

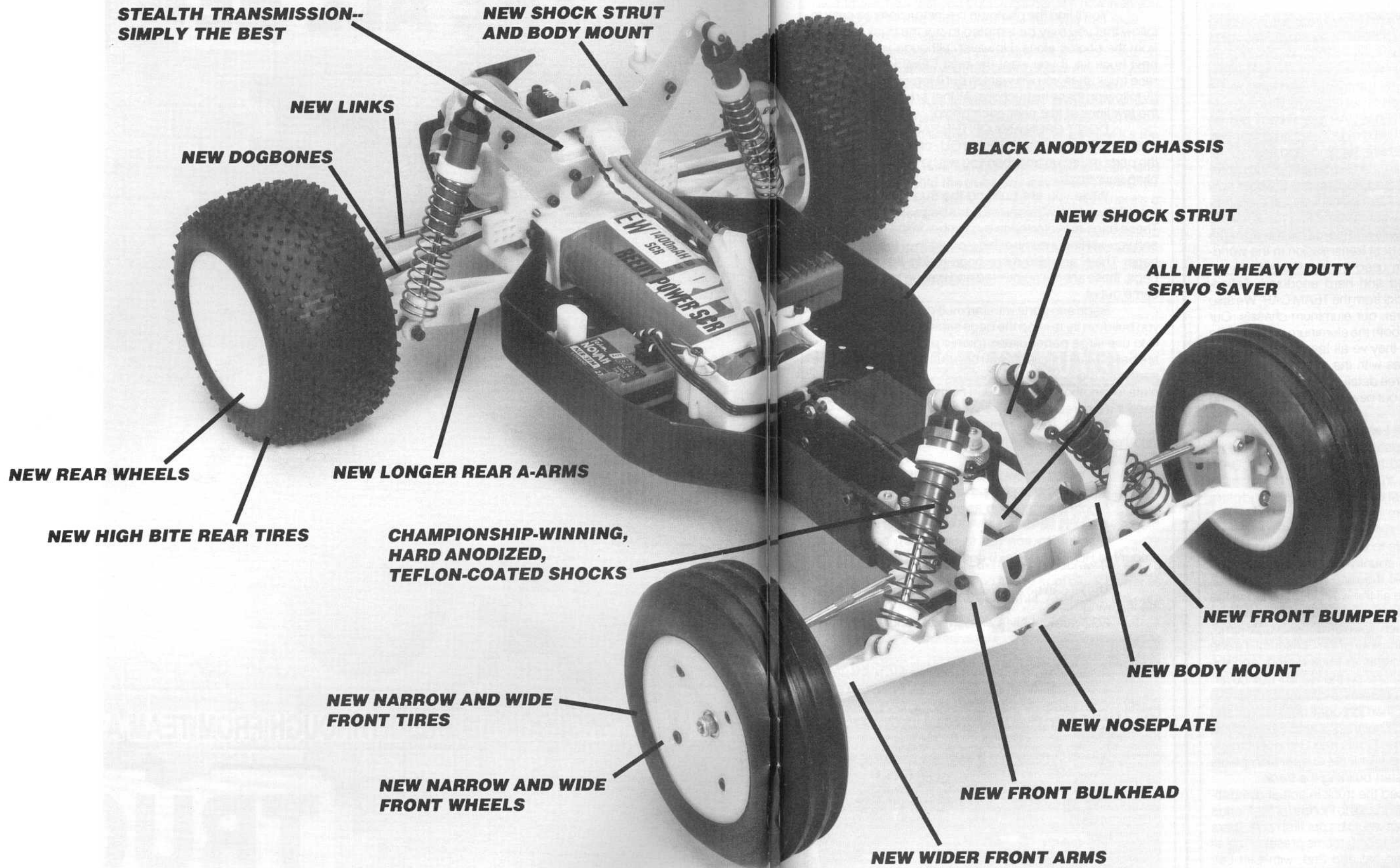
THE ALL NEW



A NEW TECHNOLOGICAL BREAKTHROUGH FROM TEAM ASSOCIATED

RC10T TRUCK
INSTRUCTION MANUAL

The New RC10T Racing Technology



Advanced, Competition Design

FIRST, A WORD

Team Associated's RC10 2WD car has won three IFMAR WORLD CHAMPIONSHIPS, including the 1991 race in Detroit, MI. For Australia, in 1989, we had developed a totally new transmission called the STEALTH transmission. This STEALTH tranny was also used in the '91 race in Detroit and is part of our latest RC10, the TEAM CAR. Out of the box, the TEAM CAR has already proven it's the best. At the 1990 ROAR NATIONALS in Livermore, Calif., it finished an impressive 1st, 2nd, and 3rd.

We've used the same WORLD CHAMPIONSHIP-winning design concepts and engineered a whole new vehicle, the RC10T Truck. This is definitely not a conversion kit, as you'll find out when assembling the truck. As you can tell, we did use a few important parts from the TEAM CAR. We used the best transmission in the world—the STEALTH tranny. We used the best shocks in the world, our new, improved and hard anodized, Teflon-coated race-winning shocks from the TEAM CAR. We also used another speed secret, our aluminum chassis. Our Team drivers have tested both the aluminum and graphite chassis extensively, and they've all learned that they're getting their best lap times with the standard aluminum chassis. Pages two and three detail all the totally new parts that were required to build our new championship-winning RC10T.

Roger Curtis, Cliff Lett and Curtis Husting used their combined design experience from the TEAM CAR to design a truck that would handle like our TEAM CAR. Although ROAR's racing truck class is called Monster Truck, it was easy to see that what was actually raced more closely resembled Stadium Trucks.

Anyone who has seen the Stadium Trucks race know how exciting they are to watch. All sixteen races in stadiums all around the country are always sold out, proving their popularity. At the race at the Los Angeles Coliseum, the trucks climb all the way up to the top of the bleachers, through the peristyle end, come charging out through an archway and then down an unbelievable jump, three to four stories tall, to the floor of the Coliseum! It's one of the more spectacular sights in truck racing, and the reason we depicted this scene on the RC10T box cover.

We looked at the truck rules and found out what we were allowed to do, and then brought our design and racing experience to design our truck. Curtis Husting built three prototype trucks. Then Curtis and Cliff put in many hours of track time fine tuning all the suspension points before we were ready to start building the truck.

We still hadn't raced the truck in actual competition before we took the three trucks to Florida for the Florida Winter Championships. This would be our first race. There were 450 entries with all the racing teams present. The all new RC10T trucks finished 1st and 2nd, with Cliff Lett winning and Butch Kloeber following in 2nd! It was an

incredible finish, justifying all our long hard work. We are certainly very well pleased with the RC10T and we know you will be too.

You'll find the photos in the instructions so easy to follow that you may be tempted to put the truck together from the photos alone. However, although you have the best truck kit, if you want the best COMPLETED model race truck, then you will want to put it together correctly—by following these instructions. All that's required is to read the few lines of text near each photo.

DON'T OPEN ANY OF THE PARTS BAGS UNTIL THESE INSTRUCTIONS TELL YOU, otherwise you'll get the parts mixed up and then you will have trouble assembling your truck.

While you are building the truck you will sometimes be working with several parts bags at the same time. These bags are referred to by number in the instructions, and you will find a number label on each of the main parts bags. There are also more bags inside the main parts bags; these are not numbered and belong to the bag they came out of.

Bags and parts will start multiplying like rabbits as you build, so try to keep the bags separate. One good way is to use large paper plates (picnic plates with partitions are best). Mark the plates with bag numbers and dump the parts into them. When the parts are used up, relabel the plate for another bag. It's much easier to find the part you need if it's spread out where you can see it.

TOOLS. The kit contains the shock wrench and all the Allen wrenches you'll need, but you will have to supply the following:

- #2 Phillips screwdriver (Associated #SP76)
- A needle-nose pliers
- A hobby knife, such as an X-acto with a pointed blade
- A soldering iron (25 to 50 watts), and a small amount of ROSIN (not acid) core 60/40 solder.

The kit can be assembled even easier if you have the following:

- 3/32" straight Allen wrench with handle. Will make installing the Allen screws much faster and easier (Associated #SP73)
- A ruler with decimal inches or metric measure
- A 3/16" nut driver will make installing the ball ends easier (Associated #SP86)
- A 1/4" nut driver will speed up installing the 1/4" nuts (#SP85)
- Socket or open-end wrench
- Small screwdriver
- Thread-locking compound
- ZAP or Hot Stuff (cyanoacrylate adhesive)
- Vise
- File
- Drill with #43 (2.3 mm) bit

WARNING! Do not use a power screwdriver. They

spin too fast, causing screws to heat up when being driven into plastic and will strip out.

Take your time assembling the truck. It's not a race to see how fast you put it together; it's how well you put it together that determines how fast you can race.

Boxes at each step are provided so you can put a check mark for each assembly after each step is completed. So when you stop during assembly time, you'll be able to come back and start in the correct step.

To help you identify certain parts, an outline drawing occasionally will accompany the step. Just place your part atop the actual-size drawing to be sure it's the one referred to.

One final note for you experienced builders and racers: **please build the truck our way first!!** The RC10T is a remarkably fast truck right out of the box. There's a reason for everything on the truck, and very few compromises were made in its design. Work with the truck first and see what it can do before you experiment or make changes.

Clear off your workbench, line up some paper plates, grab a sandwich, and *let's begin...*



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FRONT END ASSEMBLY

Fig. 1 From Bags 6-14 and 7-1 screw the #6273 long ball end into the left hand #6213 front block carrier as shown, then screw on the #7260 nut. Assemble the right hand parts.

