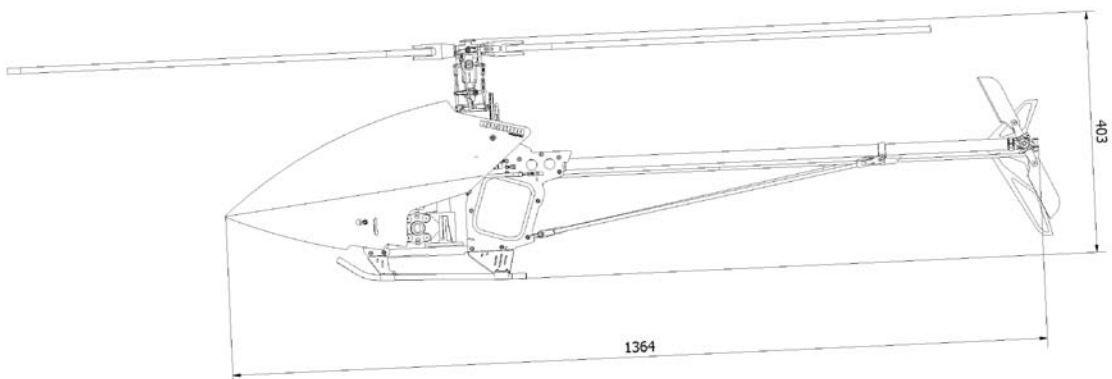
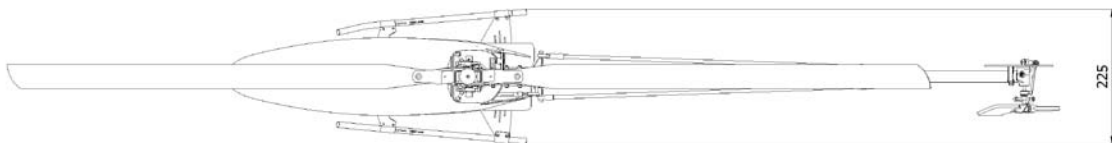

DESIGNED BY KASAMA
COOPERATE WITH
ULTIMATE HELI-UAE



SRIMOK 90
THE NEXT LEVEL



INTRODUCTION

THANK YOU FOR YOUR PURCHASE OF SRIMOK 90 RADIO CONTROLLED HELICOPTER . THE SRIMOK 90 WAS DESIGNED AND DEVELOPED BY MR. KASAMA THAWORN. WITH STRONG AND FRIENDLY SUPPORT FROM ULTIMATE HELI U.A.E. IT COMBINES BOTH ELEMENTS OF HIS PREVIOUS DESIGNS , NEWLY ADVANCED TECHNOLOGIES AND MATERIALS . THE DESIGN IDEAS ARE NOT ONLY FROM FLYING , BUT ALSO FROM MANY YEARS OF RC EXPERIENCE . SO THE BEGINNERS AND ADVANCED 3-D FLIERS WILL DEFINITELY BE IMPRESSED WITH SRIMOK 90.

THIS RADIO CONTROLLED HELICOPTER IS NOT A TOY. IT IS A SOPHISTICATED PIECE OF EQUIPMENT THAT WAS DESIGNED FOR HOBBY USE ONLY .IF IT IS NOT PROPERLY ASSEMBLED , MAINTAINED OR OPERATED , IT IS CAPABLE OF CAUSING PROPERTY DAMAGE AND BODILY HARM TO BOTH OPERATOR AND/OR SPECTATORS . KASAMA HELICOPTERS CO., LTD. AFFILIATES AND ITS AUTHORIZED AFFILIATES ASSUME NO LIABILITY FOR DAMAGE THAT COULD OCCUR FROM THE ASSEMBLY, USE AND/ MISUSE OF THIS PRODUCT. IF YOU ARE NEW TO THE HOBBY WE STRONGLY RECOMMEND SEEKING HELP AND ADVICE FROM AN EXPERIENCED MODELER. SRIMOK90 IS A VERY HIGH SPEED HELICOPTER, IT WAS NOT INTENDED FOR BEGINNERS OR NOVICE BUILDING, SETUP OR FLYING.

OPERATING A MODEL HELICOPTER REQUIRES A HIGH DEGREE OF DILIGENCE AND SKILL. IF YOU ARE A NEWCOMER TO THE HOBBY , IT IS BEST TO SEEK HELP AND GUIDANCE FROM EXPERIENCED RADIO CONTROLLED HELICOPTER PILOTS . THIS WILL BOTH GREATLY SPEED UP THE LEARNING PROCESS AND MAKE IT MUCH SAFER AND ENJOYABLE.

WE ALSO WOULD STRONGLY URGE YOU TO JOIN THE ACADEMY OF MODEL AERONAUTICS. THE AMA IS A NON-PROFIT ORGANIZATION THAT PROVIDES ITS MEMBER WITH A LIABILITY INSURANCE PLAN AS WELL AS MONTHLY MAGAZINE ENTITLED MODEL AVIATION .ALL CLUBS OPERATE IN ACCORDANCE WITH AMA PRINCIPLES AT THEIR FIELDS. FOR FURTHER INFORMATION ,CONTACT THE AMA AT

ACADEMY OF MODEL AERONAUTICS

5151 EAST MEMORIAL DRIVE

MUNCIE, IN47302

[317] 287-1256

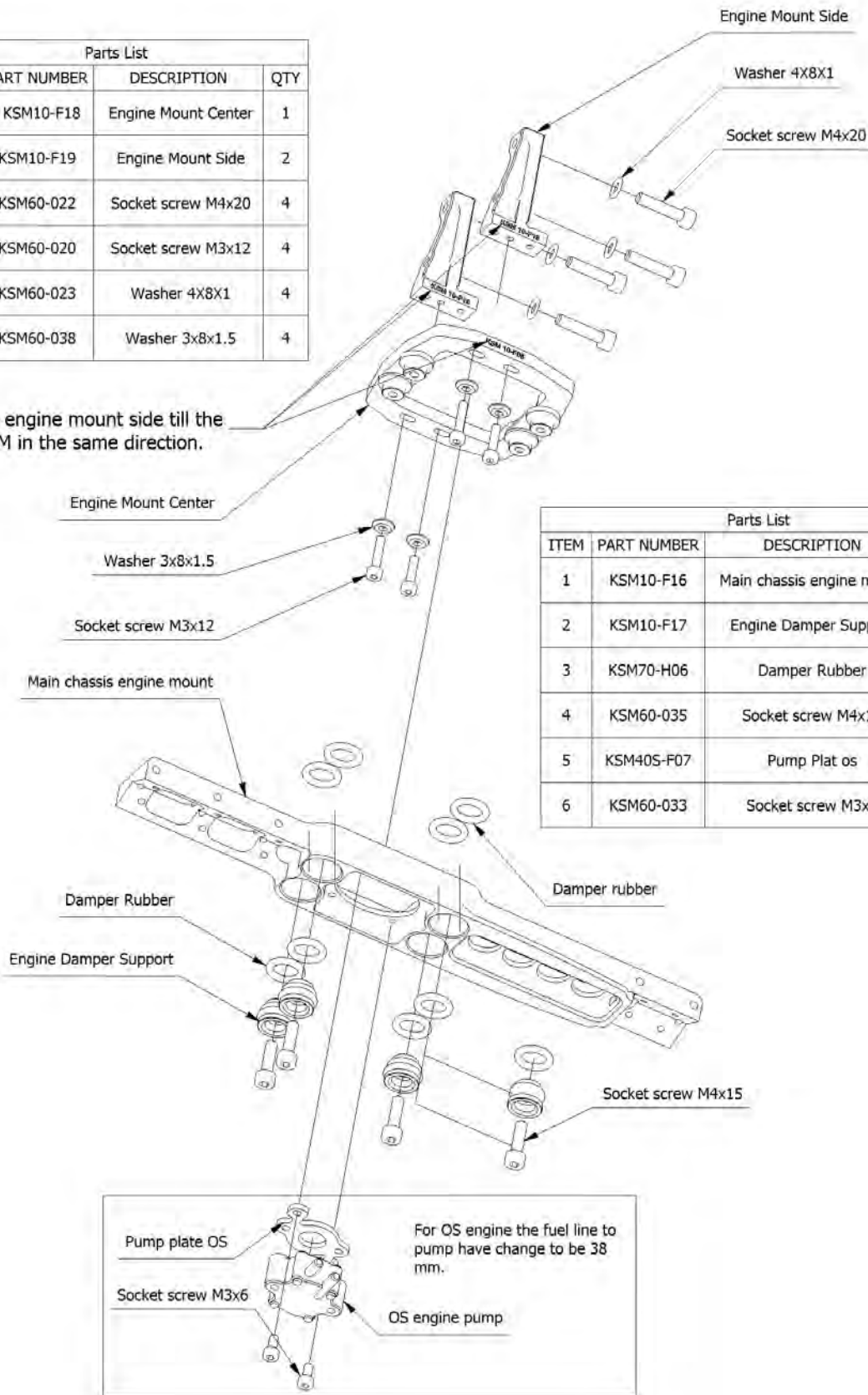
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PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLATION

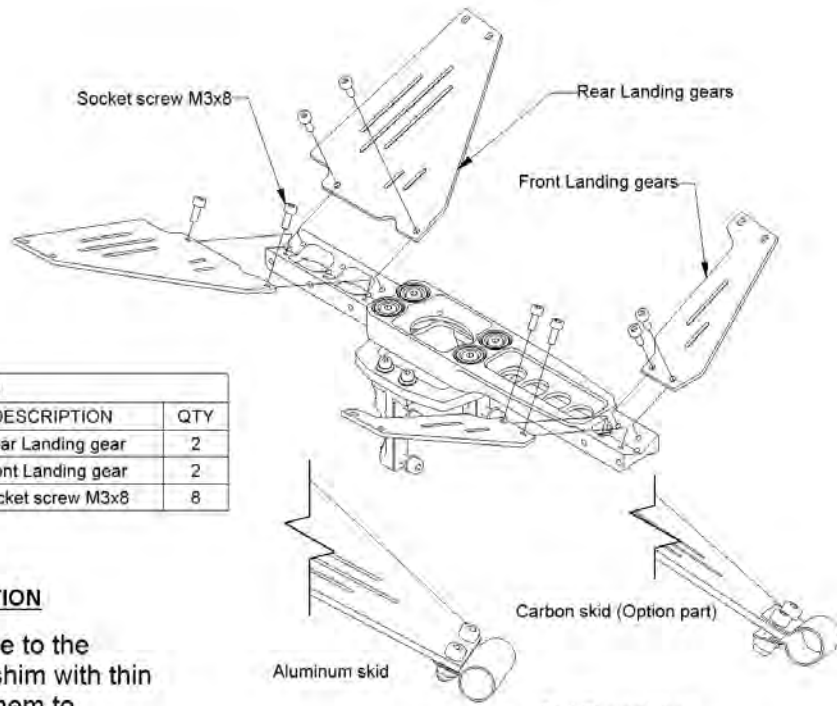
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-F18	Engine Mount Center	1
2	KSM10-F19	Engine Mount Side	2
3	KSM60-022	Socket screw M4x20	4
5	KSM60-020	Socket screw M3x12	4
5	KSM60-023	Washer 4X8X1	4
6	KSM60-038	Washer 3x8x1.5	4

Turn the engine mount side till the mark KSM in the same direction.



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-F16	Main chassis engine mount	1
2	KSM10-F17	Engine Damper Support	4
3	KSM70-H06	Damper Rubber	12
4	KSM60-035	Socket screw M4x15	4
5	KSM40S-F07	Pump Plat os	1
6	KSM60-033	Socket screw M3x6	2

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

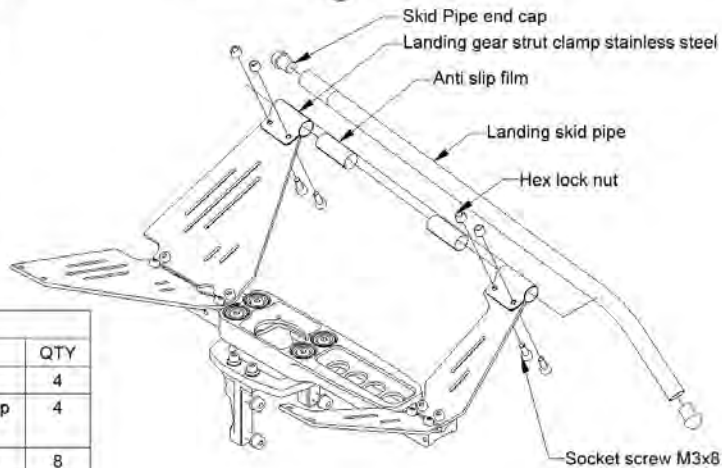


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM40-F03	Rear Landing gear	2
2	KSM40-F02	Front Landing gear	2
3	KSM60-034	Socket screw M3x8	8

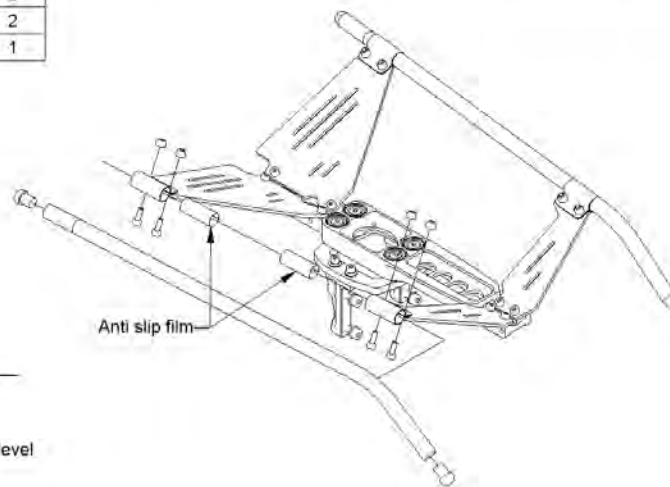
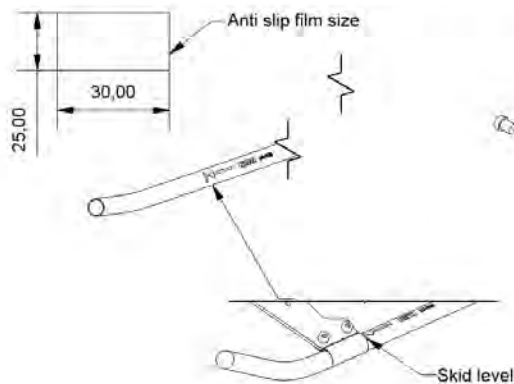
LANDING GEAR INSTALLATION

To firmly lock the skid pipe to the clamp, you may have to shim with thin plastic sheet by cutting them to 2.5x3cm and putting them between skid pipes and clamps

NOTE : Before tightening skid clamps, lay the heli flat on the table so as to level the landing gear.

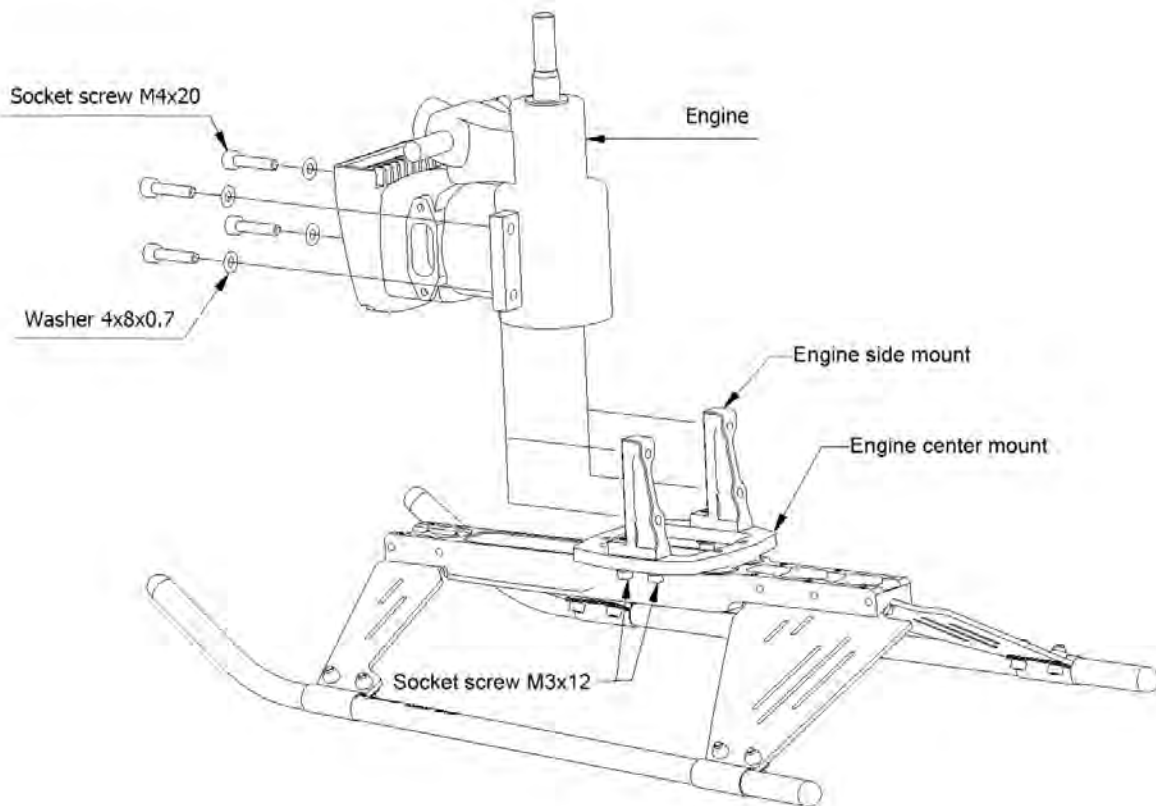


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM70-F09	Skid Pipe end cap	4
2	KSM40-F04	Landing gear strut clamp stainless steel	4
3	KSM60-034	Socket screw M3x8	8
4	KSM60-027	Hex lock nut M3	8
5	KSM10-F25	Landing skid pipe	2
6	KSM70-F10	Anti slip film	1



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

ENGINE INSTALLATION

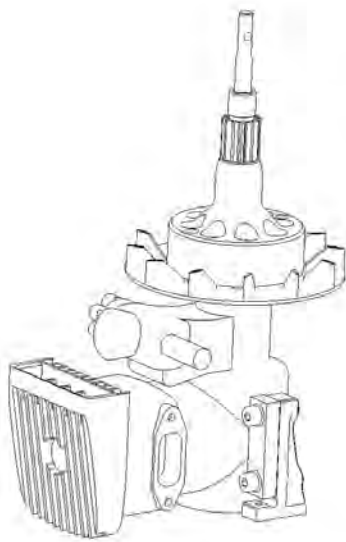


ENGINE MOUNT ASSEMBLY

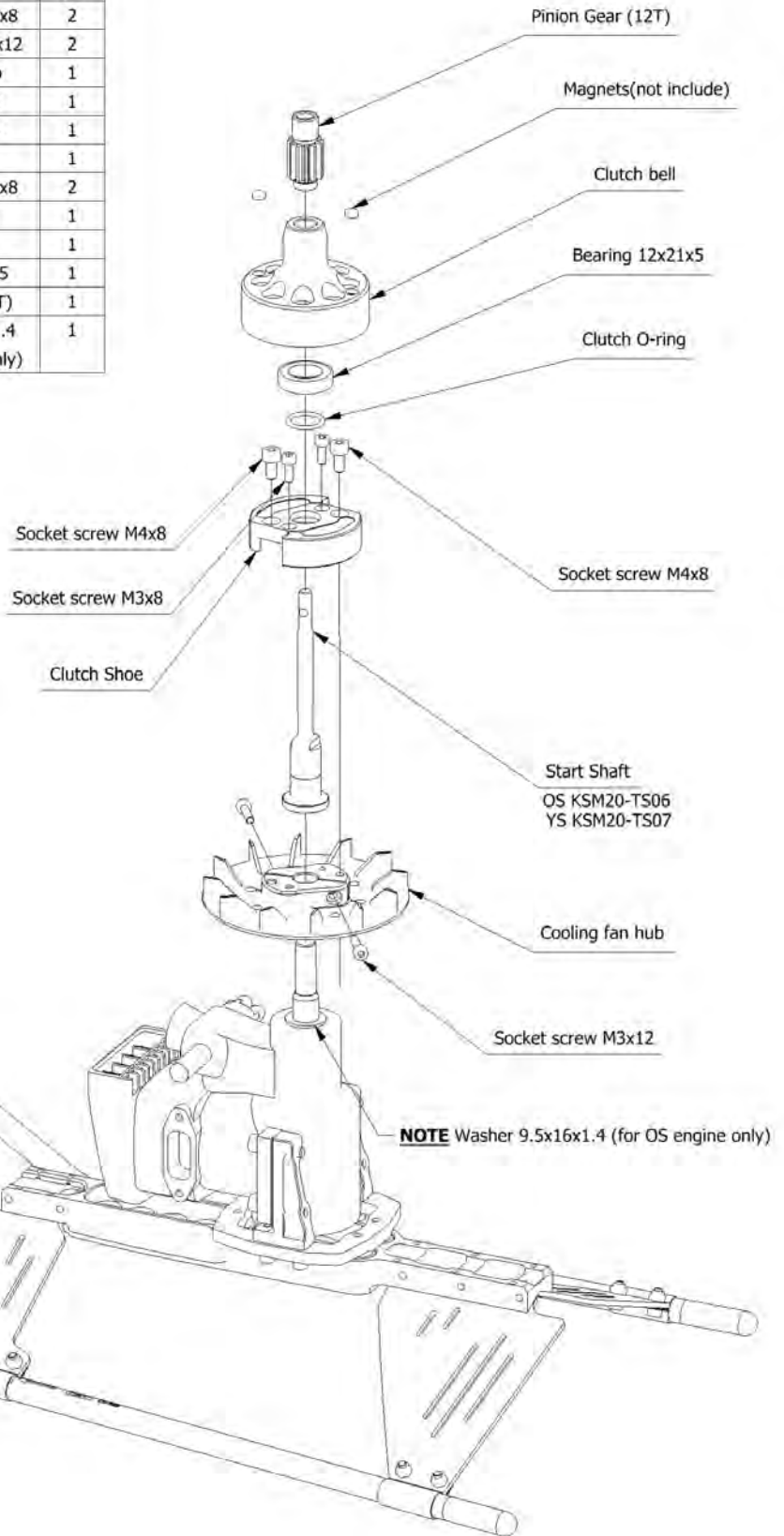
1. Insert the m3x12 screws to attach the engine side mount to the engine center mount .Make sure the screws are not too tight and the engine side mount can be able to slightly move forward and backward.
2. Put the engine on the engine side mounts. Pull the engine down slightly and use m4x18 screws to lock the engine. Do not tighten up the screws yet.
3. Make sure that the engine is attached to the side mount firmly . Then slightly tighten the screws again without locking it .
4. Check that the engine is 90 degree up right to the engine center mount . Tighten all screws locking the engine firmly.
5. If unsure that the engine is installed properly, restart the process from step 2 again.
6. If you are certainly sure that the engine is properly installed ,take off the m4x20 screws individually one at a time to apply thread lock and tighten it firmly.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-034	Socket screw M3x8	2
2	KSM60-020	Socket screw M3x12	2
3	KSM10S-TS12	Cooling fan hub	1
4	KSM20-TS06 (OS)	Start Shaft OS	1
5	KSM20-TS07 (YS)	Start Shaft YS	1
6	KSM20S-TS05	Clutch Shoe	1
7	KSM60-021	Socket screw M4x8	2
8	KSM7004-TS05	Clutch O-ring	1
9	KSM10S-TS11	Clutch bell	1
10	KSM3002-115	Bearing 12x21x5	1
11	KSM20-TS08	Pinion Gear (12T)	1
12	KSM60-055	Washer 9.5x16x1.4 (for OS engine only)	1



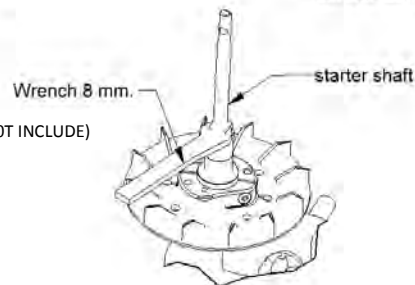
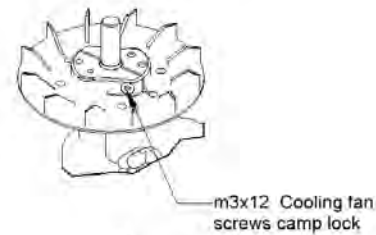
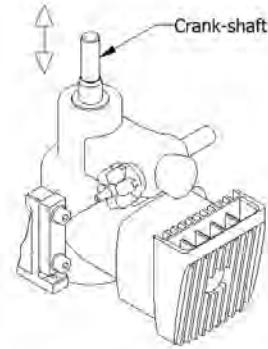
Complete Assembly



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

PRACTISE ASSEMBLY

1. Before assembling the cooling fan and hub to the engine, pull the crankshaft up and down to ascertain the degree of movement - this is eliminated in the following steps.
2. Put the cooling fan on the crankshaft and pull the crankshaft up whilst pushing the fan down - gently tighten the M3x12 clamp bolts.
3. Check free play by pulling the shaft up and down and repeat step 2 if there is discernible movement.
4. If the shaft has no any end-play, moderately tighten the m3x12.
5. Screw the starter shaft clockwise onto the crankshaft with an 8mm wrench - you will need to hold the fan or preferably lock the engine through the back cover with a locking tool.
6. Check end float by pulling the starter shaft up and down and check fan movements to exclude binding.

