



Van's Aircraft RV-9A

Pilot's Operating Handbook

N807LK

PERFORMANCE – SPECIFICATIONS

SPAN	28' 0"
LENGTH	20' 5"
HEIGHT	7' 10"
SPEED (Gross Weight):	
Maximum at Sea Level	194 mph
Cruise, 75% Power at 8000 ft	186 mph
RANGE (includes 3 gal. for taxi, takeoff & climb):	
75% @ 8000 ft, no reserve	700 sm
55% @ 8000 ft, no reserve	850 sm
75% @ 8000 ft, one hour (8 gal) reserve	513 sm
55% @ 8000 ft, one hour (8 gal) reserve	684 sm
RATE OF CLIMB @ SEA LEVEL (Solo Weight)	1900 fpm
SERVICE CEILING	24,500 ft
TAKEOFF PERFORMANCE (Gross Weight)	475 ft
LANDING PERFORMANCE (Gross Weight)	450 ft
STALL SPEED (CAS):	
Flaps Up, Power Off	54 mph
Flaps Down, Power Off	49 mph
MAXIMUM WEIGHT (Normal Category)	1800 lbs
MAXIMUM WEIGHT (Utility Category)	1600 lbs
EMPTY WEIGHT	1102 lbs
MAXIMUM USEFUL LOAD	648 lbs
BAGGAGE ALLOWANCE	100 lbs
WING LOADING (Pounds/ Sq. Ft)	15.35 lb/sq ft
POWER LOADING (Pounds/ HP)	10.9 lb/hp
FUEL: Capacity	36 Gallons
Type	100LL Avgas
OIL CAPACITY	8 Quarts
ENGINE	Aero Sport O-320-D1A
PROPELLER	Hartzell C2YL-1BF/F7663-4



PERFORMANCE

Cruise Performance @ 2500 ft and below (Standard OAT):

TAS MPH	RPM	MAP	Fuel Flow	Power
	2500	24"	10.0 gph	75%
	2300	23"	8.8 gph	64%
	2300	20"	7.8 gph	57%

Cruise Performance @ 8000 ft (Standard OAT):

TAS MPH	RPM	MAP	Fuel Flow	Power
186	2500	23"	10.0 gph	75%
176	2400	21"	8.8 gph	64%
166	2300	20"	7.8 gph	57%

Fuel flows are based on Peak CHT enriched by 50 degrees F.

No Wind Range @ 8000 ft:

- * All range calculations include 3 gallons for engine start, taxi, takeoff and climb.
- * Engine is leaned for best economy.

One hour (8 gal.) reserve:

75% Power	620 sm
65% Power	660 sm
55% Power	745 sm

No Reserve:

75% Power	805 sm
65% Power	890 sm
55% Power	995 sm

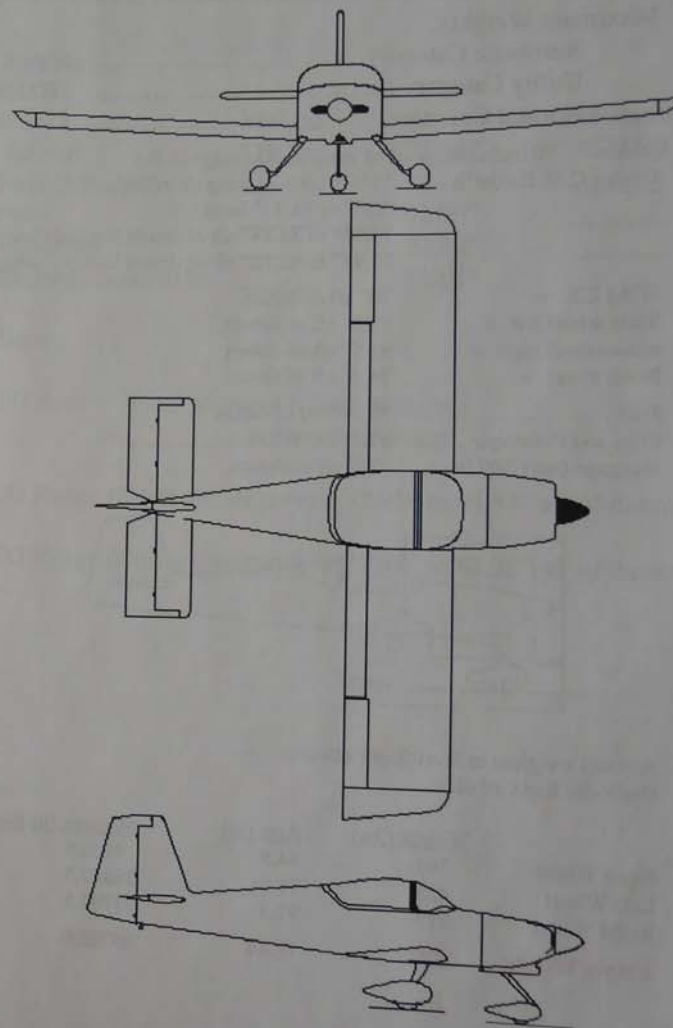
AIRSPEED LIMITATIONS

	SPEED	IAS	REMARKS
V_{NE}	Never Exceed Speed	209 mph	Do not exceed this speed in any operations.
V_{NO}	Maximum Structural Cruising Speed	180 mph	Exceed this speed only in smooth air.
V_A	Maneuvering Speed	132 mph	Do not make full control movements above this speed. Full elevator deflection will result in a 6g load at this speed.
V_{FE}	Maximum Flap Extended Speed	100 mph	Do not exceed this speed with flaps down
V_Y	Best Rate of Climb	86 mph	
V_X	Best Angle of Climb	74 mph	
V_S	Stall Speed Clean	54 mph	
V_{SO}	Stall Speed Landing Configuration	49 mph	

AIRSPEED INDICATOR MARKINGS

MARKING	IAS RANGE OR VALUE	DEFINITION
White Arc	49 – 100 mph	Full Flap Operating Range. Lower limit is V _{SO} . Upper limit is maximum speed with flaps extended
Green Arc	54 – 180 mph	Normal Operating Range. Lower limit is V _S . Upper limit is maximum structural cruising speed
Yellow Arc	180 – 209 mph	Operations must be conducted with caution and only in smooth air.
Red Line	209 mph	Maximum speed for all operations

RV-9A



WEIGHT & BALANCE DATA

Make: Levon G King
Serial Number: 91528

Model: Vans RV-9A
Registration: N807LK

Maximum Weights:

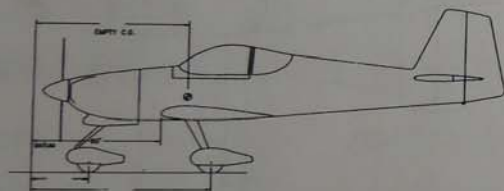
Aerobatic Category N/A
Utility Category 1600 lbs
Normal Category 1750 lbs

Datum = 70 inches forward of wing leading edge (L.E.)