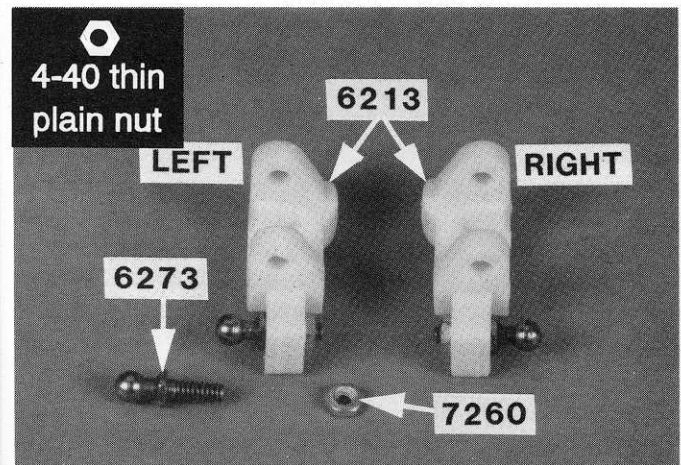


Fig. 1

Fig. 2 Again from Bag 6-14 and 7-1, screw the short #6270 ball end into the #6217 steering block and secure it with the #7260 nut as shown. Assemble the right hand side.

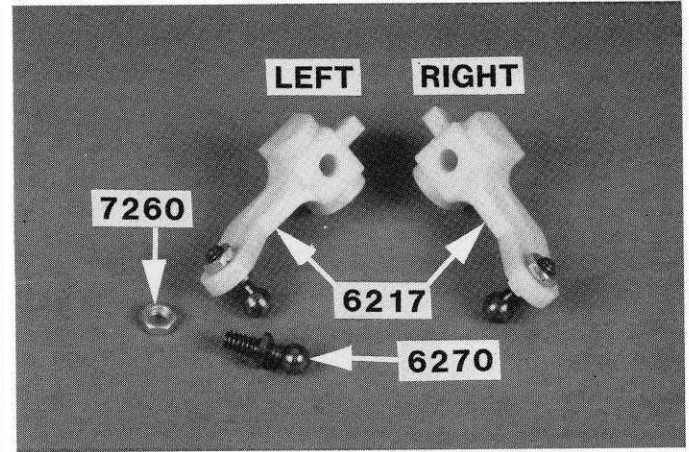


Fig. 2

Fig. 3 Push the #6218 front axle from Bag 7-1 into the #6217 steering block as shown so the hole in the axle lines up with the hole in the steering block. It may push together with your fingers. If not, LIGHTLY tap it into the hole. Assemble the right hand side in the same way.

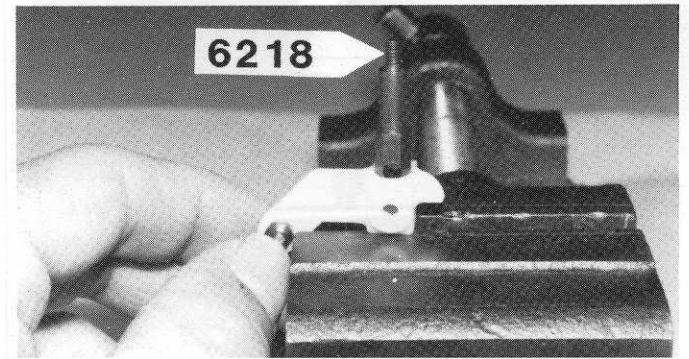


Fig. 3

□ **Fig. 4** You'll notice that the hex part of the axle does not go all the way into the steering block. That's O.K. Just make sure the hole in the axle is lined up with the hole in the steering block.

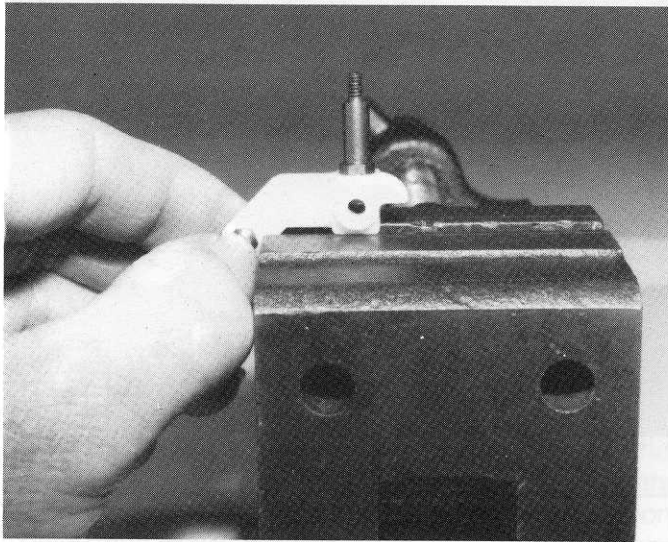


Fig. 4

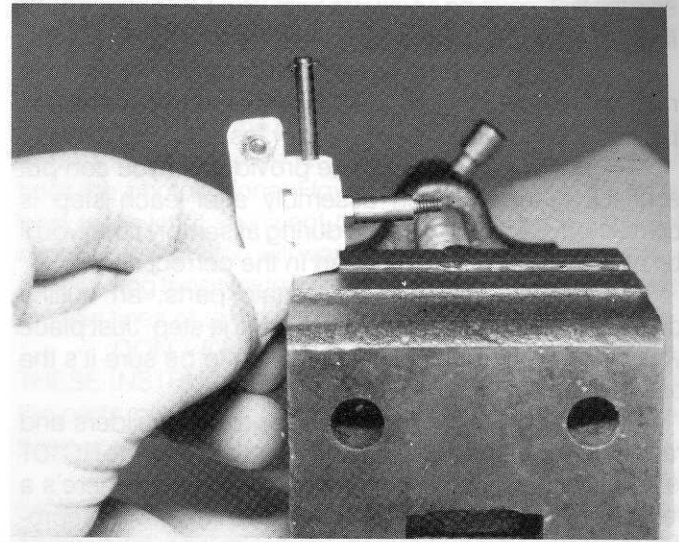


Fig. 6

6299 →

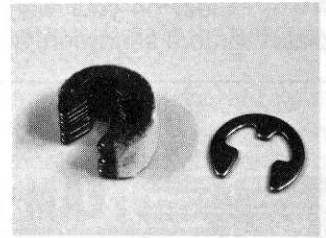


Fig. 7

□ **Figs. 5, 6 & 7** Line up the steering block in the block carrier as shown, and push the #6223 king pin (from Bag 7-1) through. The pin will be loose in the block carrier, but will be snug in the steering block. We want it that way. You might have to lightly tap it in.

Fig. 7 shows a package of #6299 E-clips. Remove two from the package and install an E-clip on each end of the pin. If you run out of E-clips, there are extras in the shock bags. Assemble the right hand side.

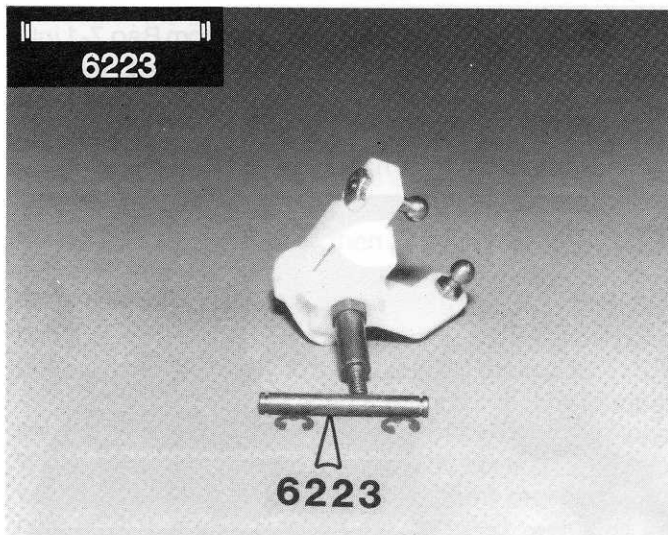


Fig. 5

□ **Figs. 8 & 9** Again from Bag 7-1, try one of the #6227 outer hinge pins in the outer end of the #7206 left hand front A-arm. Your front and rear a-arms may be in a separate, un-numbered bag. (The left hand and right hand sides of the truck are determined like this: with the driver sitting in the driver's seat, on the driver's left hand is the left hand side of the truck and on his right hand is the right hand side of the truck.)

After you've pushed one of the #6227 pins in the outside end of the A-arm, hold the pin and see if the arm will swing freely on the pin. Most racers keep a .126" and a #30 (.1285") reamer in their toolbox to free up A-arm holes and to clean them after racing.

But we want the pin to fit tight in the #6213 front block carrier, so do not ream it out. Now, assemble the block carrier assembly to the outer A-arm with the hinge pin and install two E-clips on the pin. Do the right hand side.

