


CESSNA 172S



COSTANZO AIR FLIGHT SCHOOL





## N53576

Engine	Lycoming IO-360
Horsepower	180hp at 2,700 RPM
Usable fuel quantity	53 gal (2x 26.5 gal)
Total fuel quantity	56 gal (2x 28 gal)
Oil quantity	5 qts minimum
Tire pressure	45 psi (nose), 38 psi (main)

### WEIGHT & BALANCE

Max Takeoff Weight	2,550 lbs
Max Landing Weight	2,550 lbs
Empty Weight	1698.9 lbs
CG Arm	40.99 in

### INTERIOR INSPECTION

Hobbs & Tach	WRITE DOWN
AROW + AFM Supplements	ABOARD
VOR Check (if IFR)	30 DAYS
Parking Brake	SET
Control Wheel Lock	REMOVE
Ignition Switch	OFF + KEYS OUT
Fuel Selector Valve	BOTH
Fuel Shutoff Valve	FULL IN
Elevator Trim	TAKEOFF
Mixture & Throttle	OFF
Alternate Static	TEST & OFF
Avionics & Electrical Switches	OFF
Master Switch	ON
Fuel Quantity	CHECK
Avionics (Check Fan)	CYCLE
Annunciator Panel	TEST
Flaps	EXTEND
Exterior Lights & Pitot Heat	CHECK
All Switches	OFF
Master Switch	OFF
Fire Extinguisher (Latch, Green, Pin)	CHECK
Seat Position	SET

V-SPEEDS				EXTERIOR INSPECTION	
				LEFT FUSELAGE	
Vso	40 KIAS	Vfe 20/30°	85 KIAS	Surface Condition	INSPECT
Vs	48 KIAS	Vfe 10°	110 KIAS	Baggage Door	LOCKED
Vr	55 KIAS	VA @2,550 lbs	105 KIAS	Autopilot Static Port	INSPECT
Vx	62 KIAS	VA @2,200 lbs	98 KIAS	EMPENNAGE	
Vy	74 KIAS	VA @1,900 lbs	90 KIAS	Surface Condition	INSPECT
Vno	129 KIAS	Vne	163 KIAS	Elevator Control Surface	FREE
EMERGENCY AIRSPEEDS				Elevator Hinges & Cable Attachment	INSPECT
Engine failure after takeoff	Engine failure in flight			Elevator Trim Tab	INSPECT
Flaps Up	70 KIAS	Vg	68 KIAS	Rudder Hinges & Cable Attachment	INSPECT
Flaps Down	65 KIAS	Tail Tie Down			REMOVE

AIRCRAFT INSPECTION		DEPARTURE	
RIGHT FUSELAGE		BEFORE ENGINE START	
Surface Condition	INSPECT	Preflight Inspection	COMPLETE
Airplane Antennas	INSPECT	Passenger Briefing	PSAFETY
		Seats & Belts	ADJUST & LOCK
RIGHT WING		Brakes & Parking Brake	HOLD & SET
Flap and Aileron	INSPECT	Fuel Selector Valve	BOTH
Wing tip	INSPECT	Fuel Shutoff Valve	FULL IN
Tie Down	REMOVE	Mixture	IDLE CUTOFF
Leading Edge	INSPECT	Throttle	OPEN 1/4 IN
Main Wheel Tire and Brake	INSPECT	Avionics & Electrical Switches	OFF
Fuel Tank Sump	DRAIN/CHECK	Circuit Breakers	IN
Fuel Quantity & Fuel Caps	CHECK		
NOSE		ENGINE START	
Oil Quantity (min 5 qts)	CHECK	Beacon	ON
Fuel Sumps	CHECK x3	Master Switch (both sides)	ON
Exhaust Stack	SECURE	If priming is required	PRIME
Engine Cowling	CHECK CLEAR	Pump on, Mixture full until stable fuel flow (3-5s), Pump off	
Alternator Belt	INSPECT	Prop Area	CLEAR
Propeller & Spinner	INSPECT	Ignition	START
Air Filter	INSPECT	Mixture	FULL WHEN ENGINE STARTS
Nose Wheel Tire & Strut	INSPECT	Throttle	1,000 RPM
Static Port	INSPECT	Oil Pressure	GREEN
		Alternator	VERIFY ON
LEFT WING		AFTER START	
Main Wheel Tire and Brake	INSPECT	Flaps	RETRACT
Fuel Tank Sump	DRAIN/CHECK	Mixture	LEAN FOR TAXI
Fuel Quantity & Fuel Caps	INSPECT	Avionics	ON
Leading Edge & Lights	INSPECT	Electrical Switches	AS DESIRED
Pitot Tube	INSPECT	Nav Lights	AS NEEDED
Stall Warning	INSPECT	Ammeter	CHARGING
Fuel Tank Vent	INSPECT		
Tie Down	REMOVE	BEFORE TAXI	
Wing tip	INSPECT	Radios, Transponder, GPS	SET
Flap and Aileron	INSPECT	ATIS/AWOS	LISTEN
		Altimeter	SET 2X
FINAL WALKAROUND		Parking Brake	RELEASE
Aircraft Condition	CHECK	Brakes	TEST
All Covers, Tie-downs	REMOVED	Taxi Light	ON
Windshield	CLEAN	Taxi (Route, Hotspots, Runways)	BRIEF
Oil, Fuel, Sump	CHECK	Taxi Clearance	OBTAIN

