



CX 600E Pro
Flybarless Torque Tube
Version Helicopter Kit

INSTRUCTION MANUAL



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1. Introduction

Thank you very much for purchasing a CopterX CX 600E Pro flybarless helicopter. In order to be able to use this product safely, please read this manual before flying the helicopter. Please fly the helicopter safely observing all rules and manners after having fully understood the flight precautions, the unit's capabilities, and the best way to fly it. Be sure to retain the manual for future reference, routine maintenance, and tuning.

IMPORTANT NOTES

- This helicopter is recommended for skilled intermediates and advanced RC helicopter flyers.
- Make sure to read and follow all the instructions in this manual, including all accessories.
- Should any problems arise, please confirm with an experienced RC helicopter personnel / instructor before introductory flight.
- Always find an experienced and / or qualified personnel / instructor for per flight inspection.
- Make sure flight vicinity is in an open space; free of crowds, obstacles, and buildings. Failure to abide may cause accidental and potentially hazardous encounters.
- Introductory flight should incorporate only the basic maneuvers (hovering, linear movements), until stick feel is mastered.

2. Safety Guidelines

Locate an appropriate location: R/C helicopters fly at very high speeds, thus posing a certain degree of danger. Choose an appropriate location. A clear large room such as a Gymnasium, basketball court, warehouse. Do not fly the model on residential or commercial places such as near houses or buildings. Do not fly near electrical poles or high voltage cables that may cause radio interference. Do not fly model on inclement weather such as rain, wind if snow.

Acquire the assistance of an experience pilot: Before starting up the model it is best that it is checked by someone that is experienced with this models, Parts checking prior flight is mandatory. On the flying field before actual power up of model and transmitter make sure the no other pilots have the same frequency. Frequency interference can cause your model and other model of same frequency to crash.

For first time pilots its highly recommended that you use a simulator (Computer based flight simulator) for enhancement of flight skills

Aware of moving parts: During actual operation of the helicopter, the main rotor blades will be spinning at a very high rate of speed. The blades are capable of imposing serious bodily injury and damage to the environment. Be careful on body parts such as hand, eyes, arms. Also be cautious of loose clothing, can be sucked up by the rotating blades. Do not turn your away you eyes when the model is turned on or in use. Never leave the model unattended. Immediately turn off the model and transmitter after use.

Prevent Moisture: R/C models are composed of many precision electrical components that is sensitive to moisture and water. Keep away from water sources or moisture related places.

The introduction of moisture in any form can seriously damage the electrical parts of the model that can cause malfunction and premature flight patterns.

Keep Away From Heat: R/C models are made of some parts plastic.

Make sure to store the model away from heat producing appliances such as heaters or stoves. It is best to keep the model indoors in a controlled cool environment with ambient room temperature.

3. Radio Equipment and Electronics



Transmitter
(6-CH, helicopter system)



Receiver
(6-CH, or more)



Standard Servos



Flybarless Gyro



Motor



ESC (100A or more)

4. Assembly Tools Requirement



Scissors



Cutter Blade



Ball Link Pliers



Pitch Gauge



CA Glue



Liquid Thread Lock



Liquid Thread Lock

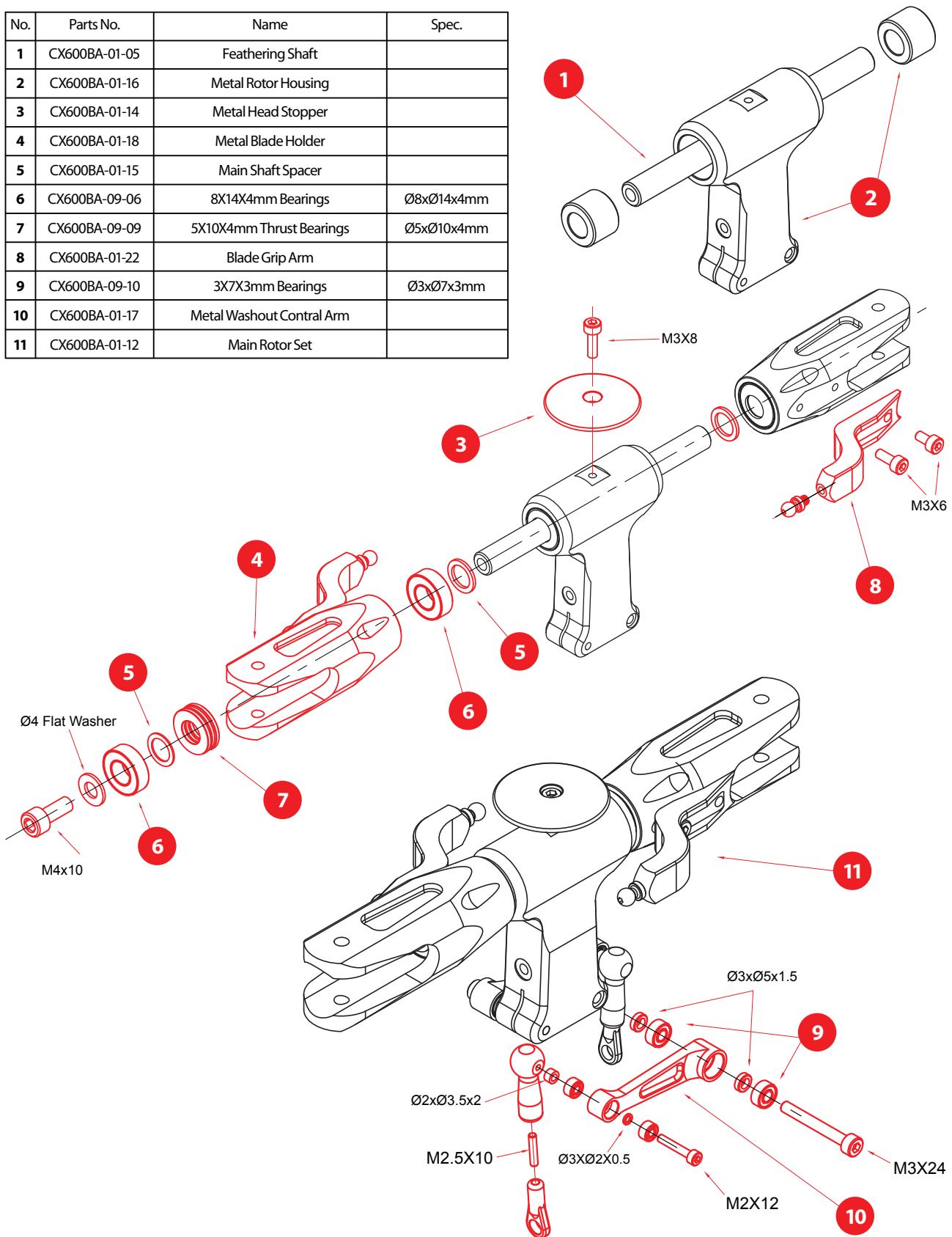


Cyano Acrylate (CA)

