Manual

Mikado
Model Helicopters
www.mikado-heli.de

LOGO 500

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Index

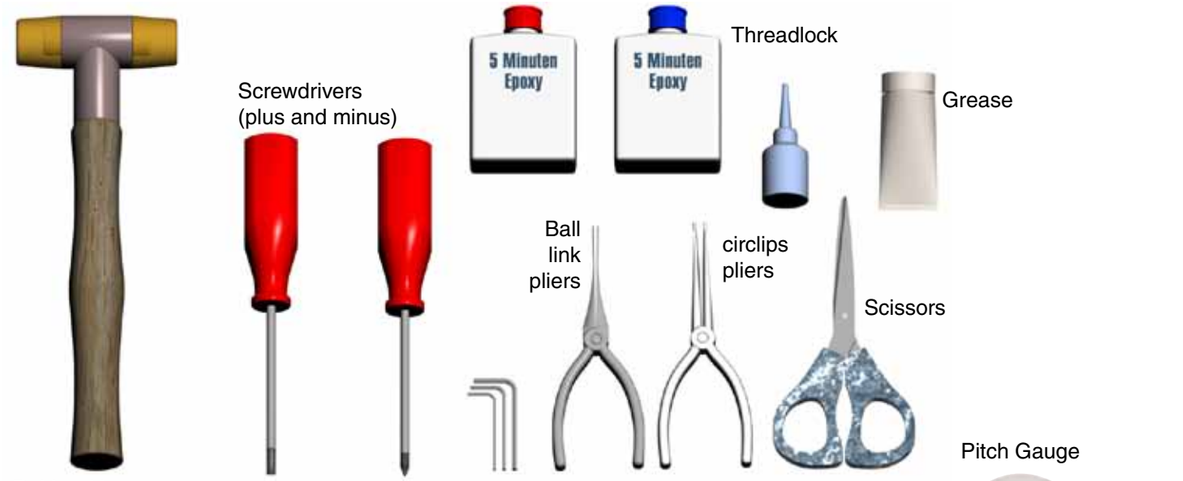
Manual Mikado LOGO 500

Max. rotorhead rpm LOGO 500: 2000
Max. collective range: +/- 12°
Max. Rotor blade size: 500 mm - 550 mm
Max. LiPo Akku size: 6S 5000 mAh

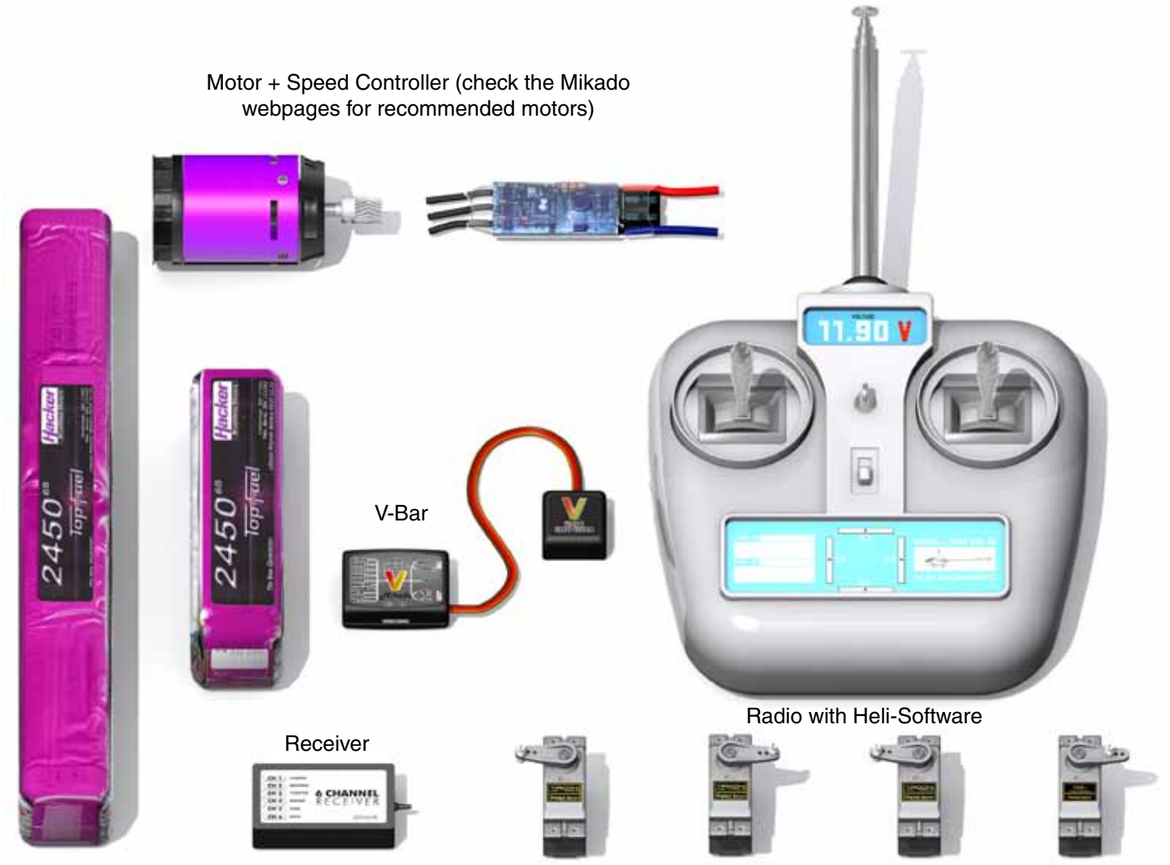
LOGO 500 is not recommended for novices. This helicopter is a complex system. Basic knowledge of the function of a model helicopter is required to build and operate the LOGO 500.

Note: There is no bag 4. The bags are numbered 1 to 12, with the exception of 4.

Tools for Assembly & R/C Equipment



Alle shown products are examples. You may use different brands.



Safety Instructions

OPERATING YOUR MODEL SAFELY
Operate the helicopter in spacious areas with no people nearby.
!Warning: Do NOT operate the helicopter in the following places and situations (or else you risk severe accidents):
- in places where children gather or people pass through
- in residential areas and parks
- indoors and in limited space
- in windy weather or when there is any rain, snow, fog or other precipitation

If you do not observe these instructions you may be held reliable for personal injury or property damage!
Always check the R/C system prior to operating your helicopter. When the R/C system batteries get weaker, the operational range of the R/C system decreases. Note that you may lose control of your model when operating it under such conditions.

Keep in mind that other people around you might also be operating a R/C model.

Never use a frequency which someone else is using at the same time. Radio signals will be mixed and you will lose control of your model.

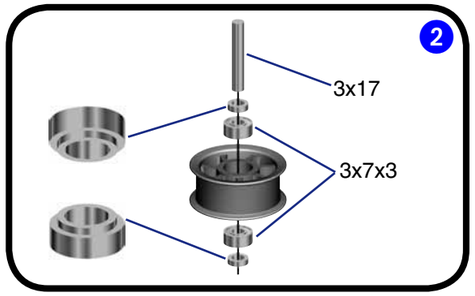
If the model shows irregular behavior, bring the model to a halt immediately. Turn off all power switches and disconnect the batteries. Investigate the reason and fix the problem. Do not operate the model again as long as the problem is not solved, as this may lead to further trouble and unforeseen accidents.

! Warning: In order to prevent accidents and personal injury, be sure to observe the following:
Before flying the helicopter, ensure that all screws are tightened. A single loose screw may cause a major accident.
Replace all broken or defective parts with new ones, as damaged parts lead to crashes.
Never approach a spinning rotor. Keep at least 10 meters/yards away from a spinning rotor blades.
Do not touch the motor immediately after use. It may be hot enough to cause burns.
Perform all necessary maintenance.

