Cessna Grand Caravan C208B

Speeds (KIAS)

V_{MO}	175	
V_X	72	SL to 20 000’
V_Y	104	SL to 10 000’
	104-87	10 000’ to 20 000’
V_R	70-75	20° flap
V_{REF}	75-85	30° flap
	100-115	No flap
V_{FE}	125	30° flap
	150	20° flap
	175	10° flap
Other		
	80	Balked landing (20°)
	97-71	Glide (8750-5000 lb)
	148	Turbulent air: 8750 lb
	112	Turbulent air: 5000 lb
Cruise climb		
	110-120	

Take-off Speeds (short, 20° flap)

Weight (lbs)	**Take-off speeds (KIAS)**	
	Rotate	**At 50’**
8750	70	83
8300	67	80
7800	64	76
7300	61	73

For normal takeoff, use 70-75 and 85-95 KIAS.

Other Speeds

Weight (lbs)	**Landing**	**V_A**	**Glide**
	KIAS	**KIAS**	**KIAS**
8500	78	148	95/97
8000	75	137	87/90
7500	73	125	79/82
7000	71	112	71/74

Notes:
Short landing, 30° flap. For Normal: 75-85 KIAS.
Glide speeds with/without cargo pod.

Caravan C208 Normal Checklist

Before starting engine

Preflight inspection and W&B: ..... Complete
Doors: ..... Unlocked
Pax. Briefing: ..... Complete
Cabin doors: ..... Latched
Crew doors: ..... Unlocked
Parking brake: ..... Set
Seats, belts, harnesses: Adjusted, secure (check pin)
Switches: ..... Off
Ignition: ..... Norm
Circuit breakers: ..... Check in
Fuel tank selectors: ..... Both on
Radar: ..... Off
Air conditioner: ..... Off
Inverter: ..... Off
Bleed air: ..... Off
Cabin Heat Mixing: ..... Flt-Push
Emergency power lever: ..... Normal
Power lever: ..... Idle
Propeller: ..... Full forward
Fuel condition lever: ..... Cutoff
Rudder lock: ..... Turn and push to unlock
Fuel shutoff: ..... On (push in)
Battery switch: ..... On
Wing flaps: ..... Up
NS/FSB: ..... As required
Fire detector test: ..... Press
Annunciator panel: ... Test (incl. fuel warning horn)
Annunciator day/night: ..... Set

Engine Start (Battery)

Battery:.....On
Volt/ammeter:.....Check (24 V minimum)
Emergency power lever: ..... Normal (annunciator)
Propeller area:.....Clear
Fuel boost:.....On
    AUX FUEL PUMP ON:..... Check On
    FUEL PRESS LOW:.....Check Off
    Fuel flow: ..... Check none
Starter switch: .....Start
    IGNITION ON:..... Check on
    Engine oil pressure: ..... Check
    N_g > 12%, stable: .....Wait
Fuel condition lever: ..... Low idle
    Fuel flow: .....80 to 110 lb/hr
    ITT:.....(1090°C, max. 2 s)
    Ng > 52%:..... Check
Starter switch: .....Off
STARTER ENERGISED: .....Check Off
Inverter: .....Test, select 1 or 2
Engine instruments:..... Check
Generator:.....Charging, GEN OFF extinguished
Fuel boost:.....Normal, AUX FUEL PUMP out
Standby power: .....On
Avionics 1 & 2: .....On
Nav lights, beacon:.....On as required
Suction gauge: ..... Check
Heating, ventilation, defrost:.....As required
Radios:.....As required

Taxi

Brakes:..... Check
Flight instruments: ..... Check

Before takeoff (Runup)

Park brake: .....Set
Seats, belts, harnesses:.....Check secure
Flight controls: ..... Full, free, correct
Flight instruments: .....Check, set
Fuel boost:.....Check Normal
Fuel tanks:.....Check both on
Fuel quantity: .....Checked
Fuel shutoff:.....Check fully on
Elevator, aileron, rudder trim: ..... Set for takeoff
Power check:.....400 ft-lb
- **Suction:** ..... Check
- **Volt/amps:**.....Check, return to BATT
- **Inertial separator:**Check (torque drop/return)
- **Engine instruments:** ..... Check