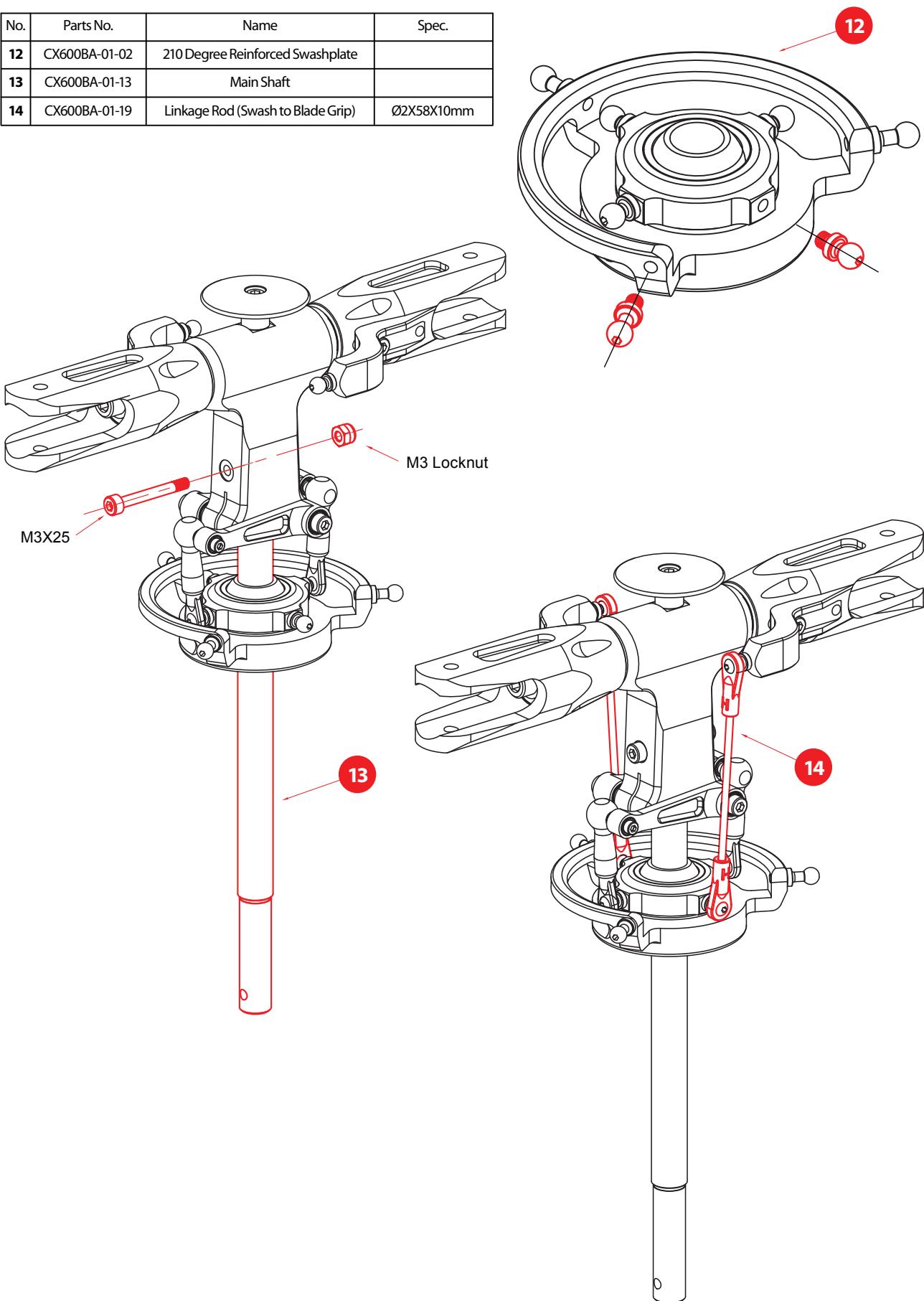
NOTE: The following marks will be seen on the pages of this instruction manual. This designates location and contact points that needs application of adhesive. Liquid thread lock are usually used on metal to metal contact screws normally with fine pitch threading. For Metal to plastic CA can be applied screws designated as force threading or self tapping.

5. Main Rotor Assembly

No.	Parts No.	Name	Spec.
1	CX600BA-01-05	Feathering Shaft	
2	CX600BA-01-16	Metal Rotor Housing	
3	CX600BA-01-14	Metal Head Stopper	
4	CX600BA-01-18	Metal Blade Holder	
5	CX600BA-01-15	Main Shaft Spacer	
6	CX600BA-09-06	8X14X4mm Bearings	$\varnothing 8 \times 14 \times 4 \text{mm}$
7	CX600BA-09-09	5X10X4mm Thrust Bearings	$\varnothing 5 \times 10 \times 4 \text{mm}$
8	CX600BA-01-22	Blade Grip Arm	
9	CX600BA-09-10	3X7X3mm Bearings	$\varnothing 3 \times 7 \times 3 \text{mm}$
10	CX600BA-01-17	Metal Washout Control Arm	
11	CX600BA-01-12	Main Rotor Set	

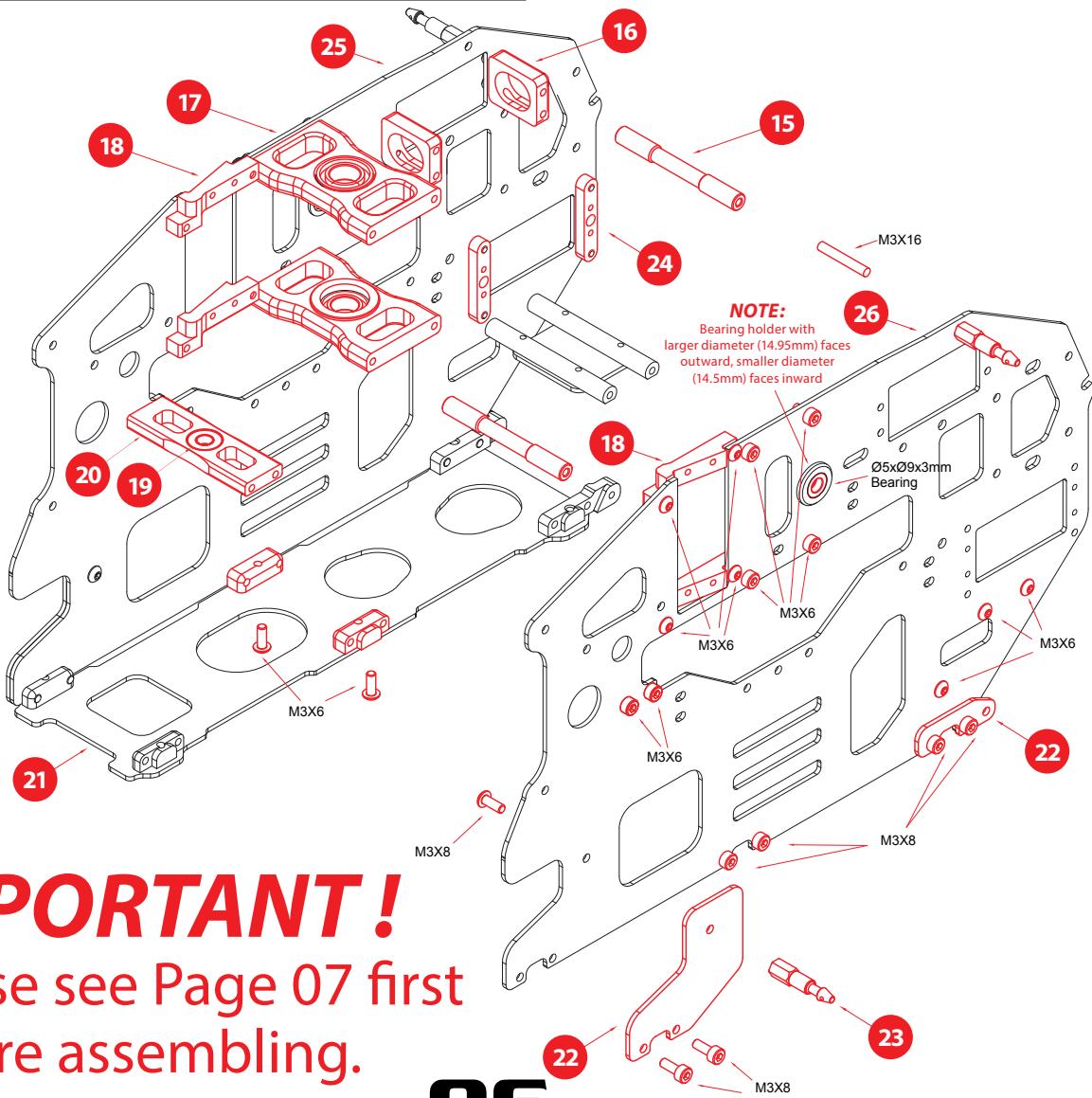
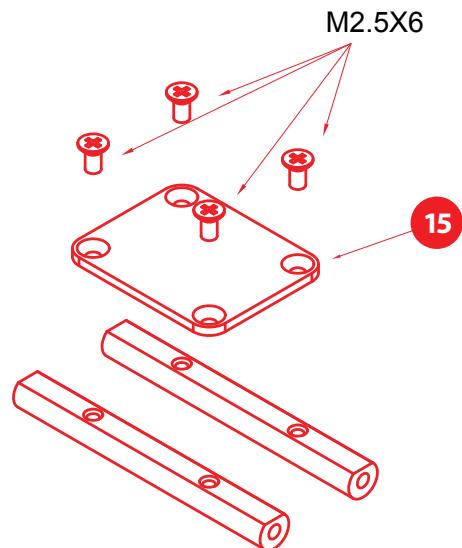


No.	Parts No.	Name	Spec.
12	CX600BA-01-02	210 Degree Reinforced Swashplate	
13	CX600BA-01-13	Main Shaft	
14	CX600BA-01-19	Linkage Rod (Swash to Blade Grip)	$\varnothing 2 \times 58 \times 10\text{mm}$



