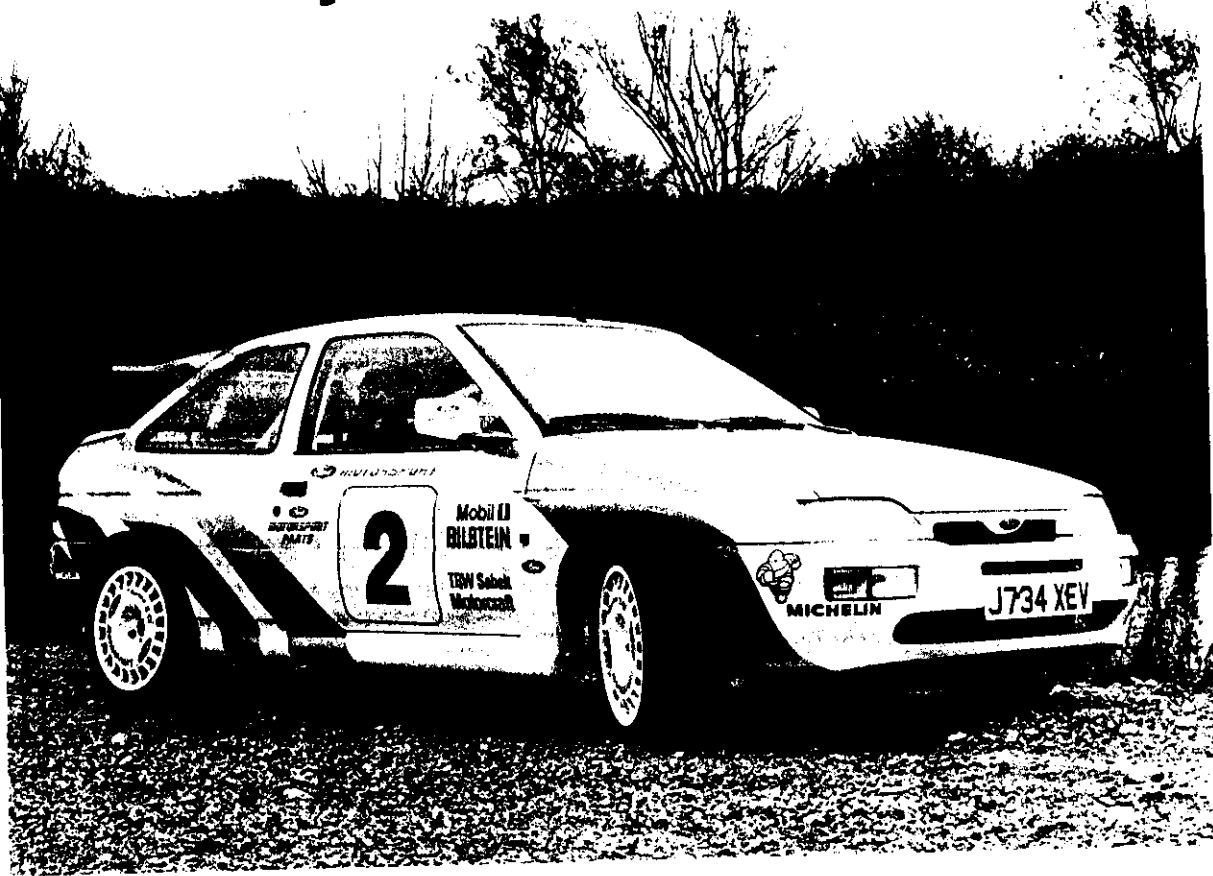


Motorsport




Group 'N' Rally Preparation Manual



MS 36

ISSUE 2 – 05/93

Escort RS Cosworth

Motorsport 

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This publication covers parts available for the Ford Escort RS Cosworth. Ford Motor sport continues to work on the design and development of new parts for Escort Cosworth 4x4 motorsport cars. These will initially be announced in Ford's PERFORMANCE NEWS service, but will then be included in the next issue of this publication.

