

**CHALLENGER 601-3A/3R PILOT CHECKLIST**

**NORMAL START**

- 1. Gear pins and chocks .....Stowed
- 2. Hydraulic 3B pump.....On/Check
- 3. Parking brake/Pressure .....Set/Check
- 4. IRUs.....NAV
- 5. Doors .....Checked/Secured
- 6. Thrust levers.....Shutoff
- 7. SCAV and MAIN ejector lights .....On
- 8. Fuel pumps.....On
- Pre SB601-0450 rev. 1 or Pre SB601-0533:
- 9. ACUs.....Off
- Airplanes 5001 to 5134:
- 10. CKPT HEAT .....Off
- 11. Bleed air pressure.....45 PSI min
- 12. Ignition A or B .....Arm

**NOTE**

ITT below 120° C, 20% N<sub>2</sub> & N<sub>1</sub> increasing to start.

- 13. Engines .....Start
- 14. Normal engine start .....Completed

**START MALFUNCTION**

- 1. Thrust lever.....Shutoff
- 2. Fuel pumps.....Off
- 3. Ignition .....Disarm
- 4. Motor engine to decrease temperature. (90 seconds max.)
- When required:
- 5. Engine STOP switch-light.....Push

**AFTER START**

- 1. Generator 1 and 2.....Test/On
- Pre SB 601-0568 or Pre SB 601-0581:
- 2. APU generator .....Off
- 3. N<sub>2</sub> idle speed.....Check
- 4. Engine hydraulic pumps.....Check
- 5. Ignition.....Disarm
- 6. 14th bleeds.....On
- 7. COWL ANTI-ICE.....Check\*/Set

\*First flight of day

Continued on Next Page

**ENGINE SHUTDOWN**

- 1. Taxi lights ..... Off
- 2. Parking brake/Pressure ..... Set/Check
- 3. Avionics/IRS (As required) ..... Off
- 4. Hydraulic 3A pump ..... Off
- 5. Generators 1 and 2 ..... Off
- 6. Thrust levers ..... Shutoff
- 7. Fuel pumps ..... Off

**NOTE**

If ITT rises above 350°C, motor engine to decrease temperature below 100°C.

- 8. Cabin signs ..... Off
- 9. Reverse thrust ..... Disarm
- 10. Nosewheel steering ..... Off
- 11. COWL ANTI-ICE ..... Off
- 12. 14th bleeds ..... Off
- 13. Engine shutdown check ..... Completed

**SECURING**

- 1. Emergency lighting ..... Off
- 2. Oxygen ..... Off
- 3. IRUs ..... Off
- 4. Avionics ..... Off
- 5. Standby attitude indicator ..... Cage
- 6. Isolation valve ..... Close
- 7. 10th bleeds ..... Off
- 8. APU generator ..... Off
- 9. APU ..... Stop
- 10. ACUs ..... Off
- 11. APU bleed air ..... Off
- 12. APU power/Fuel ..... Off
- 13. Interior, service and misc lights ..... Off
- 14. Battery switch ..... Off
- 15. Gear pins and chocks ..... Installed
- 16. Parking brake ..... Off
- 17. Securing check ..... Completed

**EMERGENCY**

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

**ABNORMAL**

**Before Start Flow:**

Parking Brake Set (C)  
 Beacon On (C)  
 3A Hyd Pump (C)  
 Ignitions (C)  
 ACU Off (C)  
 Boost Pump On (C)  
 YD/Mach Trim Engage (F)

**Before Taxi Flow**

Disarm Ignitions (C)  
 Turn on all B Hyd Pumps (C)  
 Check Engine Hyd Pumps (C)  
 Engine Instruments (C&F)  
 Check Rudder AFCS (C)  
 Turn #1&2 Gen on APU Gen Off (C)  
 Check Spoilers (C)  
 Arm Nose Wheel Steering (C)  
 Turn on 14<sup>th</sup> Stage bleed (F)  
 CKPT Heaters (F)  
 Turn on ACU & Isolation (F)  
 Engine Instruments (C&F)  
 APR/Test & Armed (F)  
 Thrust Reversers (F)  
 ADG Unit Test (F)

**Taxi Flow**

Flaps (F)  
 Flight Controls (F)  
 Anti-Skid –Test (F)

**Line-Up (PNF) Flow**

Ignitions (F)  
 Lights & Strobes (F)  
 Wing & Cowl Anti Ice (F)  
 Annunciator Recall (F)  
 Ground Spoilers (F)  
 Transponder (F)

**After Take Off Flow 3000 AGL**

Ignition (PM)  
 B Pumps (PM)  
 Cabin Pressure Rate (PM)  
 APU/Transition (PM)  
 Lights (PM)  
 Anti Ice (PM)  
 APR Off (PM)  
 T/R Disarmed (PM)

**In Range Flow**

HYD B Pumps (PM)  
 APU Transitions (PM)  
 Cross Flow Closed (PM)  
 T/R Armed (PM)

