TEAM LOSI XXT

S.S

OWNER'S MANUAL

- **Carefully read through all instructions to familiarize yourself with the parts, construction, tuning tips, and techniques outlined in this manual. Being able to grasp the overall design of your Double-XT racing truck before construction will ensure a smooth assembly.**
- **Take your time and pay close attention to detail. Keep this manual for future reference.**

TEAM LOSI Racing

TEAM LOSI INC., CHINO, CA 91710 P/N 800-0061
MADE IN THE UNITED STATES OF AMERICA

WELCOME DOUBLE-X OWNER!

Thank you for purchasing the Team Losi Double-XT. This kit represents the latest in 1/10 scale truck racing technology. Based on the Double-X off-road buggy which revolutionized the 1/10 scale market, the Double-XT is the result of intense design and development efforts by the Team Losi racing team and design staff. In its very first outing at the 1994 NORRCA National Championships, it took first place honors. This kit utilizes extraordinary design and construction that has made Team Losi famous world wide. The use of specialized materials, computer aided design (CAD), computer aided manufacturing (CAM) and finite element analysis (FEA stress analysis) is unequaled in the R/C racing world.

Before starting construction of your Double-XT, please take a moment to read through these instructions. This will minimize building time and get you on the track sooner. Additionally, we have included a tip section in the back of the manual to help you tune your Double-XT for optimum performance.

Once again, thank you for choosing the Double-XT. Team Losi is racing to help you win.

TEAM LOSI

1. INTRODUCTION

DOUBLE-XT COMPLETED KIT DIMENSIONS

Length: 15.5"
Wheel base: 11"
Front Width: 12.5"
All dimensions at ride height.
Rear Width: 12.6"
Height: 5.5"
Weight will vary depending on accessories.

NOTES & SYMBOLS USED

* *Note:* this is a common note. It is used to call attention to specific details of a certain step in the assembly.

◎ **IMPORTANT NOTE:** Even if you are familiar with Team Losi kits, be sure and pay attention to these notes. They point out very important details about a certain step in the assembly. Do not ignore these notes!

This flag designates a performance tip. These tips are not necessary, but can improve the performance of your Double-XT truck.

KIT/MANUAL ORGANIZATION

The Team Losi Double-XT is composed of different bags marked A through H. Each bag contains all of the parts necessary to complete a particular section of the Double-XT truck. Some of these bags have subassembly bags within them. It is essential that you open only one bag at a time and follow the correct sequence, otherwise you may face difficulties in finding the right part. It is helpful to read through the instructions for an entire bag prior to starting assembly. Key numbers (in parenthesis) have been assigned to each part and remain the same throughout the manual. For your convenience, an actual size hardware identification guide is included with each step. To check a part, hold it against the silhouette until the correct part is identified. In some cases extra hardware has been supplied to replace easily lost parts. Different fits have been designed into plastic parts (i.e. press, net, loose). To insure that parts are not lost during construction, it is recommended that you work over a towel or mat to prevent parts from rolling away.

IMPORTANT SAFETY NOTES

1. Select an area for assembly that is away from the reach of small children. *The parts in the kit are small and can be swallowed by children, causing choking and possible internal injury.*
2. The shock fluid and greases supplied should be kept out of children's reach. *They were not intended for human consumption!*
3. *Exercise care* when using *any* hand tools, sharp instruments, and power tools during construction.
4. *Carefully read all manufacturer's warnings and cautions* for any glues or paints that may be used for assembly purposes.

TOOLS REQUIRED

Team Losi has supplied all allen wrenches and a special wrench that is needed for assembly and adjustments. The following common tools will also be required: Small flatblade screwdriver, needle nose pliers, regular pliers, scissors or other body cutting/trimming tool. 3/16", 1/4", and 3/8" nut drivers are optional.

RADIO/ELECTRICAL

A suggested radio layout is provided in this manual. Your high performance R/C center should be consulted regarding specifics on radio/electrical equipment.

HARDWARE IDENTIFICATION

When in question, use the hardware identification guide in each step. For screws, the prefix number designates the screw size and number of threads per inch (i.e. 4-40 is #4 screw with 40 threads per inch of length). The fraction following designates the length of the threads for caphead screws, and the overall length for flathead screws. Bearings and bushings are referenced by the inside diameter x outside diameter. Shafts and pins are diameter x length. Washers are described by inside diameter or the screw size that will pass through the inside diameter. 'E' clips are sized by the shaft diameter that they are attached to.

MOTORS AND GEARING

Your Double-XT truck includes an 88 tooth, 48 pitch spur gear. The overall internal gearbox ratio is 2.61:1. The external pinion gear will determine your gear ratio. To figure out the final drive ratio first divide the spur gear size by the pinion gear size. Say you are using a 20 tooth pinion gear, you would divide 88 (spur gear size) by 20 (pinion gear size). For example: $(88 \div 20 = 4.4)$ So 4.4 is your external drive ratio. Now multiply the internal drive ratio (2.61) by the external drive ratio (4.4). For example: $(2.61 \times 4.4 = 11.484)$ This tells you that by using a 20 tooth pinion and a 88 tooth spur gear, the final drive ratio is 11.484:1.

Consult your high performance shop for recommendations to suit your racing style and class. The chart below lists some of the more common motor types and a recommended initial gearing for that motor. Ratios can be adjusted depending on various track layouts, tire sizes, and battery types.

RECOMMENDED INITIAL GEARING FOR COMMON MOTORS

TYPE OF MOTOR	PINION	SPUR
24° Stock	22	88
36° Stock	21	88
11 turn modified	16	88
12 turn modified	17	88
13 turn modified	18	88
14 turn modified	19	88
15 turn modified	20	88
16 turn modified	21	88
17 turn modified	22	88
18 turn modified	23	88
	24	88

TABLE OF CONTENTS

Team Losi is continually changing and improving designs; therefore, the actual part may appear slightly different than the illustrated part. Illustrations of parts and assemblies may be slightly distorted to enhance pertinent details.

BAG A

Fig 1.

Step 1. Attach the front bulkhead (1) to the main chassis (2) by aligning the bottom hinge holes on the bulkhead (1) and the main chassis (2). Once the holes are aligned, carefully tap the 1/8" lower bulkhead hinge pin (3) through both pieces until the hinge pin (3) is centered. ** Use the 1/8" hinge pin with the large groove in the center.*

** NOTE: The lower hinge pin fit is VERY TIGHT! Be sure that the holes are aligned and tap pin into place.*

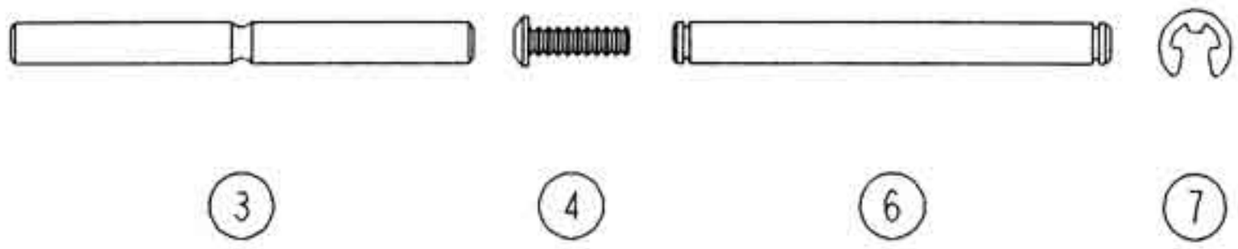
Step 2. Secure the pin by threading a 2-56 x 5/16" button head screw (4) into the small hole in the top, rear of the front bulkhead (1). Thread the screw (4) all the way in.

Step 3. Attach the front chassis stiffener (5) to the front bulkhead (1) by aligning the holes in the stiffener (5) with the holes in the top hinge of the bulkhead (1). Secure by inserting the 1/8" upper bulkhead hinge pin (6) through both the bulkhead (1) and stiffener (5) ** Use the shortest 1/8" hinge pin without a groove in the center.*

** NOTE: The hinge pin fit is tight! Lightly tap the hinge pin through both parts until it is centered.*

Step 4. Center the hinge pin (6) and attach an 1/8" 'E' clip (7) to each end of the hinge pin (6).

When removing the front bulkhead for any reason, the 2-56 x 5/16" button head screw must be completely removed before removing the lower hinge pin.



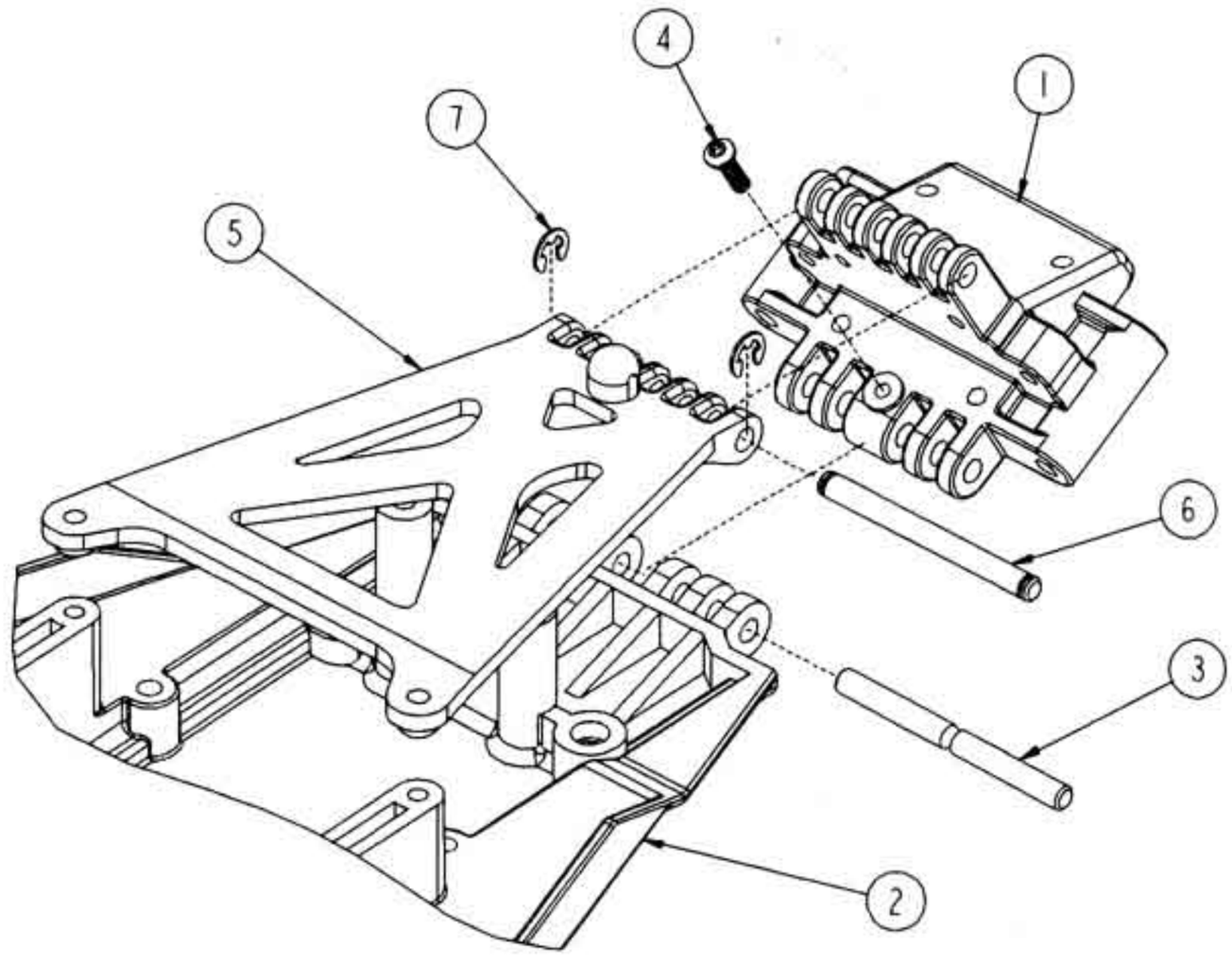


Figure 1

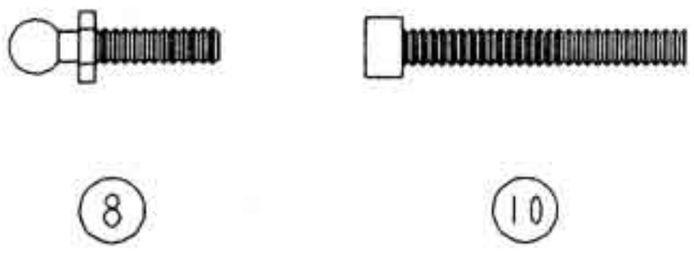


Fig 2.

Step 5. Insert a 3/8" ball stud (8) into each of the inside holes on the bottom of the shock tower (9). Mount the ball studs (8) from the rear as shown.

Step 6. Insert a 4-40 x 7/8" cap head screw (10) from the rear, through the third hole in on the top of the shock tower (9) on each side. Thread a top shock mount bushing (11) onto each of the two screws (10) and tighten.

● **IMPORTANT NOTE:** Remove all flashing from the bottom of the front shock tower. This will insure proper fit of the front shock tower to the front bulkhead.

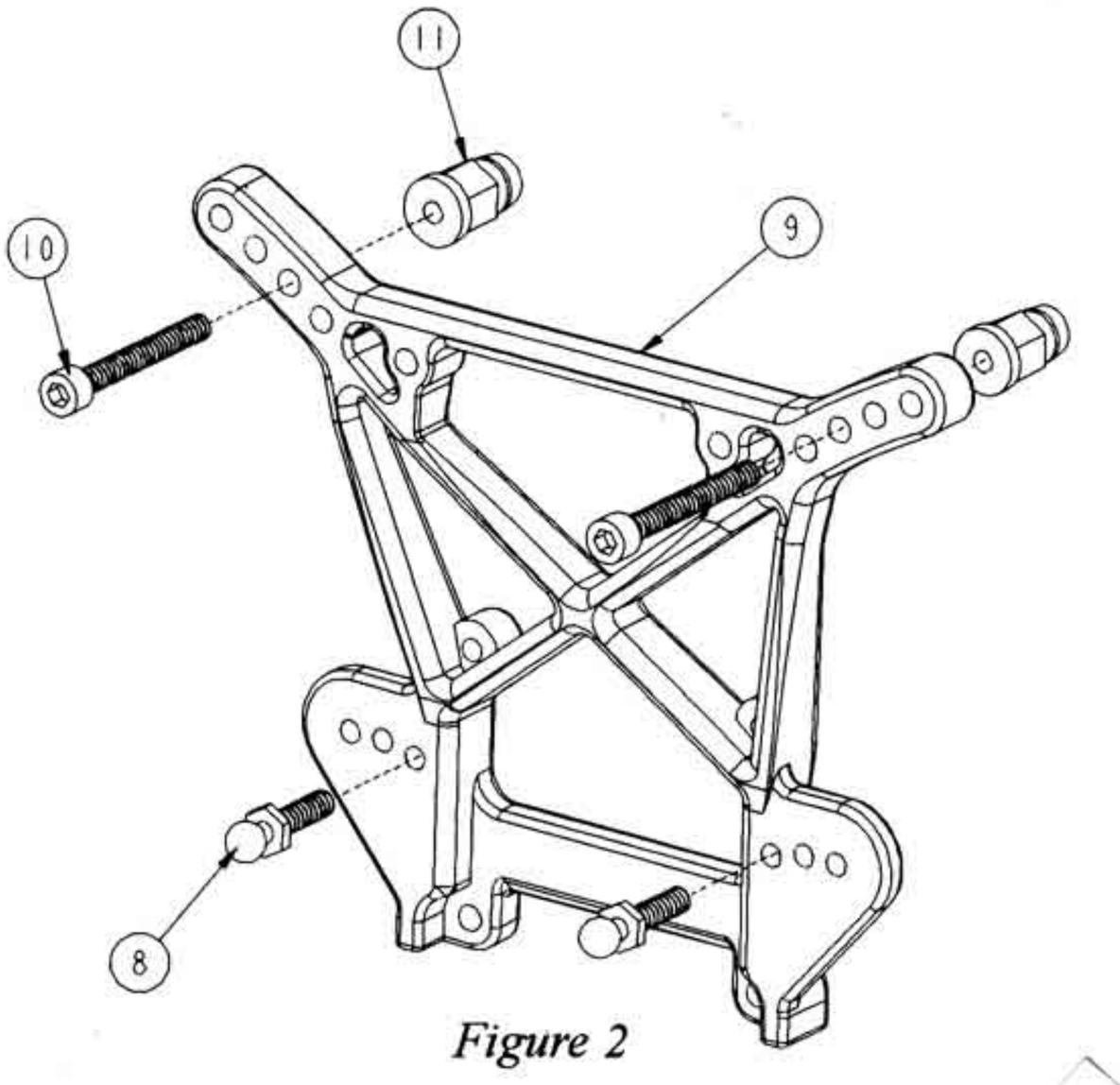


Figure 2

BAG A (Continued)

(12)

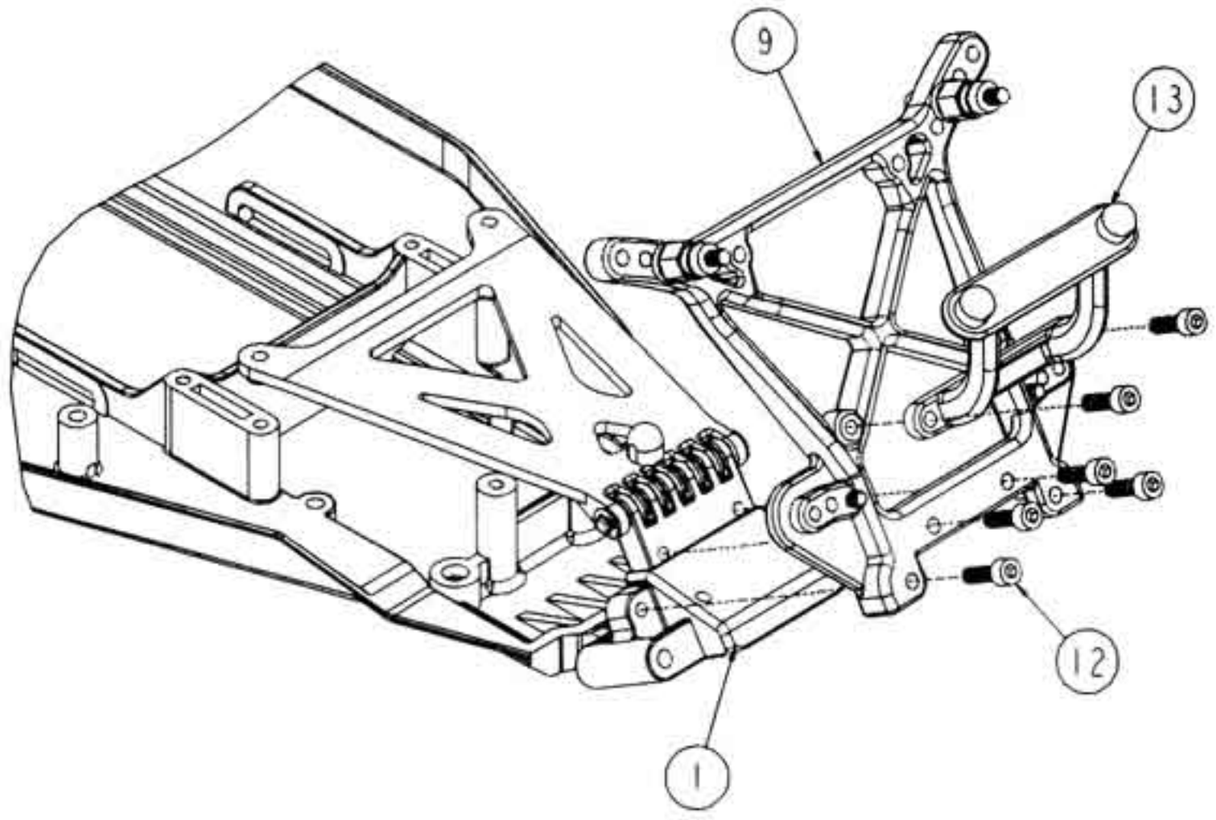


Figure 3

Fig 3.

Step 7. Attach the front shock tower (9) to the front side of the front bulkhead (1) with four 4-40 x 3/8" cap head screws (12).

Step 8. Attach the front body mount (13) to the front side of the front shock tower (9) with two 4-40 x 3/8" cap head screws (12) as shown.

(18) (19) (20)

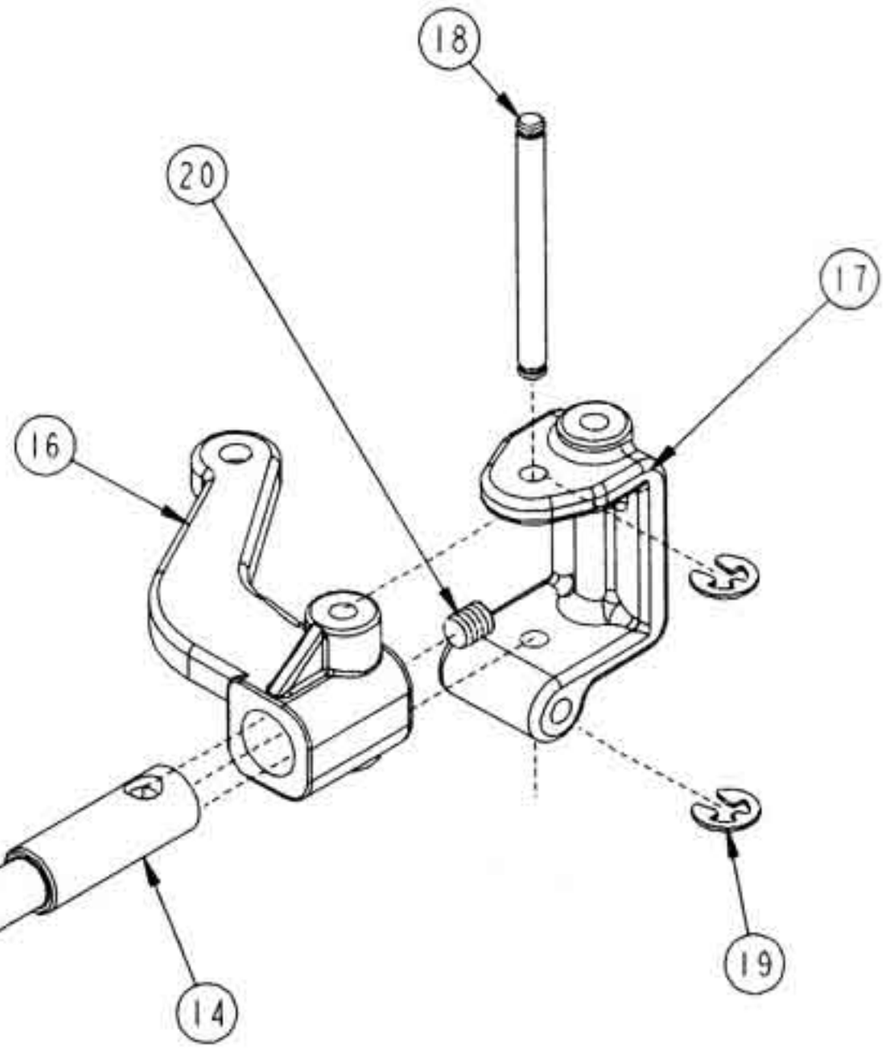


Figure 4

Fig 4.

Step 7. Insert a front axle (14) into each of the front spindles [left (15), right (16)] as shown. The hole in the axle (14) should line up with the hole in the spindle (15), (16).

Step 8. Attach the right spindle (16) to one of the spindle carriers (17) by aligning the holes in each and inserting a 3/32" x 1.050" hinge pin (18) through the spindle carrier (17), spindle (16), and axle (14). Center the hinge pin (18) and secure it with two 3/32" 'E' clips (19).

● **IMPORTANT NOTE:** There are two sizes of 'E' clips in this assembly bag. Be sure to use the small 'E' clips on the 3/32" pins.

Step 9. With the hinge pin (18) still centered, thread a 5-40 set screw (20) into the back side of the axle (14) and tighen.

Step 10. Repeat for the left spindle (15) and the second spindle carrier (17).

BAG A (Continued)

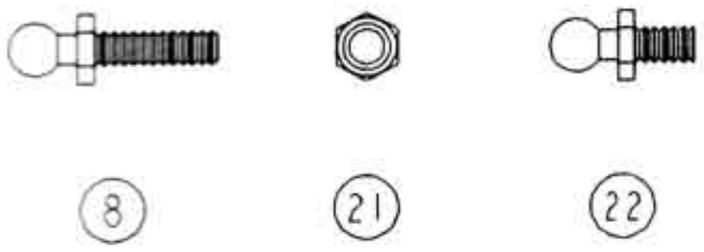


Fig 5.

Step 11. Insert a 3/8" ball stud (8) into the top of each spindle carrier (17) and tighten. Insert a 4-40 mini lock nut (21) into the hex area in each spindle (15), (16), thread a 3/16" ball stud (22) in from the top and tighten.

● **IMPORTANT NOTE:** Do not over tighten the ball studs!

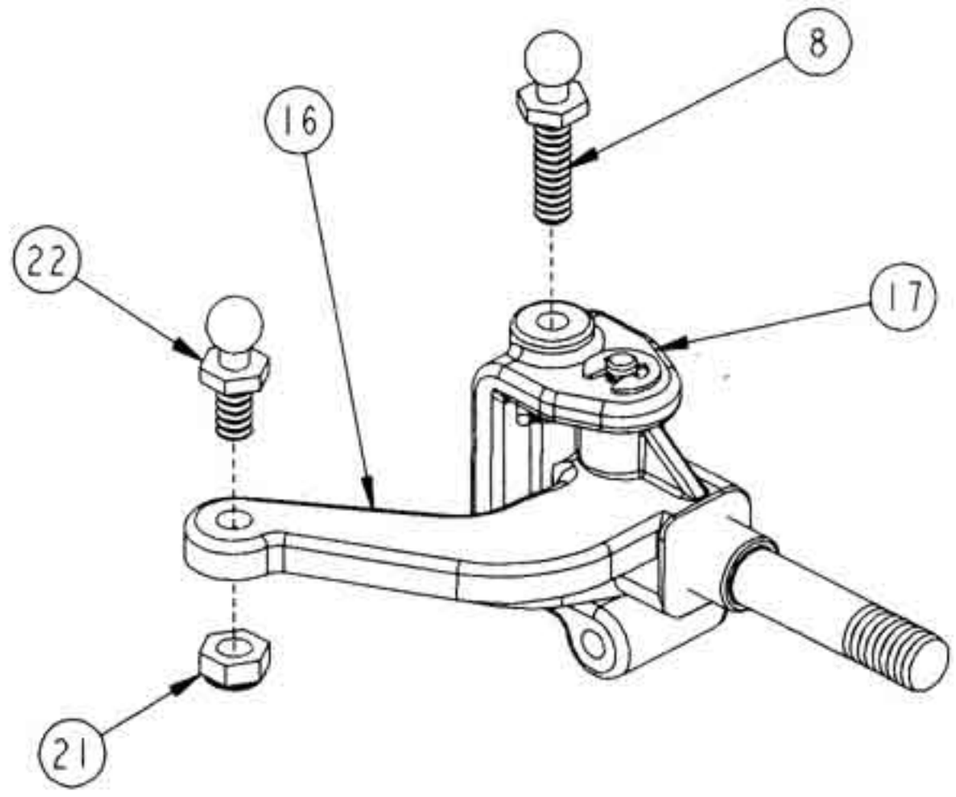


Figure 5

Fig 6.

Step 12. Attach the right spindle and carrier assembly to the right front suspension arm (24) as shown. Line up the holes in the spindle carrier (17) with the holes in the front arm (24), insert a 3/32" x 1.050" hinge pin (18) and attach a 3/32" 'E' clip (19) to both sides of the hinge pin (18).

● **IMPORTANT NOTE:** There are two sizes of 'E' clips in this assembly bag. Be sure to use the small 'E' clips on the 3/32" pins.

Step 13. Attach the arm (24) to the right side of the front bulkhead (1) by inserting the 1/8" inner front hinge pin (25), from the front, through the arm (24) and bulkhead (1).

Step 14. Insert a 1/8" 'E' clip (7) in the rear groove of each hinge pin (25).

Step 15. Slide the front hinge pin brace (26) over the front of both hinge pins (25). Be sure that the brace (26) is installed correctly so that the 'E' clip grooves in both hinge pins (25) are exposed. Secure the brace by attaching a 1/8" 'E' clip (7) to the front of each hinge pin (25).

Step 16. Repeat steps 12 through 15 for left side with the left suspension arm (23).

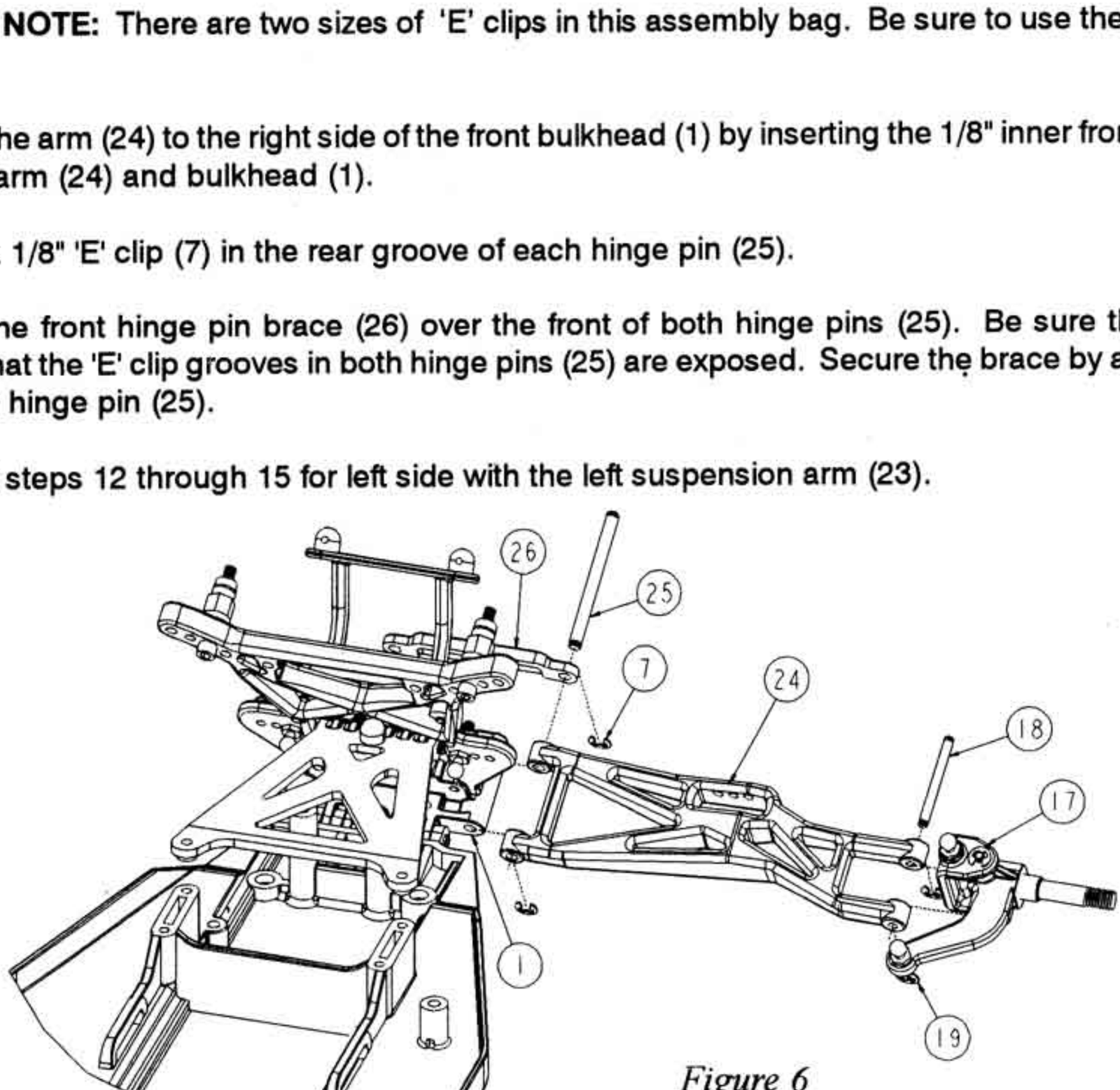
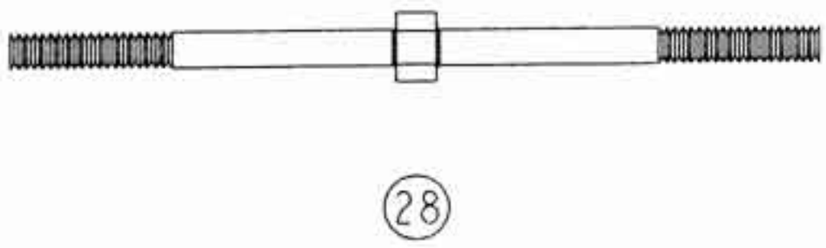


Figure 6



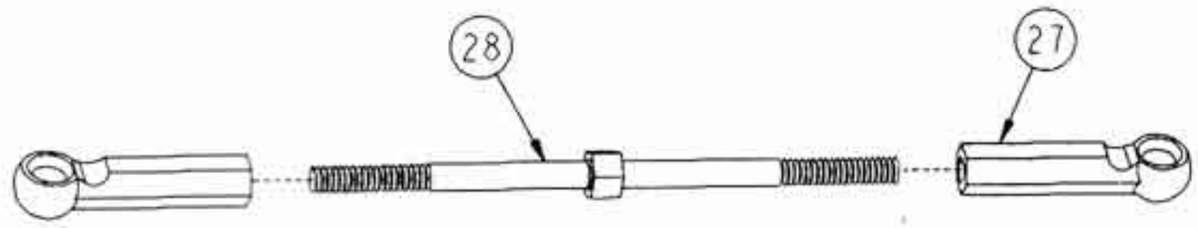


Figure 7

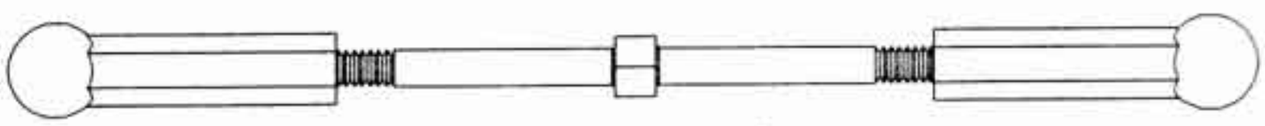


Figure 7A

Fig 7.

Step 17. Thread a plastic rod end (27) onto each end of a 2-1/2" turnbuckle (28). Tighten both rod ends (27) equally until the rod is the same length as the rod in Fig. 7A. Make two camber link assemblies.

Fig 8.

Step 18. Place a "foam thing" (29) over each of the ball studs on the spindle carriers (17) and the shock tower (9). Next, attach one side of the camber link assembly to the ball stud on the shock tower (9) and the other side to the ball stud on the spindle carrier (17). Attach a camber link to both the left and right side.

Try to mount all of the camber links so that the threads adjust the same direction. This makes it much easier to make adjustments later.

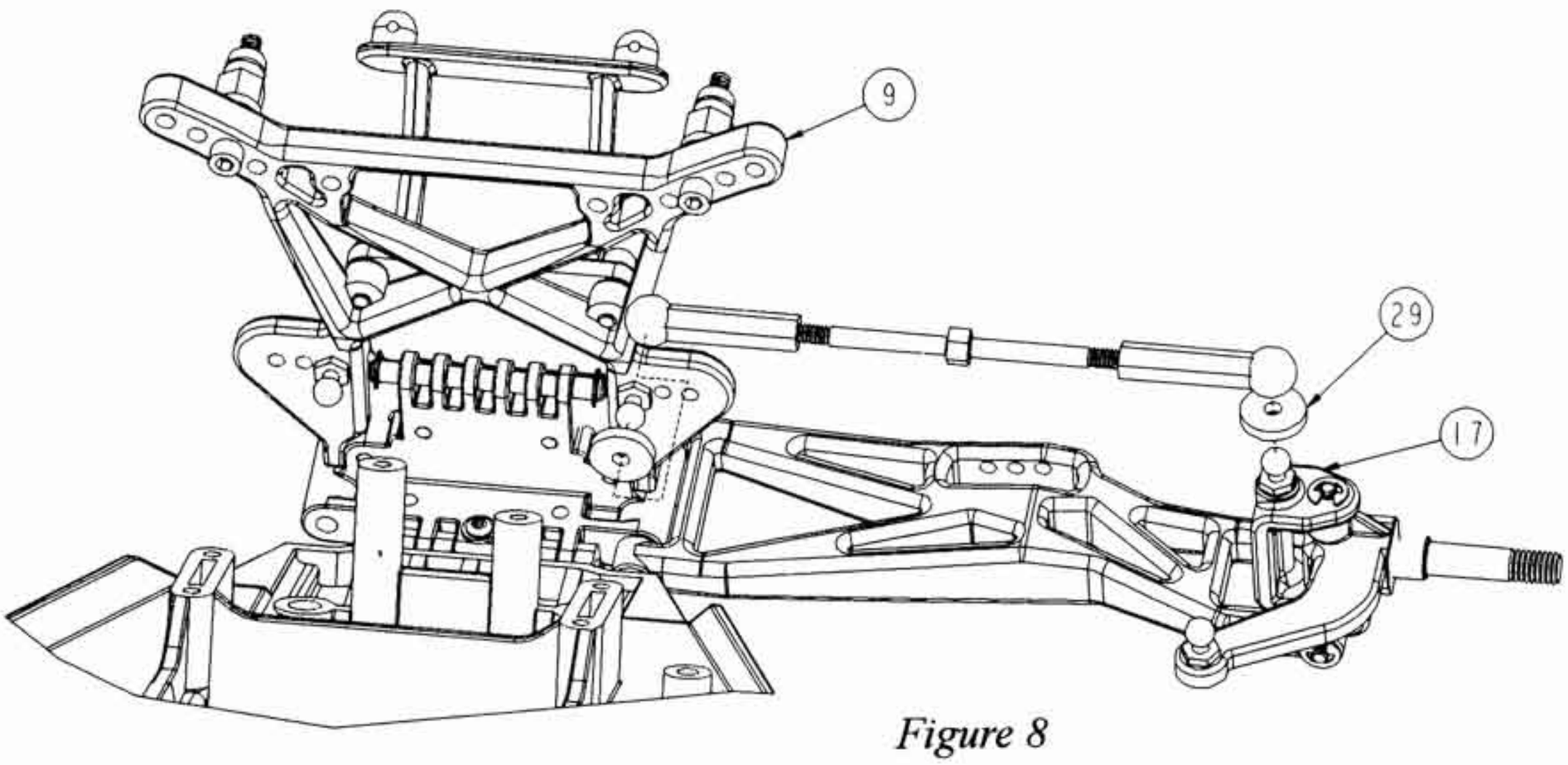


Figure 8

BAG B

Fig 9.

Step 1. Place servo saver bottom (30) over servo saver post (31) and slide servo saver bottom all of the way down. Be sure that the hex in the servo saver post (31) is inserted into the hex in the servo saver bottom (30).

Step 2. Slide the servo saver top (32) down over the servo saver post (31) so that it rests against the servo saver bottom (30). The arm on the servo saver top (32) and the arm on the servo saver bottom (30) should point in opposite directions.

