

Arrow Shark

M8 II-Collector Edition

Owner Manual

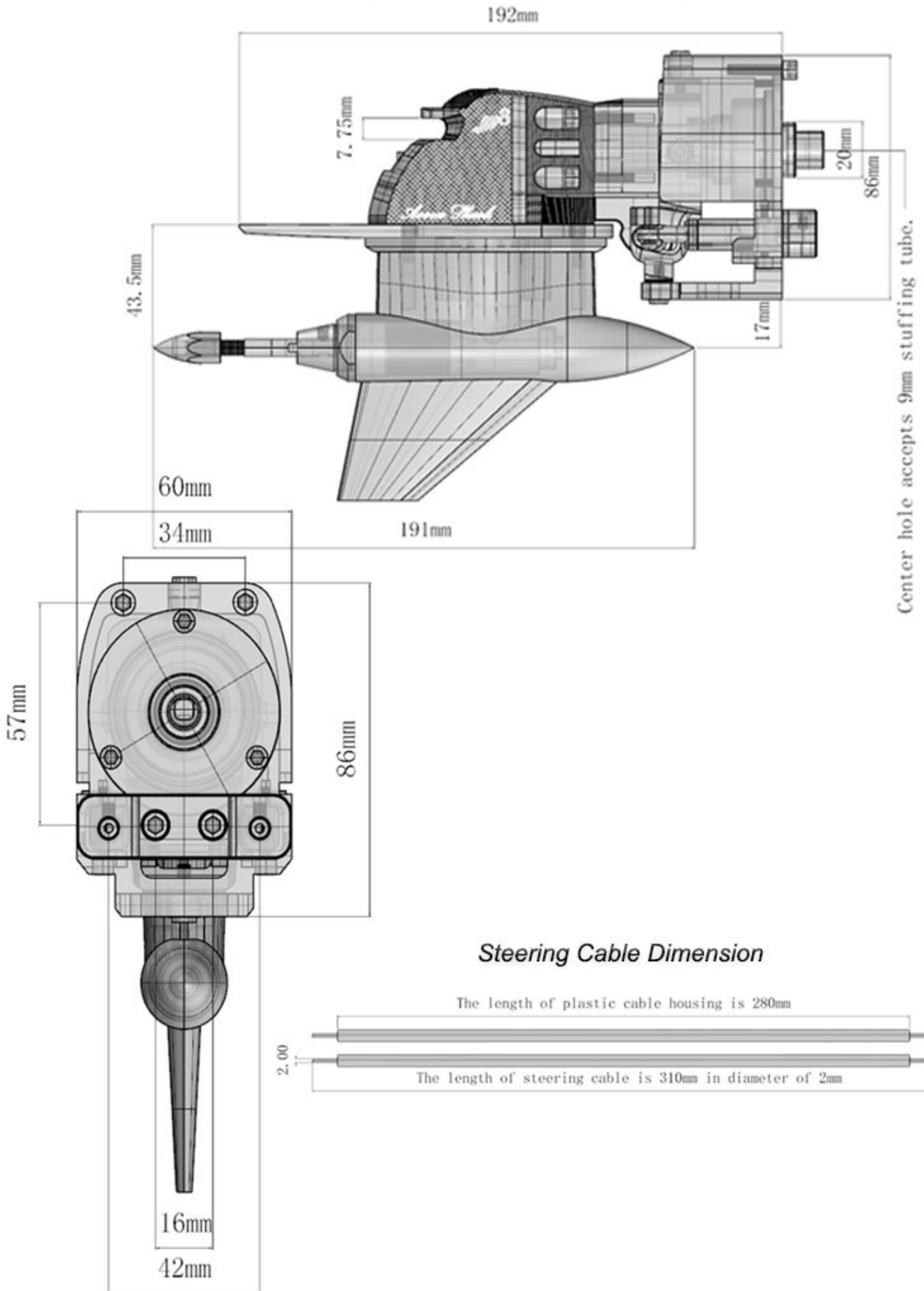
Fine Design with Latest CNC Technology!



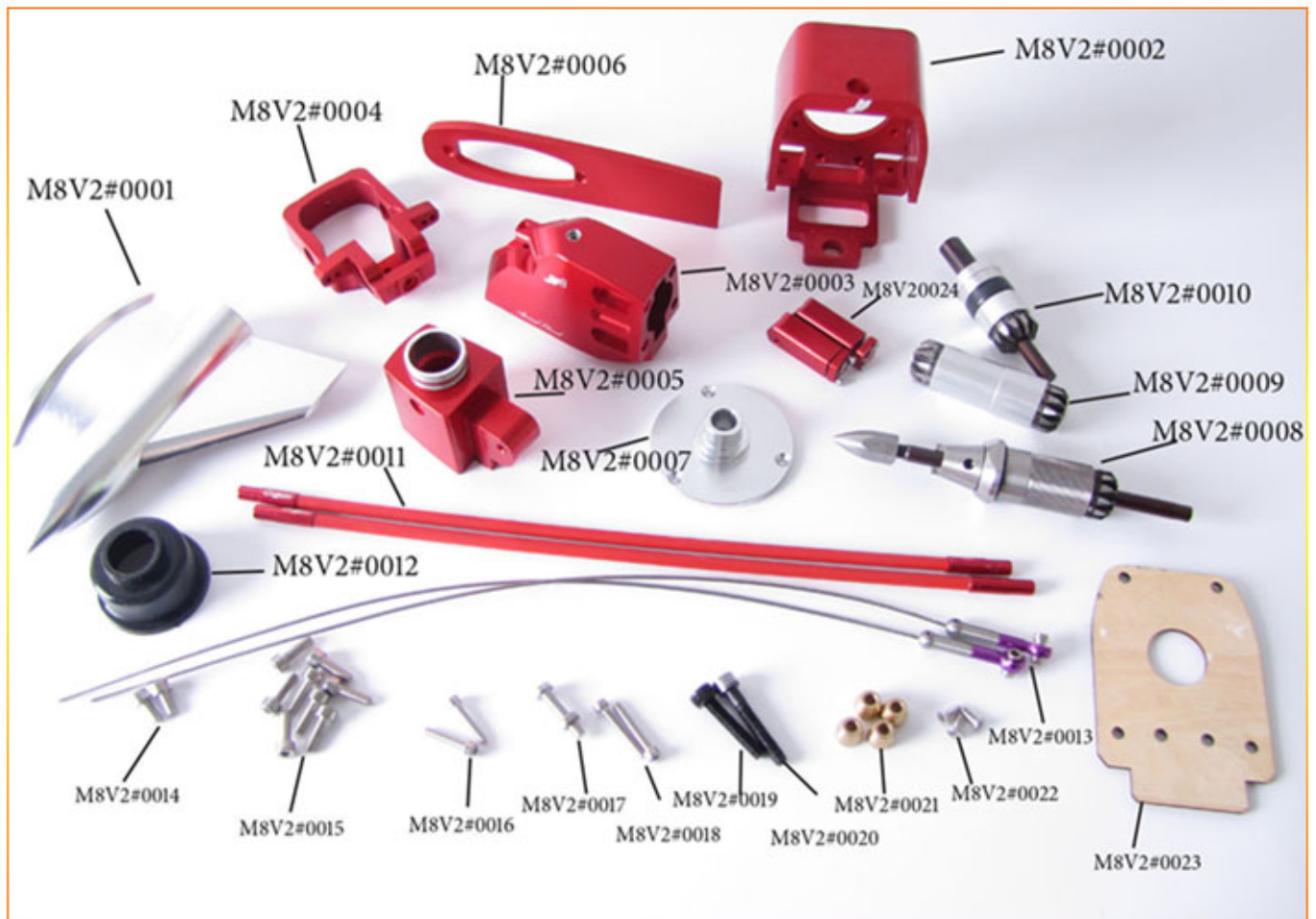
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M8-COLLECTOR DIMENSION GUIDE

