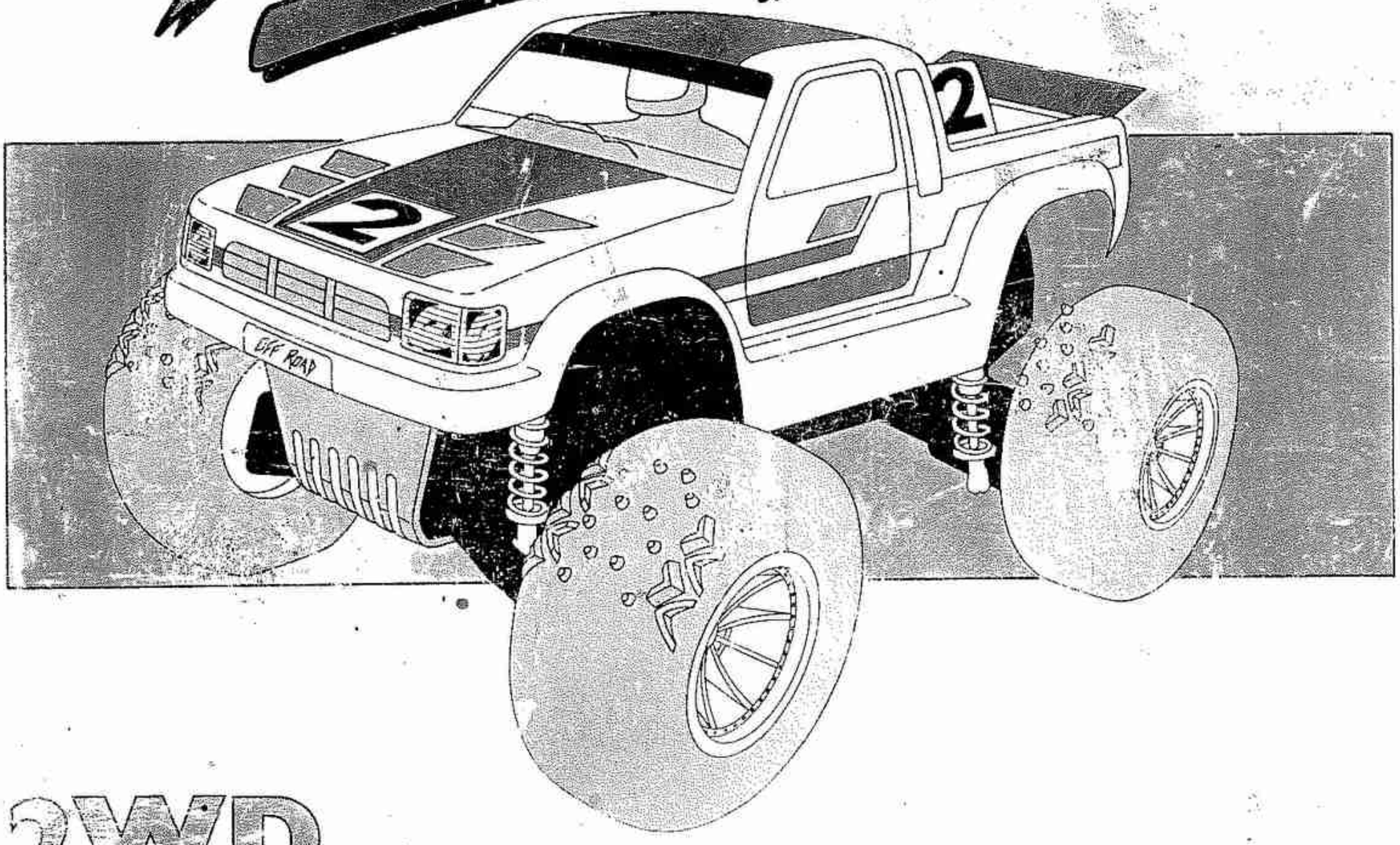
Schumacher

SHOTGUN



2WD RACING TRUCK

INSTRUCTION MANUAL

MANUFACTURED & DISTRIBUTED BY
Schumacher
Hanson Business Park,
71-73 Tenter Road, Moulton Park,
Northampton NN3 1AX.

Performance and technology that *YOU CAN BUY!*

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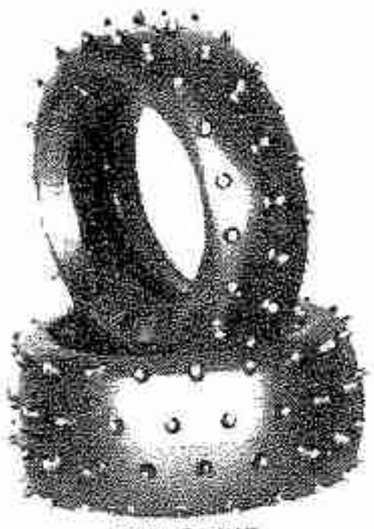
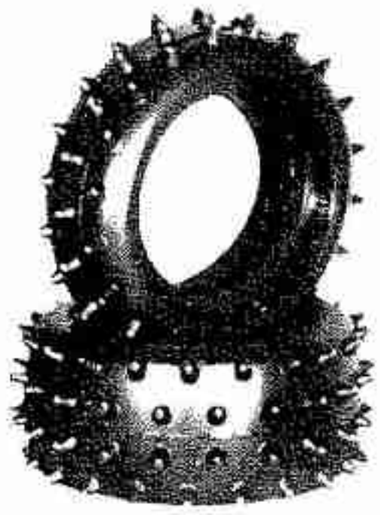
NEW BLUE NATURALS



CUT SPIKE
T696N 4 x 20 REAR
T697O 3 x 20 FRONT

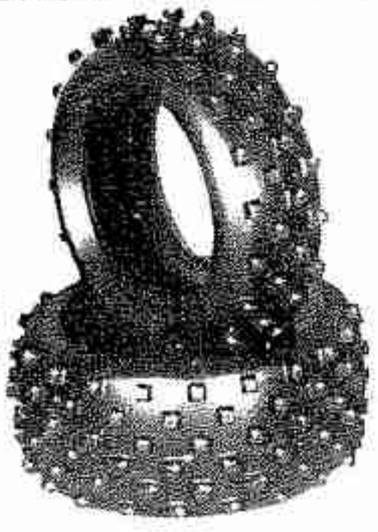
MINI SPIKE
T679W 15 x 12 REAR
T681Y 11 x 12 FRONT

MINI SPIKE
T690H 5 x 24 REAR
T691I 4 x 24 FRONT



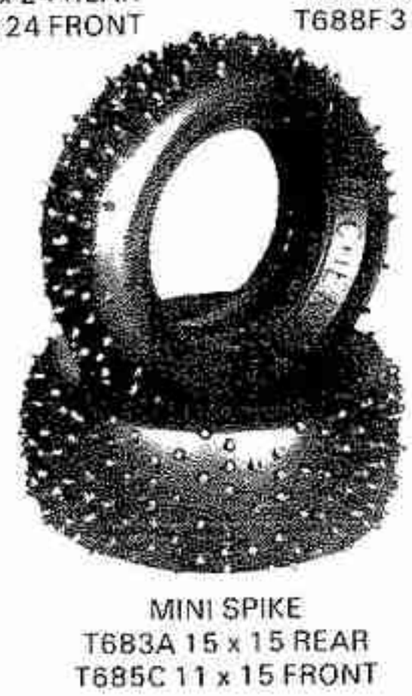
SPIKE
T687E 4 x 20 REAR
T688F 3 x 20 FRONT

CUT SPIKE
T694L 6 x 20 REAR



BLOCK
T692J 6 x 20 REAR
T693K 4 x 20 FRONT

ROAD & TRACK
T6500U-RT-1 Fr.
T6501V-RT-1 Rr.

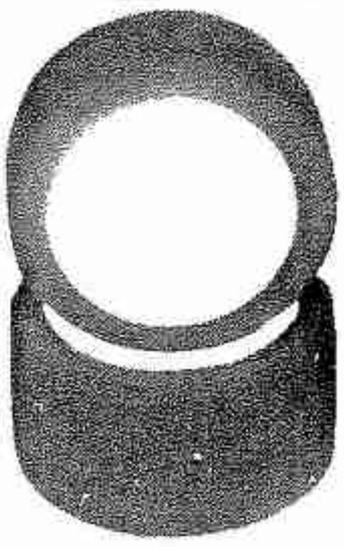


MINI SPIKE
T683A 15 x 15 REAR
T685C 11 x 15 FRONT

FRONT STUD
T689G

FRONT
RIB SPIKE
T695M

VEE 4 TRUCK
T6503X



SPONGES
T670N FRONT
T671O REAR

VEE 2 TRUCK
T6502W

FRONT RIB
T698P

NEW BLUE NATURALS

The whole range of Schumacher's world famous CAT tyre range is now being produced in a secret new natural compound of the very highest quality. The new compound designated 'BLUE' gives very high levels of grip in slippery conditions and is strong enough to give massive bite when the traction is high. If you are racing to win always insist on Schumacher tyres.

RACING TRUCK TYRES

Unique high traction tread patterns, VEE-2 and VEE-4, give your racing truck superb handling and awesome grip. Designed to fit the Schumacher Shotgun and other 2 · 2 inch truck rims.

ROAD AND TRACK TYRES

Super realistic low profile road tread tyres give you the ultimate in grip, stability and long life when racing on tarmac or asphalt. Computer designed tread pattern that not only looks great but also performs.

AVAILABLE FROM ALL GOOD MODEL SHOPS

GRIP

SCHUMACHER

SHOTGUN

INTRODUCTION

Congratulations on choosing the SHOTGUN Racing Truck.
The SHOTGUN is a true off road racing machine, it has been designed so that adjustments can be made to suit different track conditions and driving styles, enabling you to be competitive at all times.
Straight forward modular construction and clear concise instructions will give experts and beginners alike superb reliability and great performance.
Have a blast! Enjoy your racing!

Cecil Schumacher

IMPORTANT SAFETY NOTES

1. Select an area for assembly that is away from reach of small children. The parts are small and can be swallowed by children causing choking and possible internal injuries.
2. Shock fluids, grease and adhesives should be kept out of childrens reach. They are not toxic, but 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 manufacturers warnings and cautions for any glues or paints that may be used for assembly purposes.

In line with our policy of continuous development the exact specification of the kit may vary.

Places to put threadlock. (It will prevent the screws and nuts vibrating loose.

Points where silicone grease (MS 1 or equivalent) should be applied. (It will reduce friction and assure smooth movement.)

Points where oil should be applied (Light machine oil, 3 in 1 or similar.)

MISSING OR DEFECTIVE PARTS

In the unlikely event of problems with your new kit you should contact the model shop where purchased, quoting part number, bag number and batch number for both the bag and the kit.

SCHUMACHER RACING PRODUCTS

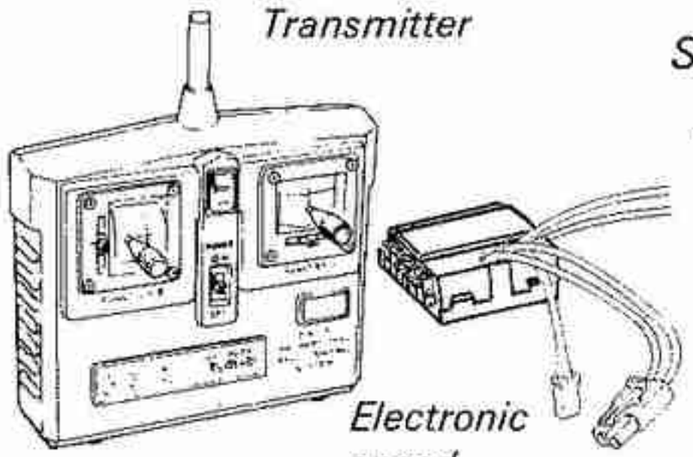
Hanson Business Park · 71-73 Tenter Road · Moulton Park · Northampton · NN3 1AX

THINGS NEEDED BESIDES THE KIT

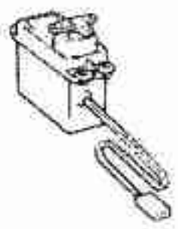
(2 Channel Radio System)

Two types of radio control sets are on the market, the stick type and the steering wheel type. Choose which ever you like.

Transmitter



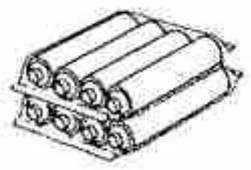
Servo



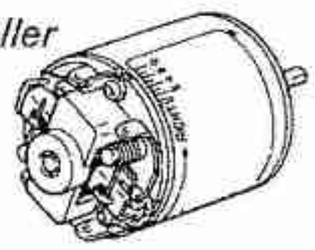
Receiver

(Battery for Radio system)

AA Size Battery (For Transmittor .... 8 pcs.)



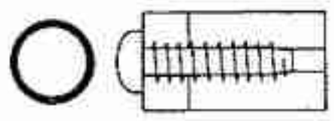
Electronic speed controller



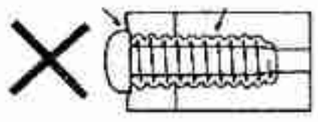
540 Type Motor

7.2V racing battery

Do not use excessive force when tightening the self-tapping screws, or you may strip the thread in the plastic. It is recommended to stop tightening it when the threaded part on the screw goes into the plastic part and you feel some resistance from the tightening.



Good



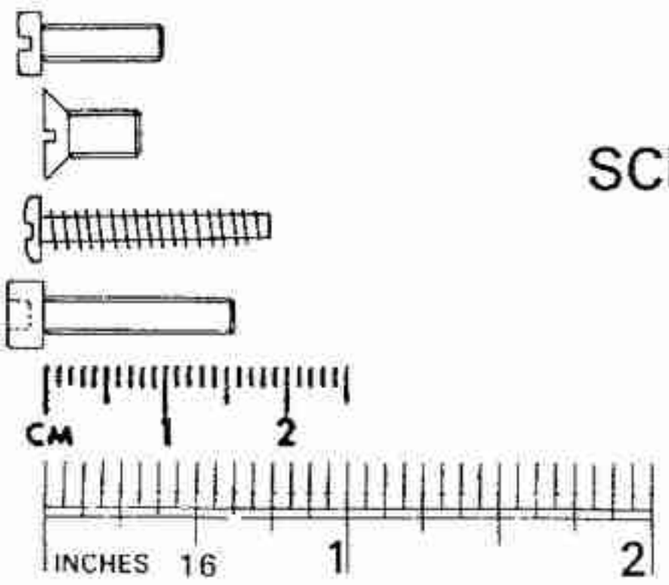
Over tighten and may strip the thread in the plastic

CH HD Cheese head

CSK HD Countersunk head

PAN HD Self tap thread

CAP HD Cap head



SCREW IDENTIFICATION CHART

TOOLS REQUIRED FOR ASSEMBLY

Screwdriver
Spanner 5.5mm A/F
Spanner 1/4 A/F
Drill (for holes in bodyshell & covers)
Pliers
Vice
Sharp Knife
File
Pointed nose pliers or cutters

MATERIALS REQUIRED

(not in kit)

Threadlock
Light oil for shock absorbers
Polycarbonate paint for bodyshell
Motor, batteries, radio control equipment
speed controller

"For best performance, it is very important that great care is taken to ensure the free movement of all parts."

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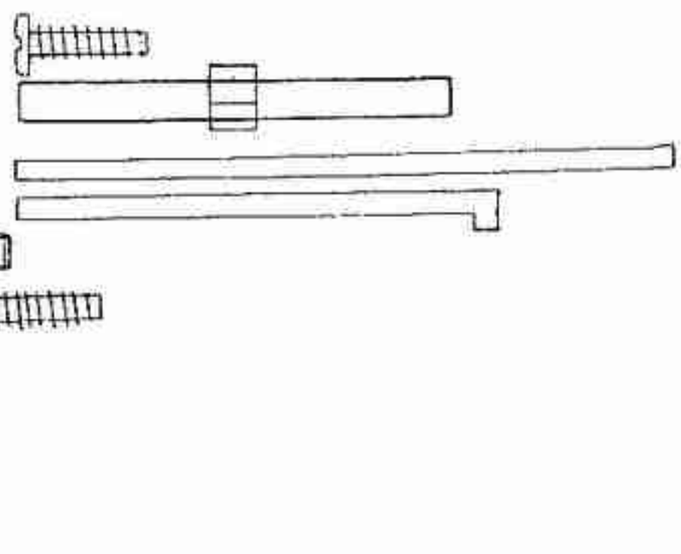
SHOTGUN

REAR SUSPENSION

Bag No. U566

HARDWARE



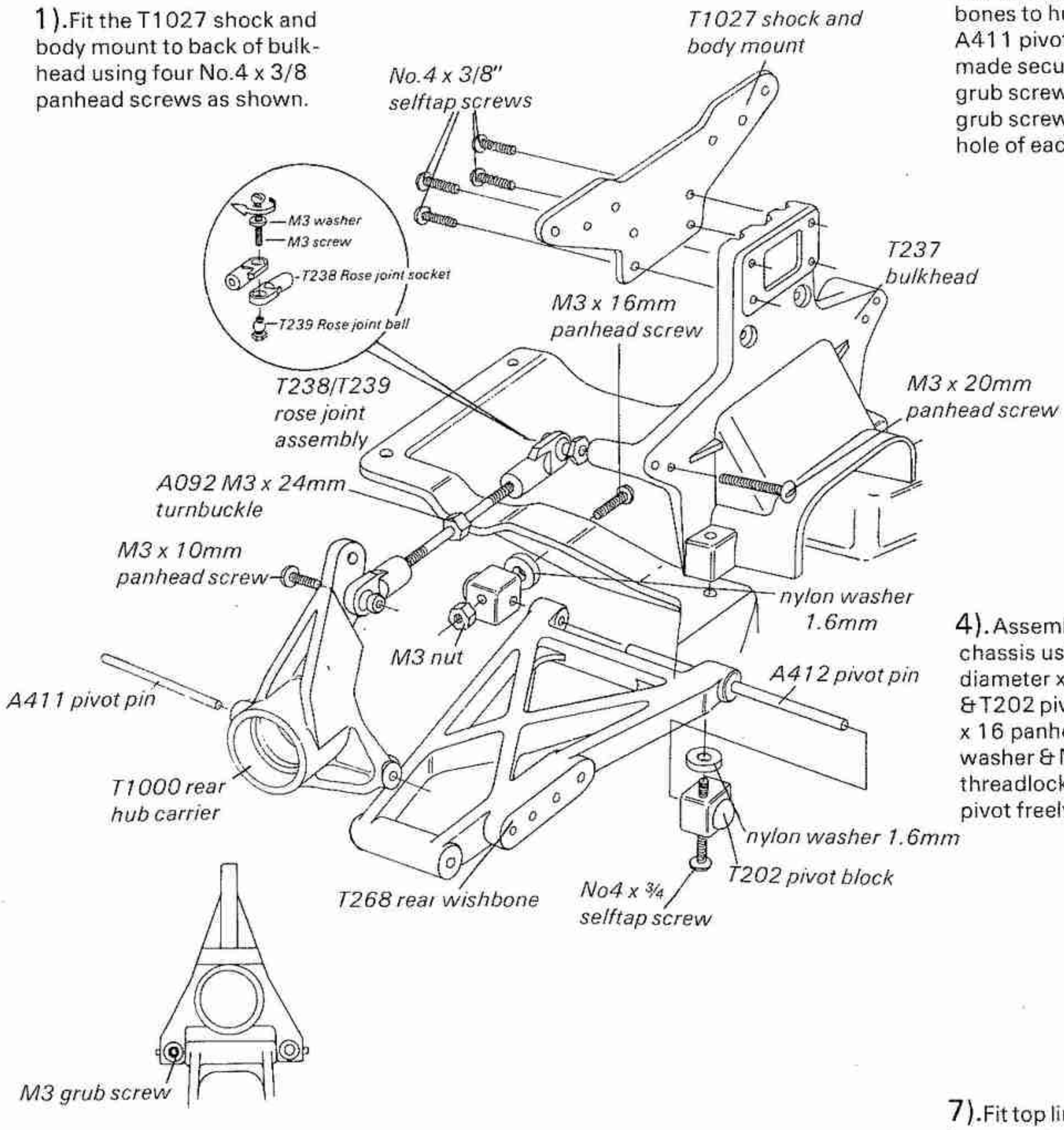
Self tap screw No.4 x 3/8 pan head
Stud M3 x 35mm long
A412 Stainless steel pin 2 x 54mm long
A417 Pivot pin 2 x 40mm
M3 x 20 Pan head screw
No.4 x 5/8 Pan head self tap screw
M3 x 10 pan head screw
M3 Nut
Nylon washer 8 x 3 x 1.6mm
M3 x 16 Pan head screw

NOTE:
Before assembly it is advisable to smooth all the edges of the alloy chassis using a fine grade of abrasive paper.

1). Fit the T1027 shock and body mount to back of bulkhead using four No.4 x 3/8 panhead screws as shown.

2). Fit bulkhead assembly to chassis together with T202 pivot blocks using No.4 x ¾ panhead self-tap screws.

3). Assemble T268 rear wishbones to hub carriers using A411 pivot pins. The pin is made secure using an M3 grub screw as shown. This grub screw fits in the rear hole of each hub carrier.



4). Assemble wishbones to chassis using A412 2mm diameter x 54mm long pins & T202 pivot blocks using M3 x 16 panhead screw, nylon washer & M3 nut; secure with threadlock. Wishbones must pivot freely.

5). Assemble 4 rose joints by fitting the T239 rose joint ball into the T238 rose joint socket using a screw & washer as shown. The upper socket in the diagram is used as a spacer to aid assembly only.

6). Make both rear suspension top links by screwing rose joints on each end of the M3 x 24mm long stud. Equalise thread engagement & make length approximately 43mm between centre holes.

7). Fit top links, seating on the hexagon end, using M3 x 20 panhead screws in the inboard hole in the bulkhead and M3 x 10 panhead screws in the hub carrier. Tighten securely using threadlock. Use the lower hole in the hub carrier as shown see track settings page 19.