Step 3. Slide the servo saver spring (33) over the servo saver post (31) and push it into the recessed area. Install the servo saver spring cap (34) and thread the 6-40 lock nut (35) onto the threads of the servo saver post (31).

Step 4. Tighten the 6-40 lock nut (35) all of the way down and then loosen it two full turns (i.e. 360° x 2). This is a good starting point for the adjustment. Once assembly is complete, if you wish, the servo saver can be adjusted tighter or looser.

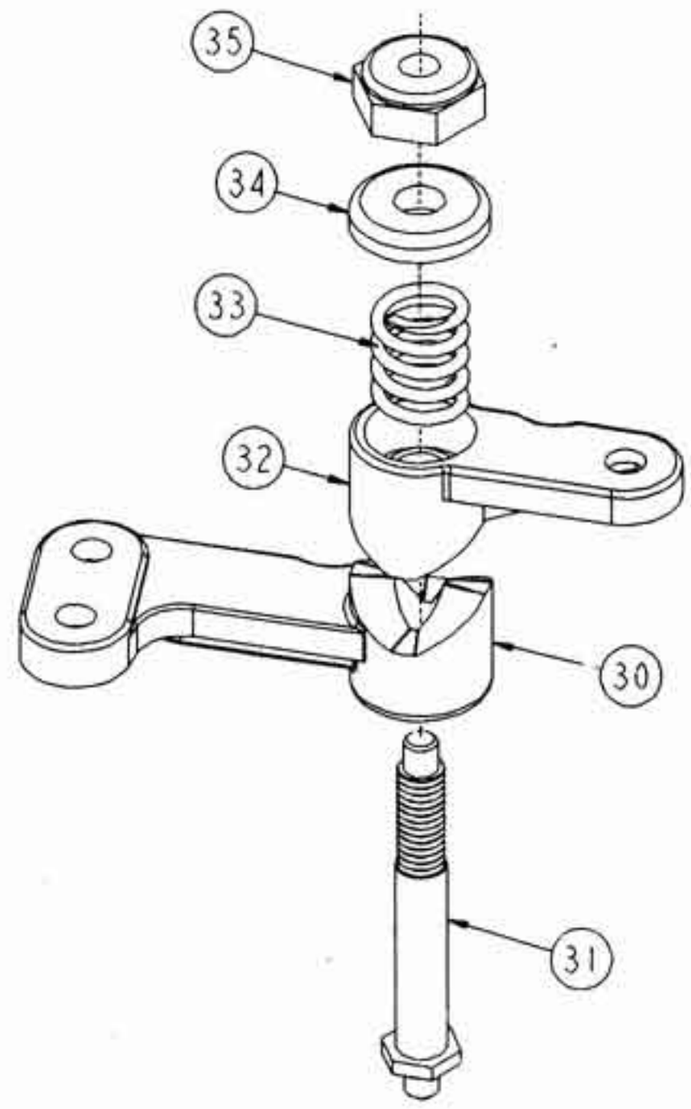


Figure 9

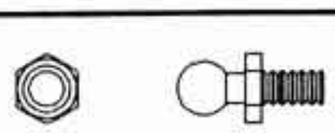


Fig 10.

Step 5. Insert a 4-40 mini lock nut (21) into each of the two hex areas in the servo saver bottom (30). Thread a 3/16" ball stud (22) into each nut (21) and tighten. Insert a 4-40 mini lock nut (21) into the hex area in the servo saver top. Thread a 3/16" ball stud (22) into the nut (21) and tighten.

Step 7. Insert a 4-40 mini lock nut (21) into each of the two hex areas in the steering idler arm (36). Thread a 3/16" ball stud (22) into each nut (21) and tighten.

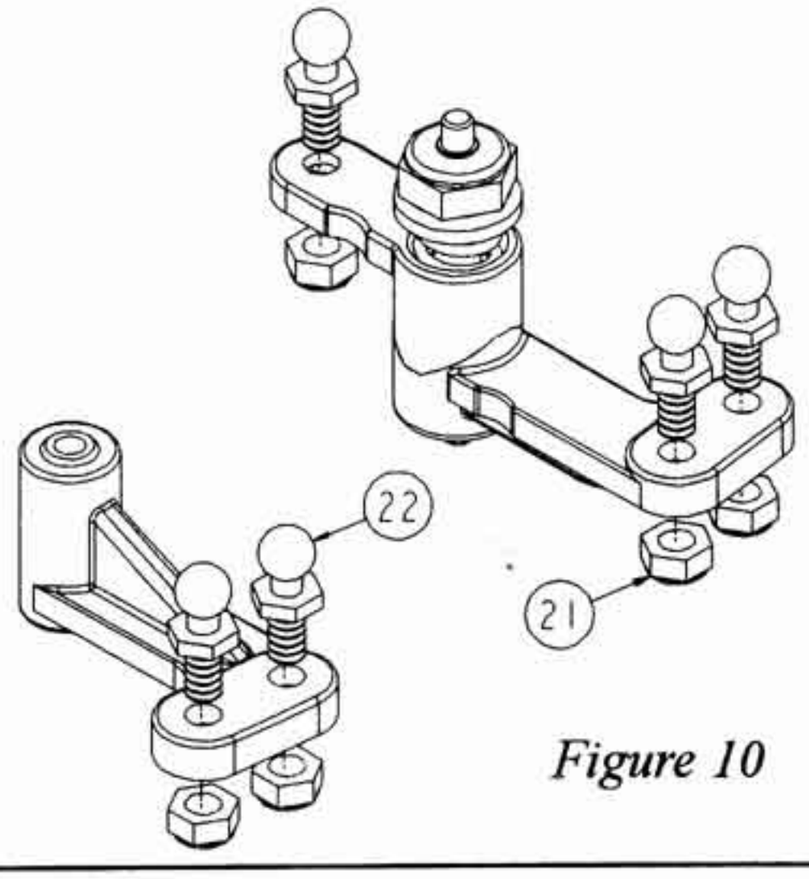


Figure 10

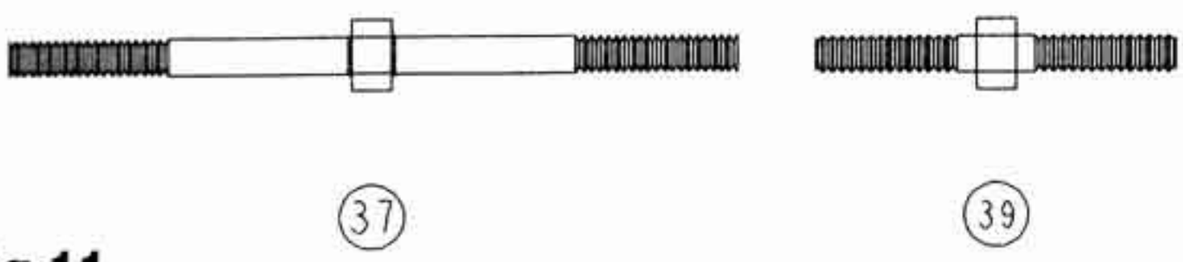
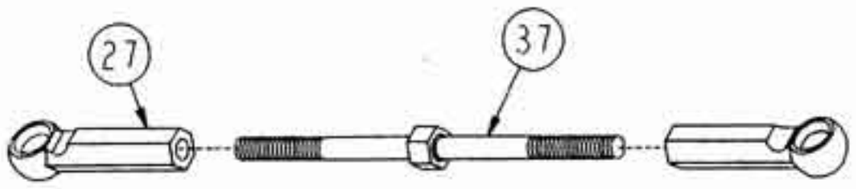


Fig 11.

Step 8. Thread a plastic rod end (27) onto each end of a 2 1/4" turnbuckle (37). Tighten both rod ends (27) equally until the completed tie rod is the same length as the one in figure 11A. Make two tie rod assemblies.

Step 9. Thread a short plastic rod end (38) onto each end of the 1-1/8" turnbuckle (39). Tighten both rod ends (38) equally until the completed drag link is the same length as the one in figure 11A.

Figure 11



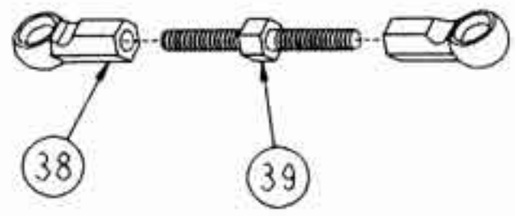
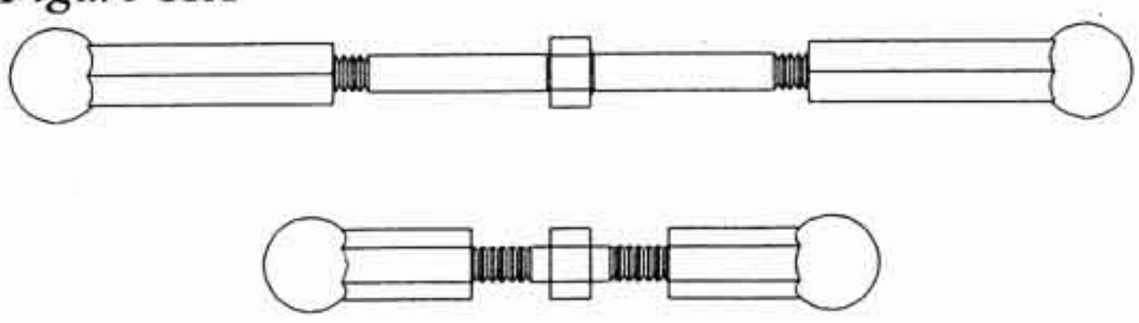


Figure 11A



BAG B (Continued)

Fig. 12

Step 10. Snap one end of the short drag link to the right ball stud (22) on the servo saver bottom (30). Snap the other end to the left ball stud on the steering idler arm (36).

** NOTE: Be sure to snap the rod onto the correct ball studs as shown!*

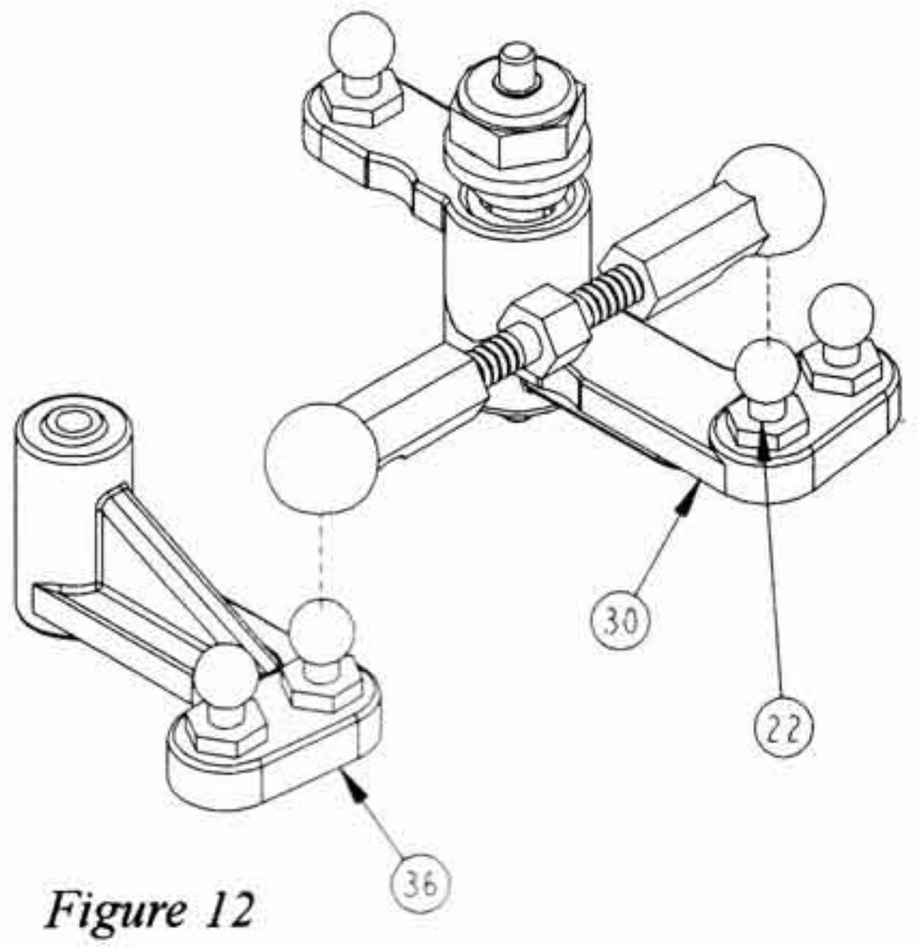


Figure 12

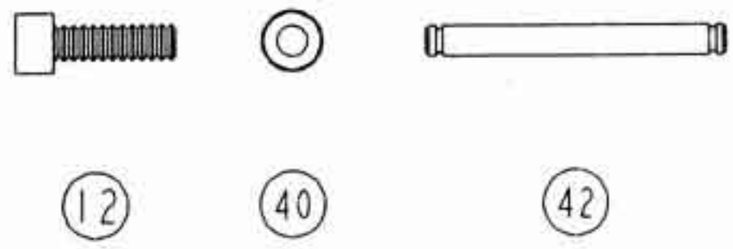


Fig 13.

Step 11. Insert a 3/32" x 3/16" bushing (40) into the two large holes in the bottom of the steering brace (41), chamfered end first. Insert the other two bushings (40) into the two holes in the main chassis (2).

** Note: Trim all flashing from the bushings to ensure proper fit.*

Step 12. Insert a 3/32" x .930" hinge pin (42) through the hole in the steering idler arm (36) and position it as shown in fig. 13A. Place the servo saver assembly and the steering idler arm (36) into the bushings (40) in the chassis (2) so that the installed drag link is in the front.

Step 13. Place the steering brace (41) on top of the servo saver assembly and steering idler arm (36) being sure that the bushings (40) slide over the pins.

Step 14. Attach the steering brace to the chassis (2) using two 4-40 x 3/8" cap head screws (12).

● **IMPORTANT NOTE:** Tighten the two 4-40 screws all the way and then back them off 1/8 of a turn. This will keep the posts on the chassis from "taking a set" if they should twist at all.

If you should ever need to remove the small bushings, the easiest way to get them out is to slightly thread a 4-40 screw into them and pull them out.

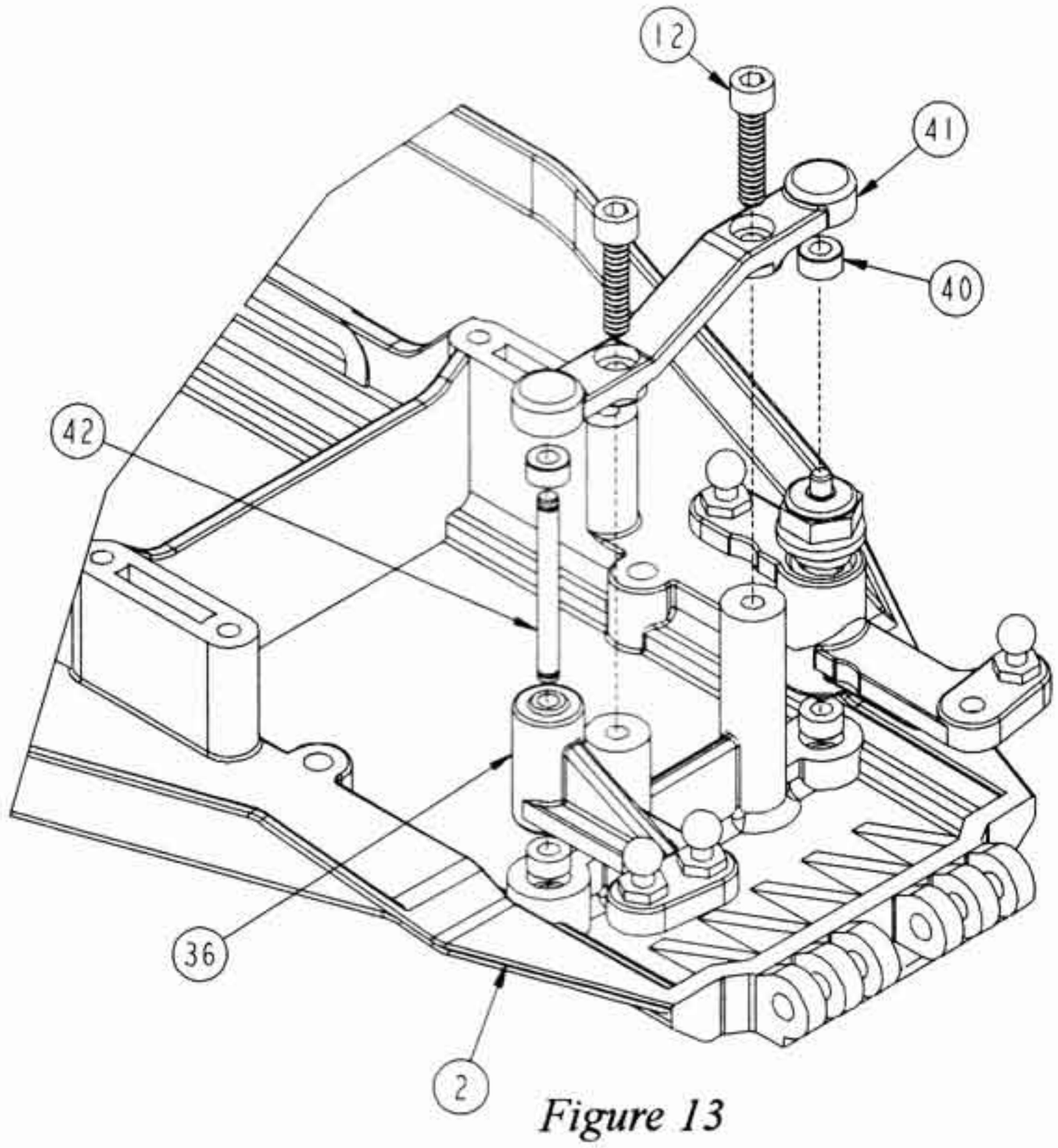


Figure 13

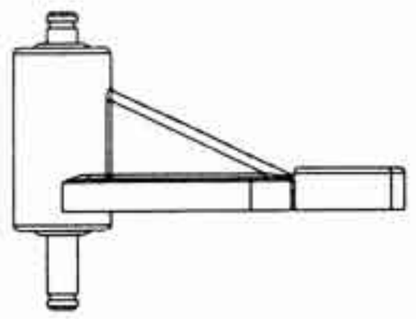


Figure 13A

BAG B (Continued)

Fig 14.

Step 15. Snap one end of a completed tie rod to the idler arm (36). Snap the other end to the right side spindle (16). Attach the other tie rod assembly to the servo saver assembly and the left spindle (15).

⚐ Once again, assure that all turnbuckles are mounted with the threads in the same direction for easier adjustment later!

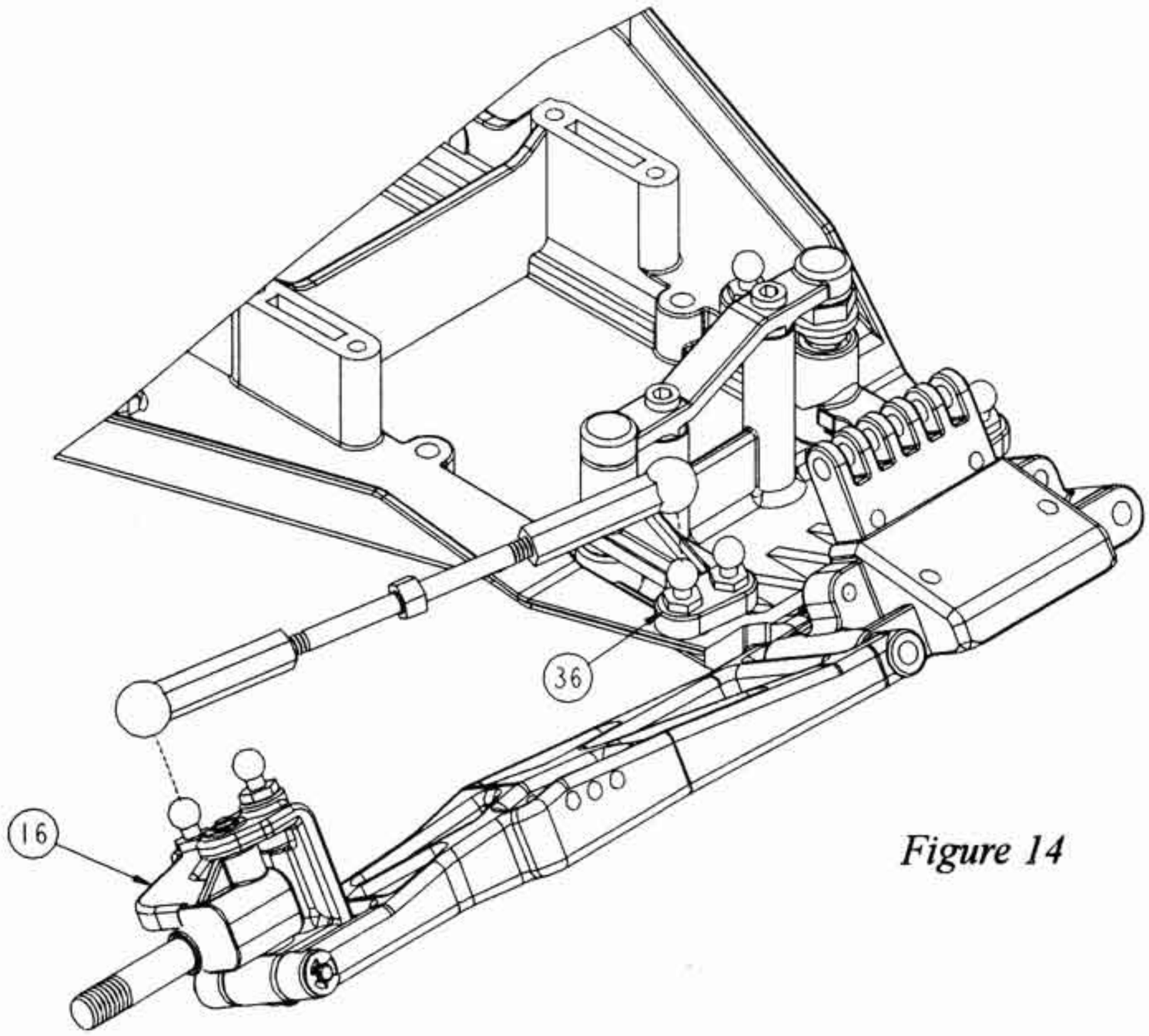


Figure 14

Fig 15.

** Note: If you do not have your servo at this time, skip to Bag C and continue assembly. It is recommended that the servo be installed at this time since much of the front end is built around the servo and minor disassembly will be required to install it later.*

● **IMPORTANT NOTE:** If the servo mounting instructions are not followed carefully, your servo may be damaged!

Step 16. Using a file or a Dremel tool, trim the two lower ears off of your servo *(not included)* as shown in figure 15. Be very careful to trim the correct ears! If the wrong ears are trimmed, your servo will not be able to be mounted unless the servo case is replaced.

● **IMPORTANT NOTE:** It is not recommended that you use cutters or a hobby knife to remove the servo ears. Some cases are made of very brittle material and damage to your servo case may result.

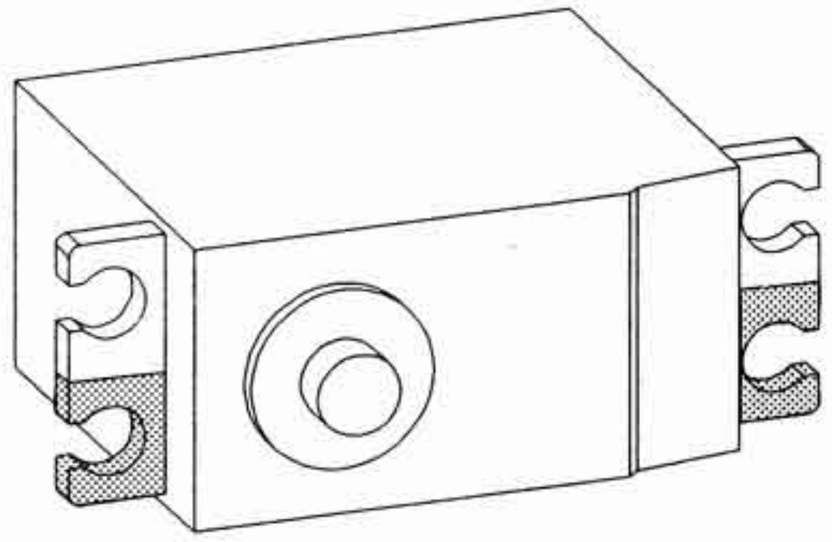


Figure 15

BAG B (Continued)

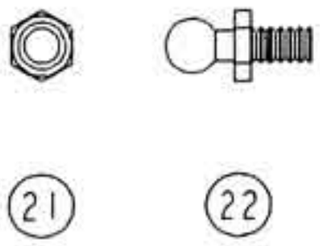


Fig 16.

Step 17. Using table 17B, determine which servo arm (43) is required for you servo. If your servo is not listed, try using the arm recommended for another servo made by the same manufacturer, or use one supplied with your servo that is the same length as either the 23L or the 25L arm.

Step 18. Insert a 4-40 mini lock nut (21) into the hex area of the servo arm (43). Thread a 3/16" ball stud (22) into the lock nut (21) and tighten.

Step 19. Plug your servo into your radio system's receiver. Make sure that there is power to the receiver, and switch the transmitter on followed by the receiver. Be sure that the trim settings for the steering on your transmitter are set to the middle. With the radio system still turned on, attach the servo arm (43) so that it points straight up, away from the ears that were trimmed off. Secure the arm (43) with the servo arm screw supplied with your servo.

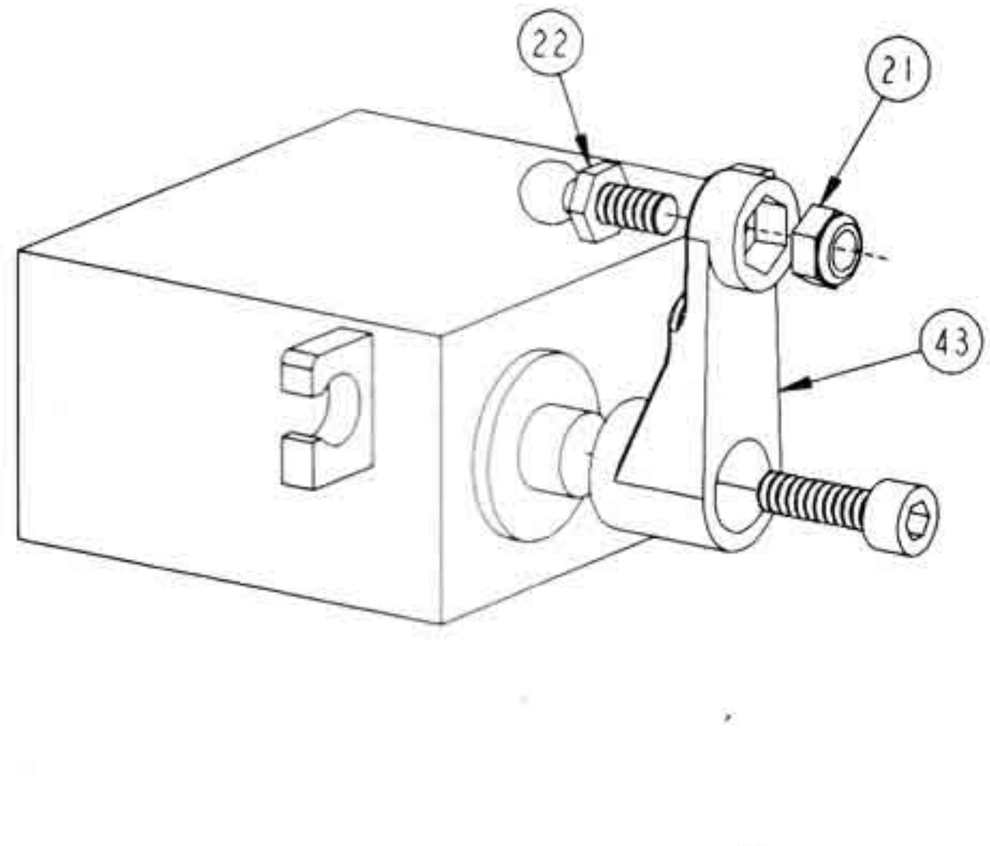


Figure 16

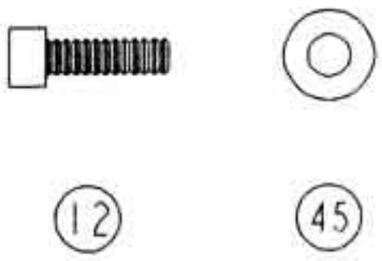


Fig 17.

Step 20. Use tables 17A and 17B to determine how the servo mounting posts (44) should be attached.

Trim flashing from the pins on the mounting posts so that they will seat all of the way into the holes in the chassis brace and chassis.

Step 21. Place a #4 washer (45) over each of the two 4-40 x 3/8" cap head screws (12) and attach the servo posts (44) to the servo by threading a screw (12) through the center hole in each post (44). Do not tighten the screws (12) all of the way yet! Just snug them up. The screws (12) will be tightened after the servo is installed so that the posts (44) have the correct spacing.

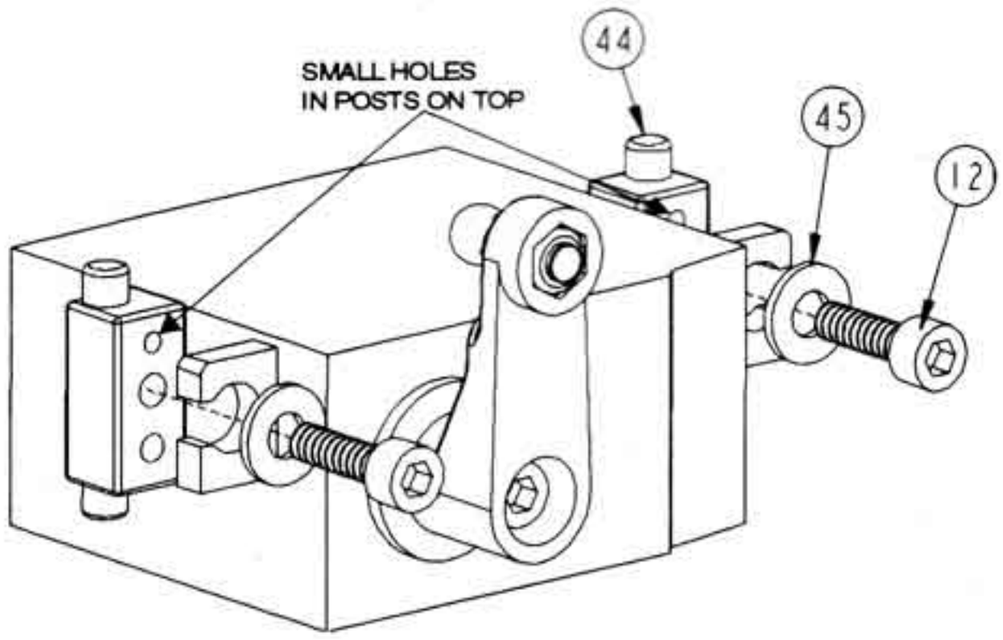
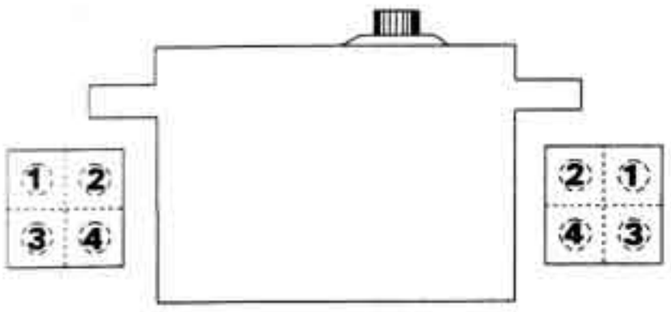


Figure 17

BAG B (Continued)



**Note: Posts are not to scale.*

Position of pin on servo mounting post	
1	Forward away from servo
2	Forward next to servo
3	To rear away from servo
4	To rear next to servo

Table 17A

● **IMPORTANT NOTE:** Small, lightening hole in the servo mounting post should always be mounted to the top (the side opposite to where the mounting ears were removed from).

SERVO TYPE	MOUNTING POST PIN LOCATION	REQUIRED SERVO ARM
Airtronics 94151, 94152, 94737, 94738	**3**	**23L**
Airtronics 94102	**1**	**23S**
Futaba S131, S148, S5101, S9101, S9201, S9301, S9401	**2**	**25L**
Futaba S132H	**1**	**25L**
JR NES-507, NES-517, NES-901, NES-4131, NES-4721, NES-4735, NES-9021	**2**	**23S**
KO PS-702, PS-703, PS-1001, PS-1003	**2**	**23S**
KO PS-901BH, PS-902	**1**	**23S**

Table 17B

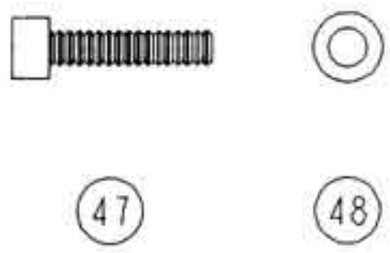


Fig 18.

Step 22. Place the servo, with servo mounting posts (44) attached, into the chassis (2). Align the pins in the mounting posts (44) with the holes in the chassis (2). Mount the chassis brace (46) on top of the servo. The slots in the chassis brace (46) should align with the grooves in the chassis (2). Make sure that the pins in the mounting posts (44) are inserted into the chassis brace (46) and the chassis (2). Using two 4-40 x 1/2" cap head screws (47) and two gold washers (48), attach the chassis brace (46) as shown.

Step 23. Tighten the screws (12) in the servo mounting posts (44)

● **IMPORTANT NOTE:** Don't over tighten the screws in the servo mounting posts! The mounting ears on the servo can be damaged if these screws are over tightened.

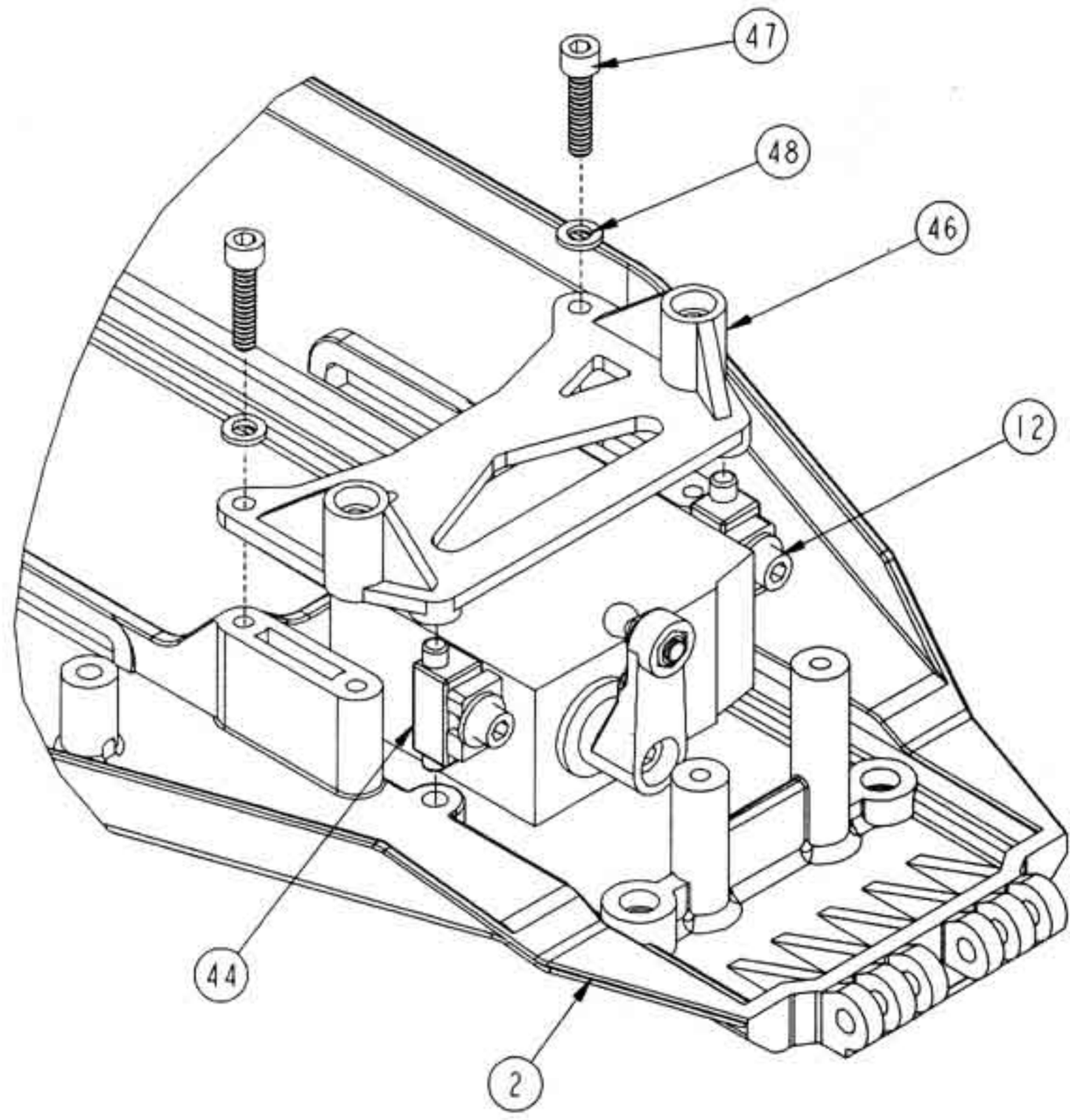


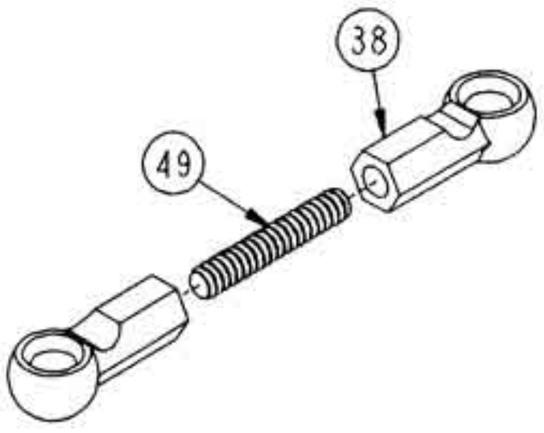
Figure 18

BAG B (Continued)

Fig 19.

Step 24. Thread a short plastic rod end (38) onto each end of the 4-40 x 5/8" threaded rod (49). Tighten both sides equally until the rod is the same length as the one shown in figure 19A. Attach one end of the rod to the ball stud (22) in the servo arm (43) and the other to the ball stud (22) in the servo saver. Fig. 19B.

