



KELLY AEROSPACE

Thermal Systems

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Project Number:
Title: 182Q, 182R, 182S, 182T and T182T
Air Conditioning System
Weight and Balance
Revision: G
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	Name	Signature	Date
Author	Erik Pederson	Signed Copy on File	5/12/08
Approved	Mike Bassham	Signed Copy on File	5/12/08

Revisions

Rev.	Description	Author	Date	Approved
A	Initial Release	EP	5/12/08	EP
B	Addition of Hat Rack Limitations	EP	6/2/08	EP
C	Addition of T182T information	EP	9/17/08	EP
D	Addition of Compressor/Controller Cooling Fan	EF	4/23/09	JH
E	Addition of 182S (See ECN #10-004)	EF	2/03/10	EP
F	Addition of 182R (See ECN #10-079)	VK	3/16/11	EP
G	Addition of 182Q (See ECN #11-055)	EP	11/18/11	EP

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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.

1.1 Aircraft Model 182Q, 182R & 182S

Kit Number KATS 09-006, Kit Number KATS 10-001, KATS 11-010 include all air-conditioning components, but no alternator power source.

KATS-09-006, KATS-10-001, KATS-11-010 WEIGHT = 48.48 lbs.

KATS-09-006, KATS-10-001, KATS-11-010 MOMENT ARM = 147.40 in.

KATS-09-006, KATS-10-001, KATS-11-010 MOMENT = 7145.8 in-lbs.

182Q and 182R Alternator Upgrade Option – weigh as necessary.

1.2 Aircraft Model 182T

Kit Number KATS 08-003 includes all air-conditioning components, but no alternator power source.

KATS-08-003 WEIGHT = 48.48 lbs.

KATS-08-003 MOMENT ARM = 147.40 in.

KATS-08-003 MOMENT = 7145.8 in-lbs.

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1.3 Aircraft Model T182T

Kit Number KATS 08-006 includes all air-conditioning components, but no alternator power source.

KATS-08-006 WEIGHT = 54.89 lbs.

KATS-08-006 MOMENT ARM = 124.24 in.

KATS-08-006 MOMENT = 6819.05 in-lbs.

2.0 182Q, 182R, 182S, 182T and T182T LOADING LIMITATION

The location of the evaporator on the hat rack lessens load carrying capability of the hat rack. The hat rack is now limited to 5 pounds of baggage capacity.

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