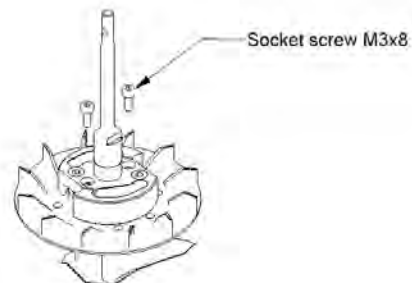
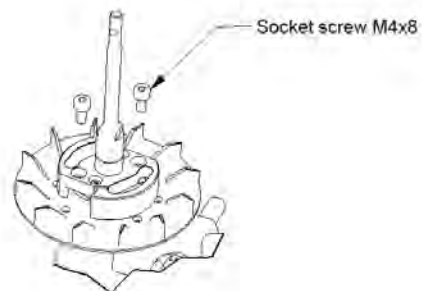


REAL ASSEMBLY

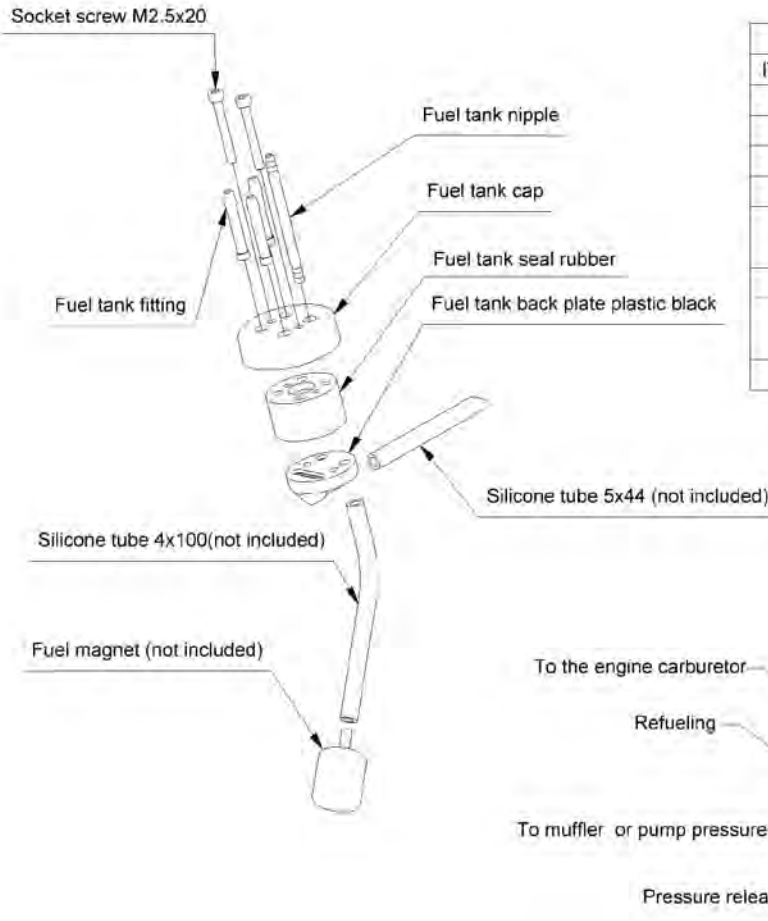
Repeat above steps 1-6 but apply thread lock to fan clamp bolts and step 2. Before mounting starter shaft in step 6 apply thread lock. Place clutch over starter shaft and rotate it down over the fan center hub - this may be a little tight and require drawing down with M4x8 bolts. If all is well the clutch shoes will lie on the fan center hub and the shoes will be centered. Remove M4 bolts, thread lock and then re-apply to clutch - finally insert M3x8 bolts.

NOTE

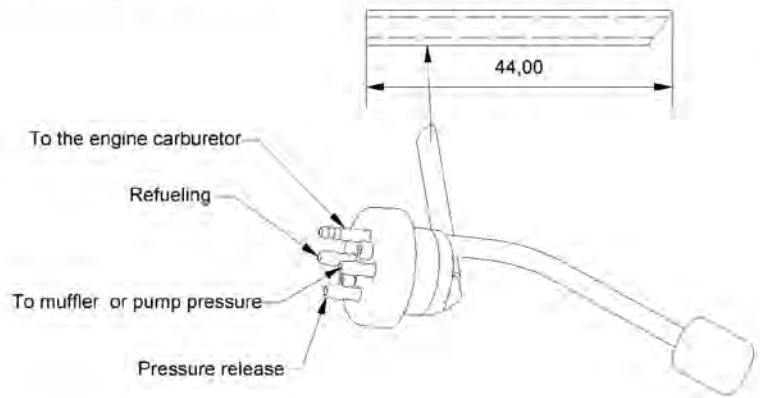
OUR SYSTEM WAS SPECIALLY DESIGNED TO MOUNT THE CLUTCH CLOSE TO THE ENGINE - THIS HELPS BALANCE HIGH RPM VIBRATION AND LOWERS THE CG POINT TOO.



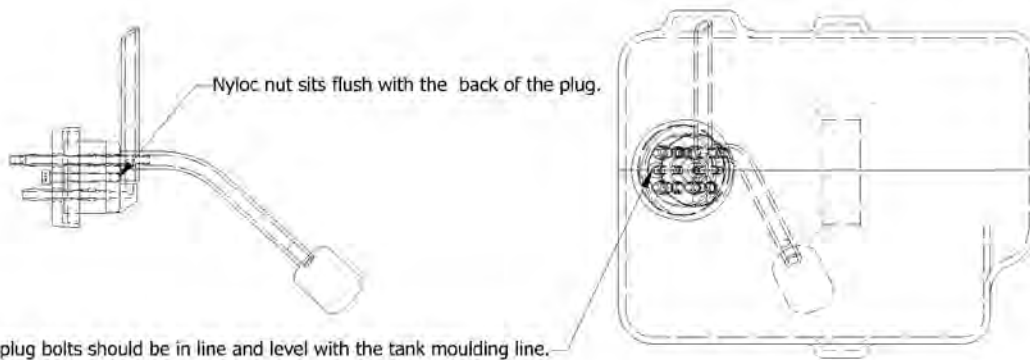
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM70-FT02	Fuel tank cap	1
2	KSM70-FT06	Fuel tank seal rubber	1
3	KSM70-FT04	Fuel tank fitting	3
4	KSM10-FT09	Silicone tube 4x100	1
5	KSM70-FT05	Fuel tank back plate plastic black	1
6	KSM60-051	Socket screw M2.5x20	2
7	KSM70-FT01	Fuel tank plastic (600 cc)	1
8	KSM70-FT03	Fuel tank nipple	1



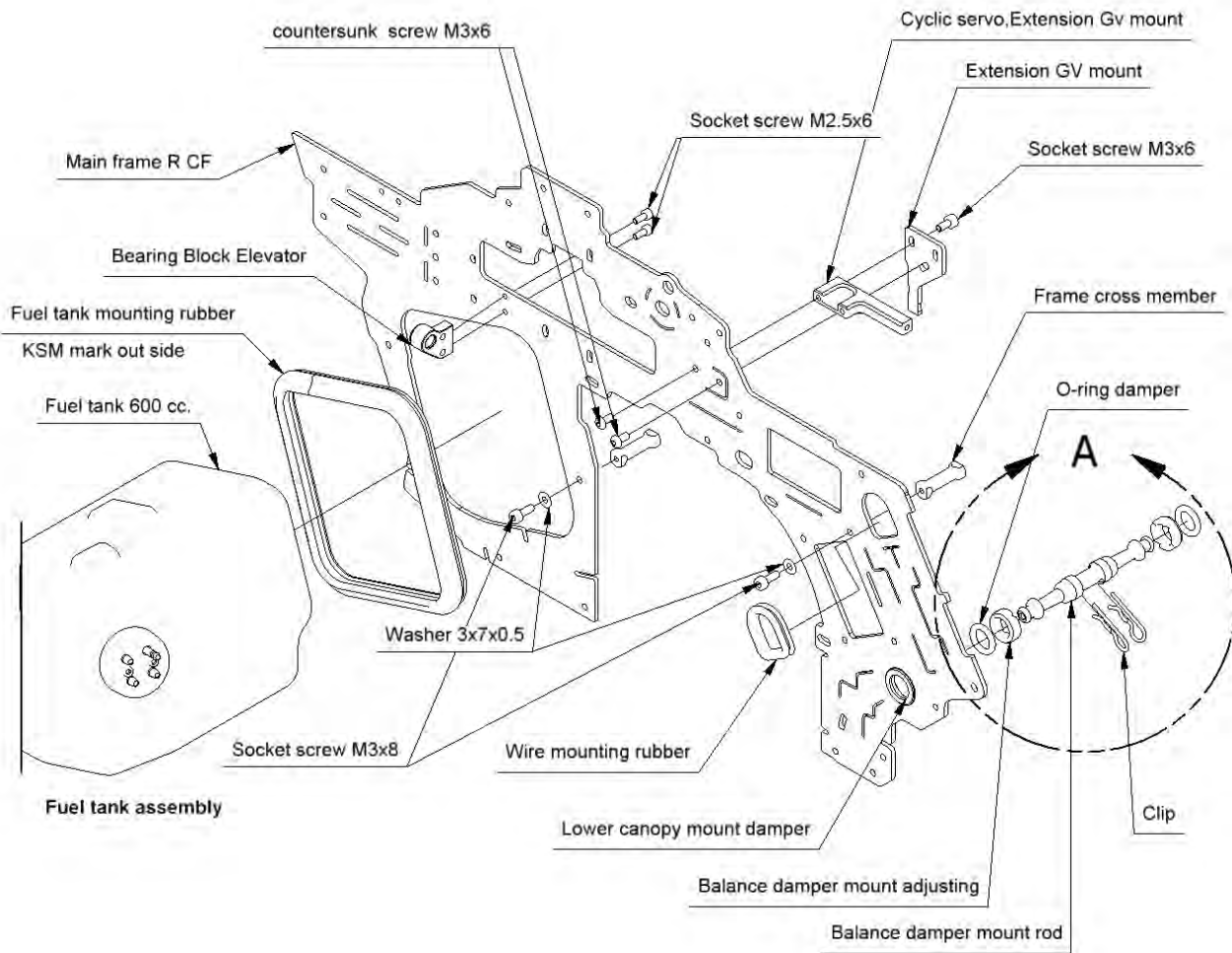
FUEL TANK ASSEMBLY



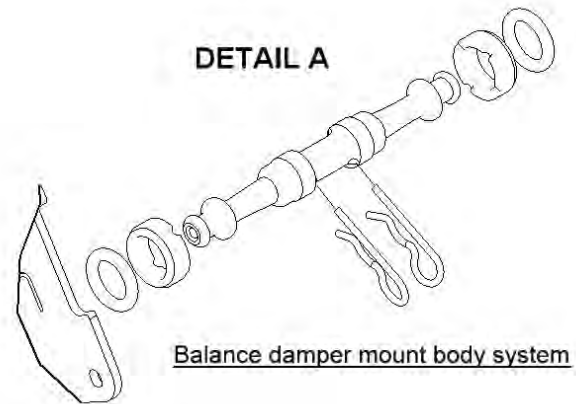
THE FUEL TANK CAP ASSEMBLY

- 1) Tighten the plug bolts until they are flush with the plug.
- 2) Insert plug fully into tank.
- 3) Rotate plug until bolts are level with tank moulding line.
- 4) Tighten plug bolts 1 full turn each then repeat again to each.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



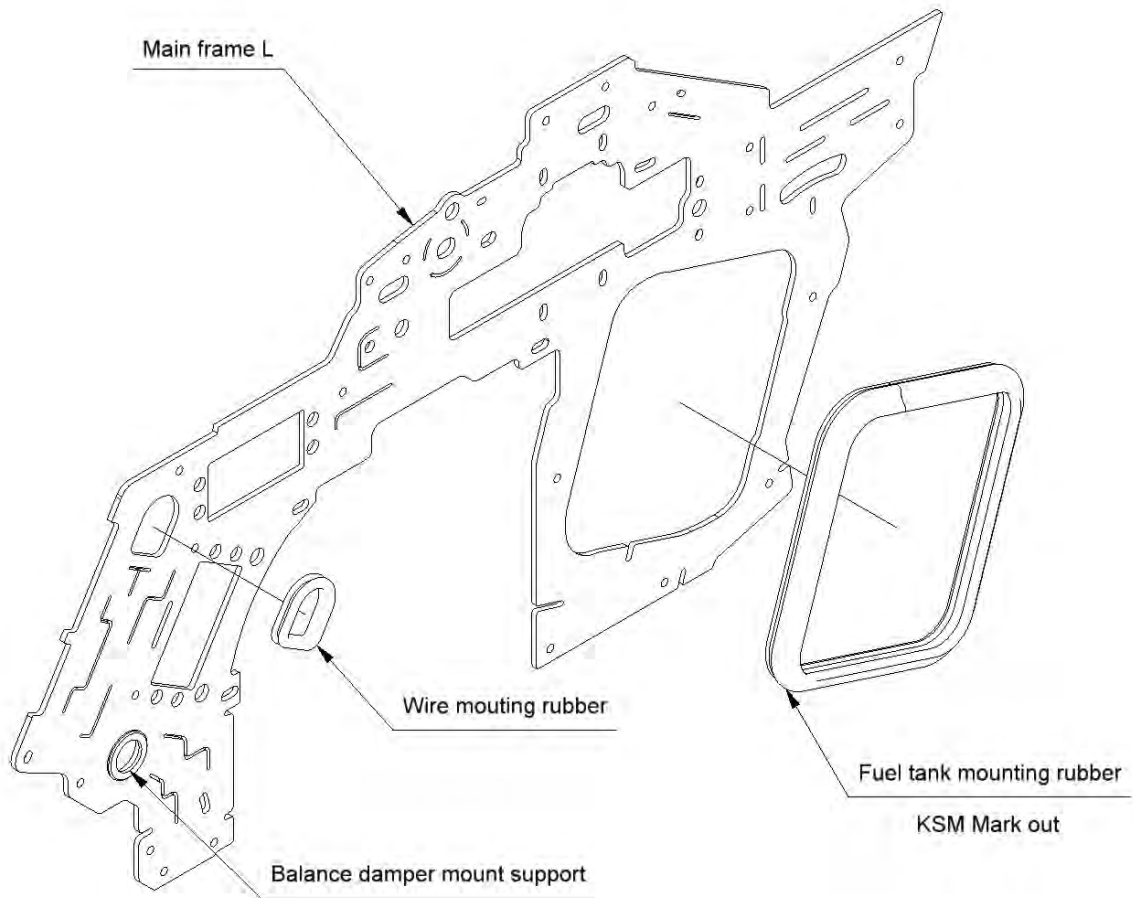
Parts List			
ITEM	PART NUMBE	DESCRIPTION	QTY
1	KSM40-90F01	Main frame R CF	1
2	KSM10-C10	Bearing Block Elevator	1
3	KSM60-048	Socket screw M2.5x6	2
4	KSM10-F05	Cyclic servo, Extension Gv mount	1
5	KSM60-052	Button head screw M3x6	2
6	KSM10-F02	Frame cross member	2
7	KSM60-034	Socket screw M3x8	2
8	KSM60-029	Washer 3x7x0.5	2
9	KSM10-F27	Lower canopy mount damper	1
10	KSM70-FT07	Fuel tank mounting rubber	1
11	KSM10-F26	Balance damper mount rod	1
12	KSM70-H06	O-ring damper	2
13	KSM70-F08	Clip	2
14	KSM70-F06	Balance damper mount adjusting	2
15	KSM60-033	Socket screw M3x6	1
16	KSM40-F06	Extension GV mount	1
17	KSM70-F05	Wire mounting rubber	1
18	KSM70-FT01	Fuel tank cc.	1



Note: To protect wiring and fuel tubing it is best to blunt the carbon frame edges by sanding.

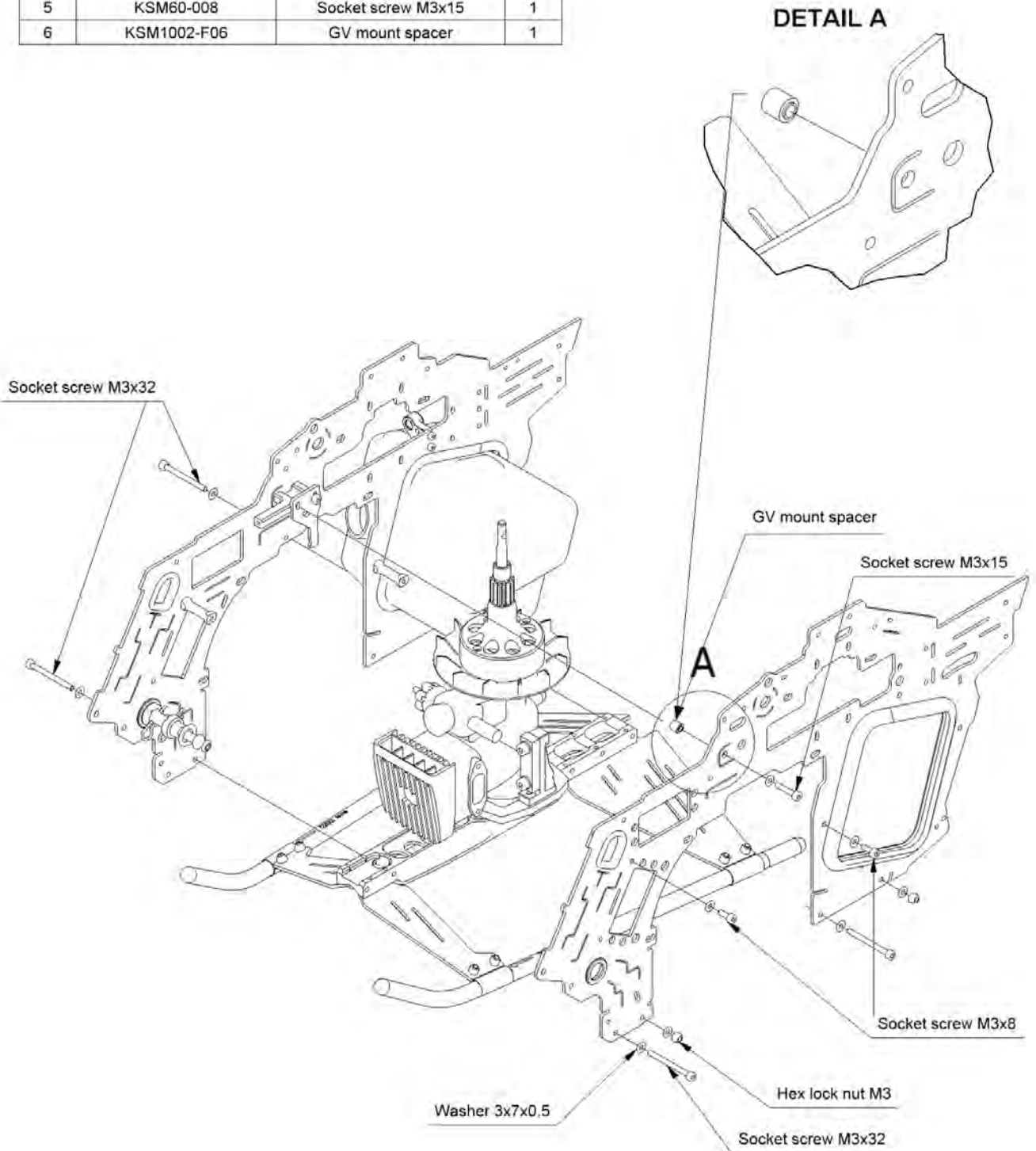
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM40-90F02	Main frame L	1
2	KSM1002-F27	Balance damper mount support	1
3	KSM7002-FT07	Fuel tank mounting rubber	1
4	KSM7002-F05	Wire mouting rubber	1



