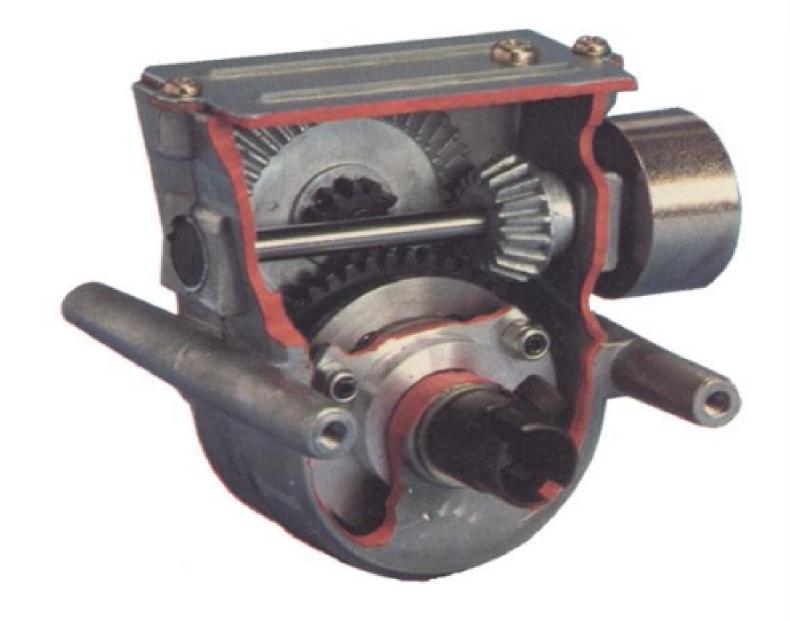
1/8th SCALE RADIO CONTROLLED OFF-ROAD RACE CAR CIRCUIT 20 EXTRA ROUNDY BAJA



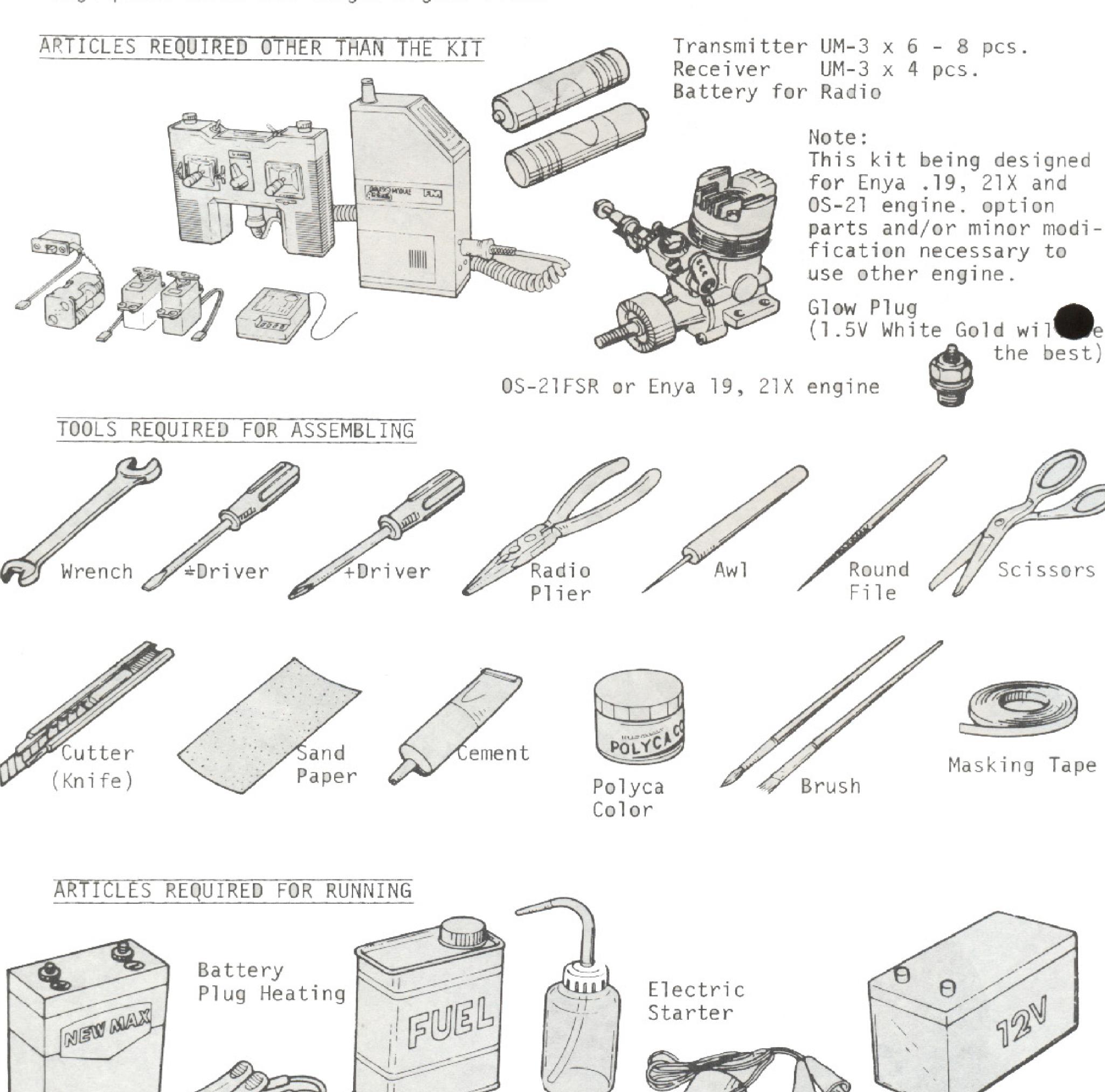
INSTRUCTIONS MANUAL





Thank you very much for the purchase of R/C Car "CIRCUIT 20 EXTRA ROWDY BAJA" to be able to properly assemble you "CIRCUIT 20 EXTRA ROWDY 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 sheets included in with the engine, it will be possible to maintain high performance and longer engine life.



Booster Cord

Fue1

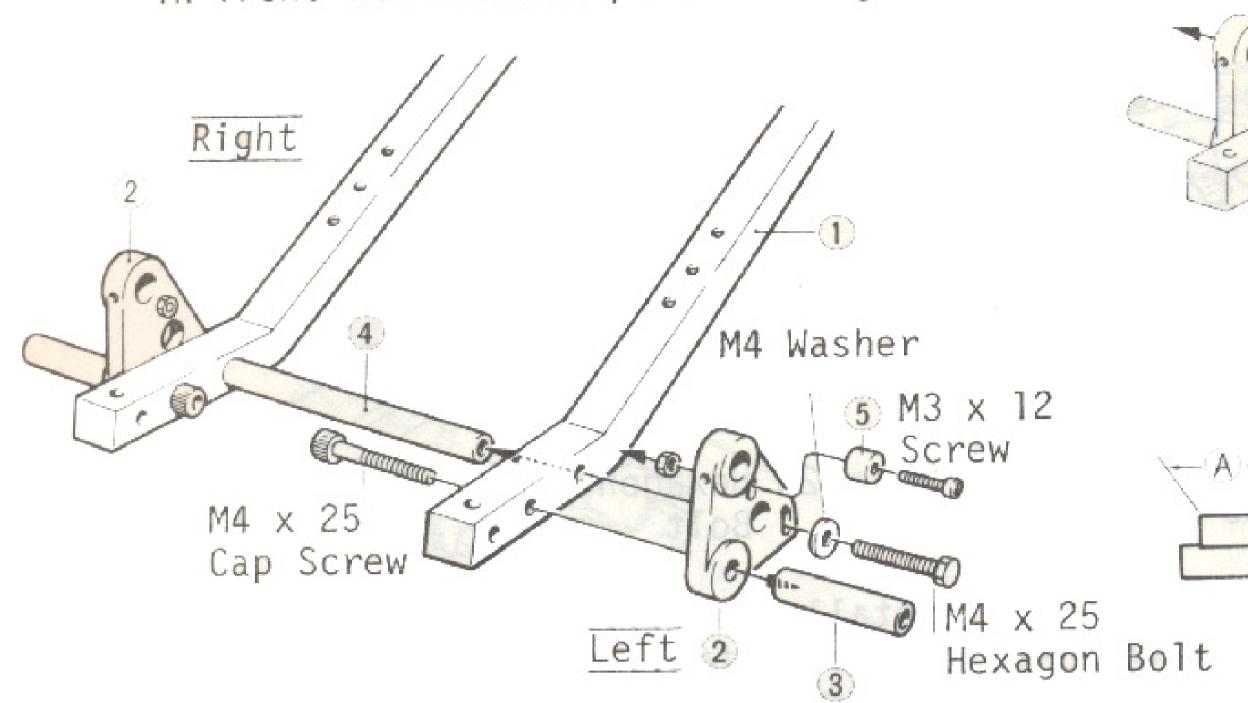
Tank

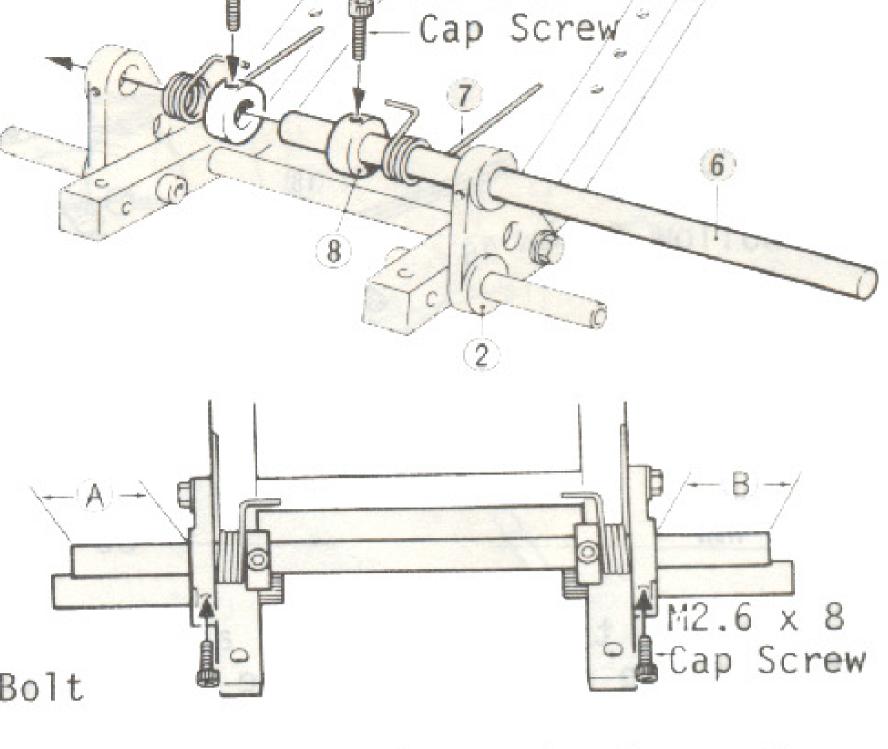
Fue1

Starter

Battery

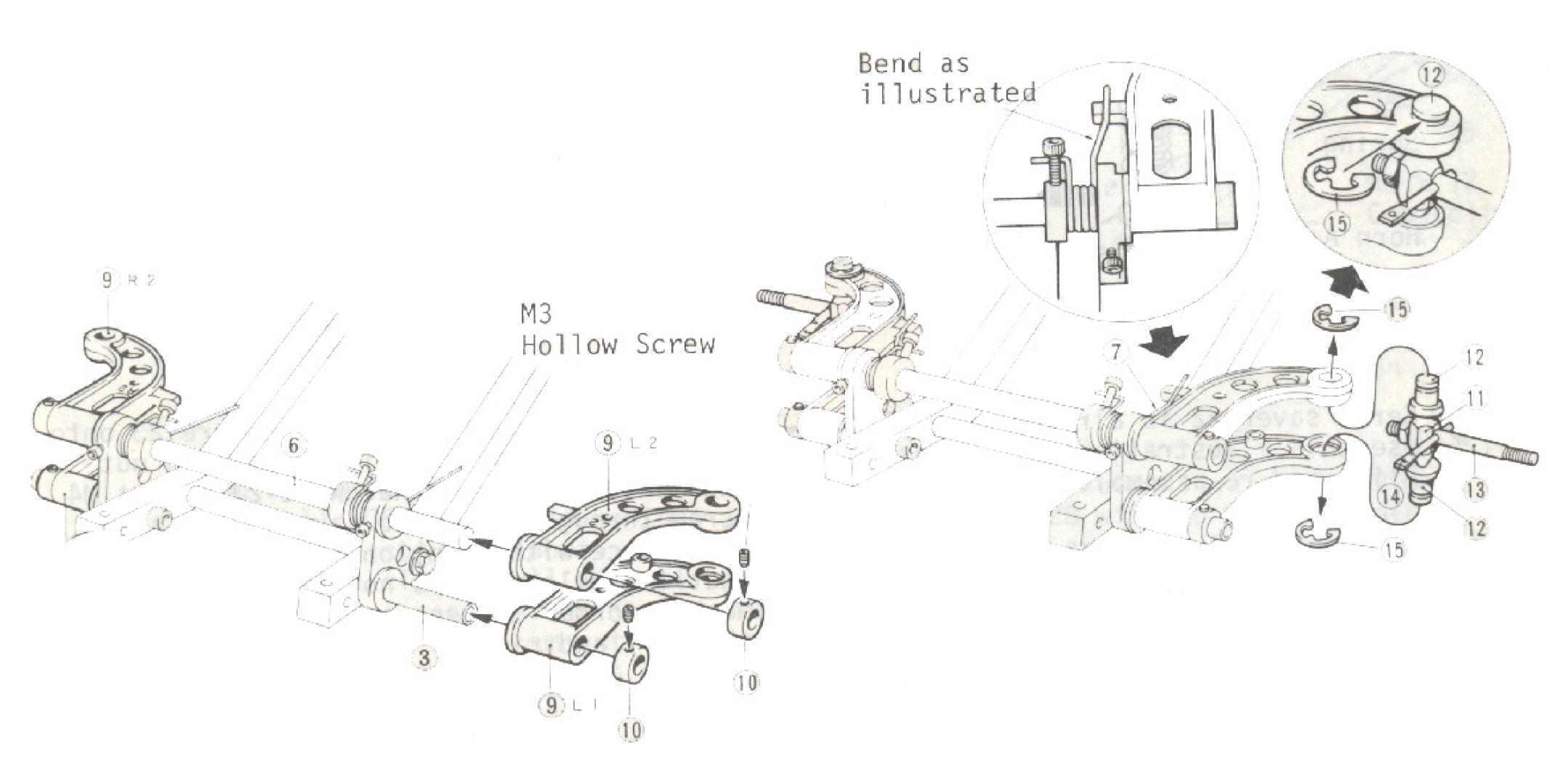
Small parts in step 1 - 4 are included in front end section parts #1 bag.





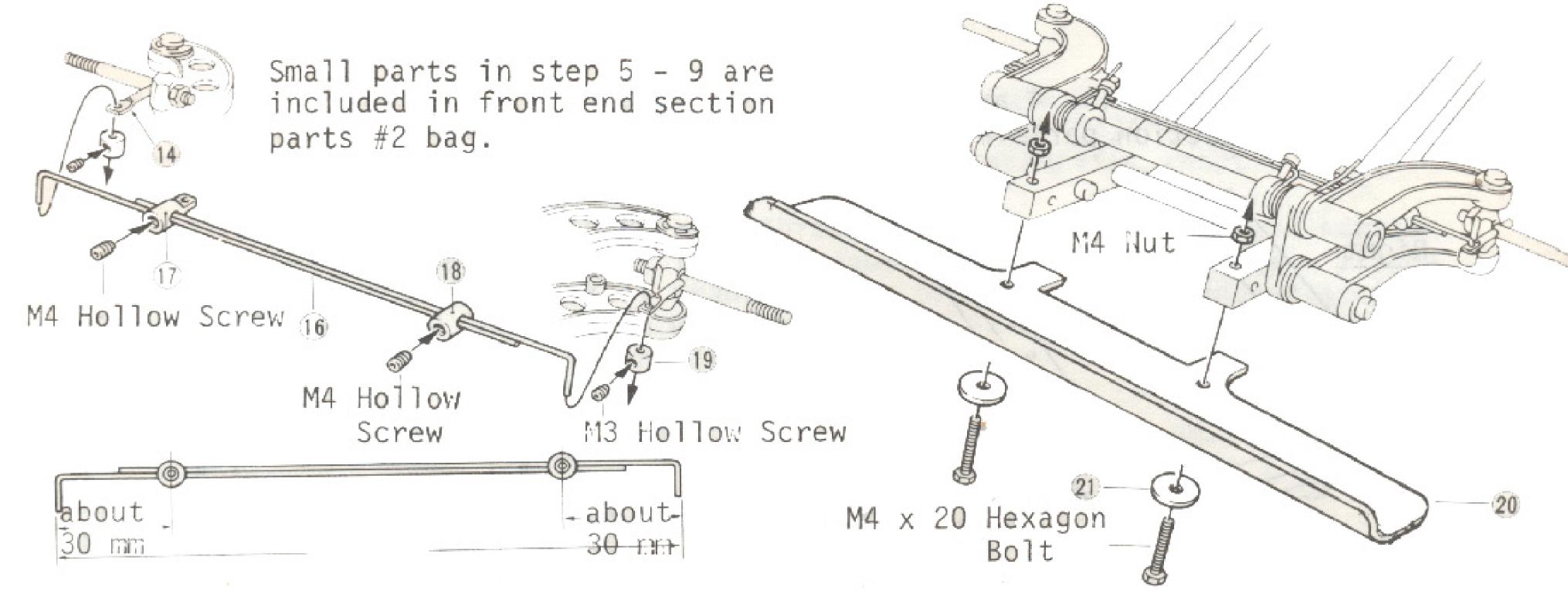
the main frame 1 . The installing hole for the suspension stopper 5 is made to be oval for the adjustment of the body height. When the stopper is set upward, the altitude of the car will be low; and downward it will be high.