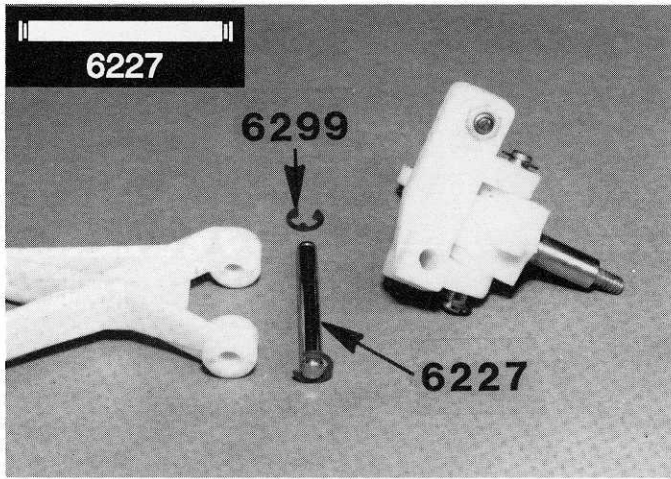


Fig. 8

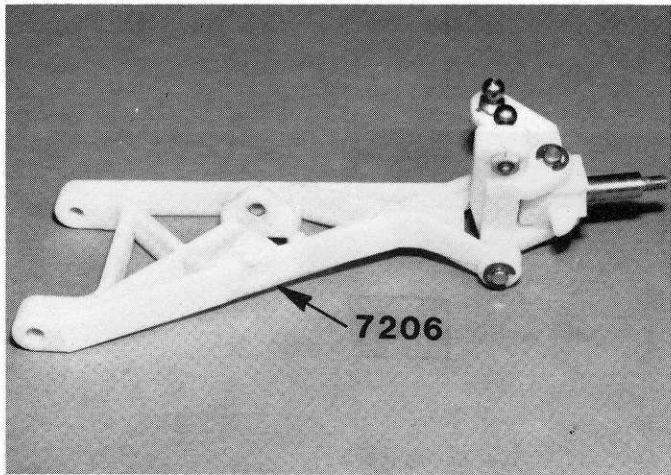


Fig. 9

□ **Figs. 10 & 11** From Bag #7-1 take out the #7207 front bulkhead, the #7208 aluminum support and the #7209 inner hinge pins. Try the pins in the A-arms again and see how they fit. Free them up if necessary. We want the pins to be tight in the bulkhead. Assemble the front arms to the bulkhead as shown. Secure with e-clips.

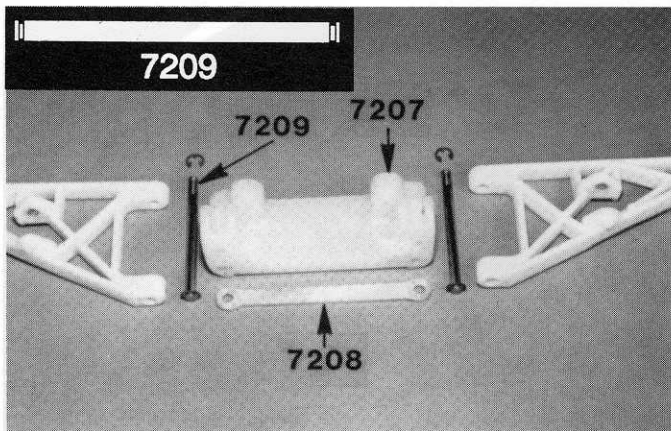


Fig. 10

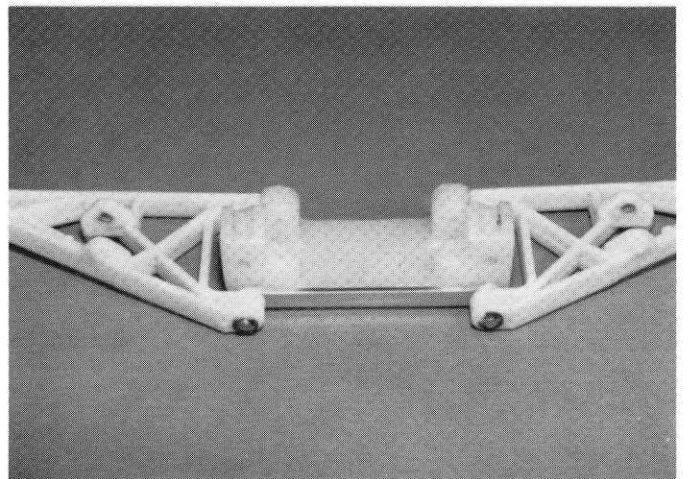


Fig. 11

□ **Figs. 12 & 13** From Bag 6-14 and 7-1, take the #7214 front shock strut and install two of the #6270 ball ends, with the short threads, into the strut in the locations shown. Tighten the ball ends, and then install and tighten two #7260 plain nuts on the ball end threads. With the two 4/40 x 1/2" screws, install the shock strut to the bulkhead as shown. It will be a lot quicker and easier to install the 4/40 screw with a #SP73 3/32 screwdriver handle allen wrench.

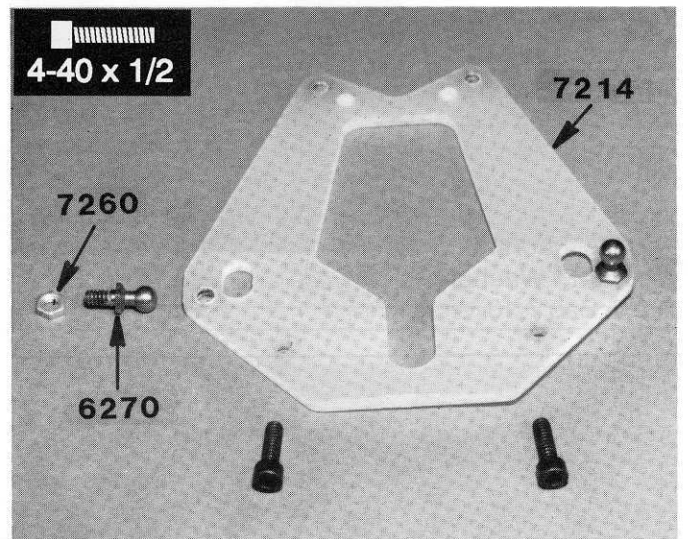


Fig. 12

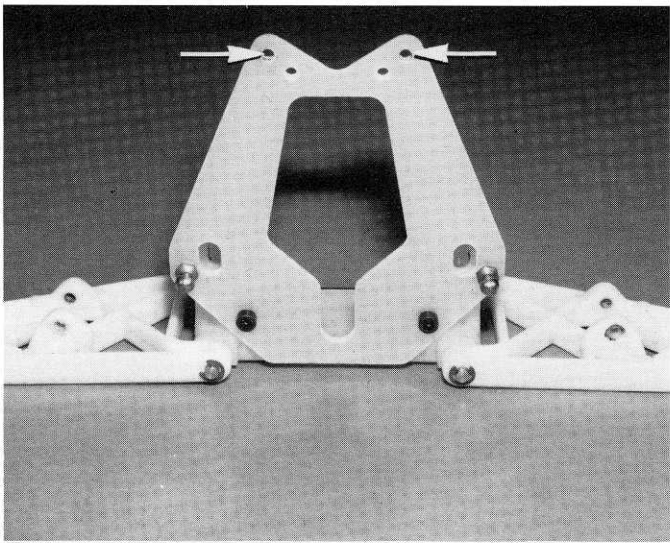


Fig. 13

□ Figs. 13 & 13A

Install and tighten two 4/40 x 3/4" socket head screws, from Bag 7-10, in the upper outer holes, as shown. From the same bag remove two 4-40 plain nuts and two #4 flat washers and install and tighten onto the screws as shown. You may wish to add washers on either side of the shock strut for added support. Washers are in Bag 7-10.

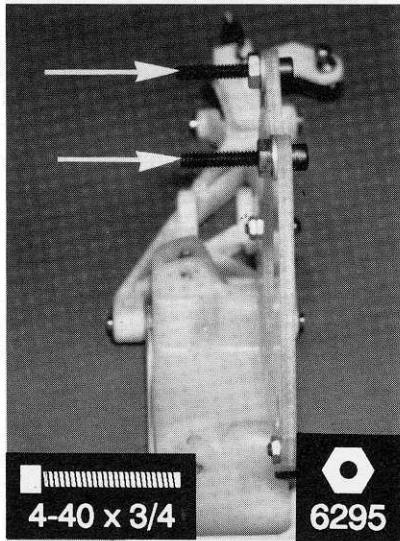


Fig. 13A

□ Fig. 14 From Bag 6-14 twist and remove four of the #6274 ball ends from the tree and screw them onto two long #7253 turnbuckles. The turnbuckles have right hand threads on one end and left hand threads on the other end, so they'll screw on in different directions. This will allow us to simply turn the turnbuckles to make adjustments later.

Screw the plastic rod ends on evenly until you come to the dimensions shown in the photo. *Remember, these dimensions are to the CENTER of the ball, NOT to the end of the ball cup.* These upper suspension links are used to adjust the camber of the car.

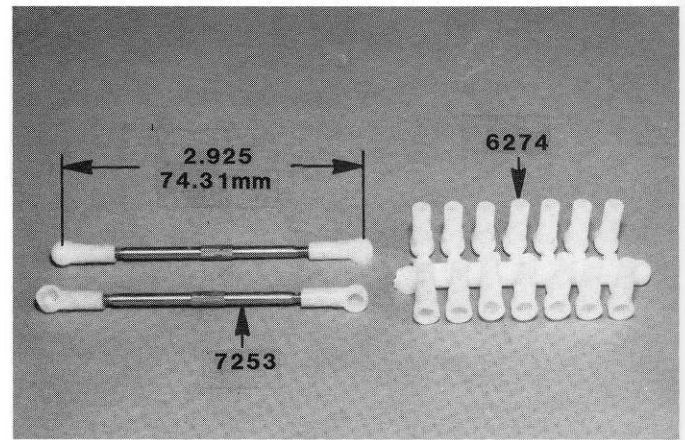


Fig. 14

□ Fig. 15 Use a pliers or needle nose pliers and snap the ball ends onto the steel balls as shown.