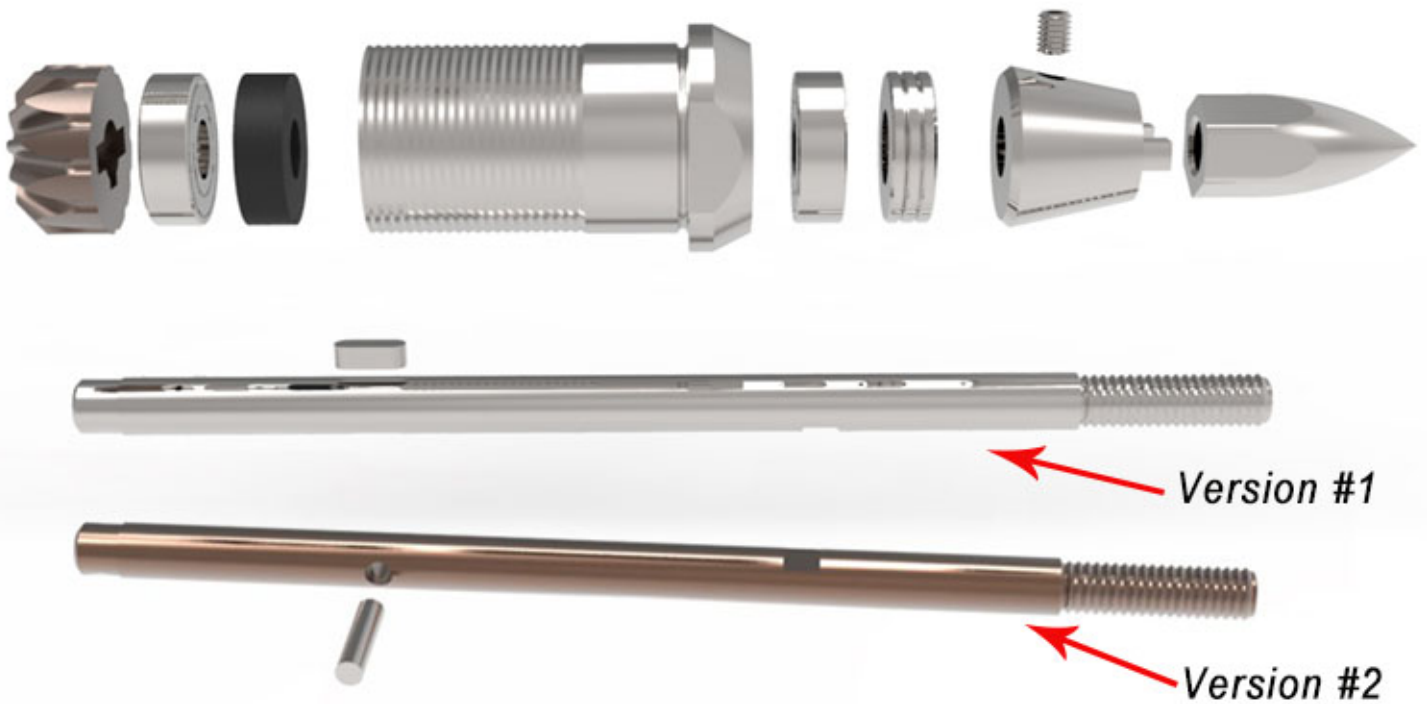


M8-COLLECTOR PART LIST



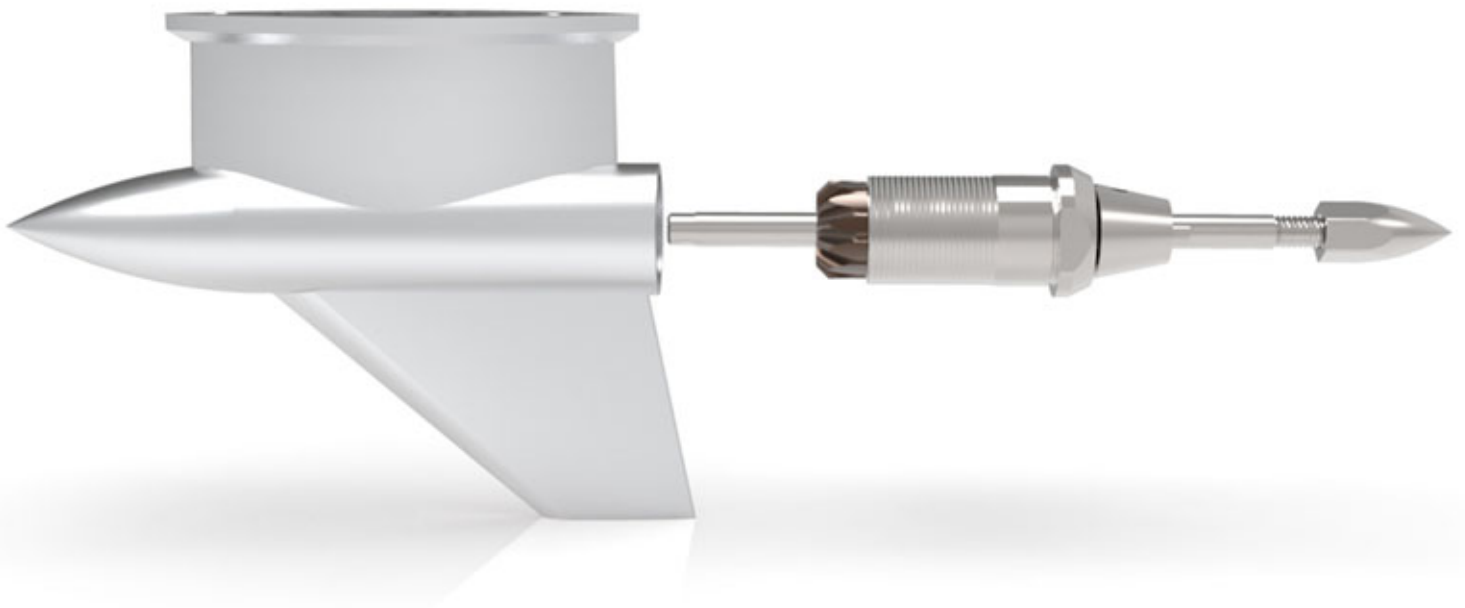
M8V2#0001	Billet Lower Unit	M8V2#0013	Steering Cable Assembly
M8V2#0002	Steering Arm Housing	M8V2#0014	M4x8 Bolts x 2
M8V2#0003	Billet Top Unit	M8V2#0015	M4x12 Bolts x 8
M8V2#0004	Billet Steering Arm	M8V2#0016	M3x16 Bolts x 2
M8V2#0005	Upper Front Unit	M8V2#0017	M4x16 & Nut x 1
M8V2#0006	Billet Riding Plate	M8V2#0018	M3x20 Bolts x 2
M8V2#0007	Rubber Seal Cover Plate	M8V2#0019	M5x25 Bolt x 1
M8V2#0008	Prop Shaft Assembly	M8V2#0020	M5x30 Bolt x 1
M8V2#0009	Middle Gear Assembly	M8V2#0021	Copper Bush x 4
M8V2#0010	Top Gear Assembly	M8V2#0022	M3x8 Bolt x 3
M8V2#0011	Push-rod Cable Sleeve	M8V2#0023	Drilling Template
M8V2#0012	Rubber Seal	M8V2#0024	Push-rod Sleeve

Prop-Shaft Assembly Diagram

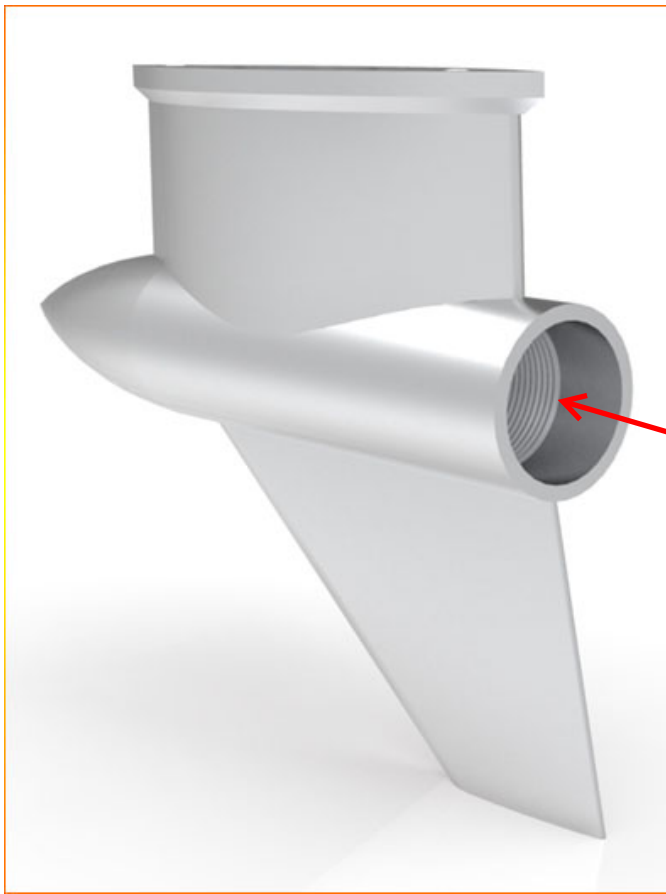


We have two version of gear pin design for the prop-shaft assembly, both versions are working well, we will demonstrate the version #1 in following instruction manual.

Lower Unit Assembly



Prepare the prop-shaft assembly and screw it into the lower unit in left hand direction.



Note that when the prop-shaft housing reaches about 15mm from the end, it might stop because -The thread on the lower unit is designed with two levels;the first 15mm of thread has a 'loose' fit while the remainder is a 'tight' fit. So the prop-shaft housing might tighten up at some point between the first and second levels of thread. When that happens, simply rotate the prop-shaft housing left or right a bit until the thread on the housing engages into the second level of thread on the lower unit.