Fix the arm holder 2 and other parts on 📻 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.



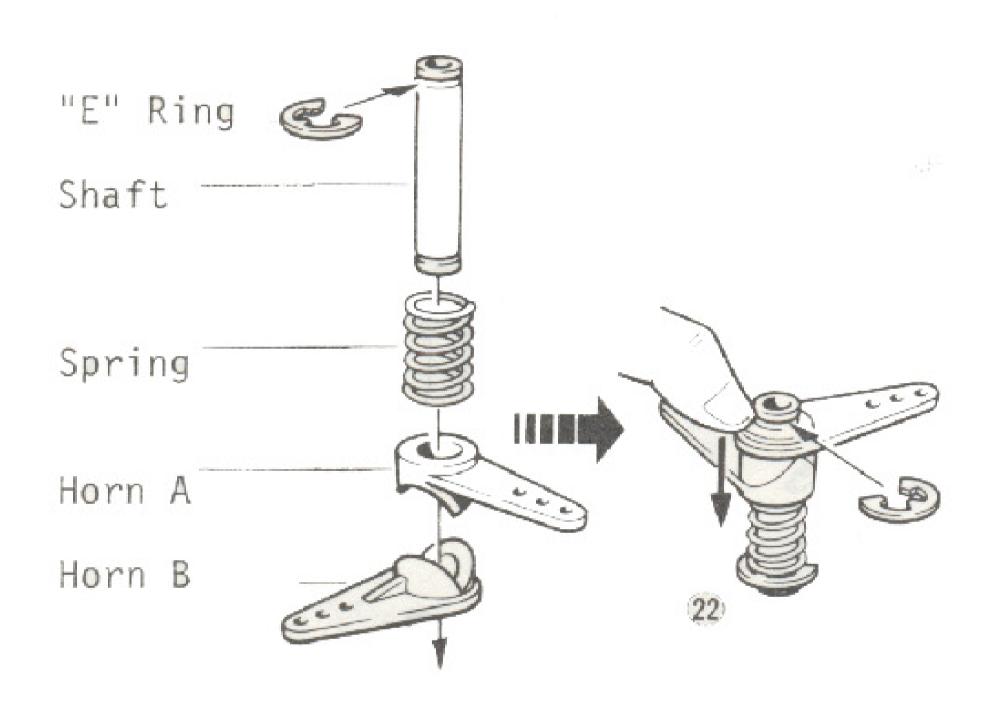
As L1, L2, R1, R2 are stamped on the each front suspension arm 9, using illustration as reference, insert arm axle A 3 and B 6 and then is installed with suspension side Stopper 10 but when doing so, set it so the there will be no excess play to the right and left on the suspension arm and have it so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

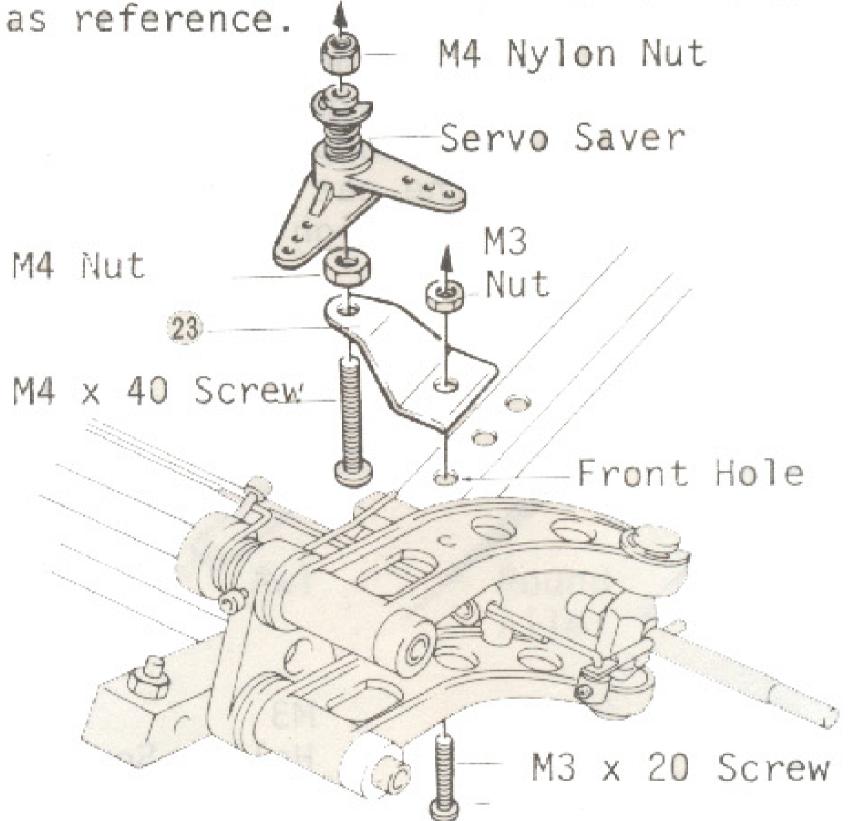
Insert into front suspension arm the already assembled parts (key nos. 11 12 13 14 and then hold place with "E" right 15. Next, set the front spring 7 into place as illustrated.



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.



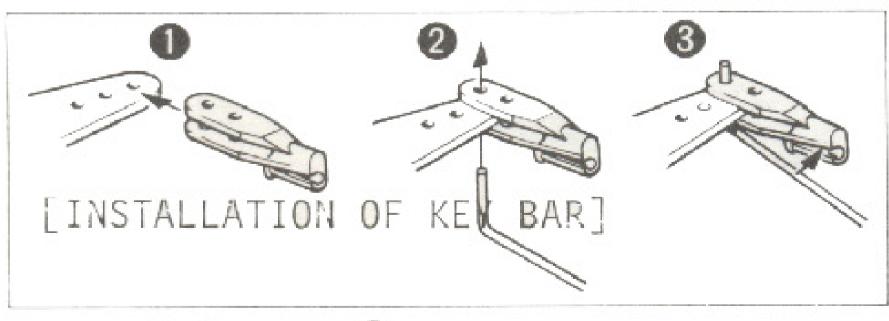




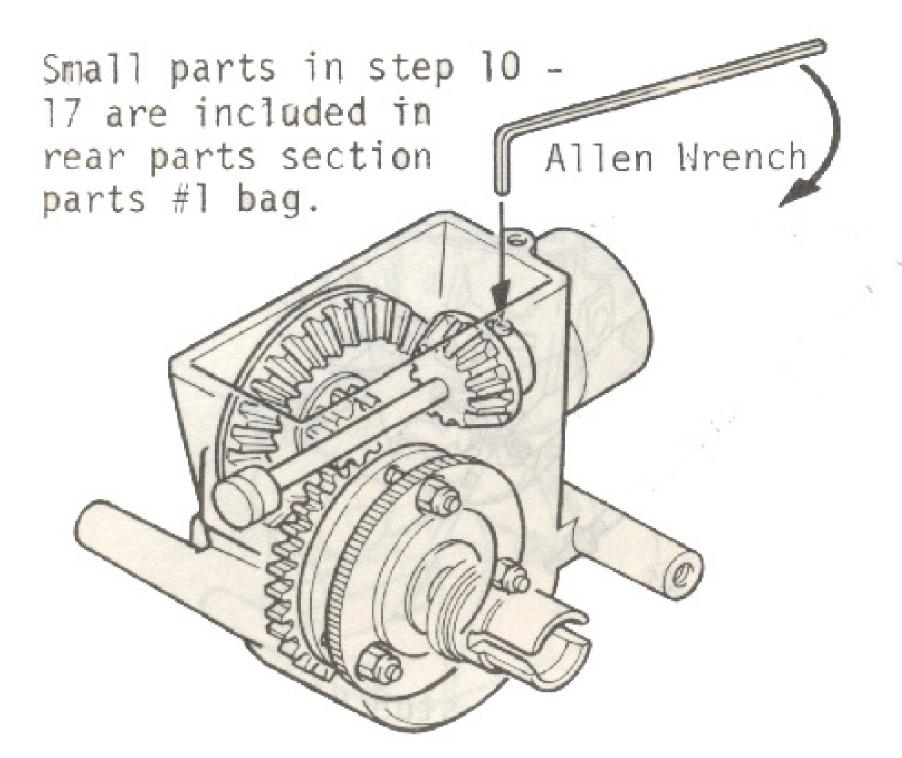
Servo saver 22 is already assembled.

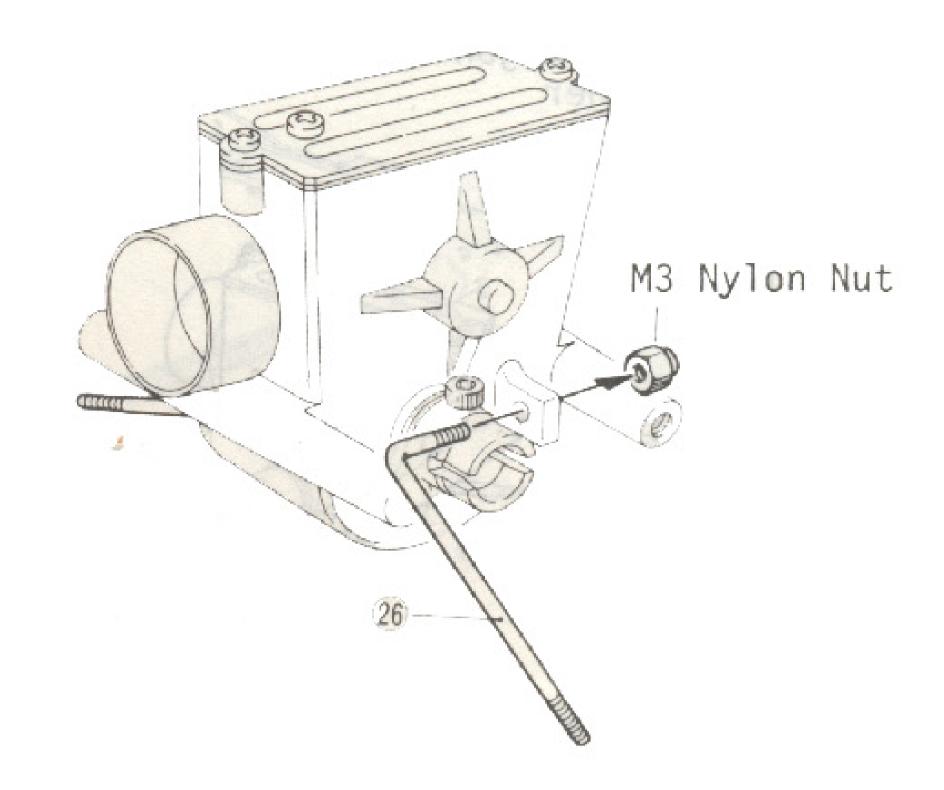
Use this illustration when disassembling and re-assembling.

Install 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 so that the nylon nut is not tightened too much in order to keep a light movement to the left and right.



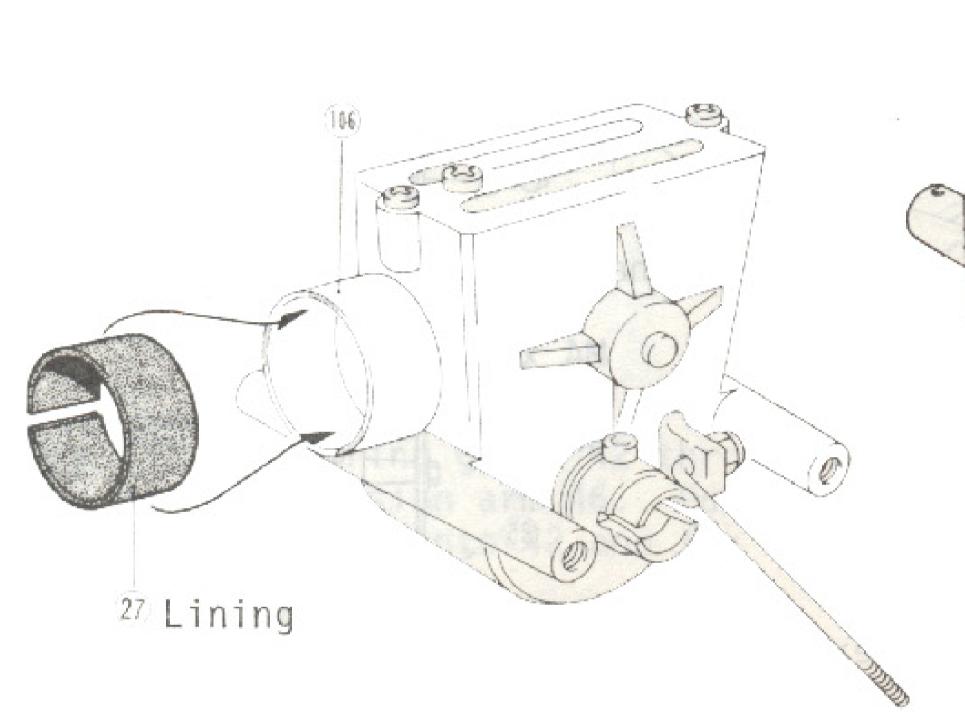
Insert Steering rod 24 through tap 17 and install the other end to the servo saver using keeper 25.





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.



