

AVRO LINCOLN

SUTCLIFFE PRODUCES A FINE 1/72nd SCALE VACUFORM KIT OF AVRO'S LAST PISTON-ENGINED HEAVY BOMBER. THE LINCOLN WAS ALSO THE LARGEST BOMBER IN THE ROYAL AIR FORCE'S POST-WAR ARSENAL.

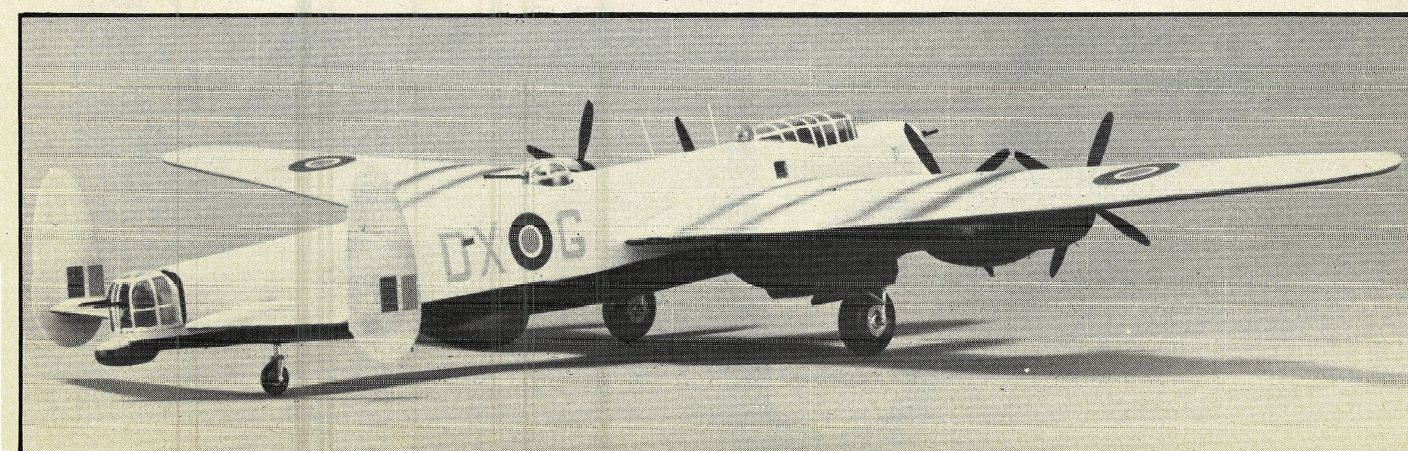
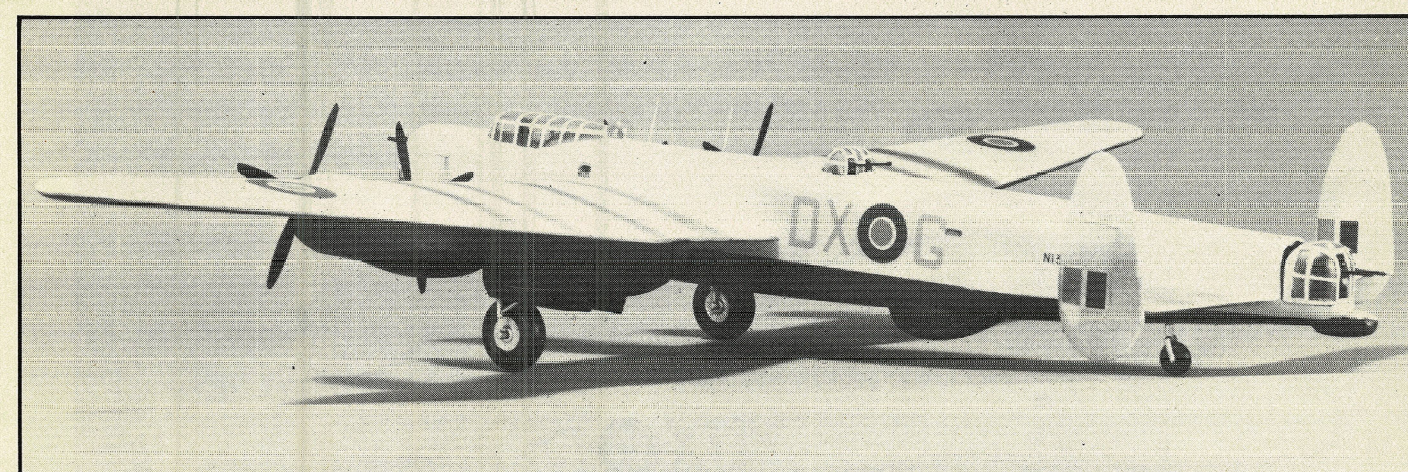