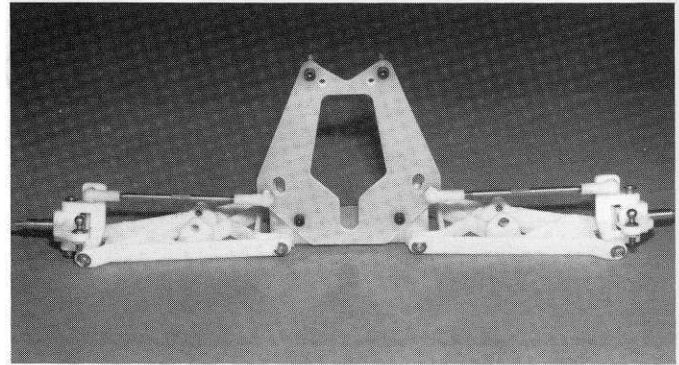


Fig. 15

□ Fig. 16 The rod ends can be removed quite easily from the balls by holding the rod end with a pliers, as shown, and twisting the rod end off the ball, as shown.

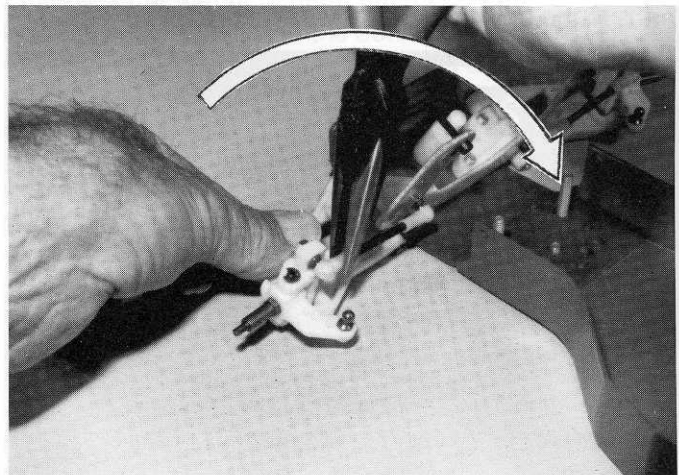


Fig. 16

□ **Figs. 17 & 18** From Bag 7-4 remove the #7305 chassis nose plate. Use the four 8/32 x 1/2" aluminum screws from Bag 7-1 as shown. Install the nose plate to the bottom of the front bulkhead with the four screws. Use a #2 Philips screwdriver and tighten the screws all the way up until they're snug. **DO NOT OVERTIGHTEN.** If you try to tighten them too tight, you'll strip out the plastic.

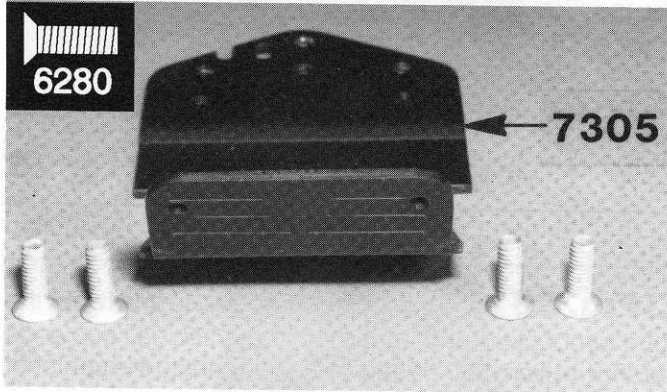


Fig. 17

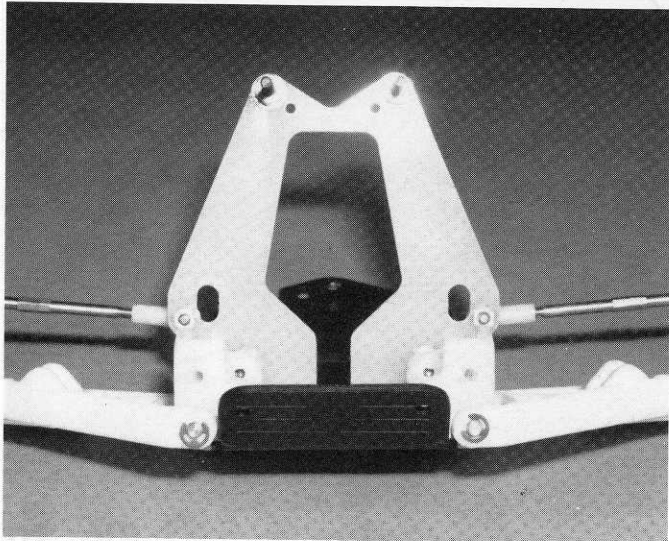


Fig. 18

□ **Figs. 19 & 20** From Bag 7-4 remove the short silver 8-32 flat head screw. Then, from Bag 7-2, the two longer steel screws. The long screws are two different lengths and have a short threaded shank by the screw head, a smooth center shaft, and then a threaded end.

Attach the front end assembly to the #6301 black anodized chassis using the set of three chassis holes towards the rear. Refer to fig. 147. The longest screw goes on the left hand side. Tighten the three screws.

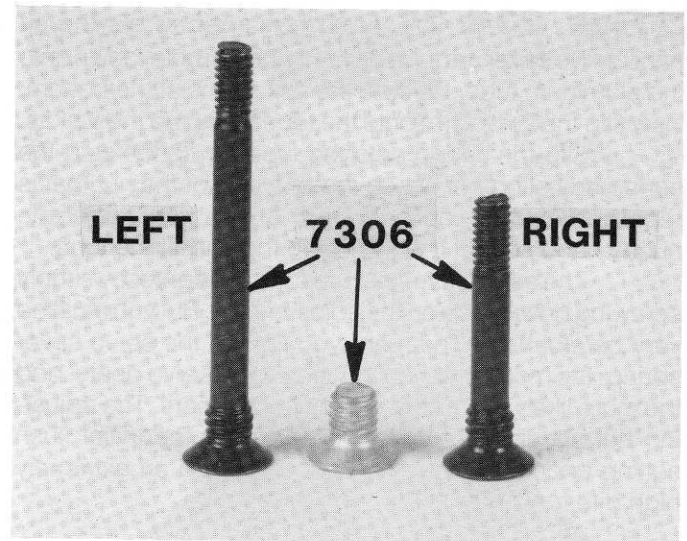


Fig. 19

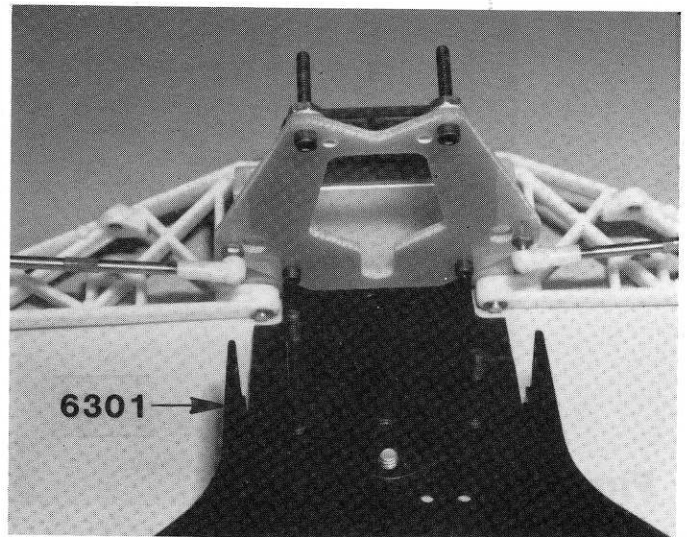


Fig. 20

□ **Figs. 21 & 22**

From Bag 7-2 take out the #7250 servo saver parts. Push the two plastic bushings into the aluminum threaded tube as shown.

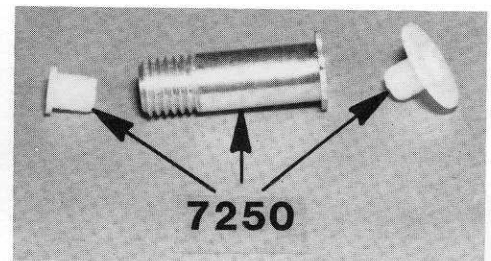


Fig. 21

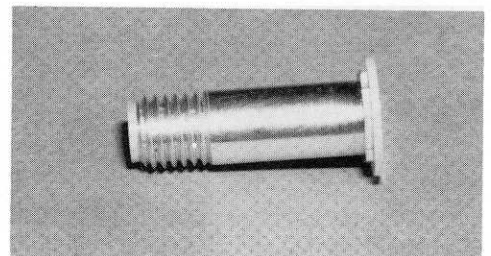


Fig. 22

□ **Figs. 23 & 24** From the same bag, slip the left hand servo saver arm, the one with the big hole, down onto the aluminum tube. Be sure the hex aligns at the bottom. Now slip the servo arm onto the tube, lining up the V slots.

Slip the spring onto the tube, and then start the spring adjusting nut on, so that the part of the nut that is recessed to go around the spring goes on first. Tighten the nut by hand so that it is flush with the end of the tube.

The servo saver can be adjusted tighter by simply screwing down more on the adjusting nut. But you must be very careful here. The more you tighten the servo saver spring, the more load you transfer to the servo gears, and the more likely you'll strip out the servo gears. The adjusting nut should only be adjusted below the initial flush setting under limited racing conditions on an extremely high bite track.