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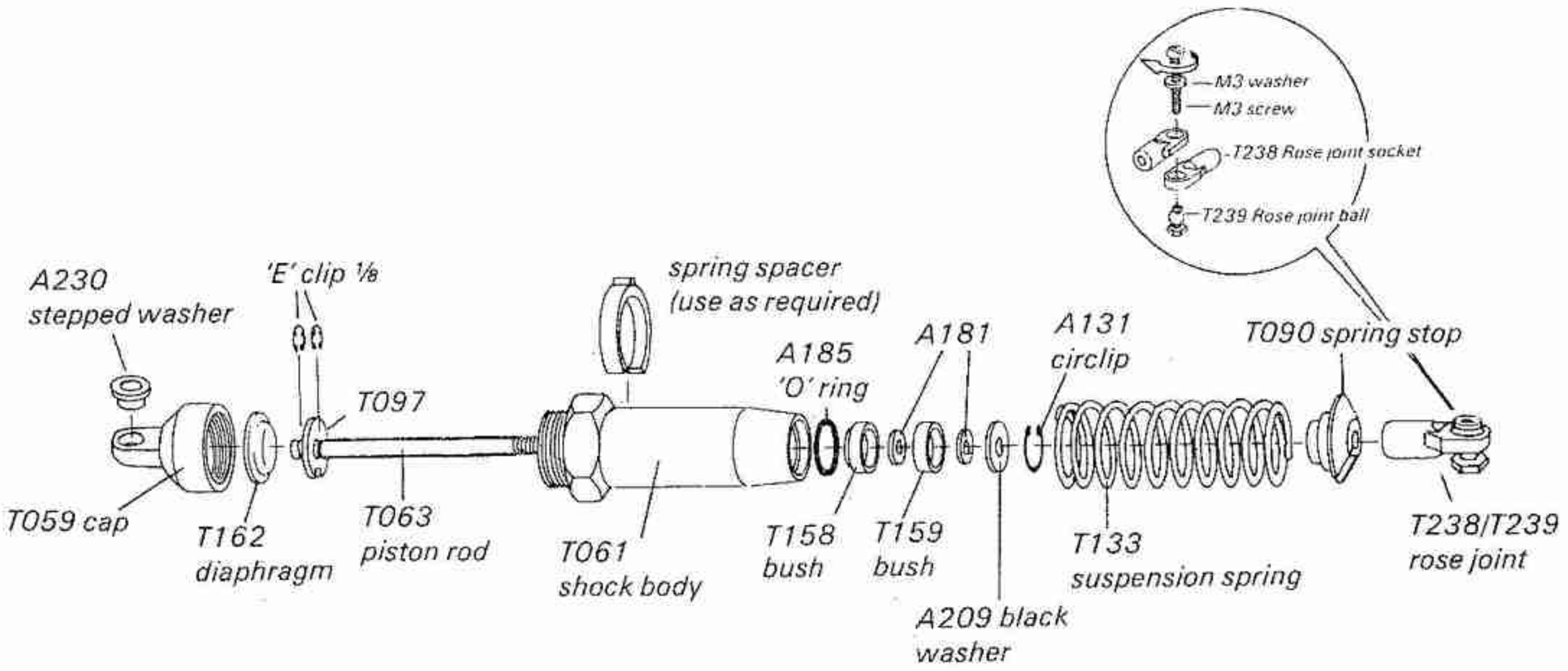
SHOTGUN

SHOCK ABSORBERS

Bag No. T567

HARDWARE

A181 Silicone 'O' ring 1/8"
A185 'O' ring 5.0 x 1.6mm
T162 Shock absorber diaphragm
A209 Black washer 3.3 x 7.8 x 0.8
T059 Cap-shock absorber
T063 Piston rod 32mm stroke
T090 Spring stop
A230 Stepped washer
T092 Spring spacer 1.0
T093 Spring spacer 2.0
T094 Spring spacer 4.0
T095 Spring spacer 8.0
A038 M3 x 12 caphead 
T238 Rose joint socket
T239 Rose joint ball
T097 Piston 2 sq.mm hole
A208 Nylon washer
T117 Front spring stop spacer
T133 Suspension spring 045 x 11 x 2.5 rear
T158 Bush & seal housing
T159 Seal housing
A103 'E' clip 1/8 x 0.12"
A131 Circlip 8mm x 0.39
T061 Body long
A039 M3 x 16 caphead 
A048 M3 nut
A051 Nyloc nut



Deburr circlip grooves and threads on piston rods T063 before assembly to avoid damage to the seals. Fit a small 'E' clip A103 to the lower groove in the piston rod, followed by a T097 piston (large notch) retained with a second 'E' clip.

Repeat the procedure with the other piston rods and T097 piston (large notch). Make sure all the 'E' clips are secure in their grooves; Check assembled piston in shock absorber body for clearance over the whole length of stroke.

Diagram shows the order of assembly for the shock absorber seals and bushes; the sequence being:- A185 'O' ring; T158 bush and seal housing; A181 'O' ring; T159 seals housing; A181 'O' ring A209 black washer; and finally, the A131 circlip to retain the assembly.

The above sequence is the same for all four shock absorbers. Lightly oil the four piston rods. Carefully push rods down through their respective shock absorber bodies to avoid damage to the seals. Screw two T238 rose joint assemblies to the bottom of the shock absorber piston rods; do not damage the piston rod. Cut two 6mm lengths from the black T117 spacer tube and slide one of these onto two of the piston rods before fitting the two T238 rose joint assemblies. These are the front shocks. With the piston rods extended fill the shock absorbers with a light oil. Work the pistons up and down to release any trapped air. Fit the T162 shock absorber diaphragm, into the oil filled shock absorber body so that all air is expelled. Fit T059 cap and check for smooth Action. Fit the suspension spring to the shock absorbers and retain with a T090 spring stops. Insert spring spacers T092/T093/T094/T095 as required to adjust the ride height. Press the A230 stepped washer into the T059 cap of each rear shock absorber. Fit M3 x 16 caphead screw to T1027 mount and lock in place using M3 nuts. (see main diagram). Fit rear shock absorber and retain with one A208 nylon washer and one A051 nyloc nut. Do not fully tighten nut. shock absorber must have some clearance over the full range of suspension travel. At the bottem, screw M3 x 12 caphead screw through rose joint ball and into the third hole out in the lower wishbone; hexagon head towards wishbone. Front shock absorbers, see page 9.

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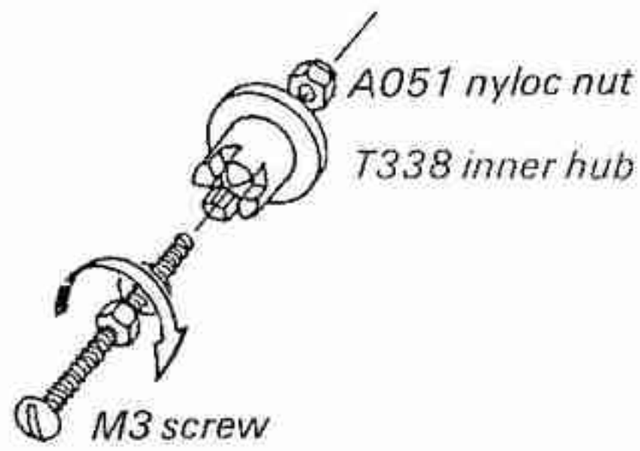
SHOTGUN

FRONT SUSPENSION

Bag No. U558

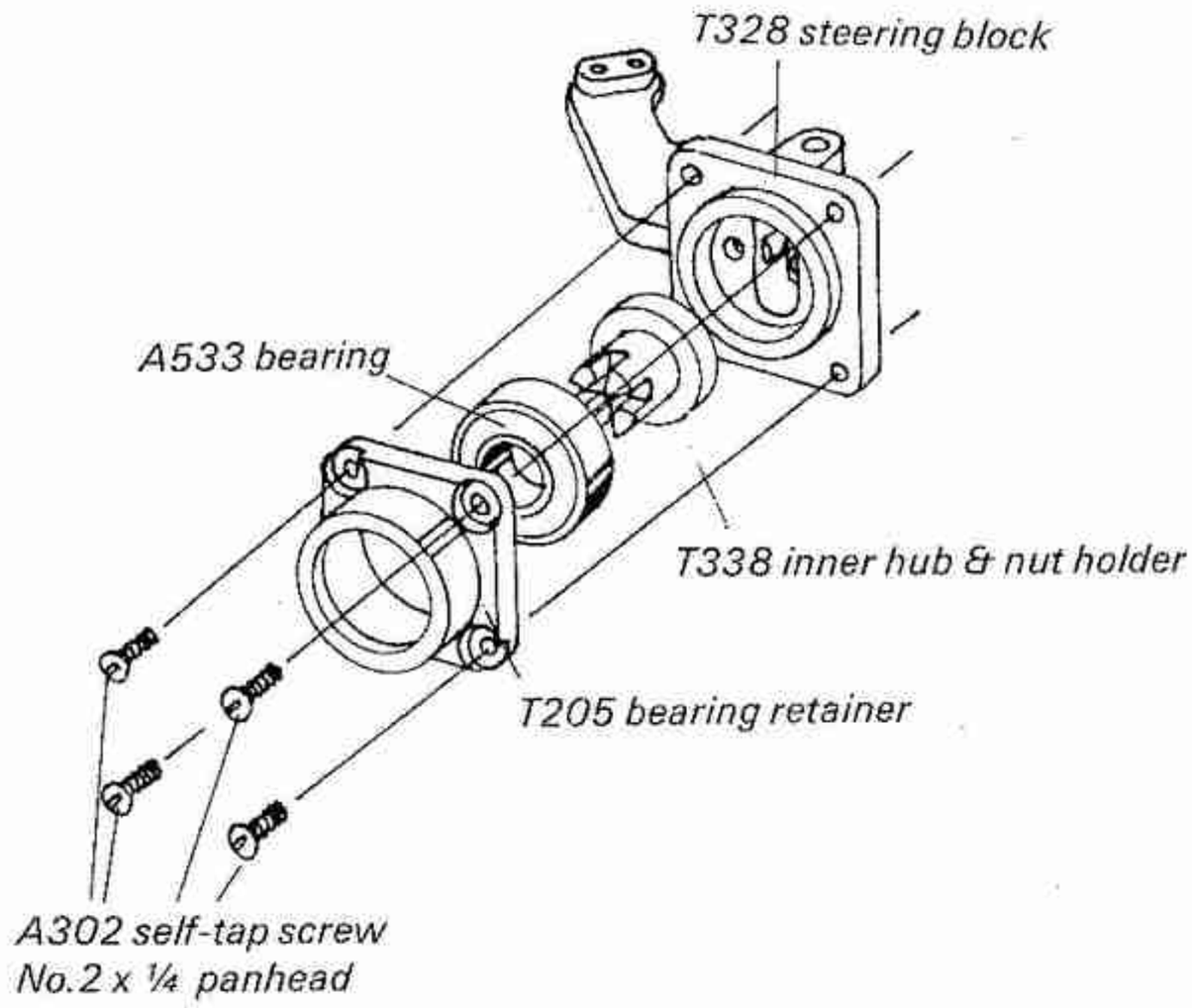
HARDWARE

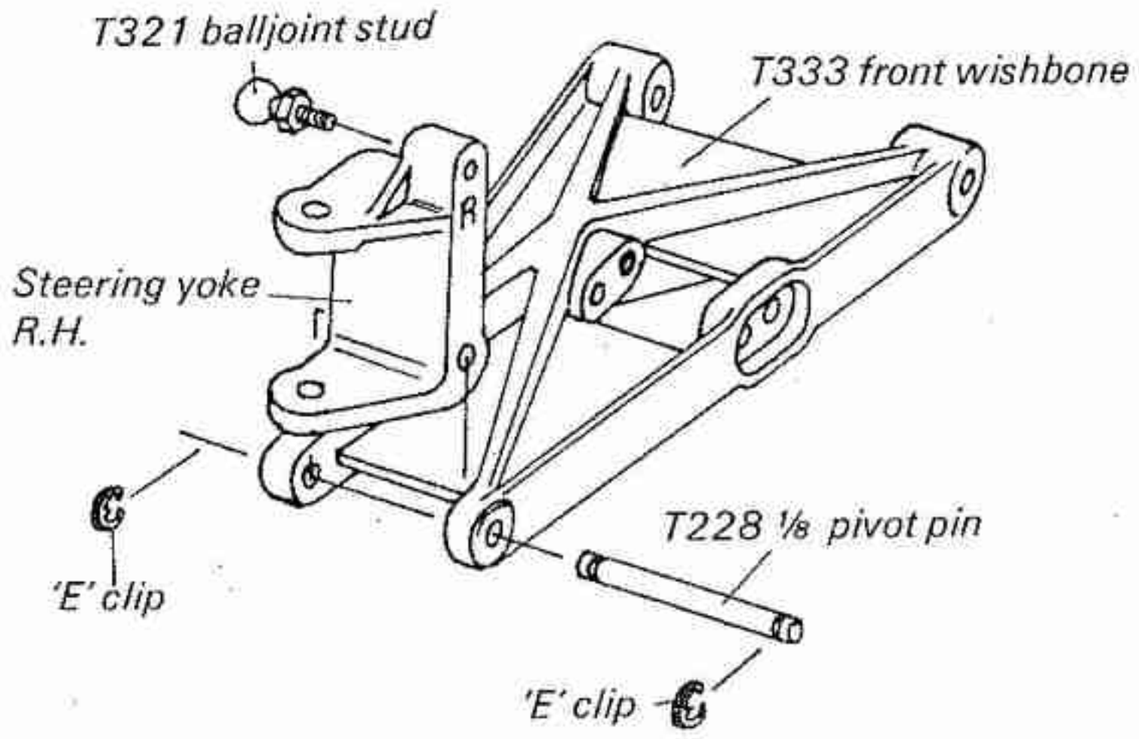
Self-tap screw No.2 x ¼" panhead
Nyloc nut M3
T228 ⅛" pivot pin short
'E' clip



1). Push an A051 nyloc nut into the two T338 inner hubs. Pull into position using an M3 screw, washer and nut as shown.

2). Push T338 inner hub into the A533 bearing with the flange of the hub next to the brown bearing shield. Push the bearing into the T205 retainer and secure to the T328 steering block using 4 No.2 x ¼" panhead self-tap screws. Repeat the assembly for the other steering block.





3). Screw a T321 ball joint stud to the steering yoke RH (marked with an 'R') as shown. Fit the T332 steering yoke RH to T333 front wishbone using a T228 ⅛" pivot piin as shown Secure the yoke using 2 'E' clips. The yoke must pivot freely. Repeat the assembly for the lefthand steering yoke.

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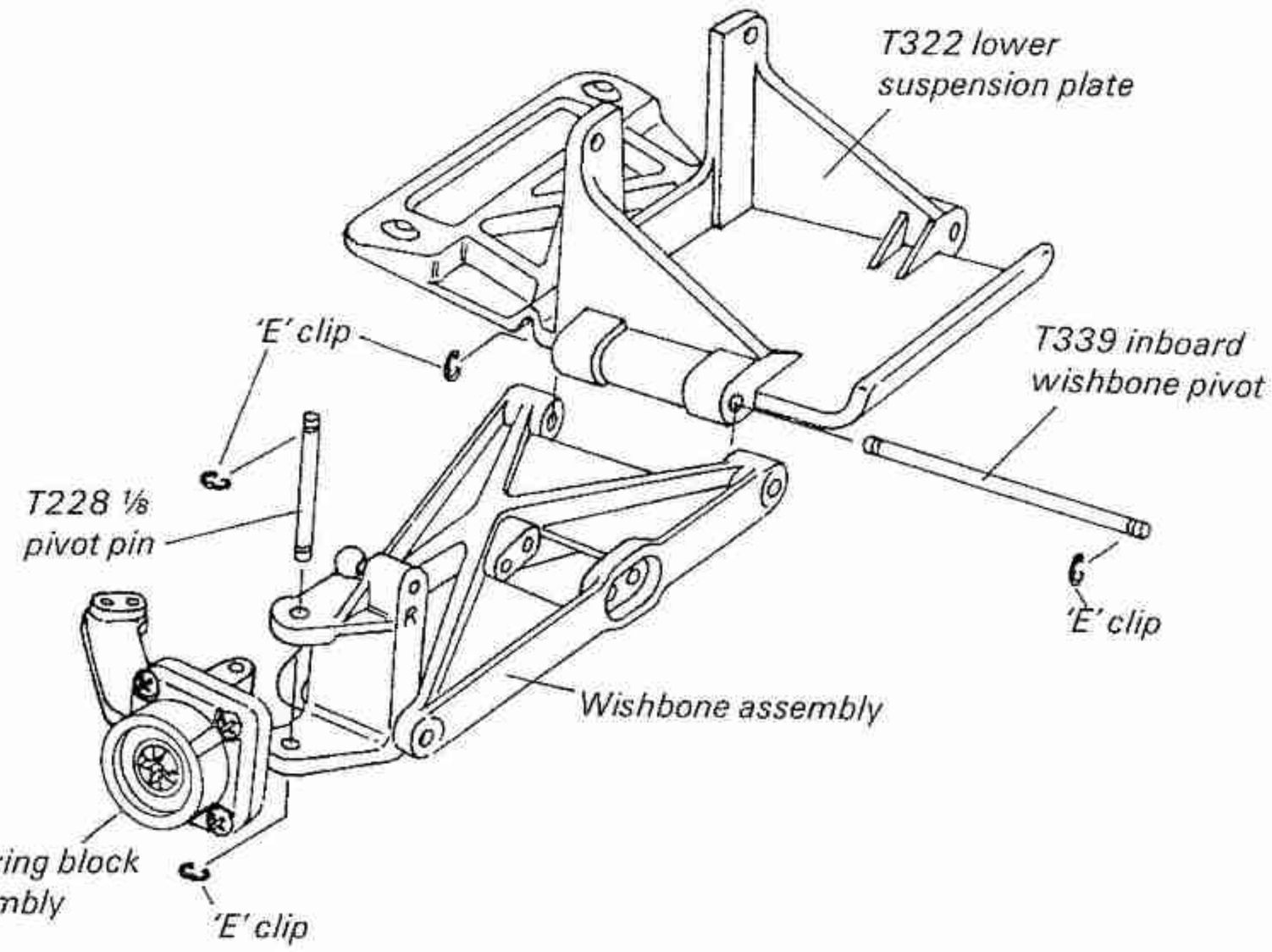
SHOTGUN

FRONT SUSPENSION

Bag No. U558

HARDWARE

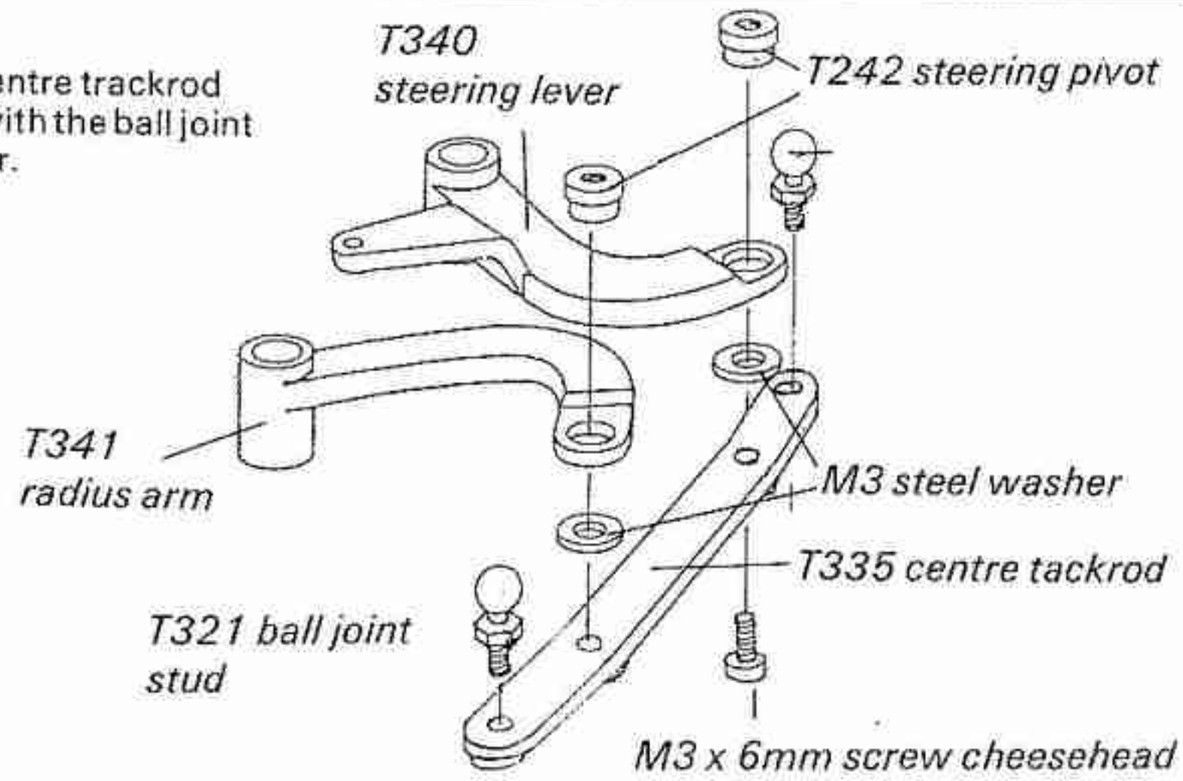
T339 Inboard wishbone pivot
T228 ⅛" pivot pin short
'E' clips
M3 x 12mm steel screw countersunk
M3 steel washer
M3 x 6mm steel screw cheesehead

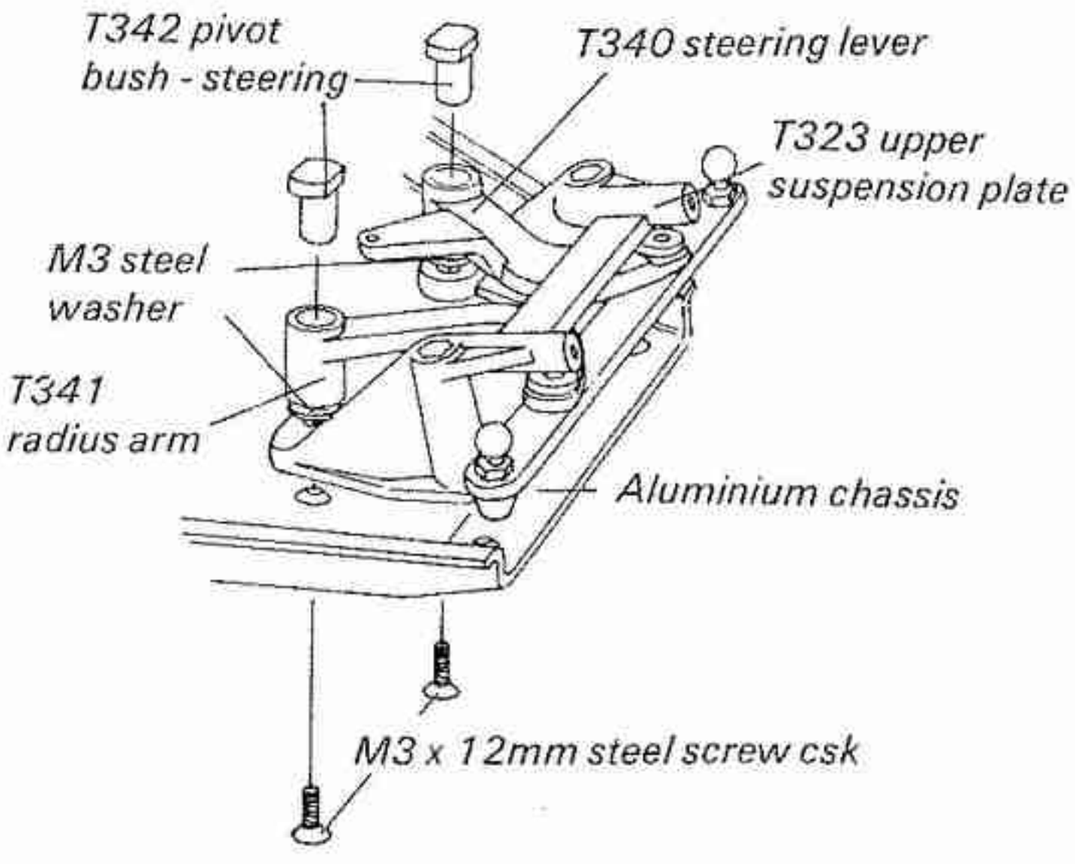


4). Fit a steering block assembly to the righthand steering yoke using a T228 ⅛" pivot pin and secure with 2 'E' clips. The steering block must pivot freely. Fit the complete wishbone assembly to the T322 lower suspension plate using T339 inboard wishbone pivot pin. Secure with two 'E' clips. The wishbone must pivot freely. Repeat the assembly for the lefthand side.

5). Screw T321 ball joint studs into the outer holes in the T335 centre trackrod as shown. Fit the T340 steering lever and T341 radius arm to the T335 centre trackrod using T242 steering pivot A225 steel washer and A032 M3 x 6mm cheesehead screws. Both levers must pivot freely. Fix screws firmly but do not overtighten and secure with threadlock.

