



## RAM AIRCRAFT, LP

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**ENGINES • PARTS • PROPELLERS • ACCESSORIES • STC'S**

### Performance - Cessna 414 RAM - Series VII

Primary Specifications	Cessna 414	RAM 414 VII
Engine Model: CMI - TSIO-520	TSIO-520-J	TSIO-520-NB
Engine hp rating / TBO - hrs.	310 / 1400	335 / 1600
Takeoff M.P. @ 2700 rpm (ISA + 30° F)	36"	38"
Acceleration 0 to 100 mph (seconds)	25	19
Twin engine climb @ S.L. (fpm) @ new GW	1580	1900
Single engine climb @ S.L. (fpm) @ new GW	240	310
Cruise climb power (rpm @ MP) (ISA + 30° F)	2450 @ 31.5"	2500 @ 33.0"
Cruise climb S.L. to 23,000 ft. (minutes)	31	25
260 hp Cruise @ 23,000 ft. (ktas) / fuel/engine (gph)	NA	223 @ 20.3
230 hp Cruise @ 23,000 ft. (ktas) / fuel/engine (gph)	206 @ 19.3	212 @ 17.9
200 hp Cruise @ 23,000 ft. (ktas) / fuel/engine (gph)	185 @ 16.5	190 @ 14.7
Landing wt. / Zero fuel wt. (lbs.)	6200 / 6165	6430 / 6165
Useful load increase (lbs.)	NA	+395
Gross weight / Ramp weight (lbs.)	6350 / NA	6765 / 6800

Performance is based on a mid CG with mid cabin and fuel weight on an average day. Performance should always be calculated per flight environment while referring to the Manufacturer's Pilots Operating Handbook and applicable Flight Manual Supplements for the particular airplane. Aircraft Manufacturer's Pilot Operating Handbooks and Aircraft Owner's Manuals should always be available and adhered to by the aircraft Pilot in Command, including attention to applicable FAA approved Flight Manual Supplements and emergency procedures for each individual aircraft. Performance should vary from airplane to airplane, atmospheric day to atmospheric day, one gross weight and CG to another, and pilot to pilot.

## Larger Turbo - Larger Intercooler - Improved Cooling

TA81 Airesearch Turbo: 17in<sup>3</sup> Compressor - (vs. original 10in<sup>3</sup>)

Larger Intercooler - 140in<sup>3</sup> - improved construction

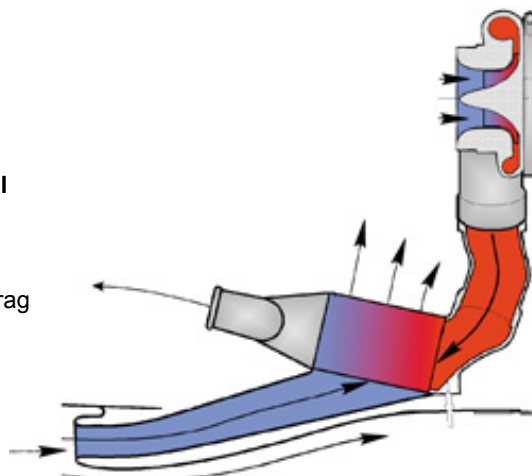
RAM Intercooler Scoop - low profile - minimum shape drag

Additional cooling air exit - at wastegate access panel

Takeoff power - available through 25,000 ft.

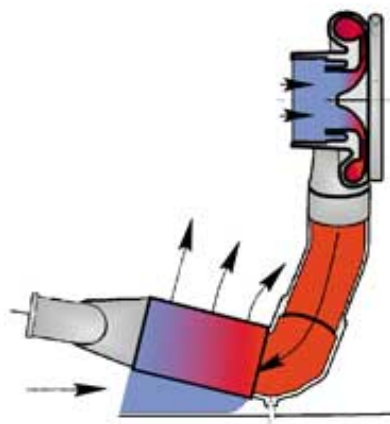
## RAM Series VII Intercooler Scoop

The **RAM Series VII Inlet Scoop** is optimized for minimal aerodynamic drag at high cruise speeds.

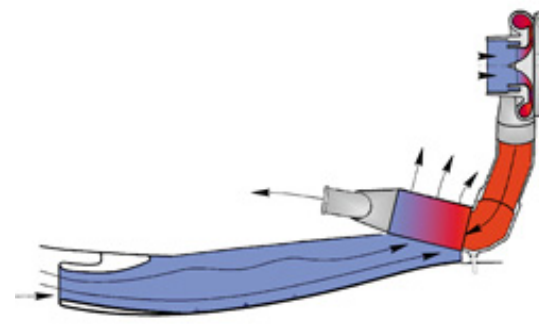


Airesearch newest TA81 turbocharger larger 17 in<sup>3</sup> compressor redlined for 1750°F.

## Other Turbochargers, Intercoolers and Intercooler Scoops



Cessna Factory Original Scoop



American Aviation Scoop

- Cessna, American Aviation, and RAM's 325hp Series IV and 335 hp Series VI use an Airesearch TH08A turbocharger utilizing a 10 in<sup>3</sup> compressor, redlined at 1650°F. Cessna Intercooler is 105 in<sup>3</sup>. AA's Intercooler is 140 in<sup>3</sup>. Both are found on Cessna 310 hp, RAM's 325 hp Series IV, and RAM's 335 hp Series VI.

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