6. Frame Assembly

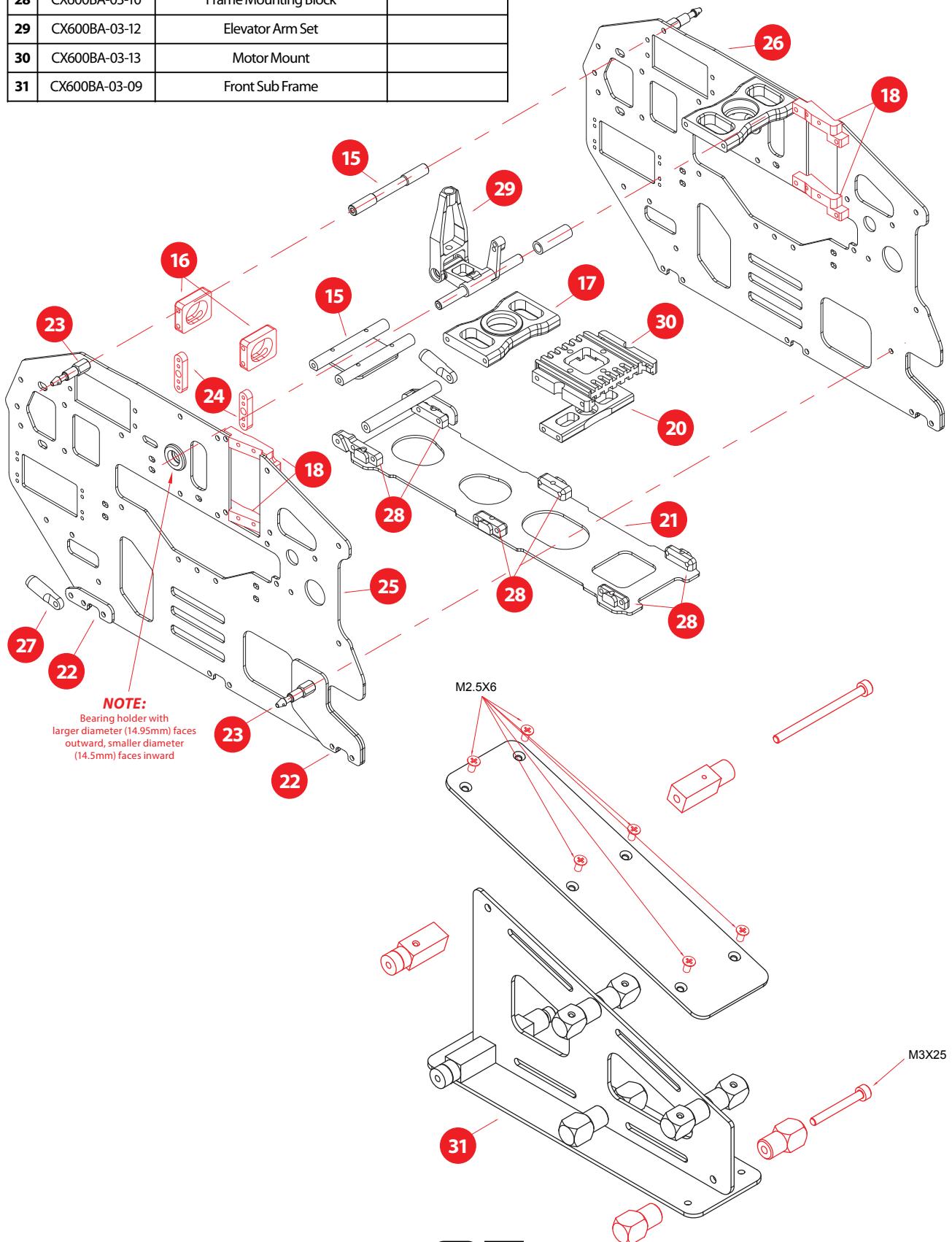
No.	Parts No.	Name	Spec.
15	CX600BA-03-17	Carbon Fiber Gyro Mount	
16	CX600BA-03-06	Metal Elevator Servo Mount	
17	CX600BA-03-11	Metal Main Shaft Bearing Block	
18	CX600BA-03-07	Metal Pitch / Aileron Servo Mount	
18	CX600BA-03-19	Cyclic Servo Mount V2	Upgrade Parts
19	CX600BA-09-02	6X12X4mm Bearings	$\varnothing 6 \times 12 \times 4 \text{mm}$
20	CX600BA-03-14	Motor Pinion Gear Bearing Mount	
21	CX600BA-03-04	Carbon Bottom Plate	
22	CX600BA-03-05	Carbon Frame Brace Set	
23	CX600BA-03-15	Canopy Mounting Bolt	
24	CX600BA-03-08	Metal Rudder Servo Mount	
25	CX600BA-03-03	Carbon Main Frame Right	
26	CX600BA-03-02	Carbon Main Frame Left	



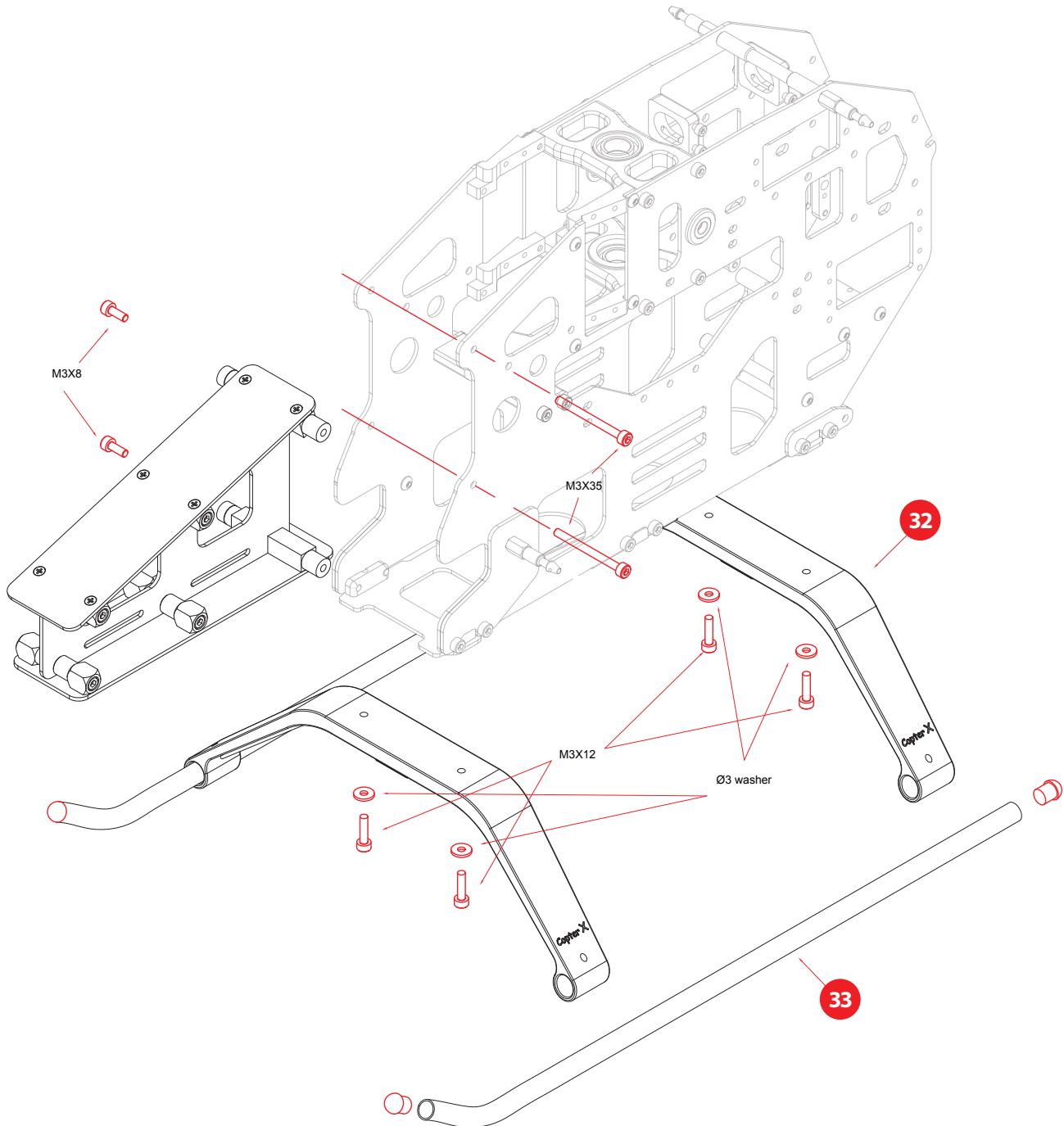
IMPORTANT!

Please see Page 07 first
before assembling.