Please Note: T335 Centre trackrod must be assembled with the ball joint stud offset to the rear.





6). Place the T323 upper suspension plate onto the front of the aluminium chassis in the position shown. Fit the steering levers and trackrod assembly to he chassis using two aluminium T342 pivot bushes, steel washers and A023 M3 x 12mm countersunk screws as shown. Fix screws firmly but do not over tighten and secure with threadlock. The levers must pivot freely.

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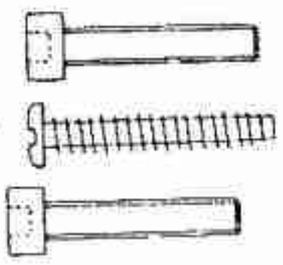
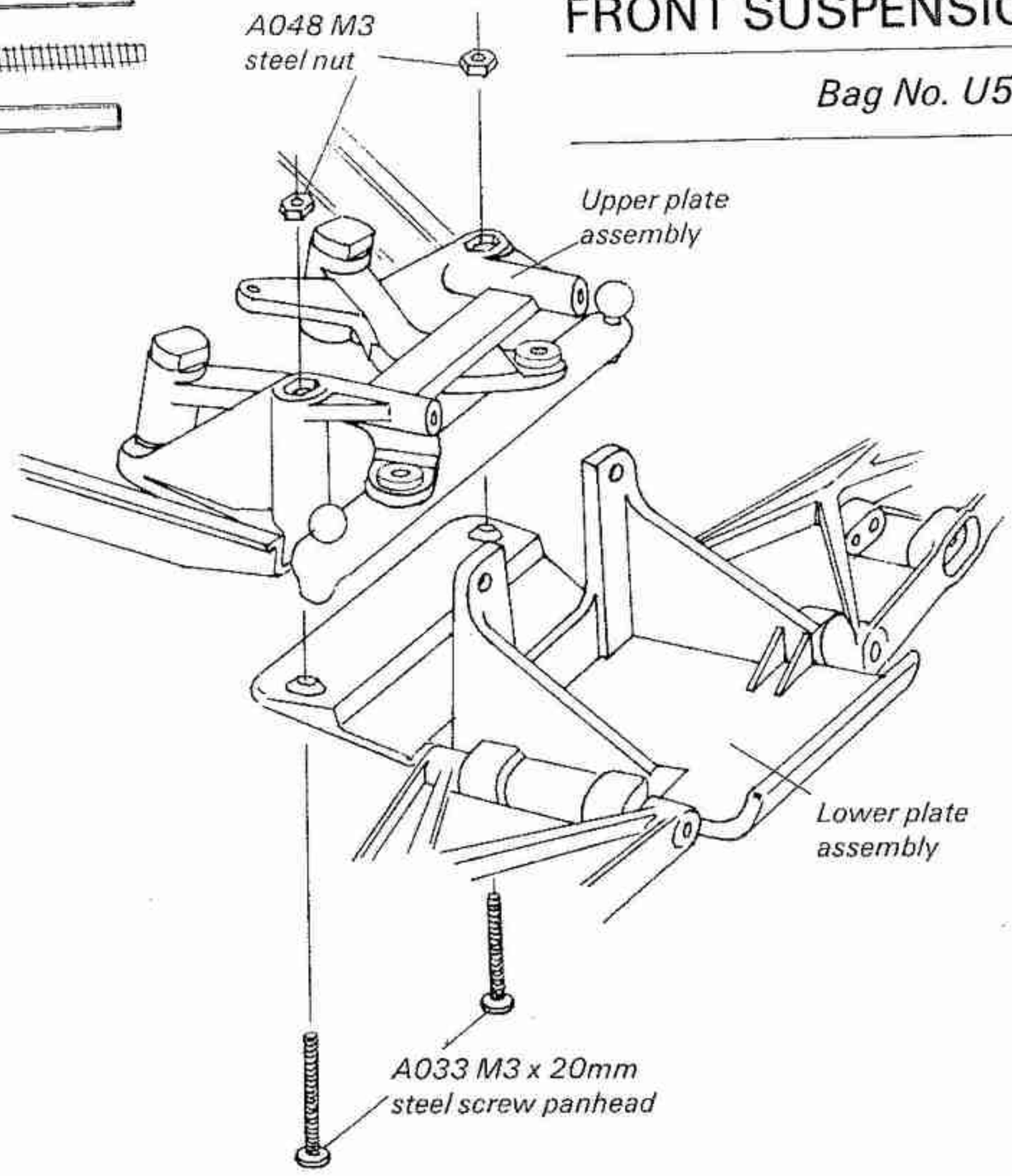
FRONT SUSPENSION

Bag No. U558

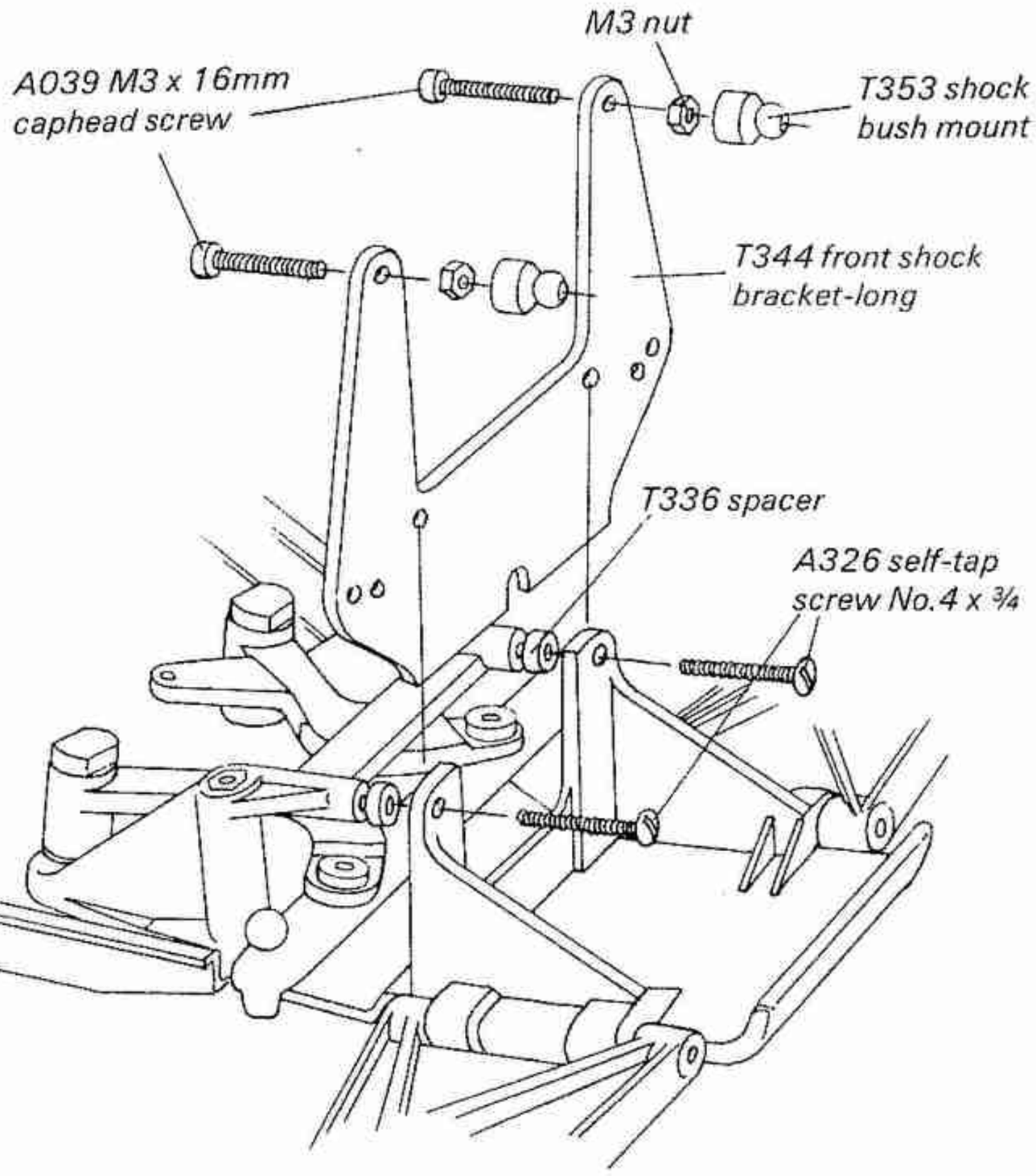
HARDWARE

M3 nut
M3 x 20mm steel screw panhead
No.4 x ¾" self-tap screw panhead
M3 x 16mm steel screw caphead





7). Fit the complete lower suspension plate assembly to the underside of the front of the aluminium chassis using A033 M3 x 20mm panhead screws and M3 nuts. Secure the nuts with threadlock.



8). Insert the T344 fibreglass front shock bracket into the slot in the lower suspension plate. Secure the whole front suspension unit using A326 No.4 x ¾" self-tap screws and T336 spacers as shown. The front suspension rake and caster angle can be adjusted using one or two spacers, or none at all. It is suggested that at first only one spacer is used each side, this gives a rake angle of 20 . Two spacers each side gives a rake angle of 15 and with no spacers the rake angle is 25 . Experiment with rake angle for different track conditions. (see track settings) At the top of the fibreglass front shock bracket fit A039 M3 x 16mm caphead screws and secure with M3 nuts. Fit T353 shock bush mounts over each M3 nut as shown.

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SHOTGUN

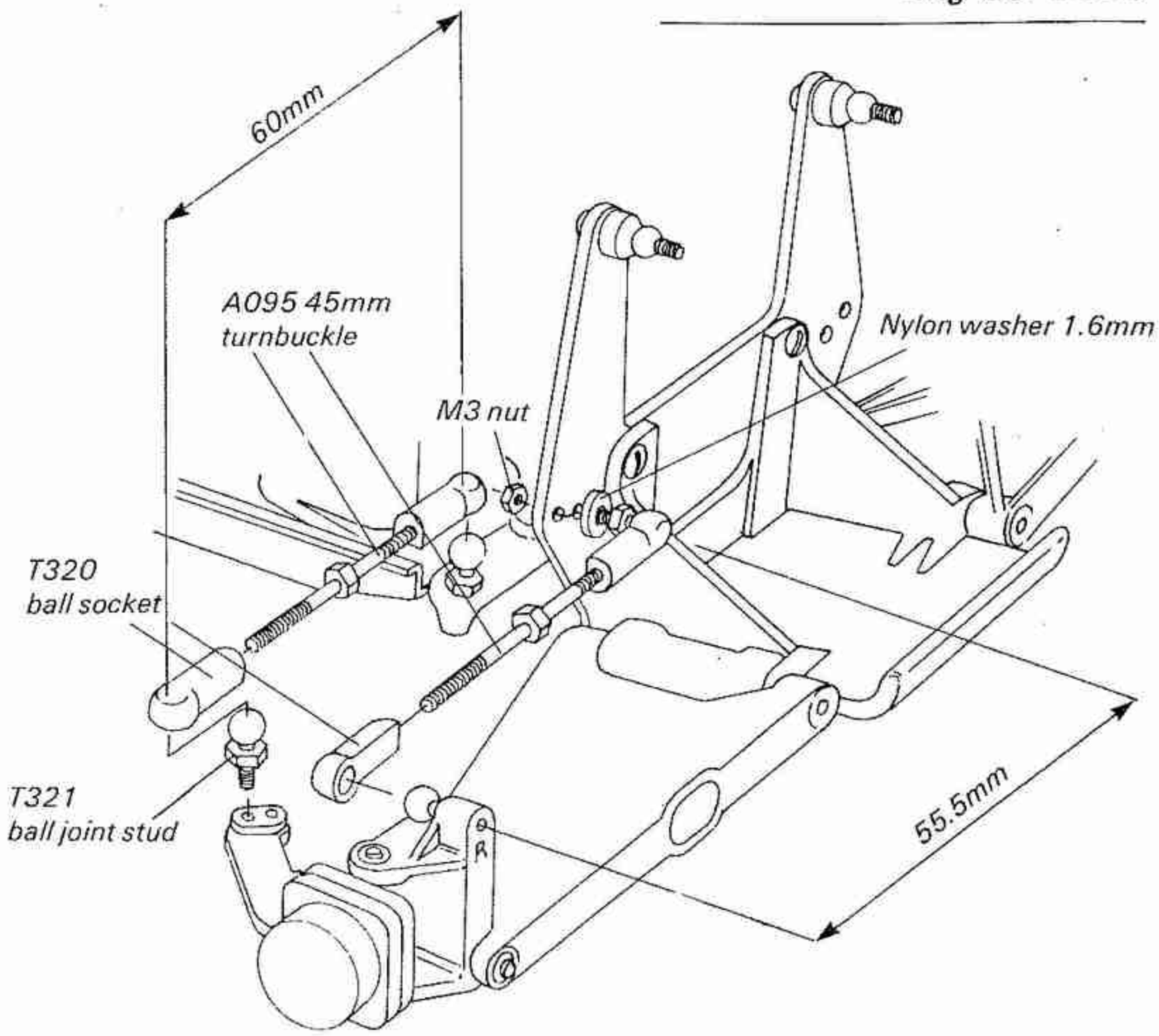
FRONT SUSPENSION

Bag No. U558

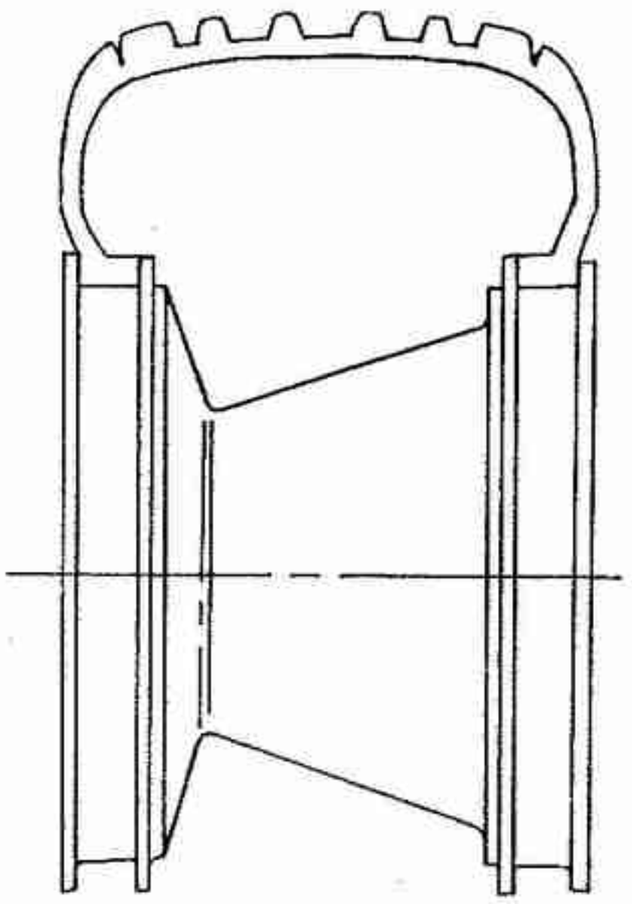
HARDWARE

M3 nut
Nylon washer 1.6mm
M3 nyloc nut
M3 x 12 caphead screws

9). Fit a T321 ball joint stud and nylon washer into the outer hole in the fibreglass bracket and secure with an M3 nut and threadlock as shown. Repeat for the opposite side. The ball joint stud should face towards the front of the car. Screw a ball joint stud into the outer hole of the righthand steering block. Repeat for the lefthand side. Make up the front suspension top links by screwing T320 ball sockets to each end of two A095 M3 x 45mm turnbuckles. These have a right and lefthand thread to aid adjustment when fitted on the car. Equalise thread engagement and make length approximately 55.5mm between hole centres. Fit the top links to the car by spring fitting over the ball joint studs as shown. Make up the steering trackrod links in the same way using M3 x 45mm turnbuckles. Fit the steering trackrod links to the car by spring fitting over the ball joint studs as shown. Make the length approximately 60mm between hole centres.



10). Fit the front shock absorbers to the car by fitting the top of the shock absorbers over the T353 shock bush mounts and secure with M3 nyloc nuts. Do not overtighten, shock absorber must have free movement over the full range of suspension travel. Insert the rose joint at the base of the shock absorber into the slot in the front wishbone. Fix to the wishbone using an A039 M3 x 16mm caphead screw into the inboard of the two holes. (see main diagram - centre pages).



11). Fit tyres to wheels taking care to ensure that the tyre bead properly seats in the grooves of the wheels. Make sure wheels do not have 'flash' at the joint line which could prevent tyre bead from sitting properly in position.

12). Fit front wheels by first assembling A038 M3 x 12 cap head screws into wheels. Then, with screw acting as a pilot, fit to hub carrier; push hard into place and feel engagement of dogs before tightening wheel retaining screw.
(See main drawing)

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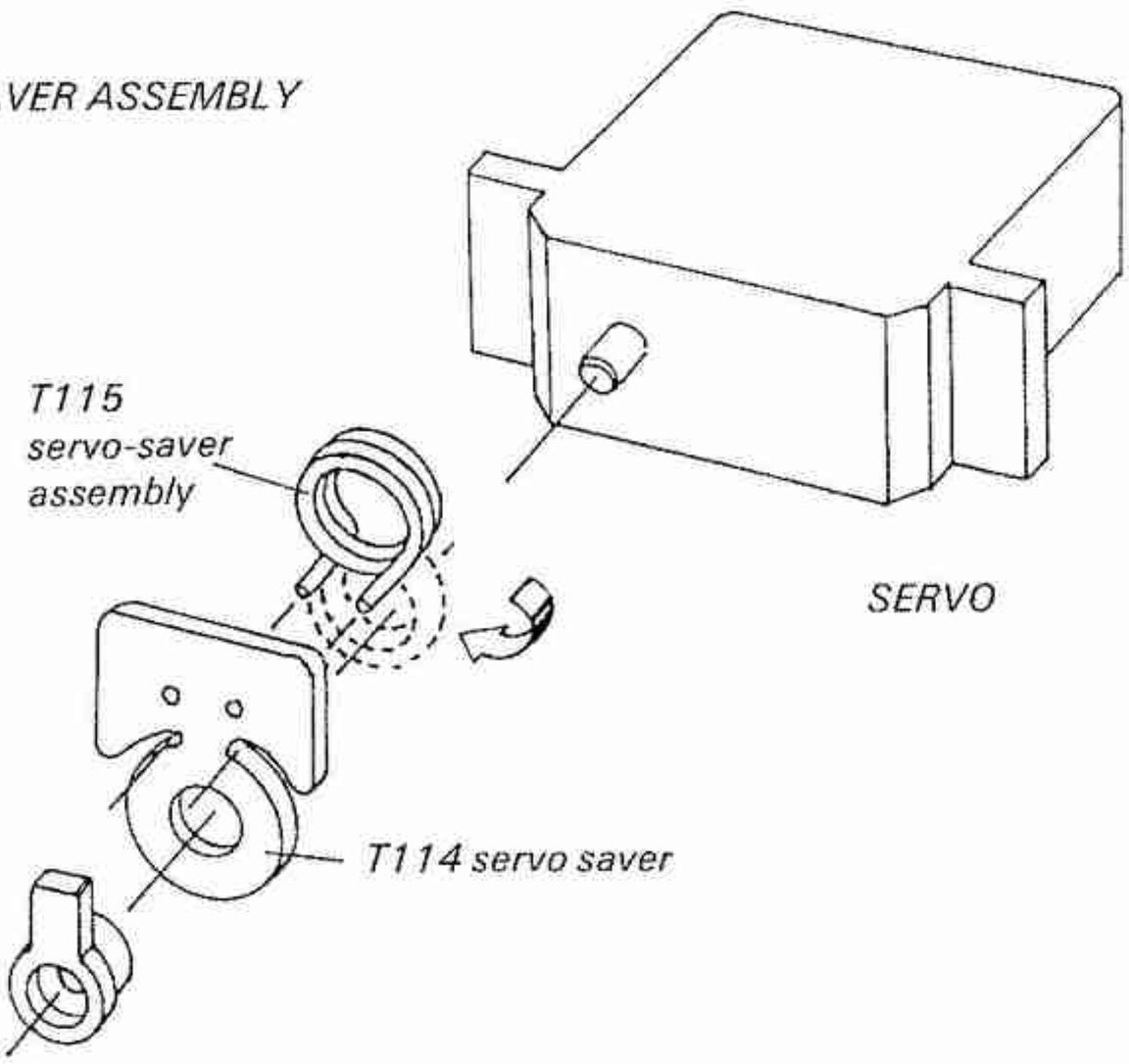
SHOTGUN

NICAD INSTALLATION

HARDWARE

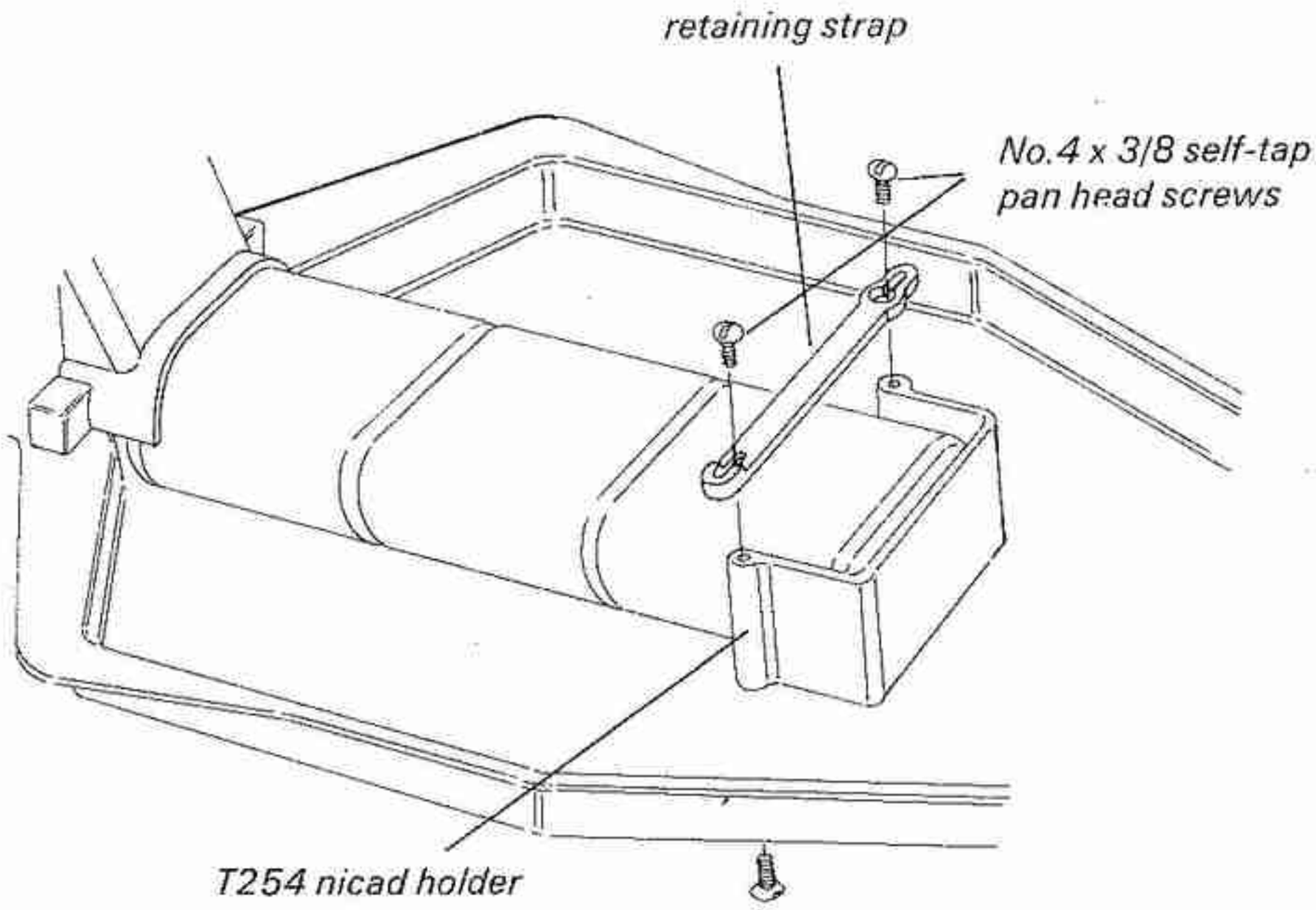
No.4 x 3/8 self-tap panhead
No.4 x 3/8 self-tap countersunk head screws

