



ZITAIR FLYING CLUB LIMITED

<http://www.avnet.co.uk/zitair>

MOONEY 201 CHECK LIST

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MOONEY 201 CHECKLIST INTRODUCTION

The Mooney checklist has been re-written to tailor it to the ZITAIR operation of the aircraft, and the equipment installed.

The lay out and format has been changed slightly.

Specific actions in a check that are normally carried out from memory, like Starting the Engine, have been entered in a box.

This allows members who are familiar with the procedure to carry it out from memory and skip the boxed text. Those members who are less familiar with the procedures, should read the boxed text prior to carrying out the action.

The last 3 actions on the **BEFORE TAKE OFF CHECK** have been printed in *italics*, ideally these should not be actioned until you have been cleared to line up. This is to reduce the risk of the Pitot Head overheating and the strobes distracting other pilots during prolonged holds at the holding point.

If a check is not complete the checklist should be kept in one hand as a reminder, until such time that all actions have been completed. Only then should it be put away.

AIDE-MEMOIRE

POWER SETTINGS

75% = 25" PRESSURE	2500 RPM
65% = 24" PRESSURE	2400 RPM
55% = 22" PRESSURE	2200 RPM

LOAD AND BALANCE

MAXIMUM TAKE OFF WEIGHT	2740.0 Lbs	= 1243 kgs
BASIC WEIGHT	1845.5 Lbs	1880 (RE-WEIGHED)
USEFUL LOAD	894.5 Lbs	860
FULL TANKS 64 US GALL (USABLE)	384.0 Lbs	
GIVING A PAYLOAD OF	510.5 Lbs	476
PART TANKS 37.5 US GALL (USABLE)	225.0 Lbs	240
GIVING A PAYLOAD OF	669.5 Lbs	620
BASIC MOMENT	87339.1 Lbs/ins	

SPEEDS

TAKE OFF 15 FLAP	63 Kts
INITIAL CLIMB 15 FLAP	71 Kts
BEST RATE OF CLIMB	88 Kts
BEST ANGLE OF CLIMB 15 FLAP	66 Kts
STALL SPEED CLEAN	63 Kts
STALL SPEED GEAR AND FLAP	55 Kts
BEST GLIDE SPEED	91 Kts
LANDING SPEED NORMAL	71 Kts
LANDING SPEED PERFORMANCE	66 Kts
ROUGH AIR PENETRATION	120 Kts
FLAP LOWERING	115 Kts
GEAR LOWERING	133 Kts
GEAR RAISING	108 Kts
MAX CONTINUOUS SPEED V.N.O.	176 Kts
MAXIMUM SPEED V.N.E.	198 Kts

LIST OF EFFECTIVE PAGES

PAGE NO.	DATE.	PAGE NO.	DATE.
1	Jan 2000	2	Feb 1992
3	Feb 1992	4	Feb 1992
5	Jan 2000	6	Jan 2000
7	Feb 1992	8	Feb 1992
9	Jan 2000	10	Feb 1992
11	Feb 1992	11	Feb 1992
12	Feb 1992	13	Feb 1992
14	Feb 1992		

INTERNAL PRE FLIGHT CHECK

MAGNETO SWITCH	OFF
ELECTRICAL SWITCHES	OFF
GEAR SELECTOR	DOWN
GEAR EMERG SELECTOR	STOWED
FUEL SELECTOR	
LEFT TANK	PULL GASCOLATOR RING HOLD 5 SEC
RIGHT TANK	REPEAT
FIRE EXTINGUISHER	CHECK
FIRST AID KIT	CHECK
D.V. WINDOW	OPEN
COWL FLAPS	OPEN
CIRCUIT BREAKERS	ALL IN
MASTER SWITCH	ON
PANEL LIGHTS	OFF
EXTERNAL LIGHTS	CHECK
PITOT HEAT	CHECK
STALL WARNER	CHECK
MASTER SWITCH	OFF