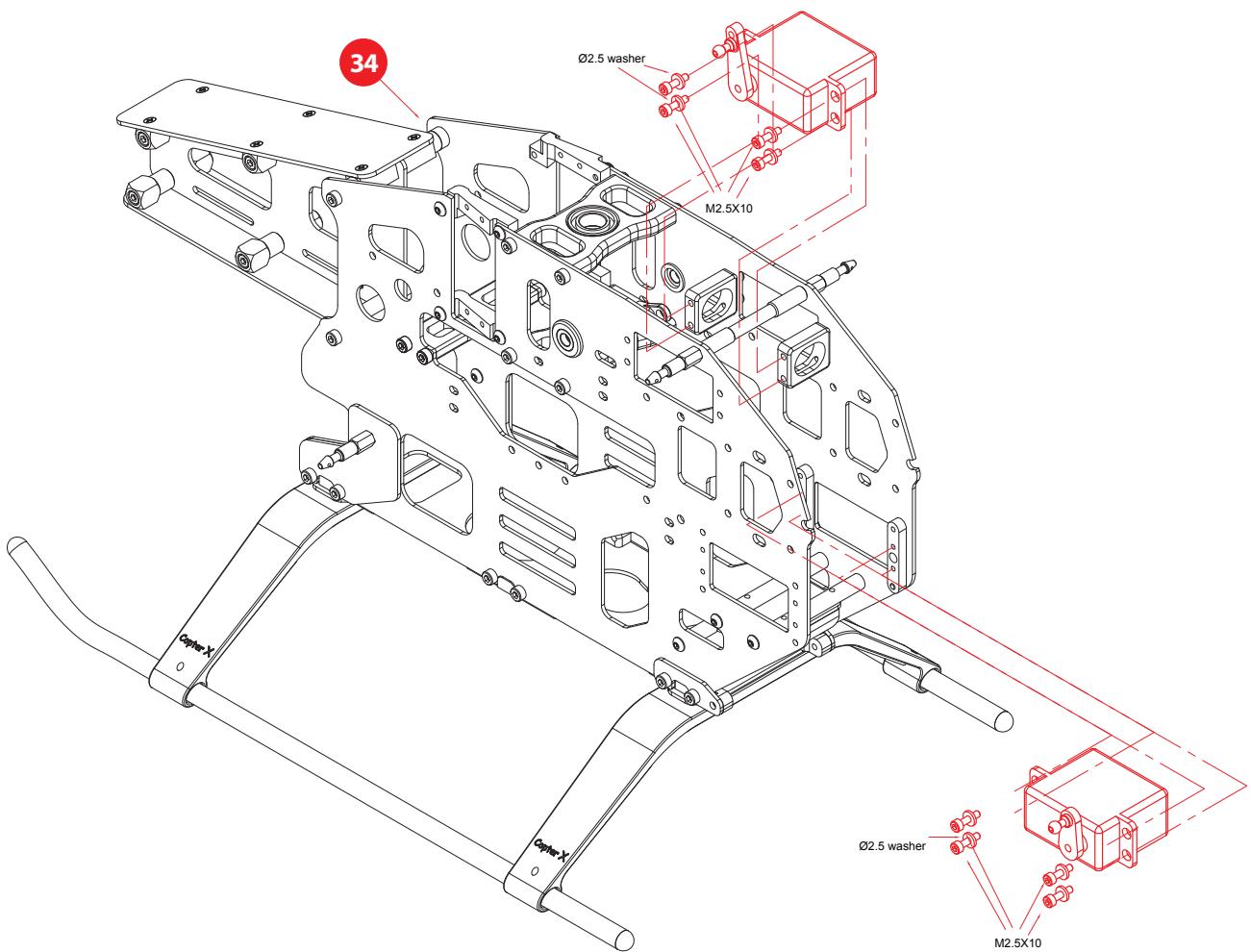
No.	Parts No.	Name	Spec.
27	CX600BA-07-02	Tail Boom Brace	
28	CX600BA-03-10	Frame Mounting Block	
29	CX600BA-03-12	Elevator Arm Set	
30	CX600BA-03-13	Motor Mount	
31	CX600BA-03-09	Front Sub Frame	



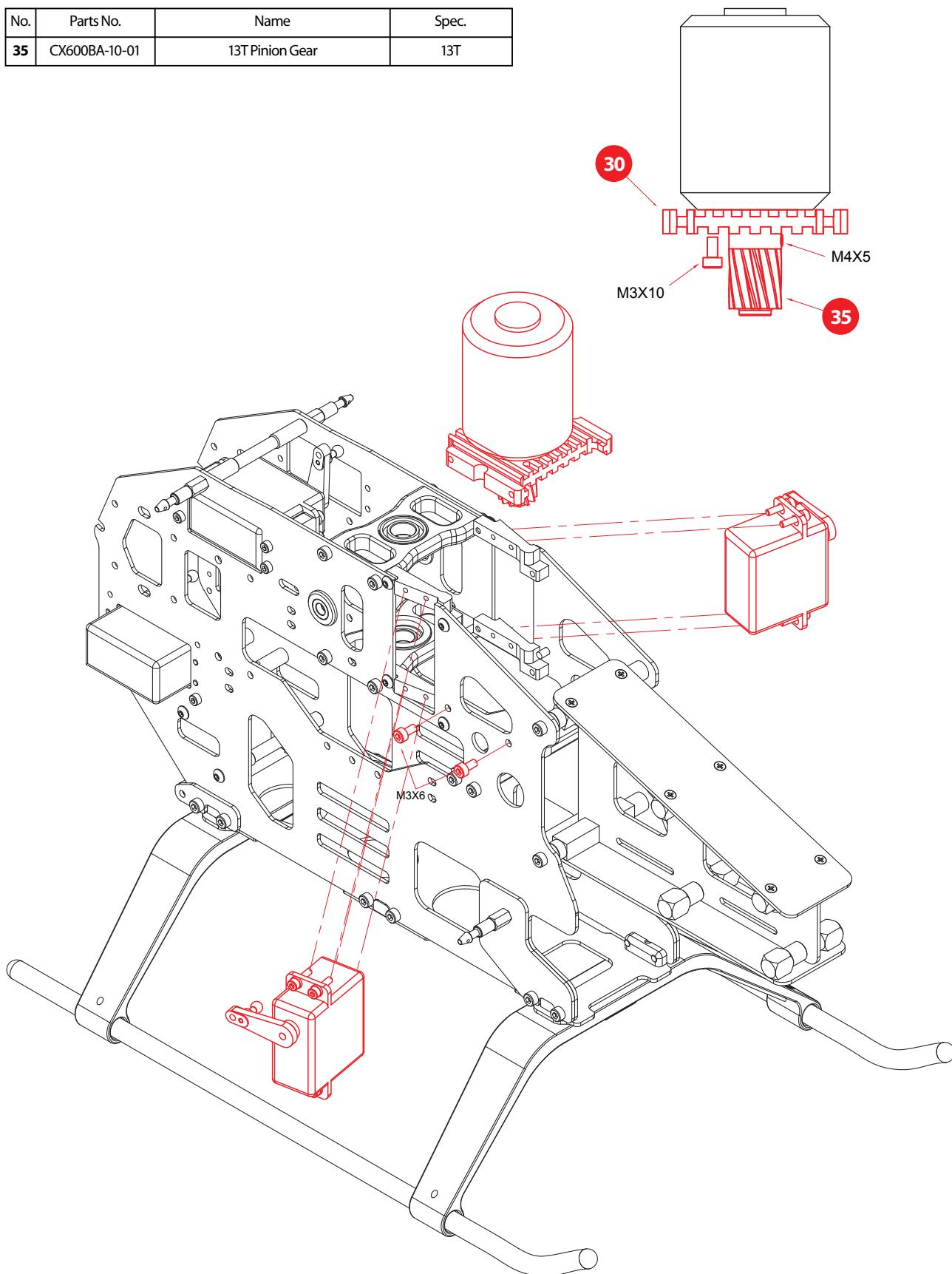
No.	Parts No.	Name	Spec.
32	CX600BA-04-02	Landing Skid	
33	CX600BA-04-03	Landing Skid Pipe	