SERVO SAVER ASSEMBLY



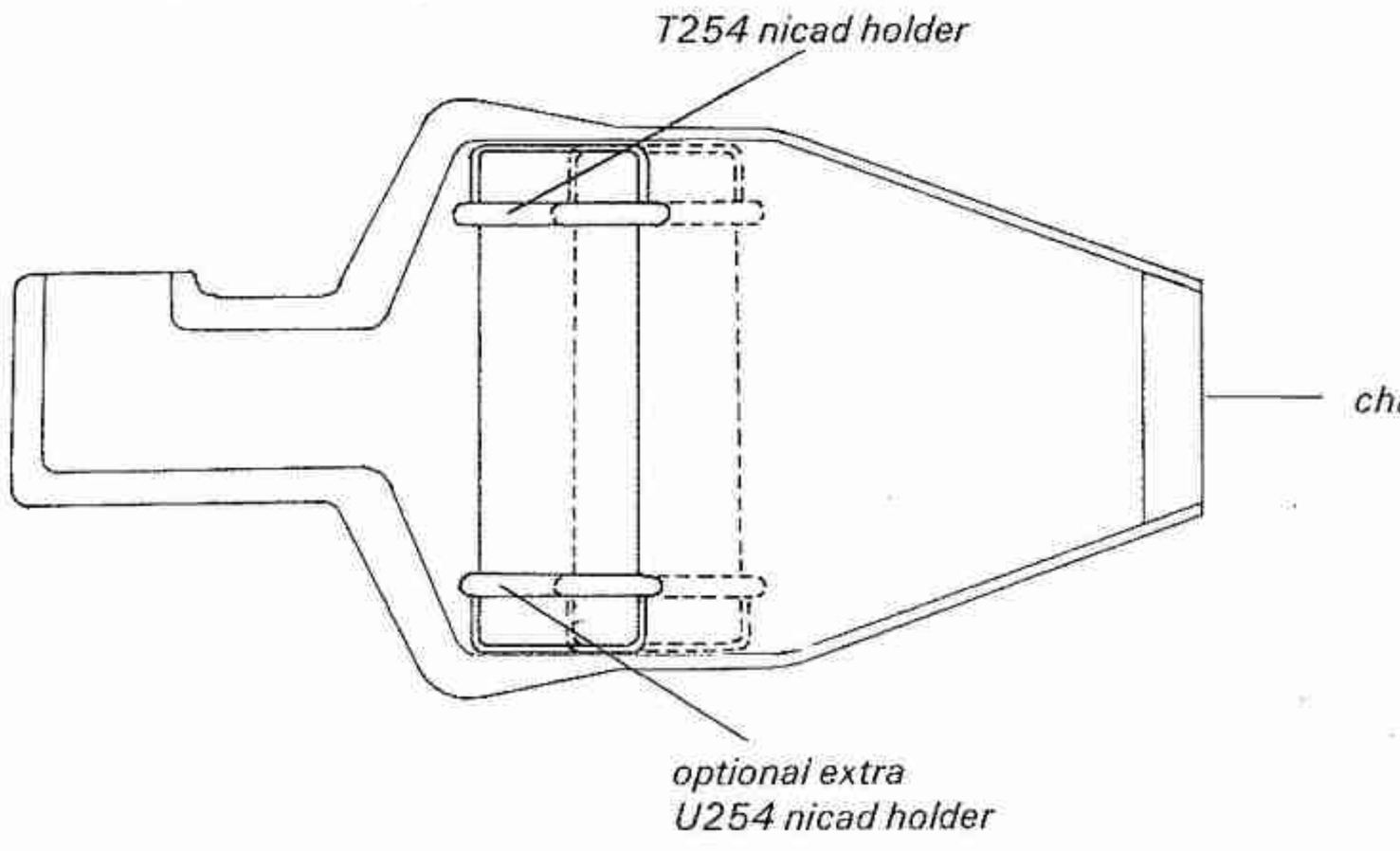
13). Select the servo saver fitting to suit your servo and fit the T115 servo saver spring over the T114 moulding as shown; twist the spring downwards into its correct position. The coils of the servo saver must tighten as the saver operates.

Fitting Nicads



14). Fit T254 nicad holder to chassis using No.4 x 3/8 countersunk head self-tap screws. Add retaining strap using No.4 x 3/8 pan head self-tap screws.

Nicad-Optional Arrangement



NOTE:
The nicads can be fitted in a saddlepack arrangement with use of our quick release straps and posts, available as U743Q.

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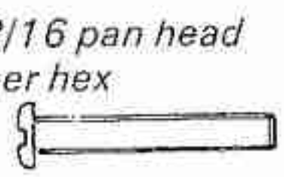
SHOTGUN

TRANSMISSION ASSEMBLY

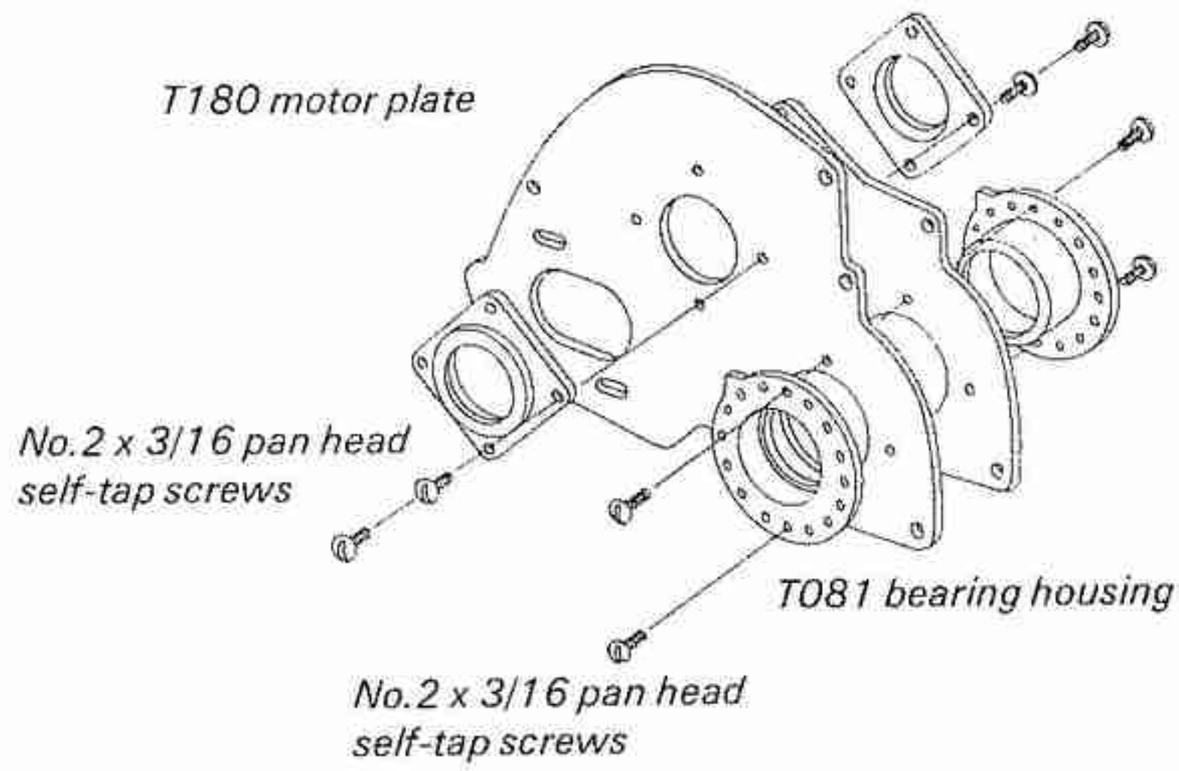
Bag No. U550

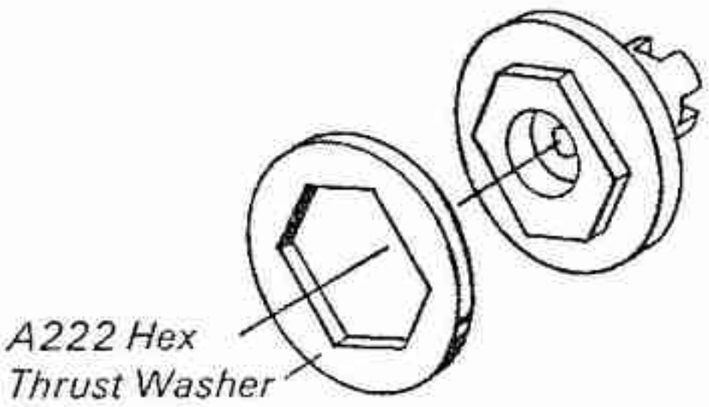
HARDWARE

Self-tap screws No.2 x 3/16 pan head
A222 Steel thrust washer hex
20mm Long M3 screw
A051 Nyloc nut



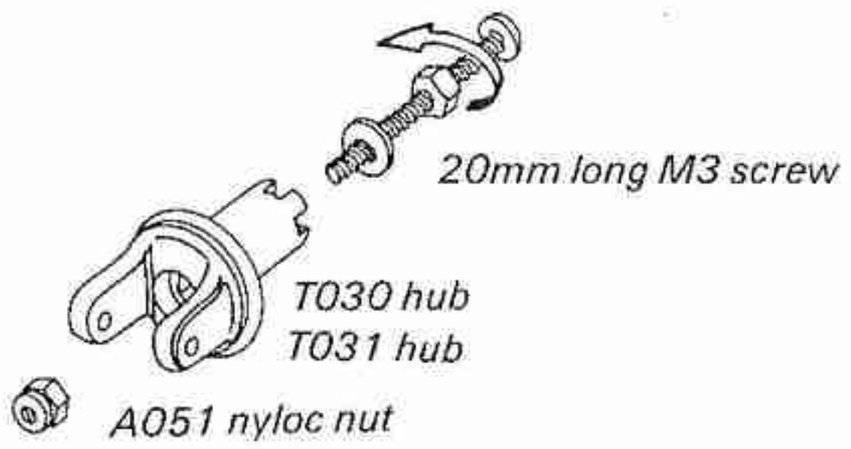
1). Fit the round T081 bearing housings using only two No.2 x 3/16 pan head self-tap screws in each housing for the time being. The other two screws will be fitted later when the drive belt is adjusted for correct tension. Note the angular position of the tags which should be the same on each side of the car. The position illustrated will give the slackest belt adjustment. Fit the square bearing housings using only the two No.2 x 3/16 pan head self-tap in each.



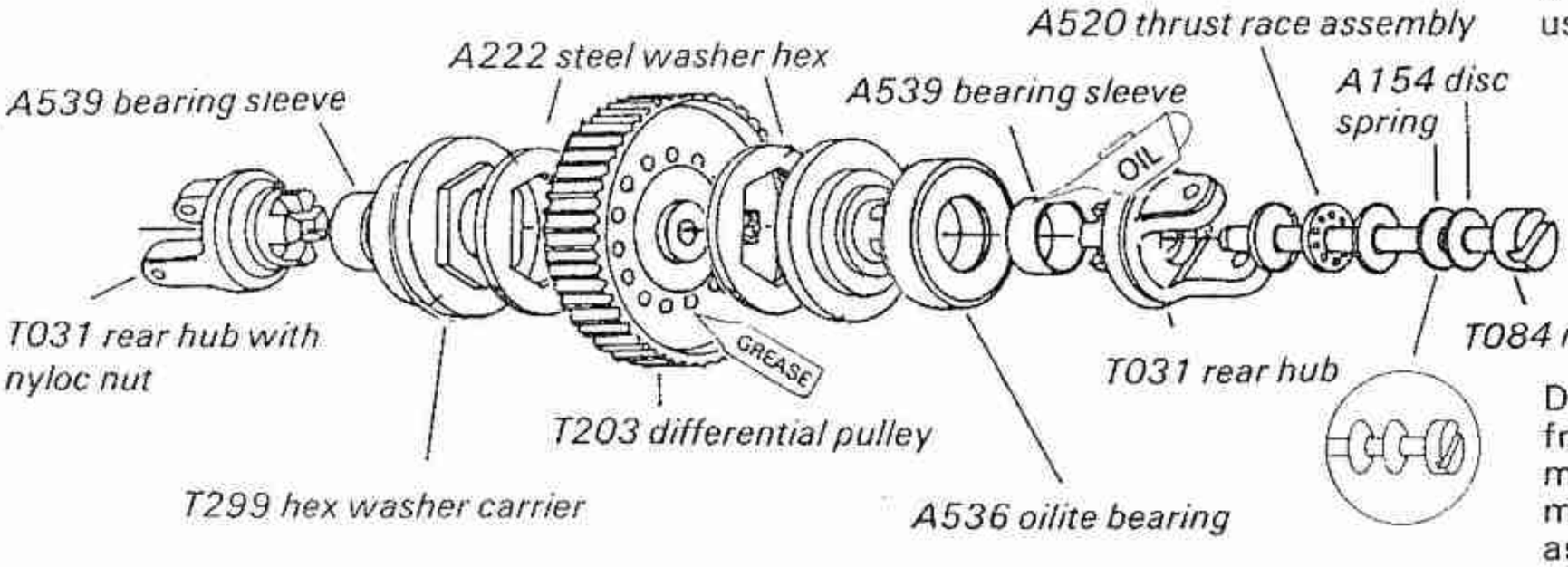


2). Fit the A222 hex steel washer against the T299 hex washer carriers as shown.

3). Fit A051 nyloc nut into the hexagon recess 2 x T030 wheel hub and 1 x T031 rear hub. Nut is a tight fit and should be pulled into position using a 20mm long M3 screw, washer and nut as shown.



4). Assemble differential parts onto the T084 rear axle as shown and in the following order: T084 axle, A154 disc spring (2 off), A520 thrust race assembly, T031 rear hub, without nyloc nut, A539 bearing sleeve, A536 oilite bearing, (U724 optional ball races replace A539, A536) T299 washer carrier, A222 steel hex washer, T203 differential pulley with 3mm diameter steel balls fitted into the fourteen holes and lightly lubricated with silicone grease, A222 steel hex washer T299 washer carrier, A539 bearing sleeve, A536 oilite bearing (U724 optional ballraces replace A539, A536) and finally the T031 rear hub with nyloc nut fitted inside. Make sure the dogs of the washer carriers and the hubs correctly engage and that the thrust washers correctly locate on the raised centre hex of the washer carriers. Screw up the axle until clearance is removed and washers are gently clamped. Whilst holding both hubs, force the pulley to skid round a few times. Apply a little more tension such that pulleys can only be made to skid with some difficulty using finger pressure only.



Differential action should now be free and smooth; (final adjustment of the differential will be made when the car is fully assembled.)

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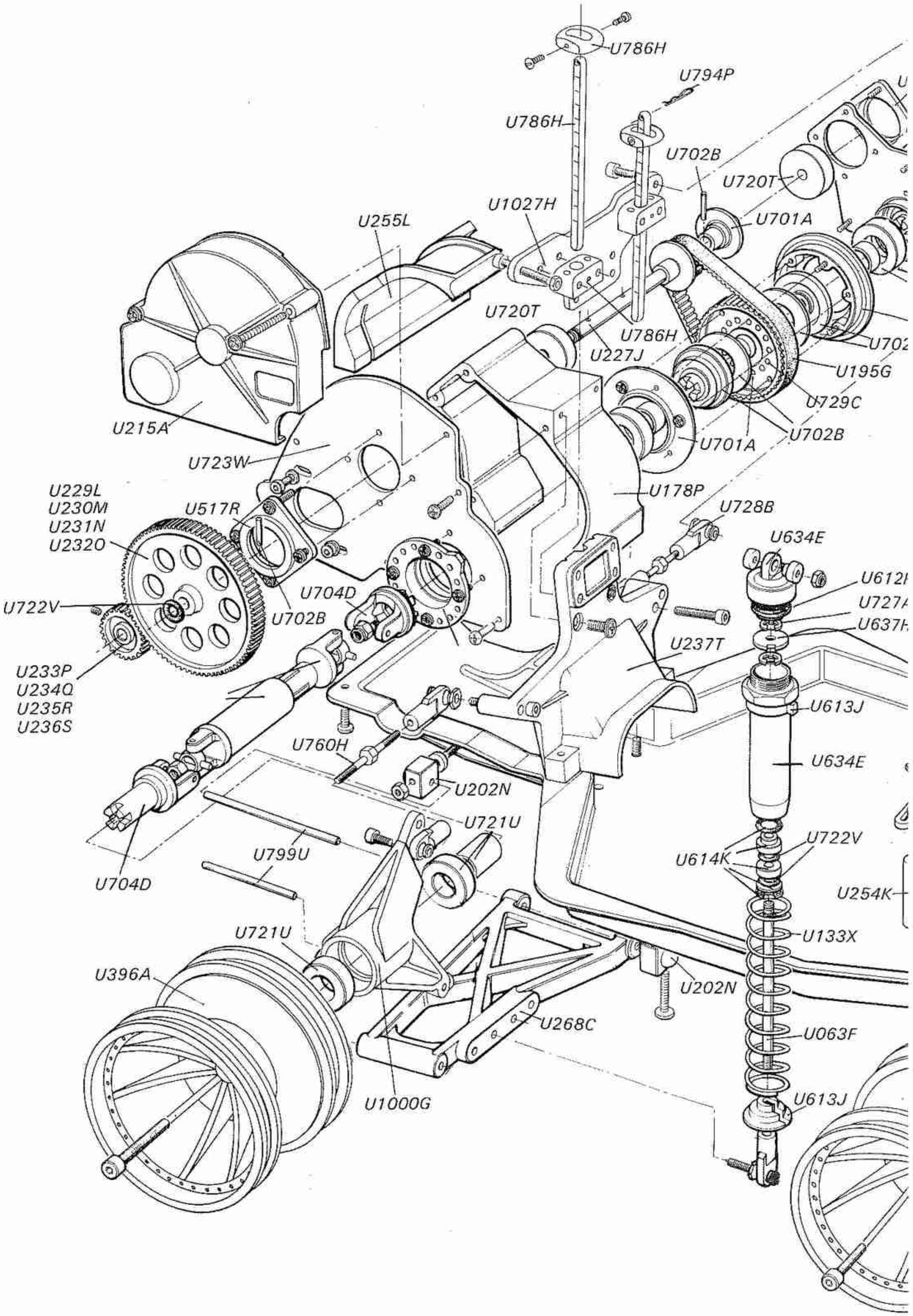
NOVEMBER 1990

2WD PARTS LIST

QUANTITY REQUIRED	SPARES NUMBER	DESCRIPTION	PRICE
		KITS	
	U415T	COUGAR – 2WD Comp. All Terrain	
	U417V	911 TURBO SE – Road & Track	
	U419X	SHOTGUN – Racing Truck	
	U569Y	SHOTGUN – Conversion Kit (from Cougar)	
		BODY, CHASSIS etc.	
	U780B	Ball Bearing 8 × 16 × 5 – (pack 8) (One Pack to Ballbearing any 2WD Car)	
	U583M	Body & Wing Moulding – COUGAR	
	U221D	Chassis Pan – Polished 2WD	
	U237T	Bulkhead – 2WD	
	U254K	Nicad Holder – Stick Pack	
	U260Q	Sock & Wing Mount – 2WD	
	U584N	Instruction Book Set – COUGAR	
	U777Y	Decals – COUGAR (pack 2)	
	U122M	Velcro 50 × 20mm (pack 4)	
	U712L	Wing Mount Kit	
	U731E	Self Tap Screws – Spares Pack	
	U732F	M3 Fastenings – Spares Pack	
	U733G	'O' Ring 9mm – Wing Mount (pack 10)	
	U779A	Servo Tape – 1 Metre Roll	
	U119J	Aerial Tube	
		SUSPENSION PARTS	
	U202N	Pivot Block – Rear W/B (pack 4)	
	U343Z	Shock Mount F/G – COUGAR	
	U558N	Front Suspension Set – COUGAR	
	U703C	Rear Suspension Small Parts – 2WD	
	U727A	'E' Clip ⅛" – (pack 10)	
	U748V	Front Suspension Pivot Set – COUGAR	
	U749W	Steering Pivot Set – COUGAR	
	U750X	Ball Studs & Sockets (8 pairs)	
	U774V	W/Bone & Hub Mldgs. – COUGAR	
	U775W	Front Plate & Strg. Lvrs. – COUGAR	
	U776X	Top Bkt., Yokes, C. Tr. Rod – COUGAR	
	U062E	Piston Rods – 16mm Stroke	
	U063F	Piston Rods – 32mm Stroke	
	U162A	Diaphragm – Shock Absorber (pack 4)	
	U199K	Rear Hub Carriers (pair)	
	U268C	Rear Wishbone – Med W/B (pair)	
	U613J	Spring Stop & Spacer Moulding	
	U614K	Shock Absorber Seals (4 sets)	
	U633D	Front Shocks – Assembled (pair)	
	U634E	Rear Shocks – Assembled (pair)	
	U637H	Shock Absorber Pistons (set 6)	
	U717Q	Adjustable Servo Link (2 sets)	
	U728B	M3 Rose Joints – (pack 4)	
	U760H	Turnbuckle Adj. (3 pairs)	
	U799U	Rear Suspension Pivots (3 pairs)	
		TRANSMISSION PARTS	
	U701A	2WD Pulley Set	
	U704D	Drive Shaft Set – 2WD	
	U720T	Oilite Bearings – Transmission – 2WD	
	U721U	Oilite Bearings – Wheel (pair)	
	U723W	Black Transmission Side Plates – 2WD (pair)	
	U178P	Transmission Housing – 2WD	
	U195G	Hi Torque Drive Belt – 2WD	
	U215A	Gear Cover – 2WD	
	U226I	Bush – Layshaft Bearing (pack 4)	
	U227J	Layshaft – 2WD	