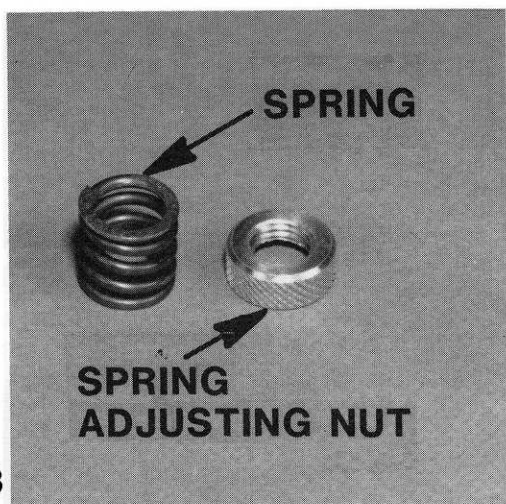


Fig. 23

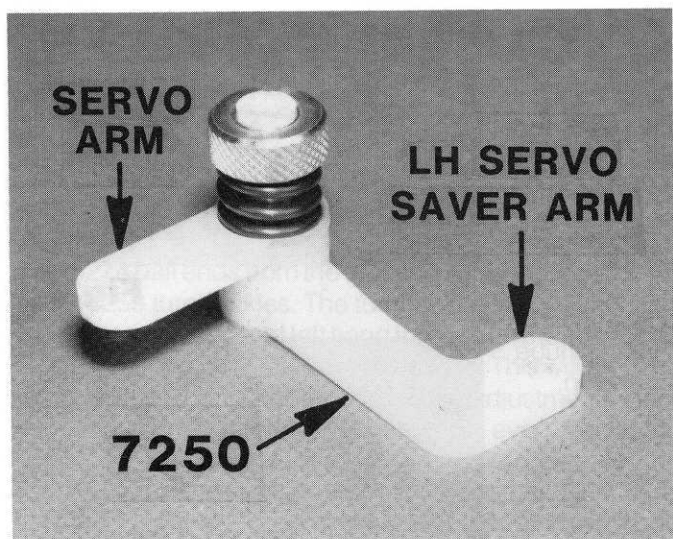


Fig. 24

□ **Fig. 25** Install five of the #6270 steel ball ends with the short threads in the locations shown.

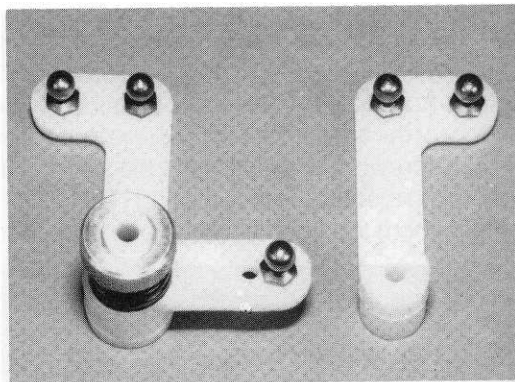


Fig. 25

□ **Fig. 26** Take the shortest turnbuckle and two of the long turnbuckles and thread on the plastic ball cup ends as shown. Remember, the dimensions are to the center of the ball, NOT to the end of the ball cup.

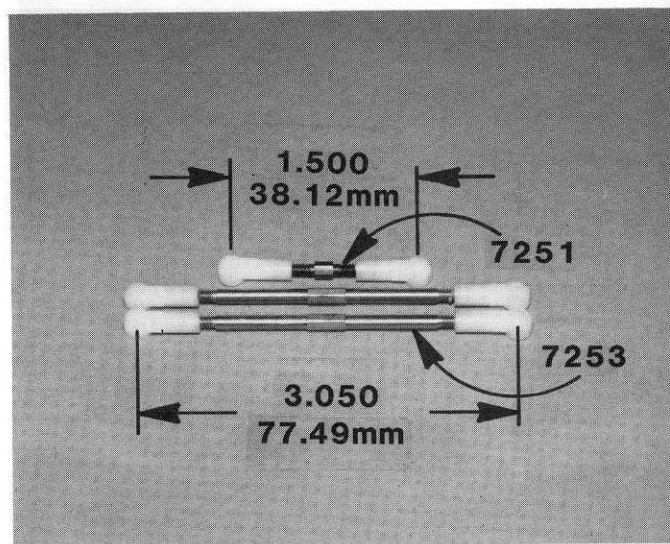


Fig. 26

□ **Fig. 27** Take the short turnbuckle and snap it on the two ball ends, as shown, using pliers.

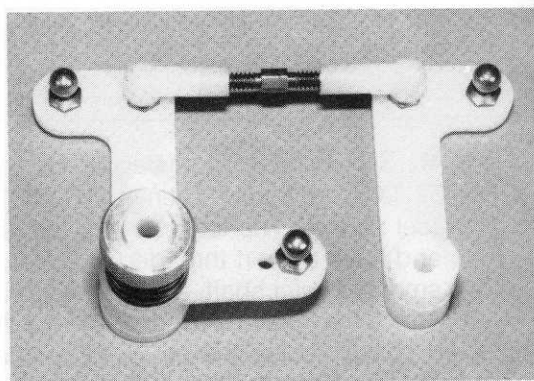


Fig. 27

Fig. 28 Slip the servo saver assembly down onto the two long screws and screw on the two 4-40 nylon nuts. Screw the nuts down just enough so that there isn't any excessive up and down play in the servo saver, but NOT TOO TIGHT. The servo saver arms should be free to swing to the left and right VERY FREELY. The servo saver arms should be parallel.

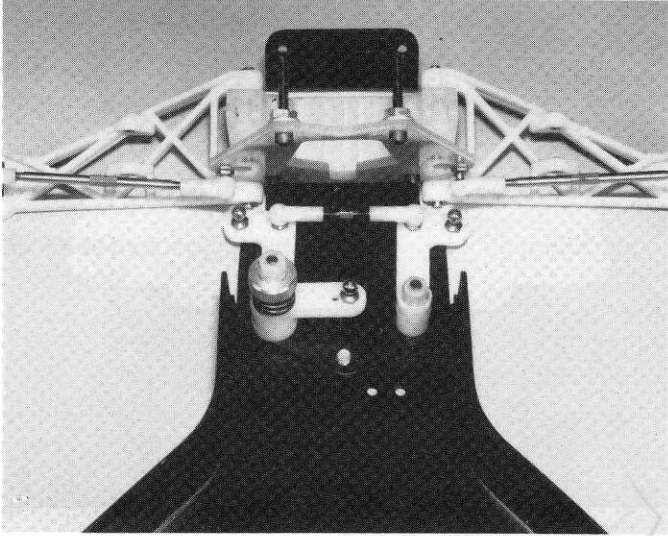


Fig. 28

Figs. 29 & 30 From Bag 7-4 remove two #7315 nose brace tubes and the two short 4-40 x 1/4" SHCS and two long 4/40 x 1/2" SHCS screws as shown. We want to install the tubes so that the screw holes that are closest to the end of the tubes go towards the front of the car.

Slip the tubes through the holes in the shock strut, and align the tube in the slot in the bulkhead. Install the short screw through the hole in the chassis and the rear hole in the tube. Install the screw, but do not tighten it yet. Install the longer screw through the front bulkhead and tube and tighten, but do not overtighten the screw. Tighten the rear screw. Do both tubes.

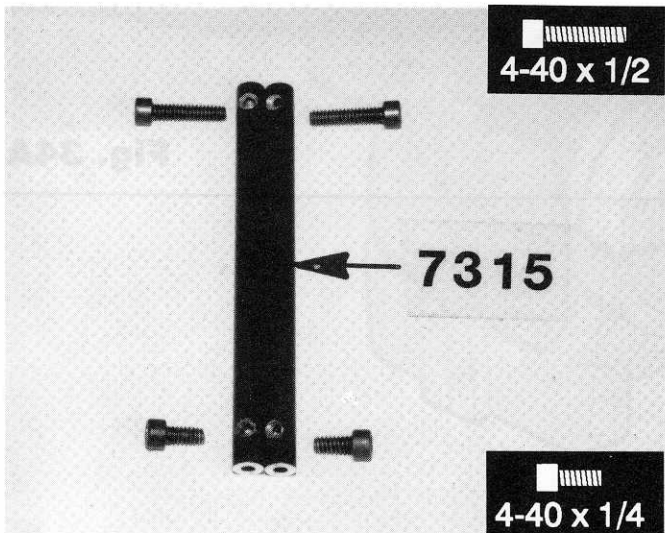


Fig. 29

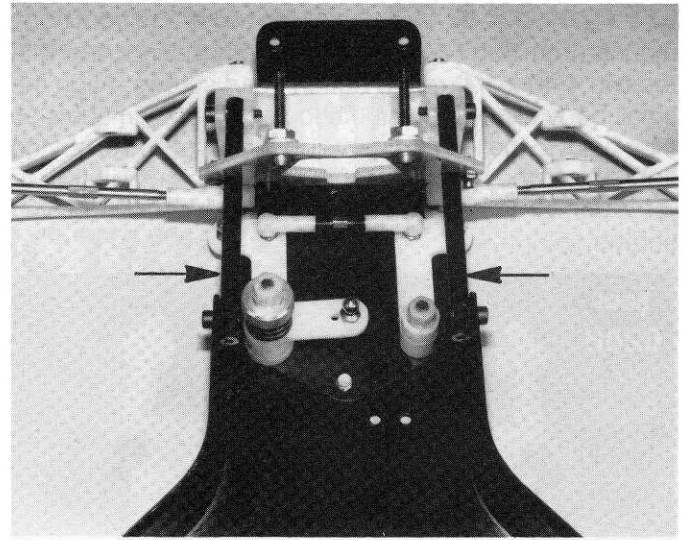


Fig. 30

Fig. 31 Using a pliers, install both of the longer tie rod turnbuckles as shown. If you move the servo saver to the left and right it will be easier.