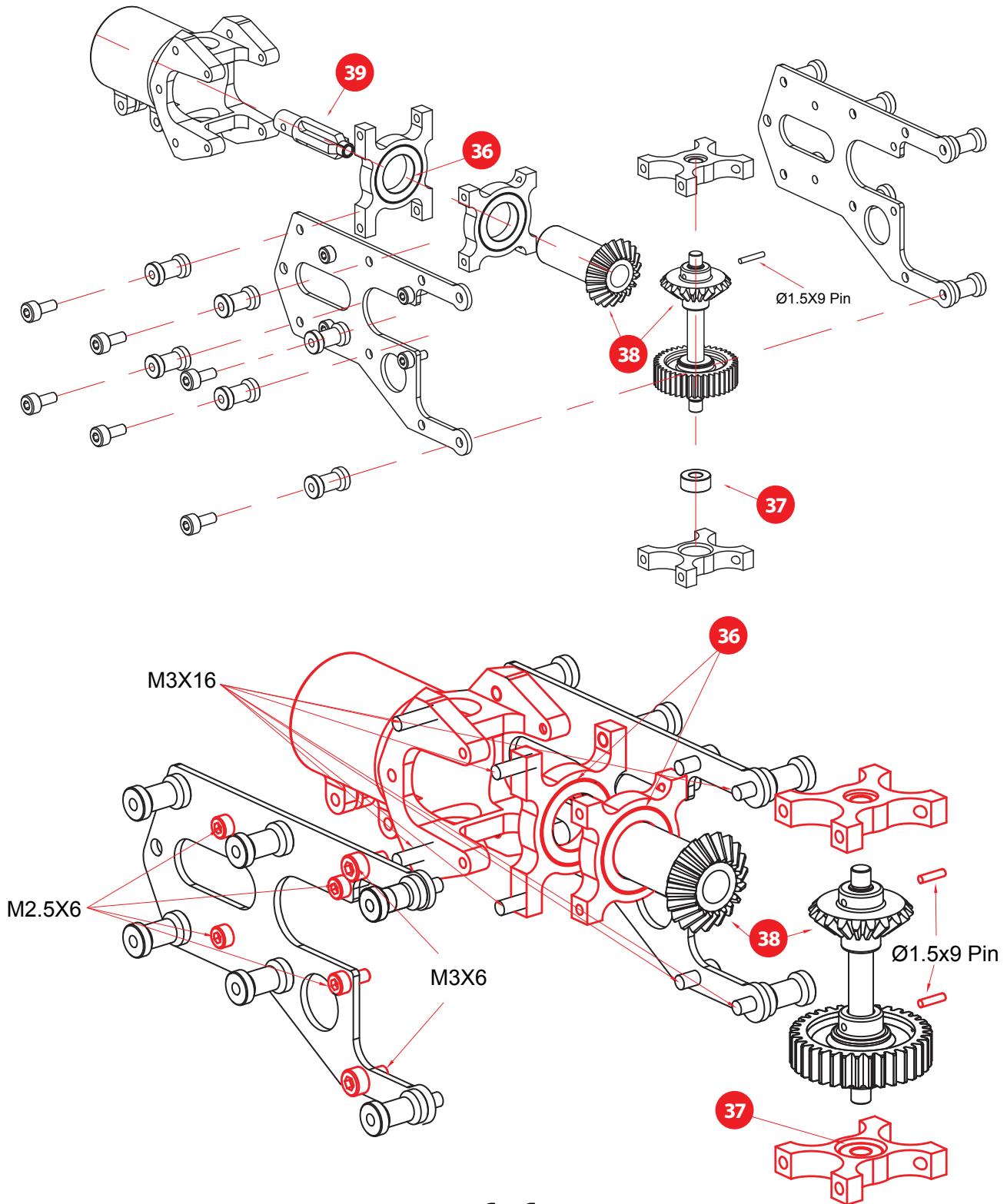
No.	Parts No.	Name	Spec.
34	CX600BA-03-01	Carbon Fiber & Metal Main Frame	



No.	Parts No.	Name	Spec.
35	CX600BA-10-01	13T Pinion Gear	13T

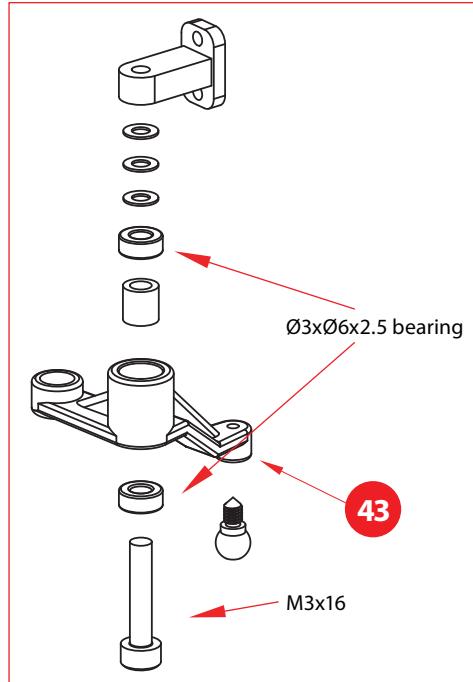
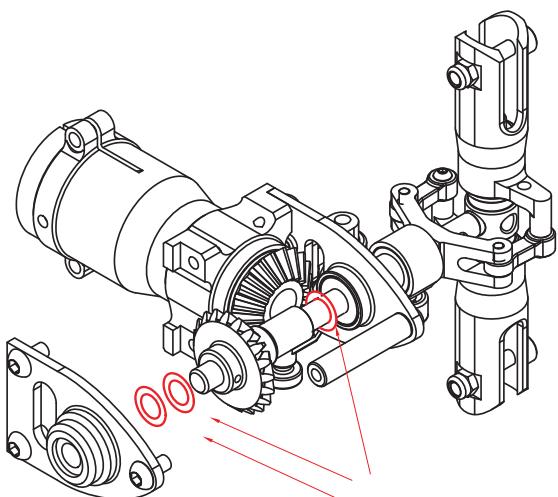


No.	Parts No.	Name	Spec.
36	CX600BA-09-05	12X18X4mm Bearings	$\varnothing 12 \times \varnothing 18 \times 4\text{mm}$
37	CX600BA-09-04	4X9X4mm Bearings	$\varnothing 4 \times \varnothing 9 \times 4\text{mm}$
38	CX600BA-05-07	M0.8 Torque Tube Front Drive Gear Set/34T	M0.8 / 34T
39	CX600BA-02-03	Torque Tube	

