



# RAPTOR SERIES.....

No.3807 **46-50 CONVERSION KIT FOR RAPTOR 30 RC HELI**

## INSTRUCTION MANUAL



Thanks for purchasing Thunder Tiger Raptor 46/50 Conversion Kit. This conversion kit includes all needed parts to convert the Raptor 30 to the Raptor 46/50 in either the short boom or the long boom version to best suit to your flying style.

Please read the manual thoroughly before you begin. If you encounter any problem, please call 660-584-6724 (U.S. only) for tech support or e-mail [thelihotline@yahoo.com](mailto:thelihotline@yahoo.com).

### Warranty

This kit is guaranteed to be free from defects in material and workmanship at the date of purchase. It does not cover any damage caused by use or modification. The warranty does not extend beyond the product itself and is limited only to the original cost of kit. By the act of building this user-assembled kit, the user accepts all resulting liability for damage caused by the final product. If the buyer is not prepared to accept this liability, it can be returned new and unused to the place of purchase for a refund.

### Kit Contents

Raptor 46-50 Conversion Kit includes following contents. Please check entire contents of your kit against the parts list. If you find any of parts are either missing or damaged, please contact (U.S. only) Ace Hobby Distributors, Inc. Customer Service (660-584-6704) immediately for replacements.

No	Description	Qty
1	Engine Mount	1
2	Cooling Fan	1
3	10T Pinion Gear	1
4	85T Main Spur Gear	1
5	Tail Boom	1
6	Tail Drive Belt	1
7	Push Pull Rod	1
8	Ball Link	1
9	Rod Guide	3
10	Main Rotor Blades	1
11	Instruction Manual	1

### Instruction

Refer to your original Raptor Assembly Manual and replace the parts as required. The conversion kit will convert your Raptor to one of two versions: Long Boom or Short Boom.

#### ■ Short Boom Version:

The Short-Boom Raptor 50 is excellent for fast 3-D hot-dogging. You keep the stock Raptor 30 rotor blades and tail boom. But, to operate the larger size engines at their peak efficiency, you need to change the gear ratio to 8.5:1.

Change the main gear to the included 85-tooth main gear and and the pinion to include 10-tooth steel pinion.

#### ■ Long Boom Version:

The Long-Boom Raptor 50 is fast and performs like a graceful FAI competition machine. It will do large loops and slow rolls beautifully. The longer boom Raptor 50 with larger main rotor diameter provides the extra rotor inertia for doing aerobatic auto rotations or for practicing autos all day long.

Change the following parts: 600 mm length wood rotor blades, longer tail boom, longer belt and longer tail pushrod.

**GEAR RATIO NOTE:** We suggest you retain the stock 9.6:1 gear ratio. If you change to the gears furnished, you will change the ratio to 8.5:1. Some helicopter pilots prefer this lower ratio with the longer tail boom and blades. You may want to try it. The ratio you decide on will depend on the engine you are using and your personal preference.

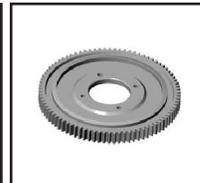
### Replacement Parts

Thunder Tiger offers the individual parts in the conversion kit in case you need spares.

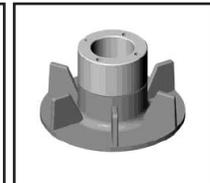
Please check your local dealer for availability and refer the following replacement part list.



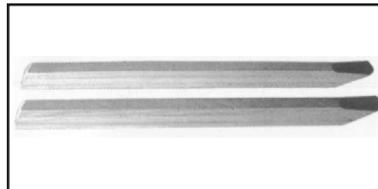
AK0147 10T Pinion Gear



AK0148 85T Main Spur Gear



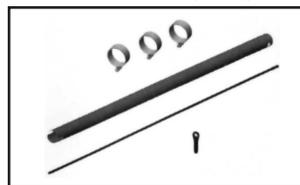
AV0143 Cooling Fan Assy. (Plastic Type)



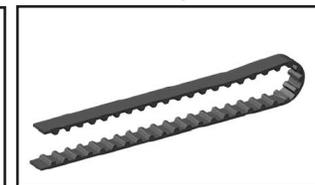
PV0110 Main Rotor Blades (600mm)



PV0107 Engine Mount Set



PV0108 Tail Boom (Longer Type)



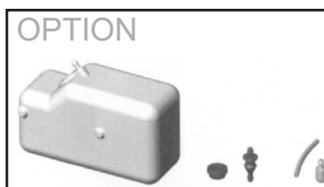
AK0174 Tail Drive Belt (670XL)



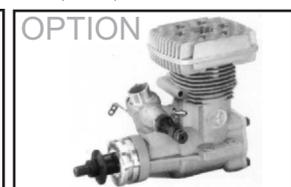
OPTION PV0106 Cooling Fan Assy (Metal Type)



OPTION PV0109 Muffler (.46-50)



OPTION PV0119 Fuel Tank (Larger Size/330c.c.)



OPTION No.9605 T.T. PRO-50H(R) Engine

Manufactured by Thunder Tiger Corporation

NO.7, 61th Road Industry Park, Taichung, Taiwan R.O.C. 407  
Tel: 886-4-3591616 Fax: 886-4-3591902 Website: [www.thundertiger.com](http://www.thundertiger.com) E-mail: [tiger99@ms2.hinet.net](mailto:tiger99@ms2.hinet.net)

Distributed In North America by Ace Hobby Distributors, Inc.

116W 19th ST, Higginsville, MD 64037 Phone: 660-584-6704  
Website: [www.acehobby.com](http://www.acehobby.com) E-mail: [service@acehobby.com](mailto:service@acehobby.com)

Made in Taiwan

JK0022. V1