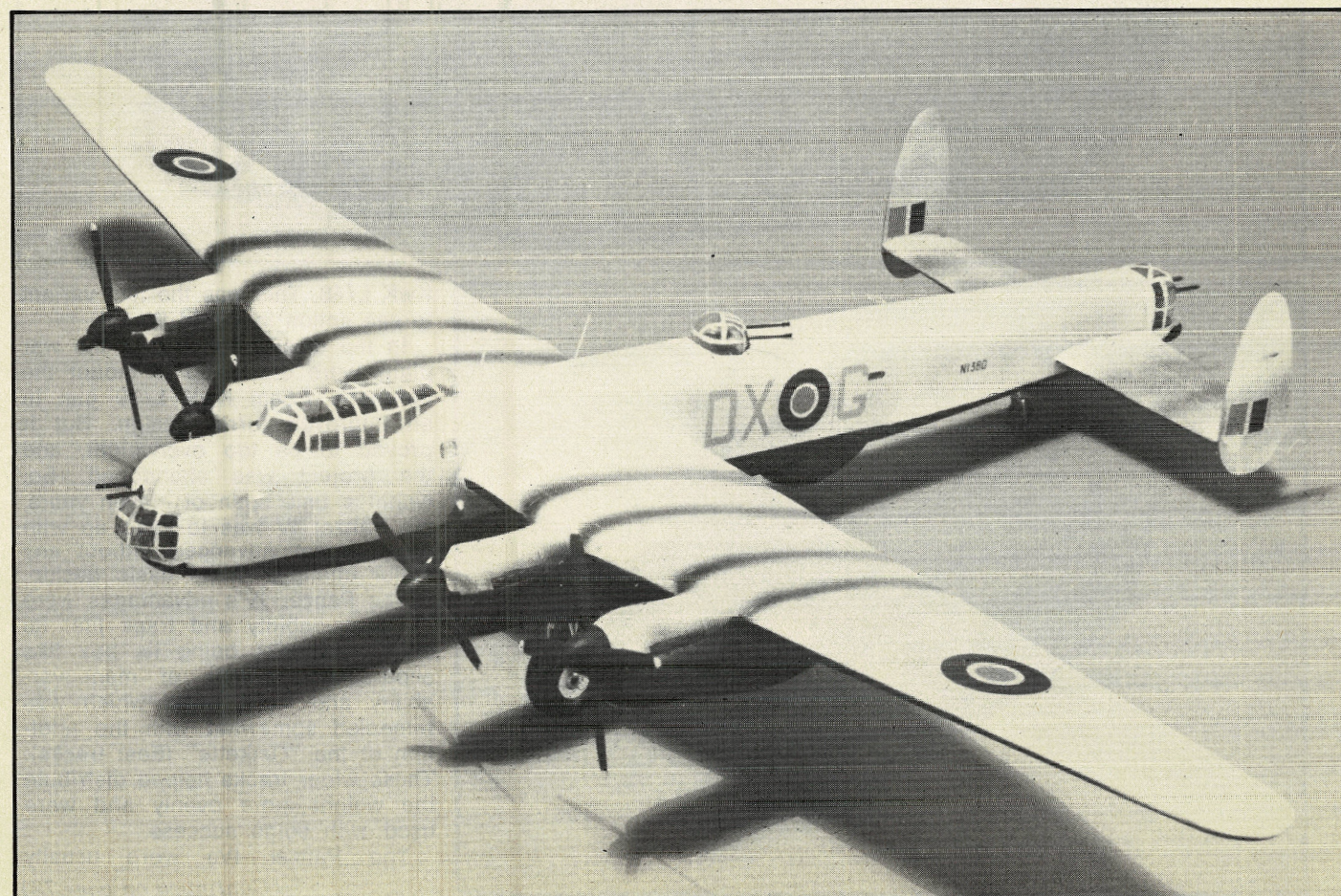
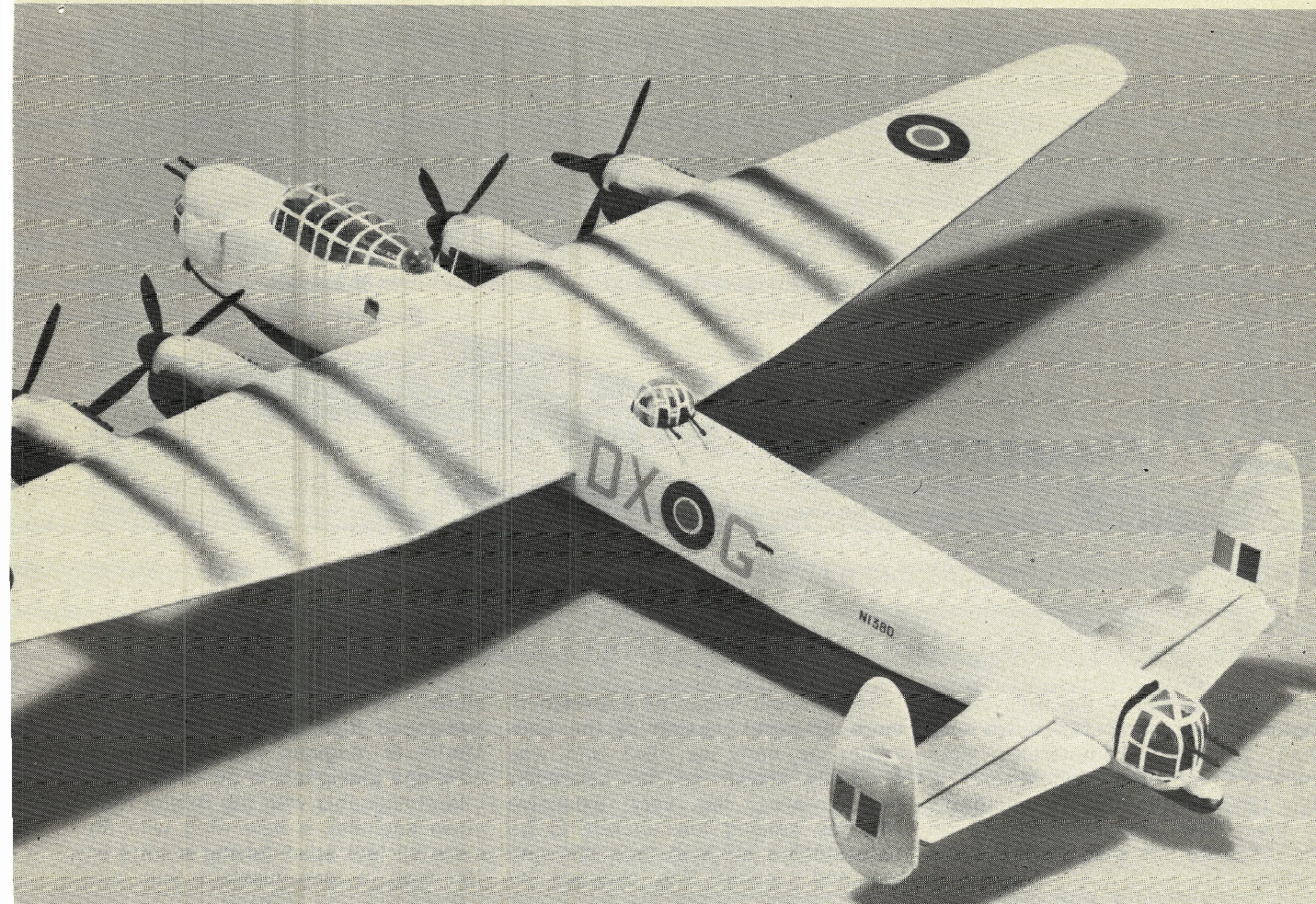
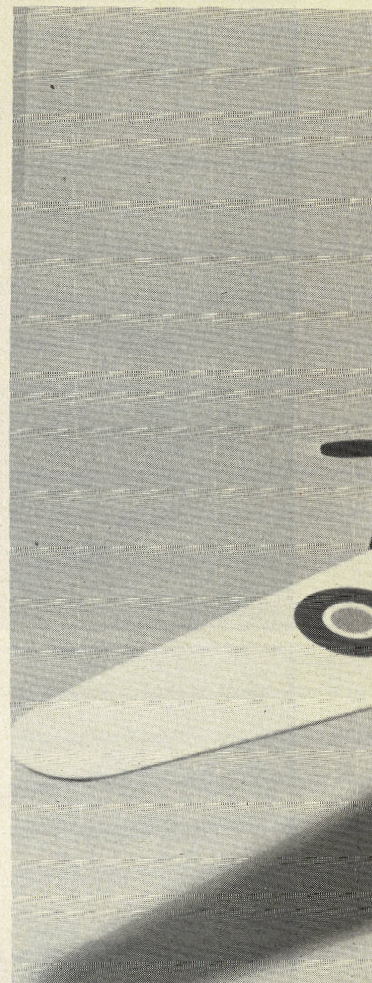
BY BOB ARCHER