Design C.G. Range = 15% to 28% of wing chord
7.95" to 14.84" from L.E.
77.95" to 84.84" aft of datum Normal Category
77.95" to 82.72" aft of datum Utility Category

Wing L.E. = 70" aft of datum
Main wheel left = 91.5" aft of datum
Main wheel right = 91.5" aft of datum
Nose wheel = 34.5" aft of datum

Fuel 76.75" aft of datum
Pilot and Passenger 92.7" aft of datum
Baggage (max 100 lb) ... 122" aft of datum



Aircraft weighed in level flight attitude.
(Includes 8 qts. of oil)

	Weight (lbs)	Arm (in)	Moment (in-lbs)
Nose Wheel	264	34.5	9108.0
Left Wheel	425	91.5	38887.5
Right Wheel	413	91.5	37789.5
Empty Weight	1102	77.84	85785.0

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WEIGHT AND BALANCE CALCULATION

Sample:

	Weight	Arm	Moment
Aircraft	1102	77.84"	85785.0
Fuel (6 lbs/gal)	_____	76.75"	_____
Pilot	_____	92.70"	_____
Passenger	_____	92.70"	_____
Baggage (max 100 lb)	_____	122.0"	_____
Total	_____	_____	_____

CG Arm = Total Moment / Total Weight
= _____ inches aft of datum

CG Range (Normal Category) = 77.95" to 84.84" aft of datum

CG Range (Utility Category) = 77.95" to 82.72" aft of datum

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SAMPLE W&B:

Max. Gross Weight			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (36 gal)	216	76.75	16,578
Pilot	200	91.50	18,300
Passenger	170	91.50	15,555
Baggage	60	122.0	7,320
Total	1,748		143,538
CG:	82.12		
Zero Fuel CG	82.87		

Most Aft CG (Min Fuel)			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (5 gal)	30	76.75	2,303
Pilot	200	91.50	18,300
Passenger	170	91.50	15,555
Baggage	60	122.0	7,320
Total	1,562		129,263
CG:	82.75		
Zero Fuel CG	82.87		

Most Forward CG (Min Pilot Wt.)			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (36 gal)	216	76.75	16,578
Pilot	100	91.50	9,150
Passenger	0	91.50	0
Baggage	0	122.0	0
Total	1,418		111,513
CG:	78.64		
Zero Fuel CG	78.98		

Full Baggage, No Pax			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (36 gal)	216	76.75	16,578
Pilot	200	91.50	18,300
Passenger	0	91.50	0
Baggage	100	122.0	12,200
Total	1,618		132,863
CG:	82.12		
Zero Fuel CG	82.94		

Most Forward CG (Std Pilot Wt.)			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (36 gal)	216	76.75	16,578
Pilot	200	91.50	18,300
Passenger	0	91.50	0
Baggage	0	122.0	0
Total	1,518		120,663
CG:	79.49		
Zero Fuel CG	79.94		

Max GW (Heavy Pilot, Reduced Fuel)			
Item	Weight	Arm	Moment
Aircraft	1,102	77.84	85,785
Fuel (27 gal)	162	76.75	12,434
Pilot	250	91.50	22,875
Passenger	170	91.50	15,555
Baggage	60	122.0	7,320
Total	1,744		143,969
CG:	82.55		
Zero Fuel CG	83.14		

PREFLIGHT INSPECTION

CABIN

1. Documentation – Available In Airplane
2. Aeronautical Charts – CURRENT AND APPROPRIATE TO FLIGHT
3. Seat Belt Securing Control Stick – RELEASE
4. Ignition Switches – OFF
5. Avionics Switch – OFF
6. Key – ON
7. Master Switch – ON
8. Fuel Quantity – CHECK QUANTITY – verify monitor reset as required
9. Flaps – DOWN
10. Master Switch – OFF

EMPENNAGE

1. Tail Tie-Down – DISCONNECT
2. Control Surfaces – CHECK freedom of movement and security
3. Trim Tab – CHECK position and security
4. Static Sources (both sides of fuselage) – CHECK for blockage

RIGHT WING

1. Flap – CHECK security
2. Aileron – CHECK freedom of movement and security
3. Nav and Strobe Light – CHECK condition
4. Landing Light – CHECK condition
5. Wing Tie-Down – DISCONNECT
6. Fuel Quantity – CHECK VISUALLY
7. Fuel Filler Cap – SECURE
8. Main Wheel Tire – CHECK for proper inflation
9. Chock – REMOVE
10. Right Wing Tank – SUMP



PREFLIGHT (Cont'd)

NOSE

1. Engine Oil Level – CHECK – do not operate with less than 5 quarts
2. Engine Block Heater – DISCONNECT
3. Cowl Hinge Pins and Oil Door Camlocks – CHECK for security
4. Gascolator – SUMP
5. Propeller and Spinner – CHECK for nicks and security
6. Air Inlet – CHECK for restrictions
7. Nose Wheel Tire – CHECK for proper inflation
8. Fuel Tank Vents – CHECK for blockage

LEFT WING

1. Main Wheel Tire – CHECK for proper inflation
2. Chock – REMOVE
3. Left Wing Tank – SUMP
4. Fuel Quantity – CHECK VISUALLY
5. Fuel Filler Cap – SECURE
6. Pitot Tube Cover – REMOVE and check for blockage
7. Wing Tie-Down – DISCONNECT
8. Landing Light – CHECK condition
9. Nav and Strobe Lights – CHECK condition
10. Aileron – CHECK freedom of movement and security
11. Flap – CHECK security



NORMAL PROCEDURES

BEFORE STARTING ENGINE

1. Preflight Inspection – COMPLETE
2. Seat Belts and Shoulder Harnesses – ADJUST and LOCK
3. Canopy – OPEN OR CLOSED DEPENDING ON WEATHER
4. Fuel Selector Valve – LEFT TANK
5. Avionics and Electrical – OFF
6. Brakes – SET

STARTING ENGINE (COLD)

