RADIO CONTROLLED ENGINE POWERED 4 WHEEL DRIVE RACING BUGGY KIT



LAND JUMP 4D

4 Wheel Drive Buggy

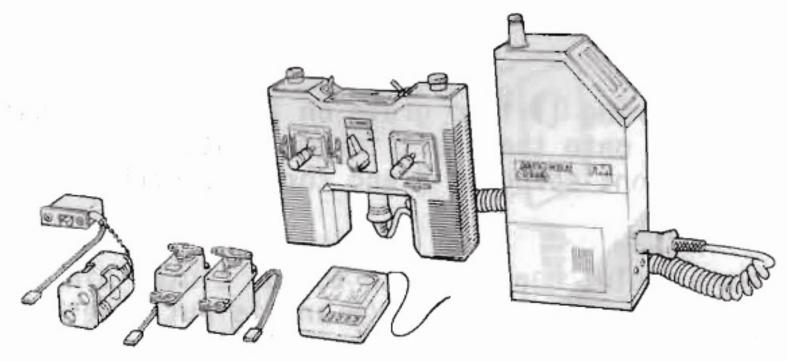
TECHNICAL DATA

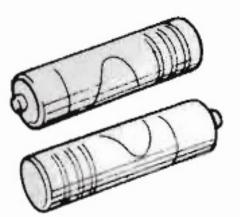
			to the state of th
Length	515 mm	Break	
Width	270 mm	Gear Ratio	8.5:1 - 10:1
Height	200 mm	Front Sus	Double Trailing
Chassis Heigh	40 mm	Rear Sus	•
Wheel Base		Weight	
Front Tire	110ø x 48 mm	Proportional System	
Rear Tire	110ø x 48 mm	Engine	
Drive System	Side Winder &		
ū	Chain Brive		

Thank you very much for purchasing the R/C Car "LAND JUMP 4D". To be able to assemble your "LAND JUMP 4D" properly so it will run with maximum performance, we recommend that you proceed with the assembly work following closely this instruction booklet.

By reading this instruction booklet to the end throughly before you start to assemble and keeping in mind the general construction of the car, it will enable you to get started with the assembly work very smoothly. If you are going to use a new engine, by BREAKING IN the engine in accordance with the instruction sheet that comes with the engine, it will enable you to get long engine life and miximum performance.

ARTICLES REQUIRED OTHER THAN THE KIT





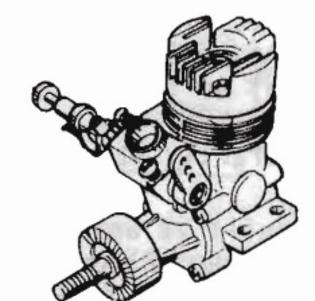
Transmitter UM-3x6 - 8pcs. Receiver UM-3x4 - 4pcs.

Battery for Proportional Radio Control System





Grow Plug (1.5 White Gold will be the best)



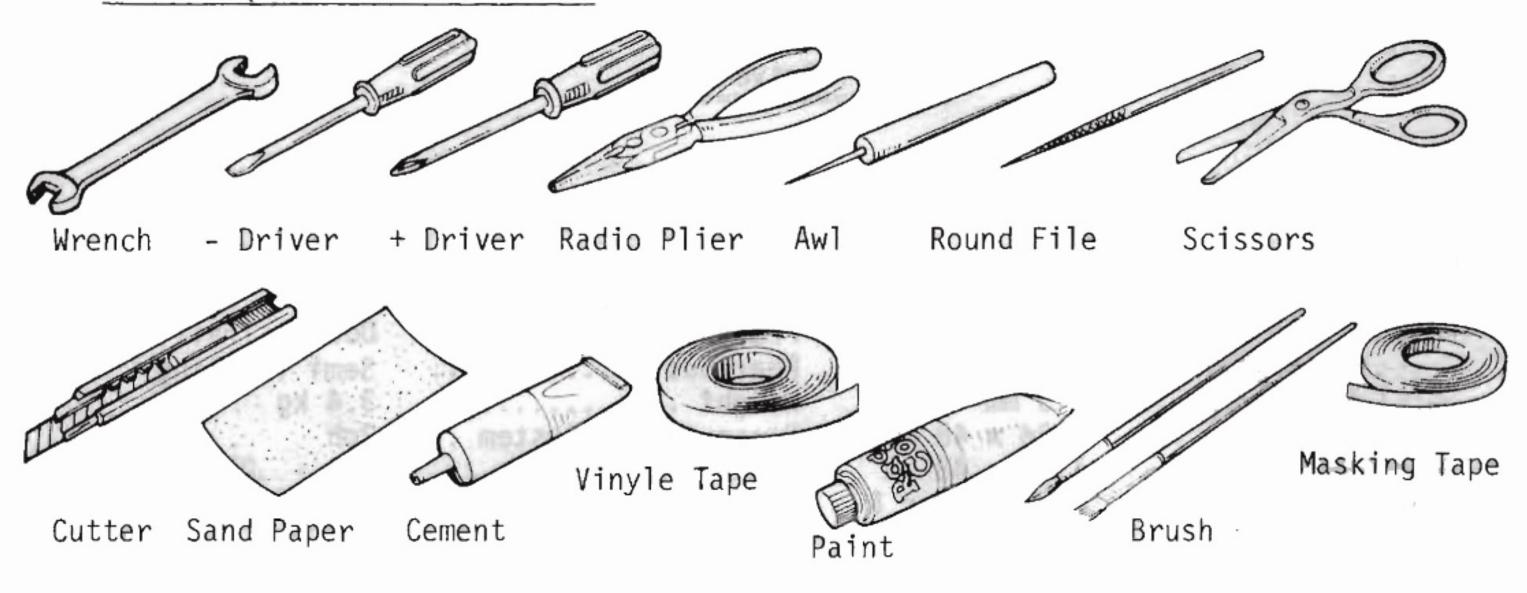
(ENYA .19 and .21% or 0.S. 21 Engine)

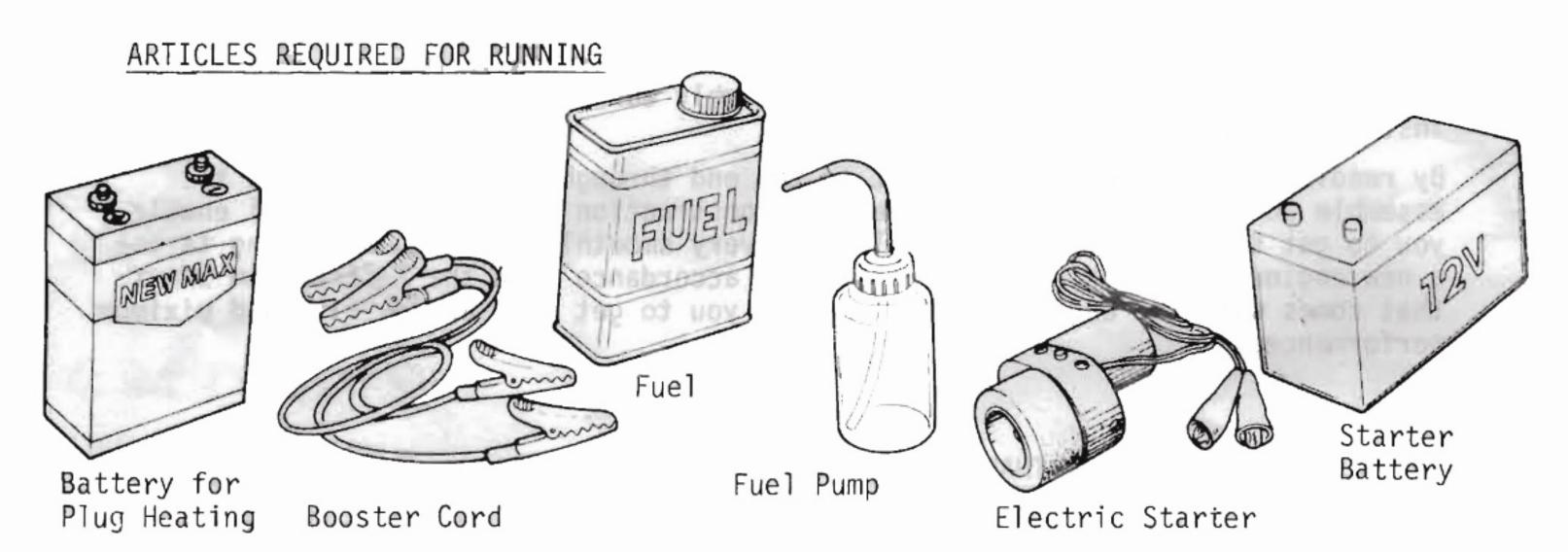
Note:

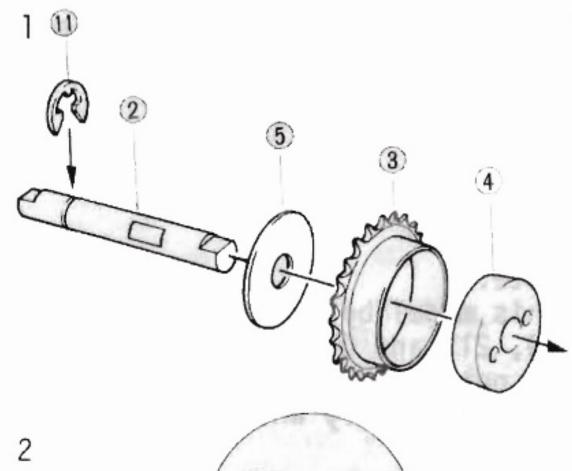
This model being designed for Enya 19, 21% and 0.S.21 Engines. An optional parts and minor modification necessary when use other engines.

A N B S B B B B

TOOLS REQUIRED FOR ASSEMBLING

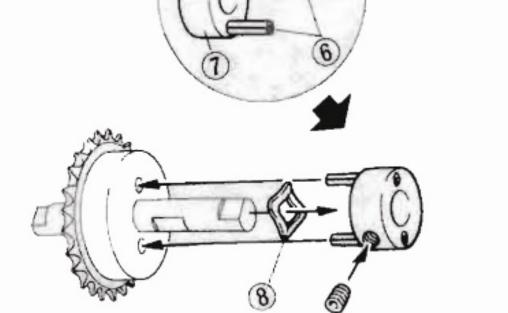




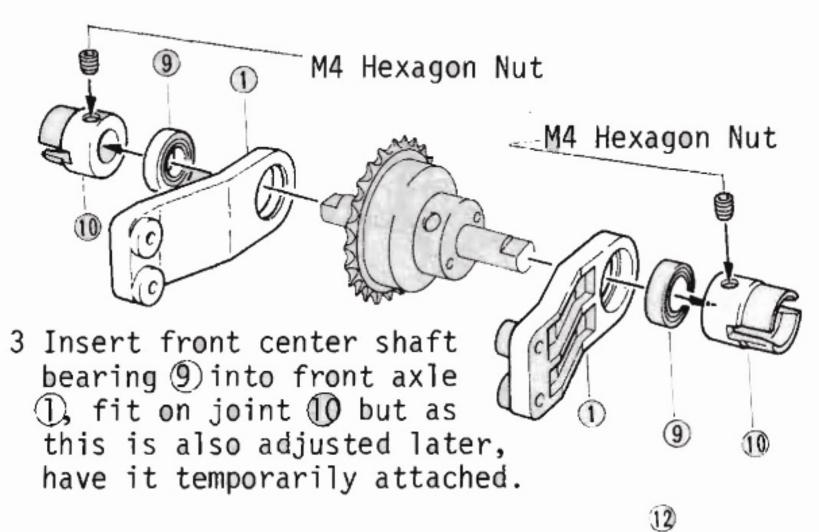


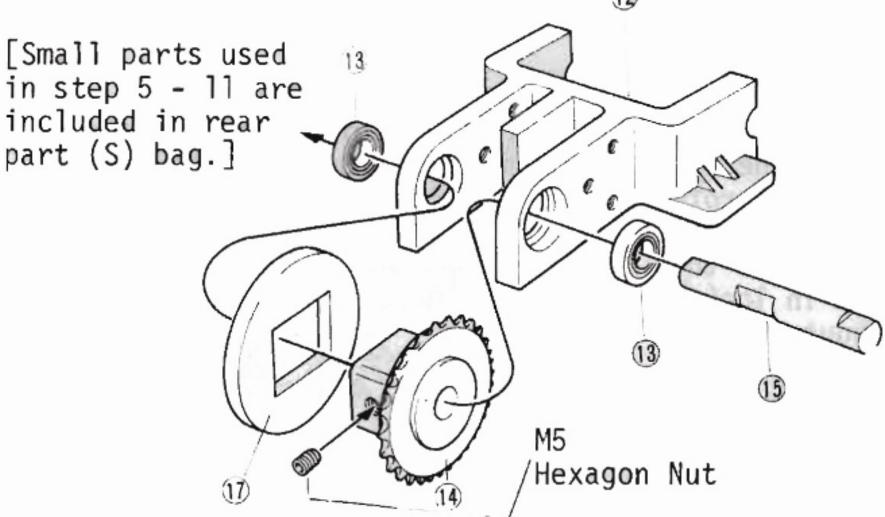
- 1 Insert "E" ring (1) into grove on front center shaft (2), then fit onto the shaft torque clutch receiving plate (5), front sprocket (3) and torque clutch (4) in sequence.
- 2 Tap torque clutch pin 6 into torque clutch pin guide 7, fit on wave washer 8 and is put together as illutrated but M4 hexagon nut is tightened so that it will hit against the "D" cut (flat part) of the shaft.

(Note) As torque clutch pin guide () adjusts the strength of the clutch later it should only be temporarily attached.

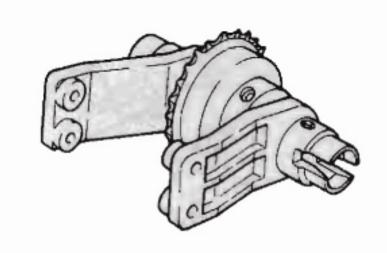


[Small parts used in steps 1 - 4 are included in front part (A) bag.]

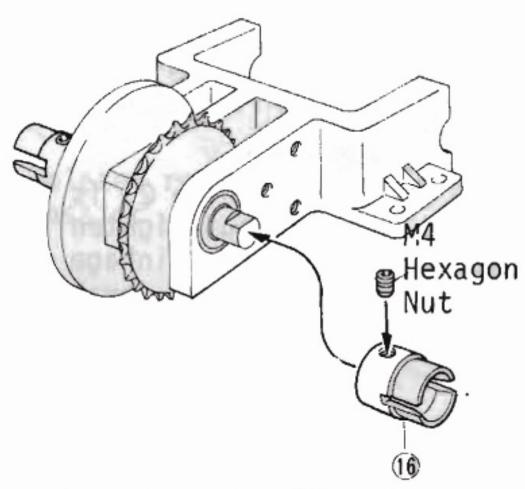




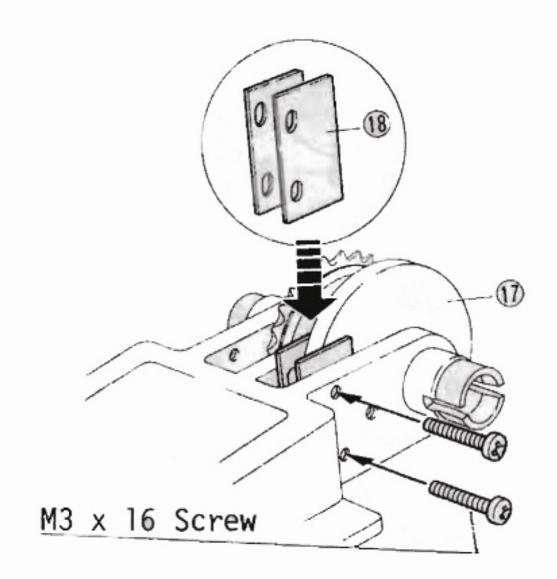
5 Insert rear shaft bearing (3) into rear axle (1), Fit onto rear sprocket (4) boss, main disc (7) as illustrated, insert rear center shaft (5) as shown in illutration, match the "D" cut portion to M5 hexagon nut and tighten firmly.



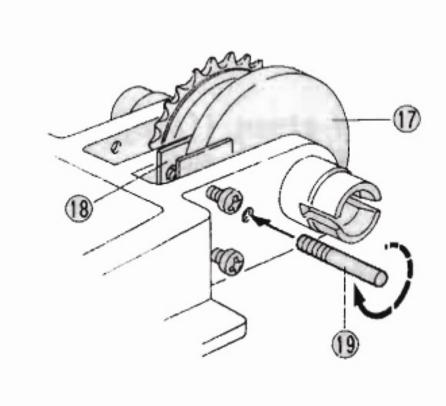
4 Completed torque clutch part illutration.



6 Install joint (6) onto the shaft.

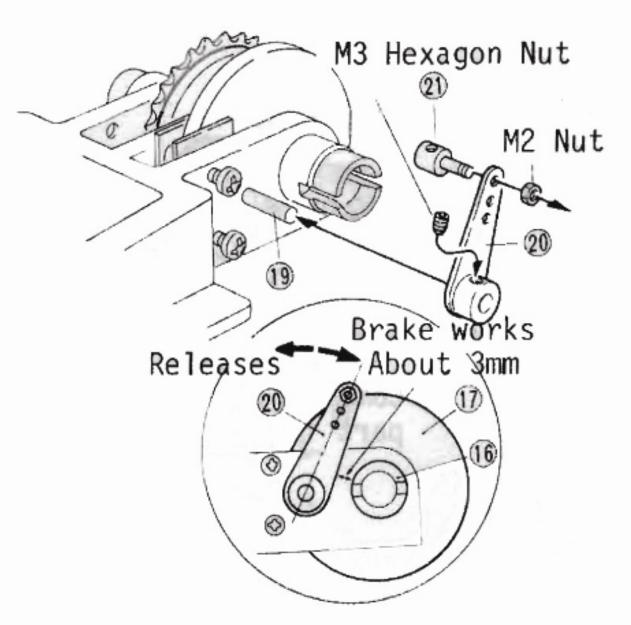


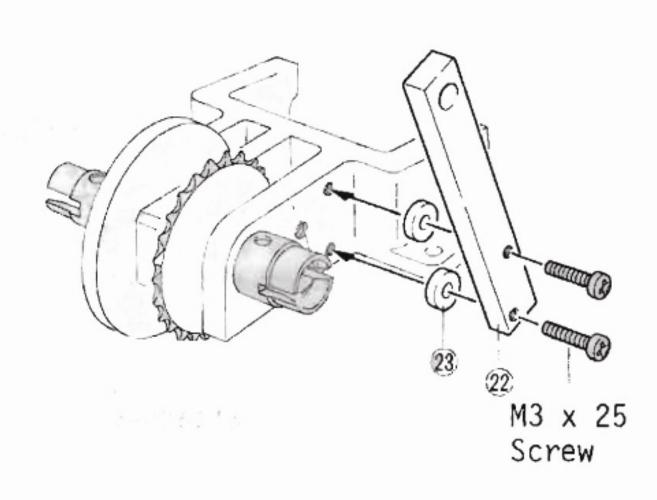
7 Install disc pad (8) with M3 screw as illustrated. Tighten lightly M3 x 16 screw being careful not to over tightening and then stop with instant drying cement. If tightened too much, the plate may bend.