MODEL BY DAVE WEGNER

Previous articles in *Scale Modeler* have covered Avro's major piston-engined bombers of World War II and subsequent era, (Avro Manchester, *Scale Modeler* April 1975), while the immortal Lancaster has received wide publicity and has been produced in several kits. However, the improved Lancaster, which ultimately emerged as the Lincoln, has never been made available in any

scale as a model kit. Thus, we were very pleased to receive a new 1/72nd scale vacuform kit of the Lincoln from SUTCLIFFE recently, especially as conversion of a Lancaster to the Lincoln is a very difficult job to perform.

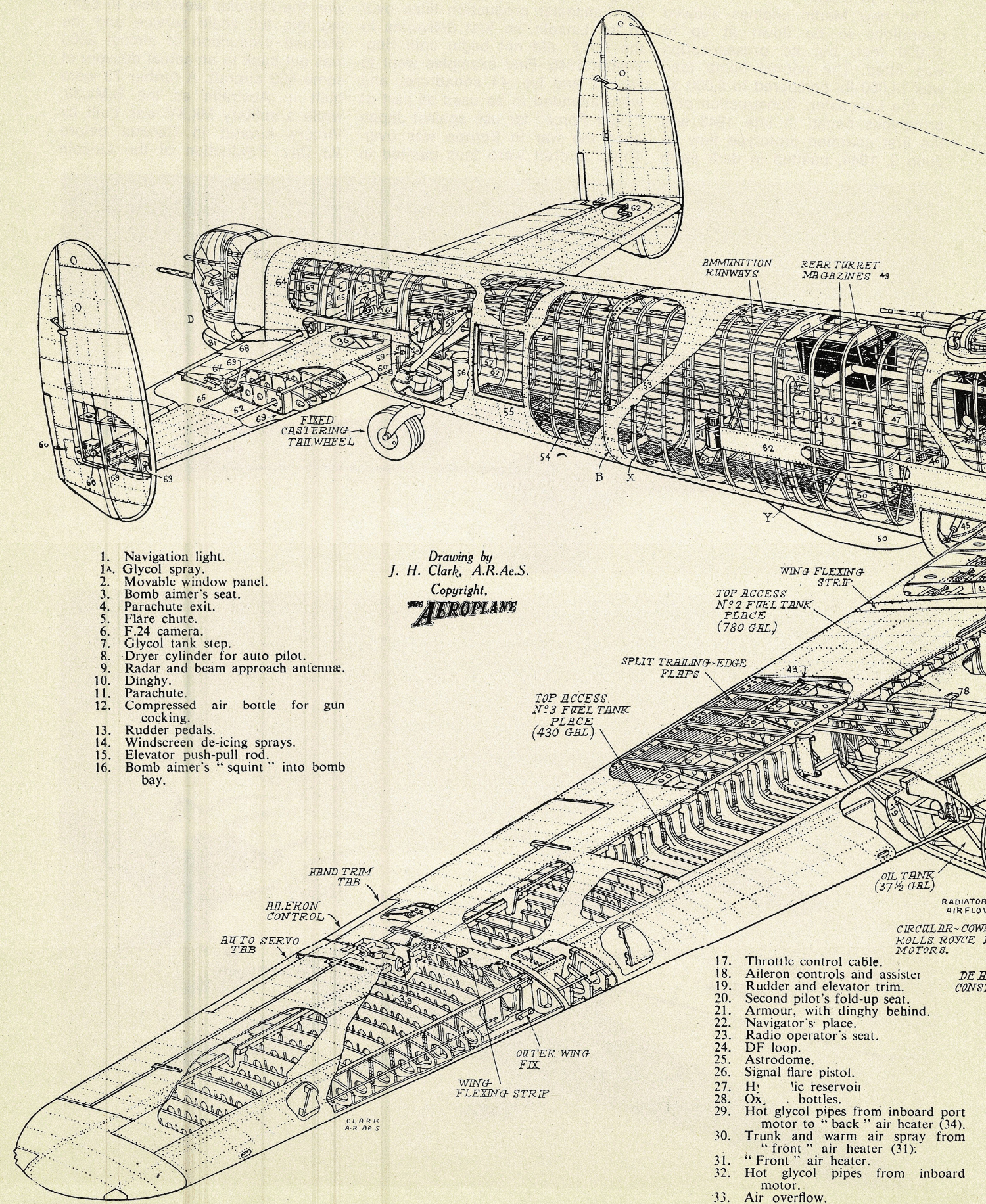
Although nowhere near as well-known as the Lancaster, the Lincoln served as the backbone of the R.A.F.'s post-war heavy bomber