1. Prop – HIGH RPM
2. Master Switch – ON
3. Strobes – ON
4. Flaps – UP
5. Alternate Intake Air – OFF
6. Carburetor Heat – COLD
7. Boost Pump – ON, verify pressure, then OFF
8. Mixture – RICH
9. Fuel Primer – AS REQUIRED
10. Throttle – CLOSE, then OPEN 1/4"
11. Propeller Area – CLEAR visual & verbal
12. Ignition Switches – ON (mag & electronic)
13. Starter – Rotate key to START
14. Throttle – ADJUST to 1000 rpm
15. Avionics – ON
16. Oil Pressure – CHECK for 25 psi minimum at idle
17. Alternator – ON

STARTING ENGINE (HOT)

1. Prop – HIGH RPM
2. Master Switch – ON
3. Strobes – ON
4. Flaps – UP
5. Mixture – RICH
6. Boost Pump – ON, verify pressure, then OFF
7. Throttle – CLOSE, then OPEN 1/2"

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8. Propeller Area – CLEAR visual & verbal
 9. Ignition Switches – ON (mag & electronic)
 18. Starter – Rotate key to START
 10. Throttle – ADJUST to 1000 rpm
 11. Avionics – ON
 12. Oil Pressure – CHECK for 25 psi minimum at idle
 13. Alternator – ON

BEFORE TAKEOFF (Taxi w/Stick Aft)

1. Brakes – SET
2. Flight Controls – FREE and CORRECT
3. Flight Instruments – SET
4. Altimeter and EFIS – SET CURRENT BARO PRESSURE, VERIFY DG
5. Fuel Selector Valve – VERIFY desired tank
6. Fuel pump – ON
7. Elevator and Aileron Trim – NEUTRAL
8. Throttle – SET 1800 rpm
9. Carburetor Heat – CHECK for rpm drop, then OFF
10. Magneto rpm drop – CHECK (Max 175)
11. Electronic Ignition rpm drop – Check (may be no drop)
12. Prop – CYCLE (Max 500 rpm drop)
13. Engine Instruments – CHECK
14. Throttle – IDLE
15. Radios – SET
16. Transponder – verify ALT ON
17. EFIS Flight Timer – CHECK
18. Cabin heat/ventilation – ON or OPEN as required
19. Canopy – Side & Main Latch – **SECURE**

NORMAL TAKEOFF

1. Wing Flaps – UP
2. Throttle – FULL OPEN
3. Engine instruments – VERIFY oil pressure & fuel pressure
4. Elevator Control – LIFT NOSE WHEEL (at 55 IAS)
5. Climb Speed – 110 IAS



SHORT FIELD TAKEOFF

1. Wing Flaps – 10 DEGREES
2. Prop – HIGH RPM
3. Brakes – APPLY
4. Throttle – FULL OPEN
5. Engine instruments – VERIFY oil pressure & fuel pressure
6. Stick – FULL BACK
7. Brakes – RELEASE
8. Climb Speed – 80 IAS (Vy)

ENROUTE CLIMB

1. Airspeed – 110 - 130 IAS
2. Throttle – 25 in Hg, or full throttle
3. Prop – 2500 RPM
4. Fuel Pressure – CHECK
5. Fuel pump – OFF, then verify pressure
6. Engine gauges – CHECK

CRUISE

(65% Power)

1. Throttle – 23" Hg manifold pressure
2. Prop – 2300 rpm
3. Trim – ADJUST as required
4. Mixture – ADJUST as necessary

LANDING

1. Fuel Selector – consider to FULLEST tank
2. Carburetor Heat – PULL, then as required
3. Slow to 100 IAS
4. Flaps – as required
5. Prop – HIGH rpm when ungoverned
6. Mixture – Full RICH or as required
7. Landing Lights – as required
8. Land on MAIN GEAR ONLY
9. Roll out with stick held aft

POSTFLIGHT

AFTER LANDING

1. Fuel pump – OFF
2. Trim – set to TAKEOFF
3. Wing Flaps – DOWN
4. Lights – OFF as required

ENGINE SHUTDOWN

1. Avionics – OFF
2. Electrical – OFF
3. Throttle – IDLE
4. Mixture – OUT
5. Ignition Switches – OFF
6. Strobes – OFF
7. Flaps – DOWN
8. Alternator – OFF
9. Master Switch – OFF

SECURING AIRCRAFT

1. Wheel Chocks – INSTALL
2. Wing & Tail Tie-Down – INSTALL as required
3. Pitot Tube Cover – INSTALL as required
4. Cockpit – CLEAN & SECURE
5. Master and Electrical Switches – verify OFF
6. Key – REMOVE as required
7. Engine Monitor Fuel Quantity – RESET after refueling

N807LK

ANNUAL CONDITION INSPECTION REPORT

HOURS: _____
MAKE: RV-9A
REGISTRATION: N807LK

SERIAL NUMBER: 91528
DATE: _____

DESCRIPTION:

COMMENTS

PROPELLER GROUP

1. Inspect spinner and back plate....
2. Inspect blades for nicks and cracks....
3. Check for grease and oil leaks....
4. Check spinner mounting brackets....
5. Check propeller mounting bolts and safety....
6. Inspect hub parts for cracks and corrosion....

ENGINE GROUP

1. Remove engine cowl....
2. Clean and check cowling for cracks, distortion and loose or missing fasteners....
3. Drain oil sump...
4. Remove, inspect, and replace oil filter
5. Check oil temp. sender for leaks and security....
6. Check oil lines and fittings for leaks, chafing security, dents and cracks....
7. Check battery boxes, batteries and cables...
8. Clean and check oil cooler fins....
9. Fill engine with oil per lubrication chart...
10. Clean engine....
11. Check condition of spark plugs, adjust gap....
12. Check ignition harness and insulators....
13. Conduct a compression check...
#1 ____/80, #2 ____/80, #3 ____/80, #4 ____/80
14. Check magneto timing...
15. Remove air filter and clean....
16. Check intake seal for leaks and clamps for tightness....
17. Clean screens in gascolator....
18. Inspect condition of fuel lines....
19. Check fuel system for leaks....
20. Check engine control - throttle
21. Inspect exhaust stacks, connections, gaskets....

22. Inspect heat exchange and baffles....
23. Check breather tube for obstructions and security....
24. Check crankcase for cracks, leaks, security of bolts....
25. Check engine mounts for cracks and loose mountings.....
26. Check firewall seals....
27. Check condition and tension of alternator and drive belt....
28. Check condition of starter....
29. Check fluid in brake reservoir....
30. Lubricate all controls....
31. Reinstall engine cowl....