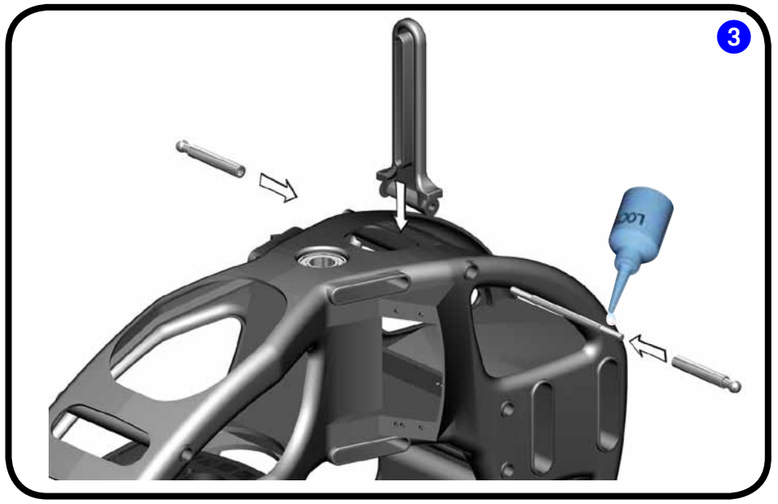
PRIOR TO ADJUSTING AND OPERATING YOUR MODEL, OBSERVE THE FOLLOWING
!Warning: Operate the helicopter only outdoors and out of people's reach as the main rotor operates at high rpm!
! Warning: While adjusting, stand at least 10 meters/yards away from the helicopter!
Novice R/C helicopter pilots should always seek advice from experienced pilots to obtain hints with assembly and for pre-flight adjustments. Note that a badly assembled or insufficiently adjusted helicopter is a safety hazard!
In the beginning, novice R/C helicopter pilots should always be assisted by an experienced pilot and never fly alone!

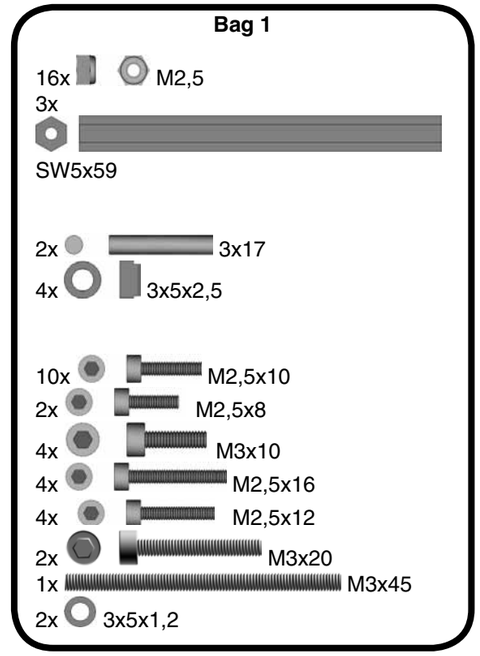
Bag 1

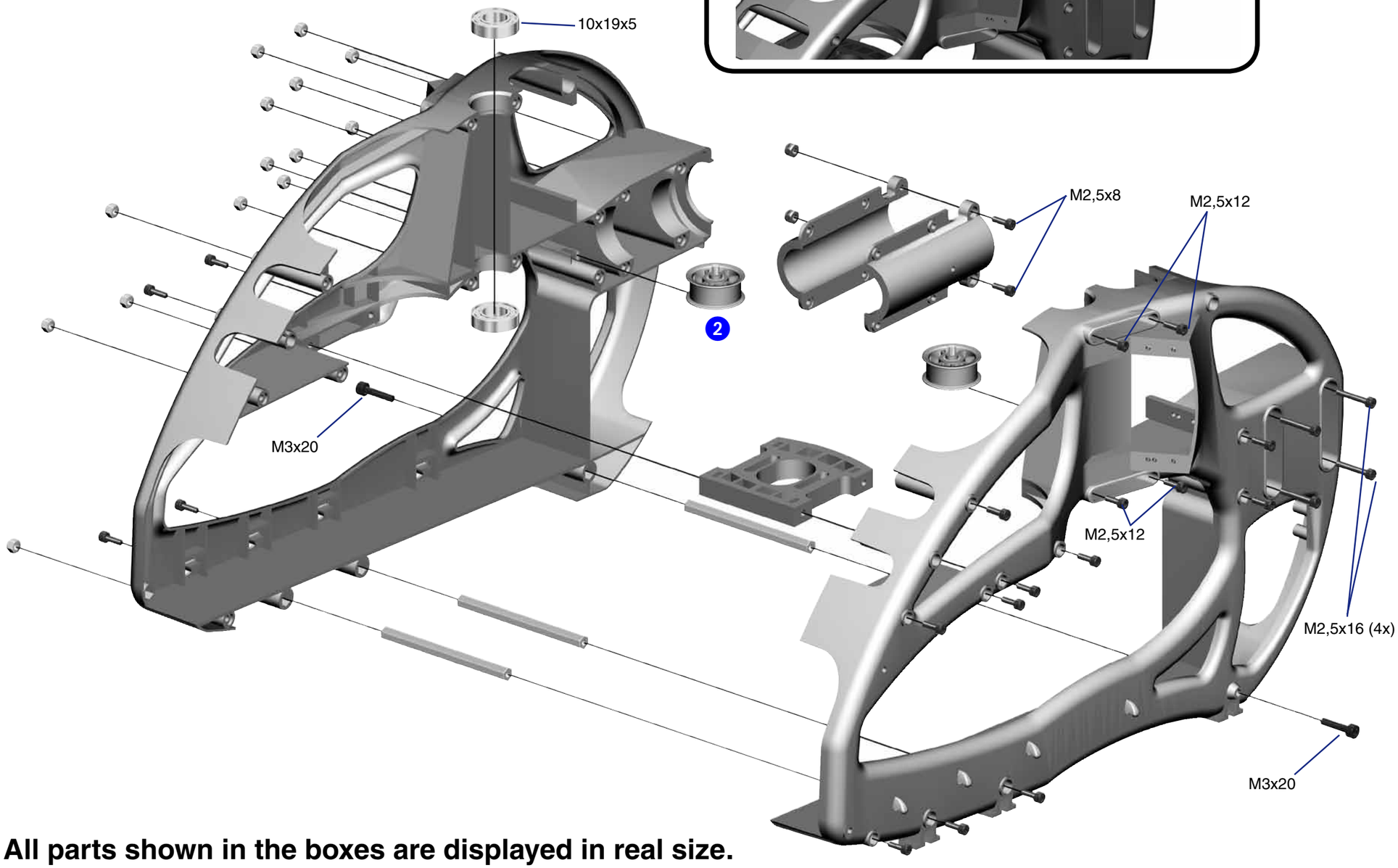
Using the rod M2.5x60 (bag 7), position all 14 nylon nuts in the right side frame.



Before you combine the two sides of the main frame, attach the two belt tensioners (#4089, bag 6).

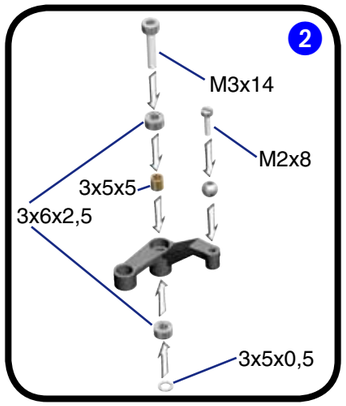






All parts shown in the boxes are displayed in real size.