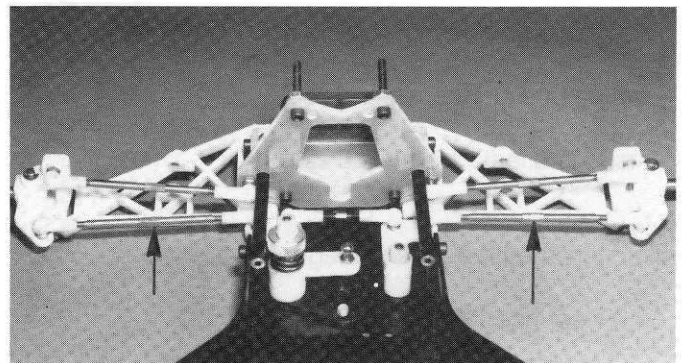


Fig. 31

□ **Figs. 32 & 33** Install the two #7319 front body mounts (from Bag 7-5) to the #7318 body mount brace with the two 4-40 x 1/4" round button head screws. Align the small body clip holes in the ends of the body mounts so they point to the left and right. Tighten screws, but not too tight. Install the brace onto the front bulkhead with two 4-40 x 3/8" SHCS screws as shown. Do not overtighten screws.

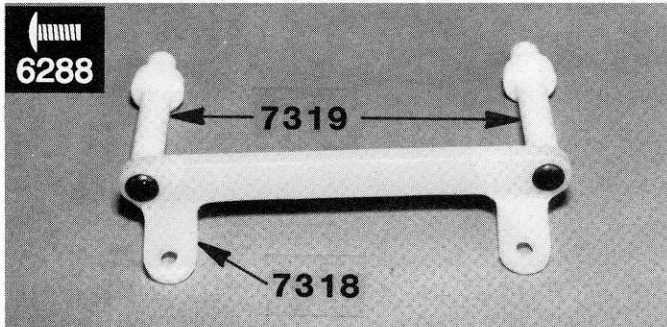


Fig. 32

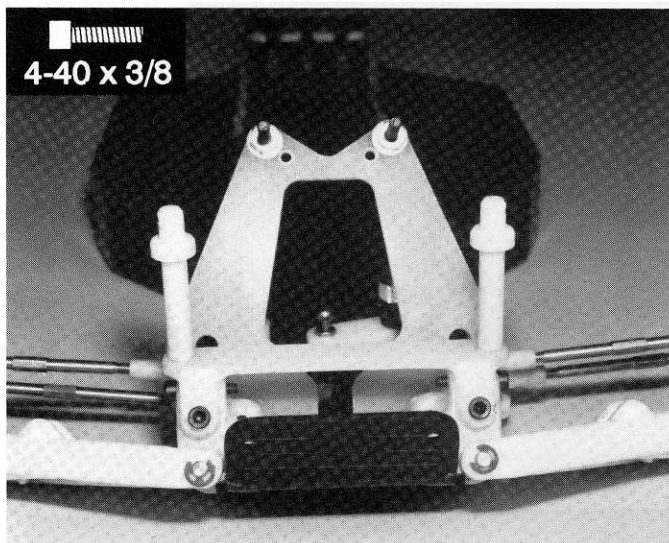


Fig. 33

□ **Figs. 34 & 34a** Install the #7324 front bumper to the chassis nose, as shown, using two #6291 4-40 x 1/4" flat head screws and #7260 4-40 thin plain nuts. You may have to trim a little off the bumper to make sure the A-arms clear.

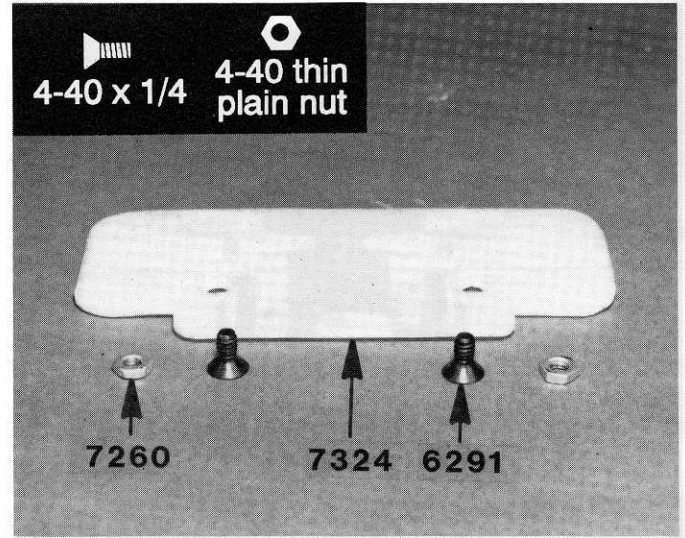


Fig. 34

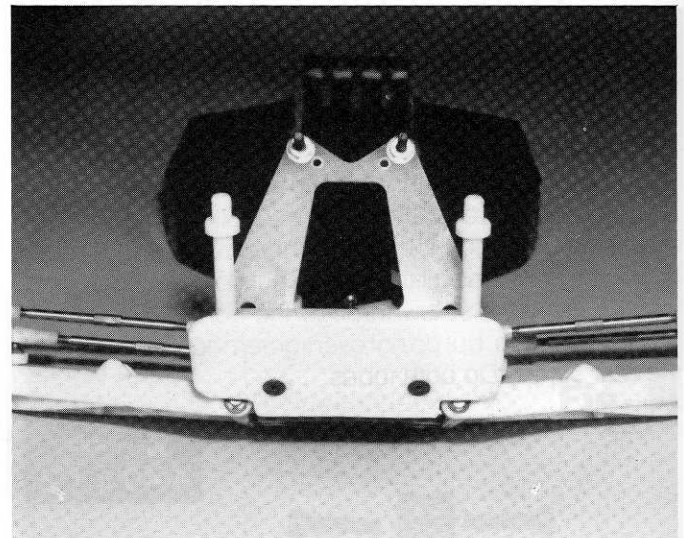


Fig. 34A

TEAM ASSOCIATED
STEALTH
with ATC TRANSMISSION

Transmission
for the **RC10T**

INSTRUCTIONS

Featuring:

Quick-change spur gear

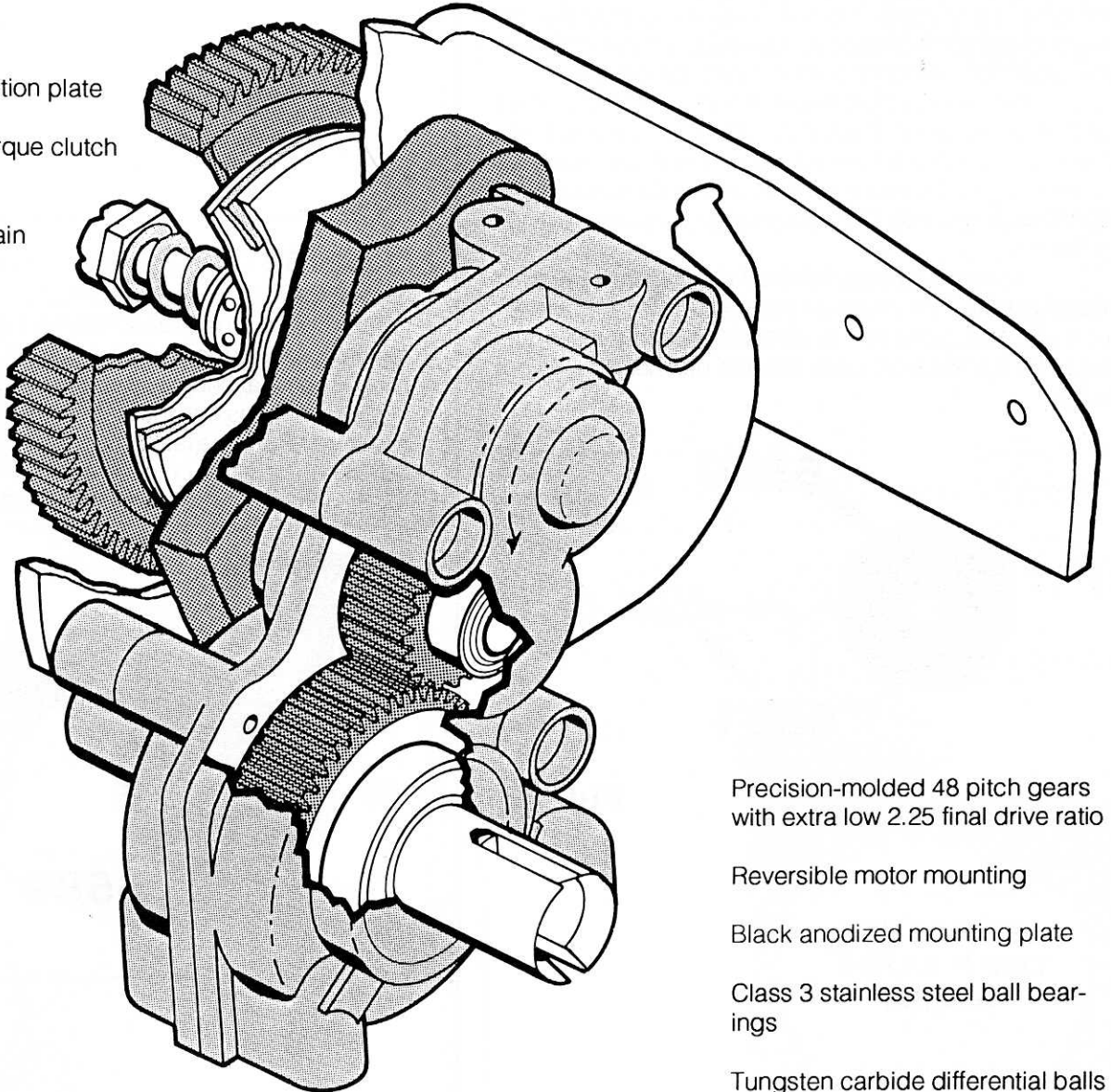
Case-to-motor plate dirt-proof seal

Lightweight design

Long-life clutch friction plate

Large area/high torque clutch plates

Low inertia drive train



Precision-molded 48 pitch gears
with extra low 2.25 final drive ratio

Reversible motor mounting

Black anodized mounting plate

Class 3 stainless steel ball bearings

Tungsten carbide differential balls

Teflon sealed ball bearings

High torque ball differential

STEALTH TRANSMISSION

We feel this transmission is the best in the world. It has enabled Team Associated to finish 1st, 2nd and 3rd at the World Championships in Australia and 1st, 2nd and 3rd at the ROAR Nationals in Northern California with our RC10 car. With this transmission your RC10T will be much easier to drive, enabling you to cut your lap times by a considerable amount. But it all depends, of course, on how well you assemble and maintain your transmission. So take your time and do it to the best of your ability.