Overspeed governor: ..... Check 1750 ±60 rpm
Power lever: .....Idle
Quadrant friction:.....Adjust
Standby power: ..... Check
Autopilot: .....Preflight check
- **Avionics power 1:**..... Check on
- **Gyros:**.....Allow 3-4 minutes to stabilise
- **Preflight test:** .....Annun., Alt Select, AP 12x
- **TRIM warning:** ..Off (if not, pull AP breaker)
- **Electric trim:** ..Test (L, R, both, clutch, Disc.)
- **Flight director, Autopilot:** .....Engage
- **Yaw damper:** .....Engage
- **Flight controls:** ..... Move to overpower AP
- **Disconnect:**..... Press to test
- **Trim:**..... Set for takeoff

Pitot/static heat: ..... On if OAT < 4°C
Ice protection:.....As required
Avionics and radar: .....Check, set
GPS/Nav switch:.....Set
Strobe: .....As required
Annunciators:..... Extinguished or considered
Wing flaps:.....20°
Cabin heat mixing:.....Flt-Push
Windows: .....Close
Brakes:..... Release
Fuel condition lever: .....High idle

Normal takeoff

Flaps: ..... 20°
Power: ..... Set for takeoff (See below)
Annunciators: ..... Check
Brakes: ..... Release
Rotate: ..... 70-75 KIAS
Climb: ..... 85-95 KIAS
Flaps: ..... Retract to 10° after 85, up after 95 KIAS

Short takeoff

Flaps: ..... 20°
Power: ..... Set for takeoff (See below)
Annunciators: ..... Check
Brakes: ..... Release
Rotate: ..... 70 KIAS (see table p. 1)
Climb: ..... 83 KIAS until obstacles cleared (p. 1)
Flaps: ..... Retract to 10° after 85, up after 95 KIAS

Takeoff Power Limits

Pressure Alt	**Temperature [°C]**	
[feet]	**Max. Op.**	**Tq Limit**
Sea Level	50	42
2000	46	36
4000	42	30
6000	38	21
8000	34	8
10 000	30	-5
12 000	26	-21

Notes:
If temperature is above Max. Op., flight is prohibited.
If temperature is above Tq Limit, see PFM p. 5-19.

Enroute climb (cruise climb)

Ice protection:.....As required
Pitot/static heat: ..... On if OAT < 4°C
Airspeed: .....110-120 KIAS
Propeller: ..... 1600-1900 rpm
Torque:..... Set within limits (ITT, Ng, torque)
..... ITT < 740°C for normal operations

Enroute climb (maximum performance)

Ice protection:.....As required
Pitot/static heat: ..... On if OAT < 4°C
Airspeed:104 KIAS to 10 000', 87 KIAS at 20 000'
Propeller: .....1900 rpm
Torque:.....1865 ft-lb (ITT, Ng, torque)
..... ITT < 740°C for normal operations

Cruise

Ice protection:.....As required
Pitot/static heat: ..... On if OAT < 4°C
Propeller: ..... 1600-1900 rpm
Power:.....Set per cruise power tables
..... ITT < 740°C for normal operations

Descent

Ice protection:.....As required
Pitot/static heat: ..... On if OAT < 4°C
NS/FSB: .....As required
Altimeter: .....Set
GPS/Nav switch:.....Set
Power:.....As required

Before Landing

Seats, belts, harnesses:.....Secure
Fuel selectors: ..... L on, R on
Fuel condition lever: .....High idle
Propeller control lever: .....Max (forward)
Radar:.....Standby/Off
Autopilot: ..... Off
Wing flaps:.....As desired

Normal landing

Flaps: ..... Full
Airspeed: .....75-85 KIAS
Touchdown: ..... Main wheels first
Power:.....Beta after touchdown
Brakes:.....As required
Note: *Remove reverse before 25 kts*

Short field landing

Flaps: Full
Airspeed: .....78 KIAS at MAUW (see p.1)
Power:.....Idle after clearing obstacles
Power:.....Beta (against spring) after touchdown
Brakes:..... Heavy braking with full up elevator
Wing flaps:.....Retract if at light weight
Note: *Remove reverse before 25 kts*

