

LET BLANIK L-23 N914B *s/n 917914 KIAS* USE at YOUR OWN RISK

Czechoslovakian (Czech Republic) – LET Aircraft Co.

AIR SPEEDS & PERFORMANCE (KIAS)

Best L/D – 49 (~175'/min), 28:1, Approx. 215'/nm (zero wind, optimal)

Min Sink – 43 (~161'/min) Vs - 34

Va – 81 Vra – 86 Vt – 81 (Recommended 54-70) Vw (max winch) - 65

Vlo – 133 (PSSA normally keeps landing gear down at all times)

Vne – 133 (SL – 11,000' PA), 111 (20,000' PA)

Decrease Vne ~2kts/1,000' from 133 above 11,000' PA

Max. Demonstrated crosswind: 16 kts

Max. Demonstrated Altitude: 13,780' PA

Wing Span – 53.5', Aspect Ratio – 13.7

Wing Loading at 1124 lbs - 5.45 lbs/ft², 27 kg/M²

Green Arc, Vno – 36-86

Yellow Arc, Smooth Air – 86-133

Yellow Triangle – 41 (Approach Speed – 1124 lb Max GW),
add ~ 5kts w/air brakes

WEIGHTS & LOADING

Max GW = 1,124 lbs (two occupants), 925 (solo)

EW = 710 Max. Useful = 414

Empty CG = 26.73" Mom = 18,981 lb-ins Empty MAC = 68.23 %

Min Pilot Wt Solo = 154 (no ballast) Max Pilot Solo = 242

Min Pilot Wt Solo w/Front Seat Optional 33 lb Ballast cushion = 121

Max Baggage = 22

Allowed CG range 23%-40% MAC or 98"-106.4" from fuselage nose

Solo Front Seat Only

AEROTOW

Max Cable strength (per GFM) – 1460 lbs (less than FAA "200% rule"!!)

Min cable length – 50', recommended 100'-130'

Cruise Vt – 81 kts

Blanik POH Recommended:

Approach, Spoilers In: 41-46 (consider adding ~5 kts if a steep approach)

Approach, Spoilers Out: 43-51 (consider adding ~5 kts if a steep approach)

Aircraft is certified in the "Utility Category"

Any "Basic Aerobatics" must be logged in the aircraft logbook.

NO AEROBATICS *per PSSA Club Rules* (to limit airframe aging limits)

Steep Turns: Solo – 92, Dual – 97

Loops, Entry: Solo – 86, Dual – 97

Spins: Conventional Recovery, Max 86 kts recovery (alt loss ~390'/360°)

Max Descents: Air Brakes @ 120 kias = 9,000 fpm, 133 kias = 13,000 fpm

Side Slipping: Conventional, to increase rate of descent must also have full air brakes. Slip alone does little for descent rate

Misc:

Important to train for careful & proper canopy ops from Flight Manual

Tire Pressure: Max 37 psi

Takeoff: Trim forward of neutral, get tail off runway early, on main wheel

Landing: land on main wheel, avoid landing tail wheel first (stress on tail)

Off Field Landings: Recommend gear up if soft surface

Brake failure, emerg stop on ground: nose down

Example Wt & Balance: Pilot (180), Rear Pax (229), Bagg (5)

Takeoff Wt = 1124, CG = ~ ____ % MAC or _____"

PW-6U N766PW *KIAS* USE at YOUR OWN RISK

Polish - PZL Świdnik Aircraft Co.

AIR SPEEDS & PERFORMANCE

Best L/D – 56 (~170'/min), 34:1, Approx. 185' / nm (zero wind, optimal)

Min Sink – 51 (~160'/min) Vs - 41

Va – 89 Vra – 89 Vt – 89 (Recommended 59) Vw – 65 (max winch)

Vlo – Aircraft does not have retractable landing gear

Vne – 141 (SL – 9,843'), 135 (9,843' – 13,123')

Decrease Vne ~ 1.5 kts/1,000' from 135 above 13,000'

Max. Demonstrated Crosswind – 12 kts

Glide at best L/D: About 34:1 claimed by PZL (~180 feet/nautical mile)

Wing Span – 52.5', Aspect Ratio – 16.8

Wing Loading at 1204 lbs – 7.4 lbs/ft², 36 kg/M²

Green Arc, Vno – 45-89

Yellow Arc, Smooth Air – 89-141

Yellow Triangle – 54 (Approach Speed – Max GW)

WEIGHTS & LOADING (as of 4-6-2021)

Max GW = 1204 lbs EW = 761.0 Useful = 443

Empty CG = 26.0" (Empty limits 25.6" to 26.2") Moment = 19,786

Min Pilot Wt Solo (w/chute) = 121 (no ballast) Max Pilot Wt = 242

Max Cockpit Load (Crew + Chutes + Baggage) = 437

Max Fuselage + tailplane wt = 419 Max Baggage = 11

CG Flight Limits: 17%-42% MAC or +7.02" to +16.77" (From root leading edge)

Arms: Pilot -41.73", Pass -4.61", Battery +11.8", Bagg +11"

Solo Front Seat Only

?Use a booster cushion to improve visibility from the back seat (if <5'9" ?)