BEFORE START CHECK

PARK BRAKE	ON
BAGGAGE DOOR	SECURE
EXTERNAL CHECK	COMPLETED
CABIN DOOR	LATCHED
ELECTRIC'S	ALL OFF
SEATS AND HARNESS	SECURE
FLYING CONTROLS	CHECK
MANUAL TRIM	CHECK
FLIGHT INSTRUMENTS	CHECK
ENGINE INSTRUMENTS	CHECK
ALTERNATE STATIC	OFF
COWL FLAPS	CHECK & CLOSED
RAM AIR	CHECK & CLOSED
CABIN AIR CONTROLS	ALL OFF
MIXTURE	CHECK & LEAN
PROPELLER	CHECK & FINE
THROTTLE	CHECK & CLOSED
MASTER SWITCH	ON
FLAPS	CHECK & UP
FUEL GAUGES	CHECK
FUEL SELECTOR	LOWEST TANK
ANNUNCIATORS	CHECK & TEST
O.A.T.	NOTE

ALWAYS 'PUSH' TO FULLY IN, NEVER USE VERNIER, EXCEPT FOR FINE ADJUSTMENT

ENGINE START CHECK (COLD)

MAGNETO KEY	IN & OFF
BOOSTER PUMP	OFF
THROTTLE	1/8" OPEN
PROPELLER	FULLY FINE
MIXTURE	FULLY RICH
BOOSTER PUMP	ON. ESTABLISH FUEL PRESSURE 5 SECONDS
	OFF
BOOSTER PUMP	FULLY LEAN
MIXTURE	CLEAR
PROPELLER AREA	
START ENGINE	

MAG / START SWITCH	START. WHEN ENGINE STARTS RELEASE TO BOTH.
MIXTURE	FULLY RICH WHEN ENGINE STARTS

STARTER WARNING	LIGHT OUT
OIL PRESSURE	IN LIMITS WITHIN
THROTTLE	30 SEC SET 1100 RPM

ENGINE START CHECK (WARM)

MAGNETO KEY	IN OFF
BOOSTER PUMP	OFF
THROTTLE	1/8" OPEN
PROPELLER	FULLY FINE
MIXTURE	FULLY LEAN
PROPELLER AREA	CLEAR
START ENGINE	

MAG / START SWITCH	START. WHEN ENGINE STARTS RELEASE TO BOTH.
MIXTURE	FULLY RICH WHEN ENGINE STARTS

STARTER WARNING	LIGHT OUT
OIL PRESSURE	IN LIMITS WITHIN
THROTTLE	30 SEC SET 1100 RPM

ENGINE START CHECK (FLOODED ENGINE)

MAGNETO KEY	IN OFF
BOOST PUMP	OFF
THROTTLE	FULLY OPEN
PROPELLER	FULLY FINE
MIXTURE	FULLY LEAN
PROPELLER AREA	CLEAR
START ENGINE	

MAG / START SWITCH	START. WHEN ENGINE STARTS
THROTTLE	CLOSE
MIXTURE	FULLY RICH

STARTER WARNING	LIGHT OUT
OIL PRESSURE	IN LIMITS WITHIN 30 SEC
THROTTLE	SET 1100 RPM

AFTER START CHECK

RADIO MASTER SWITCH	ON
MANIFOLD PRESSURE	CHECK
FUEL PRESSURE	CHECK
VOLTS & VACUUM	LIGHTS OUT
AMMETER	POSITIVE
MAGNETOS	CHECK L / R
G.P.S.	INITIALISED
RADIOS	SELECTED
NAVIGATION	LOADED
ARTIFICIAL HORIZON	ERECT
STANDBY COMPASS	CHECK
H.S.I.	SLAVING
R.M.I.	SYNCHRONISED
ELECTRIC TRIM	ON