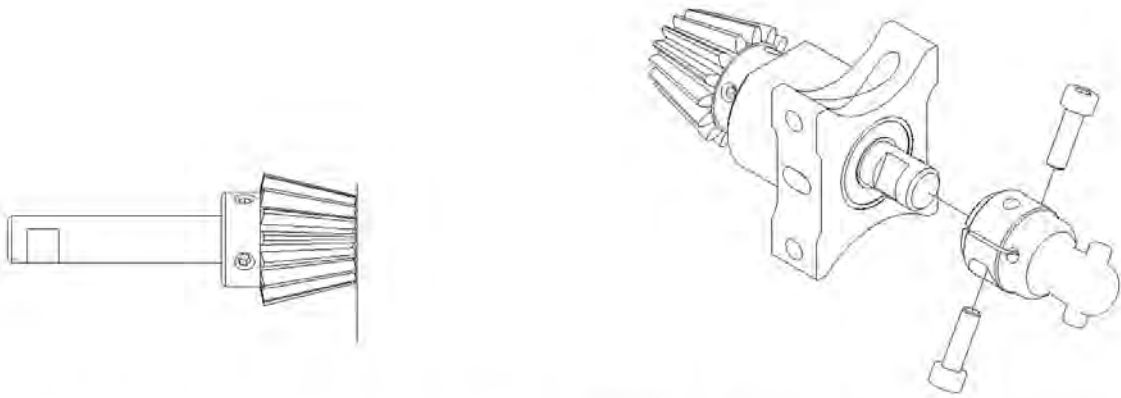
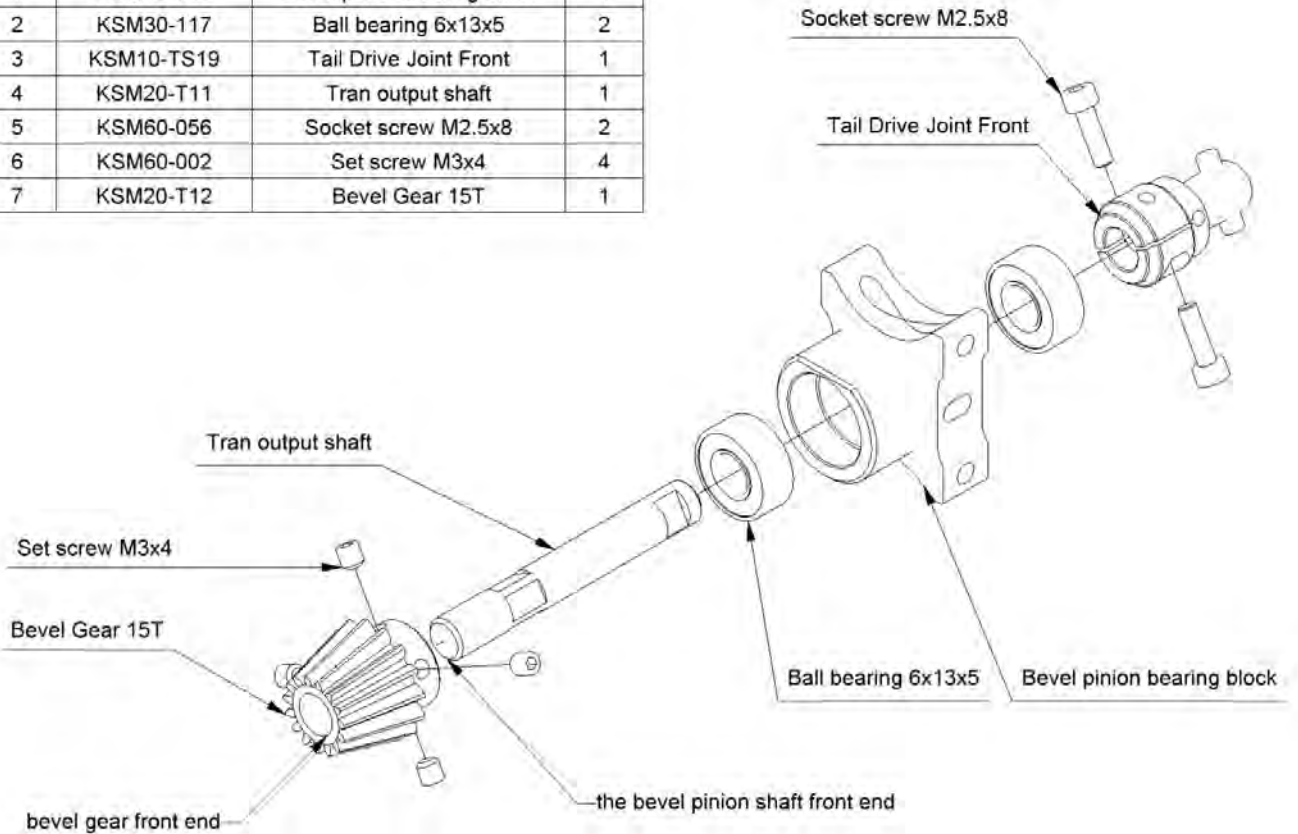
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-031	Socket screw M3x32	4
2	KSM60-034	Socket screw M3x8	2
3	KSM60-029	Washer 3x7x0.5	11
4	KSM60-027	Hex lock nut M3	4
5	KSM60-008	Socket screw M3x15	1
6	KSM1002-F06	GV mount spacer	1



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

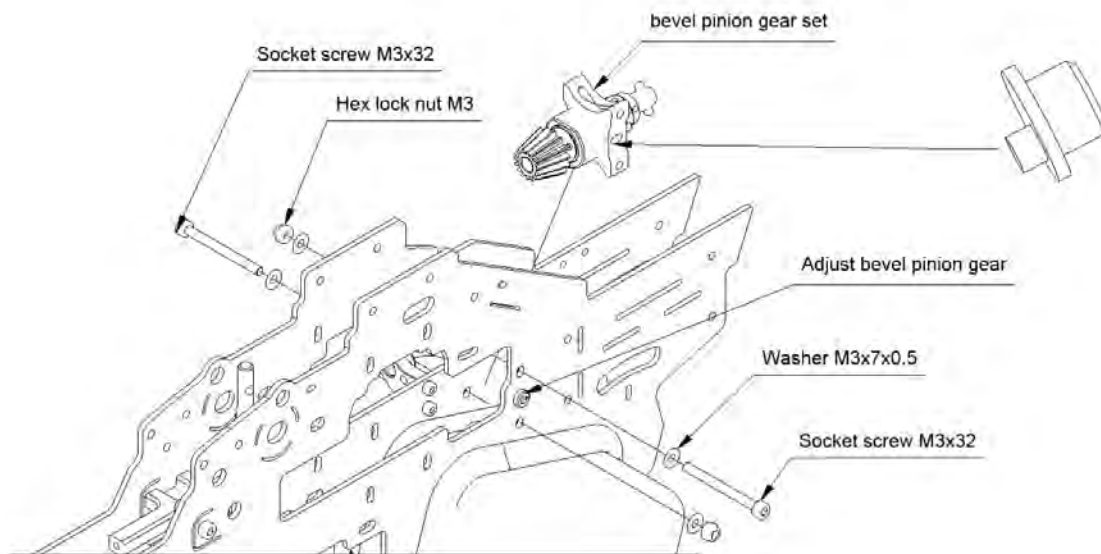
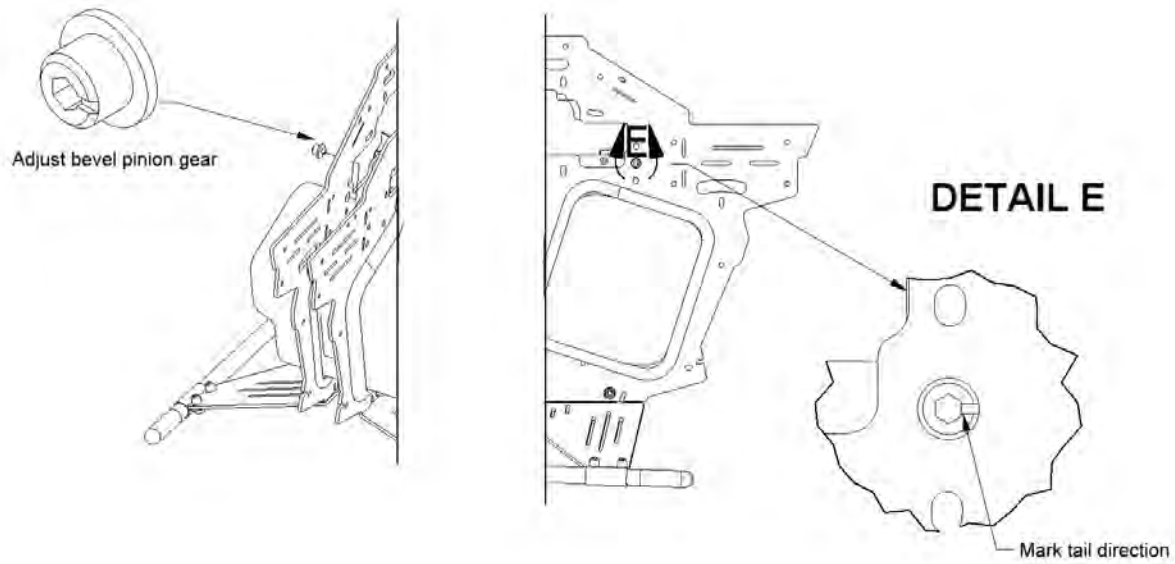
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-T08	Bevel pinion bearing block	1
2	KSM30-117	Ball bearing 6x13x5	2
3	KSM10-TS19	Tail Drive Joint Front	1
4	KSM20-T11	Tran output shaft	1
5	KSM60-056	Socket screw M2.5x8	2
6	KSM60-002	Set screw M3x4	4
7	KSM20-T12	Bevel Gear 15T	1



NOTICE :The pinion shaft must reach and be level with the end of the front bevel gear.

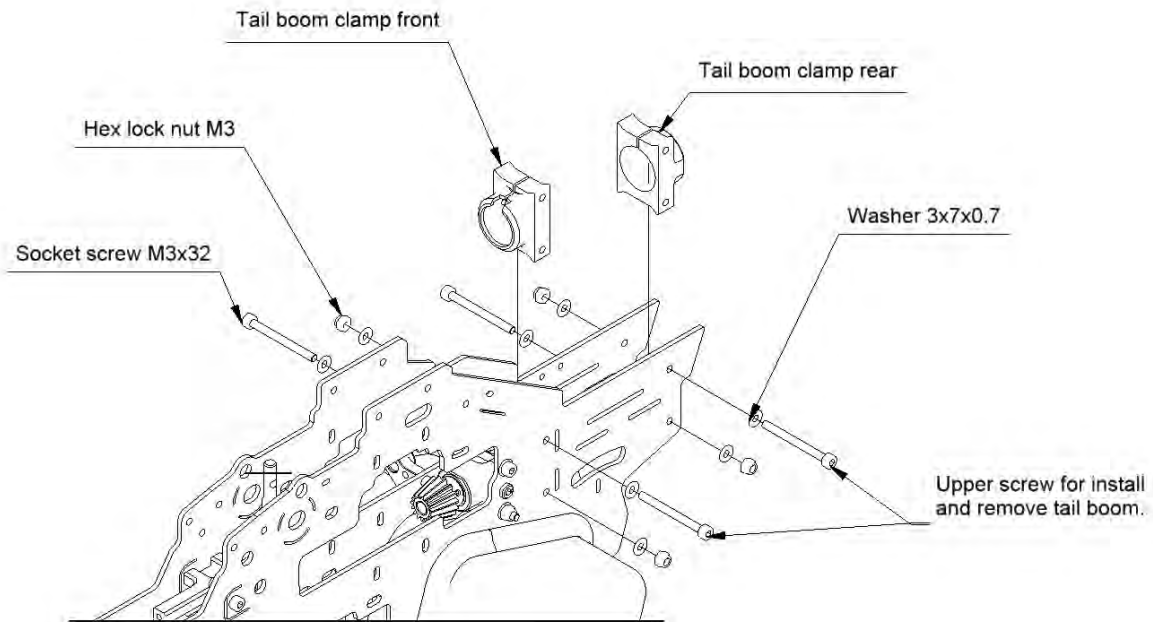
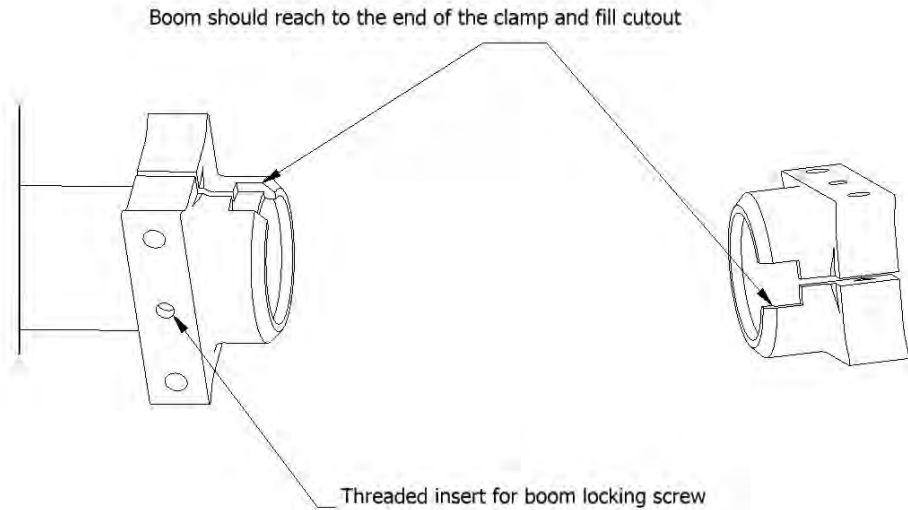
NOTICE : Press the two parts together and tighten the 4 set M3 set screws. Make sure the shaft runs smoothly.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



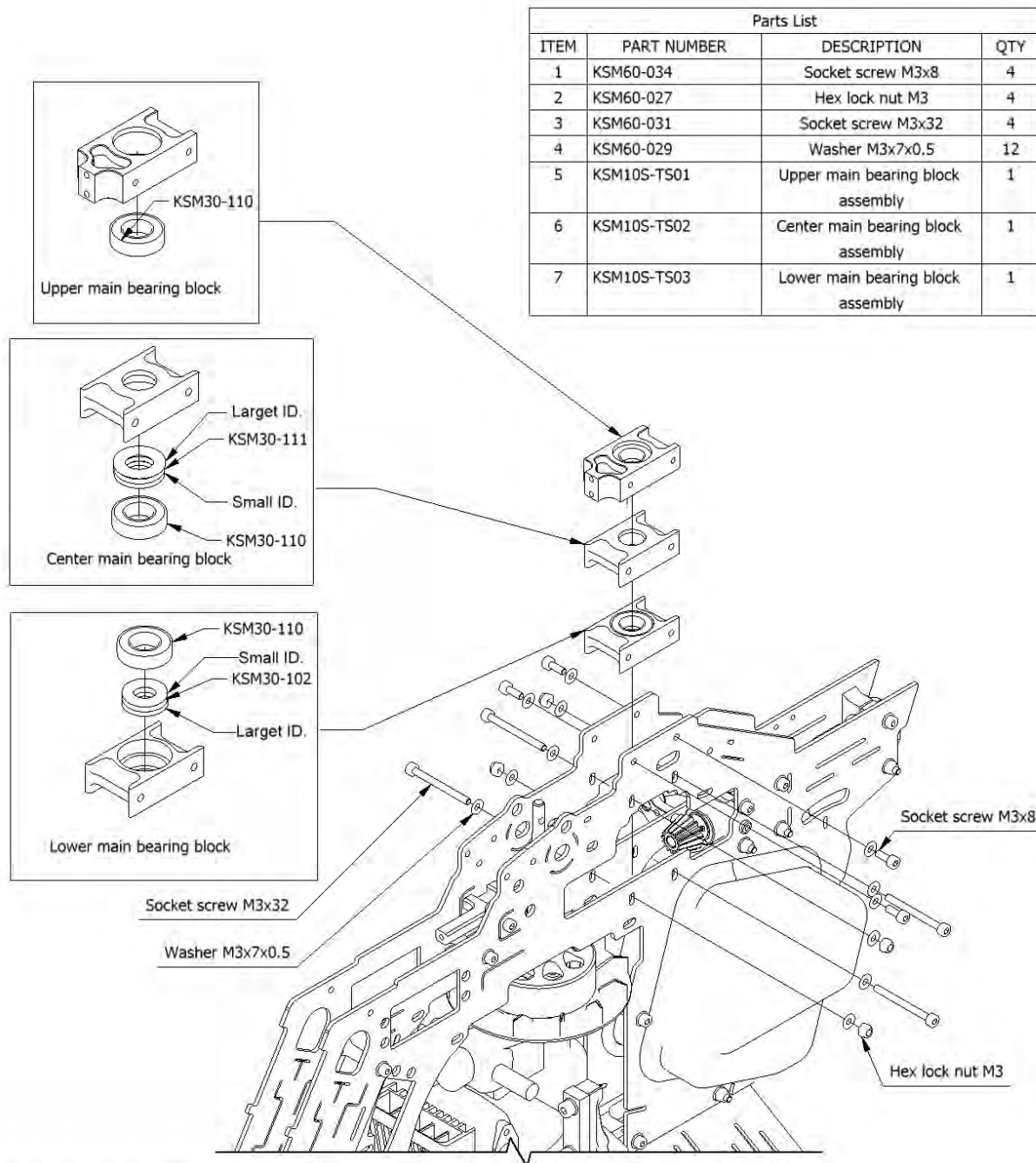
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-027	Hex lock nut M3	2
2	KSM60-031	Socket screw M3x32	2
3	KSM60-029	Washer M3x7x0.5	4
4	KSM2002-TS09	Adjust bevel pinion gear	1
5		bevel pinion gear assembly	1

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-027	Hex lock nut M3	4
2	KSM60-031	Socket screw M3x32	4
3	KSM60-029	Washer 3x7x0.7	8
4	KSM10-T06	Tail boom clamp front	1
5	KSM10-T07	Tail boom clamp rear	1

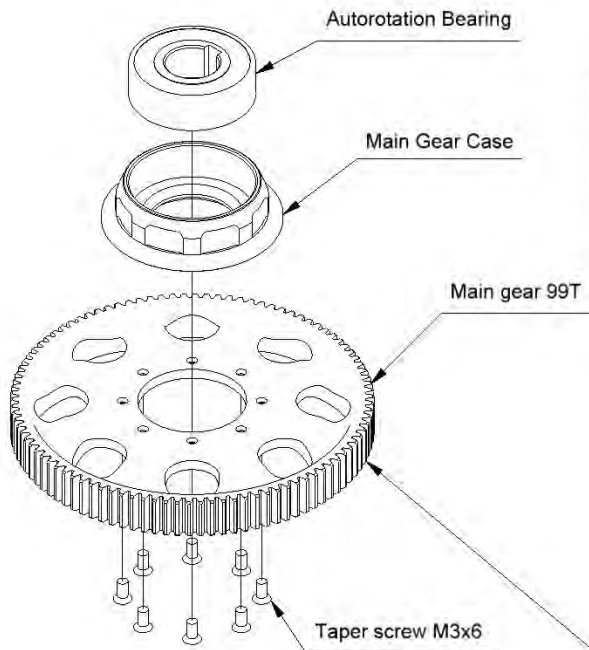
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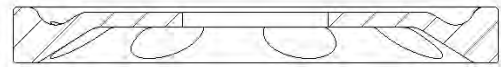
BEARING BLOCK INSTALLATION

- 1) Slide Lower and Middle Bearing Blocks into place between the CF frames and insert M3x32 bolts and apply washers and nuts.
- 2) Insert Top Bearing Block and insert M3x8 screws but do not tighten
- 3) Insert mast through 3 bearing blocks
- 4) Push DOWN on Lower Block and gently tighten bolts.
- 5) Push UP on Middle Block and gently tighten bolts
- 6) Tighten Top Block M3 bolts and remove mast - remove Top Block bolts one at a time - thread lock and re-tighten

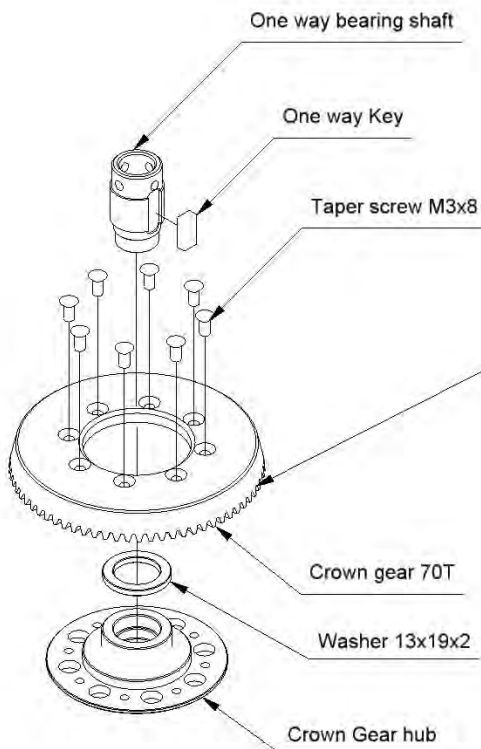
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



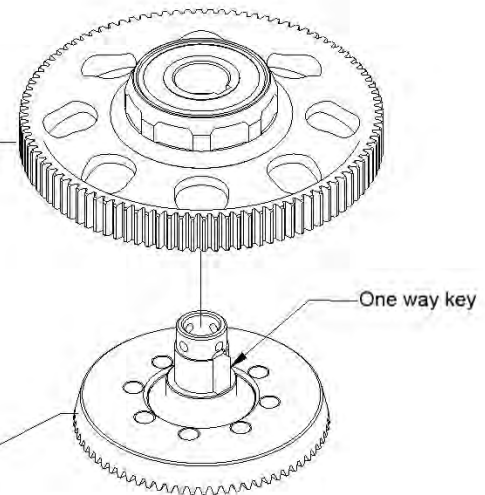
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-TS16	Main Gear Case	1
2	KSM30-112	Autorotation Bearing	1
3	KSM70-TS02	Main gear 99T	1
4	KSM60-024	Taper screw M3x6	8



Main Gear Direction



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM20-TS01	One way bearing shaft	1
2	KSM10-TS17	Crown Gear hub	1
3	KSM30-125	One way Key	1
4	KSM60-025	Taper screw M3x8	8
5	KSM70-TS04	Crown gear 70T	1
6	KSM60-053	Washer 13x19x2	1

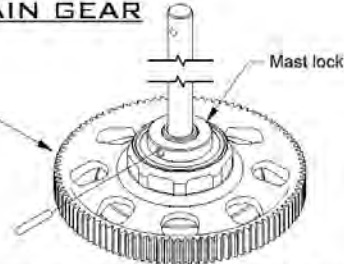
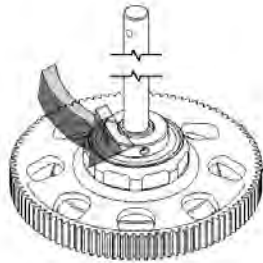


Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM20-TS03	Mast lock Pin	1
2	KSM20-TS02	Main Mast	1
3	KSM10-TS15	Mast lock	1
4	KSM60-026	Socket screw M2.5x15	1

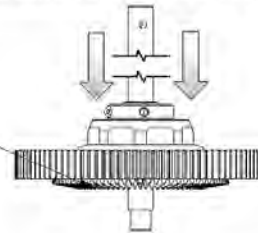
TEST ASSEMBLE THE MAIN SHAFT AND MAIN GEAR

1. Insert the main mast into the main gear set. Adjust the holes of the main mast, mast lock and one way shaft bearing to the same position.