Balked landing

Power:..... Full takeoff power
Flaps: .....20°
Airspeed: . 80 KIAS min. until obstacles are cleared
Flaps: .....Retract at safe altitude and airspeed

After landing

Flaps: .....Up
Ice protection:.....Off
Strobes:.....Off
Landing and taxi lights: .....As required
Fuel condition lever: Low idle when clear of runway

Shutdown

Parking brake: .....Set
Avionics:.....Off
Standby power: .....Off
Fuel boost:.....Off
Bleed air, ventilation fans, air conditioner: .....Off
Inverter: .....Off
Power lever: .....Idle
ITT: ..... Min. temperature for 1 min
Propeller: .....Feather
Fuel condition lever: ..... Cutoff
Oxygen: .....Off
Lights:.....Off
Battery:.....Off
Controls:.....Lock
Fuel tank selectors: ..... Both off
Tiedowns and chocks:.....As required
External covers: .....Install
Fuel filter: .....Check bypass flag
Oil breather drain can: .....Drain

C208 Abnormal Checklist

Air start (Starter--Preferred)

Electrical load: .....Reduce
Standby power: .....Off
Avionics power:.....Off
Ignition:..... Normal
Air conditioner:.....Off
Bleed air heat:.....Off
Emergency power lever: ..... Normal
Power lever:.....Idle
Propeller: ..... Min. rpm
Fuel condition lever: .....Cutoff
Fuel shutoff:..... On (push in)
Fuel tank selectors: ..... L on, R on
Battery switch: .....On
Fuel boost switch:.....On
    AUX FUEL PUMP: ..... Check on
    FUEL PRESS LOW: .....Check off
Altitude:.....20 000' maximum
Starter switch: .....Start
    IGNITION ON:..... Check on
    Engine oil pressure: ..... Check
    N_g: ..... 12% minimum
Fuel condition lever: ..... Low idle
    ITT:.....Monitor 1090°C max.
    N_g: ..... 52% minimum
Starter switch: .....Off
Ignition:.....On if required (rain, low fuel)
Fuel boost pump: ..... Normal, or On if cycling
Fuel condition lever: .....High idle
Propeller control:.....As desired
Power lever:.....As desired
Electrical equipment and avionics:.....As required

Air start (Windmilling)

Generator switch: .....Trip and release
Standby power: .....Off
Avionics power:.....Off
Air conditioner: .....Off
Bleed air heat:.....Off
Emergency power lever: ..... Normal
Power lever: .....Idle
Propeller: ..... Min. rpm
Fuel condition lever: .....Cutoff
Fuel shutoff:..... On (push in)
Fuel tank selectors: ..... L on, R on
Battery switch: .....On
Fuel boost switch:.....On
    AUX FUEL PUMP: ..... Check on
    FUEL PRESS LOW: .....Check off
Ignition switch:.....On
Airspeed: .....100 KIAS minimum (140 if feathered)
Altitude:....20 000' maximum (15 000' if feathered)
N_g indicator:..... Check stable and non-zero
Fuel condition lever: ..... Low idle
    ITT:.....Monitor 1090°C max.
    N_g: ..... 52% minimum
Ignition: .....On if required (rain, low fuel)
Fuel boost:..... Normal, or On if cycling
Fuel condition lever: .....High idle
Propeller control: .....As desired
Power lever: .....As desired
Generator:.....Reset and release
Electrical equipment and avionics:.....As required

Asymmetric flap

Aileron:.....Apply to stop the roll
Flap selector: .....Up
Airspeed: .....Slow to 100 KIAS or less
If flaps retract symmetrically:..... Flapless landing
If flaps remain asymmetric:
.....Land as soon as practical
..... At least 90 KIAS on the approach
.....Avoid nose-high flare on landing

Flaps fail to extend or retract

Flap Motor/Standby Flap Motor CBs:.... Check in
If flaps still fail to operate:
Standby switch: ..... Standby
Standby flap up/down:.....As required
Notes:
Later models require breaking safety wire.
Standby flap system has no limit switches!

