

# **N4184C**

# **Flying Station Wagon**

# **Stinson 108-3**

# **Procedures**

**Dies ist kein offizielles Handbuch und erhebt keinen Anspruch auf Richtigkeit !  
Bitte stets die offiziellen Handbücher Beachten!**

**Revision 2, April 2016**

## V- Speeds

	<u>Normal</u>	<u>Utility</u>
Vs Stall – No Flaps	65	59
Vsf Stall- full Flaps	62	56
Vref 1.23 Vs	80	70
Vx Best Angle Climb		
Vy Best Rate of Climb	82	
Vfe Max Flap Extended	88	88
Vno Maneuvering Speed	120	120
Vne Never Exceed	158	170

Vapp Vref+1/2HW min 5

Oil Capacity (unlegiertes Öl, SAE100)

Max 9 Quarts

Min 5 Quarts

Oil Temp Max 230F (110° Celsius) Min 60F (15° Celsius)

Fuel Capacity(50 Gallons Total)....25 Gallons per side ( 95 Litres)

Useable- 23 Gallons per side ( 87 Litres)

Max Storage Compartment.....100 lbs (45 Kg)

Take off Weight

1. Normal Category.....2400 lbs (1088Kg)

2. Utility Category.....2000 lbs

Flaps Approved - Take off (First notch) 10 degrees

Flaps Approved - Landing ( 2 nd Notch) 20 degrees

Tire Pressure: Gross Weight/100

## Cockpit Check (First Flight of the day)

Pilots Operating Handbook.....	In Aircraft
Documents.....	Check
Emergency Equipment.....	Check
ELT.....	armed
Radios.....	Off
Magnetos.....	Off
Mixture.....	Off
Master .....	On
Circuit Breakers.....	All in
Altimeter.....	Set
Fuel Selector/Gauge.....	check and switch to fullest
Stall Warning.....	Check
Lights.....	Check
Master.....	Off

## Cockpit Check (Transit)

Master.....	Off
Mixture.....	Off
Magnetos.....	Off
Radios.....	Off
Altimeter.....	Set
Fuel Selector.....	Fullest (AvGas/R)

## **Exterior Inspection**

Rudder Gust Lock (use seat Belts).....	Remove
R. Wingtips and Lights.....	Check
R. Aileron and Flap.....	Check
R. Wing Tie Down.....	Disconnect
R. Main Wheel Tire.....	Check Inflation
R. Fuel Tank.....	Visual Check
R. Fuel Filler Cap.....	Visual Check
R. Fuel Line Drain Valve.....	Sample and Clear
Engine Oil Level.....	Check
Drain valve on Firewall.....	Sample and Clear
Propeller and Spinner.....	Check
Landing Lights.....	Check
Carburetor Air Filter.....	Clear
Static Source Opening.....	Check
Pitot Tube.....	Check and Clear
L. Wingtips and Lights.....	Check
L. Aileron and Flap.....	Check
L. Wing Tie Down.....	Disconnect
L. Main Wheel Tire.....	Check Inflation
L. Fuel Tank.....	Visual Check
L. Fuel Filler Cap.....	Visual Check
L. Fuel Line Drain Valve.....	Sample and Clear
Antenna.....	Check
Elevators.....	Freedom of Movement and Security
Rudder.....	Freedom of Movement and Security

Tail Wheel..... Freedom of Movement  
and Security  
Baggage Compartment.....Secured and closed

Cold Weather (OAT<0°)....preheat Engine/Oil Cooler Plate install

### **Engine Start**

Seats/ Seats-Belts/ Doors.....Secure  
Master.....On  
Beacon.....On  
Brakes.....Test & Set  
Mixture.....Rich  
Carb Heat.....Off  
Prime.....as Required  
Primer.....in and locked  
Throttle.....open 1/8”- 1/4” inch  
Clear Area.....” CLEAR !”

