

Cessna 172E

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<u>SPEEDS (MPH)</u>	
Vso.....	52
Vs.....	59
Vr.....	60
Vx (sea level).....	65
Vx (10,000 ft.).....	71
Vy (sea level).....	80
Vy (10,000 ft.).....	77
Vfe.....	100
Vno.....	140
Vne.....	174
Va (2300 lbs).....	122
Va (2000 lbs).....	114
Va (1600 lbs).....	102
Best Glide (max gross).....	65
Max. Demon. X-Wind.....	15
Approach (Flaps UP).....	70-80
Approach (Flaps DN).....	65-75
Enroute Climb.....	80-90
<u>PREFLIGHT</u>	
Weather.....	CHECK
Weight & Balance.....	COMPLETE
Documents (AROW).....	CHECK
Inspection/AD status.....	CHECK
Fire Extinguisher.....	CHARGED
Hobbs/Tach.....	CHECK
Control Lock.....	REMOVE
Ignition.....	OFF
Avionics Master.....	OFF
Master.....	ON
Fuel Quantity.....	CHECK
Turn Coordinator.....	AUDIBLE
Flaps.....	EXTEND
Lights.....	ON/INSPECT/OFF
Fuel Selector.....	BOTH
Master.....	OFF

EXTERIOR INSPECTION

<u>Aft Fuselage</u>	
Baggage Door.....	LOCKED
Fuselage.....	CHECK
<u>Empennage</u>	
Horiz. Stabilizer.....	CHECK
Elevator.....	CHECK
Tail Tie-Down.....	REMOVE
Trim Tab.....	CHECK
Rudder.....	CHECK
Antennas.....	CHECK
Horiz. Stabilizer.....	CHECK
<u>Right Wing</u>	
Flap.....	CHECK
Aileron.....	CHECK
Tie Down.....	REMOVE
Wing Tip.....	CHECK
Leading Edge.....	CHECK
Fuel Sump.....	CHECK
Main Wheel.....	CHECK
Fuel Quantity.....	CHECK
Fuel Filler Cap.....	SECURE
<u>Nose</u>	
Windscreen.....	CLEAN
Cowling.....	SECURE
Fuel Strainer.....	CHECK
Oil Quantity (6-8 qts).....	CHECK
Cooling Inlets.....	CHECK
Prop. & Spinner.....	CHECK
Carburetor Air Filter.....	CHECK
Landing Light.....	CHECK
Nose Wheel Strut/Tire.....	CHECK
Static Source.....	CHECK
<u>Left Wing</u>	
Fuel Quantity.....	CHECK
Fuel Filler Cap.....	SECURE
Fuel Sump.....	CHECK

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<u>EXTERIOR INSPECTION (CONT.)</u>	
Main Wheel.....	CHECK
Pitot Tube.....	CHECK
Fuel Tank Vent.....	CHECK
Stall Warning.....	CLEAR
Tie Down.....	REMOVE
Leading Edge.....	CHECK
Left Aileron.....	CHECK
Left Flap.....	CHECK
<u>PRE-ENGINE START</u>	
Preflight Inspection....	COMPLETE
Passenger Briefing....	COMPLETE
Seats and Belts.....	SECURE
Parking Brake.....	SET
Circuit Breakers.....	CHECK IN
Electrical Equipment.....	OFF
Avionics Master.....	OFF
Fuel Selector Valve.....	BOTH
<u>ENGINE START</u>	
Throttle.....	OPEN 1/8 INCH
Mixture.....	RICH
Carburetor Heat.....	COLD
Prime.....	AS NECESSARY
Master.....	ON
Beacon.....	ON
Propeller Area.....	CLEAR
Ignition.....	START
Throttle.....	1000 RPM
Oil Pressure.....	CHECK
Mixture.....	LEAN for TAXI
Ammeter.....	CHECK
Lights (as required).....	ON
Avionics Master.....	ON

FLOODED START

Master.....	ON
Throttle.....	FULL OPEN
Mixture.....	IDLE CUT OFF
Ignition.....	ENGAGE
When engine fires advance mixture, retard throttle	

COLD WEATHER START

Primer.....	8-10 STROKES
Propeller Area.....	CLEAR
Master.....	ON
Magnetos.....	BOTH
Throttle.....	1/4 INCH
Carburetor Heat.....	ON
Starter.....	ENGAGE
Prime.....	CONTINUE until engine is running smoothly
Carburetor Heat.....	ON
Until engine has warmed up. Allow 2 to 5 minutes at 1000 RPM for warm-up	