3



Bag 5 1

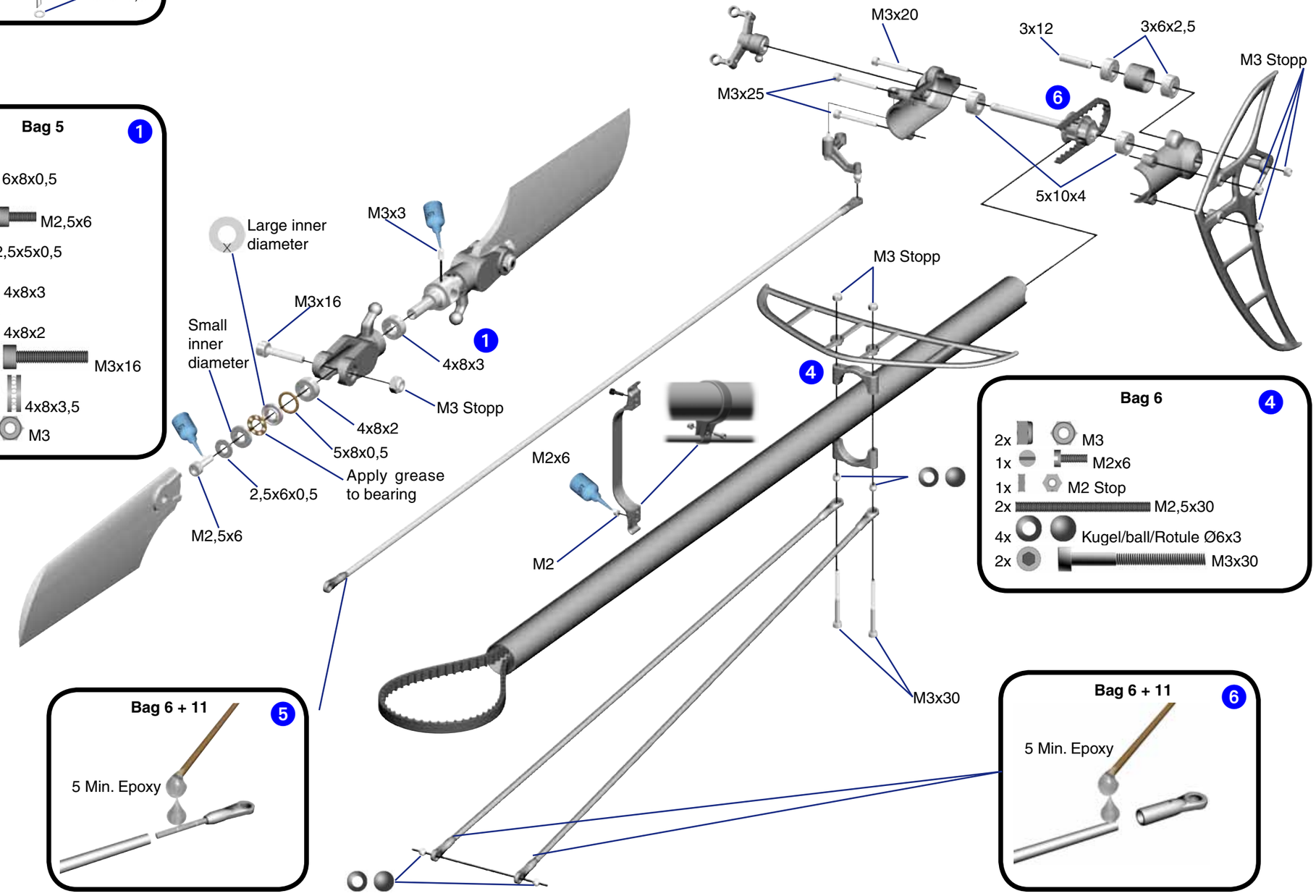
1x 3x5x5
1x M2x8
1x Kugel/ball/Rotule Ø4,8x2
1x 3x5x0,5
1x M3x14
2x 3x6x2,5

Bag 5 3

1x M3x20
2x M3x25
3x M3
2x 5x10x4
2x 3x6x2,5
1x 3x12

Bag 5 1

2x 6x8x0,5
2x M2,5x6
2x 2,5x5x0,5
2x 4x8x3
2x 4x8x2
2x M3x16
2x 4x8x3,5
2x M3



Bag 6 4

2x M3
1x M2x6
1x M2 Stop
2x M2,5x30
4x Kugel/ball/Rotule Ø6x3
2x M3x30

Bag 5 7

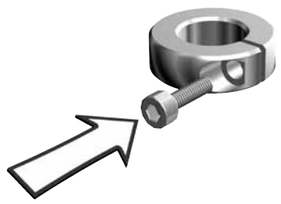
Bag 6 + 11 5

Bag 6 + 11 6

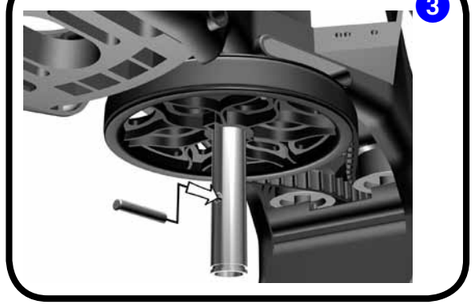
3 Main Gear & Tail Rotor Assembly

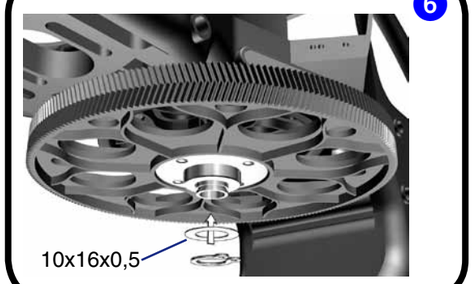
Bag 2 • Bag 3 • Bag 8

LOGO 500 3D 1



LOGO 500 7





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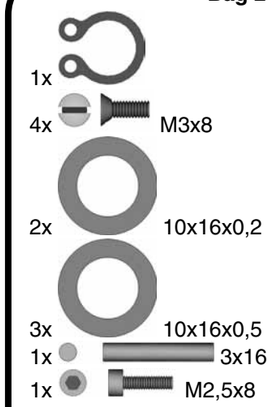
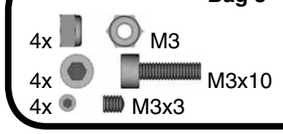
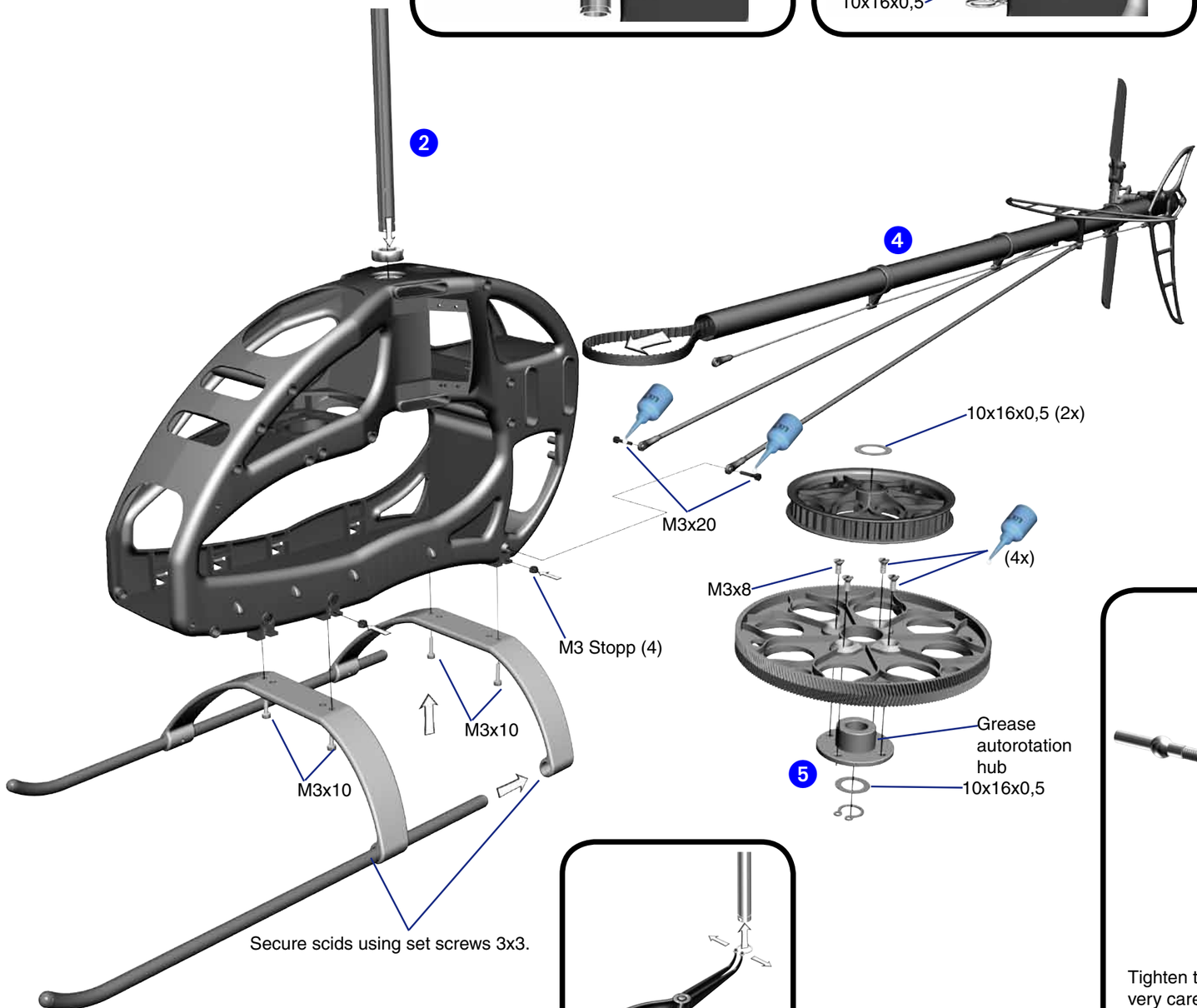