CHECK 3 BEEPS, THEN LIGHTS GO OUT FUNCTION CHECK, NOSE UP AND DOWN

AUTOPILOT	TEST
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CHECK LIGHTS AND 4 BLEEPES AND THEN TRIM LIGHT GOES OUT. FUNCTION CHECK

LIGHTS	AS REQUIRED
CYLINDER HEAD TEMP	CHECK
COWL FLAPS	AS REQUIRED
TAXI CLEARANCE	OBTAINED
ALTIMETERS	SET

TAXI CHECK

BRAKES	CHECK
RUDDER	CHECK L / R
INSTRUMENTS	CHECK

POWER CHECK

POSITION AIRCRAFT	INTO WIND
PARKING BRAKE	ON
FUEL SELECTOR	CHANGE TANKS
TEMPS AND PRESSURES	CHECK
COWL FLAPS	OPEN
THROTTLE	SET 2000 RPM 20"
MAGNETOS	CHECK

175 RPM DROP. 50 RPM DIFFERENCE

PROPELLER	EXERCISE TWICE
OIL PRESSURE	CHECK
OIL TEMPERATURE	CHECK
FUEL PRESSURE	CHECK
CYLINDER HEAD TEMP	CHECK
VOLTS AND VACUUM	LIGHTS OUT
ALTERNATOR LOAD	CHECK
THROTTLE	SET 1500 RPM
PROPELLER	EXERCISE ONCE
THROTTLE CLOSED	CHECK IDLE
THROTTLE	SET 1100 RPM

BEFORE TAKE OFF CHECK

TRIM	TAKE OFF RANGE
THROTTLE NUT	SET
PROPELLER	FULLY FINE
MIXTURE	FULLY RICH
MAGNETOS	ON BOTH
FUEL BOOST	ON
FUEL TANK	SELECTED
COWL FLAPS	OPEN
FLAPS	SET TAKE OFF
FLIGHT INSTRUMENTS	CHECK & SET
TEMPS AND PRESSURES	NORMAL
NAVIGATION AIDS	SET
AUTO PILOT	OFF
HARNESS & HATCHES	SECURE
FLIGHT CONTROLS	CHECKED
PITOT HEAT	ON
STROBES	ON
TRANSPOUNDER	SET

MODE 'C'

AFTER TAKE OFF CHECK

TOE BRAKES	APPLIED	
UNDERCARRIAGE	UP	
FLAPS	UP	
POWER	SET FOR CLIMB	25/25
TEMPS AND PRESSURES	NORMAL	
MIXTURE	AS REQUIRED	1/2"
COWL FLAPS	AS REQUIRED	

TOP OF CLIMB CHECK

POWER	CHECK & SET
MIXTURE	SET BEST ECON
CYLINDER HEAD TEMP	CHECK
COWL FLAPS	SET

APPROACH CHECK

FUEL	CHECK & SET
RADIOS	SET
TEMPS AND PRESSURES	CHECK
CYLINDER HEAD TEMP	CHECK
COWL FLAPS	AS REQUIRED
MIXTURE	AS REQUIRED
RAM AIR	CLOSED
FLIGHT INSTRUMENTS	SET
ALTIMETERS	SET

DOWN WIND CHECK

BRAKES	OFF	
SPEED	CHECKED	<i>< 133 kts</i>
UNDERCARRIAGE	DOWN AND LOCKED	
FUEL BOOST	ON	
FUEL TANK	CHECK & SET	
HARNESS	SECURE	
SPEED	CHECKED	
FLAPS	SET 15	<i>< 115 kts</i>

LATE
DOWNWIND

BASE LEG

MIXTURE	FULLY RICH
PROPELLER	FULLY FINE

FINAL CHECK

UNDERCARRIAGE	DOWN AND LOCKED
MIXTURE	FULLY RICH
PROPELLER	FULLY FINE
FLAPS	SET 33
COWL FLAPS	½ OPEN
BRAKES	FEET OFF

CHECK APPROACH STABLE AT CORRECT SPEED

LANDING CLEARANCE (AS REQUIRED)