Right

M4 Nut

M6 x 10

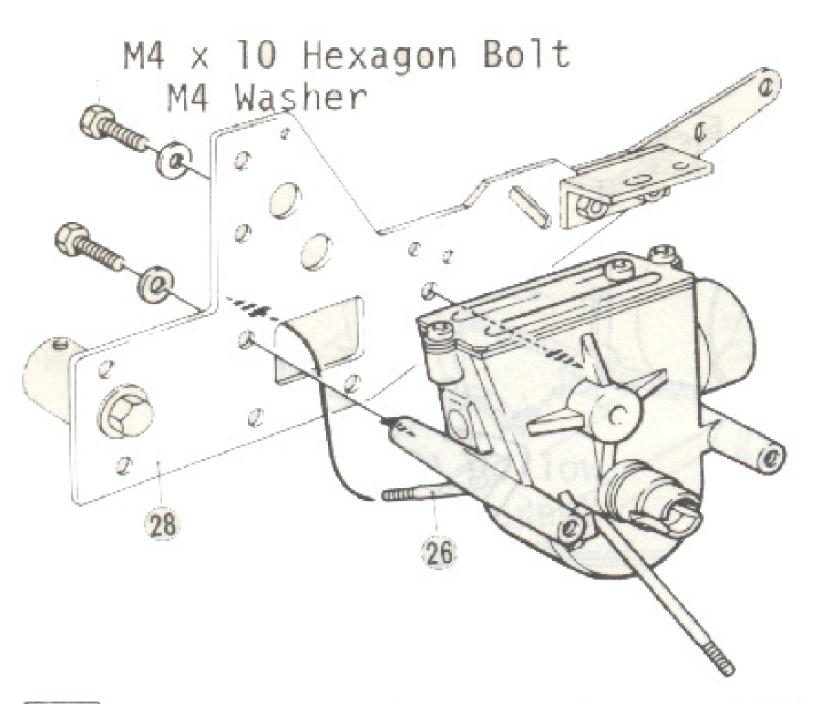
Hexagon Bolt

M6 Washer

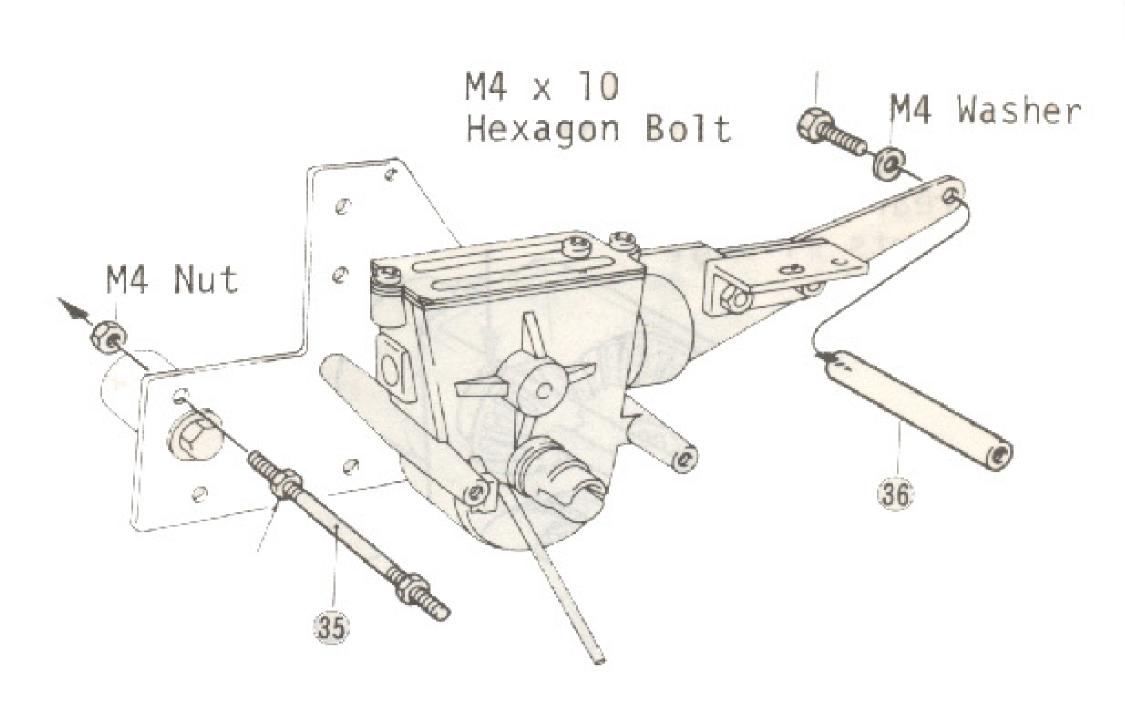
Hole for screw to be on top

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.

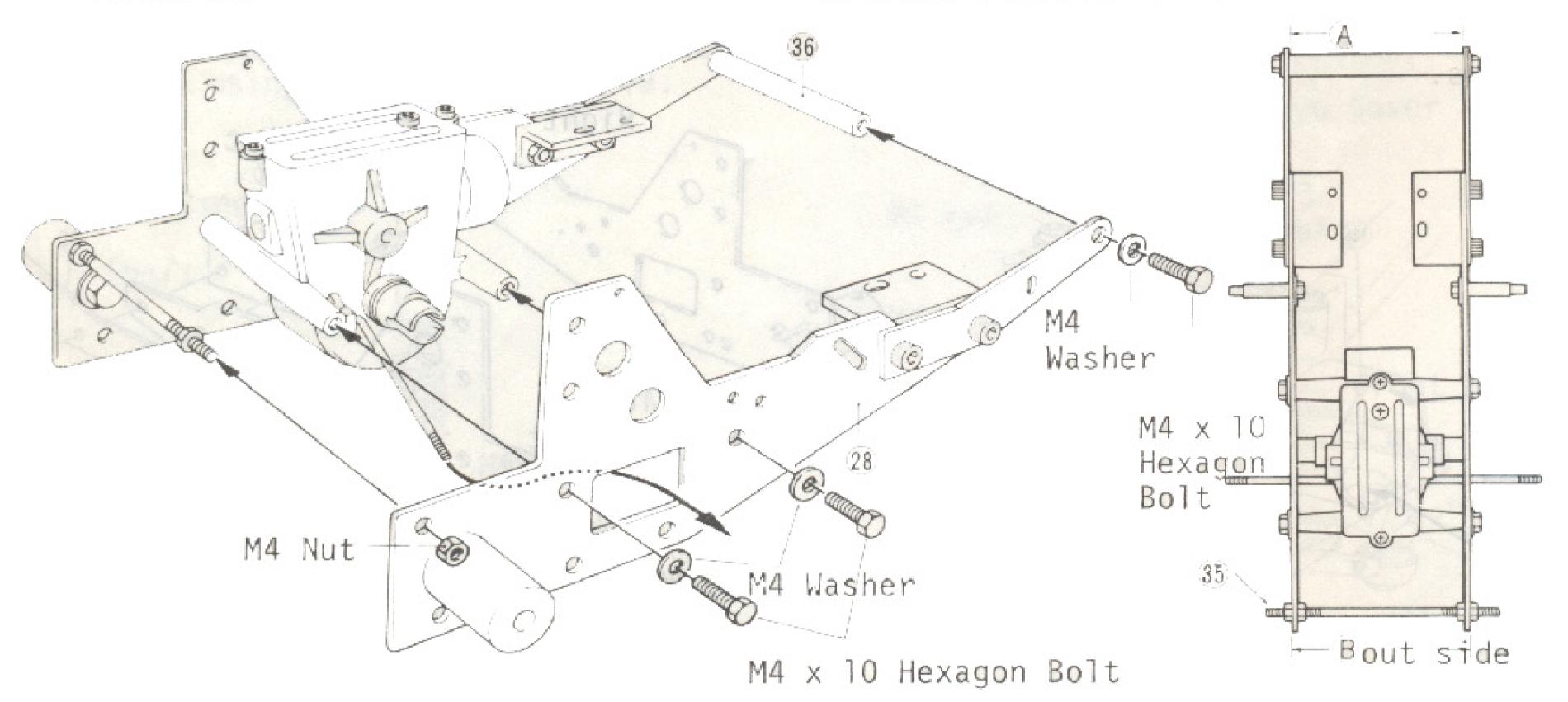
Install rear suspension pivot 29 onto rear frame 28 with M6 bolt. Engine mount 30 31 are installed together with rear bracket 32 but when doing so, be careful not to make the mistake of installing the left and right engine mount on the wrong side.



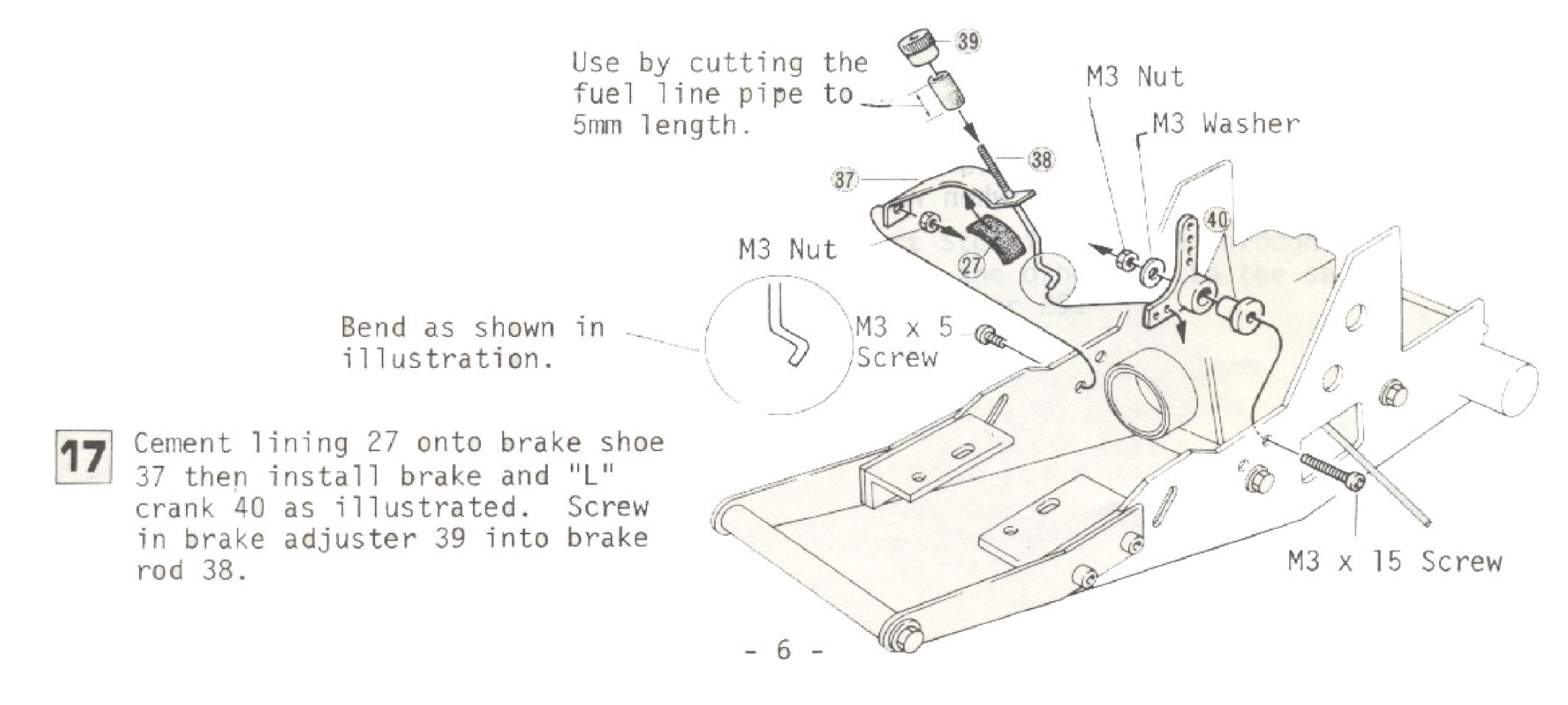
Insert gear box tension rod 26 through the square hole in the rear frame 28 and then install the gear box assembly onto rear frame 28.

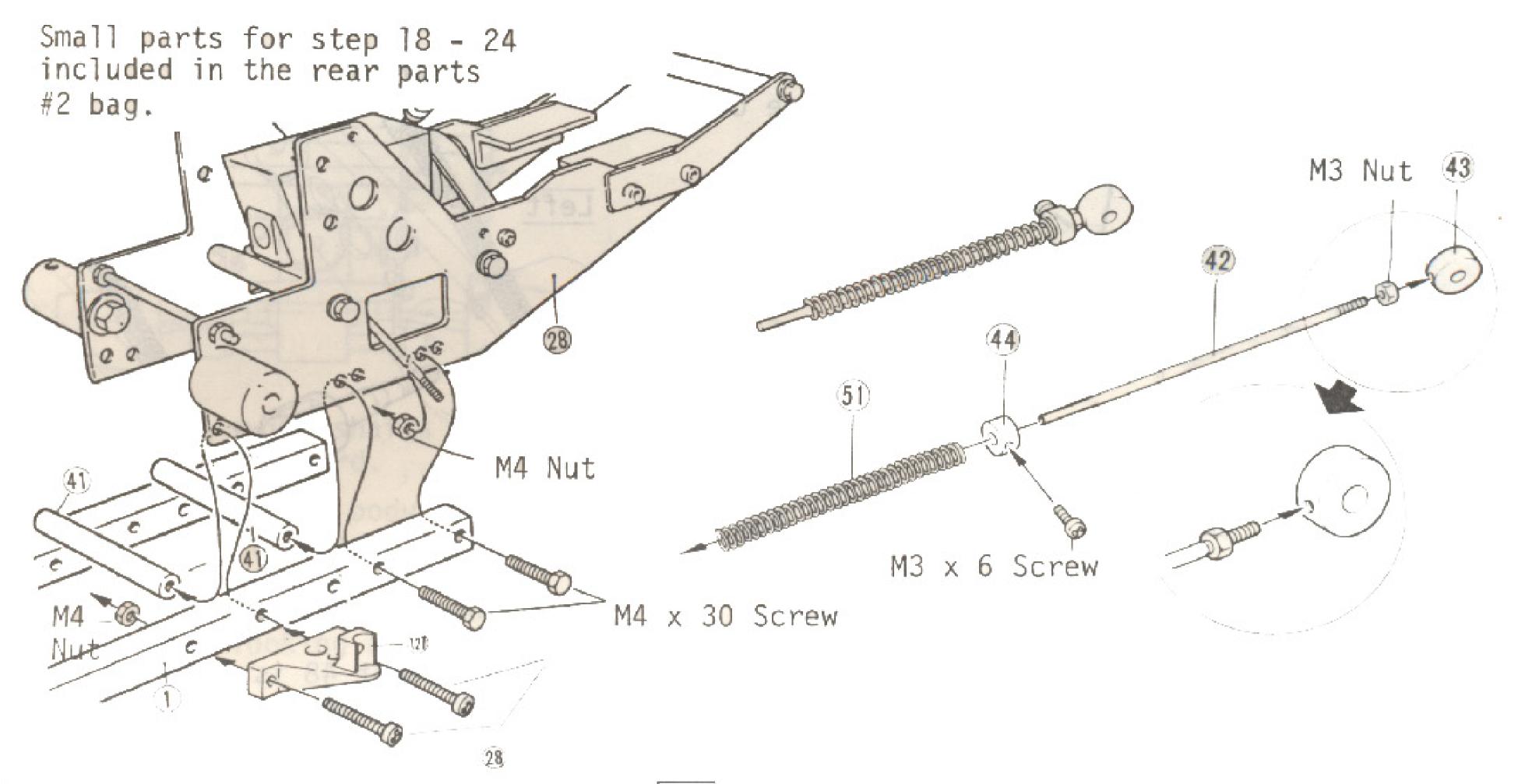


Screw on M4 nut onto stud bolt 35 as illustrated, and have stud bolt 35 temporarily attached to one side of the rear frame with M4 nut. Also, have rear bracket joint 36 installed as well.



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.

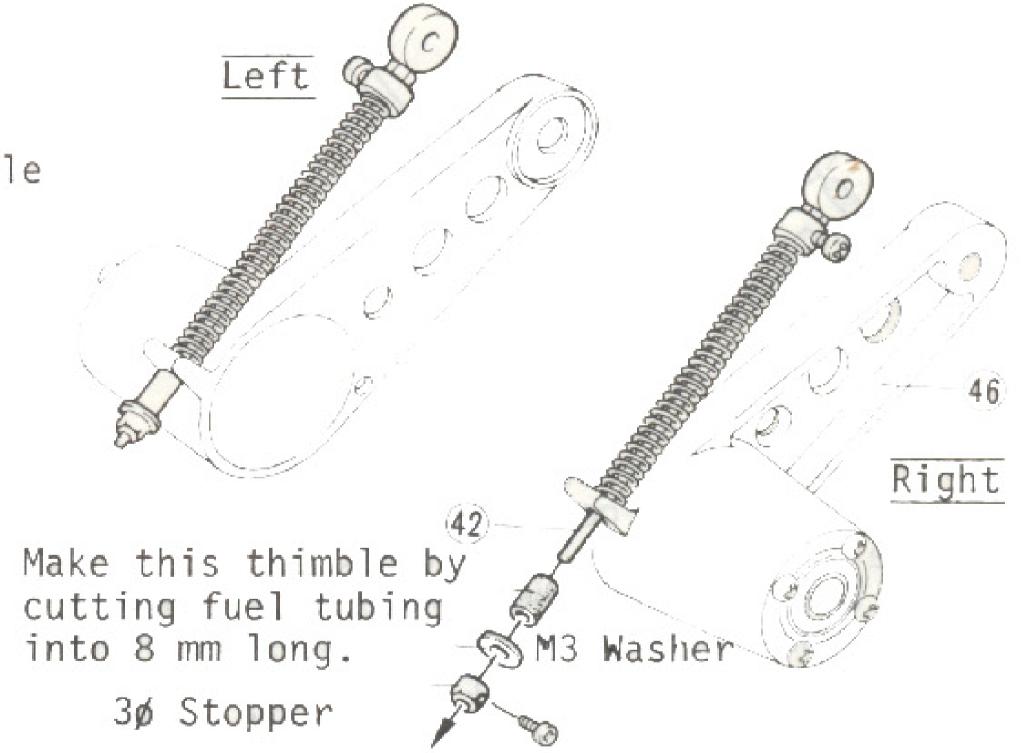




Install rear frame 28, side member 127, joint Collar 41 onto main frame 1 as illustrated.