8 Brake shaft (9) is screwed in as illustrated but tighten to the point so that the brake pad (8) can just be pressed in with your hand.

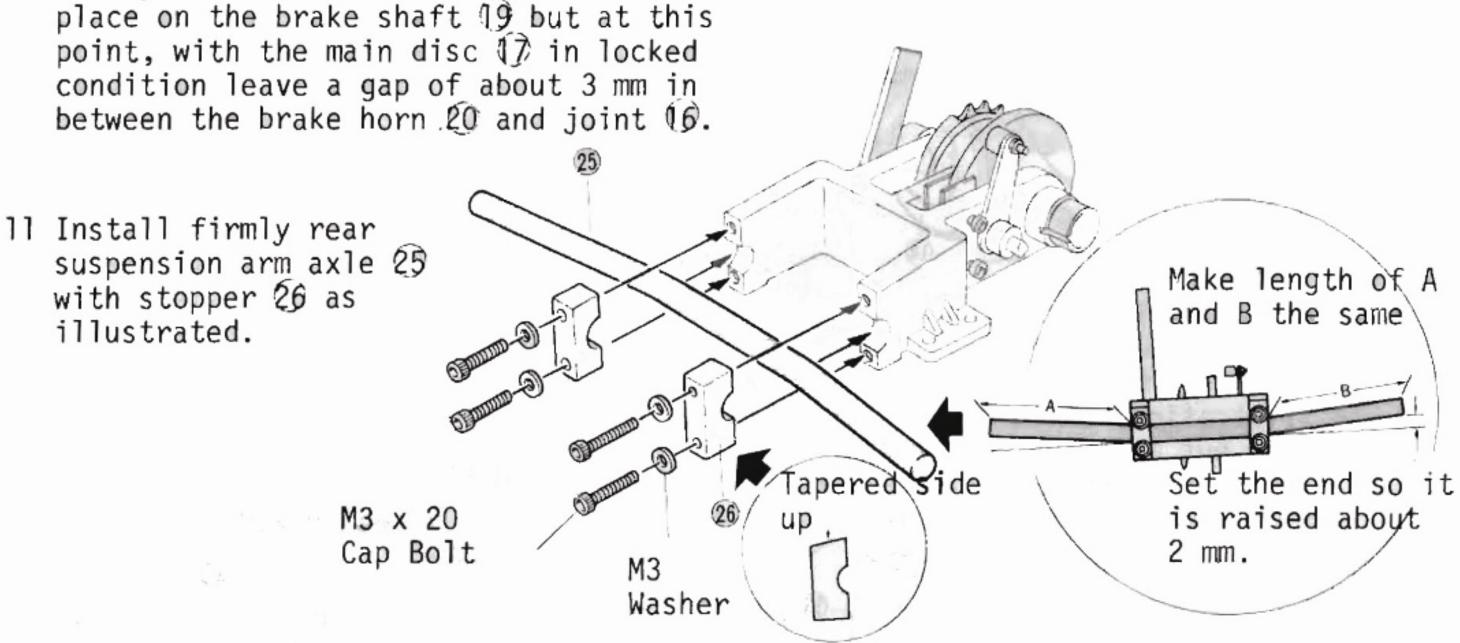
THEREIN

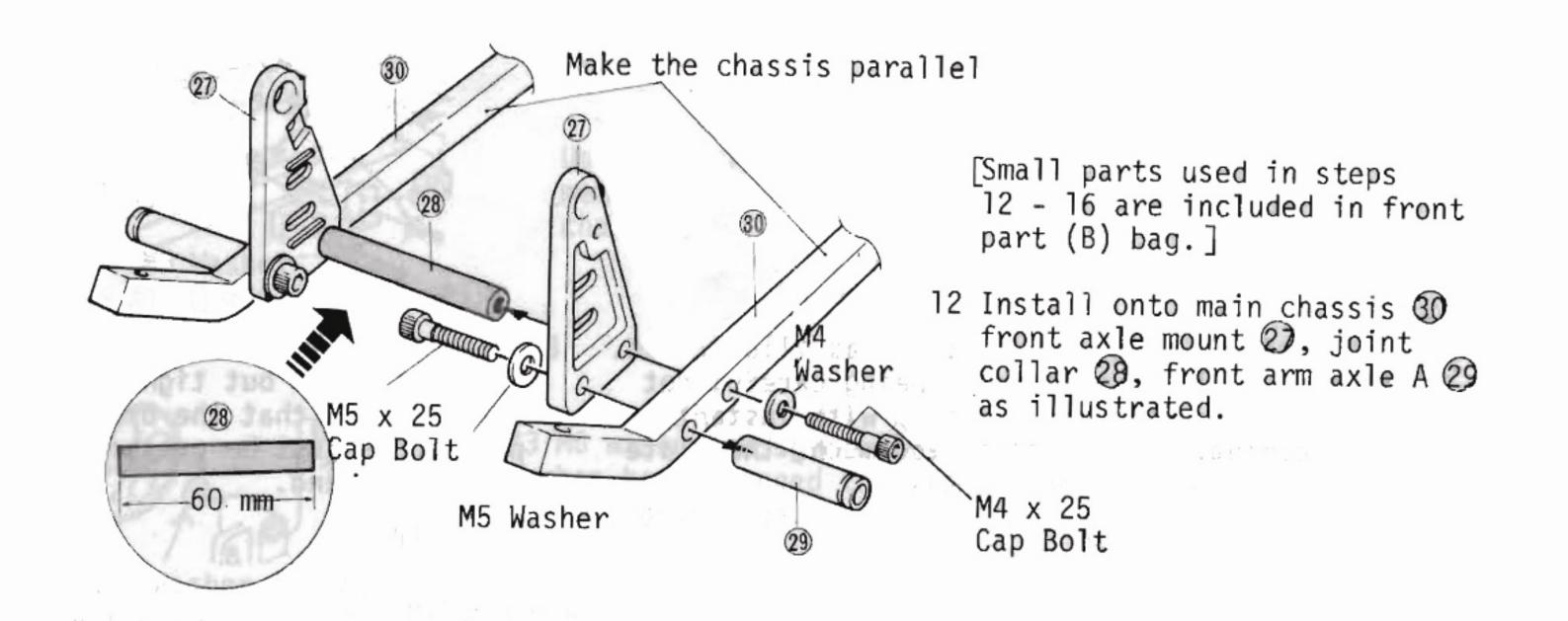


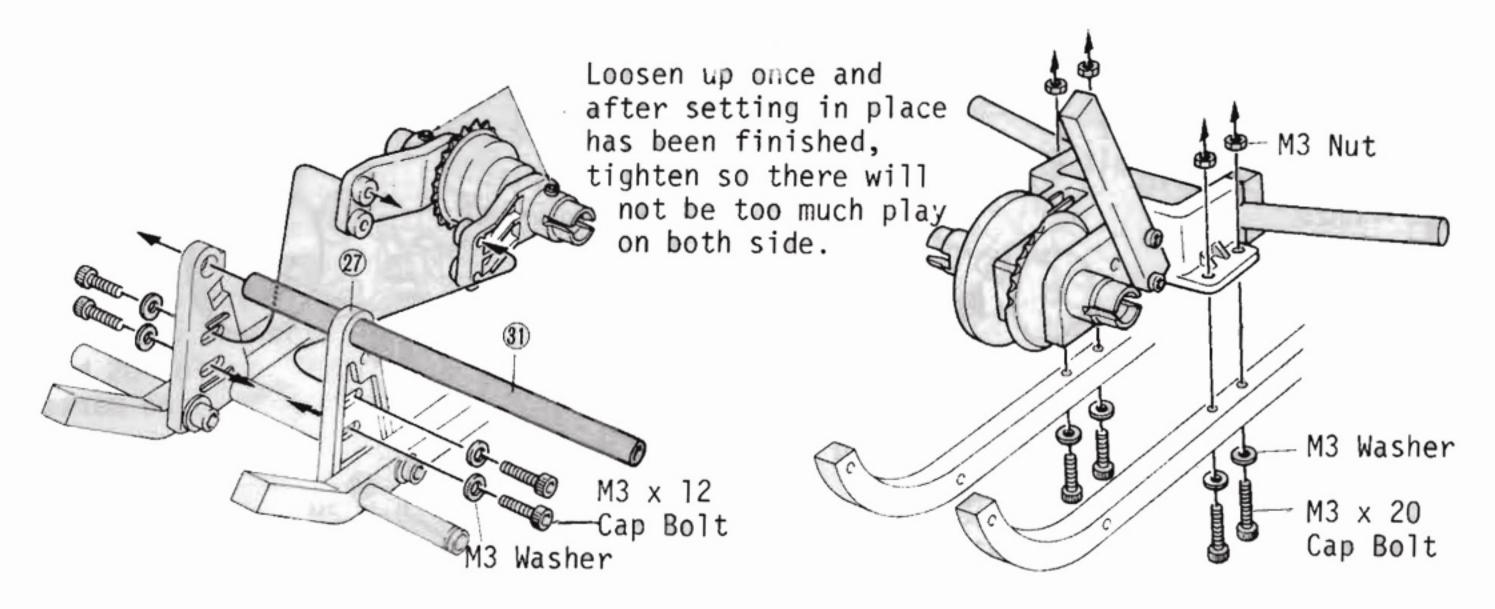


9 Linkage guide (1) is installed onto brake horn 20 but tighten the nut to the extent so that the linkage guide (1) will rotate freely. Next, brake horn (0) is set into place on the brake shaft (19 but at this point, with the main disc (7) in locked condition leave a gap of about 3 mm in between the brake horn 20 and joint (6).

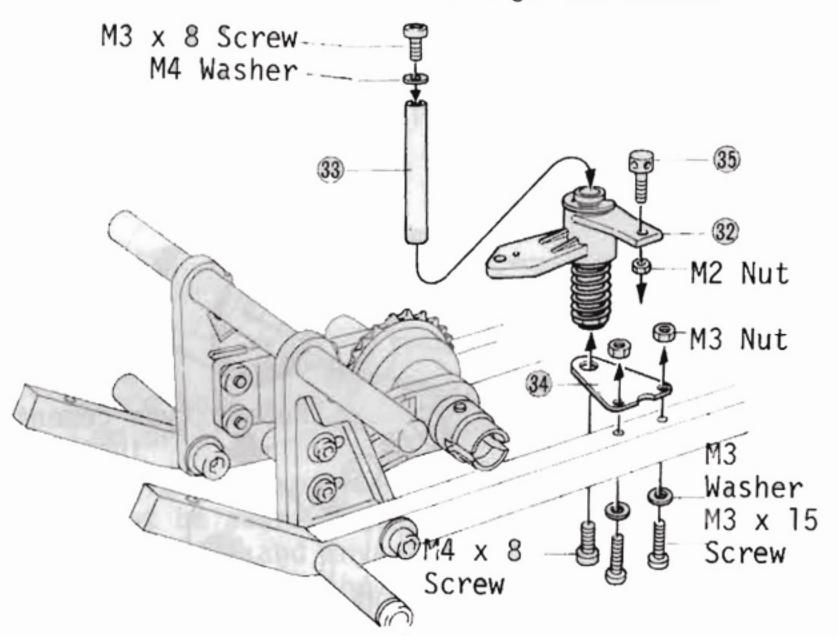
10 Install collar 23 together with muffler installation bracket 22.

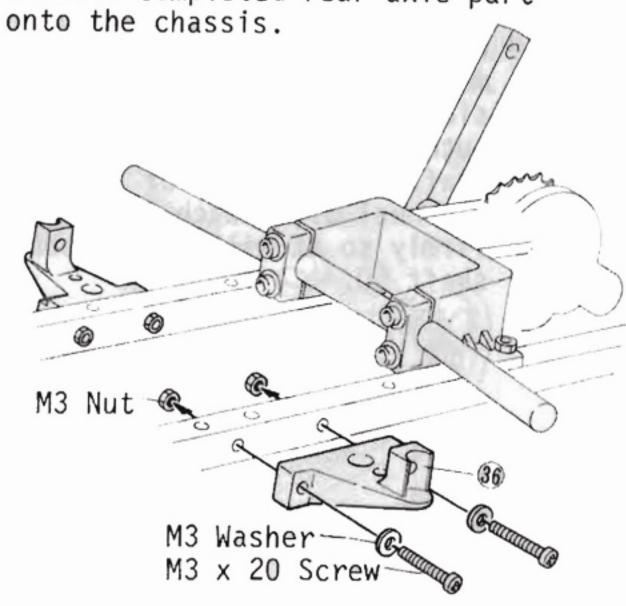






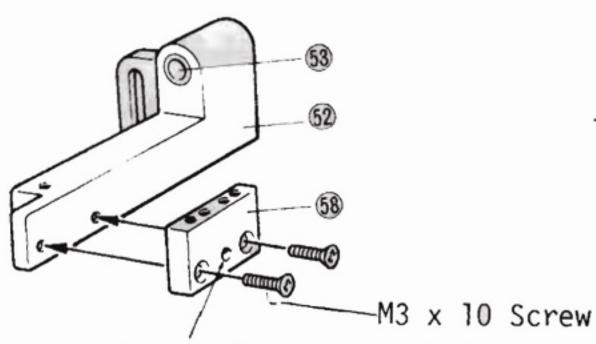
13 Install completed torque clutch part onto 14 Install completed rear axle part front axle mount 27. For adjusting, the hole is made in oblong shape. The correct position is adjusted at the time the chain is installed. In this assembly step, have it temporarily tightened. Have the front arm axle B inserted through the mount.





16 Install side member 36 onto main chassis.

15 Install linkage guide 🚯 onto servo saver 32 it will move freely. Next install servo saver 32 onto servo saver installation hardware 34 and then onto the chassis.

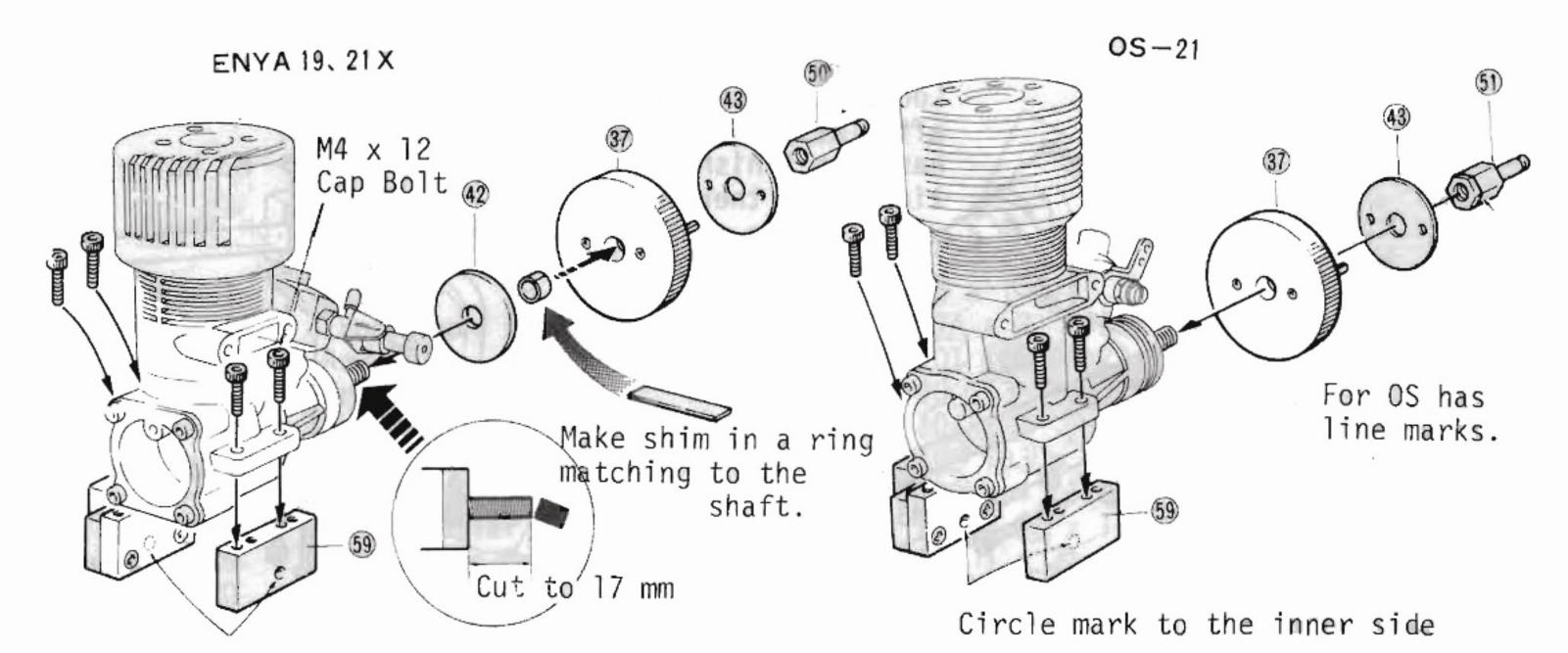


In case the circle mark is in the location shown in the illustration the circle mark will be on the opposite side of for OS-21, Enya 19, 21X.

[Small parts used for steps 17 - 24 are included in engine parts bag.]