**After Landing Flow**

Landing Lights (C)  
 Spoilers (C)  
 Flaps (F)  
 Trim Tabs Reset (F)  
 Ignitions (F)  
 Hyd B Pumps (F)  
 Anti Ice (F)  
 Windshield Heat ADS Heaters (F)  
 Y/D Mach Trim (F)

**Shut Down Flow**

N/W Steering (C)  
 SBY Gyro Caged (C)  
 Fuel Pumps Off (C)  
 APU/Engine Generator (C)  
 Thrust Levers Cutoff (C)  
 T/R's Off (C)  
 Exterior Lights Off (C)  
 APU Shut Down (C)  
 Battery (C)  
**Brakes (C)**

3A Pump (F)  
 14<sup>th</sup> Stage Bleeds Off (F)  
 10<sup>th</sup> Stage Bleeds & Isolation (F)  
 ACU (F)  
 Radio & Transponder OFF (F)  
 Emergency Lights (F)  
 Oxygen Sys and PAX & Crew Off (F)

**Note:** With water saturated brakes number of firm brake application from 25 to 10 knots, during the last mile of taxi prior to and not including the final stop before takeoff

Less than 34,000	34,000 to 40,000	More than 40,000
5	4	3

C.G.% MAC	16% TO 23%	23% TO 28%	28% TO 35%
TRIM POS	Top Range	Mid Range	Bottom Range

## BEFORE STARTING ENGINES:

Exterior & Cockpit Preflight	COMPLETE	(C&F)
Cabin & Sign	SECURE & ON	(C)
Battery	ON (Volts Checked)	(C)
Y/D Mach Trim	ENGAGE	(F)
Emergency Lights	ARMED	(F)
Nose Gear Door	RESET/CLR	(C)
Hyd 3A Pump	ON/CHECKED	(C)
Cabin/Baggage Door	GREEN LIGHT	(C&F)
Pressurization	SET	(F)
IRS/FMS/GPS/ATC	ALIGN/PROG/CHECKED	(C&F)
Fuel Quantities # /Balance	# (AMOUNT)/BALANCED	(C&F)
Take-Off Data & Bugs	ANNOUNCE	(C&F)

## STARTING ENGINES CHECK

Parking Brake & Chocks	RESET/REMOVED	(C)
Ignition A or B	ON	(C)
Rotating Beacon	ON	(C)
ACU's /Bleed Air Pressure	OFF/45psi MIN	(C)
SCAV/Main Ejectors Lights	ON	(C)
Both Fuel Pump Switch-lights	ON	(C)
Engine Start Clearance	RECEIVED	(C)

## BEFORE TAXI CHECK

Ignitions	DISARM	(C)
Eng Hydraulics/B Pumps	CHECKED	(C)
14 <sup>th</sup> Bleed Air	ON	(F)
***CKPT Heaters	CHECKED	(F)
Isolation Valve/ACU's	OPEN/ON	(F)
N2 Idle Speed/Engine Instru.	CHECKED	(C&F)
#Rudder /AFCS	CHECKED	(C)
Generator 1 & 2	TEST-ON	(C)
APU Gen SW/DC Electric Panel	ON-OFF/CHECKED	(C)
APR	TEST/ARMED	(F)
Thrust Reversers/Anti Ice	ARMED & CHECKED	(F)
Servo Monitor	CHECKED LIGHTS OUT	(C)
ADG Unit	TEST	(F)
NW Steering	ARMED	(C)

## TAXI CHECK

Flaps	20° INDICATE 20°	(C&F)
Brakes/Anti Skid	CHECKED /TESTED- ARM	(C&F)
Flight Controls	CHECK/SPLR RETRACTED	(F)
**Thrust Reversers 14 <sup>th</sup> Stage	CHECKED	(C)
Anti Ice	WING/COWL/ON-OFF	(C)
Flight Instruments/FMS	CHECK & SET	(C&F)
V-Speed/Power and Trim	SET & CHECKED	(C&F)
Radios & Transponder	SET & VERIFY ON/CODE	(C&F)
Crew Briefing	COMPLETED	(PF)

## LINE-UP

Strobes/Logo Lites/Lnd Lites	AS REQUIRED	(F)
Windshield Heat/ ADS Heat	ON	(F)
Annunciators Recall	CHECKED	(F)
Ignitions	AS REQUIRED	(F)
Ground Spoilers	ARMED	(F)
Transponder	VERIFY ON/CODE	(F)
Runway Heading	CHECKED	(C&F)

## AFTER TAKE-OFF

Landing Gear	UP LIGHTS OUT	(PM)
Flaps	UP INDICATE UP	(PM)
APU/ ACU Transition	OFF/AS REQUIRED	(PM)
Ignitions	AS REQUIRED	(PM)
HYD B Pump	OFF	(PM)
Landing/ Recognition Lights	AS REQUIRED	(PM)
Anti/Deice	SET	(PM)
APR	DISARMED	(PM)
Thrust Reversers	DISARMED	(PM)
Cabin Pressure/Alt	CHECKED	(PM)
Cabin Sign	AS REQUIRED	(PM)