Figure 19



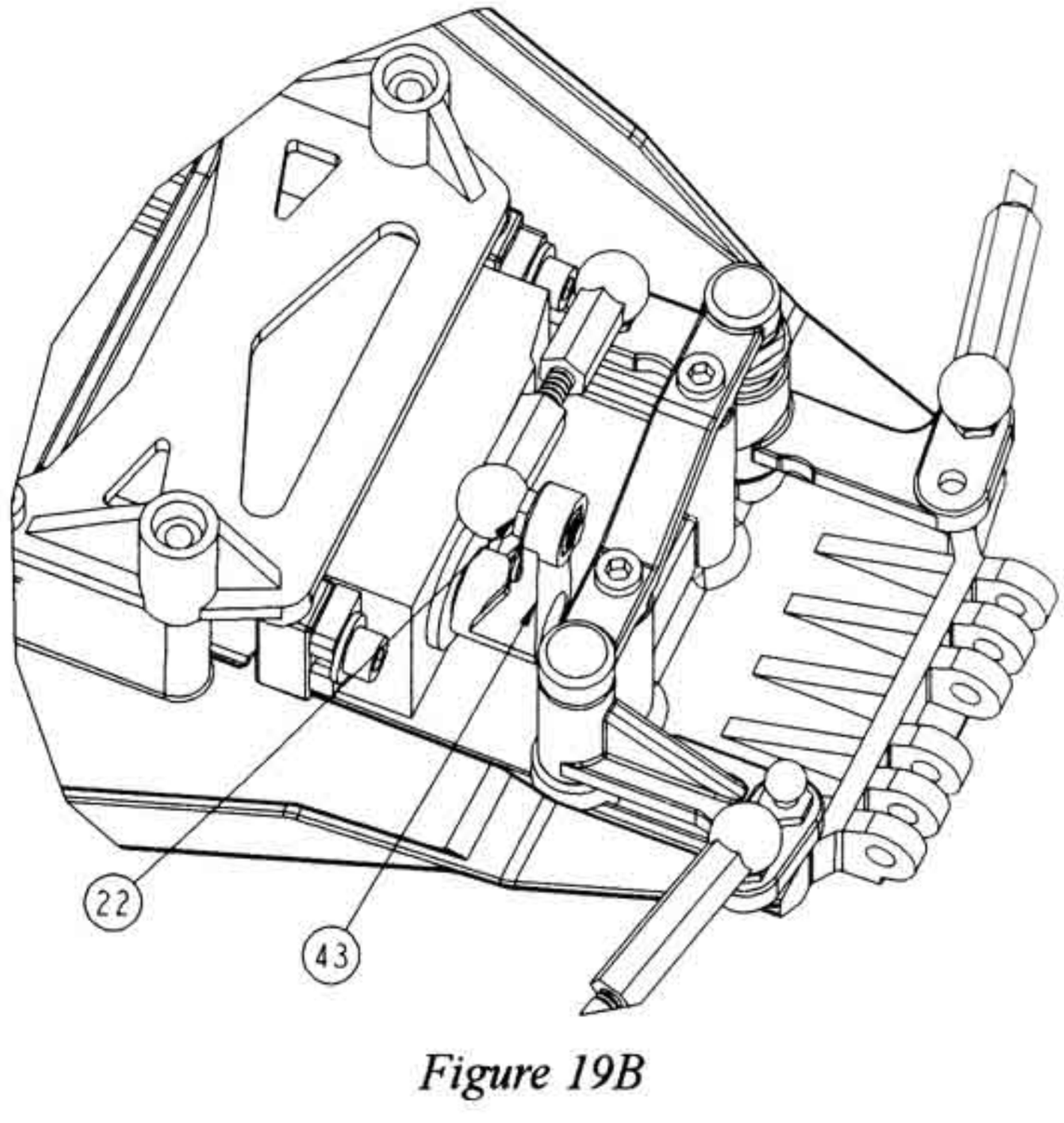


Figure 19A

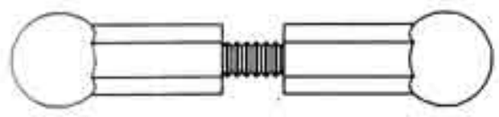


Figure 19B

Fig 20.

Step 25. Rotate the front end back until the front chassis stiffener (5) can be indexed into the chassis brace (46). Place a gold washer (48) over each of the two 4-40 x 7/8" cap head screws (10). Insert a screw (10) through each of the two holes in the front chassis stiffener (5) and tighten.

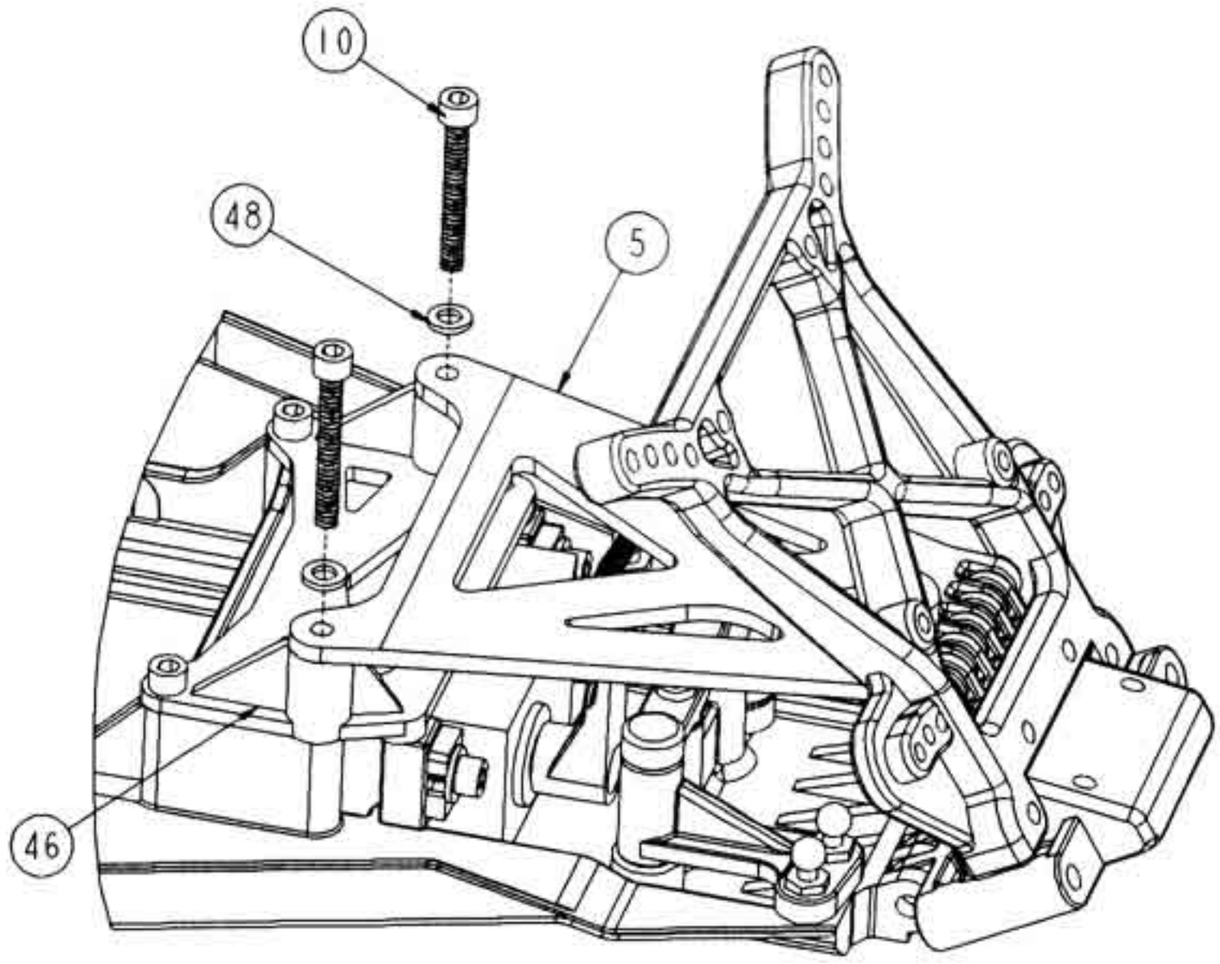


Figure 20

BAG C

(51)

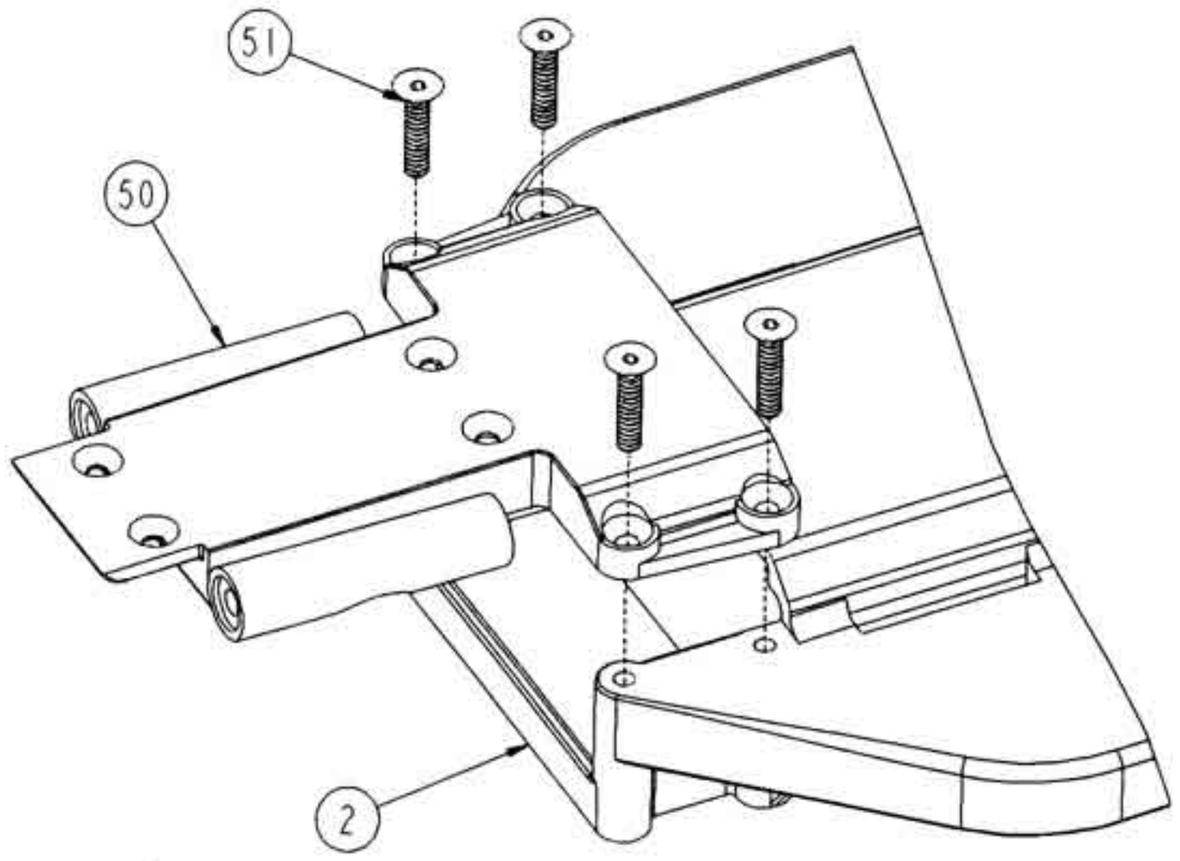
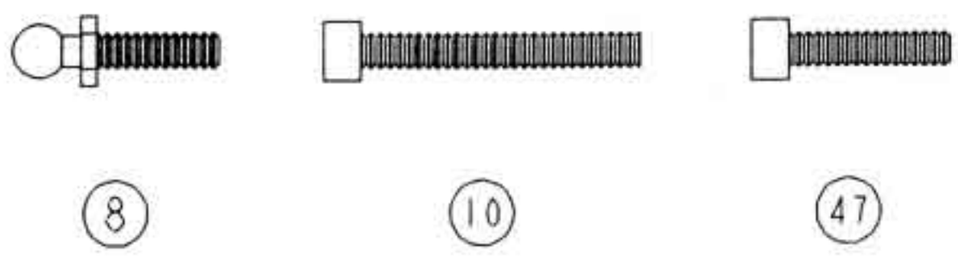


Fig 21.

Step 1. Holding the chassis (2) upside down, insert the tab on the rear pivot support (50) under the rear part of the chassis (2), so that the pivot support (50) is flush with the chassis (2). Make sure that the four holes in the chassis (2) line up with the four holes in the pivot support (50). Secure the pivot support (50) to the chassis (2) using four 4-40 x 1/2" flat head screws (51).

Figure 21



(8) (10) (47)

Fig 22.

Step 2. Insert two 4-40 x 7/8" cap head screws (10) through the third hole in on each side of the rear shock tower (52) as shown. Thread the top shock mount bushings (11) onto the two screws (10) and tighten. The shock mount bushings (11) should be on the side of the shock tower (52) opposite the flat surface.

Step 3. Attach the rear shock tower (52) to the rear bulkhead (53) using four 4-40 x 1/2" cap head screws (47) as shown.

Step 4. Thread a 3/8" ball stud (8) into the #7 hole on each side of the rear bulkhead (53). Place a "foam thing" (29) over each of the two ball studs (8). See figure 22A

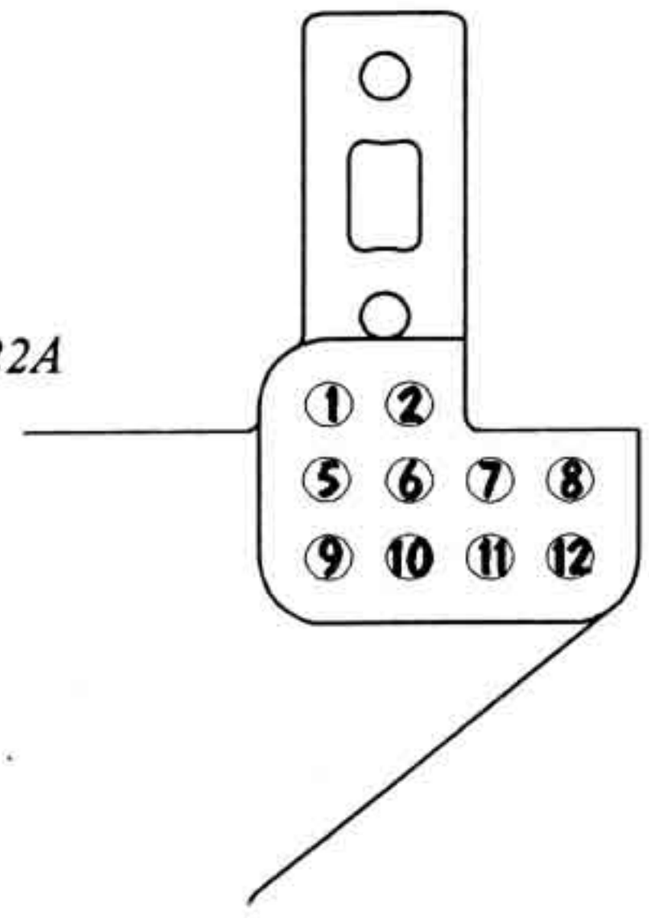


Figure 22A

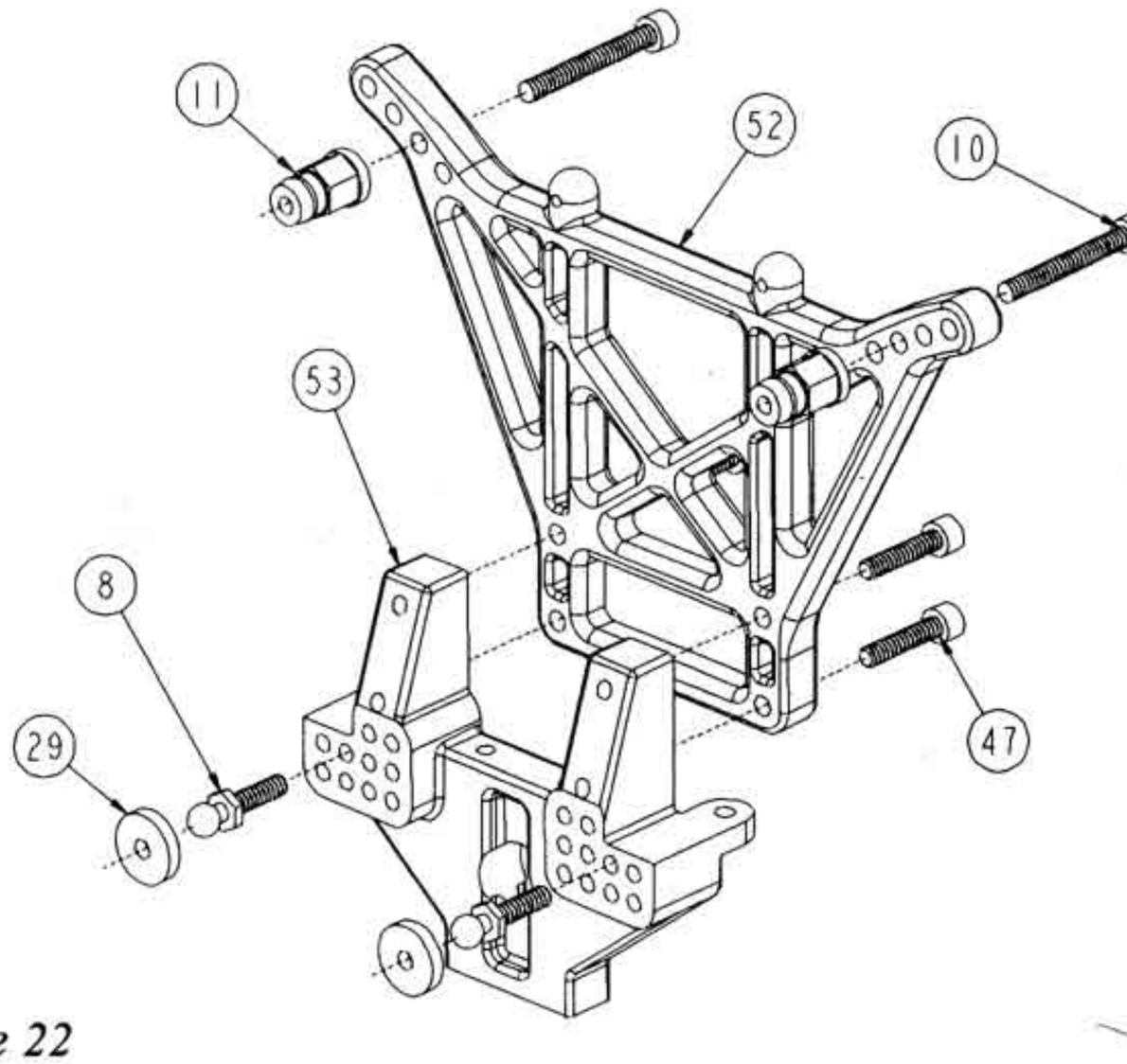


Figure 22

BAG C (Continued)

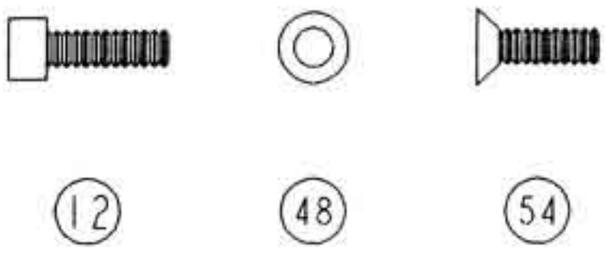


Fig 23.

Step 5. Place the rear bulkhead (53) into the top, forward area of the rear pivot support (50). Make sure that the bulkhead (53) is all of the way down and that the mounting ears are flush with the chassis (2). Thread two 4-40 x 3/8" flat head screws (54) through the pivot support (50) and into the rear bulkhead (53). Do not tighten these screws yet.

Step 6. Place a gold washer (48) over each of the two 4-40 x 3/8" cap head screws (12) and partially thread them through the two ears in the top of the bulkhead (53), into the chassis (2). Now tighten all four screws starting with the flat-head screws (54).

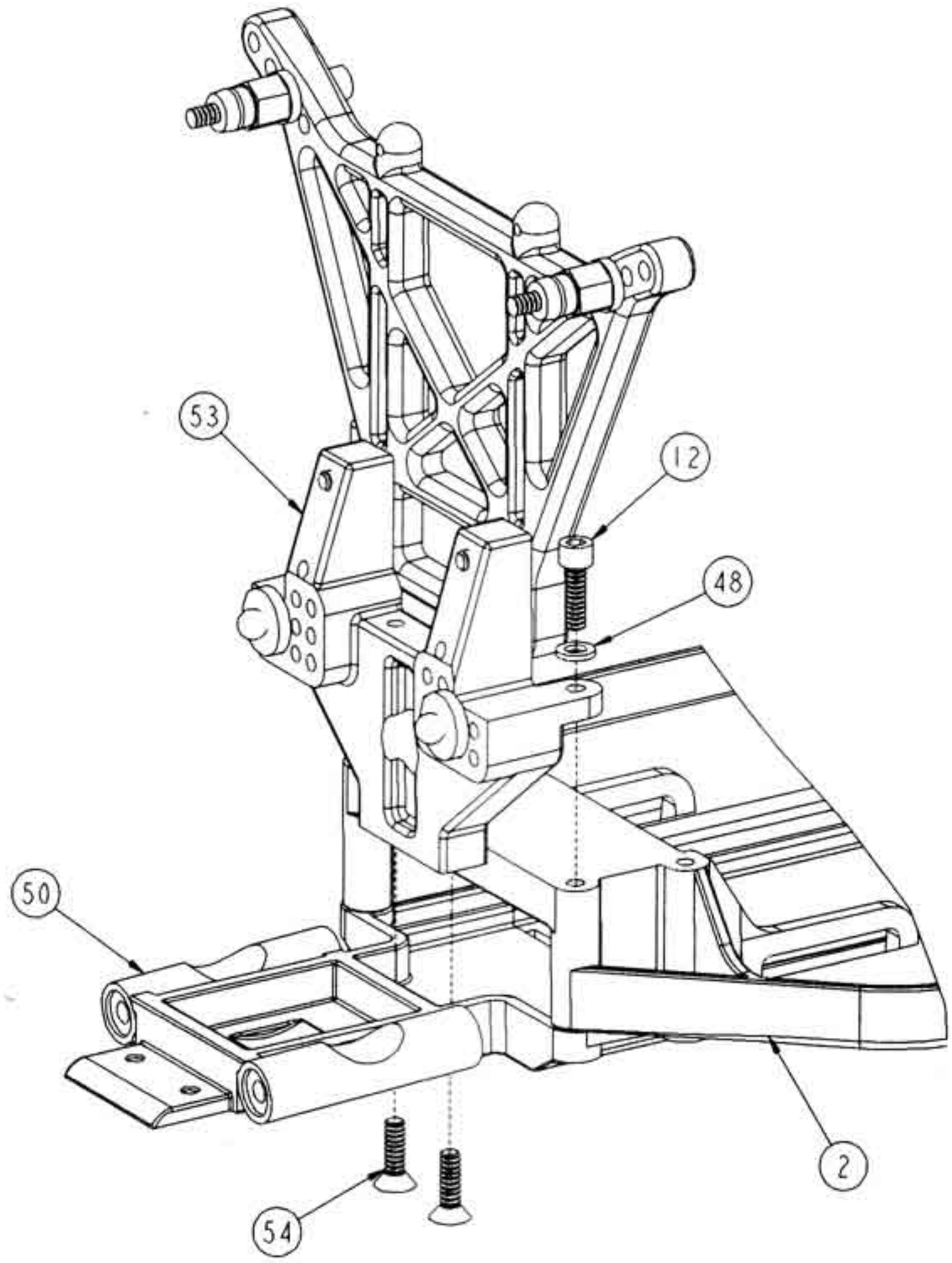


Figure 23

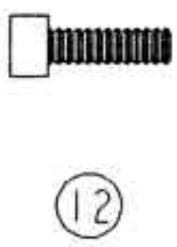


Fig 24.

Step 7. Attach the dog bones (55) to the plastic universal yokes (56) by lining up the slot on the dog bone (55) with the groove in the universal yoke (56). Secure the two pieces with a 4-40 x 3/8" cap head screw (12).

A small amount of thread lock compound on the threads of the 4-40 x 3/8" cap head screw will help hold it tight.

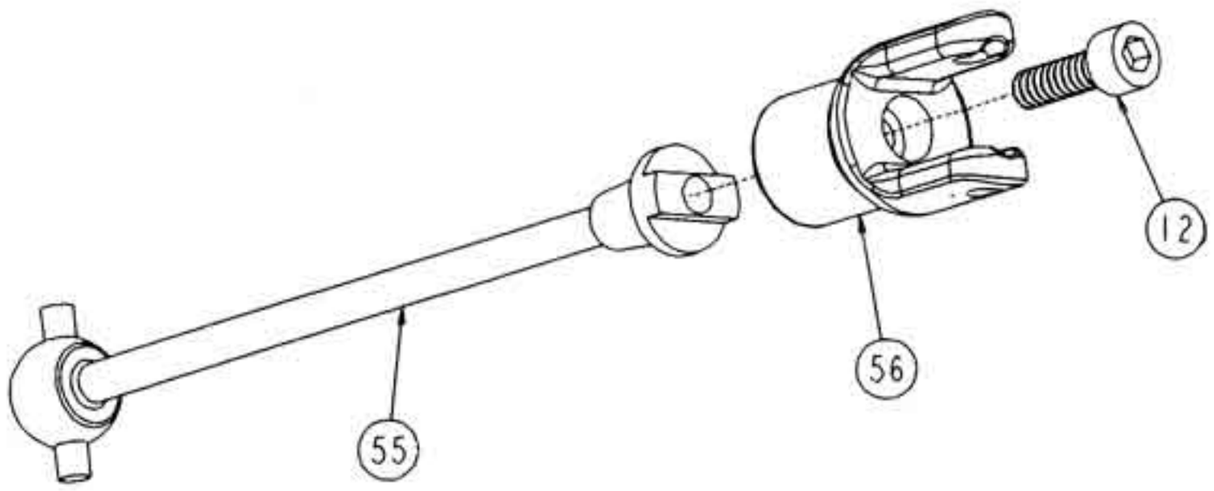


Figure 24

BAG C (Continued)

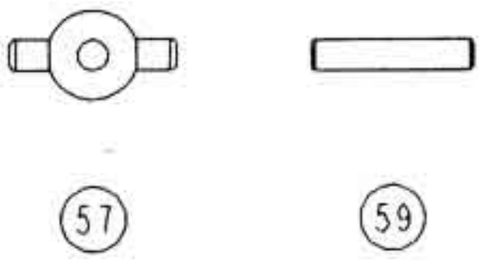


Fig 25.

Step 8. Position the universal pivot (57) in the rear axle (58) so that the holes in both are aligned.

Step 9. Using pliers, carefully push a 3/32" x 1/2" spirol pin (59) through the rear axle (58) and universal pivot (57) until the pin (59) extends evenly out both sides of the rear axle (58).

The pin can be made to press in tighter. This will ensure that it stays firmly in place. To do so *SLIGHTLY* crimp the center of the pin with heavy duty wire cutters. When inserting the pin be careful not to smash the ends of the pin. This can cause the universal pivot to bind.

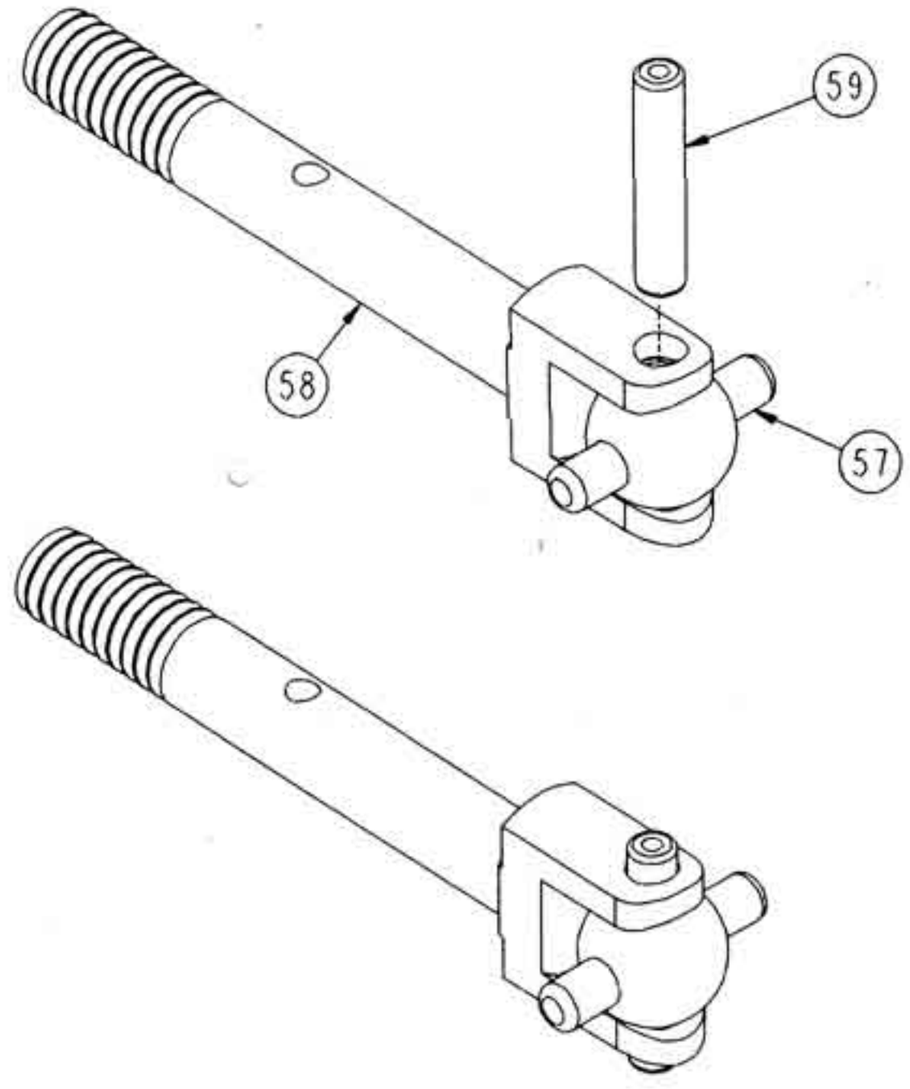


Figure 25

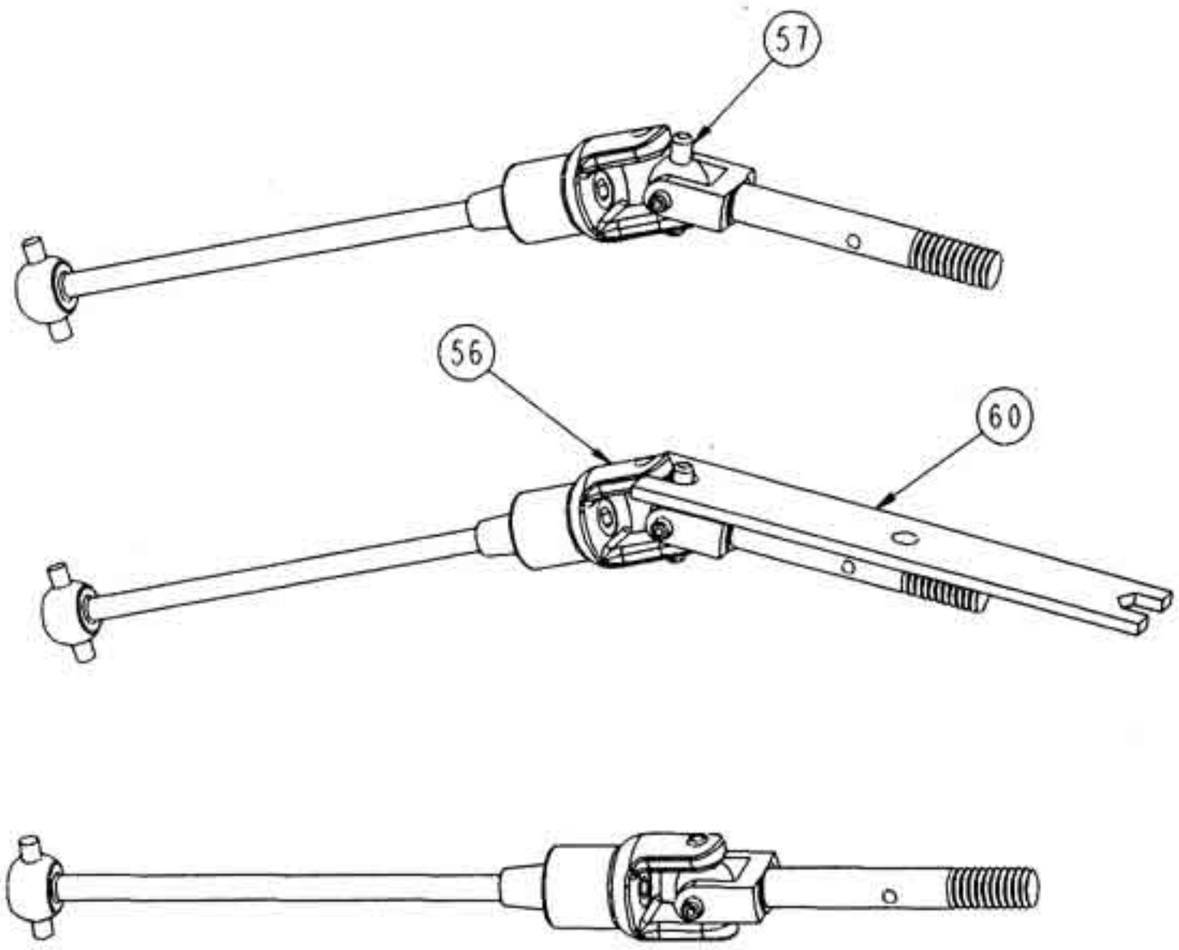


Fig 26.

Step 10. Using the small end of the Team Losi wrench (60) supplied with your kit, pry the pins on the universal pivot (57) into holes in the plastic universal yoke (56).

Figure 26

BAG C (Continued)

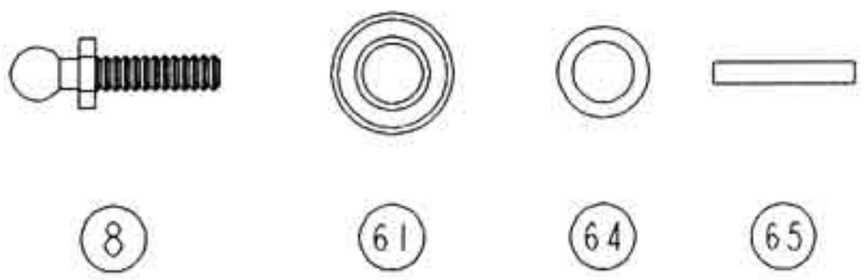


Fig 27.

Step 11. Press a 3/16" x 3/8" bearing (61) into each side of the right rear hub (63).

Step 12. Thread a 3/8" ball stud (8) into the #4 hole in the rear hub (63), from the front (the side with the recessed area). See figure 27A

● **IMPORTANT NOTE:** Do not over tighten the ball studs.

Step 13. Place a "foam thing" (29) over the ball stud (8).

Step 14. Repeat steps 11 - 13 for the left rear hub (62).

Step 15. Slide a rear axle (58) through the bearings (61) in each rear hub (62), (63) from the inside.

Step 16. Place a rear axle/gearbox spacer (64) over each rear axle (58), against the outside bearing (61).

Step 17. Secure the rear axle (58) and the spacer (64) by inserting a 1/16" x 7/16" pin (65) through the small hole in each of the rear axles (58). The pin (65) should be centered in the rear axle (58).

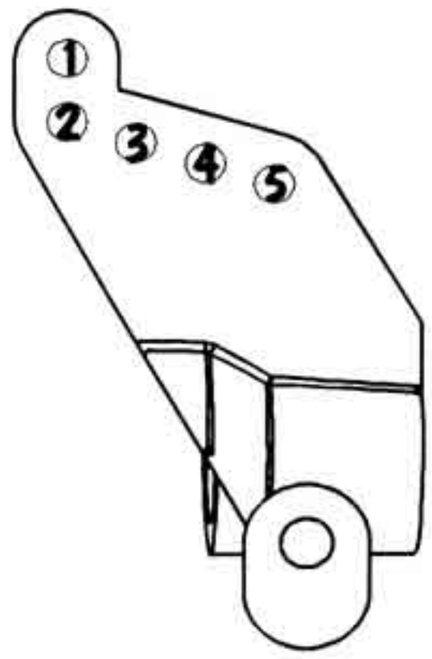


Figure 27A

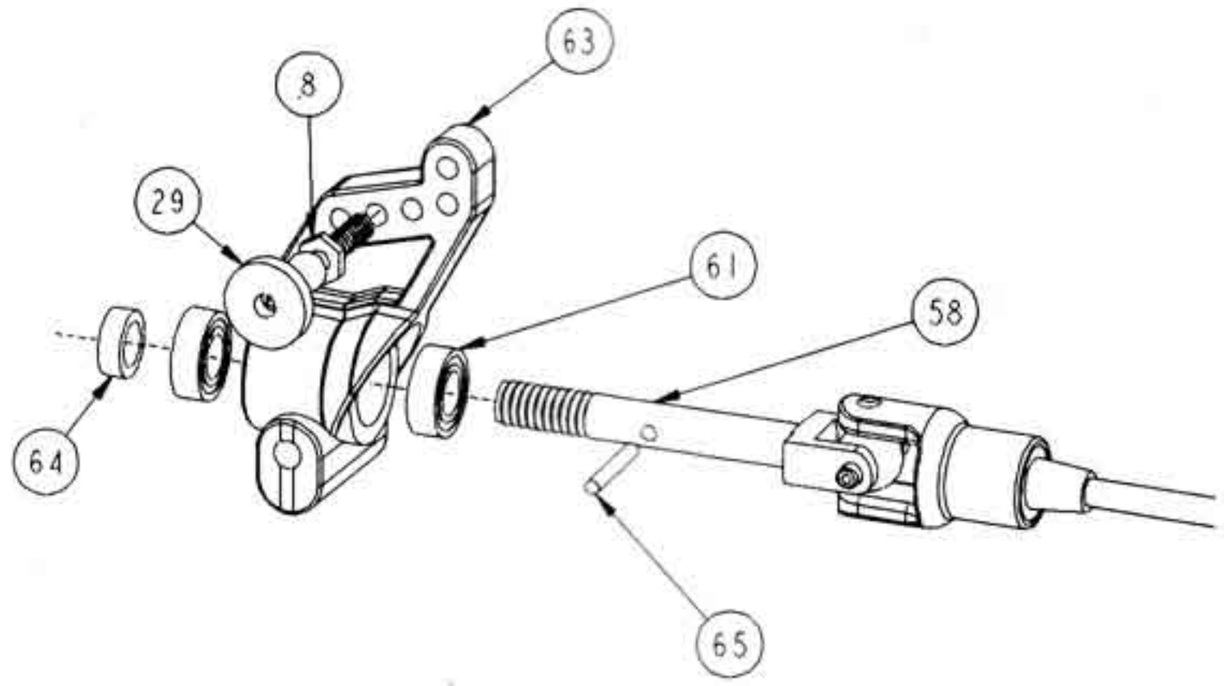


Figure 27

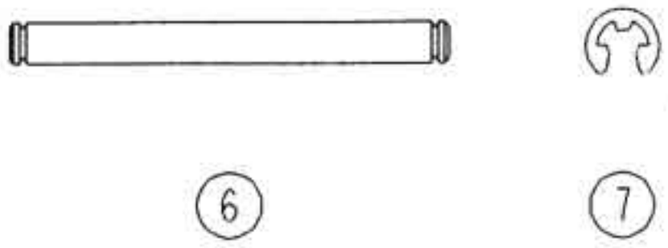


Fig 28.