CABIN GROUP

1. Inspect canopy and windows....
2. Check upholstery for tears....
3. Check seats, seat belts, shoulder straps....
4. Check trim operation...
5. Check rudder pedals...
6. Check electric fuel pump for operation....
7. Check fuel filter....
8. Check control column, systems and connection....
9. Check landing, nav, cabin, and instrument lights...
10. Check instruments, lines and attachments....
11. Check operation of fuel selector valve....
12. Check condition of heater controls....
13. Check condition and operation air vents....

FUSELAGE AND EMPENNAGE GROUP

1. Remove inspection plates and panels...
2. Check electronic installations....
3. Check bulkheads and stringers for damage...
4. Check antenna mounts and wiring....
5. Check fuel lines and valves....
6. Check vertical fin and rudder surfaces....
7. Check rudder horn and attachment....
8. Check vertical fin attachments....
9. Check rudder bolts for wear...
10. Check horizontal stabilizer and elevators...
11. Check horizontal stabilizer attachment...
12. Check elevator trim servo for wear and operation...
13. Check elevator horn...
14. Check elevator bolts for wear...
15. Check elevator bell cranks and controls....
16. Lubricate all bearings as needed....
17. Reinstall inspection plates and panels....

WING GROUP

1. Remove inspection plates...
2. Check surfaces and tip for damage and loose rivets and condition of walkways....
3. Check aileron mounts and attachments....
4. Check aileron bellcrank and control tubes....
5. Check flaps and attachment for damages....
6. Check all wing attachment bolts....
7. Check fuel tanks and lines for leaks and....
8. Check fuel tank vents....
9. Reinstall inspection plates....

LANDING GEAR GROUP

1. Check nose gear travel and damper tightness....
2. Check main gear attachments...
3. Check tires for cuts and wear....
4. Remove wheel, clean, and repack bearings...
5. Check wheels for cracks, corrosion and broken bolts....
6. Check tire pressure....
7. Check brake lining and disc....
8. Check brake lines....

OPERATIONAL INSPECTION

1. Check fuel pump and fuel tank selector....
2. Check fuel pressure....
3. Check oil pressure and temperature....
4. Check alternator output....
5. Check manifold pressure....
6. Check Cabin heat operation....
7. Check throttle and mixture operation....
8. Check propeller smoothness....
9. Check electronic equipment operation....

Known problem areas:

1. Smoking rivets on forward bottom skin
2. Chafing brake lines on gear leg fairing and beneath wheel pant
3. Chaffing of wheel on wheel pant
4. Fretting corrosion at gear leg fairing intersection
5. Corrosion of exposed rod end bearings
6. Rudder contacting elevator roots in flight (dynamic clearance less than static clearance!)

NOTES:**N807LK****ENGINE INFORMATION:**

Model: Aero Sport O-320-D1A
HP: 160
Fuel: 100LL
Oil Filter: Champion CH48110

Oil: Aeroshell 80, 100, 15W-50; Phillips 20W-50

Below 10F SAE 30
Above 10F SAE 30 or 40

Oil Sump Capacity: 8 U.S. Quarts
Minimum Safe Quantity: .. 2 U.S. Quarts

OPERATING LIMITATIONS:

Oil Inlet Temp: 180 deg F Desired,
245 deg F Maximum

Oil Pressure: 100 psi Maximum
60 psi Minimum
25 psi Idle

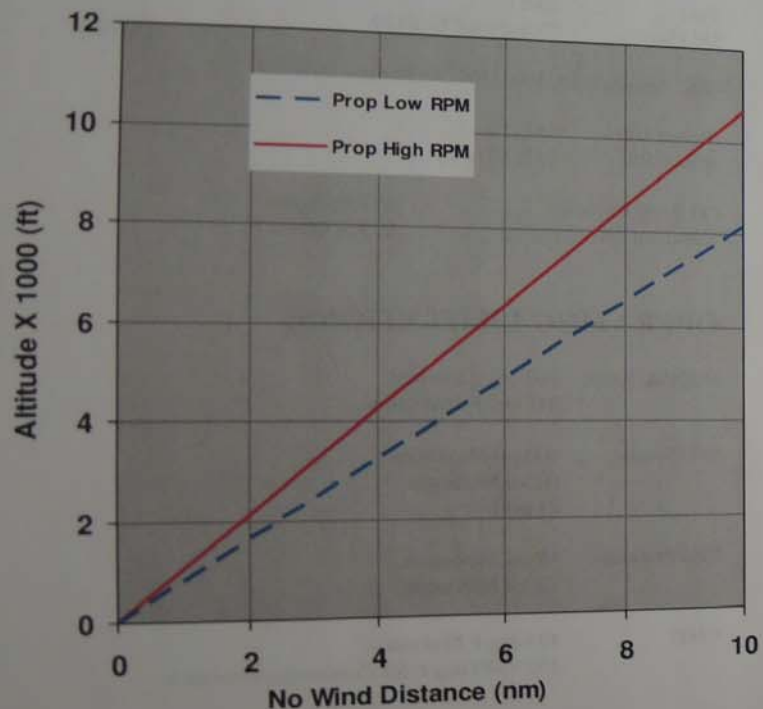
Fuel Pressure: 45 psi Maximum
12 psi Minimum

CHT: 435 deg F Maximum
150 - 380 deg F for Continuous Operation

N807LK



Engine-Out Glide Performance Airspeed 86 mph



EMERGENCY PROCEDURES

AIRSPEEDS FOR EMERGENCY OPERATIONS

Engine Failure After Takeoff:	
Wing Flaps Up	80 IAS
Wing Flaps Down	70 IAS
Maneuvering Speed (Va)	115 IAS
Maximum Glide	80 IAS

ENGINE FAILURES

ENGINE FAILURE DURING TAKEOFF RUN

1. Throttle - IDLE
2. Brakes - APPLY
3. Wing Flaps - RETRACT
4. Ignition Switches - OFF
5. Master Switch - OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. Attitude - lower NOSE
2. Airspeed - 70 IAS
3. Fuel Selector Valve - OFF
4. Ignition Switches - OFF
5. Wing Flaps - AS REQUIRED
6. Master Switch - OFF

ENGINE FAILURE DURING FLIGHT

1. Airspeed - 80 IAS
2. Fuel pump - ON
3. Fuel Selector - SWITCH TANK
4. Carb Heat / Alternate air - ON, then evaluate
5. Transponder - 7700

EMERGENCY PROCEDURES

EMERGENCY PROCEDURES

FIRE

DURING START ON GROUND

1. Cranking – CONTINUE, to attempt to start and suck flames and accumulated fuel through the carburetor into engine.

IF ENGINE STARTS:

2. Power – 1700 RPM for a few minutes
3. Engine – SHUTDOWN and inspect for damage

IF ENGINE FAILS TO START:

2. Throttle – FULL OPEN
3. Cranking – CONTINUE as required
4. Fire Extinguisher – OBTAIN
5. Engine – SECURE and inspect for damage

ENGINE FIRE IN FLIGHT

1. Fuel Selector Valve – OFF
2. Master Switch – OFF
3. Cabin Heat and Air – OFF

ELECTRICAL FIRE IN FLIGHT

1. Master Switch – OFF
2. Avionics – OFF
3. All Other Switches (except magneto) – OFF
4. Vents/ Cabin Air/ Heat – CLOSED
5. Fire Extinguisher – ACTIVATE (if available)

CABIN FIRE

1. Master Switch – OFF
2. Vents/ Cabin Heat – CLOSED
3. Fire Extinguisher – ACTIVATE (if available)

WING FIRE

1. Nav & Strobe Lights – OFF
2. Landing Lights – OFF
3. Pitot Heat – OFF

EMERGENCY PROCEDURES

EMERGENCY PROCEDURES

ELECTRICAL

ALTERNATOR FAILURE

1. Avionics – OFF
2. Alternator Switch – OFF
3. Alternator Switch – ON to reset

IF ALTERNATOR REMAINS OFF-LINE:

1. Alternator Switch – OFF
2. Electrical Switches – OFF except IGNITION
3. Avionics – OFF, then ON as required
4. Electrical Equipment – ON, as required
5. Flight – TERMINATE as soon as practical, aircraft is on BATTERY reserves only

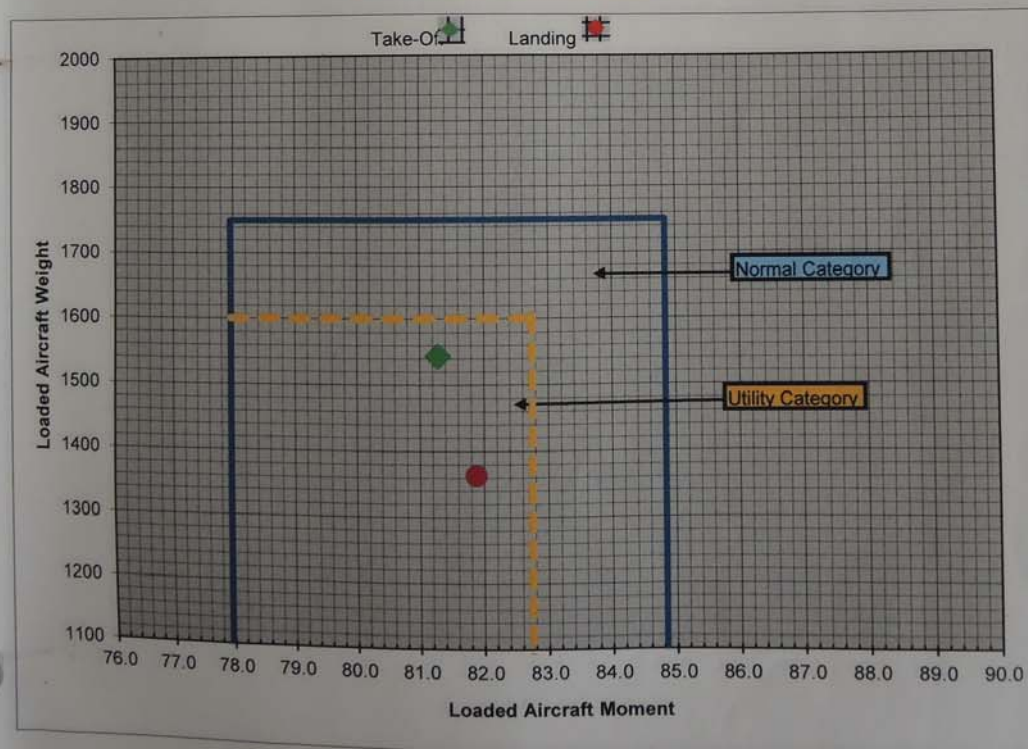
EMERGENCY PROCEDURES

Prepared: 07/07/2015

Vans RV-9A N807LK Weight and Balance Calculator		Fill in Yellow Boxes Only!	
Description	Weight (lbs.)	Moment (lb.-ins.)	Arm
Max Gross Weight	1750.00		
Nose Gear Weight	264	9108.00	34.50
Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	150	13905.00	92.70
Passenger	0	0.00	92.70
Baggage Area (Max allowable weight 100 lbs)	75	9150.00	122.00
Take-Off Weight and Moment	1543	125418.00	81.28
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1363	111603.00	81.88

Notes: Limits: **NORMAL** C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is OK
 WITHIN UTILITY Category Limits



Prepared: 07/07/2015

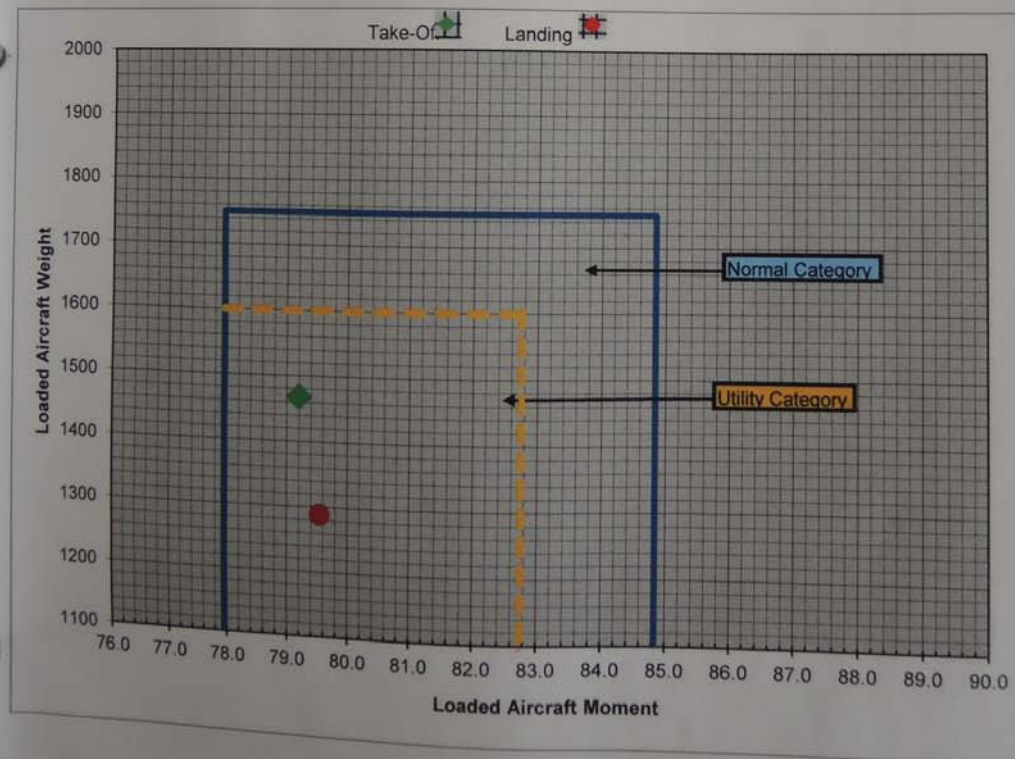
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Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	150	13905.00	92.70
Passenger	0	0.00	92.70
Baggage Area (Max allowable weight 100 lbs)	0		122.00
Take-Off Weight and Moment	1468	116268.00	79.20
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1288	102453.00	79.54