Note: Finis Codes identified with an asterisk (*) are standard Ford Production car items, and should be ordered through any Ford dealer, who will acquire them either from Daventry in the U.K. (U.K. dealers) or from Merkenich in Germany (Ford dealer in Europe).

DISCLAIMER

In certain countries some Ford Motorsport parts, installation, and recommended changes in this manual may not meet national type approval laws or construction and use regulations. At all times it is the responsibility of the customer to ensure compliance in a particular country. The eligibility of any part for use in Motorsport must be determined, by the customer, by reference to the relevant up-to-date homologation form, and (where applicable) championship regulations.

Ford cannot accept responsibility for any problems arising from failure to comply with these recommendations.

ESCORT RS COSWORTH GROUP 'N'



The Ford Escort RS Cosworth was Homologated into group 'A' and 'N' on Jan. 1st 1993. This publication details the modifications necessary or recommended for group 'N' competition. It should be read in conjunction with the F.I.S.A. yearbook and bulletins for international events. A copy of the standard workshop manual "Ford Sierra RS Cosworth and Escort RS Cosworth" (order code No CG1503/EN) is also useful and can be ordered via a Ford dealer, this covers normal service and repair procedures. The Homologation number for group 'N' is N5466.

Ford Motorsport have developed and tested the Group 'N' Escort during 1992. The car has been driven by Ford Works Drivers on Tarmac at Boreham and in Wales, and on gravel in Wales, Yorkshire and Cordoba in Spain. A wide range of parts have been tested in all conditions to determine component 'Life' as well as performance. Where possible an indication of safe working life will be shown as a guide, but it must be stressed that this varies widely with conditions and driving technique. In any case, every critical component should be checked regularly during the event, and replaced if wear or damage is evident. A system of preventative maintenance will help avoid costly failure.

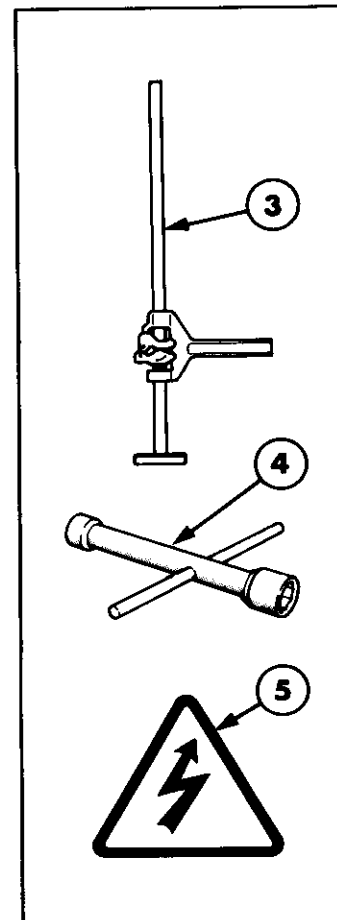
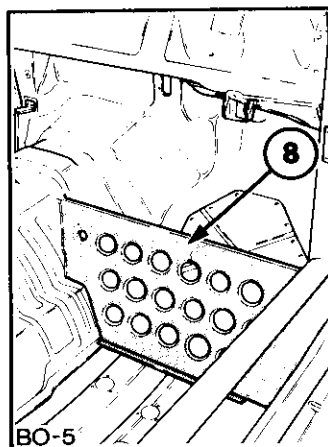
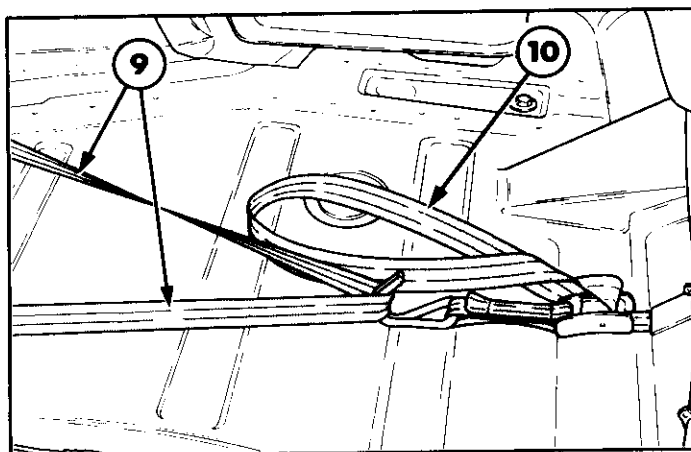
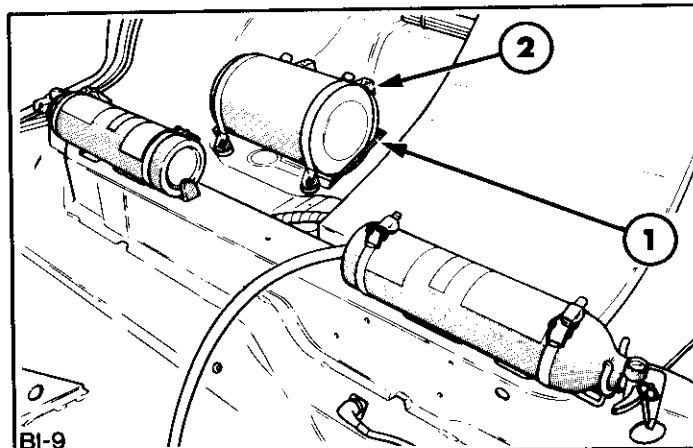
The Escort RS. Cosworth is based mechanically on the Sierra RS Cosworth 4x4 with minor changes to engine and driveline. The bodyshell is unique, with interior trim based on the Escort model range. The 'Roadsport' version is sold without radio, sunroof and electric windows to provide an ideal base vehicle for the competitor. The front spoiler incorporates an airsplitter which should be retracted for use on gravel and extended for Tarmac/race. The optional fog lamps can be fitted - there is no cooling advantage to be gained in fitting the grilles in group 'N'.