Landing with flat main tyre

Fuel: .....Fly to lighten load on flat side
Approach: .....Normal (full flap)
Touchdown: ..... Inflated tyre first

Landing with flat nosewheel tyre

Passengers and baggage:..... Move aft if possible
Approach: .....Normal (full flap)
Touchdown: ..... Nose high
Brakes:.....Minimum necessary

Battery temperature high (amber)

Battery:.....Off
Ammeter: ..... Check in BATT position
If ammeter shows charge:
Generator: .....Trip and release
Standby power: .....Off
All electrical switches: .....Off
Bus 1 Pwr/Bus 2 Pwr CBs: ..... Pull off (6!)
Avionics switches: .....Off
Standby power: .....On
Avionics standby power:..... Lift guard, on
Avionics bus tie: ..... Lift guard, on
Reinstate essential circuits:..... Monitor load
Land as soon as practical

Generator failure

Voltmeter: .....Check (annunciator failure?)
Bus 1/Bus 2 CBs: .....Check, do not reset!
If V < 24,5 V:
Volt/ammeter: .....Gen (monitor ammeter)
If generator output zero:
GEN CONT/GEN FIELD CBs: .....In
Generator: .....Reset and release
If generator output still zero:
Generator: .....Trip
Electrical load: .....Reduce
Avionics 2: .....Off
Flashing beacon: .....Off
Strobes: .....Off
De-icing: .....Off (keep 1 pitot on!)
Vent fans:.....Off
Air cond.: .....Off
GEN CONT/GEN FIELD: ..... Pull
AP CONT or AP FD: ..... Pull
Land as soon as practical
Standby generator: ..... Use if available
If generator output resumes:..... Monitor voltage
(over 29 V will probably trip again)

Inverter failure

Inverter switch: .....Select other inverter
Failed inverter:.....Repair before next flight
If INVERTER INOP remains illuminated:
Circuit breakers:..... Check in
Gyro flags: ..... Check
Ignore left-hand gyros
Land as soon as practical

Starter does not disengage

Battery:.....Off
Auxiliary power unit: .....Off, then disengage
Fuel condition lever: .....Cutoff
Engine shutdown: .....Complete

Upper half of cargo/airstair door open

Airspeed: .....Less than 100 KIAS
Wing flaps:..... Full (to provide downwash)
Door:.....Close if helper available
Land: ..... Normal approach and landing

Lower half of airstair door open

Airspeed: .....Less than 100 KIAS
Return for landing
Wing flaps:..... Full
Land: .....Slightly tail low, avoid nose high flare

Crew door open

Airspeed: .....Less than 100 KIAS
Door:.....Pull closed and latch

Cargo pod door(s) open

Airspeed: .....Less than 100 KIAS
Land as soon as practical
Approach: ..... Normal
Landing: .....Avoid nose-high flare

C208 Emergency Checklist

Emergency landing without power

Seats, belts, harnesses:.....Secure
Airspeed: .100 KIAS (flaps up), 80 KIAS (full flap)
Power lever: .....Idle
Propeller: .....Feather
Fuel condition lever: ..... Cutoff
Fuel Boost: ..... Off
Ignition: ..... Normal
Standby power: ..... Off
Nonessential equipment: ..... Off
Fuel shutoff:.....Off (pull out)
Fuel tank selectors: .....Off (warning horn)
Wing flaps:..... As required (full recommended)
Crew doors: ..... Unlatch before touchdown
Battery:..... Off when landing is assured
Touchdown: .....Slightly tail low
Brakes:.....Apply heavily

Precautionary landing

Seats, belts, harnesses:.....Secure
Flaps: ..... 10°
Airspeed: ..... 90 KIAS
Field: ....Select, fly over, check terrain and obstacles
Switches:.....All off except Generator and Battery
Flaps: ..... Full down
Airspeed: ..... 80 KIAS
Crew doors: ..... Unlatch before touchdown
Generator:.....Trip and release
Battery:..... Off
Touchdown: .....Slightly tail low
Fuel condition lever: ..... Cutoff
Brakes:.....Apply heavily