Note: Do NOT force the prop-shaft in when you feel it tighten up as that could damage the thread on the lower unit.

Loctite the Prop-Shaft Housing



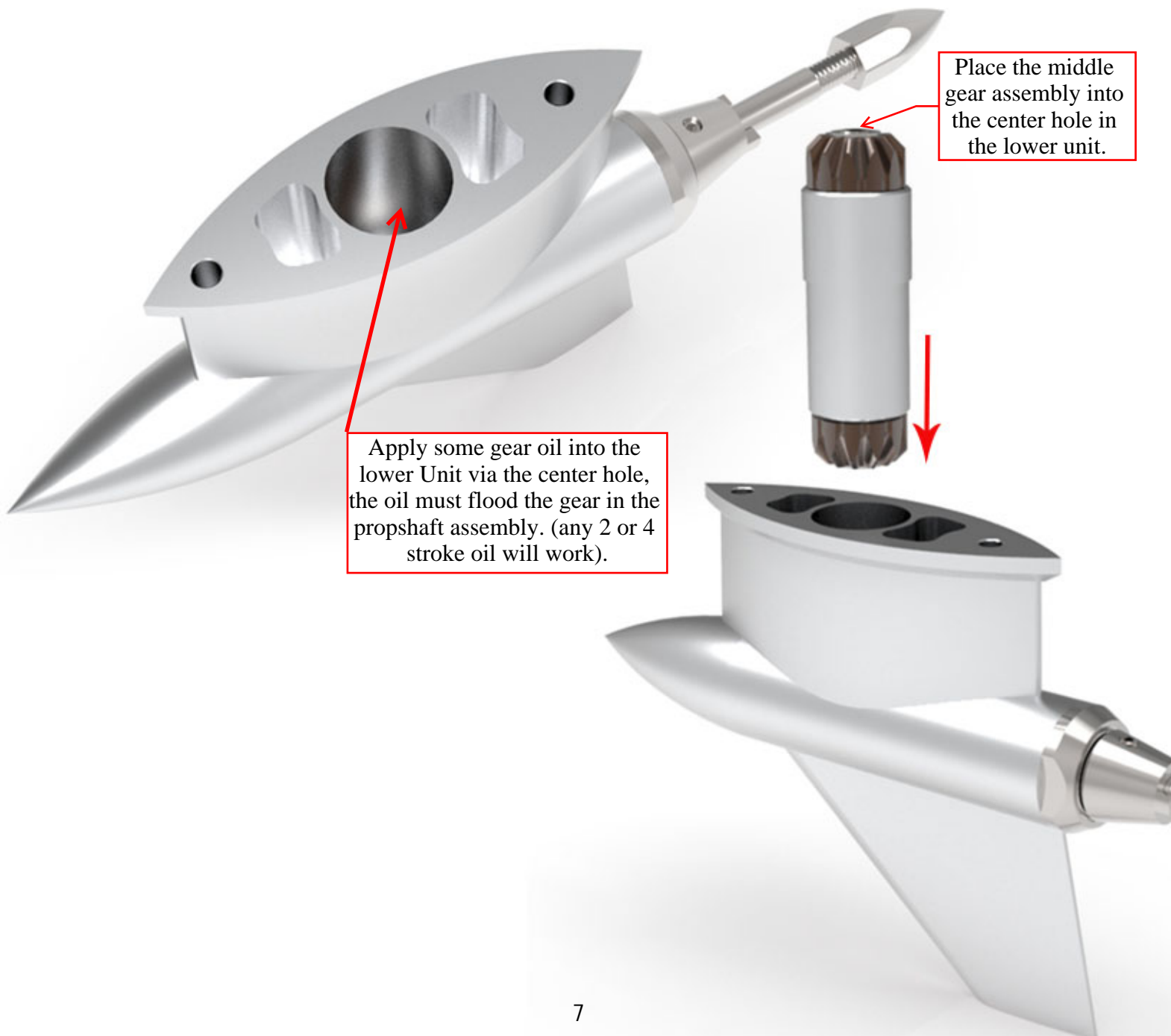
Apply both loctite and sealant on the prop-shaft housing; this is a very important step to keep the prop-shaft housing hold firmly in place, especially for counter-rotation. It also prevents from the oil and water leakage. Use a 21mm wrench to tighten the prop-shaft housing into place.

Note: Before trying to screw the prop-shaft housing out for maintenance, heat the loctite area from outside in order to soften the loctite. Do NOT force it out with a wrench if you feel that it is hard to unscrew.

Middle Barrel Gear Assembly Diagram

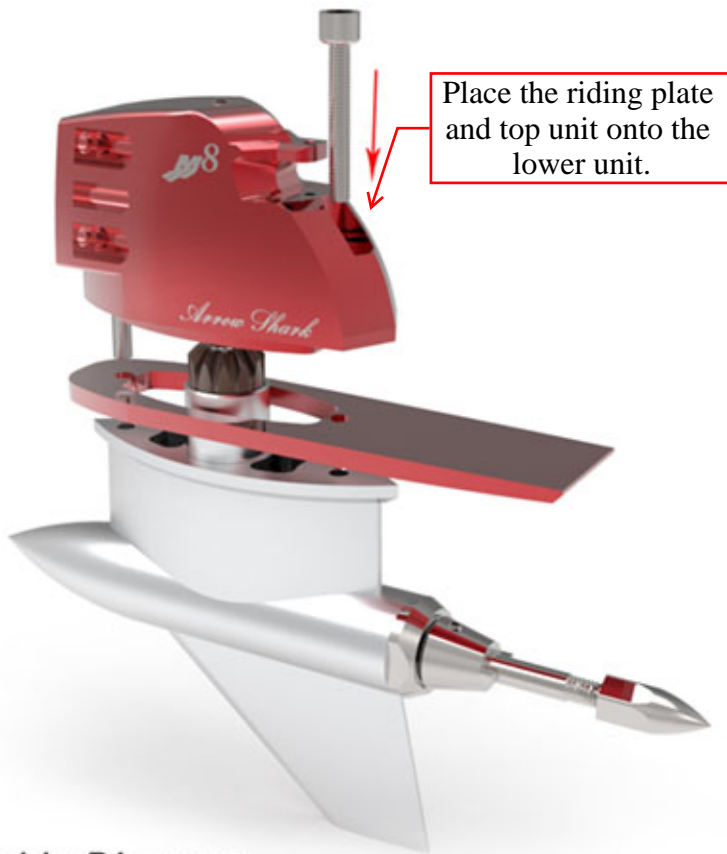


Top Unit Assembly





Apply some sealant around the edge of middle barrel assembly to prevent the oil leaking out from top unit.



Place the riding plate and top unit onto the lower unit.

Top Gear Assembly Diagram



Tighten the both front and back bolts by using 5mm hex nut wrench, to properly tighten the front bolt, you will need a short-head version 5mm hex nut wrench.