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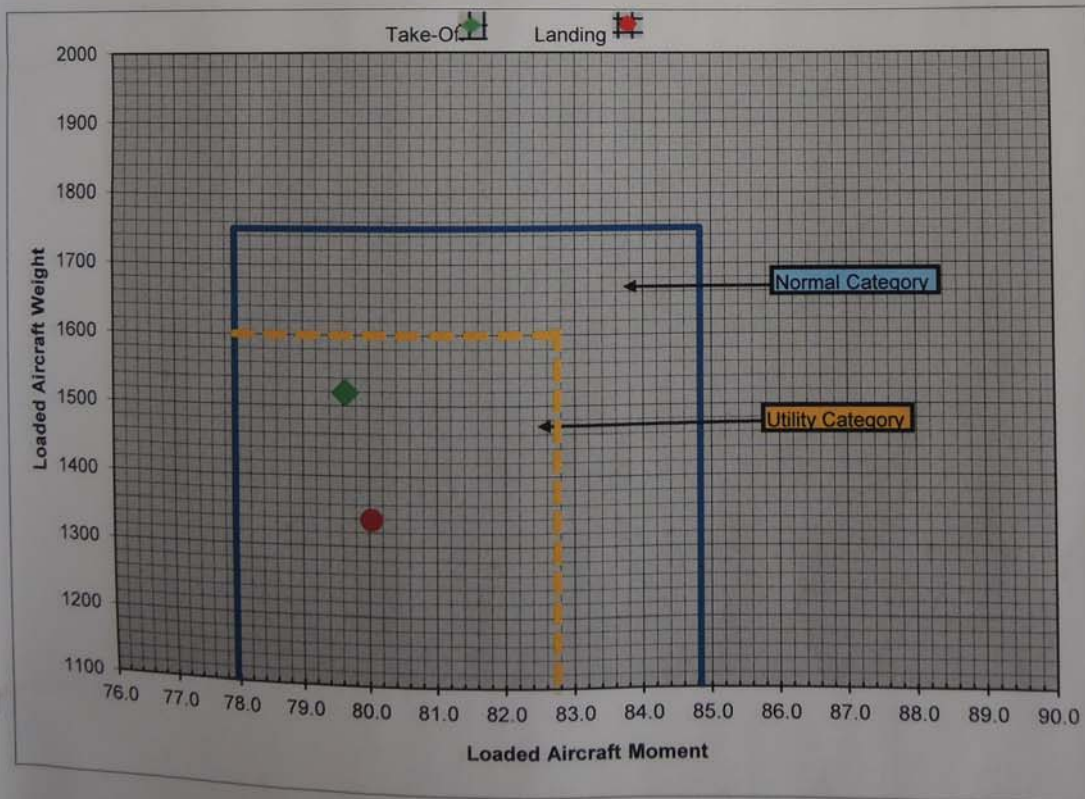
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Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	200	18540.00	92.70
Passenger	0	0.00	92.70
Baggage Area (Max allowable weight 100 lbs)	0		122.00
Take-Off Weight and Moment	1518	120903.00	79.65
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1338	107088.00	80.04

Notes: Limits: **NORMAL** C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is OK
 WITHIN UTILITY Category Limits



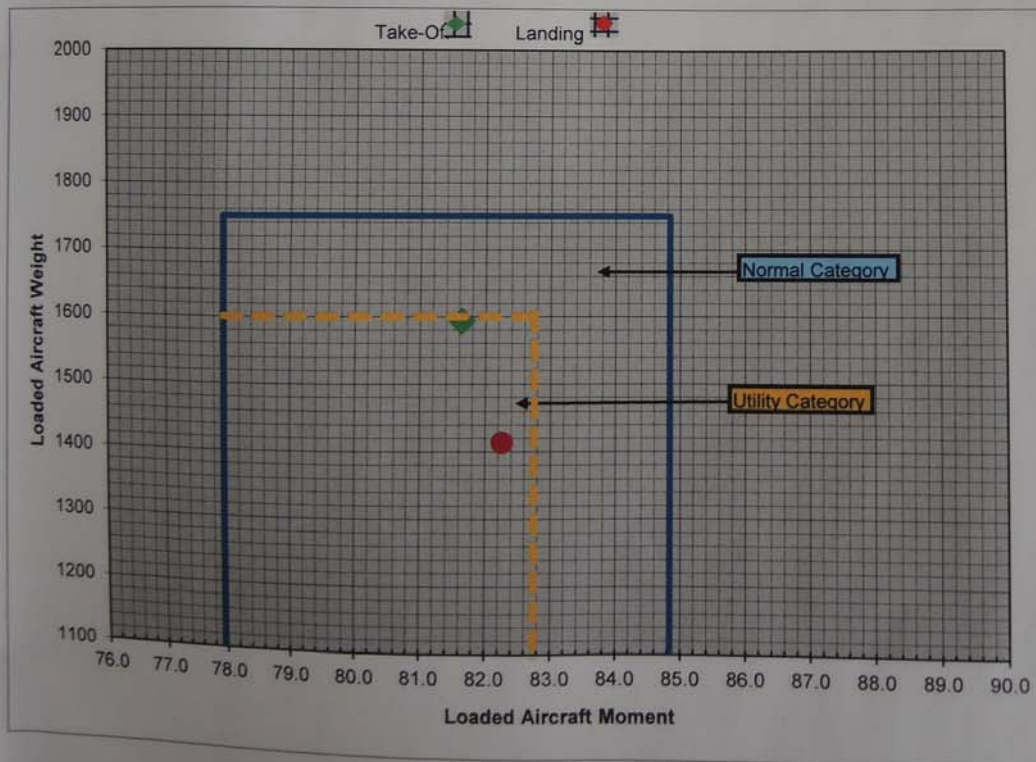
Vans RV-9A N807LK
Weight and Balance Calculator