TAXI

Radios.....	ON
Transponder.....	STBY
Flaps.....	RETRACT
Parking Brake.....	RELEASE
Brakes.....	TEST
Instruments.....	CHECK

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RUNUP

Parking Brake.....SET
Seats/Belts.....SECURE
Doors/Windows.....CLOSED
AND LOCKED
Flight Controls.....FREE and
CORRECT
Fuel Quantity.....CHECK
Fuel Selector Valve.....BOTH
Mixture.....RICH
Throttle.....1600 RPM
Engine Instruments.....CHECK
Mixture.....SET for altitude
Magneto.....L/R/BOTH
Max differential 75 RPM
(although not specifically noted in
the POH, the max drop should not
exceed 125 RPM)
Carburetor Heat.....CHECK
Suction.....CHECK
Engine Instruments.....CHECK
Ammeter.....CHECK
Throttle.....IDLE then 1000 RPM
Flight Instruments.....CHECK
and SET
Throttle Friction Lock.....ADJUST
Radios and Avionics.....SET
Trim.....SET for TAKEOFF
Brakes.....RELEASE

PRE-TAKEOFF

Flaps (as required).....SET
Transponder.....ALT
Lights.....AS REQUIRED
Carburetor Heat.....COLD
Emergency Procedures...REVIEW

NORMAL TAKEOFF

Flaps.....UP
Carburetor Heat.....COLD
Throttle.....Full OPEN
Engine Instruments.....CHECK
Rotate.....60 MPH
Climb.....80-85 MPH
Enroute Climb.....80-90 MPH

SHORT-FIELD TAKEOFF (OBSTACLE CLEARANCE)

*note: the aircraft POH states
that 10° flaps should only be
used on soft-field and short-
field takeoffs when obstacle
clearance is not a factor.*

Flaps.....UP
Brakes.....APPLY
Carburetor Heat.....COLD
Throttle.....Full OPEN
Engine Instruments.....CHECK
Brakes.....RELEASE
Rotate.....60 MPH
Climb.....65MPH
until clear of obstacle

SOFT-FIELD TAKEOFF

Carburetor Heat.....COLD
Flaps.....10°
Elevator.....Full AFT
Braking.....MINIMAL
Throttle.....Full OPEN
Climb.....80-85 MPH
after accel. in ground effect
Flaps.....RETRACT

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CRUISE

Power.....2200-2700 RPM
Mixture.....ADJUST
Landing Light.....OFF
Trim.....ADJUST
Fuel.....LEFT or RIGHT
*Above 5,000. Refer to POH *

BEFORE LANDING

Fuel Selector.....BOTH
Mixture.....ENRICH
Carburetor Heat.....ON
Flaps.....AS DESIRED
Airspeed (flaps up).....65-75 MPH
Airspeed (flaps dn).....70-80 MPH
Seat Backs.....UPRIGHT
Seats/Belts.....SECURE
Landing Light.....AS REQUIRED

NORMAL LANDING

Touchdown.....MAINS first
Landing Roll....Lower nose gently
Braking.....Minimum required

SHORT FIELD LANDING

Carburetor Heat.....ON
Airspeed.....70 MPH (Flaps UP)
Flaps.....DOWN (40°)
Airspeed.....67 MPH
Power.....IDLE
Touchdown.....MAINS first
Brakes.....APPLY
Flaps.....RETRACT
Elevator.....Hold full AFT
during rollout

GO-AROUND

Throttle.....FULL OPEN
Carburetor Heat.....COLD
Flaps.....RETRACT to 30°
Climb.....65 MPH
Flaps.....RETRACT to 10°
until obstacles are cleared
Flaps.....RETRACT
after reaching safe altitude at 60
MPH

AFTER LANDING

Flaps.....RETRACT
Carburetor Heat.....COLD
Landing Light.....OFF
Mixture.....LEAN for taxi
Transponder.....STBY

SHUTDOWN

Throttle.....IDLE
Electrical Equipment.....OFF
Avionics Master.....OFF
Mixture.....IDLE cutoff
Ignition.....OFF
Beacon.....OFF
Master.....OFF
Control Lock.....INSTALL
Hobbs/Flight Ticket.....RECORD
Trash.....REMOVE
Doors/Windows.....LOCKED
Tie-Downs.....SECURE
Flight Plan.....CLOSE