It is recommended that users register with the Ford Motorsport 'Performance News' service by contacting:
 Graham Robson
 Girt House,
 Burton Bradstock,
 Bridport, Dorset DT6 4QFUK
 Fax: 0308 897416.

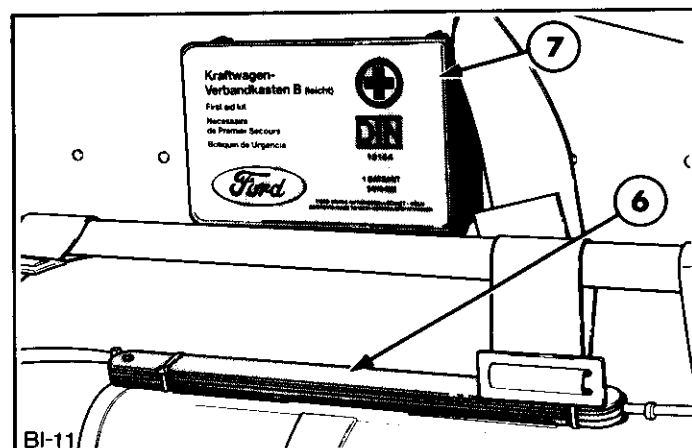
FISA recommend an automatic 'plumbed in' extinguisher system of 71/2KG. (2.5kg cockpit, 5kg engine). The system should be "powder or an agent of similar efficiency and non-toxicity". Currently, halon 1211 or 1301 (BCF-BTM) is common. New regulations concerning extinguishants are currently under review by FISA.

In addition, the car must be equipped with one or two hand held bottles containing 4kg minimum extinguishant.

Rally cars must carry First Aid kit and warning triangles in most European countries to comply with traffic laws.