AEROTOW

Max Cable Strength - 2408 lbs

Min Cable Length – 66 ft

Recommended Aerotow, Climbing – 59

Recommended Aerotow, Cruising – 81 kts (Low-tow position not recommended by PZL as cable will rub on lower nose section)

"Circling Airspeed" 43-51 kts

Caution: Airbrake deployment over 108 kts causes sudden negative G's, deploy slowly and tighten seat belt first.

Max airbrake retraction is 89

Land on main wheel & avoid tail skid ground impact

Min Sideslip Speed: 49, Airbrakes may be in or out

Max Sideslip Speed: 70, Airbrakes may be in or out

Sideslip bank > 20 degrees, nose will turn with full opposite rudder

Aircraft is certified in the "Utility Category"

Aerobatics Allowed by Manufacturer:

(Parachute required by PW-6 Flight Manual for all aerobatics):

Spins, Loops, Stall turns, Chandelles, (See Flight Manual for entry speeds)

Loops & Chandelles, Entry: 102-108

Aerobatics: Air brakes must be locked, smooth air, and trim for 70 kts

FUSTALL: Flaps, Undercarriage, Speed, Trim, Air brakes, Look, Land

Add Speed for Bank Angle: 30°=7%, 40°=14%, 45°=19%, 50°=24%

Add Sink Rate for Bank Angle: 30°=24%, 40°=49%, 45°=68%, 50°=94%

PW-5 "SMYK" N157AJ *KIAS* USE at YOUR OWN RISK

Polish - PZL Świdnik Aircraft Co.

AIR SPEEDS & PERFORMANCE

Best L/D – 51 (~170'/min), 32:1, Approx. 200' / nm (zero wind, optimal)

Min Sink – 44 (~140'/min) Vs - 35

Va – 81 Vra – 81 Vt – 81 (Recommended 59) Vw (max winch)- 65

Vlo – Aircraft does not have retractable landing gear

Vne – 115 (SL- 16,400')

Maximum Altitude – flight above 16,400' prohibited

Max. Demonstrated Crosswind – 12 kts

Glide at best L/D: About 32:1 claimed by PZL (~190 feet/nautical mile)

Wing Span – 44', Aspect Ratio – 17.8

Wing Loading – 6.1 lbs/ft², 30 kg/M²

Green Arc, Vno – 38-81

Yellow Arc, Smooth Air – 81-115

Yellow Triangle – 51 (Approach Speed – Max GW)

WEIGHTS & LOADING (3/23/2015)

Max GW = 661.4 lbs EW = 418 Useful = 243.4

Empty CG = 22.73" Moment = 9494

Above is without oxygen tank or regulator

Min Pilot + Chute Wt = 121 (no ballast) Max Pilot + Chute Wt = 243

If Pilot + Chute < 132, seat must be full forward

Max Cockpit Load - 242

Max Fuselage + tailplane wt = 247 Max Baggage = 11

CG Limits: 20%-42% MAC or 9.25"-16.14" (From root cord leading edge)

AEROTOW

Max Cable Strength (per GFM) - 1573 lbs , (FAA limit might be 1328...)

Min Cable Length – 66 ft

Recommended Aerotow, Climbing – 60

Recommended Aerotow, Cruising – 81 kts (Low-tow position not recommended by PZL as cable will rub on lower nose section)

"Circling Airspeed" 43-46 kts

Caution: Airbrake deployment over 92 kts causes sudden negative G's, deploy slowly and tighten seat belt first.

Max airbrake retraction is 81

Recommended Approach: 51

Land on main wheel & avoid tail skid ground impact

Min Sideslip Speed: 49, Airbrakes may be in or out

Sideslip bank > 20 degrees, nose will turn with full opposite rudder

Aircraft is certified in the "Utility Category"

Aerobatics Allowed by Manufacturer:

Spins, Loops, Stall turns (See Flight Manual for entry speeds)

Loops, Entry: 92-97

Aerobatics: Air brakes must be locked, smooth air, and trim for 70 kts

Canopy Jettison Procedure:

1. Pull handle fully 2. Push up on front canopy

3. Release safety belt/harness 4. Bail Out

Formulas:

Load Factor (g's) = 1/cos(bank angle)

Stall speed = Vs x (Load Factor ^0.5) (square root of the load factor)

Min Sink Speed (Vms) = Vms x (Load Factor ^0.5)

Sink rate = Level sink rate x (Load Factor ^1.5)