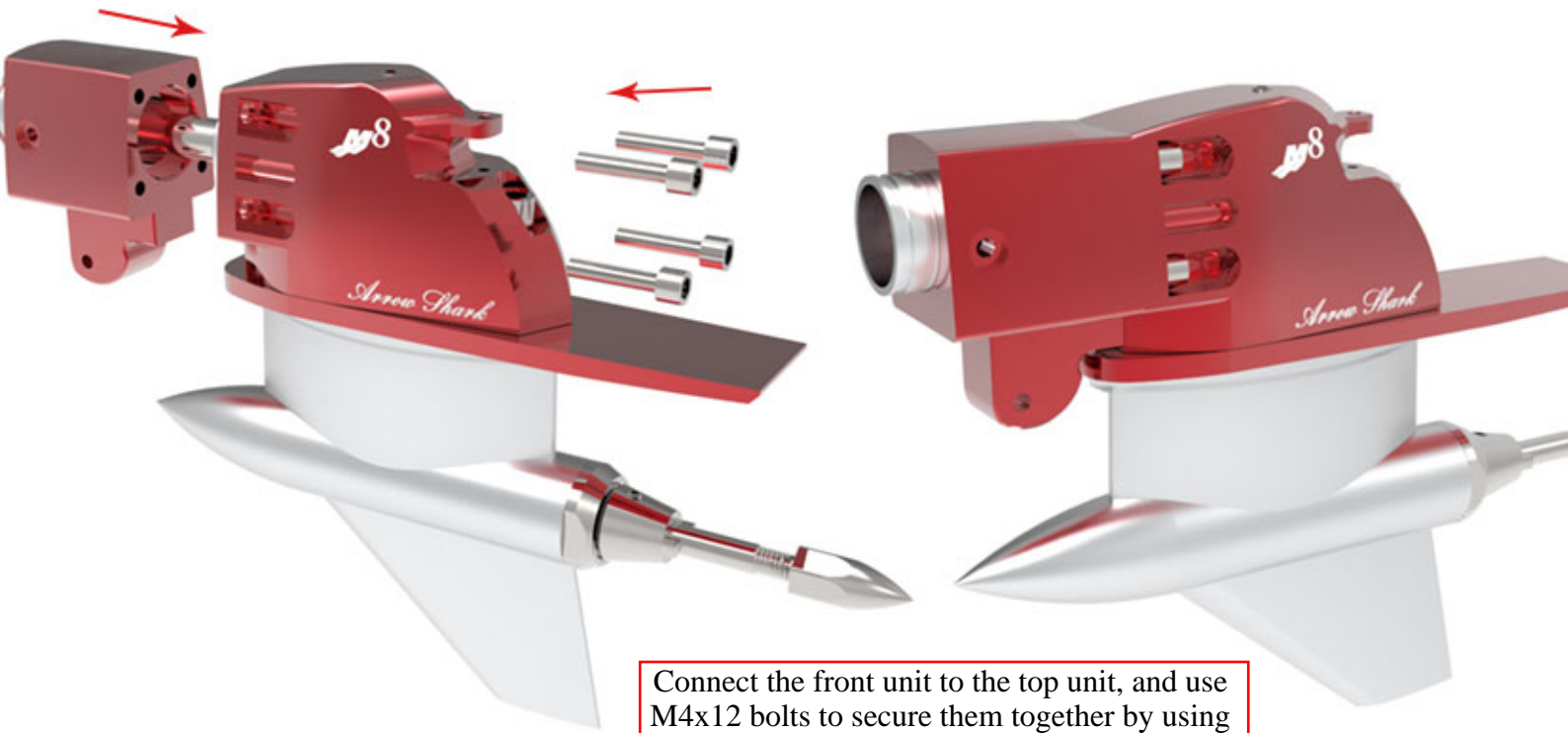
Short-Head 5mm Wrench



Push the top gear assembly into the top unit hole.

Note: The diameter on the rubber seal is slightly bigger than the hole in order to prevent oil leakage; therefore, it may need a little force to push it in, or you can try applying a little oil around the rubber seal to make it easier to push in.

Front Unit Assembly



Connect the front unit to the top unit, and use M4x12 bolts to secure them together by using M4 hex nut wrench.

Steering Arm Assembly



1 Install one of the copper bushes to each side of the steering arm and tighten it with two M4x12 bolts.

2 Install two M4x8 bolts on each side of the thrust angle adjusting slot as pictured above, but do not tighten it at this time.

Rubber Seal Assembly

Connect the rubber seal to the front unit adaptor.



Steering Arm Housing Assembly

Install the steering arm housing onto the steering arm, insert the copper bush onto the both top and bottom of the steering arm housing and tighten it with the M4 bolts, the M4x8 bolt on the top, and the M4x12 bolt on the button.

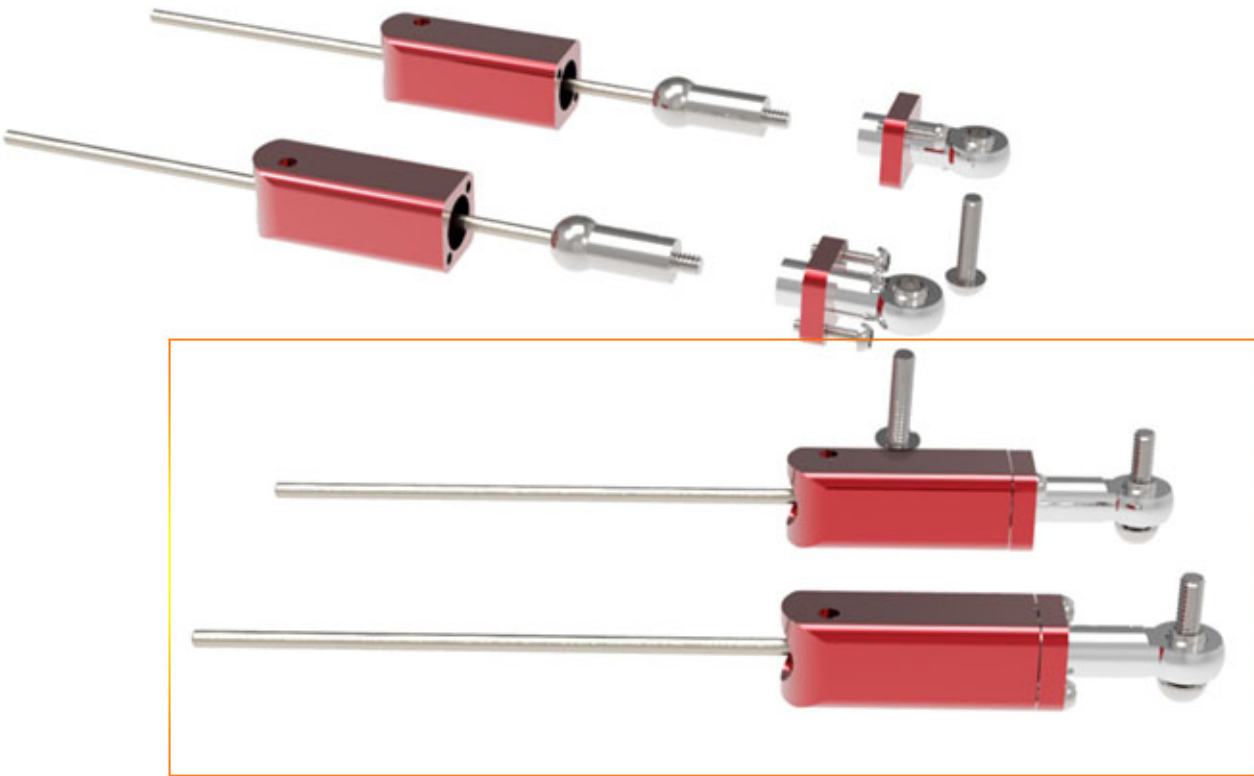


Thrust Angle Adjustment Bolt

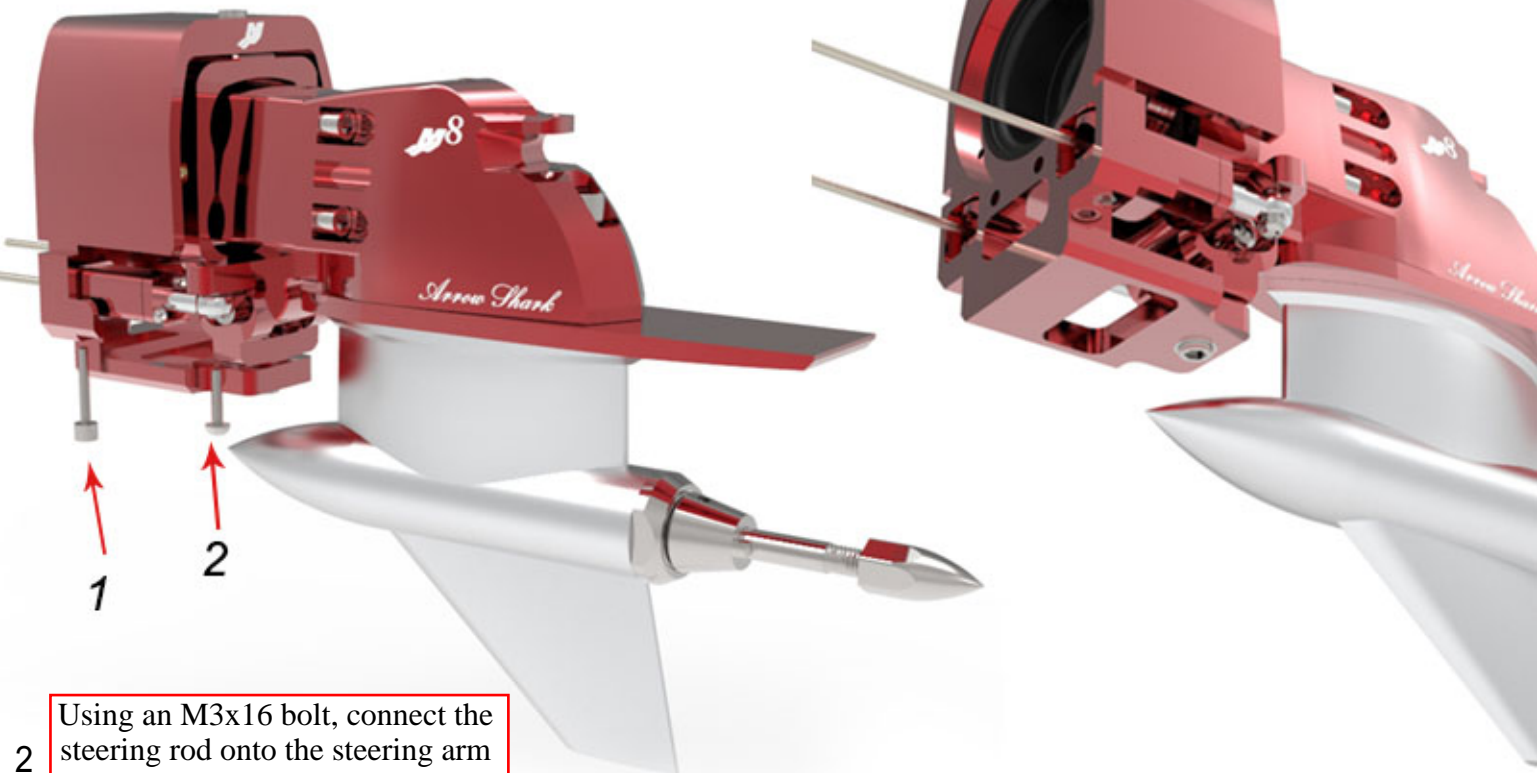
After the steering arm housing is installed, adjust the thrust angle to your preferred position, then tighten the bolts on the both side of the steering arm. That is how the thrust angle position is adjusted at anytime during the

