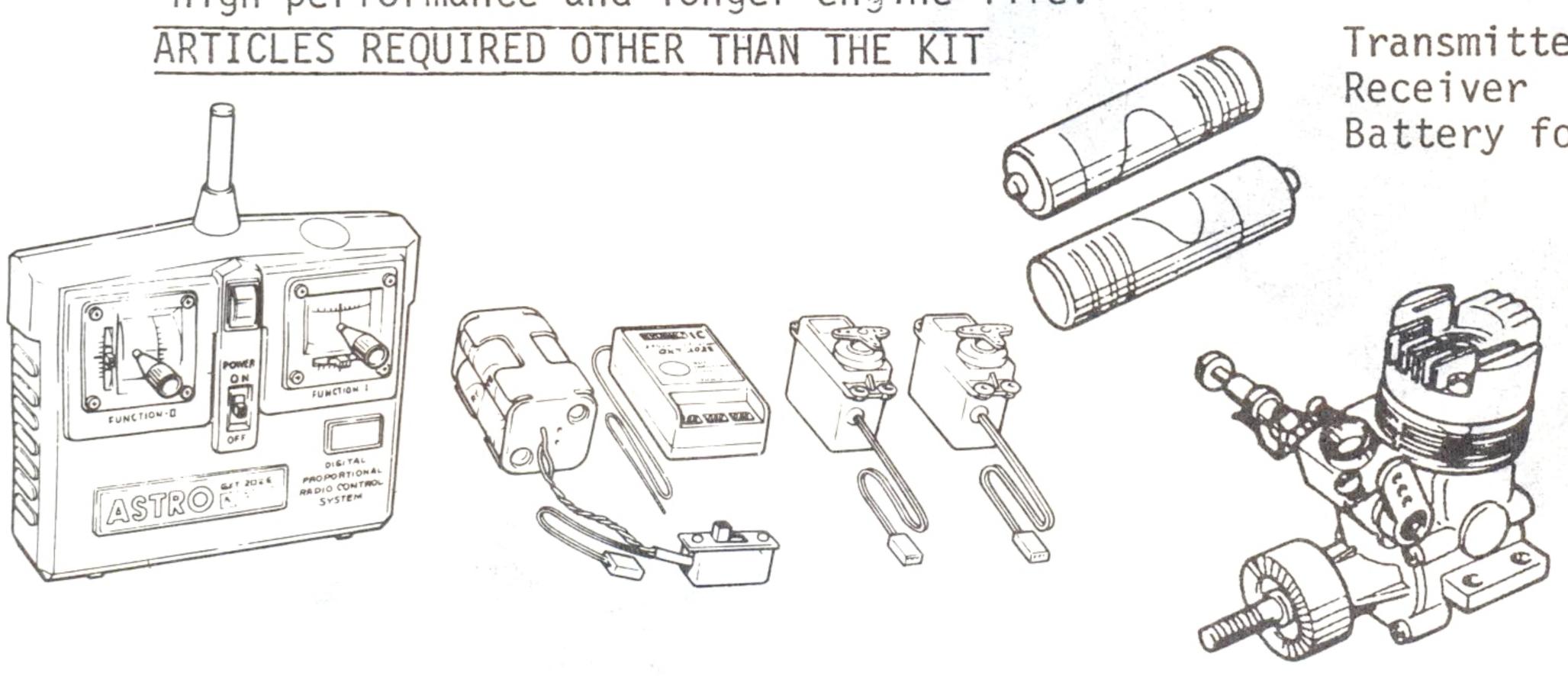


Thank you very much for the purchase of R/C Car "CIRCUIT 20 EXTRA RACING BAJA" to be able to properly assemble your "CIRCUIT 20 EXTRA RACING BAJA" and get maximum performance, we would like you accordance to this instruction sheet.

By reading this instruction to the end throughly before assembling and keeping in mind the overall construction, it will enable you to work smoothly. If the engine you will be using is still brand new, by breaking in the engine according to instruction sheet included in with the engine, it will be possible to maintain high performance and longer engine life.



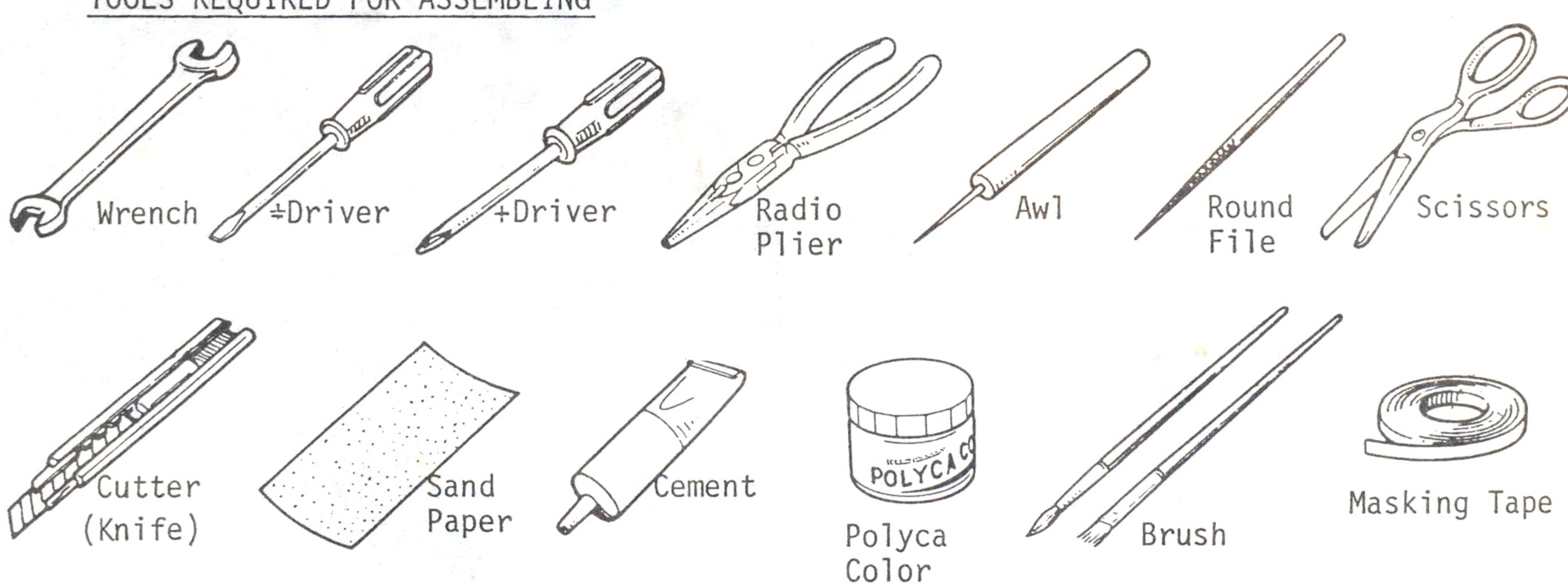
Transmitter UM-3 x 6 - 8 pcs.
Receiver UM-3 x 4 pcs.
Battery for Radio

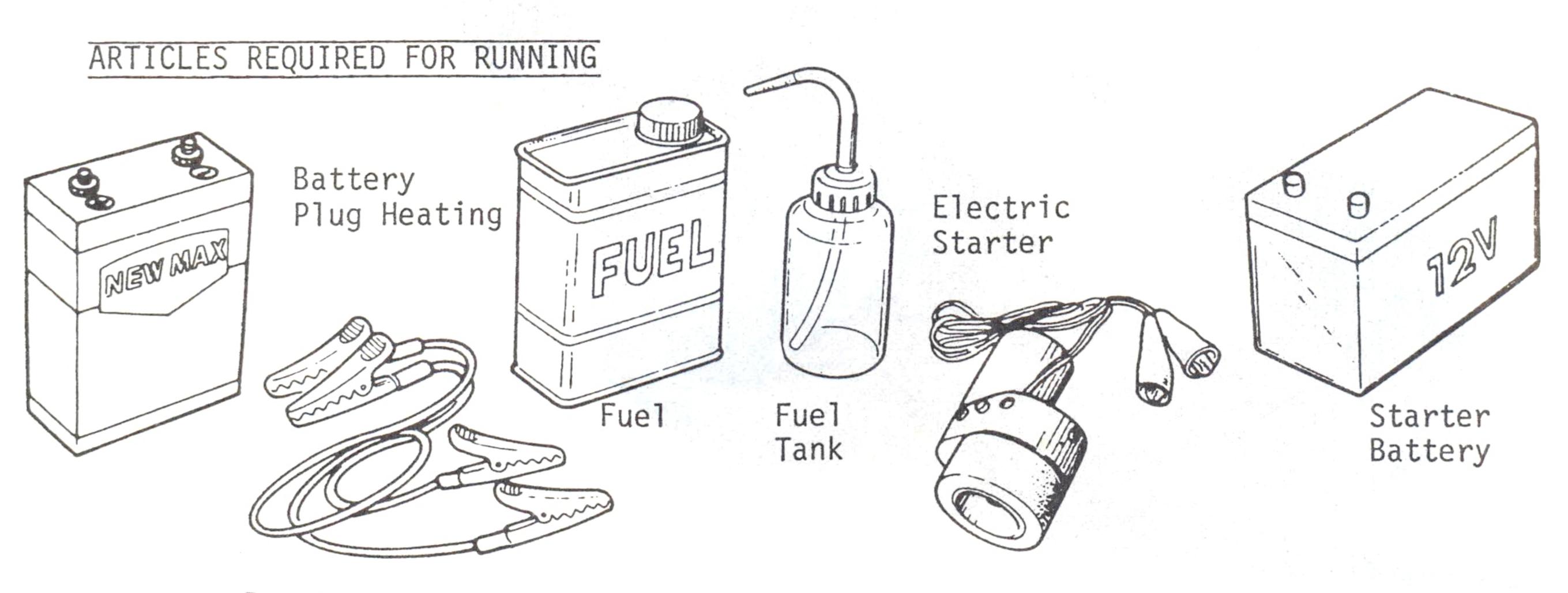
Note: This kit being designed for Enya .19, 21% and OS-21 engine. option parts and/or minor modification necessary to use other engine.

Glow Plug (1.5V White Gold will be the best)

OS-21FSR or Enya 19, 21X engine

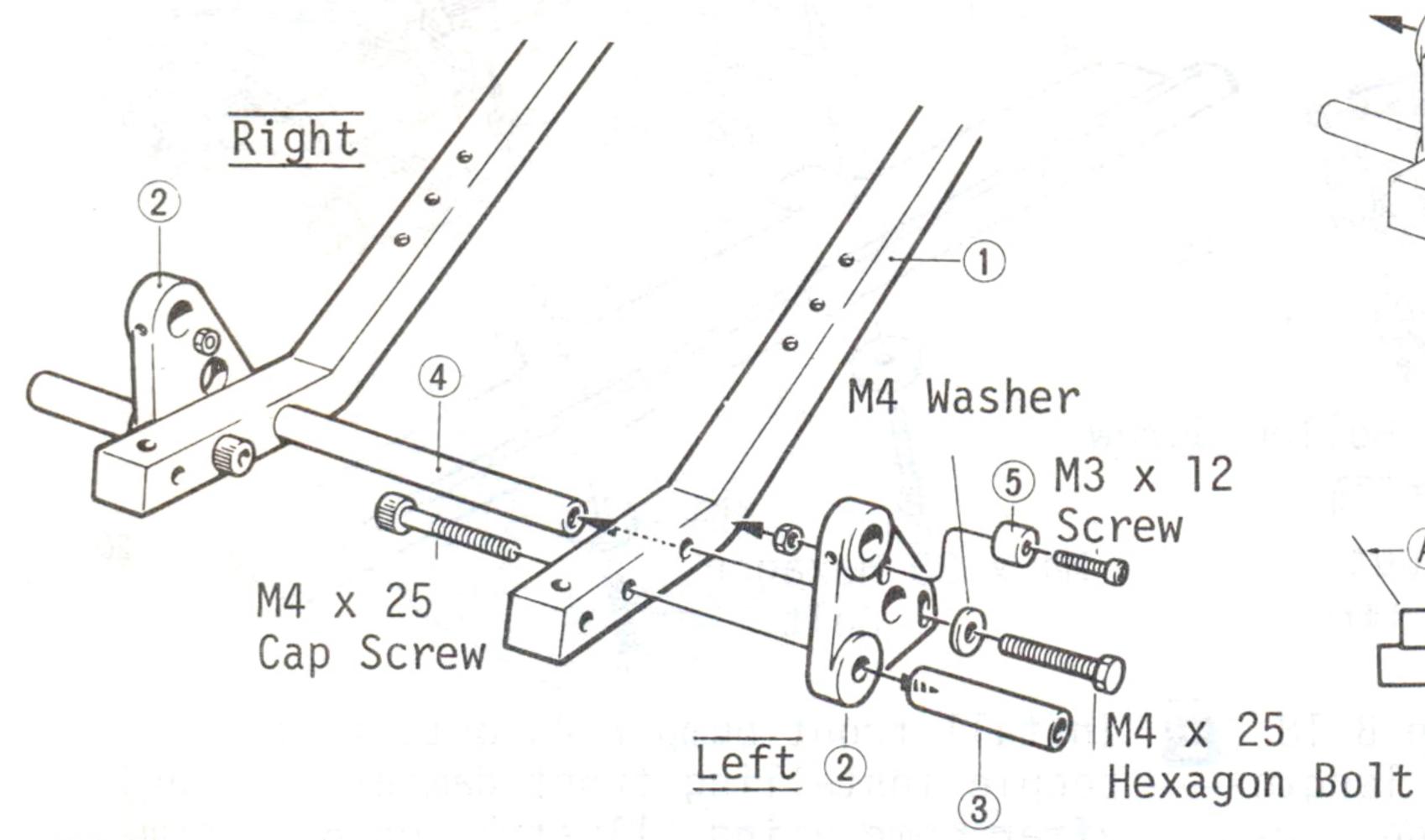
TOOLS REQUIRED FOR ASSEMBLING

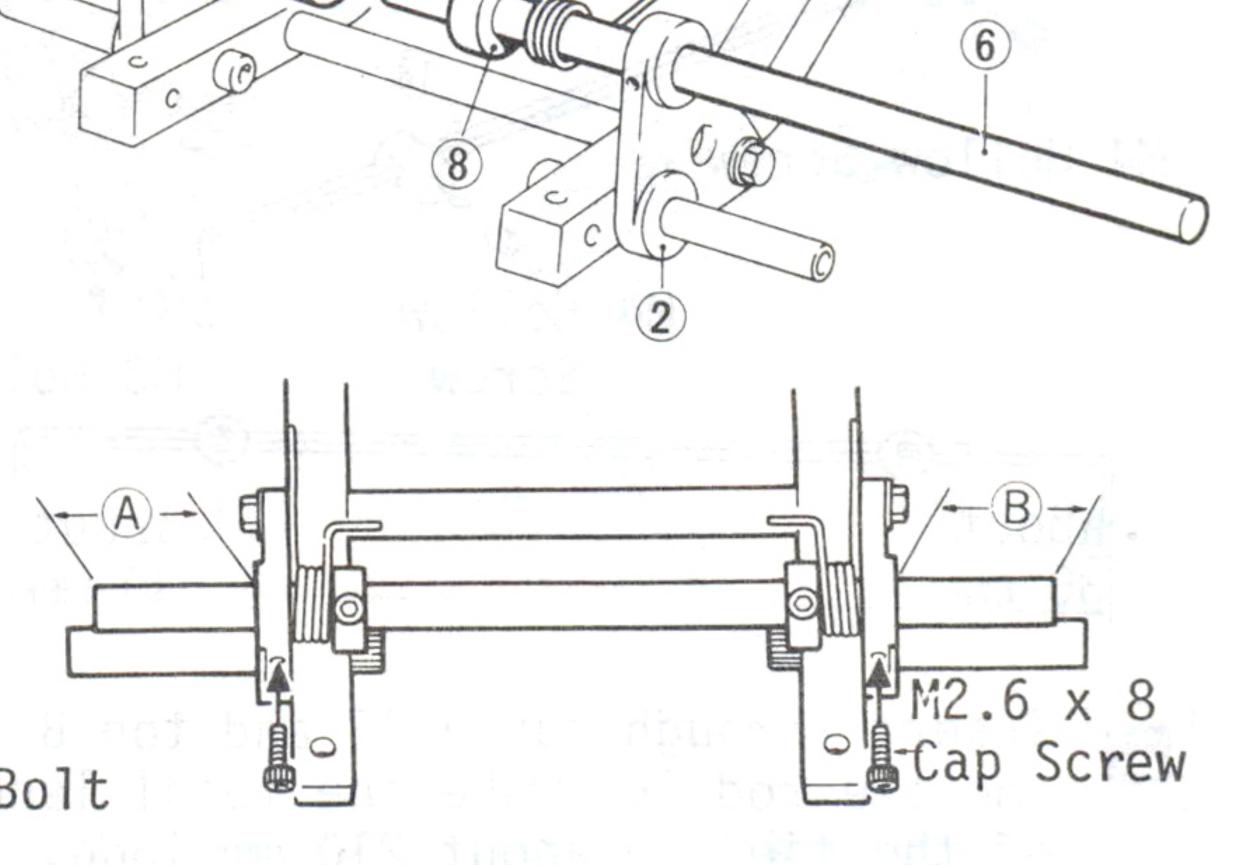




Booster Cord

Small parts in step 1 - 4 are included in front end section parts #1 bag.

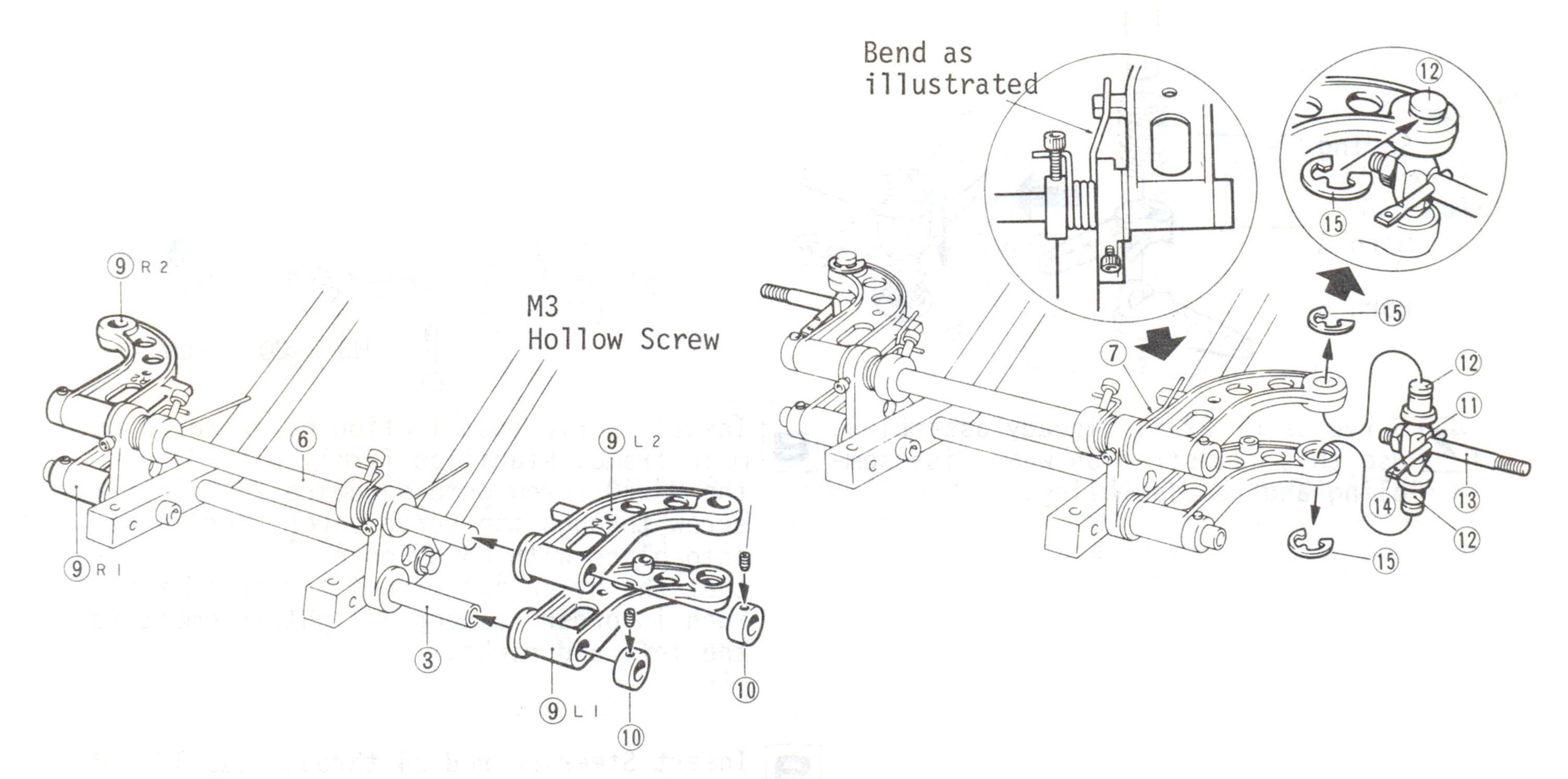




Cap Screw

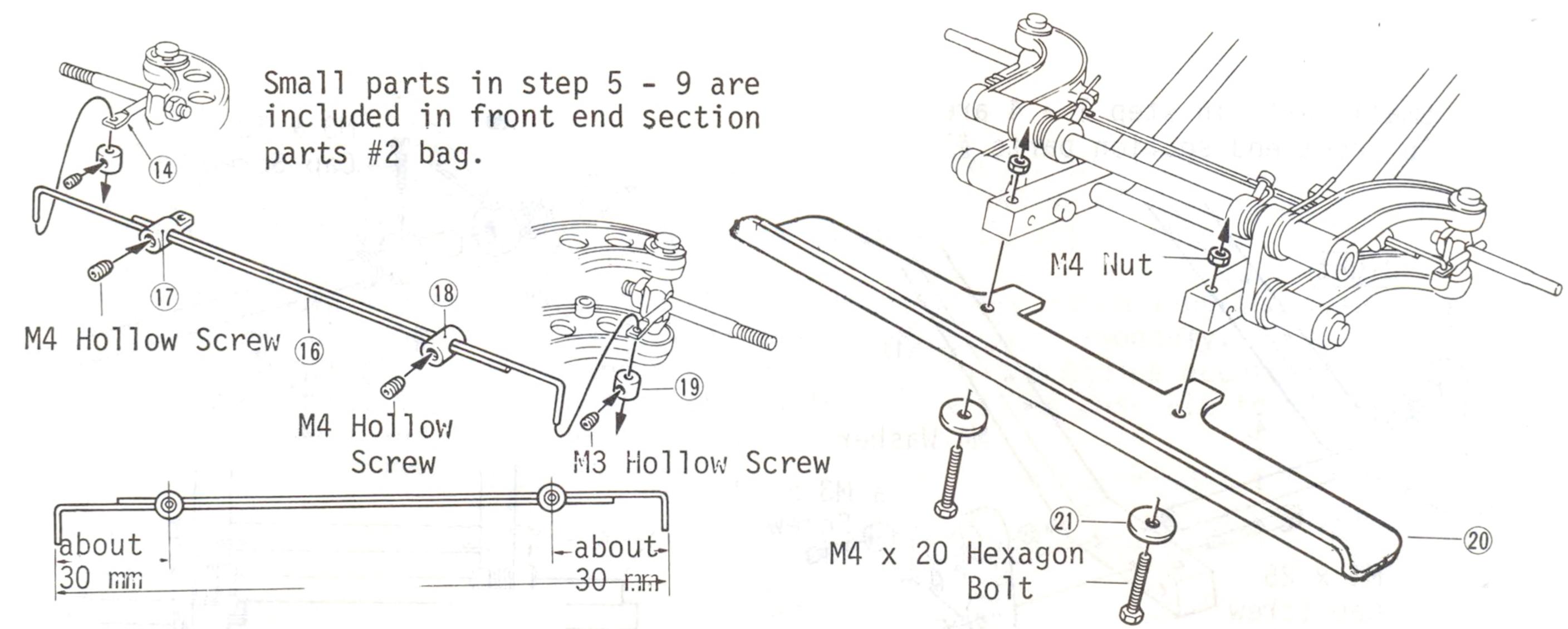
1 Fix the arm holder 2 and other parts on the main frame 1. The installing hole for the suspension stopper 5 is made to be oval for the adjustment of the body height. When the stopper is set upward, the altitude of the car will be low; and downward it will be high.

In order not to make a mistake on the right and left front spring, arm axle B 6 is set into place with M2.6 cap screw onto arm holder 2 as illustrated. But it is stabilized making the length of A . B in the same length as shown in illustration below.