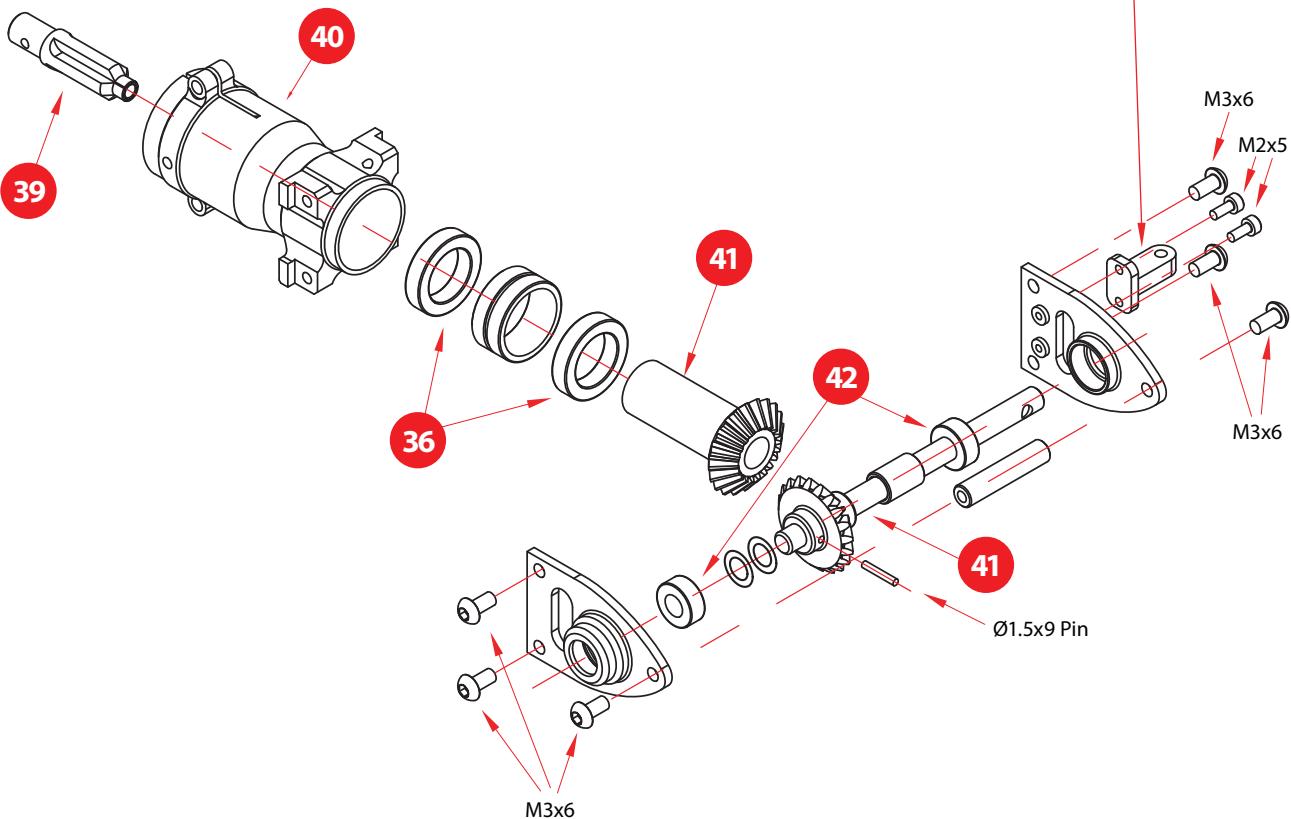


7. Tail Rotor Assembly

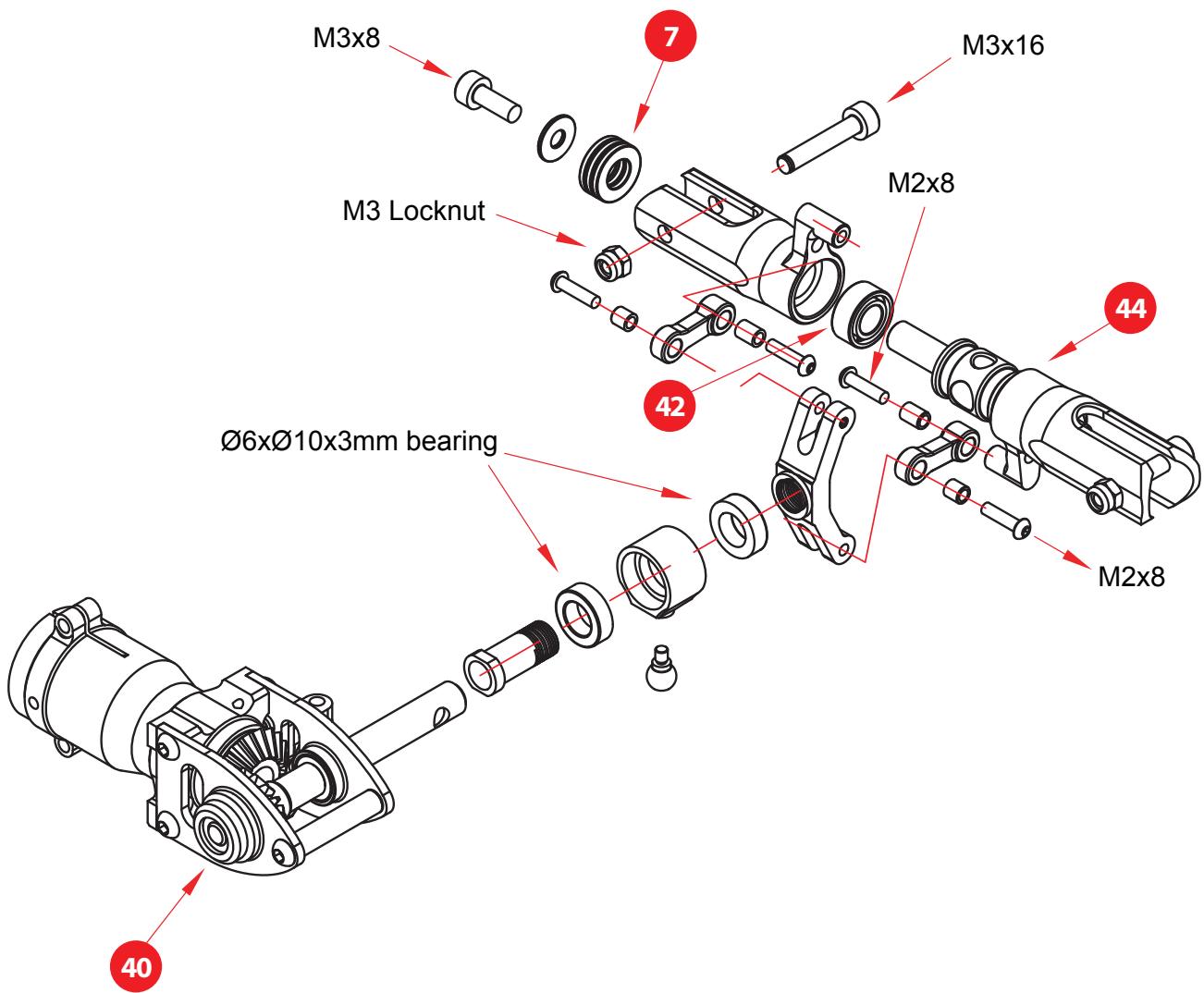
No.	Parts No.	Name	Spec.
40	CX600BA-02-01	Metal Tail Torque Tube Unit	
41	CX600BA-05-06	Tail Drive Gear	
42	CX600BA-09-07	5X10X4mm Bearings	$\varnothing 5 \times \varnothing 10 \times 4 \text{mm}$
43	CX600BA-02-04	Tail Rotor Slider Set	



NOTE: Adjust the spacing between two gears by increasing or decreasing the number of spacer