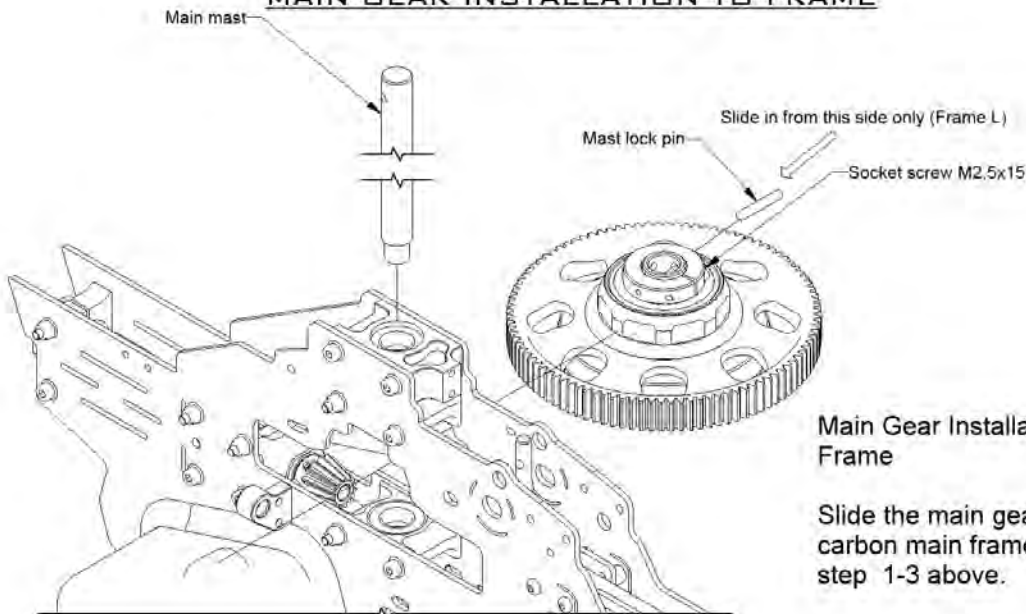
2. Insert mast lock pin into that hole. Then lock the mast lock cap by turning it at the same direction as the arrow to close that hole.

NOTICE: the Arrow mark direction was shown on the mast cap.



3. To close the gap between crown gear and main gear unit, push the mast cap lock downward before tightening M2.5x15 firmly.

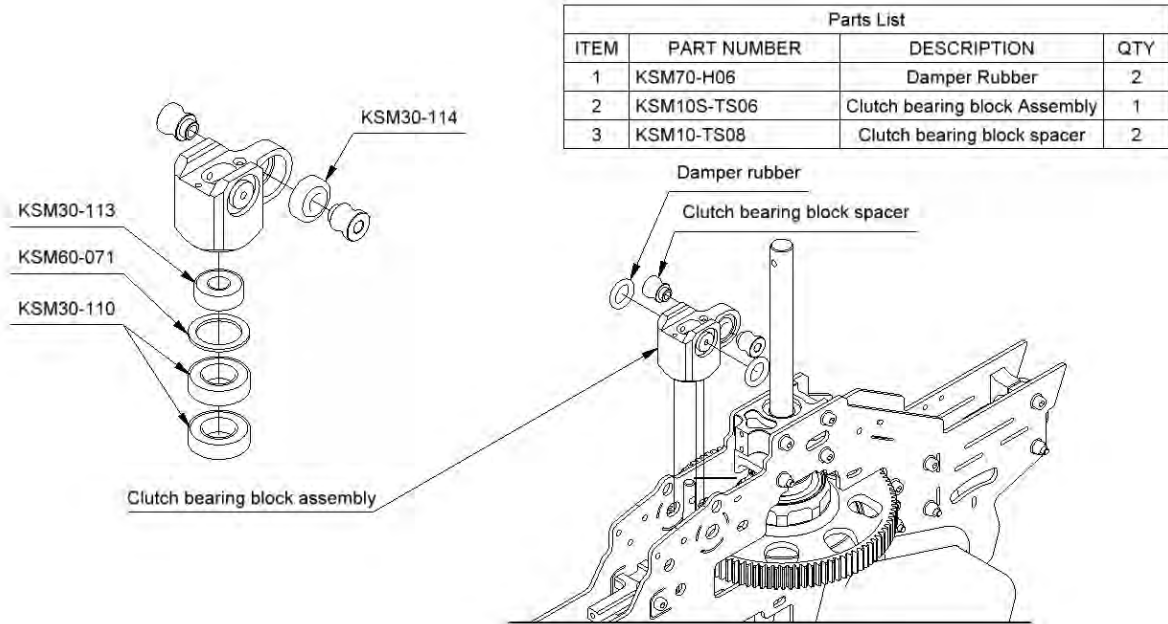
MAIN GEAR INSTALLATION TO FRAME



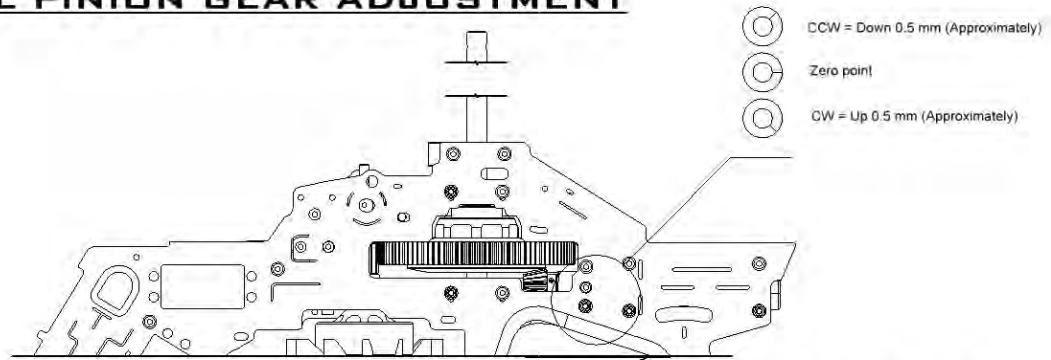
Main Gear Installation to Frame

Slide the main gear to the carbon main frame. Follow step 1-3 above.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



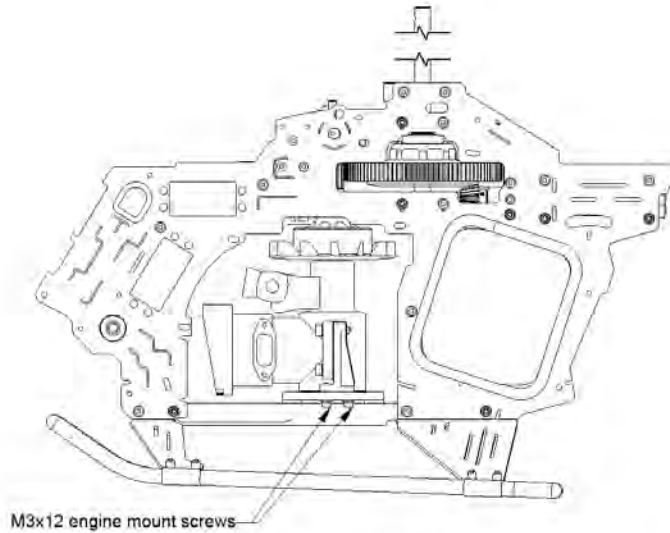
BEVEL PINION GEAR ADJUSTMENT



After Main Gear is inserted you can adjust bevel gear up and down 1mm by turning the Bevel Gear Adjuster clockwise to raise the bevel gear and anti-clockwise to lower it.

- 1) Raise the bevel gear to its highest position by turning the Adjuster clockwise - Lock bevel gear block in place by tightening the two M3x32 bolts.
- 2) Loosen Lower Bearing Block bolts and push block down to allow Main Crown Gear to sit on Bevel Gear.
- 3) Loosen Center Bearing Block bolts and push it down to sit on top of One Way Bearing then tighten M3x32 bolts firmly.
- 4) Loosen Lower Bearing Block M3 bolts and push Block up till it rests on the bottom of the OWB and tighten bolts.
- 5) Test Main Gear end-float by pulling Main Shaft up and down.
- 6) If there is no end-float tighten Lower and Center Bearing Block mounting bolts firmly - if there is movement of gear and mast repeat steps 2-4.
- 7) Loosen Bevel Gear Block M3 bolts and rotate Adjuster until Bevel Gear has ~0.3-0.5mm backlash on Main Gear. You can also 'tune it' by ear by spinning main gear till you get the smoothest and quietest sound of the gears running.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

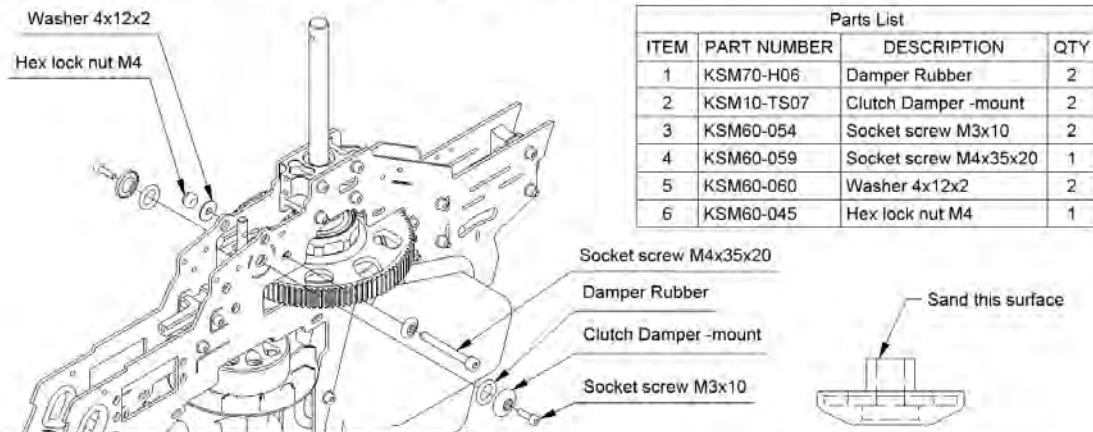


HOW TO ADJUST MAINGEAR AND PINION GEAR

Loosen up the four M3x12 engine mount screws to allow the engine to be able to move sideward, not up or downward. Then, adjust the position of engine sideward to set the suitable backlash between the pinion gear and main-gear. After that moderately tighten the four M3x12 screws, recheck the backlash. Use the M4x35 screw to lock clutch bearing block.

Or by the other way, you can also insert a piece of paper or plastic sheet between two gears, press the gears together, then lock the engine mount nuts, pull out the paper, then check the gears backlash again. Using this method the main gear and pinion gear have to be parallel.

CLUTCH BEARING BLOCK MOUNT INSTALLATION



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM70-H06	Damper Rubber	2
2	KSM10-TS07	Clutch Damper -mount	2
3	KSM60-054	Socket screw M3x10	2
4	KSM60-059	Socket screw M4x35x20	1
5	KSM60-060	Washer 4x12x2	2
6	KSM60-045	Hex lock nut M4	1

HOW TO ADJUST CLUTCH BEARING BLOCK MOUNT

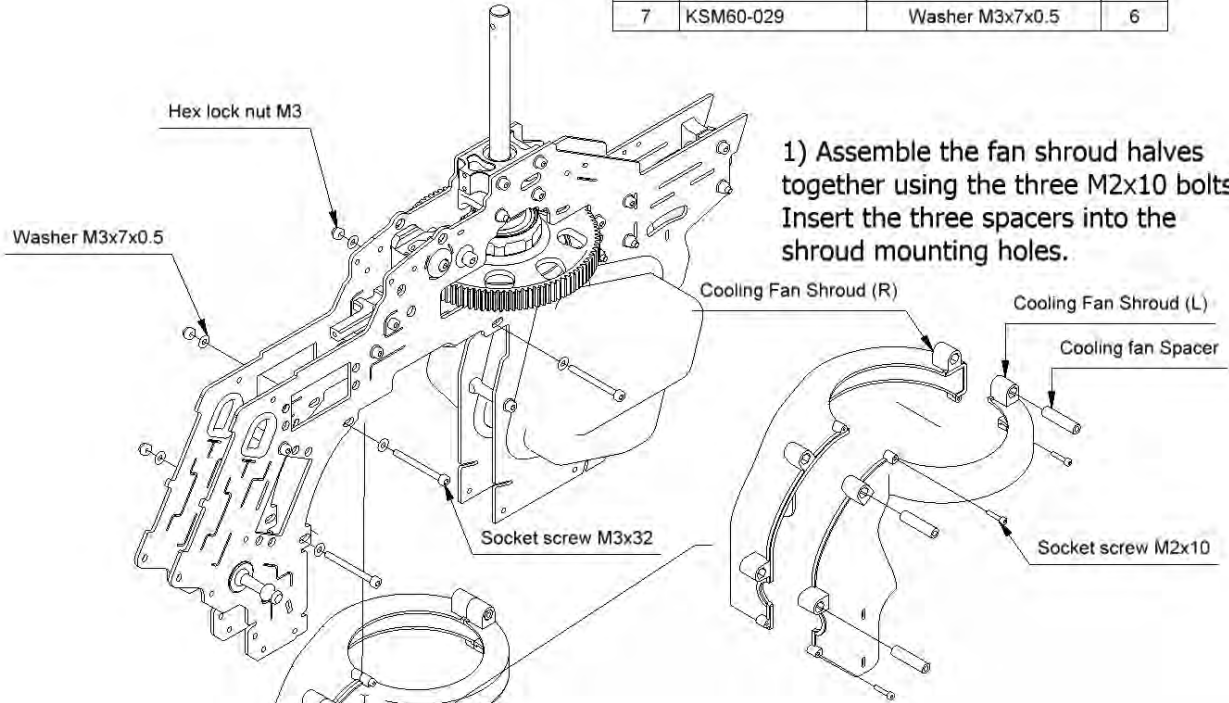
Special feature of the Srimok is to allow slight movement of the clutch block to prevent binding during slight frame movements encountered in extreme 3D flight. As each frame and o-ring dampener varies slightly it is necessary to customise each bearing block to allow it to move slightly in flight.

Assemble the o-ring damper on its mount and screw it into the frame with the M3x10 bolt - when the you just feel the mount start to bind on the frame screw it in a further 1/2 turn for normal flight or 3/4 turn for high rpm 3D - if the damper won't go in that far remove it and sand the base and try again until the required pre-load of the o-ring and bearing block is achieved.

Note: Each Damper Mount is cutomised for each side and may not be the same - it is therefore important not to switch sides with the damper after final adjustment.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM70-F02	Cooling Fan Shroud (R)	1
2	KSM70-F03	Cooling Fan Shroud (L)	1
3	KSM10-F24	Cooling fan Spacer	3
4	KSM60-041	Socket screw M2x10	3
5	KSM60-031	Socket screw M3x32	3
6	KSM60-027	Hex lock nut M3	3
7	KSM60-029	Washer M3x7x0.5	6



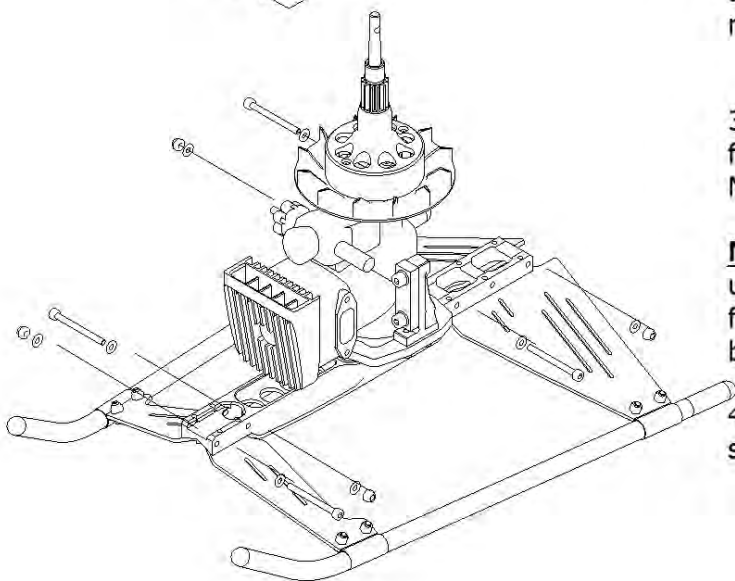
1) Assemble the fan shroud halves together using the three M2x10 bolts. Insert the three spacers into the shroud mounting holes.

2) Loosen the 4 M3x32 bolts securing the CF frames to the main chassis mount and lift the frames away from the mount.

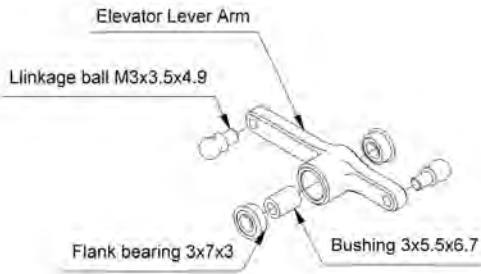
3) Slide the Cooling Fan Shroud into the frames then secure in place with the M3x32 bolts.

NOTE: Do not tighten all mounting bolts until you have ensured that the engine fan is centered in the shroud and not binding.

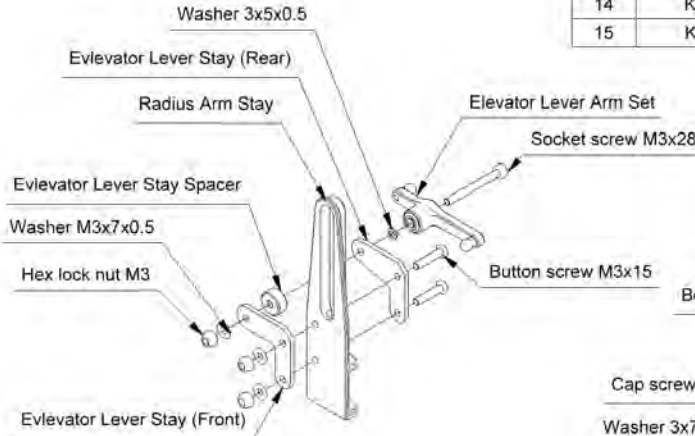
4) When sure fan is centered in shroud secure all mounting bolts tightly.



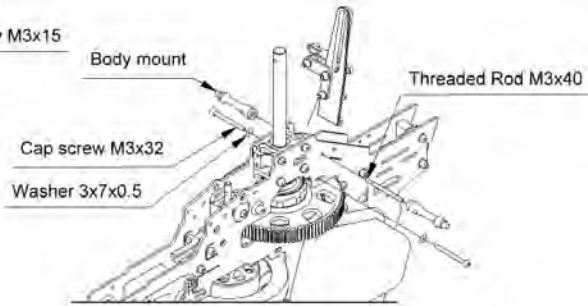
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



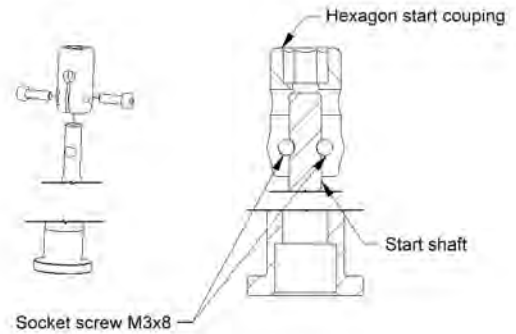
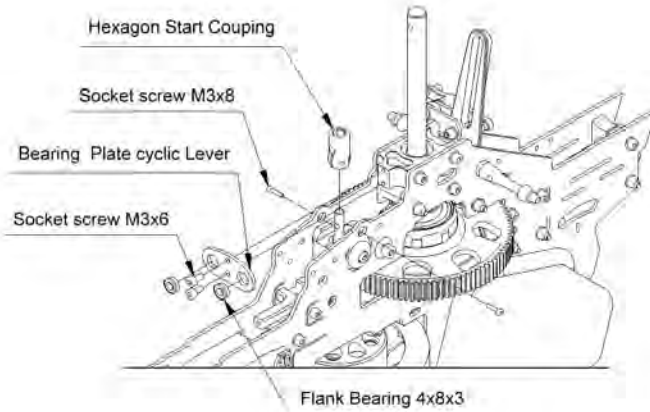
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-C04	Radius Arm Stay	1
2	KSM40-C02	Evlevator Lever Stay (Rear)	1
3	KSM40-C03	Evlevator Lever Stay (Front)	1
4	KSM60-061	Evlevator Lever Stay Spacer	1
5	KSM60-027	Hex lock nut M3	4
6	KSM60-004	Button screw M3x15	2
7	KSM10-C06	Elevator Lever Arm set	1
8	KSM60-028	Socket screw M3x28	1
10	KSM60-029	Washer 3x7x0.7	5
11	KSM60-030	Washer 3x5x0.5	1
12	KSM60-031	Socket screw M3x32	1
13	KSM60-032	Threaded Rod M3x40	1
14	KSM10-F14	Body mount	2
15	KSM53-110	Llinkage ball M3x3.5x4.9	2



