DOWTY ROTOL NEWSLETTER

Issue 1 August 1985

INTRODUCTION BY NIGEL SMITH - SITE PERSONNEL MANAGER

"I would like to introduce you to the Dowty Rotol Newsletter which will be published regularly to give you information on the performance of our Company with an update on some of the opportunities, problems and successes in which we all play our part. In this, the first issue, there is information on our Company's financial results for last year, our performance so far this year and some articles which, I hope, you will find of interest on the Company's people and projects."

COMPANY RESULTS FOR 1984/85

SALES TURNOVER

In the last financial year, April 1984 to March 1985, we forecast that we would produce sales of £81.6m but due to industrial disruption later in the year, this was not achieved. Extraordinary efforts were made by all in February and March and the shortfall was limited to £3.4m with a turnover of £78.2m being achieved. The graph below shows the sales achieved in the last five financial years and also our forecast for the current financial year.

To give a more accurate picture the graph below shows our turnover over the same period but it takes account of the effects of inflation.

This information shows that the Company has been affected by the recession. We are forecasting a 12% real increase in sales this year but this will still mean that, taking account of inflation, we are only selling the same as we did in 1981/82. The lack of growth in turnover over the last four years is a direct result of the general recession but the increased turnover forecast for this year is a tribute to our engineering strength in successfully bidding on a range of new projects both at home and abroad. The figures below show how our total turnover is broken down into home and export sales:-

North America	£14,094,000
Europe	£29,253,000
Rest of the World	£ 9,470,000
United Kingdom	£25,381,000

PROFIT

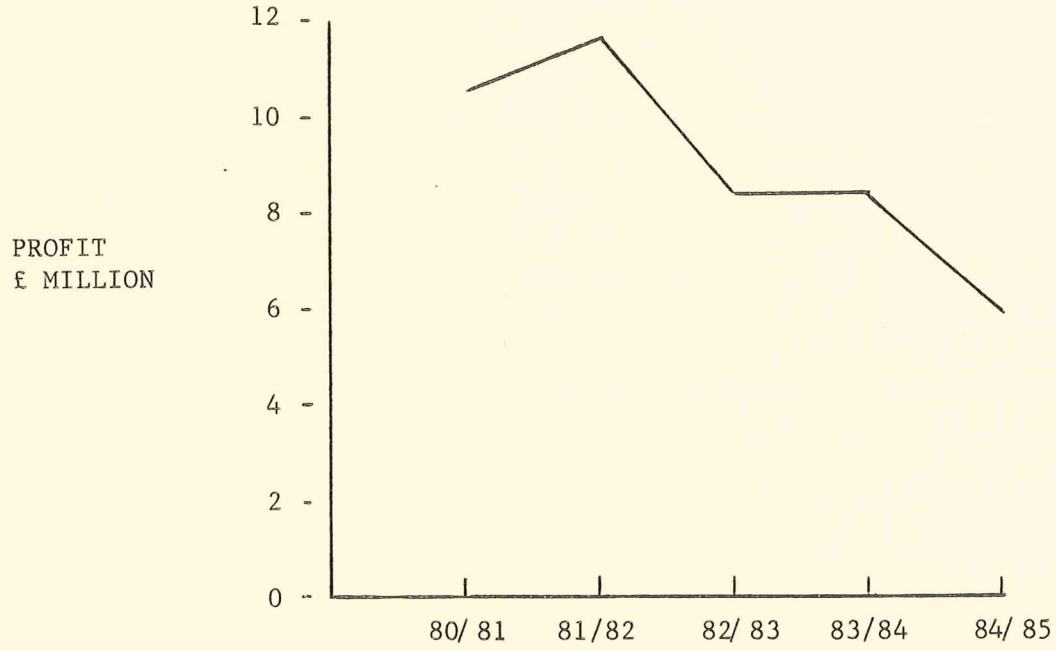
Our operating profit last year amounted to £5.9m which was less than had been forecast. The main reasons for this are as follows:-

(a) We spent £7.6m on Engineering, Design, Development and Tooling, of which £4.9m was Private Venture spend which is the cost of launching new projects not recovered from the customer. This cost is greater than previous years and is a direct charge against profits but it represents the major investment we have made in new projects which will provide profits for future years.

