

**AIRPLANE MODELS**

**ENGINE MODELS**

**V-1710-85**

**TAKE-OFF, CLIMB & LANDING CHART**

**P-39Q-1-BE**

**TAKE-OFF DISTANCE (IN FEET)**

GROSS WEIGHT (IN LBS.)	HARD SURFACE RUNWAY				SOFT-TURF RUNWAY				SOFT SURFACE RUNWAY							
	AT 3,000 FT.		AT 6,000 FT.		AT 3,000 FT.		AT 6,000 FT.		AT 3,000 FT.		AT 6,000 FT.					
	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL				
8100	0	1650	2800	2000	3650	2250	1700	2650	2300	3500	1800	2750	2150	3250	2850	3650
	20	1150	1950	1400	2650	1650	1450	2400	1650	2700	1250	2050	1550	2500	1800	2600
	40	700	1350	900	1650	1100	1300	1700	1150	1850	800	1450	1000	1750	1200	2000
	0	1350	2150	1850	2500	1950	1400	2250	2000	3000	1450	2250	1750	2650	2100	3150
7600	0	900	1550	1150	1850	1400	1200	1900	1450	2300	1000	1850	1250	1950	1500	2350
	20	550	1050	700	1300	900	1100	1550	950	1600	650	1150	800	1400	1000	1650
	40	1150	1850	1400	2200	1700	1500	2400	1750	2600	1250	2000	1500	2350	1800	2700
	0	800	1350	950	1600	1200	1400	1900	1050	2000	800	1450	1050	1700	1300	2050
7200	0	450	800	600	1100	750	1300	950	850	1400	500	950	800	1250	950	1400
	20	1150	1850	1400	2200	1700	1500	2400	1750	2600	1250	2000	1500	2350	1800	2700
	40	1150	1850	1400	2200	1700	1500	2400	1750	2600	1250	2000	1500	2350	1800	2700
	0	1150	1850	1400	2200	1700	1500	2400	1750	2600	1250	2000	1500	2350	1800	2700

NOTE: INCREASE DISTANCE 10% FOR EACH 10°C (50°F) ABOVE 0°C (32°F)

ENGINE LIMITS FOR TAKE-OFF 3000 RPM & 61.5 IN. HG

**CLIMB DATA**

GROSS WEIGHT (IN LBS.)	COMBAT MISSIONS USE 3000 RPM & 48.5 IN. HG				FERRY MISSIONS USE 2300 RPM & 31 IN. HG													
	AT 3,000 FT. ALT.		AT 6,000 FT. ALT.		AT 3,000 FT. ALT.		AT 6,000 FT. ALT.											
	BEST I.A.S.	TIME FROM S.L.	PT./MIN.	PWR. FROM S.L.	BEST I.A.S.	TIME FROM S.L.	PT./MIN.	PWR. FROM S.L.										
8100	160	2700	1.1	180	2850	1.9	2550	3.8	30	155	2050	6.0	34	135	750	13.1	38	
	140	950	3.1	140	950	5.2	140	900	10.5	31	140	750	16.4	39	140	650	30.7	42
7600	175	3200	0.9	175	3200	1.6	175	3150	3.1	28	175	2600	4.9	32	150	1200	10.1	34
	150	1800	2.3	150	1800	3.9	150	1250	7.7	28	160	1200	11.8	38	160	1050	20.8	35
7200	175	3850	0.9	175	3850	1.4	175	3350	2.9	28	175	2800	4.5	31	145	1350	9.8	33
	150	1950	2.1	150	1950	3.5	150	1450	7.0	27	150	1300	10.8	32	150	1200	18.5	33

NOTE: INCREASE ELAPSED CLIMBING TIME % FOR EACH 10°C ABOVE 0°C FREE AIR TEMPERATURE & EMERGENCY MAXIMUM FOR 15 MINUTES. FUEL INCLUDES WARM-UP AND TAKE-OFF ALLOWANCE

\* COMBAT MISSIONS USE TAKE-OFF POWER FOR 5 MINUTES & EMERGENCY MAXIMUM FOR 15 MINUTES.

**LANDING DISTANCE (IN FEET)**

GROSS WEIGHT (IN LBS.)	HARD DRY SURFACE				SOFT SURFACE (IN FEET)									
	AT 3,000 FT.		AT 6,000 FT.		AT 3,000 FT.		AT 6,000 FT.							
	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL	TO CLEAR 50' OB.	GROUND ROLL						
8100	1800	1050	1850	2100	1900	1200	2050	1500	1400	1900	1250	2500	1800	3000
	1700	1000	1800	1950	1800	1100	1950	1200	1200	1800	1000	2300	1750	2800
7600	1800	1050	1850	2100	1900	1200	2050	1500	1400	1900	1250	2500	1800	3000
	1700	1000	1800	1950	1800	1100	1950	1200	1200	1800	1000	2300	1750	2800

NOTE: FOR GROUND TEMPERATURES ABOVE 35°C (95°F) INCREASE APPROACH I.A.S. 10% AND ALLOW 20% INCREASE IN GROUND ROLL.

**REMARKS**

\* 130 BEST I.A.S. APPROACH POWER OFF; 110 BEST I.A.S. APPROACH POWER ON.

**LEGEND**

I.A.S. Indicated Air Speed  
 APPROX. All distances are averages, and subject to considerable variations because of differences in pilot technique, load, C.G., etc.  
 \* 130 BEST I.A.S. APPROACH POWER OFF; 110 BEST I.A.S. APPROACH POWER ON.