\*\*Only Required Once/Day  
# 3A Aircraft

## CHALLENGER 601 CHECK LIST



### CLIMB (FL180)

Altimeters/Transition Alt	SET (29.92)	(C&F)
Lights	OFF	(PM)
Pressurization	CHECKED	(PM)
Anti/Deice	AS REQUIRED	(PM)
Cabin Sign	AS REQUIRED	(PM)

### CRUISE

Systems	MONITOR	(PM)
---------	---------	------

### DECENT

Cabin Sign	AS REQUIRED	(PM)
Cabin Pressure Control	SET FIELD ELEV	(PM)

### IN RANGE (FL180)

ATIS & Radio Call	COMPLETED	(PM)
Altimeters/Transition LVL	SET	(C&F)
Exterior Lights	AS REQUIRED	(PM)
HYD System/HYD B Pump	QTY-PRES/CHKED ON	(PM)
Reverse Thrust/Grnd Spoilers	ARMED	(PM)
Fuel/Crossflow	CHECKED/CLOSED	(PM)
Landing Data	REVIEWED	(C&F)
Crew Briefing	COMPLETED	(PF)
APU Start/Transition	AS REQUIRED	(PM)

### LANDING CHECK

Nose Wheel Steering	ARMED	(PM)
Ignitions	AS REQUIRED	(PM)
Brakes Pressure	CHECKED	(PM)
Anti-Skid	CHECKED	(PM)
Lights	ON	(PM)
Landing Gear	DOWN 3 GREEN	(C&F)
Landing Flaps/Spoilers	45° Indicate 45°/STWD	(C&F)

### AFTER LANDING

Flaps	UP INDICATE UP	(F)
Trim Tabs	RESET	(F)
Flight/Ground Spoilers	STOWED/OFF	(F)
APU Gen/AC Gen	TEST-ON/OFF	(F)
Ignitions	OFF	(F)
HYD B Pump	OFF	(F)
Strobes/Logo Lites/Lnd Lites	OFF	(F)
Anti/Deice	OFF	(F)
Windshield/ADS Heaters	OFF	(F)
Y/D Mach Trim	OFF	(F)
Radar/Transponder	STBY/AS REQUIRED	(F)
APU Transition (If Required)	COMPLETED	(F)

### SHUT DOWN

Chocks & Brakes	AS REQUIRED	(C)
Thrust Reversers	DISARMED	(F)
Engine Gen	AS REQUIRED	(C)
Nose Wheel Steering	OFF	(C)
14 <sup>th</sup> Bleeds	OFF	(F)
Thrust Levers	CUTOFF	(C)
Fuel Pumps	OFF	(F)
Beacon/Exterior Lights	OFF	(C)
Emergency Lights	OFF	(F)
*ACU	OFF	(F)
*STBY Gyro	CAGED	(C)
*Radios/Radar/Transponder	OFF	(F)
*Oxygen System	Pax & Crew OFF	(F)
*HYD 3A Pump (If Chocked)	OFF	(F)
*APU	SHUT DOWN	(C)
*Battery	OFF	(C)
*Brakes	RELEASED	(C)

\*NOT REQUIRED FOR A QUICK TURN-AROUND

- Airplanes 5001 to 5134:
8. CKPT HEAT/EMER PRESSN .....STBY Check/Off
  9. ACUs ..... On
  10. YD and Mach Trim ..... Check ON
  11. Rudder ..... Check
  12. NW STEER ..... Arm
  13. Reverse thrust ..... Arm
  14. APR ..... Static Test\*/Arm
  15. ADG unit ..... Test
  16. After start check ..... Completed

**TAXI**

1. Anti-skid ..... ARM/Test
2. Brakes ..... Check
3. Hydraulic B pumps ..... On
4. Reverse thrust/Anti-ice ..... Check\*
5. Wing anti-ice ..... Set as required
6. Pneumatics/APU ..... Set
7. Fuel system ..... Check
8. Flaps ..... 20°
9. Aileron and rudder trims ..... Neutral
10. Stabilizer trim (see table below) ..... Set for takeoff
11. Flight controls ..... Check
12. Spoilers ..... Check\*
13. Avionics/Flight instruments/Radar ..... Check/Set
14. Takeoff briefing ..... Review
15. Taxi check ..... Completed

**STABILIZER TRIM SETTING FOR TAKEOFF**

C.G. % MAC	16% to 23%	23% to 28%	28% to 35%
TRIM	Top Range	Mid Range	Bottom Range

**NOTE**

With water saturated brakes, number of firm brake applications from 25 to 10 knots, during the last mile/kilometer of taxi prior to and not including the final stop before take-off:

Less than 34,000 lb	34,000 to 40,000 lb	More than 40,000 lb
5	4	3

\*First flight of day

(Do not drag the brakes.)

EMERGENCY

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
A  
B  
N  
O  
R  
M  
A  
L