

CESSNA AIRCRAFT COMPANY
WICHITA, KANSAS.

CAA IDENTIFICATION
NC 72794

C.A.A. APPROVED
APPROVAL BASIS
LANDPLANE CAR 3
SKIPLANE CAR 4A
17 JUNE 1949
UTILITY CATEGORY

MODEL 140A (C-90)

AIRPLANE FLIGHT MANUAL

LIMITATIONS LANDPLANE OR SKIPLANE

THE FOLLOWING LIMITATIONS ARE TO BE OBSERVED
IN THE OPERATION OF THIS AIRPLANE EQUIPPED
WITH A CONTINENTAL C90-14F ENGINE.

ENGINE LIMITS

FOR ALL OPERATIONS 2475 R.P.M. (90 H.P.)

FUEL SYSTEM

80 MINIMUM OCTANE AVIATION GASOLINE. (USABLE CAPACITY TWO TANKS - 10 1/2 GALLONS EACH -- 21 TOTAL).

PROPELLER

1. WOOD FIXED PITCH - STATIC R.P.M. AT MAXIMUM PERMISSIBLE THROTTLE SETTING -- NOT MORE THAN 2160 R.P.M., NOT LESS THAN 1900 R.P.M. * (DIAMETER - MAXIMUM 74 INCHES; MINIMUM 70.5 INCHES.)
2. McCAULEY 1A90 - STATIC R.P.M. AT MAXIMUM PERMISSIBLE THROTTLE SETTING -- NOT MORE THAN 2350 R.P.M., NOT LESS THAN 2000 R.P.M. * (DIAMETER - MAXIMUM 71 INCHES; MINIMUM 69.5 INCHES.) *NO ADDITIONAL STATIC R.P.M. TOLERANCE PERMITTED.

ENGINE INSTRUMENTS

1. OIL TEMPERATURE - NORMAL OPERATING RANGE 100°-225° (GREEN ARC)
UNSAFE ABOVE 225° (RED LINE)
2. OIL PRESSURE - NORMAL RANGE 30-40 PSI (GREEN ARC). IDLING PRESSURE 5 PSI MIN.
MAXIMUM PRESSURE 50 PSI (RED LINE).
3. TACHOMETER - DO NOT EXCEED RATED ENGINE SPEED 2475 R.P.M. (RED LINE).
NORMAL OPERATING RANGE 2000-2350 R.P.M. (GREEN ARC).
4. FUEL QUANTITY GAUGE - DO NOT TAKE-OFF ON A FUEL TANK LESS THAN 1/4 FULL.
APPROXIMATELY 2 GALLONS OF FUEL UNSUSABLE IN NORMAL FLIGHT MANEUVERS REMAINS IN EACH TANK WHEN THE GAUGE REGISTERS EMPTY.

AIRSPED LIMITS

(TRUE INDICATED AIRSPEED)
NEVER EXCEED
CAUTION RANGE
NORMAL OPERATION
FLAP OPERATING RANGE
MANEUVERING
MAX. STRUCTURAL CRUISING SPEED
MAX. SPEED FLAPS EXTENDED

UTILITY CATEGORY

140 MPH (RED LINE)
115 TO 180 MPH (YELLOW ARC)
50 TO 115 MPH (GREEN ARC)
45 TO 82 MPH (WHITE ARC)
106 MPH
115 MPH
82 MPH

NO INVERTED MANEUVERS PERMITTED.

FLIGHT LOAD FACTORS

HIGH OR LOW ANGLE OF ATTACK - +4.4; INVERTED FLIGHT - 1.76
FLAPS DOWN 43° - +3.5

MAXIMUM WEIGHT - 1500 POUNDS.

CENTER OF GRAVITY RANGE

NOTE: DATUM IS FORWARD FACE OF
FIREWALL; M.A.C. 58.7"; L.E. MAC
+18.8". LEVELING MEANS - TOP EDGE OF
SHEET ALONG FUSELAGE SIDE AFT OF DOOR.

25% M.A.C. (+33.5") TO 31% MAC
(+37.0") AT 1500 POUNDS AND 23.9%
MAC (+32.8") TO 31% MAC (+37.0")
AT 1279 POUNDS OR LESS. STRAIGHT
LINE VARIATION OF FORWARD LIMITS
BETWEEN ABOVE.

NOTES

1. THE FOLLOWING MANEUVERS ARE APPROVED FOR OPERATION IN THE
UTILITY CATEGORY WITH RECOMMENDED ENTRY SPEEDS SHOWN:
CHANDELLE - 105; STEEP TURN - 95; STALLS, (EXCEPT WHIP
STALLS); LAZY EIGHT - 105; SPINS - USE POWER TO ENGER.
2. MANEUVERS INVOLVING FULL APPLICATION OF FLIGHT CONTROLS SHOULD
BE CONFINED TO SPEEDS BELOW MANEUVERING SPEED. ABRUPT MANEUVERS
SHOULD BE AVOIDED IN SPEEDS EXCEEDING THE MANEUVERING SPEED.
3. IT IS THE RESPONSIBILITY OF THE PILOT AND OPERATOR TO SEE THAT
THE WEIGHT AND BALANCE ARE WITHIN LIMITATIONS.

PLACARDS

THIS AIRPLANE MUST BE OPERATED AS A
UTILITY CATEGORY AIRPLANE IN COMPLIANCE
WITH THE FLIGHT MANUAL.

UTILITY

NO ACROBATIC MANEUVERS APPROVED
EXCEPT THOSE LISTED IN THE FLIGHT
MANUAL.

BAGGAGE
80 LBS.
MAXIMUM