Profit (continued)

(b) We have had some difficulties on certain products introduced in the last two years and £1.3m had to be spent or reserved to cover the cost of carrying out corrections.

The graph below shows the trend of profits over the last five years. As you can see the trend is downwards and we must improve our performance if we are to be able to continue to finance the investments needed for the future. It should also be noted that these are actual figures and take no account of inflation over the period so the real decrease is even greater than shown.



It is also usual to look at the profit made as a percentage of capital employed. The capital employed is the value of the Company's land, buildings, equipment and stocks. The graph overleaf shows profit as a percentage of capital employed over the last four years. You will see that there has been a significant fall over this period to a level that is only marginally higher than that which could be achieved by investing in a bank or building society. As any business activity involves taking a risk it is important that the return on capital is much better than the return that could be obtained by putting money into a bank where virtually no risk is involved.

CAPITAL INVESTMENT

Last year we spent £7.9m on fixed assets. Tooling and test rigs accounted for £3.1m and the majority of the remainder was spent on new machine tools, the propeller test facility and computer aided design. An article on computer aided design appears later in the newsletter. The amount spent last year was nearly twice that which was spent the previous year and in this financial year we expect to spend £13.4m on fixed assets, of which £4.4m will be for tooling and test rigs.

CURRENT PERFORMANCE

Regular information will be given on both the monthly sales turnover and order book. In the case of sales turnover, we have a target of £95m for this financial year and, although this will not be easily achieved, we have made a good start as can be seen from the figures below. Congratulations are due to everyone who helped achieve the turnover in the first quarter of the year.

SALES TURNOVER

	Forecast	Achieved
April	£6,602,000	£6,678,000
May	£7,971,000	£8,000,000
June	£7,832,000	£7,988,000
	£22,405,000	£22,666,000

ORDER BOOK

The figures below show the value of the orders received by the Company in April, May and June 1985 and the value of the outstanding order book at the end of each of these months. The order book at the start of the financial year was £131,718,000.

	Orders Received	Total Outstanding
April	£7,553,000	£132,593,000
May	£8,625,000	£133,218,000
June	£8,528,000	£133,758,000

It is interesting to note that in January 1984 the order book was £92.8m and the increase since then is due in no small part to the sustained efforts by the Company to gain new business.

AIRBUS A320

The Airbus A320 is a completely new, medium range, single aisle, twin-engined aircraft designed in response to the world-wide need for an advanced technology replacement for the less efficient narrow body aircraft. With a wing span of 111 feet this wide bodied aircraft offers more passenger comfort and carry-on baggage capacity than any other aircraft of its type. Carrying 150 passengers the A320 is scheduled for entry into airline service in Spring 1988 and is the first commercial sub-sonic aircraft to incorporate:

- Fly-by-wire electrical control throughout normal flight.
- Second generation computerised automatic flight system.
- Side stick controller instead of the old central control column.
- An all carbon fibre reinforced plastic fin and tailplane.

With new and improved engines, the A320 will burn between 25%-50% less fuel than the old narrow body aircraft.

Airbus A320 (continued)

Dowty Rotol has won the contract from the European Consortium, Airbus Industrie, to supply the Main Landing Gear together with its associated hydraulic control components and the Ram Air Turbine. Work is now well advanced on the long lead items both at Dowty Rotol and its sub-contractors and a major milestone was achieved in July when machining of the main body of the landing gear commenced on schedule at Staverton.

The basic requirement for the landing gear is that it should have a minimum weight and fit in the relatively small space between the rear spar of the wing and the flap mechanism. The winning proposal which Dowty Rotol made features an ultra high tensile steel leg assembly with a large one-piece main fitting designed for minimum weight by eliminating the heavy joints which an assembly built up from several parts would need. The smaller joints also reduce the maintenance normally required because of the effects of corrosion and fretting in service.

The first three main landing gears to be delivered will be fitted with extensive instrumentation so that their behaviour can be monitored during the 12 months flight testing that the A320 will undergo.