Prepared: 07/07/2015

Description	Fill in Yellow Boxes Only!		
	Weight (lbs.)	Moment (lb.-ins.)	Arm
Max Gross Weight	1750.00		
Nose Gear Weight	264	9108.00	34.50
Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	200	18540.00	92.70
Passenger	0	0.00	92.70
Baggage Area (Max allowable weight 100 lbs)	75	9150.00	122.00
Take-Off Weight and Moment	1593	130053.00	81.64
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1413	116238.00	82.26

Notes: Limits: NORMAL C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is OK
WITHIN UTILITY Category Limits

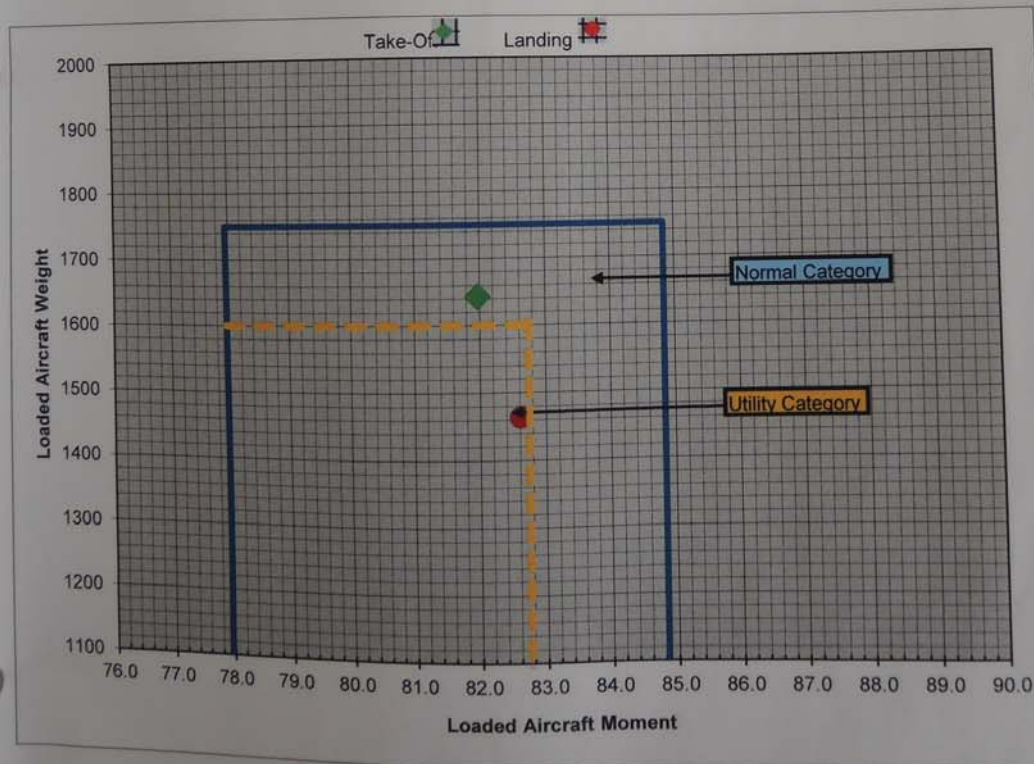


Prepared: 07/07/2015

Vans RV-9A N807LK Weight and Balance Calculator		Fill in Yellow Boxes Only!		
Description	Weight (lbs.)	Moment (lb.-ins.)	Arm	
Max Gross Weight	1750.00			
Nose Gear Weight	264	9108.00	34.50	
Left Main Weight	425	38887.50	91.50	
Right Main Weight	413	37789.50	91.50	
Empty Weight	1102	85785.00	77.84	
Useful Load	648			
Full Fuel Payload (no baggage, 36 gals fuel)	432			
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357			
Take Off Fuel amount in Gallons	36	16578.00	76.75	
Pilot	250	23175.00	92.70	
Passenger	0	0.00	92.70	
Baggage Area (Max allowable weight 100 lbs)	75	9150.00	122.00	
Take-Off Weight and Moment	1643	134688.00	81.98	
Gallons of Fuel Used during Flight	30	13815.00	76.75	
Landing Weight and Moment	1463	120873.00	82.62	

Notes: Limits: NORMAL C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

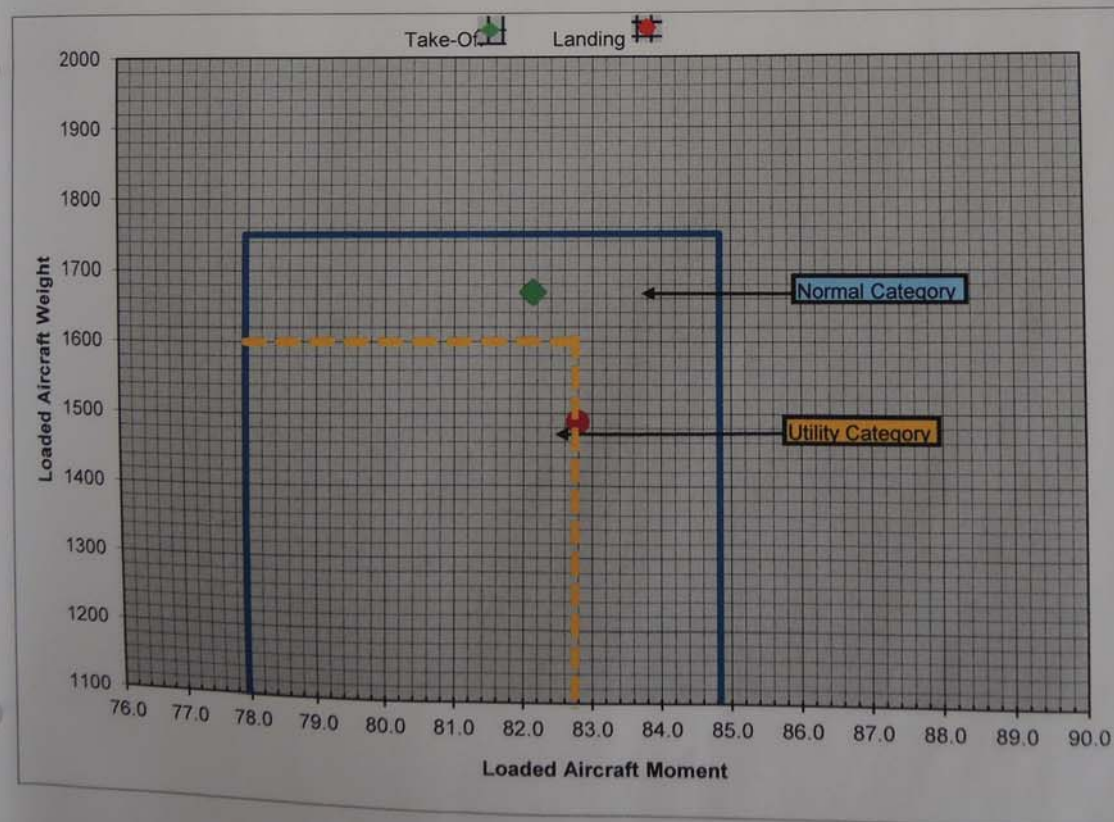
Take-Off Weight is OK
OUTSIDE UTILITY Category Limits