AVRO LINCOLN HEAVY BOMBER

AVRO LINCOLN B.Mk.I

Courtesy of the Aeroplane, 1946

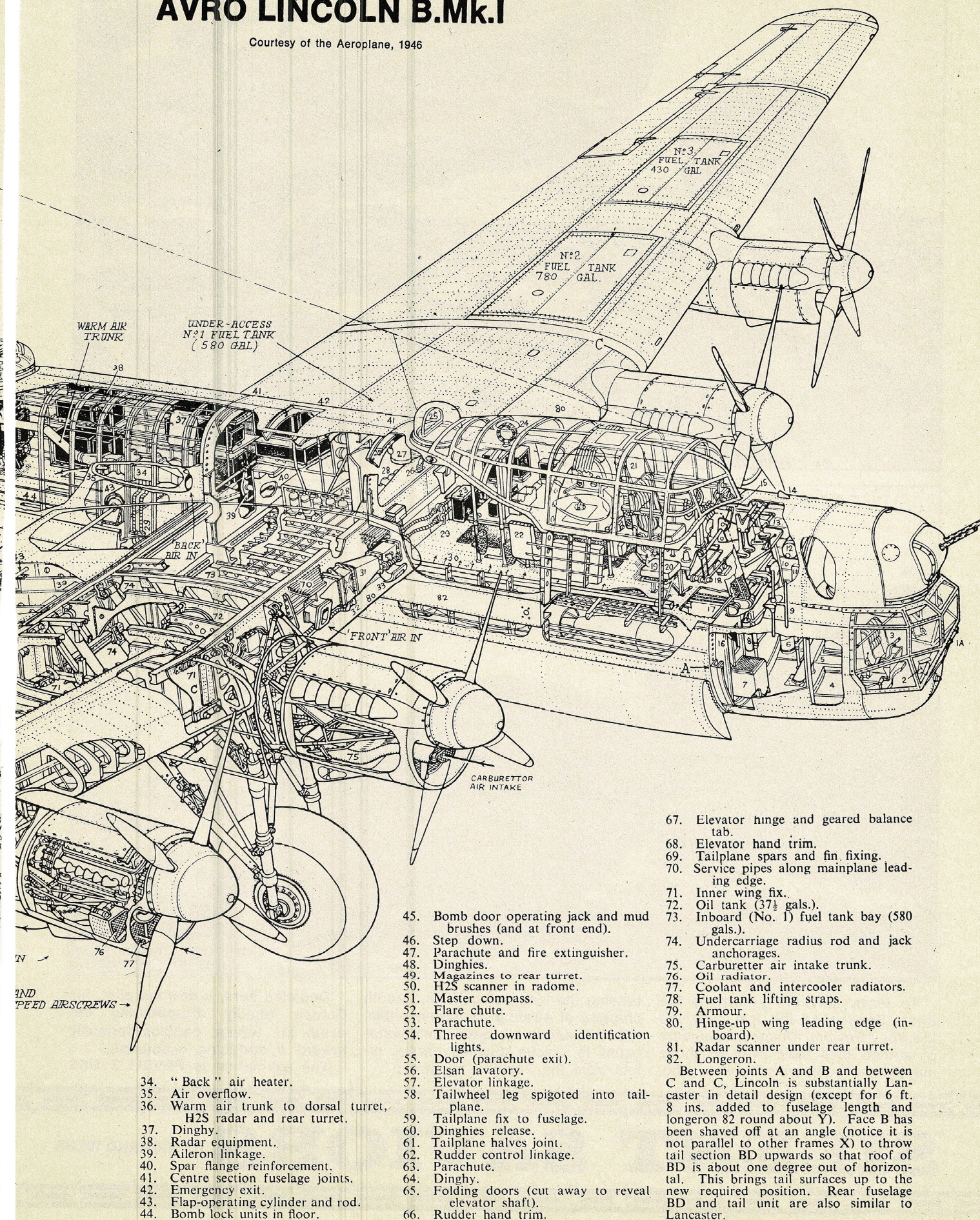


Drawing by
J. H. Clark, A.R.A.C.S.

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THE AEROPLANE

1. Navigation light.
- 1A. Glycol spray.
2. Movable window panel.
3. Bomb aimer's seat.
4. Parachute exit.
5. Flare chute.
6. F.24 camera.
7. Glycol tank step.
8. Dryer cylinder for auto pilot.
9. Radar and beam approach antennæ.
10. Dinghy.
11. Parachute.
12. Compressed air bottle for gun cocking.
13. Rudder pedals.
14. Windscreen de-icing sprays.
15. Elevator push-pull rod.
16. Bomb aimer's "squint" into bomb bay.

17. Throttle control cable.
18. Aileron controls and assister.
19. Rudder and elevator trim.
20. Second pilot's fold-up seat.
21. Armour, with dinghy behind.
22. Navigator's place.
23. Radio operator's seat.
24. DF loop.
25. Astrodome.
26. Signal flare pistol.
27. H₂O reservoir.
28. Ox. bottles.
29. Hot glycol pipes from inboard port motor to "back" air heater (34).
30. Trunk and warm air spray from "front" air heater (31).
31. "Front" air heater.
32. Hot glycol pipes from inboard motor.
33. Air overflow.