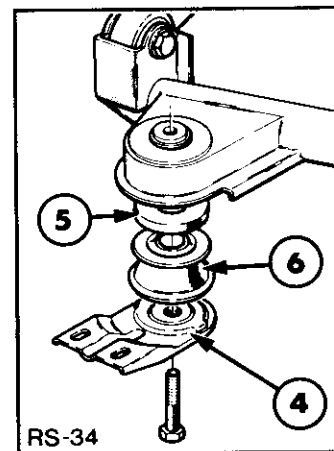
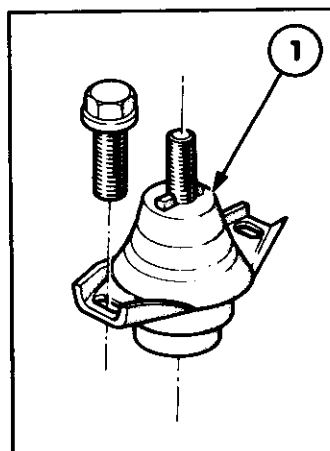
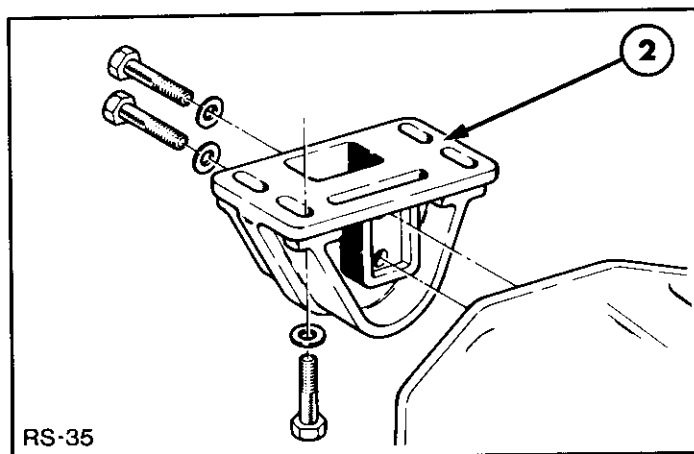
Description	Finis Code	Comments	Qty.
1 Bracket, Fire Extinguisher	9092884		2
2 Strap, Fire Extinguisher	9092938		2
3 Jack, Short, (Quicklift)	9091324		1
Complete with Handle			
4 Wheelbrace - High	9090628		1
Speed Spinner Type			
5 Decal - Ignition Cut - Out	9092875		1
6 Warning Triangle	*5027194		1
7 First Aid Kit	*5010466		1
8 Footrest LHD	9095258	Kevlar (alt.)	1
9 Spare Wheel Strap	9090630		1
10 Spare Wheel Strap	9090631		1



It is important to check the front and rear engine mounts regularly on rough gravel events or where the car is jumping.

The standard engine mount heatshield must be fitted on the R.H.S. near the turbocharger to avoid heat damage to the rubber and consequential failure.

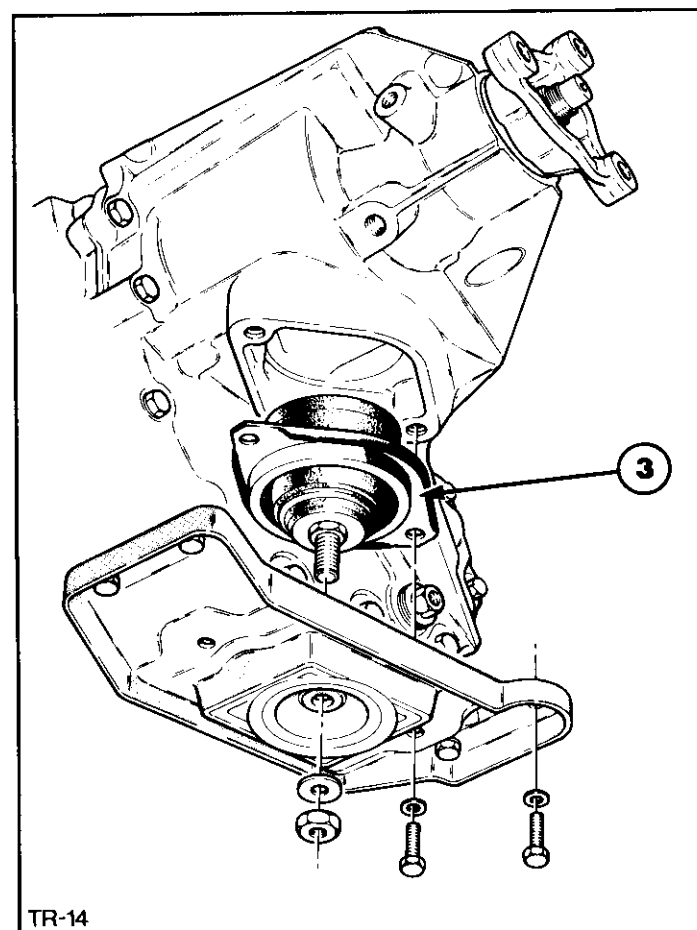
Engine mount failure can cause the driveshafts to pull out. Ensure the bolts to the engine block are as long as possible and correctly torqued, as block castings can crack.