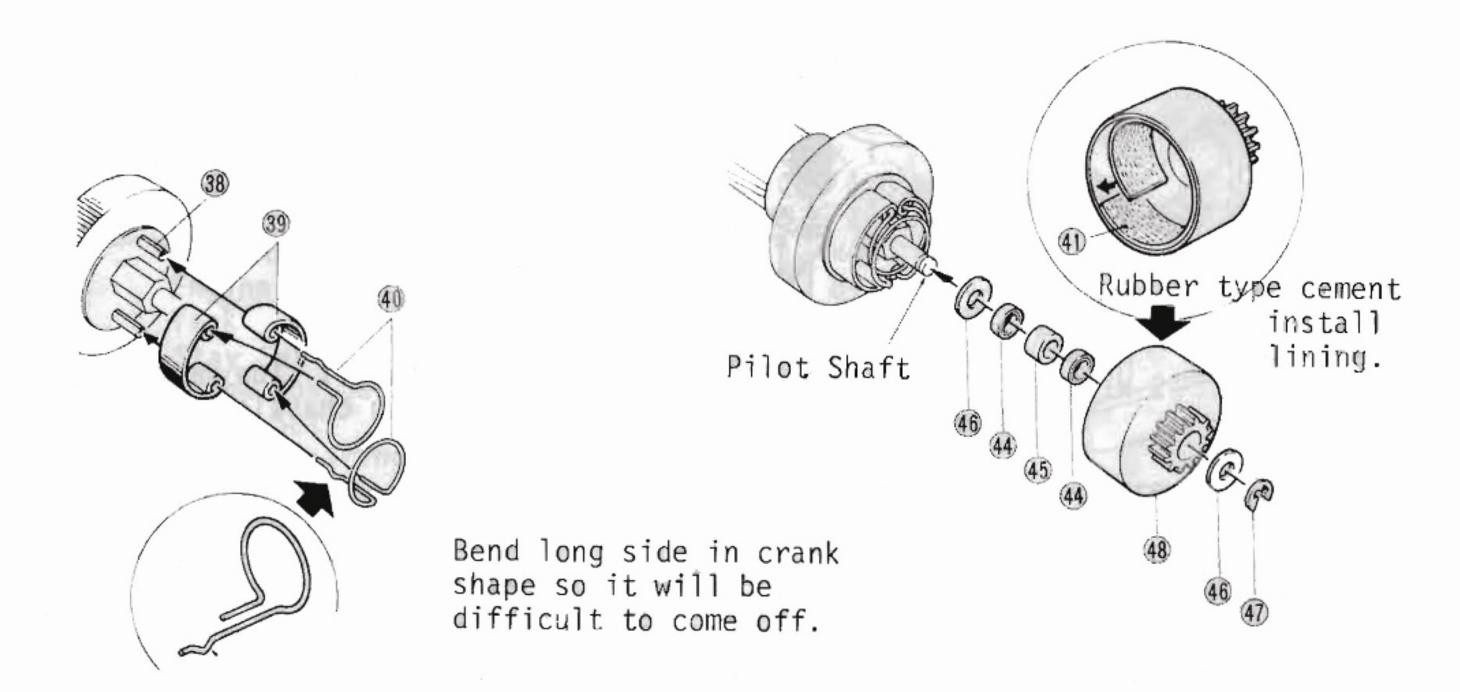
> 17 Tap in clutch pin 38 into flywheel

18 Engine mount (A) 🚱 is installed to spur gear mount 60 with M3 x 10 screw but be aware that the OS and Enya engine installation direction is different. Install by observing the illustration closely.

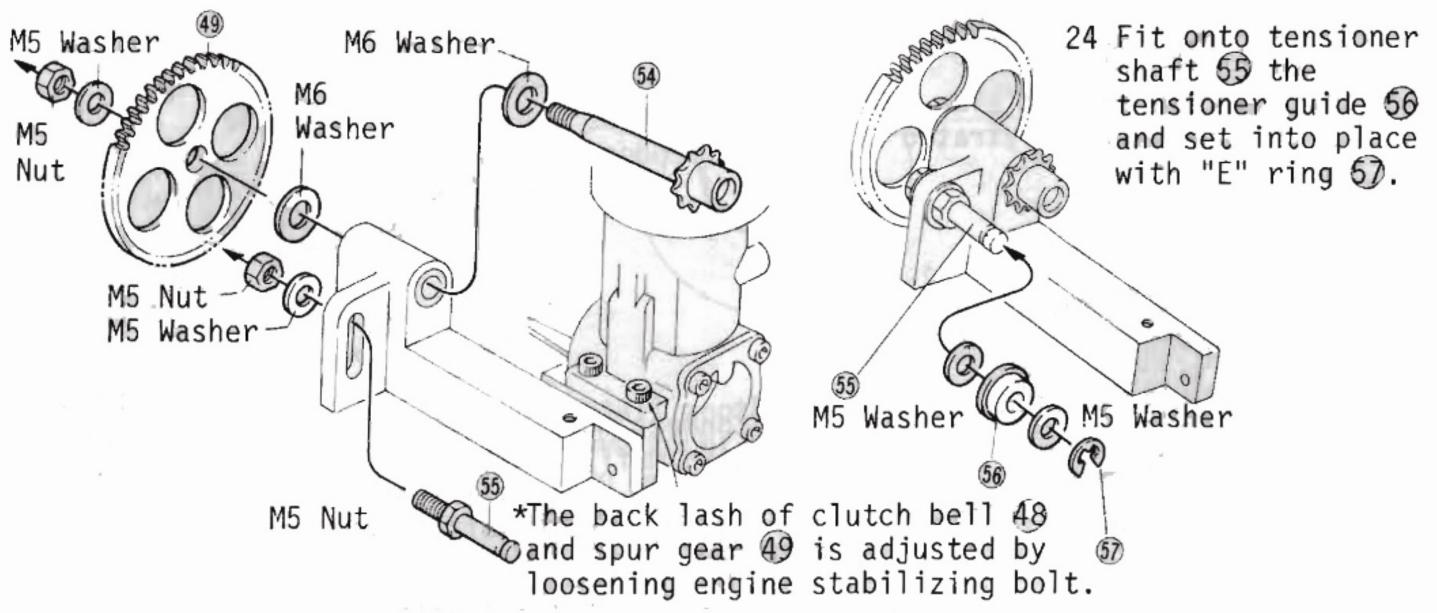


Circle mark is on the outer side

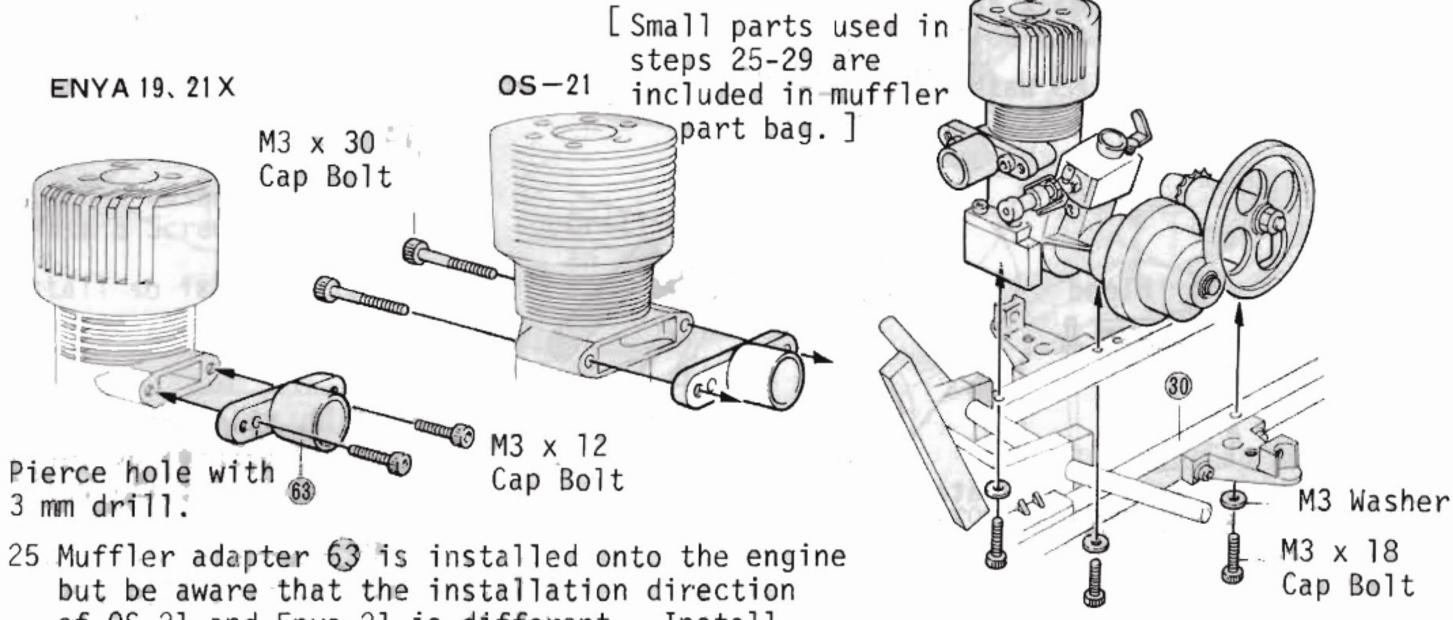
- 19 When using Enya 19X or 21X, first engine mount (B) 59 is installed so that the side with the circle mark will face outward, then insert onto the engine shaft in the order of flywheel spacer 42, flywheel 37, clutch sheet 43 and install firmly so it will not loosen with pilot shaft 50.
- 20 When using OS-21ABC engine, engine mount (B) 59 is installed so the circle marked side will face inward and the flywheel 37, clutch sheet 43 are inserted in sequence and tightened firmly into place with pilot shaft 51.



- 21 Install clutch shoe 39 onto clutch pin 38, insert long side of the clutch spring 40 into the hole of clutch pin 38 and the shorter side into the hole of clutch shoe 39.
- 22 Fit onto pilot shaft bearin washer 46, clutch bearing 44, bearing collar 45, clutch bearing 44, clutch bell 48, bearing washer 46 in sequence insert "E" ring 47 into the slot of the pilot shaft making it so that clutch bell 48 will not come off.

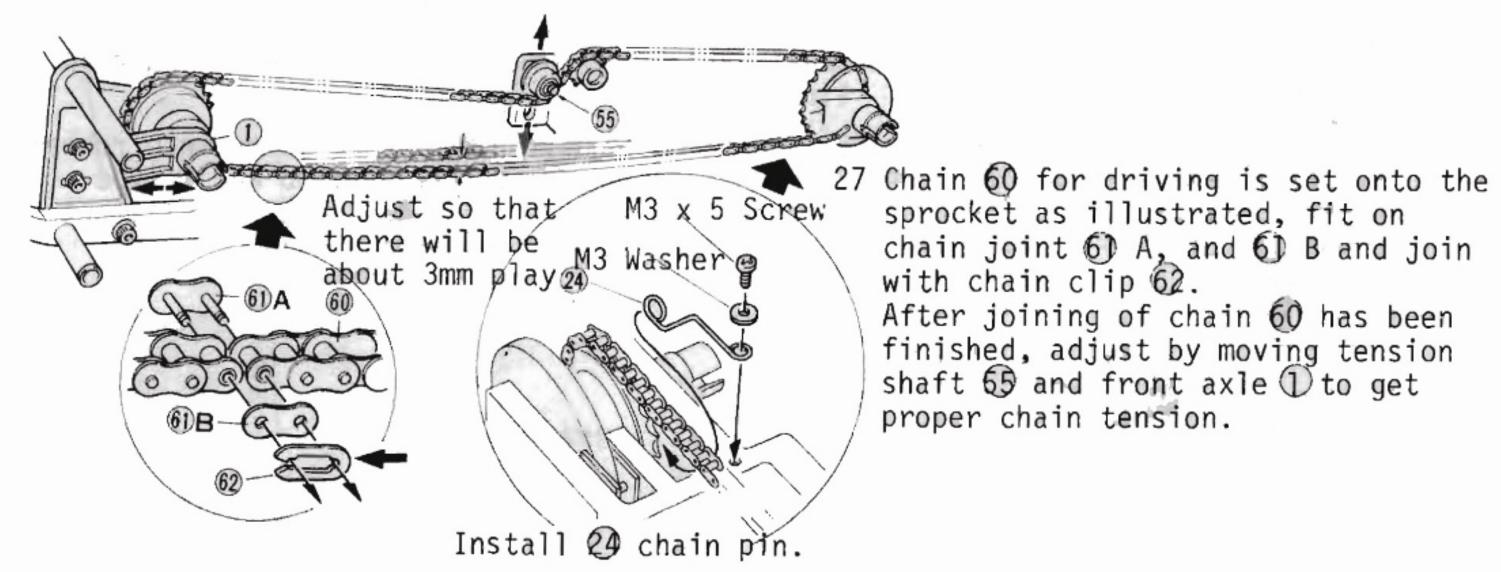


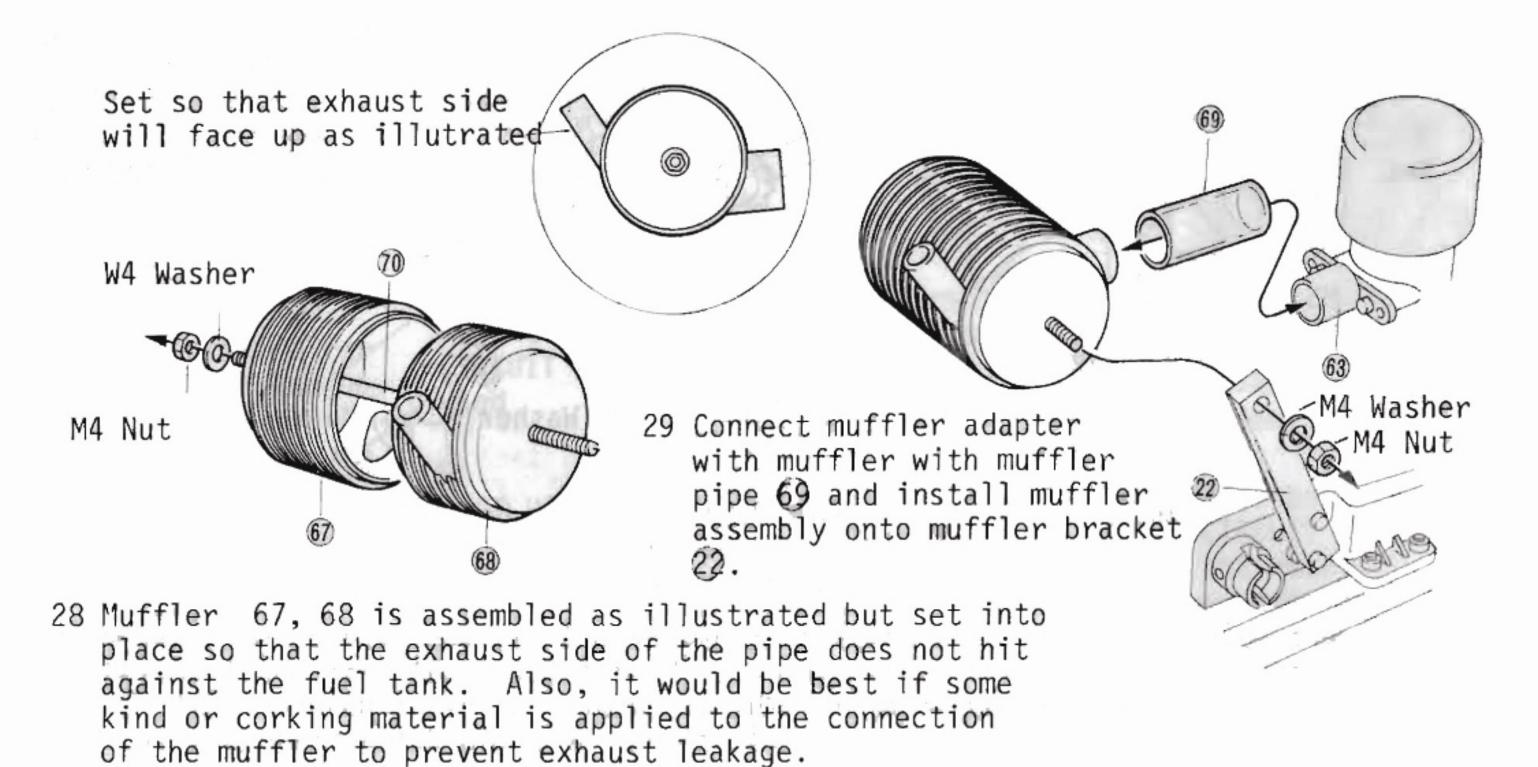
23 Insert spur gear shaft 54 through each washer and tighten into place so it will not loosen up with M5 nut. Next screw on M5 nut onto tensioner shaft 55 and install as illustrated by inserting the washers. As this tensioner shaft 55 is used to adjust the tension of the shaft after the chain has been installed, have the nut temporarily tightened.

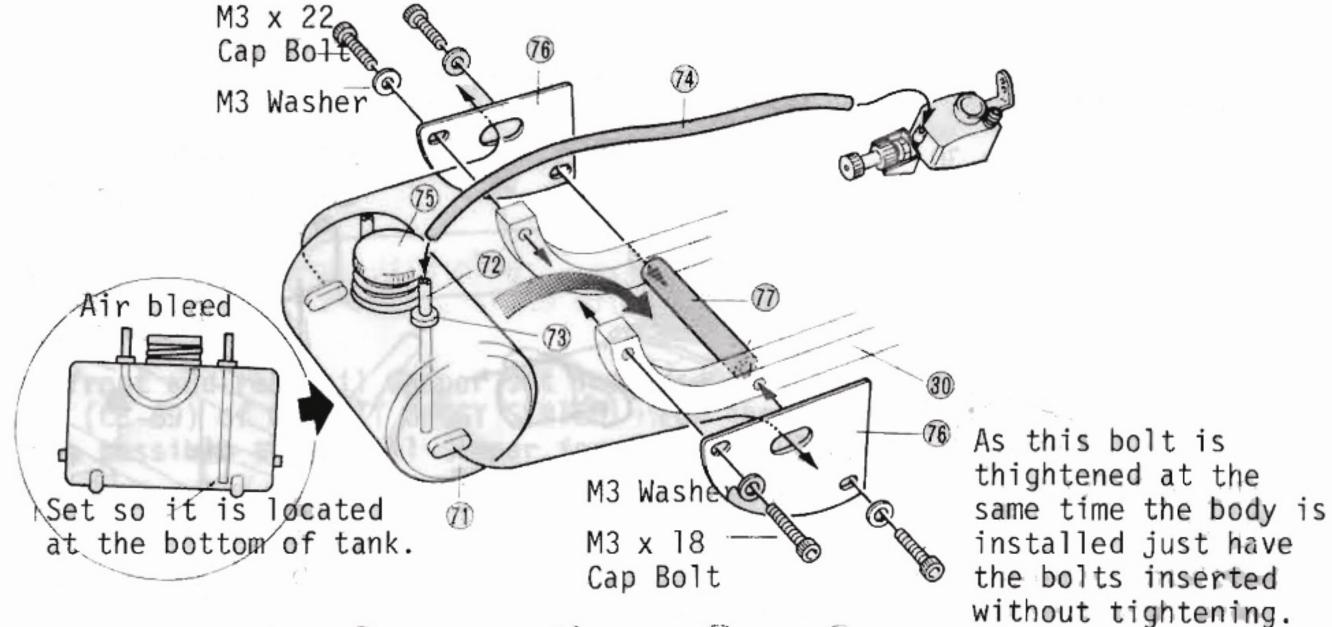


25 Muffler adapter 63 is installed onto the engine but be aware that the installation direction of OS 21 and Enya 21 is different. Install according to the illustration. Also, it is recommended to apply bath corking in between the engine and the muffler adapter 63 to avoid exhaust leakage.