19 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.

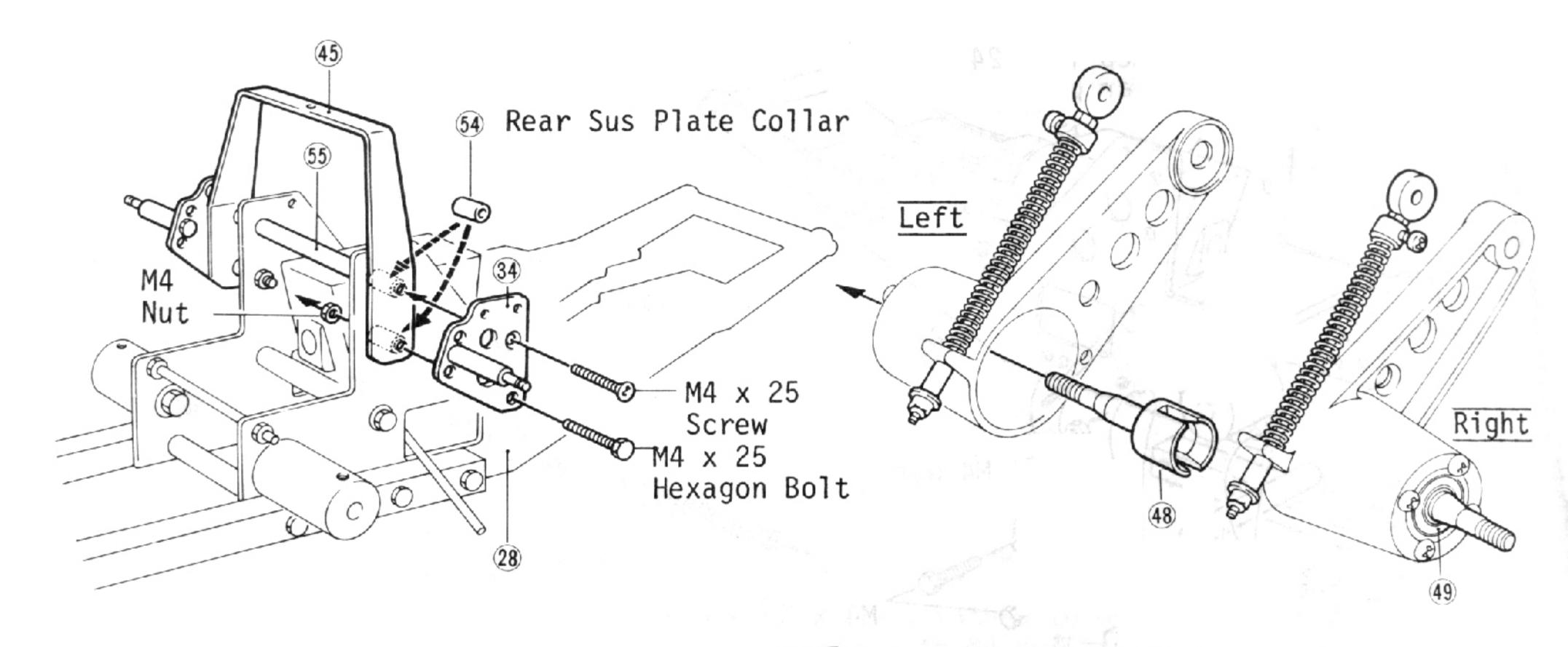


Install the rear suspension holder to the rear suspension plate 34.

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

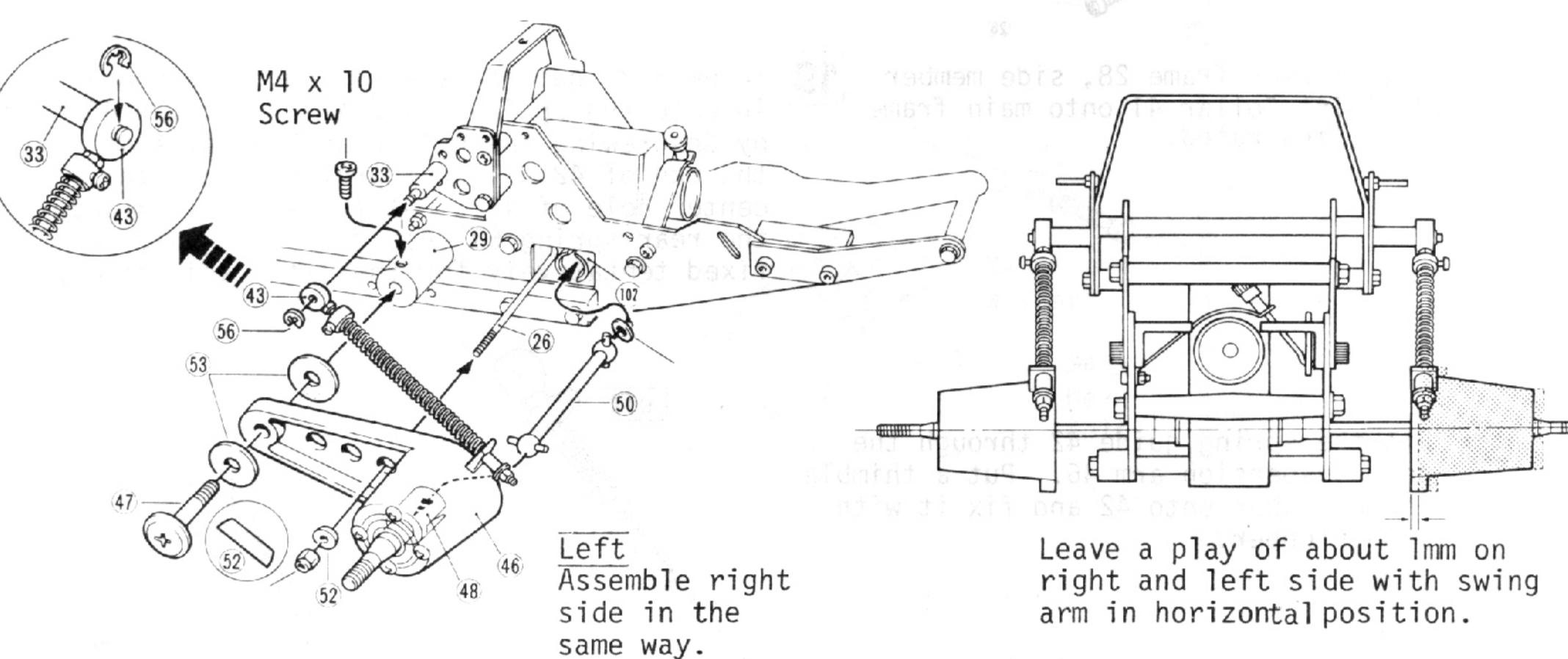
M4 x 10

Hexagon Bolt



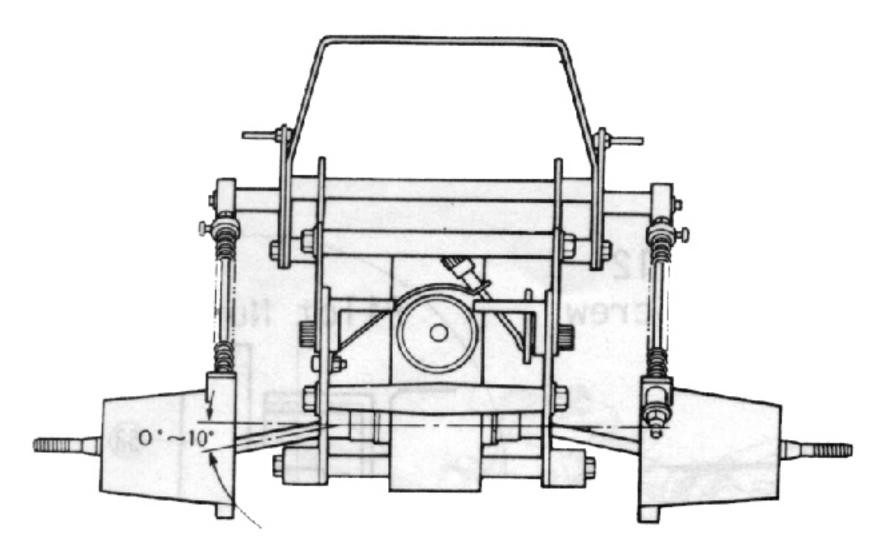
Install the roll bar 45 & rear sus plate 34 to the rear frame 28.

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 tightene 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.

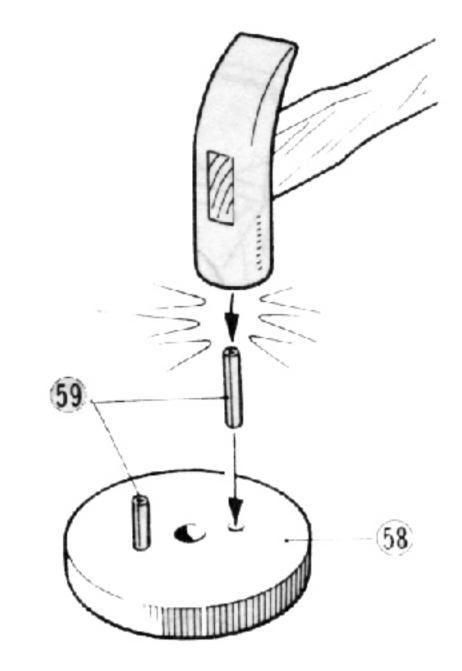


Arrange the swing shafts horizontal or slightly downward.

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.

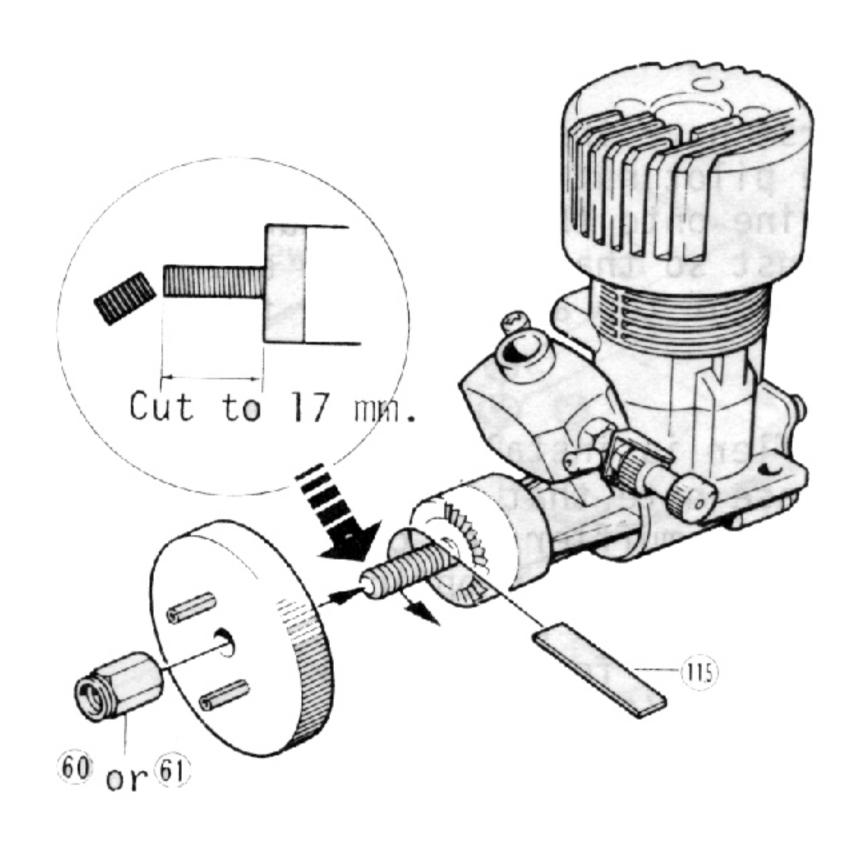
First, cut off with back saw or grinder leaving 17 mm measureing from the tip of the shaft to the engine drive shaft. After this has been done, install flywheel 58 firmly illustrated.

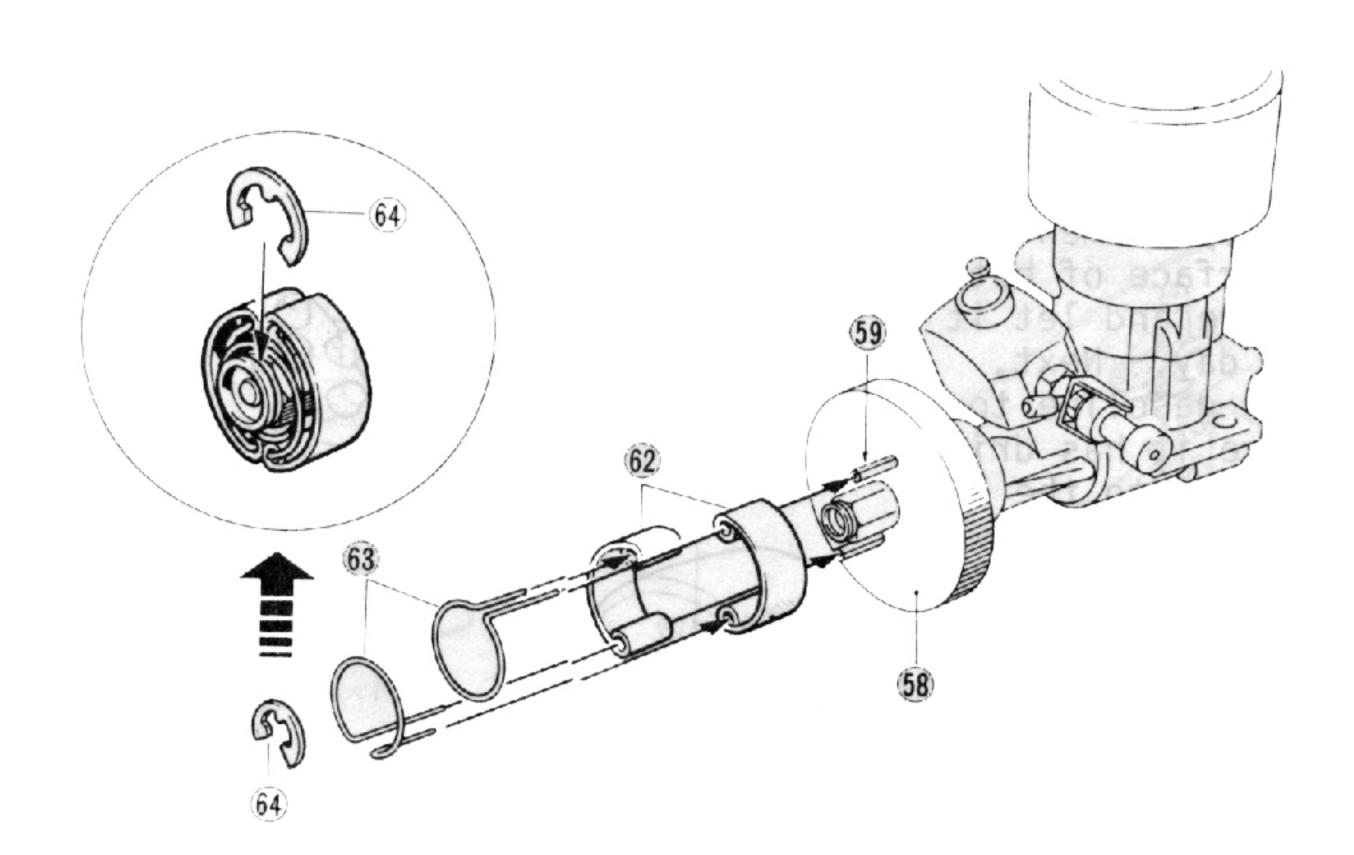
When using Enya 21 X engine engine wrap shim 115 around shaft insert flywheel.