Figs. 35 & 36 Look for the bag with the #6604 black motor plate as shown in Fig. 68. From there, remove Bag A and take out the #6580 diff gear and the bag with the 12 large #6581 3\32" carbide diff balls. These carbide diff balls are the best there is. They will outlast the diff washers at least 10 times. NEVER replace these balls with any other balls except our #6581 carbide diff balls.

Now take out the #6591 Stealth white silicone diff lube. Another word of caution. DO NOT substitute any other type of diff lube on the balls. It took us countless hours of testing to find the correct silicone diff lube to make the diff work correctly. Do yourself a favor: use what comes in this kit!

Trim any excess flash off the inside of the gear bearing hole. Fill the holes in the gear with the silicone diff lube and then push the 12 carbide balls into the holes. Wipe the excess lube back into the ball holes with your finger.

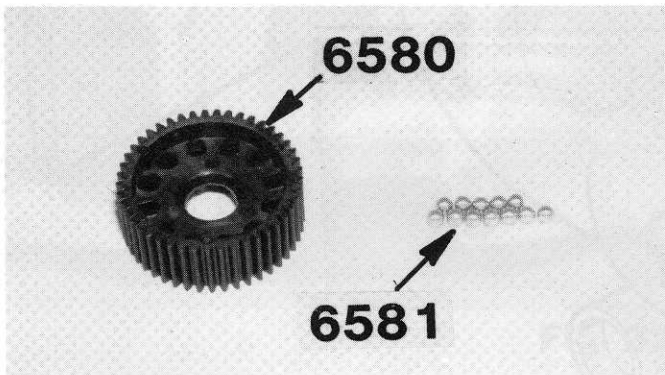


Fig. 35



Fig. 36

Fig. 37 Your gear.



Fig. 37

Fig. 38 Clean all the silicone grease off your hands. Next open Bag B which contains the nine bearings for the tranny. Take out the three small bearings with 5/16" outside diameter and lay them on a flat surface. If you look carefully you will see that one has a slightly larger inside diameter. The two bearings with the small inside diameter are #6589 and the one with the larger I.D. is a #6901. Push one of the #6589 ball bearings onto the center of the gear. The other #6589 bearing goes onto the #6578 left hand hub from Bag A as shown.

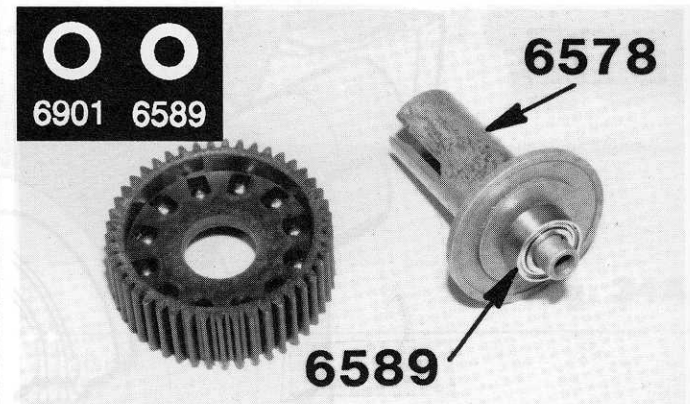


Fig. 38

□ **Fig. 39** Your completed gear.

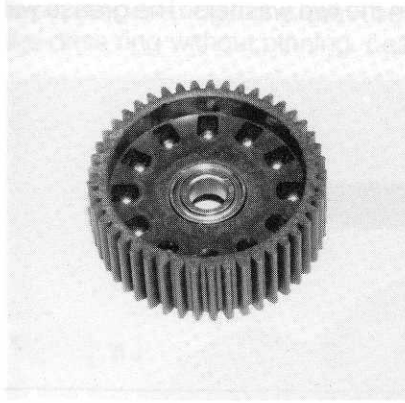


Fig. 39

□ **Fig. 42** Take an Exacto knife and trim off any of the plastic T-nut that extends outside of the slot, as shown.

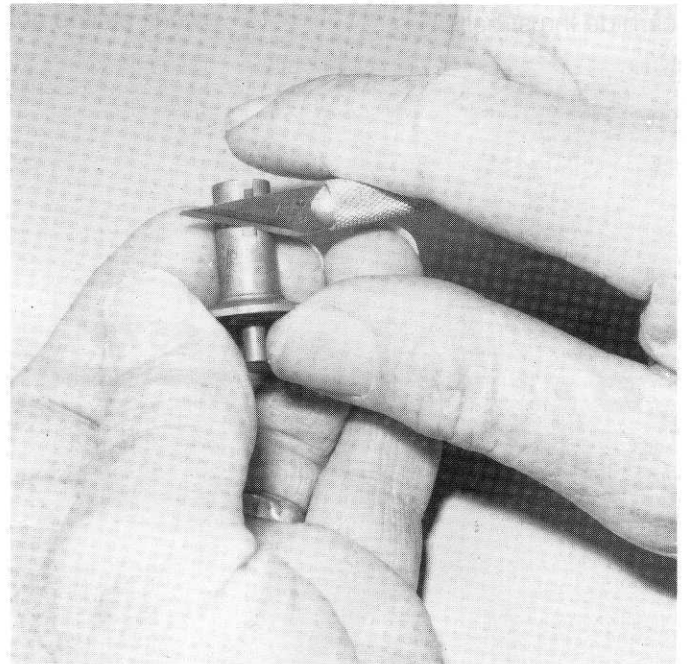


Fig. 42

□ **Figs. 40 & 41** Using the #6578 left diff outdrive hub again. Remove the #6589 bearing and set it aside for a moment. **Make sure the hub is clean and free from all burrs.** Push the #6582 diff thrust spring into the hub and then align the plastic T-nut with the slots in the hub and push the T-nut all the way in against the spring.

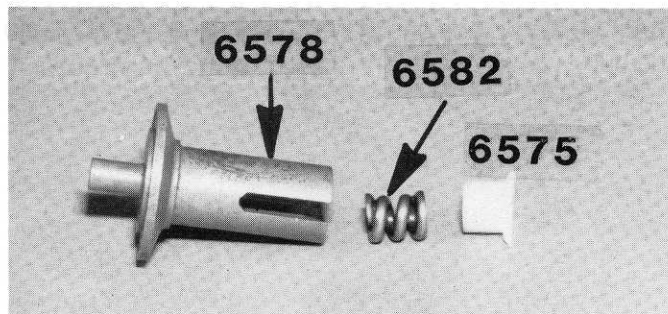


Fig.40

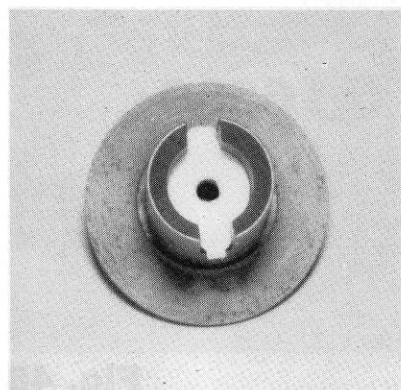


Fig. 41

□ **Fig. 43** There should now be approximately a $3/32$ " or $.100$ " gap where shown.

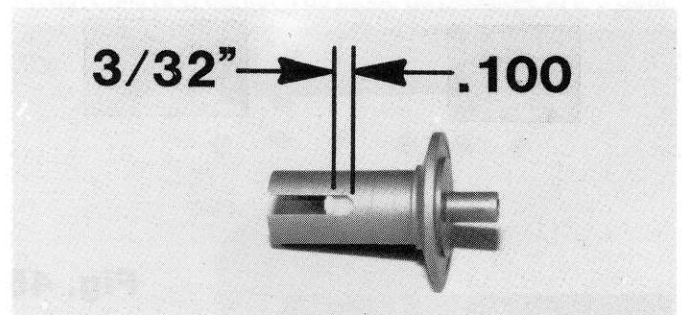


Fig. 43

□ **Fig. 44** From Bag A take out the #6575 diff thrust bolt, the two #6573 diff thrust washers and the #6576 carbide thrust balls.