QUANTITY REQUIRED	SPARES NUMBER	DESCRIPTION	PRICE
		TRANSMISSION PARTS (cont.)	
	U255L	Motor Guard – 2WD	
	U700Z	Transmission Fixings Bag – 2WD	
	G301V	Silicone Grease – Tube	
	U084A	Rear Axle	
	U224G	Front Wheel – Spoked White (pair)	
	U225H	Rear Wheel – Spoked White (pair)	
	U229L	95T GEAR – 48 D.P.	
	U230M	92T GEAR – 48 D.P.	
	U231N	89T GEAR – 48 D.P.	
	U232O	86T GEAR – 48 D.P.	
	U233P	19T PINION – 48 D.P.	
	U234Q	22T PINION – 48 D.P.	
	U235R	25T PINION – 48 D.P.	
	U236S	28T PINION – 48 D.P.	
	U517R	Bearing Housing Moulding	
	U631B	Universal Joints Bag – (8 pcs)	
	U702B	HEX Diff. Repair Kit	
	U722V	'O' Ring ⅛" – (pack 10)	
	U724X	Ball Races 8 × 16 × 5 – (pack 4)	
	U729C	Chrome Steel Balls 3mm – (pack 30)	
	U730D	Thrust Race ⅛ × 5/16"	
	U761I	Disc Spring ⅛" – (pack 10)	
		SHOTGUN SPECIAL PARTS	
	U1000G	Rear Hub Carrier – SHOTGUN (pair)	
	U1030K	Chassis Dirt Cover – 2WD Saloon	
	U1027H	Shock & Truck Body Mount Bkt.	
	U387R	Bumper – SHOTGUN Racing Truck	
	U396A	Racing Truck Wheel 2.2" (Fr. & Rr.) (pair)	
	U590T	Instruction Book – SHOTGUN	
	U6502W	Truck Racing Tyre; VEE-2 (pair)	
	U6503X	Truck Racing Tyre; VEE-4 (pair)	
	U587Q	Body Shell Moulding – SHOTGUN	
	U793O	Decal Sheet (pack 2) – SHOTGUN	
		TOPCAT SPECIAL PARTS	
	U544S	Body & Wing Moulding – TOPCAT	
	U240W	Front Plate – TOPCAT	
	U249F	Top Plate – TOPCAT	
	U259P	Bumper – TOPCAT	
	U264U	Decal Sheets – TOPCAT (pack 3)	
	U265V	Window Masks – TOPCAT (pack 3)	
	U557M	Instruction Book – TOPCAT	
	U705E	Front Suspension Small Parts – TOPCAT	
	U706F	Chassis Accessories – TOPCAT	
	U713M	Front Wishbones – TOPCAT (set)	
	U714N	Front Hub Carriers (T204, T205)	
	U715O	Steering Levers (T241, T247, 8)	
	U716P	Steering Pivot Bkts. & Arms	
	U718R	Mouldings – T246, 216, 206, 253, 201	
	U741O	Steering Geometry Mod. Kit – TOPCAT	
	U742P	Narrow Track Front Susp. Set – TOPCAT	
		911 TURBO SE SPECIAL PARTS	
	U392W	Bumper – 2WD Saloon	
	U373D	Rear Body Mount Bracket – 2 & 4WD	
	U586P	Body Moulding – 911turboSE	
	U589S	Instruction Book – 911turboSE	
	U791M	Decal Sheet (pack 2) – Road & Track	
	U6500U	Road & Track Tyre – RT1 Front	
	U6501Z	Road & Track Tyre – RT1 Rear	


U786H
U794P
U786H
U702B
U720T
U701A
U1027H
U255L
U720T
U786H
U227J
U195G
U729C
U215A
U723W
U701A
U702B
U178P
U229L
U230M
U231N
U232O
U517R
U728B
U634E
U704D
U722V
U702B
U233P
U234Q
U235R
U236S
U760H
U202N
U721U
U799U
U704D
U722V
U614K
U254K
U133X
U721U
U396A
U202N
U268C
U063F
U1000G
U613J

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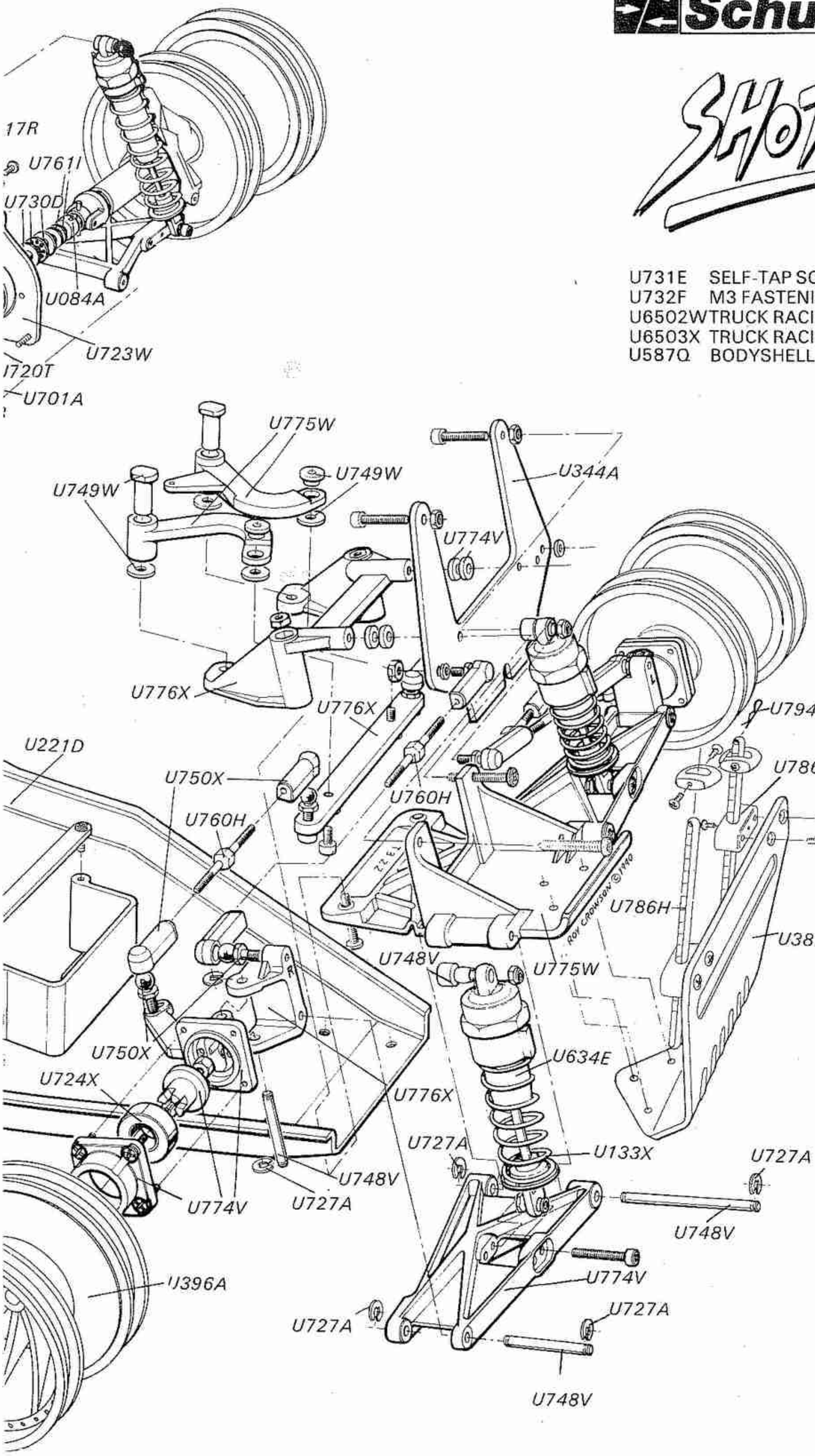
U731E SELF-TAP SCREWS - SPARES PACK
U732F M3 FASTENINGS - SPARES PACK
U6502W TRUCK RACING TYRE - VEE-2
U6503X TRUCK RACING TYRE - VEE-4
U587Q BODYSHELL RACING TRUCK



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NOVEMBER 1990

SPEED SECRETS LIST

QUANTITY REQUIRED	SPARES NUMBER	DESCRIPTION	PRICE
		BODY AND CHASSIS TUNING	
	U1003J	Graphite Front Shock Mount – Std.	
	U1004K	Graphite Long Front Shock Mount	
	U355L	Graphite Chassis – Cougar/Topcat	
	U782D	Saloon Body Mount Kit – COUGAR	
	U356M	Graphite Chassis – PROCAT	
	U357N	Graphite Upper Chassis – PROCAT	
	U783E	Saloon Body Mount Kit – PROCAT	
	U743Q	Q.C. Saddle Pack Tray & Strap (pair)	
	U744R	Q.C. Saddle Pack Strap (pack 4)	
	U786H	Body Posts – Fully Adjustable (pack 4)	
	U794P	'R' Clips (pack 10)	
		SUSPENSION TUNING	
	U200L	Rear Wishbones – Long W/B (pair)	
	U344A	Long Fr. Shock Mount F/G – COUGAR	
	U739M	Rear Anti Roll Bar Kit – 2WD	
	U294C	Rear Wishbones – Short WB – PROCAT	
	U766N	Rear Anti-Roll Bar Kit – PROCAT	
	U767O	Front Spring Tuning Set (4 pairs)	
	U768P	Rear Spring Tuning Set (4 pairs)	
		TRANSMISSION TUNING	
	U745S	HEX Super Diff. – 2WD	
	U781C	Alloy Transmission Hsg. – COUGAR	
	U289X	48T Front Overdrive Pulley	
	U641L	Front Transmission Long Screws – PROCAT	
	U769Q	HEX Super Drum Diff. – PROCAT	
	U771S	Alloy Inner Transmission Hsg. – PROCAT	
	U770R	Slipper Clutch – 2 & 4WD	
	U1028I	Ball Bearing ¼" x ⅜" NF	
	U300I	HEX Alloy Washer Carriers (pair)	
	U324G	95T Slipper Gear – 48 D.P.	
	U325H	92T Slipper Gear – 48 D.P.	
	U326I	89T Slipper Gear – 48 D.P.	
	U327J	86T Slipper Gear – 48 D.P.	
	U366W	Alloy – Eccentric Bearing Hsgs. (pair)	
	U737K	L/Wt. SS Ballraces (=A533) (pair)	
	U784F	Shaft, Brg. & Alloy Plts. – Slipper	
	U785G	Slipper Repair Kit	
		HOT FASHION	
	G314I	Cap – all sizes	
	G318L	"T" – new CAT logo – Large	
	G318M	"T" – new CAT logo – Med.	
	G318S	"T" – new CAT logo – Small	
	G318X	"T" – new CAT logo – X/Large	
	G319L	Sports – new CAT logo – Large	
	G319M	Sports – new CAT logo – Med.	
	G319S	Sports – new CAT logo – Small	
	G319X	Sports – new CAT logo – X/Large	
	G320L	Sweat – new CAT logo – Large	
	G320M	Sweat – new CAT logo – Med.	
	G320S	Sweat – new CAT logo – Small	
	G320X	Sweat – new CAT logo – X/Large	

QUANTITY REQUIRED	SPARES NUMBER	DESCRIPTION	PRICE
		TYRES NEW BLUE NATURAL COMPOUND	
	T670N	CAT Front "Sponges" – Mounted (pair)	
	T671O	CAT Rear "Sponges" – Mounted (pair)	
	T679W	CAT Rear Tyres – 15 x 12 Mini Spike (pair)	
	T681Y	CAT Front Tyres – 11 x 12 Mini Spike (pair)	
	T683A	CAT Rear Tyres – 15 x 15 Mini Spike (pair)	
	T685C	CAT Front Tyres – 11 x 15 Mini Spike (pair)	
	T687E	CAT Rear Tyres – 4 x 20 Spike (pair)	
	T688F	CAT Front Tyres – 3 x 20 Spike (pair)	
	T689G	CAT Front Tyres – 2 x 20 Stud (pair)	
	T690H	CAT Rear Tyres – 5 x 24 Mini Spike (pair)	
	T691I	CAT Front Tyres 4 x 24 Mini Spike (pair)	
	T692J	CAT Rear Tyres – 6 x 20 Block (pair)	
	T693K	CAT Front Tyres – 4 x 20 Block (pair)	
	T694L	CAT Rear Tyres – 6 x 20 Cut Spike (pair)	
	T695M	CAT Front Tyres – 1 x 20 Rib Spike (pair)	
	T696N	CAT Rear Tyres – 4 x 20 Cut Spike (pair)	
	T697O	CAT Front Tyres – 3 x 30 Cut Spike (pair)	
	T698P	CAT Front Tyres – Rib (pair)	
	U6500U	Road & Track Tyre – RT1 Front (pair)	
	U6501V	Road & Track Tyre – RT1 Rear (pair)	
	U6502W	Truck Racing Tyre; – VEE-2 (pair)	
	U6503X	Truck Racing Tyre; – VEE-4 (pair)	
		ELECTRONICS	
	G647D	Q/B Fuse – 10 amp (pack 3)	
	G904A	Schumacher 'Gizmo'	
	G802C	PC2 Peak Charger	
	G803D	PC3 Ammeter Peak Charger	
	G805F	PC5 Temp/Peak Charger	
	G821V	Nicad Management System	
	G606O	Motor Capaciters – set of 3	
	G913J	Traco – Traction Control SPEED CONTROL	
		SCHUMACHER MOTORS	
	G601J	Schumacher Ultra Stock 1/10	
	G614W	Red Heat 17T – Modified Motor	
	G615X	Gold Rush 19T – Modified Motor	
	G616Y	Quicksilver 21T – Modified Motor	
	G651H	Pink Power – Modified Motor 15T Double	
	G660Q	Gold Nova 14T Double	

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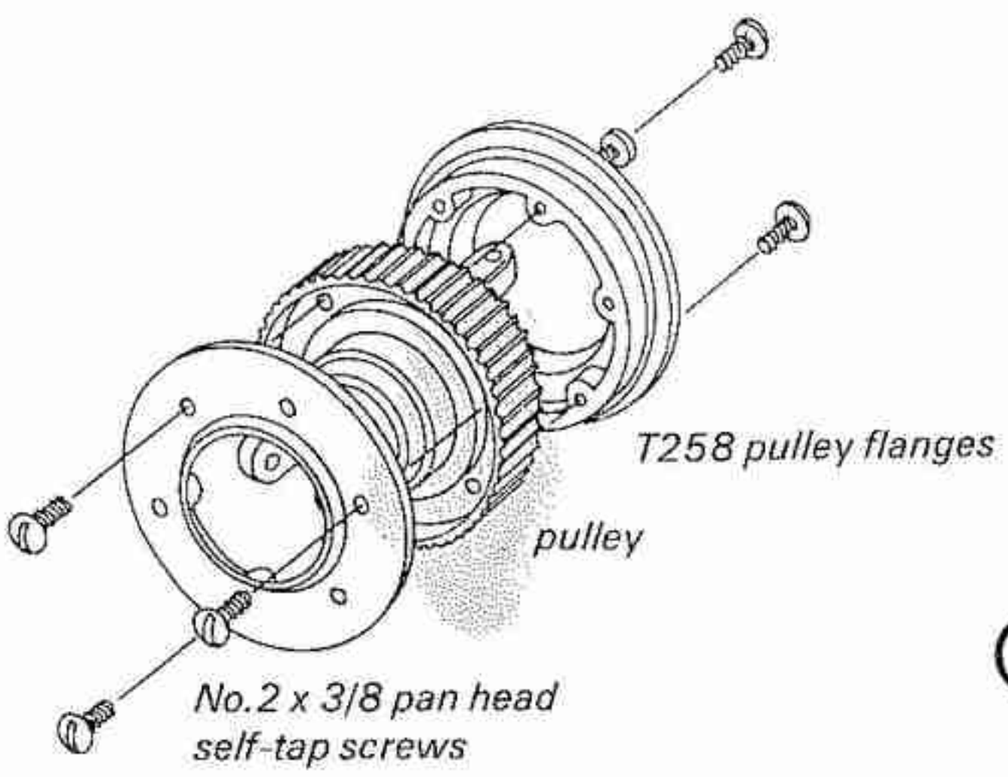
SHOTGUN

TRANSMISSION ASSEMBLY

Bag No. U550

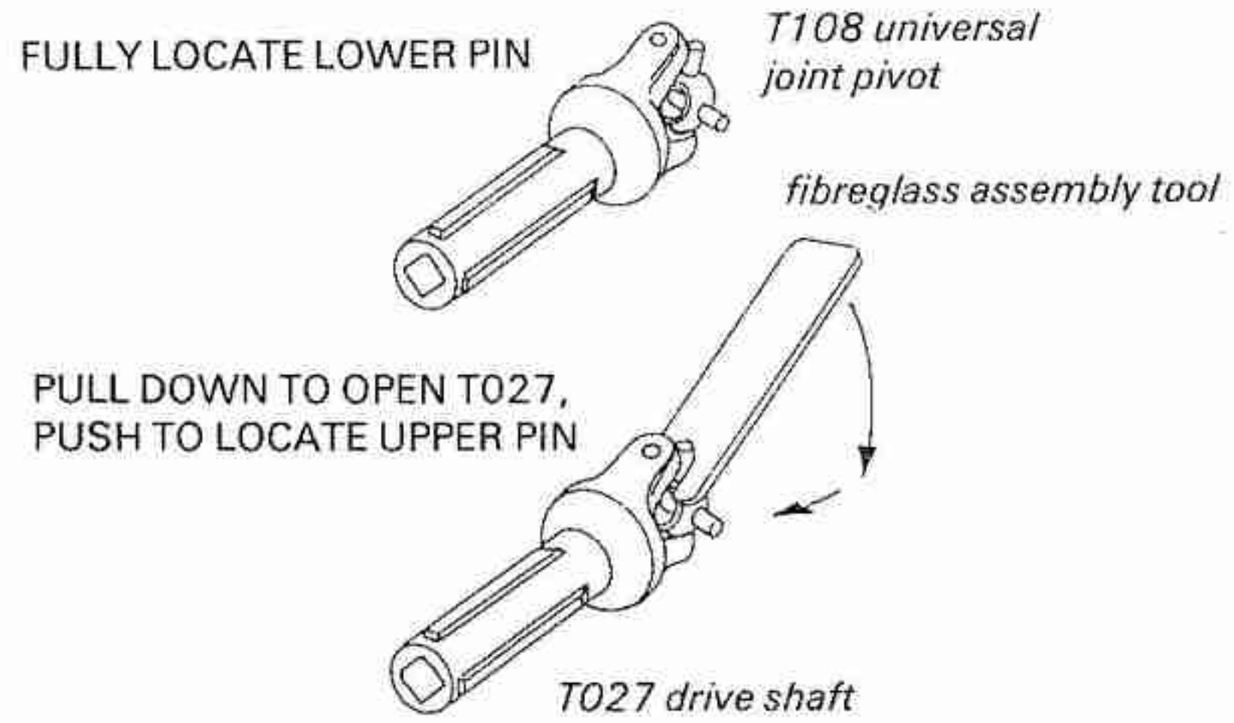
HARDWARE

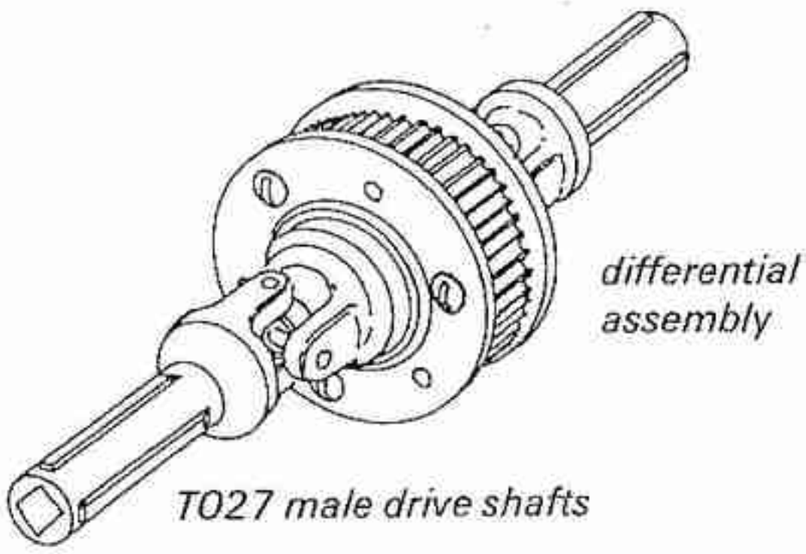
Self-tap screws No.2 x 3/8 pan head
Self-tap screws No.4 x 3/8 pan head



5). Fit T258 pulley flanges either side of the pulley and retain with No.2 x 3/8 pan head self-tap screws.

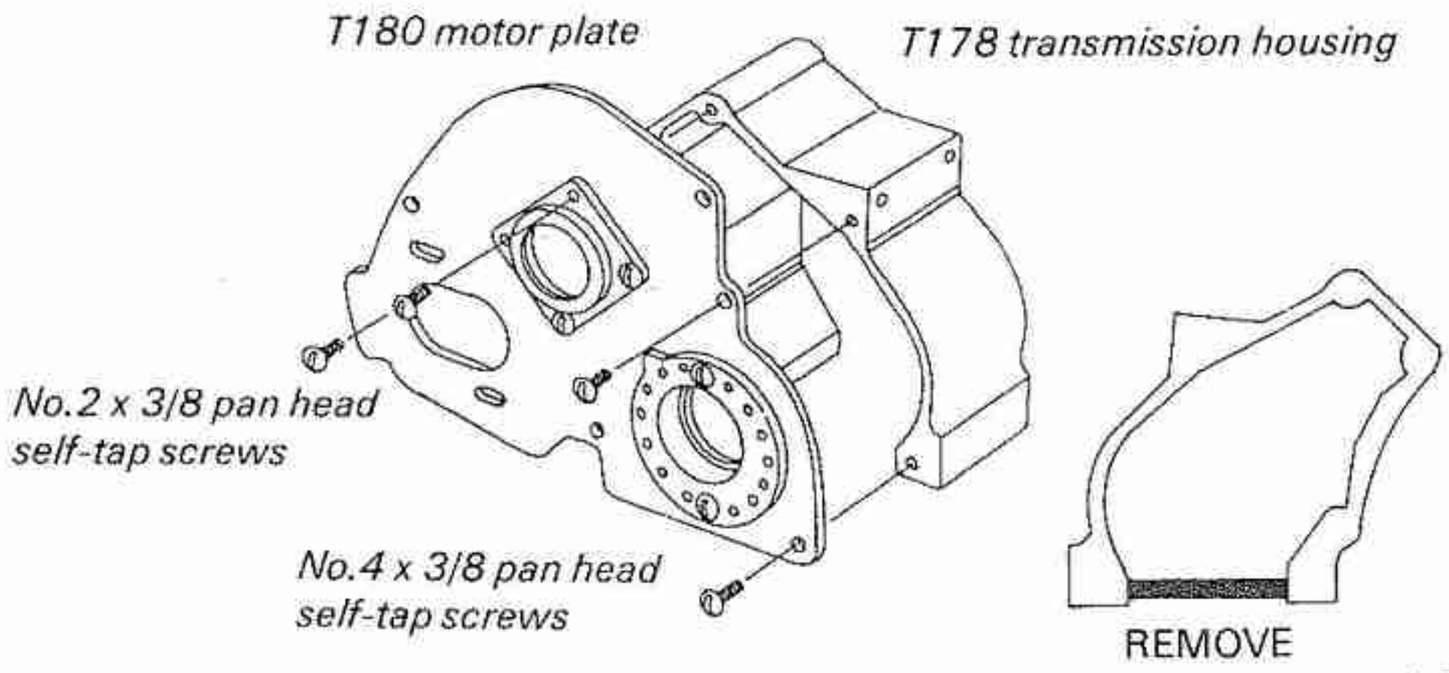
6). Refer to the illustration and fit the four T108 universal joint pivots into the four drive shafts T028 and T027. File the pips off the T131 fibreglass assembly tool before use. First time assembly is made easier by warming the moulded parts in hot water. Once the technique is aquired, joint assembly becomes a simple task.





7). Fit the T027 male drive shaft to the hubs on the differential assembly.
(as in 6 above.)