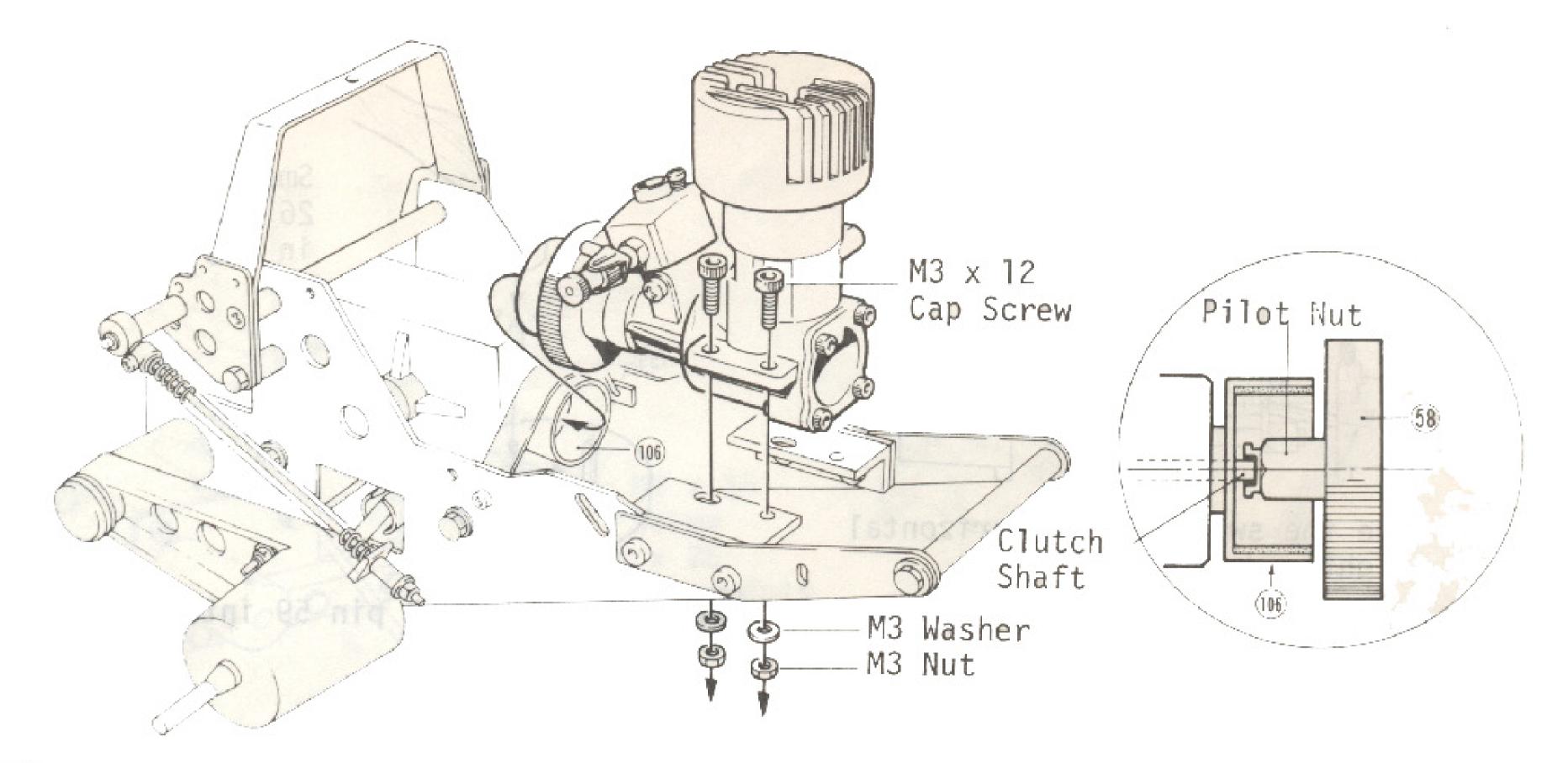
Small parts for steps 26 - 28 are included in engine parts bag.

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.

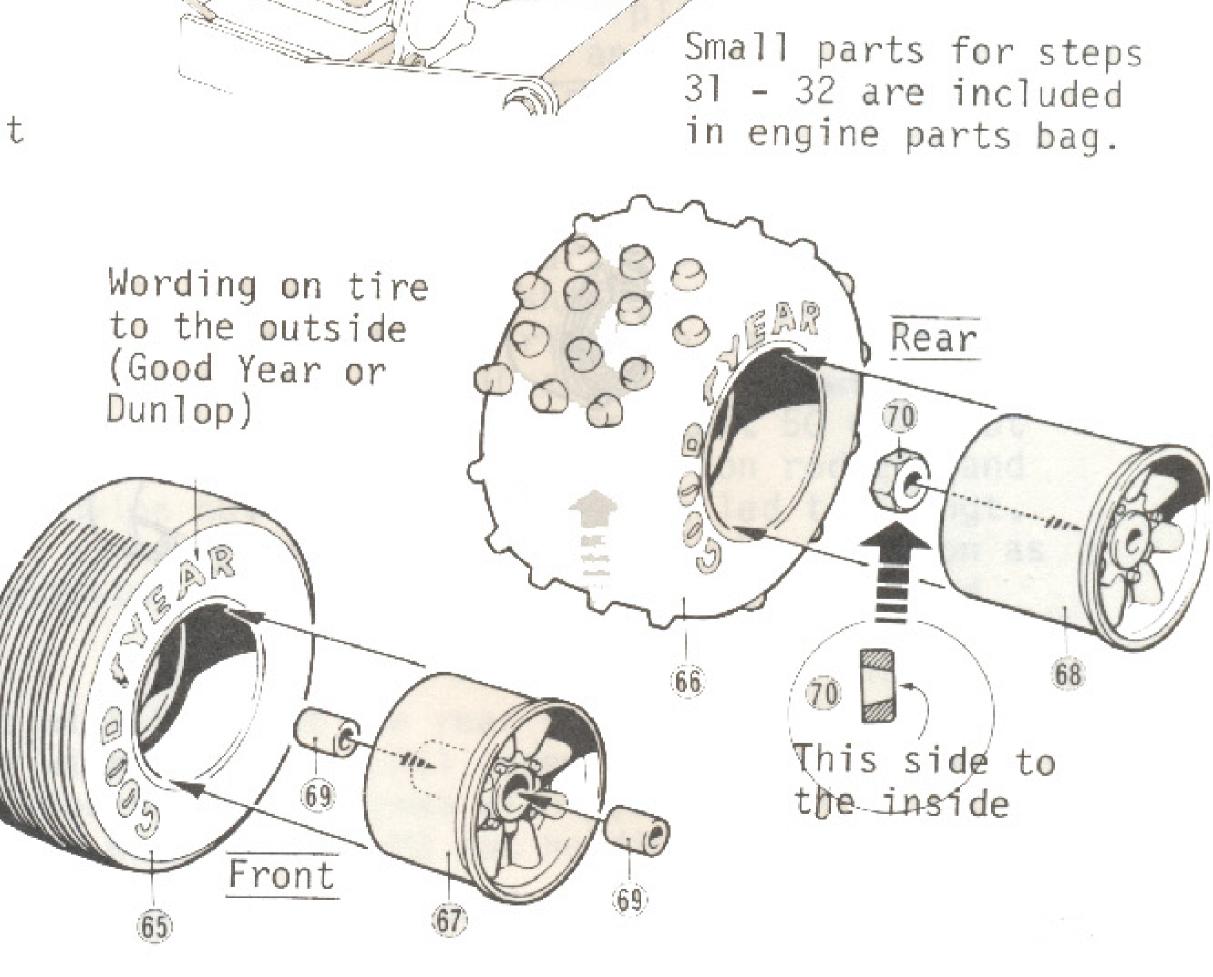


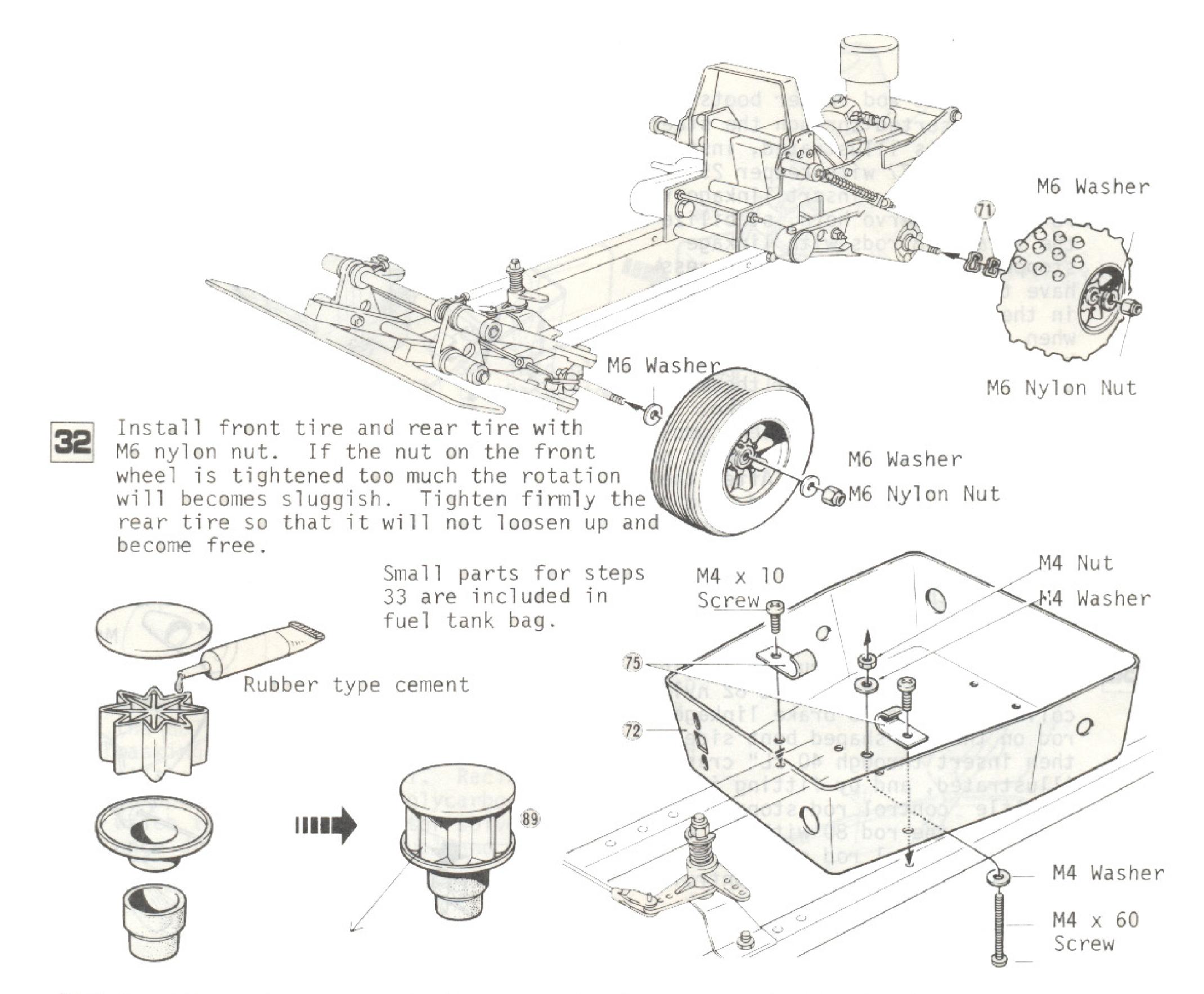
First have the bolt holding the engine mount loosened, align the center hole of the pilot nut and the clutch shaft of the clutch bell 106 and then install the engine onto the engine mount. At this time, as each bolts are being tightened adjust so that the engine and the frame will become parallel looking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

Muffler is installed but, please note that there is a special muffler for cincuit 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.



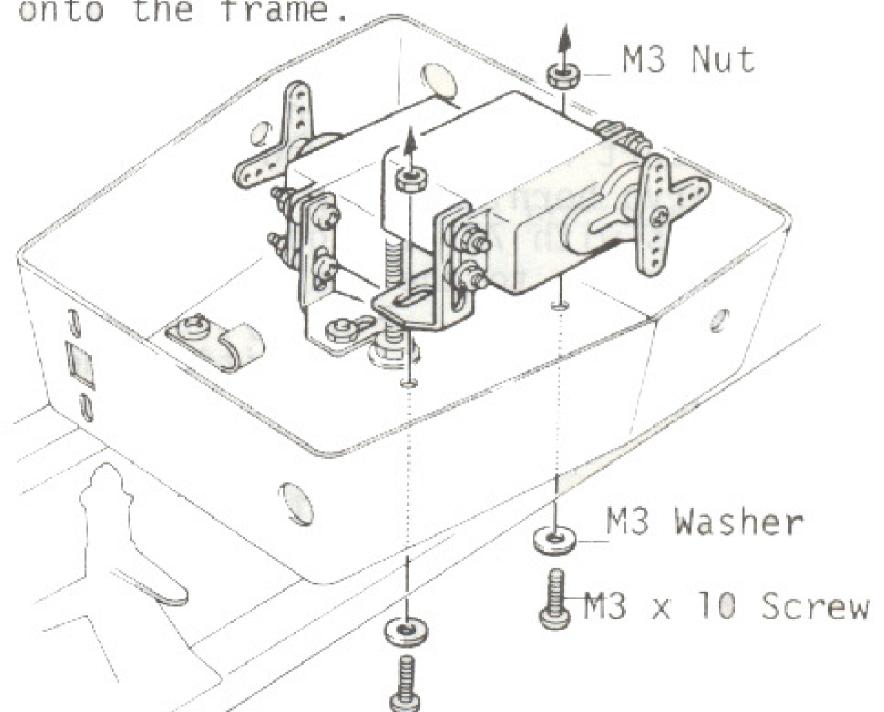


Air filter 89 is assembled by cementing 📻 Battery holder hardware 75 together together with a cement as illustrated.

> Small parts for steps 34 - 39 are included M3 Nut in linkage parts bag.

M3 x 10 Scres

with mechanism box 72 are installed onto the frame. M3 Nut



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

Servo is installed into the mechanism 36 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.