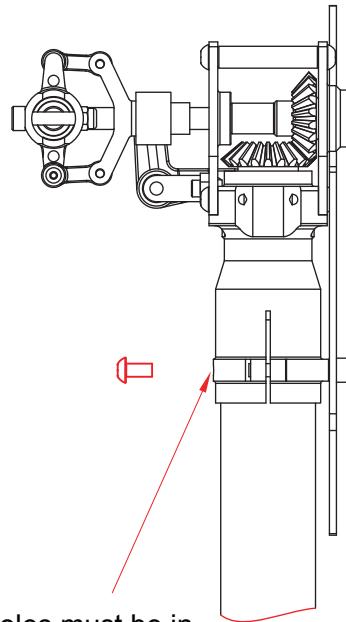


No.	Parts No.	Name	Spec.
44	CX600BA-02-02	Metal Tail Rotor Holder	

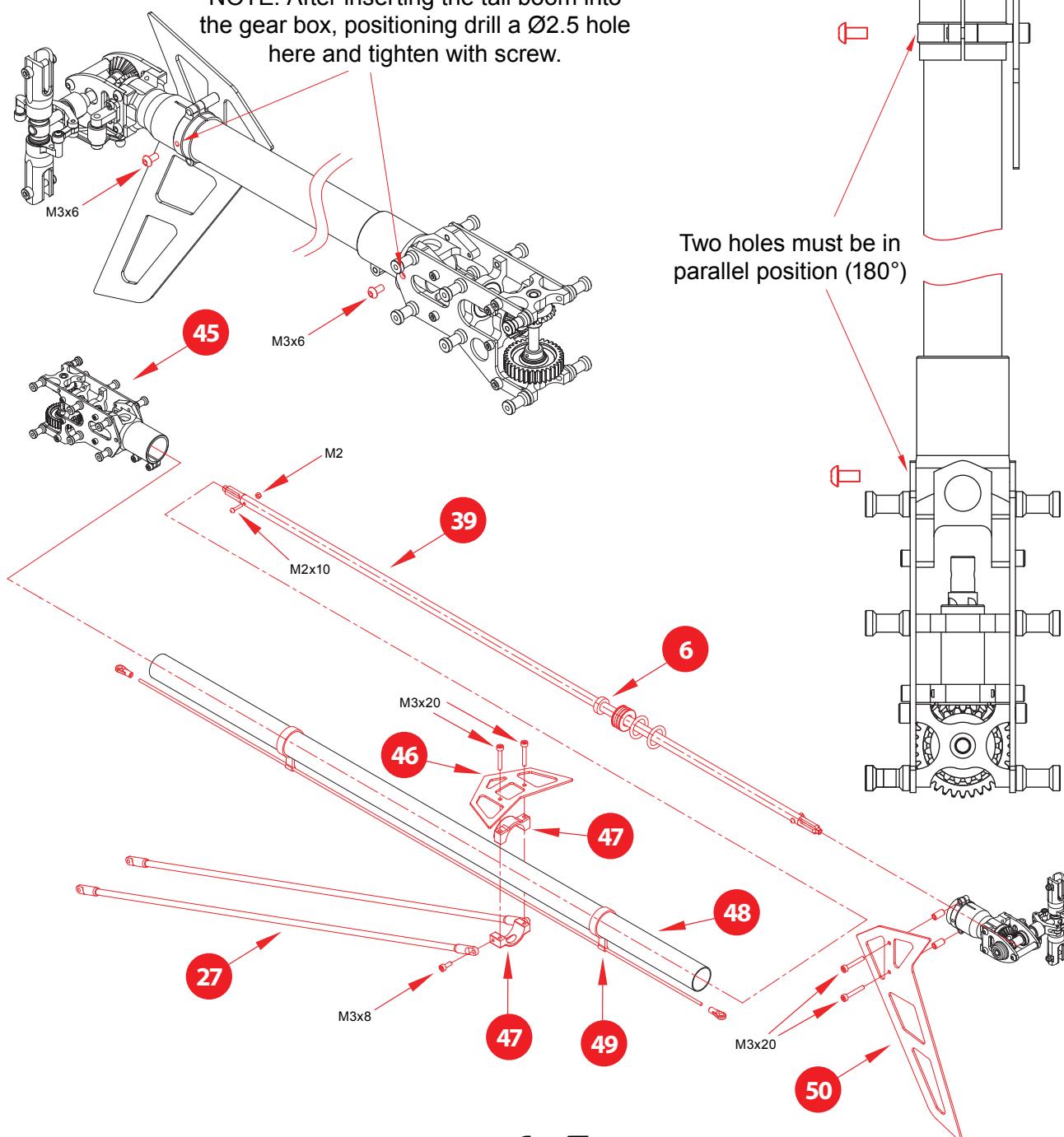


8. Tail Section Assembly

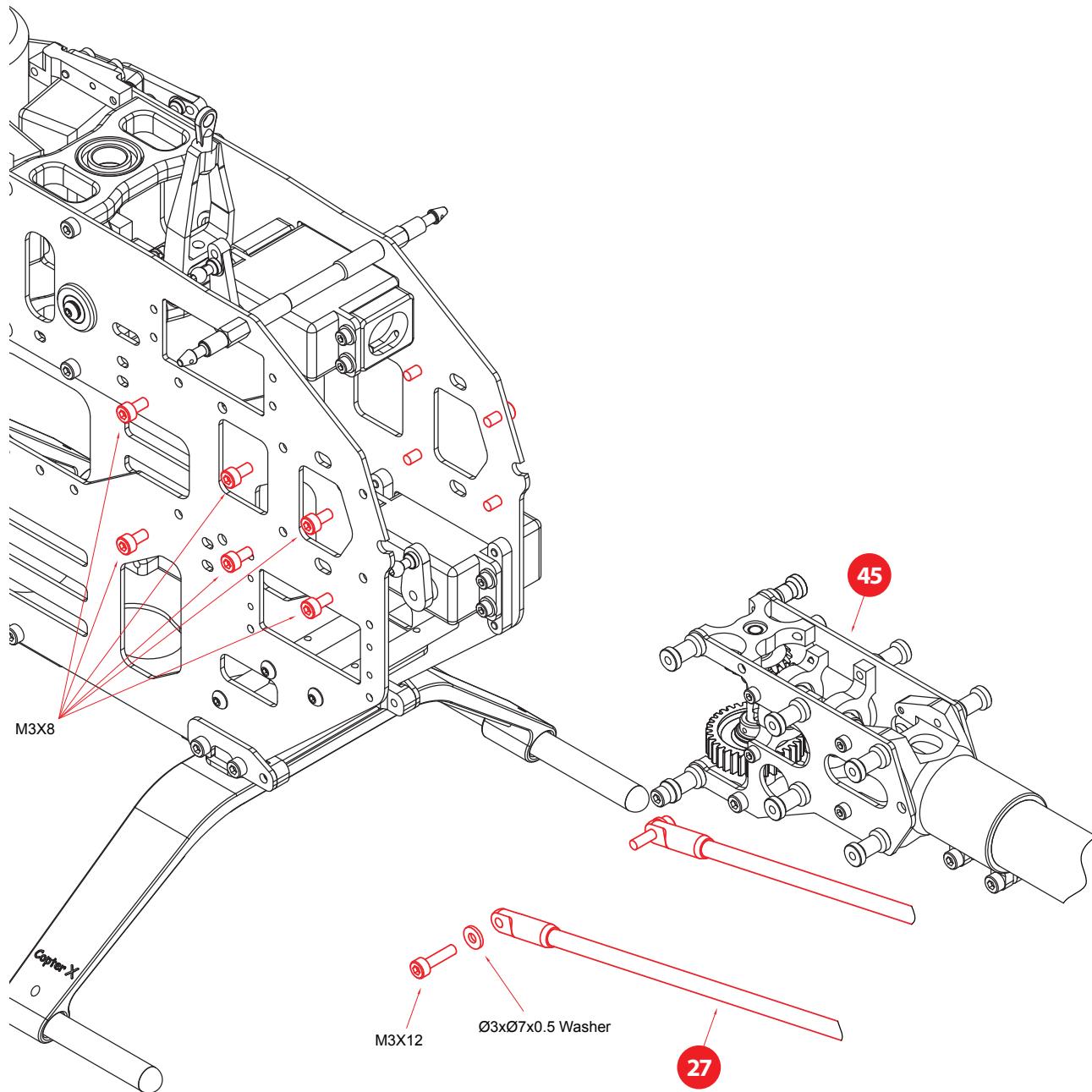
No.	Parts No.	Name	Spec.
45	CX600BA-03-16	Tail Boom Holder	
46	CX600BA-06-02	Carbon Horizontal Stabilizer	
47	CX600BA-07-04	Metal Stabilizer Mount	
48	CX600BA-07-01	Tail Boom	
49	CX600BA-07-03	Tail Control Rod Assembly	
50	CX600BA-06-01	Carbon Vertical Stabilizer	



NOTE: After inserting the tail boom into the gear box, positioning drill a Ø2.5 hole here and tighten with screw.



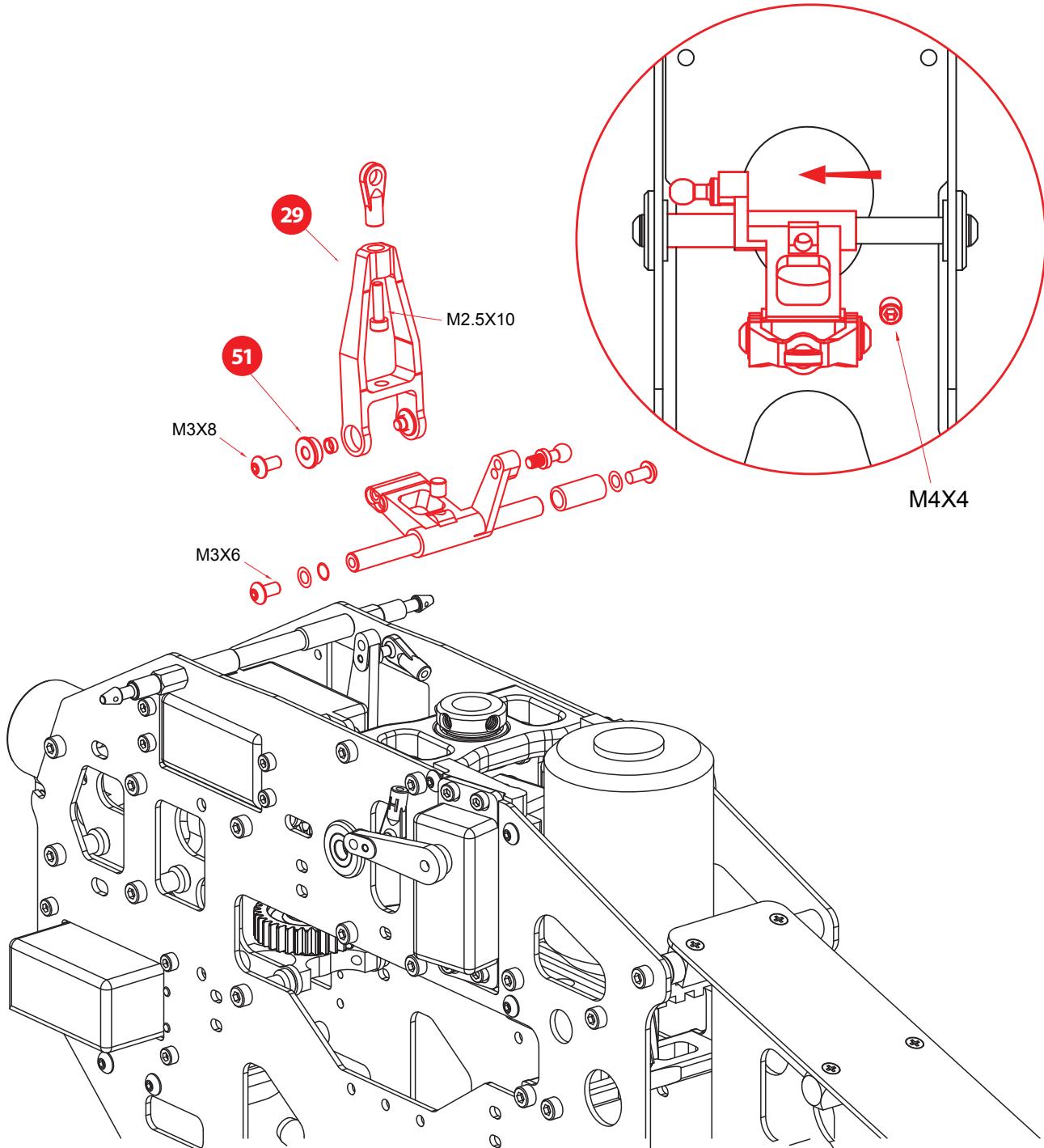
Two holes must be in parallel position (180°)



