

The logo for Kelly Aerospace Thermal Systems features a stylized red square icon on the left, composed of geometric shapes. To its right, the word "KELLY" is written in a bold, red, sans-serif font. Below "KELLY", the word "AEROSPACE" is written in a larger, bold, red, sans-serif font. At the bottom, the words "Thermal Systems" are written in a bold, red, sans-serif font, with "Thermal" and "Systems" on separate lines.

KELLY AEROSPACE

Thermal Systems

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Project Number:
Title: 182T and T182T Air Conditioning System Weight
and Balance
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	Name	Signature	Date
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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

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1.0 WEIGHT AND BALANCE SUMMARY

1.1 Aircraft Model 182T

The Air Conditioning System has 2 possible kits for each aircraft model. Weight and Balance for the kits was determined through kit weight measurement, initial weighing and final weighing of the aircraft with approved calibrated scales

Kit Number KATS 08-001 includes all air-conditioning components and alternator power source. This kit would be installed if the aircraft **DID NOT** have the Kelly Aerospace 182T Back-Up Alternator System Installed

KATS 08-001 WEIGHT = 71.47 lbs.

KATS 08-001 MOMENT ARM = 89.50 in.

KATS 08-001 MOMENT = 6396.9 in-lbs

Kit Number KATS 08-003 includes all air-conditioning components , but no alternator power source. This kit would be installed if the aircraft already had the Kelly Aerospace 182T Back-Up Alternator System Installed.

KATS 08-003 WEIGHT = 48.48 lbs.

KATS 08-003 MOMENT ARM = 147.40 in.

KATS 08-003 MOMENT = 7145.8 in-lbs

1.2 Aircraft Model T182T

Kit Number KATS 08-004 includes all air-conditioning components and alternator power source. This kit would be installed if the aircraft **DID NOT** have the Kelly Aerospace T182T Back-Up Alternator System Installed

KATS 08-004 WEIGHT = 78.07 lbs.

KATS 08-004 MOMENT ARM = 77.67 in.

KATS 08-004 MOMENT = 6063.73 in-lbs

Kit Number KATS 08-006 includes all air-conditioning components , but no alternator power source. This kit would be installed if the aircraft already had the Kelly Aerospace T182T Back-Up Alternator System Installed.

KATS 08-006 WEIGHT = 54.89 lbs.

Kelly Aerospace, Thermal Systems Division

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KATS 08-006 MOMENT ARM = 124.24 in.

KATS 08-006 MOMENT = 6819.05 in-lbs

2.0 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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