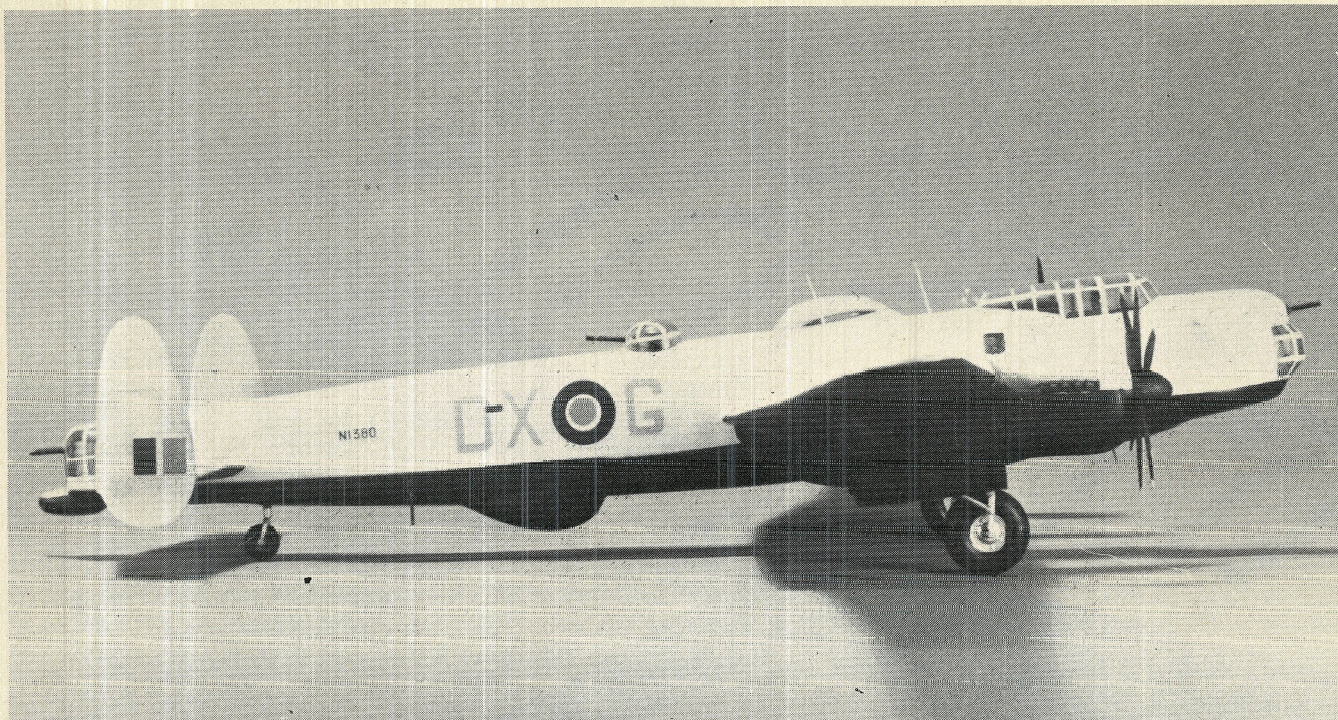


45. Bomb door operating jack and mud brushes (and at front end).
46. Step down.
47. Parachute and fire extinguisher.
48. Dinghies.
49. Magazines to rear turret.
50. H2S scanner in radome.
51. Master compass.
52. Flare chute.
53. Parachute.
54. Three downward identification lights.
55. Door (parachute exit).
56. Elsan lavatory.
57. Elevator linkage.
58. Tailwheel leg spigoted into tailplane.
59. Tailplane fix to fuselage.
60. Dinghies release.
61. Tailplane halves joint.
62. Rudder control linkage.
63. Parachute.
64. Dinghy.
65. Folding doors (cut away to reveal elevator shaft).
66. Rudder hand trim.

67. Elevator hinge and geared balance tab.
68. Elevator hand trim.
69. Tailplane spars and fin fixing.
70. Service pipes along mainplane leading edge.
71. Inner wing fix.
72. Oil tank (37½ gals.).
73. Inboard (No. 1) fuel tank bay (580 gals.).
74. Undercarriage radius rod and jack anchorages.
75. Carburettor air intake trunk.
76. Oil radiator.
77. Coolant and intercooler radiators.
78. Fuel tank lifting straps.
79. Armour.
80. Hinge-up wing leading edge (inboard).
81. Radar scanner under rear turret.
82. Longeron.

Between joints A and B and between C and C, Lincoln is substantially Lancaster in detail design (except for 6 ft. 8 ins. added to fuselage length and longeron 82 round about Y). Face B has been shaved off at an angle (notice it is not parallel to other frames X) to throw tail section BD upwards so that roof of BD is about one degree out of horizontal. This brings tail surfaces up to the new required position. Rear fuselage BD and tail unit are also similar to Lancaster.