DEPARTURE		IN-FLIGHT	
RUN-UP		AFTER TAKE-OFF (500	
Parking Brake	SET	Flaps (when clear of obstacles)	
Radios	SWITCH TO TWR	Throttle	
Flight Controls	FREE & CORRECT	Mixture (lean above 3,000ft)	
Flight Instruments	CHECK & SET	Engine Gauges	
Fuel Quantity	CHECK	CLIMB	
Fuel Selector	BOTH		
Mixture	RICH (below 3,000)	Airspeed	
Throttle	1,800 RPM	Throttle	
Mixture (lean above 3,000ft)	SET FOR TAKEOFF	Mixture (lean above 3,000ft)	
Magnetos (Max 150 / Diff 50)	CHECK	CRUISE	
Annunciator Panel	ALL OFF		
Engine Gauges & Vacuum	CHECK	Fuel	
Ammeter & Voltmeter	CHECK	Power	
Throttle	IDLE then 1,000	Mixture (lean above 3,000ft)	
COM/NAV/GPS	SET	Engine Gauges	
Autopilot	TEST	Ammeter	
Manual Electric Trim	TEST & TAKEOFF	Instruments & Switches	
Transponder	ALT & CODE	Avionics	
Flaps (10° recommended)	AS REQUIRED	BEFORE MANEUVER	
Seats, Belts, Harnesses	SECURE		
Doors & Windows	CLOSED	Clearing Turns	
Parking Brake	RELEASE	Heading	
Departure Brief	COMPLETE	Altitude	
SHOWTIME, LIGHTS, CAMERA, ACTION		Position (emergency landing)	
		Set power & configuration	
TAKE-OFF		IN RANGE	
POWER 2300 / GAUGES GREEN / AIRSPEED ALIVE			
NORMAL TAKEOFF (10° FLAPS)		ATIS/AWOS	
Throttle	FULL	Altimeter	
Rotate	55 KIAS	Approach	
Climb	70-80 KIAS	Avionics	
SHORT FIELD TAKE-OFF (10° FLAPS)		Airplane	
Max Runway & Brakes	USE & APPLY		
Throttle	FULL ON BRAKES	DESCENT	
Brakes	RELEASE	Fuel Selector Valve	
Elevator Control	SLIGHT TAIL LOW Power & Mixture (Full rich for idle)		
Climb past obstacle	56 KIAS	Brake Pressure	
SOFT FIELD TAKE-OFF (10° FLAPS)		Engine Gauges	
Elevator	FULL AFT	Seats	
Rotate & Accelerate	IN GND EFFECT	Seatbelts	
Climb	Vx or Vy	Landing Light	

