

TB20 TRINIDAD CHECKLIST

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Note:

If there is any difference between this Check List and the aircraft **Flight Manual**, then the **Flight Manual** is to be regarded as the authoritative document.

GENERAL

1. Check aircraft documents.
2. Remove frost, snow or ice if present.
3. Ensure all loose equipment is correctly stowed and the aircraft is free of extraneous items.
4. Inspect seat belts and harnesses for satisfactory condition and operation.
5. If the aircraft has not been regularly used ensure that either the engine has been turned weekly, run fortnightly or the manufacturer's recommendations have been complied with and compression appears normal when turned by hand.

Previous reported defects have been rectified or are allowed in the MEL.

PREPARATION

Docs: W&B, Tech log, ARROW Check
 Fire extinguisher CHECK
 First aid kit, bag straps CHECK
 Both Doors Unlocked
 Pitot & Static Covers, Towbar Removed
 Control Lock & Tie Downs Removed
 Parking Brake ON
 Radio switch Check OFF
 Magneto / starter OFF
 Landing Gear Handle DOWN
 Battery Master ON
 Landing Gear Handle CHECK 3 GREENS
 Fuel Quantity Check
 Fuel Selector ON, lowest tank
 Flaps DOWN
 Strokes, Lights, Pitot Heat ON
 Cockpit lights CHECK
 Strokes, Nav lights, Pitot Heat CHECK
 Stall Warner CHECK OPERATION
 Strokes, Lights, Pitot OFF
 Battery Master OFF

EXTERNAL CHECKS**LEFT WING**

Flap & hinges CHECK
 Aileron CHECK
 Static wicks CHECK
 Bonding straps CHECK
 Lights CHECK
 Surfaces CHECK
 Pitot head CHECK
 Stall warner CHECK
 Fuel level, drain & vents CHECK
 Undercarriage bay CHECK
 Undercarriage CHECK

FRONT FUSELAGE

Windscreen & OAT probe CHECK
 Fuel drain SUMP & CHECK CLOSED
 Light CHECK
 Propeller CHECK
 Intakes CHECK
 Undercarriage bay CHECK
 Nose undercarriage & tyre CHECK

FRONT FUSELAGE - continued

Engine bay CHECK
 oil & hydraulic fluid CHECK
 De-ice fluid CHECK
 Cowling CHECK

RIGHT WING

Undercarriage bay CHECK
 Undercarriage CHECK
 Surfaces CHECK
 Fuel level, drain & vents CHECK
 Lights CHECK
 Aileron CHECK
 Flap & hinges CHECK
 Static wicks CHECK
 Bonding straps CHECK

REAR FUSELAGE & TAIL

Surface CHECK
 Windows CHECK
 Aerials CHECK
 Static vents CHECK
 Tail-plane & elevator CHECK
 Rudder & light CHECK
 Static wicks CHECK
 Bonding straps CHECK

TRANSIT CHECKS

Ground surface & extinguishers Check
 Magnetos & electrics All Off
 Master switch On, check fuel
 Master switch Off
 Airframe general Check
 Fuel & oil Visual check of contents
 Propeller Check
 Undercarriage Check

INTERNAL CHECKS

Doors Closed & Locked
 Seat belts Check operation & Secure
 Parking Brake ON
 Instruments & Gauges Check
 Controls Full & Free
 Elevator Trim Check & Set TAKE-OFF
 Rudder Trim Check & SET
 Emergency Gear Control Push In
 Alternate Air Push In
 Alternate Static Check then OFF
 Altimeters Set to zero, Check +/- 2mbar
 Circuit Breakers Check All In
 Mixture EXERCISE THEN ICO
 Throttle EXERCISE
 Prop EXERCISE THEN FULL FORWARD
 Magnetos OFF
 HOBBS, Clock Time Noted

START

Master ON
 Alternator Fail Light CHECK ON
 Annunciator Panel Lamp test
 Gear lamp Test
 Radio Master ON
 ATIS + Start Clearance OBTAIN
 Radio Master OFF
 External Lights BEACON ON / AS REQD
 Fuel Tank Select Least Full
 Throttle ¼ Open (cold), Full power (hot)
 Fuel Pump ON
 Mixture .. RICH- (8 sec cold, 2 sec hot) - ICO
 Fuel Pump OFF
 Area "Clear Prop"
 Magneto Start (15 sec max)

ENGINE STARTS...

Mixture Full Rich
 Throttle Set 1000RPM
 Oil Pressure Rise within 30 sec
 Alternator ON, Volt rise, Wrng Light OUT
 Magnetos Dead cut check
 Radio Master ON
 Autopilot Master ON
 Turn Co-ordinator ON

AFTER START

Standby Gyro switch ON
 Standby Horizon Uncage
 GPS fuel setting Check / Set Full
 Flaps UP & Check
 Mixture Lean (10-12 LPH)
 AI Erect, Datum Set
 Compass, HSI, RMI, SS Slave ... Check & Sync
 Autopilot Check
 ILS Markers Test, Lo Sens, MKR On
 VOR/ILS Tests As required
 VORs Set and IDENT
 LOC / GPS switch Set
 GPS Set
 Next COM Set
 TRANSPONDER Set & Check

TAXY

ATS / Airfield Info COPY
 Altimeters Set QNH ON BOTH
 Brakes Off & CHECK
 Rudder CHECK
 Instruments TURN CHECKS