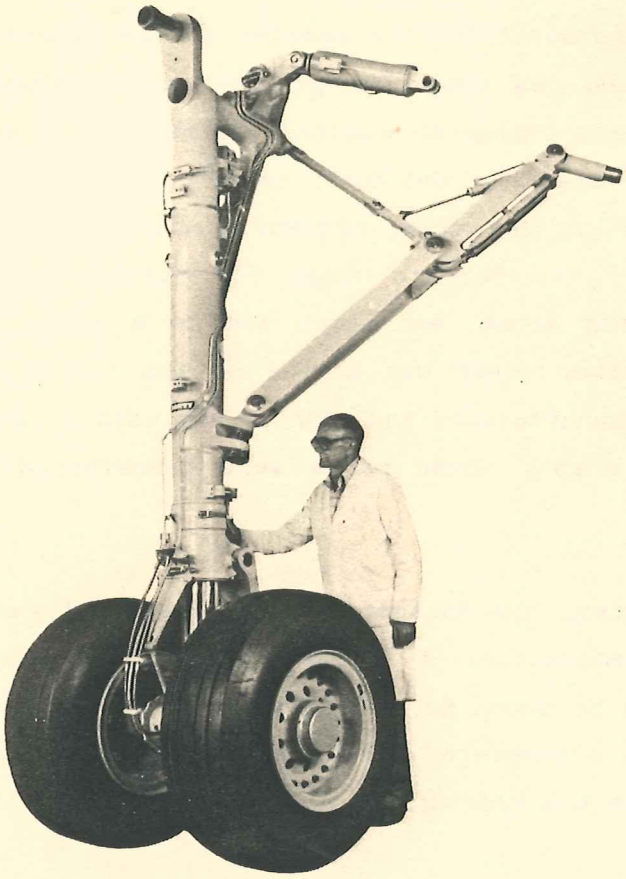
Airbus A320 (continued)

Delivery of the first landing gear is scheduled for May 1986 to the British Aerospace works at Filton where it will be flown, together with the first set of wings, in the specially constructed Airbus Industrie aircraft to the final aircraft assembly hall at Toulouse in S.W. France.

The Ram Air Turbine was also won against fierce competition and will be delivered to Messerschmitt Bolkow Blohm in Hamburg during March next year to be fitted to the first fuselage before delivery to Toulouse.

After 13 months in construction with meticulous and extensive structural and systems testing the first prototype aircraft will fly in March 1987. Firm orders for the A320 now stand at 90 with 113 options and many more airlines becoming interested.

The value of equipment to Dowty Rotol on each aircraft set amounts to £190,000 and, with its advanced technology, Airbus Industrie are predicting record sales for the A320 which means a healthy order book for Dowty Rotol on this project.



Stan Tattersal
(Model Shop) with
A.320 Landing Gear

IS YOUR BRIGHT IDEA WORTH £1,200?

That is how much Tony Russell from the Metal Blade Shop has just been awarded for a suggestion he made in the Company's Suggestion Scheme.