### **Before Start Checklist**

Engine.....Start  
Advance throttle if required  
Max Rpm. 800 - 1,000

Oil Pressure.....min 20PSI in 30sec  
Ammeter.....Charging

Warm up at 1000rpm until oil temp rise (60F/15C/10Min)

(Cold Weather: do not exceed 1500rpm for 5Minutes)

### **After Start**

Radios.....On  
Intercom.....On  
Circuit Breakers.....All in & Check  
Compass.....Set as required  
GPS.....On  
Transponder.....SBY 7000  
Flaps.....Set for T/O  
Flight Controls.....Check  
Trim.....centered  
Fuel Selector.....switch to other Tank

### **After Start Checklist**

#### **Run-up**

Yoke.....Full Back  
Aircraft into Wind.....Nose into Wind  
Area behind.....Clear  
Controls.....Free & Correct  
Fuel Selector.....switch back to Fullest (Avgas)  
Mixture.....Full Rich  
Set Throttle to.....2000rpm  
Magneto Check.....Max Drop 200Rpm  
Not running rough.....Max Diff 50 Rpm  
Carb Heat.....On (Check for Drop)  
Mixture.....Check

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Alternator Check..... Master.....Off ( Check for discharge)  
Oil Pressure.....40-55PSI  
Oil Temp.....60F  
Throttle to Idle.....800-1000 Rpm  
Take Off briefing.....perform

## **Take Off Checklist**

### **Line-up**

Lights.....Landing & Strobe  
Transponder.....Alt

T/O Power.....min2250---max 2500

### **Climb**

Airspeed.....80  
Flaps.....retract at 500 AGL  
Throttle.....ClimbPower (Full-50)  
Engine Gauges.....Check all  
Leaving Pattern.....Landing Light Off

## **After TakeOff Checklist**

### **Cruise**

Throttle.....back 2500rpm(75%)  
.....2600rpm(83%)  
Mixture.....lean  
Tank Selector.....switch every 20 Min

## Descent

Fuel.....On Fullest Tank (Avgas/R)  
Mixture.....Full Rich  
Carb Heat.....as Req/On  
Landing Light.....On

## Approach

Flaps.....2 or Full  
Speed.....Vref+1/2HW min5.....80+ (2400lbs)  
.....70+(2000lbs)

## Landing Checklist

### Go Around

Throttle.....full open  
Carb Heat.....off  
Flaps.....1

### After Landing

Yoke.....Full Back  
Flaps.....Retract  
Carb Heat.....Off  
Landinglight.....Off  
Transponder.....Stdby  
Time down.....Record  
Flight Plan.....Closed



## **Shut Down**

Brakes.....Set  
Radios.....Off  
Throttle..... 1 Minute cool down <1000rpm  
Magneto P-Lead.....Check  
Mixture.....Idle Cut Off  
Throttle.....full open  
Magnetos.....Off  
Beacon.....Off  
Master.....Off  
Flaps.....Full (if parked out side)

## **EMERGENCY PROCEDURES**

### **Engine Failure During Takeoff Run**

Throttle.....Idle  
Brakes.....Apply  
Wing Flaps.....Retract  
Time permitting or when Aircraft under control:  
Mixture.....Idle Cut Off  
Magnetos.....Off  
Master Switch.....Off

### **Engine Failure After Takeoff (<1000'AGL)**

Landing Field.....straight ahead (+/-30°)  
Airspeed.....70  
Mixture.....Idle Cut Off  
Fuel Valve.....Off  
Magnetos.....Off  
Flaps.....As Required  
Master.....Off

## **Engine Failure During Flight(>1000'AGL)**

Landing Field.....select,consider 180° turn  
Airspeed.....80  
Carb Heat.....On  
Fuel.....Fullest Tank/other Tank  
Mixture.....Rich  
Magnetos.....On Both  
Primer.....in & Locked