Ditching

Radio: .....Mayday on 121,5 MHz, squawk 7700
Heavy objects: ..... Secure if passenger available
Seats, belts, harnesses:.....Secure
Flaps: .....Down
Power:..... 300 fpm descent at 80 KIAS
Approach: ..... Into heavy wind or parallel to swells
Face:..... Cushion using padding
Touchdown: ..... No flare
Evacuate
Life vests and rafts:.....Inflate outside cabin

Engine fire in flight

Power lever: .....Idle
Propeller: .....Feather
Fuel condition lever: ..... Cutoff
Fuel shutoff: .....Off (pull out)
Cabin heat firewall shutoff: .....Pull off
Forward side vents: .....Close
Overhead vents: .....Open
Ventilation fans: .....On
Wing flaps:.....20 to 30°
Airspeed: .....80-85 KIAS
Forced landing: .....Execute

Battery overheated (red)

Battery:..... Off
Generator:.....Trip and release
Standby power: ..... Off
All electrical switches: ..... Off
Bus 1 Pwr/Bus 2 Pwr CBs: .....Pull off (6 breakers)
Avionics switches: ..... Off
Standby power: .....On
Avionics standby power:..... Lift guard, on
Avionics bus tie: ..... Lift guard, on
Reinstate essential circuits:..... Monitor load
Land as soon as practical

Electrical fire in flight

Battery:.....Off
Generator:.....Trip and release
Standby power: .....Off
Vents:.....Close to avoid drafts
Bleed air heat:.....Off
Fire extinguisher: .....Activate
Oxygen: .....Use until smoke clears
Avionics power:.....Off
All other switches:.....Off
If fire appears out and electrical power necessary:
Battery switch: .....On
Standby power: .....On
Generator:.....Reset and release
Circuit breakers:..... Check, do not reset
Inverter: ..... 1 or 2 if required
Radio switches:.....Off
Avionics power switches: .....On
Radio and electrical switches:
.....On one at a time; delay
Vents:..... Open when fire completely extinguished
Bleed air heat:.....On as desired

Cabin fire

Battery:.....Off
Generator:.....Trip and release
Standby power: .....Off
Vents:.....Close to avoid drafts
Bleed air heat:.....Off
Fire extinguisher: .....Activate
Oxygen: .....Use until smoke clears
Land as soon as possible

Wing fire

Pitot/static heat, Stall heat:.....Off
Strobe lights:.....Off
Navigation lights: .....Off
Landing and taxi lights: .....Off
Radar:.....Off
Ventilation fans:.....Off
Sideslip if required, land as soon as possible

Cabin fire on ground

Power lever: .....Idle
Brakes:.....As required
Propeller: .....Feather
Fuel condition lever: ..... Cutoff
Battery:..... Off
Evacuate
Fire: ..... Extinguish

Engine fire during start on ground

Fuel condition lever: ..... Cutoff
Fuel boost:..... Off
Starter switch: .....Motor (within starter limits)
Fuel shutoff: ..... Off (pull out) if fire persists
Starter: ..... Off if fire ceases
Battery:..... Off
Evacuate
Fire: ..... Extinguish

FCU pneumatic/governor malfunction

Power lever: .....Idle
Emergency power lever: ...As required (N_g > 65%)

Loss of fuel pressure

Fuel boost pump: On
If FUEL PRESS LOW extinguishes:
.....Monitor fuel quantity, cabin odours
.....Land as soon as practical
If FUEL PRESS LOW/AUX FUEL PUMP ON:
.....Monitor engine gauges for fuel starvation
..... Land as soon as possible

Fuel Reservoir low

Fuel tank selectors: ..... L on, R on
Ignition: .....On
Fuel boost:.....On
If sufficient fuel in wing tanks:
.....Monitor gauges and FUEL PRESS LOW
.....Land as soon as possible and investigate
If there are signs of fuel starvation:
.....Prepare for forced landing

Emergency descent: Rough air

Seats, belts, harnesses:.....Secure
Power lever:.....Idle
Propeller:..... Full forward
Wing flaps:.....Up
Airspeed:..... V_A (148 to 112 KIAS)

Emergency descent: Smooth air

Seats, belts, harnesses:.....Secure
Power lever:.....Idle
Propeller:..... Full forward
Wing flaps:.....10°
Airspeed:..... V_{MO} (175 KIAS)