Bag 8





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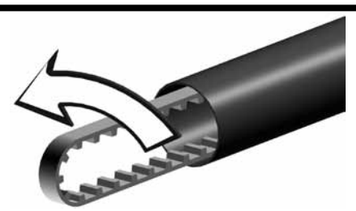
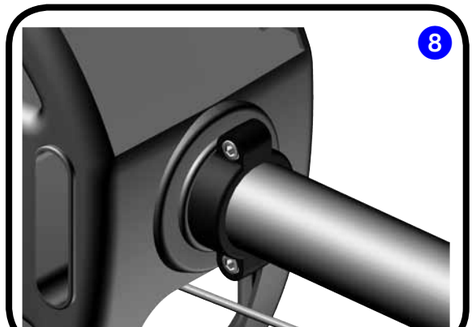


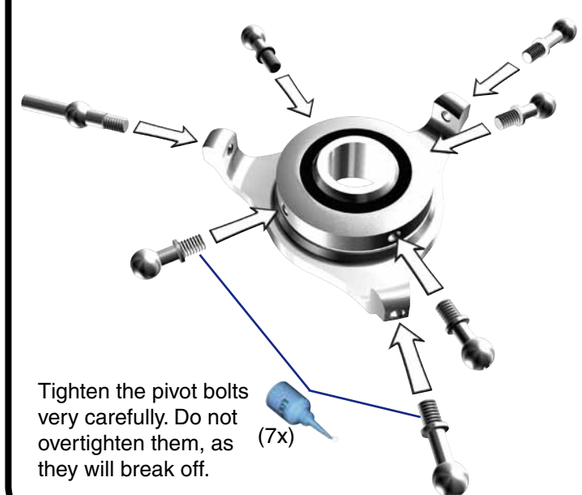
Check direction of rotation of the tail rotor!

8



Tighten tooth belt:
Pull tail boom backwards and tighten screws

Swashplate bag 3



Tighten the pivot bolts very carefully. Do not overtighten them, as they will break off.

Bag 12

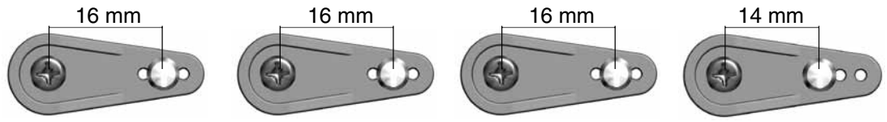
4x M2,5x10
12x 2,2x13
2x M2x10
1x M2x12

Bag 9

4x
9x M2
3x M2,5x30

1

LOGO Rotor Head



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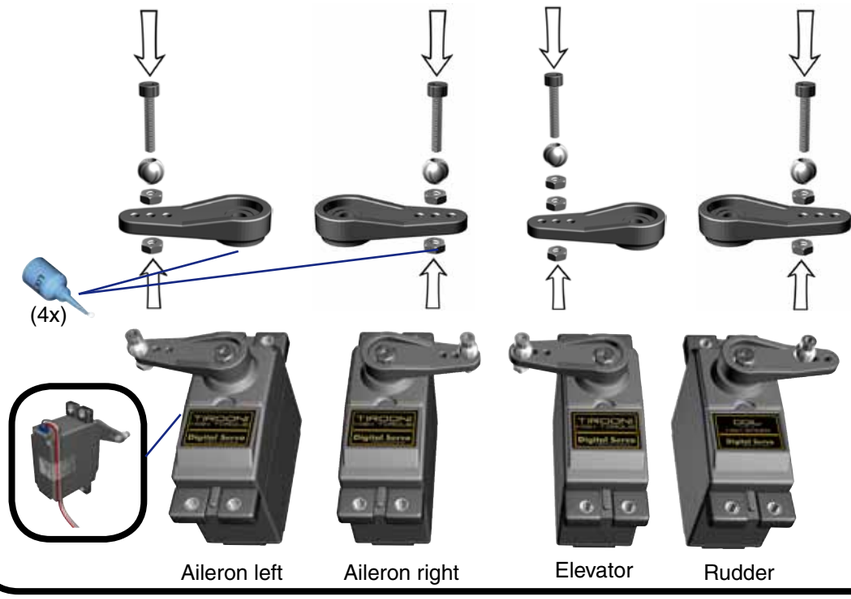
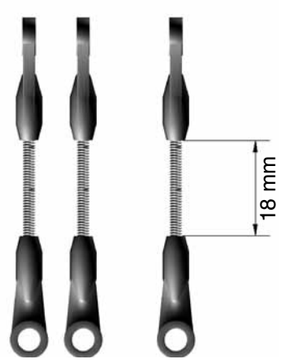


3

Attach the ball links so that the engraved number is on the outer surface pointing towards you.



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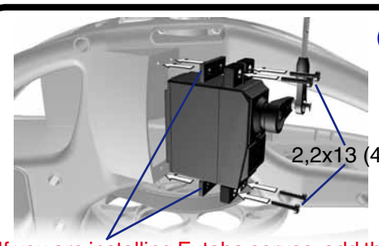
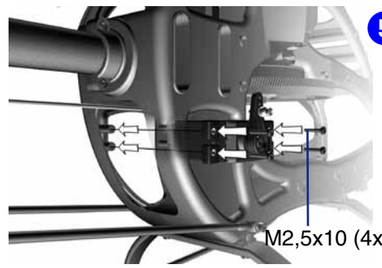


If you are installing Futaba servos, add the distance plate for the two aileron servos.

5



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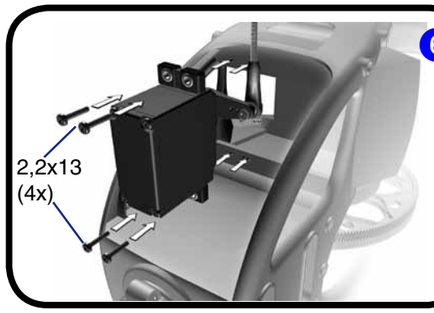

