

CESSNA 172M SKYHAWK Model Guide

The CESSNA 172M SKYHAWK is a single-engine piston, fixed-gear, high-wing four-place trainer and tourer. It has a 150 hp Lycoming O-320 engine (O-320-E2D in the handbooks) and a fixed-pitch propeller. The figures below are a library summary: 105 kt cruise, about 10 gph fuel burn, 600 nm range and a 2400 lb maximum takeoff weight. The library figures and the old factory manuals disagree in several places, including gross weight, climb and takeoff distance. Treat the numbers as a guide and confirm them against the POH and weight-and-balance records of the specific airplane you are considering.

KEY TAKEAWAYS

- The CESSNA 172M SKYHAWK has a 150 hp Lycoming O-320 and a library cruise of 105 kt at about 10 gph. The library range is 600 nm and the usable fuel is 40 gal.
- Weights differ by source. The library and a flight-school data sheet give 2400 lb maximum takeoff weight. The 1974 and 1975 owner's manuals list 2300 lbs gross weight. Check which applies to the airplane you are buying.
- Individual airplanes vary. Three school airplanes show basic empty weights of 1481.1, 1482.9 and 1489.7 lbs, against 1550 lbs in the library. Use the airplane's own weighing.
- Check the logbooks for STCs. One example is an electronic ignition that replaces the right magneto and changes the magneto check procedure.
- Published V-speeds differ between sources (for example Vne 163 vs 158 kt). Use the POH for the specific airplane.

WHAT IT CARRIES

The library lists 2400 lbs maximum takeoff, ramp and landing weight, 1550 lbs basic empty weight and 850 lbs useful load. It lists a 200 lb baggage allowance and a CG range of 34 to 40 inches. A school data sheet lists normal-category limits of 2400 lbs takeoff and landing and 2407 lbs ramp, with baggage of 120 lbs in Area 1 and 50 lbs in Area 2. The utility category is 2100 lbs takeoff and landing. The 1974 and 1975 owner's manuals show 2300 lbs gross weight and 120 lbs baggage. Their useful loads run from 890 to 1000 lbs depending on trim level. Fuel is 40 gal usable (43.0 gal total) per the data sheet. The 1975 manual lists 42 gal standard tanks and 52 gal optional long-range tanks.

HOW IT PERFORMS

Library figures: 105 kt cruise, 120 kt maximum speed, 730 fpm climb, 14000 ft service ceiling, 600 nm range and 10 gph fuel burn. Library takeoff is 1500 ft ground and 2000 ft over a 50 ft obstacle. Library landing is 1200 ft ground and 1500 ft over a 50 ft obstacle. The 1974 and 1975 owner's manuals are more conservative: 144 mph top speed, 138 mph cruise at 75% power, 645 fpm climb and a 13,100 ft ceiling. Their takeoff ground run is 865 ft (885 ft in one copy) and 1525 ft over 50 ft. Their landing roll is 520 ft and 1250 ft over 50 ft. The demonstrated crosswind component is 15 kt. Plan with the POH numbers for the specific airplane.

WHAT TO CHECK BEFORE BUYING

Confirm the engine and propeller against the paperwork. The handbooks list a Lycoming O-320-E2D rated 150 hp at 2700 RPM. The 1976 POH lists a McCauley 1C160/DTM7553 propeller, while the library lists a McCauley 1A170/DM. One school data sheet describes a 160 BHP O-320, so installed equipment varies. Review the logbooks for STCs. An ElectroAir electronic ignition STC replaces the right magneto, adds an EIS circuit breaker switch and changes the magneto check. That check is run at 1,700 RPM with a maximum drop of 125 RPM, and the EIS side may show little or no drop. Also verify the current weight and balance, the equipment list and the fuel tank configuration.

SPECIFICATIONS

Engine Model	Lycoming O-320
Engine Hp	150
Propeller	McCauley 1A170/DM
Wingspan Ft	36
Length Ft	27
Height Ft	8
Fuel Capacity Gal	40
Empty Weight Lbs	1550
Max Takeoff Weight Lbs	2400

PERFORMANCE

Cruise Speed Kts	105
Max Speed Kts	120
Range Nm	600
Rate Of Climb Fpm	730
Service Ceiling Ft	14000
Fuel Burn Gph	10
Takeoff Distance Ft	1500
Takeoff Over 50ft	2000
Landing Distance Ft	1200
Landing Over 50ft	1500
Max Crosswind Kts	15

V-SPEEDS

Vr Kts	55
Vx Kts	62
Vy Kts	74
Va Kts	105
Vfe Kts	85
Vno Kts	125
Vne Kts	163
Vs1 Kts	50
Vso Kts	40
Vref Kts	65
Best Glide Speed Kts	65

WEIGHT & BALANCE

Max Takeoff Weight Lbs	2400
Max Ramp Weight Lbs	2400
Max Landing Weight Lbs	2400
Basic Empty Weight Lbs	1550
Useful Load Lbs	850
Baggage Allowance Lbs	200
Cg Range Min Inches	34
Cg Range Max Inches	40

SAFETY NOTES

- Engine failure after takeoff per the handbook: 65 KIAS flaps up or 60 KIAS flaps down, then mixture idle cut-off, fuel selector off and ignition off.
- Engine failure in flight: 65 KIAS, carburetor heat on, fuel selector both, mixture rich, ignition both and primer in and locked. The handbook includes a carburetor icing procedure.
- If an electronic ignition STC is fitted, a dead or weak battery can stop the EIS from operating, and the engine start must be aborted. Treat extremely rough running per the STC checklist.
- Do not rely on one speed or weight table. The sources differ, so use the POH and weight-and-balance data for the specific airplane.