Cement

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 Screw

Cement

Throttle Valve

M4 x 5

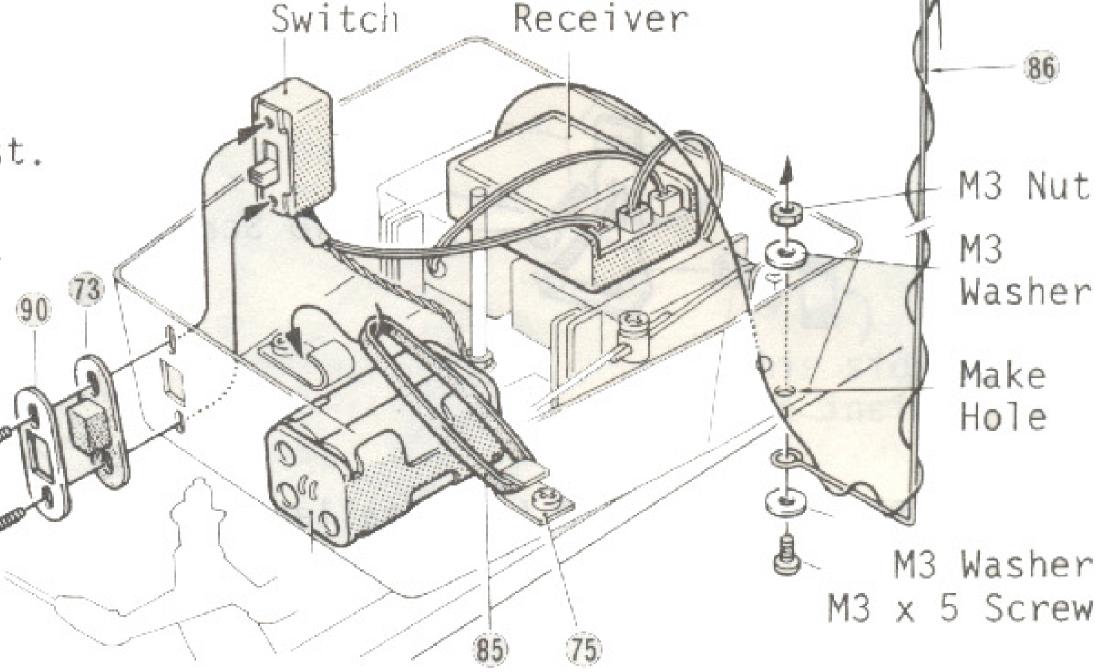
Screw

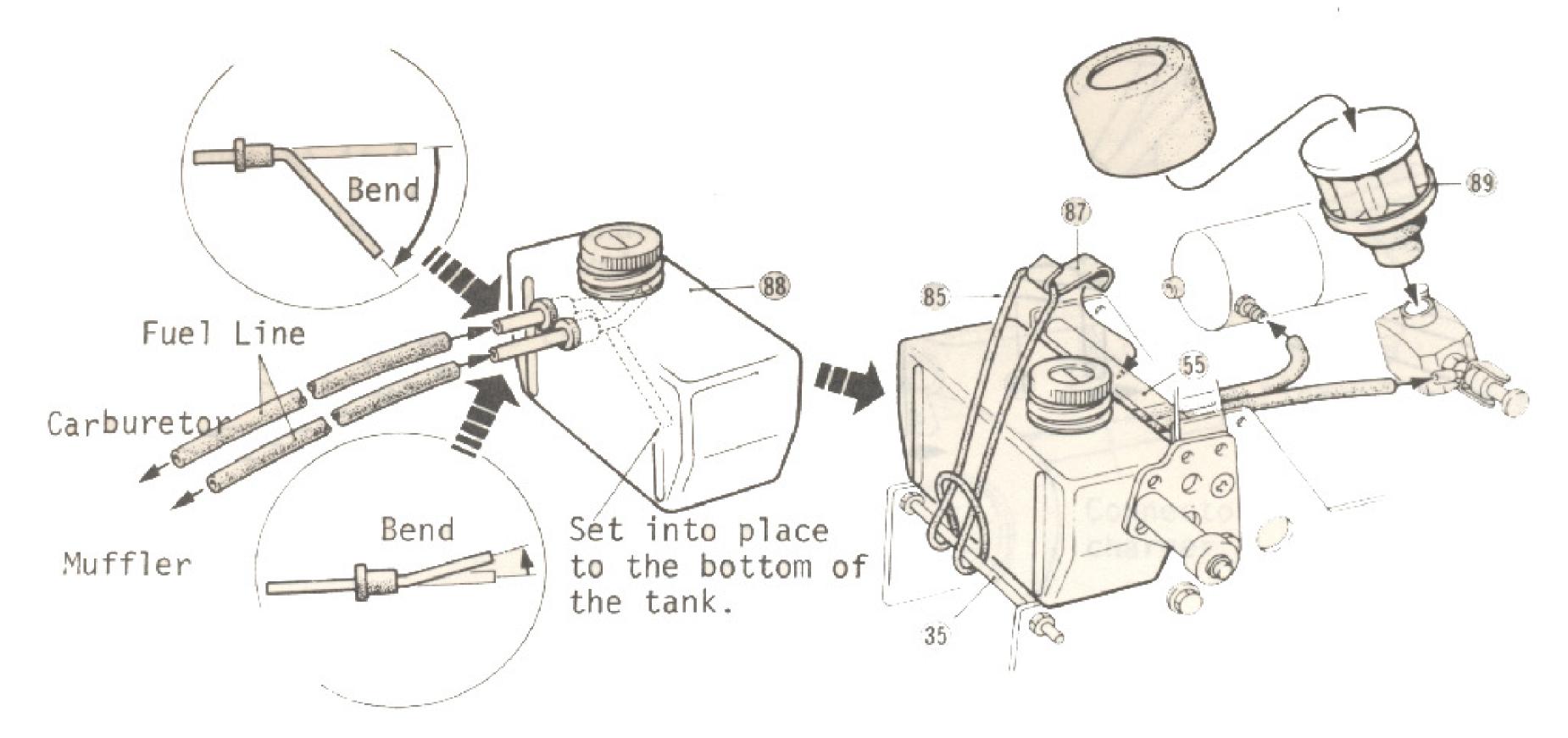
Screw

lriver

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.





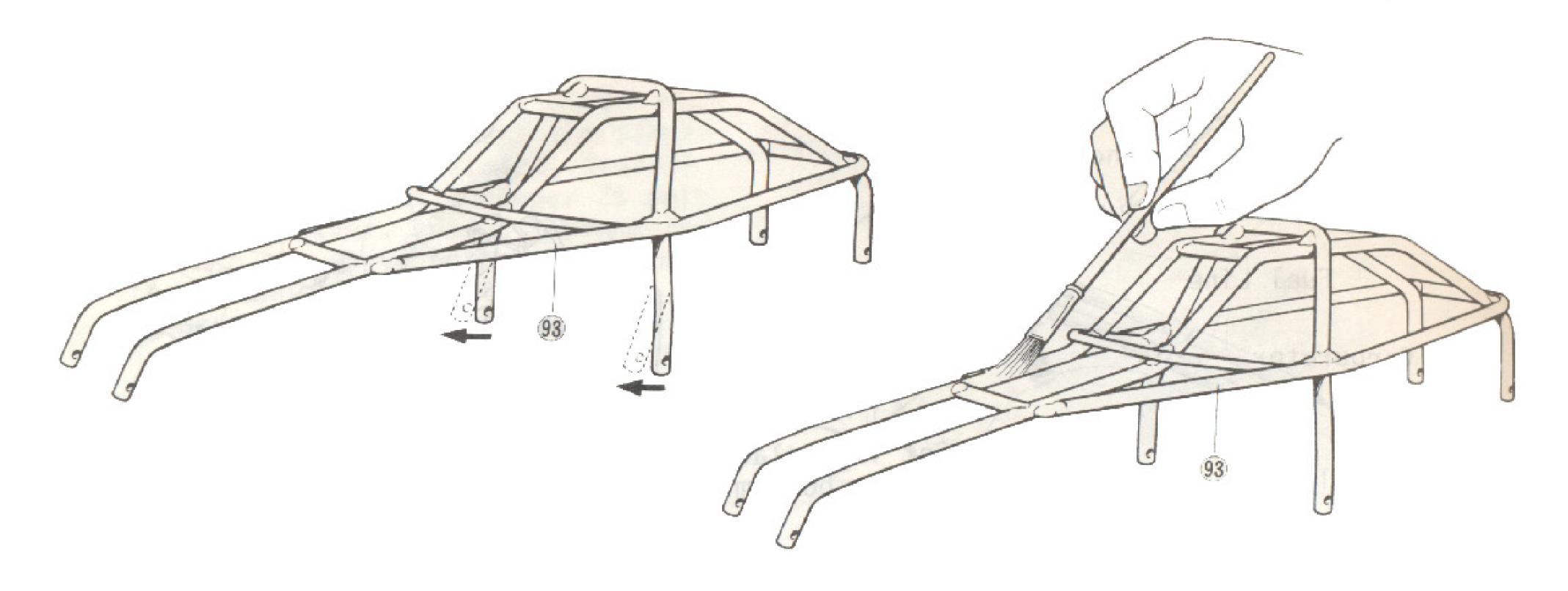
Assemble fuel tank as illustrated. For installation, hook rubber band 85 onto stud bolt 35 and stabilize into place by hooking the 87 tank installation hardware onto the upper stud bolt 35. Install the 89 air filter assembled in step 32 onto the carburetor.

After washing and drying well, the inner side the doll is painted but to put in lines, use masking tape and paint in different colors and at the end paint overall. Racing color paint is specially made for polycarbonate material which is easy to use water solvent type and once dried, it become fuel and water proof.

Make body holder hole

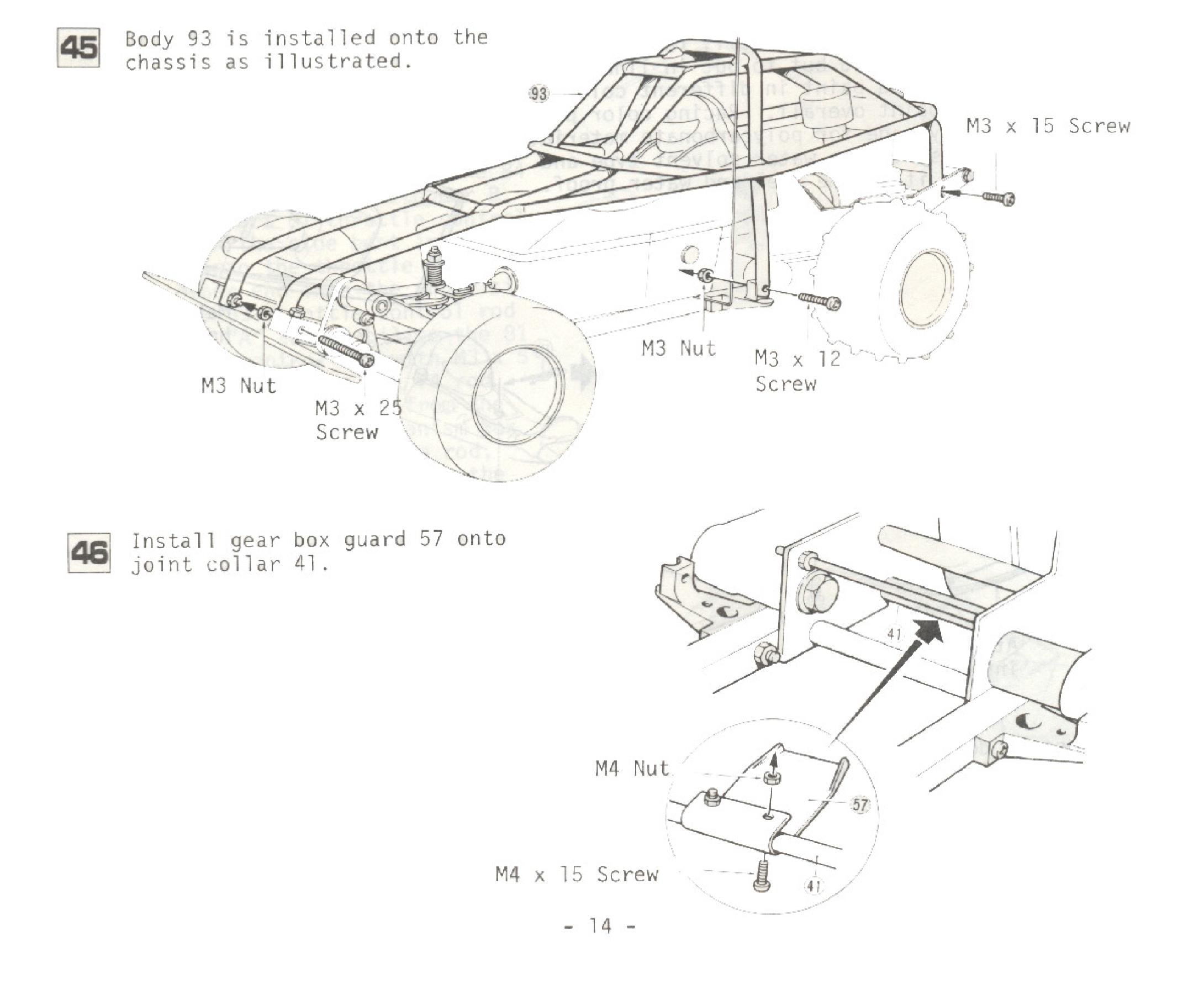
Make a hole for fuel pump.

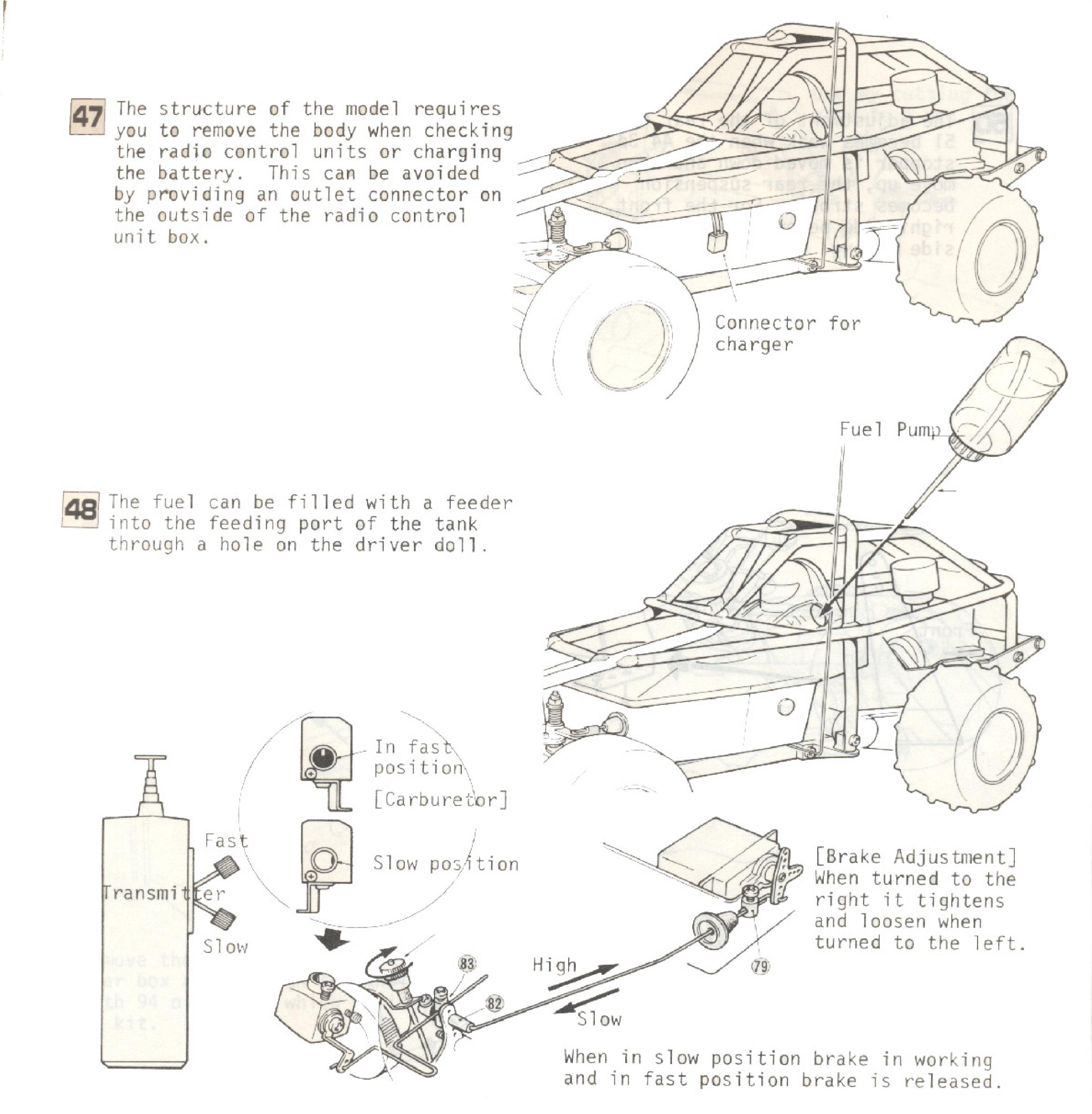
Install doll holder hook 112 onto mechanism box lid 92 then cement mechanism box lid cap 116 and mechanism box sticker 114 with rubber type cement. Doll 91 is installed with pin 113 onto stopper hook 112.



body installation holes are in line and in case it is out of line, adjust with plier or other comparable tool.

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

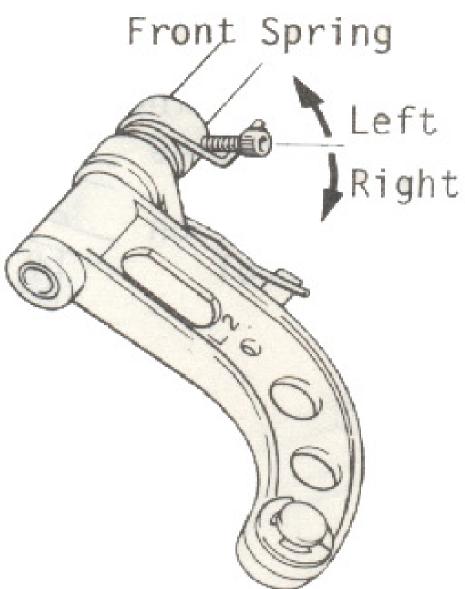


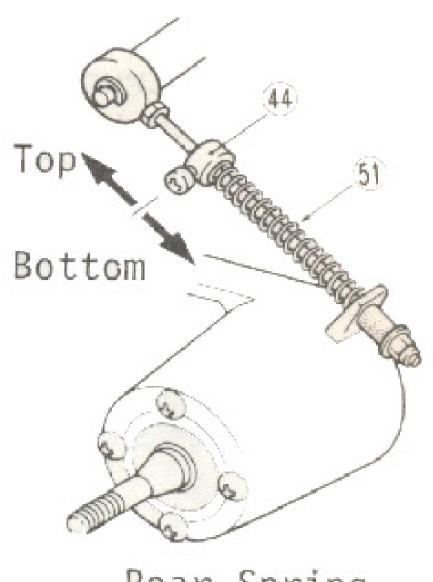


Before running, proportional system movement should be tested and have the brake, throttle control, etc. adjusted. Adjust so that when the transmitter throttle control stick is in the slow position the brake is in the working condition with the carburetor in the slowest position by loosening the 79 and 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.