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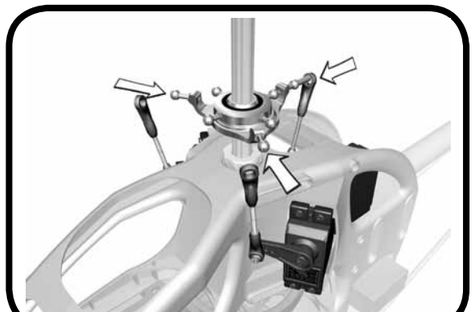
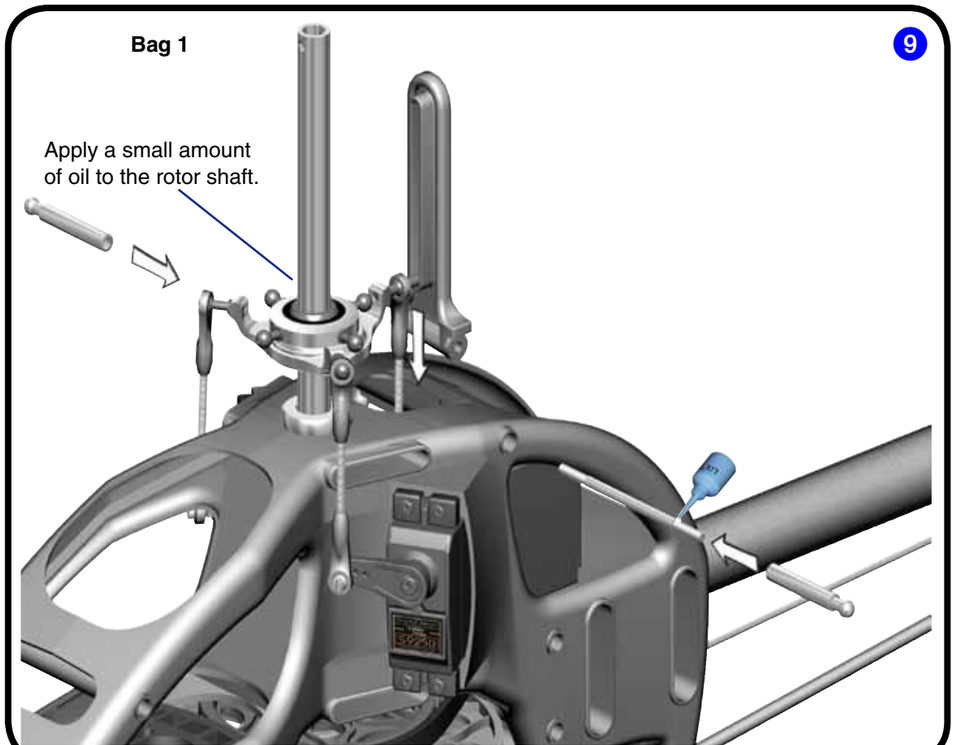
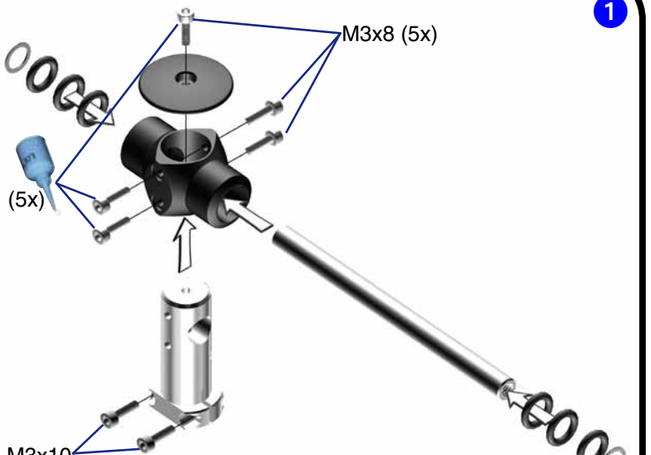