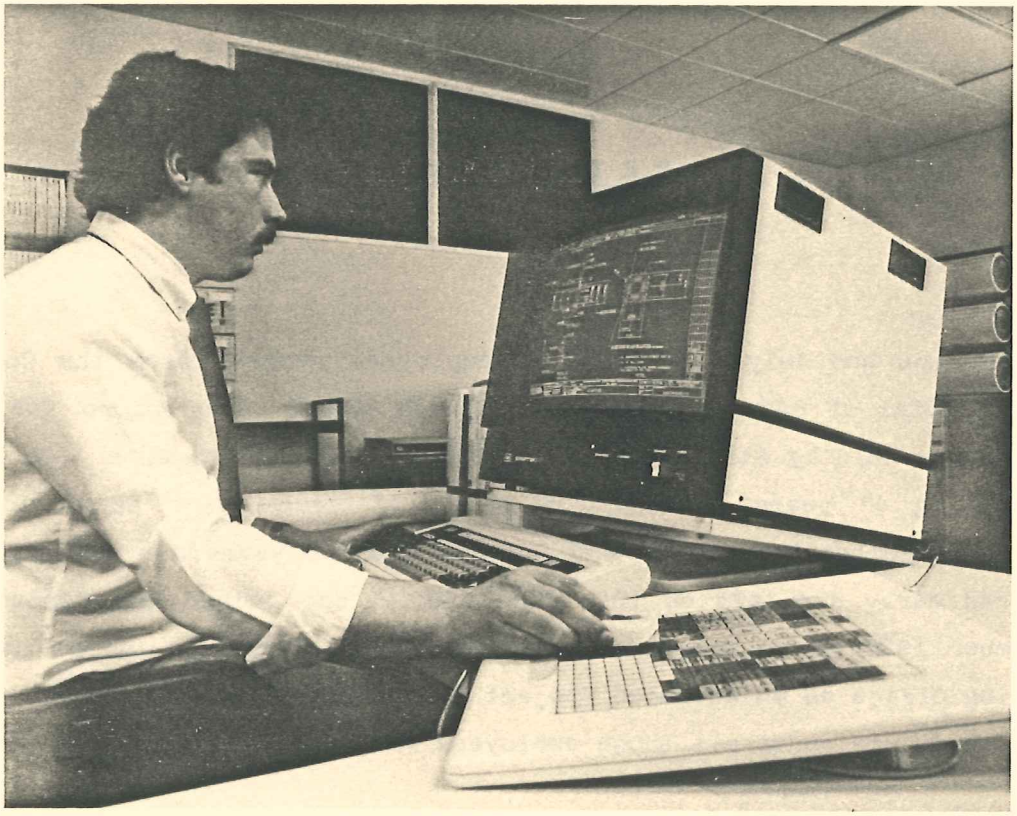
Tony Russell (right) with Alan Davies receiving his cheque from Jim Ashton

Tony decided that he had the solution to a problem in his department of developing overshoes for the new composite propellers. Overshoes are made of layers of rubber enveloping an electric element which protects the leading edge of propellers from the build up of ice. The overshoe is manufactured by sandwiching the rubber between a mould or former and a rubber cover to produce the correct shape for fitting on to the propeller. The problem that arose, and which led to a scrap rate of over 15%, was that the rubber cover was pitted on its inside surface because of the way it was manufactured and when it was used to mould the rubber into an overshoe shape, these marks were transferred to the surface of the overshoe.

Tony went to see Alan Davies, the Manager of the department, with his idea which involved the manufacture of a dummy oversize overshoe from which the cover would then be produced, and Alan told him to give it a trial run. The trial was a complete success and the result is a 90% reduction in the scrap rate and free drinks all round on Tony.

COMPUTER AIDED DESIGN (C.A.D.)

The Company's drawing office took a technological leap forward recently with the introduction of a new Graftek C.A.D. system. Ten workstations are now operational and the training of employees on this equipment began on the 22nd April 1985. It is intended to expand the system to forty-five workstations over a three year period and this will entail a cost of approximately £3m. The existing workstations and C.A.D. offices are situated in a temporary building at the back of the Technical Block. The system runs on VAX 11/789 computers which are sited in the new computer building.



Each C.A.D. workstation is essentially an electronic drawing board with a quick draw control panel and a display screen which allows the designer to build up a drawing without the use of a drawing board, ruler and pencil. The drawing can be easily enlarged, sectioned, rotated and produced as a three dimensional model by simple instructions to the control panel. It will enable us to try a number of different designs before deciding on the best solution to a problem and will also allow us to respond faster to potential customers when we are bidding for new

C.A.D. (continued)

business. This facility to respond faster is particularly important when there is strong competition.

In the future the system will also be able to 'speak' to other computer systems, both in this Company and at our customer's and collaborator's.

The system was chosen after an intensive survey of five suppliers, carried out by engineers from within the Technical Department who will operate and manage the equipment. Training programmes have been prepared and the first trainee users are already producing manufacturing drawings.

RETIREMENTS

During June and July this year, 22 employees retired from the Company with a total of 647 years service between them!! The record for this period was held by Stan Smith who retired early on 6th June 1985 after completing 47 years service, of which 44 years were spent in the Toolroom. Close behind was Bob Parsons with 45 years service who also retired early and left on 10th June 1985. Bob joined the Company in November 1939 as an apprentice toolmaker and ended his career in the Drawing Office as an Advanced Project Design Engineer. Our best wishes for the future go to all those employees who retired during this period.

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