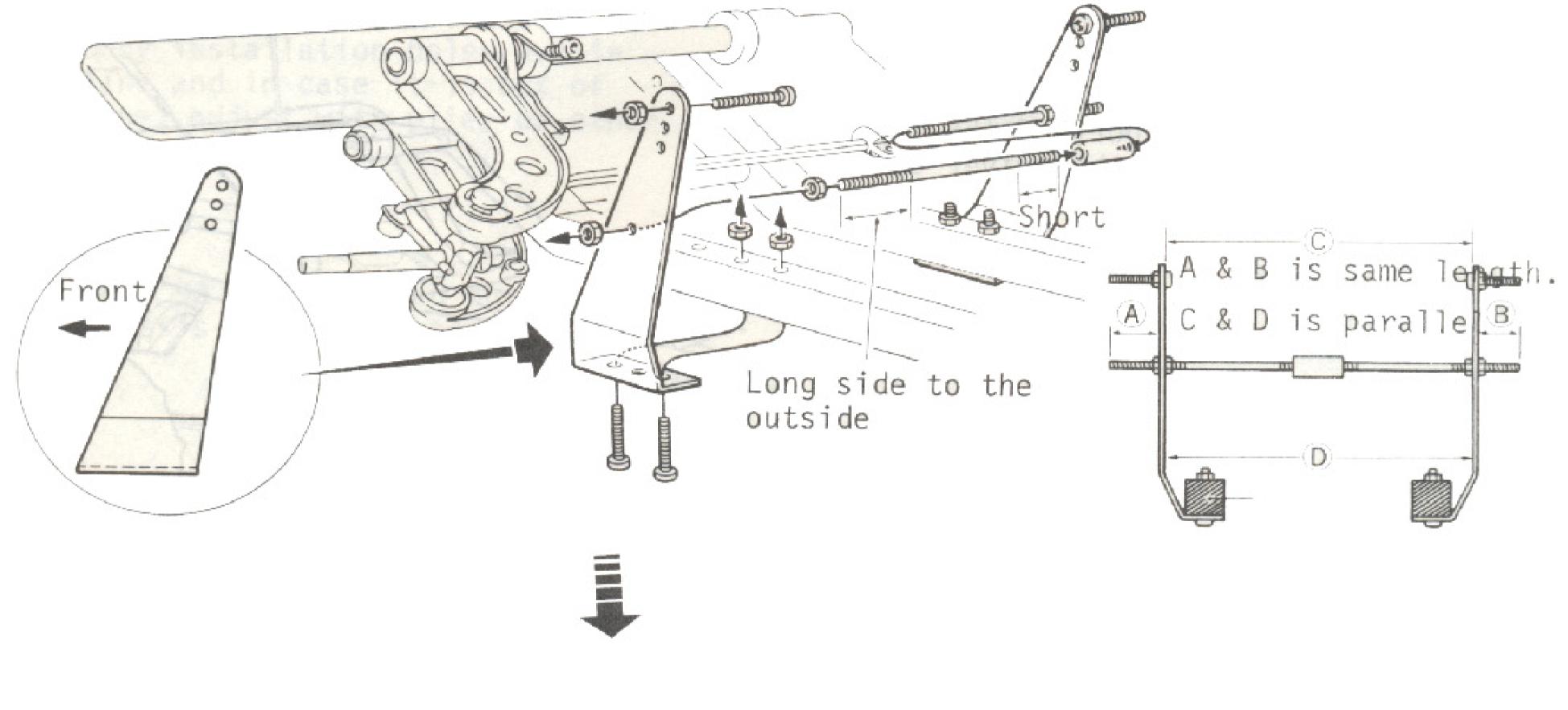
The adjustment of the rear spring 51 becomes weak when the 44 3¢ stopper is moved down and when move up, the rear suspension becomes strong. For the front, right side becomes weak and left side strong.

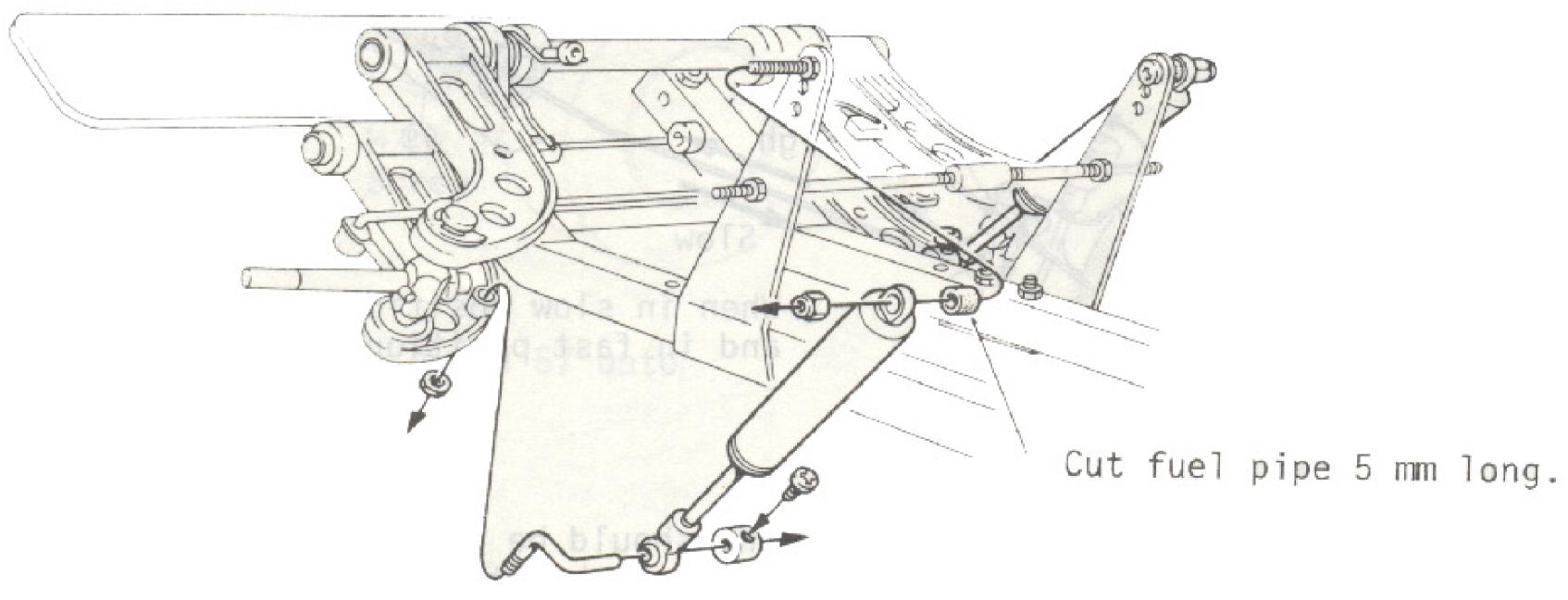




Rear Spring

OPTION PARTS

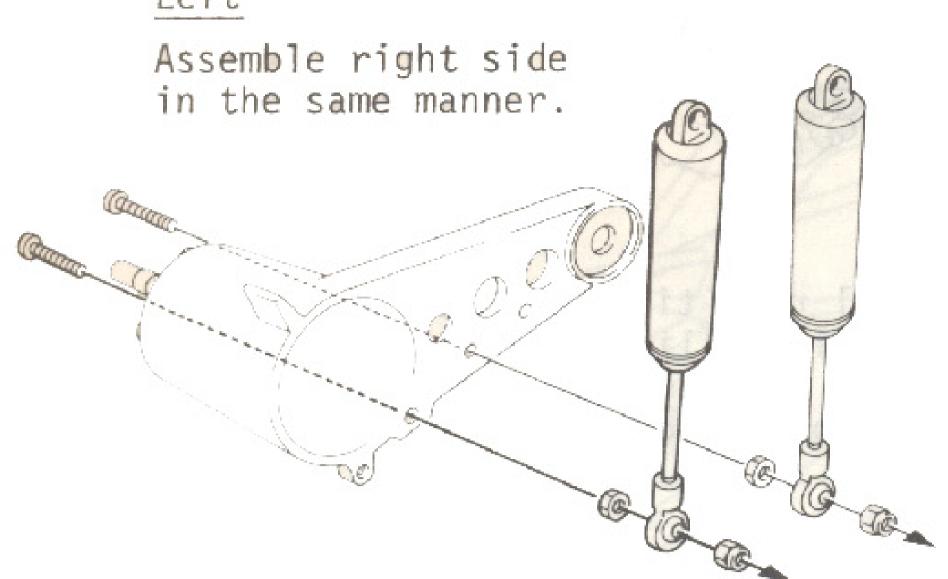


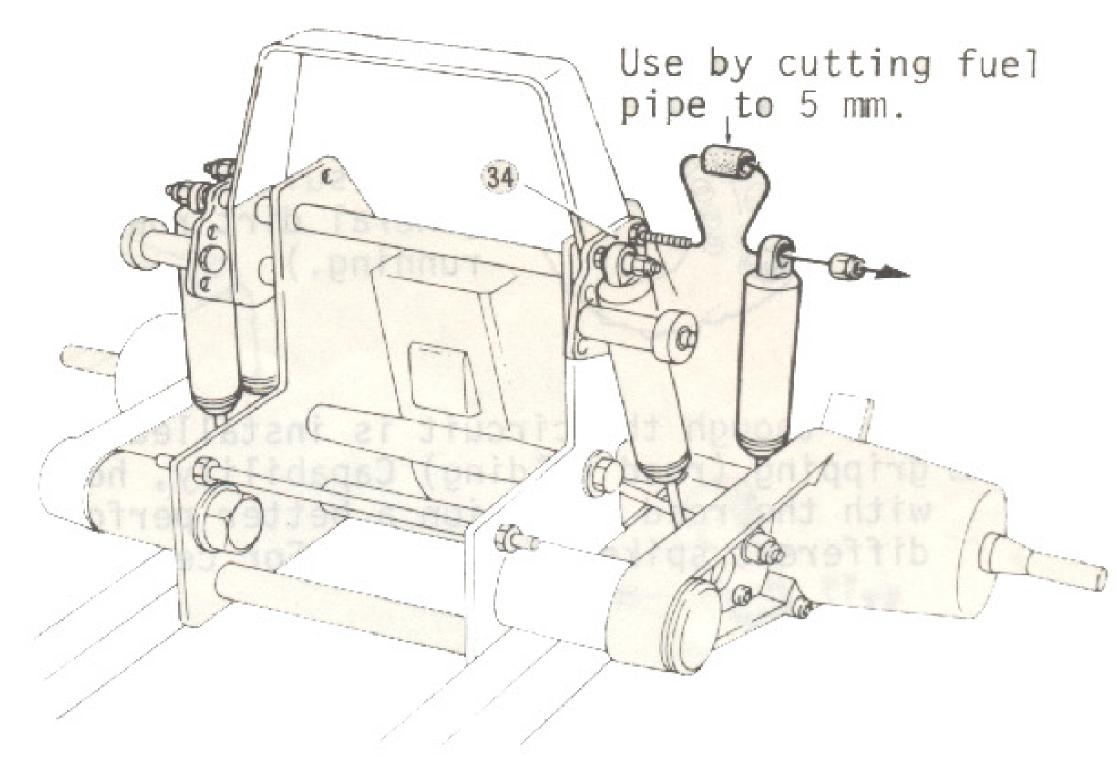


The method of installing optional front damper (CB-88). Hardwares for installation is included in the oil damper.

OPTION PARTS

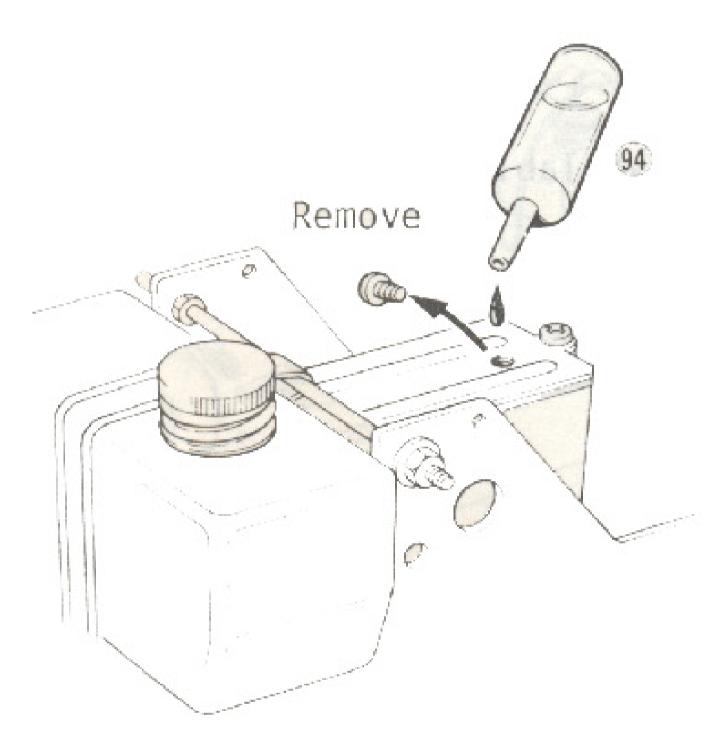
Left



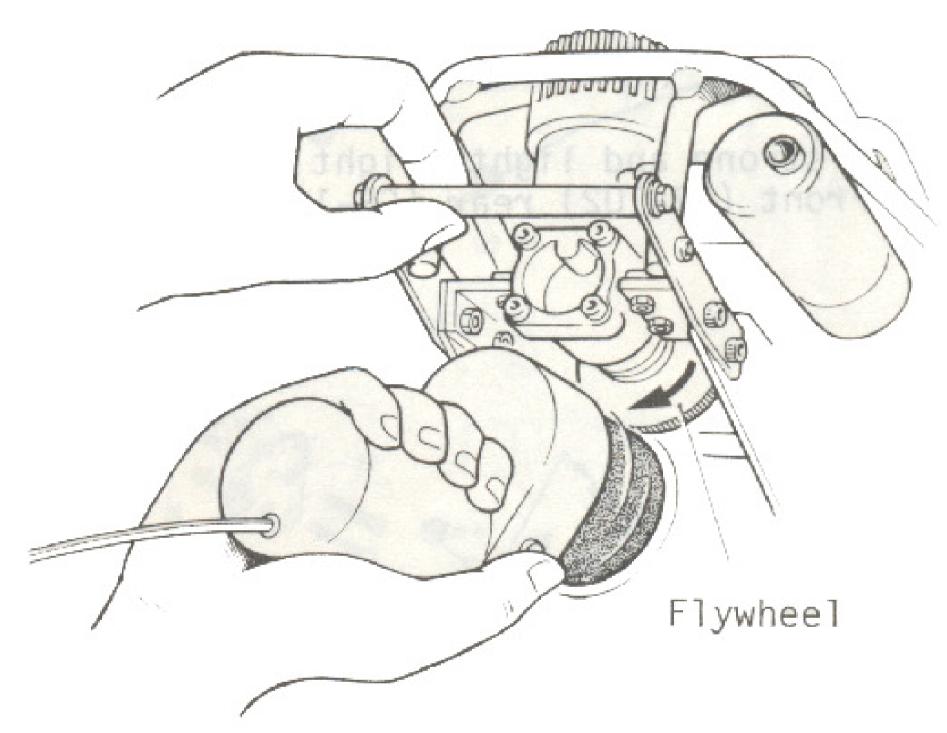


Two rear dampers (optional parts #CB-89) can usually be employed, but another way of characterizing the model is to install four of them.

The upper part of the dampers can be fixed to the rear suspension plate 34 as shown in the drawing.