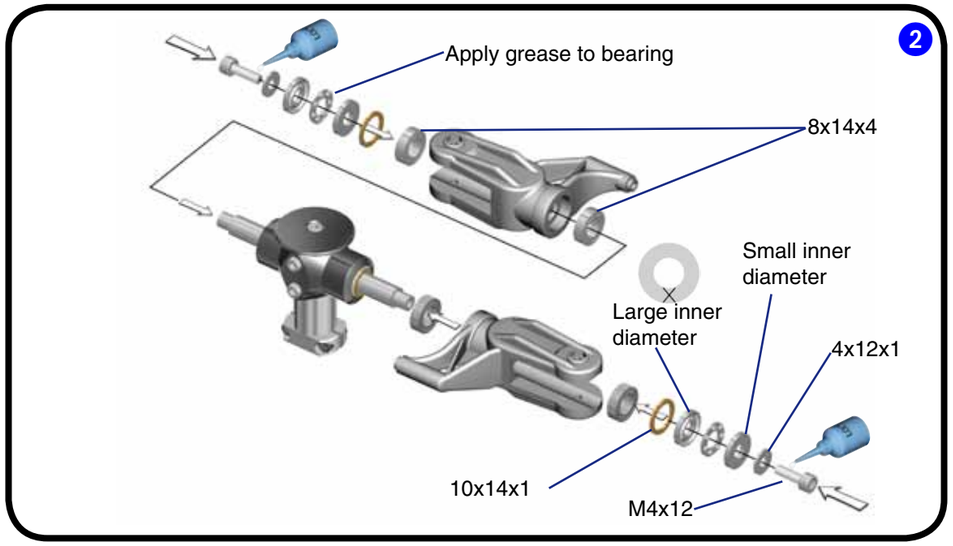
9

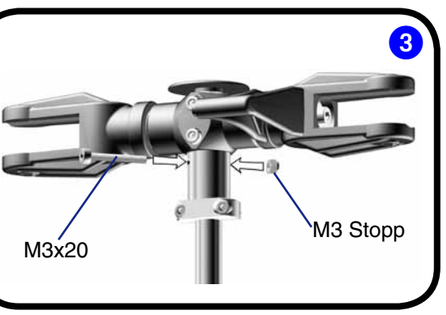
Bag 1

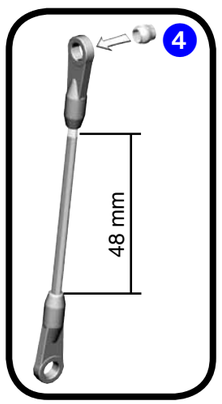


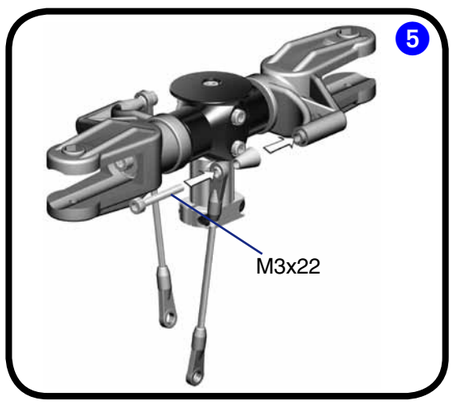
Bag 7

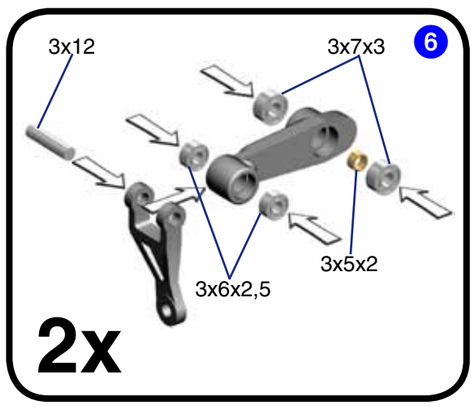

1
M3x8 (5x)
(5x)
M3x10

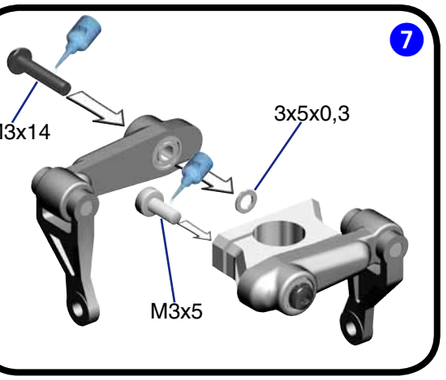

2
Apply grease to bearing
8x14x4
Small inner diameter
Large inner diameter
4x12x1
10x14x1
M4x12

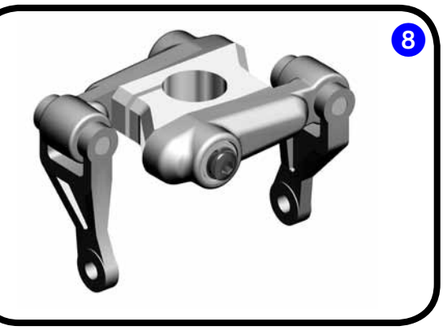

3
M3x20
M3 Stopp


4
48 mm


5
M3x22


6
3x12
3x7x3
3x6x2,5
3x5x2
2x


7
M3x14
3x5x0,3
M3x5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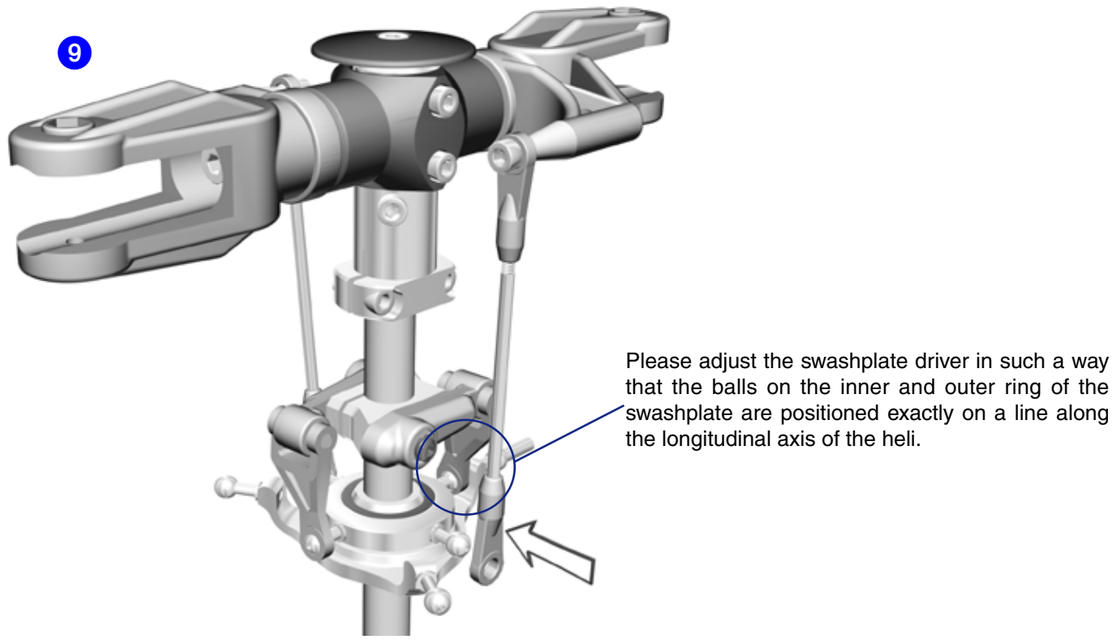
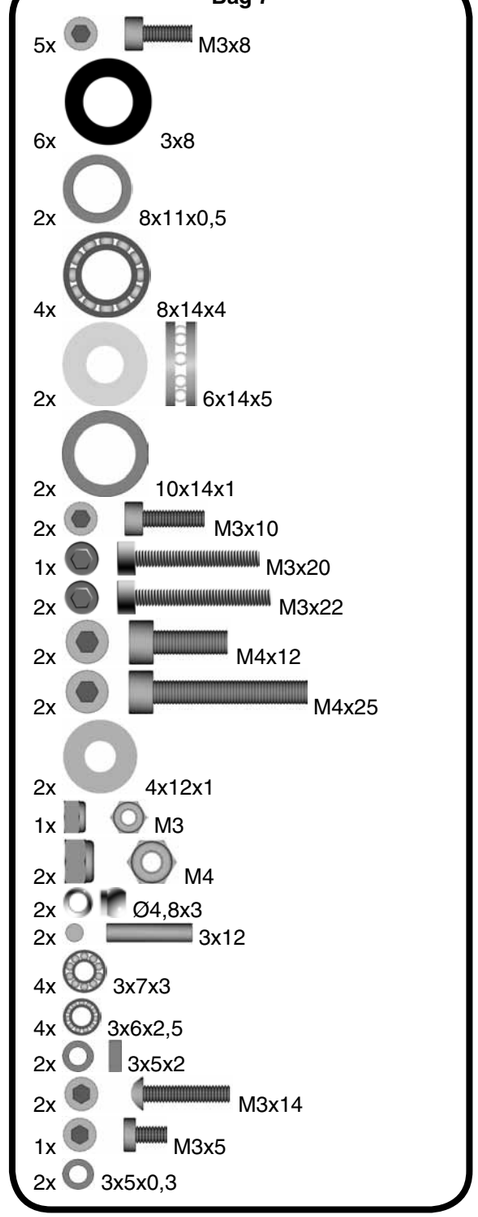

9
Please adjust the swashplate driver in such a way that the balls on the inner and outer ring of the swashplate are positioned exactly on a line along the longitudinal axis of the heli.


Bag 7
5x M3x8
6x 3x8
2x 8x11x0,5
4x 8x14x4
2x 6x14x5
2x 10x14x1
2x M3x10
1x M3x20
2x M3x22
2x M4x12
2x M4x25
2x 4x12x1
1x M3
2x M4
2x Ø4,8x3
2x 3x12
4x 3x7x3
4x 3x6x2,5
2x 3x5x2
2x M3x14
1x M3x5
2x 3x5x0,3

6 Mounting the Motor

Bag 1 • Bag 12

Bag 1

2x 4x8x1

2x M4x14

Installation of the Motor Pinion
Screw the motor pinion onto the motor shaft, making sure that it can still be moved. Now mount the motor on the motor plate and move the pinion so it is aligned well with the main gear. As visual help for aligning the pinion you may use the small ridge which separates the two parts of the pinion. When the pinion is aligned correctly it will easily engage with the main gear. If the pinion does not engage with the main gear, it is not correctly aligned. After the pinion is correctly aligned, take the motor out of the mainframe and tighten the set screw.

Gear Backlash
Move the motor with the pinion until it is limited by the gear. Tighten one of the M4x14 screws slightly. You must still be able to swivel the motor around its own axis. In this way you can easily determine the correct distance between the main gear and the pinion. There should be no (!) gear backlash. At the same time, the motor should not (!) exert any pressure onto the running surface of the main gear. After you have determined the correct distance, tighten the second M4x14 screw.

For very hard 3d flying a counterbearing should be installed.
#4134 (25 mm, 5 mm shaft)
#4148 (25 mm, 6 mm shaft)
#4373 (30 mm, 6 mm shaft)

available pinions for module 0.7 diameter 5 mm
(not included in kit)

12 teeth*	#4212
13 teeth	#4213
14 teeth	#4214
15 teeth	#4215
16 teeth	#4216
17 teeth	#4217
18 teeth	#4218
19 teeth	#4219

available pinions for module 0.7 diameter 6 mm
(not included in kit)

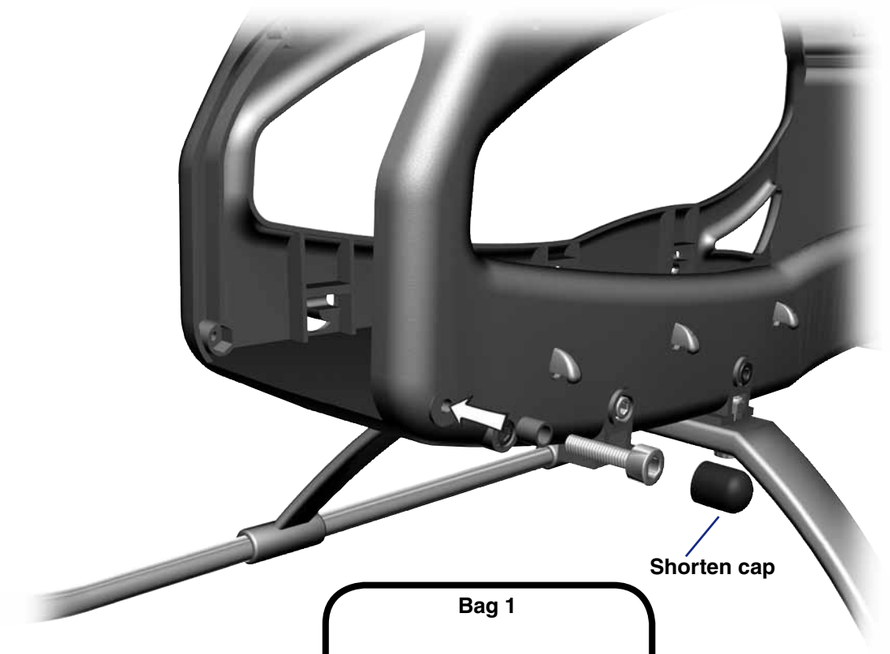
15 teeth	#4315
16 teeth	#4316
17 teeth	#4317
18 teeth	#4318