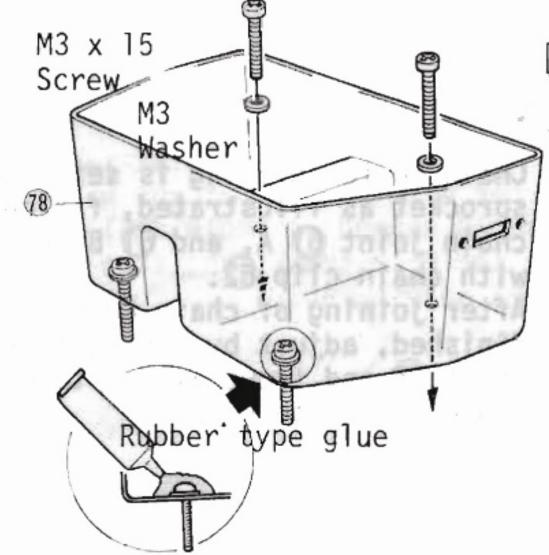
26 The completed power unit is installed onto the main chassis 30 with M3 x 18 cap bolt.





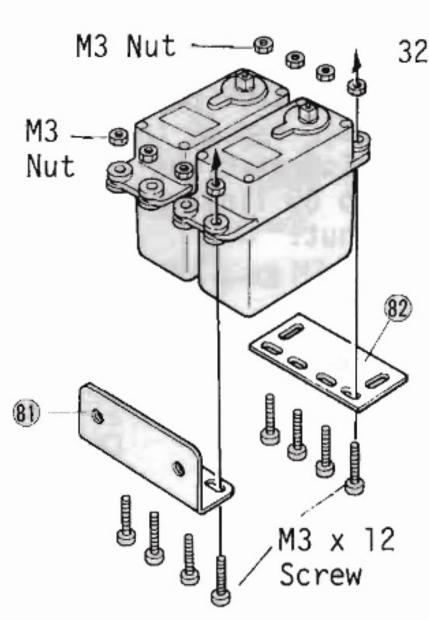


30 Install onto fuel tank (7), bushing (73, pipe (72 cap (75 as illustrated. Next match the protruding part of fuel tank (7) with the indented part on the fuel tank installation plate (6) and by setting joint collar (7) in between chassis (30 as if sandwiching the tank install into place together.



[Small parts used in steps 31-42 are included in linkage part bag.]

31 Insert M3 washer and M3 x 15 screw into rubber mechanism box 78 as illustrated apply type cement to make it so that the screw will not turn when tightening with a nut.

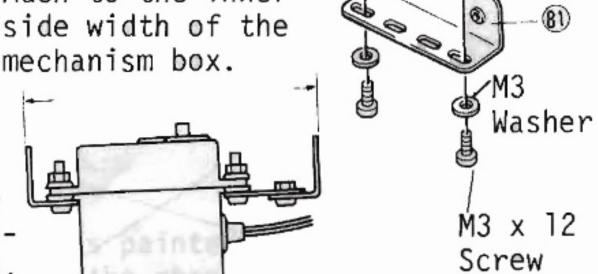


32 Screw servo mount 🗊 onto servo installation hole and adjust plate 82 on the opposite side.

> Much to the inner side width of the mechanism box.

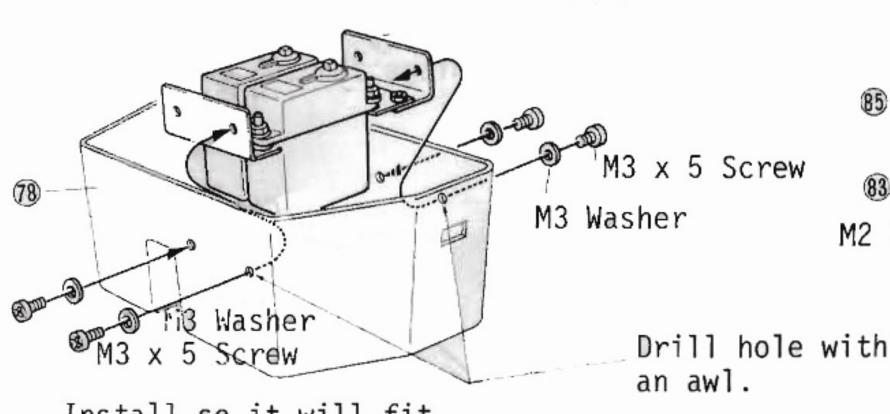
33 Install another servo mount 8) onto adjust plate (82 using illustration as reference.

M2 Nut

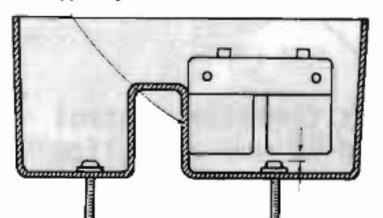


M4 Nylon Nut

M3 Nut

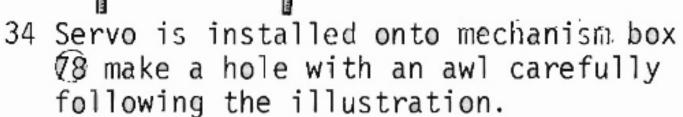


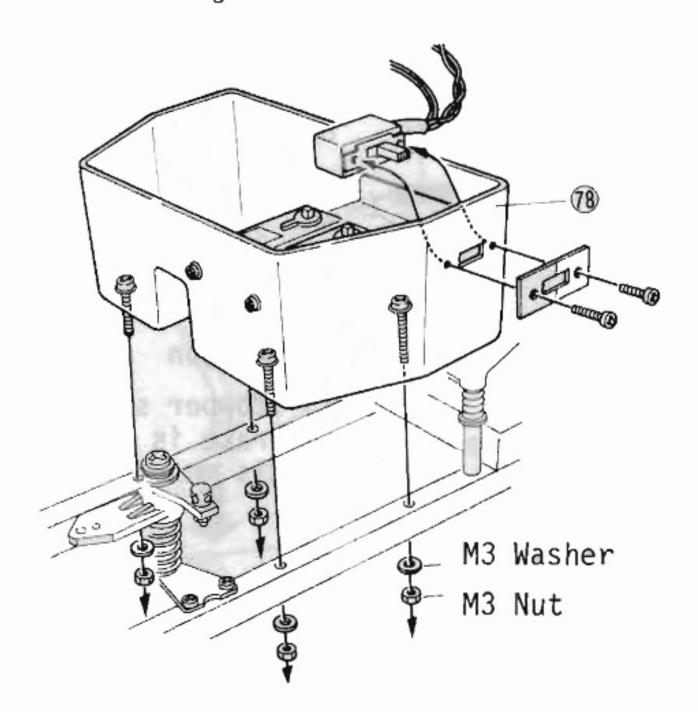
Install so it will fit flush to the inner side.



Front View top of the bolt.

Leave a gap of about 1 mm between the servo and the





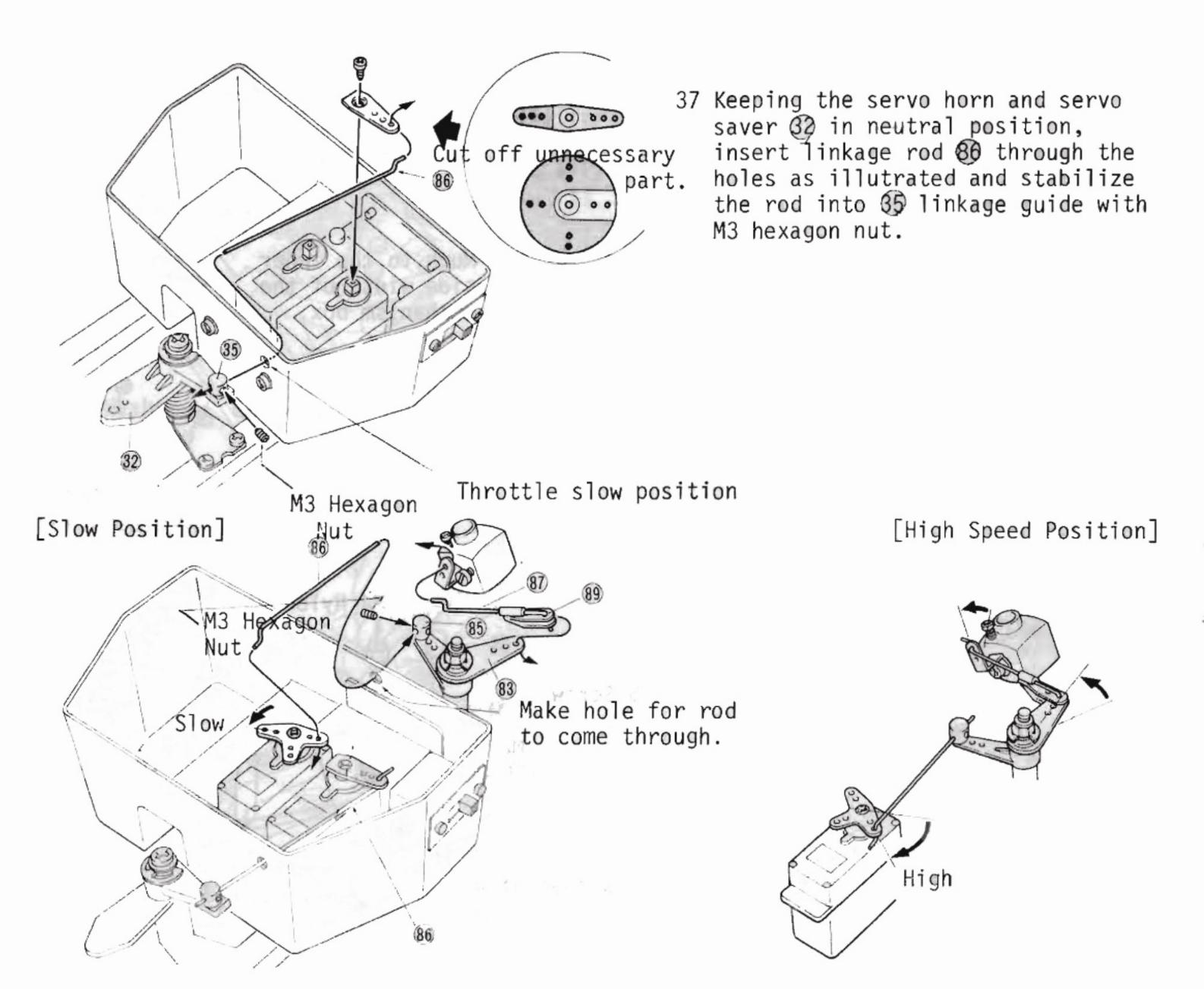
35 Install throttle control saver installation shaft 84 onto main chassis and install linkage guide 85 to throttle control saver 83 so it will move quite freely then insert into shaft of 84 and is tightened into place with M4 nylon nut but be careful not to tighten M4 nylon insert nut too much as the servo saver should move freely.

M3 Washer

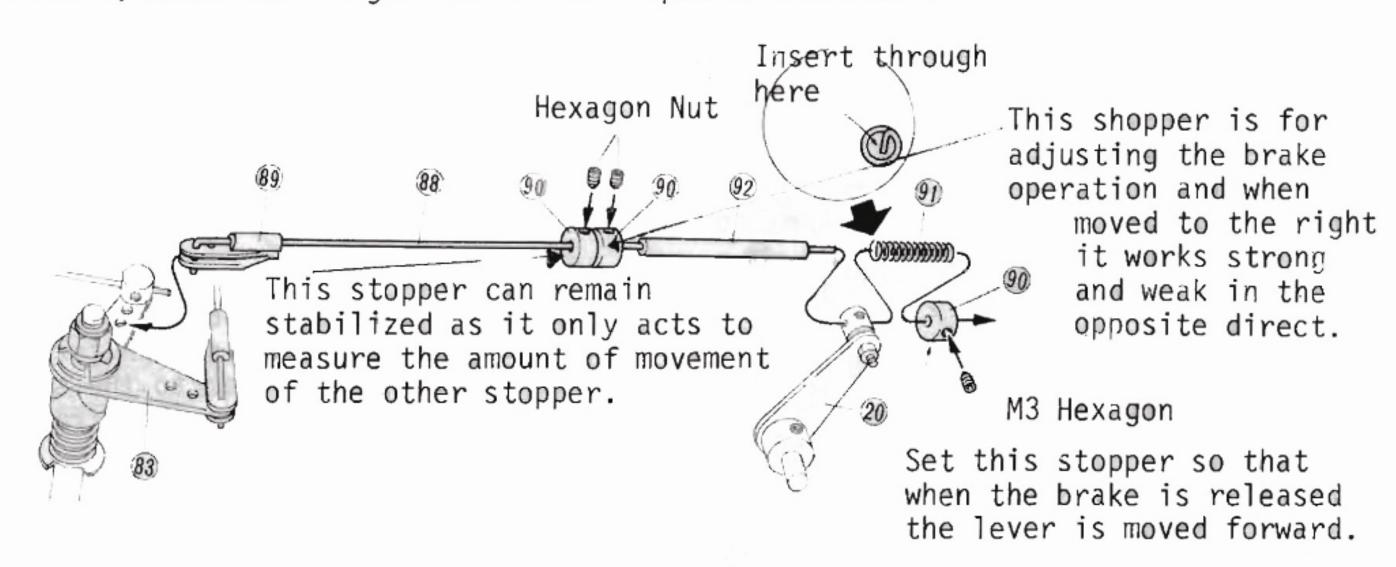
 $M3 \times 15$

Cap Bolt

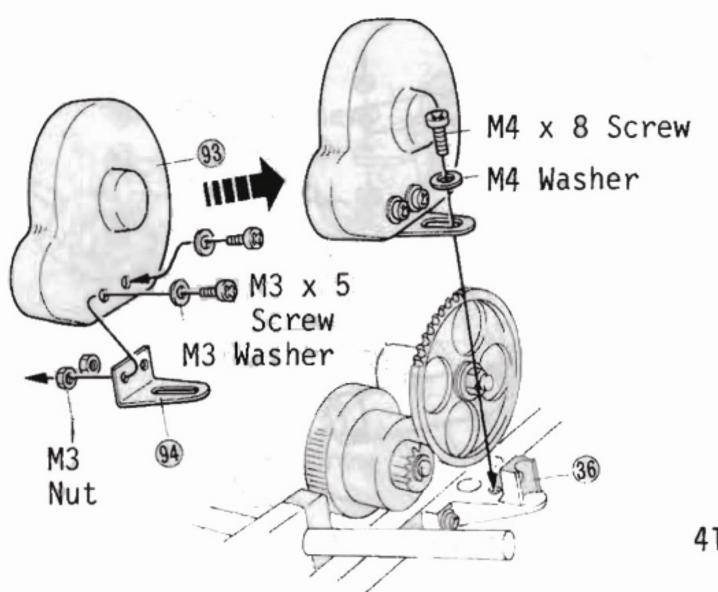
36 Install mechanism box 78 to the main chassis. Install switch for the proportional system to the side of the mechanism box 🕔 as illustrated.



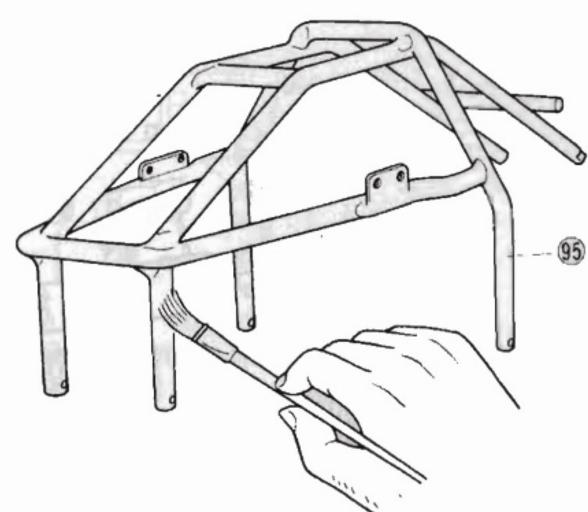
38 Keeping the throttle control servo in slow position, connect throttle control servo saver linkage guide 85 and servo horn with linkage rod 86 and stabilize with hexagon screw M3. Next, connect engine throttle lever and servo saver 83. Each linkage rod are supplied in slightly longer length than necessary. Therefore, match the length and cut to required measurement.



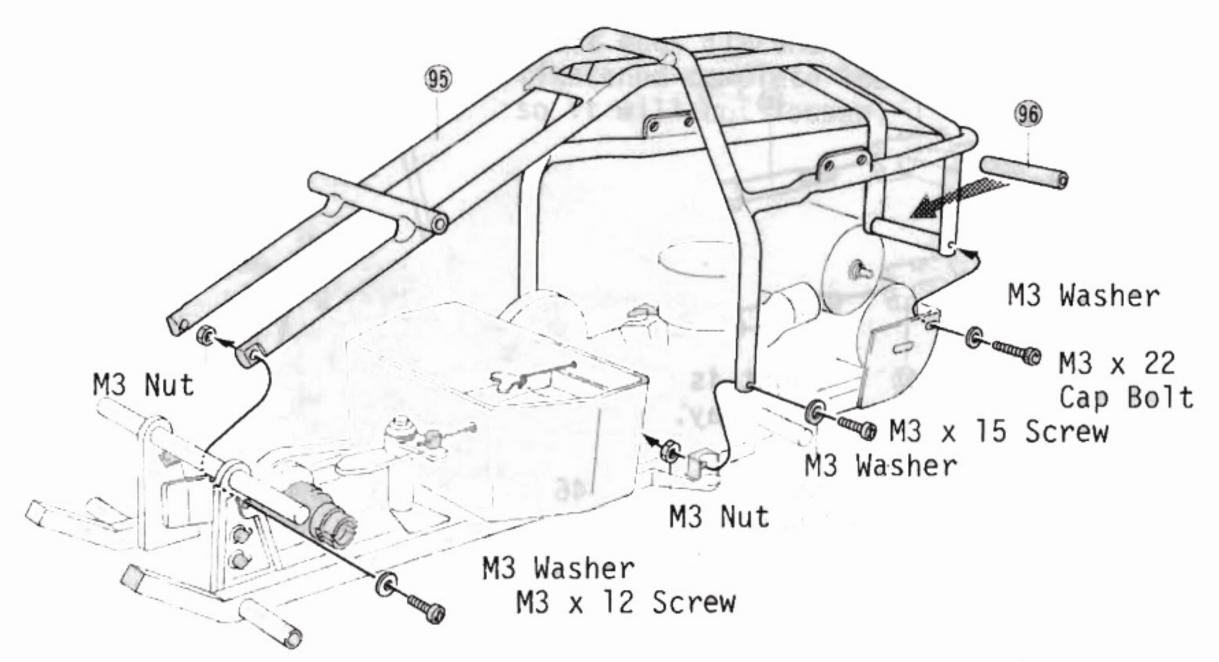
39 The brake horn 20 and throttle control servo saver 83 is connected but first, keep the throttle control servo in the slow position and connect as illustrated. In case linkage rod 88 should hit against the engine, bend so that a smooth operation can be obtained.