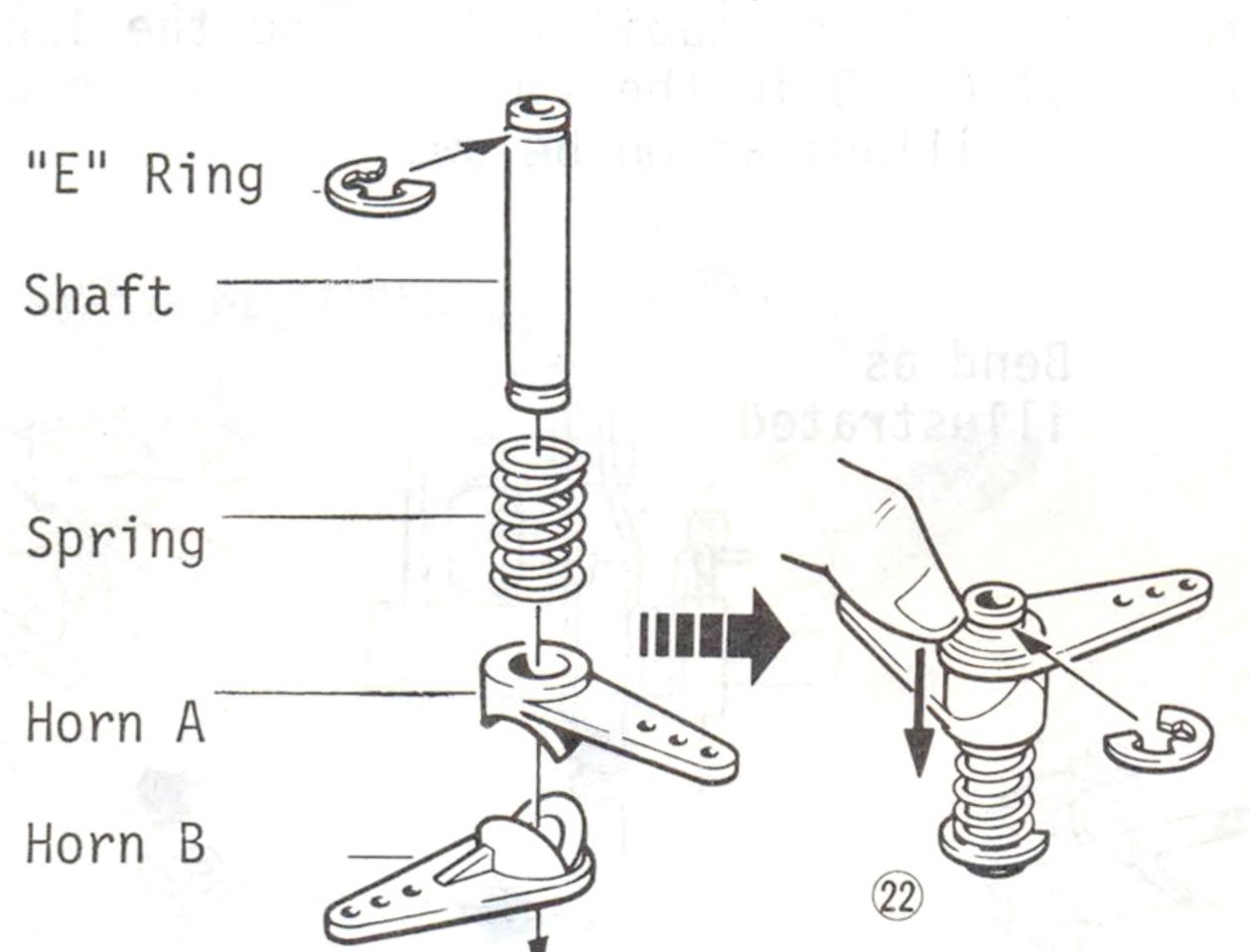


As L1, L2, R1, R2 are stamped on the each front suspension arm 9, using illustration as reference, insert arm axle A 3 and B 6 and then is installed with suspension side Stopper 10 but when doing so, set it so the there will be no excess play to the right and left on the suspension arm and have it so it will move up and down freely.

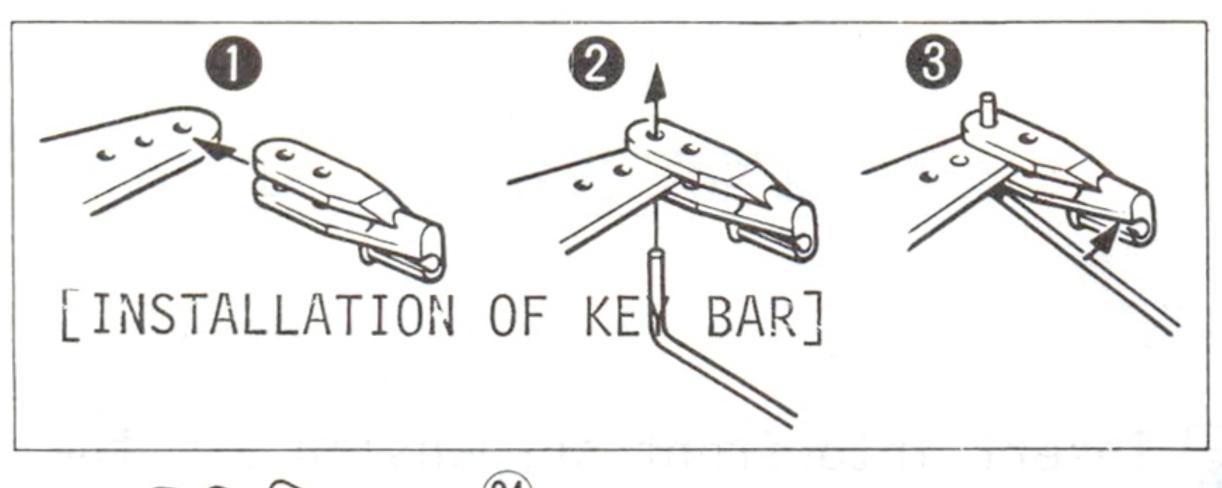
Insert into front suspension arm the already assembled parts (key nos. 11 12 13 14 and then hold place with "E" right 15. Next, set the front spring 7 into place as illustrated.



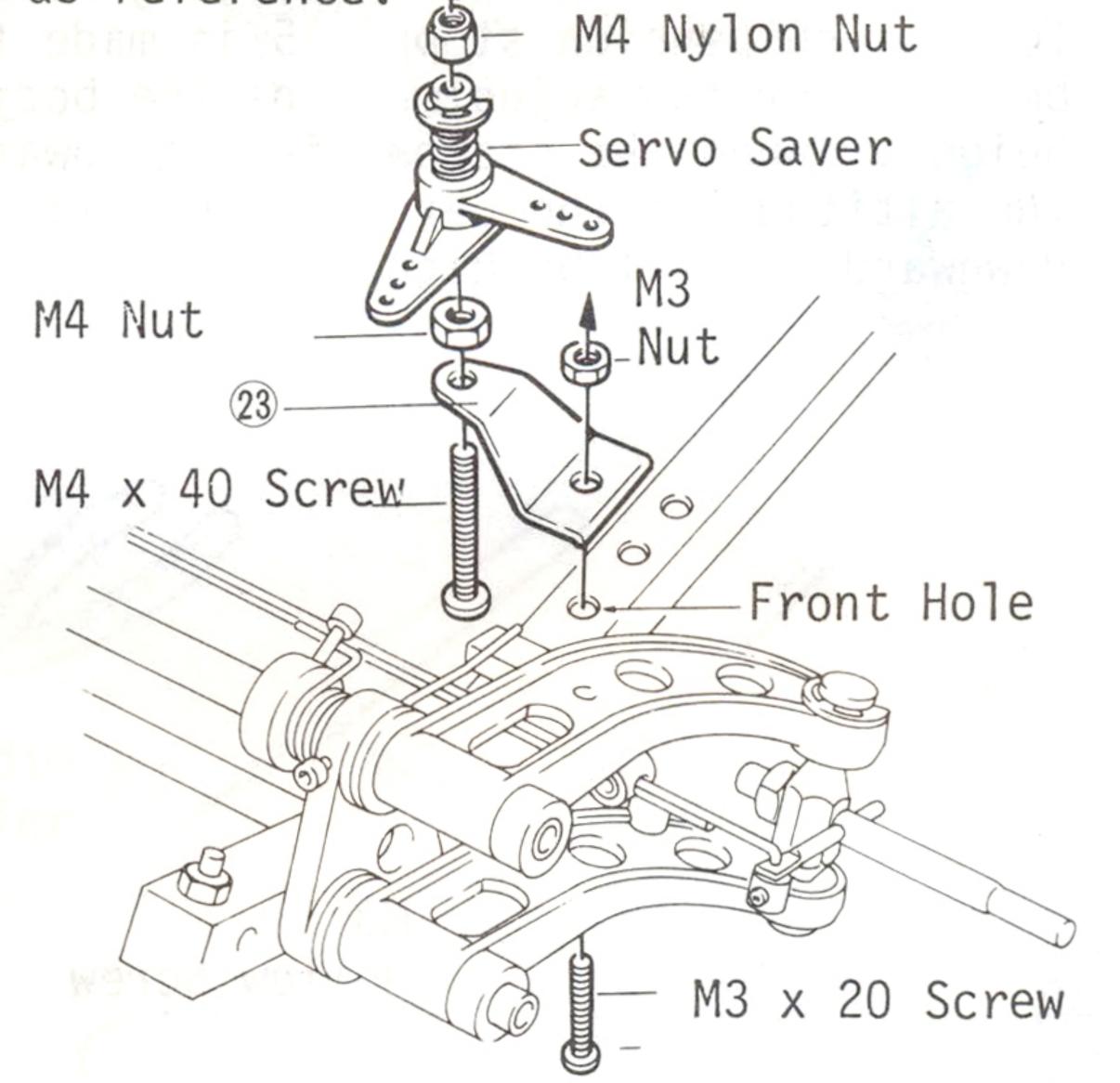
Insert through tap a 17 and top B 18 the tie rod 16, make the total length of the tie rod about 210 mm long, position the tap approximately 30 mm from the end, install the tap with M4 hollow screw and stabilize into place using tie rod stopper 19.



Servo saver 22 is already assembled. Use this illustration when disassembling and re-assembling.

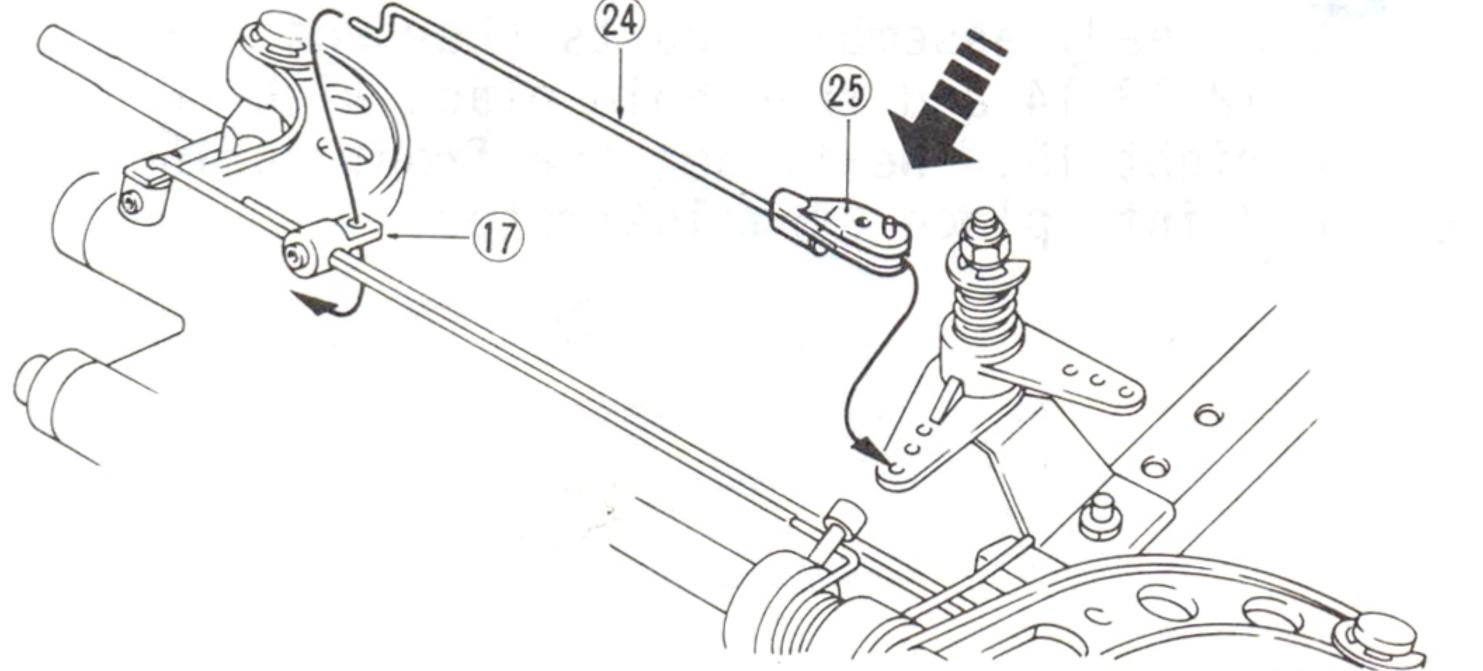


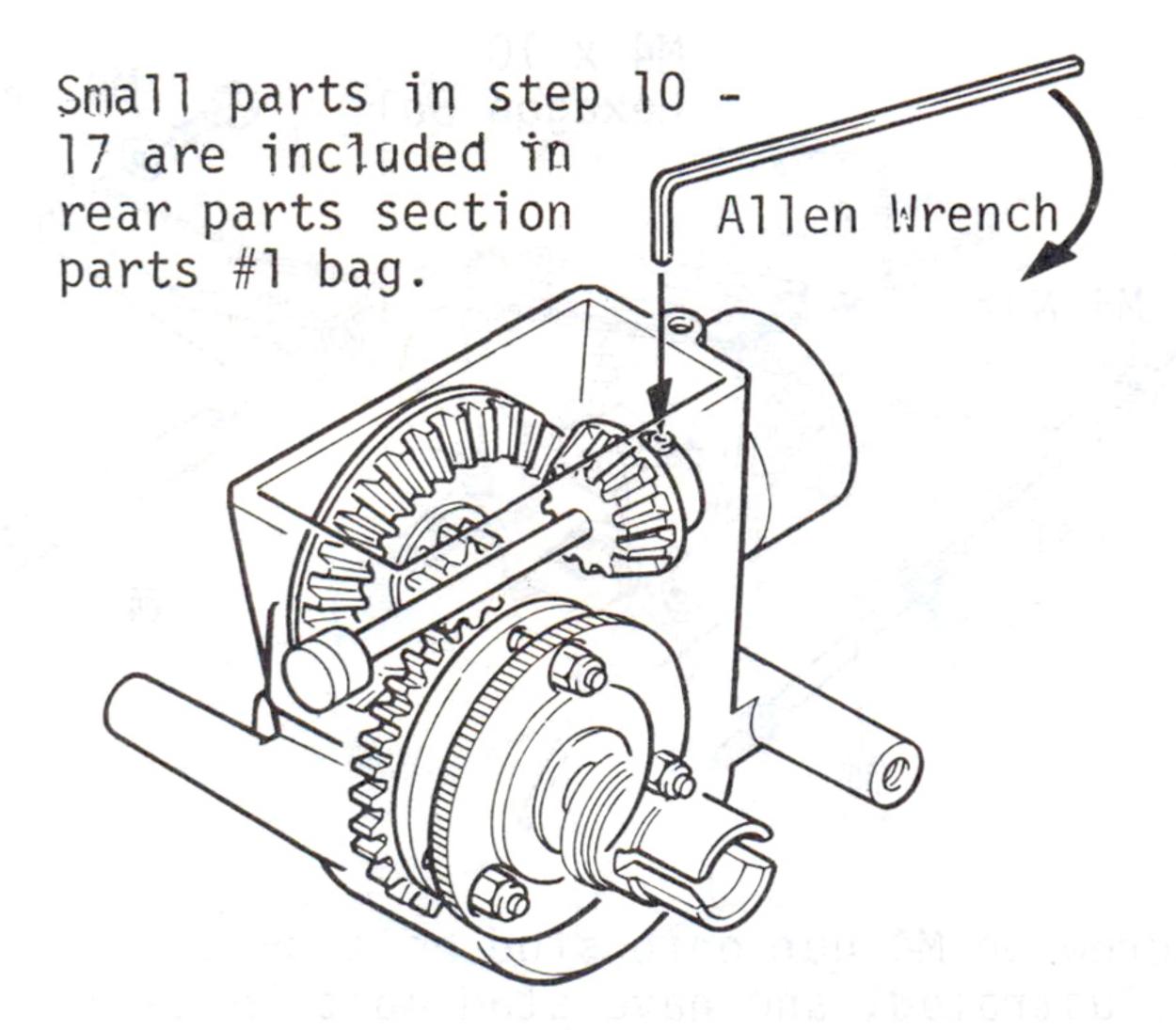
Install front bumper 20 onto frame. For people installing front damper (option), after completing illustration 6, assemble by using illustration[51]on page 16 as reference.

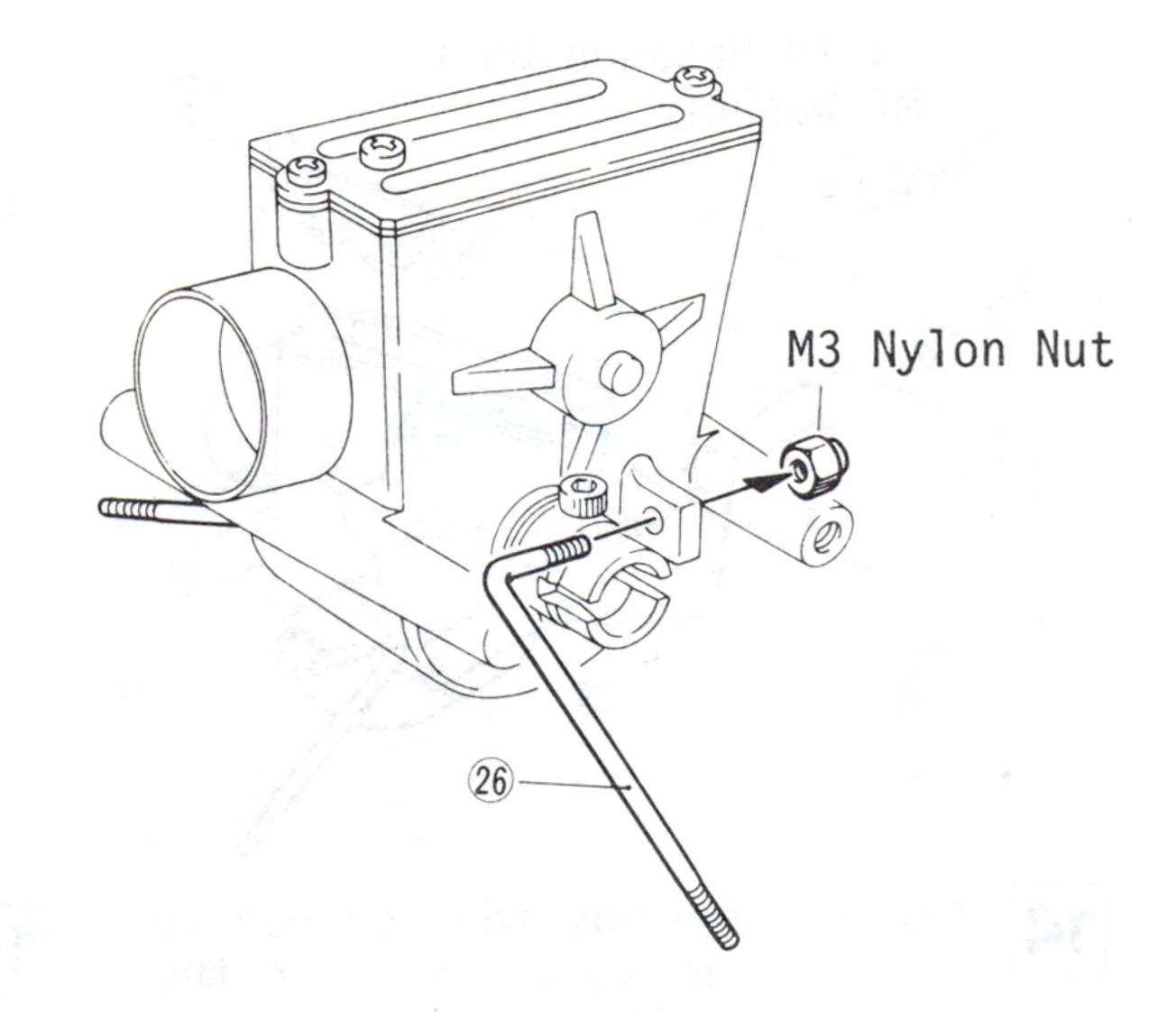


Install servo installation hardware 23 onto main frame, stabilize firmly with M4 nut the M4x40 screw onto hardware 23 insert M4 screw through the servo saver, and is set into place with M4 nylon nut but make sure that the nylon nut is not tightened too much in order to keep a light movement to the left and right.

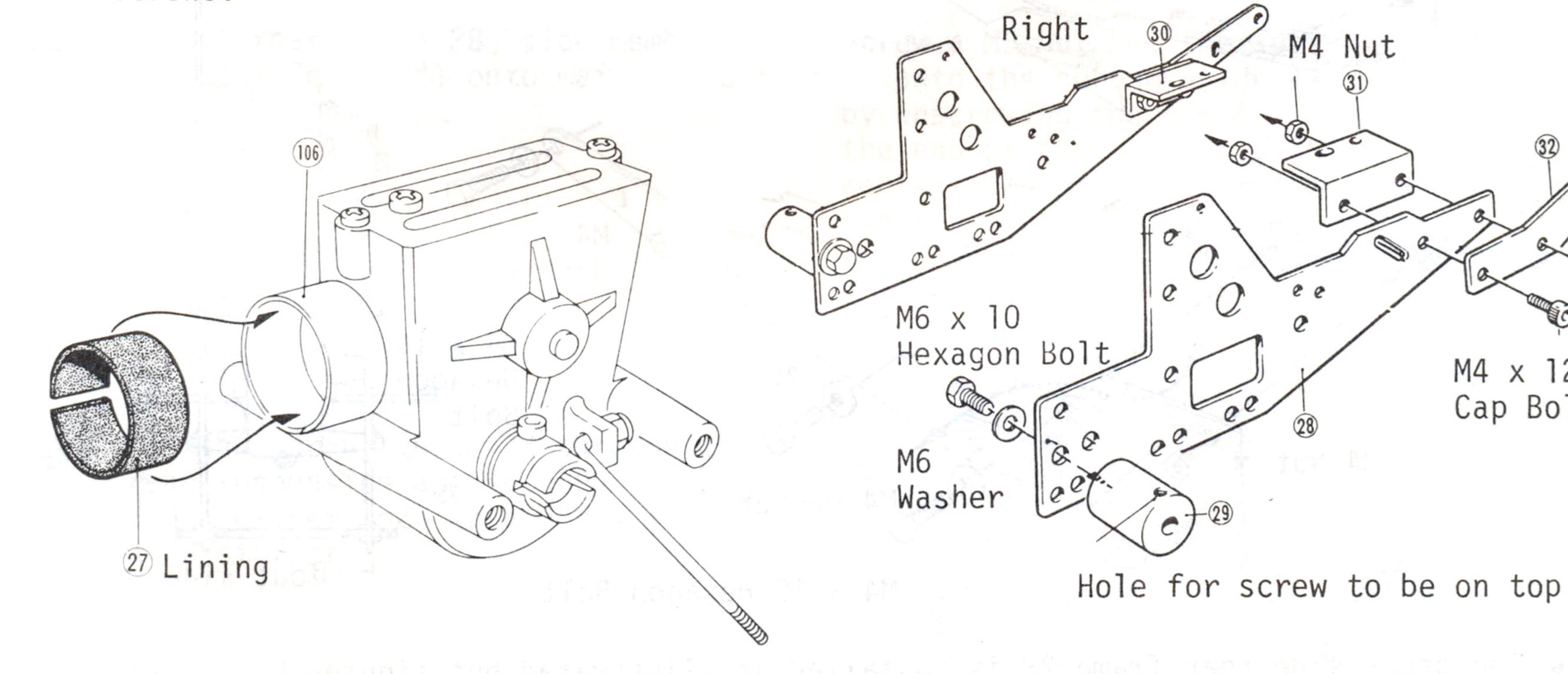
Insert Steering rod 24 through tap 17 and install the other end to the servo saver using keeper 25.







- Gear Box is one of the most important part of this vehicle. Although it is already assembled at the factory, double check the tighteness of all screws.
- Install tension rod onto the gear box so that it will move up and down freely as illustrated.