***for max. to 6S LiPo**

7 Mounting the Canopy

Bag 1 • Bag 12

Bag 1

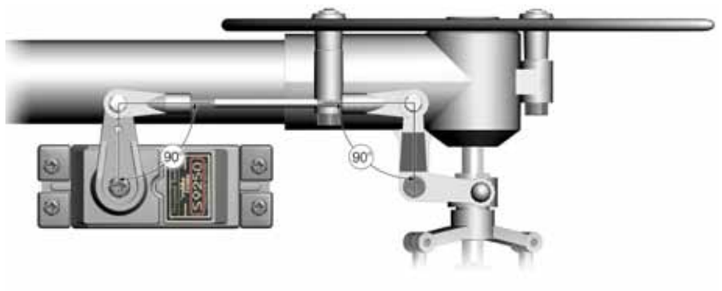


Bag 1

2x 3x5x1

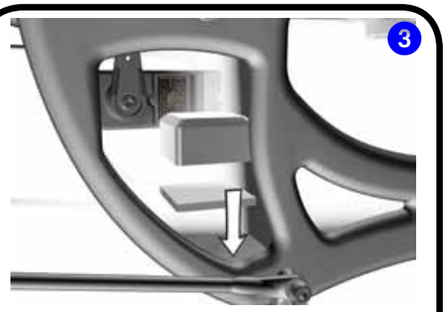
2x M3x6

1



Position of servo arms for the tail rotor when sticks are centered

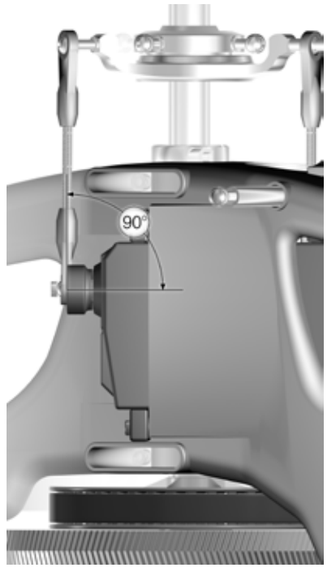
3



Position for mounting V-Bar gyro

2

Position of servo arms for the aileron servos when sticks are centered (0 deg. Pitch)



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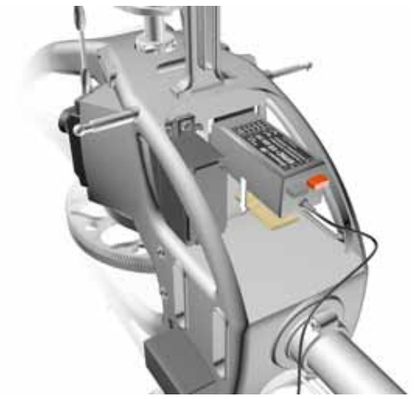
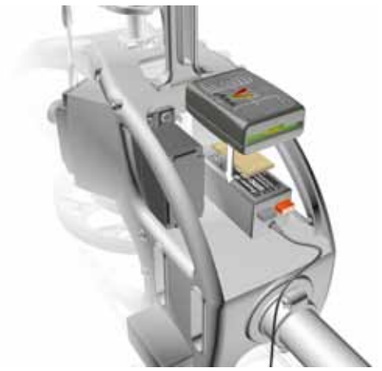