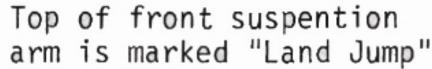
40 Install gear cover bracket 94 onto gear cover 93 and then install onto side member 36 matching so that it will not hit against any of the gears.

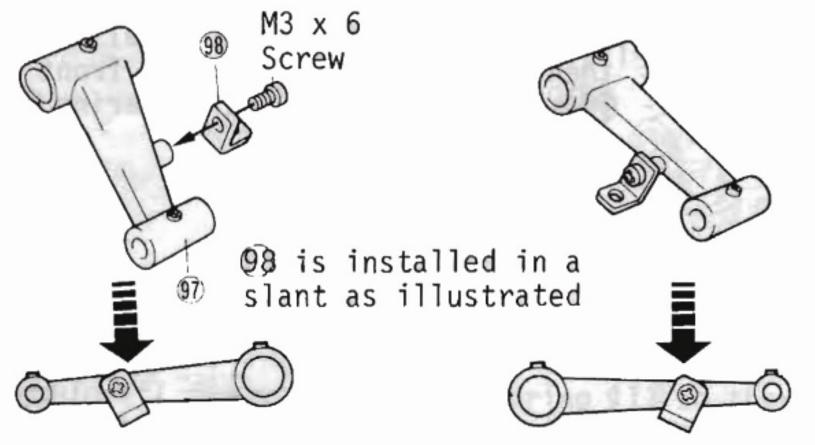


41 Body 99 is painted but before painting, check if the chassis installation hole and body installation holes meet and if it should be out of line adjust by using a plier or other type of tools you have available. Also, before painting wash off dirts or oils with neutral shop. Use fuel proof paints. (Engine color, etc.)



42 Install body 95 onto chassis as illustrated. Joint collar 96 is used for the rear part.





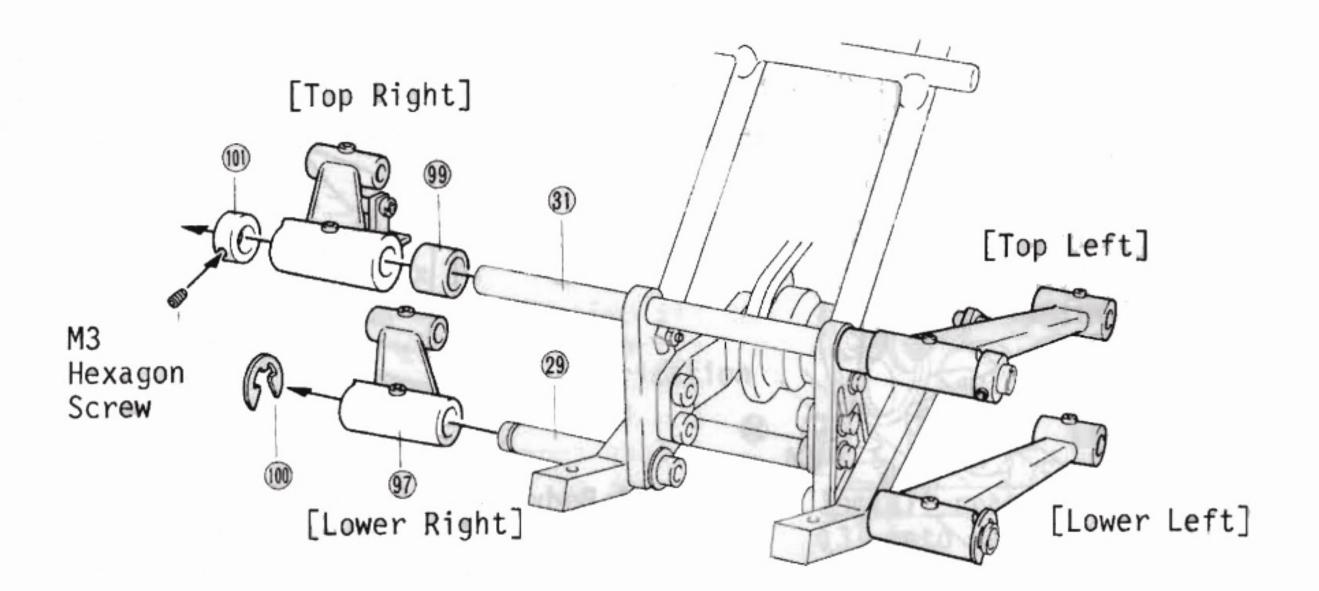
[Top left view looking at car from the rear]

[Top right view looking at car from the rear]

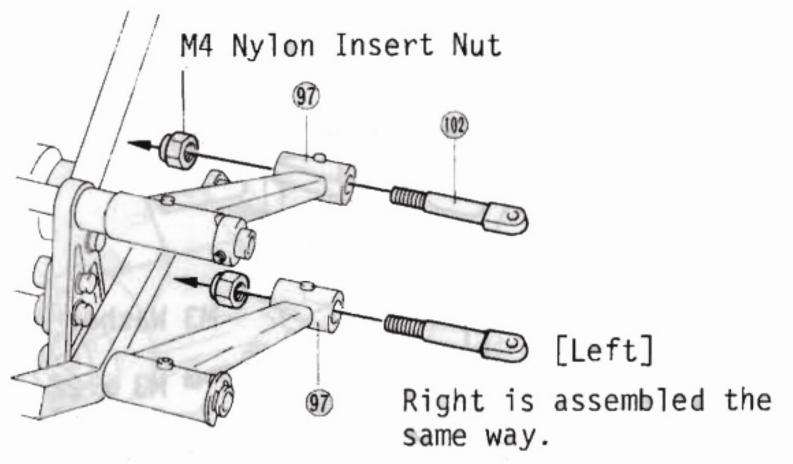
[Small parts for step 43 - 50 are included in front section (C) bag.]

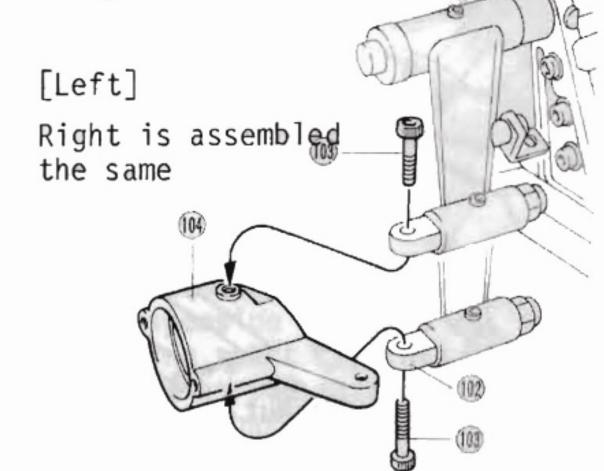
43 Front spring bracket 98 is installed onto the front suspension arm 97 but as illustrated it is installed in a slight angle.

(Note) The side marked "Land Jump" is the top

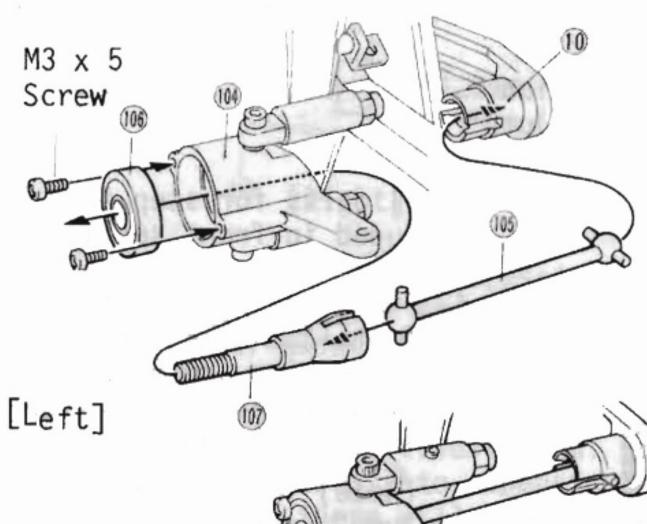


44 Making sure of top right and top left sides of the front suspension arm that was assembled in step 43, set the arms into place as illustrated. Set (0) 8¢ stopper into place to the point that it does not have excess play and make so that suspension arm will move up and down smoothly.



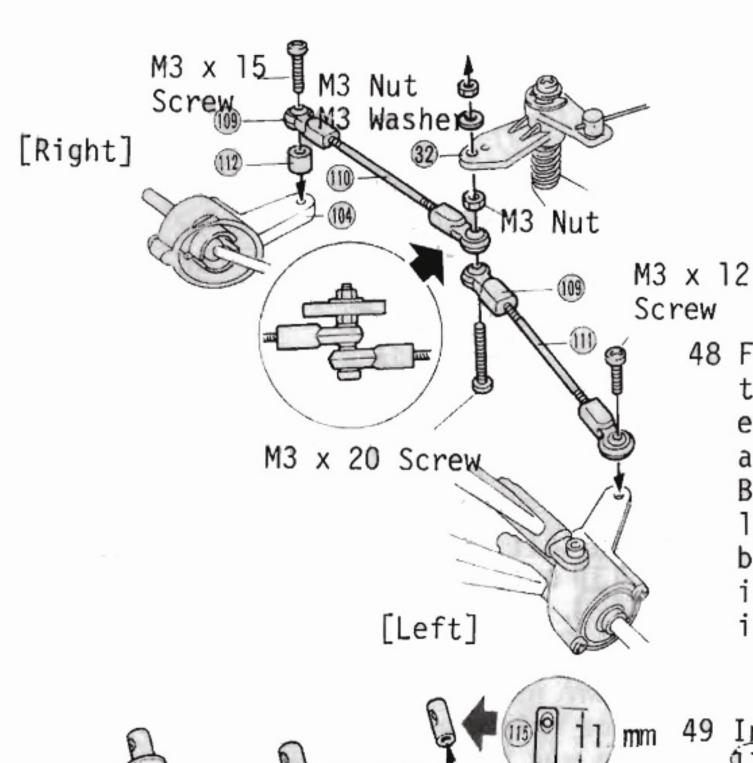


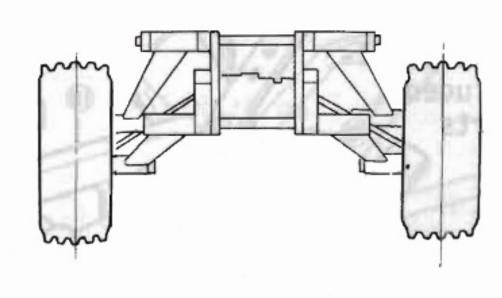
- 45 King pin holder (02) is installed to front suspension arm 90 but set M4 nylon nut into place so that the king pin holder (02) will rotate lightly and also so that there will be no side play.
- 46 Front hub (04) is assembled as illustrated but if the king pin (03) is tightened too much, the front hub will not move. Set so that front hub (04) will move freely without having too much play. Lock king pin (03) so that it will not loosen up by applying cement, etc.



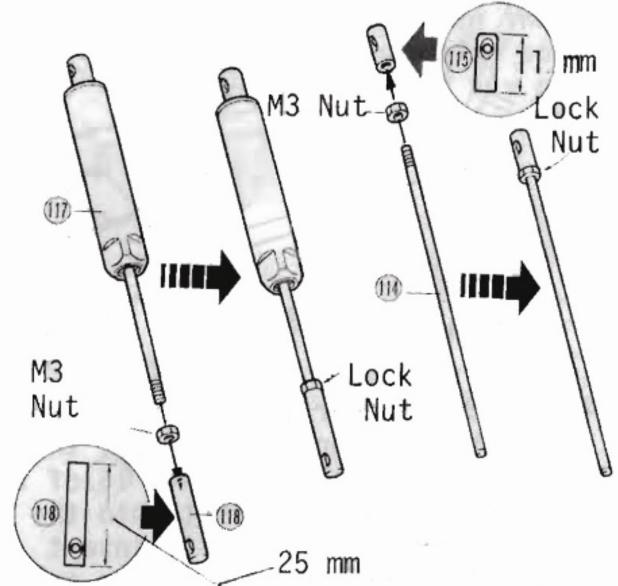
47 Insert swing shaft (05) into joint 10 and the other end into front wheel shaft (07), then install by setting into front hub (04) the front wheel shaft bearing (106).

[Completed Drawing]

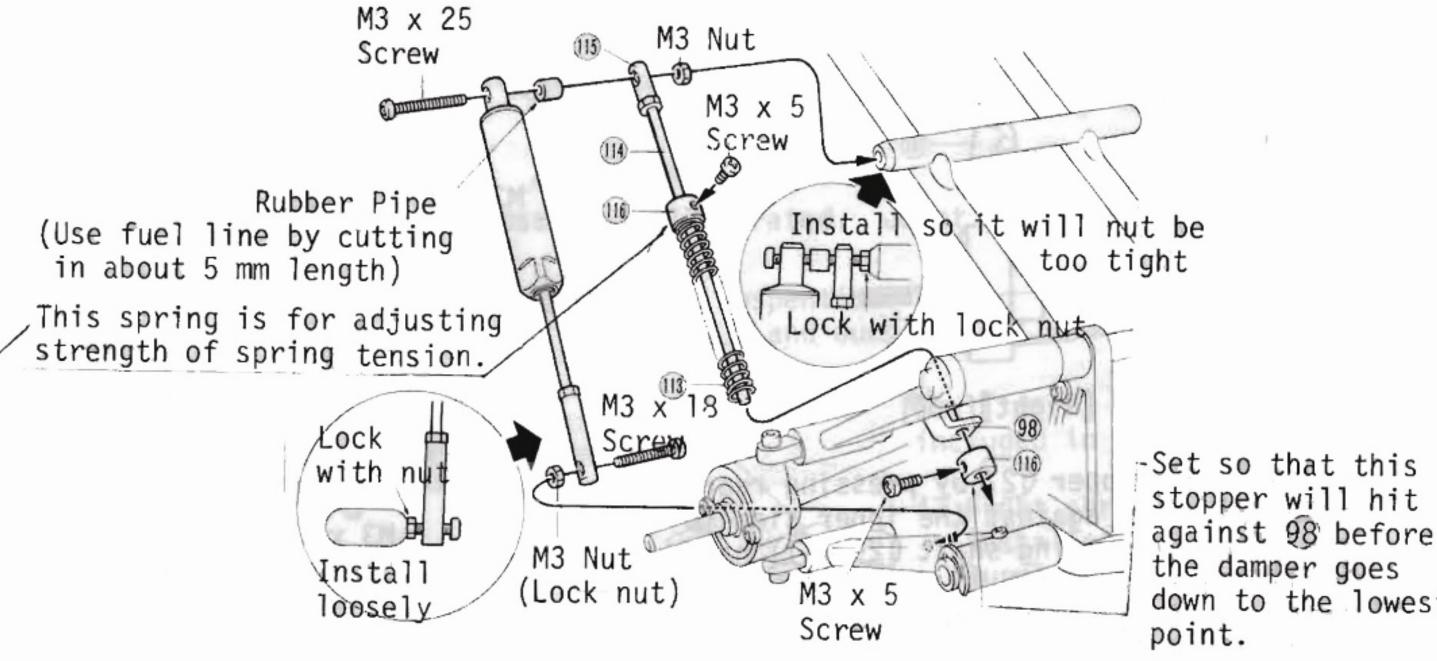




48 Fit ball link (109) through M3 x 20 screw and tighten firmly with M3 nut. Then insert the end of M3 x 20 screw through servo saver 32 and stabilize with M3 nut. Before connecting to front hub (04) adjust the length of the tie rod, set so that there will be about 1° toe-in on the front tire and install onto the ball link (109). Use tie-rod installation spacer (112) only on the right side.

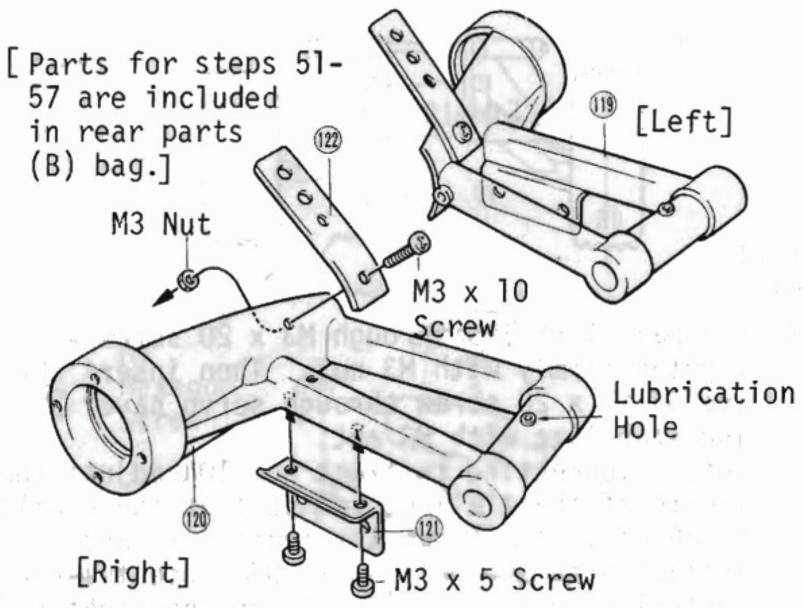


49 Install M3 shaft ends (18) (15) onto oil damper (17) and spring guide (114). The method of installation is to have the M3 nut screwed in as far as it will go in and then screw in M3 shaft ends (118) and (15) right to the end. When tightened complete lock with M3 nut (lock nut) so it will not loosen.

