conventional type furnaces, the exchanger shells were completely lagged with insulating material and brought up to a temperature of 600-650°C, using internally suspended electric heating elements, and for this purpose a separate sub-station was commissioned to provide the extra working power required for this operation and to avoid interference with normal shop working.

As a final proof of soundness a hydrostatic test pressure of 270 lbs./sq. inch was applied and for this test the works fire brigade, after much preparation, worked



Sir John and Trevor Gibson immediately after the launching

valiantly, for 2½ hours, to pump 150,000 gals. of water, (or approx. 670 tons) into the heat exchanger.

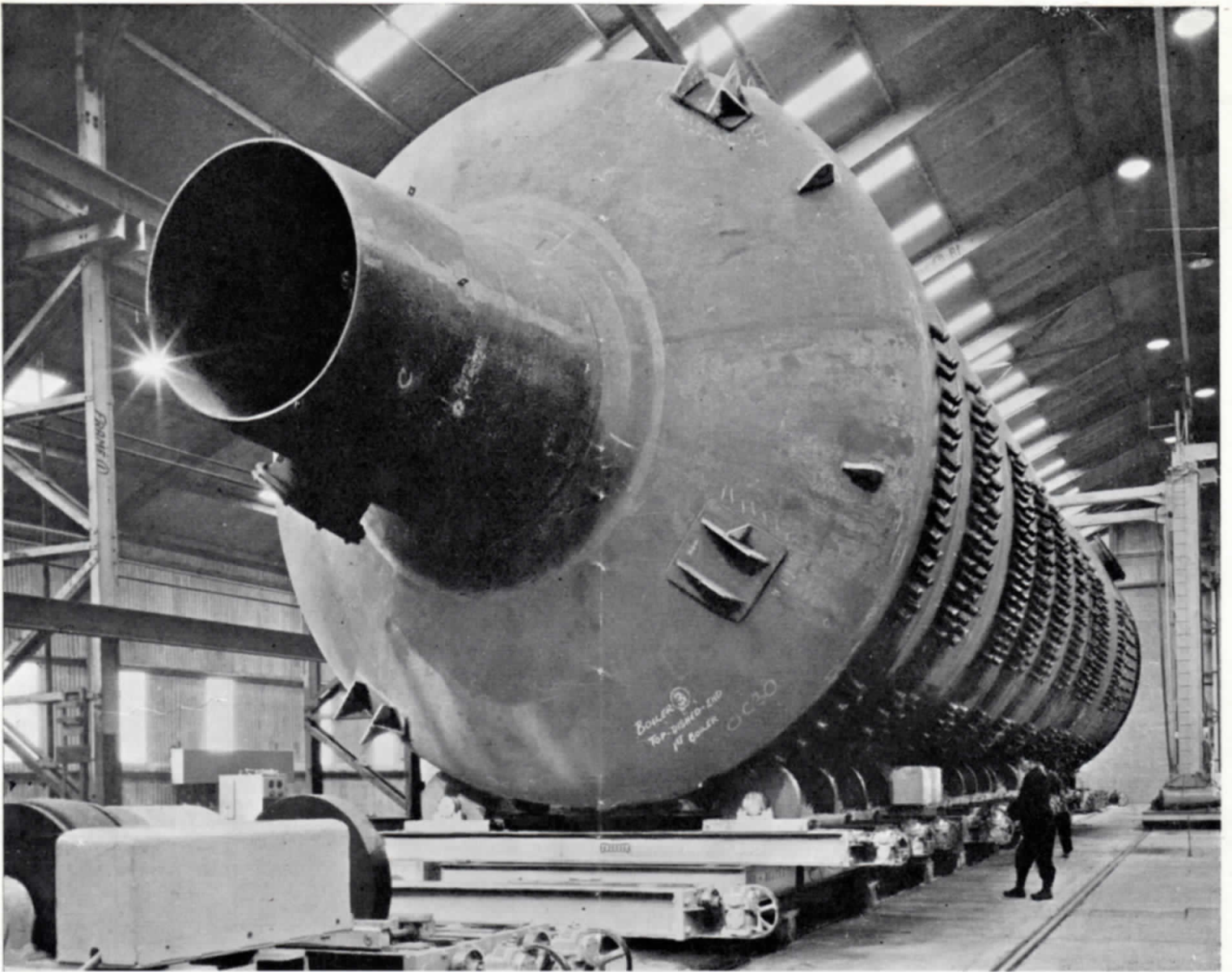
After the completion of the hydrostatic tests, the inside of the exchangers was shot blasted to a high degree of cleanliness, all internal surfaces were coated with colloidal graphite and, finally, sealed up in a water-tight condition.

At a Press Conference following the launching of the first heat exchanger shell, Sir John Wrightson stated that the exchangers would give trouble-free service for the life of the Bradwell Nuclear Power Station and paid tribute to all members of the Head Wrightson organisation whose enterprise and skill translated a plan into reality.