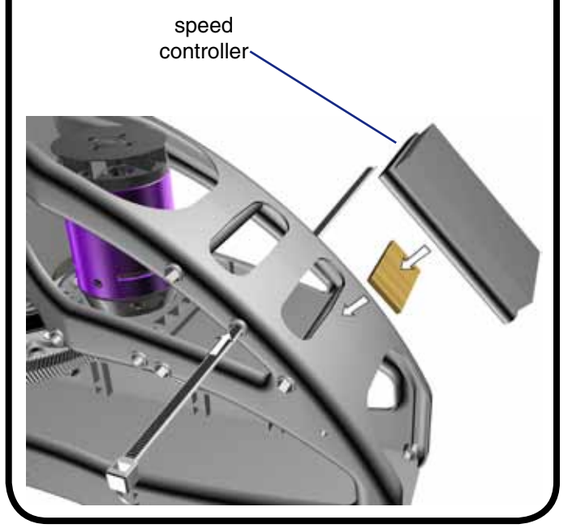
Receiver

5



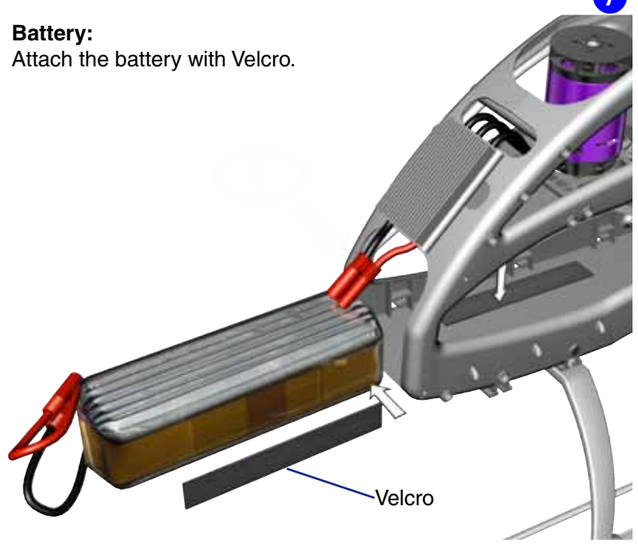
V-Bar Main board

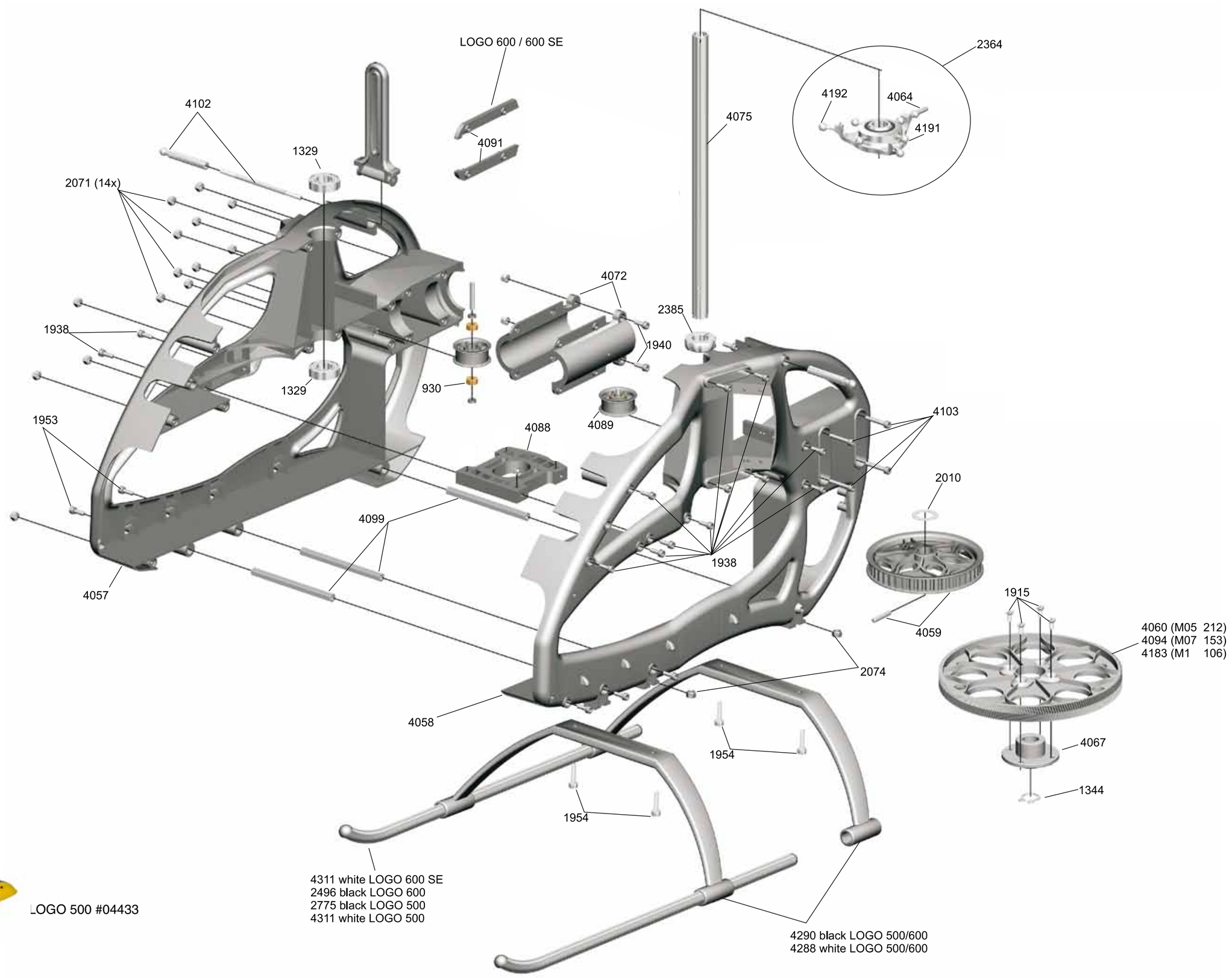
6



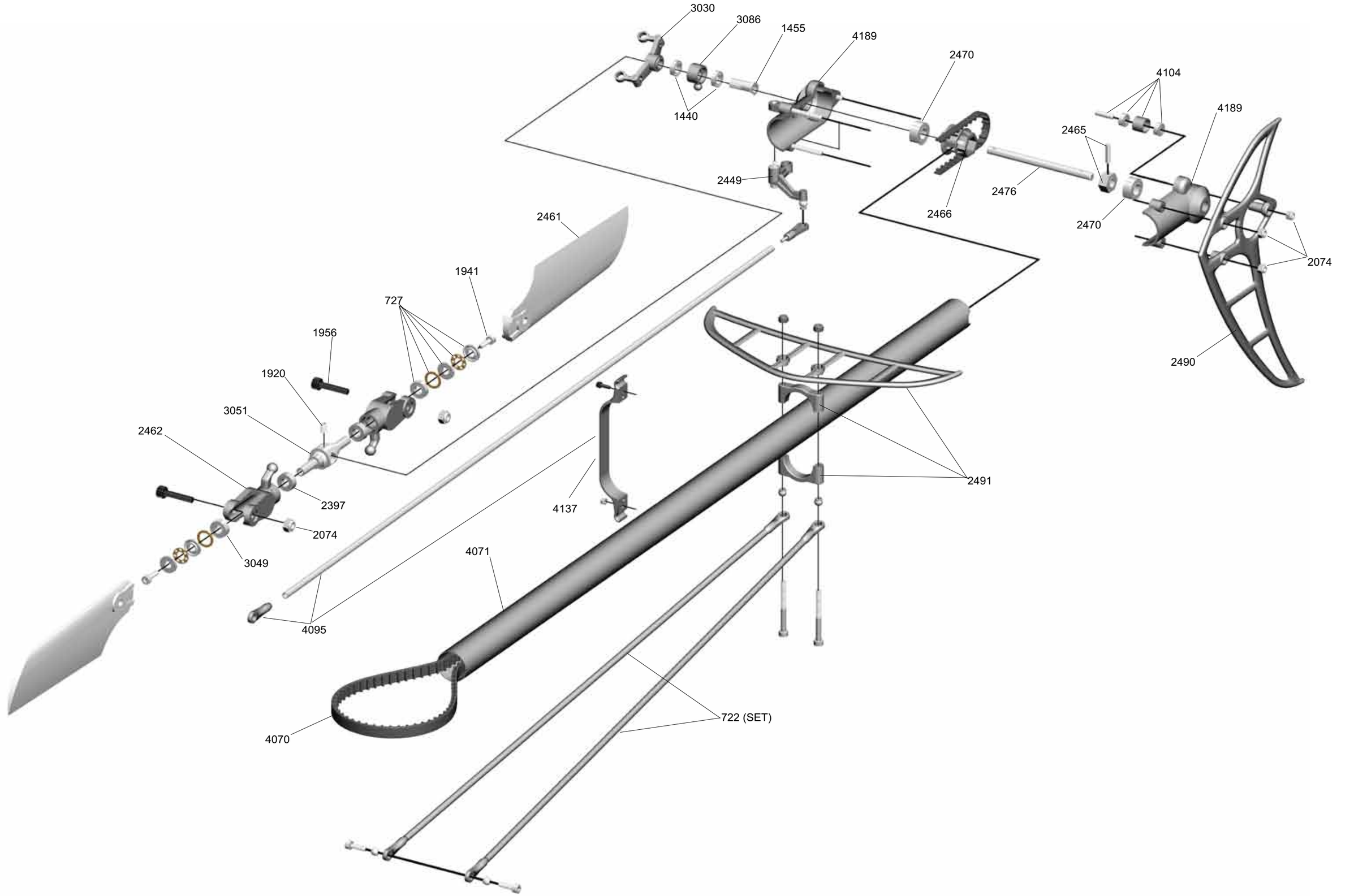
7

Battery:
Attach the battery with Velcro.





LOGO 500 #04433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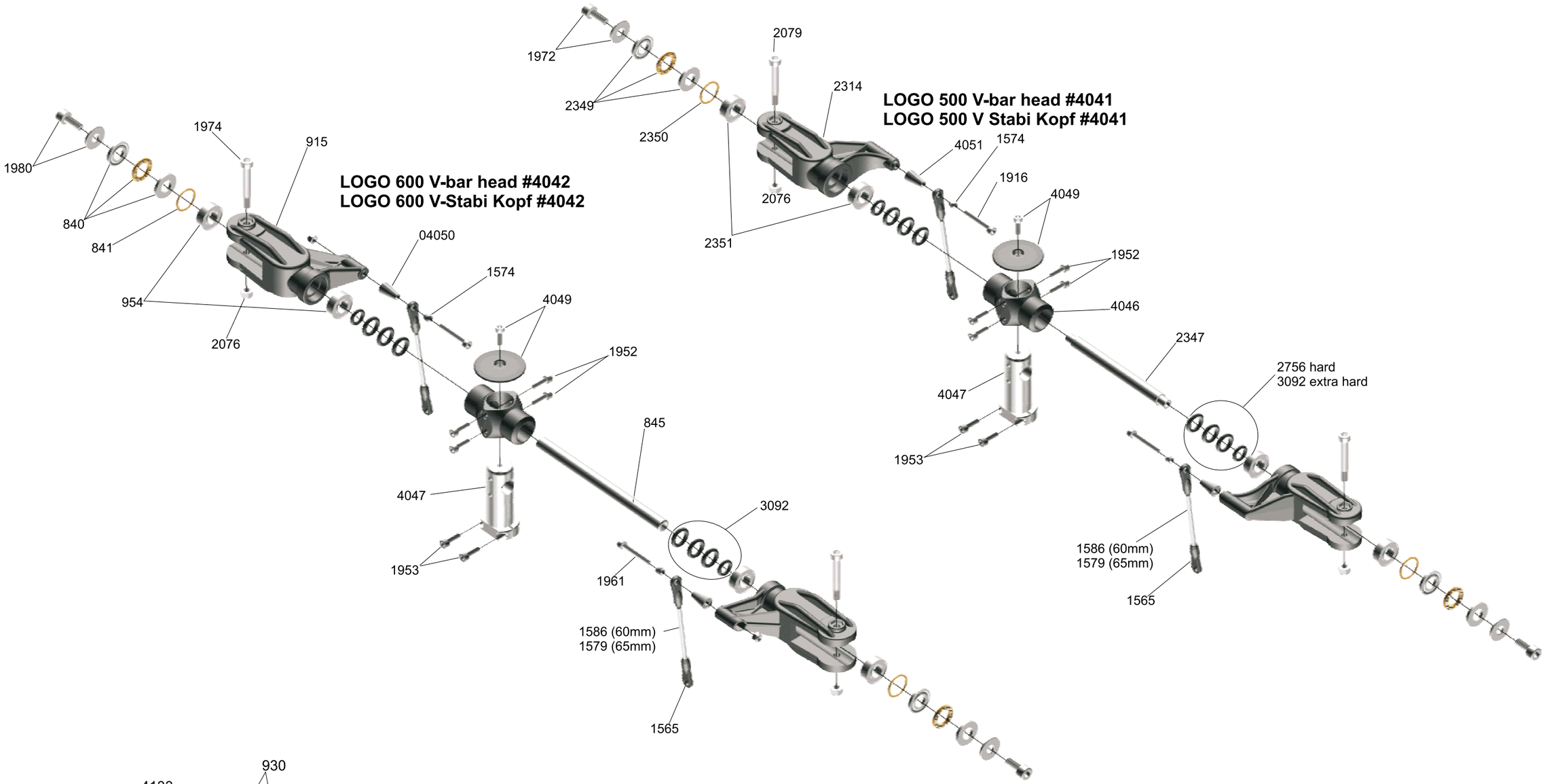

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