RUNWAY CLEAR

AFTER LANDING CHECK

RUNWAY	VACATED
FLAPS	UP
COWL FLAPS	OPEN
FUEL BOOST	OFF
STROBES	OFF
PITOT HEAT	OFF
LIGHTS	AS REQUIRED
TRANSPONDER	STANDBY

SHUTDOWN CHECK

PARK BRAKE	SET
THROTTLE	1100 RPM
CYLINDER HEAD TEMP	REDUCING
MAGNETOS	CHECK L / R
ELECTRIC TRIM	OFF
ELECTRICAL SWITCHES	ALL OFF
RADIO MASTER SWITCH	OFF
MIXTURE	FULLY LEAN
MAGNETOS	OFF
FUEL	OFF
LIGHTS	OFF
MASTER SWITCH	OFF
COWL FLAPS	CLOSED
REFUEL	40 US G. TOTAL
DOCUMENTS	COMPLETED
AIRCRAFT	TIDY
SEAT BELTS	STOWED
OIL	WIPED OFF <i>UNDERSIDE</i>
CABIN LIGHTS	OFF
AIRCRAFT	CLEAN ; <i>RUBBISH REMOVED</i>
AIRCRAFT	SECURE

IF TO BE PUT AWAY:

BRAKES 'OFF' ; PITOT COVER AND TOWBAR IN PLACE

IF TO BE LEFT OUT

BRAKES 'ON' ; PITOT COVER IN PLACE ; CONTROLS SECURED

(TOWBAR LOCKED INSIDE)

ENGINE FIRE

GROUND

FUEL	OFF
MIXTURE	FULLY LEAN
MAGNETOS	OFF
PASSENGERS	EVACUATE
RADIO CALL	FIRE TENDER
MASTER SWITCH	OFF

AIR

FUEL	OFF
MIXTURE	FULLY LEAN
THROTTLE	CLOSED
CABIN VENTILATION	CLOSED
MAGNETOS	OFF
FORWARD VISION	SIDE SLIP
FORCED LANDING	SET UP

ELECTRICAL FIRE

MASTER SWITCH	OFF
CABIN VENTILATION	OPEN
HEAT CONTROLS	CLOSED
CIRCUIT BREAKERS	CHECK
ELECTRICAL SWITCHES	OFF
MASTER SWITCH	ON
ESSENTIAL SWITCHES	ON ONE AT A TIME

LAND AT NEAREST AIRFIELD

CABIN FIRE

CABIN VENTILATION	OPEN
HEAT CONTROLS	CLOSED
FIRE EXTINGUISHER	USE
D.V. WINDOW	OPEN

LAND AT NEAREST AIRFIELD

FIRE NOT OUT

**EMERGENCY DECENT
FORCED LANDING WITH POWER**

ENGINE POWER LOSS DURING GROUND ROLL

THROTTLE	CLOSED
BRAKING	MAXIMUM
FUEL SELECTOR	OFF
MASTER SWITCH	OFF
MAGNETO SWITCH	OFF

ENGINE POWER LOSS AFTER TAKE OFF AND DURING CLIMB

FUEL SELECTOR	SELECT OTHER TANK
BOOST PUMP	ON
MIXTURE	FULLY RICH
MAGNETOS	CHECK ON BOTH

**IF ENGINE DOES NOT RESTART CARRY OUT
FORCED LANDING WITHOUT POWER**

ROUGH ENGINE OR LOSS OF POWER IN FLIGHT

LOW FUEL QUANTITY	FUEL SELECTOR TO FULLEST TANK
LOW FUEL PRESSURE IF NO IMPROVEMENT	BOOST PUMP ON
MIXTURE	BOOST PUMP OFF
MAGNETOS	FULLY RICH
IF NO IMPROVEMENT	LEFT AND RIGHT BACK TO BOTH