EMERGENCY PROCEDURES

ENGINE FAILURE DURING TAKEOFF

Throttle.....IDLE
 Brakes.....APPLY
 Flaps.....RETRACT
 Mixture.....IDLE CUTOFF
 Ignition.....OFF
 Master.....OFF

ENGINE FAILURE AFTER TAKEOFF

Airspeed.....65MPH
 Mixture.....IDLE CUTOFF
 Fuel Shutoff Valve.....OFF
 Ignition.....OFF
 Master.....OFF
 Cabin Door.....UNLATCH
 Land.....STRAIGHT AHEAD

ENGINE FAILURE DURING FLIGHT

Airspeed.....65 MPH
 Landing Site.....IDENTIFY
 Fuel Selector Valve.....BOTH
 Mixture.....RICH
 Throttle.....FULL OPEN
 Carburetor Heat.....ON
 Fuel Selector.....SWITCH/BOTH
 Primer.....IN and LOCKED
 Ignition.....BOTH or START
 if propeller has stopped
 Gauges.....CHECK
 Throttle and Mixture.....
 TRY DIFFERENT SETTINGS

EMERGENCY PROCEDURES

EMERGENCY LANDING WITHOUT POWER

Airspeed.....65 MPH
 Landing Site.....IDENTIFY
 Seat Backs.....UPRIGHT
 Seats/Belts.....SECURE
 Radios.....121.5/MAYDAY
 Transponder.....7700
 Mixture.....IDLE CUTOFF
 Fuel Shutoff Valve.....OFF
 Ignition.....OFF
 Flaps.....AS REQUIRED
 Master.....OFF
 Doors.....UNLATCH
 Touchdown.....TAIL LOW
 Brakes.....APPLY HEAVILY

ENGINE FIRE IN FLIGHT

Mixture.....IDLE CUTOFF
 Fuel Selector Valve.....OFF
 Master.....OFF
 Cabin Heat & Air.....OFF
 Airspeed.....100 MPH
 Forced Landing.....EXECUTE

CABIN FIRE

Master.....OFF
 Vents/Air/Heat.....CLOSED
 Fire Extinguisher.....ACTIVATE
 Cabin.....VENTILATE
 Land.....ASAP

EMERGENCY PROCEDURES

FIRE DURING ENGINE START

Cranking.....CONTINUE
 If Engine Starts:
 Power.....1700 RPM
 Fuel Selector.....OFF
 Mixture.....IDLE CUTOFF
 Engine.....SHUTDOWN
 If Engine Fails to Start:
 Throttle.....FULL OPEN
 Mixture.....IDLE CUTOFF
 Cranking.....CONTINUE
 Fire Extinguisher.....OBTAIN

Securing Engine
 Master.....OFF
 Ignition.....OFF
 Fuel Selector.....OFF
 Fire.....EXTINGUISH
 Fire Damage.....INSPECT

ELECTRICAL FIRE

Master.....OFF
 Avionics Master.....OFF
 Vents/Air/Heat.....CLOSED
 Fire Extinguisher.....ACTIVATE
 All other electrical.....OFF
 Vents.....OPEN when FIRE OUT
 *If fire is out and electrical is
 necessary for flight*
 Master.....ON
 Circuit Breakers.....CHECK
 do not reset!

Radios.....OFF
 Avionics Master.....ON
 Electrical.....ON, individually

EMERGENCY PROCEDURES

AMMETER EXCESSIVE RATE OF CHARGE

Alternator.....OFF
 Non-Essential Equipment....OFF
 Master.....LEAVE ON

If loads are not reduced

Alternator.....OFF
 Batter Switch.....AS REQUIRED
 Terminate flight as soon as
 practical

ALTERNATOR FAILURE

Electrical Equipment.....OFF
 Alternator Switch.....OFF
 for 30 seconds
 Circuit Breakers.....
 CHECK/RESET
 Alternator Switch.....ON
 Alternator Gauge.....CHECK
 Electrical Equipment.....ON

*If ammeter continues to show a
 discharge*

Alternator Switch.....OFF
 Non-Essential Equipment....OFF
 Terminate flight as soon as
 practical