8). Fit the T180 motor plate to the T178 transmission housing using two No.4 x 3/8 pan head self-tap screws and two No.2 x 3/8 pan head self-tap screws each side.
Remove moulding sprue between transmission housing as shown.



HARDWARE

Self tap screw No.2 x 3/8 pan head

Self tap screw No.4 x 3/8 pan head

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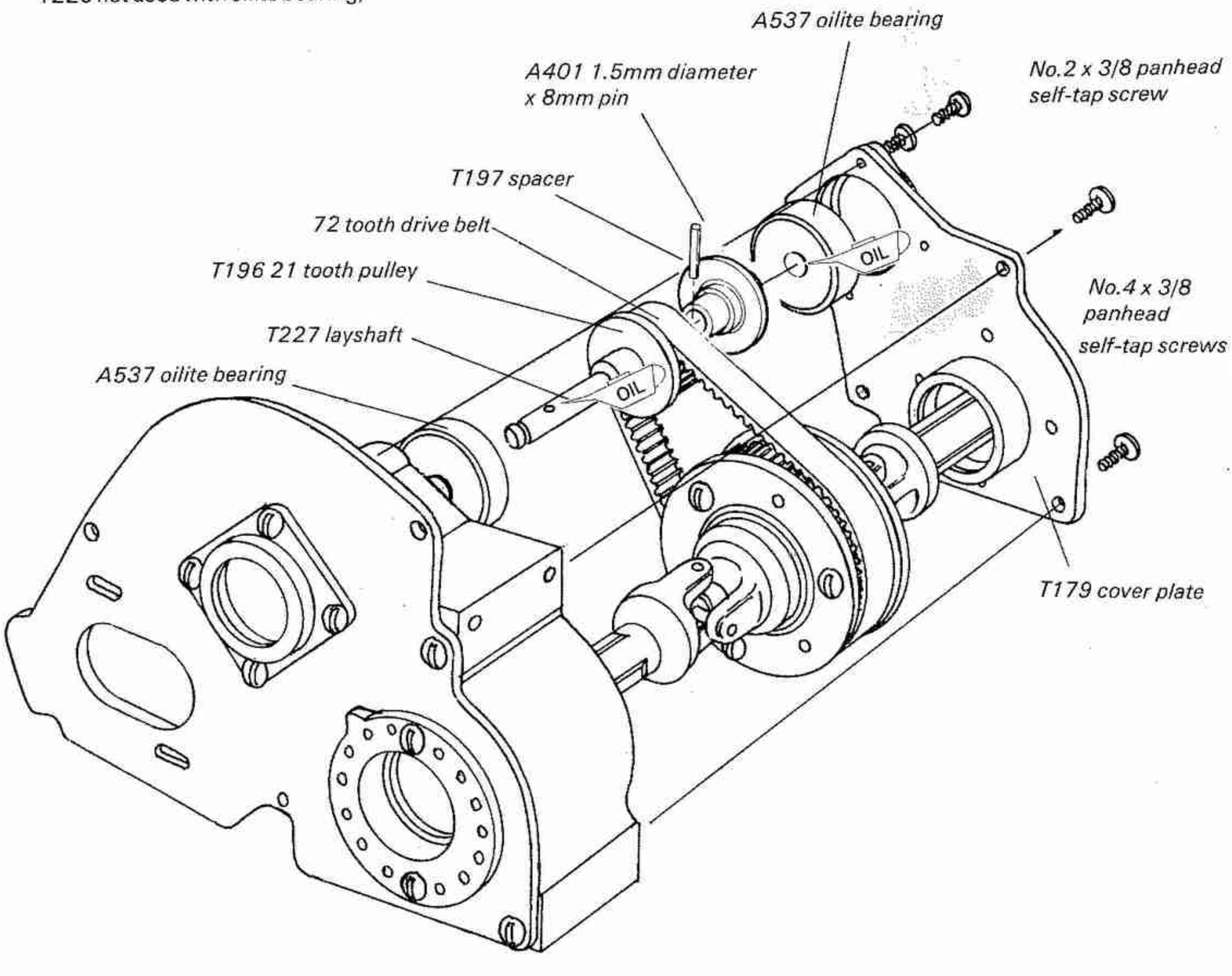
SHOTGUN

TRANSMISSION ASSEMBLY

Bag No. U550

9). Fit A537 oilite bearings into the square bearing housings (optional U724 ballraces with T226 bushes replace A537. T226 not used with oilite bearing)



10). Assemble T227 lay shaft, A401 1.5mm diameter x 8mm pin, T196 21 tooth pulley and T197 spacer.

11). Fit 72 tooth drive belt around layshaft and differential assemblies and slide into postion inside transmission housing. Make sure that the slotted head of the T084 rear axle is on the cover plate side. This will allow easier adjustment of the differential when the car is fully assembled.

12). Fit cover plate using No.4 x 3/8 and No.2 x 3/8 pan head self-tap screws. Transmission assembly should now spin freely.

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SHOTGUN

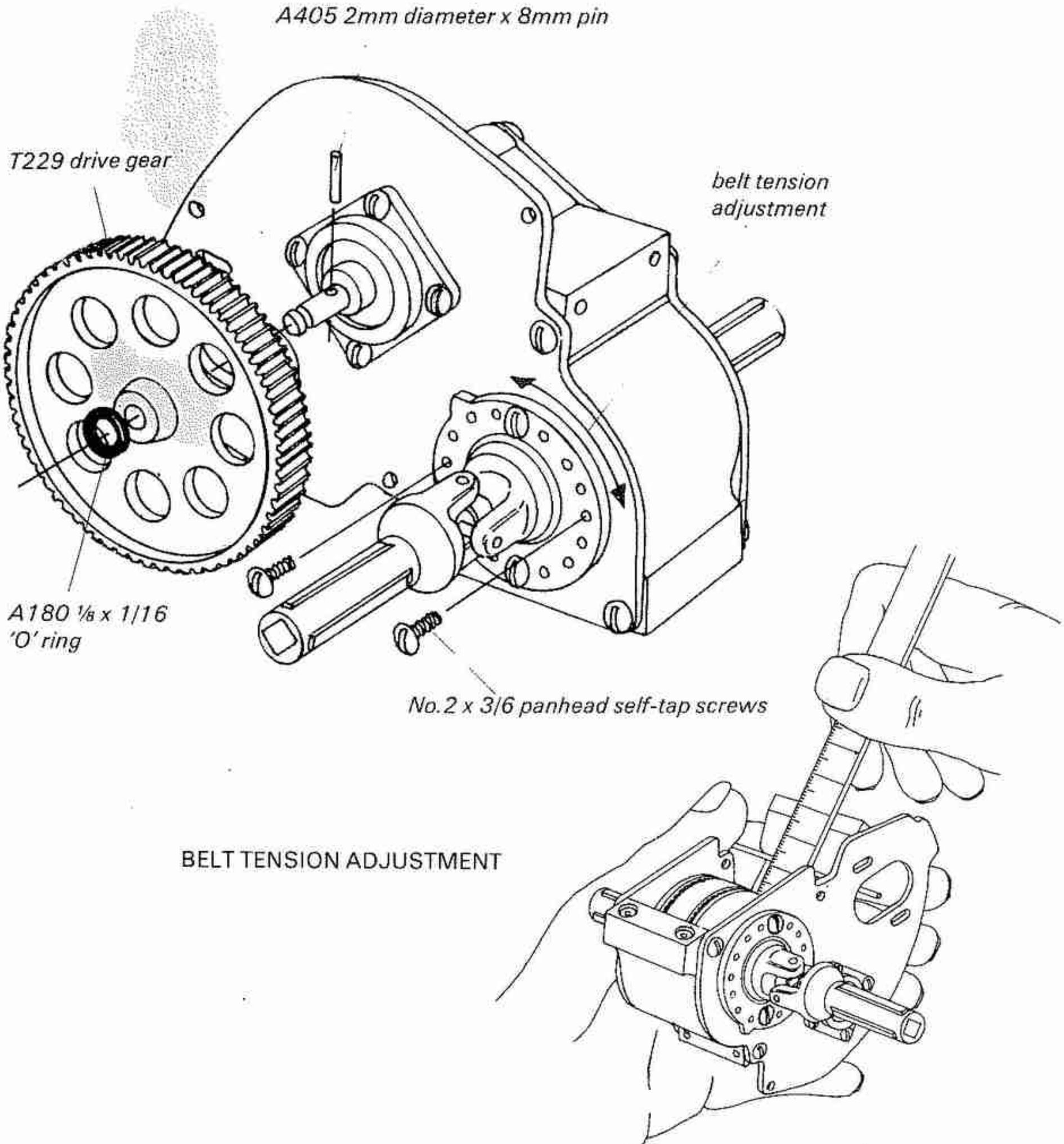
TRANSMISSION ASSEMBLY

Bag No. U550

HARDWARE

No.2 x 3/16 pan head self-tap screws
No4 x 3/8 pan head self-tap screw

13). Fit T229 drive gear, A405 2mm diameter x 8mm pin and retain with A180 ⅛ x 1/16 'O' ring.



BELT TENSION ADJUSTMENT

14).

Check belt tension by flexing rear part of transmission housing outwards as shown. Gently press on the belt midway between the pulleys, there should be 1-2mm of deflection. If there is too much remove the screws retaining the T081 eccentric bearing housings and rotate clockwise on the right hand side and anti-clockwise on the left hand side to increase the tension. At least two fully tightened screws must be fitted to each bearing housing whilst checking belt tension. Both bearing housings should be in the same position and then all four screws should be fitted.
Re-check the belt tension after all screws are fully tightened.
Finally bend transmission housing back to normal position and fit the two remaining No.4 x 3/8 panhead screws.

HARDWARE

A040 M3 x 20mm Cap head screw

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SHOTGUN

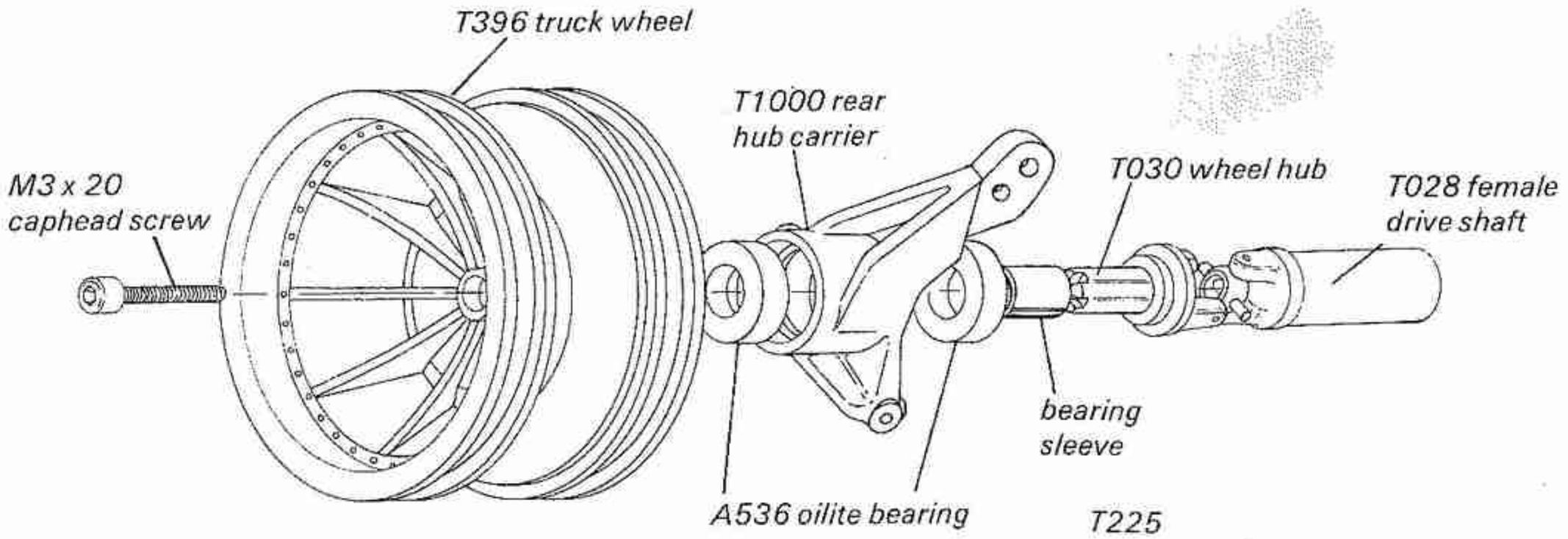
TRANSMISSION ASSEMBLY

Bag No. U550

15). Fit the T028 female drive shafts to the T030 wheel hubs and assemble the A538 bearing sleeves(optional U724 ballraces replace A538 & A536 oilite bearing). Sleeves may be tight on hubs, if necessary scrape off moulded ribs on hubs to ease assembly.

16). Press A536 oilite bearings (optional U724 ballraces replace A538 & A536 oilite bearing) into each end of the rear hub carriers making sure that they are both seated against the bearing abutment in the bore.

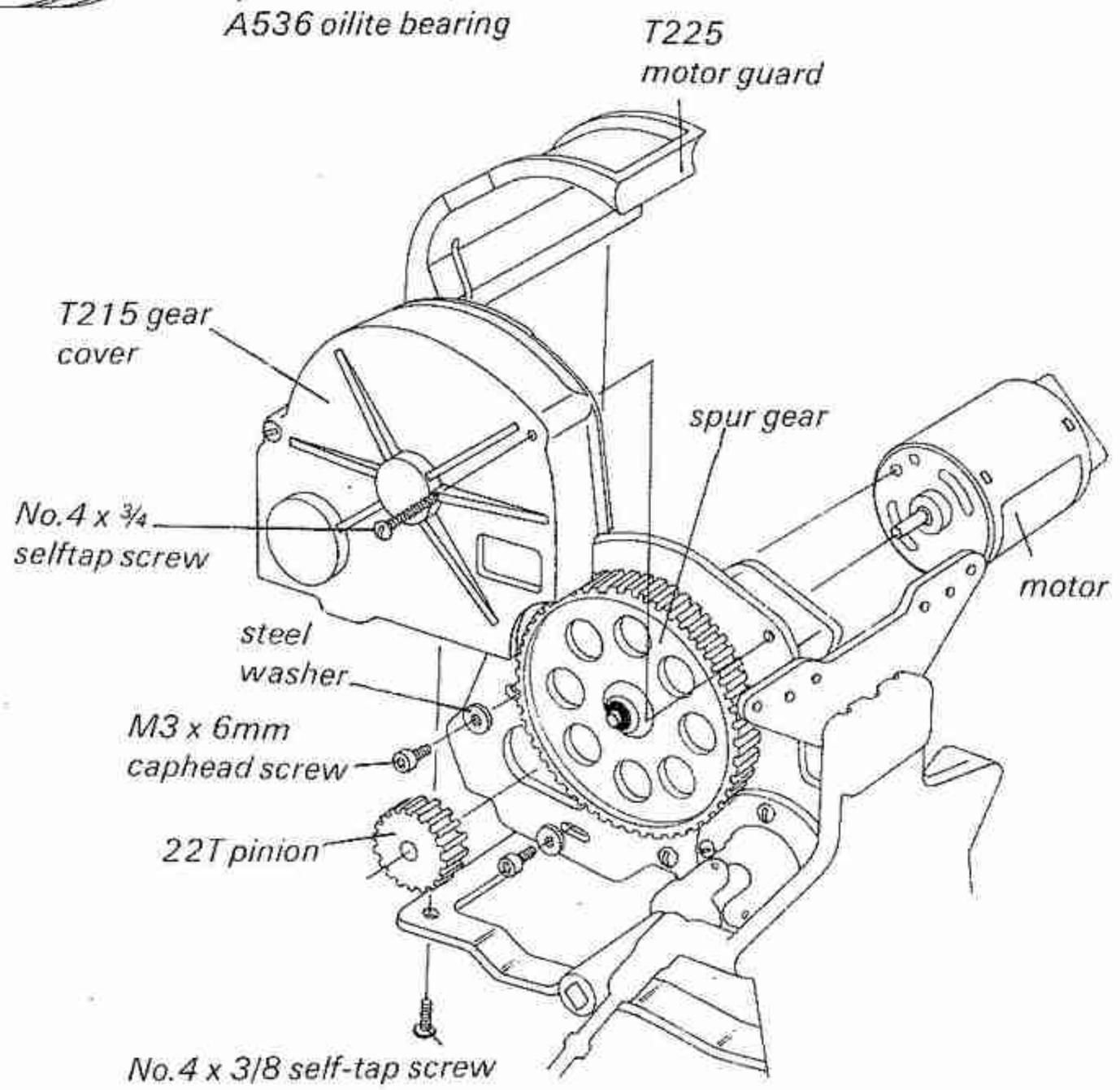
17). Apply a little light oil to the bearing sleeves; assemble into the hub carriers and fit the rear wheels using A040 M3 x 20 cap head screw. Hold the wheel hub whilst pushing the wheel into place in order to feel the engagement of the drive dogs before tightening the wheel retaining screw. Wheel must now spin freely; if not, recheck that the bronze bearings are pushed fully home and are correctly lined up. If ballraces are used do not over tighten wheel screws.



18). Fit motor using M3 x 6 cap head screws & washers and fit T234 pinion ensuring the grub screw clamps against the flat on the motor spindle. Make sure the pinion and gear are in line. Set motor position so that gears fully mesh but do not bind, check by rotating gears several times. Fit T215 gear cover using No.4 x ¾ self-tap screws.

Fit transmission assembly to chassis using No.4 x 3/8 counter-sunk head self-tap screws in the chassis and No.4 x 3/8 pan head self-tap screws in the bulkhead. (see main exploded diagram).

Finally fit T255 motor guard using No.4 x 3/8 panhead self-tap screws making sure that motor plate engages in the slot.

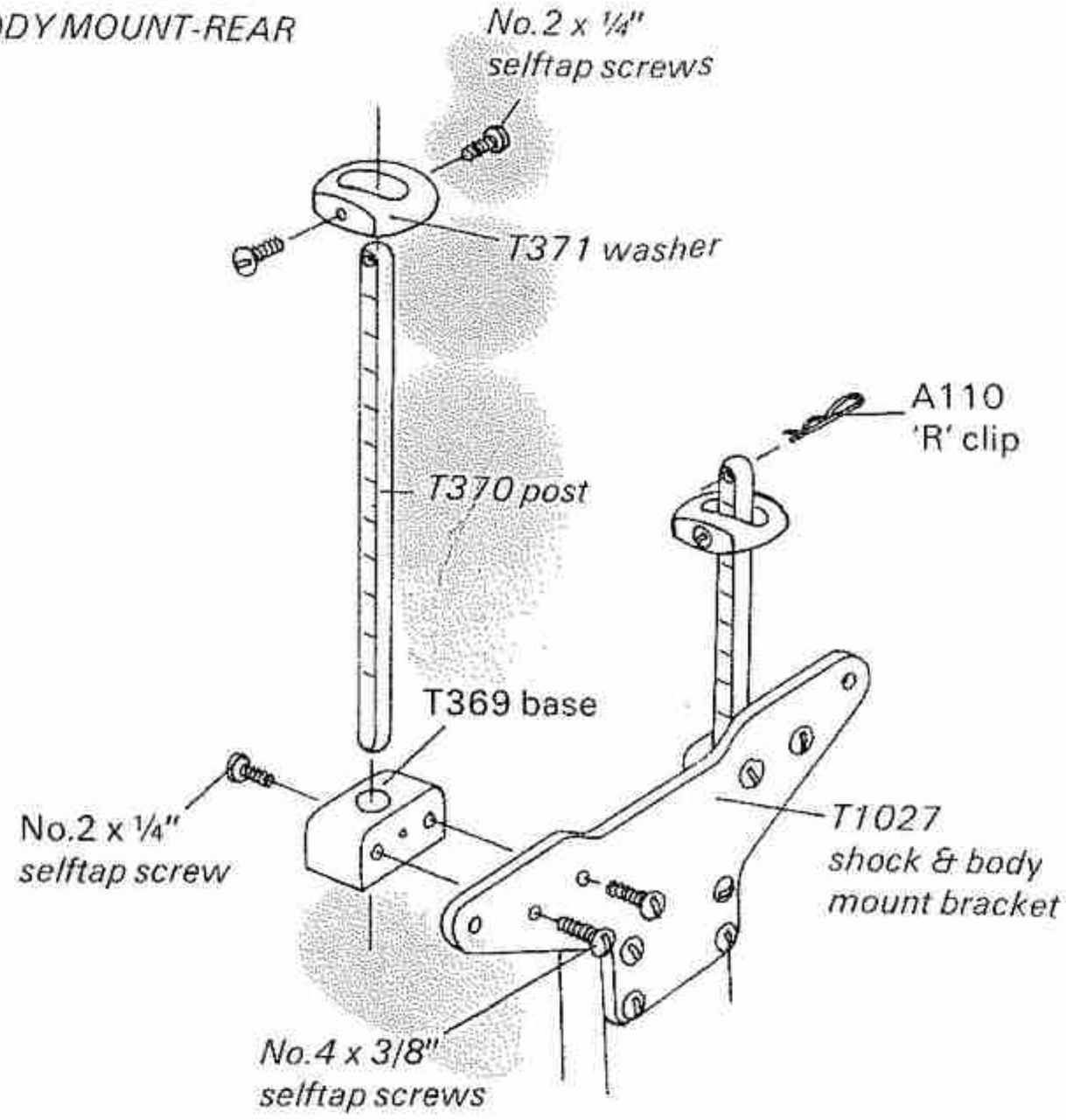


Schumacher

SHOTGUN

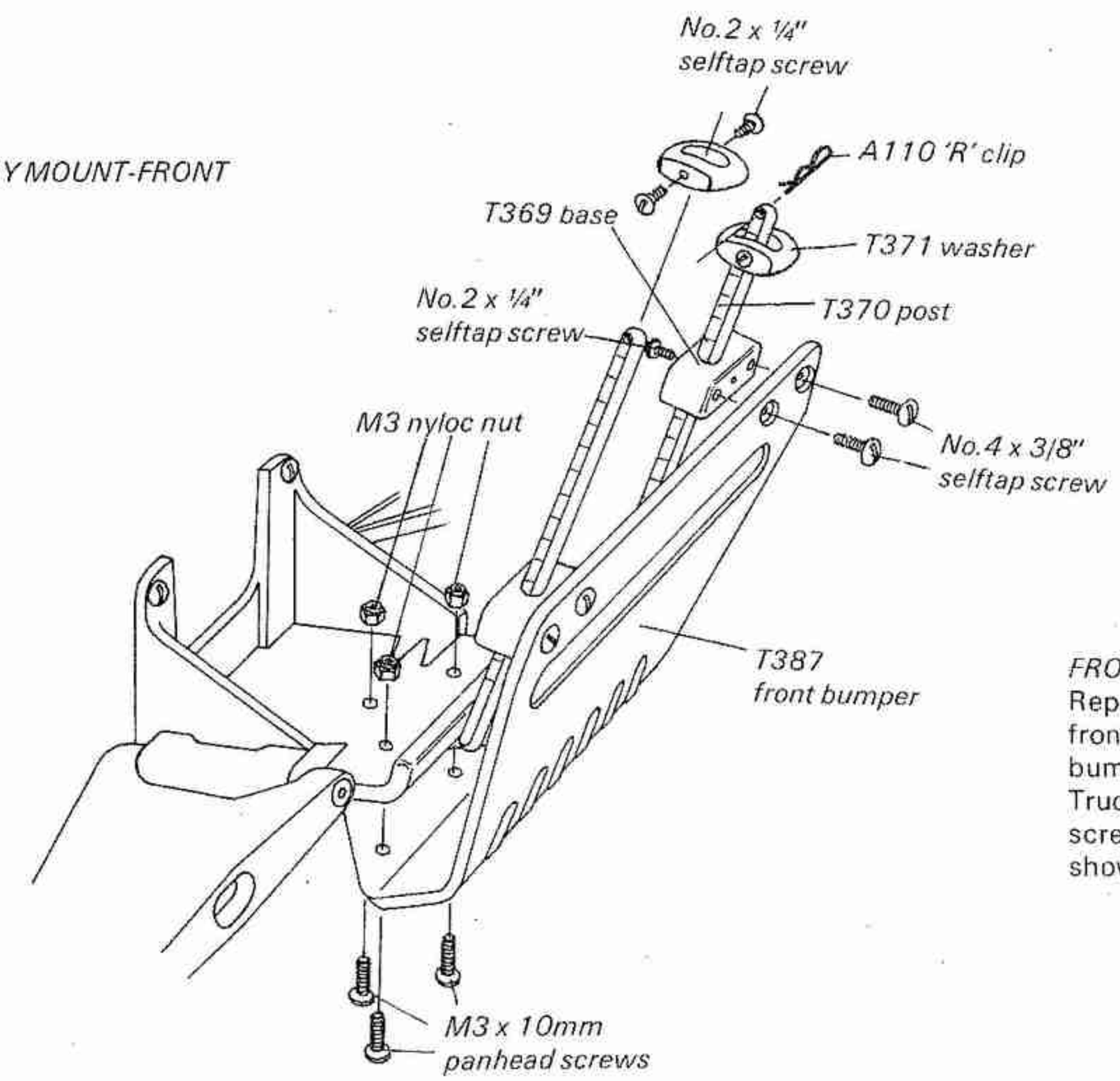
BODY & WING

BODY MOUNT-REAR



REAR:
Fit the two T369 body mount bases to the rear bracket using two A323 selftap screws in each base. Slot a T371 body mount washer over each post. Position the washer near the end of post with the hole in and fit the bodyshell over the post. Fix the washer at the desired position using two A302 selftap screws. The washer can now pivot to the angle of the bodyshell. Insert the post in the base. The position of the post in the base determines the height at which the bodyshell sits on the car. A302 selftap screws secure the posts in the bases.