Description	Finis Code	Comments	Qty.
1 Insulator Engine Mount	9095171	'Selected'	2
2 Insulator, Rear Diff..	9094679	'Selected'	2
3 Insulator - Engine Rear	9094771	'Selected'	1
4 Plate Assembly, Rear Suspension Steady	9094799	Reinforced	2
5 Reinforcement, Body to Rear Crossmember	9094694	Weld to bodyshell	2
6 Insulator - Rear Beam	9094678	'Selected'	2

Torques

1 Front Engine Mount to Arm	90 Nm
2 Engine Mount to Front X MBR	55 Nm
3 Rr Axle Mount to Axle	50 Nm
4 Rr Axle Mount to Floor	25 Nm
5 Transmission Mount to X MBR	65 Nm
6 Rear Beam Mountings	88 Nm



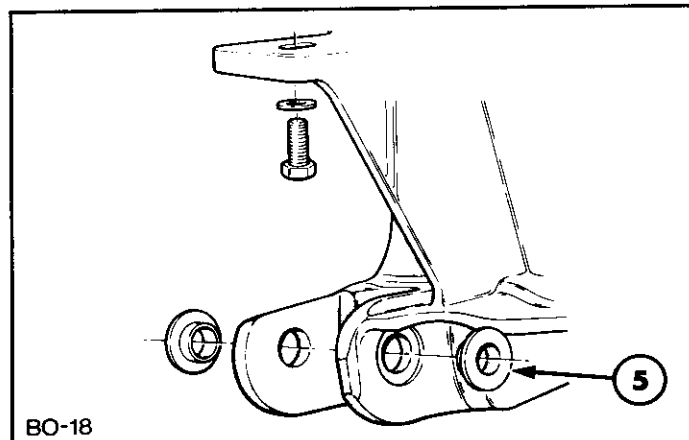
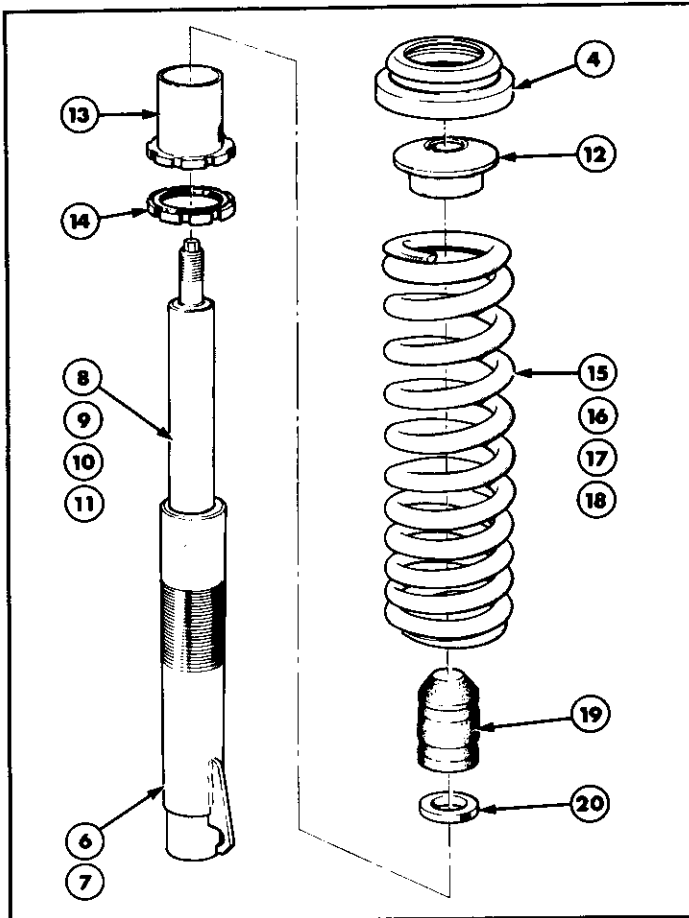
The standard front anti roll bar is 29mm on the Escort. The roll bar nuts must be checked for tightness regularly. The ends can be drilled and fitted with 'R' pins for added security. Tighten suspension bolts when car is on the ground to avoid 'wind-up', in the bushes.