Step 18. Place the right rear hub (63) between the outer rails of the right rear suspension arm (67). Be sure that the ball stud (8) is on the same side of the arm (67) as the shock mounting holes.

Step 19. Insert a 1/8" hinge pin (6) into the suspension arm (67) and through the rear hub (63). Secure the hinge pin (6) with two 1/8" 'E' clips (7)

Step 20. Repeat steps 18 and 19 for the left rear suspension arm (66).

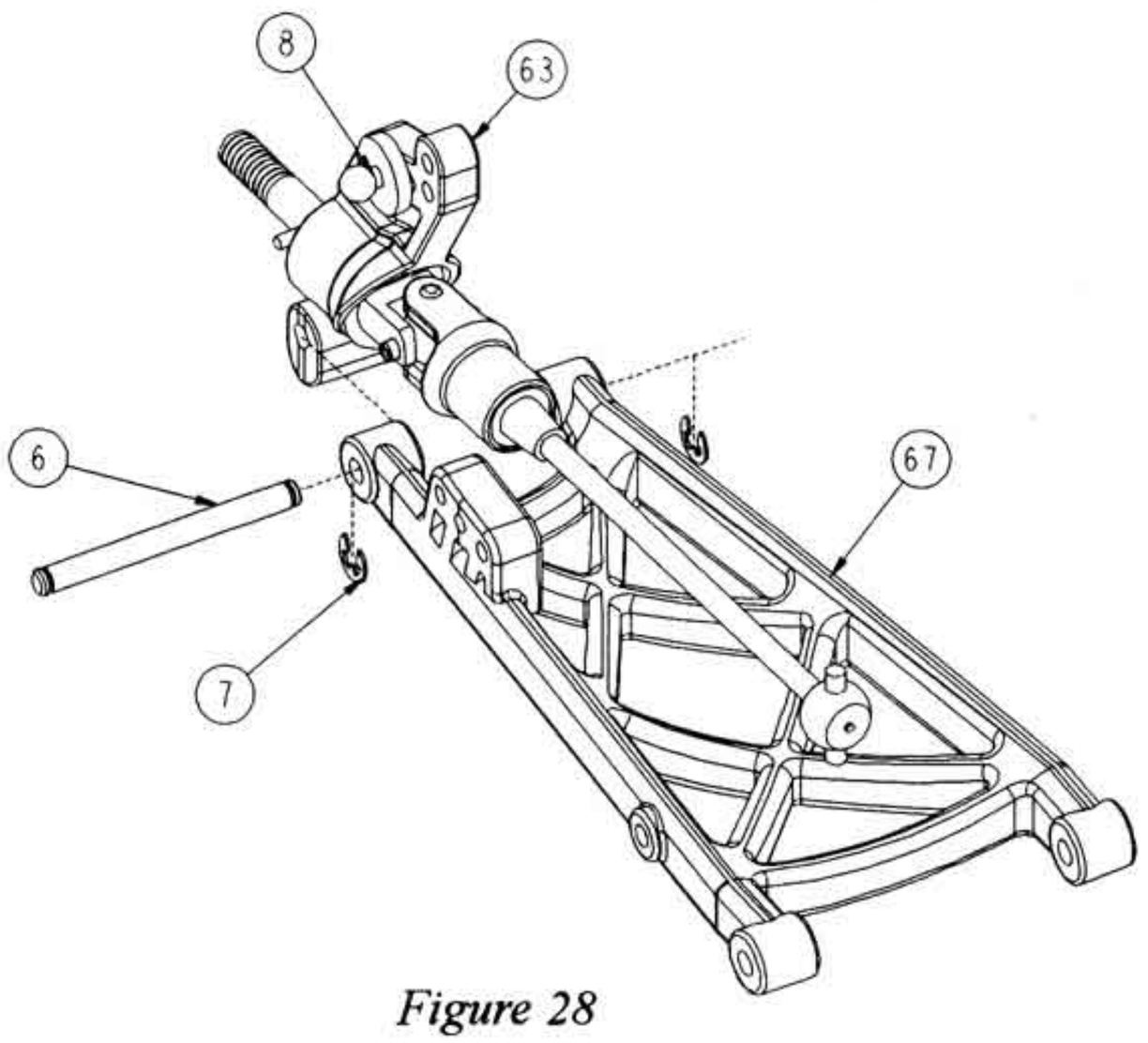


Figure 28

BAG C (Continued)

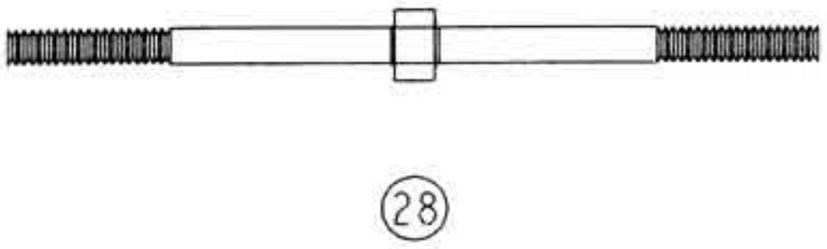
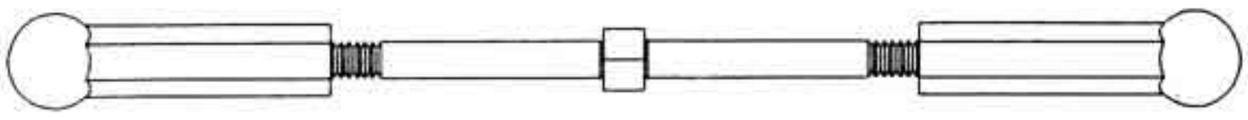


Fig **29.**

Step 21. Thread a plastic rod end (27) onto each end of a 2-1/2" turnbuckle (28). Tighten both ends (27) evenly until the camber rod is the same length as the one shown in figure 29A.

Figure 29A



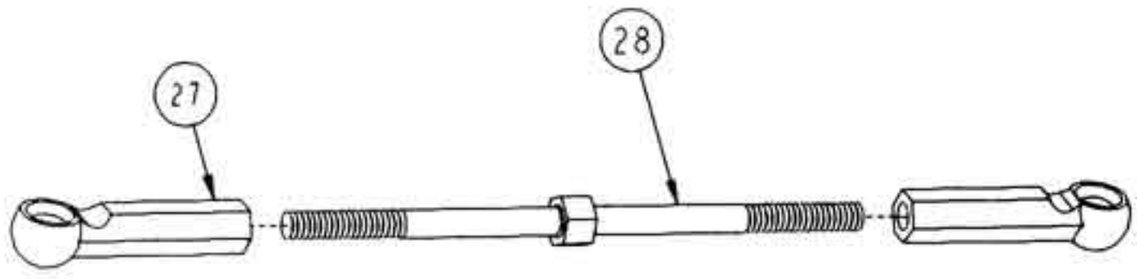


Figure 29

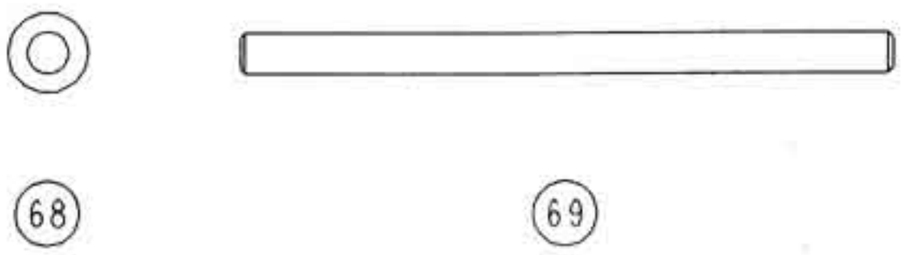


Fig **30.**

Step 22. Insert a 1/8" x 1/4" washer (68) into the recessed area on each side of the rear pivot support (50).

Step 23. Place the right rear suspension arm (67) over the right side of the rear pivot support (50). Line up the holes in the arm (67) with the holes in the pivot support (50) and attach them by inserting an inner rear hinge pin (69) from the rear all of the way through both pieces until the pin (69) is flush with the back of the arm (67).

Step 24. Attach one end of a rear camber link from step 21, figure 29 to the ball stud (8) in the rear hub (63) and the other end to the ball stud (8) in the rear bulkhead (53).

Remember to attach the turnbuckles so that the threads are in the same direction on all of your linkages.

Step 25. Repeat steps 23 and 24 for the left side of the truck.

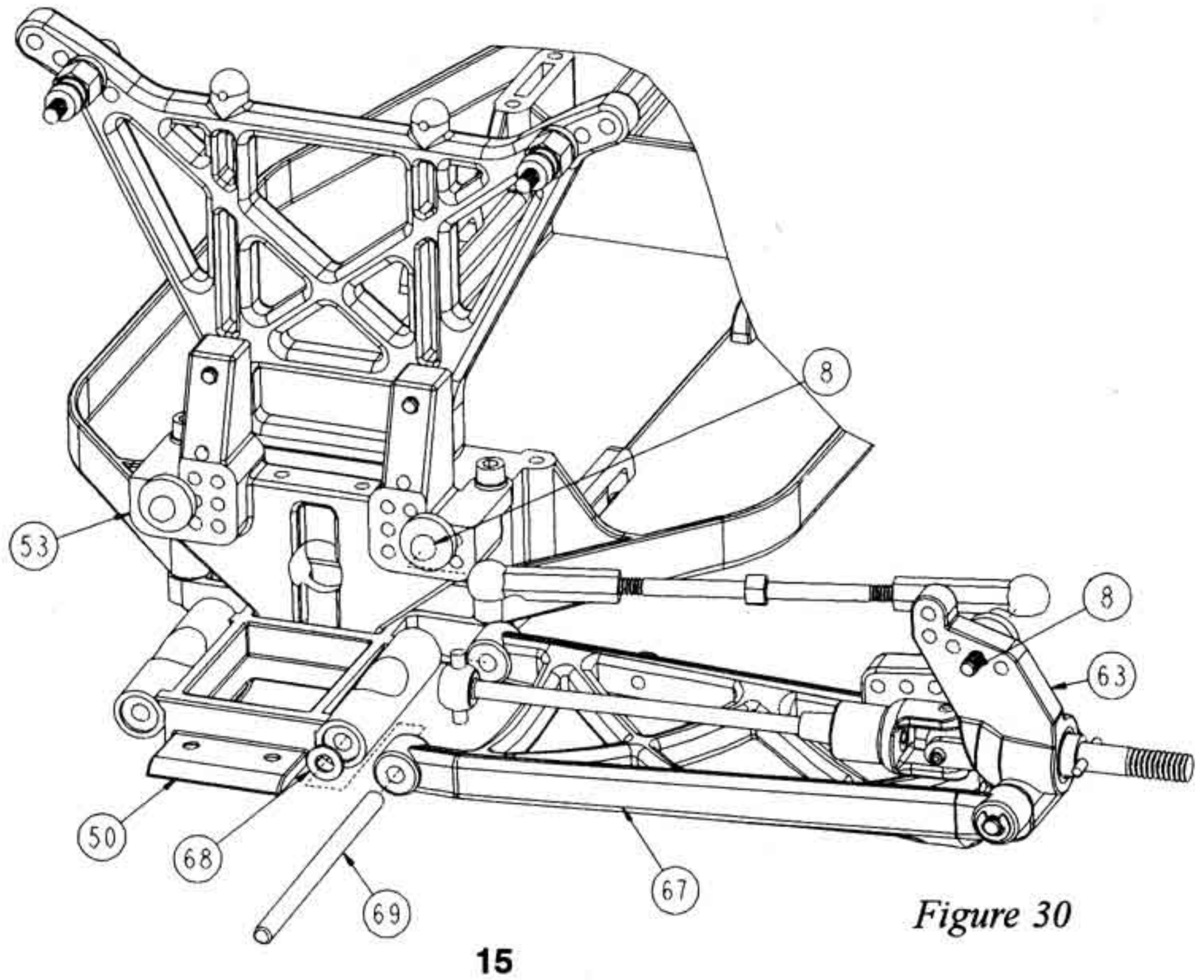


Figure 30

BAG D

STOP Bag D requires that you pay close attention to the bearings involved in the assembly. Some bearings used during the assembly of this bag are very similar in size. It is important that you **open the bags only as they are needed.** The bearings that are of concern are packed in separate bags.

Fig 31.

Step 1. Insert a 4-40 mini lock nut (21) into the hex area of the diff nut carrier (70). The thread locking portion of the nut (21) should face the outside.

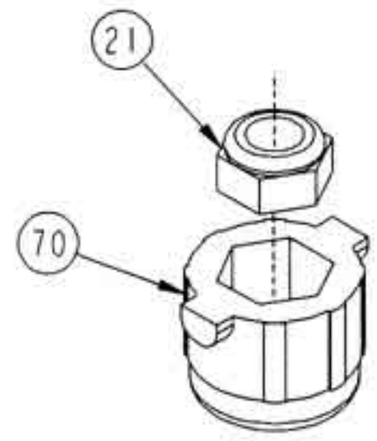


Figure 31

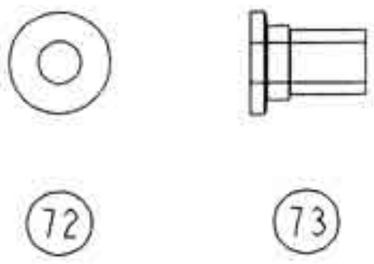


Fig 32.

Step 2. Locate the 5/64" allen wrench (71) supplied with the kit. Place the diff nut carrier (70), nut side first, over the allen wrench.

Step 3. Stack the six beveled washers (72) over the wrench next to the diff nut carrier (70). The washers (72) should all point the same direction and open away from the nut carrier (70) as shown.

Step 4. Place the diff tube (73) over the wrench, big side first, so that it rests against the beveled washers (72).

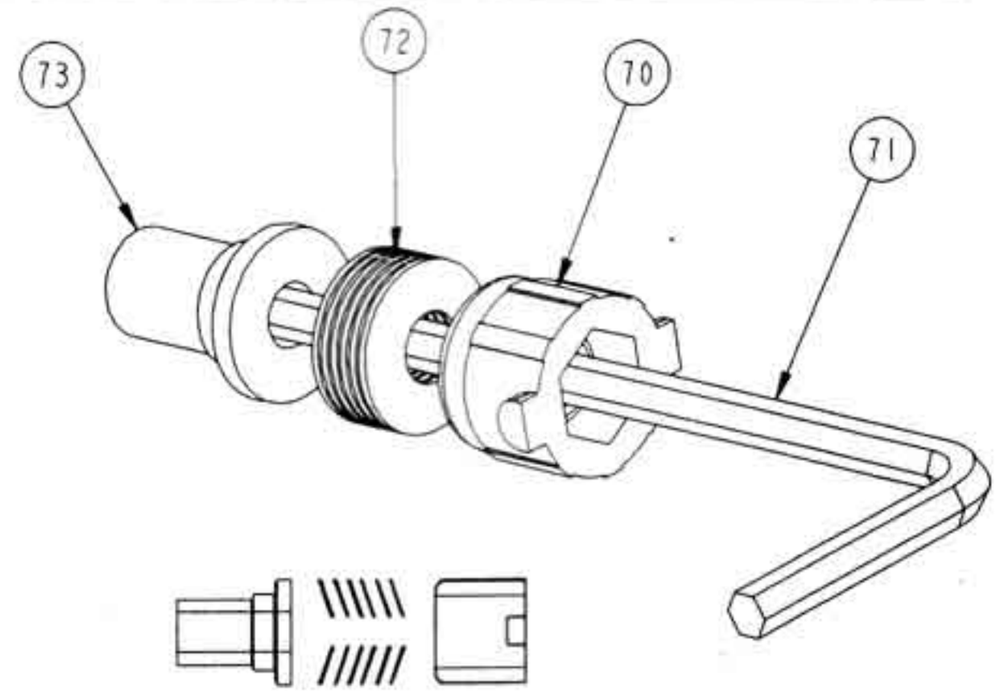


Figure 32

Fig 33.

Step 5. Insert all of the parts that are stacked on the wrench into one of the outdrive/diff halves (74). Line up the tabs on the diff nut carrier (70) with the slots in the outdrive (74). Make certain that the diff tube (73) is pressed all the way into the outdrive/diff half (74), and that it is straight. There is a small shoulder on the diff tube (73) that should be flush with the outer surface of the outdrive (74).

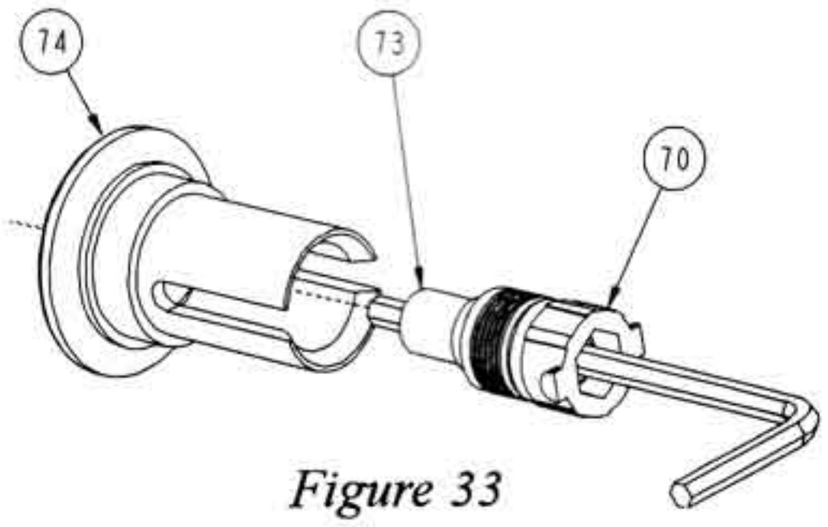


Figure 33

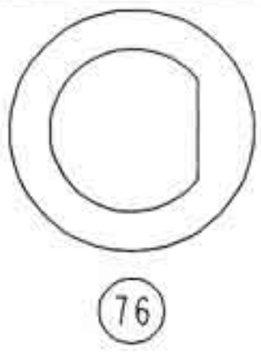


Fig 34.

Step 6. Apply a small amount of diff grease (75) to the outside ring of the outdrive (74). Attach a diff washer (76) to the outdrive (74) by lining up the slot in the washer (76) with the slot in the outdrive (74).

** Note: Only a small amount of grease is needed. It is only there to hold the diff washer in place.*

◎ IMPORTANT NOTE: Do not glue the diff washers to the outdrive/diff halves. Doing so may not allow the washers to mount flat.

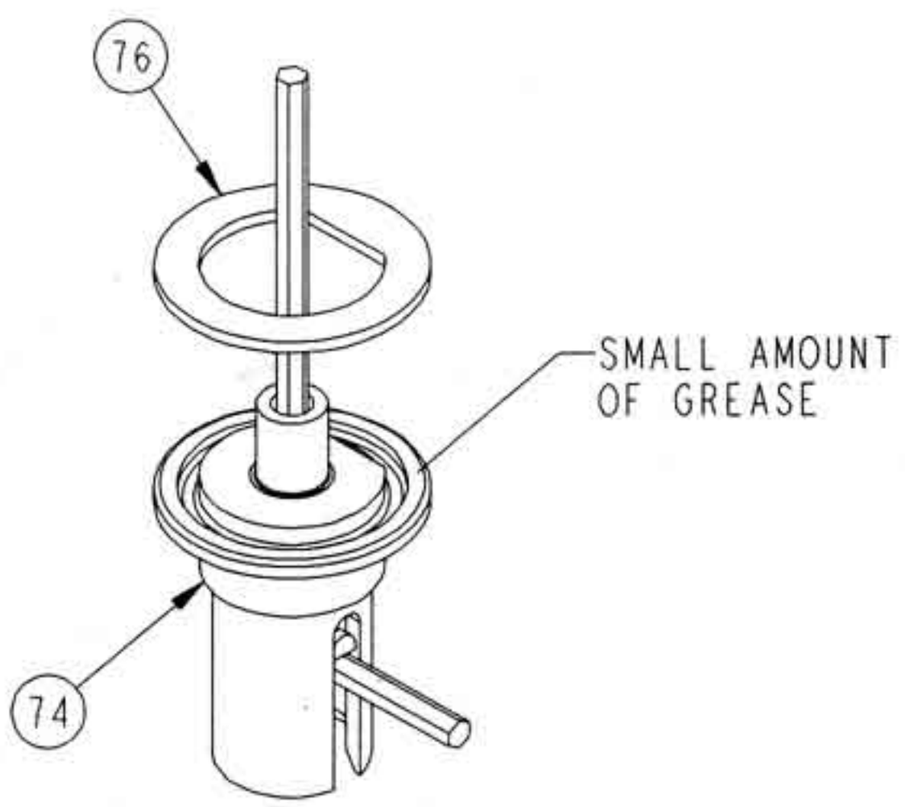


Figure 34

BAG D (Continued)

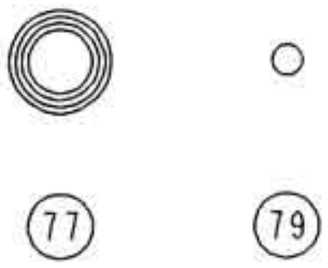


Fig 35.

Step 7. Insert a 5mm x 8mm bearing (77) into the center of the diff gear (78).

Step 8. Press a 3/32" diff ball (79) into each of the small holes in the diff gear (78). Using a toothpick or the small allen wrench, apply grease (75) to both sides of each diff ball (79) fig. 35A.

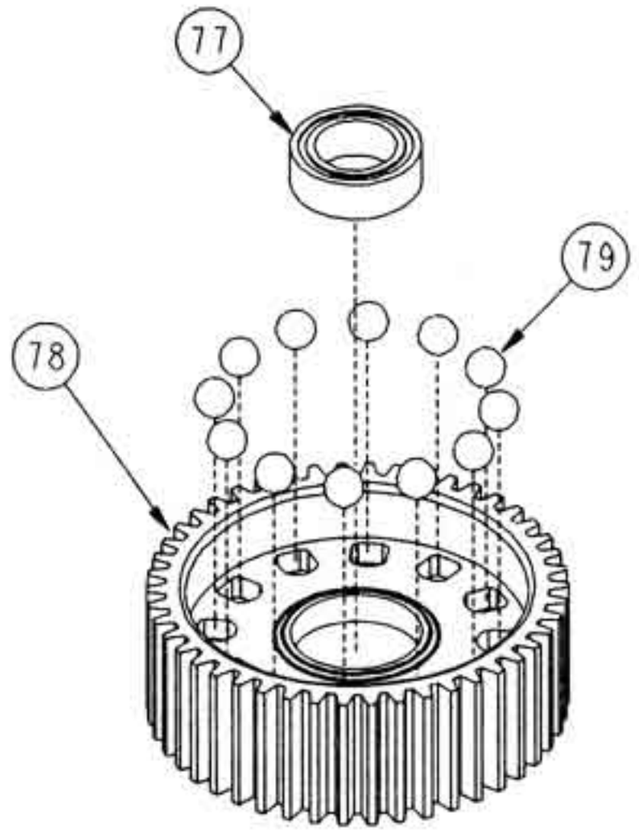


Figure 35

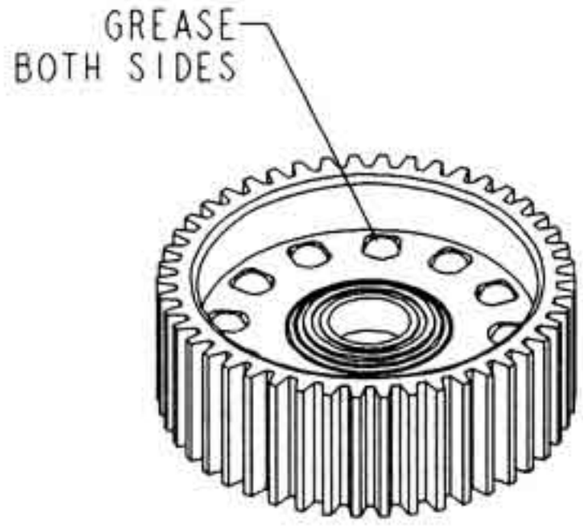


Figure 35A

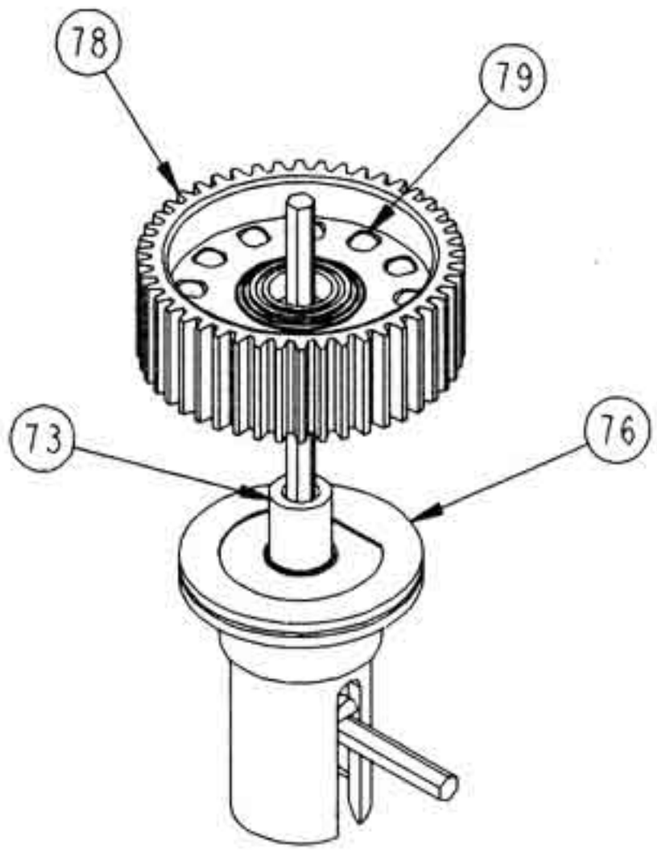


Fig 36.

Step 9. Carefully place the diff gear (78) over the diff tube (73) so that the diff balls (79) and diff gear (78) rest against the diff washer (76).

● IMPORTANT NOTE: It is a good idea to hold the diff nut carrier in place so the diff tube is not pushed through when the gear is pushed over it.

Figure 36

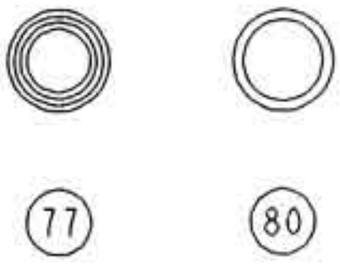


Fig 37.

Step 10. Insert a 5mm x 8mm bearing (77) into the second outdrive/diff half (74). Make sure that the bearing (77) is pushed all the way into the outdrive (74). The handle of a hobby knife or a pencil can be used to push the bearing (77) into place.

Step 11. Drop the 1/4" x 5/16" shim (80) into the outdrive (74) on top of the 5mm x 8mm bearing (77). Make sure that the shim (80) is flat against the bearing (77). *Be extra careful not to bend this shim!*

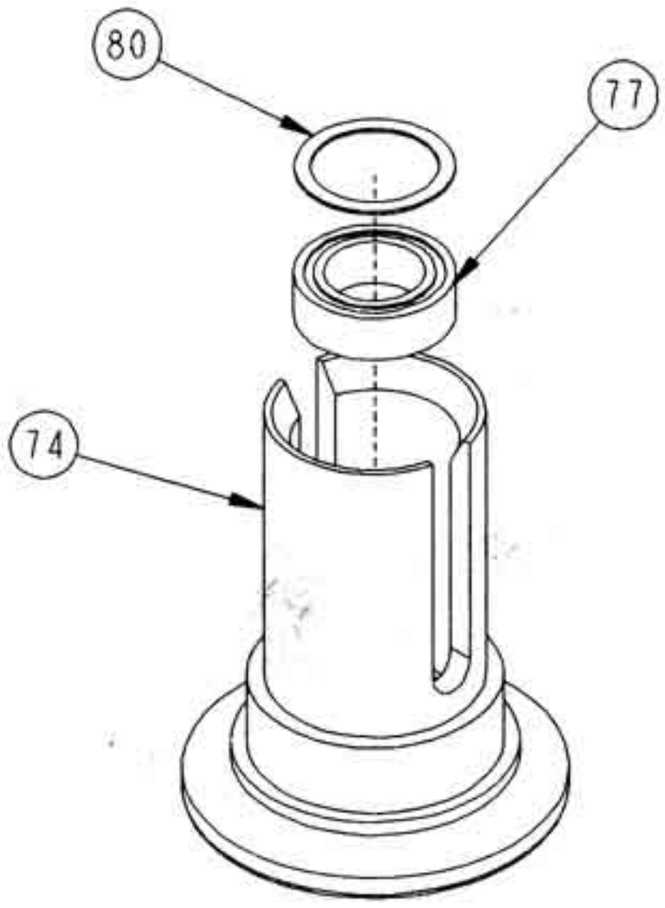


Figure 37

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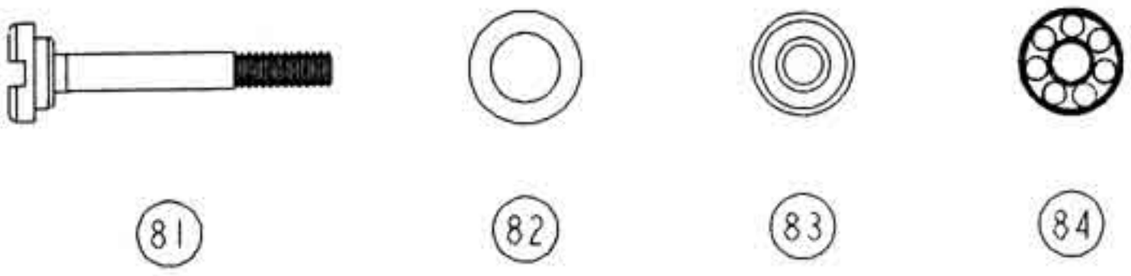

Fig 38.

Step 12. Locate the diff adjusting screw (81) and place the foam thrust bearing seal (82) over the shoulder of the screw (81).

Step 13. Place one of the 3mm x 8mm raced thrust bearing washers (83) over the diff screw (81) so that the groove faces up.

Step 14. Grease the thrust washer (83) well and place the 3mm x 8mm thrust bearing (84) over the screw (81) and next to the washer (83). Grease the exposed side of the thrust bearing (84) well and place the second thrust washer (83) over the screw and against the thrust bearing (84). This time the groove in the thrust washer (83) points down.

Step 15. Very carefully insert the diff screw (81), with the thrust bearing assembly installed, into the outdrive (74). Be very careful not to bend or pinch the shim (80) while inserting the diff screw (81). Pull the threaded end of the diff screw (81) until the thrust bearing assembly rests against the shim (80) and bearing (77) inside of the outdrive (74).

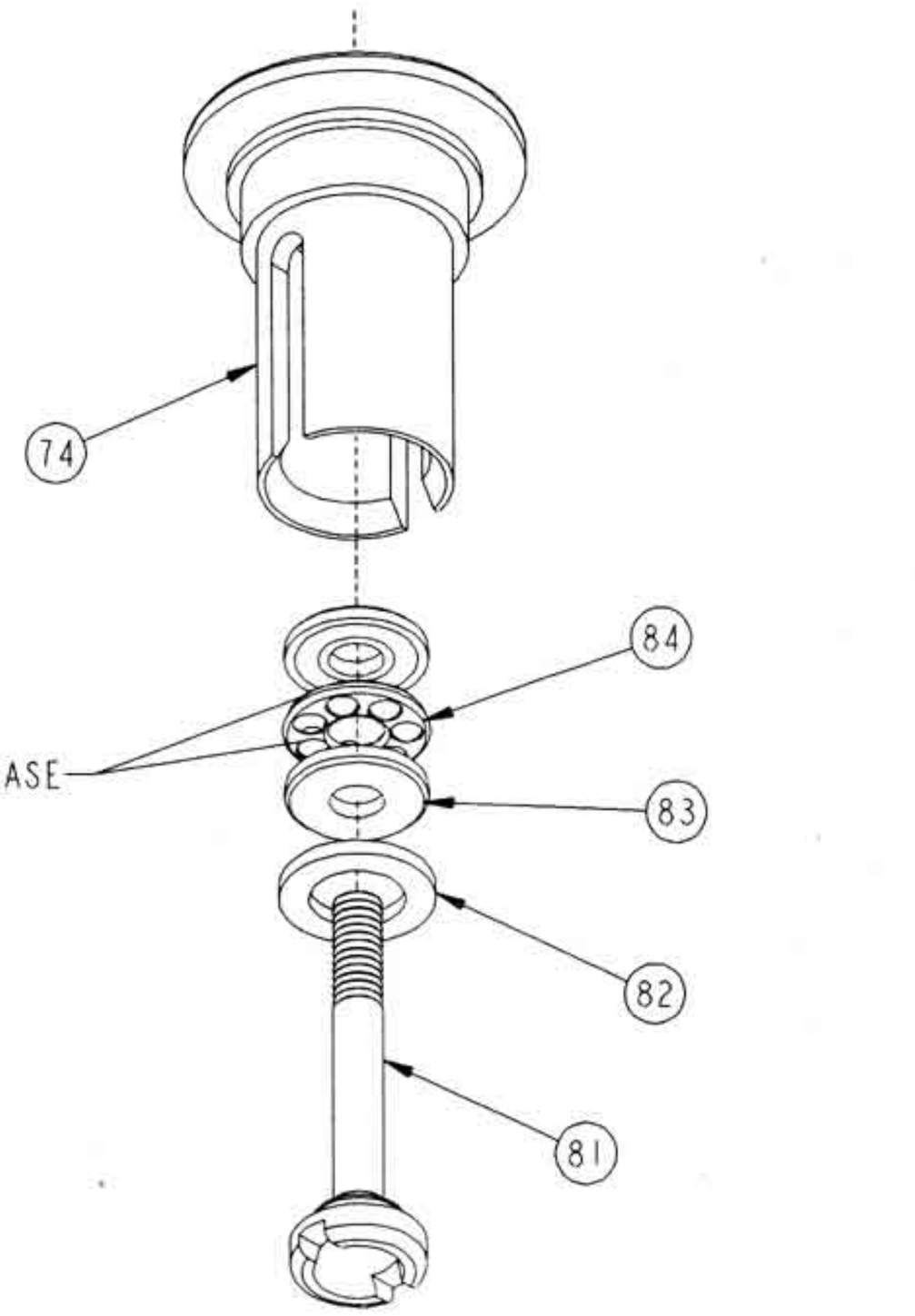

Figure 38

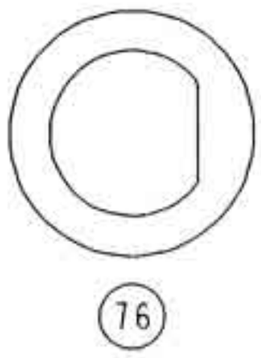

Fig 39.

Step 16. Locate the smallest of the allen wrenches (71) and place it in the slot in the outdrive (74) containing the diff screw (81). Slide the wrench all the way down against the screw (81). By handling the outdrive (74) with the wrench inserted, the diff screw (81) will be held in place while finishing assembly of the diff.

Step 17. Apply a small amount of grease (75) to the outer ring of the outdrive (74). Install the second diff washer (76), again lining up the slots in the outdrive (74) and the washer (76).

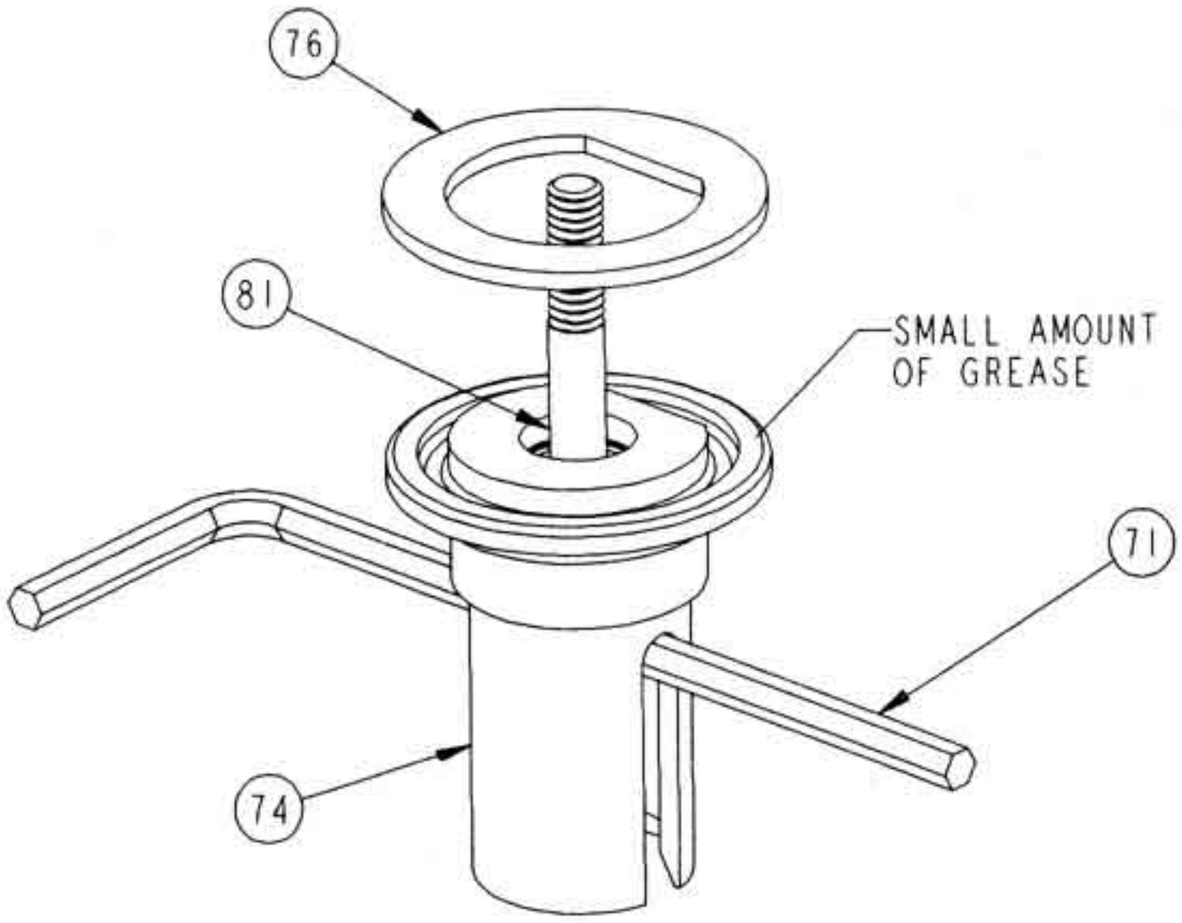

Figure 39

BAG D (Continued)

Fig 40.

Step 18. While holding the diff half (74) with the allen wrench inserted, carefully place the two outdrive/diff halves (74) together.

Step 19. Make sure that the slot in the diff screw (81) is lined up with the slot in the outdrive (74) and that the allen wrench is inserted in the diff screw (81).

Step 20. Hold the diff so that the outdrive (74) with the diff nut carrier (70) is pointing up. Slowly turn the top diff half clockwise to thread the diff screw (81) into the 4-40 mini nut (21) in the diff nut carrier (70). Thread the two halves together until the screw just starts to snug up.