ANTI ROTATION BRACKET INSTALLATION



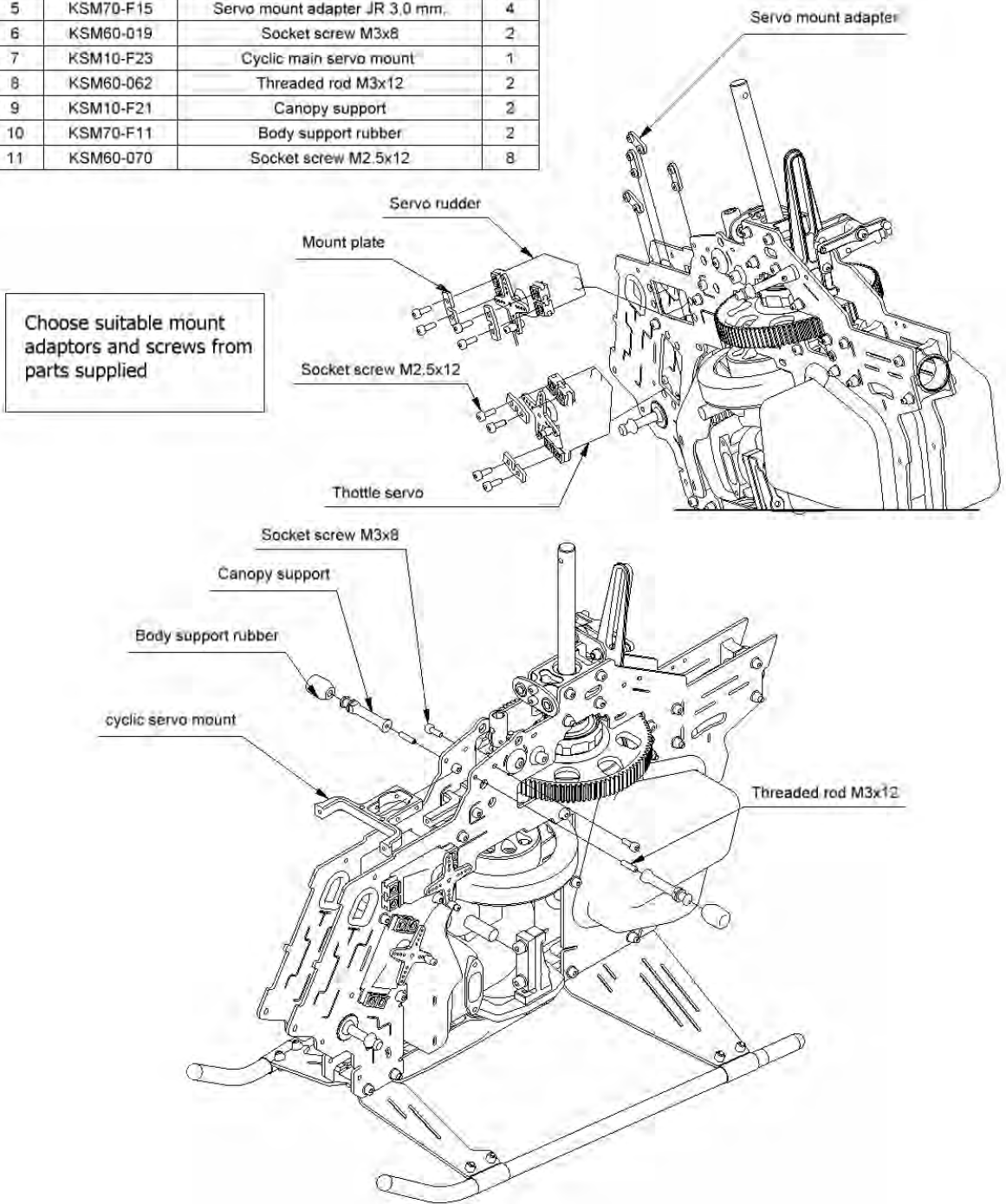
STARTER AND BEARING PLATE CYCLIC INSTALLATION



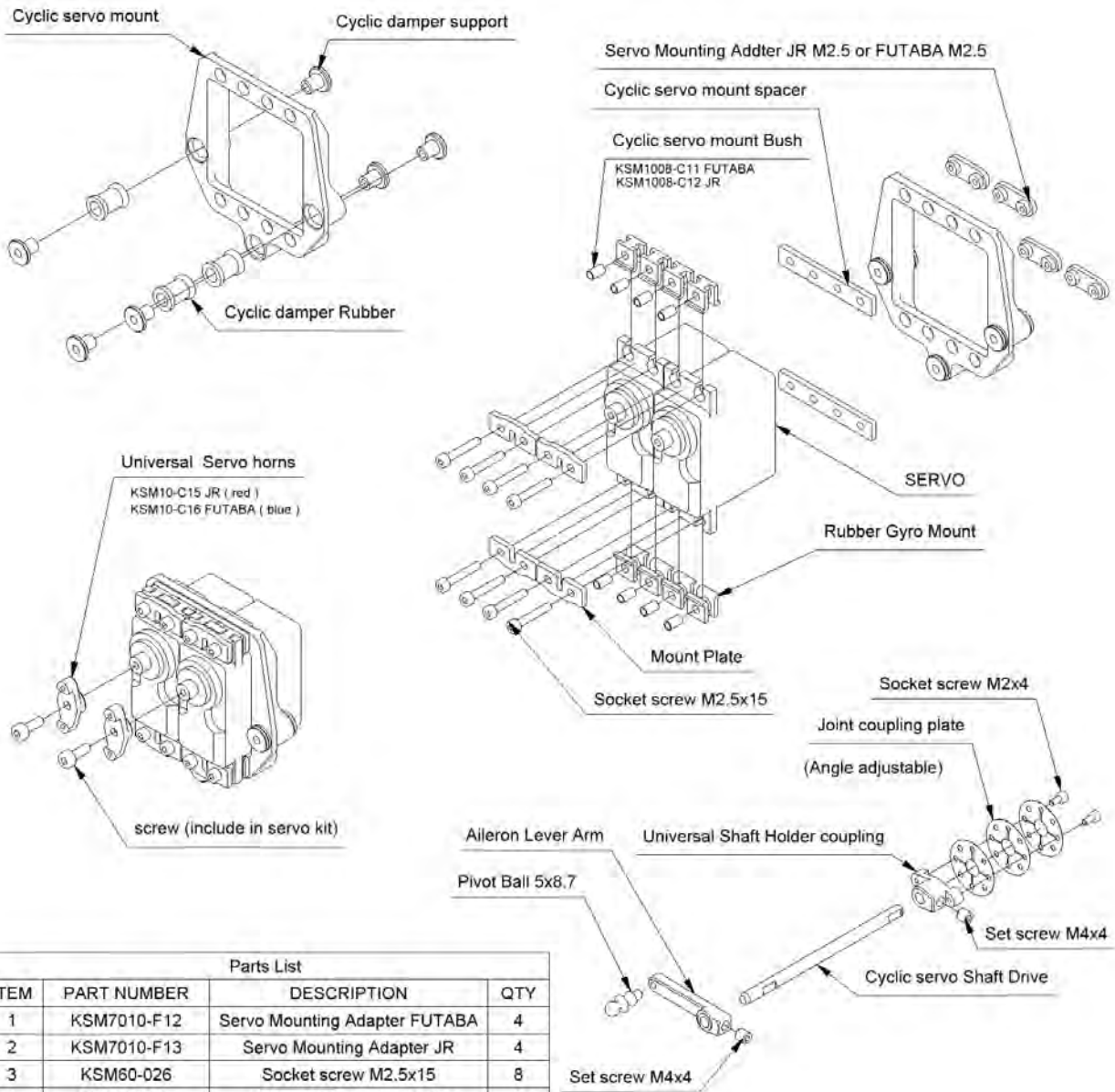
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM30-118	Flank Bearing 4x8x3	2
2	KSM60-033	Socket screw M3x6	2
3	KSM40-C04	Bearing Plate cyclic Lever	1
4	KSM20-TS04	Hexagon Start Couping	1
5	KSM60-034	Socket screw M3x8	2

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

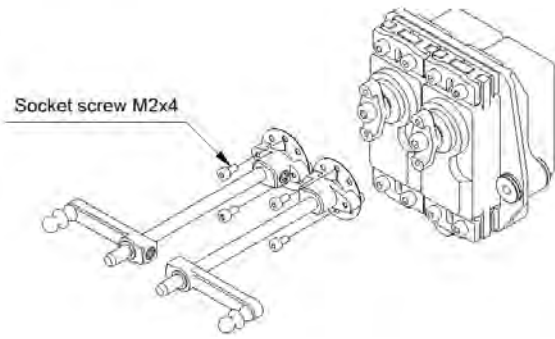
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM40-C05	Mount plate	4
2	KSM70-F12	Servo mount adapter FUTABA 2.5 mm.	4
3	KSM70-F13	Servo mount adapter FUTABA 3.0 mm.	4
4	KSM70-F14	Servo mount adapter JR 2.5 mm.	4
5	KSM70-F15	Servo mount adapter JR 3.0 mm.	4
6	KSM60-019	Socket screw M3x8	2
7	KSM10-F23	Cyclic main servo mount	1
8	KSM60-062	Threaded rod M3x12	2
9	KSM10-F21	Canopy support	2
10	KSM70-F11	Body support rubber	2
11	KSM60-070	Socket screw M2.5x12	8



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

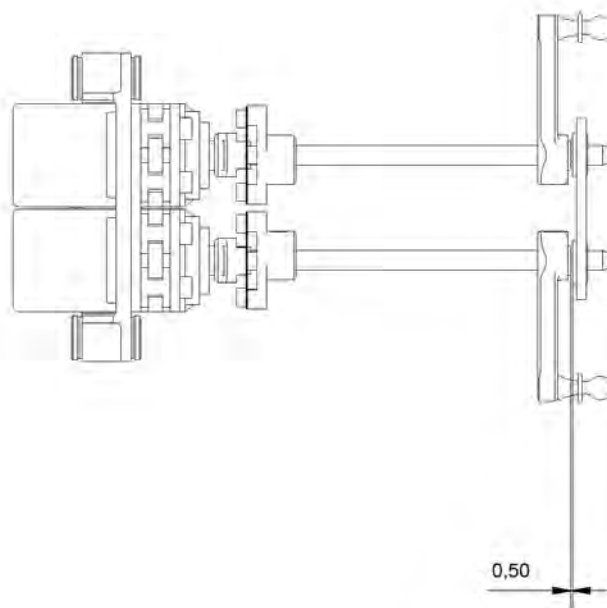
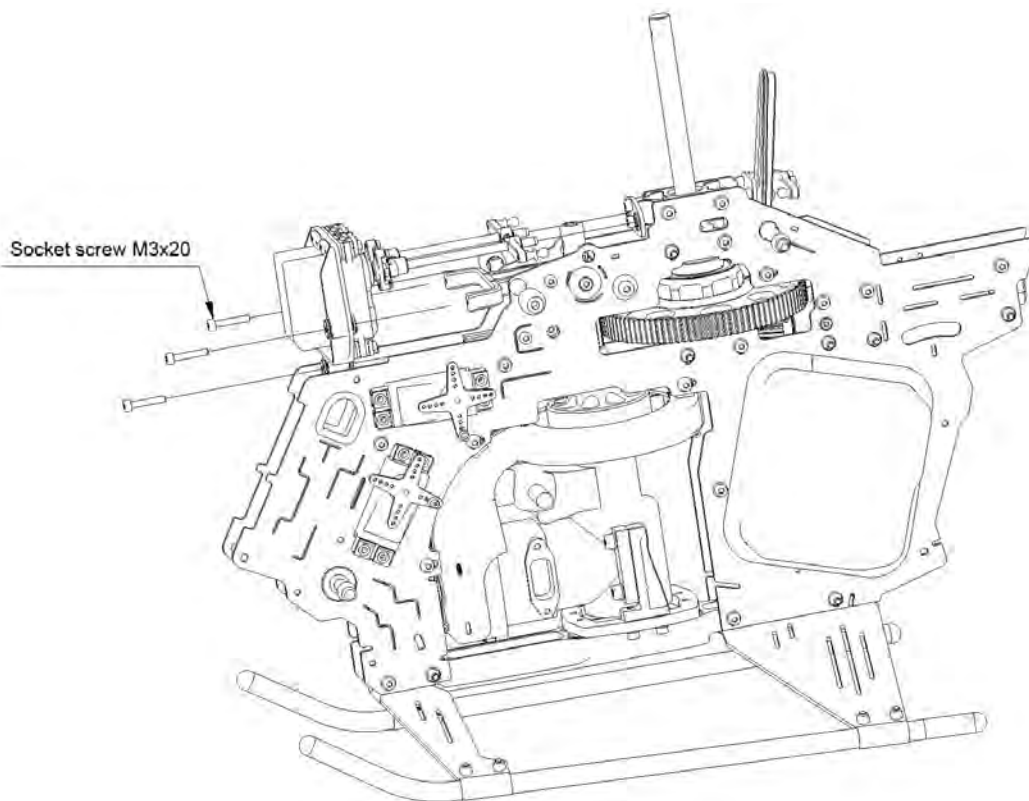


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM7010-F12	Servo Mounting Adapter FUTABA	4
2	KSM7010-F13	Servo Mounting Adapter JR	4
3	KSM60-026	Socket screw M2.5x15	8
4	KSM10-C15	Universal Servo horns JR	2
5	KSM10-C16	Universal Servo horns FUTABA	2
6	KSM40-C01	Cyclic servo mount spacer	2
7	KSM1008-C11	Cyclic servo mount Bush FUTABA	8
8	KSM1008-C12	Cyclic servo mount Bush JR	8
9	KSM40-C05	Mount Plate	4
10	KSM10-C08	Cyclic servo mount	1
11	KSM1006-C17	Cyclic damper support	6
12	KSM7003-C01	Cyclic damper Rubber	3
13	KSM60-003	Set screw M4x4	4
14	KSM2002-C05	Cyclic servo Shaft Drive	2
15	KSM10-C13	Aileron Lever Arm	2
16	KSM53-111	Pivot Ball M3x5x8.7	2
17	KSM10-C14	Universal Shaft Holder coupling	2
18	KSM2010-C01	Joint coupling Pate	6
19	KSM60-050	Socket screw M2x4	8
20	KSM60-047	Socket screw M3x20	3



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

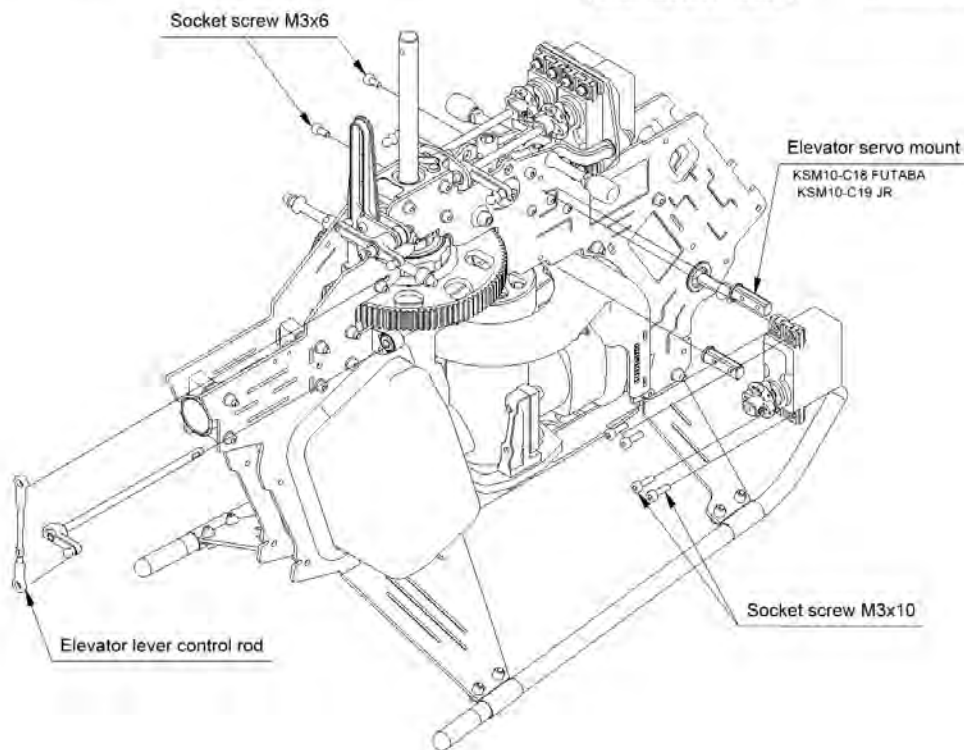
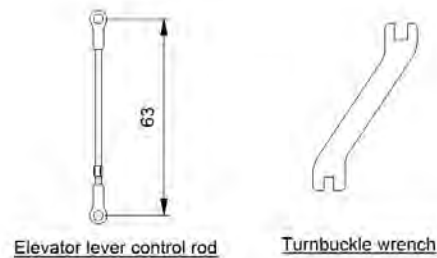
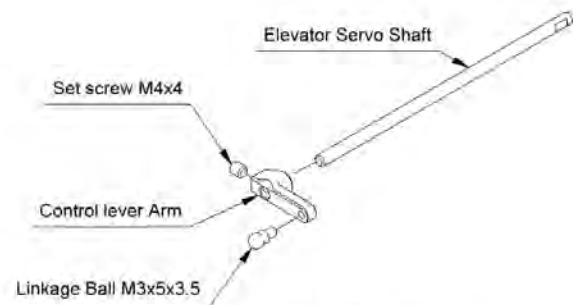
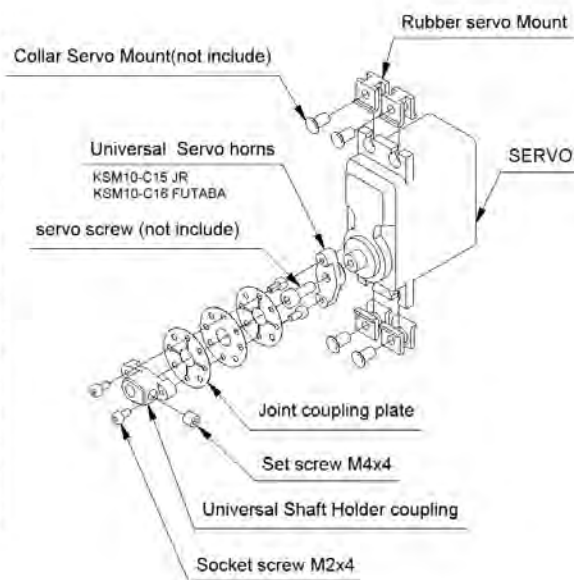
CYCLIC SERVO INSTALLATION



Allow 0.5mm space between Aileron Lever Arm and bearing support.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

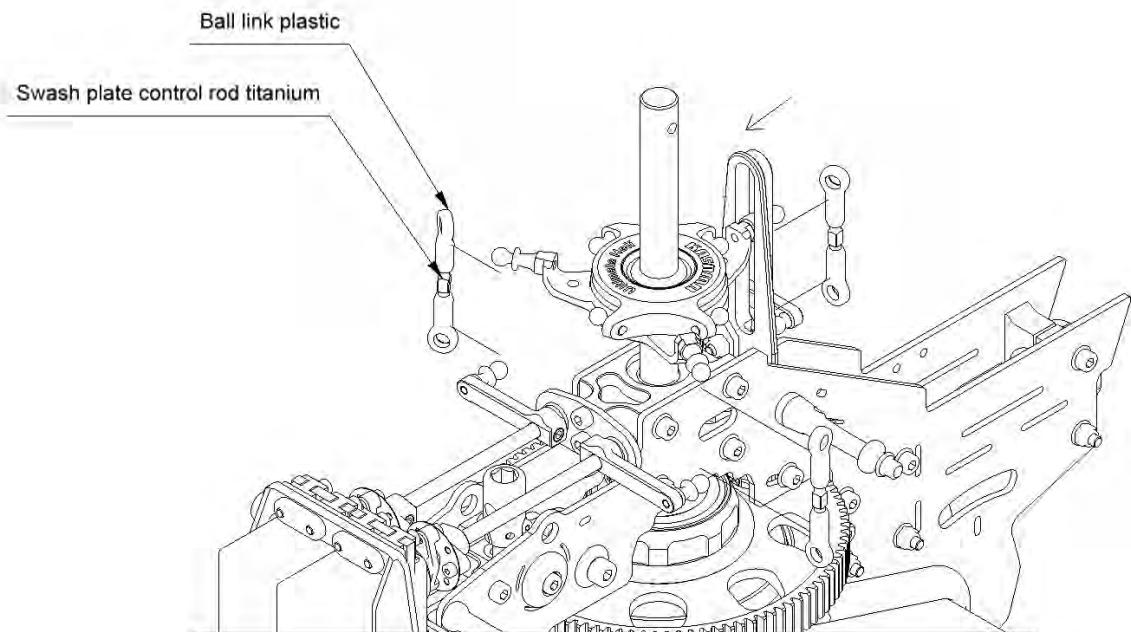
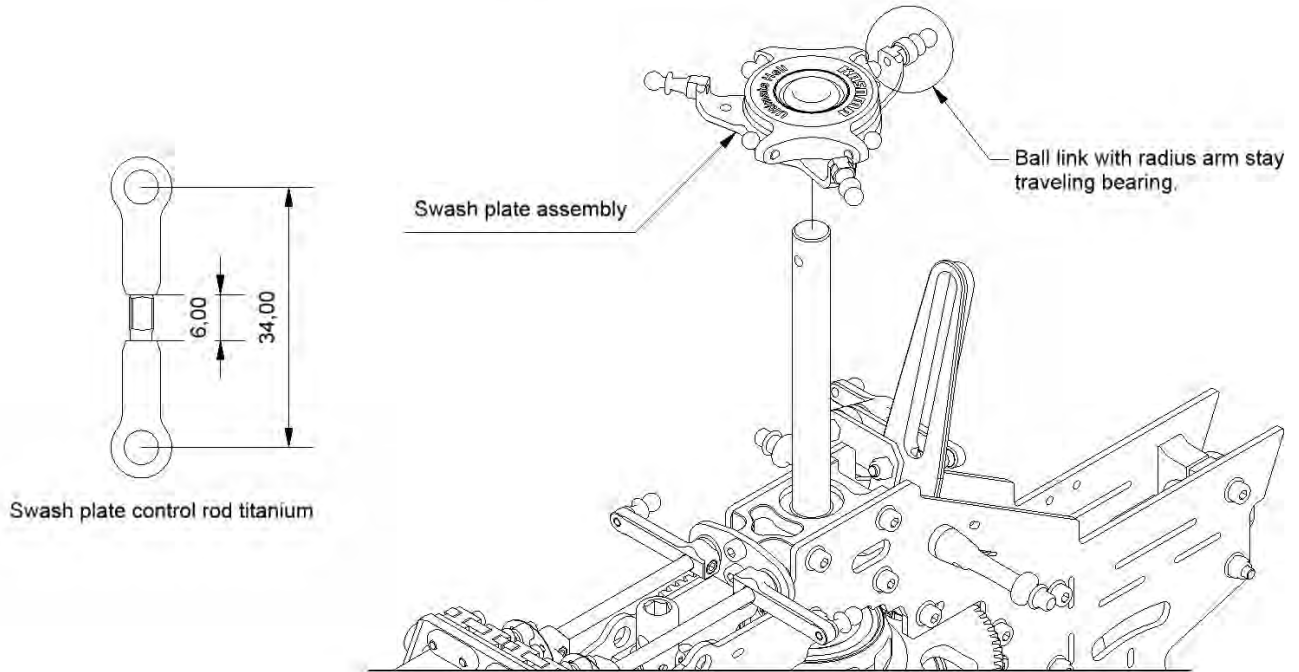
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-C14	Universal Shaft Holder coupling	1
2	KSM20-C01	Joint coupling Plate	3
3	KSM10-C15	Universal Servo horns JR	1
4	KSM10-C16	Universal Servo horns FUTABA	1
5	KSM60-050	Socket screw M2x4	4
6	KSM60-003	Set screw M4x4	2
7	KSM20-C06	Elevator Servo Shaft	1
8	KSM10-C09	Control lever Arm	1
9	KSM53-110	Linkage Ball M3x5x3.5	1
10	KSM60-054	Socket screw M3x10	4
11	KSM60-033	Socket screw M3x6	2
12	KSM10-C18	Elevator servo mount FUTABA	2
13	KSM10-C19	Elevator servo mount JR	2
14	KSM20-C09	Elevator lever control rod	1
15	KSM10-C07	Turnbuckle wrench	1
16	KSM70-H03	Ball link	2