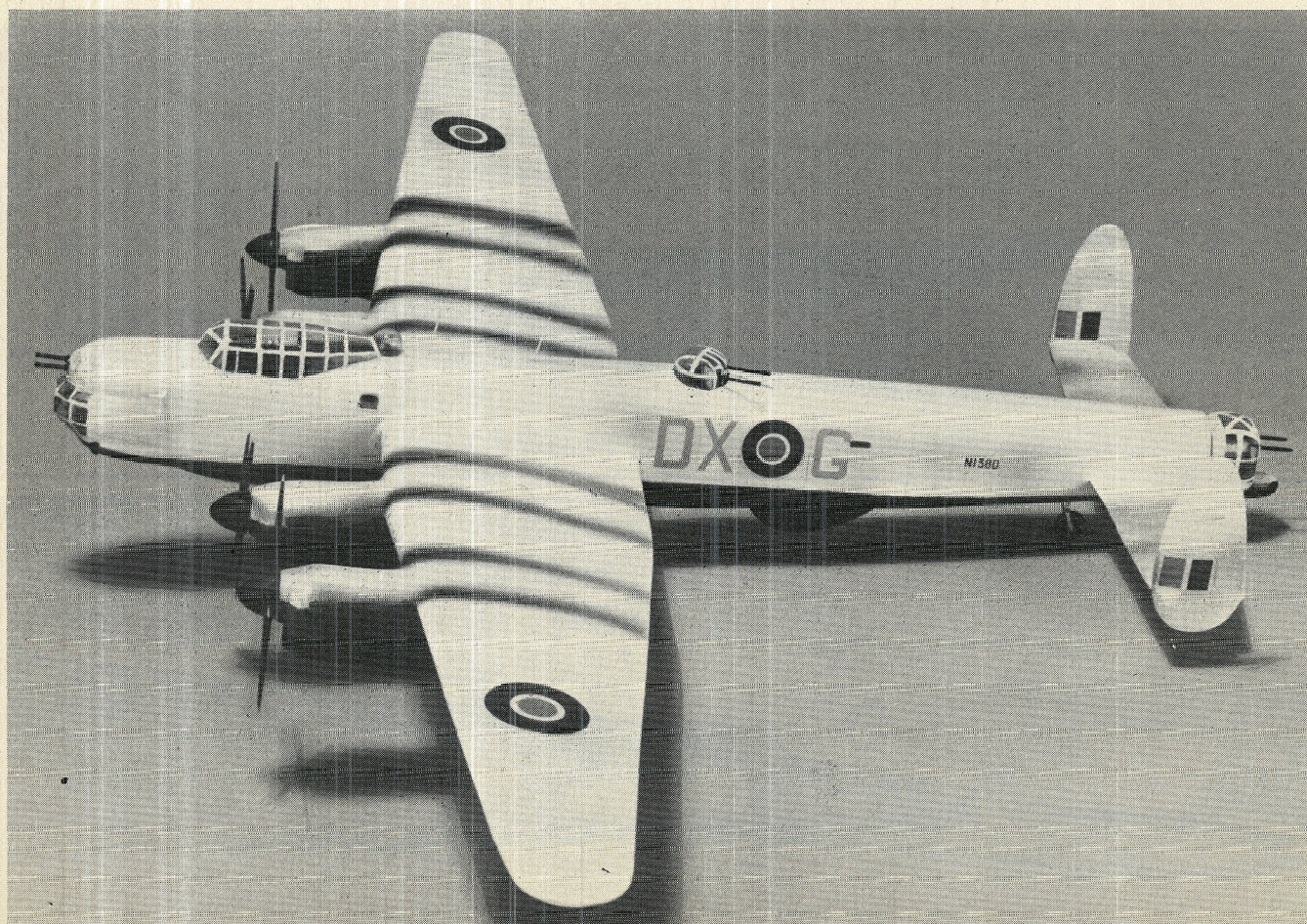
(Continued on page 73)



force until arrival of the B-29 Washington in the early 1950s. No less than 20 R.A.F. squadrons were equipped with the Lincoln and in July 1950 no less than 15 squadrons of them flew over Farnborough on the occasion of that year's R.A.F. display.

The Lincoln began as a stretched, more powerful version of the Lancaster as early as 1943 and was originally known as the Lancaster IV. However, the very extensive changes caused the aircraft to be redesignated as Avro type 694 and renamed Lincoln. The changes in-

cluded the fitting of the two-stage, two-speed supercharged Rolls-Royce Merlin 85 engines in new circular cowlings (designed to be completely interchangeable with the Bristol Hercules engines), a new wing with an extra 18 feet span (giving a total of 120 feet), a long fuselage with en-



tirely new gun turrets throughout and a strengthened landing gear to take the higher gross weight (82,000 lb. versus 50,000 lb. for the Lancaster I, III & X).

The new Merlin engines allowed operations to be flown at up to 35,000 feet, but no pressurization was fitted. The normal bomb load was 14,000 lb. compared to 8,000 lb. for the Lancaster. Construction of 3 prototypes began in late 1943 and the first unarmed prototype flew on June 9, 1944, painted in dark earth

and dark green on all upper surfaces and yellow on lower surfaces.

Production was delayed, despite the very successful test flights, due to problems in changing the very big Lancaster production lines over to the Lincoln, so first deliveries to the R.A.F. did not begin until September 1945. First examples went to No. 57 and No. 44 squadrons, and were intended to be used as part of "Tiger Force" for use against Japan once the war in Europe was over. These aircraft were thus painted in

the very attractive color scheme of flat white on upper surfaces and gloss black on lower surfaces.

With the rapid rundown of the R.A.F. after the end of the Pacific war, the Lincolns were slow in coming into full scale service and the planned production of almost 2000 was cut back to an actual delivery of some 550 aircraft. A further 73 were built in Australia as the B.Mk.30, while a solitary Mk.XV was built by Victory Aircraft in Canada before VJ Day. Production of the Lincoln