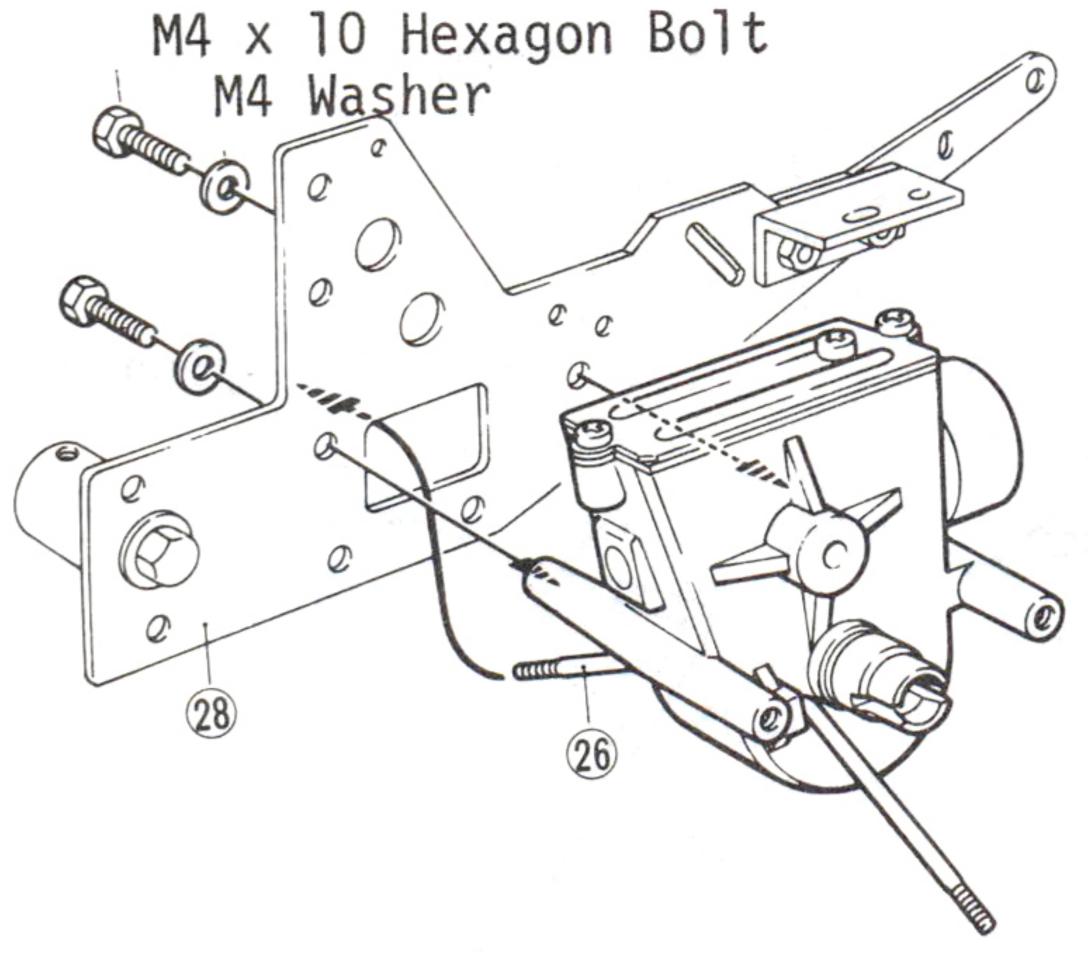


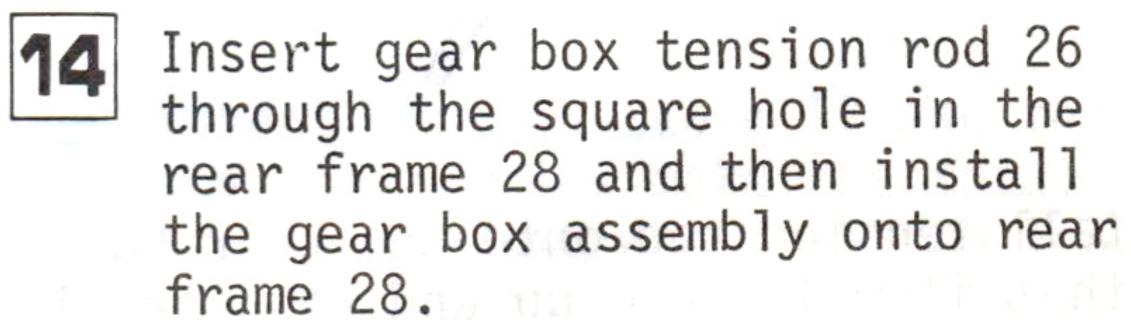
Lining 27 is fitted to the inside of clutch bell 106 but make sure that the lining is not cut too short. Also push into the clutch bell without using any adhesives. After it has been fitted in, apply small amount of cement on the joining portion. This way it will simplify the process when replacing the lining.

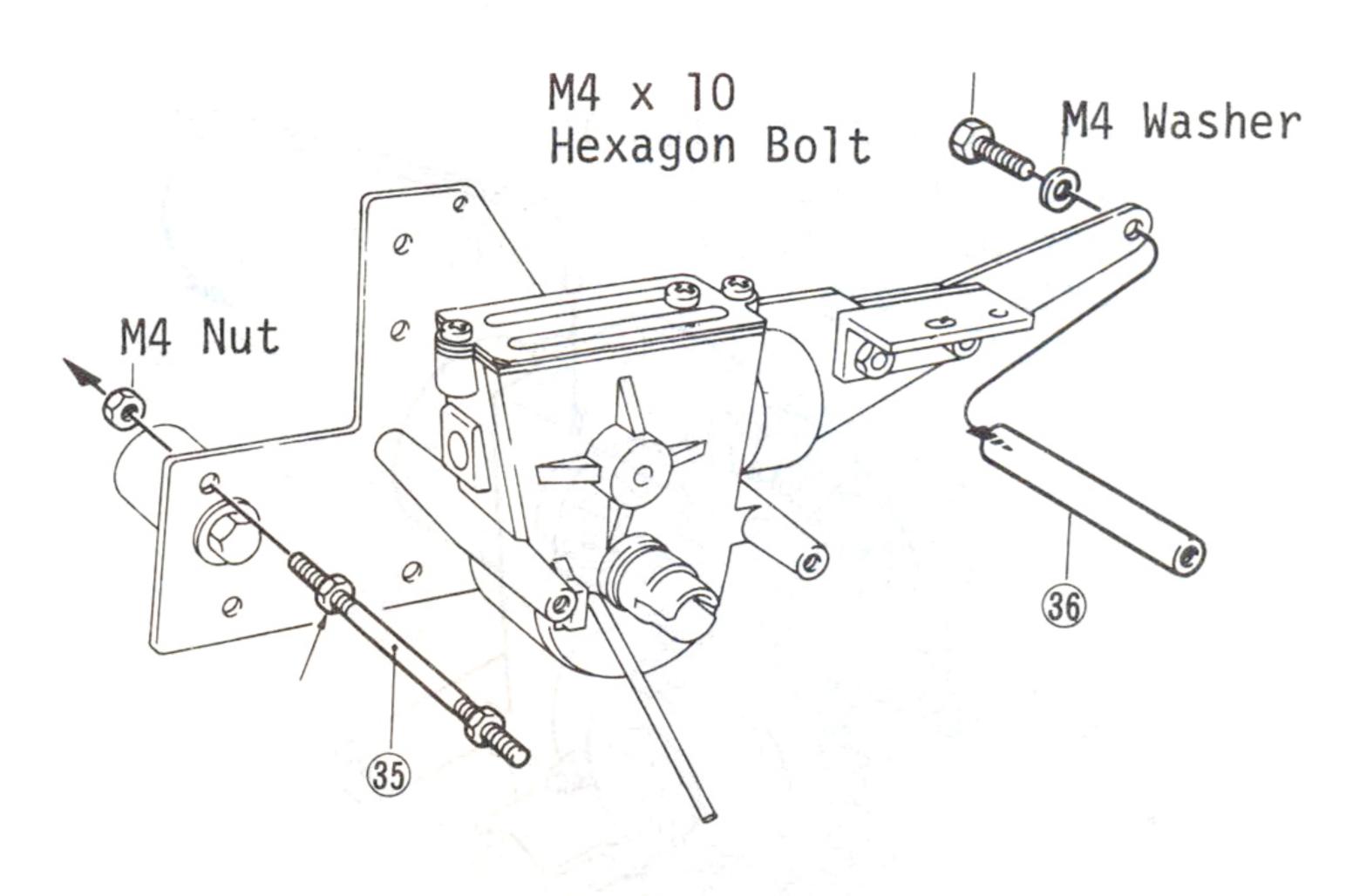
Install rear suspension pivot 29 onto rear frame 28 with M6 bolt. Engine mount 30 31 are installed together with rear bracket 32 but when doing so, be careful not to make the mistake of installing the left and right engine mount on the wrong side.

 $M4 \times 12$

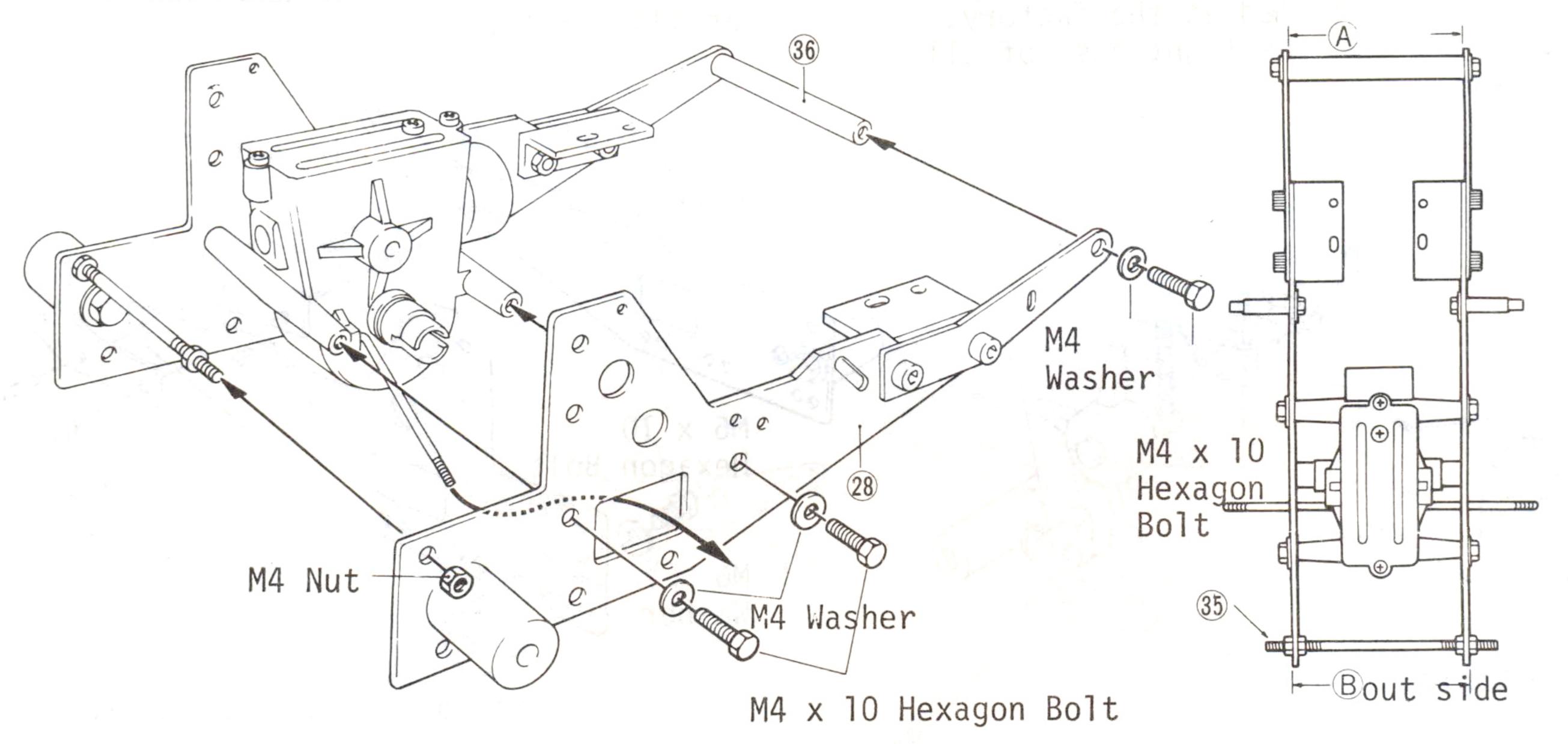
Cap Bolt



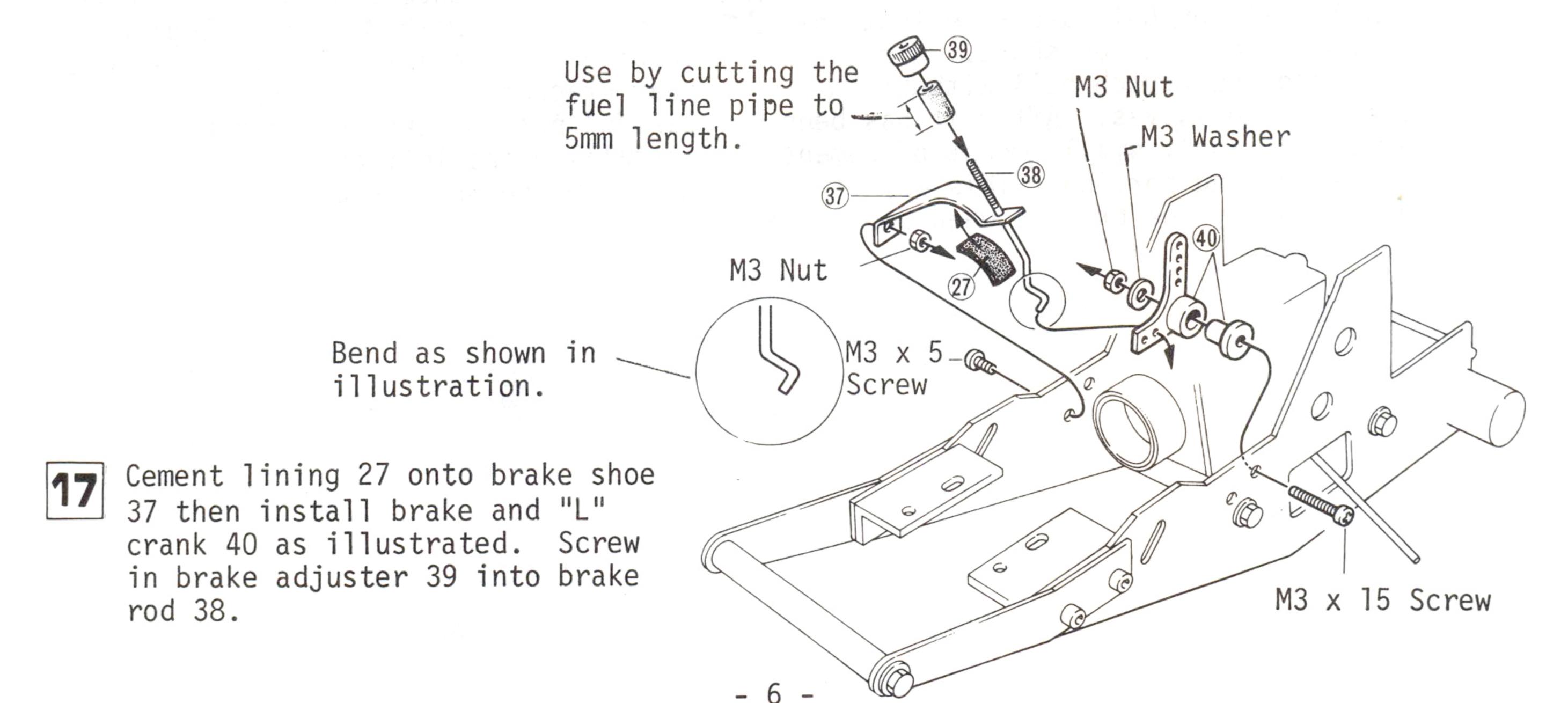


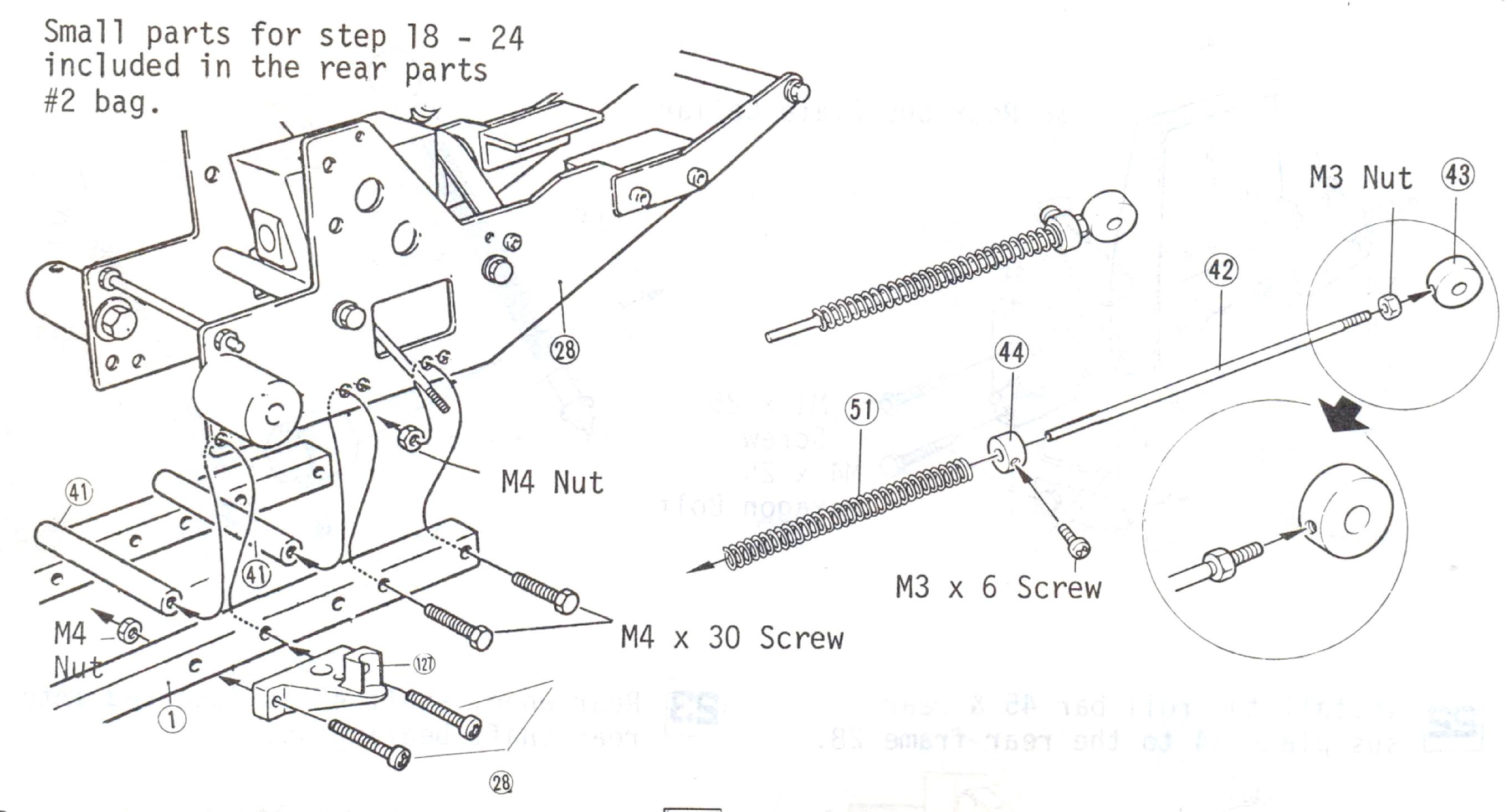


Screw on M4 nut onto stud bolt 35 as illustrated, and have stud bolt 35 temporarily attached to one side of the rear frame with M4 nut. Also, have rear bracket joint 36 installed as well.



16 The other side rear frame 28 is installed as illustrated but tighten by adjusting the M4 nut on the stud bolt 35 so that the A B will be parallel as illustrated.

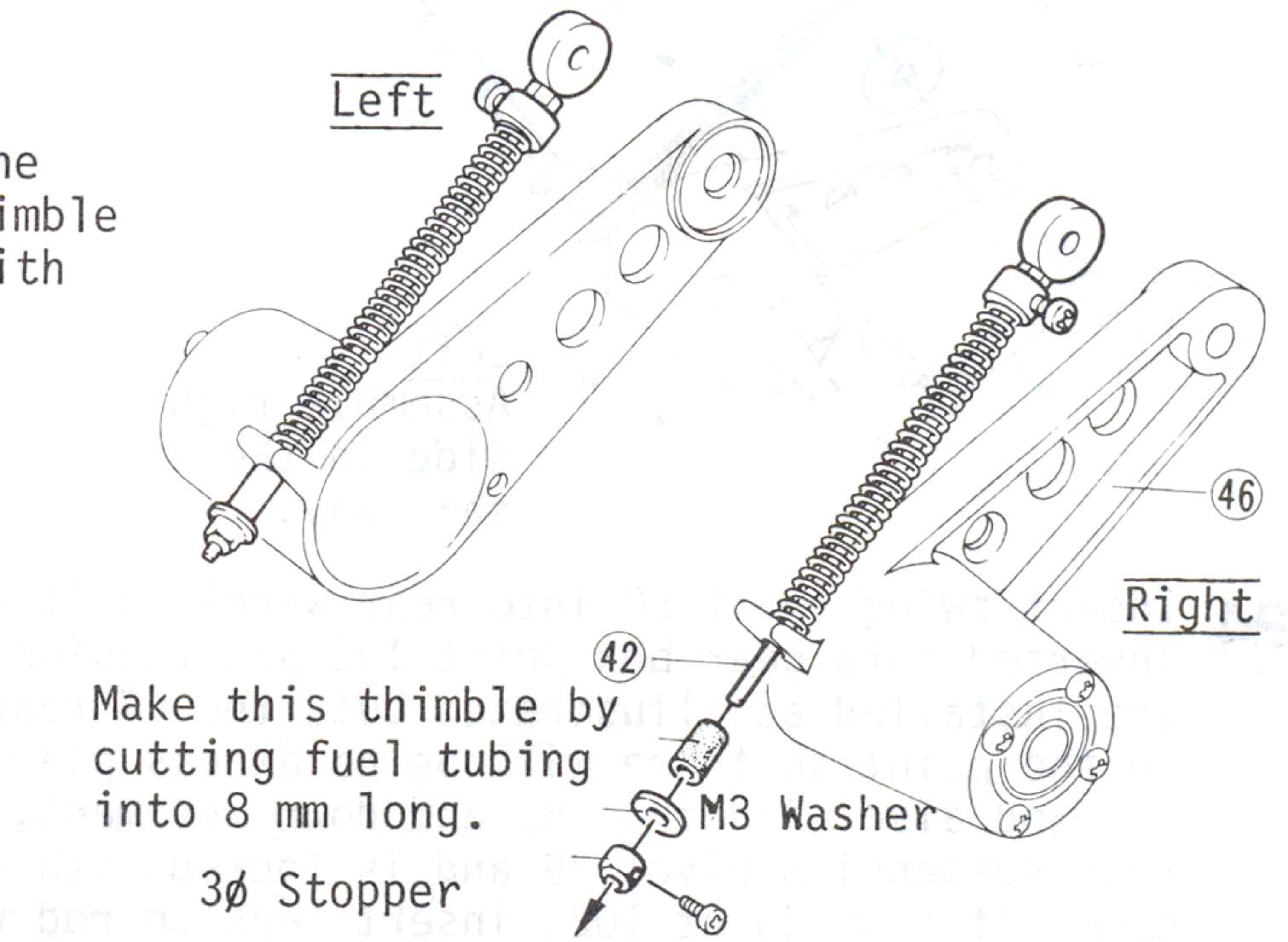




Install rear frame 28, side member 127, joint Collar 41 onto main frame 1 as illustrated.

Screw a M3 nut and the spring guide end 43 in onto the spring guide 42. Lock the 43 by unscrewing the nut in such a way that the end of 42 will not protrude into the center hole of 43. Put the stopper 44 and the rear spring 51 onto 42. 44 should be fixed tentatively for the later adjustment.

Fit the spring guide 42 through the rear suspension arm 46. Put a thimble and a washer onto 42 and fix it with a M3 stopper.



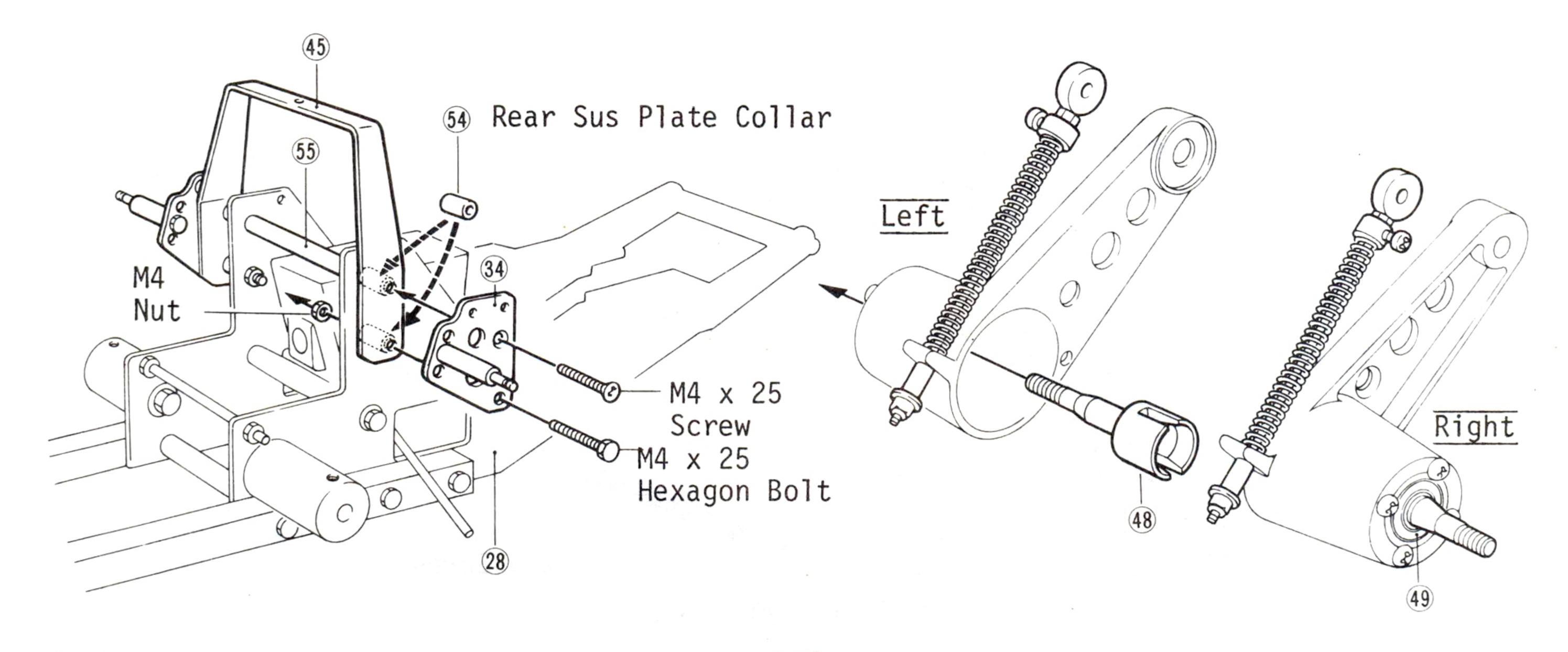
Install the rear suspension holder to the rear suspension plate 34.

