

DEPARTMENT OF TRANSPORT
AIR SERVICES BRANCH
OTTAWA, CANADA

A 33 Issue 4
Avro 685 (York)

AIRCRAFT TYPE APPROVAL

March 22, 1956

Manufacturer: A.V. Roe and Company, Limited,
Manchester, England.

1. Model: Avro 685 (York) Freighter (Restricted Category)

Engines: 4 Rolls-Royce Merlin 24 or 500. (See Note 1)

Fuel: Aviation Gasoline, Grade 100/130.

Engine Limits: Rolls-Royce Merlin 24 and 500
Low Impeller Gear Ratio 8.15:1-

	Alt.	Rated		MP
		HP	RPM	lb./sq.in.
Take-off (5 min.)	S.L.	1610	3000	18
	2250	1635	3000	18
Maximum Continuous (unrestricted)	S.L.	1000	2650	7
	8750	1080	2650	7
Maximum Climbing (1 hour)	S.L.	1120	2850	9
	9750	1220	2850	9

High Impeller Gear Ratio 9.49:1-

	Alt.	Rated		MP
		HP	RPM	lb./sq.in.
Maximum Continuous (unrestricted)	15500	1015	2650	7
Maximum Climbing (1 hour)	16500	1130	2850	9

Airspeed Limits: V_C (maximum cruising) 250 mph I.A.S.
 V_{ne} (never exceed) 320 mph I.A.S.
 V_F (flaps down) 170 mph I.A.S.
 V_{le} (landing gear extended) 195 mph I.A.S.
 $V_{automatic\ pilot}$ 250 mph I.A.S.

Maximum Weight: Take-off 68,000 lb.
Landing 65,000 lb.

Permissible Freight Load: 20,000 lb. (max.).
For Approved Loading Instructions, refer to A.V. Roe, York Aircraft, Servicing and General Notes, Pages 12 through 16.

Datum: 15.25 inches forward of the datum face of the front spar.

C.G. Range: Landing gear extended or retracted.
(Take-off or landing)
Fwd C.G. 38 inches aft of datum.
Aft. C.G. 58 inches aft of datum.

Minimum Crew: 2 - Pilots
1 - Navigator, radio operator or flight engineer (optional)
Special crew as authorized by the Minister.
No other person to be carried.

Fuel Capacity: 2478 Imperial Gallons (max.)
Fuselage tank 580 Imp. Gal. (+59)
No. 1 Tanks 904 Imp. Gal. (+59)
No. 2 Tanks 766 Imp. Gal. (+60)
No. 3 Tanks 228 Imp. Gal. (+70)

Oil Capacity: 150 Imperial Gallons (Max.) (+11)

Control Surface Movements: See A.V. Roe, York Aircraft, Servicing and General Notes, Page 34.

Serial Nos. Eligible: 136, 167, 185, 203, 237, 287, 290, 291 and 294.

Required Equipment: Performance Schedule for the Avro (685) York C.1
Weight and Balance Report Flight Manual or
Loading Instructions Pilots' Notes
Operation Manual

Propeller and Propeller Accessories: 4 Hamilton Standard, constant speed, fully feathering, Type PA5/159, 3 bladed metal.
Diameter 13 ft. 0 in.

NOTE 1. Merlin 24-2 engines if modified by Rolls-Royce Mods up to and including Mod. No. 2696 have a service life of 500 hours. Merlin 500 Series have a service life of 1000 hours with a block change at 500 hours.

Spark plugs Lodge Type LR-3R.

NOTE 2. The following placard must be placed over the entrance door:
"CERTIFIED FOR CARGO ONLY." (All except Serial No. 294)
"RESTRICTED" (Serial No. 294)
The following placard shall be displayed on the instrument panel in full view of the pilots:
"CONTINUOUS ENGINE OPERATION PROHIBITED BETWEEN 2450 AND 2600 RPM FOR BOOSTS IN EXCESS OF 6 LB. PER SQ. IN."

NOTE 3.

Aircraft serial No. 294 which has been modified in accordance with Spartan Air Services drawings Nos. 1785A and 1786A is approved for either aerial survey work or for cargo carrying.

For aerial survey work, the crew is limited to that necessary for safe operation of the aircraft and for the operation of the survey and navigation equipment. Maximum number of persons to be on board limited to 6 for aerial survey work.

For cargo carrying, the forward paratroop dropping exit floor must be replaced.



H.S. Rees,
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