POWER CHECK

Parking Brake ON
 Temps & Pressures Green
 Mixture Full Rich
 Fuel Tanks Switch to Fullest
 Throttle 2000RPM
 Magneto Check (175 max drop, 50 max diff)
 Propeller Exercise x 3, max 500rpm Drop
 Alternate Air Pull, Check MP, then Push
 Vacuum Green
 Voltmeter Green
 Engine gauges CHECK
 Throttle Idle then 1000RPM

PRE TAKE OFF CHECK

Fuel selector ON
 Trimmers..... SET
 Throttle friction SET
 Mixture RICH
 Propeller FINE
 Flaps..... As required (Take OFF)
 Fuel Pump ON
 Alternate Air Off
 Heading Indicator CHECK
 Altimeters QNH/QNH
 Engine Instruments..... CHECK
 Radio & Nav Aids CHECK SET
 Harnesses & Doors SECURE
 Flying Controls FULL & FREE

LINE-UP & TAKE-OFF

Strobe / Landing Lights As required
 Pitot Heat..... As required
 Heading Bug Set Runway Heading
 Transponder ALT
 TCAD ON

Vr 68
 EFATO 70/76
 Initial climb speed..... 75
 Vy 73 (TO flap), 95 (clean)
 Vx 81

AFTER TAKE-OFF

Brakes Apply to stop wheels
 Undercarriage UP
 Landing / Taxi lamps OFF
 Flaps..... RETRACT at 300ft
 Power..... SET
 Engine Instruments..... CHECK
 Fuel Pump OFF at 1000ft
 En-route climb 95-105 KIAS

V Speeds

V_A / V_{NE} 129 / 187
 V_{FE} T.O: 129, Full: 103
 V_{LO} , V_{LE} 129, 139
 V_{GLIDE}..... 92

CRUISE CHECKS

Fuel CONTENTS / BALANCE
 Radio / Nav Aids..... SET
 Engine T&Ps CHECK
 Direction HSI / Compass
 Altimeter..... 1) QNH / 1013, 2) QNH
 Harnesses..... SECURE
 Cruise power 23", 2300RPM
 Mixture Lean
 Temps Max EGT 1450, CHT 400

AIRFIELD APPROACH

Fuel Pump ON
 Fuel Tank..... Fullest
 Mixture RICH
 Radio / Nav Aids..... IDENT & SET
 Engine T&Ps CHECK
 Direction HSI / Compass
 Altimeter..... 1) QNH / 1013, 2) QNH
 Harnesses..... SECURE
 ATIS / Weather OBTAINED
 IFR Minimums CHECK
 Missed Approach PLANNED

PRE-LANDING CHECKS

Parking Brake OFF
 Toe Brakes CHECK PRESSURE
 Land Gear (V_{lo} 129 KIAS, V_{le} 139) DOWN
 Landing Lights ON
 Mixture FULL RICH
 Props Full
 Fuel FULLEST TANK, PUMP ON
 Radio / Nav aids SET
 Engine T&Ps CHECK
 Instruments HIS Check, QNH Set
 Harnesses & Hatches SECURE

Flaps (V_{fe} 129 / 103 KIAS)..... As required

Approach 86 (TO flap) then 73 (full flap)
 V_{SO}, V_{S1}..... 59, 70 KIAS

Cross wind limit 25 Kt

AFTER LANDING

Transponder STANDBY
Landing Light..... OFF
Pitot Heat..... Off
Strobe lights..... Off
Fuel Pump..... Off
Trim..... Take-Off
Throttle friction LOOSE
Flaps..... UP
Radio / Nav aids AS REQUIRED
Standby Horizon Cage
TCAD Off
Autopilot Master Switch Off

SHUT DOWN

Parking Brake..... ON (Off if by hangar)
Throttle..... 1000 RPM
Magnetos..... Check
Turn Co-ordinator Off
Lights..... Off
Standby Horizon Switch..... Off
Radio Master Switch..... Off
Throttle CLOSED
Mixture ICO
Magnetos..... OFF
Ignition Keys REMOVE
Alternator Off
Master Switch..... OFF
Control Lock..... Fitted
Paperwork Complete
Pitot & Static Covers Fitted

HASELL

H	Height	Sufficient to Recover by 3000ft
A	Airframe	Flap as required
S	Security	Harnesses tight Loose Articles Stowed
E	Engine	Fuel Contents Fuller Tank Fuel Pump ON Mixture RICH T's & P's check
L	Location	Active Airfields Built Up Areas Cloud Controlled Airspace Danger Areas
L	Lookout	Stalls Min 180° (2 x 90°)

STARTING WITH EXTERNAL POWER

Master switch Off.
All electrical equipment..... Off.
External power..... Connect.
Starter Operate.
Throttle Idle RPM.
External power..... Disconnect.
Master switch On

STARTING ENGINE WHEN FLOODED

Throttle Fully open.
Master switch On.
Fuel pump..... Off.
Mixture I.C.O.
Starter Operate.
Mixture Advance.
Throttle Retard.
Starter warning light..... Out.
Oil pressure..... Check.

STARTING ENGINE WHEN HOT

Throttle Closed.
Master switch On.
Fuel pump..... On.
Mixture Lean
Starter Operate.
Mixture Rich when engine fires
Starter warning light..... Out.
Throttle Adjust.
Oil pressure..... Check.
Fuel pump..... Off