Vans RV-9A N807LK Weight and Balance Calculator		Fill in Yellow Boxes Only!	
Description	Weight (lbs.)	Moment (lb.-ins.)	Arm
Max Gross Weight	1750.00		
Nose Gear Weight	264	9108.00	34.50
Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	275	25492.50	92.70
Passenger	0	0.00	92.70
Baggage Area (Max allowable weight 100 lbs)	75	9150.00	122.00
Take-Off Weight and Moment	1668	137005.50	82.14
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1488	123190.50	82.79

Notes: Limits: **NORMAL** C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is OK
OUTSIDE UTILITY Category Limits

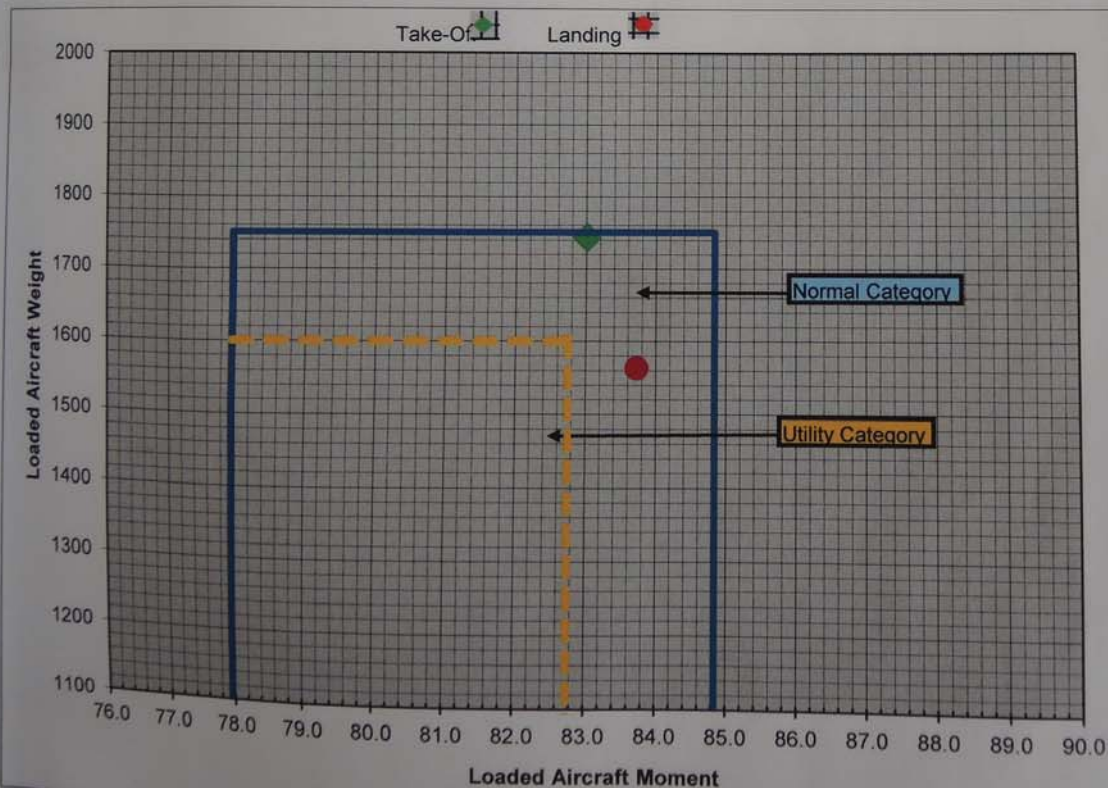


Prepared: 07/07/2015

Vans RV-9A N807LK Weight and Balance Calculator		Fill in Yellow Boxes Only!	
Description	Weight (lbs.)	Moment (lb.-ins.)	Arm
Max Gross Weight	1750.00		
Nose Gear Weight	264	9108.00	34.50
Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	170	15759.00	92.70
Passenger	155	14368.50	92.70
Baggage Area (Max allowable weight 100 lbs)	100	12200.00	122.00
Take-Off Weight and Moment	1743	144690.50	83.01
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1563	130875.50	83.73

Notes: Limits: **NORMAL** C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Aft CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is OK
OUTSIDE UTILITY Category Limits



Prepared: 07/07/2015

Vans RV-9A N807LK Weight and Balance Calculator		Fill in Yellow Boxes Only!	
Description	Weight (lbs.)	Moment (lb.-ins.)	Arm
Max Gross Weight	1750.00		
Nose Gear Weight	264	9108.00	34.50
Left Main Weight	425	38887.50	91.50
Right Main Weight	413	37789.50	91.50
Empty Weight	1102	85785.00	77.84
Useful Load	648		
Full Fuel Payload (no baggage, 36 gals fuel)	432		
Full Fuel Payload (75lbs baggage, 36 gals fuel)	357		
Take Off Fuel amount in Gallons	36	16578.00	76.75
Pilot	215	19930.50	92.70
Passenger	200	18540.00	92.70
Baggage Area (Max allowable weight 100 lbs)	20	2440.00	122.00
Take-Off Weight and Moment	1753	143273.50	81.73
Gallons of Fuel Used during Flight	30	13815.00	76.75
Landing Weight and Moment	1573	129458.50	82.30

Notes: Limits: **NORMAL** C.G. Range between 77.95 to 84.84" aft of datum at 1750 pounds maximum Gross Weight.
UTILITY Air CG Limit is 82.72" aft of datum at 1600 pounds maximum Gross Weight.

Take-Off Weight is above Max Gross Weight
OUTSIDE UTILITY Category Limits