BODY MOUNT-FRONT



FRONT:
Repeat the procedure for the front using T387 front bumper. This is fitted to the Truck using three M3 x 10 screws and nyloc nuts as shown.

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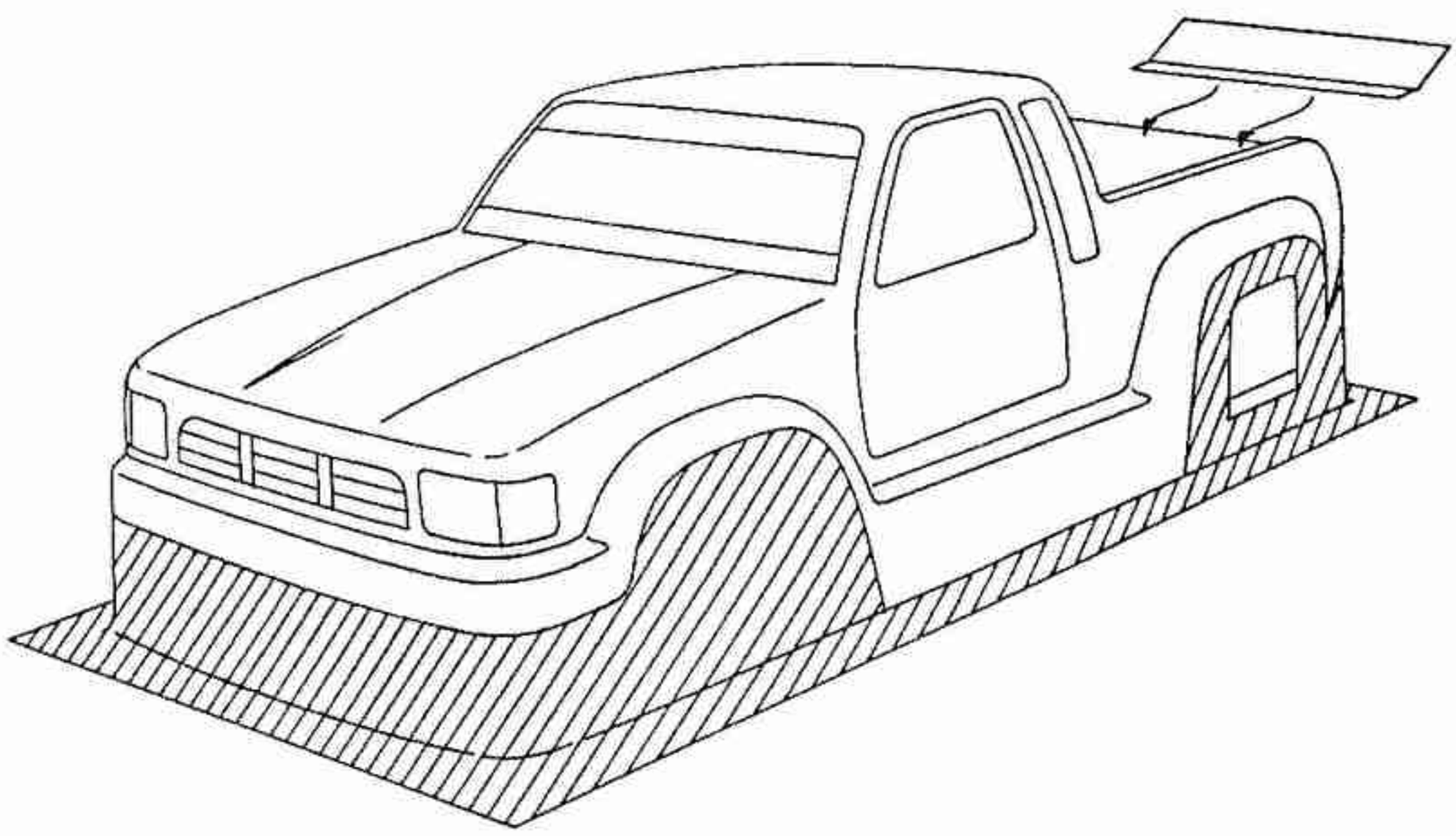
SHOTGUN

BODY & WING

To fit the bodyshell to the truck place over chassis and mark the position of the body posts. Remove bodyshell and cut holes diameter 6.0mm in the relevant positions.

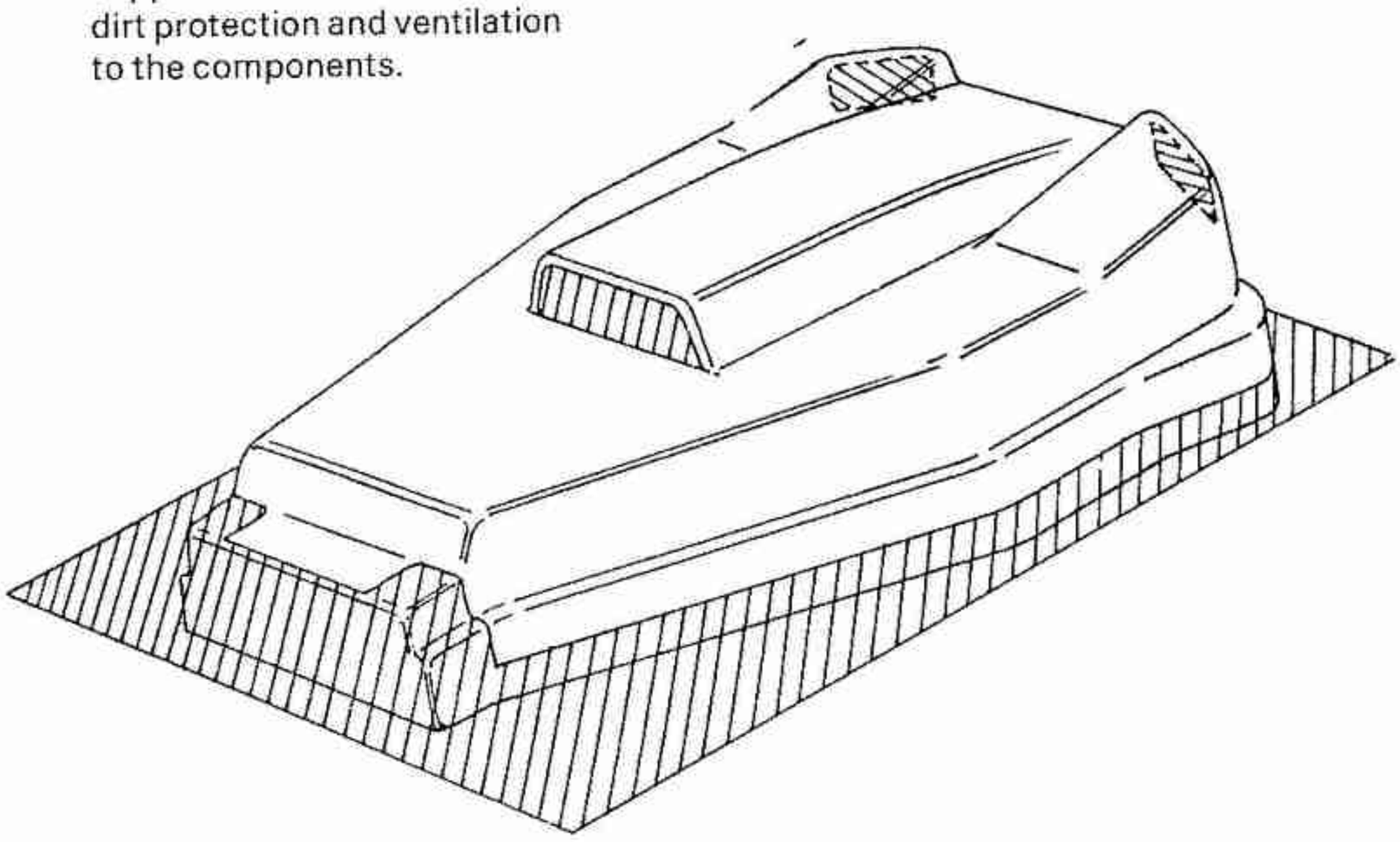


Cut away shaded areas. Use a file or abrasive paper to smooth the cut edges. Any ragged edges or score lines may cause the bodyshell to crack or split when in use on the car.

Fit the rear wing and number panels to the body as shown, see front cover.

CHASSIS DIRT COVER

Cutaway shaded areas. Fit to the chassis using the velcro supplied. This cover offers dirt protection and ventilation to the components.



PAINTING:

First wash the bodyshell to remove any oil or dirt. Rinse thoroughly. Cover the mounting hole with tape on the outside of the bodyshell. Paint the inside of the body and wing. You can obtain a colour scheme by masking a portion with tape then removing the tape and painting on different colour. Apply the lightest colour last. Apply decals from the sheet supplied to finish your bodyshell.

Warning: Use of motor sprays, solvents and oils will attack the polycarbonate from which your bodyshell is manufactured. Always remove motor to lubricate and clean.

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RADIO INSTALLATION

ARRANGEMENT OF RADIO EQUIPMENT

SPEED CONTROL

red (+)

to motor

black (-)

to receiver

to nicads

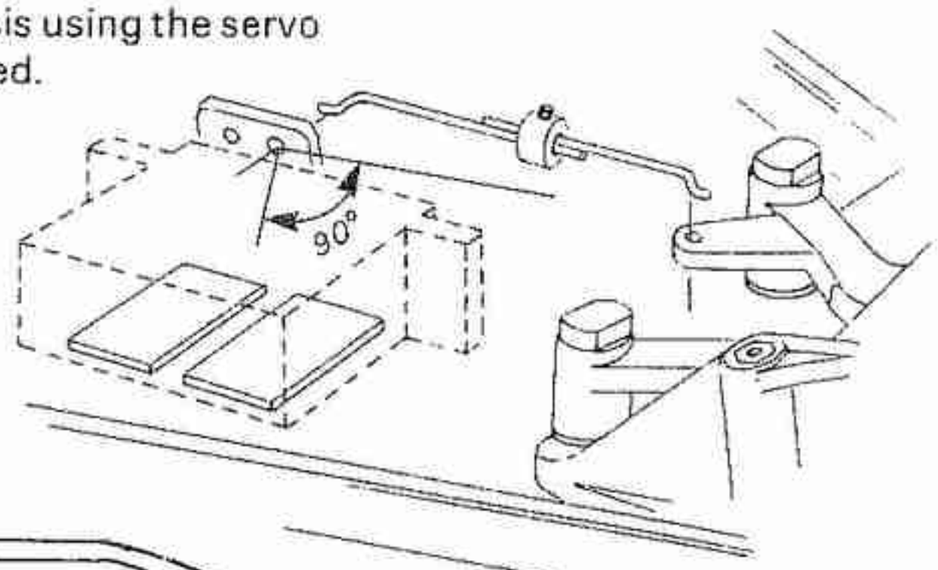
attach to chassis using double sided tape

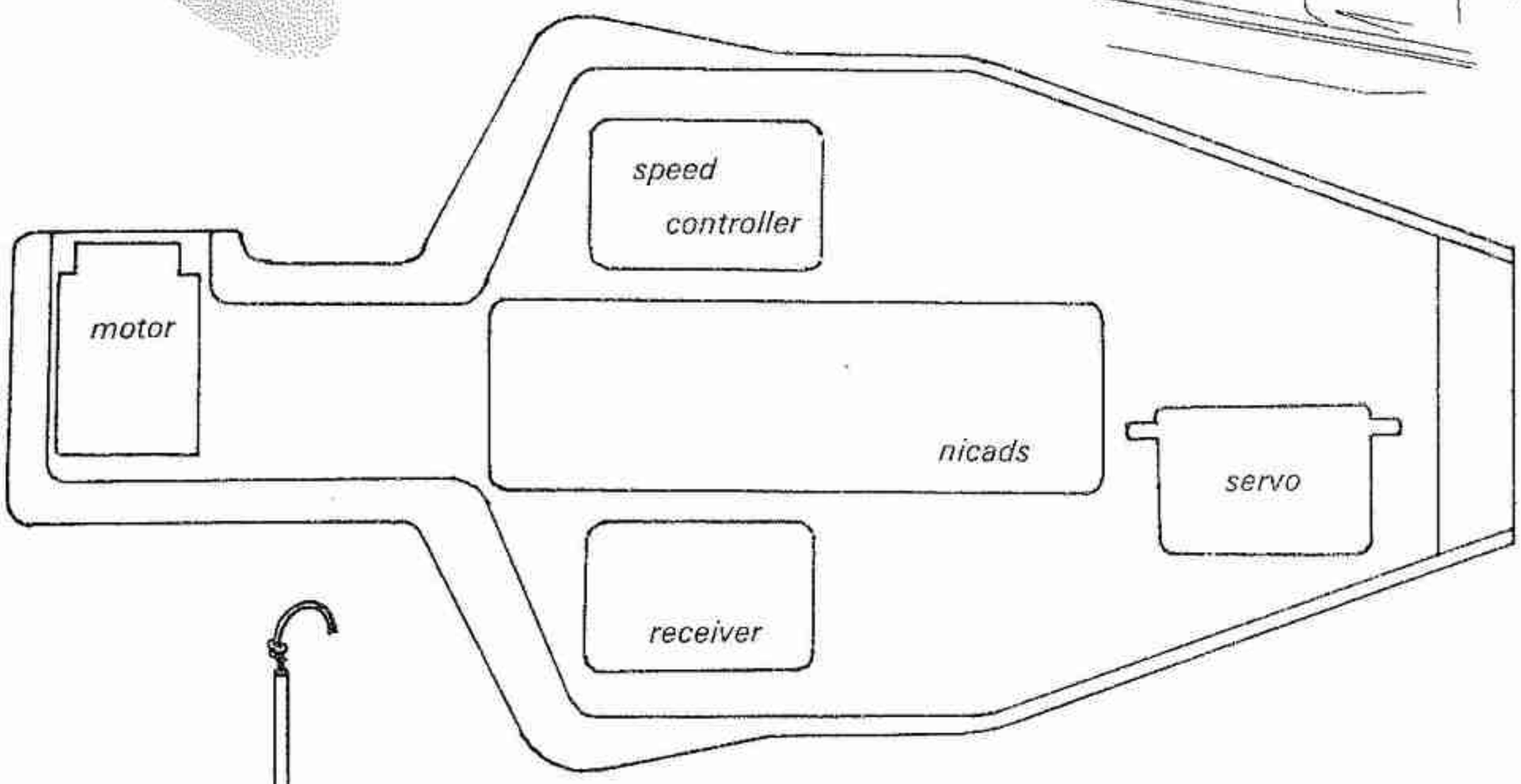
MOTOR

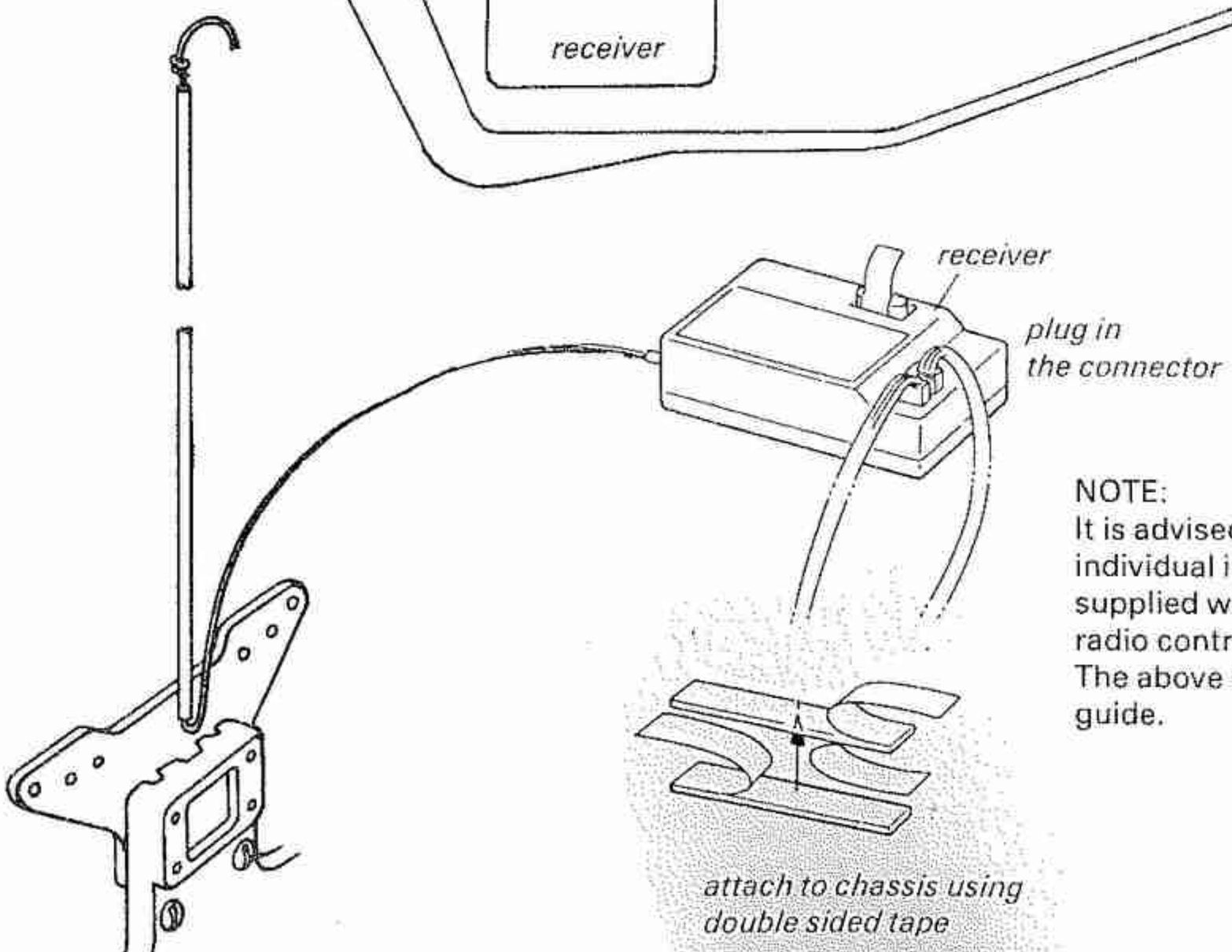
red (+)

black (-)

Using the two A424 link-wires and T252 wire clamp the servo can be connected to the T340 steering lever as shown. The servo can be fixed to the chassis using the servo tape provided.







attach to chassis using double sided tape

NOTE:
It is advised to consult the individual instruction sheets supplied with your own type of radio control and speed controls The above diagrams are only a guide.

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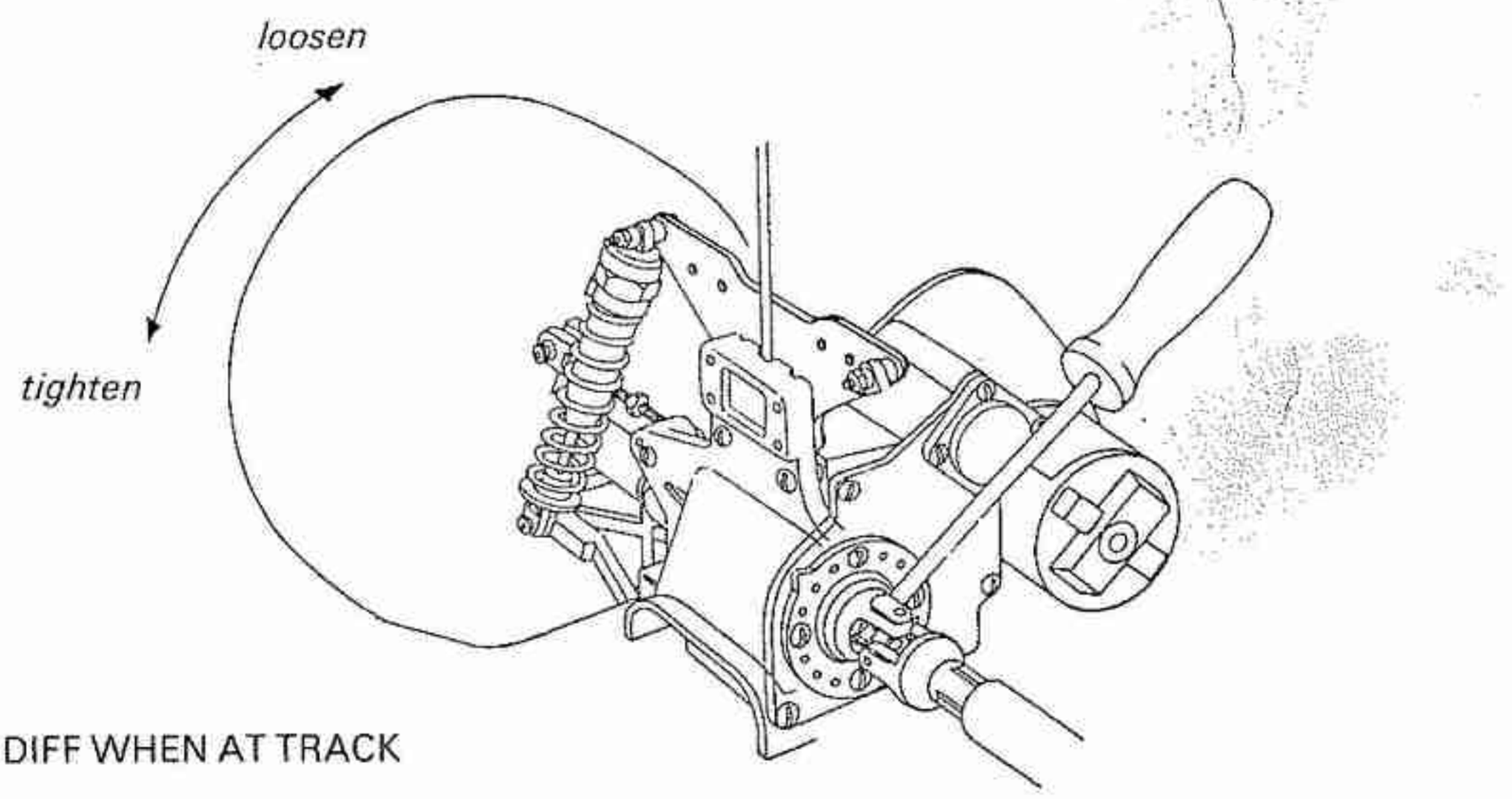
SHOTGUN

TRACK SETTINGS

1) Make sure all screws are tight. Recheck after every race.

