

Cessna 180 & 182

MT Propeller Performance Test Results

Flight Resource, LLC for STC # SA02294CH

Engine: Continental O-470S, 230HP @ 2600 rpm

Ambient conditions: 1000 MSL and 75F aircraft at #2950 lbs

Propellers Tested:

MT MTV-15-D/210-58. 83" 2-blade composite prop.

MT MTV-9-D/198-58. 78" 3-blade composite prop.

McCauley 2A34C20390D. 82" 2-blade aluminum prop.

McCauley 403 Series*** 78" 3-blade Aluminum prop.

Weight:

MT 2-blade w/spinner 46 pounds (13 lbs less weight)

MT 3-blade w/spinner 54 pounds (12 lbs less weight)

McCauley 2-blade w/spinner 54 pounds

McCauley 3-blade w/spinner 72 pounds

Static Thrust (2600 rpm):

MT 2-blade 920 pounds (50 lbs more thrust)

MT 3-blade 880 pounds (55 lbs more thrust)

McCauley 2-blade 870 pounds

McCauley 3-blade 825 pounds

Take-off distance over 50' obstacle

MT 2-blade 1280 feet (75' less T/O Dist.)

MT 3-blade 1320 feet (70' less T/O Dist.)

McCauley 2-blade 1355 feet

McCauley 3-blade 1390 feet

Climb performance (1000 MSL & 70F)

MT 2-blade 920 fpm (100 fpm better climb)

MT 3-blade 840 fpm (60 fpm better climb)

McCauley 2-blade 820 fpm

McCauley 3-blade 780 fpm

Cruise performance ** (6000' MSL, full throttle & 2400 rpm)

MT 2-blade 143 Kts TAS (2 kts faster cruise)

MT 3-blade 136 Kts TAS (2 kts faster cruise)

McCauley 2-blade 141 Kts TAS

McCauley 3-blade 134 Kts TAS

*The McCauley 88" seaplane propeller is approximately 2 pounds heavier, adds some takeoff performance, but is slower in cruise by about 4 knots.

** Cruise performance on the C180 was about 4 kts faster due to less airframe drag.

*** Harmonic vibration on this propeller was tested and found unacceptable.