When a damper is employed, this screw should be attached beforehand. (The screw and nuts are packed with the Stopper.)

M4 x 10

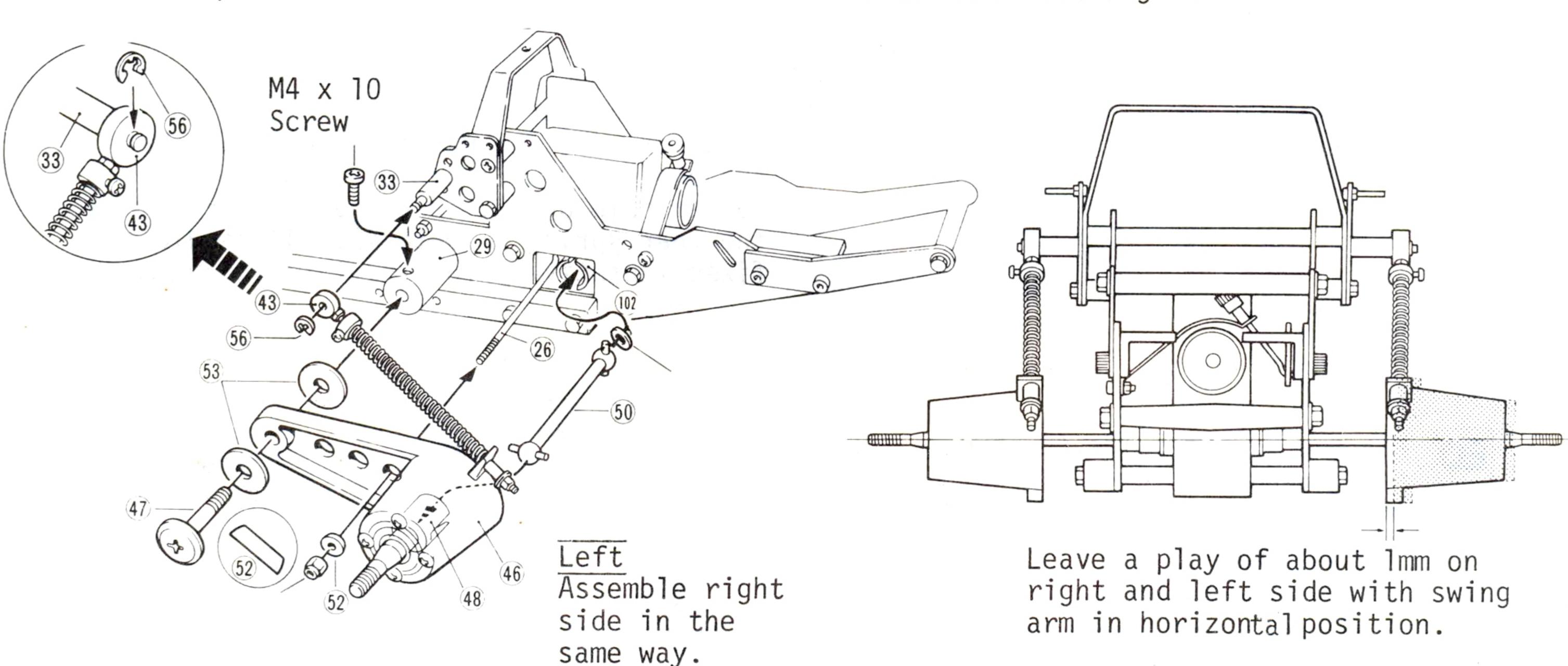
Hexagon Bolt

7



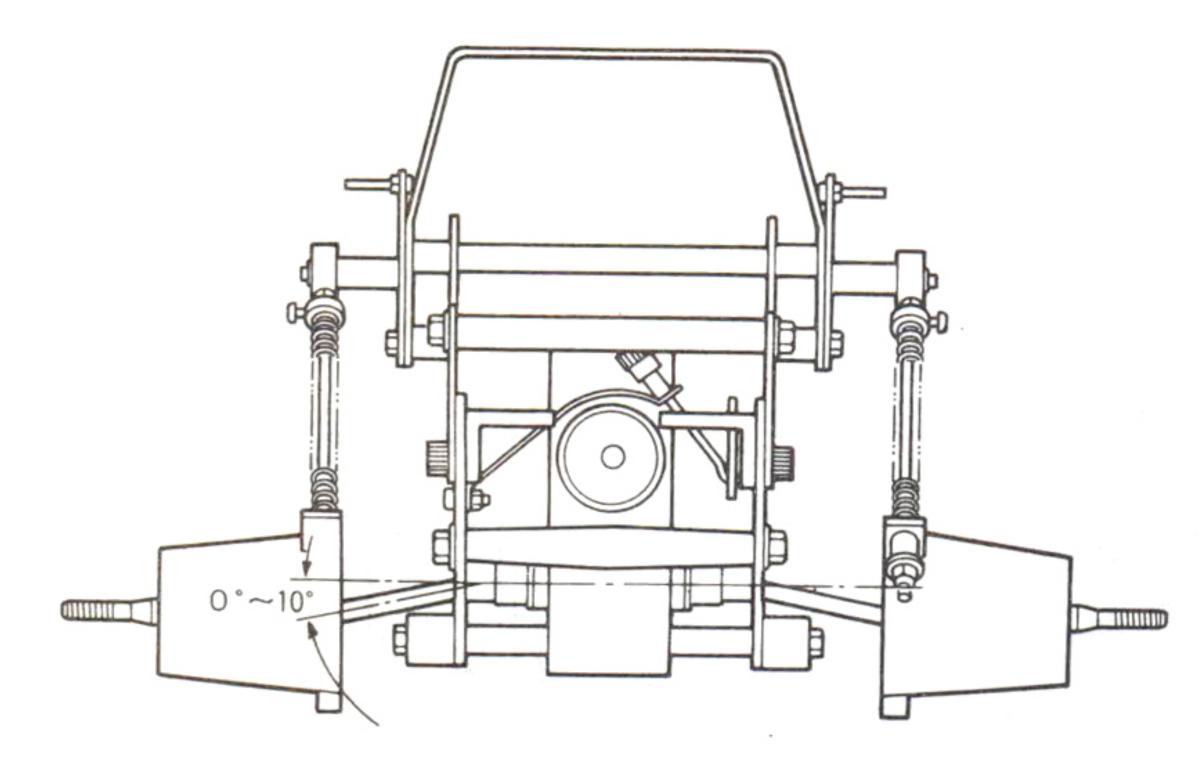
Install the roll bar 45 & rear sus plate 34 to the rear frame 28.

Rear wheel shaft 48 is inserted into rear shaft bearing 49.



Insert swing shaft 50 into rear wheel shaft 48, the other end of swing shaft is inserted into gear box joint 102 and tension rod 26 and rear suspension shaft 47 are installed as illustrated but, the 47 rear suspension shaft should be tightened to the point so there will be no excess play to left and right on the suspension arm and also with free up and down movement, then M4 x 10 screw is screwed into rear suspension pivot 29 and is locked with 47. So that swing shaft 50 will not come off from joint 102, insert tension rod receiver 52 into tension rod 26, and tension rod 26 is pulled tight with nylon nut M3. However, if pulled too tihgt, the movement of the rear suspension arm will become sluggist. In the position as shown in the right illustration condition with about 1mm play on the right and left is the best adjustment.

Upon completing the assembly steps hitherto, put the rear spring over the rear suspension holder 33 and secure it with a E-ring. All assembly work completed to this point if the gears rotate smoothly when turned with your finger, it is in good shape. If it does not rotate well, loosen M3 nut holding the tension rod receiver 52 and adjust.

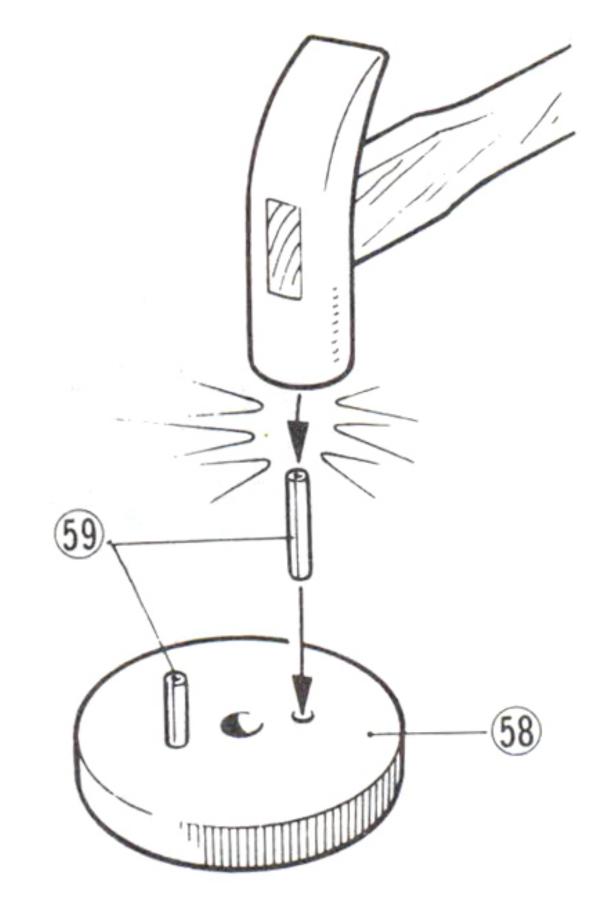


Arrange the swing shafts horizontal or slightly downward.

Do not arrange the body height too hight. Set it in such a degree that the swing shaft will be situated horizontal or downward to 10° when looking at the chassis from behind.

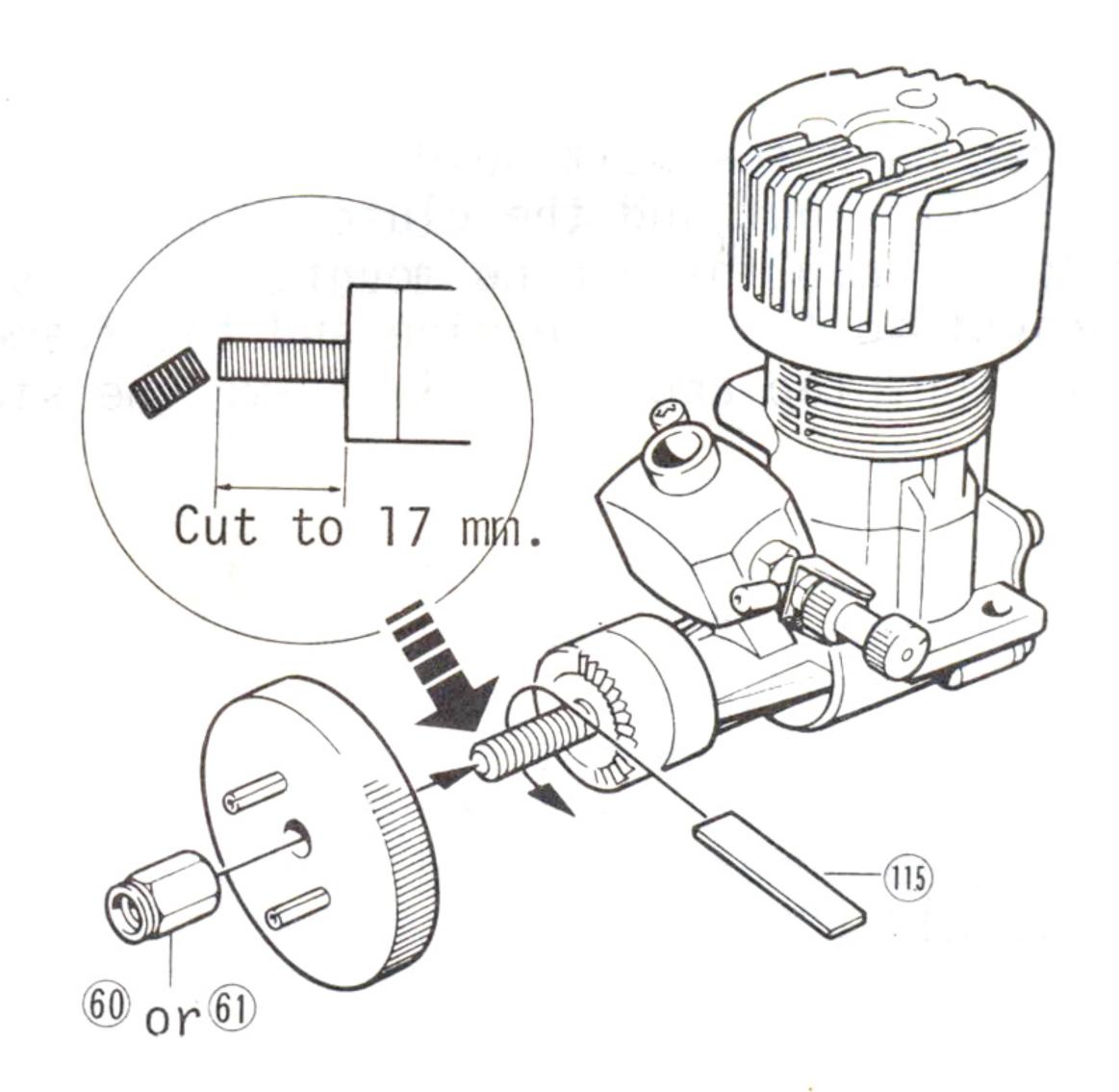
First, cut off with back saw or grinder leaving 17 mm measureing from the tip of the shaft to the engine drive shaft. After this has been done, install flywheel 58 firmly illustrated.

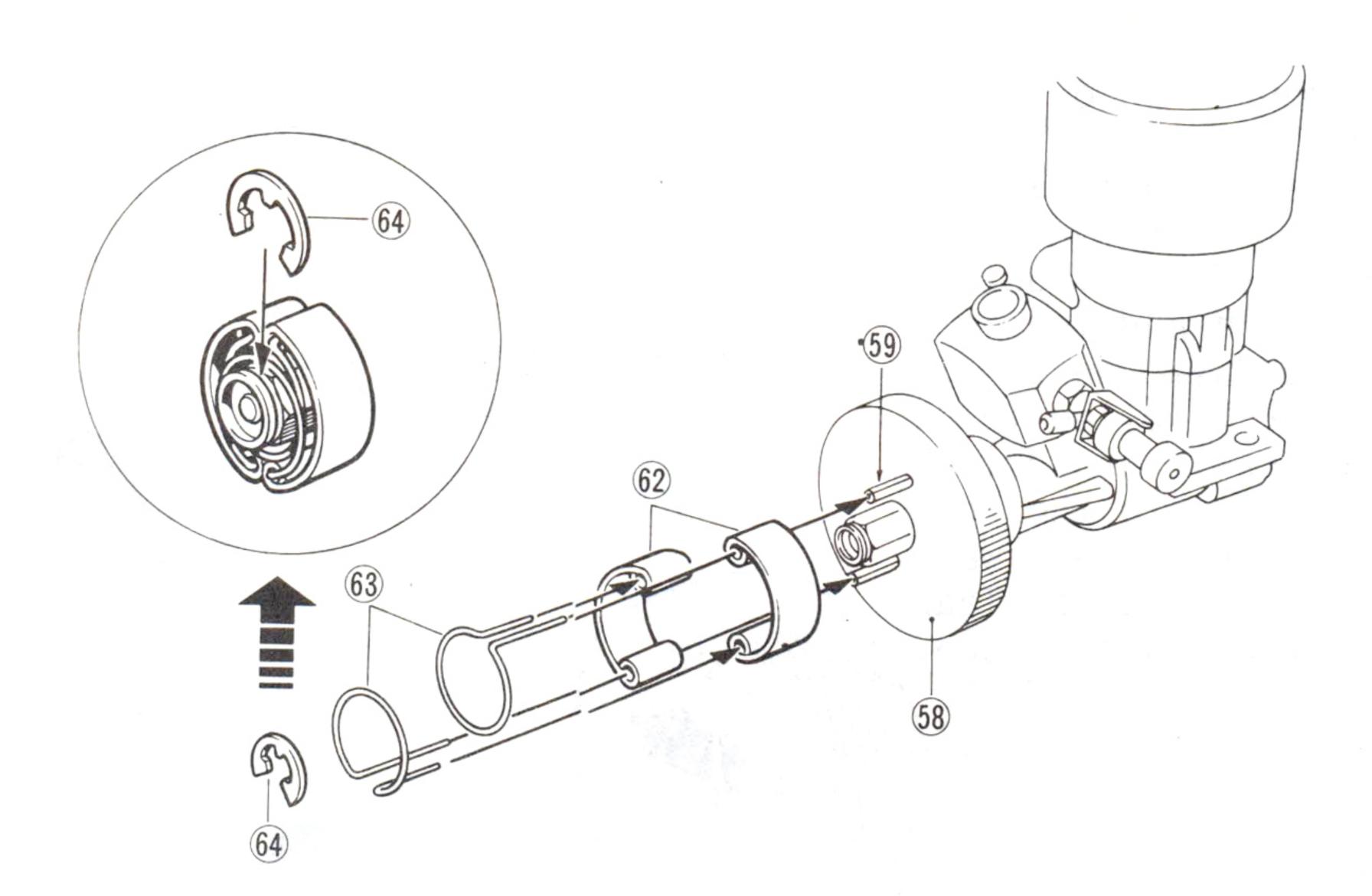
When using Enya 21 X engine engine wrap shim 115 around shaft insert flywheel.



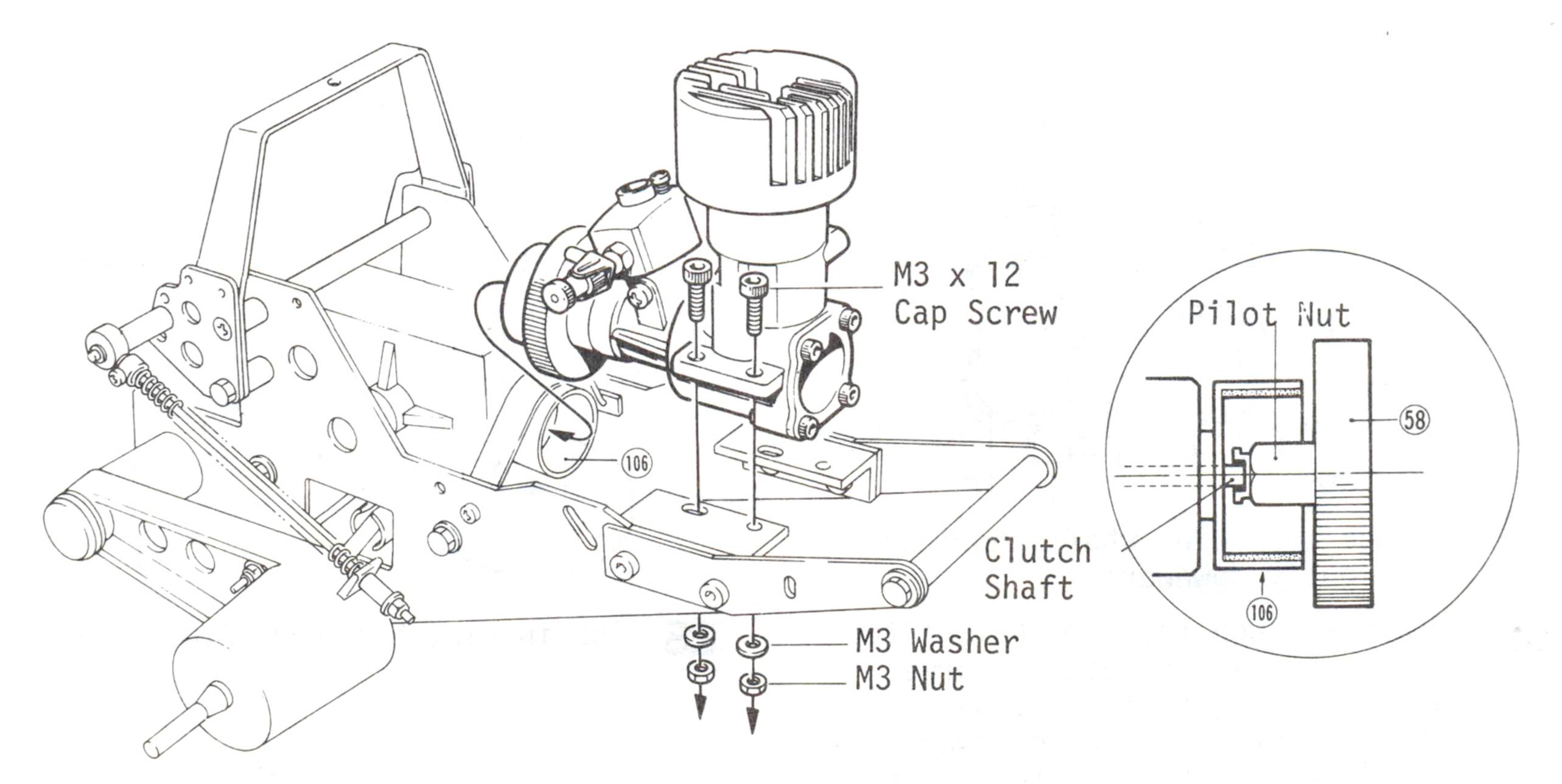
Small parts for steps 26 - 28 are included in engine parts bag.

26 Top in clutch pin 59 into flywheel 58.





Insert clutch shoe 62 into clutch pin 59, as illustrated, insert the longer side of the clutch spring 63 into clutch pin 59 hole and the shorter side into clutch shoe 62 hole. And finally fit into the groove of the pilot nut the pilot "E" ring 64 and make it so that the spring will not come off.

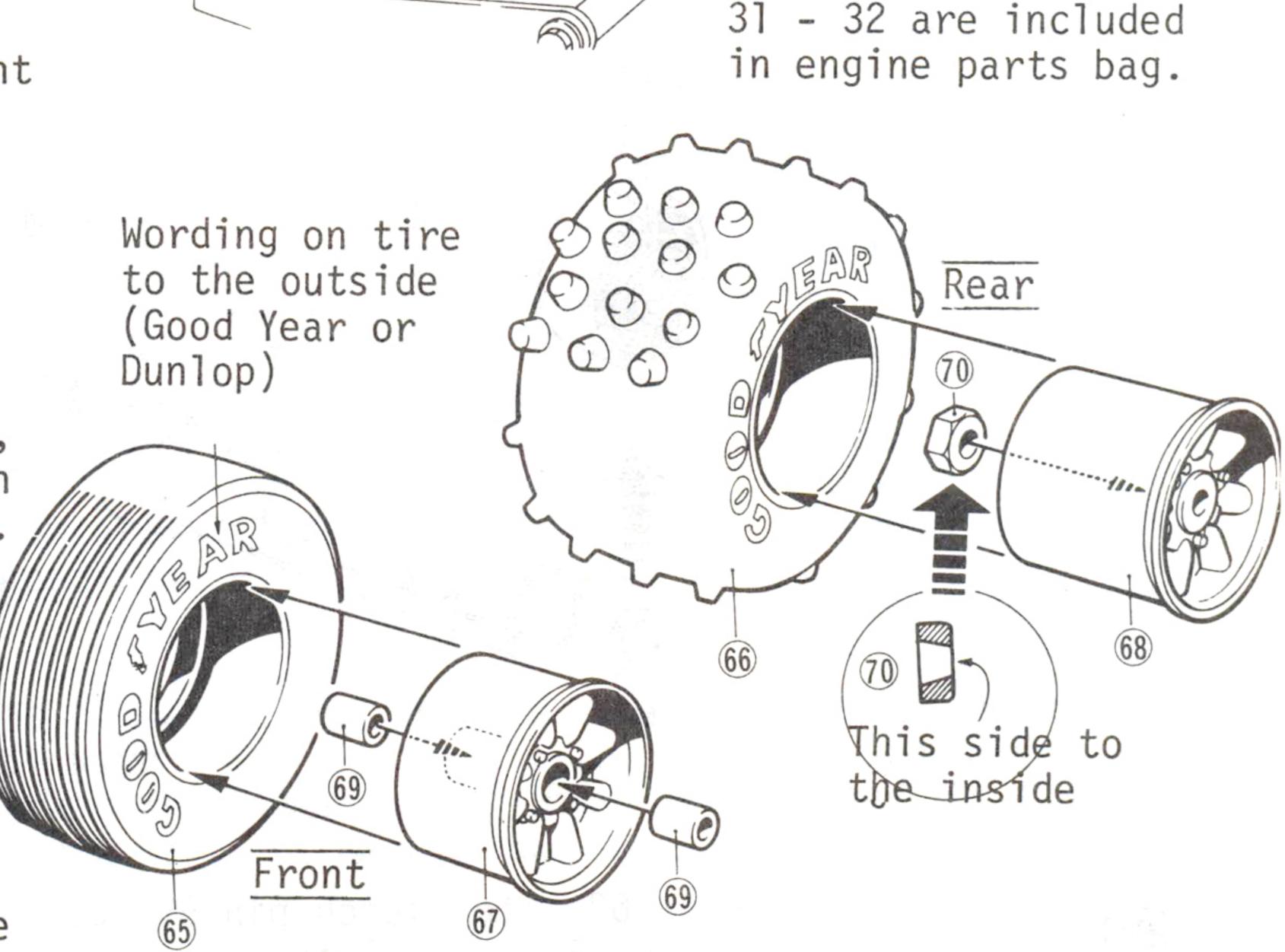


First have the bolt holding the engine mount loosened, align the center hole of the pilot nut and the clutch shaft of the clutch bell 106 and then install the engine onto the engine mount. At this time, as each bolts are being tightened adjust so that the engine and the frame will become parallel looking at it from straight top and directly frame the side.