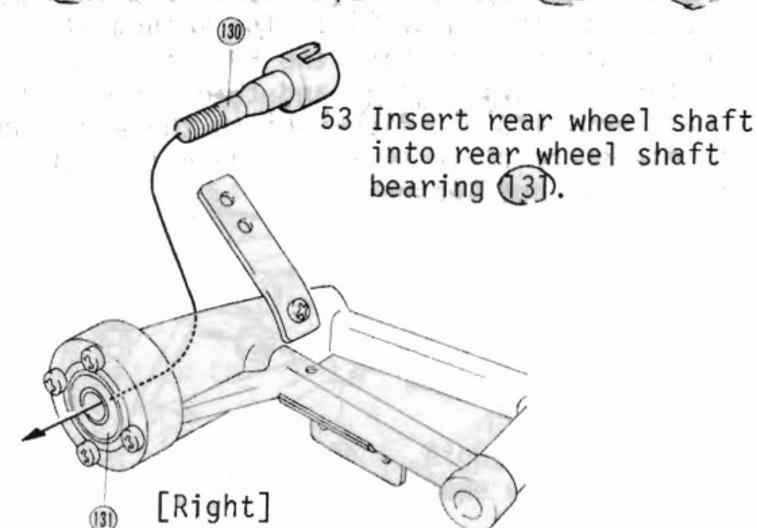


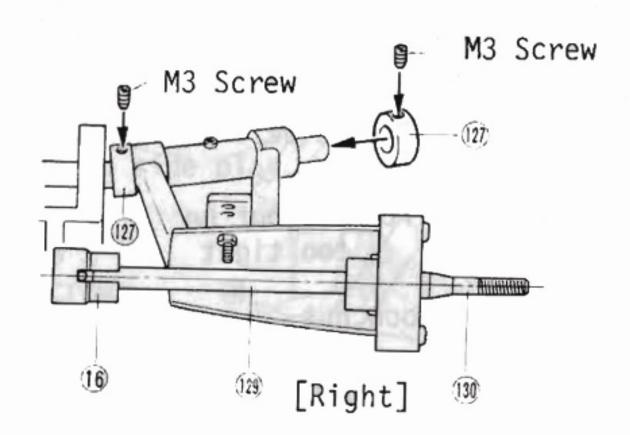
down to the lowest

50 Assemble oil damper (17), front spring (13) so there will be no mistake as illustrated.

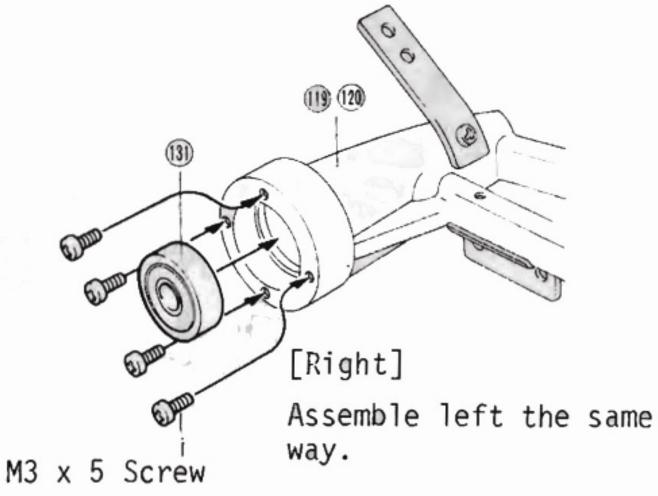


51 Install rear suspension spring installation bracket (22) and rear damper bracket (21) onto rear suspension arm (19) and (20).

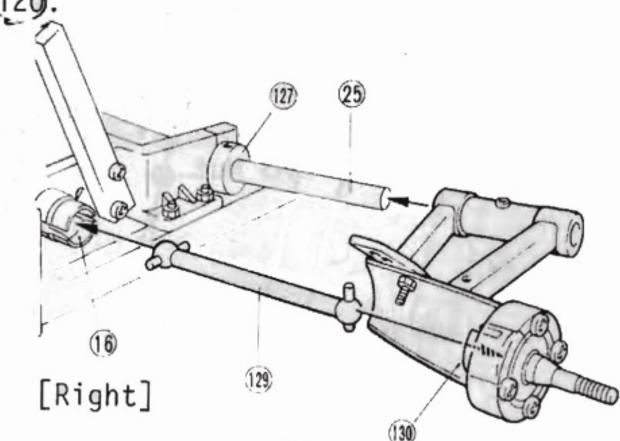




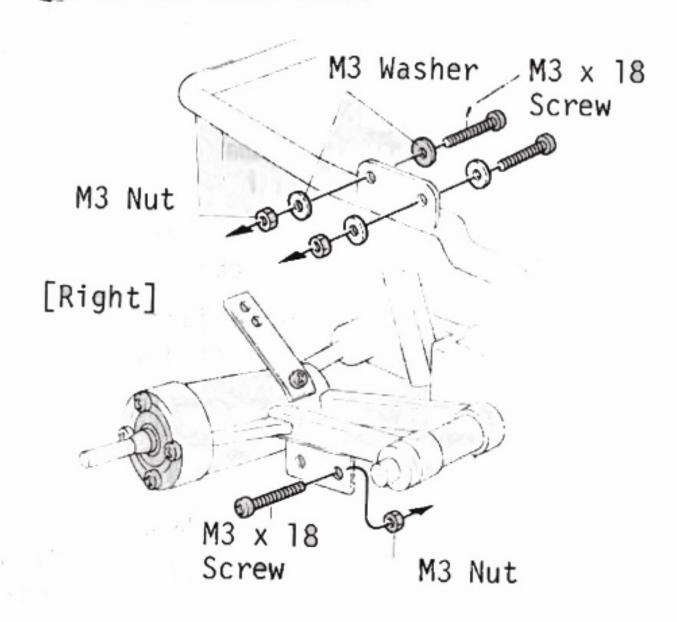
55 Install 8ø stopper (27) by pressing rear suspension arm against the inner side to the point rear swing shaft (29) will have no side way play with (6 joint, (29) rear swing shaft (30) rear wheel shaft in parallel condition as illustrated. Also, install 8ø stopper (127) to supension arm tightly so that there will be no excess side play of rear suspension arm.



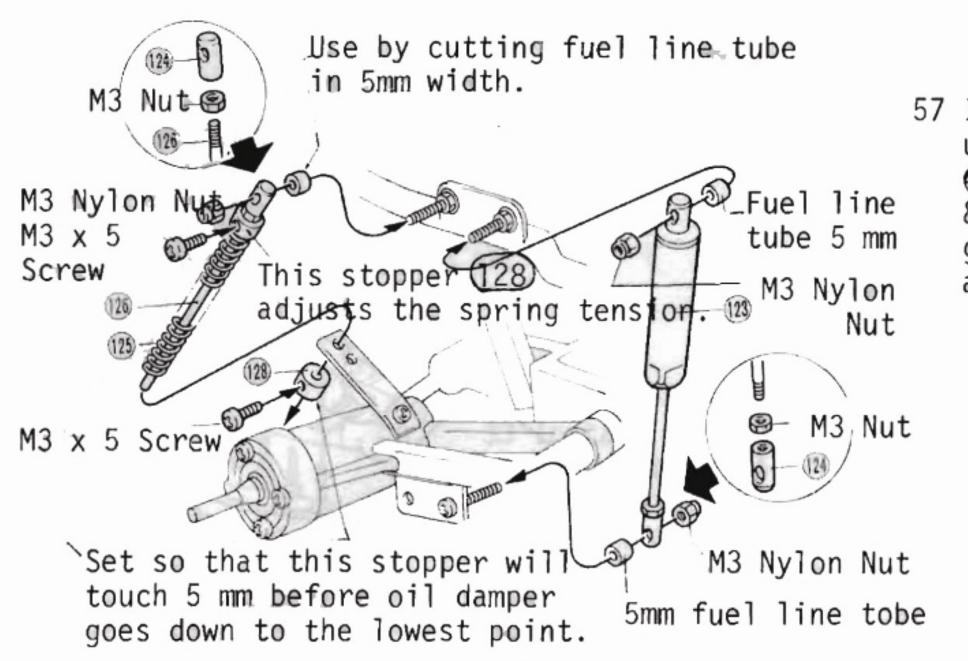
52 Install rear wheel shaft bearing onto rear suspension arm (19)



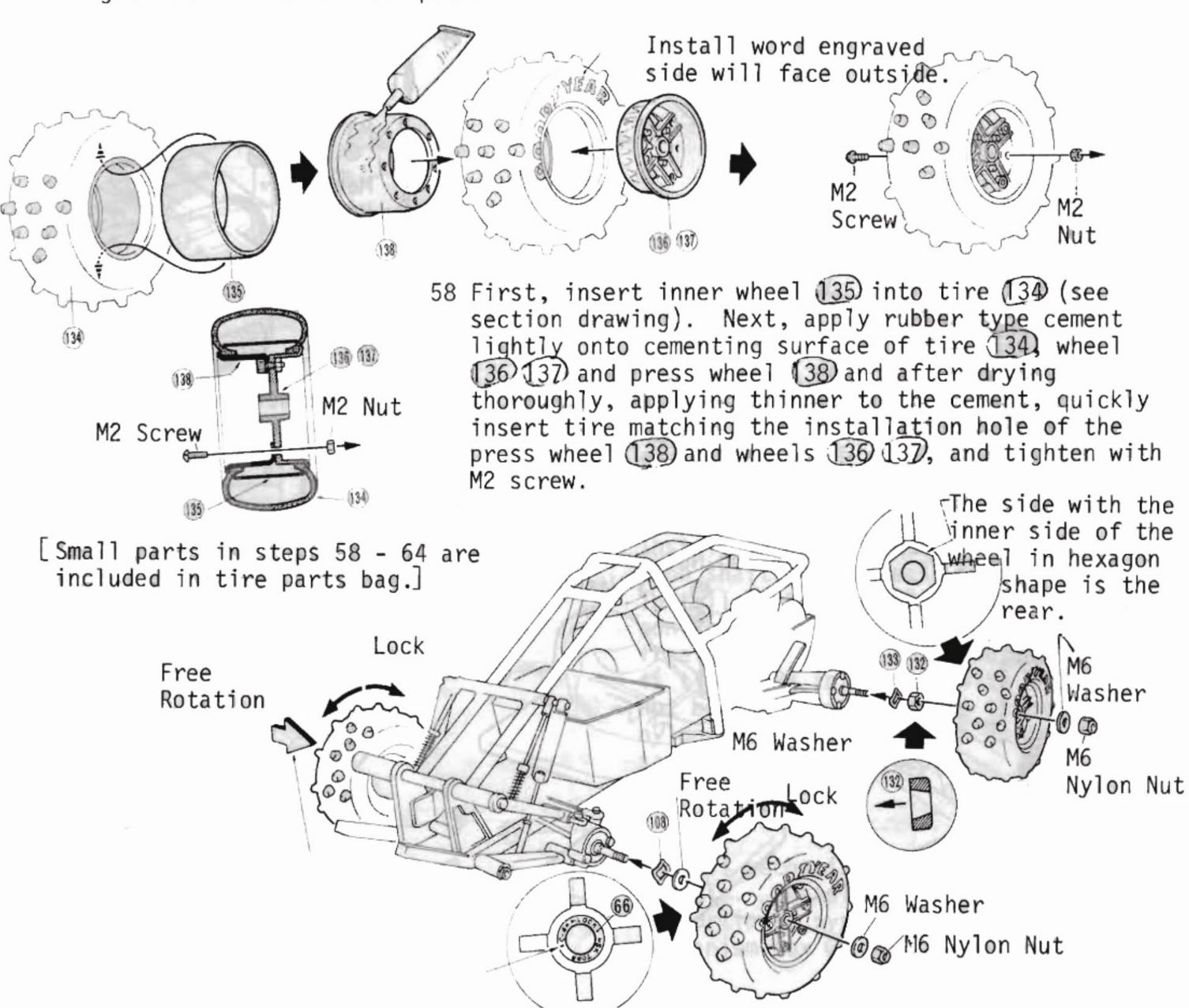
54 Have 8¢ stopper (27) inserted onto rear suspension arm axle (25), the rear swing shaft (129) into (6) of the joint and as you insert into the rear wheel shaft of (30), insert into the rear suspension arm axle (25) at the same time.



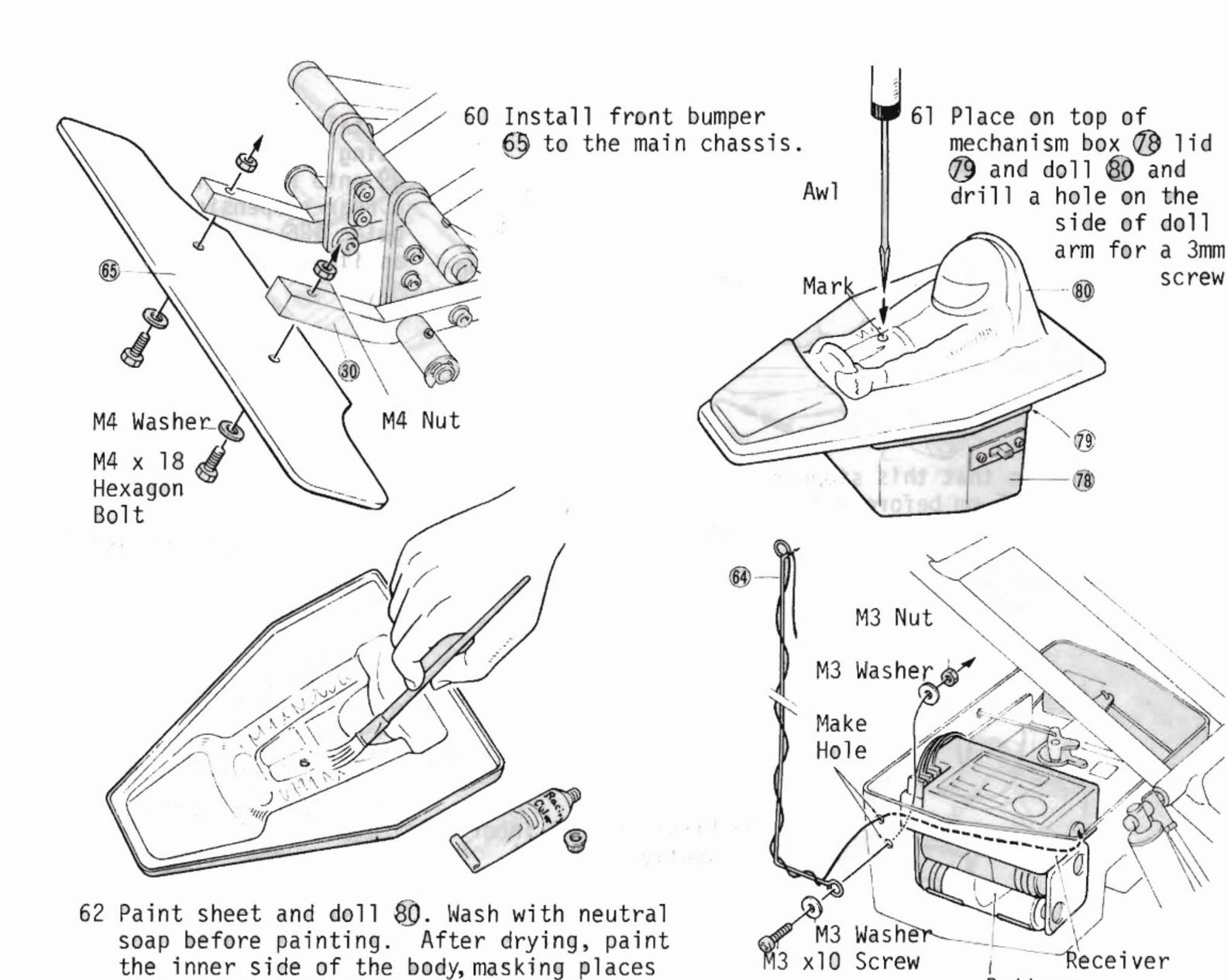
56 Install screw for damper and rear spring installation as illustrated.

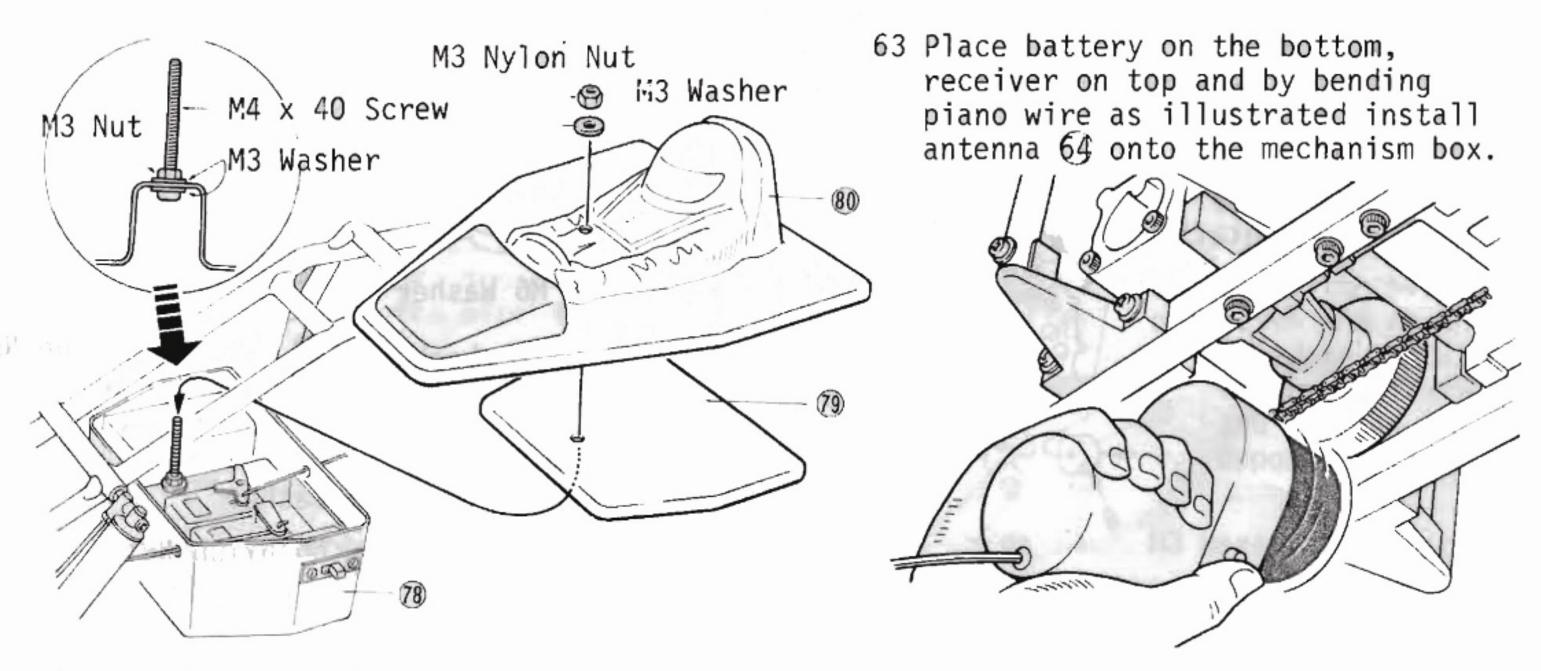


57 Install M3 shaft end (26)
using assembly illustration
(9) onto rear oil damper (23)
& rear suspension spring
guide (126) and set into place
as illustrated.