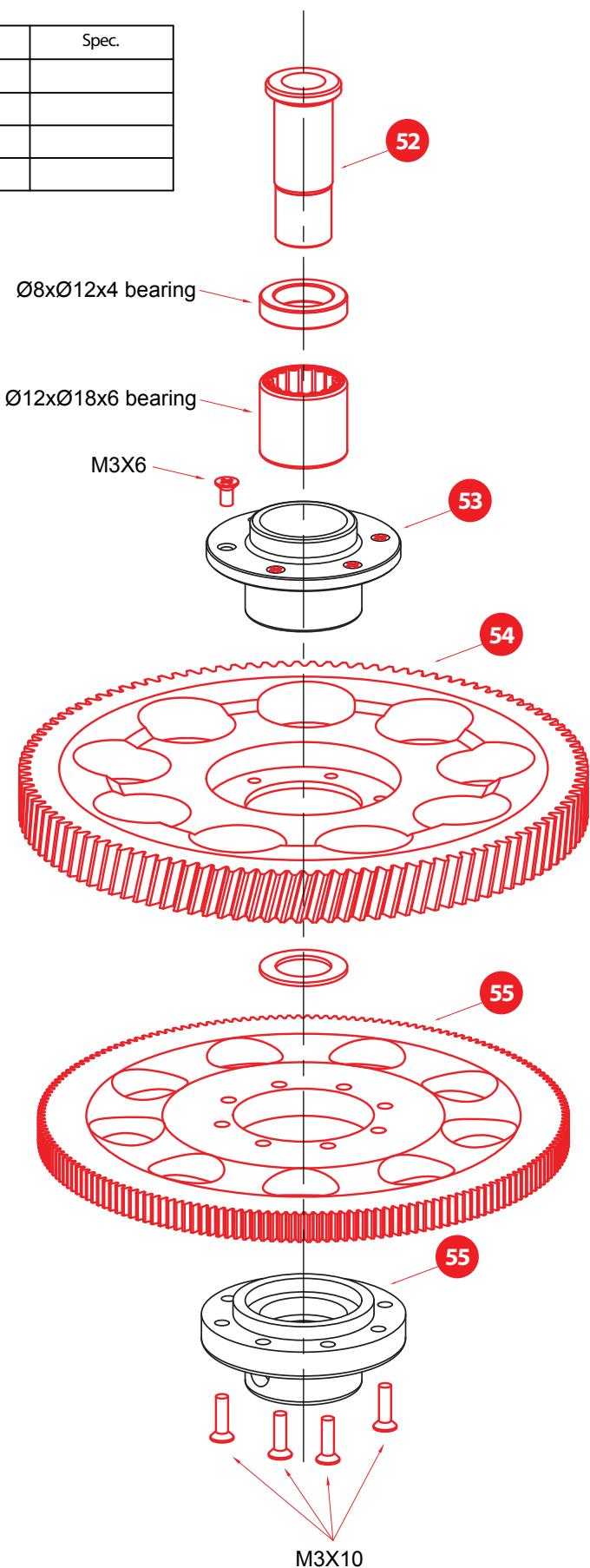
9. Frame and Gear Assembly

No.	Parts No.	Name	Spec.
51	CX600BA-09-01	3X7X3mm Flanged Bearings	Ø3xØ7x3mm

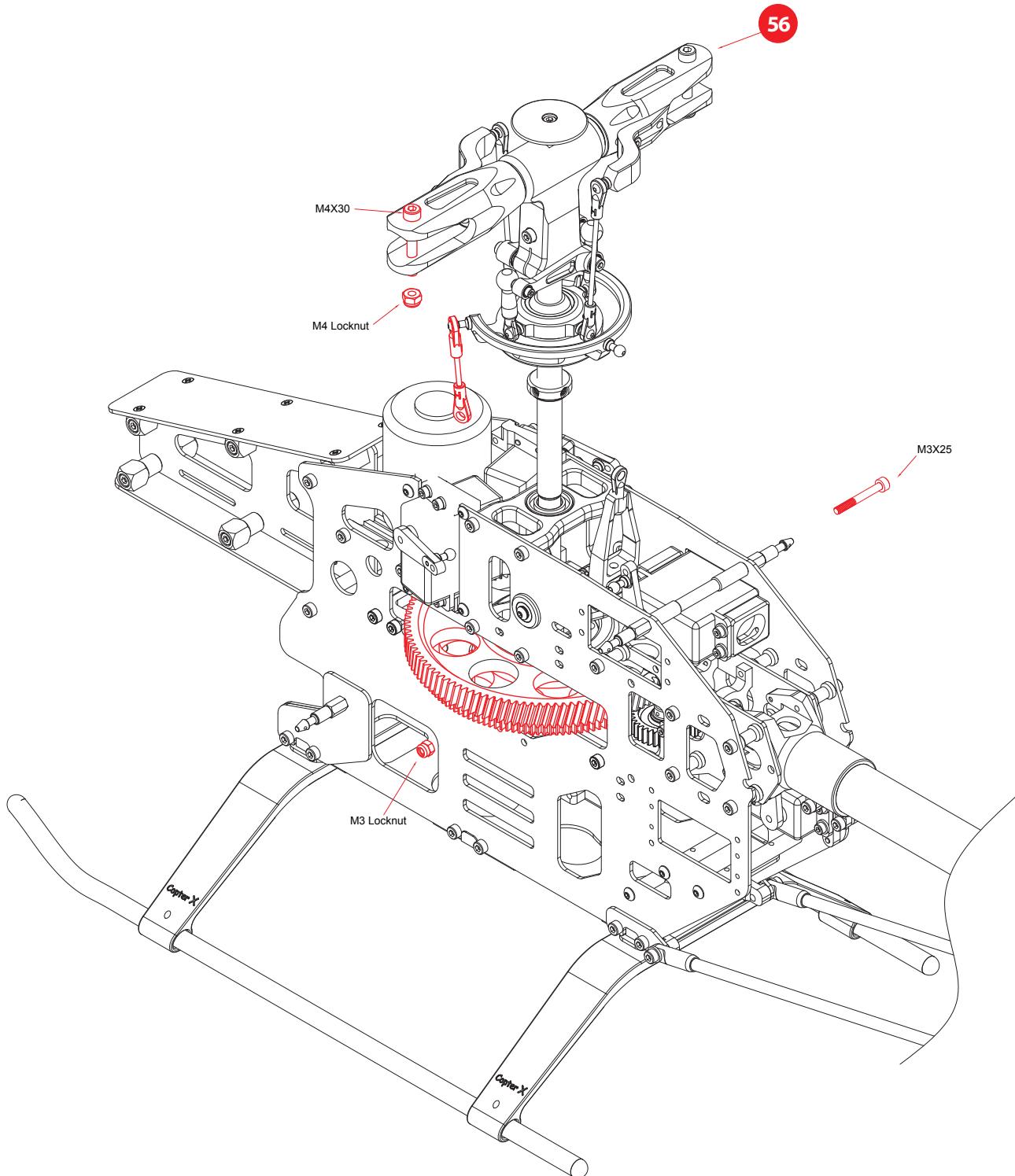
Please push the Elevator Arm to the left side first in oder to tighten the M4X4 screw.



No.	Parts No.	Name	Spec.
52	CX600BA-05-05	One-way Bearing Shaft	
53	CX600BA-05-01	One Way Bearing Case	
54	CX600BA-05-04	CNC Slant Thread Main Drive Gear	
55	CX600BA-05-03	CNC Autorotation Tail Drive Gear	



No.	Parts No.	Name	Spec.
56	CX600BA-01-11	Flybarless Main Rotor Set	



10. Complete Kit Assembly





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