**If Engine does not restart continue with forced Landing (next Page)**

## **Forced Landings**

### **Emergency Landing without Power**

Airspeed.....70  
Mixture.....Idle Cut Off  
Fuel Selector.....Off  
Magnetos.....Off  
Radio.....Transmit MAYDAY  
          On 121.5, Give Location and intensions  
Transponder.....Squawk 7700  
Master.....Off  
Doors.....Unlatch  
Flaps.....As Required  
Touchdown.....Slightly, Tail Low

## **Ditching**

Radio.....Transmit MAYDAY  
Transponder.....Squawk 7700

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Heavy Objects.....Secure or Jettison

**High Winds, Heavy Seas – Into the Winds**

**Light Winds, Heavy Swells – Parallel to Swells**

Flaps.....2 – 3 Notches

Power.....Establish 300 ft/Min

Descent at 80

Note: If no Power – descent full flaps at 70

Cabin Doors.....Unlatch

Life preservers.....Locate & Wear

Touchdown.....Nose High/Stall

Face.....Cushion at touchdown with  
Folded coat.

Airplane.....Evacuate through cabin doors.

Open Windows to flood cabin to equalize pressure,  
so doors can be opened.

Life Vests and Raft.....Inflate if available

## **Fires**

### **Engine Fire during Start on Ground**

Cranking.....Continue

If engine starts

Power – 1700 RPM for a few minutes. Shutdown and inspect for  
damage.

If Engine fails to start

Throttle.....Full Open

Mixture.....Idle Cut Off

Cranking.....Continue for 30-40 Seconds

Fire Extinguisher.....Obtain

Master.....Off

Magnetos.....Off

Fuel Selector.....Off  
Fire.....Extinguish

### **Engine Fire in Flight**

Mixture.....Idle Cut Off  
Mags.....Off  
Fuel Selector Valve..... Off  
Master.....Off  
Cabin Heat & Air.....Off  
Airspeed.....100 ( If the fire is not extinguished,  
increase glide speed to find a airspeed  
that will provide a incombustible mixture)

Landing.....Execute a Forced Landing (prev Page)

### **Electrical Fire in Flight**

Master.....Off  
All switches (Except Magnetos).....Off  
Vent/Cabin/Air/Heat.....Closed  
Fire Extinguisher.....Activate

Note; if fire appears out and electrical power is necessary for  
continuance of flight, then

Master.....On  
Circuit Breakers.....Check for faulty circuit, do a reset  
Radio/Electrical Switches.....On one at a time, with delay  
after each until short is localized  
Vent/Cabin/Air/Heat.....Open when it is ascertained that

the fire is completely extinguished.

### **Cabin Fire**

Master Switch.....Off  
Vent/Cabin/Air/Heat.....Closed  
Fire Extinguisher.....Activate  
Land ASAP

**WARNING ! After discharging an extinguisher within a closed cabin always ventilate the cabin.**

### **Wing Fire**

Navigation Light Switch.....Off  
Landing Light Switch.....Off  
Fuel.....Switch to opposite wing tank  
Side slip away to keep flames away from the fuel tank and cabin and land as soon as possible using only flaps as required for final approach and touchdown.

### **Electrical Power Supply System Malfunction**

#### **Low Voltage Light/Ameter discharging in Flight**

Radios/Transponder.....Off  
Alternator Circuit Breaker.....Check  
Master.....Off  
Master.....On

If low Voltage light Illuminates again

Non Essential Radio and electrical .....Off

Flight.....Terminate as soon as practical

### **Ammeter Shows excessive rate of Charge**

Alternator Circuit Breaker.....Pull

Non essential Electrical Equipment.....Off

Flight.....Terminate as soon as practical

### **Landing on a Flat Tire**

Approach as normal

Flaps.....Full

Touchdown.....Good Tire first, hold off flat  
as long as possible.

## **Pattern**

Downwind Abeam.....	2000Rpm	deselerate to 80	F0
Base.....	1000-12000Rpm	start descent	F1
Final.....	1500Rpm	Vapp	F2/3