59 After checking the direction of oneway bearing set into the front wheel, install as illustrated. Do not over-tighten M6 nylon nut on the front wheel side to keep the tire rotating freely. Install rear wheel side matching the hexagon protrusions so that it will be locked.





64 Install M4 x 40 screw onto mechanism box (8) as illustrated, place doll (80) on top of lid (79) sheet and stabilize with M3 nylon nut.

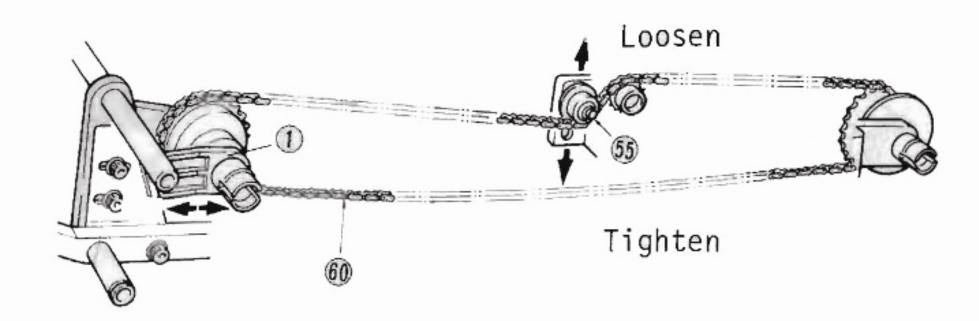
to be painted in different colors for lines,

etc. and finish by painting overall.

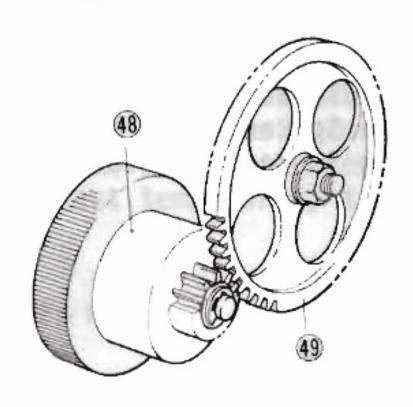
65 Method of starting Land Jump 4D is performed in the same manner a racing car by revolving the flywheel with an electric starter from the bottom of the chassis.

Battery

screw.



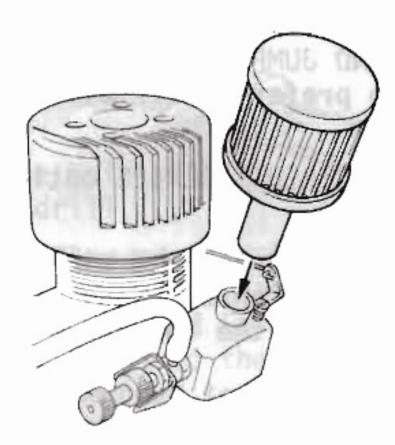
66 [Inspection of Chain]
Chain 60 will slacken to a certain extent during the so-called First stage slackening when it is still new. For the first 3-4 tank full of running keep checking then amount of slackening on each tank full of running. The initial slack is adjusted by moving tensioner shaft towards tightening direction. In case adjustment cannot be made with 65, adjust by moving forward the front axle 1).



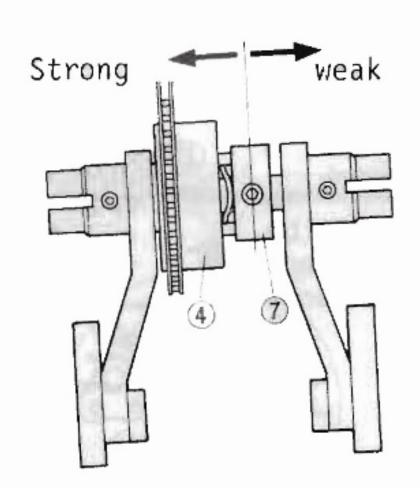
Clutch Bell	Super Gear	Gear Ratio
12 Z	53 Z	8.7 : 1
13 Z	52 Z	9.6 : 1
14 Z	51 Z	10.6 : 1

Other than above combination cannot be matched.

67 [Changing Gear Ratio]
The gear ratio set on this car has a 9.6:1 ratio with spur gear 49 62 Z and clutch bell 48 13 Z. This can be replaced with optional gears 8.7:1 and 10.6:1.



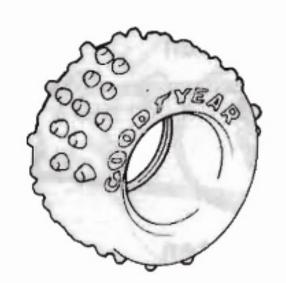
68 [Use Air Filter]
To protect engine from dirt, be sure to use air filter on carburetor. Available as optional parts.



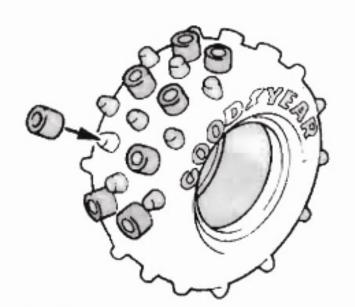
69 [Adjustment of torque clutch]
To adjust torque clutch (4), it is adjusted by moving the torque clutch pin guide (7) to the left or right by running the car but if the car should spin, adjust towards strong side and if it is under-steering, weaken adjustment. The best setting point is to adjust so that the car will just about run without spinning but this would depend on individual's preference and also the race track condition so set it up to your desired adjustment.



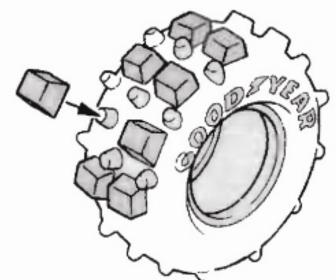
Front tire for CIRCUIT can be used



Rear tire for CIRCUIT can be used



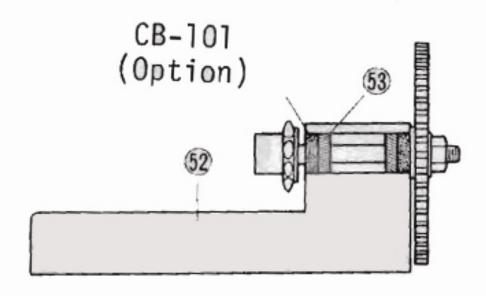
Nylon super spike (Suitable for regular dirt road)



Super Spike (Suitable for running in deep sand)

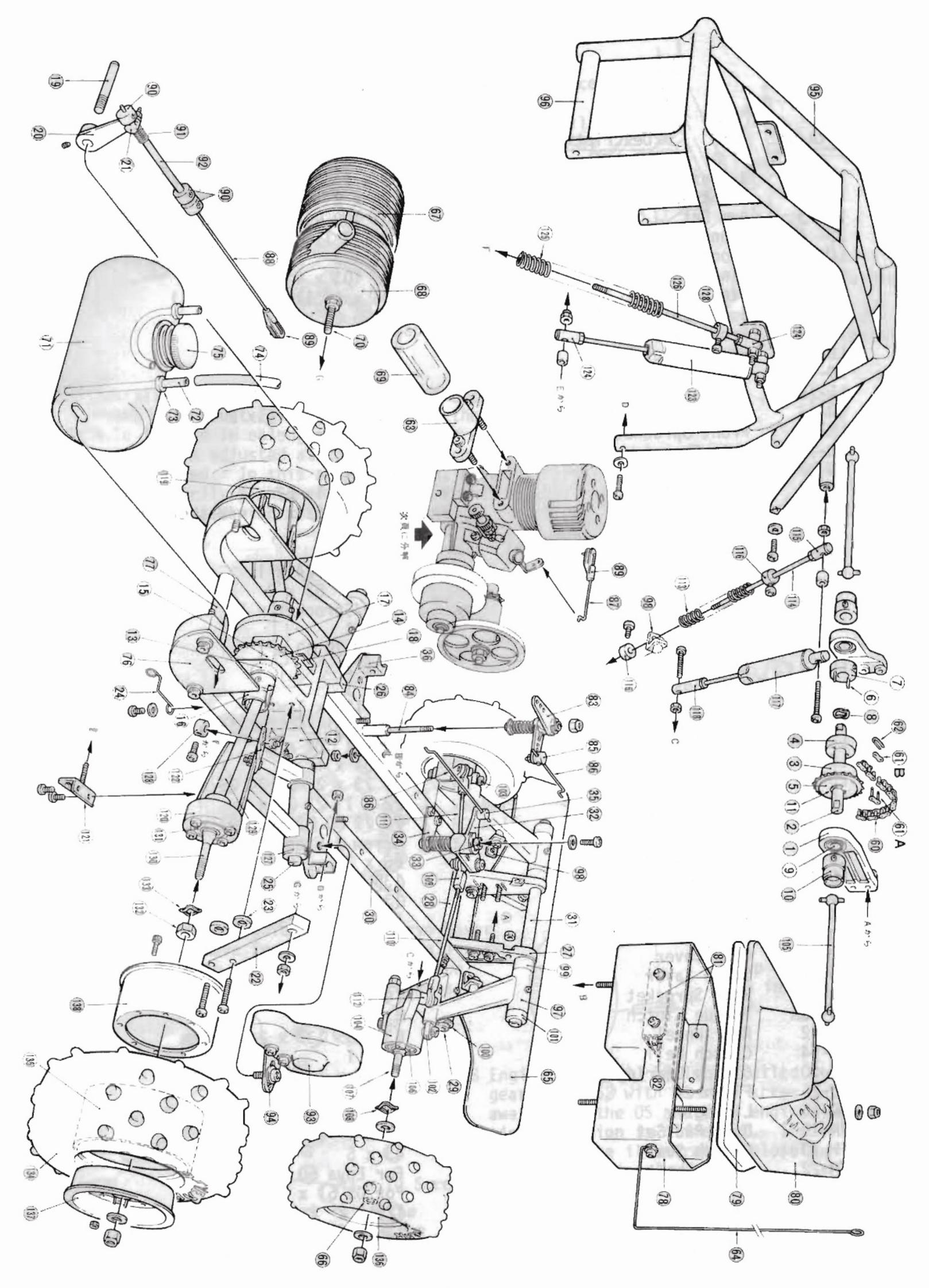
70 [Setting of Tire]

Normal tire on this car uses same diameter same width stud tires for both front and rear but for setting method, it is possible to change with "CIRCUIT SERIES" tires. For example, normal for front and CIRCUIT rear tire for the rear. Also, circuit front tire for the front (Note: In this case one way bearing cannot be used unless it is used in combination with "LAND JUMP" front wheel and press wheel for CIRCUIT front). Also, it is possible to use tires for CIRCUIT on both front and rear. As Super Spike, Nylon Spikes, etc. are being sold for use CIRCUIT, a wide selection of tire setting is possible to match with the track condition.



[Appendix]

- *The front and rear oil damper set included in the LAND JUMP 4D kit are for the rear (CB-89) of CIRCUIT BUGGY SERIES. For those who prefer softer oil damper it is possible to use oil damper for front of CB-88.
- *Front and rear wheel shaft bearing can be changed to CIRCUIT SERIES option parts, CB-95, W bearing.
- *Spur gear mount 52 axle holder included in the kit is incorporated with bearing 53. When using ball bearing, CB-101 front wheel bearing can be used. First, using illustration as reference, tit bearing 53 in within the thickness of the ball bearing and set CB-101 bearing into place.

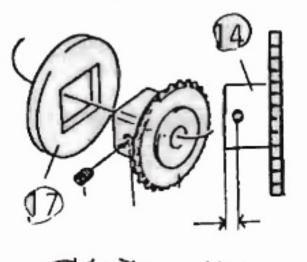


PARTS LIST

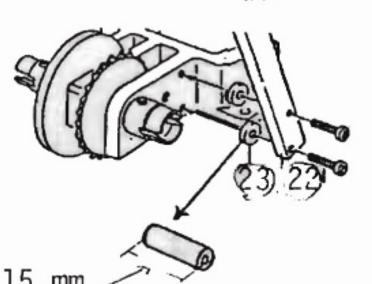
Parts No.	Description	Contents
CB-28	Clutch Part	(1) x 1 (3) (3) (4) x 2
CB-44	E ling (E-7)	\bigcirc × 4
CB-51	Center Shaft	(15 x 1 (2)
CB-52	Joint	(b) x 1 (c) x 2 (availble:(6)) (d) x 5
CB-72	E-Ring (E-3)	47×5
CB-84	Ball Bearing	0 x 2 (availble (3)
CB-89	Rear Oil Dumper	11) x 2 (availble 123)
CB-67	Clutch Spring	40 x 4
CB- 3	8ø Stopper	(27) x 2
FM-28A	Flywheel Spacer	42 x 1 439 x 1
LD-48	Decal	
SD-23	Heat Sink	For Enya BB
SD-75	Heat Sink	For Enya X
SD-53	Clutch Bell (12Z)	availble use LD-27
\$D-55	Clutch Bell (14Z)	availble use LD-25
FM-62	Flywheel Spaces	For Enya X (availble FM-28)
FM-28	Flywheel Spacer	availble FM-62
FM-74 FM-75	Flywheel Full Clutch Wheel	For OS only For Fantom Exp, outstanding durability
CB-36	Super Spike	Rubber made
CB-76	Rear Nylon Wheel	For 352 X
CB-81	Rear Nylon Wheel	For 352 X
CB-103	Mug Wheel for Front	For 352 X
CB-88	Front Oil Dumper	
CB-95	Rear Double Bearing	
352X	Spike Tire	Rear Tire for Circuit
LD-25	Main Gear 51T	availble use SD-55
LD-27	Main Gear 53T	availble use SD-53
CB-86	Nylon Spike	Plastic made
CB-101	Front Wheel Bearing	Changeable 53
FM-59	Nylon Nut	M6
LD-21	Engine Mount	For Enya 19 BB
CB-110	Air Cleaner	For OS-21 Car & Wing

LAND JUMP 4D INSTRUCTION SHEET SUPPLEMENT

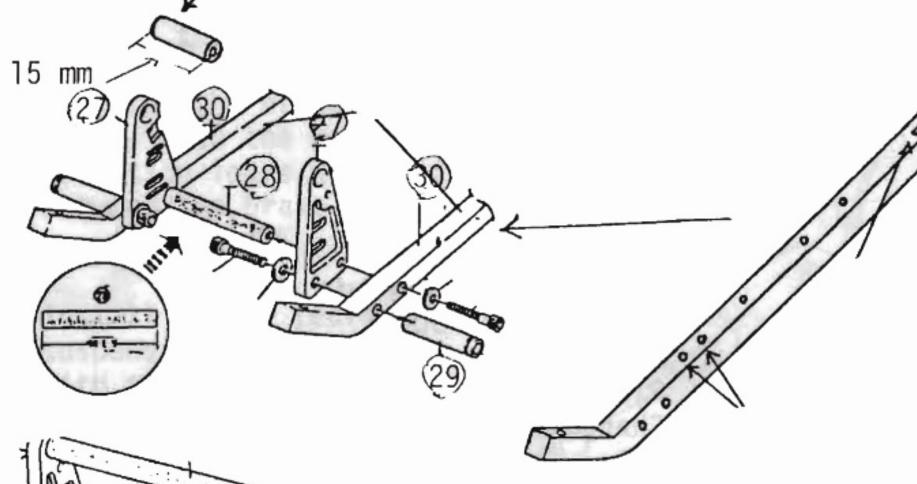
There has been some revisions made in the original land JUMP 4D instruction sheet. Please proceed with assembling together with this supplement instruction sheet.



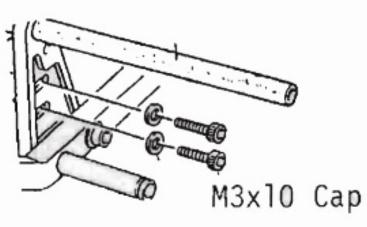
5 There are 2places where there is a hole for rear sprocket 14 stopper. Set to the right upper illustration shorter arrow marked measurement.



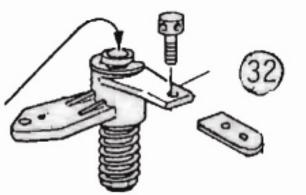
10 ② muffler installation collar is longer (about 15 mm) than the illustration.



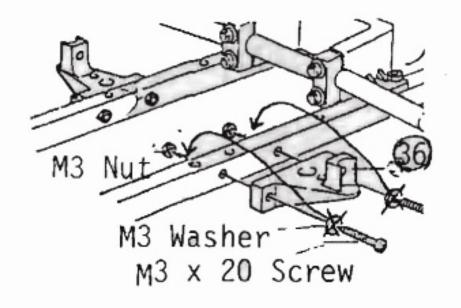
There is left and right side on the main chassis 30. Right illustration chassis is for the right side.