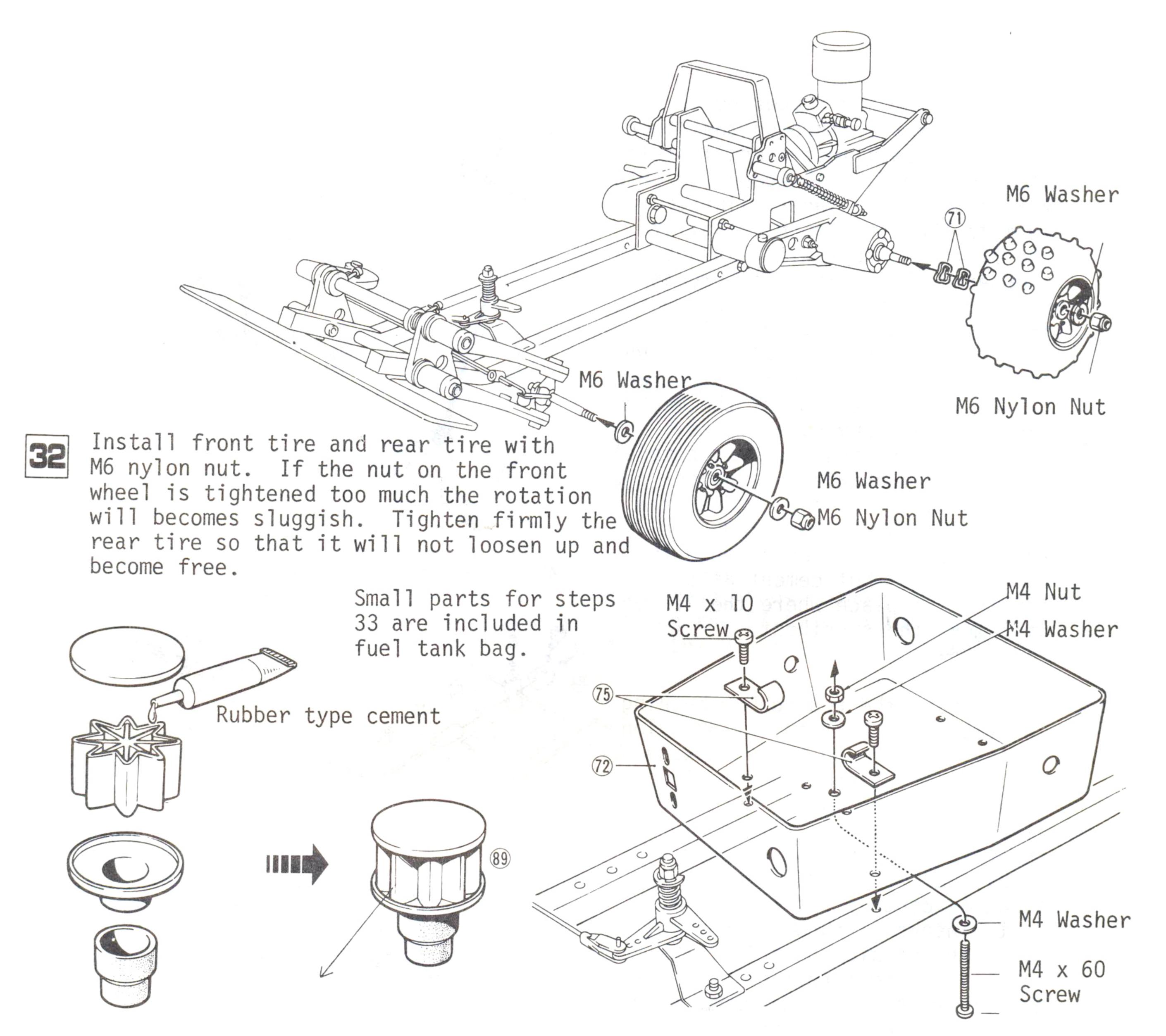
Muffler is installed but, please note that there is a special muffler for circuit being sold as an optional parts. It is made interchangeable for OS-21 and Enya 21X (CB-110).

Wheels are cemented onto front and rear tires but to do this, the best way is to apply a light coat of rubber type cement to the cementing surface of both the wheel and tire and let it dry for about a day. Next, apply thinner or gasoline to the surface where it has dried than insert wheel into the tire and let it dry. This way, you will be able to get a clean and perfect cementing job done. Also, it would be better if the cementing surface of the wheel is roughened with sand paper for stronger adhesiveness. Insert drive washer 70 into the rear wheel and front wheel bearing into the front wheel.

Small parts in step 31 - 32 are included in Wheel parts bag.

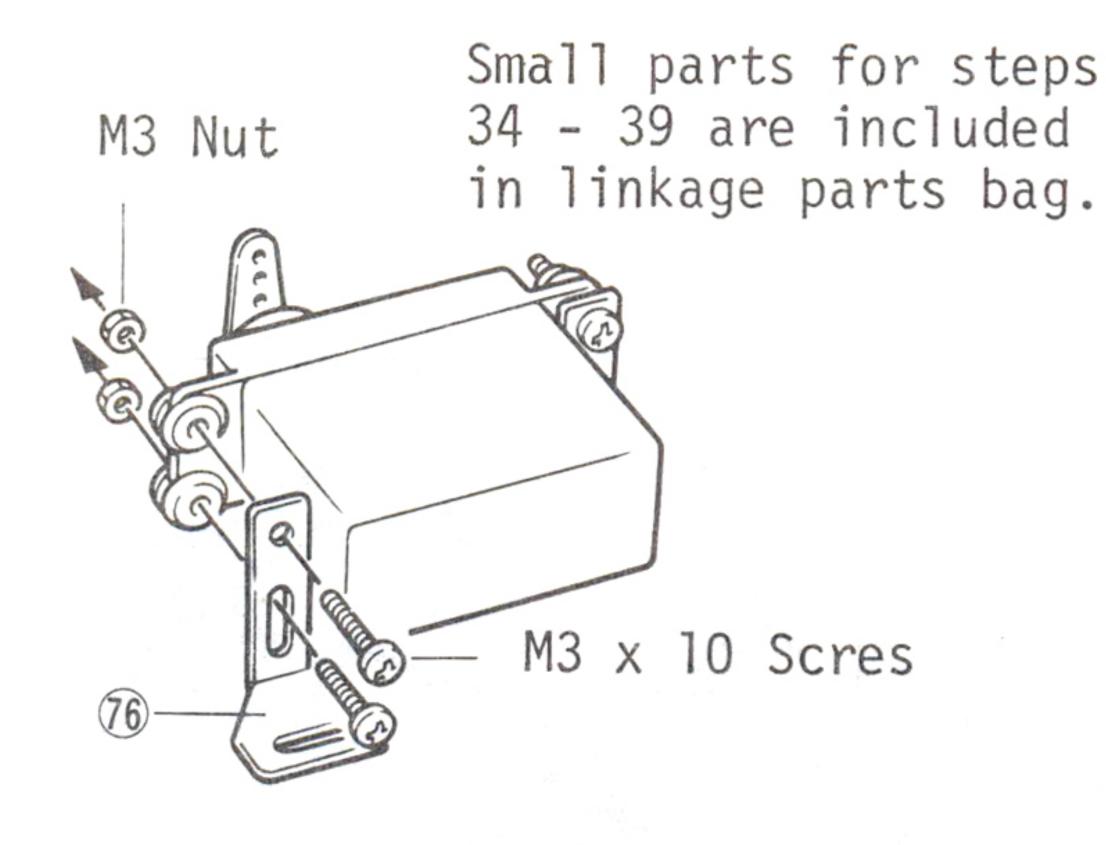


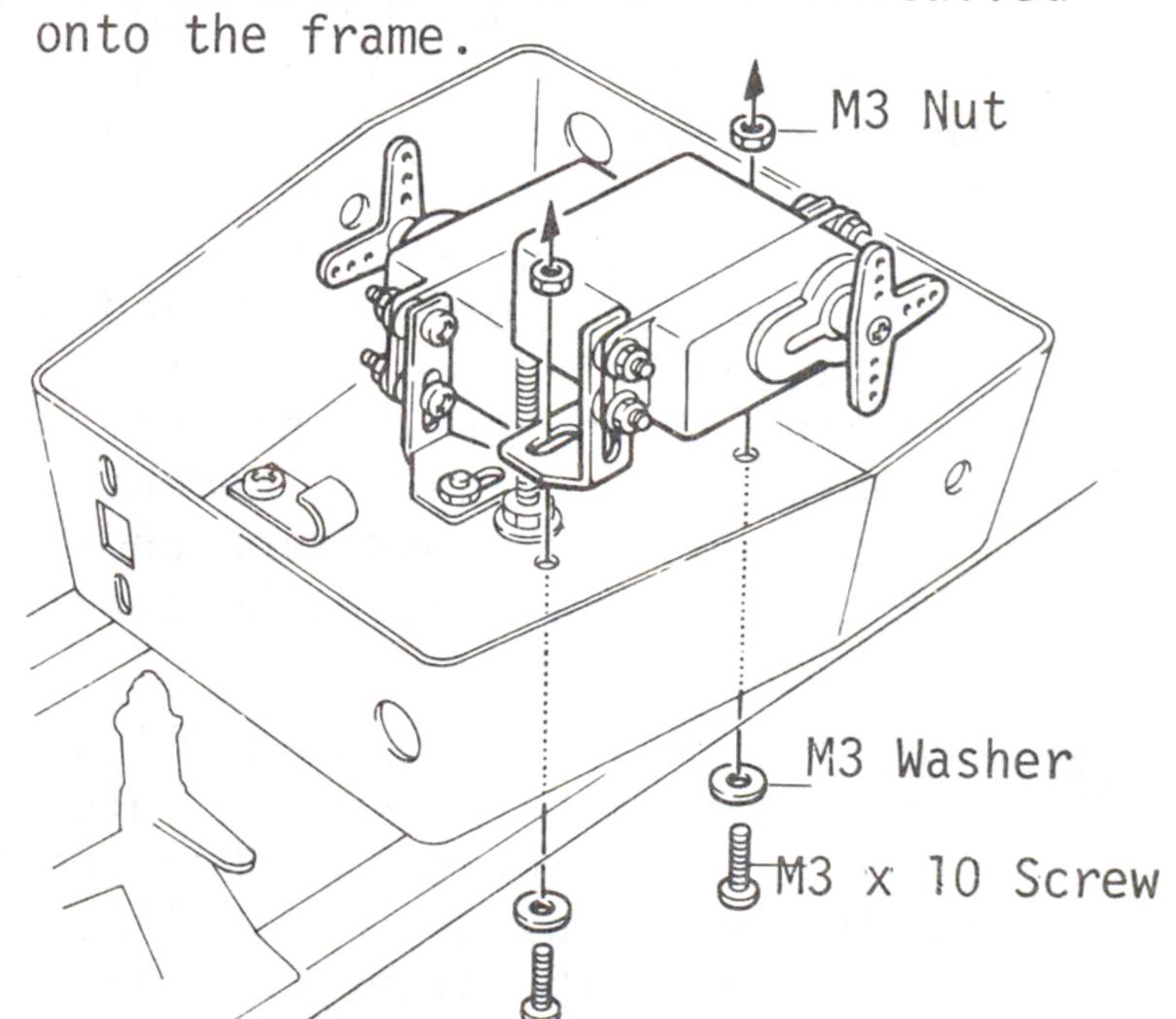
Small parts for steps



Air filter 89 is assembled by cementing together with a cement as illustrated.

Battery holder hardware 75 together with mechanism box 72 are installed





Servo bracket 76 is installed ont the steering as well as to the throttle control servos.

Servo is installed into the mechanism box but if the holes on the servo being used should not align, make a new hole with an awl.

37

First, cement rod rubber boots 74, have it inserted through the steering rod 77 as illustrated, install steering rod 77 with keeper 25 onto the servo saver, insert linkage rod 78 into the servo horn, stabilize the 77 and 78 rods with linkage stopper. When doing this process have the front tire and servo horn in the neutral position. Also, when removing and installing servo horn, there is a hole to fit screw driver in on the side of the mechanism box for convenience sake. After this process has been completed, insert mechanism box rubber cap 111 and colse the lid. After the linkage has been completed, rod rubber boots is cemented onto the mechanism box but cement after finding the place where the 77 rod will move the smoothest.

38

First, have the rod rubber bushing 74 cemented. Next insert 82 nylon collar into the 80 brake linkage rod on the "L" shaped bent side, then insert through 40 "L" crank as illustrated, and by fitting in 83 throttle control rod stopper a stabilize the rod 80 with the 84 throttle control rod stopper B. Next, insert 81 throttle control rod with the side bent in crank shape into the throttle lever and the other end into the upper side hole of 83 throttle control rod stopper "A" and stabilize the 81 throttle control rod with M3 x 5 screw. Next, have the 74 rod rubber boots inserted from the inner side of the mechanism box through 80 brake linkage rod, insert 78 linkage rod into the servo horn and join the 78 and 80 rods with 79 linkage stopper matching to the travel of the servo stroke. Finally, cement 74 rod boots in a position where all the rods will move the smoothest.

M3 x 5 Screw

Cement to inner side of mechanism box.

M4 x 5 Screw

Cement to inner side of mechanism box.

M4 x 5 Screw

Cement to inner side of mechanism box.

 $M4 \times 5$

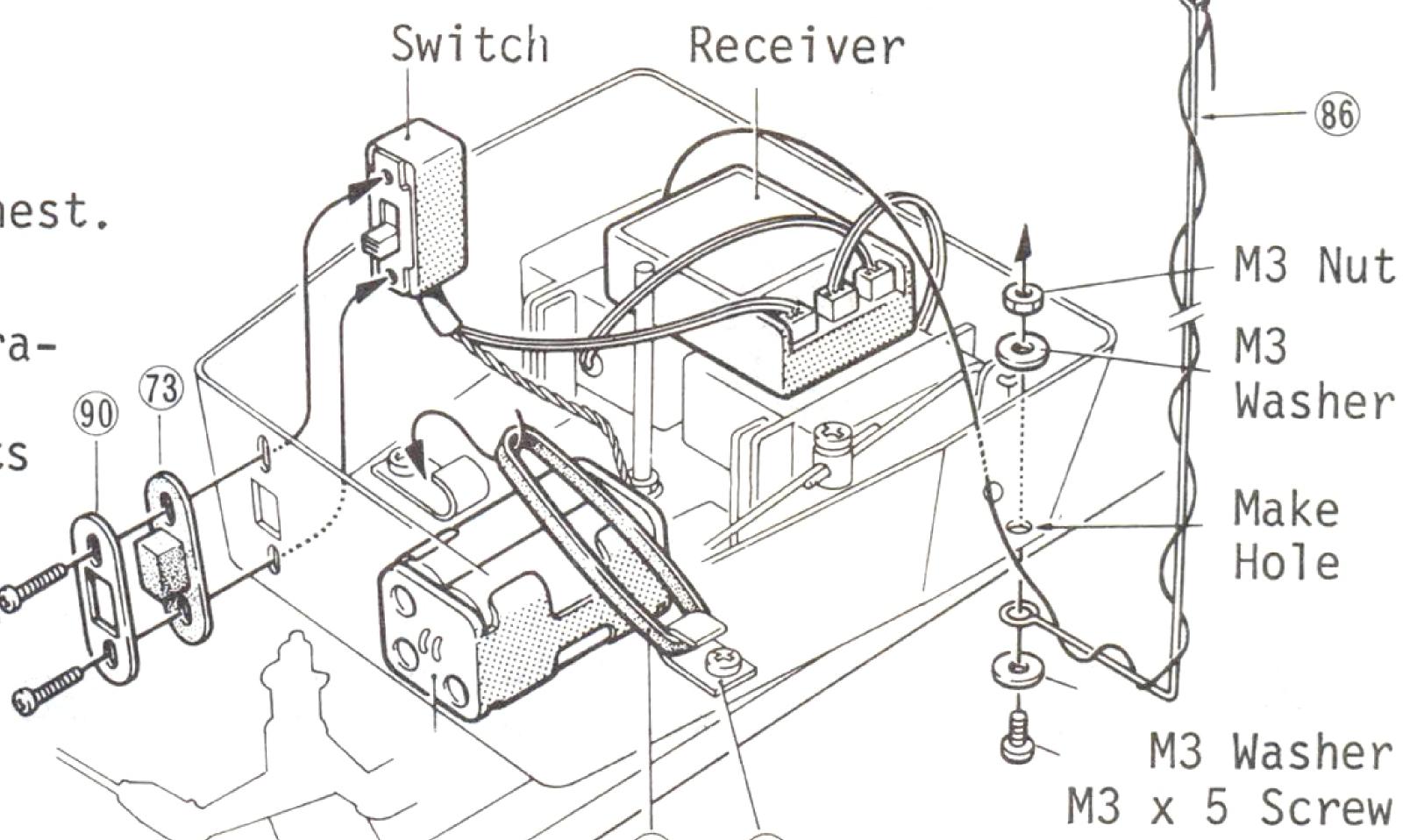
Screw

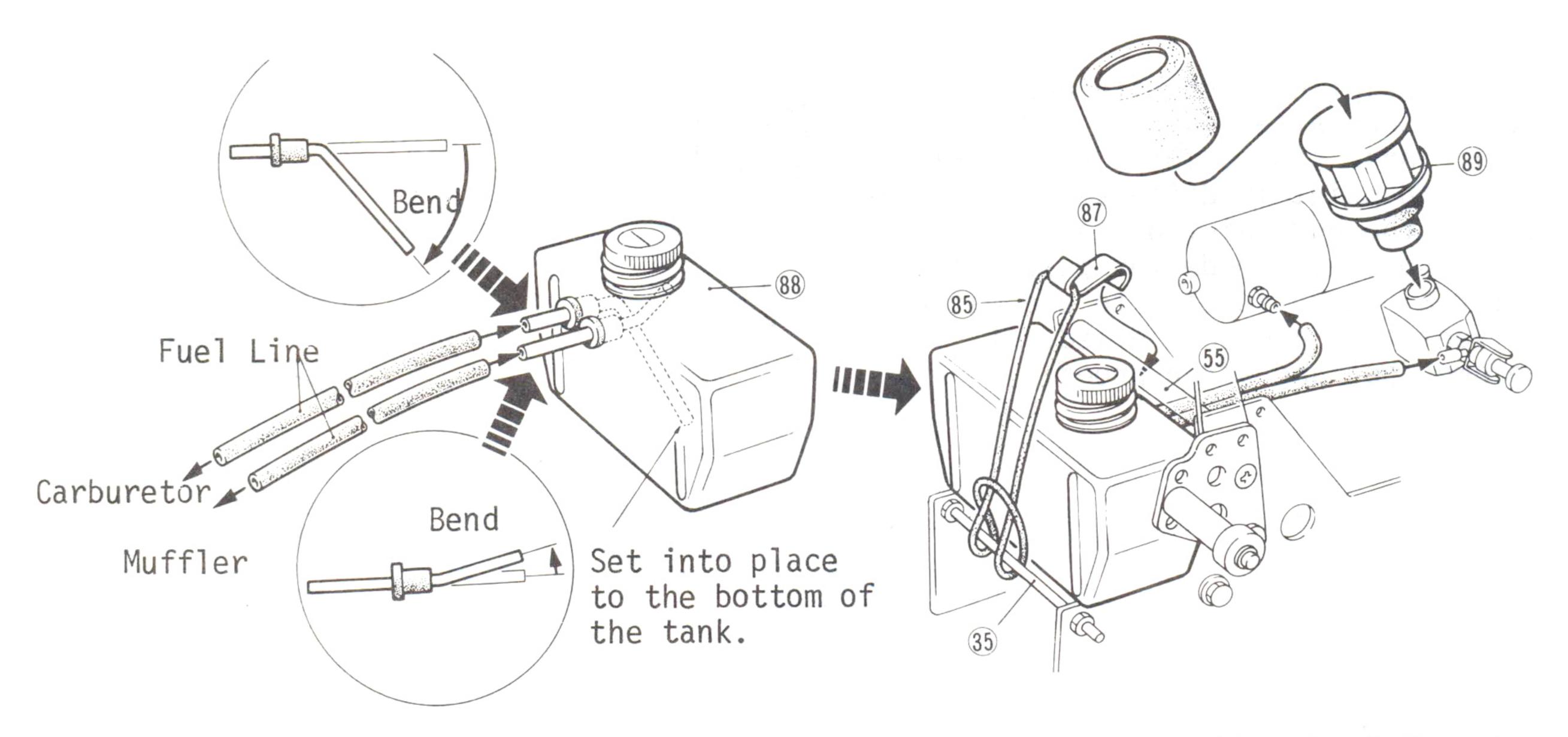
Screw

Cement

39

When installing switch as illustrated. Stabilize the switch into place using 73 switch rubber boots and 90 switch plate. Stabilize battery onto 75 battery holder hardware with 85 rubber band. The receiver is placed on top of the servo. Install 86 antenna guide onto the mechanism box as illustrated.