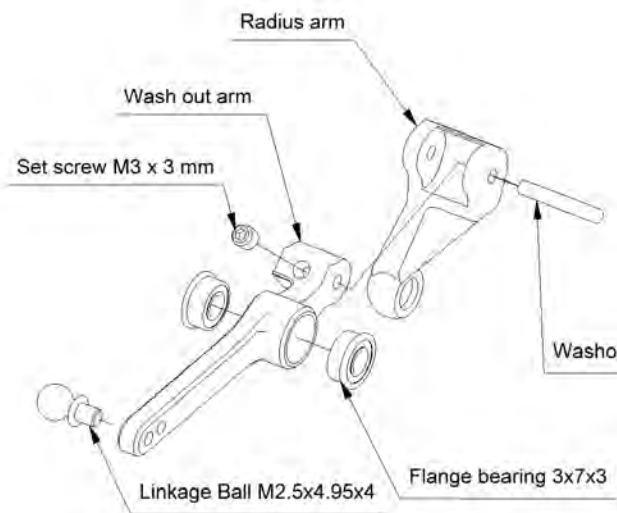
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

SWASH PLATE AND LINK INSTALLATION 18-BOX3

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10S-C01	Swash plate	1
2	KSM2003-C08	Swash plate control rod titanium	3
3	KSM7010-H03	Ball link plastic	6

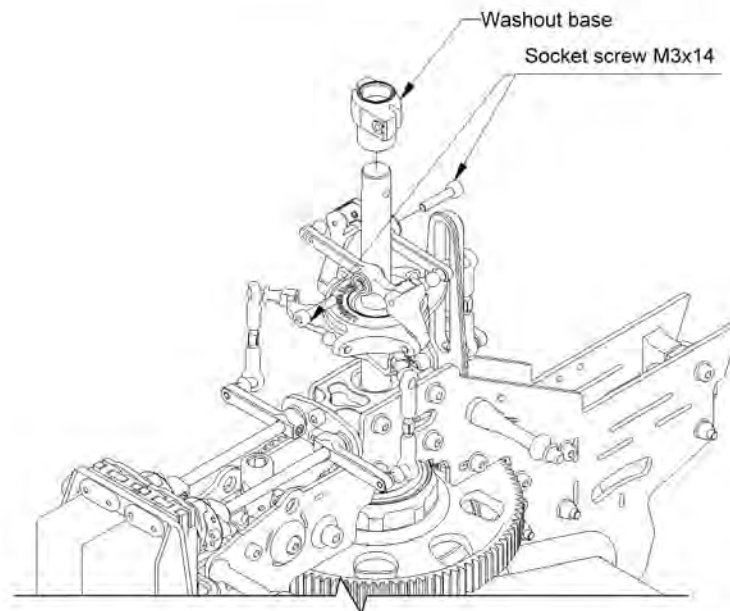
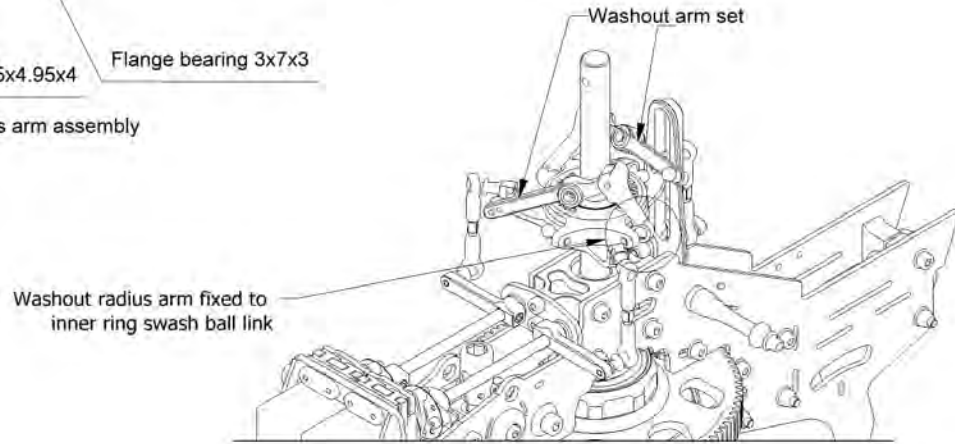


Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



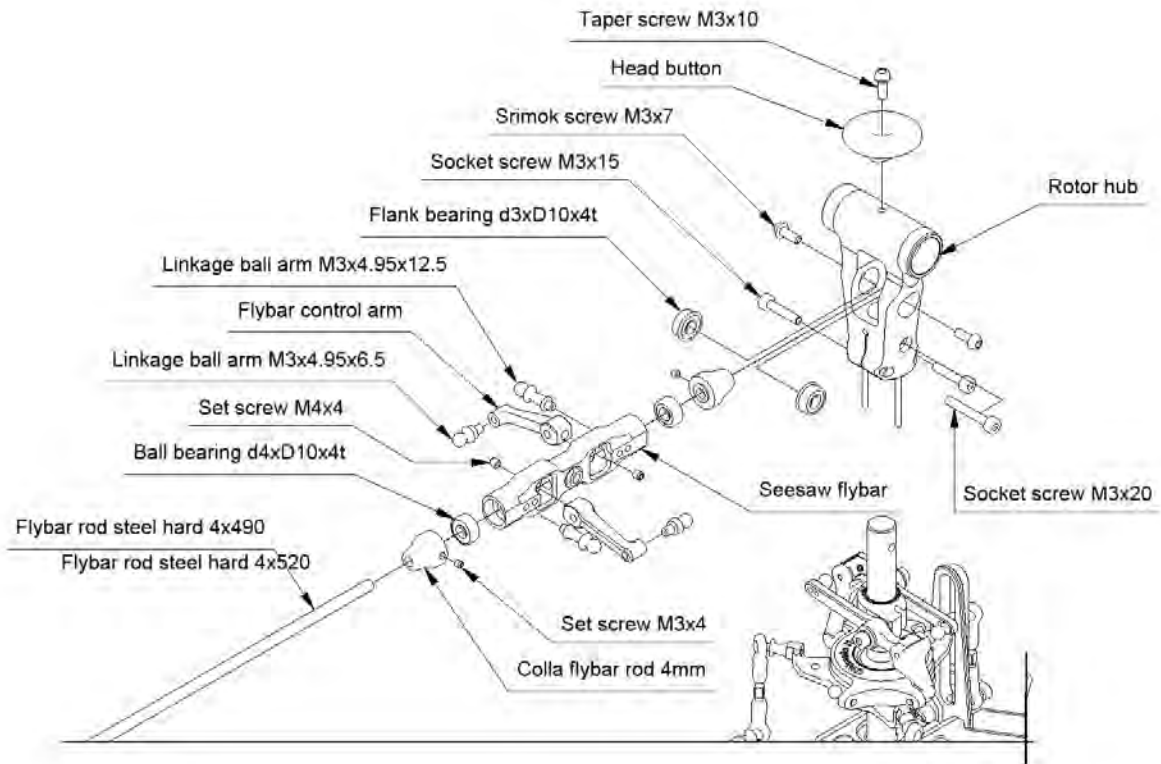
Wash out arm and Radius arm assembly

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-H08	Washout arm	2
2	KSM70-H01	Radius arm	2
3	KSM30-104	Flange bearing 3x7x3	2
4	KSM20-H05	Washout pin 2x13	2
5	KSM53-101	Linkage Ball M2.5x4.95x4	2
6	KSM60-001	Set screw M3 x 3 mm	2
7	KSM10S-H11	Washout Base	1
8	KSM60-004	Button head screw M3x15	2



Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

CENTER HUB AND SEESAW INSTALLATION 20-BOX3,4

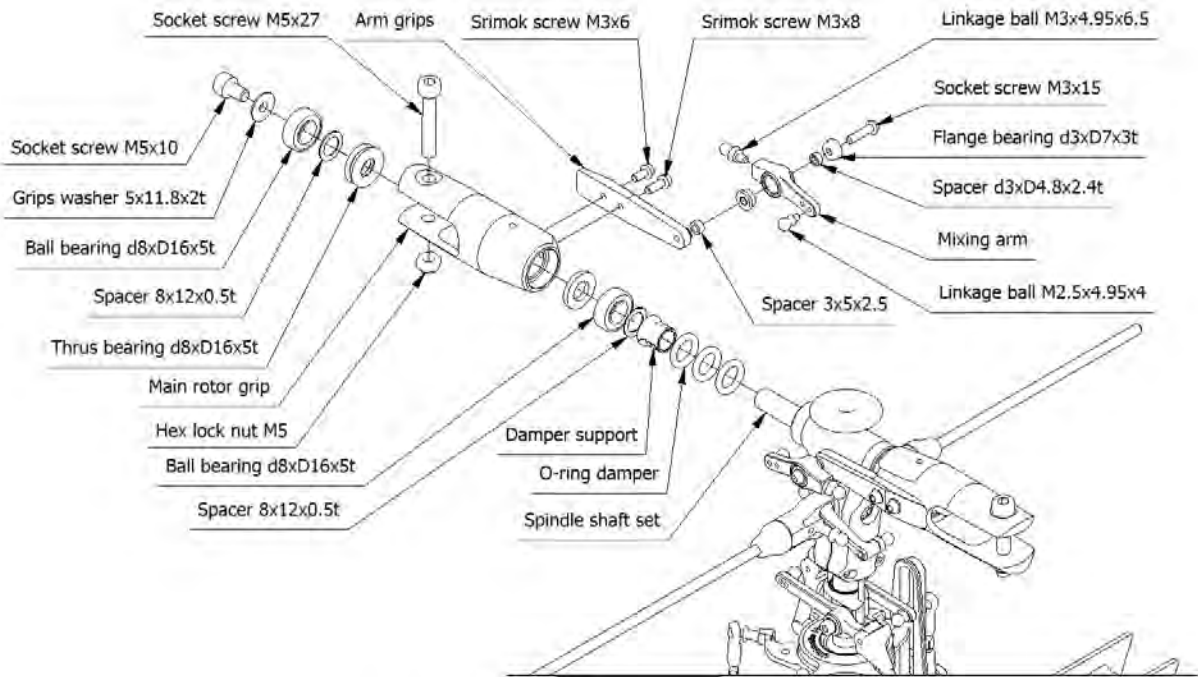


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-90H01	Rotor Hub	1
2	KSM10-H01	Head button	1
3	KSM10-H07	Seesaw Flybar	1
4	KSM10-90H07	Flybar control arm	2
5	KSM10-90H06	Colla flybar rod	2
6	KSM20-90H07	Flybar rod steel hard 4x490	1
7	KSM20-90H06	Flybar rod steel hard 4x520	1
8	KSM60-010	Taper screw M3x10	1
9	KSM60-009	Srimok screw M3x7	2
10	KSM60-008	Socket screw M3x15	2
11	KSM60-047	Socket screw M3x20	1
12	KSM60-002	Set screw M3x4	2
13	KSM60-003	Set screw M4x4	2
14	KSM30-103	Flank bearing d3xD10x4t	2
15	KSM30-105	Ball bearing d4xD10x4t	2
16	KSM5310-107	Linkage ball arm M3x4.95x12.5	2
17	KSM5310-106	Linkage ball arm M3x4.95x6.5	2

CAUTION :

1. Socket Screw M3x15 in Item 9 should be softly tightened. Tighten both sides evenly.
2. Should be use 490-520 mm flybar wire.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



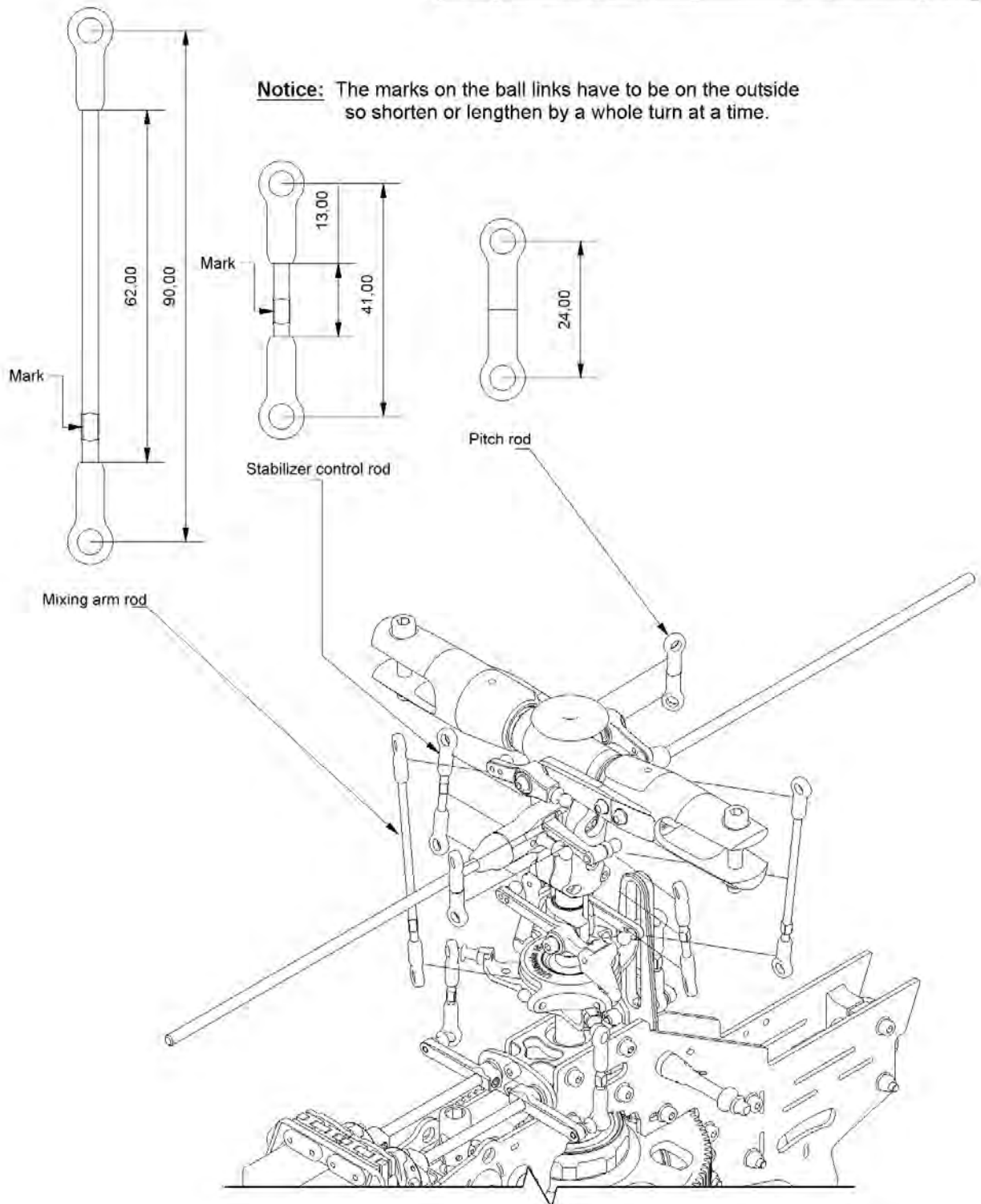
PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-90H02	Main rotor grip	2
2	KSM10-90H03	Arm grip	2
3	KSM10-H04	Mixing arm	2
4	KSM20-90H02	Damper support	2
5	KSM70-H06	O-ring damper	6
6	KSM53-106	Linkage ball M3x4.95x6.5	2
7	KSM53-101	Linkage ball M2.5x4.95x4	2
8	KSM60-014	Srimok screw M3x6	2
9	KSM60-015	Srimok screw M3x8	2
10	KSM60-008	Socket screw M3x15	2
11	KSM60-017	Socket screw M5x27	2
12	KSM60-016	Socket screw M5x10	2
13	KSM60-018	Hex lock nut M5	2
14	KSM30-101	Ball bearing d8xD16x5t	4
15	KSM30-102	Thrus bearing d8xD16x5t	2
16	KSM30-104	Flange bearing d3xD7x3t	4
17	KSM20-H04	Grips washer 5x11.8x2t	2
18	KSM60-063	Spacer 8x12x0.5t	6
19	KSM60-058	Spacer 3x5x2.5	2
20	KSM60-012	Spacer d3xD4.8x2.4t	2
21	KSM20-90H01	Spindle shaft set	1

CAUTION :

1. Secure O-ring (KSM70-H06) onto Damper Support (KSM20-90H02) before inserting into Center Hub.
2. Lubricate by silicone grease at DAMPER before assembly.
3. For Arm Grip Assembly, Should be tighten the long one of SRIMOK SCREW (KSM60-015) first.
4. Should be check DAMPER every 30-40 flight and lubricate by grease.

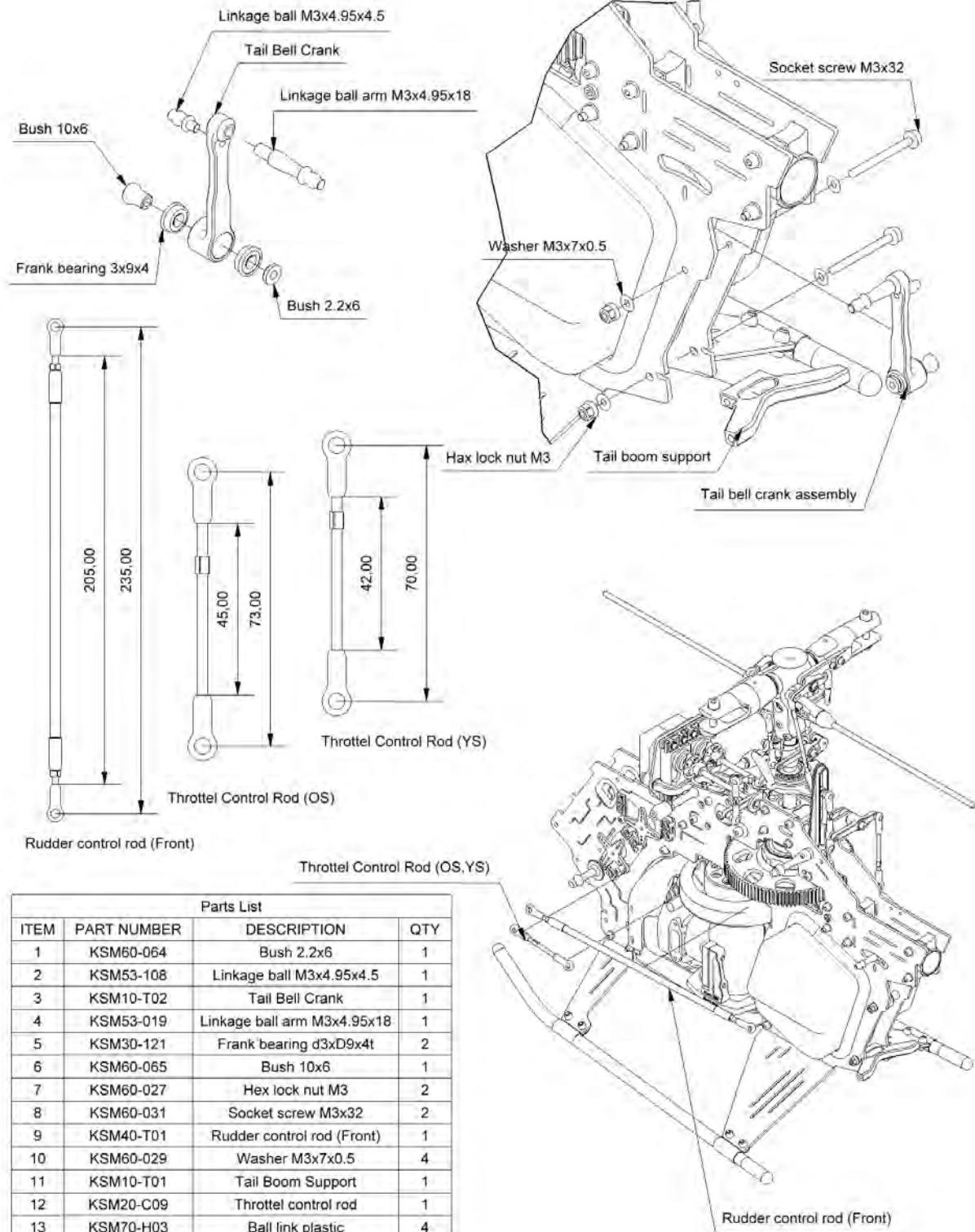
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM7010-H03	Ball link plastic	8
2	KSM2002-H01	Mixing arm rod	2
3	KSM2002-H02	Stabilizer control rod	2
4	KSM7002-H02	Pitch rod	2



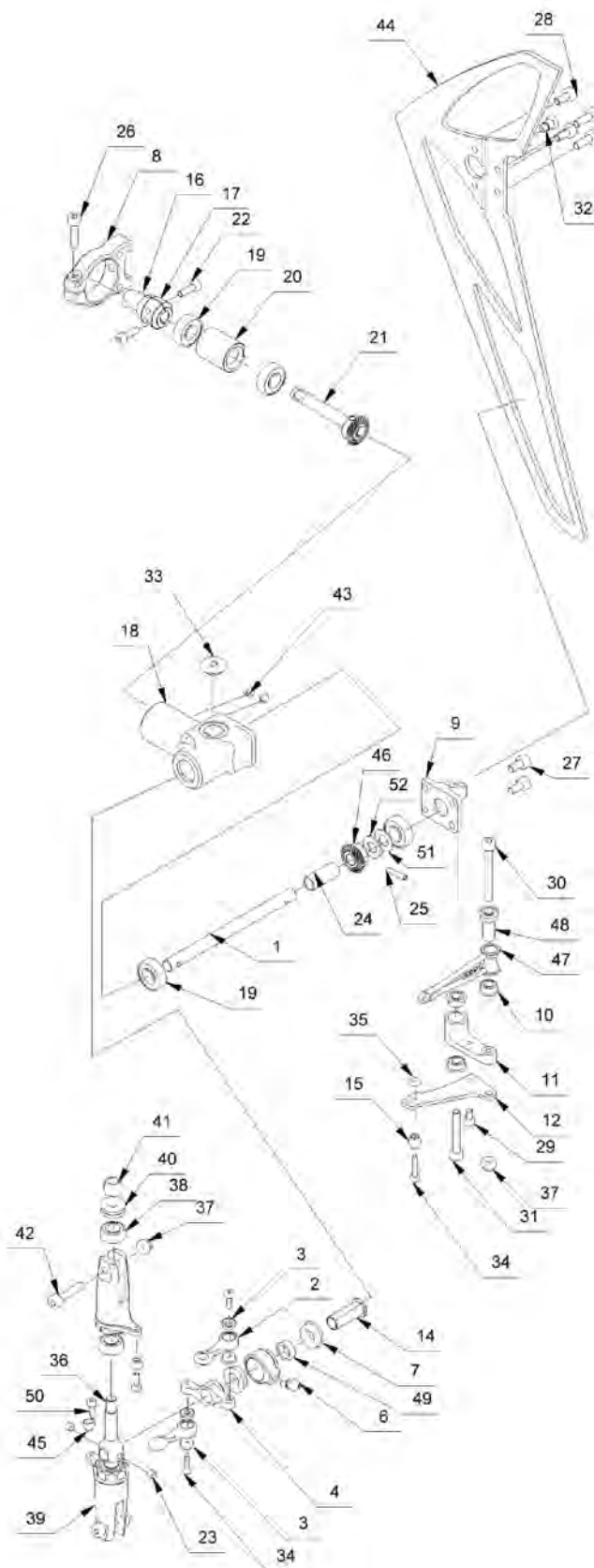
Notice: The marks on the ball links have to be on the outside so shorten or lengthen by a whole turn at a time.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