Steering Cable Assembly

Steering Shaft Assembly Illustration

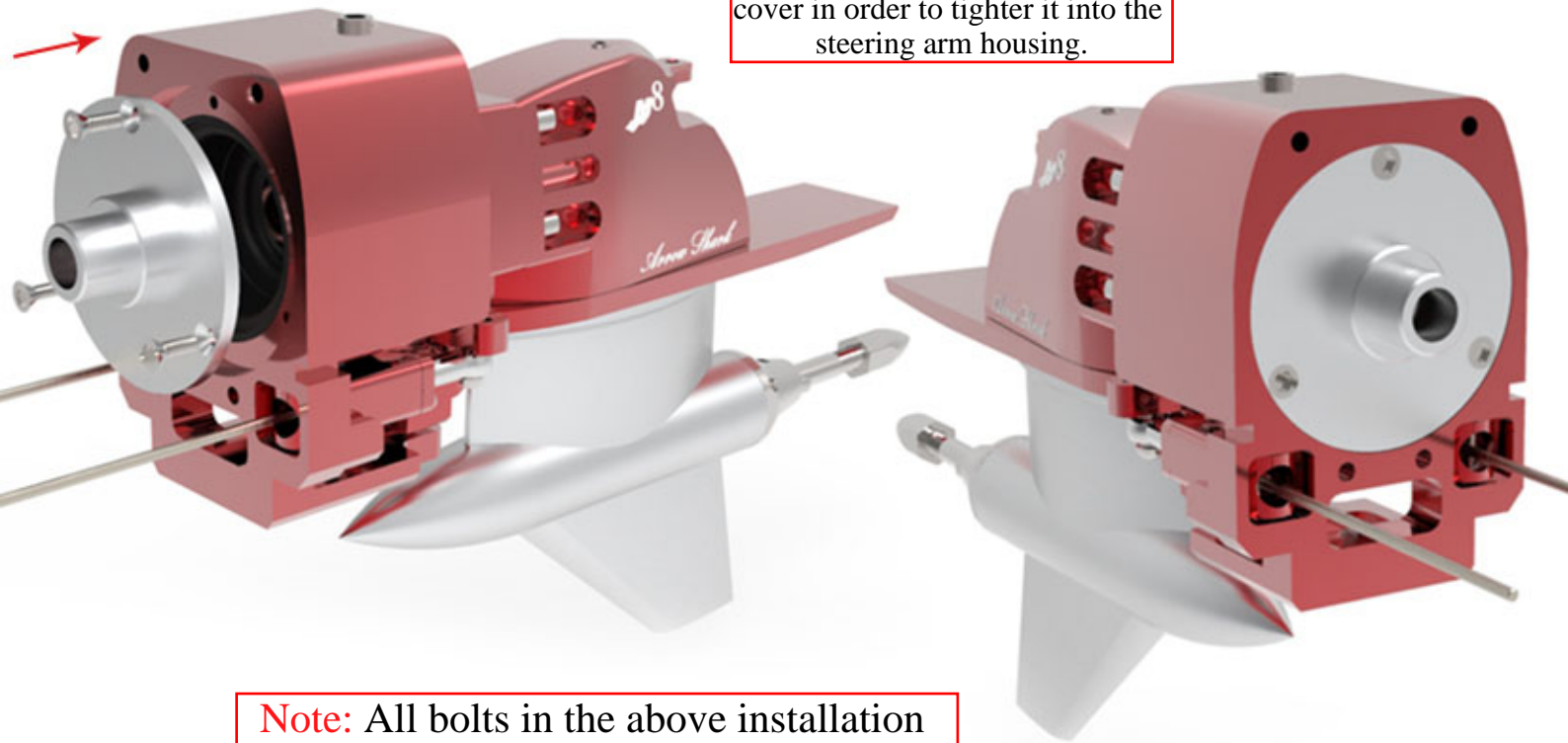


- 1 Match the holes on the pushrod sleeve with the holes on the bottom of the steering arm housing, use a M3x20 bolt to connect them together, making sure the sleeve is moving left and right freely after tightening the bolt; do the same on both sides.



- 2 Using an M3x16 bolt, connect the steering rod onto the steering arm as pictured above. Do the same on both sides.

Apply the M3x8mm bolts into the cover in order to tighter it into the steering arm housing.



Note: All bolts in the above installation must be applied with med strength loctite in order to prevent from the bolts loosing during operation, but still able to loose them when requires.