Track control arms and upright castings must be changed frequently - as any wear can cause failure of the T.C.A. ball pin.

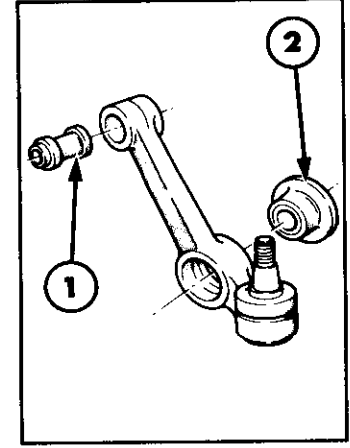
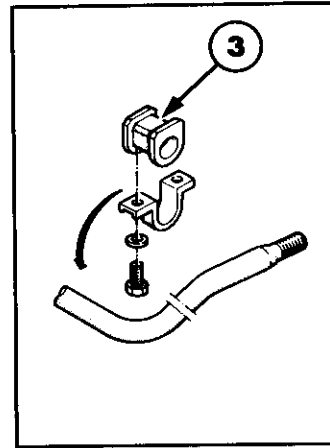
Front hubs should be checked regularly and renewed after 500km. Shotpeening will help to avoid fatigue cracking.

Front bumpstop length is critical to the handling of the car (see spec. sheets).

Ensure the crossmember bushes (5) are flush with the inside face of the crossmember or the TCA will jam in position making removal difficult.



BO-18



Description	Finis Code	Comments	Qty.
1 Bush, Track Control Arm, Inner	9092364	'Selected'	2
2 Bush, Track Control Arm, Outer	9092349	'Selected'	4
3 Bush, Anti-Roll Bar Mounting	9092347	'Selected'	2
4 Mounting, Front Suspension, Upper	9095389	'Selected'	2
5 Bush, Crossmember To Track Control Arm	9094758	Press into crossmember	4
6 Body, Front Strut or	9095488	Optimised camber	2
7 Body, Front Strut	9094682	Gravel and tarmac (Alt.)	2
8 Insert, Front Strut	9094683	Gravel 360/140	2
9 Insert, Front Strut	9095479	Gravel 380/160	2
10 Insert, Front Strut	9095161	Tarmac 500/200	2
11 Insert, Front Strut	9094860	Tarmac 325/150	2
12 Upper Spring Seat	9095502		2
13 Lower Spring Seat	9093328		2
14 Locking Ring, Lower	9093179	Use with 9093328	2
15 Road Spring, Front	9095481	85 N/mm Tarmac	2
16 Road Spring, Front	9094856	90 N/mm Tarmac (Alt.)	2
17 Road Spring, Front	9095480	Gravel, 72 N/mm &	2
18 Road Spring, Front	9094687	Gravel, 80 N/mm (Alt.)	2
19 Bumpstop-Front	9094714	Cut to required length.	2
20 Spacer-Bumpstop	9095297	6mm	2

