

Learjet 45 Reference Speeds and Weights

Jon Dyer 3 March 2021

SPEEDS	Learjet 45	Learjet 45
Source	Flight Sim (FS2004) etc.	Aeroplane Flight Manual
M_{MO}	M0.81	M0.81
V_{MO}	330	330
V_A	20,200 lbs 40,000ft: 245 20,000ft: 225 SL: 198 12,500 lbs 40,000ft: 195 20,000ft: 163 SL: 150	21,500 lbs 36,000ft: 267 20,000ft: 235 SL: 205 14,000 lbs 45,000ft: 215 20,000ft: 175 SL: 159
V_{LO} / V_{LE}	V_{LE} : 260 V_{LO} : 200	V_{LE} : 260 V_{LO} : 200
V_{FE}	flaps 8°: 250 flaps 20°: 200 flaps 40°: 150	flaps 8°: 250 flaps 20°: 200 flaps 40°: 150
V_C	425 to 468	425 to 468
$V_{Cruise\ Climb}$	250?	240
V_Y	160?	160
V_X		
$V_{Best\ Glide / Range}$	160	160
V_2	20,200 lbs: 130 13,200 lbs: 120	21,500 lbs: 130 14,000 lbs: 115
V_R	20,200 lbs: 119 13,200 lbs: 108	21,500 lbs: 119 14,000 lbs: 107
V_1	20,200 lbs: 119 1,3200 lbs: 106	21,500 lbs: 119 14,000 lbs: 106
$V_{REF} (V_{APPR})$ flaps down - typical	20,200 lbs: 123 13,200 lbs: 103	21,500 lbs: 128 14,000 lbs: 106
V_{MCA} (Red Line)		flaps 8°: 103 flaps 20°: 101
V_{MGC}		102
V_{MCL}		flaps 8°: 105 flaps 40°: 98
V_{SI}	112	22,000 lbs: 115 14,000 lbs: 95
V_{SO}	99	22,000 lbs: 104 14,000 lbs: 86
Max. Crosswind	30	30

WEIGHTS	Learjet 45 (lbs / kg)	Learjet 45 (lb s/ kg)
Max Ramp	20,500 / 9,300	21,750 / 9,865
Max Takeoff MTOW	20,200 / 9,163	21,500 / 9,752
Max Landing MLW	19,200 / 8,700	19,200 / 8,700
Max Zero Fuel ZFW _{MAX}	16,000 / 7,257	16,000 / 7,257
Min Flight		14,000 / 6,350
Empty	12,550 / 5,698	12,550 / 5,698
Max Useful Load	7,650 / 3,470	7,650 / 3,470
Max Fuel	6,062 / 2,750	6,062 / 2,750
Max Baggage	500 / 227	500 / 227
Engine/Thrust (lbs)	Garrett TFE731/3,500	Garrett TFE731/3,500
Length (m)	18	18
Seats	9 (+2 crew)	9 (+2 crew)
Range (nm)	2120	2120