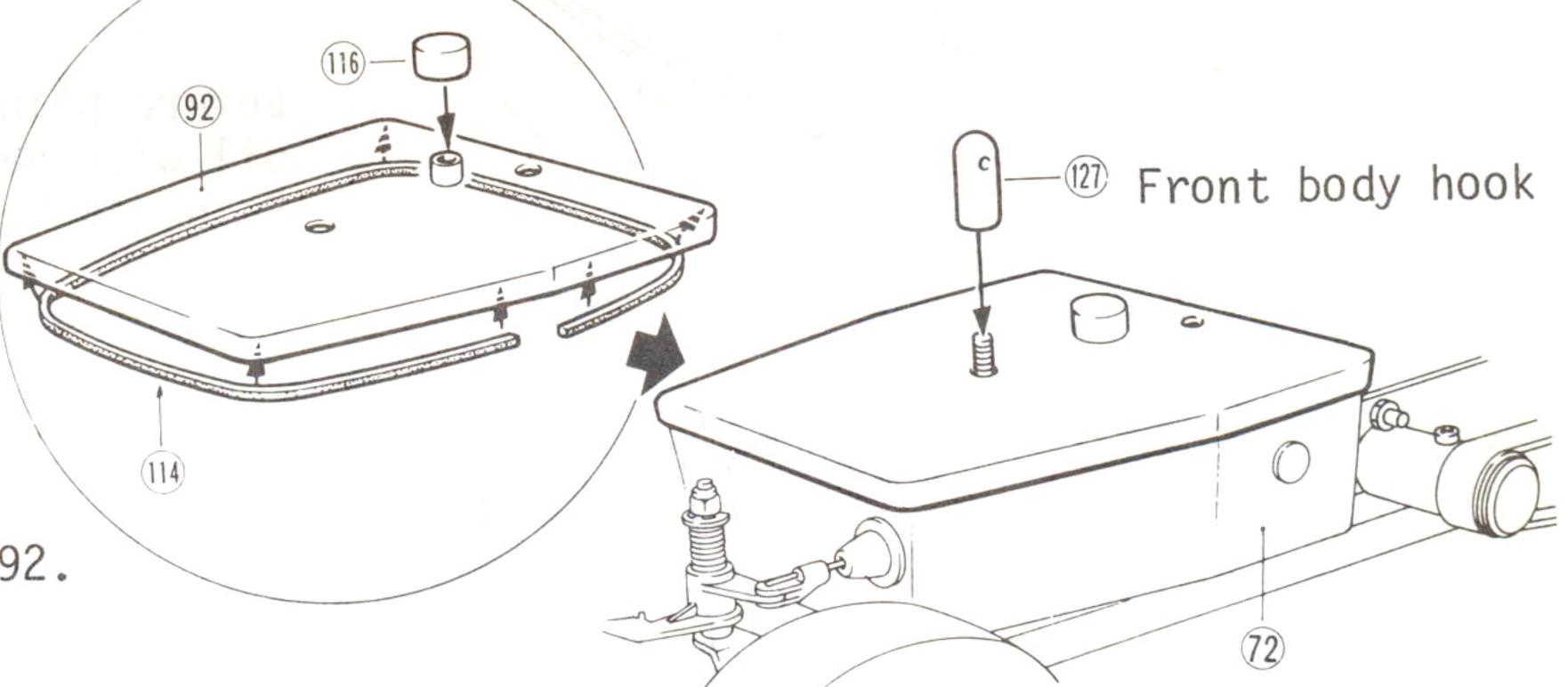


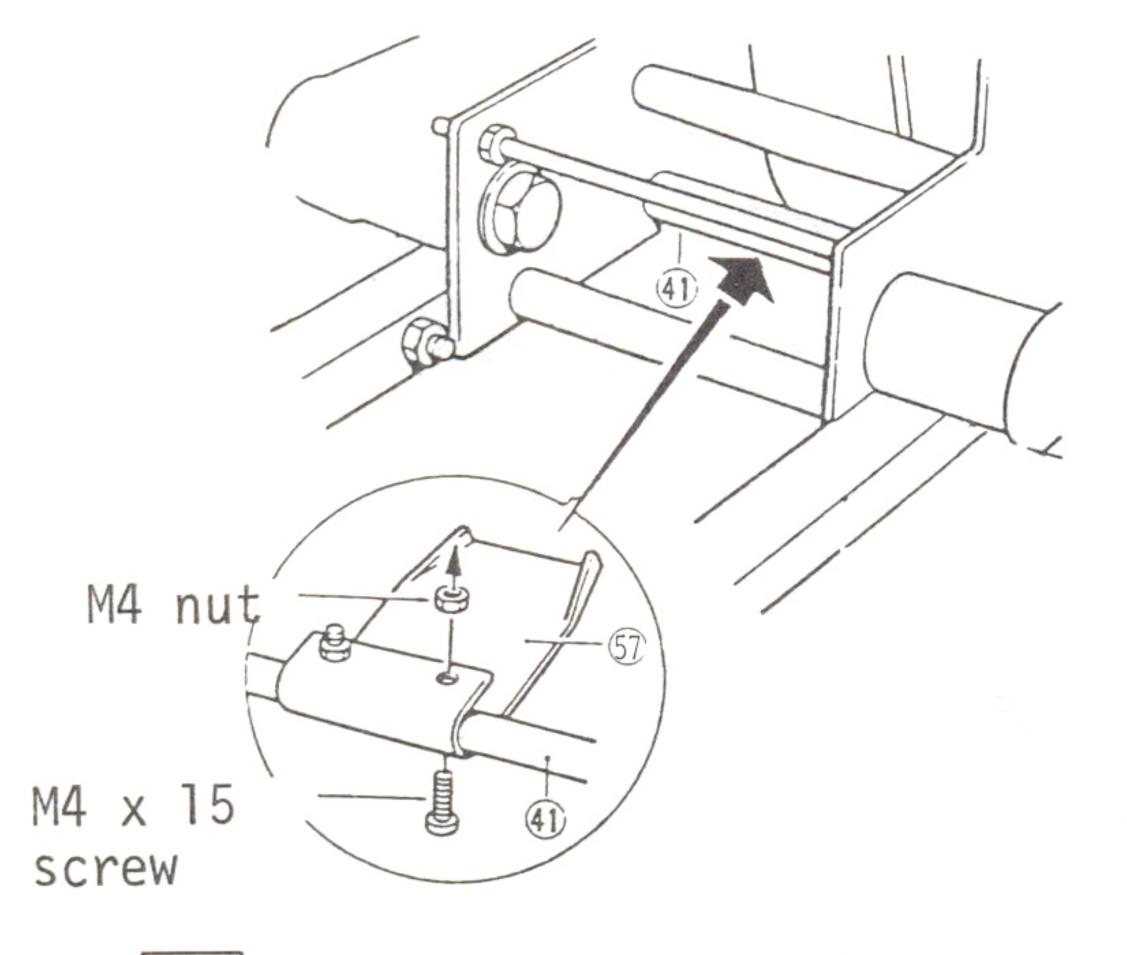
Assemble fuel tank as illustrated. For installation, hook rubber band 85 onto stud bolt 35 and stabilize into place by hooking the 87 tank installation hardware onto the upper stud bolt 35. Install the 89 air filter assembled in step 32 onto the carburetor.

Cement radio box cover cap 116 and radio box seal 114 with rubber type cement.

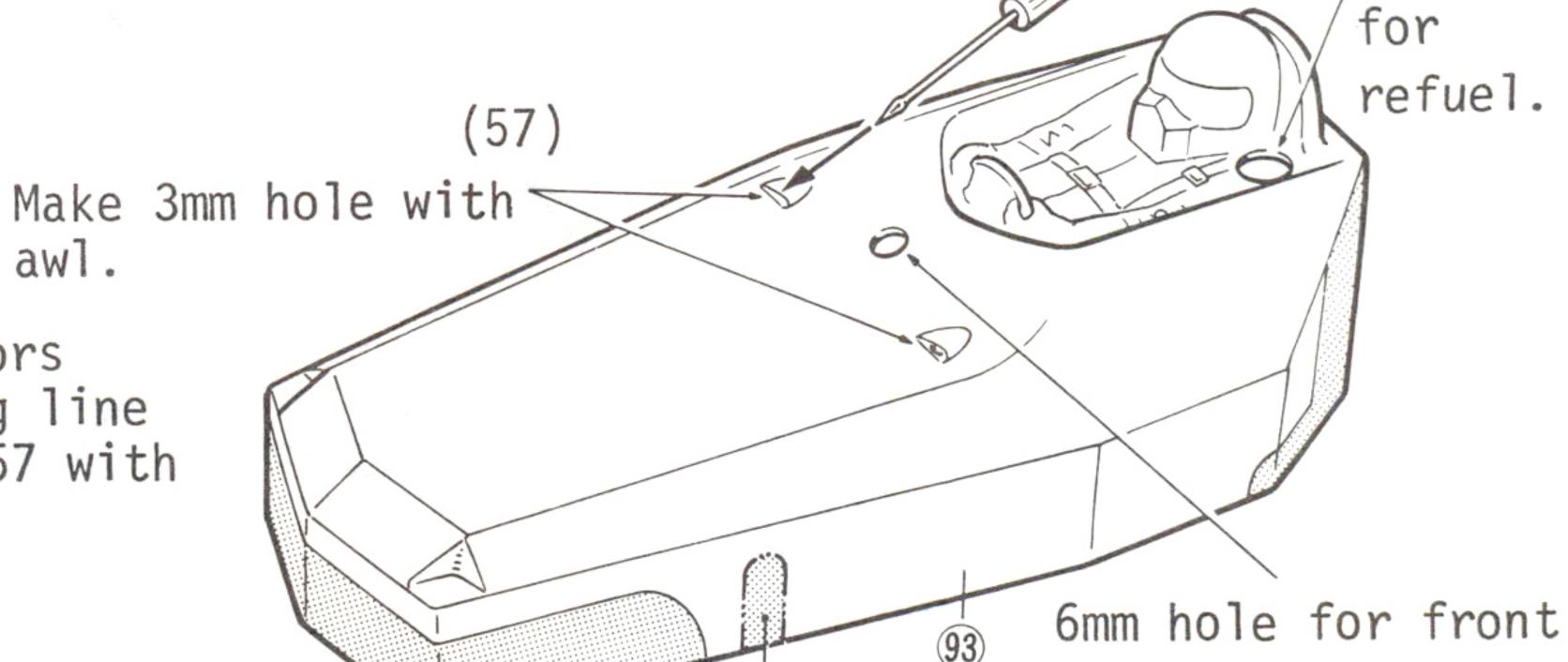
Note: Small parts for step 41
- 48 included in the radio box parts bag.

Cement 114 onto inside of 92.





Install gear box guard 57 into the joint collar 41 as illustrated.



Make a hole

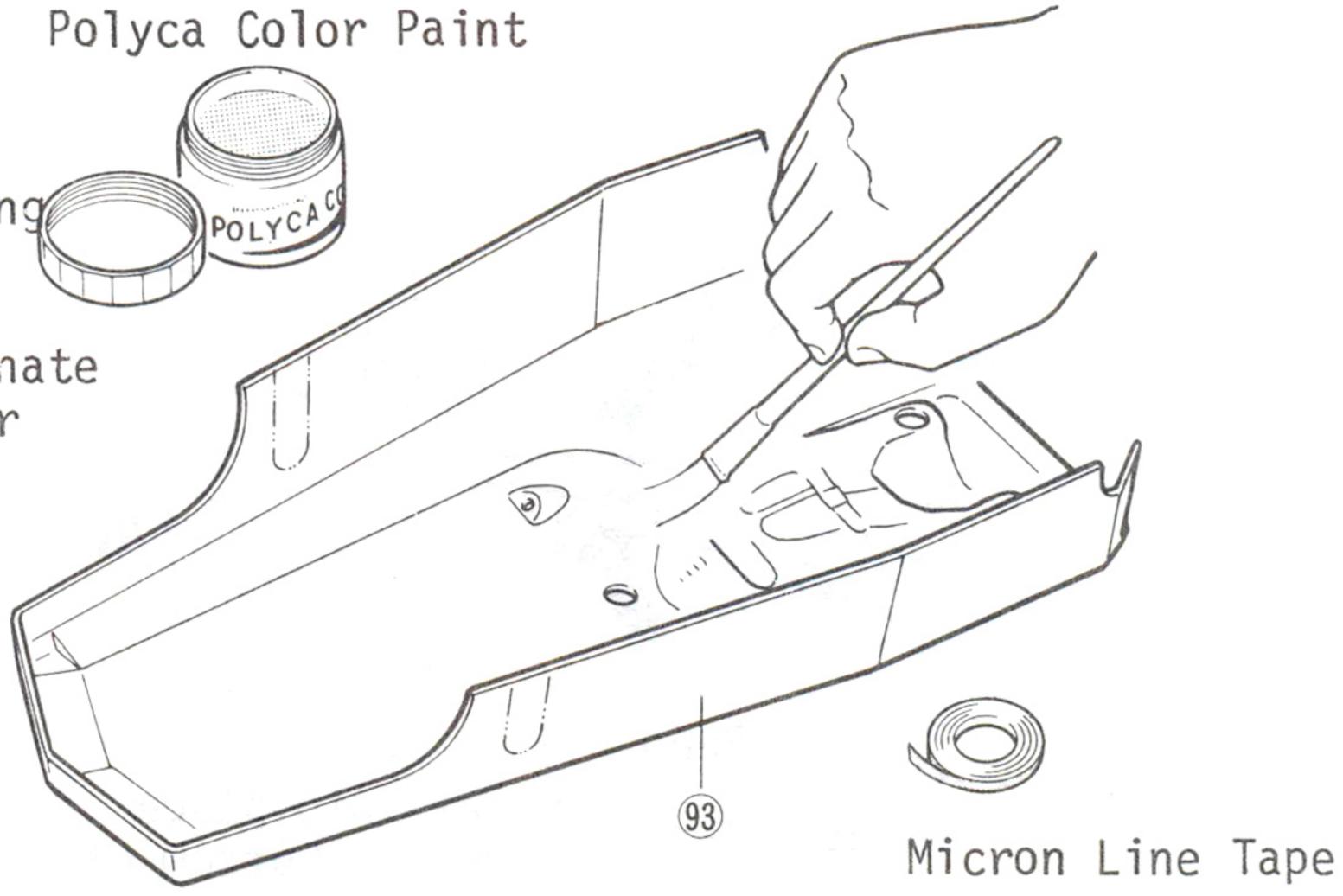
body hook.

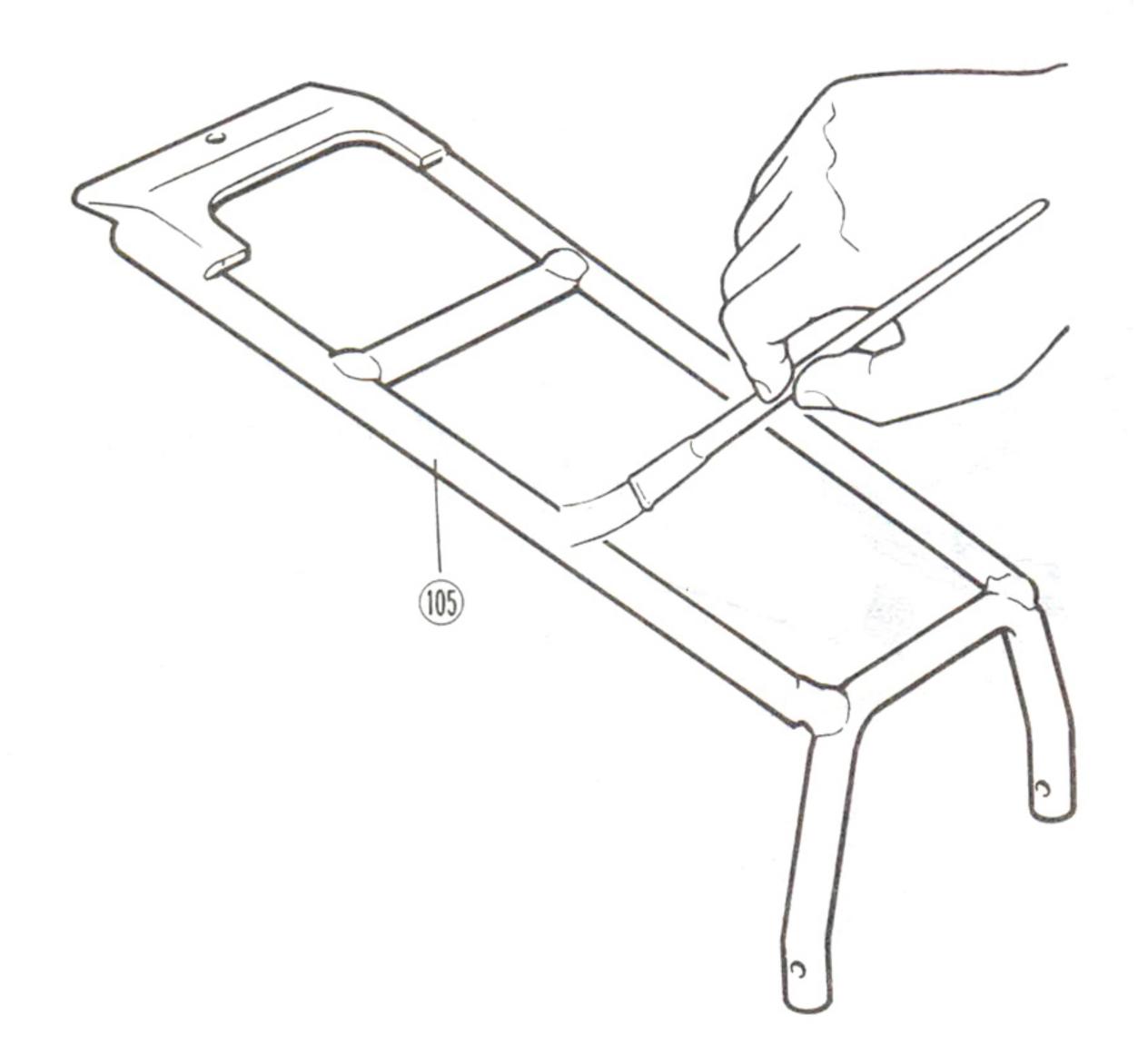
Cut off the shaded portion in case install the oil damper.

Cut the body 93 with a scissors or knife along to the cutting line and make driver guard holes 57 with an awl.

44

Before painting wash with neutral liquid soap. After washing and dry well, inner side painted use masking tape and paint in different colors and at the end paint overall. Use paint specially made for polycarbonate material which is easy to use water solvent type and once dried, it become fuel and water proof.



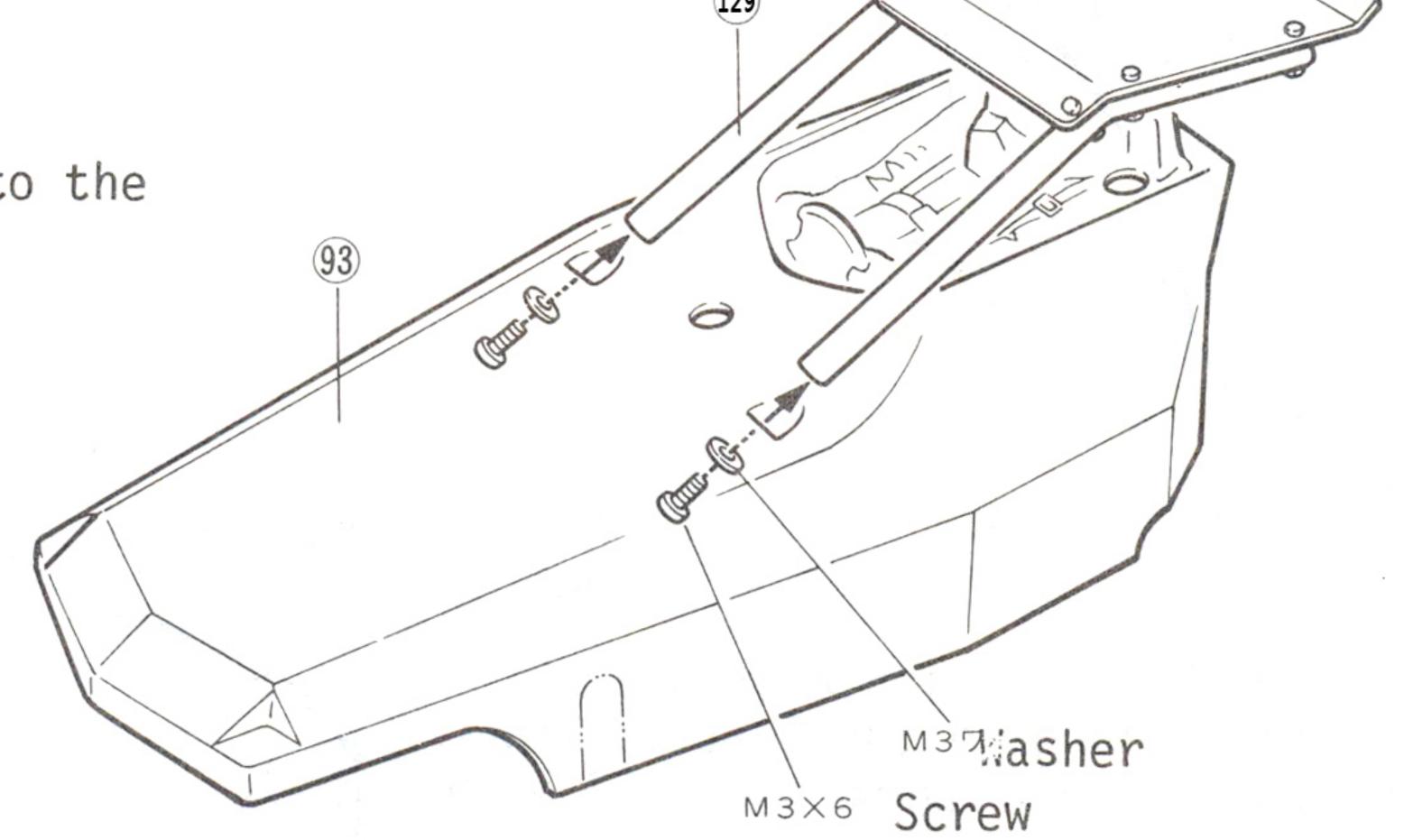


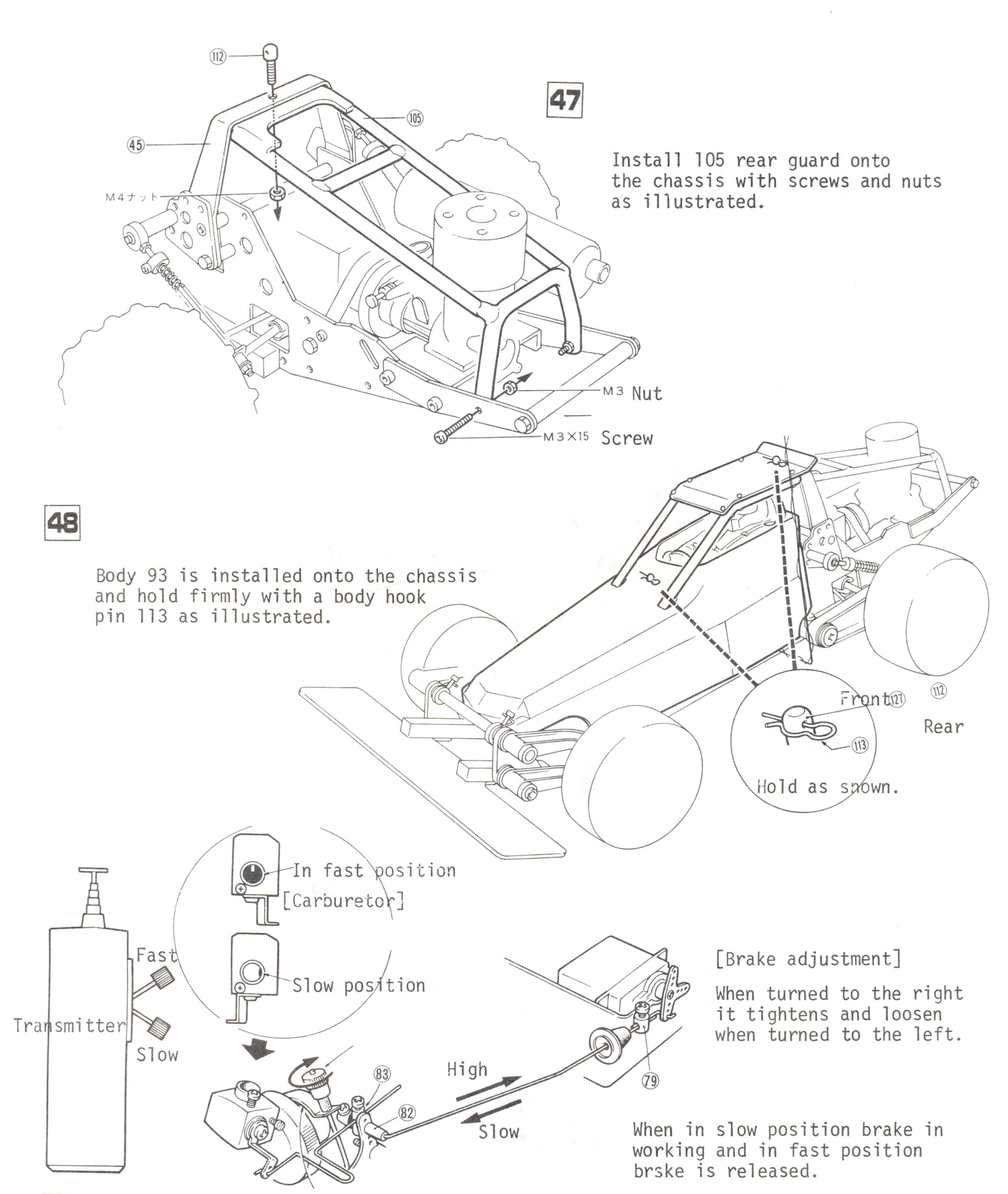
45

Before painting, wash away dirt and oil with neutral liquid soap. Paint to be used should be for vivyl type and fuel proof. (Engine color, etc.)

46

Install driver guard 129 onto the body 93 as illustrated.