** Note: If the screw will not thread into the nut, make sure that the nut carrier is pushed all the way into the outdrive.*

When tightening the diff, tighten the screw a little and then "work" the diff a little. Then tighten the diff a little more and "work" the diff again. Continue this until the diff is tight. This will ensure proper seating of all the parts in the diff assembly.

Step 21. Tighten the diff until the gear (78) can not be turned while both of the outdrives (74) are being held. Final diff adjustment should be made after completion of the truck.

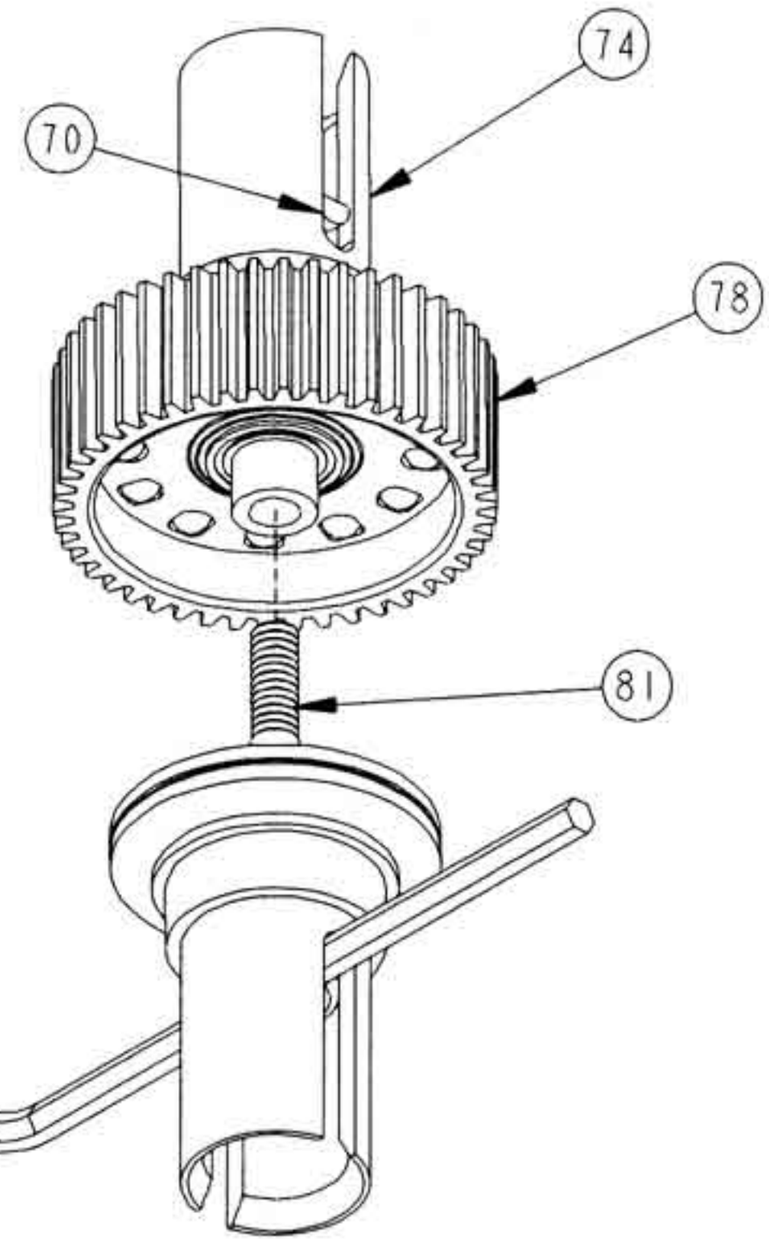

Figure 40

Fig 41.

Step 22. Thread the 4-40 x 1" set screw (85) all the way into the threaded side of the slipper shaft (86). Make sure that the set screw (85) is ***TIGHT!***

A small amount of liquid thread lock will help to hold the set screw securely in place.

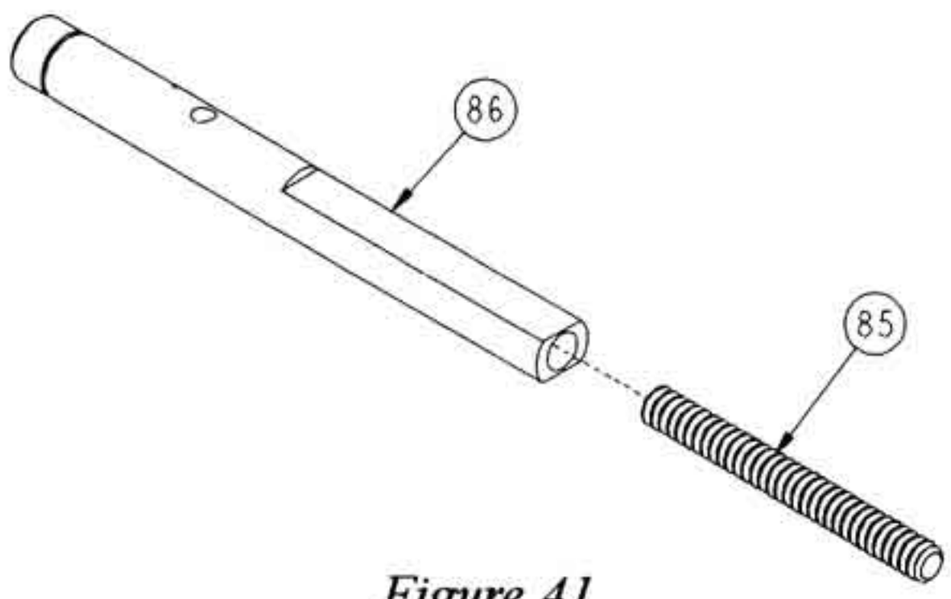

Figure 41

Fig 42.

Step 23. Press the 1/16" x 5/16" pin (87) into the small hole in the slipper shaft (86) so that it extends evenly from both sides of the shaft (86).

Step 24. Slide the top gear (88) over the slipper shaft (86) from the side opposite the set screw (85). Line up the groove in the gear (88) with the pin (87) and slide the gear (88) over the pin (87).

Step 25. Secure the gear (88) to the shaft (86) by inserting a 3/16" 'C' clip (89) into the slot in the slipper shaft (86).

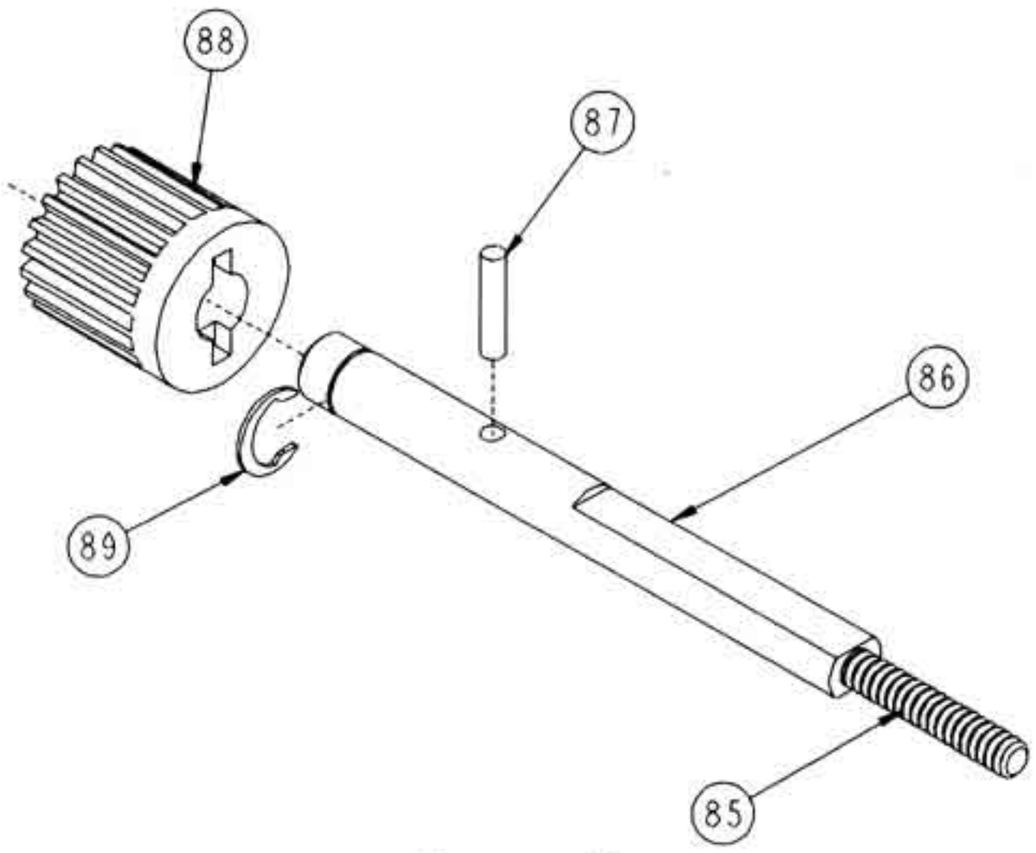

Figure 42

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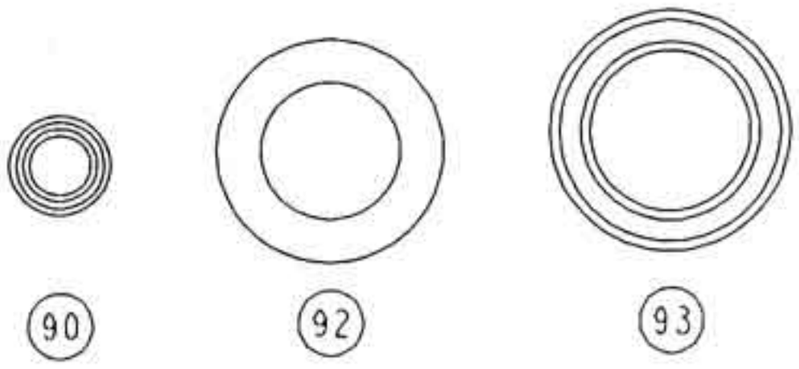

Fig 43.

Step 26. Insert a 3/16" x 5/16" bearing (90) into the top bearing seat of the left gearbox half (91).

Step 27. Insert a foam outdrive bearing shield (92) into the lower bearing seat of the left gearbox half (91).

Step 28. Insert a 1/2" x 3/4" bearing (93) into the lower bearing seat of the left gearbox half (91) being careful that the outdrive shield (92) is centered in the bearing seat.

● **IMPORTANT NOTE:** Never allow the gearbox halves to come into direct contact with any type of motor spray. The material used on these parts was selected with performance in mind, and some motor sprays can damage the parts.

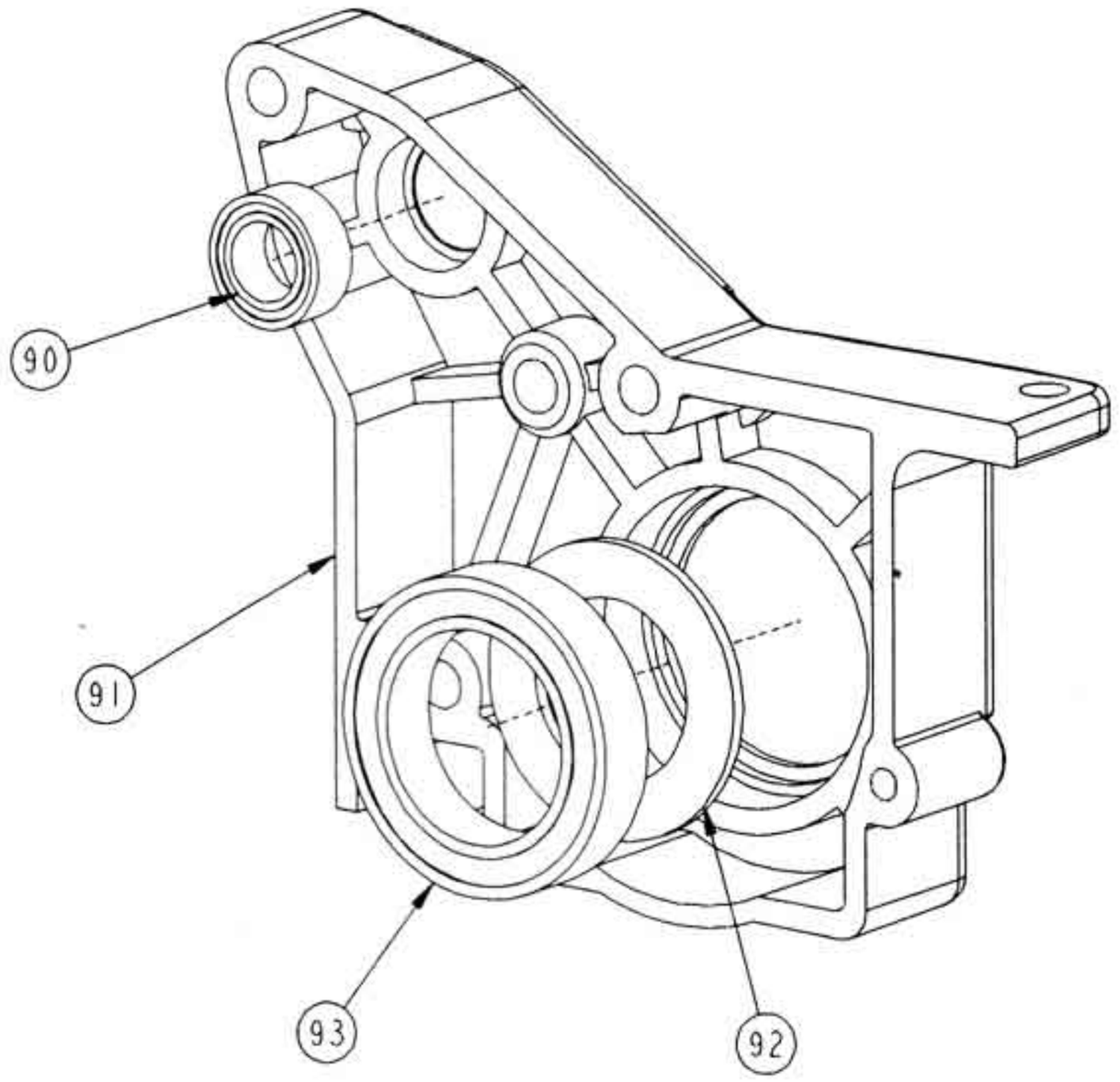

Figure 43

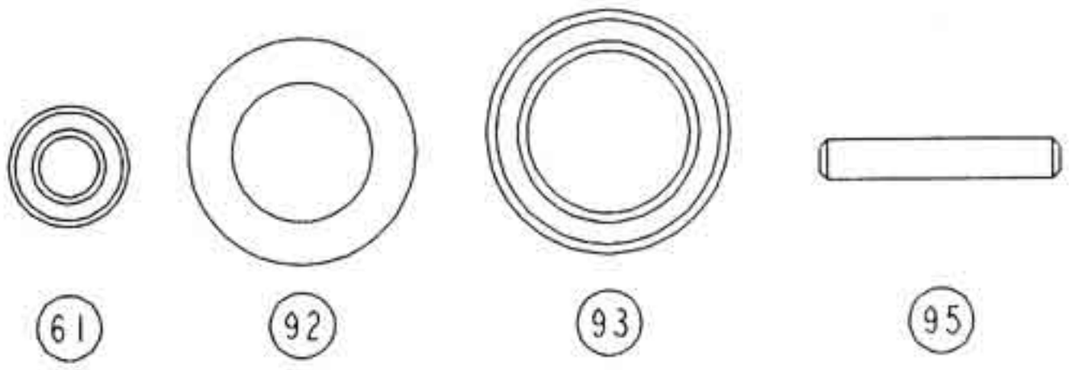

Fig 44.

Step 29. Insert a 3/16" x 3/8" bearing (61) into the top bearing seat of the right gearbox half (94). Carefully push the bearing (61) all the way into the bearing seat using a pen or the handle of a hobby knife. Care should be taken not to damage the seals on the bearing (61).

Step 30. Insert a bearing shield (92) and 1/2" x 3/4" bearing (93) into the lower bearing seat of the right gearbox half (94). Again be sure that the foam shield (92) is centered in the bearing seat.

Step 31. Press, and lightly tap the idler gear shaft (95), into the hole in the center of the right gearbox half (94).

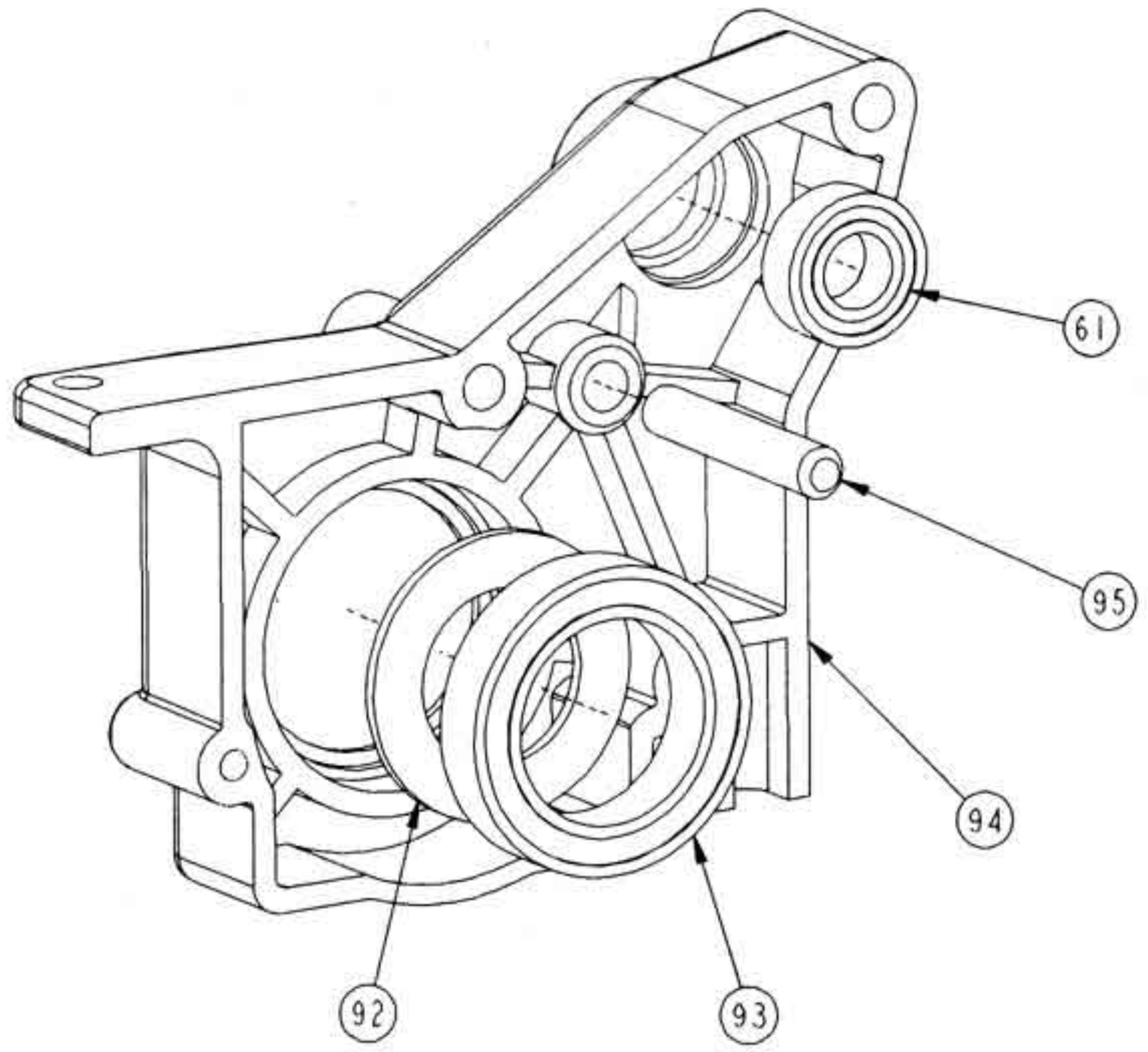

Figure 44

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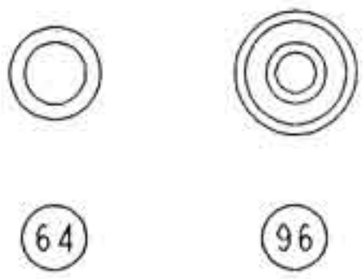

Fig **45.**

Step 32. Slide the rear axle/gearbox spacer (64) over the slipper shaft (86), from the side with the set screw, and against the top gear (88).

Step 33. Insert the slipper shaft (86), threaded side first, through the bearing (61) in the right gearbox half (94).

Step 34. Insert a 1/8" x 3/8" bearing (96) into each side of the idler gear (97). Place the idler gear (97) over the idler gear shaft (95).

Step 35. Insert the differential assembly into the 1/2" x 3/4" bearing (93) in the right gearbox half (94). Insert the differential, diff nut carrier (70) side first.

** Note: Align the teeth on all gears when installing the differential. Be careful when inserting the diff assembly so that the outdrive shield is not pushed through the other side.*

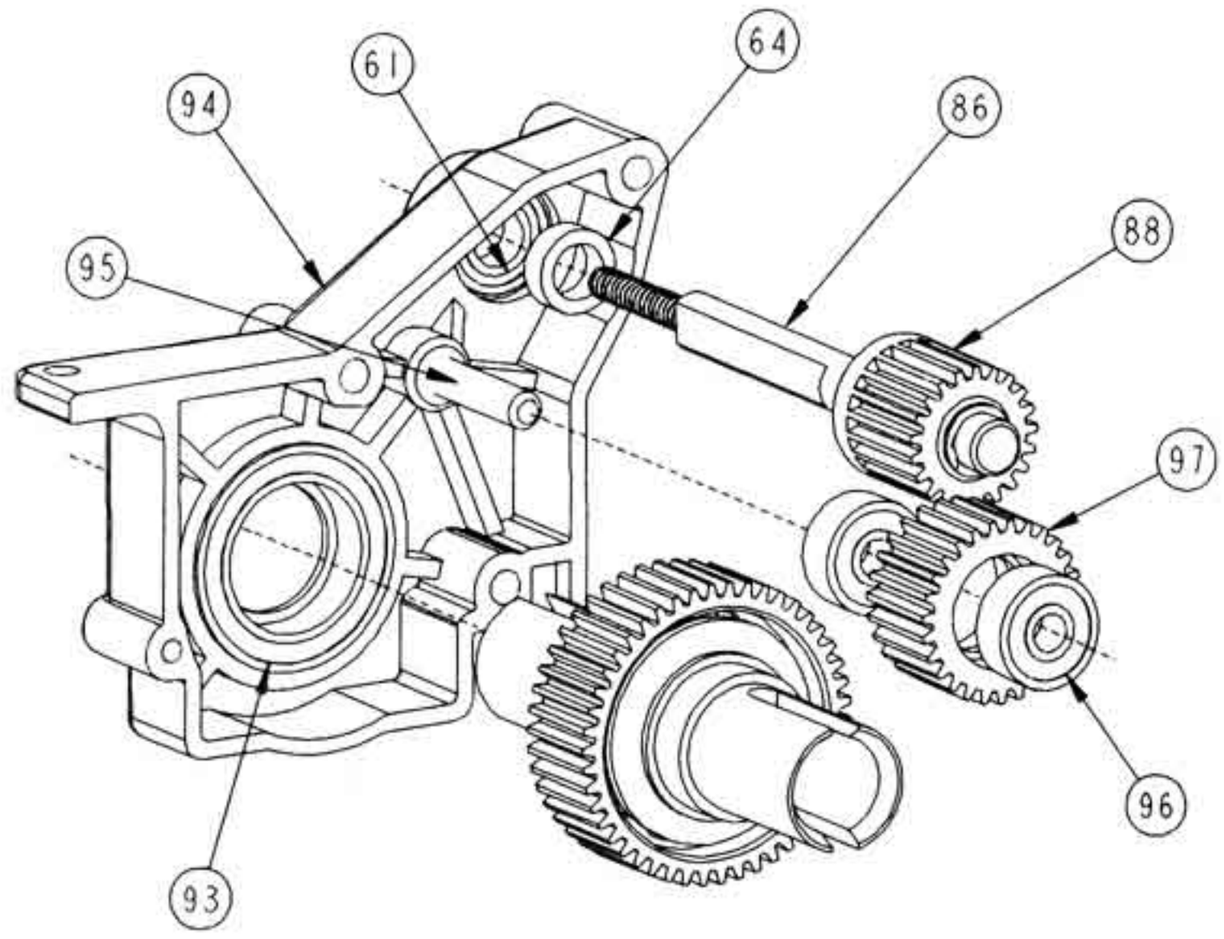

Figure 45

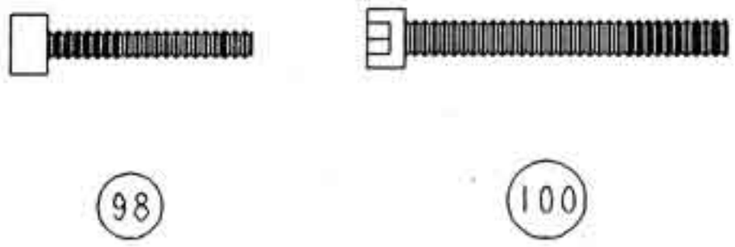

Fig **46.**

Step 36. Carefully place the left gearbox half (91) over the assembled right gearbox half (94).

** Note: Again be careful not to push the outdrive shield through the outside of the bearing seat.*

Step 37. Thread the 2-56 x 5/8" cap head screw (98) into the lower, forward hole in the transmission housing from the left side. *Do not tighten the screw yet. Just snug it up.*

Step 38. Place the motor plate (99) against the right gearbox half (94) and line up the three holes in the transmission housing with the three holes in the motor plate (99).,

Step 39. Insert a 4-40 x 1" cap head screw (100) into each of the three holes in the transmission housing and thread them into the motor plate (99). Tighten the three 4-40 x 1" (100) screws followed by the 2-56 x 5/8" cap head screw (98).

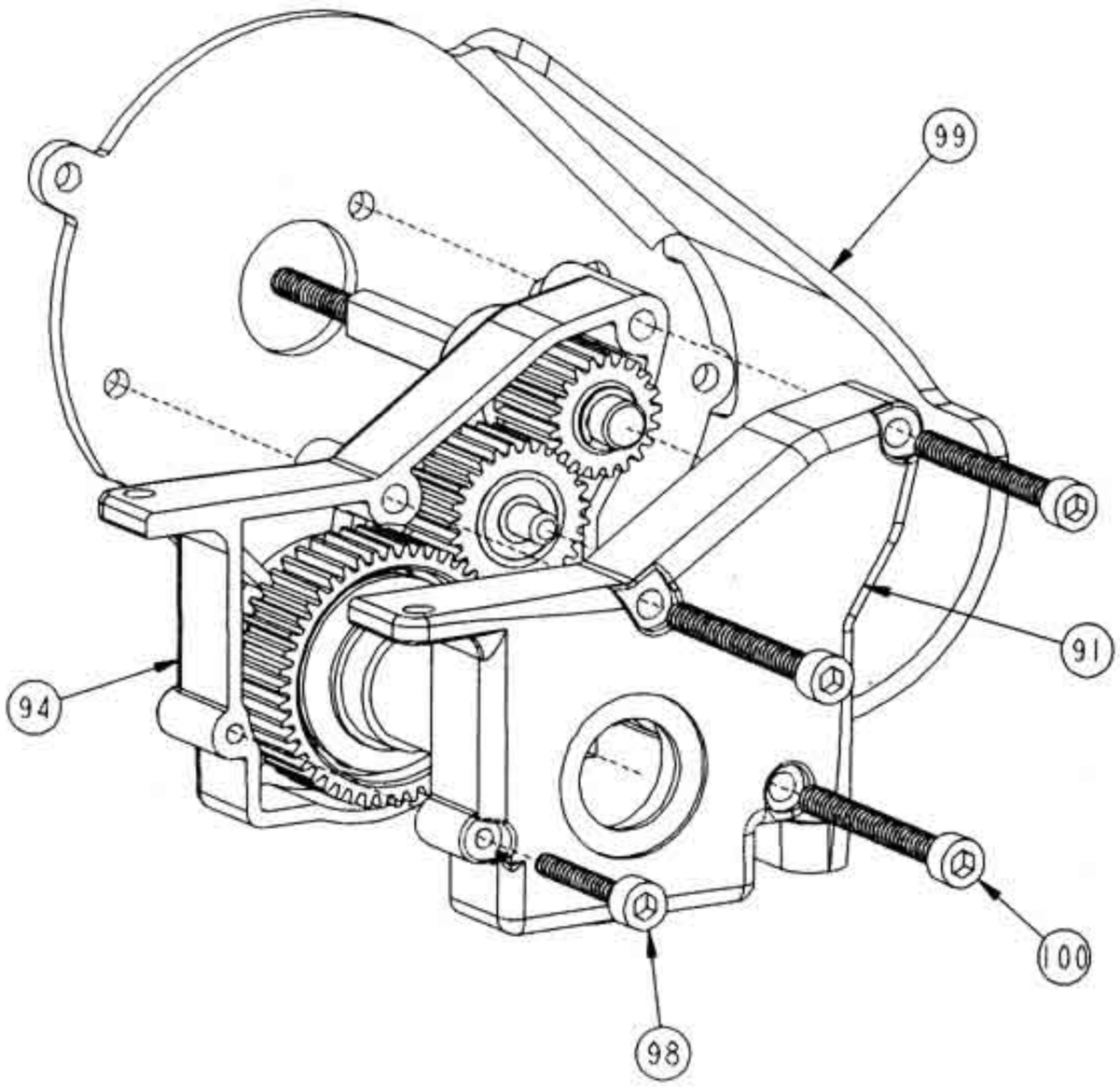

Figure 46

BAG E

Fig 47.

Step 1. Press the eight 2-56 threaded inserts (101) into the holes in the inside housing (102) of the Hydra-Drive.

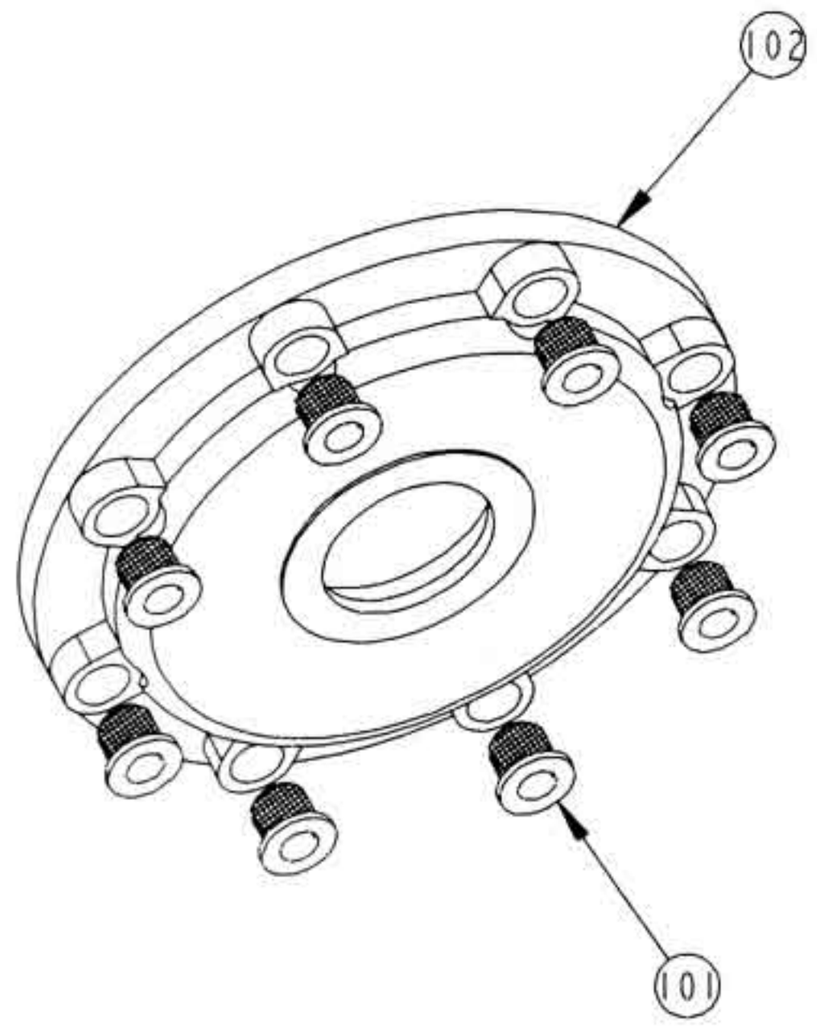

Figure 47

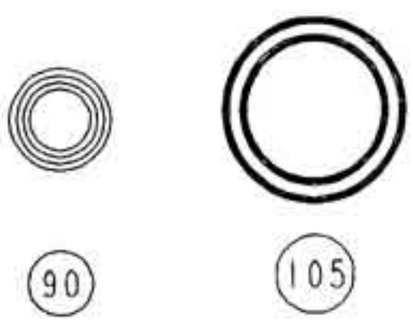

Fig 48.

Step 2. Insert a 3/16" x 5/16" bearing (90) into the short standoff on the impeller (103).

Step 3. Cut 3/16" off the tip of the Hydra fluid (104) bottle.

● **IMPORTANT NOTE:** *Do not* cut more than 3/16". If the hole in the bottle is too small, open it up with a pin or hobby knife. Cutting *too much* from the tip will leave the tip too large making it difficult to fill the Hydra-Drive unit in later steps.

Step 4. Apply a thin coat of fluid to each of the quad seals (105) and slide one over each standoff of the impeller (103).

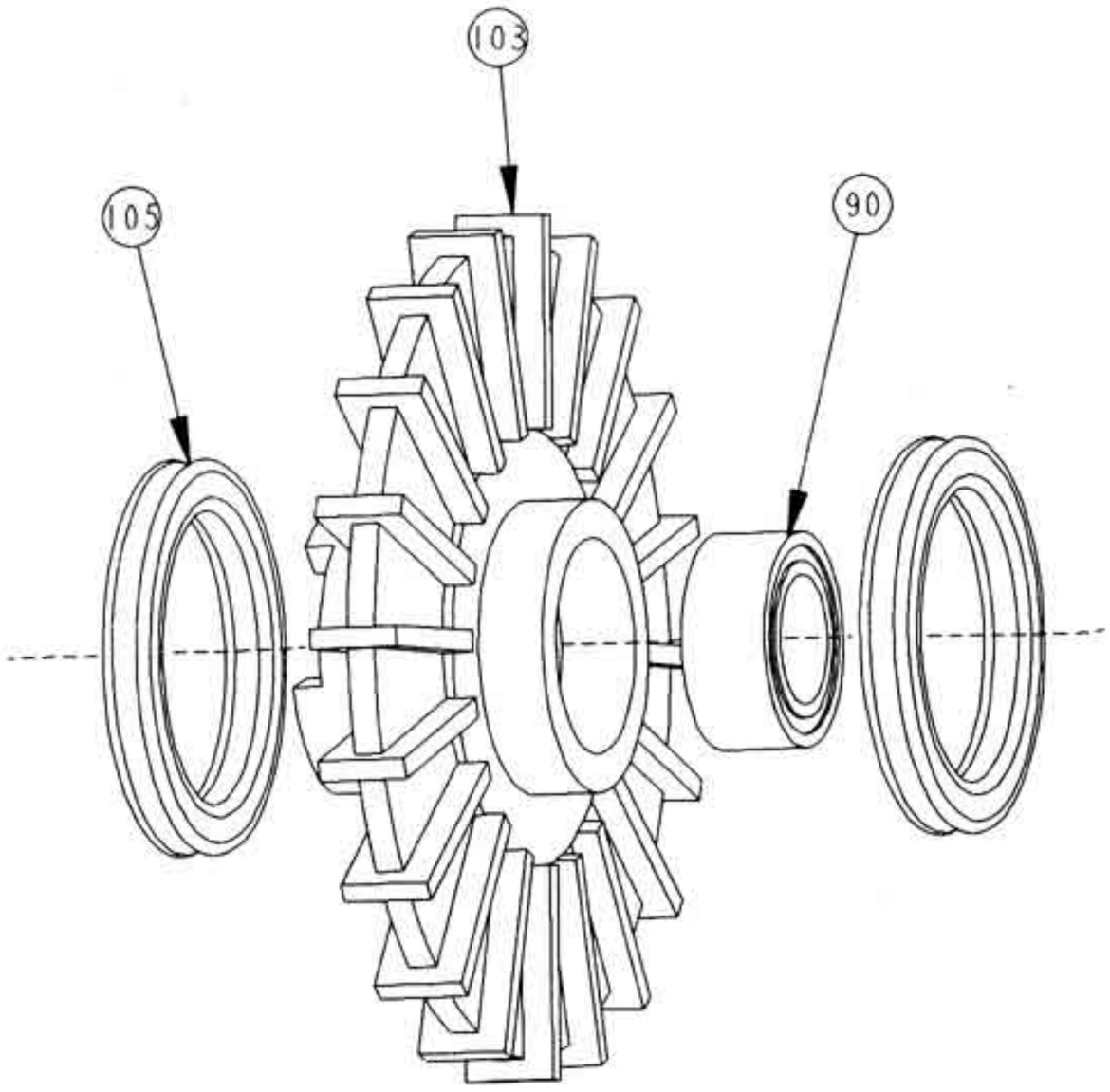

Figure 48

BAG E (Continued)

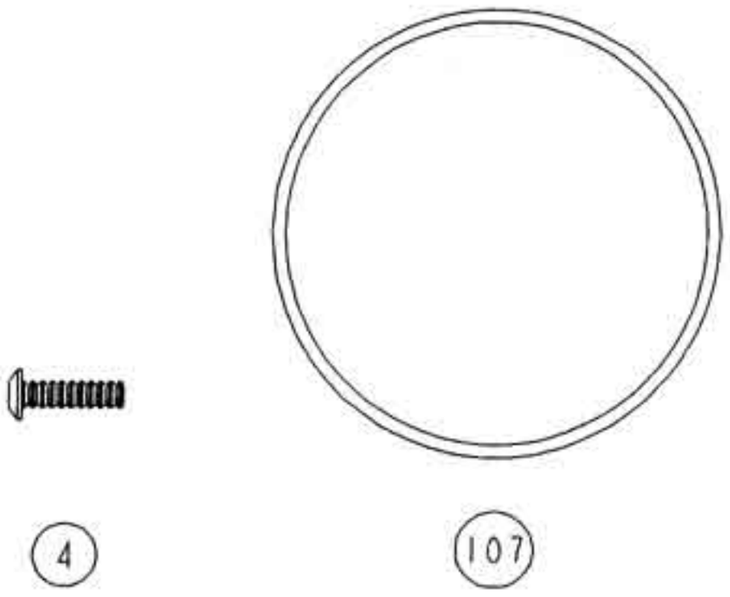

Fig 49.

Step 5. Press the interlock side of the impeller (103), with seals and bearing in place, into the inside housing (102) until it stops.

Step 6. Locate the outside housing (106). Check for any flashing on the inside of the housing (106) around the two threaded holes. If there is any, carefully remove it with a *sharp* hobby knife.

Step 7. Apply a few drops of Hydra-Drive fluid to the groove in the outside housing (106).

Step 8. Lay the large Hydra-Drive 'O' ring (107) in the groove. Be sure the 'O' ring (107) stays in the groove, or the Hydra-Drive will leak.