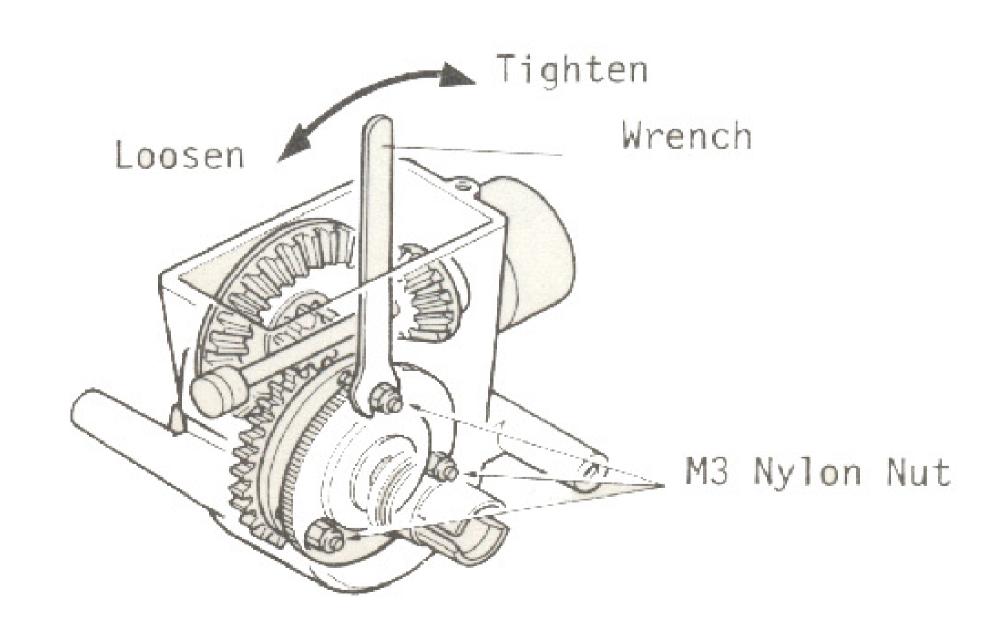


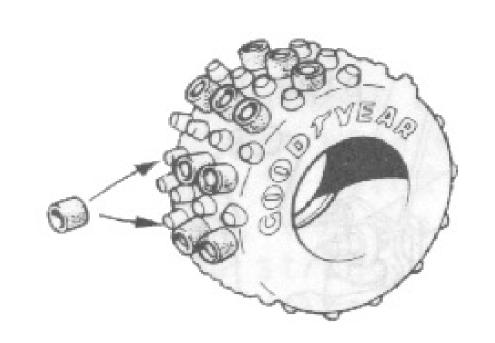
with 94 oil (5cc) which is included in kit.



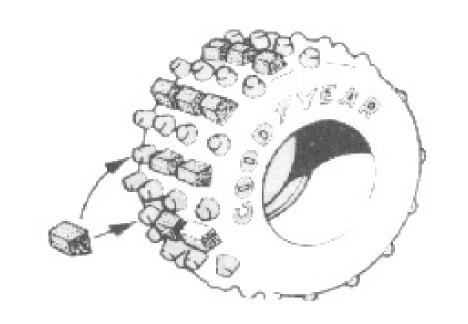
Remove the M4 screw on the lid of the 55 The way to start the engine is to rotate gear box and through this hole, fill by rubbing the electric starter against the flywheel from the bottom side of the chassis as illustrated. The rotating direction of the starter is to the left.

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.



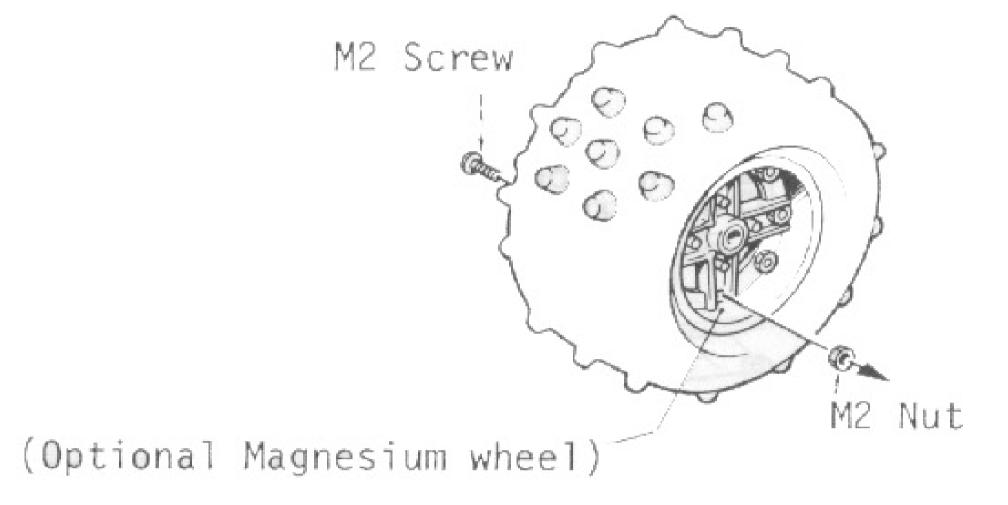


Nylon Super Spike (Most suitable for general dirt road running.)

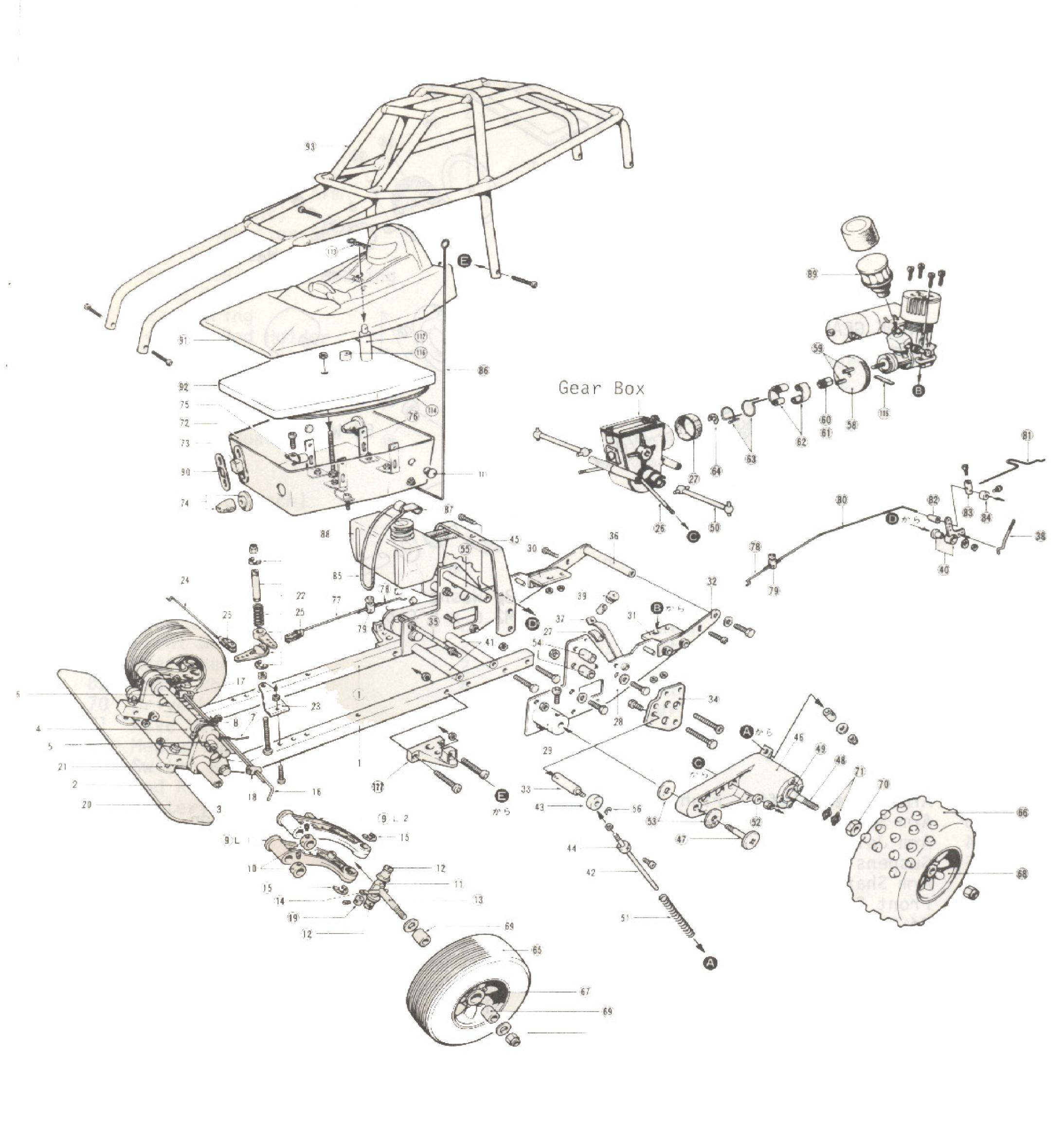


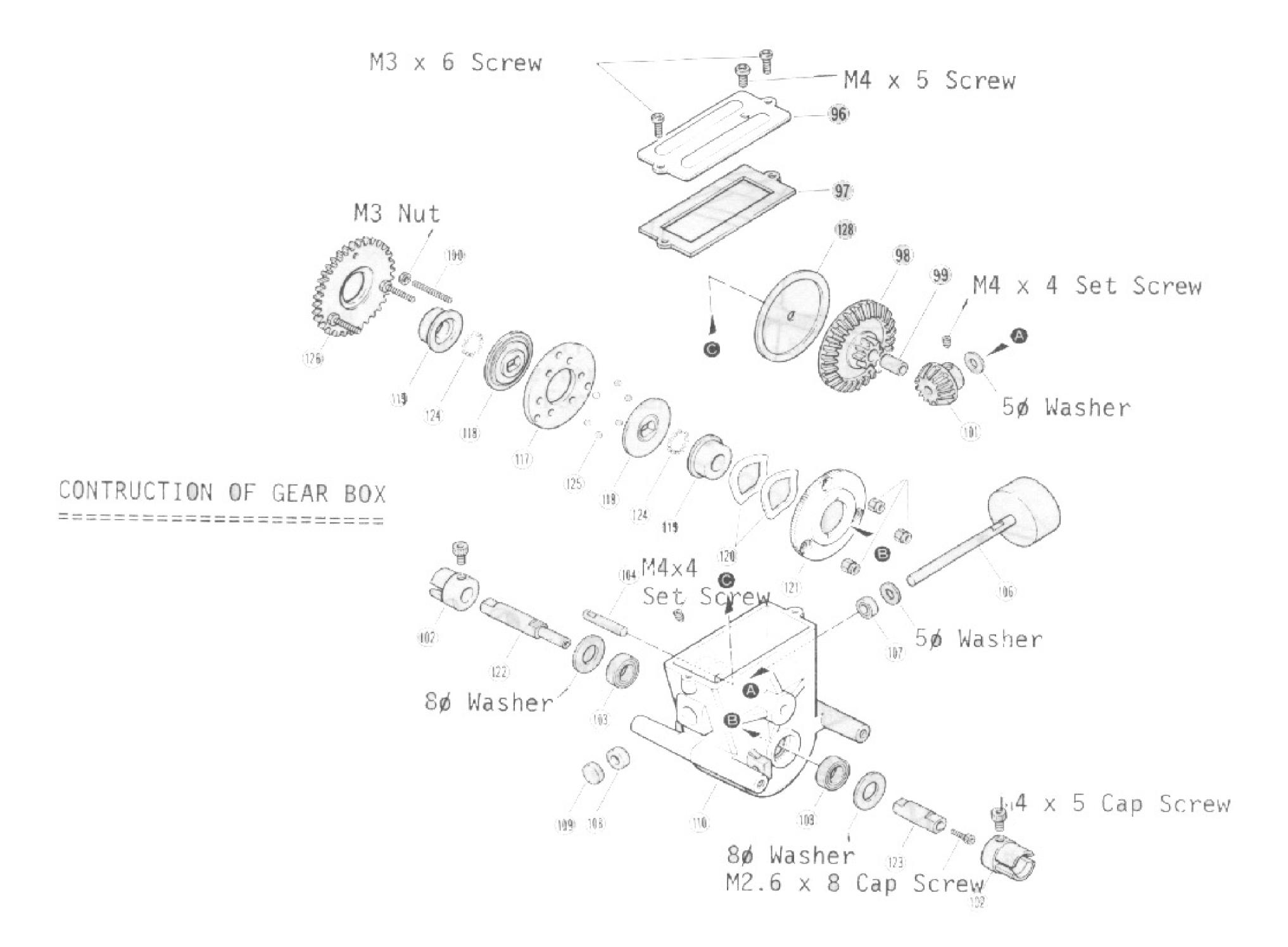
Super Spike (Good for running in deep sand.)

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).





INDIVIDUAL PARTS LIST

Key			Key		
No.	Parts Name	Qty.	No.	Parts Name	Qty.
1	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	1
4	Arm Joint	7	77.67.8	hardware	'
5	Suspension Stopper	2	24	Steering Rod	1
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)	1
11	Upright	2	31	" (left)	i
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	35	Stutted Bolt	1
16	Tie Rod	2	36	Rear Pin Joint	j
1/	Tap A	7	37	Brake Shoe	j
18	Tap B	7	38	Brake Rod	j
19	Tie Rod Stopper	2	39	Brake Adjuster	1
20	Front Bumper	1	40	L Crank	i set

Key No.	Parts Name	Qty.	Key No.	Parts Name	Qty.
51 23 45 56 57 57 57 57 57 57 57 57 57 57	Joint Collar Spring Guide Spring Guide Ecn 3ø Stopper Roll Bar Rear Suspension Arm (Left . Right) Rear Suspension Shaft Rear Wheel 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)	222411 set 222224412112211221222242411221111111111	107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126	Bear Box Metal Cover Gear Box Mechanism Box Cap Doll Stopper 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 (S) Ball (L) Spur Gear Side Member	1 1 1 1 3 1 2 2 1 1 1 1 1 1 2 2 2 1 1 2 8 6 1 2 1

¥

PART NO.	PART NAME	KEY NO. & CONTENTS
CB - 3	8ø Stopper	8 x 2
4	Front Spring	7 x l 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 x 2
12	Spring Set	42, 43, 44, 51 x 2
17	Rear Suspension Holder	33 x 2
72	E-Ring ($E - 3$)	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 41	Ball Receptacle	12 x 4
42	Up Right Front Wheel Shaft	11 x 2
43	Knuckle Arm	13 x 2 14 x 2
44	E-Ring (E - 7)	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	98, 101 x 1
60	5ø Metal	108×2 ,
59	Pilot Nut	61 x 1 (For Enya engine)
70	Pilot Nut	60 x l (For O.S. engine)
137	Spur Gear for Diff. Gear	126 x 1
138 139	Flange	119 x 2
84	Ball Receptacle Set Bearing for Center Shaft	117×1 , 118×2
85		103 x 2 107 x 2
87	Servo Saver	22 x 1
140	Wave Washer for Diff. Gear	
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 x 2
63	Fuel Tank	88 x l set
108	Arm Axle Set	3×2 , 6×1
	Servo Mount	76×4
CB-112	Amn Joint Set	4×1 , 5×2
113	Tierod Set	16, 19 x 2
114 FM- 33	Front Bumper	20×1
CB-115	B Washer Server Mounting Motel	21 x 5
116	Servo Saver Mounting Metal Rear Frame	23 x 1
141	Thrust Plate	28 x 2 121 x 1
118	Engine Mount	30, 31 x 1

PART NO.	PART NAME	KEY NO. & CONTENTS
William State Stat		
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
LD- 44	Wave Washer	71×8
CB - 79	Radio Box	72, 92, 114, 116 x 1, 111 x 2
124	Linkage Boots	$73, 90 \times 1, 74 \times 2$
110	Air Cleaner	89 x l set
144	Stud Shaft	100×10
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
CB- 64	Gear Box Guard	57 x 1
126	Body Rowdy Baja	93 x 1
127	Body Mounting Metal	127 x 2
125	Drive Doll	91 x 1
147	Roll Bar	45 x 1
148	Rear Frame Joint	55 x 1
151	Swing Shaft for Extra	50×2
152	Gear Box for Diff. Gear	$107,108,109,110 \times 1, 103 \times 2$
153	Tension Rod for ExtrA	26, 52 X 2
154	Rear Suspension Pivot	$47, 29 \times 2$
155	Screws Set	Screws, Nuts & Washers for entire car
	OPTIONAL PARTS	
CB- 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
CB- 36	Super Spike	Rubber
88	Front Oil Damper	With mounting Metal
89	Rear Oil Damper	11 11 11
95	Rear Wheel Double Bearing	
102	Magnesium Front Wheel	
103	Magnesium Rear Wheel	
104	Circuit Muffler	For O.S21 & Enya .21 (Common use)
101	Front Wheel Bearing	
FM- 59	M6 Nylon Nut	
CB- 86	Nylon Super Spike	Hard Plastic
75	Front Wheel	67 x 2
76	Rear Wheel	68, 70 x 2
DEC-03	Number Sticker	

KYOSHO CORPORATION