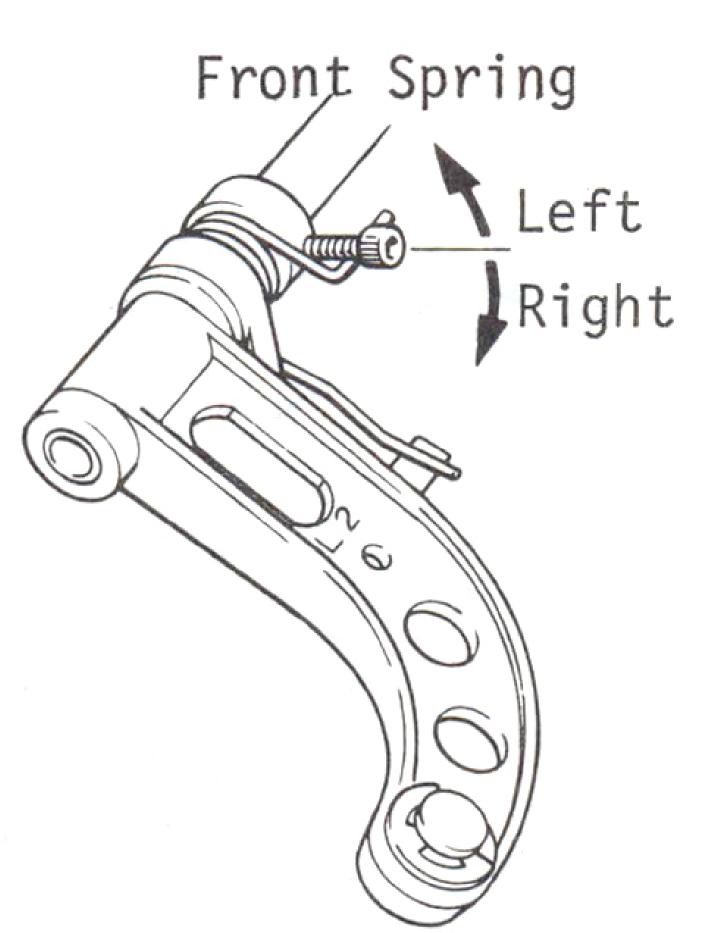


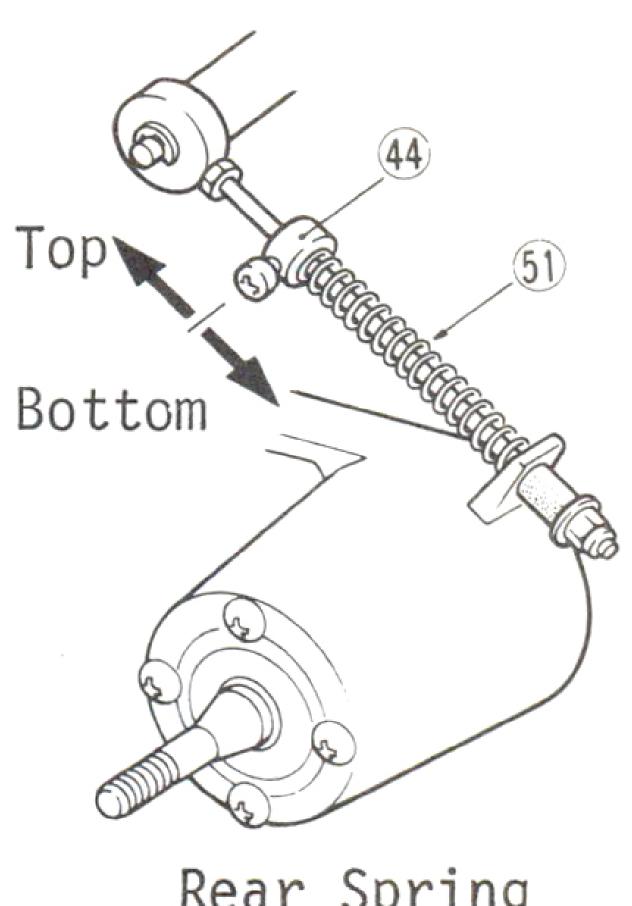


Before running, radio control system movement should be tested and have the brake, throttle control etc. adjusted. Adjust so that when the transmitter throttle control stick is in the slow position the brake is in the working condition with the carburetor in the slowest position by loosening the 79 and 83 stopper and by moving the rod. Also, be careful so that 82 nylon collar will not hit against the rear frame when in the slowest position. Next, try moving the steering stick and adjust so that the front tire will turn lightly.

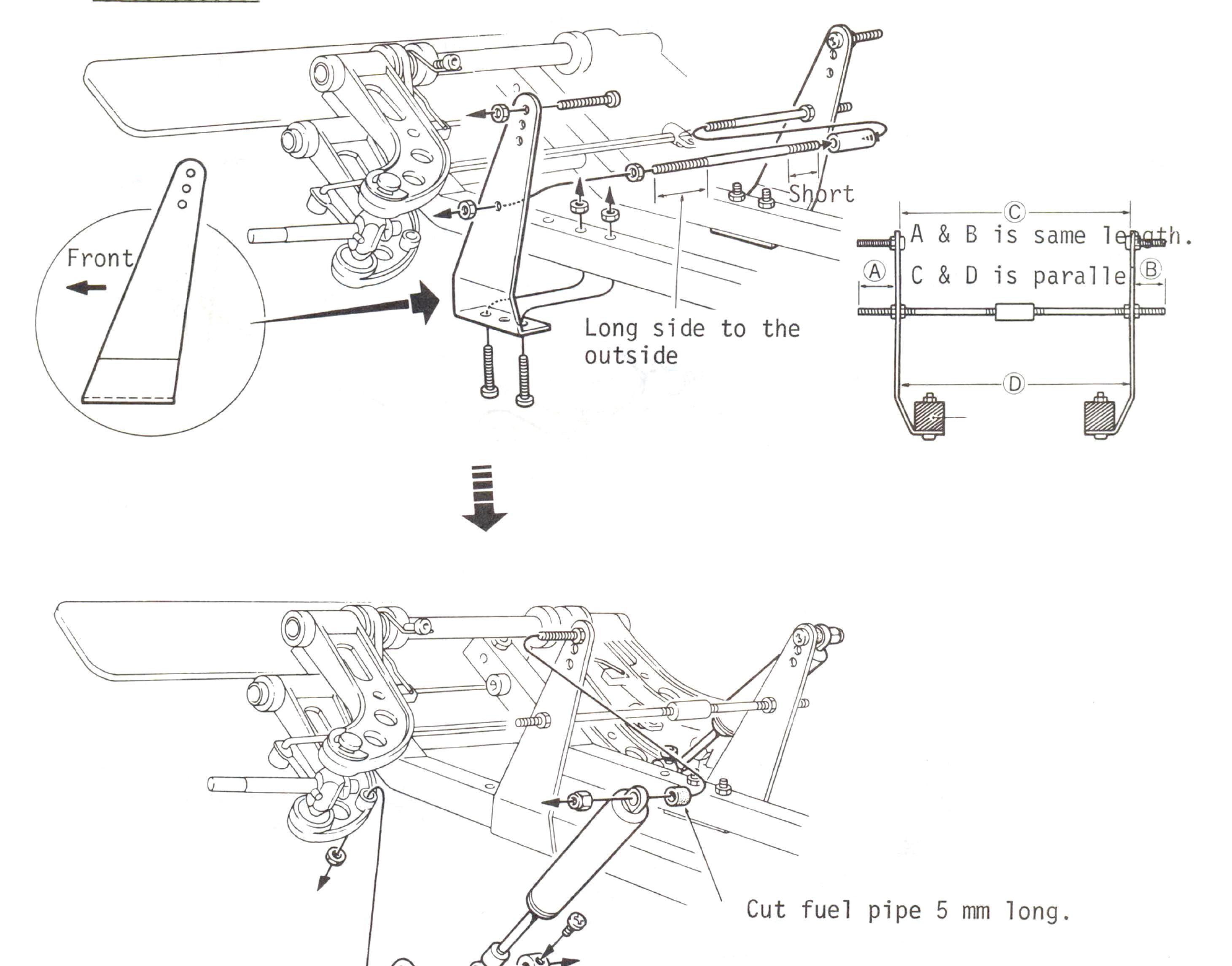


The adjustment of the rear spring 51 becomes weak when the 44 3ø stopper is moved down and when move up, the rear suspension becomes strong. For the front, right side becomes weak and left side strong.





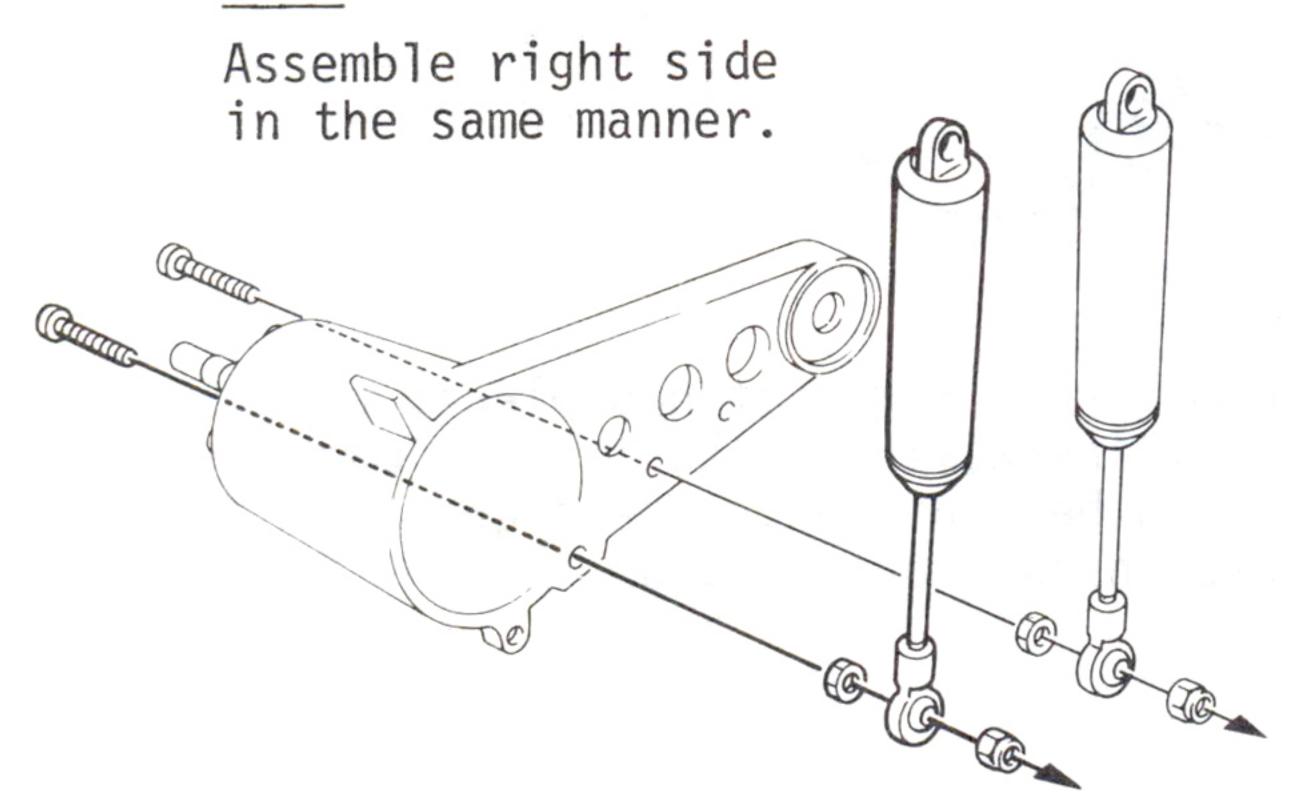
Rear Spring

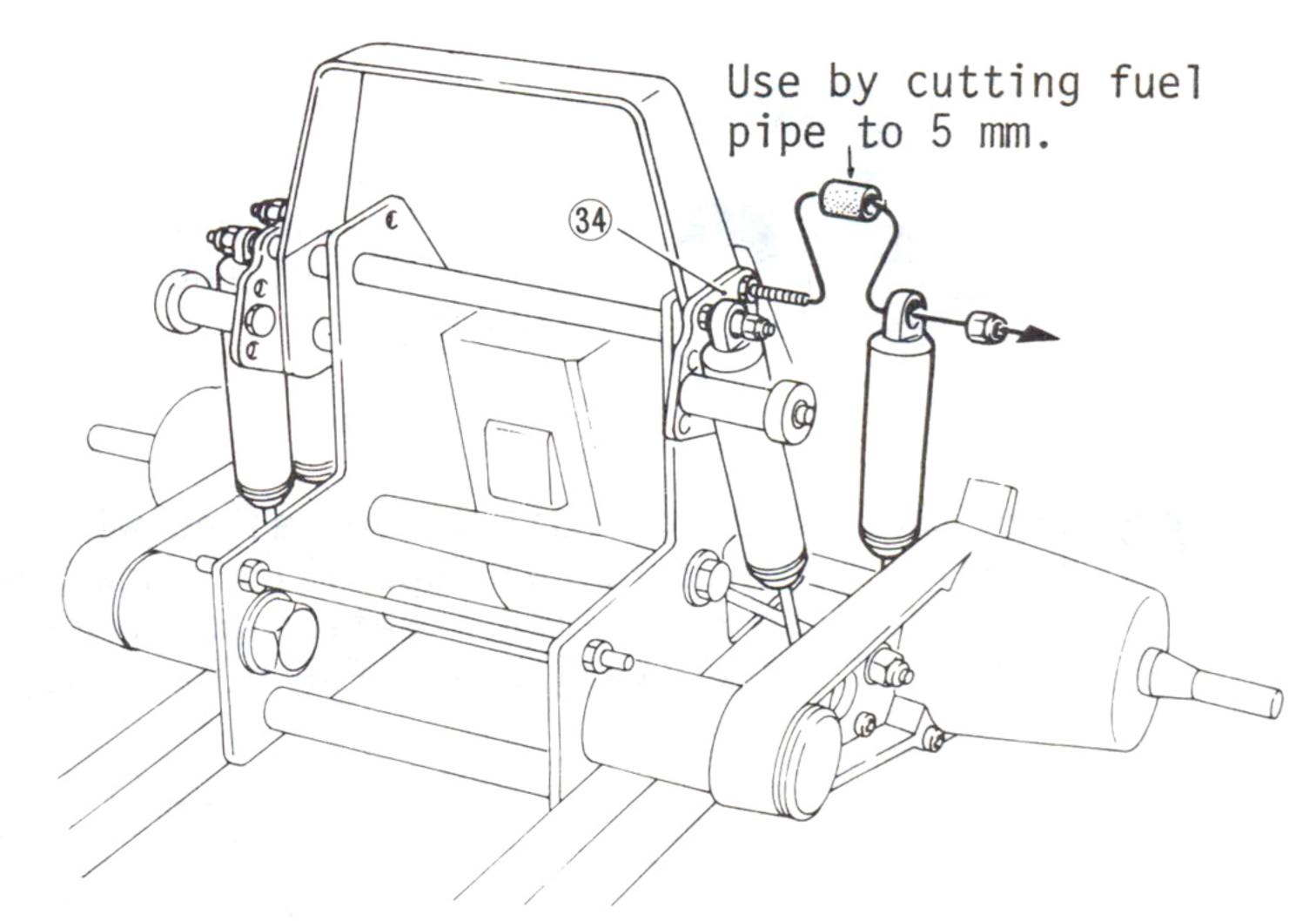


The method of installing optional front damper (CB-88). Hardwares for installation is included in the oil damper.

OPTION PARTS

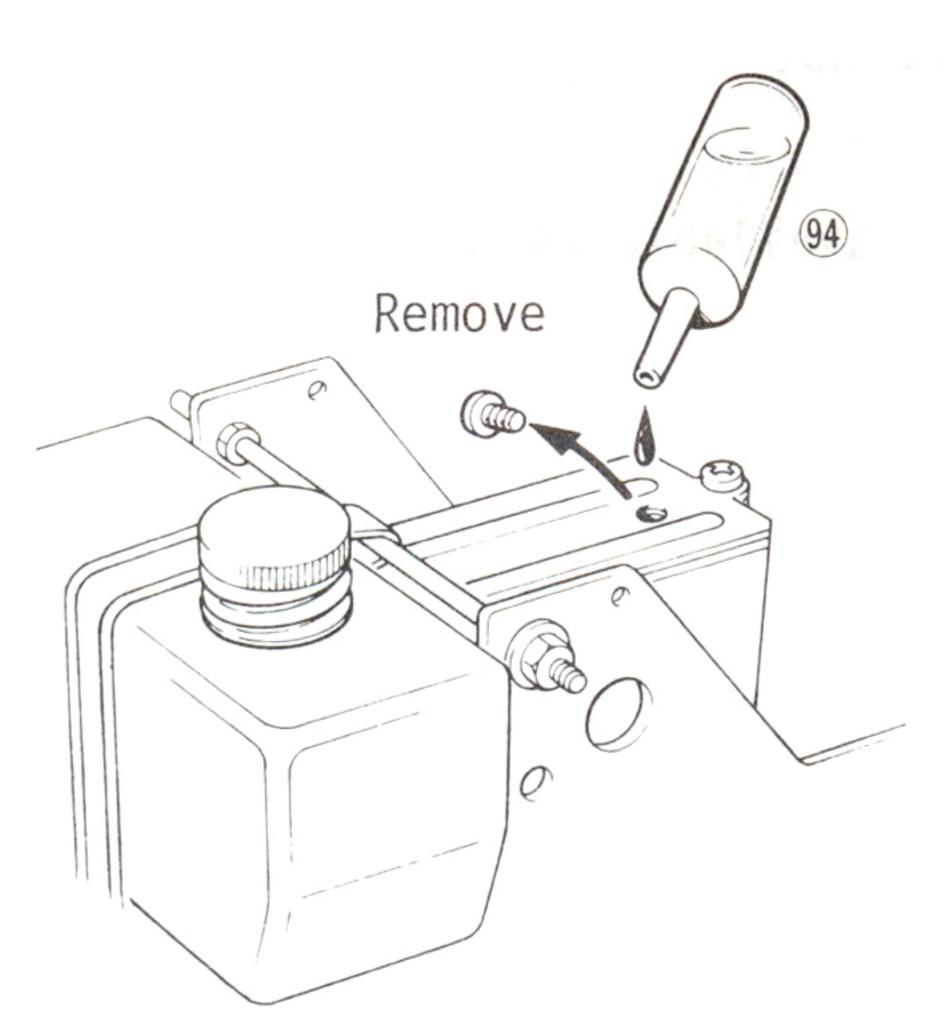
Left



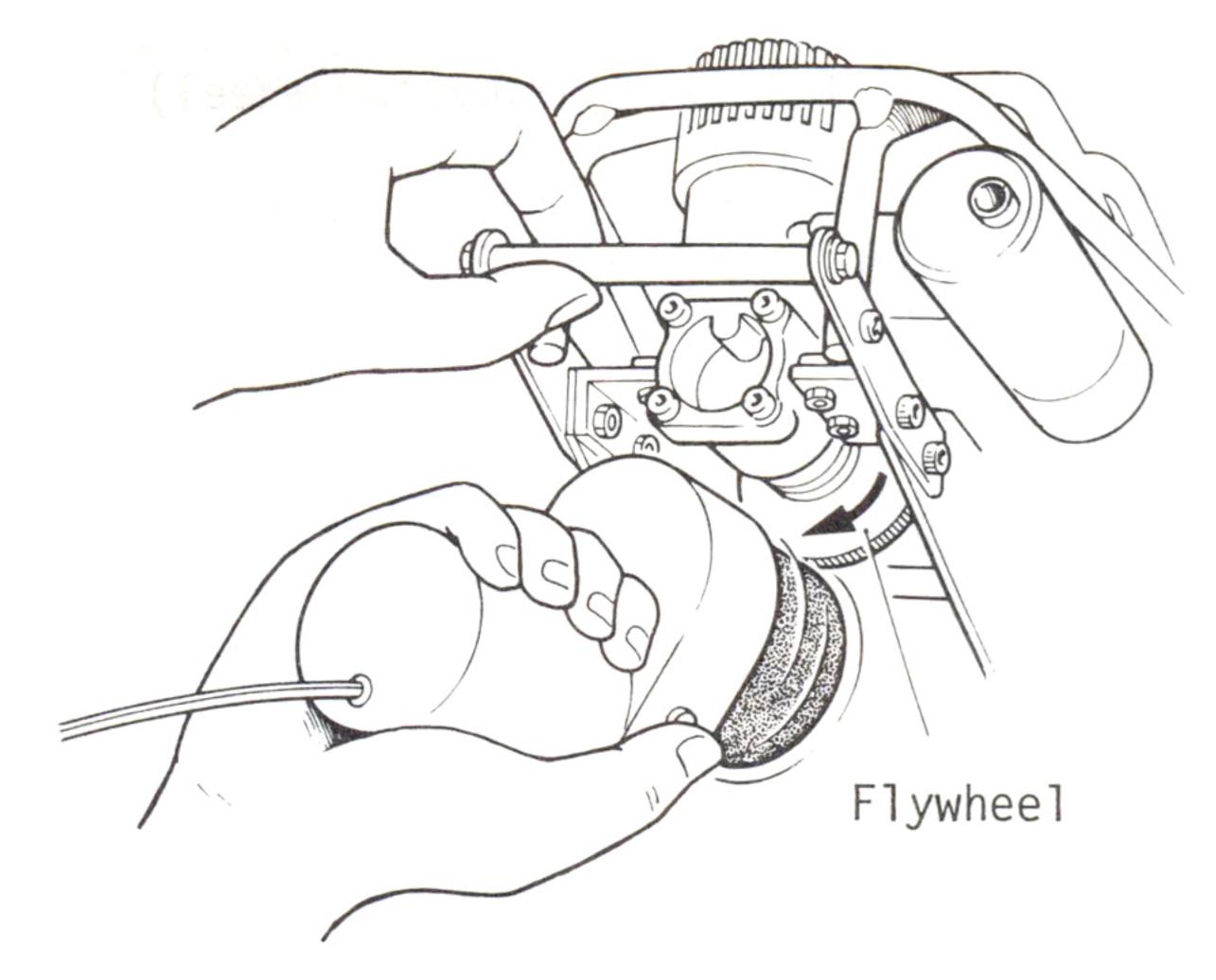


another way of characterizing the model is to install four of them.

Two rear dampers (optional parts #CB-89) can usually be employed, but 53 to the rear suspension plate 34 as shown in the drawing.

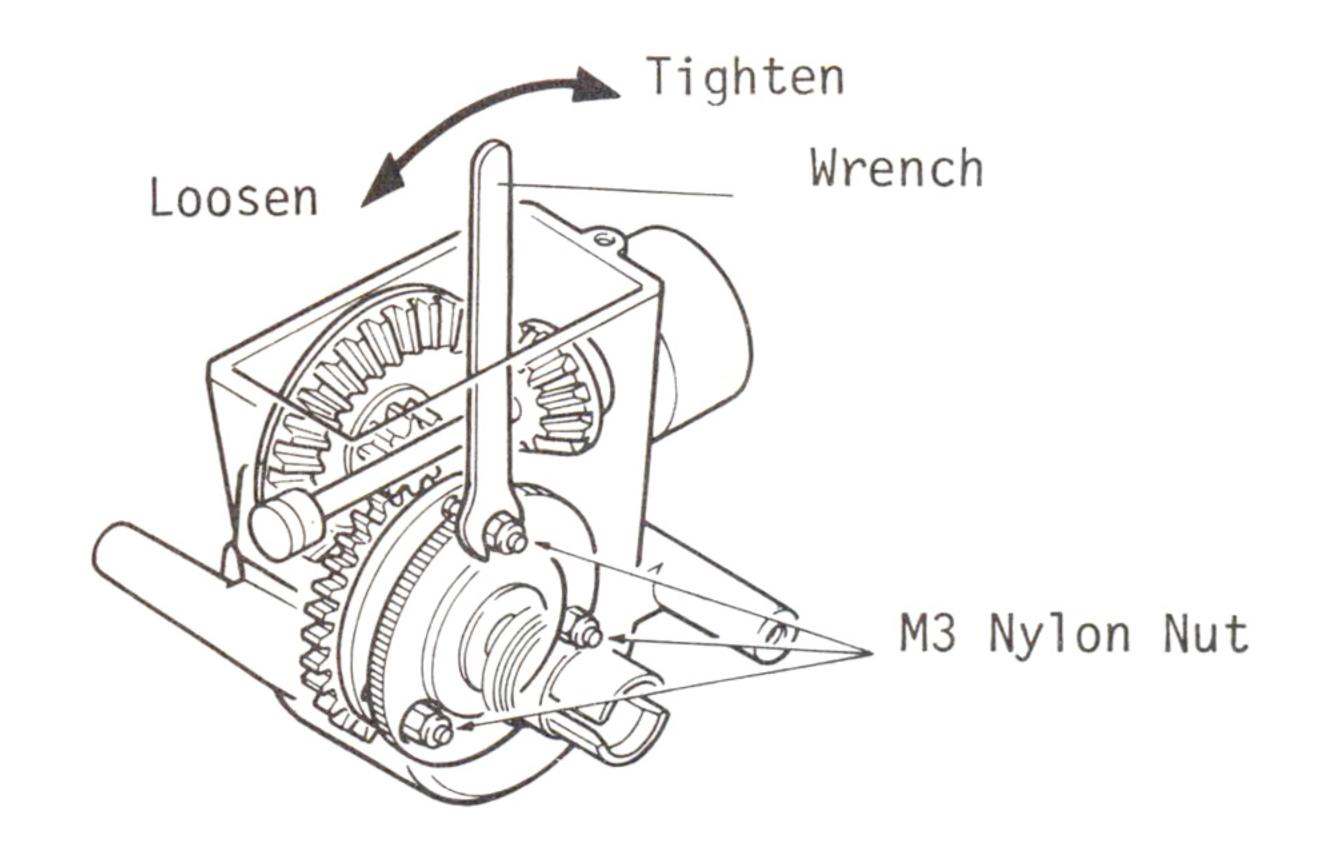


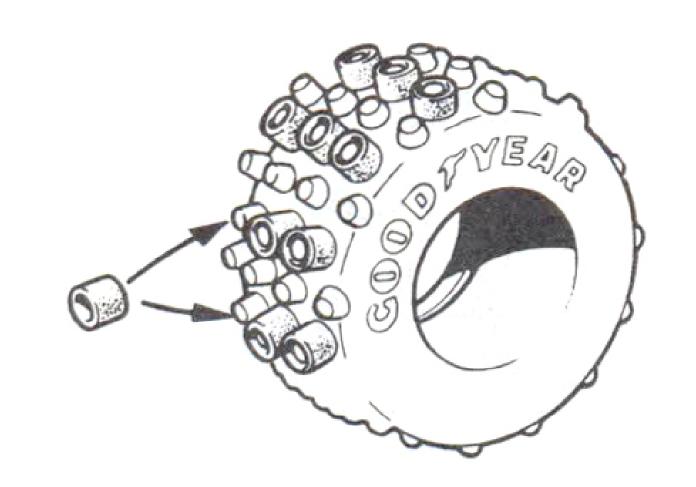
with 94 oil (5cc) which is included in kit.