Step 9. With the outside housing (106) facing up, assemble the two housings (102), (106). Align the small tab on the outside housing (106) with the small slot on the inside housing (102). *Be sure that the 'O' ring (107) from step 8 stays in place.*

Step 10. Secure the assembly with eight 2-56 x 5/16" button head screws (4).

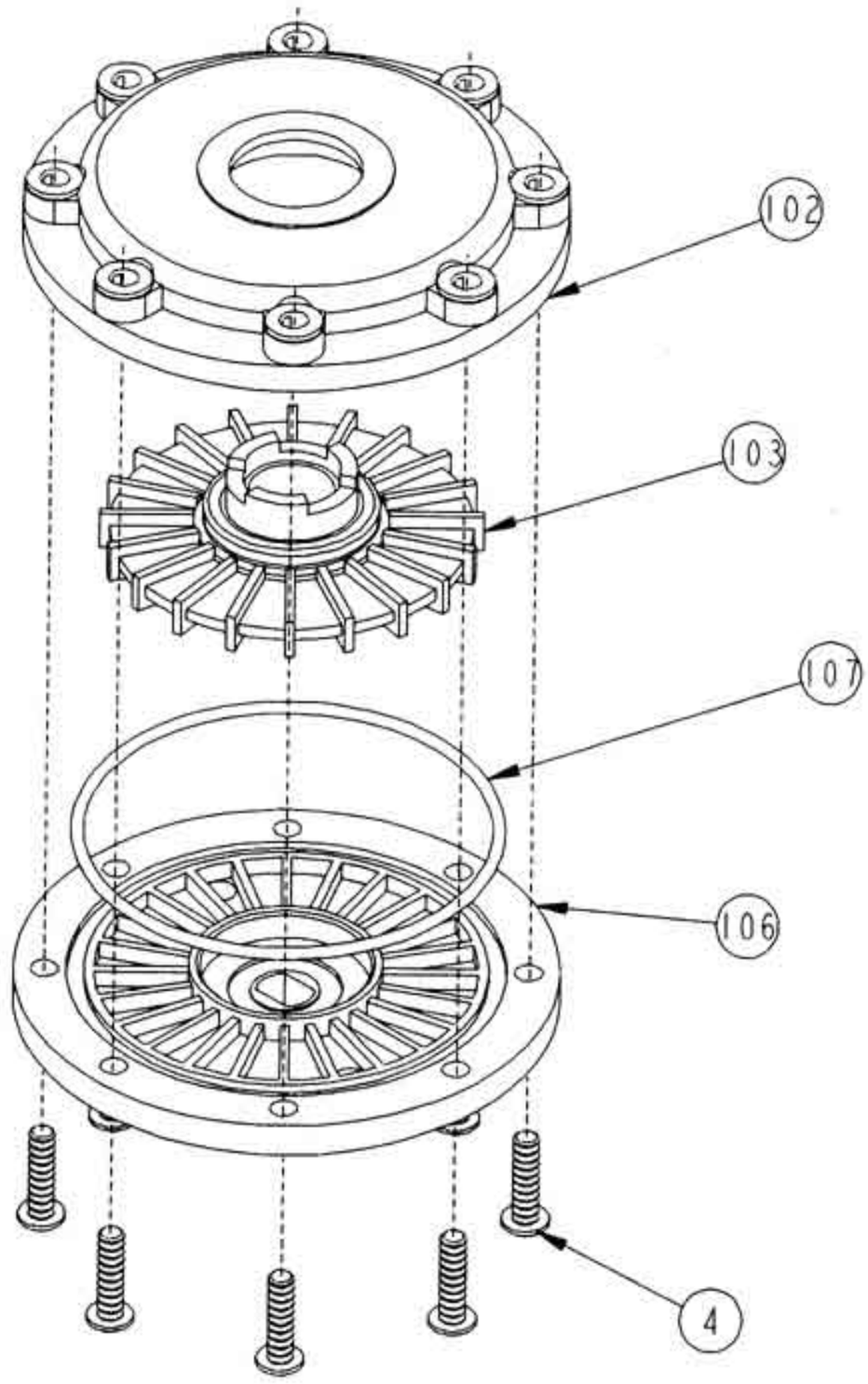

Figure 49

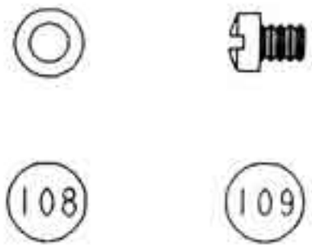

Fig 50.

Step 11. Lay the Hydra-Drive assembly on your table with the outside housing (106) facing up. Insert the tip of the fluid bottle (104) into one of the bleeder holes in the outside housing (106). Squeeze fluid into the Hydra-Drive unit until it starts coming out of the other hole. Continue to squeeze fluid (104) into the assembly until the fluid (104) runs out the second hole fairly clear *(free of air bubbles)*.

** Note: Be sure to have a rag handy! This step can be fairly messy.*

Step 12. Wipe any excess fluid off of the Hydra-Drive assembly.

Step 13. Place a nylon washer (108) over each of the two 4-40 x 1/8" nylon screws (109) and thread them into the two bleeder holes in the outside housing (106). *Be careful not to over tighten these screws*.

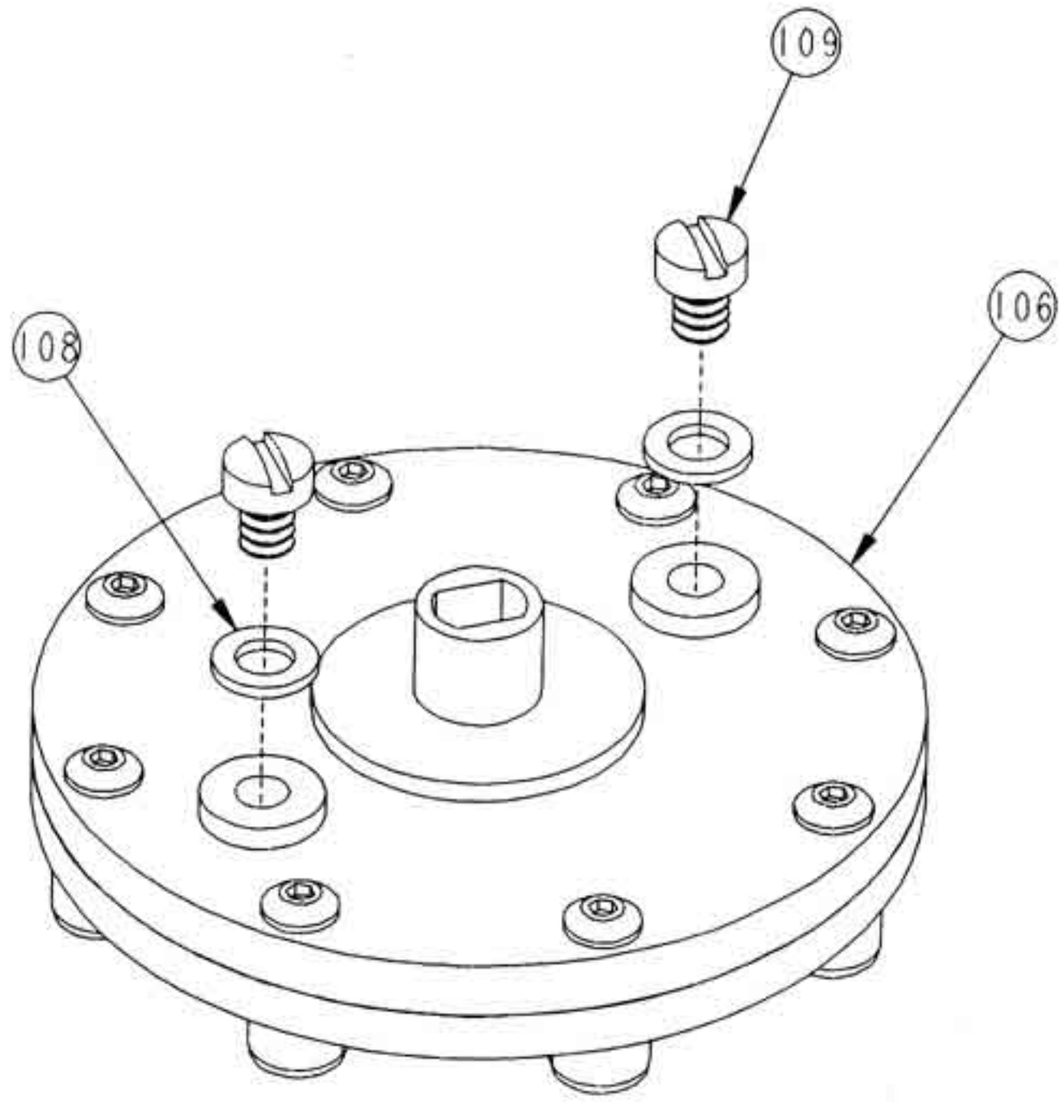

Figure 50

BAG E (Continued)

Fig 51.

Step 14. Press a 3/16" x 5/16" bearing (90) into the center of the spur gear (110) on the interlock side. The bearing will only go in about half way. *Do not force it!*

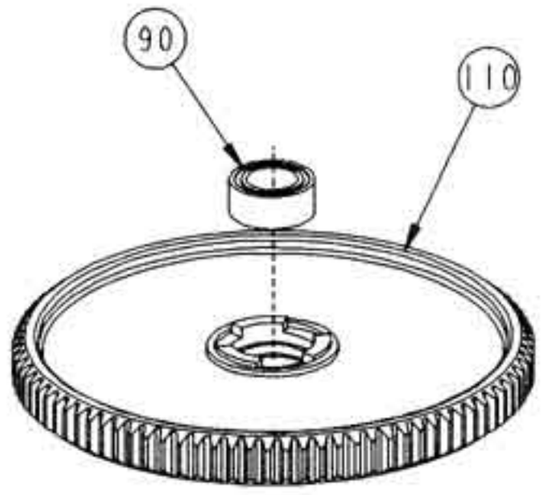

Figure 51

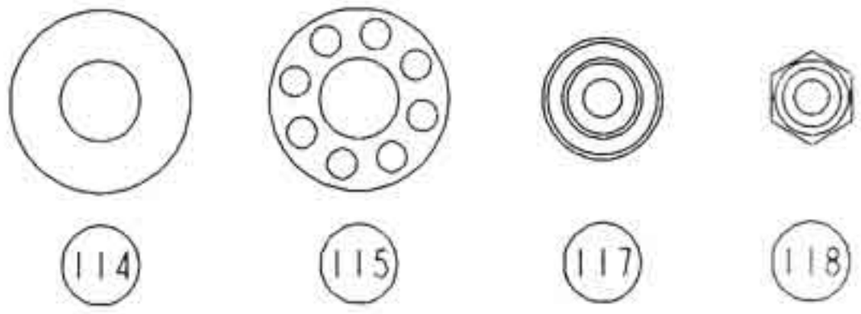

Fig 52.

Step 15. Slide the slipper back plate (111) over the slipper shaft (86), aligning the flat sections on the slipper shaft (86) with the flat sections of the back plate (111).

Step 16. Place the slipper pad (112) on the slipper gear plate (113) and align the notches on the gear plate (113) with the notches on the slipper pad (112).

Step 17. Place the slipper pad (112) and gear plate (113), pad side first, over the slipper shaft (86). Try to get this assembly as close to center on the shaft (86) as possible.

Step 18. Carefully install the spur gear (110) with the bearing side out. Lightly rotate the spur gear (110) until the three posts line up with the three holes in the gear plate (113). Snap into place being careful to keep the slipper pad (112) aligned with the gear plate (113).

Step 19. Place the assembled Hydra-Drive unit over the end of the shaft (86), interlock side first. Carefully line up the splines on the gear (110) with the splines on the Hydra-Drive, and push them together.

Step 20. Install a 1/4" x 9/16" thrust washer (114) over the post on the Hydra-Drive unit. Slide the 1/4" x 9/16" thrust bearing (115) over the post, next to the thrust washer (114) and then install the second thrust washer (114).

Step 21. Place the silver Hydra-Drive slipper spring (116) over the shaft (86), next to the thrust bearing assembly.

Step 22. Install the Spring retaining washer (117) over the shaft, small side first. Next, thread the 4-40 aluminum lock nut (118) onto the shaft assembly.

● **IMPORTANT NOTE:** Before tightening the nut, check to see that the slipper pad is properly aligned with the gear plate. If it is not, correct it before proceeding.

Step 23. Tighten the 4-40 lock nut (118) all the way down, and then back it off three full turns. This is a good starting point for adjustment. Final adjustment should be made later.

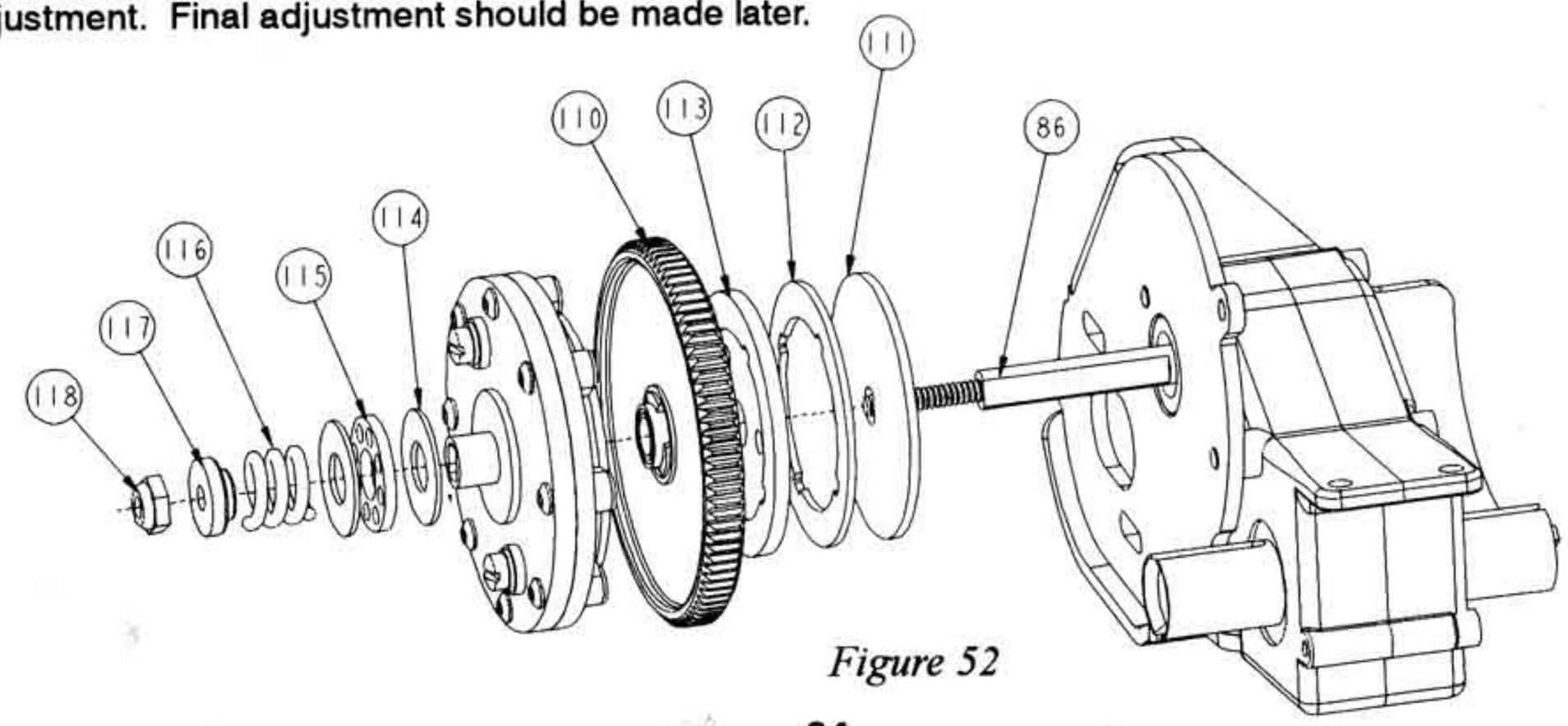

Figure 52

BAG E (Continued)

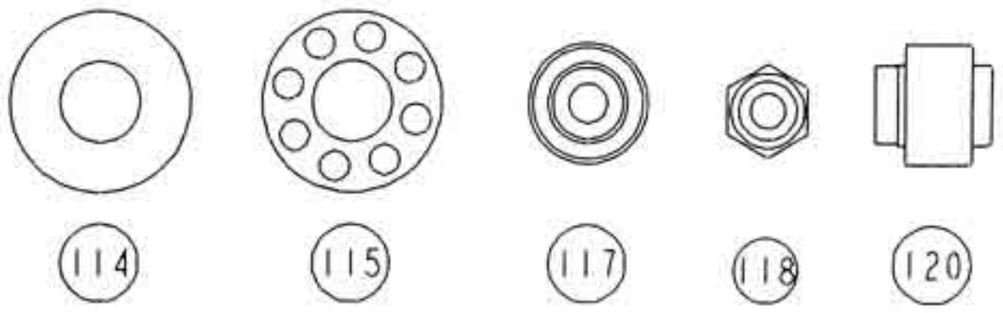

Fig 53.

You will notice some extra parts in this assembly bag. These are for the standard slipper without the Hydra-Drive unit. Although it is recommended that the Hydra-Drive be installed and used, the following steps explain how to install the standard friction type slipper.

If you have installed the Hydra-Drive unit, go to figure 54, step 30.

Step 24. Follow steps 14 through 18, figures 51 and 52.

Step 25. Place the slipper spring cup (119), open side out, over the shaft (86) against the spur gear (110).

Step 26. Insert one 1/4" x 9/16" thrust washer (114) into the spring cup (119), then the 1/4" x 9/16" thrust bearing (115), followed by the second thrust washer (114). These should all sit in the cup (119).

Step 27. Slide the slipper spacer (120), long side first, onto the shaft (86) assembly.

Step 28. Place the gold slipper spring (121) over the shaft (86), followed by the spring retaining washer (117) and secure with the 4-40 aluminum lock nut (118).

● **IMPORTANT NOTE:** Before tightening the nut, check to see that the slipper pad is properly aligned with the gear plate. If it is not, correct it before proceeding.

Step 29. Tighten the 4-40 lock nut (118) all the way down, and then back it off four full turns. This is a good starting point for adjustment. Final adjustment should be made later.

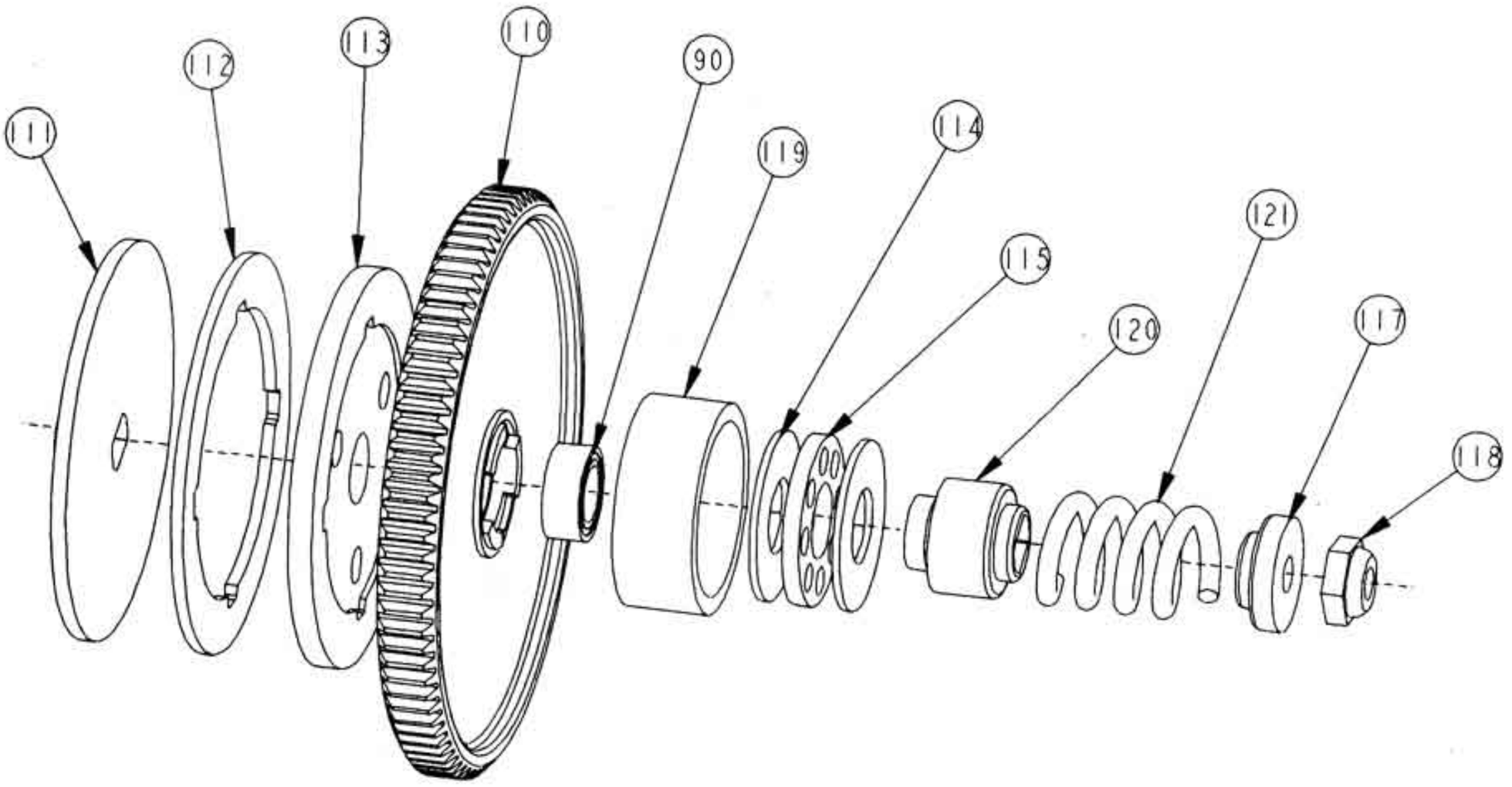

Figure 53

BAG E (Continued)

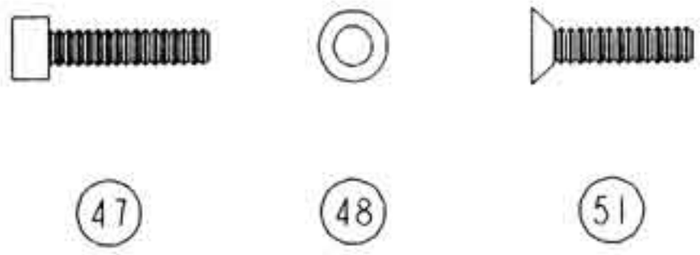

Fig 54.

Step 30. Place the assembled chassis on a flat table so that the rear suspension arms (66), (67) are level and the chassis (2) is flat on the table. This will make installing the transmission a little easier.

Step 31. Insert the dog bones (55) into each of the outdrive/diff halves (74) and place the transmission into the rear pivot support (50).

Step 32. Align the two forward holes in the transmission housing with the two holes in the rear bulkhead (53).

Step 33. Place a gold washer (48) over each of the two 4-40 x 1/2" cap head screws (47) and thread one into each of the two holes in the transmission housing and into the rear bulkhead (53).
Do not tighten the screws all the way yet! Leave the screw head about 1/16" above the transmission housing.

Step 34. Hold the rear arms (66), (67) up so that the dog bones (55) stay in place, and turn the truck over. Apply a small amount of diff grease (75) to each of the two 4-40 x 1/2" flat head screws (51). Thread the screws (51) through the two holes in the back of the rear pivot support (50), through the motor plate (99) and into the transmission housing.

Step 35. Tighten these two screws (51) all the way. Turn the truck back over, being careful to keep the dog bones in place, and tighten the other two screws (47).

** Note: It's a good idea to leave your truck sitting on a flat surface until the shocks are assembled and installed. This way the dog bones will stay in place.*

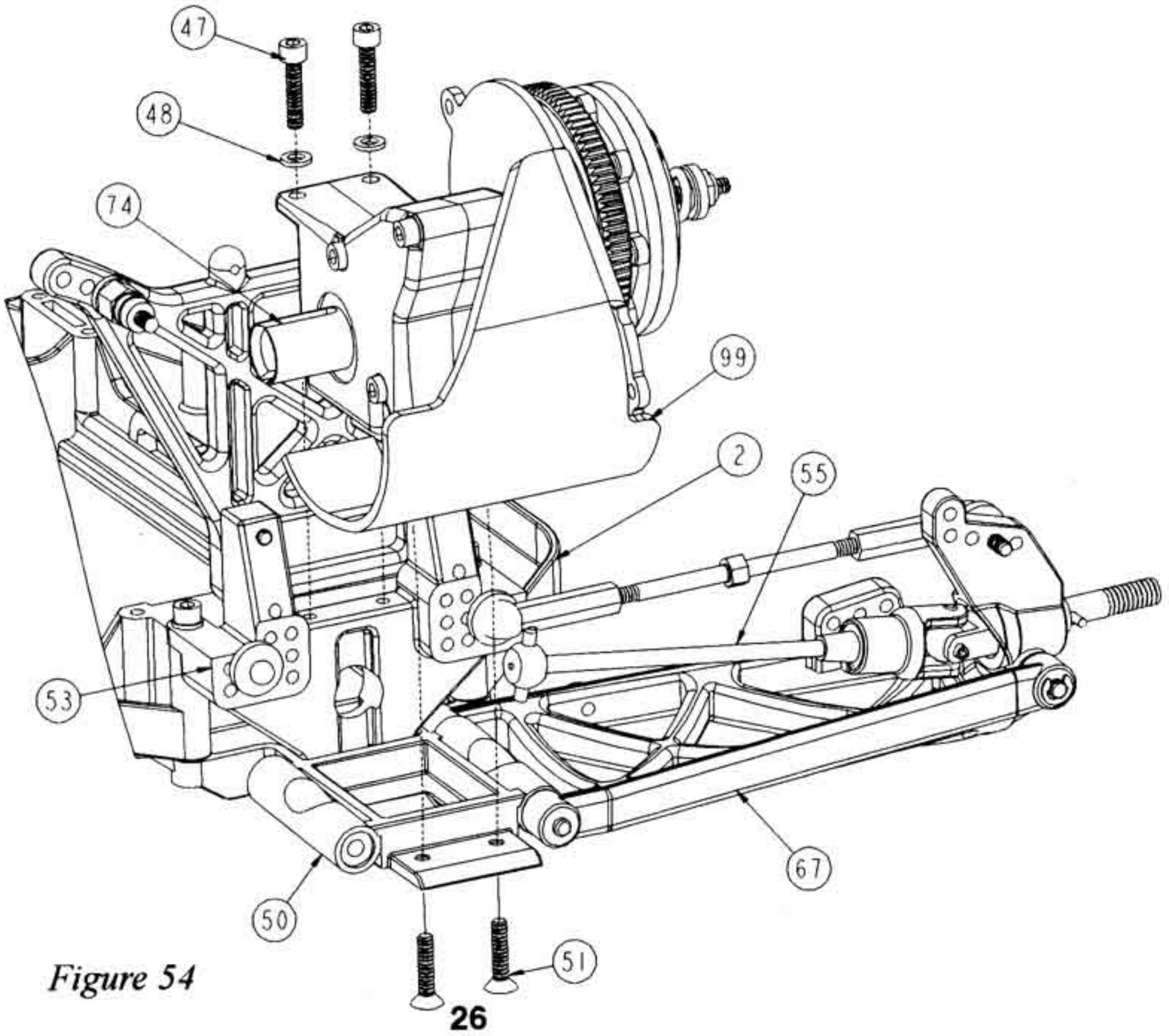

Figure 54

BAG F

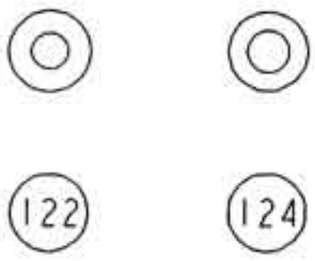

Fig 55.

Step 1. Place one shock 'O' ring (122) into the cartridge body (123), making sure that the 'O' ring (122) sits flat in the bottom of the cartridge body (123).

Step 2. Insert the cartridge spacer (124) into the cartridge body (123) followed by a second 'O' ring (122).

Step 3. Once the second 'O' ring (122) is inserted, and is flush with the top of the cartridge body (123), "snap" the cartridge cap (125) onto the cartridge body (123).

Step 4. Make four cartridge assemblies.

** Note: Cartridges in some kits may be pre-assembled at the factory.*

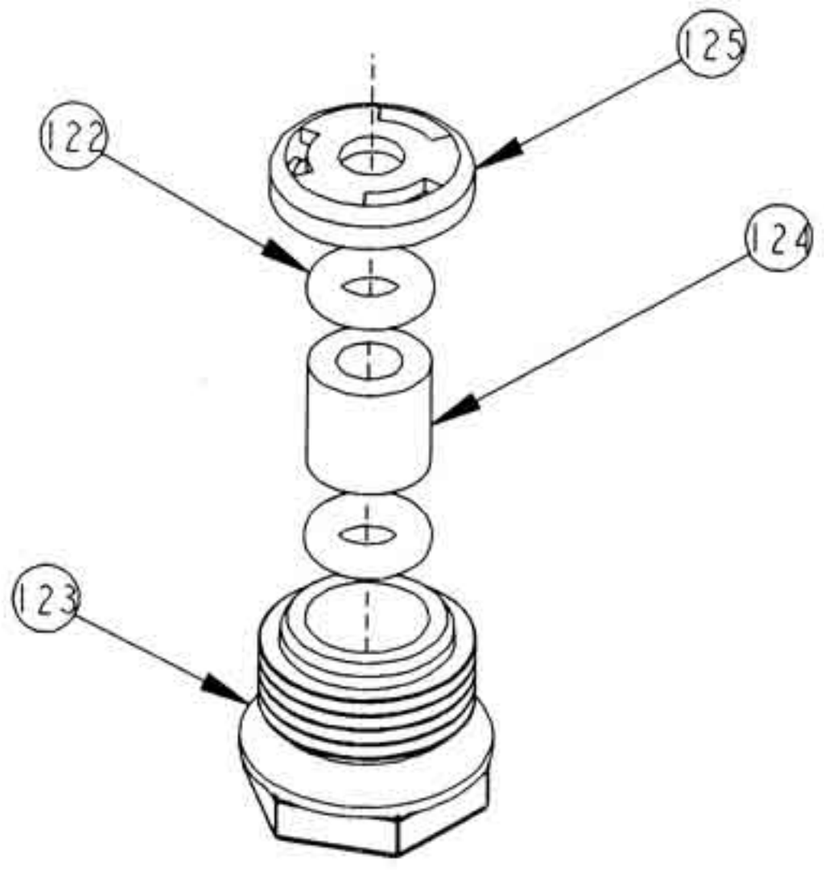

Figure 55

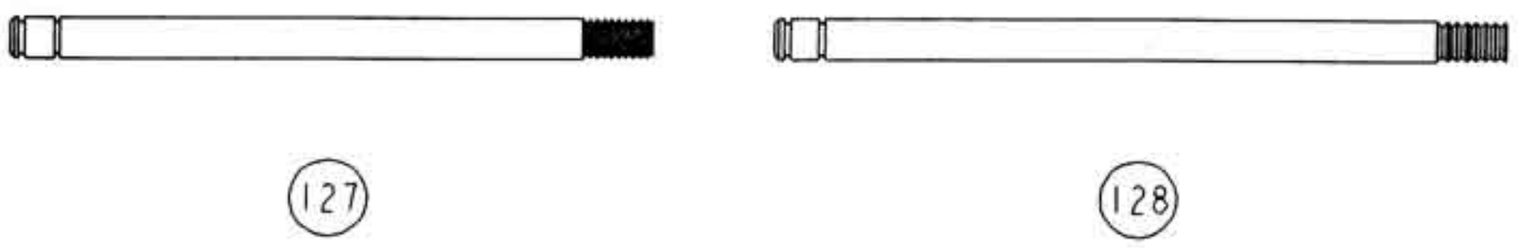

Fig 56.

Step 5. Place a drop of shock fluid (126) on the grooved end of each shock shaft [front (127), rear (128)] and slide a cartridge, hex end first, down the shock shaft (127), (128) toward the threads.

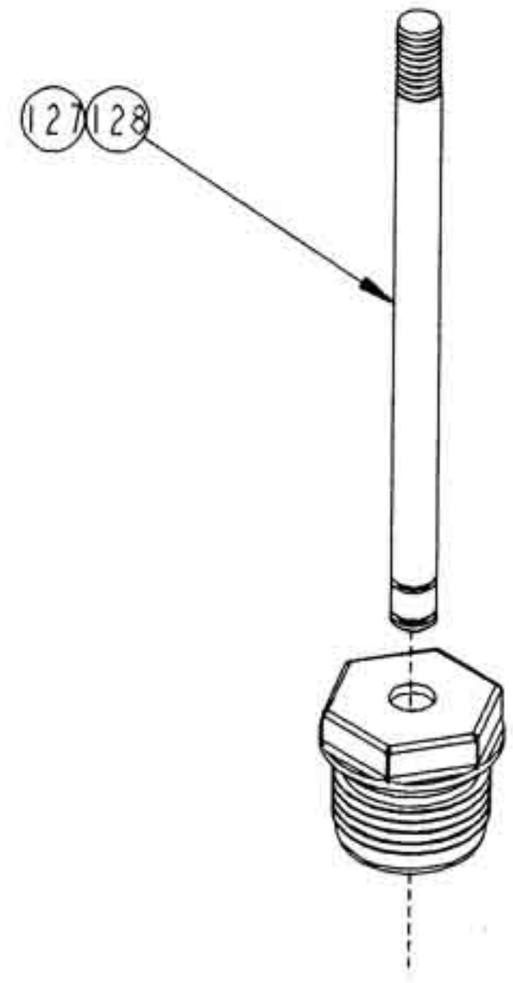

Figure 56

BAG F (Continued)

Fig 57.

Step 6. Using needle nose pliers, or small vise grips, grasp the front shock shaft (127) between the grooves and thread a shock end (129) onto the shaft (127). Thread the shock end (129) all the way onto the shaft (127) until the threads stop.

Step 7. Repeat step 6 for the second front shaft (127).

Step 8. Before threading the shock ends (129) onto the rear shock shafts (128), place a 'B' shock spacer (130) *(larger of the two spacers, marked with a 'B')* over the shaft (128) and next to the cartridge.

** Note: Shock spacers are only used on the rear shock shafts in this step.*

Step 9. Now, with the spacers in place, attach a shock end (129) to both rear shock shafts (128) as described in step 6.

Step 10. Carefully snap a 1/4" swivel ball (131) into each of the shock ends (129) on the four shock shafts (127), (128).

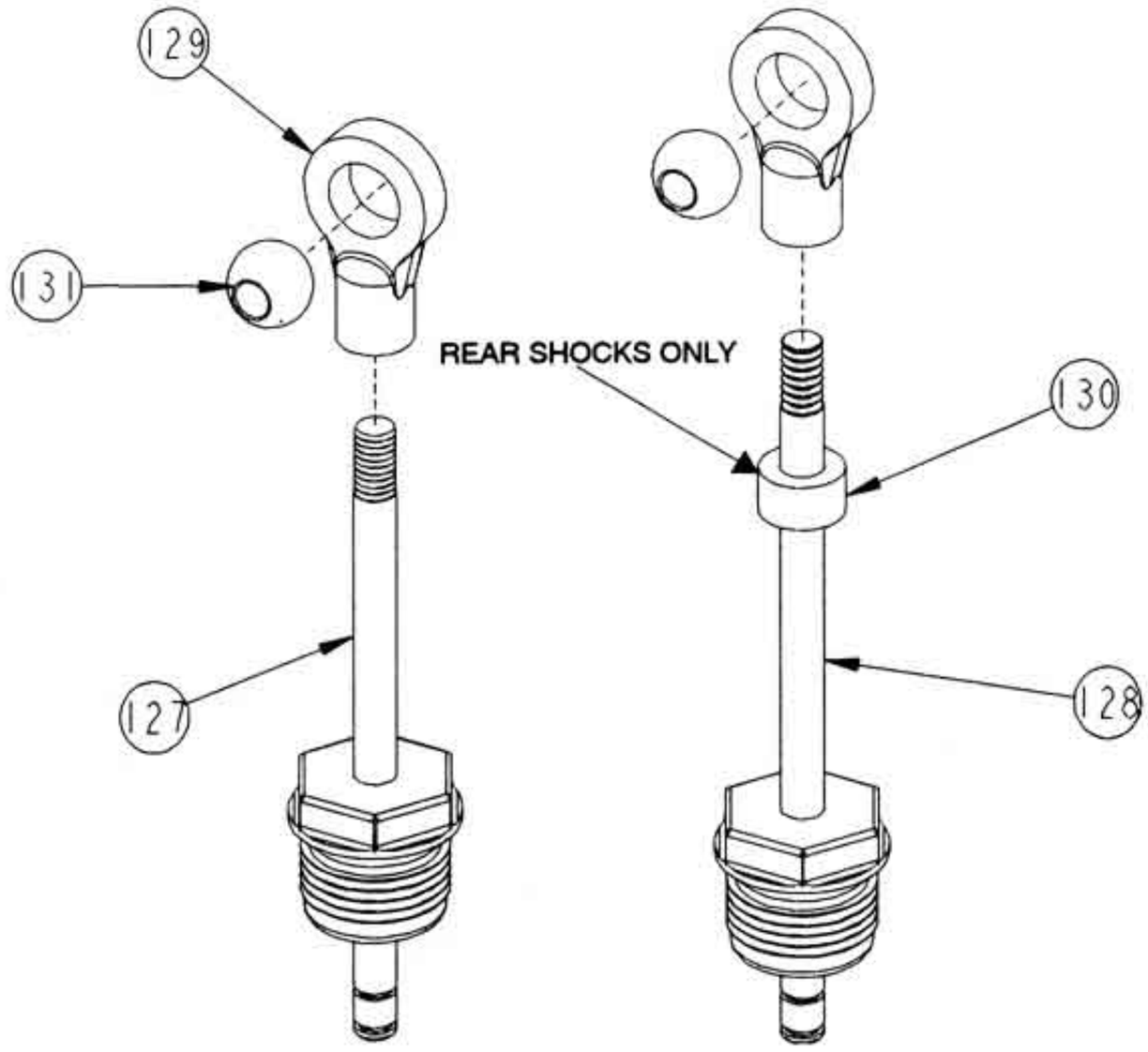

Figure 57

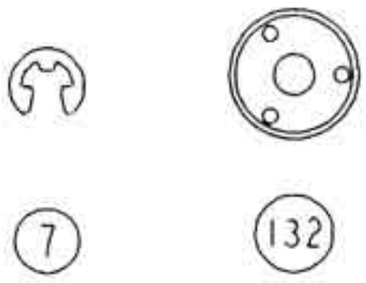

Fig 58.

Step 11. Snap a 1/8" 'E' clip (7) into the groove closest to the cartridge on both rear shock shafts (128).

Step 12. Before installing the 'E' clip to the front shock shafts (127), slide an 'A' shock spacer (130) *(the smaller of the two spacers, marked 'A')* over the shaft (127) next to the cartridge. Once the spacers are in place, snap a 1/8" 'E' clip (7) into the groove closest to the cartridge on both front shock shafts (127).