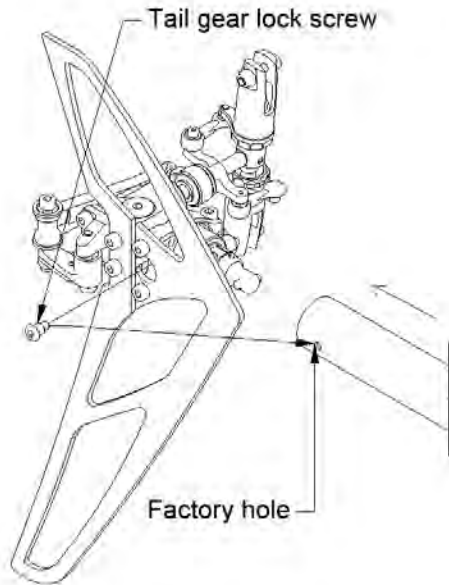
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-064	Bush 2.2x6	1
2	KSM53-108	Linkage ball M3x4.95x4.5	1
3	KSM10-T02	Tail Bell Crank	1
4	KSM53-019	Linkage ball arm M3x4.95x18	1
5	KSM30-121	Frank bearing d3xD9x4t	2
6	KSM60-065	Bush 10x6	1
7	KSM60-027	Hex lock nut M3	2
8	KSM60-031	Socket screw M3x32	2
9	KSM40-T01	Rudder control rod (Front)	1
10	KSM60-029	Washer M3x7x0.5	4
11	KSM10-T01	Tail Boom Support	1
12	KSM20-C09	Throttle control rod	1
13	KSM70-H03	Ball link plastic	4
14	KSM60-041	Socket screw M2x10	3
15	KSM60-049	Nut M2	3
16	KSM60-112	Linkage ball 2x4.95x2.5	3

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

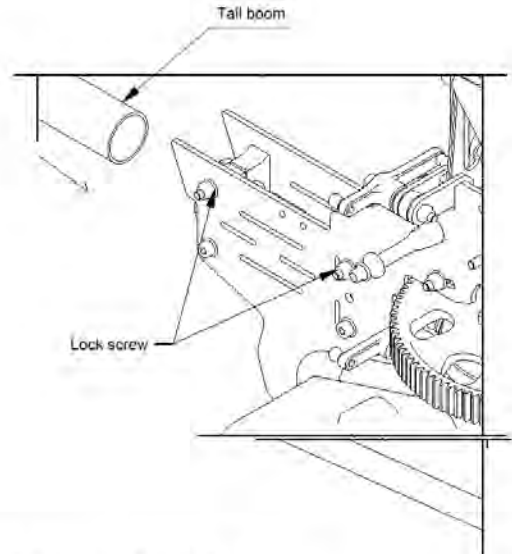


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM20-T02	Tail rotor shaft steel	1
2	KSM70-T06	Tail Pitch Link	2
3	KSM30-106	Flang Bearing 2x5x2.5t	4
4	KSM10-T24	Tail slider pitch	1
6	KSM53-102	Linkage ball M3x4.75x3.2	1
7	KSM30-122	Frang Bearing d6xD10x3t	2
8	KSM10-T10	Tail Gear Box Holder	1
9	KSM10-T16	Tail Gear case cap	1
10	KSM30-104	Frang Bearing d3xD7x3t	4
11	KSM10-T17	Tail rotor control arm	1
12	KSM40-T09	Tail control arm CF	1
13	KSM70-T05	Tail control arm holder	1
14	KSM20-T10	Tail Pitch Control Slide Bushing	1
15	KSM53-112	Linkage Ball M2x4.95x2.5	1
16	KSM20-T04	Tail input Shaft Cola Pin	1
17	KSM18-TS18	Tail drive joint rear 5 mm.	1
18	KSM10-T13	Tail Gear Box case	1
19	KSM30-116	Ball bearing d5xD13x4t	4
20	KSM10-T03	Tail Gear Box	1
21	KSM20-T21	Tail Input Shaft and gear set CNC	1
22	KSM60-056	Socket screw M2.5x8	2
23	KSM60-002	set screw M3x4	2
24	KSM20-T24	Tail gear bush bronz	1
25	KSM20-T03	Spring pin	2
26	KSM60-036	Socket screw M3x12	1
27	KSM60-033	Socket screw M3x6	2
28	KSM60-034	Socket screw M3x8	4
29	KSM60-048	Socket screw M2.5x6	1
30	KSM60-028	Socket screw M3x28	1
31	KSM60-047	Socket screw M3x20	1
32	KSM60-043	Stap screw Tail gearbox lock M4	1
33	KSM10-T18	Service Cap Tail Gear Box	1
34	KSM60-041	Socket screw M2x10	3
35	KSM60-049	M2 nut	1
36	KSM20-T01	Tail Center Hub	1
37	KSM60-027	Hex lock nut M3	3
38	KSM30-123	Ball bearing 5x10x4	4
39	KSM10-T25	Tail grip blade	2
40	KSM30-124	Thrust bearing 5x10x4	2
41	KSM60-045	Hex lock nut M4	2
42	KSM60-057	Socket screw M3x14	2
43	KSM60-001	Set screw M3x3	2
44	KSM40-T08	Vertical Fin	1
45	KSM53-113	Tail Ball	2
46	KSM20-T20	Tail bevel gear (L) steel CNC	1
47	KSM70-T05	Tail control arm holder	1
48	KSM60-067	Boot 3x4.7x9.8	1
49	KSM60-068	boot 6x8x2.7	1
50	KSM60-046	Socket screw M2x6	2
51	KSM60-096	Shim (0.1-0.3)	1
52	KSM20-T25	Tail gear spacer	1

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

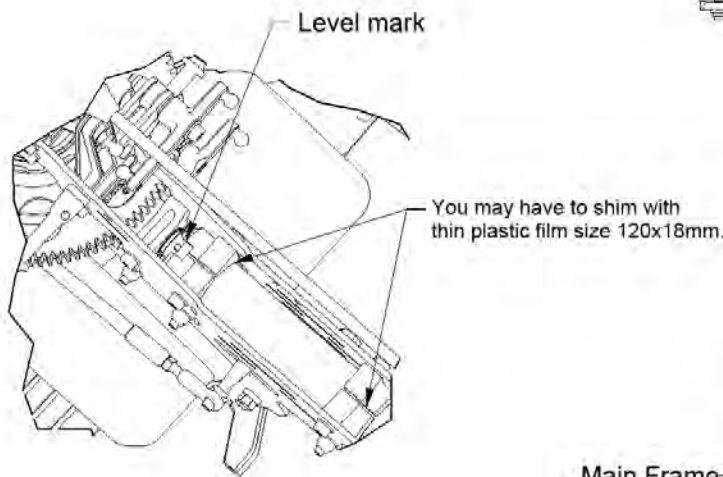


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM40-T02	Tail boom	1

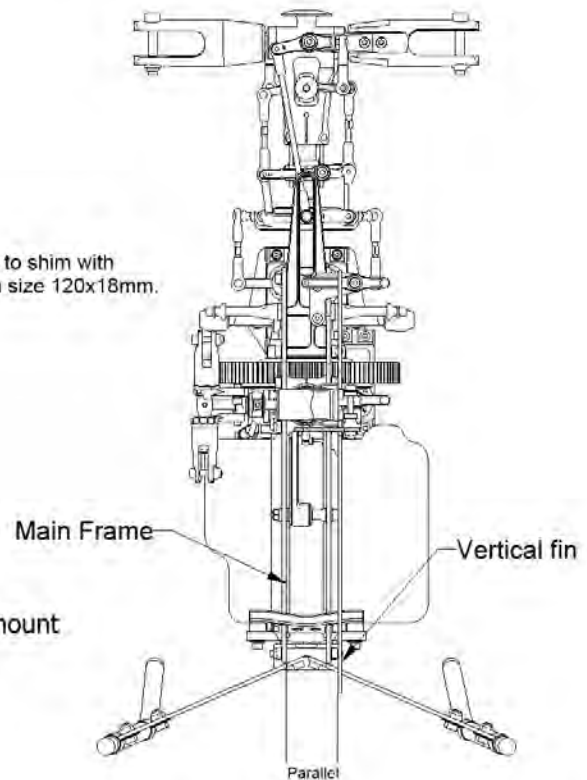


1) Assemble tail gear case to boom using Tail Gear lock screw.

2) Put tail boom in frame boom case and lightly tighten bolts.

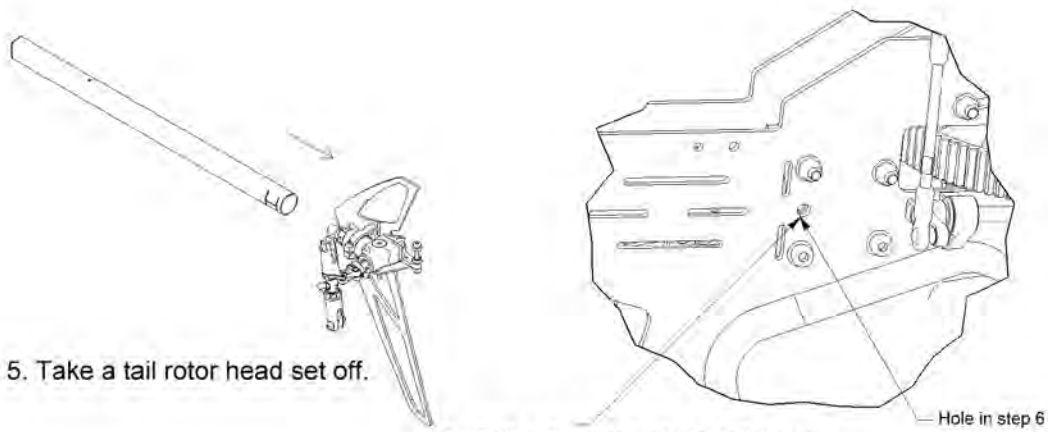


3) Insert tail boom into frame case until it fills the boom mount cutout and is flush with the end of the boom mount.



4) Rotate fin until it is vertical in line with main shaft then tighten tail case bolts.

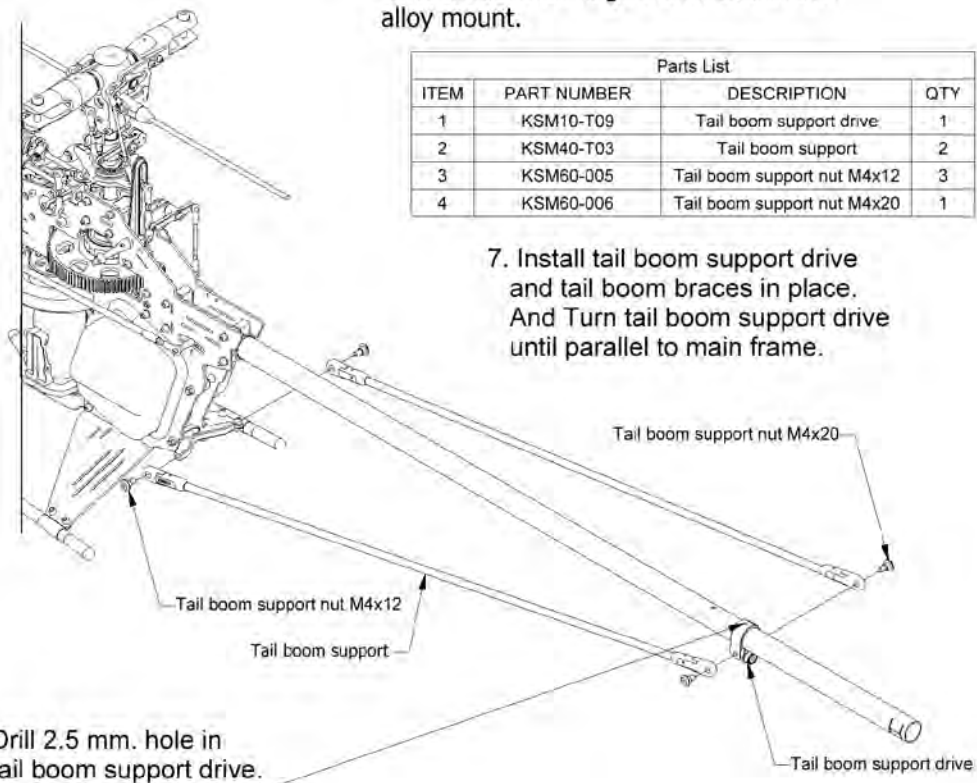
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



6. Drill a 2.5mm hole in tail boom through frame and boom mount being careful not to damage the thread in the alloy mount.

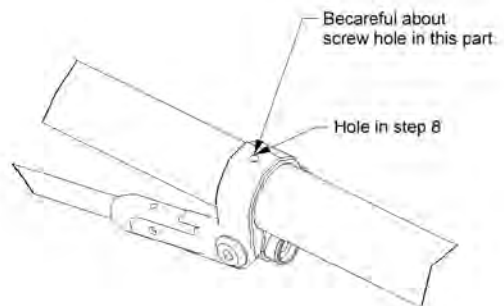
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-T09	Tail boom support drive	1
2	KSM40-T03	Tail boom support	2
3	KSM60-005	Tail boom support nut M4x12	3
4	KSM60-006	Tail boom support nut M4x20	1

7. Install tail boom support drive and tail boom braces in place. And Turn tail boom support drive until parallel to main frame.

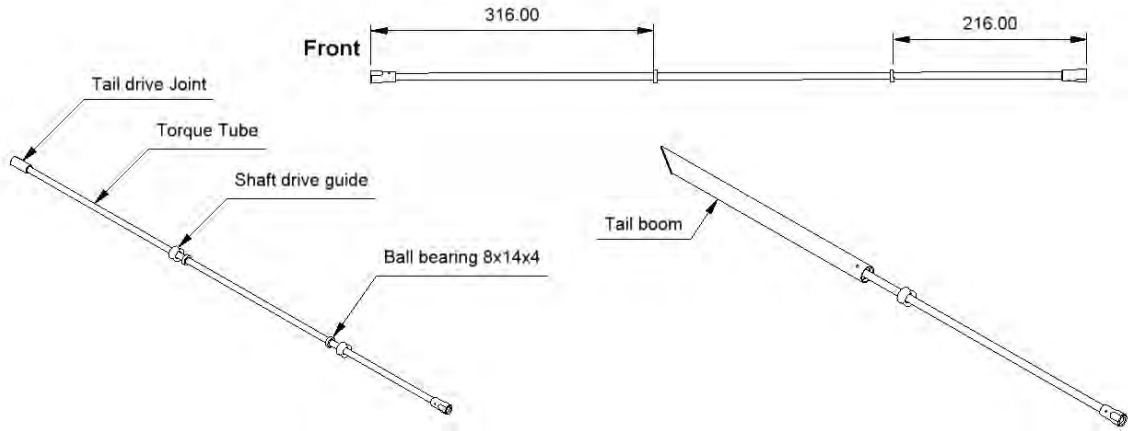


9. Disassemble all step 7 and tail boom.

10. Drill 3mm holes in the previously drilled 2.5mm holes in the boom from steps 6 & 8. Clean swarf from inside of boom.



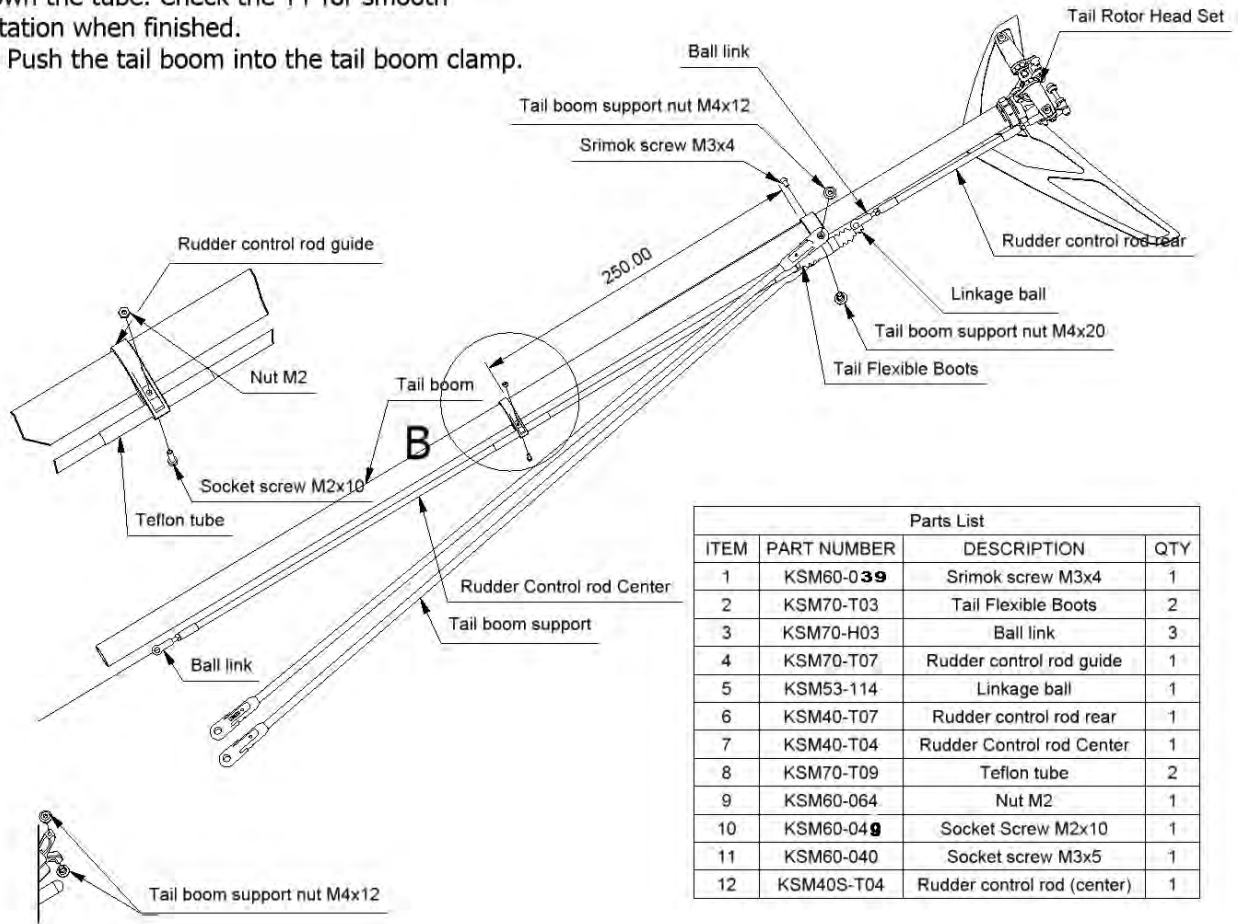
Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.



Tip to fix the torque tube

- 1) When inserting torque tube into boom lubricate rubber shaft guides with some light oil or silicon spray.
- 2) To insert the torque tube may take multiple pushing & pulling to work the rubber guides down the tube. Check the TT for smooth rotation when finished.
- 3) Push the tail boom into the tail boom clamp.

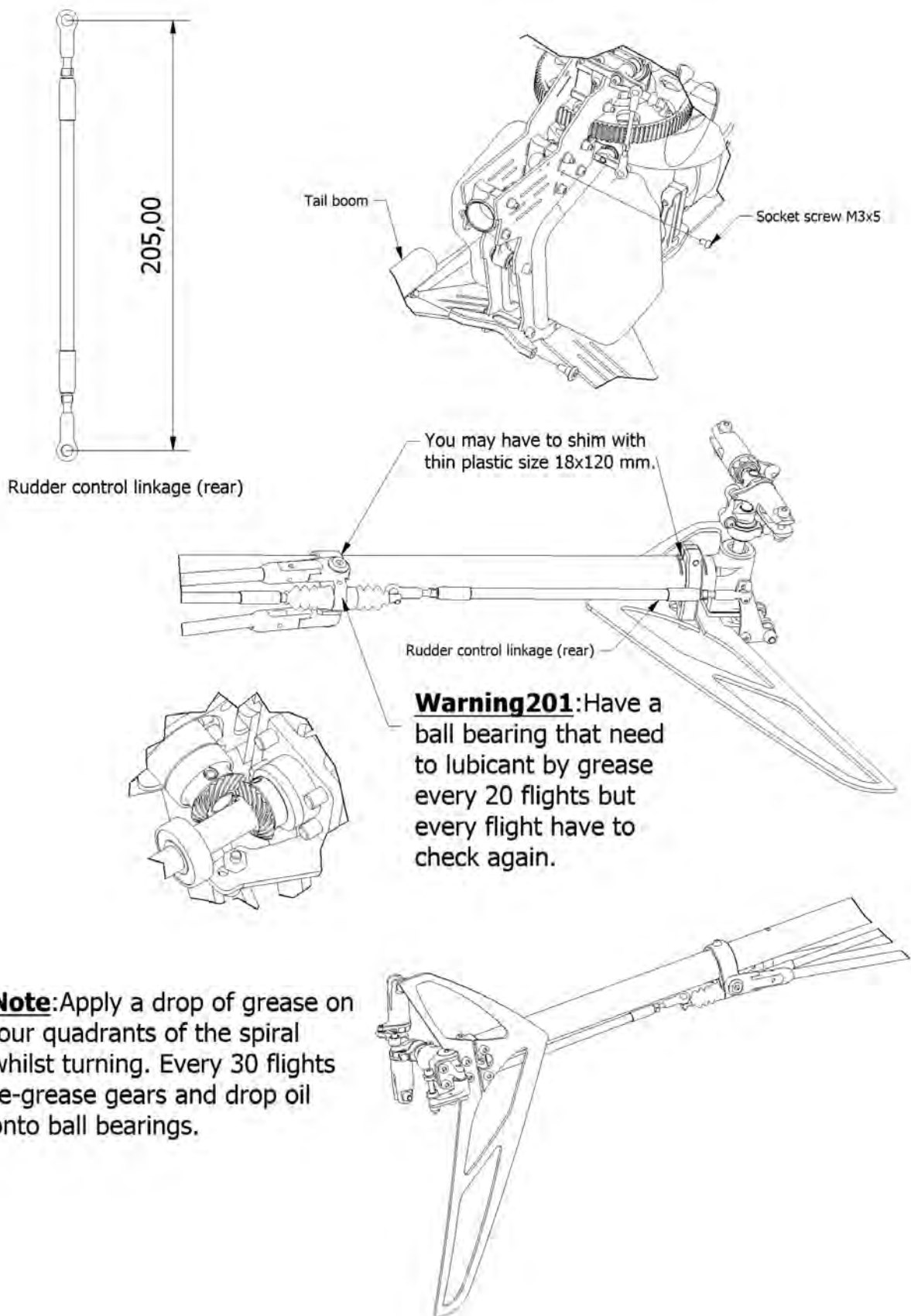
Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-T27	Torque Tube	1
2	KSM70-T04	Tail drive Joint	2
3	KSM30-120	Ball bearing 8x14x4	2
4	KSM70-T08	Shaft drive guide	2