2) Differential adjustment

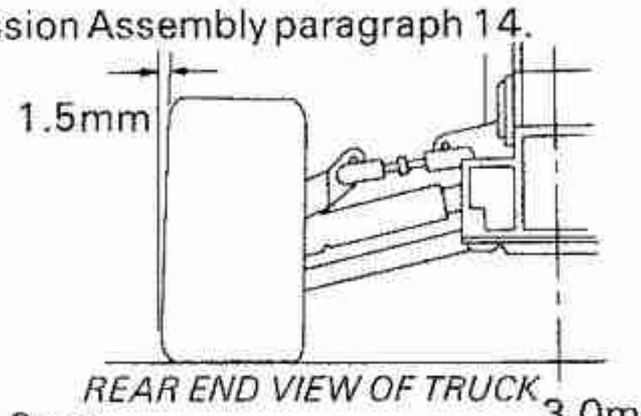
The differential should not slip under normal use. The correct tension is sufficient to give enough drive for the prevailing track conditions without slip and without excessive tension.
When you first run the car punch the throttle momentarily to find if there is slip, this sounds just like belt slip. If you have correctly adjusted the belt tension (Transmission Assembly section 14) then thighten differential until slip is eliminated. Tighten the differential by inserting a screwdriver in the slot of the rear axle (it should be located on the left side of the car) then turn the right rear wheel clockwise to tighten or anti-clockwise to loosen. When tightening make adjustment of no more than ¼ turn at a time.



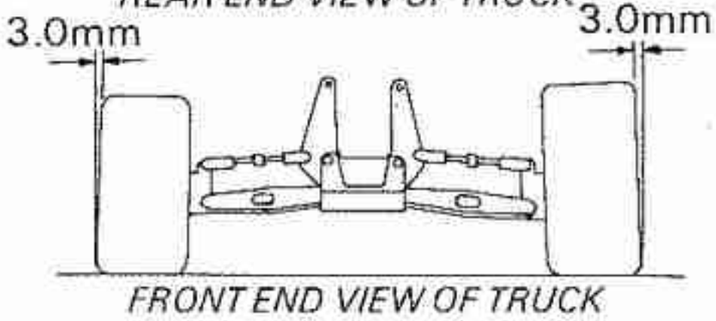
ADJUSTMENT OF DIFF WHEN AT TRACK

3) Belt Adjustment: If correctly assembled and adjusted as shown in Transmission Assembly paragraph 14 it is most unlikely that trackside adjustment will be required.
Never run with a slipping belt as both pulleys and belt can be damaged. Belt slip sounds like a tearing noise when the throttle is opened wide. Always recheck differential adjustment first as in Paragraph 2 because differential slip and belt slip sound very similar. To adjust, remove transmission assembly from the car by first removing the motor guard and then the 4 counter sunk screws from underneath and finally the two screws which pass through the bulkhead. Belt tension is then adjusted as in Transmission Assembly paragraph 14.

4) Rear-Camber
The rear wheel should be set at 1 deg, negative camber. This means that the tops of the wheel lean inwards. Adjustment is carried out by turning the hexagon part of the top link. The left hand thread of the link is nearest the small groove in the hexagon. Turning this end clockwise will increase length and reduce camber, turn anti-clockwise to increase camber. Run the camber link to the upper hole of the rear hub carrier if you need more steering.



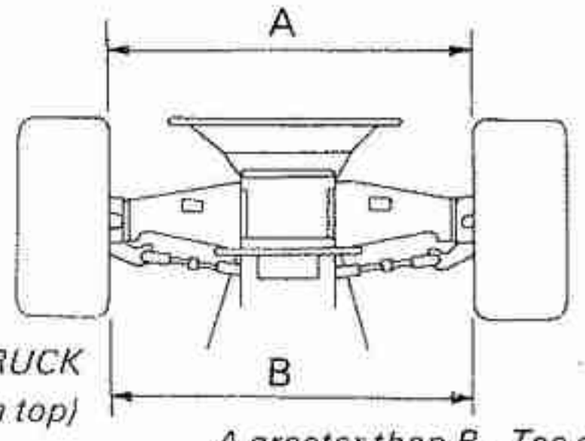
REAR END VIEW OF TRUCK



FRONT END VIEW OF TRUCK

5) Front-Camber
The front wheels should be set at 2 deg negative camber (adjust to be the same both sides.) Generally the more negative camber, the more steering you will get at high and medium speeds. Too much negative camber and you will begin to have less steering. Run the camber control link to the inner hole on the fibreglass bracket if you need more steering.

Toe in:
The front track rods are adjustable, similar to the top links at the rear. Set the front wheels up to be parallel to each other when pointing straight ahead. If conditions are slippery add 1-2 deg toe-in this will make the car steer a little less. Toe-out will give more steering at low speed, but may make the car more unstable on corner exit.



FRONT OF TRUCK (looking from top)

A greater than B = Toe out
A less than B = Toe in
A equal to B = parallel (standard setting)

Ackermann Effect:
The steering blocks have two holes for attaching the track rod end to, the hole nearest the centre of the car will give and increased Ackermann Effect and improve low speed steering and stability on low grip.

TRACK SETTINGS

Rake Angle:
Rake angle, or kick-up in your SHOTGUN is adjustable, this angle is also the castor angle, less castor will give more turn-in but less steering on corner exit.

6) Front Shock Mounting:
Mounting shock to outer hole will stiffen the suspension giving less 'Turn-in'.
Rear Shock Mounting:
The rear wishbone offers 4 mounting positions. Moving the shock outwards will stiffen the suspension and reduce 'drop', ideal for indoor (carpet), or to reduce the tendency for the car to turn over.

7) Ride height and Suspension
The ride height of the car can be adjusted by changing the spring spacers fitted on the shock absorbers. Run the lowest ride height that track conditions allow. Suspension drop is the maximum downward movement of the wheel. It can be adjusted by fitting spacers inside the shock absorbers under the pistons.

8) Damping:
A recommended starting point is to use 20W shock oil in both front and rear(we recommend silicone shock fluid for the most consistant results). Using thicker oil (high 'W' rating) in the front will make the car more stable, using thinner oil (lower 'W' rating) in the front will make the car turn in to 'spin-out' midway through a slippery corner, experiment to see what suits you best.

9) Gear ratio for 5 minute Race Duration
In general cars run longer with small pinions. Excessively large pinions, particularly with hot i.e. low wind motors can cause overheating and damage. The gear ratio required will vary with race duration and track conditions so you must experiment for best results.

Pinion	Gear	Pinion to gear Ratio	Overall ratio	Approx. motor wind	
19	95	5.000	12.14	15T	
19	92	4.842	11.76	17T	
19	89	4.684	11.38		↑ Hot Motor
19	86	4.526	10.99	19T	
22	95	4.318	10.49		
22	92	4.182	10.16		
22	89	4.045	9.62	21T	
22	86	3.909	9.49		
25	95	3.800	9.23		
25	92	3.68	8.94	27T	
25	89	3.56	8.65		
25	86	3.44	8.35		↓ Mild Motor
28	95	3.393	8.24		
28	92	3.286	7.98		
28	89	3.179	7.72		
28	86	3.071	7.46		

10) Lubrication:
All bearings must be lubricated, especially during wet weather. Always remove bearings and clean after running in wet conditions. A533 ballraces may be cleaned by carefully removing the eals with a knife blade under the outside edge and pressed back into place after cleaning. WARNING: Some aerosol oils and degreasers will expand bearings seals causing drag. Plastic parts should not be lubricated. Drive belts MUST NOT be lubricated. Ball differentials and thrust races should only be lubricated with silicone grease.

11) General:
In general the car should understeer - this means the front wheels slide more than the rear wheels during cornering. Run the lowest ride height that track conditions will allow-a low car always corners better than a high car. Use the softest damper settings that stop the wheels from bouncing. It is very easy to over damp the car and cause bouncing at speed.

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SHOTGUN

KIT CONTENTS LIST

BAG NO	SPARES NO	PART NO	DESCRIPTION	NO OFF	
U419X	**U419X**		**Shotgun - Racing Truck**		
	U590T	S610	Instruction Book & Decal Set - Truck	1	
	U587Q	U587	Bodyshell Moulding - Truck	1	
	U221D	T221	Chassis Pan - 2WD	1	
	U550F	T550	Transmission Set - 2WD	1	
	U566V	T566	Rear Suspension Set - Truck	1	
	U568X	T568	Front Suspension Set - Truck	1	
	U567W	T567	Shock Absorbers - (Set 4) - Truck	1	
	U119J	T119	Aerial	1	
	U1030K	T1030	Chassis Dirt Cover - 2WD	1	
	U387R	T387	Front Bumper - Truck	1	
T550	**U550F**		**Transmission Truck - 2WD**		
	U178P	T178	Transmission Housing	1	
	U195G	T195	Drive Belt HTD 72 x 8mm	1	
	U215A	T215	Gear Cover	1	
	U225H	T255	Motor Guard	1	
	U723W	T179	Cover Plate	1	
	U723W	T180	Motor Plate	1	
	U084A	T084	Rear Axle	1	
	U720T	A537	Oilite Bush (4 x 16 x 5)	2	
	U720T	A536	Oilite Bearing (9 x 16 x 5)	2	
	U720T	A539	Bearing Sleeve (5mm)	2	
	U631B	T108	U/J Pivot Assembly	4	
	U631B	T131	U/J Assembly Tool F/G	1	
	U227J	T227	Layshaft - Rear	1	
	U230M	T230	92T Gear 48DP	1	
	U234Q	T234	22T Pinion 48DP	1	
	U701A	**T701**	**Pulley Set - 2WD**		
		T203	Diff. Pulley 51T x 10mm	1	
		T196	21T Pulley - 2WD	1	
		T197	Spacer - Pulley	1	
		T258	Pulley Flange	2	
	U704D	**T704**	**Drive Shaft Mouldings 2WD**		
		T027	Drive Shaft - Male	2	
		T028	Drive Shaft - Female	2	
		T030	Wheel Hub	2	
		T031	Rear Hub	2	
	U517R	**T517**	**Bearing Housing Moulding**		
		T083	Bearing Housing Diff. Closed	1	
		T081	Bearing Housing Rear Eccentric	2	
		T082	Bearing Housing Diff. Open	1	
	U700Z	**T700**	**Transmission Fixings - 2WD**		
		A035	St. St. Screws M3 x 6 Cp. Hd.	2	
		A225	Steel Washer M3	2	
		A301	Screw Self Tap No. 2 x 3/16 Pn. Hd.	12	
		A323	Screw Self Tap No. 4 x 3/8 Pn. Hd.	8	
		A326	Screw Self Tap No. 4 x 3/4 Pn. Hd	2	
		A040	St. St, Screw M3x20 Cp. Hd.	2	
		A051	Nyloc Nut M3	3	
		A154	Disc Spring 1/8"	2	

BAG NO	SPARES NO	PART NO	DESCRIPTION	NO OFF	
	U722V	A180	'O' Ring 1/8" Nitrile	1	
		A333	Self Screw Tap No.4 x 3/8 Csk. Hd.	4	
		A304	Screw Self Tap No. 2 x 3/8 Pan Hd.	10	
		A141	Socket Wrench 1.5mm AF	1	
	U702B	**T702**	**Diff. Repair Kit**		
		A520	Thrust Race 1/8 x 5/16	1	
		A222	Thrust Washer - Hex	2	
		T299	Washer Carrier - Hex	2	
		A405	Needle Roller 2.0 dia. x 7.8mm	1	
		A401	Needle Roller 1.5 dia. x 7.8mm	1	
		A500	Steel Ball 3.0mm dia.	15	
T566	**U566V**		**Rear Suspension - Truck**		
	U1000G	T1000	Rear Hub Carrier - Truck	2	
	U268C	T268	Rear Wishbone	2	
	U202N	T202	Pivot Block Rear Wishbone	4	
	U237T	T237	Bulkhead	1	
	U1027H	T1027	Shock & Body Mount Bracket - Truck	1	
	U7210	A536	Oilite Bearing (9 x 16 x 5)	4	
	U7210	A538	Bearing Sleeve (11mm)	2	
	U764L	**T764**	**Truck Rear Susp. Small Parts - 2WD**		
		A028	Steel Screw M3 x 16 Pn. Hd.	2	
		A030	Steel Screw M3 x 10 Pn. Hd.	2	
		A010	Steel Screw M3 x 20 Pn. Hd.	2	
		A048	Steel Nut M3	3	
		A092	Turnbuckle M3 x 24mm	2	
		A323	Screw Self Tap No.4 x 3/8 Pn. Hd.	8	
		A326	Screw Self Tap No.4 x 3/4 Pn. Hd.	2	
		A417	Rear Hub Carrier Pivot Pin 40mm	2	
		A412	St. St. Pin. 2.0dia. x 54mm	2	
	U728B	T238	Rose Joint Socket	4	
	U728B	T239	Rose Joint Ball	4	
		A143	Socket Wrench 2.5mm AF	1	
		A206	Nylon Washer 3.3 x 8.0 x 1.6mm	5	
	U786H	**T792**	**Body Mount - Small Parts Truck**		
		A110	'R' Clip	4	
		A323	No. 4 x 3/8" Self Tap Screw	8	
		A302	No. 2 x 1/4" Self Tap Screw	12	
		A030	M3 x 10 Panhead Screw	3	
		A051	M3 Nyloc Nut	3	
		T121	Sticky Pad 1"x1"	4	
		A077	Socket Grub Screw M3x3	2	
	U786H	**T786**	**Body Mount Mouldings**		
		T369	Saloon Body Kit - Base	4	
		T370	Saloon Body Kit - Post	4	
		T371	Saloon Body Kit - Washer	4	

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KIT CONTENTS LIST

BAG NO	SPARES NO	PART NO	DESCRIPTION	NO OFF	
T568	**U568X**		**Front Suspension Set - Truck**		
	U344A	T344	Shock Mount F/G - Long	1	
	U724X	A533	Ball Bearing 8 x 16 x 5	2	
		T707	**Front Suspension Small Parts**		
	U750X	T320	Ball Socket - Small	8	
	U750X	T321	Ball Stud	8	
		A010	Steel Screw M3 x 20 Pn. Hd.	2	
		A039	St. St. Screw M3 x 16 Cap Hd.	4	
		A048	Steel Nut M3	4	
		A051	Nyloc Nut M3	2	
		A326	Screw Self Tap No. 4 x 3/4 Pn. Hd.	2	
		A038	St. St. Screw M3 x 12 Cap. Hd.	2	
		A206	Nylon Washer 3.3 x 8.0 x 1.6	2	
	U760H	A095	Turnbuckle Adjuster M3x45mm	4	
		A302	Screw Self Tap No. 2x1/4 Pn. Hd.	8	
		T709	**Chassis Accessories - Truck**		
	U717Q	T252	Wire Clamp	1	
	U717Q	A424	Link Wire	2	
		A333	Screw Self Tap No. 4 x 3/8 Csk. Hd.	2	
	U254K	T254	Nicad Holder & Strap	1	
		A323	Screw Self Tap No. 4 x 3/8 Pan. Hd.	2	
	U122M	T122	Velcro	3	
	U779A	G305	Servo Tape	1	
	U627X	T627	Servo - Saver Assembly	1	
	U748V	**T748**	**Front Suspension Pivot Set - Truck**		
		T339	Pivot - Inboard Fr. Wish Bone	2	
		T228	Pivot - 1/8"	4	
		T353	Shock Mount Bush	2	
		A051	Nyloc Nut M3	2	
	U727A	A103	'E' Clip 1/8"	12	
		A039	St. St. Screw M3 x 16 Cap Hd.	2	
		A048	Steel Nut M3	2	
	U749W	**T749**	**Steering Pivot Set-Truck**		
		T342	Pivot Brush-Steering	2	
		T242	Steering Lever Pivot	2	
		A225	Steel Washer M3	4	
		A023	Steel Screw M3 x 12 CSK. Hd.	2	
		A032	Steel Screw M3 x 6 CH Hd.	2	
	U774V	**T774**	**Wishbones & Hub Mouldings - Truck**		
		T328	Steering Block	2	
		T330	Wishbone - Front	2	
		T336	Spacer - Rake Angle	4	
		T338	Inner Hub & Nyloc Holder	2	
		T202	Bearing Retainer	2	
	U787I	**T787**	**Front Plate & Steering Levers-Truck**		
		T322	Lower Suspension Plate	1	
		T340	Steering Lever	1	
		T341	Radius Arm	1	
	U776X	**T776**	**Top Bkt. Yokes, Centre Track Rod/Truck**		
		T323	Upper Suspension Plate	1	

BAG NO	SPARES NO	PART NO	DESCRIPTION	NO OFF	
		T332	Steering Yoke R.H.	1	
		T334	Steering Yoke L.H.	1	
		T335	Centre Track Rod-Steering	1	
T567	**U567W**		**Shock Absorbers (Pk 4)-Truck**		
		T059	Cap-Shock Absorber	4	
		T061	Shock Body 32mm Stroke	4	
	U133X	T133	Suspension Spring 0.045 x 11 x 2.5 Rear	4	
	U613J	**T613**	**Spring Stops and Spacers Moulding**		
		T090	Spring Stop	4	
		T092	Spacer 1mm	4	
		T093	Spacer 2mm	4	
		T094	Spacer 4mm	4	
		T095	Spacer 8mm	4	
	U637H	**T637**	**Shock Pistons (Set of 6)**		
		T096	Shock Absorber Piston (1sq. mm hole)	2	
		T097	Shock Absorber Piston (2sq. mm hole)	4	
	U614K	**T614**	**Shock Absorber Seals (4 Sets)**		
		T158	Bush - Shock Absorber	4	
		T159	Seal Housing - Shock Absorber	4	
		A230	Stepped Washer	2	
		A208	Nylon Washer M3 x 0.8mm	2	
	U162A	T162	Diaphragm - Shock Absorber	4	
	U727A	A103	'E' Clip 1/8"	12	
		A185	'O' Ring 5.1 x 1.6mm Nitrile	4	
	U722V	A181	'O' Ring 1/8" x 1/16" - Silicone	8	
		A209	Black Washer	4	
		A131	Internal Circlip 8.0 x 0.39mm	4	
		T790	**Shock Absorber Small Parts**		
		A038	St. St. Screw M3 x 12 Cap Hd.	2	
		A039	St. St. Screw M3 x 16 Cap Hd.	2	
		A048	Steel Nut M3	2	
		A051	Nyloc Nut M3	2	
	U063F	T063	Piston Rod -32mm Stroke	4	
		T117	Spacer Tube	1	
	U728B	T238	Rose Joint - Socket	4	
	U728B	T239	Rose Joint - Ball	4	
			Wheels And Tyres		
	U396A	T396	Wheel - Truck	4	
			Tyre - Truck	4	

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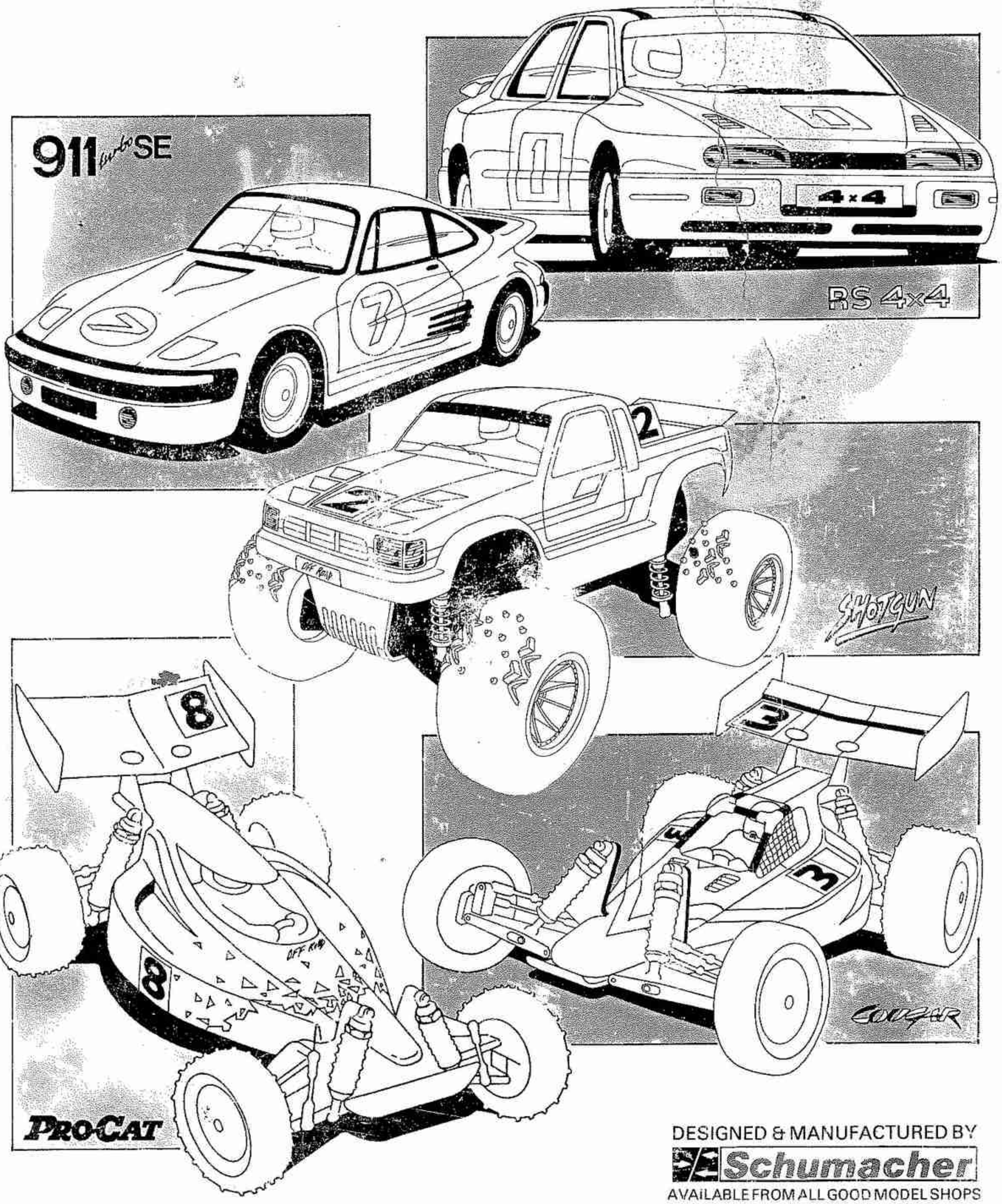

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