IN-FLIGHT		EMERGENCIES		EMERGENCIES		EMERGENCIES		
AGL)	NORMAL LANDING		ENGINE FAILURE DURING TAKEOFF		ENGINE FIRE DURING START		EXCESSIVE CHARGE (FULL DEFLECTION)	
UP	Airspeed (Flaps Up)	65-75 KIAS	Throttle	IDLE	Cranking	CONTINUE	Alternator	OFF
FULL	Flaps	AS DESIRED	Brakes	APPLY	If Engine Starts	1,800 RPM (2 MINS) THEN OFF	Nonessential Electrical Equipment	OFF
SET	Final Airspeed (Flaps Down)	60-70 KIAS	Flaps	RETRACT	If Engine Fails to Start		Flight	TERMINATE as soon as practical
GREEN	Touchdown	MAIN WHEELS	Mixture	IDLE CUT-OFF	Throttle	FULL OPEN		
	Landing Roll	LOWER NOSE WHEEL	Ignition Switch	OFF	Mixture	IDLE CUT-OFF	LOW VOLTS ANNUNCIATOR / DISCHARGE	
	Braking	AS REQUIRED	Master Switch	OFF	Cranking	CONTINUE	Avionics	OFF
	SHORT FIELD LANDING		ENGINE FAILURE AFTER TAKEOFF		Fuel Shutoff Valve	OFF / FULL OUT	Alternator CB (ALT FLD)	CHECK IN
75-85 KIAS	Airspeed (Flaps Up)	65-75 KIAS	Airspeed	70 IAS (Flaps Up) / 65 IAS (Flaps Down)	Fire Extinguisher	OBTAIN	Master Switch	CYCLE
FULL	Flaps	FULL DOWN	Land	STRAIGHT AHEAD	Master Switch	OFF	Low Voltage Annunciator	CHECK OFF
SET	Final Airspeed	61 KIAS	Mixture	IDLE CUT-OFF	Ignition Switch	OFF	Avionics	ON
	Power once clear of Obstacles	IDLE	Fuel Shutoff Valve	OFF / FULL OUT	Parking Brake	RELEASE	If Low Voltage Annunciator illuminates again	
	Touchdown	MAIN WHEELS	Ignition Switch	OFF	Fire	EXTINGUISH	Alternator	OFF
BOTH	Braking (Simulate)	APPLY HEAVILY	Flaps	AS REQUIRED	ENGINE FIRE IN FLIGHT		Nonessential Electrical Equipment	OFF
SET	Flaps	RETRACT	Master Switch	OFF	Mixture	IDLE CUTOFF	Flight	TERMINATE as soon as practical
CHECK	BALKED LANDING / GO-AROUND		ENGINE FAILURE DURING FLIGHT		Fuel Shutoff Valve	OFF / FULL OUT	INADVERTENT ICING ENCOUNTER	
CHECK	Throttle	FULL	Airspeed	68 IAS	Aux Fuel Pump	OFF		
CHECK	Flaps	20°	Fuel Selector Valve	BOTH	Master Switch	OFF	Pitot Heat, Cabin Heat, Defroster	ON
SET	Airspeed	55 KIAS	Fuel Shutoff Valve	FULL IN	Cabin Air & Heat (except overhead)	OFF	Cabin Heat and Defroster	ON
	Flaps (until clear of Obstacles)	10°	Mixture	RICH	Airspeed / Emergency Descent	100 KIAS or more	Turn back or change altitude to exit icing conditions	
	Flaps (at safe altitude and 60 KIAS)	RETRACT	Aux Fuel Pump	ON	Forced Landing	EXECUTE	Throttle (to minimize prop ice buildup) INCREASE	
			Ignition Switch (START if prop stopped)	BOTH or START			Carb Heat	AS REQUIRED
	AFTER LANDING		FORCED LANDING		ELECTRICAL FIRE IN FLIGHT		Land at nearest airport, or off airport if rapid ice buildup.	
	Flaps	UP			Master Switch	OFF	Be prepared for higher stall speed	
	Mixture	LEAN FOR TAXI	Airspeed	70 IAS (Flaps Up) / 65 IAS (Flaps Down)	Avionics	OFF	Flaps	DON'T EXTEND
	Lights	AS REQUIRED	Mixture	IDLE CUT-OFF	All Electrical Switches	OFF	Approach speed	65-75 IAS
	Trim	RESET	Fuel Shutoff Valve	OFF	Overhead Vents/Cabin Air/Heat	CLOSED	Scrape windshield through left window, forward slip if req'd.	
	Taxi Brief & Clearance	OBTAIN	Ignition Switch	OFF	Fire	EXTINGUISH		
			Emergency (with ATC or 121.5)	DECLARE	When Fire Extinguished	OPEN VENTS	RADIO FAILURE	
	SHUTDOWN		Transponder	7700	If Fire extinguished and Electricals Required		Volume and Squelch	CHECK
	Parking Brake	AS REQUIRED	Flaps (30° recommended)	AS REQUIRED	Master Switch	ON	Audio Panel	CHECK
	Avionics and Electrical Switches	OFF	Master Switch	OFF	Circuit Breakers (DO NOT RESET)	CHECK	Headset Plugs	CHECK
	Throttle	1,000 RPM	Doors	UNLATCH BEFORE LANDING	Avionics and Electrical switches	ON ONE BY ONE	Circuit Breakers	VERIFY
	Mixture	IDLE CUTOFF	Touchdown	SLIGHTLY TAIL LOW			Frequency	RETURN TO LAST OR 121.5
	Ignition Switch	OFF & KEYS OUT	Brakes	APPLY HEAVILY	CABIN FIRE IN FLIGHT		LANDING WITH FLAT MAIN TIRE	
	Master Switch	OFF			Master Switch	OFF		
	Fuel Selector	LEFT / RIGHT			Overhead Vents/Cabin Air/Heat	CLOSED	Approach	NORMAL
	Control Wheel Lock	INSTALL			Extinguish Fire and Land as soon as possible		Touchdown	GOOD TIRE FIRST
	Hobbs & Tach	WRITE DOWN					Hold airplane off flat tire as long as possible	
	Tie-downs and Covers	INSTALL			WING FIRE			
					All Lights and Pitot Heat	OFF		
					Perform sideslip to keep flames away from cabin & fuel tank			