13 M3 x 12 cap screw has been changed to M3 x 10 cap. Also, front axle () should be installed to the very front.



15 Cut servo saver ② horn leaving only the extreme inner side hole.



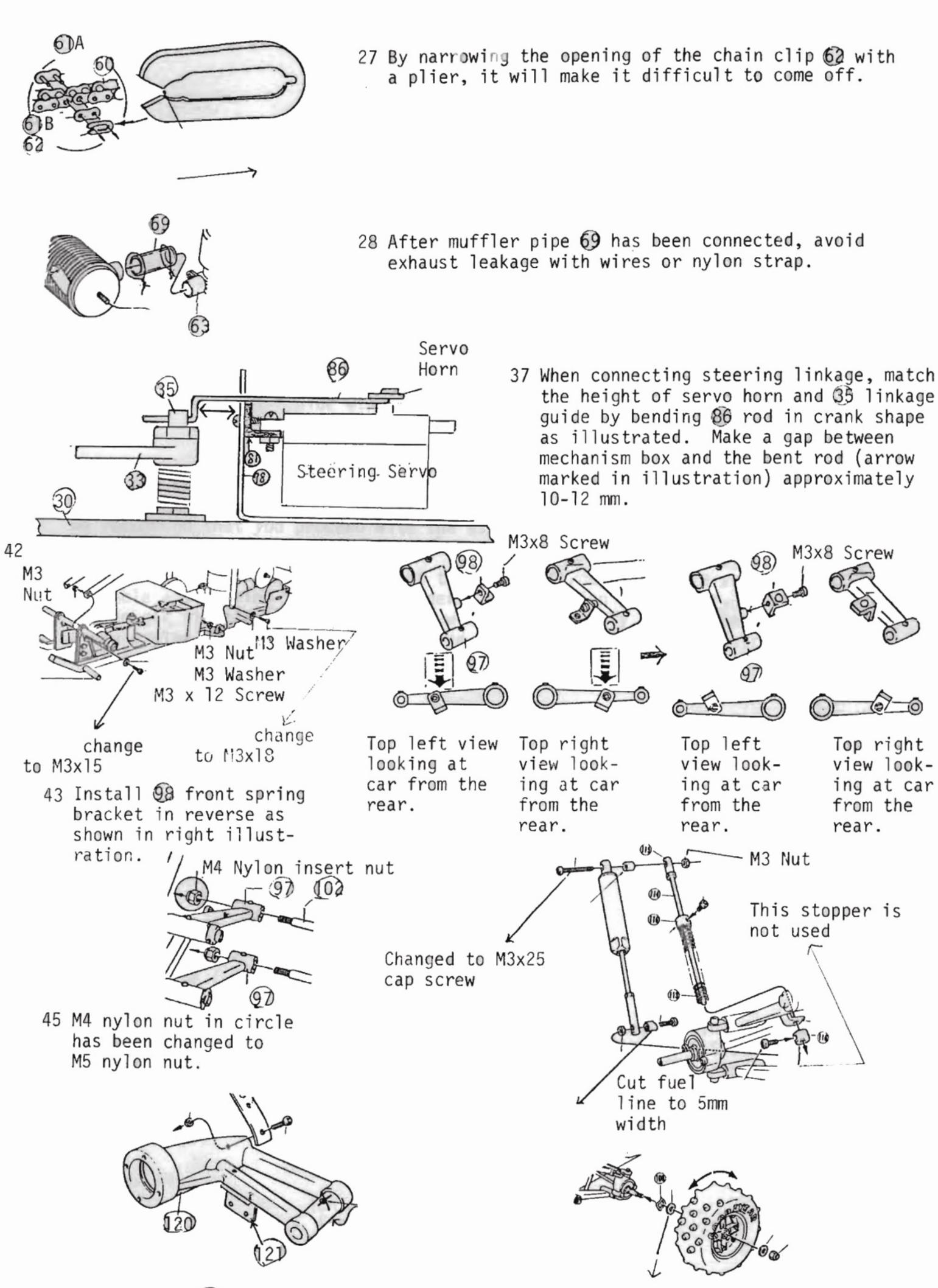
16 Use M3 washer to be used with M3 x 20 screw for 30 side member stopper screw on the inner side (nut side) of the chassis.



23 M6 washer on sprocket side to be used on spur gear shaft 64 has been changed to nylon washer (black color). Not used on spur gear side.

This washer is not used.

Nylon washer



51 Rear damper (21) bracket is already installed. Also, lubrication port is facing up.

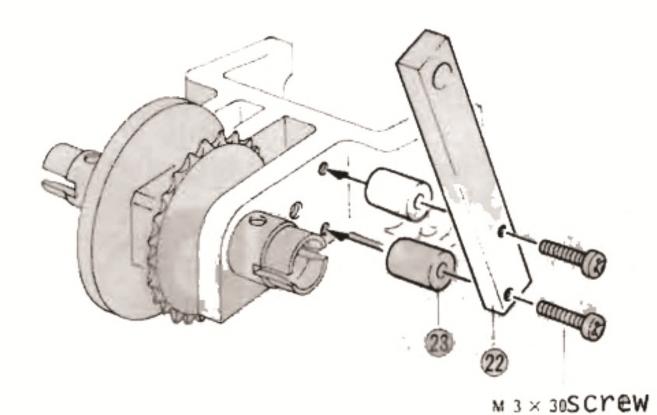
59 This M6 washer is not used.



AND JUMP 4D

SUPPLEMENTARY INSTRUCTION

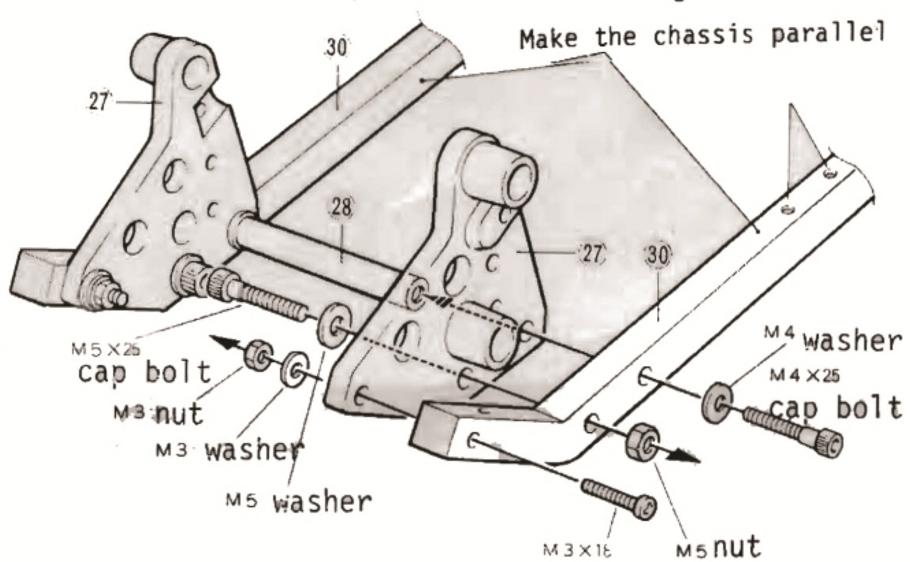




10 Install collar 23 together with muffler installation bracket 20.

12

no.12-16 parts in front B bag

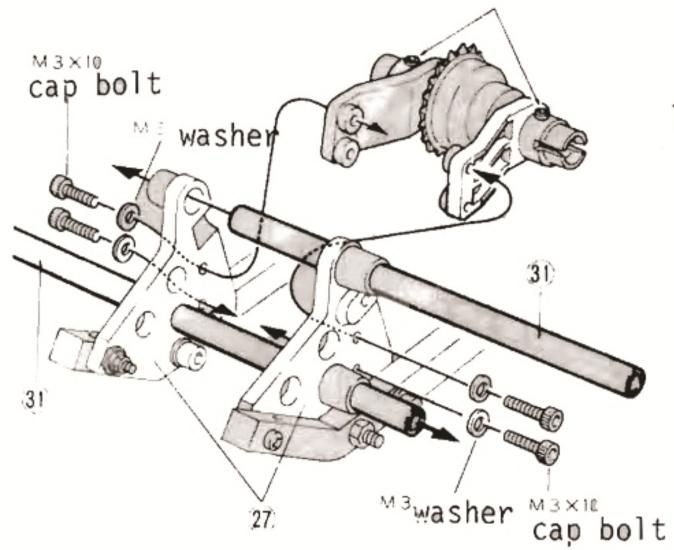


[Small parts used in steps 12 - 16 are included in front part (B) bag.]

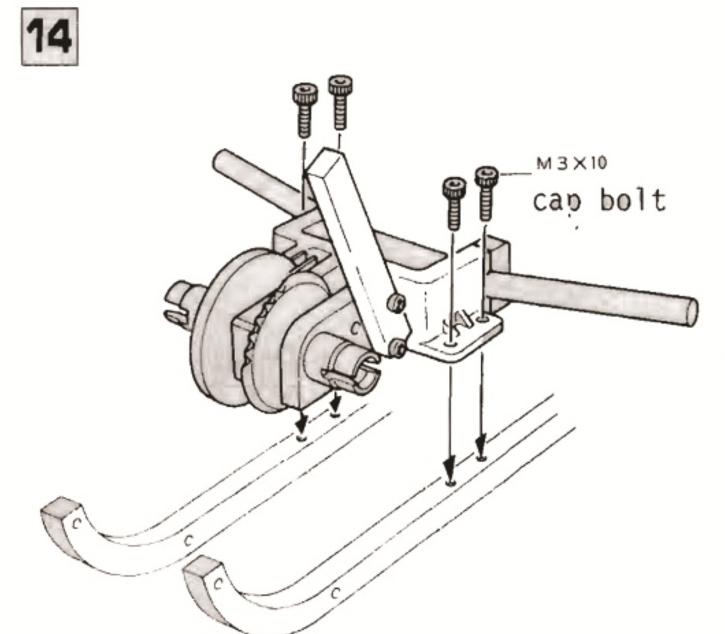
12 Install onto main chassis @ front axle mount ②, joint collar ②, front arm axle A ② as illustrated.

13

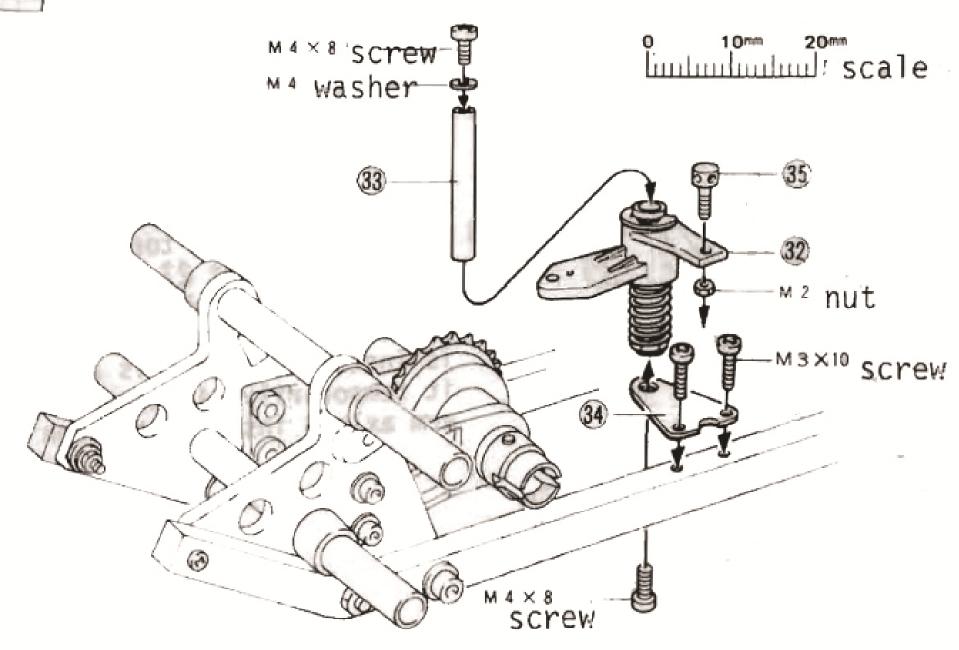
Loosen up once and after setting in place has been firmished, tighten so there will not be too much play on both side.



13 Install completed torque clutch part onto front axle mount 2). For adjusting, the hole is made in oblong shape. The correct position is adjusted at the time the chain is installed. In this assembly step, have it temporarily tightened. Have the front arm axle B inserted through the mount.

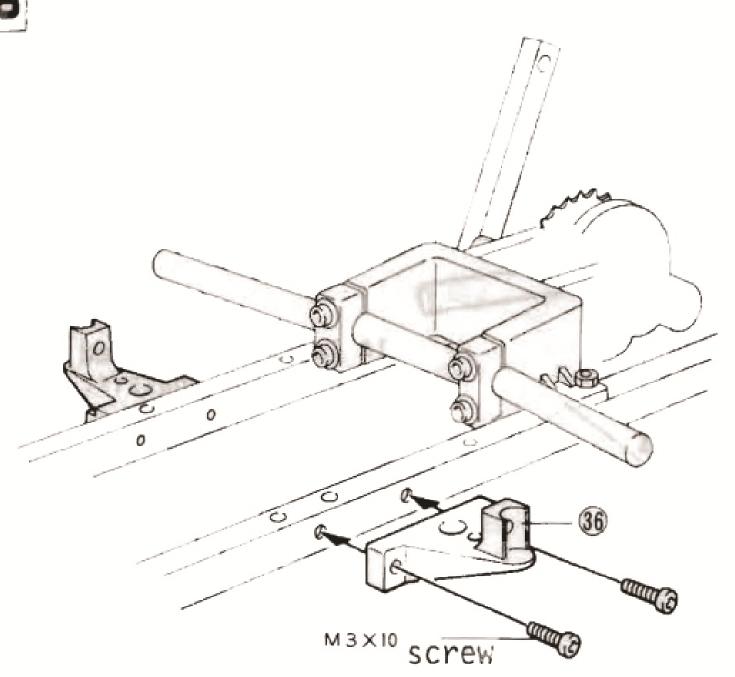


14 Install completed rear axle part onto the chassis.

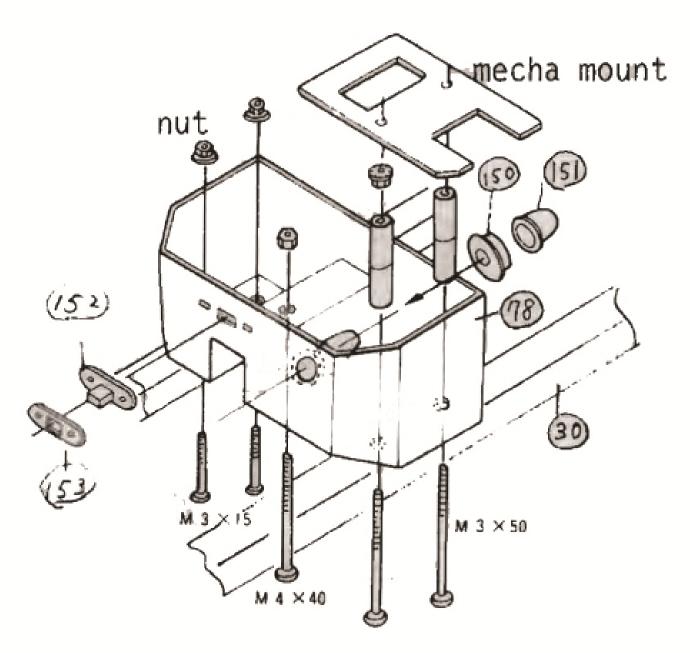


15 Install linkage guide ③ onto servo saver ② it will move freely. Next install servo saver ③ onto servo saver installation hardware ③ and then onto the chassis.



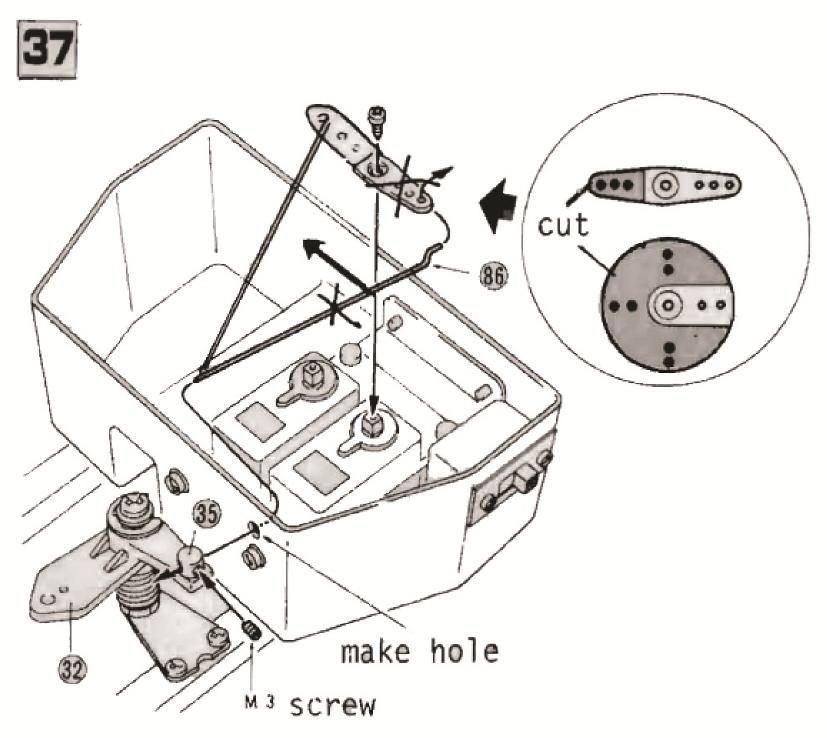


16 Install side member 36 onto main chassis.

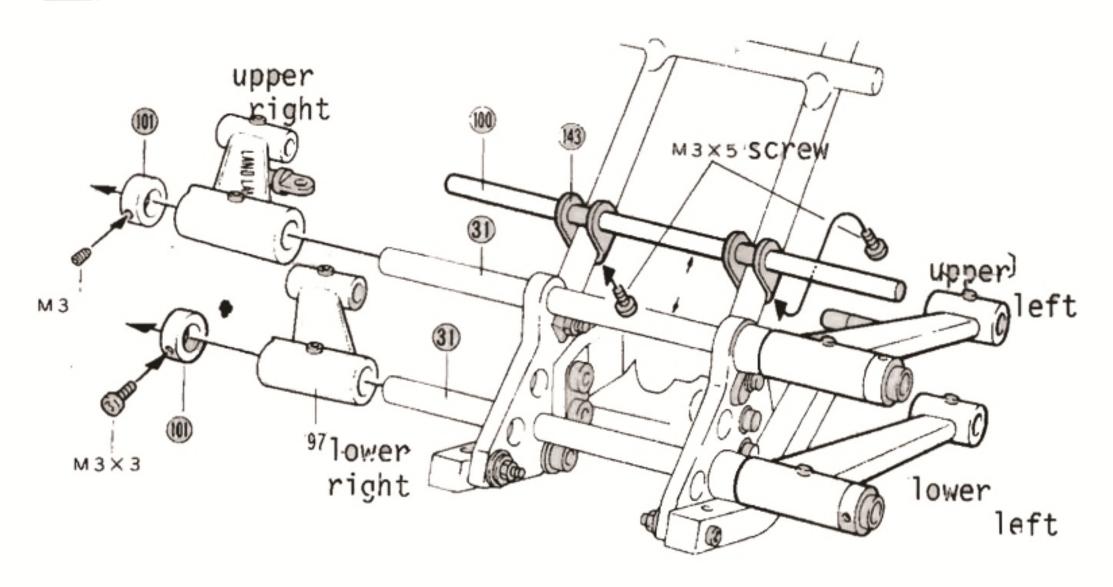


31 Install servo onto mecha mount and then install mecha box 78 onto chassis 30. Cement rod boots 151 to rod boots ring 150 and cement rod boots to mecha box hole as illustrated. Install switch boots 152 and switch plate 153 to mecha box with switch.

Please disregard No. 31, 32, 33, 34 & 36 in the instruction and refer above drawing No. 31.



37 Install linkage rod onto servo horn and then set the servo horn 180° reverse side as illustrated.



44 Making sure of top right and top left sides of the front suspension arm that was assembled in step 43, set the arms into place as illustrated. Set 100 80 stopper into place to the point that it does not have excess play and make so that suspension arm will move up and down smoothly.