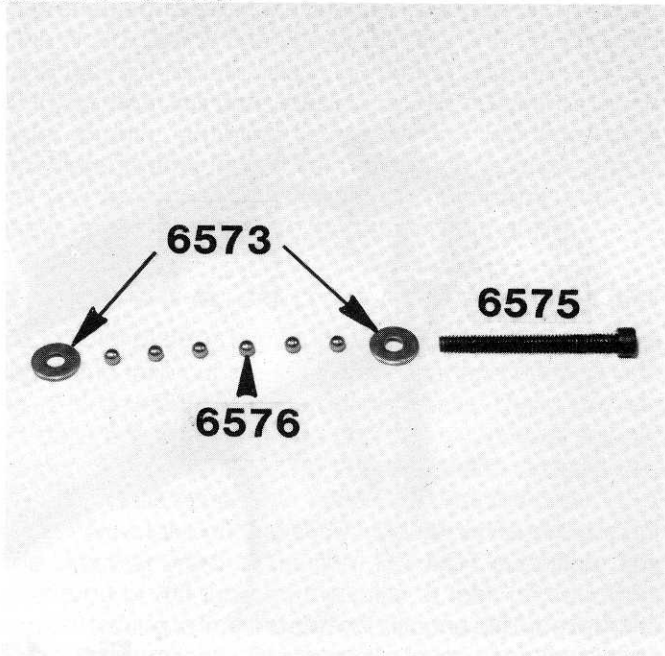


Fig. 44

□ **Figs. 45 & 46** Slip the two washers on the bolt, as shown, and then fill the area between them with the #6588 black grease. DO NOT use the black grease on the diff balls in the gear.

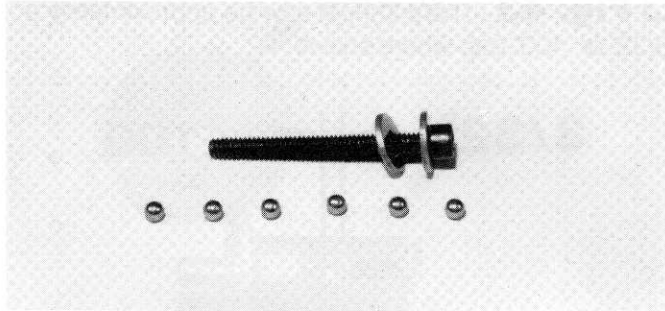


Fig. 45



Fig. 46

□ **Fig. 47** Now take the balls and place them all around the bolt between the two washers. The grease will hold them in place.

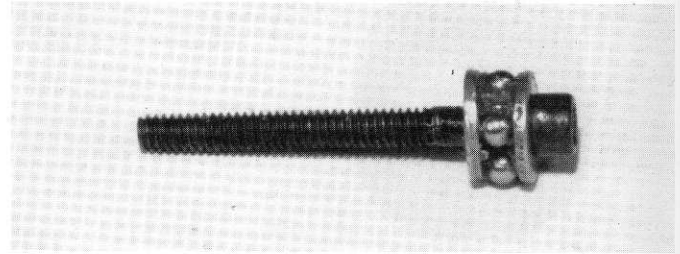


Fig. 47

□ **Fig. 48** Take the #6577 right hand diff outdrive hub, make sure it's clean and free of all burrs, and put the other #6589 ball bearings into the hub. The ball bearings must go in with a simple push of your finger. **NEVER drive them in!** Now place one of the #6579 diff drive rings onto the hub.

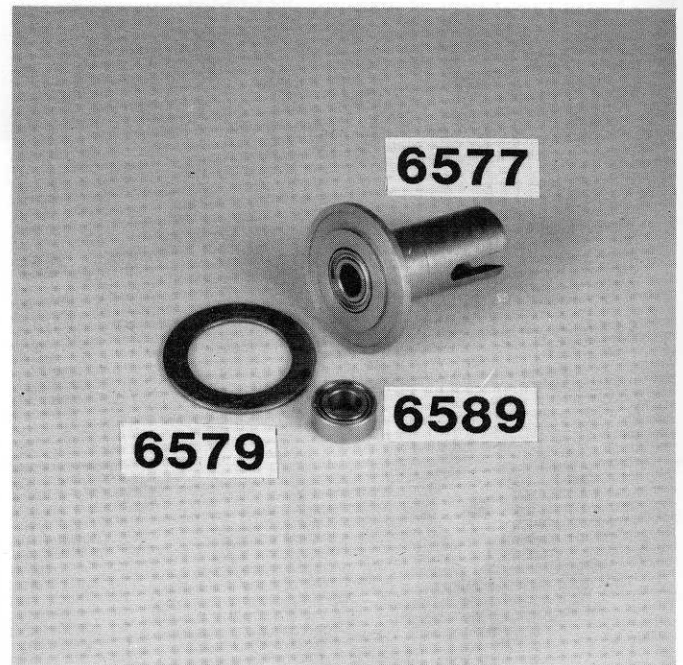


Fig. 48

Fig. 49 Your hub should look like this. DO NOT try to pin the drive ring to the hub. The hub is designed to lock the drive ring without pinning. Leave AS IS.



Fig. 49

Fig. 51 Turn the assembly upright. Make sure the drive ring is still ON and centered. Slip the diff gear onto the bolt as shown.

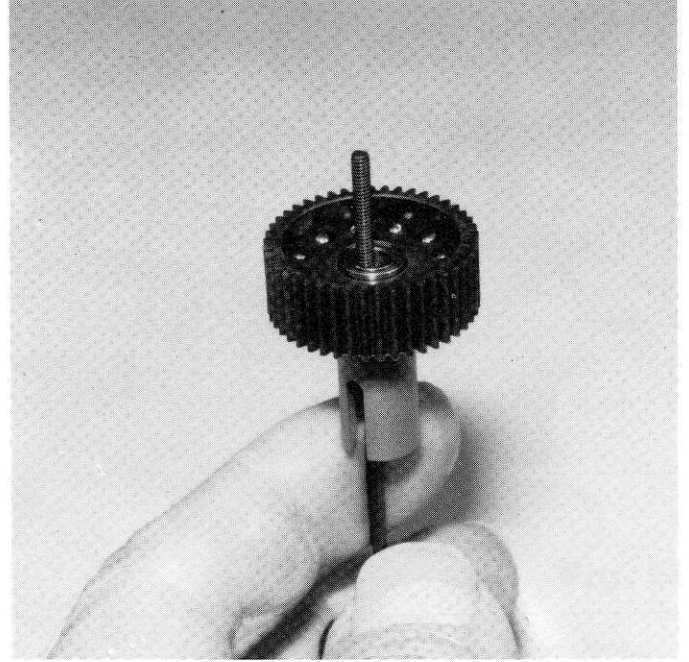


Fig. 51

Fig. 50 Slip the 5/64" Allen wrench from the separate unlabelled wrench bag into the bolt head and then slip the assembly into and through the right hand hub.

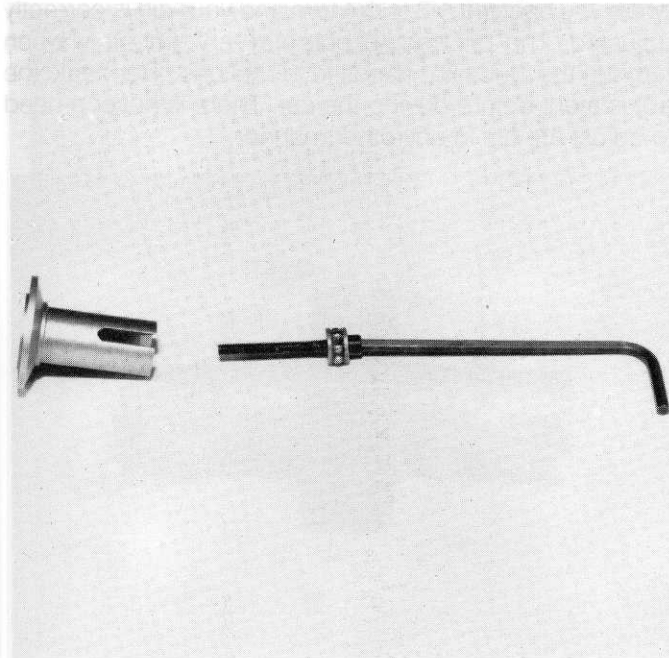


Fig.50

Fig. 52 Now place the other #6579 drive ring onto the diff balls and center it as close as possible to the gear.

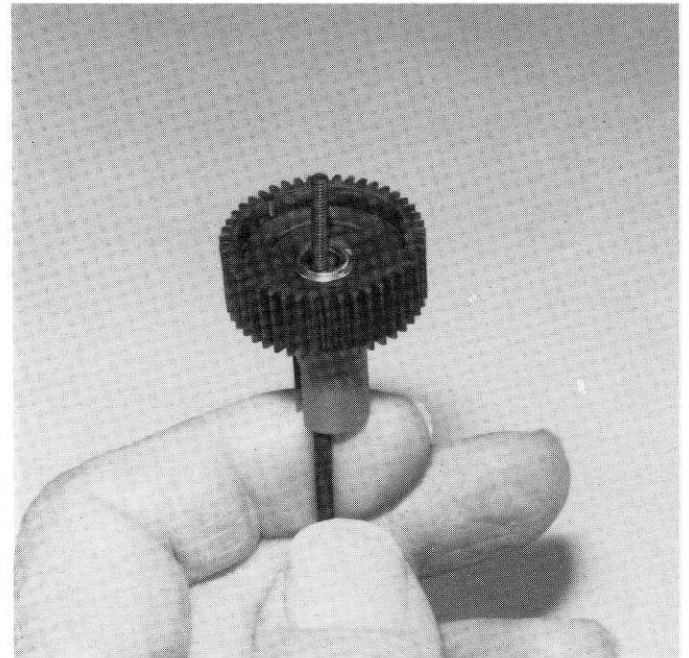


Fig. 52