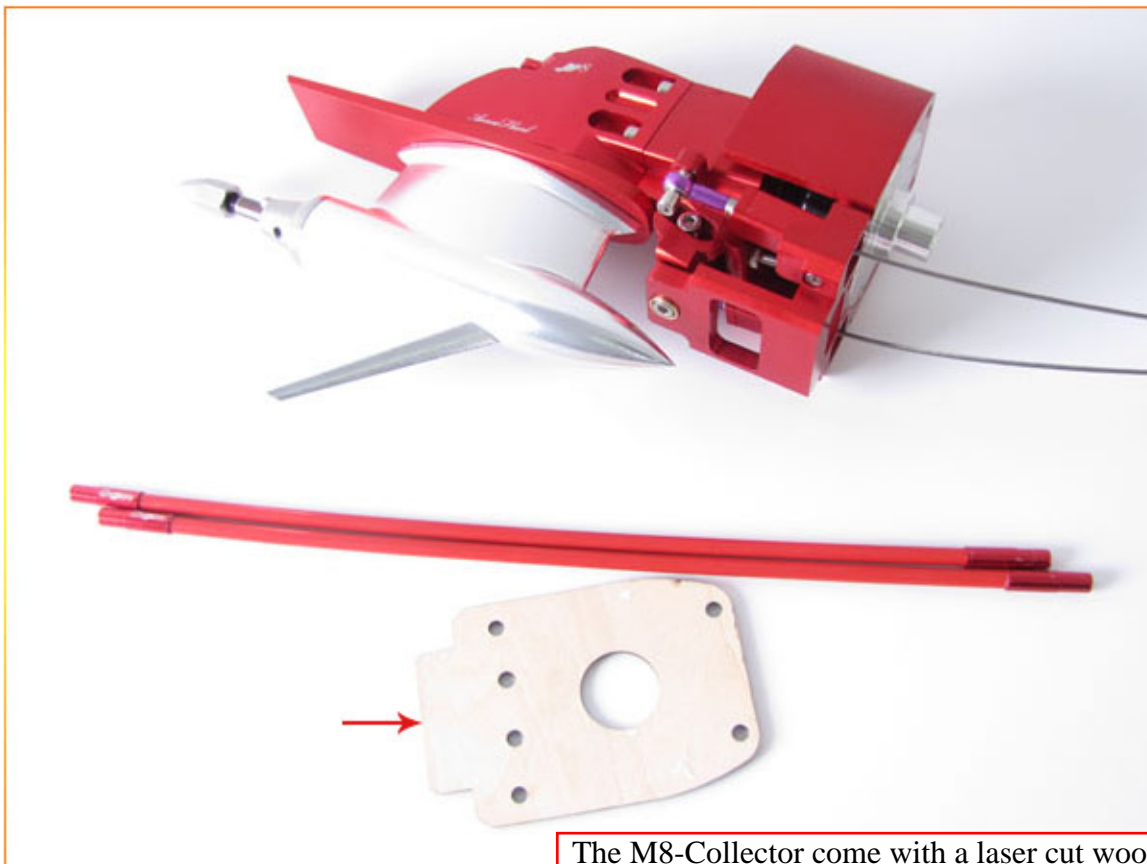
Oiling The Drive



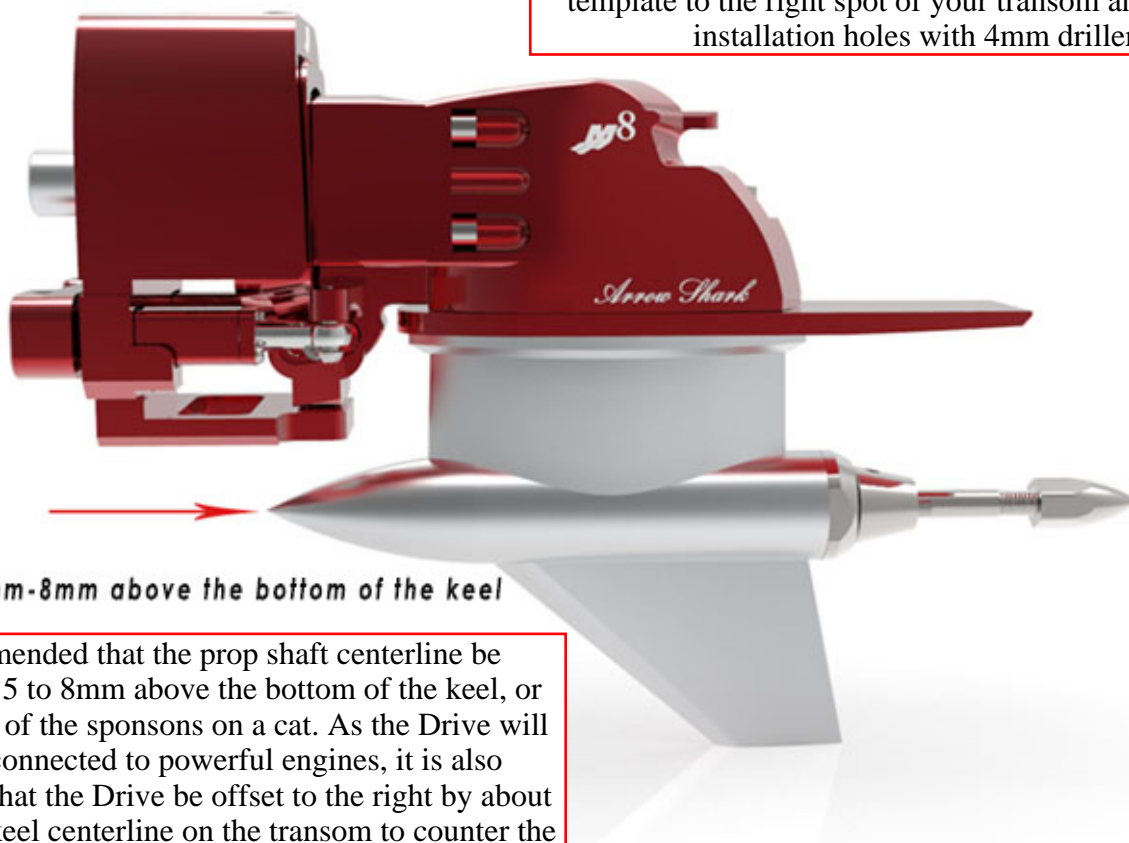
There is an oil inlet on the top unit which seals with an M5 hex nut; screw out the hex nut with a M4 hex wrench when you are ready for an oil refill.

Congratulations! Your Installation Is Completed!

Drilling Installation Holes In The Transom



The M8-Collector come with a laser cut wooden template for easy drilling the holes on your transom, the holes on the template will be match the installation holes on the base of the drive, so, all you need to do is attached the wooden template to the right spot of your transom and drill the installation holes with 4mm driller.



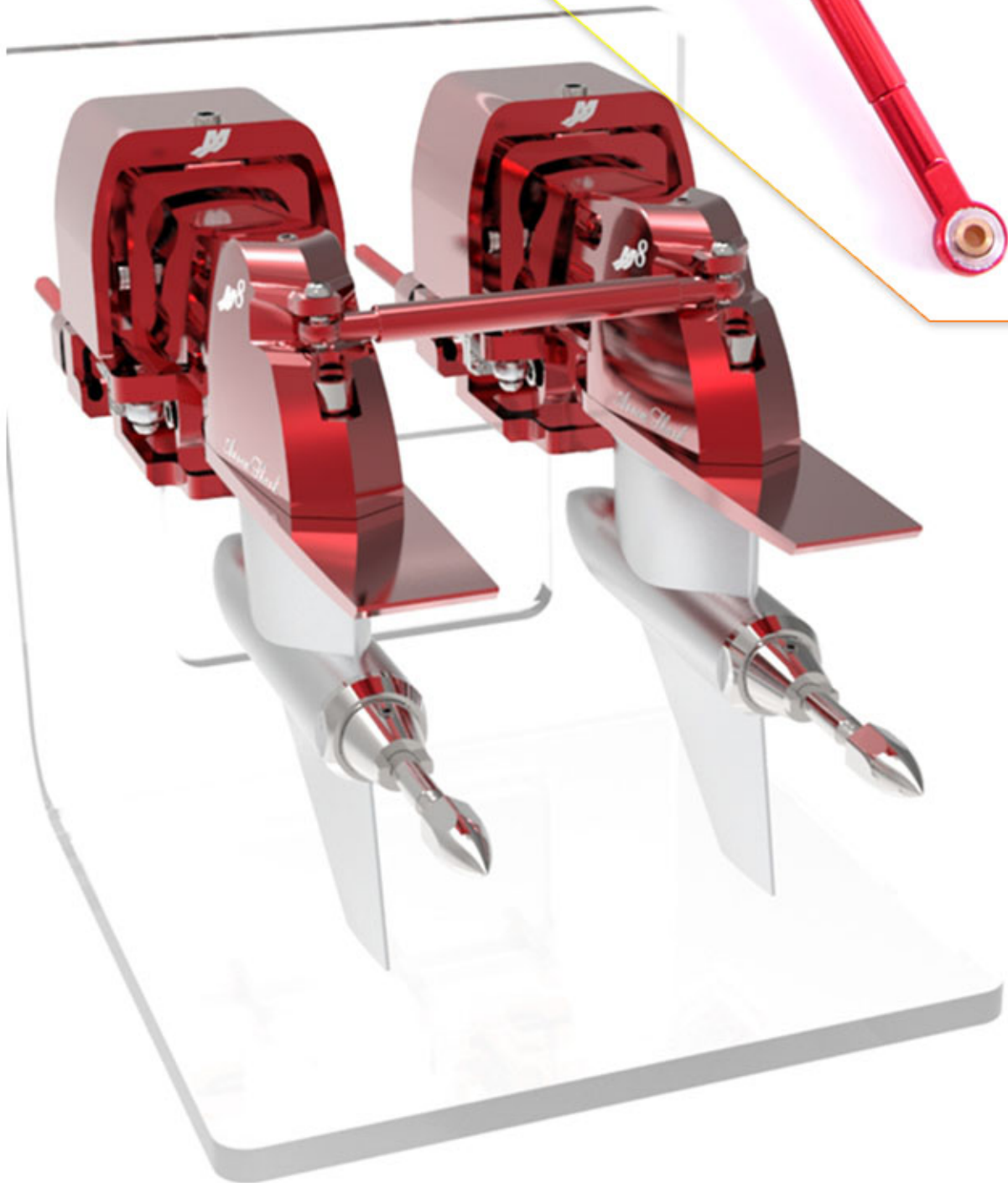
5mm-8mm above the bottom of the keel

It is recommended that the prop shaft centerline be approximately 5 to 8mm above the bottom of the keel, or above the level of the sponsons on a cat. As the Drive will usually be connected to powerful engines, it is also recommended that the Drive be offset to the right by about 5mm from the keel centerline on the transom to counter the torque from such engines. Higher torque tends to deflect the boat to the right when running, and offsetting the Drive reduces or eliminates this effect, although it is also impacted by the choice of hull and propeller.