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-039	Srimok screw M3x4	1
2	KSM70-T03	Tail Flexible Boots	2
3	KSM70-H03	Ball link	3
4	KSM70-T07	Rudder control rod guide	1
5	KSM53-114	Linkage ball	1
6	KSM40-T07	Rudder control rod rear	1
7	KSM40-T04	Rudder Control rod Center	1
8	KSM70-T09	Teflon tube	2
9	KSM60-064	Nut M2	1
10	KSM60-049	Socket Screw M2x10	1
11	KSM60-040	Socket screw M3x5	1
12	KSM40S-T04	Rudder control rod (center)	1

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

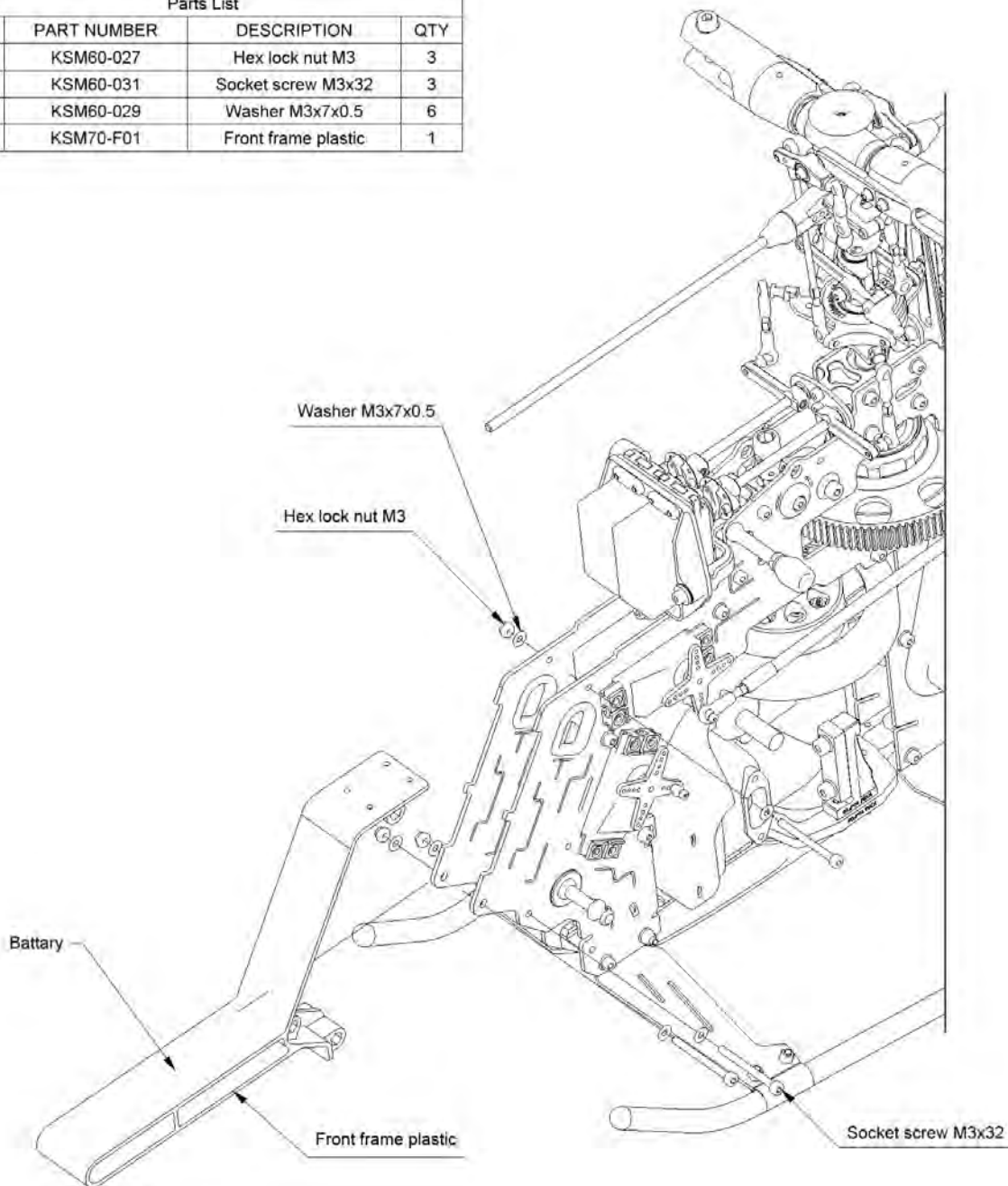
TAIL BOOM ASSEMBLY



Note: Apply a drop of grease on four quadrants of the spiral whilst turning. Every 30 flights re-grease gears and drop oil onto ball bearings.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM60-027	Hex lock nut M3	3
2	KSM60-031	Socket screw M3x32	3
3	KSM60-029	Washer M3x7x0.5	6
4	KSM70-F01	Front frame plastic	1

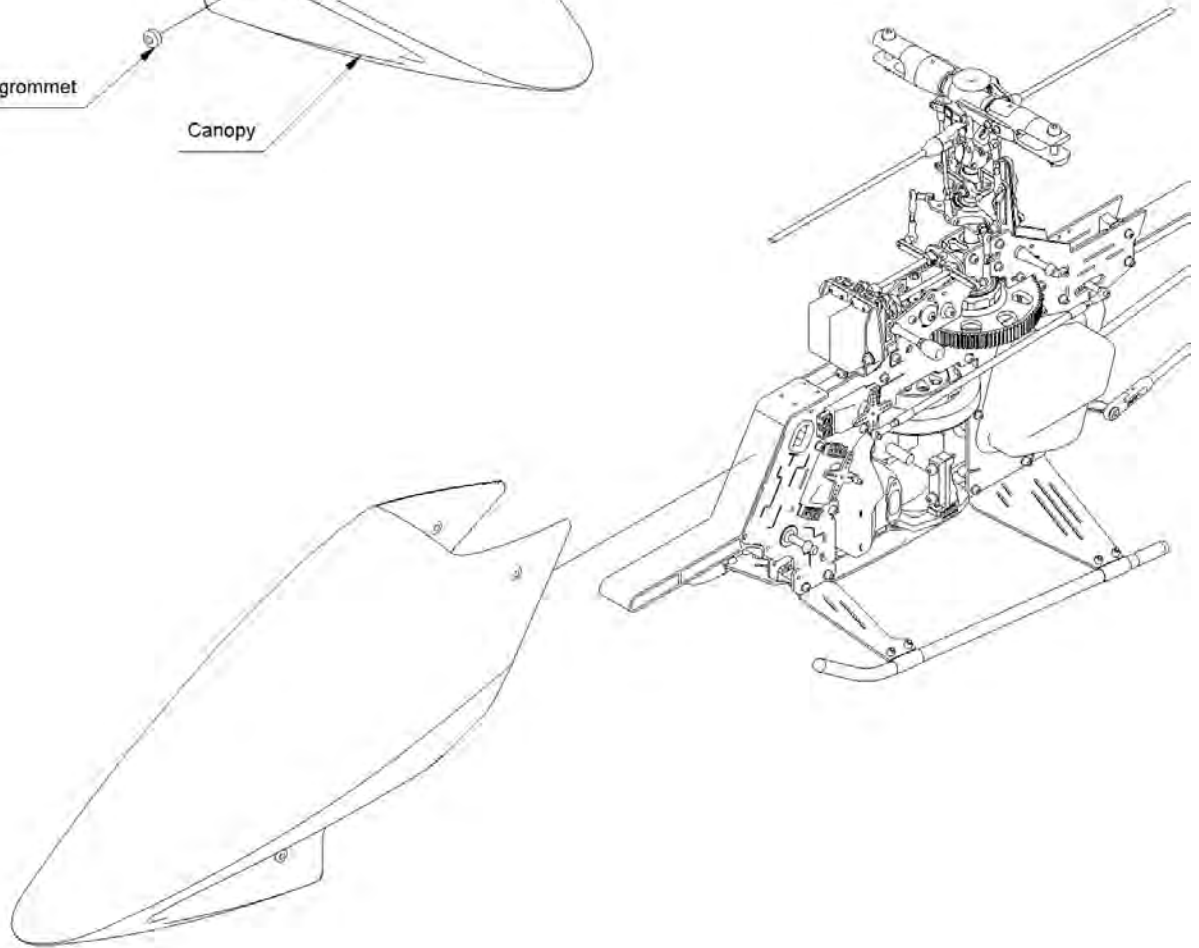
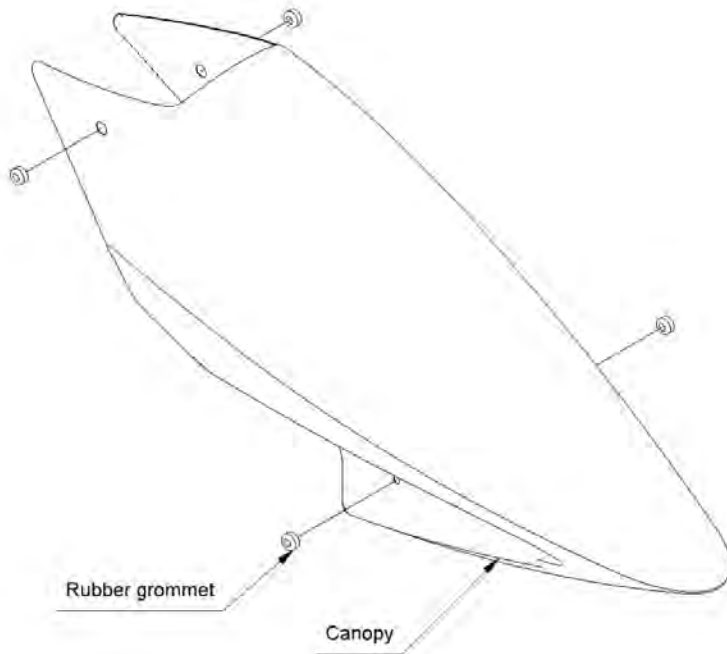


CAUTION:

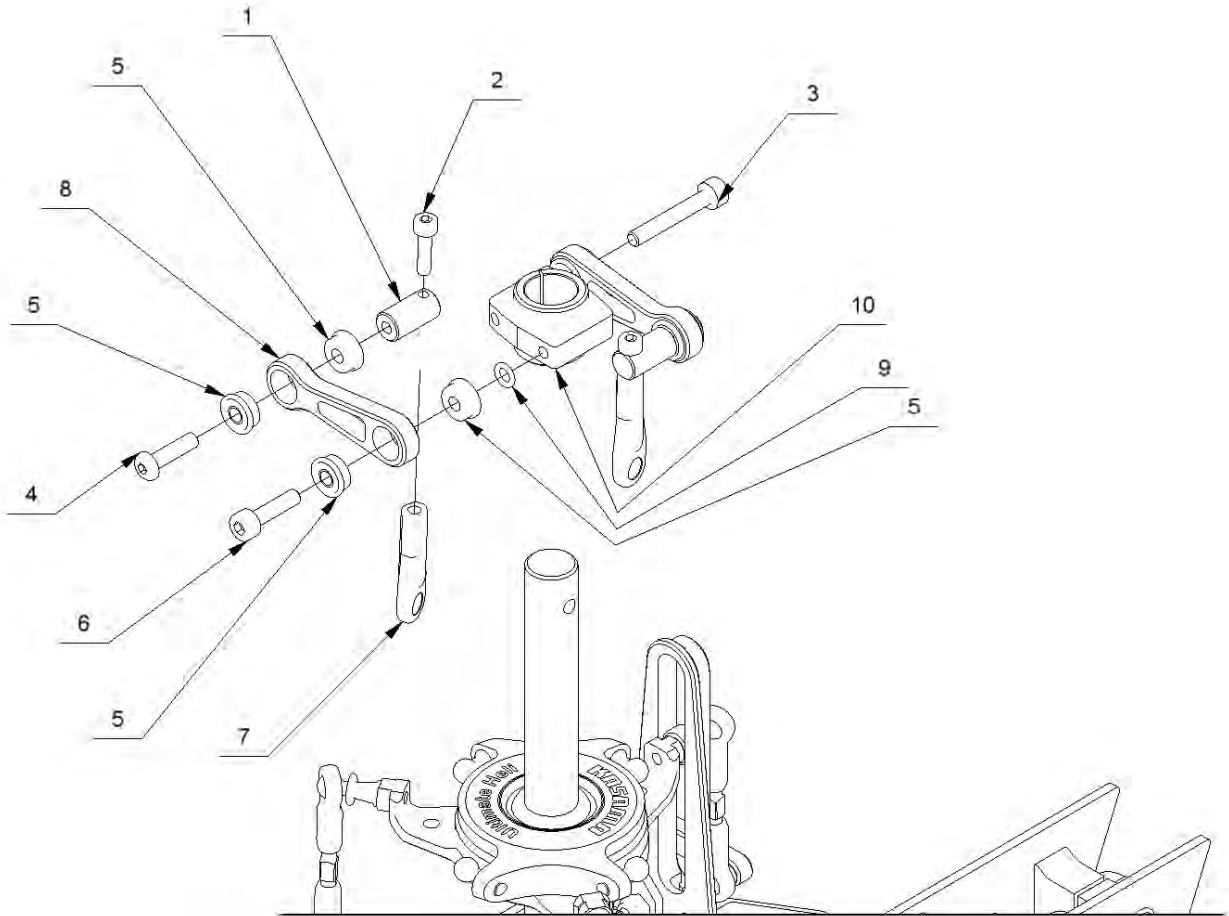
Do not install the electronic parts directly to main frame because vibration may be damage them .Use a rubber foam under an electronic parts before install.

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM70-F07	Canopy	1
2	KSM7004-D04	Rubber grommet	4



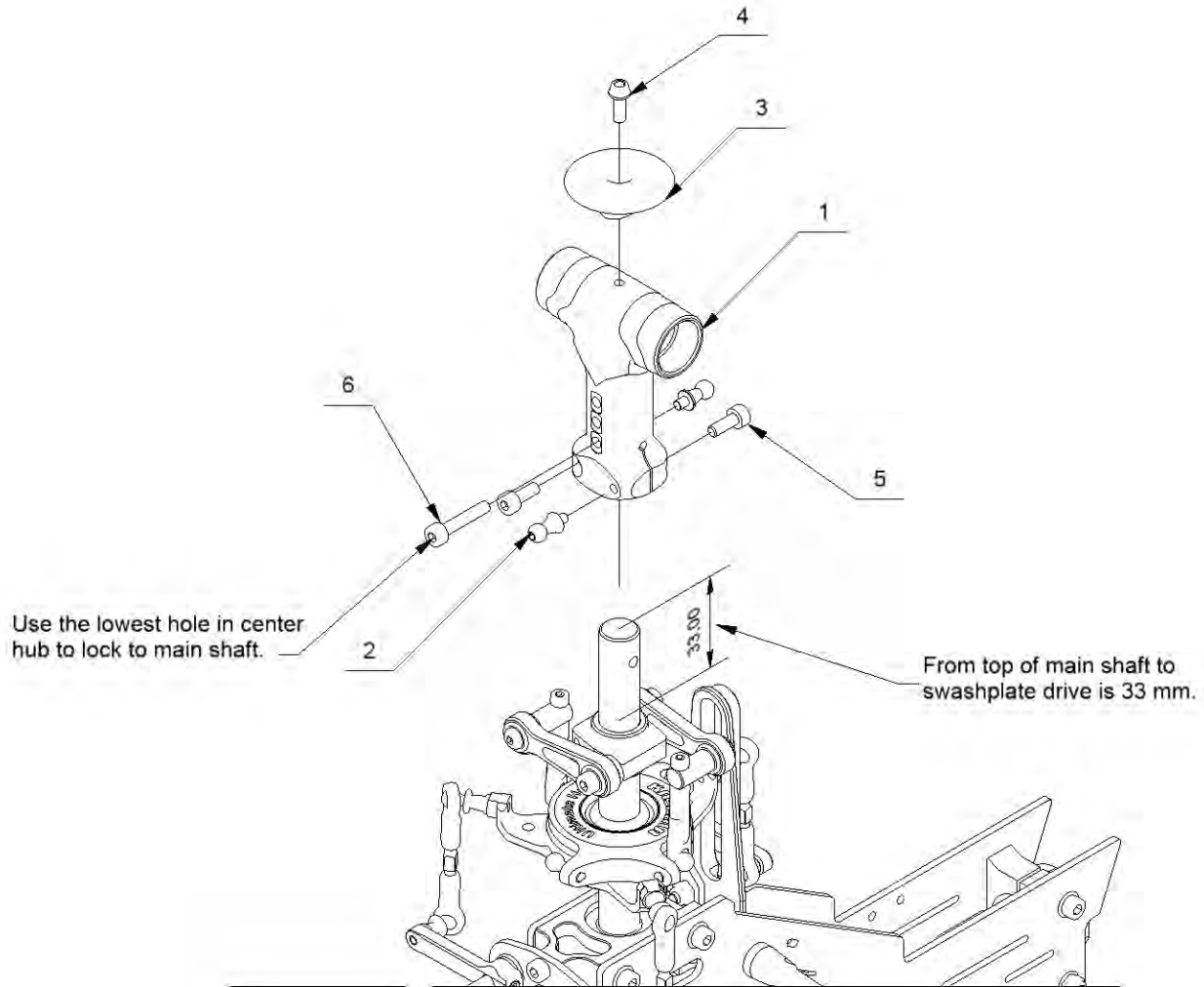
SWASH PLATE DRIVE INSTALLATION



PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM20-H08	Swash Plate Drive Pose	2
2	KSM60-054	Socket Screw M3x10	2
3	KSM60-074	Socket Screw M3x24	1
4	KSM60-076	Button Screw M3x10	2
5	KSM30-103	Flang Bearing d3xD7x3t	8
6	KSM60-020	Socket Screw M3x12	1
7	KSM70-H03	Ball Link plastic	2
8	KSM10-90H05	Swash Plate Drive Arm	2
9	KSM60-030	Washer d3xD5x0.5t	2
10	KSM10-H05	Swash Plate Drive	1

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

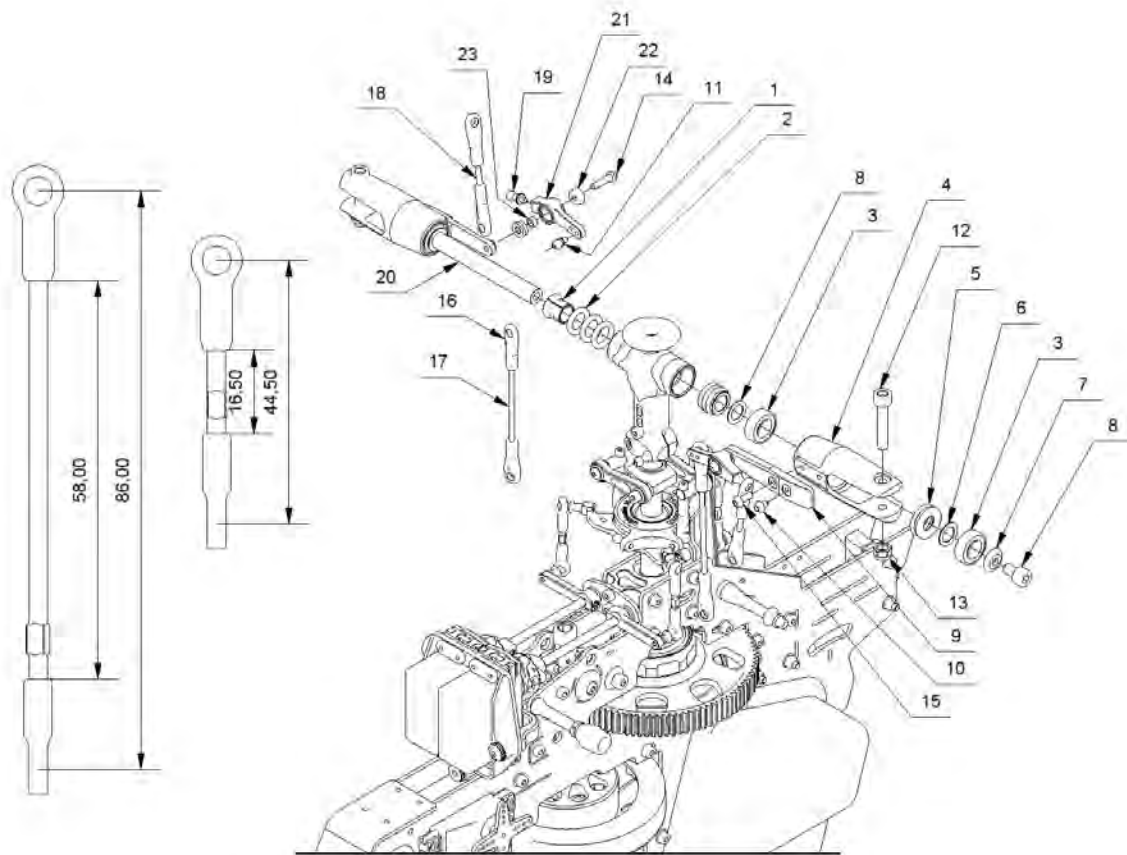
CYBER CENTER HUB INSTALLATION



PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM10-90H04	10 mm. Cyber center hub	1
2	KSM53-103	Linkage ball M3x4.95x5	2
3	KSM10-H01	Head button	1
4	KSM60-010	Flat head screw M3x10	1
5	KSM60-054	Socket screw M3x10	2
6	KSM60-075	Socket screw M3x16	1

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue.

ROTOR GRIP BLADE INSTALLATION



PARTS LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	KSM20-90H02	Damper Support 3 groove	2
2	KSM70-H06	O-Ring Damper	6
3	KSM30-101	Ball Bearing d8xD16x5t	4
4	KSM10-90H02	Main Rotor Grip Holder 90	2
5	KSM30-102	Thrust Bearing d8xD16x5t	2
6	KSM60-063	Spacer 8x12x0.5t	4
7	KSM20-H04	Grips Washer 5x11.8x2t	2
8	KSM60-016	Socket Screw M5x10	2
9	KSM10-90H03	Arm Grips 90	2
10	KSM60-014	Srimok screw M3x6	2
11	KSM53-101	Linkage Ball M2.5x4.95x4	2
12	KSM60-017	Socket Screw M5x27	2
13	KSM60-018	Hex Lock Nut M5	2
14	KSM60-008	Socket Screw M3x15	2
15	KSM60-015	Srimok Screw M3x8	2
16	KSM70-H03	Ball Link plastic	8
17	KSM20-H01	Mixing arm rod 73 mm.	2
18	KSM20-H02	Stabilizer control rod	2
19	KSM53-106	Linkage Ball M3 x4.95x6.5	2
20	KSM20-90H01	Spindle Shaft	2
21	KSM10-H04	Mixing Arm	2
22	KSM30-104	Flange Bearing d3xD7x3t	4
23	KSM60-012	Spacer d3xD4.8x2.4t	2

Note: Apply Blue thread lock to all screws, balls, and threads which it be fixed to metal-parts. For non-metal parts apply CA Glue

