

# Troubled Boeing halts production of 747s

BOEING, planemaker to the free world, has halted production of its best-selling 747-400 jumbo jets at the end of a week of serious setbacks for the company.

The firm's share price has fallen by nearly \$1.50 as bits of its aircraft continue to fall out of the sky. A further collapse in share values is feared tomorrow.

An inquiry by *The Observer* into Boeing's huge Seattle plant has discovered that the company is still at risk of building 'unsafe' aircraft, despite claims that it has resolved the problems which led to serious complaints by leading airlines last year.

We have found evidence that excessive overtime and the employment of thousands of inexperienced staff to meet the huge—and growing—demand for the Boeing range of passenger jets is resulting in manufacturing errors which, if undetected, could prove fatal.

A troubled week ended with an engine falling off a 737 airliner on takeoff from Chicago, only hours after a 757 jet dropped a panel from one wing and had to make an emergency landing in Atlanta.

Last week *The Observer* revealed that Boeing was criticised in the spring by leading customers, including British Airways and Japan Airlines, for unacceptable quality problems. Complaints included 'cross-wiring' faults similar to those suspected in the M1 crash in the Midlands.

Spokesmen for Boeing steadfastly maintain that standards have been improved since the complaints and that new quality control schemes have been introduced.

But we have since spoken to experts and many members of the Boeing workforce who say that, while the company's standards have improved and are high, there are still quality control problems.

Special report by PAUL LASHMAR in Seattle

## CATALOGUE OF EMERGENCIES

- **February 1988:** A Boeing 747 bound for Washington is forced to return to Heathrow after losing a 2 ft by 1 ft piece of metal on take-off. No one hurt.
- **May 1988:** Fuel system defects cause failure of two engines and problems with a third on a Tokyo-bound United Airlines 747. Successful landing.
- **May 1988:** Undercarriage door falls off an Icelandic 727 from Reykjavik and lands in a London garden. Plane lands safely at Heathrow.
- **April 1988:** Fatigue causes mid-air split of Hawaiian 737 fuselage. Successful emergency landing.
- **September 1988:** Tests ordered on older Boeing 747s after a wing flap on a British Airways jet falls to close when the plane lands at Heathrow.
- **January 1989:** A British Midland 737 crashes just short of the runway at East Midlands airport. Forty-four die. Cause under investigation.

- **January 1989:** Five Boeing 757s are found to have crossed wires in fire extinguisher systems.
- **January 1989:** A 6 ft section of the landing gear door of a London-Los Angeles TWA Boeing 747 falls onto a building site shortly before landing.
- **January 1989:** Passengers and crew evacuated from Canadian Airlines 737 at Vancouver after auxiliary engine unit catches fire.
- **January 1989:** Engine drops from a 737-200 airliner three minutes after taking off from Chicago.
- **January 1989:** Engine fairing measuring 4 ft by 6 ft falls off an Eastern Airlines 757 en route to Los Angeles. Emergency landing at Atlanta.
- **January 21:** A 757 lands safely at Heathrow with power from only one engine after experiencing technical problems.

Early last week the Boeing workforce were generally taking the view that questions surrounding the M1 crash were a minor 'blip' for the company. Boeing's press office expressed bewilderment by the interest in the company's safety standards shown by the British Press.

But last Friday turned out to be a bad day for Boeing's reputation. The Federal Aviation Authority (FAA), US flight watchdog, issued a directive to check for cross-wiring in the cargo hold fire suppression systems of 767 aircraft after seven 757s were found to have the fault.

Then, in two separate incidents, a 737 belonging to Piedmont Airlines lost an engine at Chicago's O'Hare airport and an Eastern Airlines 757 lost a 15 sq ft wing panel just one hour out of

Atlanta. Boeing also on Friday refused to comment to *The Observer* on a \$125,000 (£70,000) fine by the FAA for putting faulty locking nuts on many of its aircraft. The nut was used in several parts, including the flight control system.

Finally, Boeing had to admit the delay in production. The decision—taken because of 'the unexpected complexities of the new aircraft', according to company officials—is a serious embarrassment to the company which introduced the 747-400, at \$125 million per jet, just a year ago.

According to sources within the factory, the new jets were falling behind; more than 1,000 tasks were delayed as the aircraft went down the production line. All deliveries of the 747 400

have been postponed and Boeing has not yet supplied revised dates of delivery.

In Seattle this weekend people were beginning to worry that the company, despite its bulging order books, was running into some serious problems. It is the largest employer in the region, with a workforce of 96,500 and many service industries.

Despite its troubles, Boeing is enjoying the most successful period in its history, and in the last year has been deluged with orders. Orders for 595 jets valued at \$188 billion are on the books.

The FAA is changing the guidelines for maintenance on all older commercial aircraft. It is expected to put out the first of 60 new airworthiness directives in the next couple of weeks. Mr Leroy Keith, a senior FAA executive, said yesterday: 'The policy will now be to replace automatically certain parts rather than inspect and repair. This policy will add millions to the cost of flying old jet aircraft and many airlines are choosing to buy new models.'

These new orders are stretching Boeing capacity to the limit. It will be building 34 aircraft a month by mid-1990, compared with 26.5

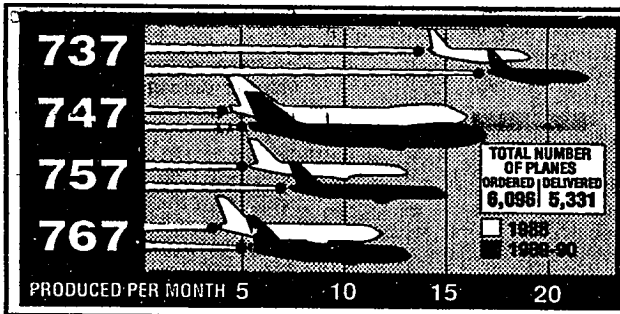
per month in 1988. These pressures have led to quality control problems. Workers are being asked to work extensive overtime and the company is hiring many new workers.

The most serious allegations we heard came from an experienced inspector at the Everett plant. 'There is enormous pressure to get faulty work through and "sell" it to quality control. I know of many cases where faulty work is allowed to go through to be caught by inspectors.'

Mr Lamont Faulkner, who has been fitting doors on 757 jets for about 18 months, says the workmanship is good, except for 'the new hires'. Some are so green, he says, that 'they have never drilled a hole before' and have to be taught their job.

Boeing refused last week to allow the media to visit the plant to speak to senior executives or the workforce. Instead, we took the public tour of the Everett plant, acclaimed 'the largest building in the world by volume'—the size of 57 American football fields.

A sign at the tour centre reads: 'Just as the diamond cutter strikes the stone, so skilled workers assemble and carefully inspect each airplane with precision and detail.'



A bumpy ride for Boeing on the production line