Twin M8-Collector Set-Up

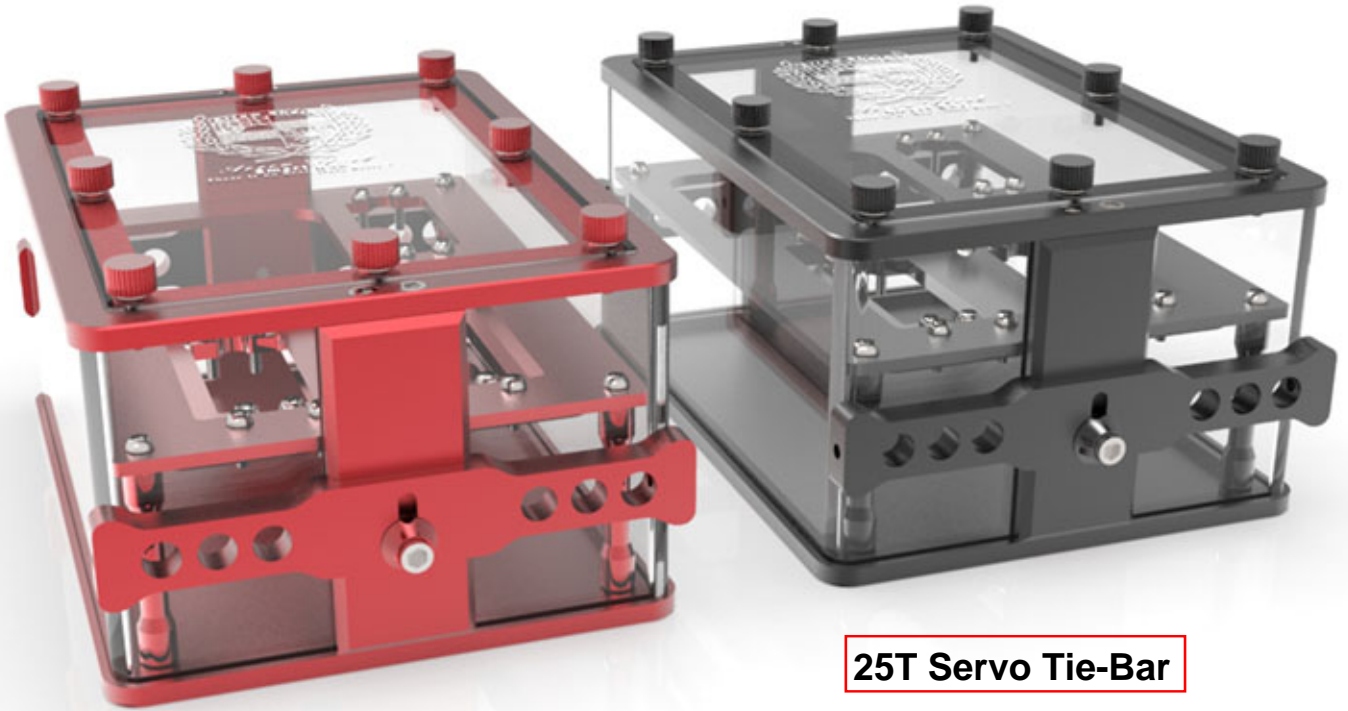
Billet Tie-Bar

It is recommended that the spacing for two Drives in a twin M8-collector set-up would be 85mm-90mm between the two centers of the tie-bar installation hole. With this set-up, you can use up to 85mm diameter props for your boat. We offer a color-matched billet tie-bar from our website.

