



KELLY AEROSPACE

Thermal Systems

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Title: 172N, 172P, 172R & 172S Air Conditioning
System Weight and Balance
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Revisions

Rev.	Description	Author	Date	Approved
A	Initial Release	EF	3/18/2010	JB
B	See ECN 13-003	JB	1/25/2013	JB
C	See ECN 16-017	PG	12/2/2016	JB
D	See ECN 18-005	EF	5/02/2018	JB

Project	Document Title	Document No	Rev	Page
12-013	172N, P, R & S Air Conditioning System Weight and Balance	NC-10-021	D	2 of 3

1.0 WEIGHT AND BALANCE SUMMARY

Weight and Balance for the kits was determined through kit weight measurement, initial weighing and final weighing of the aircraft with approved calibrated scales. The 172N, 172P, 172R & 172S Air Conditioning System Weight and Balance are listed without changing the alternator in the aircraft. If a larger alternator is installed, then the Weight and Balance must be adjusted accordingly.

1.1 Aircraft Model 172N, 172P, 172R & 172S

The net weight, moment arm and net moment calculations for Kit Number KATS-12-002 and KATS-17-001 includes all air-conditioning components, but the alternator power source is not included.

KATS-12-002 or KATS-17-001 (Without Alternator):

NET WEIGHT = 56.27 lbs.

NET MOMENT ARM = 117.14 in.

NET MOMENT = 6591.53 in-lbs.

2.0 172N, 172P, 172R & 172S Loading Limitation

The location of the air conditioning system in the hat rack lessens the load carrying capability and accessibility of the hat rack. The hat rack is now limited to 0.0 pounds of baggage capacity.

Project	Document Title	Document No	Rev	Page
12-013	172N, P, R & S Air Conditioning System Weight and Balance	NC-10-021	D	3 of 3