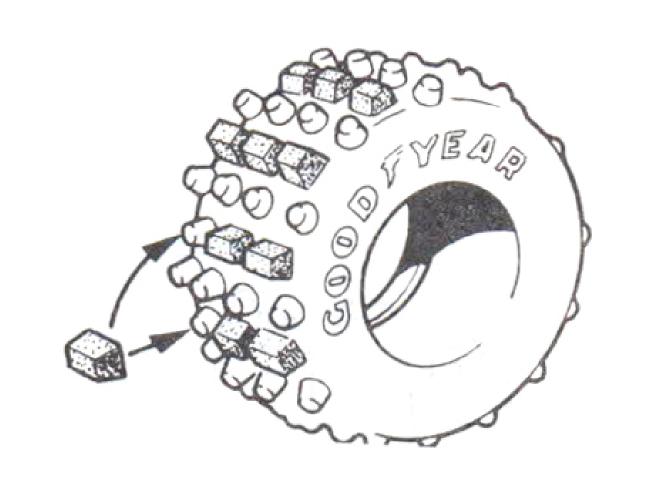
Remove the M4 screw on the lid of the 55 The way to start the engine is to rotate gear box and through this hole, fill by rubbing the electric starter against the flywheel from the bottom side of the chassis as illustrated. The rotating direction of the starter is to the left.

For adjusting the differential gear, remove the top of the gear case as illustrated. Tighten the M3 nylon nut which are binding the balls to increase the differential gear effect; for decreasing the effect loosen the nuts. (Note: when tightening or loosening the nuts, do it evenly little by little at a time in order to keep the plate parallel.



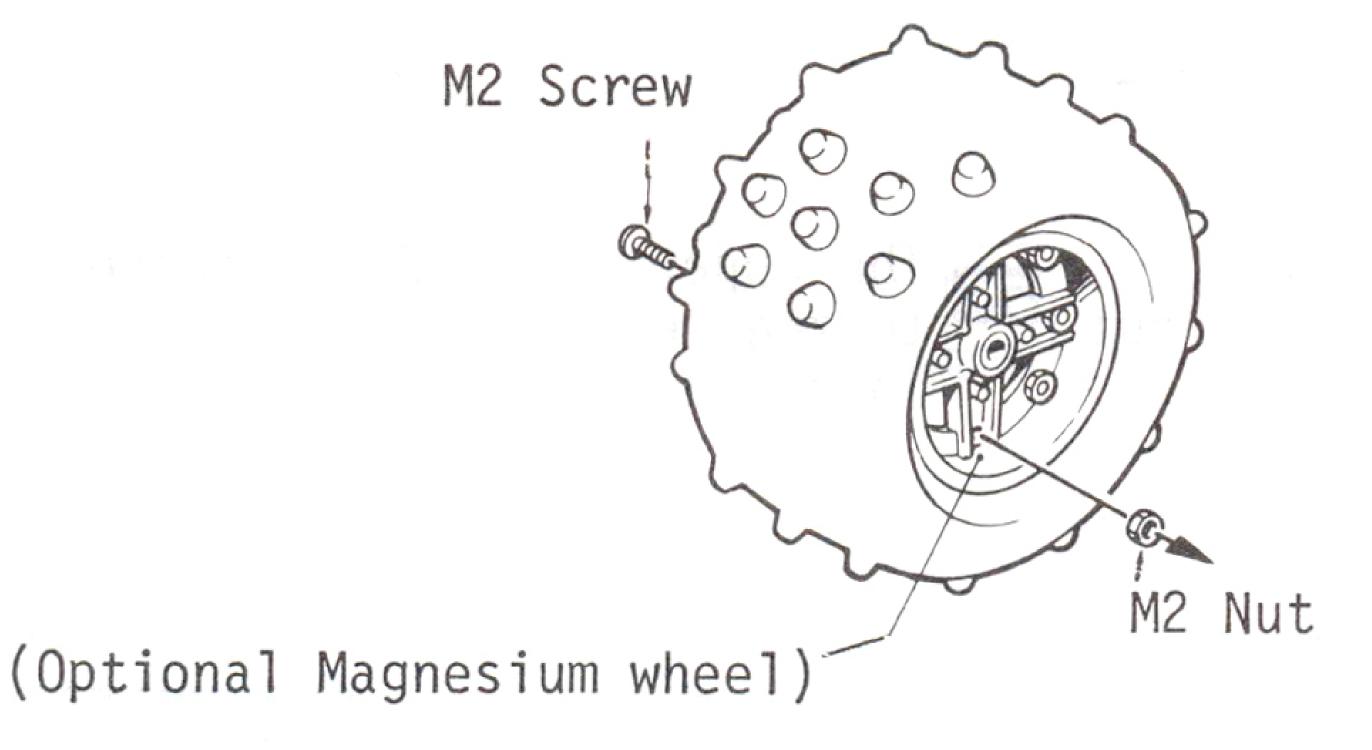


Nylon Super Spike (Most suitable for general dirt road running.)



Super Spike (Good for running in deep sand.)

Even though the circuit is installed with normal rear tire, it has plenty of gripping (road holding) Capability, however, by installing spike tire to match with the road condition a better performance can be expected. There are 2 different spike available. For cementing, use instant drying glue.

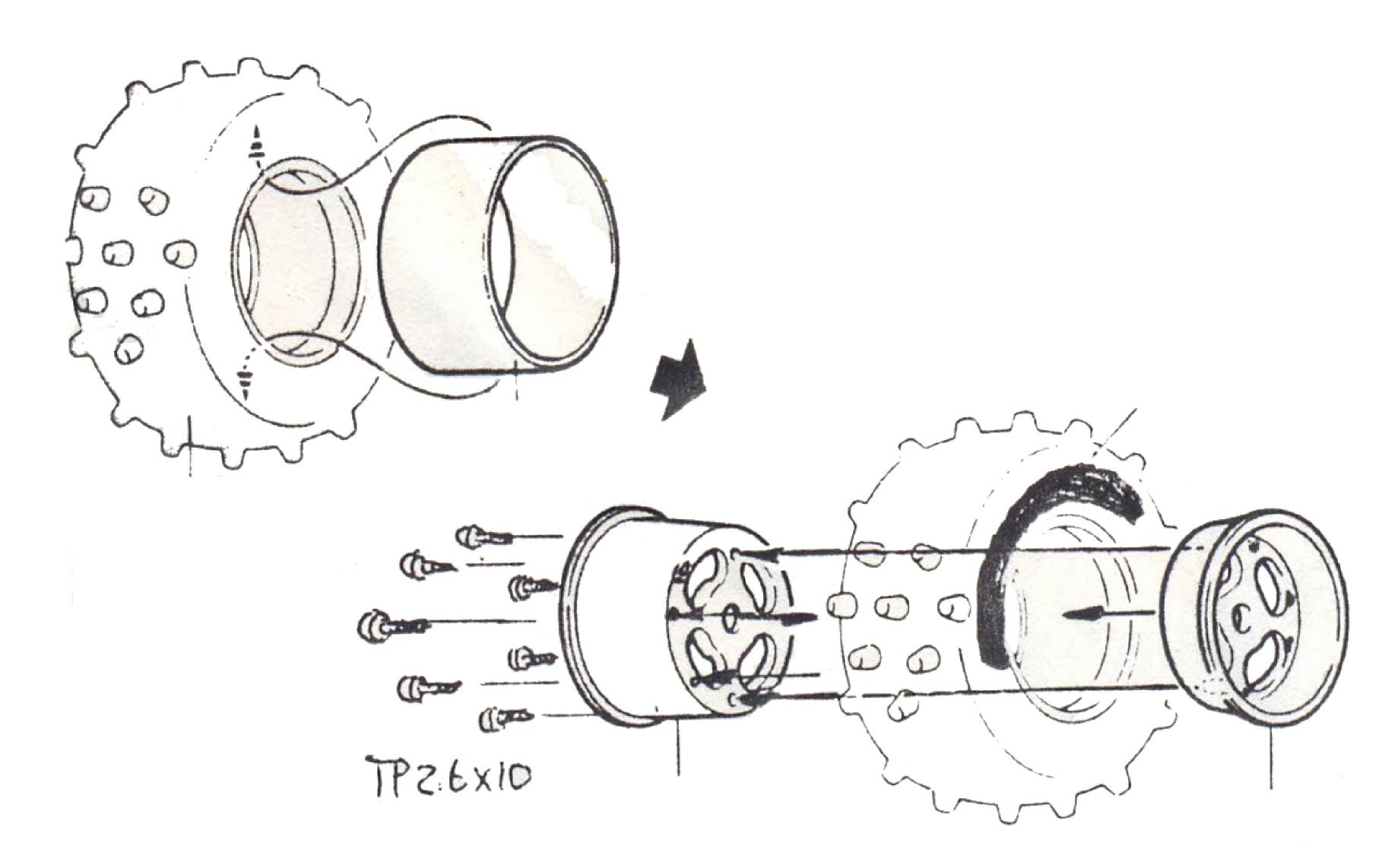


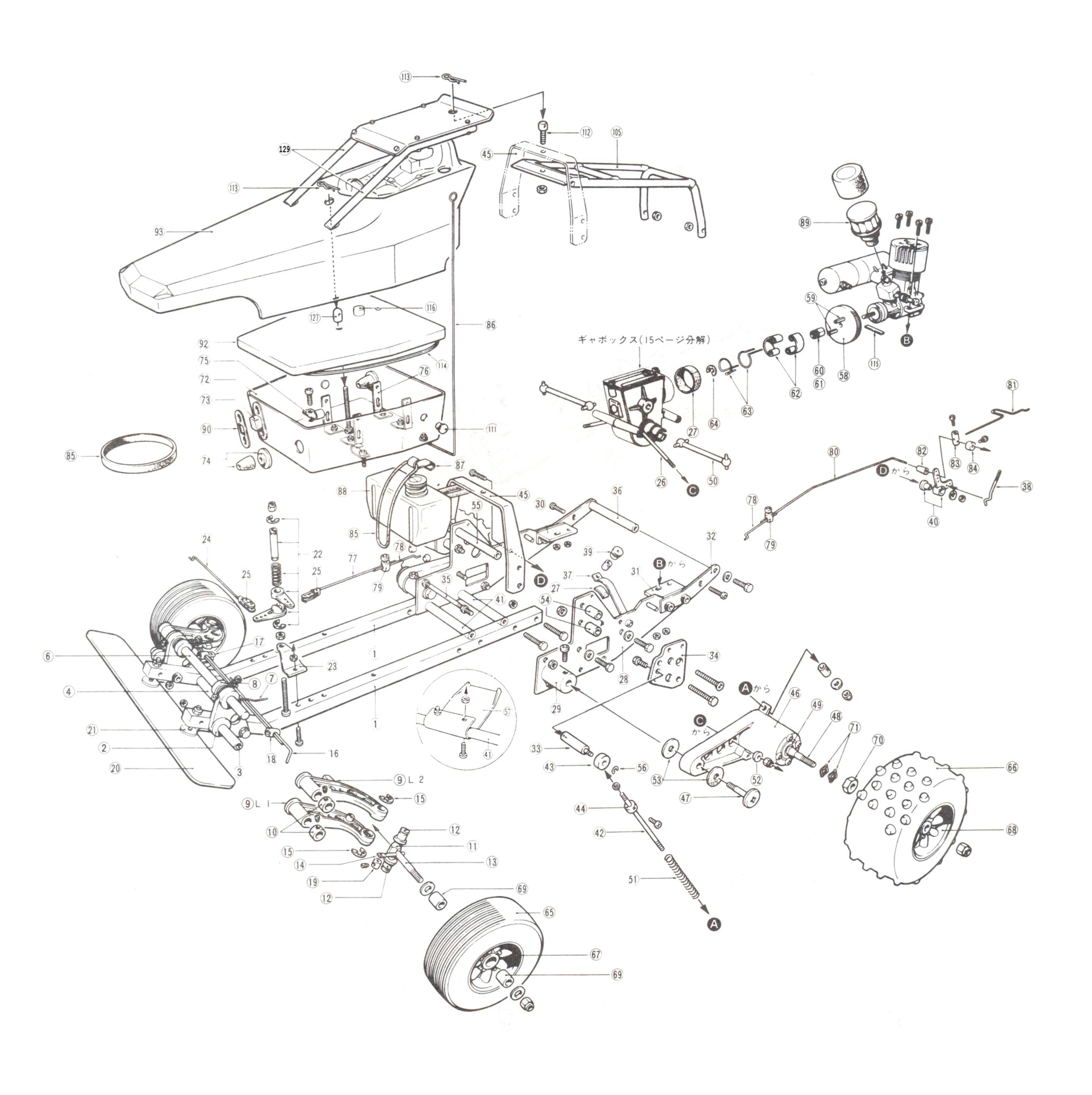
A strong and light-weight magnesium wheels are available as optional parts. Front (CB-102) rear (CB-103).

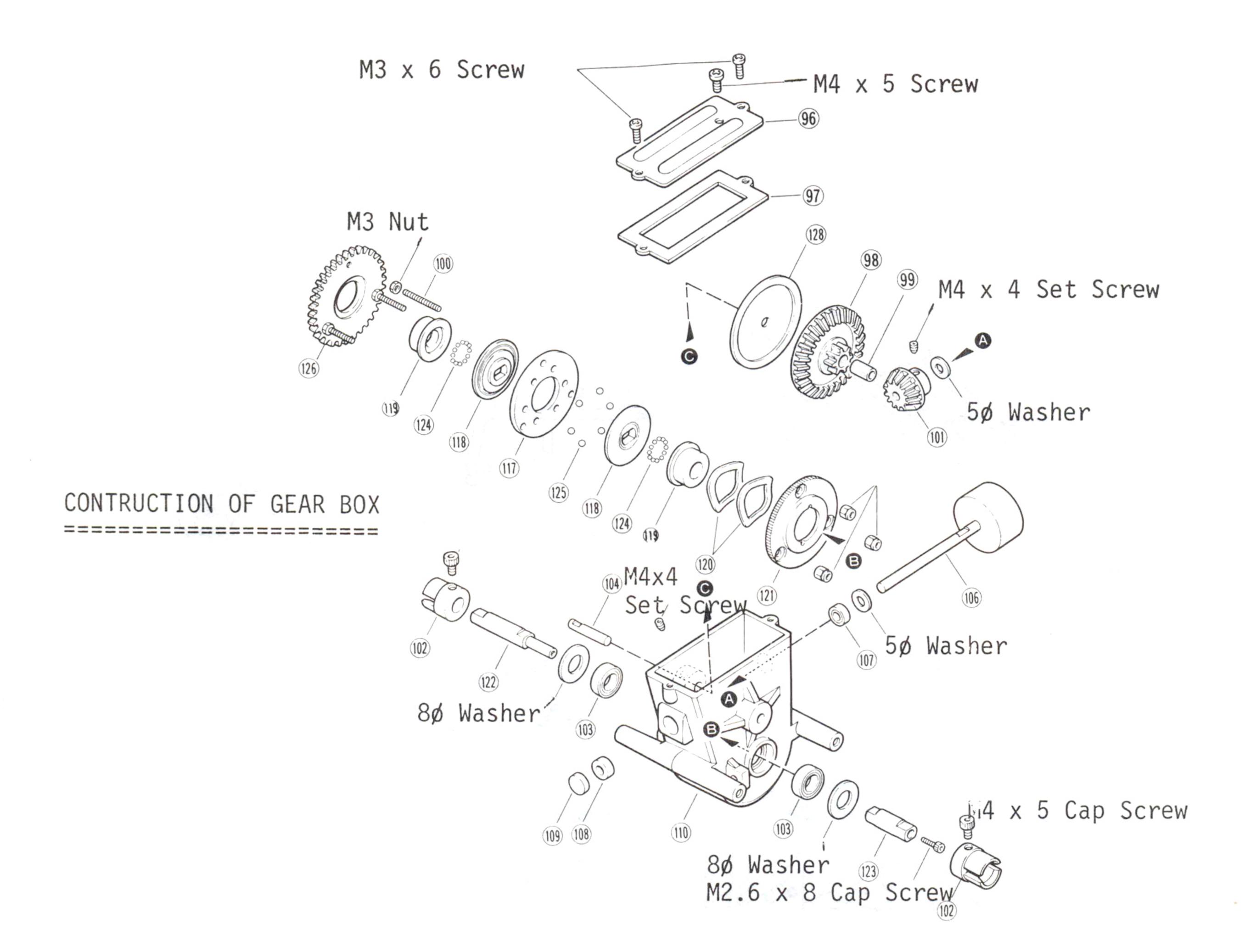
Optional wheel installation.

The optional wheels set were specially released for the new front and rear SAND SUPER tires. These tires offer superb grip which results in great handling characteristics.

Front Wheel CB166 Rear Wheel CB167







INDIVIDUAL PARTS LIST

Key			Key		
No.	Parts Name	Qty.	No.	Parts Name	Qty.
7	Main Frame	2	21	B Washer	2
2	Arm Holder (left . right)	1 set	22	Servo Saver Set	1 set
3	Arm Shaft A	2	23	Servo Saver installation	7
4	Arm Joint	1		hardware	
5	Suspension Stopper	2	24	Steering Rod	7
6	Arm Shaft B	7	25	Keeper	2
7	Front Spring (left . right)	1 set	26	Tension Rod	2
8	8ø Stopper	2	27	Lining	2
9	Front Suspension Arm	1 set	28	Rear Frame	2
7.0	(L-1, L-2, R-1, R-2)		29	Rear Suspension Drive	2
10	Suspension Side Stopper	4	30	Engine Mount (right)	7
11	Upright	2	31	" (left)	7
12	Ball Seat	4	32	Rear Pin	2
13	Front Wheel Shaft	2	33	Rear Sus. Holder	2
14	Knuckle Arm	2	34	Rear Sus. Plate	2
15	E Ring (E-7)	4		Stutted Bolt	1
16	Tie Rod	2	36	Rear Pin Joint	7
17	Tap A		37	Brake Shoe	7
18	Tap B	1	38	Brake Rod]
19	Tie Rod Stopper	2	39	Brake Adjuster]
20	Front Bumper		40	L Crank	1 set

Key No.	Parts Name	Qty.	Key No.	Parts Name	Qty.
43 44 45 47 48 90 12 33 44 56 56 56 57 56 56 56 56 66 66 66 66 67 77 77 77 77 77 77 77 77	Spring Guide Spring Guide Ecn 3ø Stopper Roll Bar Rear Suspension Arm (Left . Right) Rear Suspension Shaft Rear Wheel Shaft Bearing Swing Shaft Rear Spring Tension Rod Holder Nylon Washer Rear Sus. Plate Collar Rear Frame Joint E Ring (E - 3) Gear Box Guard Flywheel Clutch Pin Pilon Nut (inch) " (mm) Clutch Shoe " Spring " E Ring Front Tire Rear Tire Front Wheel Rear Wheel Front Wheel Rear Wheel Front Wheel Metal Drive Washer Wave Washer Wave Washer Wave Washer Mave Washer Mochanism Box Switch Rubber Boots Rod Rubber Boots Rod Rubber Boots Battery Holder Hardware Servo Bracket Steering Rod Linkage Rod Linkage Rod Throttle Control Rod Nylon Collar Throttle Control Stopper Brake Linkage Rod Throttle Control Stopper Brake Linkage Rod Throttle Control Stopper Brake Holder Hardware Tank Set Air Filter Set Switch Plate (not used) Mechanism Box Cover Body (Racing Baja) Mission Oil	2 1 2 2 2 2 4 1 1 2 2 4 1 1 2 2 1 1	97 99 101 103 104 105 107 108 109 110 110 110 110 110 110 110 110 110	Gear Box Cover "Seal Bevel Gear (L) Bevel Gear Bush Stud Shaft Bevel Gear (S) Joint 8ø Bearing Bevel Gear Shaft Rear Guard (Racing Baja) Clutch Bell (w/shaft) 5ø Bearing 5ø Oiless Metal Bear Box Metal Cover Gear Box Mechanism Box Cap Body Guard Hook Forked Pin Mechanism Box Seal Fly Wheel Shim Mechanism Box Cover Cap Center Plate Ball Holder Flange Wave Washer Thrust Plate Center Shaft (A) Center Shaft (B) Ball (L) Spur Gear Front body hook Bevel Plate Driver Guard (Racing Baja)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

PART NO.	PART NAME	KEY NO. & CONTENTS
CB- 3	8ø Stopper	8 x 2
4	Front Spring	$7 \times 1 \text{ set}$
91	Front Suspension Arm	9 L-1, L-2, R-1, R-2 x 1
7	Tap Set	17, 18 x 1
SD- 42	Keeper	25 x 2
CB- 8	Stud Bolt	35×2
12	Spring Set	42, 43, 44, 51 x 2
17 72	Rear Suspension Holder E-Ring (E - 3)	33 x 2 56 x 5
13	Rear Wheel Shaft	48 x 2
92	Rear Suspension Arm	46 x 2
15	Rear Suspension Bearing	49 x 2
16	Break Set	37, 38, 39, 27 x 1
26	Joint Collar	41 x 1
28	Clutch Parts	59, 62, 63 x 2
31	Front Tire	65 x 2
352X	Rear Tire	66 x 2
CB-39	Front Wheel Metal	69 x 4
40	Ball Receptacle	12 x 4
41	Up Right	11 x 2
42 43	Front Wheel Shaft Knuckle Arm	13 x 2 14 x 2
44	E-Ring (E - 7)	14 x 2 15 x 4
45	Gear Box Cover	96 x 1
46	Gear Box Seal	97 x 1
47	Clutch Bell	106 x 1
49	Bevel Bushing	99 x 1
50	Bevel Gear Shaft	104 x 1
135	Gear Box Assembly	Differential Gear assembled
52	Joint	102 x 2
136	Bevel Gear Set for Diff.Gear	
60	5ø Metal	108×2 ,
59 70	Pilot Nut Pilot Nut	61 x 1 (For Enya engine)
137	Spur Gear for Diff. Gear	60 x l (For O.S. engine) 126 x l
138	Flange	119 x 2
139	Ball Receptacle Set	117 x 1, 118 x 2
84	Bearing for Center Shaft	103 x 2
85	Bearing for Clutch Shaft	107 x 2
87	Servo Saver	22 x 1
140	Wave Washer for Diff. Gear	120 x 10
94	Linkage Set	Linkage Rod - 1 set
67	Clutch Spring	63 x 4
56	Lining	27 x 5
80	Front Wheel	67 x 2 (Rowdy Type)
81	Rear Wheel	$68, 70 \times 2$
63 108	Fuel Tank Arm Axle Set	88 x 1 set 3 x 2, 6 x 1
MS- 16	Servo Mount	76×4
CB-112	Arm Joint Set	4 x 1, 5 x 2
113	Tierod Set	16, 19 x 2
114	Front Bumper	20 x 1
FM- 33	B Washer	21 x 5
CB-115	Servo Saver Mounting Metal	23 x 1
116	Rear Frame	28 x 2

PART NO.	PART NAME	KEY NO. & CONTENTS	
CB-119	Rear Stay	32×2 , 36×1	
142	Center Shaft (w/Screw)	122, 123 x 1	
143	Ball Set	124 x 28, 125 x 6	
SD- 76	Fly Wheel	58 x 1	
D- 44	Wave Washer	71 x 8	
B- 79	Radio Box	72, 92, 114, 116 x 1, 111 x 2	
124	Linkage Boots	73, 90 x 1, 74 x 2	
110	Air Cleaner	89 x l set	
144	Stud Shaft	100 x 10	
145	Gear Box for Diff. Gear	110 x 1	
127	Suspension Side Stopper	10×4	
146	Rear Suspension Plate	34×2 , 54×4	
129	Arm Holder	2 x 1 set	
130	Decal	95 x 1	
106	Main Frame	1 x 2	
TB- 64	Gear Box Guard	57 x 1	
147	Roll Bar & Hook	45 x 1, 112 x 1	
148	Rear Frame Joint	55 x 1	
151	Swing Shaft for Extra	50 x 2	
152	Gear Box for Diff. Gear	107,108,109,110 x 1, 103 x 2	
153	Tension Rod for ExtrA	26, 52 X 2	
154	Rear Suspension Pivot	47, 29 x 2	
159	Screws Set	Screws, Nuts & Washers for entire	
149	Driver Guard (Racing Baja)	129 x 1	
150	Rear Guard (Racing Baja)	105 x 1	
155	Lexan Body (Racing Baja)	93 x 1	
162	Front Body Hook (Racing Baja)	127×1	
	OPTIONAL PARTS		
B- 29	Aluminum Front Wheel	Die-cast	
30	Aluminum Rear Wheel	Die-Cast	
SD-23	Heatsink for Enya .19 BB	Die-Cast	
75	Heatsink for Enya .19 .21X	Die-cast	
B- 36	Super Spike	Rubber	
88	Front Oil Damper	With mounting Metal	
89	Rear Oil Damper	11 11	
95	Rear Wheel Double Bearing		
102	Magnesium Front Wheel		
103	Magnesium Rear Wheel		
104	Circuit Muffler	For O.S21 & Enya .21 (Common us	
101	Front Wheel Bearing		
M- 59	M6 Nylon Nut		
B- 86	Nylon Super Spike	Hard Plastic	
75	Front Wheel	67 x 2	
76	Rear Wheel	68, 70 x 2	
DEC-03	Number Sticker	00 y	
CB- 126	Body Rowdy Baja (Roll Cage)		
CB- 127	Body Mounting Metal (Rowdy Baja)		
B-125			
CB-166 Front Wheels Pair (2pcs type) for Sand Super Tires			
CB-167	Rear Wheels Pair (2pcs type) f		