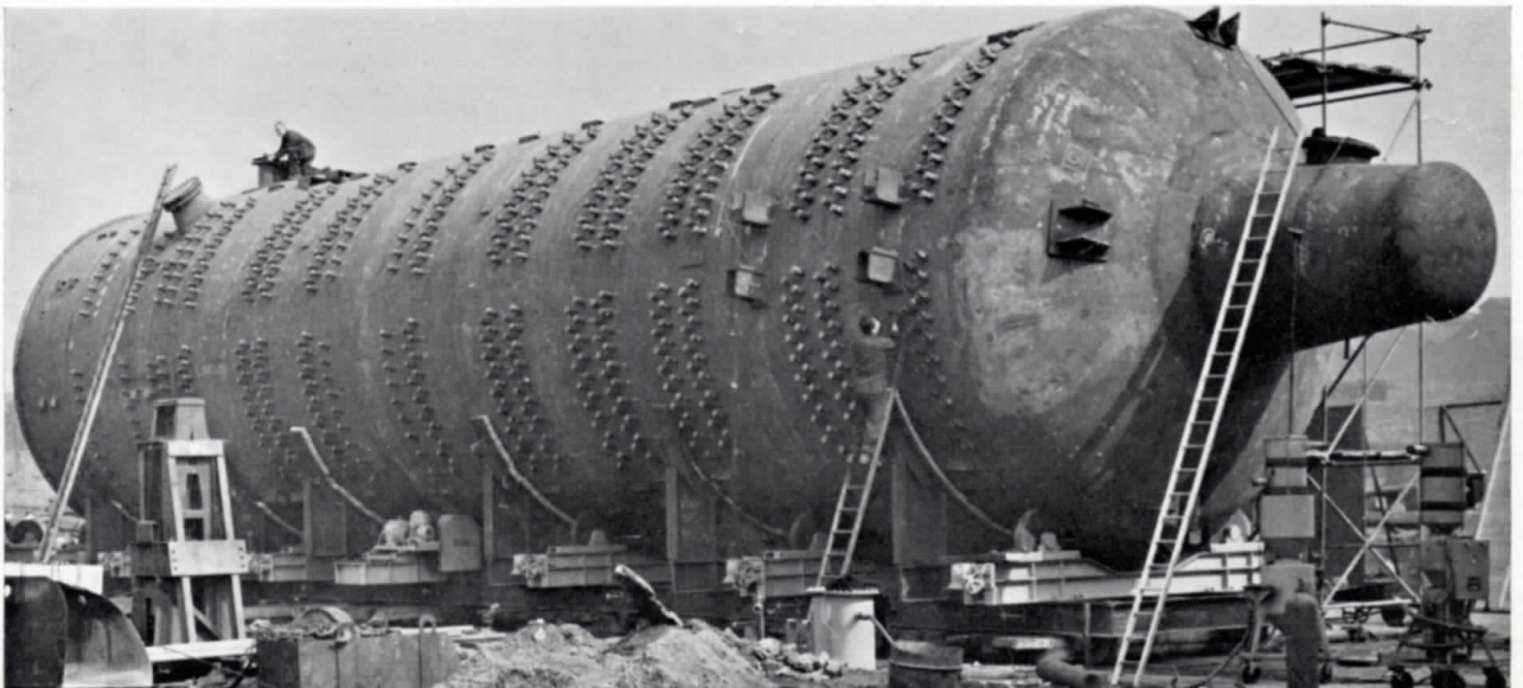
A great part of the launching ceremony was photographed and filmed and this, together with Sir John's comments, appeared in all the national newspapers, on B.B.C. and I.T.V. Television and newsreels and many thousands of our friends throughout the country learned, with great interest, of our latest achievement.

Meanwhile, the Heat Exchanger had started its journey down the East Coast and finally reached its destination at Bradwell. To get this huge piece of equipment ashore on its special bogies and transport it a distance of 1½ miles to the actual site, was a splendid piece of organisation and when, at last, the exchanger was lifted by special crane to its upright position, all those concerned had a real feeling of satisfaction in knowing that this new venture had been brought to a successful conclusion.

There are 11 more Heat Exchangers yet to go from our Works to Bradwell but our experience with the first confirms the confidence with which the Company undertook the contract and augurs well for its final completion.



The completed exchanger shell on rollers prior to stress relieving and water testing



The completed exchanger shell prior to turning and placing on the slipway



Heat Exchanger Shell on arrival at Bradwell, taken from the air

Name No.
of

A member of the Work's Pension Scheme for at least two years and with, at least five years continuous loyal service, good conduct and timekeeping is hereby admitted to the category of:—

H.W. MAN

As from he shall be entitled to the following privileges:

- (1) *Sickness*
A payment of 10/- per working day to a total of 20 working days in any one calendar year during certified sickness, the first 3 working days in every period of certified sickness being always excepted.
- (2) *Life Assurance*
The existing life assurance benefit will be increased by £200, the whole of the additional cost being borne by the Company.
- (3) *Notice*
Four weeks notice on termination of employment by the Company (misconduct excepted).

Membership

The qualifications for entry to this scheme are specific, therefore, membership is not to be regarded as automatic. The Company will be solely responsible for all nominations, the initial membership being confined to those appointed in 1958.

Loss of Membership

The additional privileges will be withdrawn should the member:

- (a) Leave the Company's employment.
- (b) Withdraw or withhold his labour for any reason whatsoever, other than during an official strike, properly authorised and duly notified in a constitutional manner.
- (c) Fails to maintain his good conduct and timekeeping, on a six monthly review.

Termination or Amendment

Whilst the Company hopes to continue this scheme indefinitely, the Directors reserve the right to discontinue or amend the scheme at any time.

Name No.
of

A member of the Work's Pension Scheme for at least two years and with, at least ten years continuous loyal service, good conduct and timekeeping is hereby admitted to the category of:—

H.W. SENIOR

As from he shall be entitled to the following privileges:

- (1) *Sickness*
A payment of 10/- per working day to a total of 20 working days in any one calendar year during certified sickness, the first 3 working days in every period of certified sickness being always excepted.
- (2) *Pension and Life Assurance*
The pension entitlement of the existing contributory scheme will be increased by a minimum of 10/- per week and the existing Life Assurance Benefit will be increased by £200. The whole of the additional cost being borne by the Company.
- (3) *Notice*
Four weeks notice on termination of employment by the Company (misconduct excepted).

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