** Note: Shock spacers are only used on the front shock shafts in this step.*

Step 13. Slide a shock piston (132) onto each of the four shafts (127), (128) until it rests against the 'E' clip (7). Secure the pistons (132) to the four shafts (127), (128) with a second 'E' clip (7).

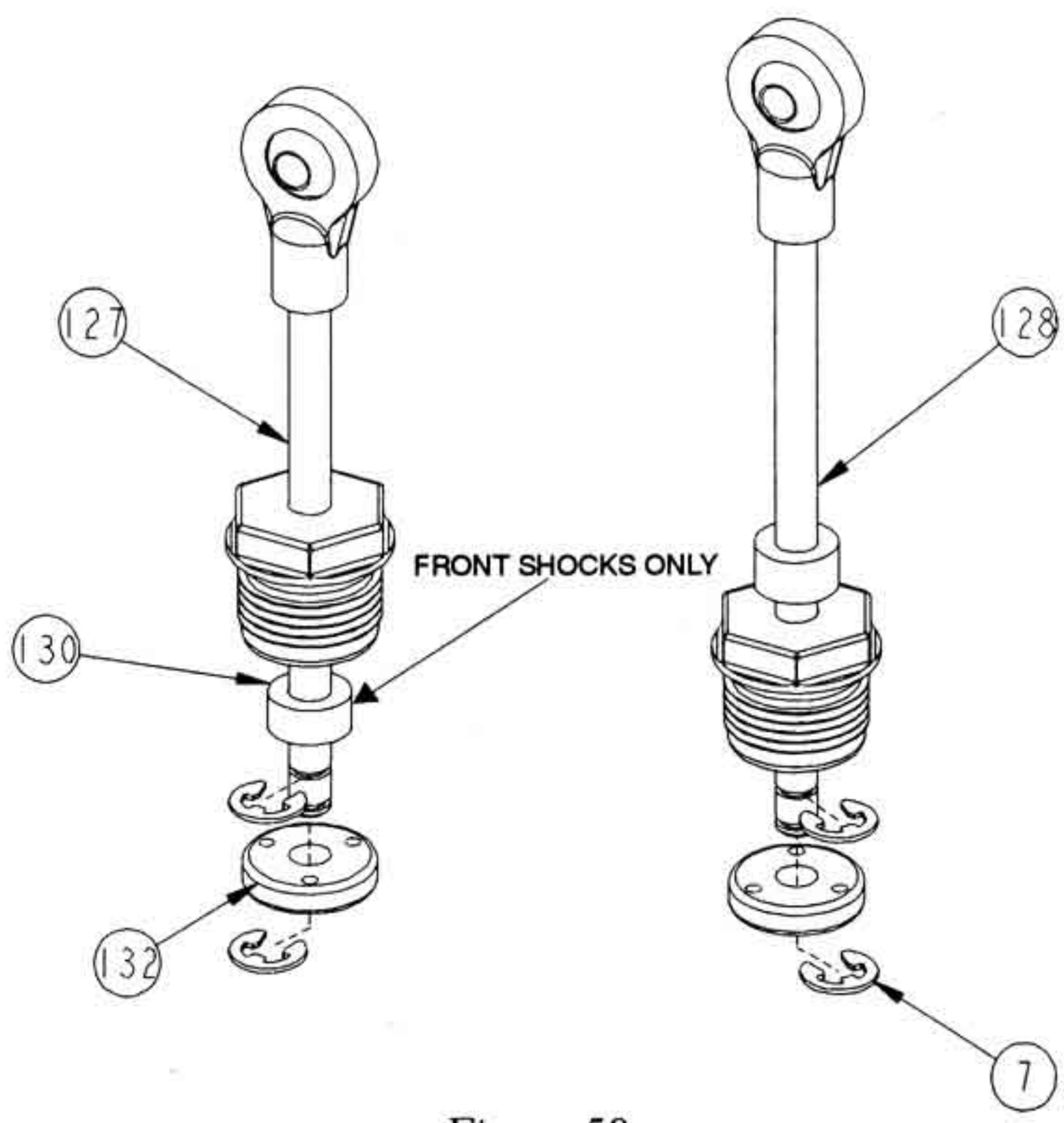

Figure 58

BAG F (Continued)

Fig 59.

Step 14. Match the short, front shock bodies (133) to the short, front shafts (127), and the long, rear shock bodies (134) to the long, rear shafts (128).

Step 15. Fill shock body (133), (134) with shock fluid (126) up to the bottom of the threads.

Step 16. Insert shaft assembly with the cartridge against the shock piston (132). Slowly tighten the cartridge about two full turns only. With the cartridge still slightly loose, slowly push the shock shaft (127), (128) into the shock body (133), (134). This will bleed the excess fluid out of the shock. Once the shaft (127), (128) is all the way in, tighten the shock cartridge the rest of the way.

** Note: Be sure to match the front shock shafts with the front shock bodies.*

Step 17. Now, with the shaft (127), (128) still all the way in, secure the cartridge by tightening it with pliers approximately an additional 1/8 turn. There should be no air in the shock as you push the shaft (127), (128) in and out. If there is, the shock needs more oil. If the shock does not compress all the way, the shock has too much oil.

** Note: If leaking persists around the outside, tighten the cartridge more.*

Step 18. Repeat steps 15 - 17 for all four shocks.

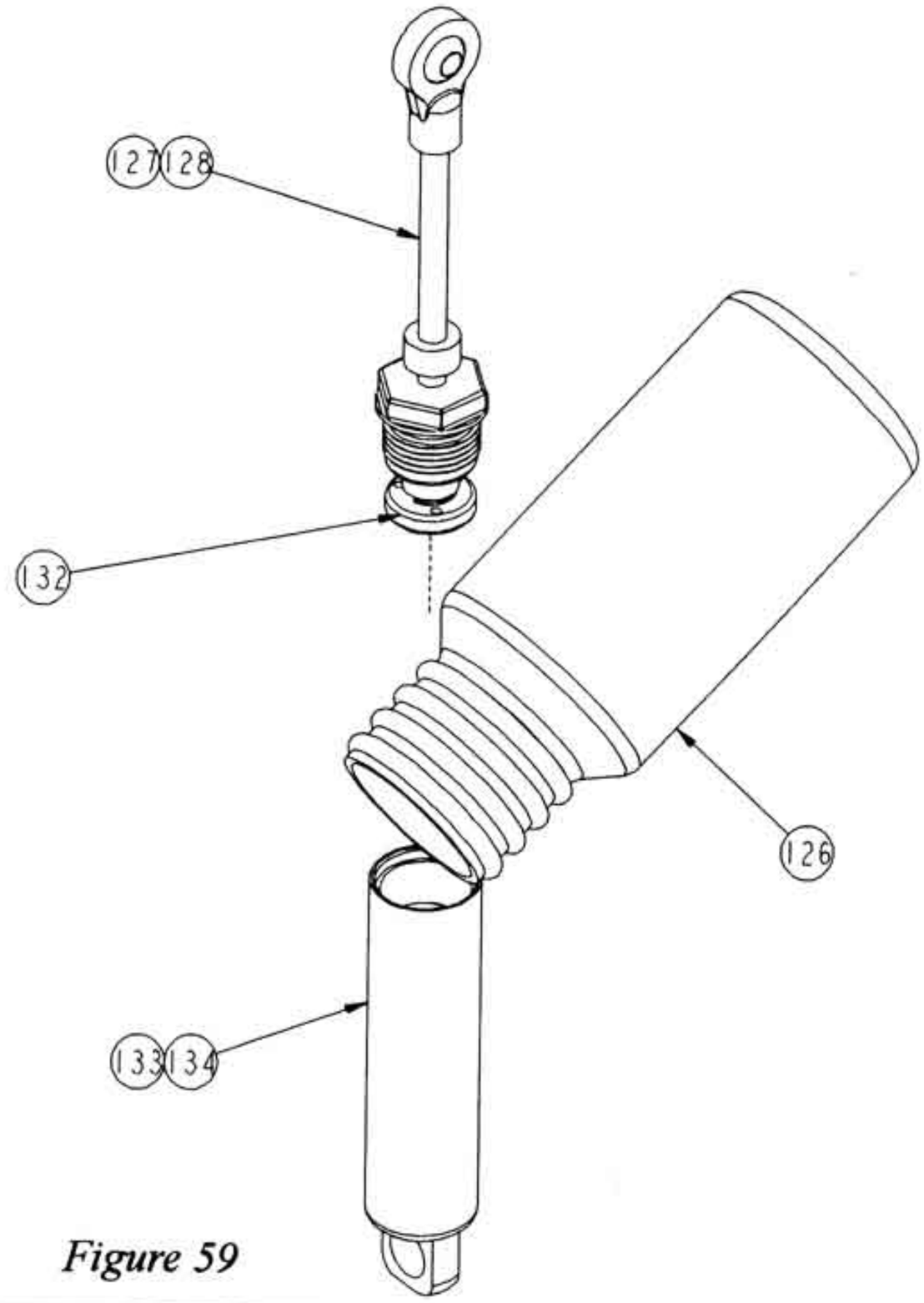

Figure 59

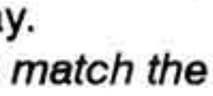

Fig 60.

Step 19. Snap a shock spring cup (135) onto each of the four shafts (127), (128) and down around the shock end (129).

** Note: On the rear shocks, the spring cup should be placed between the shock end and the shock spacer.*

Step 20. Slide a shock spring (136) down over each of the four shocks so that it rests on the spring cup (135).

** Note: All four springs are the same.*

Step 21. Insert a 4-40 x 3/8" cap head screw (12) into the larger hole of each of the four shock collars (137) and thread it into the smaller hole.

Step 22. With the collar (137) loose, slide it down over the top of each shock body (133), (134) and against the spring (136). Tighten the collar (137) to hold it in place.

** Note: Do not over tighten!*

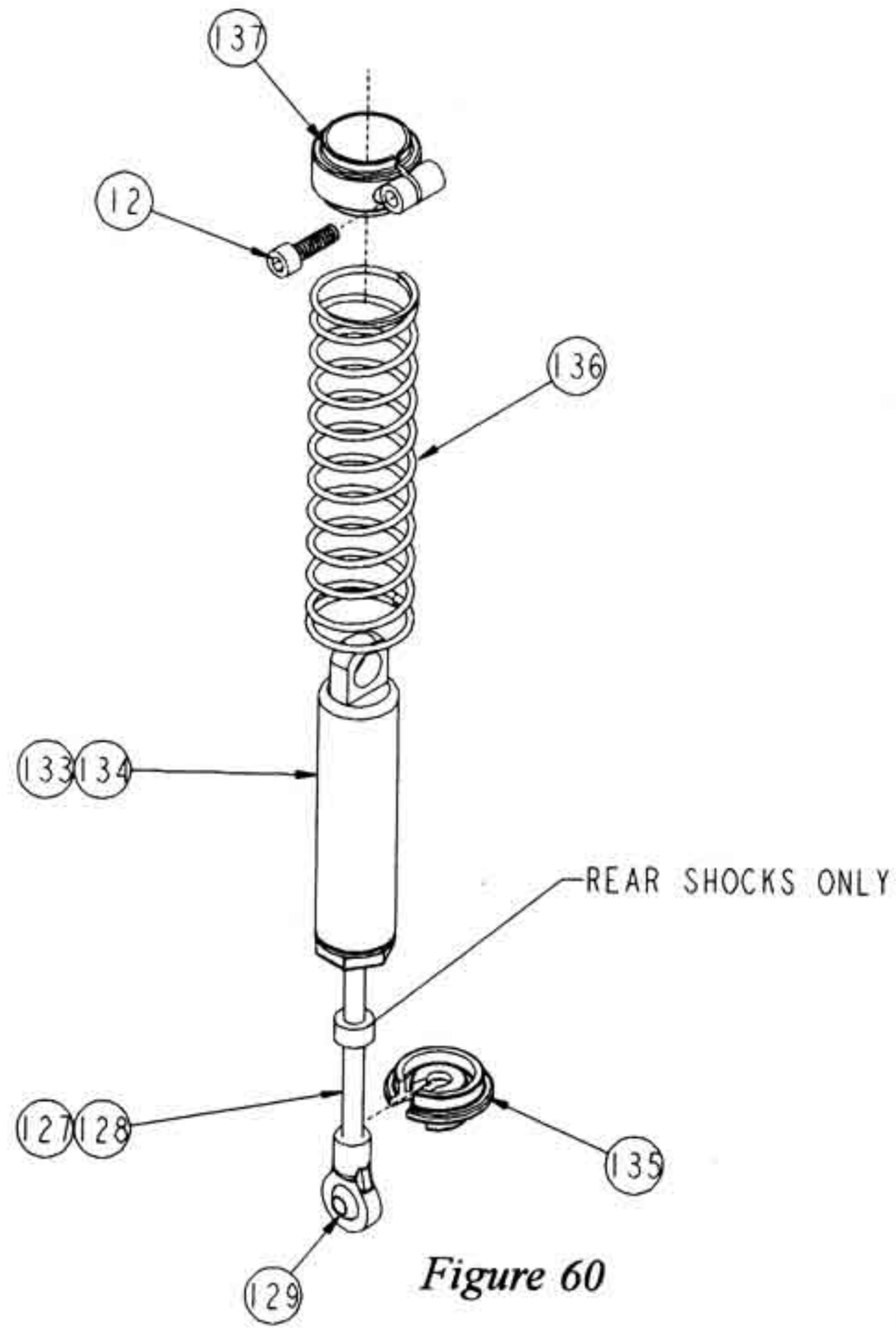

Figure 60

BAG F (Continued)

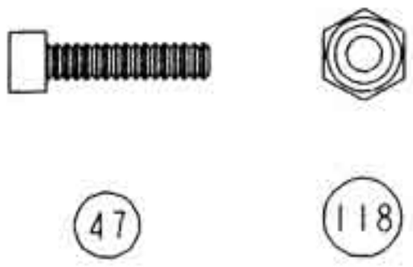

Fig 61.

Step 23. Pick up your truck, making sure that the dog bones (55) stay in the outdrives (74).

Step 24. Insert a 4-40 x 1/2" cap head screw (47) into the hole in the swivel ball (131).

Step 25. Attach the bottom of the shock to the rear arm (66), (67) by threading the 4-40 x 1/2" cap head screw (47) into the middle shock mounting hole of the arm (66), (67).

Step 26. Place the top of the shock body (134) over the shock mount bushing (11) on the rear shock tower (52) and secure it with a 4-40 aluminum lock nut (118).

** Note: Before attaching the top of the shock, make sure that the dog bone is in place in the outdrive.*

Step 27. Repeat steps 24 - 26 for the second rear shock.

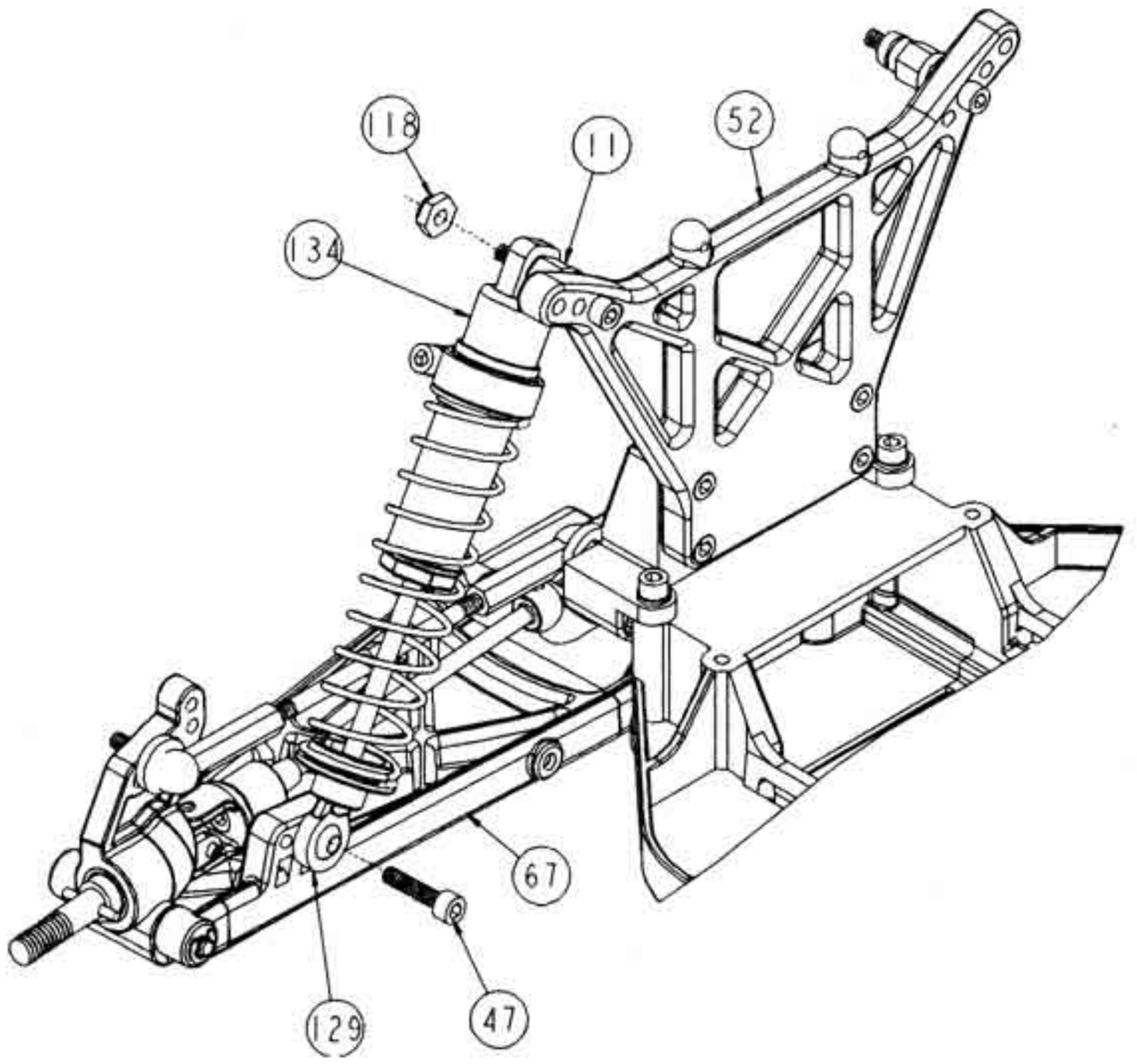

Figure 61

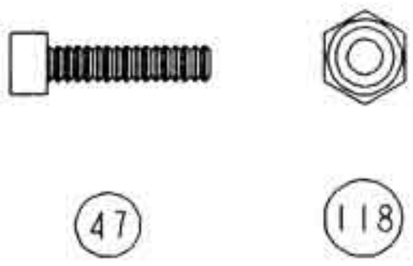

Fig 62.

Step 28. Insert the shock end (129) of a front shock into the shock mounting area of the front suspension arm (23), (24) and line up the hole in the swivel ball (131) with the middle hole in the arm (23), (24).

Step 29. Attach the shock end (129) to the front arm (23), (24) by threading a 4-40 x 1/2" cap head screw (47) all the way into the arm (23), (24).

Step 30. Place the top of the shock body (133) over the shock mount bushing (11) on the front shock tower (9) and secure it with a 4-40 aluminum lock nut (118).

Step 31. Repeat steps 28 - 30 for the second front shock.

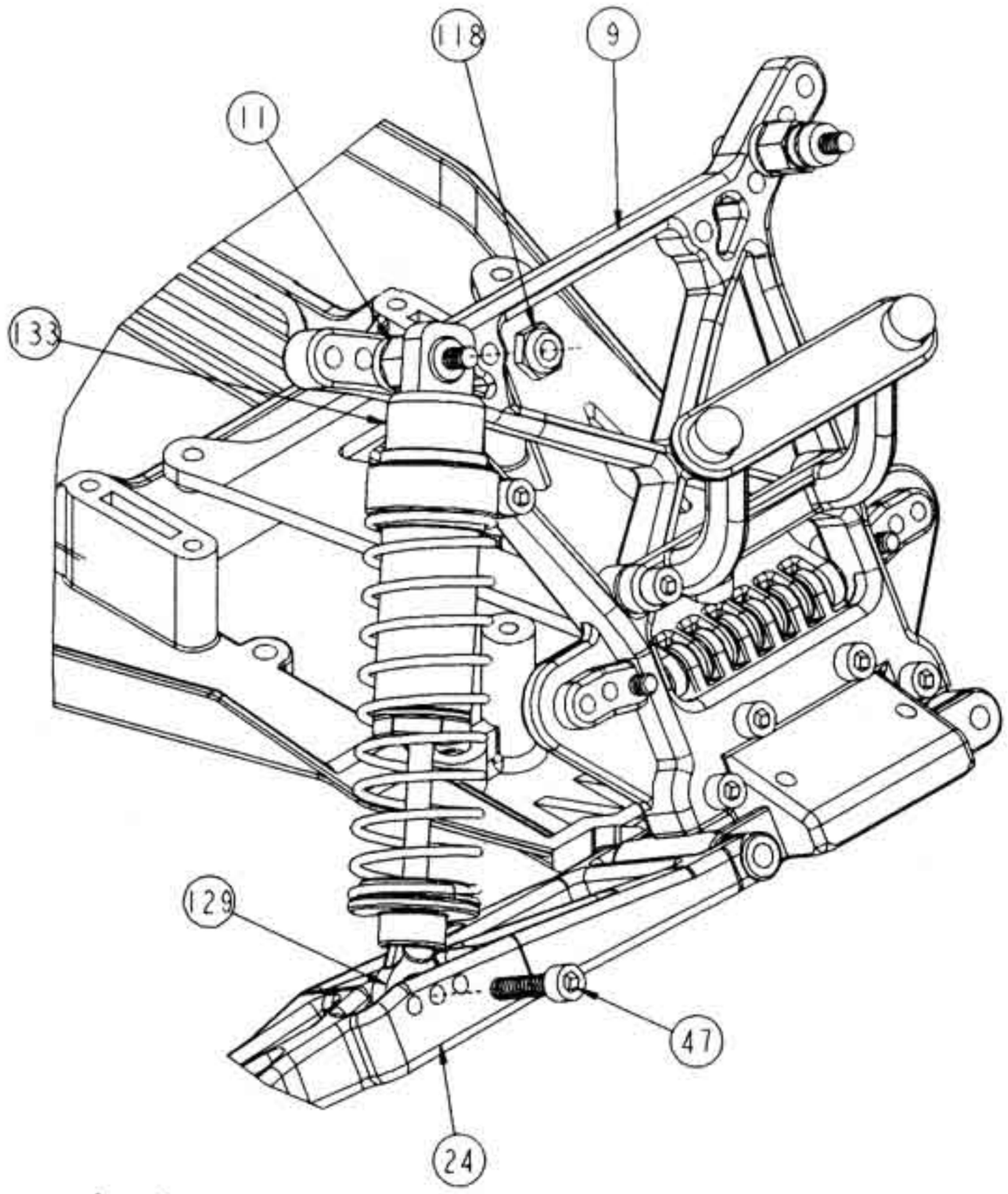

Figure 62

BAG G

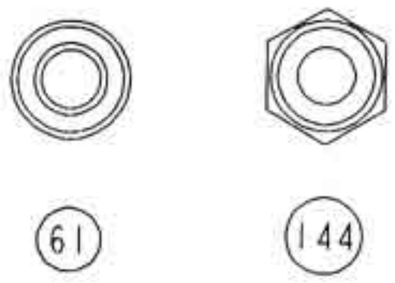

Fig 63.

Step 1. Inspect the inside of the tires [front (138), rear (139)] for any excess material. If present, trim excess rubber to ensure proper seating of tire on wheel [front (140), rear (141)]. During tire assembly, make sure that all lettering faces to the outside of the wheel *(the side with the spokes)*.

* *Note: Do not set tires on furniture as they may leave permanent stains*

Step 2. Pull front tire (138) over front wheel (140) and squeeze tire (138) to properly seat it into the grooves in the wheel (140).

Step 3. Insert the foam tire liners into the rear tires (139). Pull rear tire (139) over rear wheel (141) and squeeze tire (139) to properly seat it into the grooves in the wheels (141). Make certain that the foam liners are not pinched between the tires (139) and the wheels (141).

Step 4. It is recommended that the tires (138), (139) be glued to the wheels (140), (141). This can be done by using a fast curing super glue or cyanoacrylate glue available at your hobby shop. Be sure to follow the manufacturers warnings on the bottle.

● **IMPORTANT NOTE:** Allow the glue to dry thoroughly before continuing.

Step 5. Attach the front wheel discs (142) to the outside of the front wheels (140), and line up the holes in the disc (142) with the holes in the wheel (140). Secure the front wheel discs with two 2-56 x 5/16"button head screws (4).

Step 6. Press a 3/16" x 3/8" bearing (61) into each side of both front wheels (140).

Step 7. Slide the front wheels (140) over the front axles (14) so the wheel discs (142) face the outside. Secure the front wheels by threading a 10-32 lock nut (144) onto the front axle (14) and tightening.

● **IMPORTANT NOTE:** Do not over tighten the front wheel nuts. The front tire should rotate freely.

Step 8. Insert the rear wheel discs (143) into the outside of the rear wheels (141).

Step 9. Mount the rear wheels (141) to the rear axles (58) by lining up the pin (65) in the rear axle (58) with the groove in the rear wheel (141) and pushing the wheel (141) all the way onto the axle (58).

Step 10. Secure the rear wheels (141) by attaching 10-32 lock nuts (144) to the rear axles (58) and tightening.

● **IMPORTANT NOTE:** Read and follow adhesive manufacturers safety warnings regarding use. *DO NOT spray glue accelerator on wheel discs!*

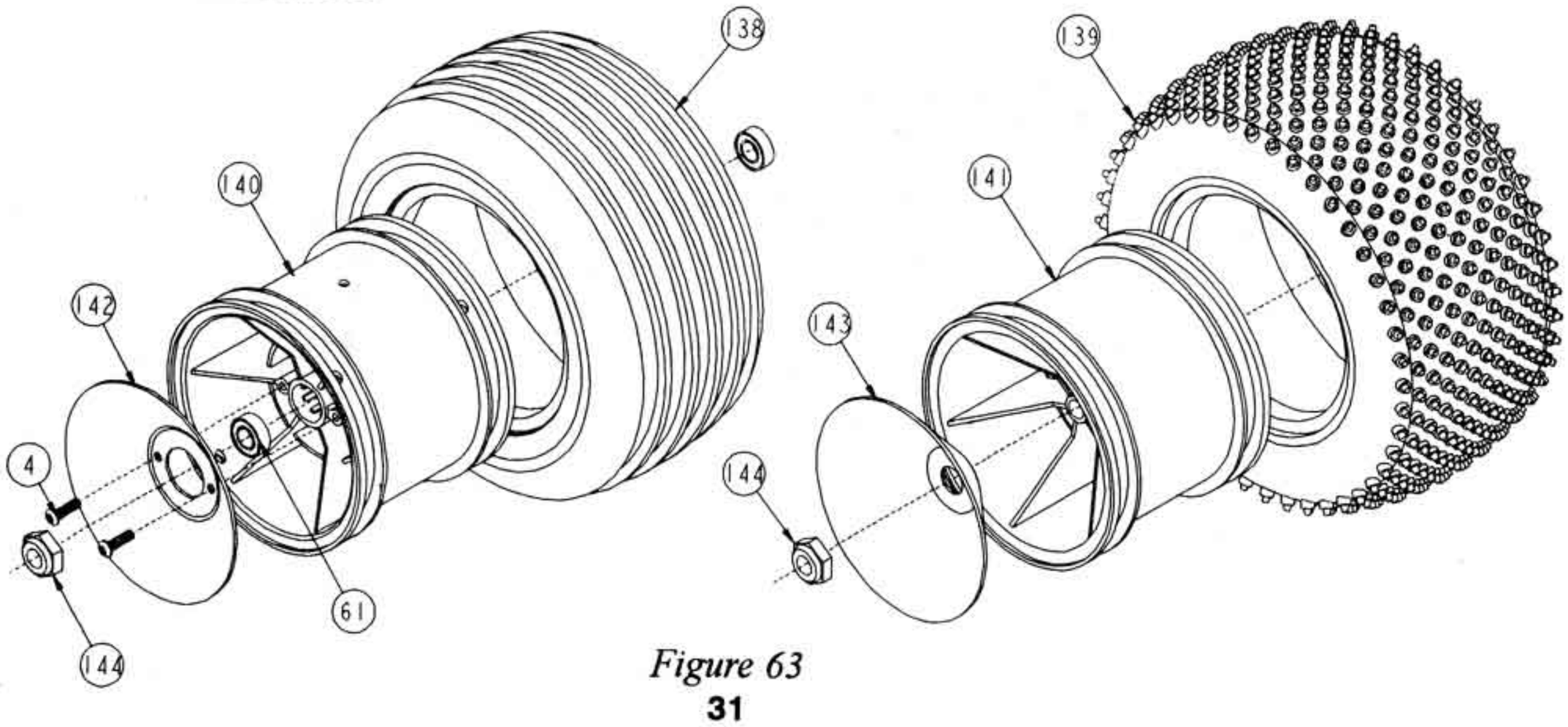

Figure 63

BAG H

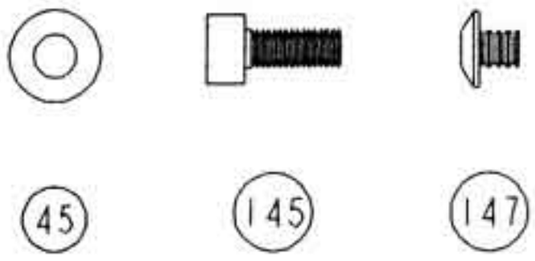

Fig 64.

Step 1. Attach motor *(not included)* to motor plate (99) using two 3mm x 8mm cap head screws (145) and #4 washers (45).

Step 2. Attach pinion gear *(not included)* to the motor shaft, adjust gear mesh and tighten motor to motor plate (99).

** Note: The gears need some backlash in order to function properly.*

Step 3. Locate gear cover (146) and cut the back side of it along the trim line as shown. Drill two 1/8" mounting holes in the gear cover (146) at the two locations marked with dimples.

Step 4. Place the trimmed gear cover (146) over the motor plate (99) and secure it with two 4-40 x 1/8" button head screws (147) through the two holes in the motor plate (99).

Step 5. Insert gear cover plug (148) into the large hole in the gear cover (146).

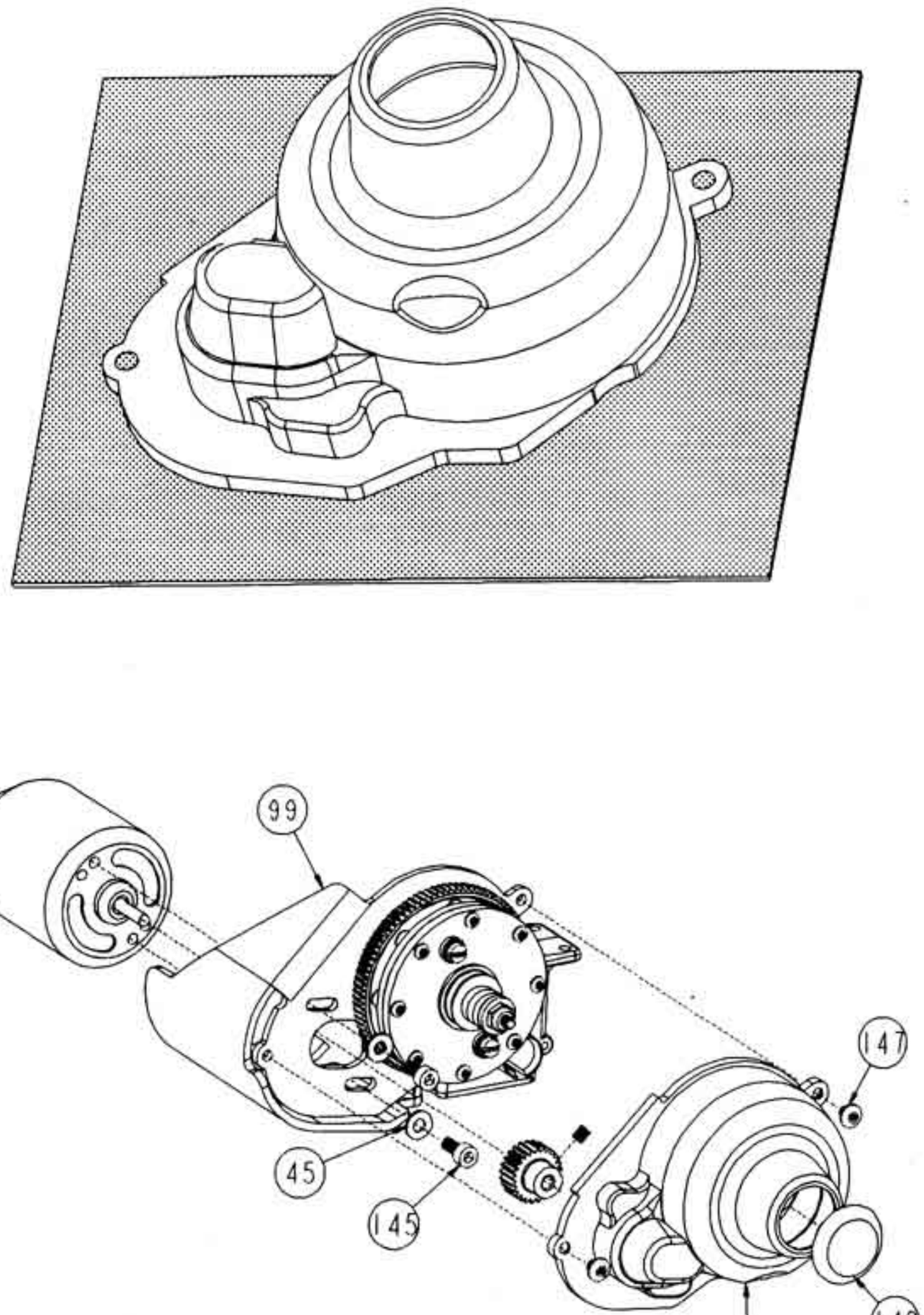

Figure 64

Fig 65.

Step 6. Place the battery spacing foam (149) into the front of the recessed area in the chassis (2).

Step 7. Slide the battery straps (150) all the way through both tabs so that they are centered on the car. Now fold the left side up and over the top and then fold the right side over the top of it. The Velcro should now hold it in place. Insert both front and rear straps (150) in this manner.

Insert the battery straps so that the soft side rests against the tabs in the chassis. This will allow the straps to slide and be tightened easier.

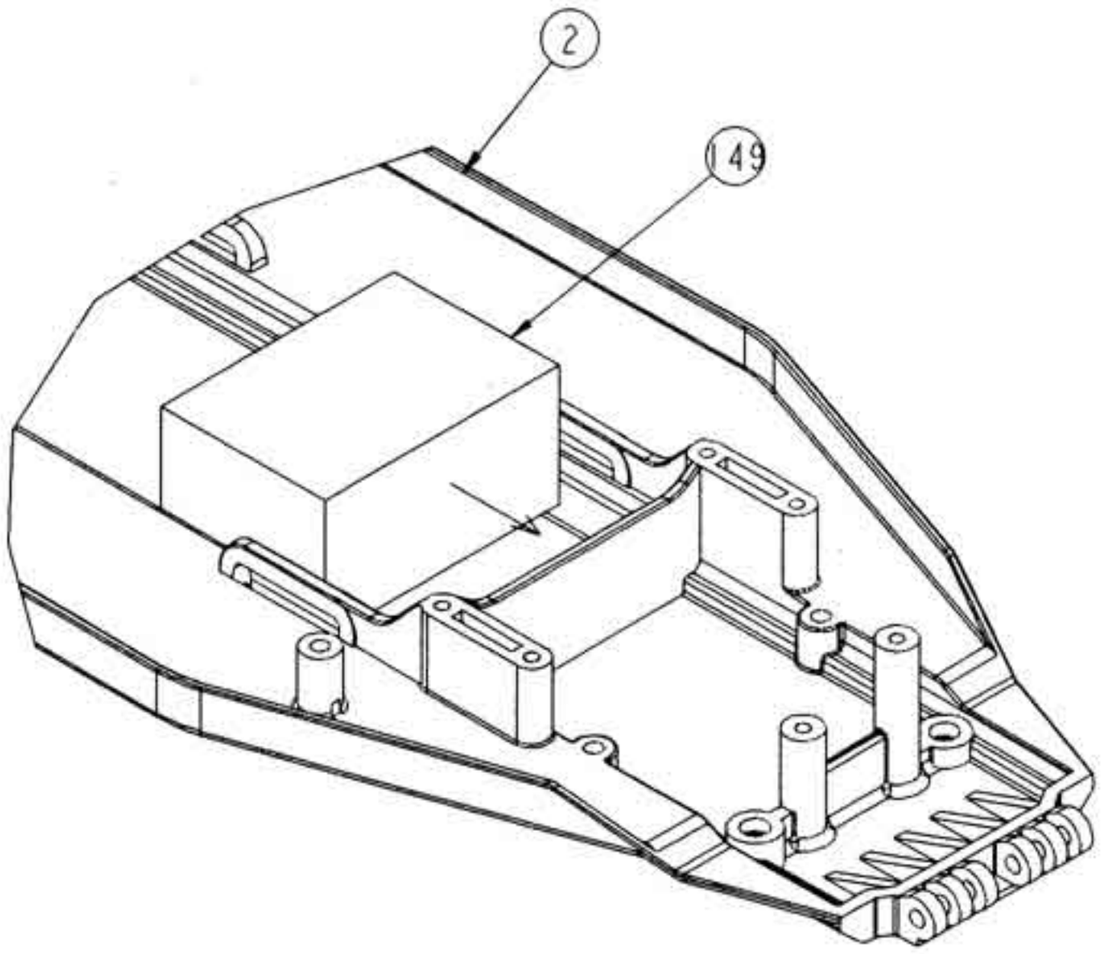

Figure 65

BAG H (Continued)

Fig 66.

Step 8. Cut a piece of two sided tape (151) to the same size as the bottom of your receiver *(not included)*. Peel one side of the backing off and stick it to the bottom of the receiver.

Step 9. Make sure that the area on the right side of the chassis (2) just in front of the rear battery strap tab is clean. Wipe this area off with a clean cloth or rag.

Step 10. Peel the backing off of the two sided tape (151) and install the receiver to the right side of the chassis (2), just in front of the rear battery strap tab, and all the way against the outside of the chassis (2).

Step 11. Run the antenna wire forward to the antenna post on the chassis (2). Run the wire into the small hole in the bottom of the post, and up through the top of the post.

Step 12. Slide the antenna wire through the antenna tube (152) *(a small drop of oil in the tube will make this easier)* so that the wire comes out the other end.

Step 13. While pulling the wire through the antenna tube (152), slide the antenna tube (152) down and push it firmly into the antenna mounting post on the main chassis (2).

Step 14. Fold the wire down over the antenna tube (152) and place the antenna cap (153) over the tube (152) and excess wire.