**IF NO IMPROVEMENT LAND AT NEAREST
SUITABLE AIRFIELD**

AIR START PROCEDURE

PROPELLER	FULLY FINE
FUEL SELECTOR	FULLEST TANK
MIXTURE	FULLY LEAN
THROTTLE	1/4" OPEN
MAGNETOS	BOTH ON
MIXTURE	SLOWLY FULLY RICH
POWER	RE-ESTABLISH
MIXTURE	AS REQUIRED

IF ENGINE FAILS TO START CARRY OUT
FORCED LANDING WITHOUT POWER

LANDING GEAR WILL NOT EXTEND

SPEED	REDUCE TO 130 Kts
LDG GEAR ACTUATOR C.B.	PULL DOWN
GEAR SELECTOR	
EMERGENCY LOWERING	
HANDLE	RELEASE
PULL T HANDLE SLOWLY	1 to 2"

**THEN PULL T HANDLE AND ALLOW TO
RETURN TO ORIGINAL POSITION,
CONTINUE UNTIL GEAR LOCKED LIGHT
COMES ON.**

**IF ELECTRICAL MALFUNCTION CHECK
VISUAL GEAR INDICATOR.**

**BEFORE OPERATING ELECTRICALLY, RE
STOW EMERGENCY RELEASE, RESET GEAR
ACTUATOR C.B.**

FAILURE OF THE LANDING GEAR TO RETRACT AFTER TAKE OFF

**1. IF THE SAFETY SWITCH FAILS TO
ACTUATE, AS EVIDENCED BY
ILLUMINATION OF THE "GEAR SAFETY
BYPASS" SWITCH, BOTH GEAR
ANNUNCIATOR LIGHTS AND THE
ACTIVATION OF THE GEAR WARNING
HORN. DEPRESS "GEAR SAFETY BYPASS"
SWITCH AND HOLD UNTIL GEAR IS FULLY
RETRACTED. THIS IS EVIDENCED BY BOTH
THE "GEAR UNSAFE AND GEAR DOWN"
ANNUNCIATOR LIGHTS NOT BEING
ILLUMINATED.**

**2. PULL GEAR CONT C.B. TO SHUT OFF
GEAR HORN.**

**3. TO EXTEND GEAR, RESET THE "GEAR
CONT" C.B. AND THEN PLACE THE GEAR
CONTROL SWITCH IN THE "DOWN
POSITION.**

POWER SETTING TABLE

RPM AND MANIFOLD PRESSURE										
PRESS ALT	STD TEMP C	110 HP = 55 % POWER			130 HP = 65 % POWER			150 HP = 75% POWER		
		2200 RPM	2400 RPM	2600 RPM	2200 RPM	2400 RPM	2600 RPM	2200 RPM	2400 RPM	2600 RPM
SEA LVL	15	22.5"	21.0"	19.0"	26.0"	24.0"	22.0"	N / A	27.0"	24.5"
2,000	11	22.5"	20.4"	18.8"	25.5"	23.6"	21.6"	N / A	26.8"	24.4"
4,000	07	22.0"	20.2"	18.7"	F.T	23.3"	21.5"	N / A	26.5"	24.4"
6,000	03	21.8"	19.8"	18.5"	N / A	22.8"	21.3"	N / A	F.T	24.1"
8,000	-1	21.8"	19.5"	18.5"	N / A	22.8"	21.2"	N / A	N / A	F.T
10,000	-5	F.T	19.5"	18.3"	N / A	F.T	21.1"	N / A	N / A	N / A
12,000	-9	N / A	19.5"	18.2"	N / A	N / A	F.T	N / A	N / A	N / A

N / A = POWER SETTING NOT AVAILABLE AT THAT RPM

F.T = FULL THROTTLE

MOONEY 201 CHECKLIST Page 14 of 14

February 1992