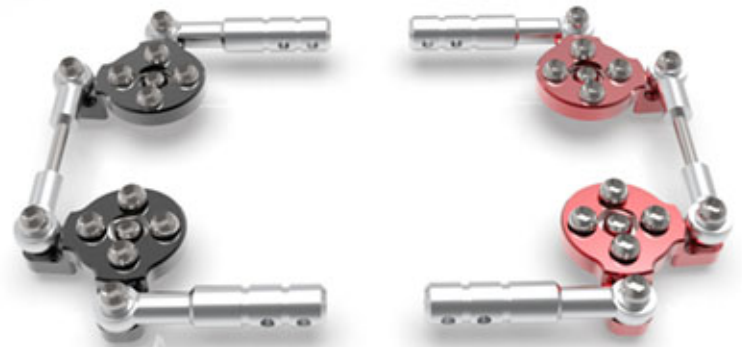


Steering Control Set Up

Smart Box-X



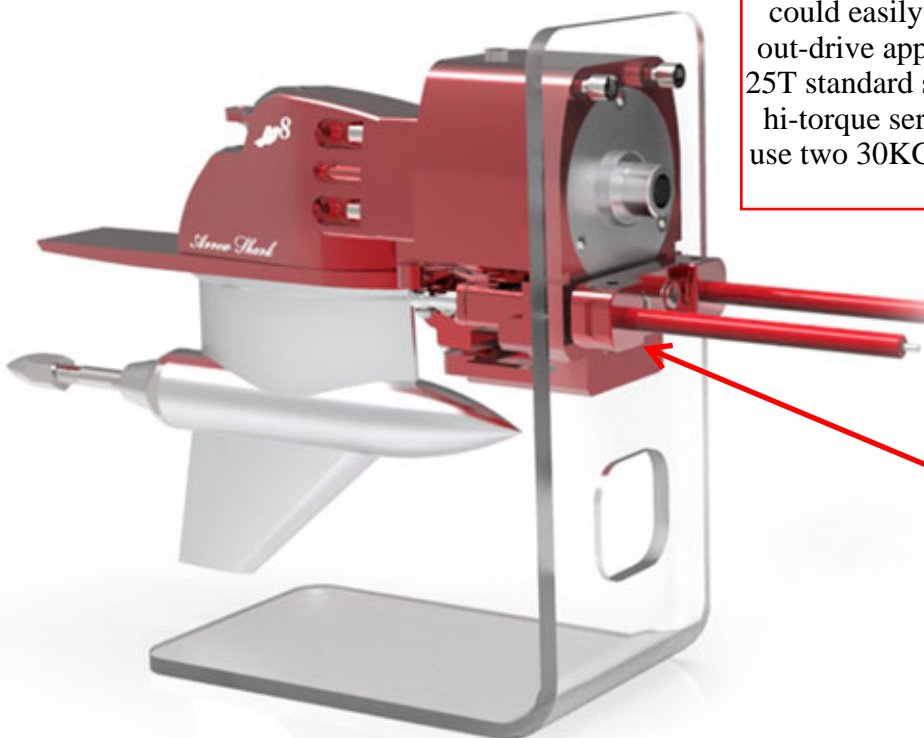
25T Servo Tie-Bar



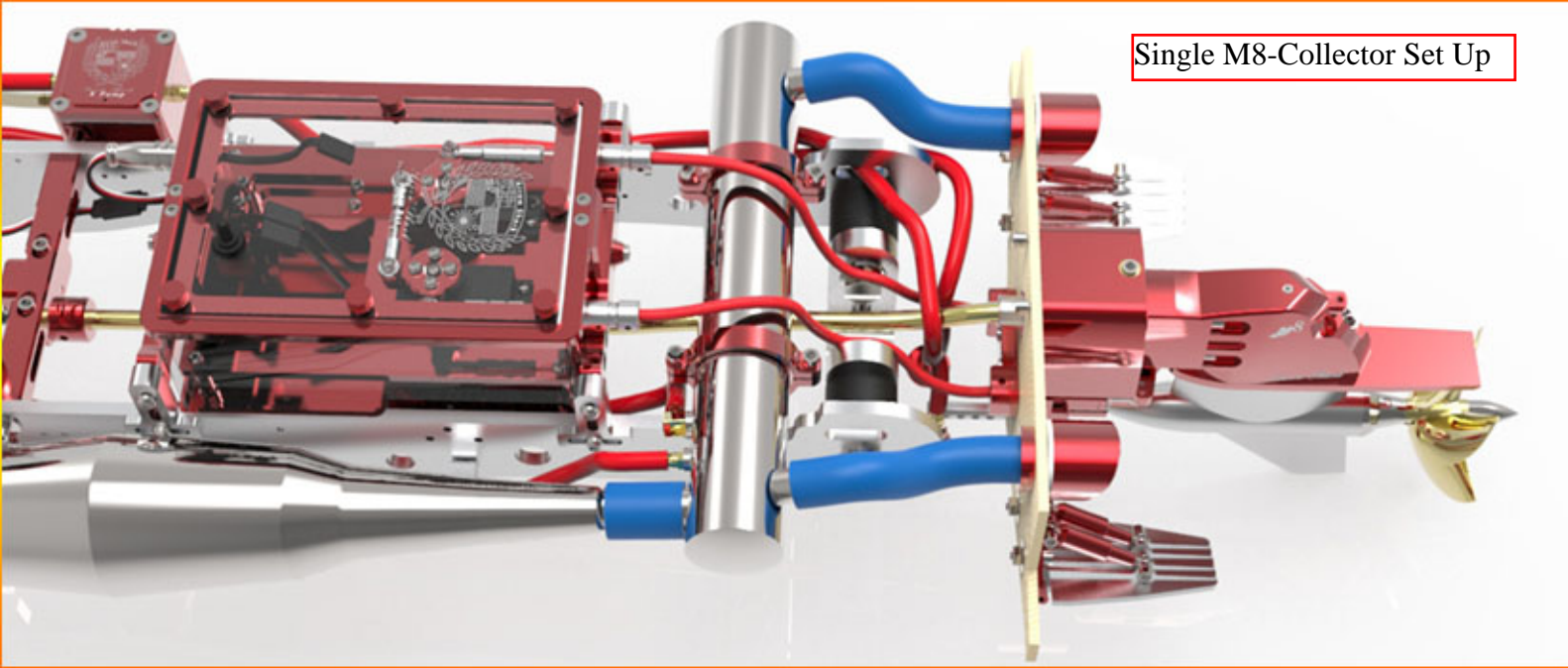
Cable Housing Adaptor



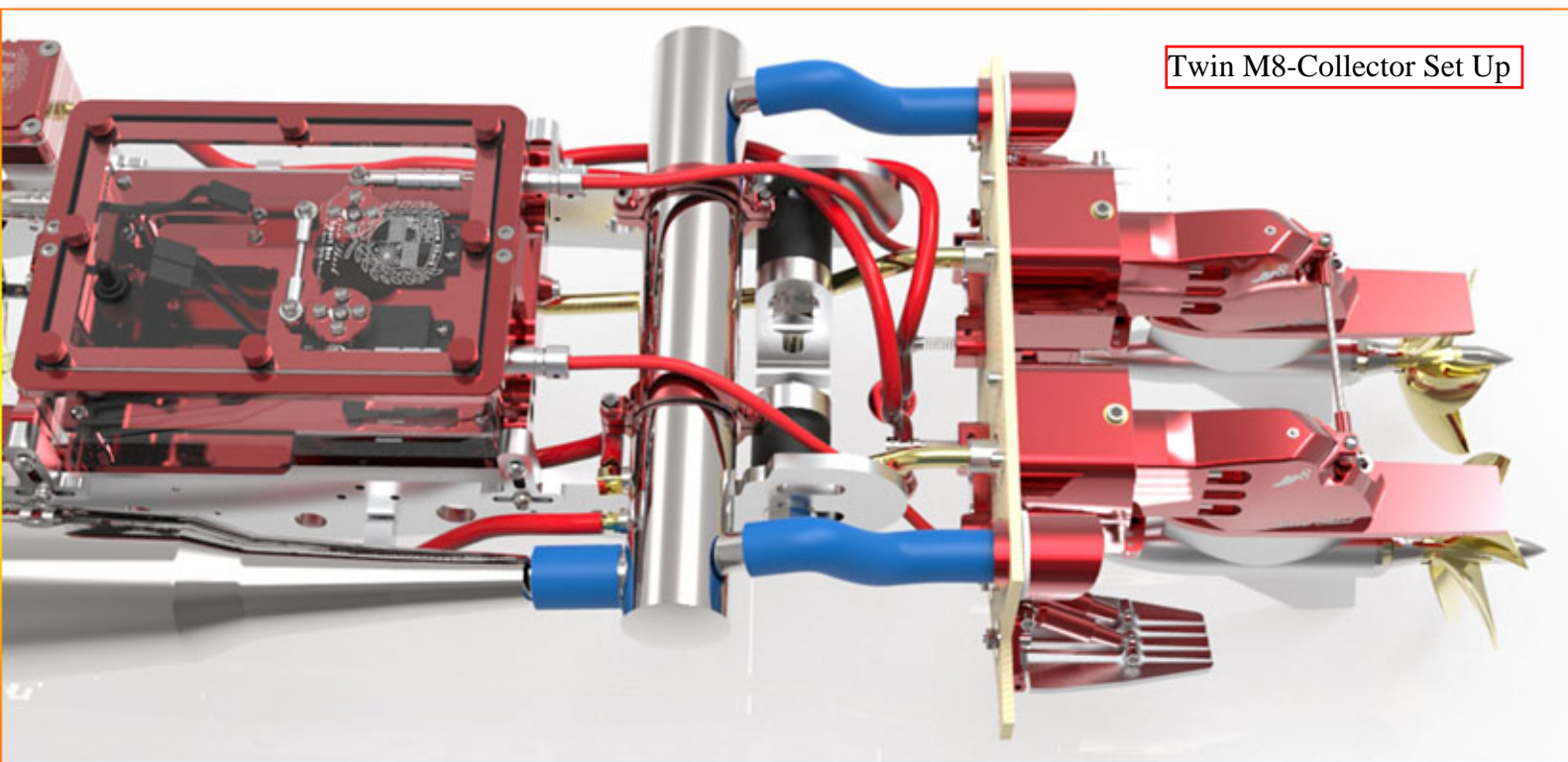
Arrow Shark billet smart box and servos tie-bar will work with any mono or cat hull from 55 inches up, it could easily set up for single or twin M8-Collector out-drive applications, the servos tie-bar accepts any 25T standard servos, we recommend to use two 20KG hi-torque servos for single M8 out-drive set up, and use two 30KG hi-torque servos for twin M8 out-drive Set up.



The 2020 Version M8-Collector will come with a billet steering cable housing adaptor that secures to the billet steering arm housing to enhance the steering installation and performance.



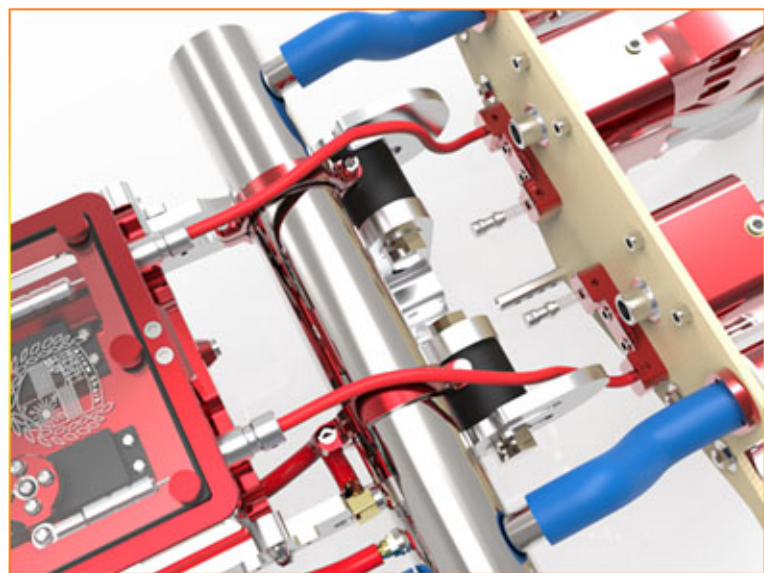
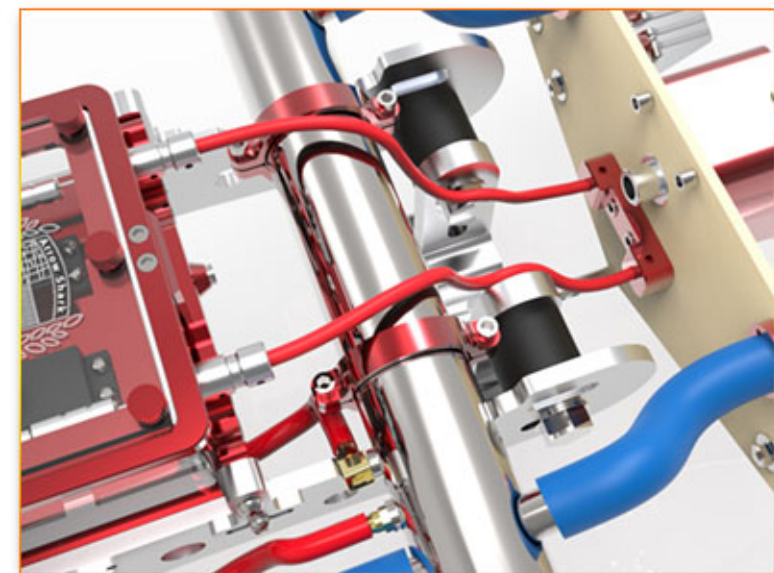
Single M8-Collector Set Up



Twin M8-Collector Set Up

Single M8 Steering Cable Set Up

Twin M8 Steering Cable Set Up



M8-Collector Performance Tip

- #1: Lubrication oil needs to be changed for every 10-12 hours of use.
- #2: When the M8 drive replaces with new gear and seals, it will be tight to turn it, and it is normal, just simply use a short flexible shaft and connect it to electric driller, then run it for 5-10 minutes, it will become loose. With the brand new M8 drive or after replacing the new gears, we recommend to run it for about 2-3 tanks of gas with half throttle before go on the full speed.
- #3: No matter for single or twin M8 set up, we recommend the gas engine to have a clutch system installed for easier engine starting.
- #4: Every time before you run your boat, make sure the prop-shaft housing is secured firmly in the lower unit, especially for the right hand rotation drive, as if the prop-shaft housing loosening out during the operation, it could have the gears improperly engaged and cause damage. This is very important step for the M8 drives to have long-lasting performance.
- #5: The bearing in the M8 lower unit is designed to be loose fit, so, it can be easy to take out when you need to replace it. It was hold in place by some loctite, therefore, every time when you change the gear oil and re-install the prop-shaft housing assembly, make sure this bearing is not loosening out and still in place.

Thank You! Enjoy your M8-Collector Version Stern drive!



There is no Best, only Better!



Arrow Shark
RC Marine