** Note: If antenna wire is shorter than the tube, remove the tube and cut off enough so that the wire will extend about 3/4" past the end of the tube.*

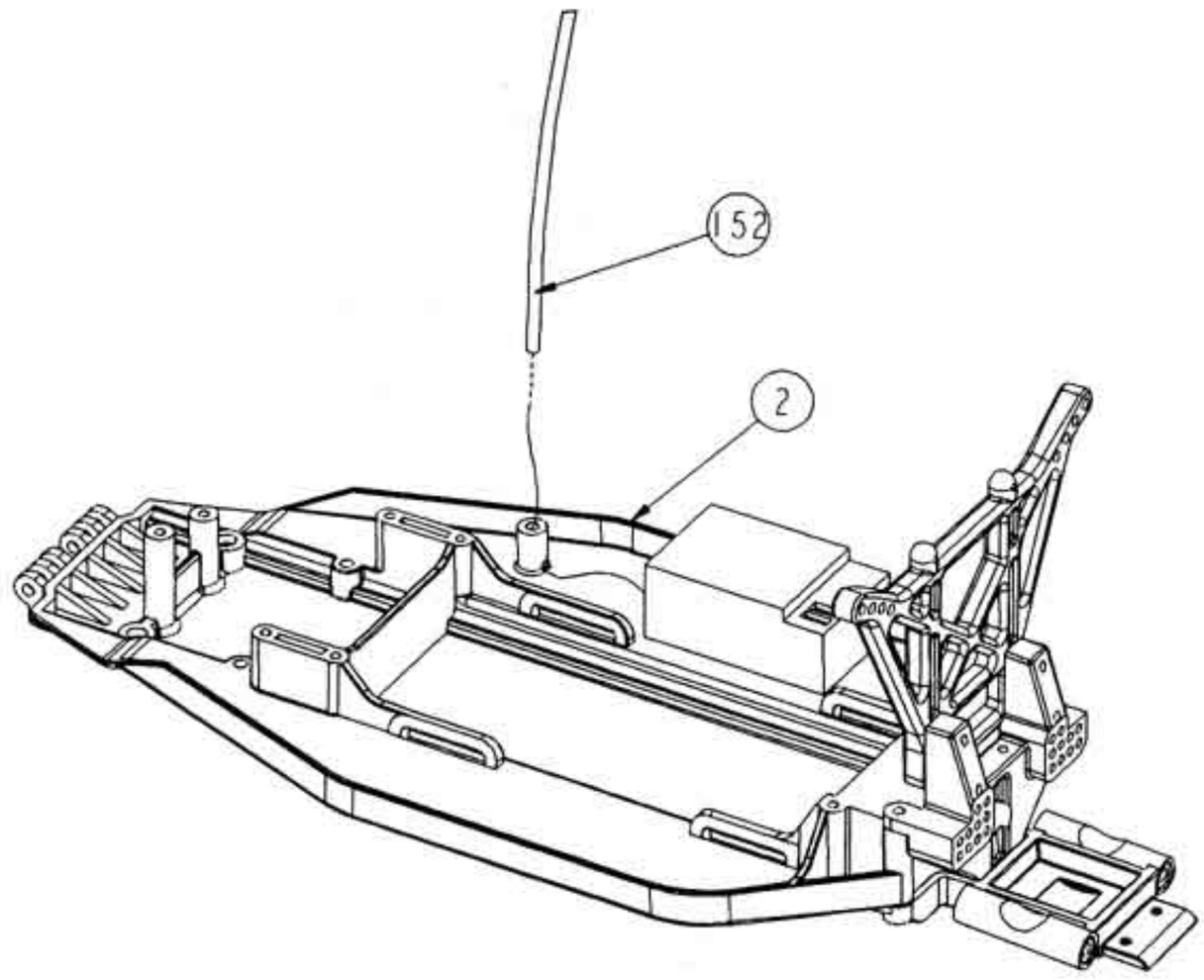

Figure 66

Fig 67.

Step 15. Using two sided tape (151), mount the speed control *(not included)* in one of the two locations shown. If mounting it to the chassis, be sure that there is sufficient room for the battery pack *(not included)* to fit in the center of the chassis.

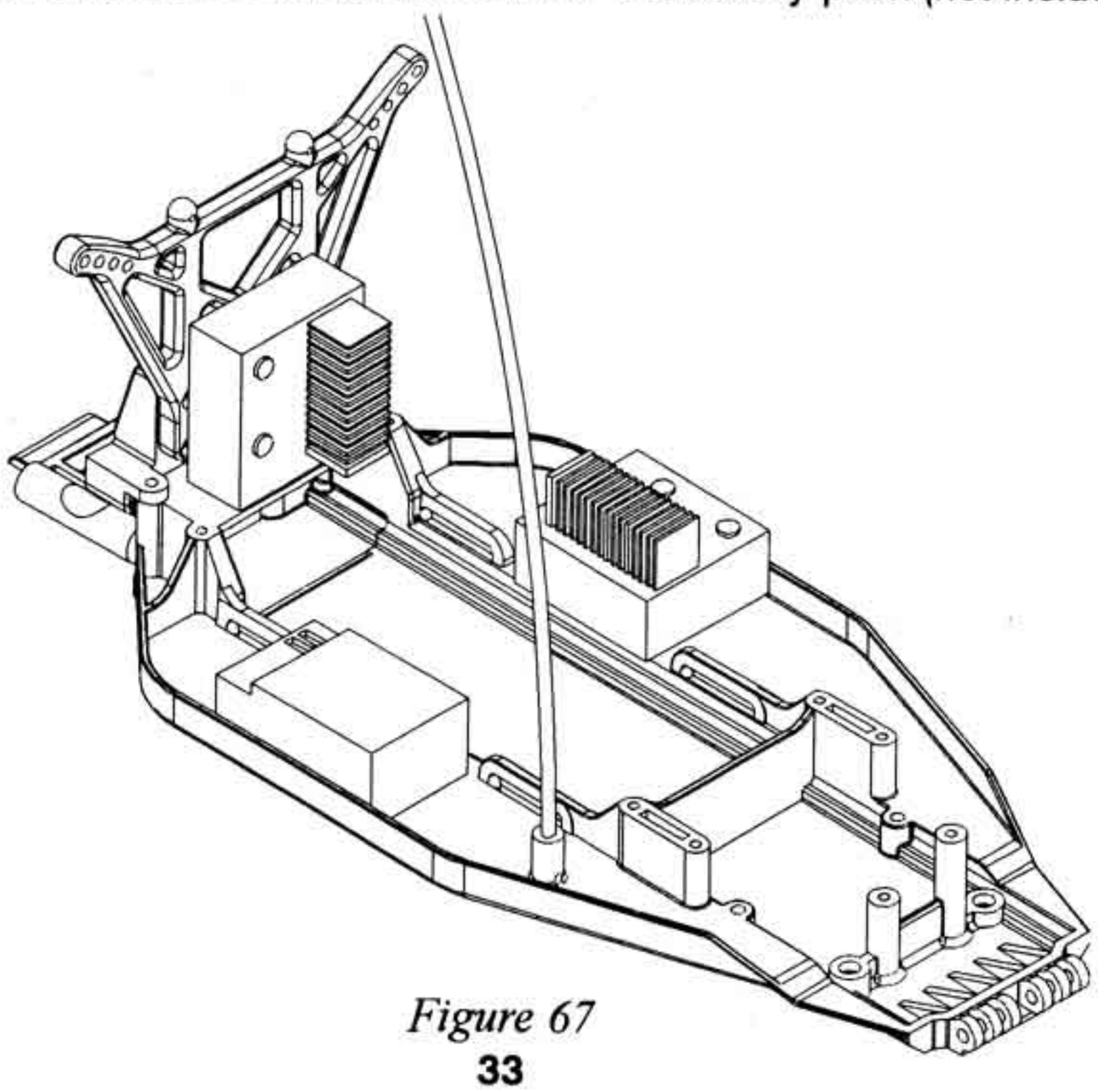

Figure 67

BAG H (Continued)

(155)

Fig 68.

Step 16. Turn on your radio system and check to make sure that the steering servo is centered and the front wheels are straight. If not refer to the bag 'B' instructions step 19 and correct the problem before continuing.

Step 17. Place the front bumper (154) onto the bottom of the front bulkhead (1) and line up the four holes in the bumper (154) with the holes in the bulkhead (1).

Step 18. Attach the bumper by threading four 4-40 x 1/4" flat head screws (155) into each of the four holes. Tighten all four screws.

If you should need to work on your servo or move a ball stud for the front camber link, first remove the front bumper and then the two screws in the rear of the front chassis stiffener. Once these screws and the front bumper are removed, the front end will swing down and away allowing easy access to the front end components.

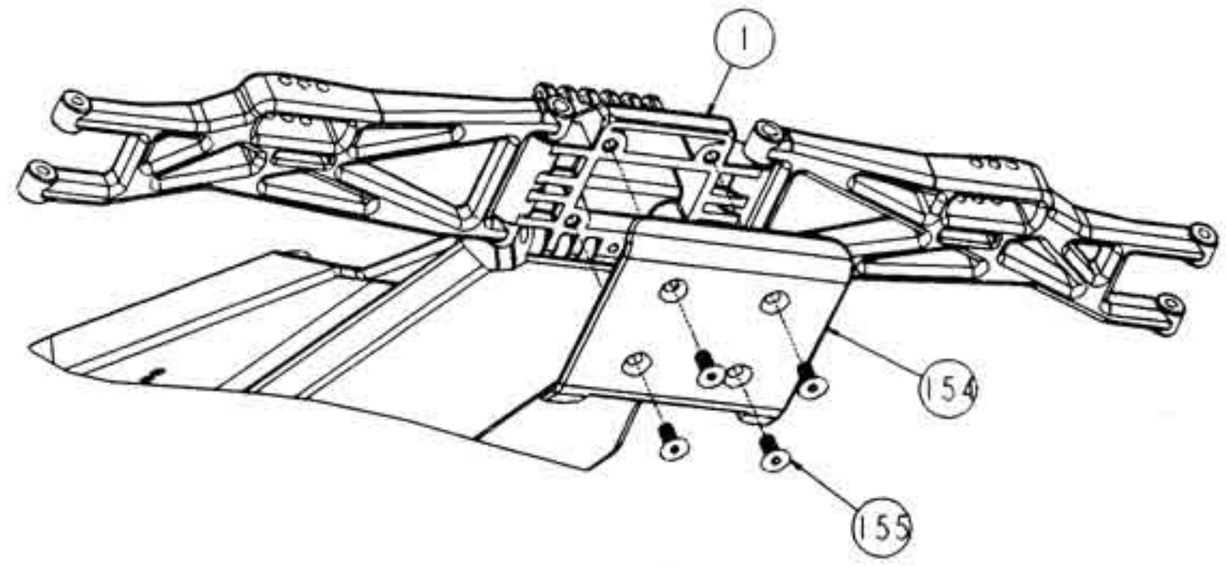

Figure 68

Fig 69.

Step 19. Trim the body (157) along the trim lines marked on it as shown.

Step 20. Using the dimples on the front, rear and roof of the body (157) as a guide, make five 5/16" diameter holes at these locations. These will be the body mounting, and antenna tube holes.

Step 21. Install the body (157) onto the rolling chassis and secure it with body clips (158) through the posts on the rear shock tower (52), and through the posts on the front body mount (13).

BODY, GEAR COVER AND WHEEL DISC PAINTING

Prepare the Lexan body shell by washing thoroughly with warm water and liquid detergent. Dry with a clean soft cloth. Use the window masks (156) supplied to cover the windows *from the inside*. A high grade of masking tape should be used on the inside to mask off any stripes, panels, or designs that you wish to paint on the body, gear cover, or wheel discs. Use acrylic lacquer, acrylic enamel, or any other Lexan (polycarbonate) recommended paints. Apply paint to the inside of the parts. Remove the tape for the next color and continue. Try to use the darker colors first. If you use a dark color after a light color, apply a coat of white over the lighter color first.

STICKERS

Cut the stickers from the sticker sheet (163) that you wish to use. Before removing the protective backing, find the desired location. Remove the backing completely and reattach an edge of the sticker to the shiny side of the backing. Using the rest of the backing as a handle, position the sticker and press firmly into place to complete it's application.

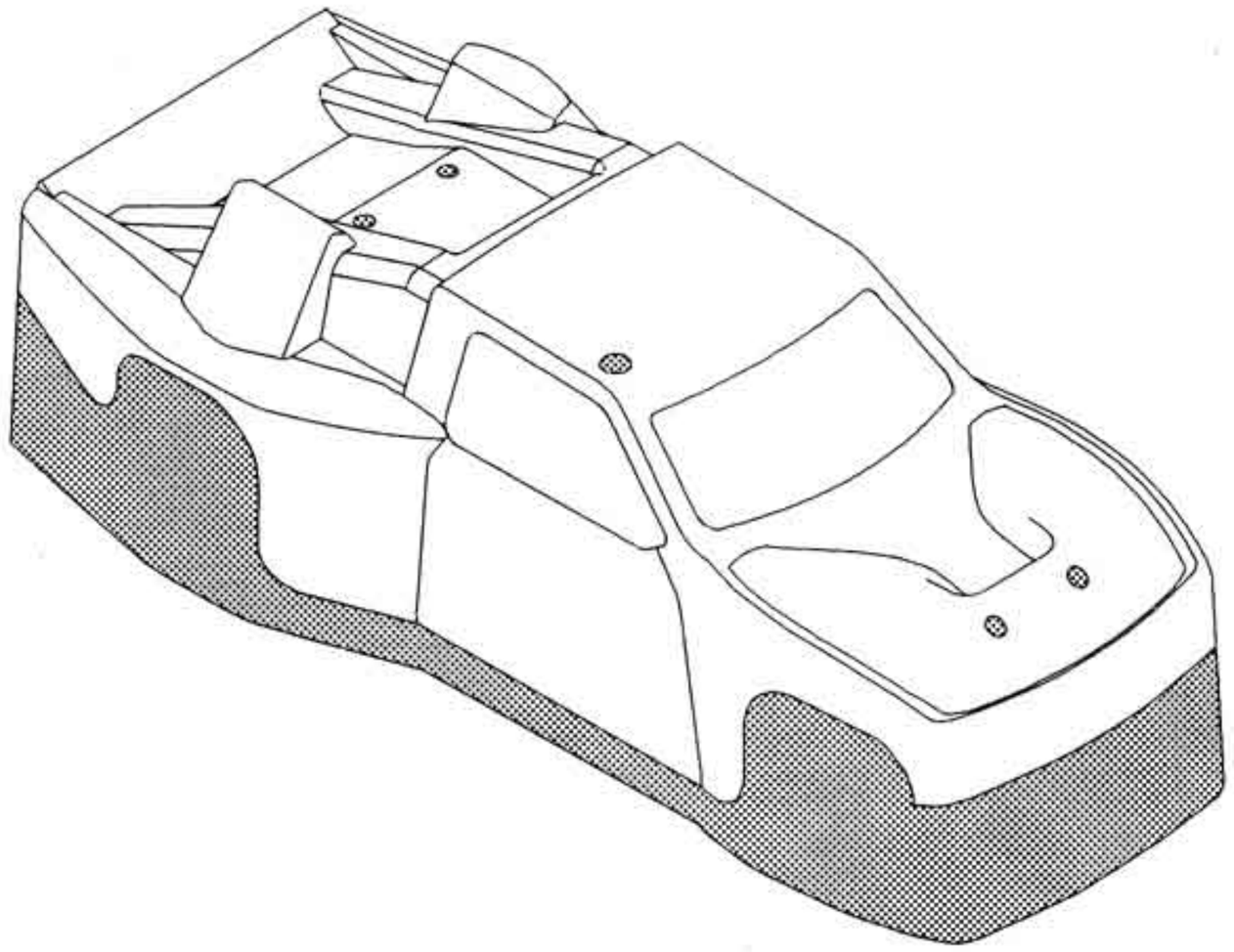

Figure 69

GLOSSARY of R/C RACING TERMS

Ackerman	A term used to explain the degree of difference in the steering angle of the inside and outside tire when a truck is turning.
Anti-squat	The angle of the inner rear hinge pin in relationship to the chassis. Anti-squat helps to keep the rear suspension from squatting under acceleration.
C.G. (center of gravity)	The point on the chassis in which the truck balances with all components in stalled.
Camber	A term to explain the angle of the wheels. See positive camber and negative camber.
Camber link	The rod assembly used to connect the rear hub to the rear bulkhead, or the front spindle carrier to the front shock tower.
Caster	The angle of the king pin in relationship to the ground.
Drag link	The rod assembly used to connect the servo saver to the steering idler arm.
Hook	A term used to describe oversteer out of a corner.
Kick-up	The angle of the entire front suspension in relationship to the rest of the chassis.
Negative camber	A camber angle in which the top of the tire is closer to the center of the truck than the bottom of the tire. Negative camber is commonly used to add stability in bumps.
Oversteer	A situation in which the front tires have more traction than the rear tires. This causes the rear tires to lose traction in corners.
Positive camber	A camber angle in which the bottom of the tire is closer to the center of the truck than the top of the tire. Positive camber is not commonly used.
Push	A term used to describe a truck that has little steering. Same as understeer.
Ride height	The point in which the truck settles after being dropped from a height of about three to four inches.
Tie rod	The rod assembly used to connect the servo saver and steering idler arm to the spindle arms.
Toe-in	The front edge of both tires are closer together than the rear edge of both tires.
Toe-out	The front edge of both tires are farther apart than the rear edge of both tires.
Understeer	A situation in which the rear tires have more traction than the front tires. This causes the truck to have inadequate steering. Same as push.

TIPS FROM THE TEAM

THE GEAR BOX is the heart of every race truck. The Double-XT is no exception. Although the Double- X transmission is very efficient, there are certain adjustments that are necessary for top performance. The differential is the most important. From the several greases that were tested for use in the differential, the one that we found to work the best is included in the kit. This grease works extremely well, while at the same time allowing the diff to work very smoothly as well as free. Since this differential is a self aligning design, it is extremely important to take your time while assembling it to make sure that all of the parts are properly seated into the correct locations.

ADJUSTING THE DIFFERENTIAL This should be done before trying to adjust the slipper. If you have installed the Hydra-Drive (I don't know why you wouldn't!), adjusting the diff can be very simple. This may be a little complicated at first. If you try to do this as you read it, the procedure should be fairly simple. First remove the gear cover from your truck. Now, with the wheels installed, and the tires glued in place, hold the right rear tire in your right hand. While holding the tire, place your index finger and thumb over the Hydra-Drive housing and hold it tight. Now try to turn the left rear tire while holding the right rear tire and Hydra-Drive housing. It should be ***VERY*** difficult to turn the left rear tire. If it turns easily, the diff is too loose. Tighten it by lining up the slot in the diff screw with the groove in the outdrive and placing the small allen wrench through both slots. Now ***slowly*** turn the right rear tire about 1/8 turn. As long as the diff screw was held in place with the allen wrench, you have just tightened your diff. Pretty easy, huh? Continue tightening until the left rear tire can't be easily turned while holding the Hydra-Drive housing and the right rear tire. Be careful no to tighten the diff too much! Once the diff is adjusted, it should still operate freely and feel smooth. If the diff screw starts to get tight before the diff is close to being adjusted properly, the diff should be disassembled and checked for proper assembly. You may have the bearings in the diff installed in the wrong locations.

If you are not using the Hydra-Drive (you'll be sorry!), start by tightening the slipper nut all the way down. Now following the same procedure as above, hold the right rear tire and the spur gear while trying to turn the left rear tire. Tighten the diff a little at a time until the left rear tire can't be turned easily. Check the diff for smooth, free operation.

Once your diff has been adjusted by hand, place your truck on a carpeted area. With a fully charged battery, give the truck full throttle from a stop. The diff should not slip. If it does, tighten the diff slightly until it no longer slips. The diff should be adjusted as loose as possible without slipping.

When rebuilding your diff it's a good idea to always replace the small lock nut. This will help keep the diff from loosening as you continue to drive your Double-XT.

Remember! The diff was not designed to operate as a slipper. The diff should never be run while it is adjusted too loose and is slipping. Doing so can damage the diff balls and drive rings. Always make sure that the slipper will slip before the differential!

SLIPPER ADJUSTMENTS should be made after the diff is properly adjusted. The slipper setting that the manual had you assemble your truck with should be reasonably close to correct. To make the final adjustments, place your truck on the surface that you will be running on. If the track has a high bite area and a low bite area, place the truck on the high bite area. From a stop, give the truck full throttle. The slipper should only slip for about one to two feet maximum. If it slips more than that, tighten the adjustment nut and try it again. If you can't hear the slipper slipping when you "punch off", hold the front of the truck with the rear wheel on the surface and give the truck full throttle. The truck should push against your hand with a reasonable amount of force and the slipper should slip a little. If the slipper does not slip, it is too tight. Loosen the adjustment nut and try it again.

If you are using a Hydra-Drive for the first time, there are a few things that you should know. Because of the way the Hydra-Drive operates, it should not slip on the track for a long period of time like a friction slipper can. Once the Hydra-Drive is properly adjusted, if you feel the static adjustment by turning the spur gear, I'm sure you will find it to be looser than you think. Since the Hydra-Drive unit drives the truck once there is enough traction, you will not hear the slipper slipping like you do on a friction slipper. If the Hydra-Drive is adjusted loose enough so that it slips for ten to twelve feet like a friction slipper, damage can result from the excessive heat that will occur. It's a good idea to check the temperature of the Hydra-Drive after a full battery charge. You should be able to comfortably hold your finger on the Hydra-Drive housing for about eight to ten seconds. If it is too hot, the adjustment is probably too loose. If the Hydra-Drive gets this hot, you may experience a "fading" feeling towards the end of the run where the slipper feels like it is getting looser.

CAMBER in the front end of the truck is not really changed much. Normally, we will run between one and two degrees of negative camber in the front at ride height. A general rule of thumb is that more negative camber will go through bumps in turns a little more consistently. Less negative camber can give the truck a more positive steering response on some tracks with hard packed surfaces.

The rear camber is used to help the truck drive through bumps in corners a little better also. Generally, we will run between one to three degrees of negative rear camber at ride height. More negative camber will probably drive through bumps better, but you will usually lose a little straight line rear traction with more negative camber.

FRONT TOE-IN and TOE-OUT is fully adjustable by changing the length of the tie rods. When adjusting this, be sure to adjust both tie rods equally so that the steering balance from left to right will remain the same. Toe-out will make the truck turn into the corner faster, but can cause oversteer. Toe-out can also make the truck feel "wandery" exiting corners and cause the truck to hook.

Toe-in makes the truck a little easier to drive. It will make the truck more neutral feeling and more stable exiting corners. We almost always run about one degree of toe-in on the Double-XT truck.

ACKERMAN can be adjusted on the steering assembly. This is done by lengthening and shortening the drag link. The length of the link as built in the manual should be very good under all conditions and should not need to be changed, but if you want to, you can change it. Be sure to keep the manual around so you can refer back to the standard length.

FRONT RIDE HEIGHT is an adjustment that can change the way a truck jumps, turns, and goes through the bumps. This is an adjustment that can vary from track to track slightly. You should try raising and lowering the front ride height to get a feel for it. The front ride height should initially be set by using the plastic ride height gauge included in your kit. Drop the front of the truck from about 2-3 inches above the table. Lightly "work the front suspension up and down. This will "settle" the front suspension at it's natural ride height. Doing this becomes more important as the suspension parts become dirty from running the truck.

Once the suspension has settled, slide the ride height gauge under the front of the chassis. The bottom of the chassis near the center should just touch the gauge. If the chassis is either too high, or too low, adjust the spring collars accordingly and check the ride height again as described above. Continue this procedure until the bottom of the chassis *just touches* the gauge.

FRONT SHOCK LOCATION The front shock mounting location can be changed by simply moving to another hole in the tower. The location in the manual has proven to be the best all around location, and works well on all tracks. We have found that on tight, indoor tracks, moving the top of the shock in one more hole can give the truck more steering.

Mounting the shock in the middle hole of the arm has proven to be very successful on all of the tracks we have been (and that's a lot!).

REAR TOE-IN and ANTI-SQUAT The best combination of both of these has proven to be what comes standard in the kit. The anti-squat can be changed by mounting a different rear pivot support to the Double-XT truck. The standard one has four degrees of anti-squat. Currently, there is a two degree block available as well. Less anti-squat can help a truck accelerate through bumps, but also loses rear traction.

The rear toe-in is all in the rear hubs. On the stock rear hub, there is 3.5° of toe-in per side (7° total). In the future, different rear hubs may be available to adjust this. Currently, the standard hub has worked great under all conditions.

REAR RIDE HEIGHT can change the way a truck turns, the amount of traction a truck has, and the way a truck goes through the bumps. Again, it is a good idea to play with this adjustment and get a feel for it. For most conditions, the rear ride should be set using the ride height gauge included. Use this gauge as described in the front ride height section.

REAR SHOCK LOCATION The rear shock location can be changed by moving the top shock mount to a different hole in the tower. Again, the location in the manual has proven to be the best all around location. Moving the top of the shock out can help the truck land better on big jumps, but can make the rear traction seem inconsistent.

The bottom of the shock can be moved as well. Currently, we always run the bottom of the shock in the middle hole.

CAMBER LOCATIONS on the Double-XT are very adjustable. Although there are many holes to choose from, it is suggested that the locations in the manual be used. We have done extensive testing with all of these locations both on the track, and on special computer programs, and have found the locations in the manual to be *very consistent* from track to track. These locations should be the best all around and work under all conditions.

The suggestions in this section are only general guidelines. There are so many variables in a racing truck that they can't possibly be listed in a simple tip section. Go to the track, try various combinations of setups, and get a feel for what each one does to the handling. Look for setup updates as well as the latest hot tips in Tech-Talk each month in Car Action Magazine.

Good luck with your new Double-XT. We're sure you will be pleased with it's superb performance.

SPARE PARTS LIST

KEY #	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
1	Front bulkhead	A-1101	'XX' Front Bulkhead
2	Main chassis	A-4102	'XXT' Chassis (Long)
3	1/8" lower bulkhead hinge pin	A-1141	'XX' Front Bulkhead Upper/Lower Pin Set
4	2-56 x 5/16" button head screw	A-6225	2-56 x 5/16" Button Head Screws (10)
5	Front chassis stiffener	A-4110	'XX' Chassis Brace Set
6	1/8" upper bulkhead/outer rear hinge pin	A-2164	1/8" Upper Bulkhead /Outer Rear Pin (2)
7	1/8" 'E' clip	A-6100	1/8" 'E' Clips
8	3/8" ball stud	A-6000	Ball Studs w/Rod Ends 4-40 x 3/8" (4)
9	Front shock tower	A-1108	'XXT' Front Shock Tower
10	4-40 x 7/8" cap head screw	A-6216	4-40 x 7/8" Cap Head Screws (10)
11	Top shock mount bushings	A-5008	Upper Shock Mount Bushings (4)
12	4-40 x 3/8" cap head screw	A-6206	4-40 x 3/8" cap head screws (10)
13	Front body mount	A-4056	'XXT' Front Body Mount
14	Front axle	A-1136	'XXT' Front Axles w/Set Screws (2)
15	Left spindle	A-1125	'XXT' Front Spindles & Carriers (2)
16	Right spindle	A-1125	'XXT' Front Spindles & Carriers (2)
17	Spindle carriers, Left and Right	A-1125	'XXT' Front Spindles & Carriers (2)
18	3/32" x 1.050" hinge pin	A-1149	'XXT' Front Outer Pins & King Pins (2)
19	3/32" 'E' clip	A-6103	'E' Clips 3/32"
20	5-40 set screw	TL-4011	5-40 Hardened Set Screws (10)
21	4-40 mini lock nut	A-6306	4-40 Aluminum Mini Nuts (10)
22	3/16" ball stud	A-6001	Ball Studs w/Rod Ends 4-40 x 3/16" (4)
23	Left front suspension arm	A-1115	'XXT' Front Suspension Arms (2)
24	Right front suspension arm	A-1115	'XXT' Front Suspension Arms (2)
25	1/8" inner front hinge pin	A-2007	Hinge Pin - (Hub 5-link), (Front Inner 'XXT')
26	Front hinge pin brace	A-1102	'XXT'Front Inner Hinge Pin/Bulkhead Brace
27	Plastic rod end	A-6005	H.D. 30° Plastic Rod Ends (16)
28	2-1/2" turnbuckle	A-6040	Adjustable L/R Rod Set w/Ends 2.5" (2)
29	Foam things	A-6003	Foam Things (Linkage Rings) (8)
30	Servo saver bottom	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
31	Servo saver post	A-1610	'XX' Steering Hardware Set (4)
32	Servo saver top	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
33	Servo saver spring	A-1610	'XX' Steering Hardware Set (4)
34	Servo saver spring cap	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
35	6-40 lock nut	A-1610	'XX' Steering Hardware Set (4)
36	Steering idler arm	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
37	2-1/4" turnbuckle	A-6038	Adjustable L/R Rod Set w/Ends 2.25" (2)
38	Short plastic rod end	A-1615	Short Ball Cups & Threaded Rods
39	1-1/8" turnbuckle	A-2005	Rear Camber Link w/Ends 1-1/8"
40	3/32" x 3/16" bushings	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
41	Steering brace	A-4110	'XX' Chassis Brace Set
42	3/32" x .930" hinge pin	A-1610	'XX' Steering Hardware Set (4)
43	Servo arms (23S, 23L and 25L)	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
44	Servo mounting posts	A-1601	'XX' Steering/Servo Mount Assy. (Molded)
45	#4 washer	A-6201	3mm x 8mm Screws w/Washers (Motor) (10)
46	Chassis brace	A-4110	'XX' Chassis Brace Set
47	4-40 x 1/2" cap head screw	A-6204	4-40 x 1/2" Cap Head Screws (10)
48	Gold washer	A-6215	#4 Narrow Washers (10)
49	4-40 x 5/8" threaded rod	A-1615	Short Ball Cups & Threaded Rods
50	Rear pivot support 4°	A-2120	'XX' Rear Pivot Support #4
51	4-40 x 1/2" flat head screw	A-6220	4-40 x 1/2" Flat Head Screws(6)
52	Rear shock tower	A-2158	'XXT' Rear Shock Tower
53	Rear bulkhead	A-2101	'XX' Rear Bulkhead
54	4-40 x 3/8" flat head screw	A-6210	4-40 x 3/8" Flat Head Screws (10)

SPARE PARTS LIST

KEY #	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
55	Dog bones	A-3090	'XXT' Dog Bone / Drive Shaft w/Yoke
56	Plastic universal yoke	A-3083	'XX' Yoke & Screw for Dog Bone (2)
57	Universal pivot	A-3014	Universal Pivots (2)
58	Rear axle	A-3015	Rear Axle, Spacer & Pin (1)
59	3/32" x 1/2" spirol pin	A-6400	Pins, U-Joint (8)
60	Team Losi wrench	A-2012	Assembly Wrench
61	3/16" x 3/8" bearing	A-6903	3/16" x 3/8" Ball Bearing (2)
62	Left rear hub	A-2125	'XX' Rear Hub Set
63	Right rear hub	A-2125	'XX' Rear Hub Set
64	Rear axle/gearbox spacer	A-3016	Rear Axle Spacers (2)
65	1/16" x 7/16" pin	A-6401	Pins, Wheel & Gear (4)
66	Left rear suspension arm	A-2140	'XXT' Rear Suspension Arms (2)
67	Right rear suspension arm	A-2140	'XXT' Rear Suspension Arms (2)
68	1/8" x 1/4" washer	A-2110	'XX' Rear Pivot Support
69	Inner rear hinge pin	A-2161	'XX' Inner Rear Hinge Pins (2)
70	Diff nut carrier	A-3078	'XX' Retro Trans Diff Screw, Hdwe, Seal Set
71	Allen wrenches	N/A	N/A
72	Beveled washers	A-3078	'XX' Retro Trans Diff Screw, Hdwe, Seal Set
73	Diff tube	A-3072	'XX' Retrofit Trans Diff Tube
74	Outdrive/diff half	A-3073	'XX' Retro Trans Outdrive Cup/Diff Half
75	Diff grease	A-3065	Silicone Differential Compound
76	Diff washer	A-3070	'XX' Retro Trans Drive Rings (2)
77	5mm x 8mm bearing	A-6907	5mm x 8mm Ball Bearings ('XX' Trans)
78	Diff gear	A-3076	2.61:1 Diff Gear
79	3/32" diff balls	TL-4016	3/32" Carbide Diff Balls (12)
80	1/4" x 5/16" shim	A-6230	Shim Assortment - 3/16", 1/4", 1/2" (20)
81	Diff adjusting screw	A-3078	'XX' Retro Trans Diff Screw, Hdwe, Seal Set
82	Foam thrust bearing seal	A-3078	'XX' Retro Trans Diff Screw, Hdwe, Seal Set
83	3mm x 8mm thrust bearing washer	A-3071	'XX' Retro Trans Thrust Bearing Assy.
84	3mm x 8mm thrust bearing	A-3071	'XX' Retro Trans Thrust Bearing Assy.
85	4-40 x 1" set screw	A-3060	'XX' Slipper Shaft, Spacer & Hardware
86	Slipper shaft	A-3060	'XX' Slipper Shaft, Spacer & Hardware
87	1/16" x 5/16" pin	A-3060	'XX' Slipper Shaft, Spacer & Hardware
88	Top gear	A-3077	Upper Gear, Idler, Shaft, Pin, Clip 2.61:1
89	3/16" 'C' clip	A-6102	'C' clips, .1875 - Large (12)
90	3/16" x 5/16" bearing	A-6905	3/16" x 5/16" Ball Bearing (Slipper) (2)
91	Left gearbox half	A-3059	Transmission Case Set 2.61:1
92	Foam outdrive bearing shield	A-3078	'XX' Retro Trans Diff Screw, Hdwe, Seal Set
93	1/2" x 3/4" bearing	A-6908	1/2" x 3/4" Ball Bearings w/Teflon Seal (2)
94	Right gearbox half	A-3059	Transmission Case Set 2.61:1
95	Idler gear shaft	A-3077	'XX' Retro Trans Upper Gear, Idler, Shaft (2.61:1)
96	1/8" x 3/8" bearing	A-6909	1/8" x 3/8" Ball Bearings ('XX' Trans) (2)
97	Idler gear	A-3080	Idler Gear 2.61:1
98	2-56 x 5/8" cap head screw	A-3061	'XX' Transmission Screw Set
99	Motor plate	A-3063	'XX' Motor Plate
100	4-40 x 1" cap head screw	A-6223	4-40 x 1" Socket Head (6)
101	2-56 threaded inserts	A-3130	Hydra Drive Rebuild Kit
102	Hydra-Drive inside housing	A-3119	Hydra Drive Housing Set
103	Hydra-Drive impeller	A-3130	Hydra Drive Rebuild Kit
104	Hydra-Drive fluid	A-3126	Hydra Drive Fluid (Standard)
105	Quad seal	A-3130	Hydra Drive Rebuild Kit
106	Hydra-Drive outside housing	A-3119	Hydra Drive Housing Set
107	Large Hydra-Drive 'O' ring	A-3130	Hydra Drive Rebuild Kit
108	Nylon washer	A-6224	#4 Nylon Filler Screws, Washers - Hydra Drive (6)

SPARE PARTS LIST

KEY #	KIT/PART DESCRIPTION	PART NO.	SPARE PARTS DESCRIPTION
109	4-40 x 1/8" nylon screw	A-6224	#4 Nylon Filler Screws, Washers - Hydra Drive (6)
110	Spur gear 88 tooth	A-3908	88T Hydra Drive/ Slipper Gear
111	Slipper back plate	A-3132	'XX' Slipper Backing Plate
112	Slipper pad	A-3123	Hydra Drive/Friction Slipper Friction Pad
113	Slipper gear plate	A-3122	Hydra Drive/Friction Slipper Gear Plate
114	1/4" x 9/16" thrust washer	A-3125	9/16" x 1/4" Thrust Bearing Assy
115	1/4" x 9/16" thrust bearing	A-3125	9/16" x 1/4" Thrust Bearing Assy
116	Silver, Hydra-Drive, slipper spring	A-3124	Hydra Drive/Friction Slipper Springs, Cup, Washer
117	Spring retaining washer	A-3124	Hydra Drive/Friction Slipper Springs, Cup, Washer
118	4-40 aluminum lock nut	A-6305	4-40 Aluminum Locking Nuts, Low Profile (10)
119	Slipper spring cup	A-3124	Hydra Drive/Friction Slipper Springs, Cup, Washer
120	Slipper spacer	A-3124	Hydra Srive/ Friction Slipper Springs, Cup, Washer
121	Gold slipper spring	A-3124	Hydra Srive/ Friction Slipper Springs, Cup, Washer
122	Shock 'O' ring	A-5015	Double O'Ring Shock Cartridge (Front/Rear)
123	Shock cartridge body	A-5015	Double O'Ring Shock Cartridge (Front/Rear)
124	Shock cartridge spacer	A-5015	Double O'Ring Shock Cartridge (Front/Rear)
125	Shock cartridge cap	A-5015	Double O'Ring Shock Cartridge (Front/Rear)
126	Shock fluid	A-5224	SILATECH Competition Shock Fluid 350/30 wt
127	Front shock shaft	A-5005	Long Shock Shaft .9"
128	Rear shock shaft	A-5022	X-Long Shock Shaft 1.2"
129	Shock end	A-5023	Spring Clamp & Cups H-Arm (2)
130	Shock spacers	A-5015	Double O'Ring Shock Cartridge (Front/Rear)
131	1/4" swivel ball	A-2006	Swivel Suspension Balls .250 (8)
132	Shock piston	A-5046	Teflon Shock Pistons #56, Red (4)
133	Front shock body	A-5030	.9" Shock Body, Hard Anodized
134	Rear shock body	A-5031	1.2" Shock Body, Hard Anodized
135	Shock spring cup	A-5023	Spring Clamp & Cups H-Arm (2)
136	2.5" rear shock spring	A-5150	2.5" Spring 2.3 Rate (Pink) (2)
137	Shock collar	A-5023	Spring Clamp & Cups H-Arm (2)
138	Front tire	A-7500	Front Truck Tire Ribbed H.T. (2)
139	Rear tire	A-7636G	Rear Truck Tire "Step Pin" Gold w/Foam Inserts (2)
140	Front wheel	A-7077	'XXT' Front "Disc" Wheel w/Caps Neon Yellow (2)
141	Rear wheel	A-7174	Truck "Disc" Rear Wheels w/Caps Neon Yellow (2)
142	Front wheel disc	A-7199	'XXT' Truck "Disc" Wheel Cap Set
143	Rear wheel discs	A-7199	'XXT' Truck "Disc" Wheel Cap Set
144	10-32 lock nut	A-6303	10-32 Locking Nuts (4ea Nylon & Steel) (8)
145	3mm x 8mm cap head screws	A-6201	3mm x 8mm Socket Head w/Washers (10)
146	Gear cover	A-3064	'XX' Gear Cover & Plug
147	4-40 x 1/8" button head screw	A-6212	4-40 x 1/8" Button Head Screws (4)
148	Gear cover plug	A-3045	Slipper Gear Cover Plug (4)
149	Battery spacing foam	A-4015	Foam Battery Block Set 'XX'/'XXT' (2)
150	Battery strap	A-4010	Battery Strap Set
151	Two sided tape	A-4004	Servo Tape (6)
152	Antenna tube	A-4002	Antenna Kit
153	Antenna cap	A-4003	Antenna Caps (8)
154	Front bumper	A-4130	'XX' Front Bumper
155	4-40 x 1/4" flat head screw	A-6213	4-40 x 1/4" Flat Head Socket Screw (6)
156	Window masks	A-8016	'XXT' Body w/Window Masks
157	Double-XT body	A-8016	'XXT' Body w/Window Masks
158	Body clips	A-8200	Body Clips (12)
159	Sticker sheet	A-8315	'XXT' Sticker Sheet