Torques

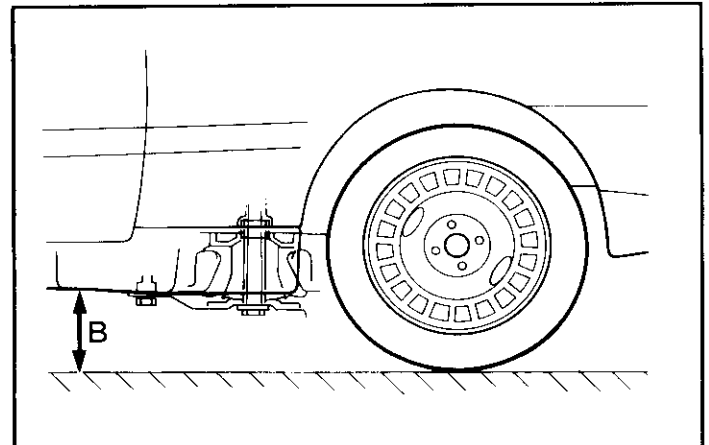
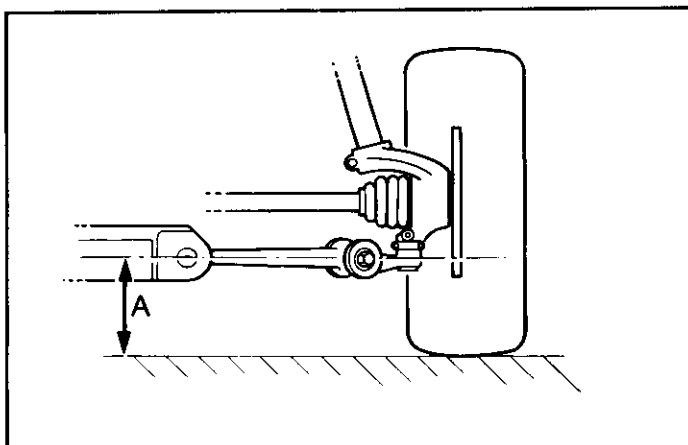
Hub Nut	350 Nm
Top Mount	52 Nm
Anti Roll Bar to Chassis	97 Nm
Anti Roll Bar to Track Control Arm	110 Nm

FORD MOTORSPORT VEHICLE BUILD SPECIFICATION

EVENT	TARMAC		GRAVEL	
SPECIFICATION	FRONT	REAR	FRONT	REAR
SUSPENSION Springs Dampers Bump Rubbers Anti-Roll Bar Blade Position	85 N/mm 500/200 70mm + 6mm Ø 29mm -	85 N/mm 400/170 50mm Ø 22mm -	72 N/mm 380/160 94mm + 6mm Ø 29mm -	78 N/mm 350/130 75mm + 6mm Ø 22mm -
CASTOR	3° 30'	-	3° 30'	-
CAMBER	3° 00'	2° 00'	2° 25'	1° 00'
TOE IN	2mm	3mm	2mm	3mm
RIDE HEIGHT	160mm	170mm	215mm	220mm
BRAKES Master Cylinder Brake PAd Material	Ø 278mm Disconnect ABS Blue Carbon	Ø 273mm Disconnect ABS Red Carbon	Ø 278mm Disconnect ABS Red Carbon	Ø 273mm Disconnect ABS Blue Carbon
CLUTCH	9½" Paddle		9½" Paddle	
WHEELS Tyre Compound Pressure	8" x 16" Ø 620 x 225mm - 2.0 Bar	8" x 16" Ø 620 x 225mm - 2.0 Bar	7" x 16" Ø 660mm - 2.0 Bar	7" x 16" Ø 660mm - 2.0 Bar

GEARBOX SPEC. NUMBER	9095468		
CENTRE DIFF. CHAIN RATIO	34% Front	66% Rear	50 Nm V.C.
FRONT AXLE.	9095165		
REAR AXLE LSD	9095164		180 Nm V.C.

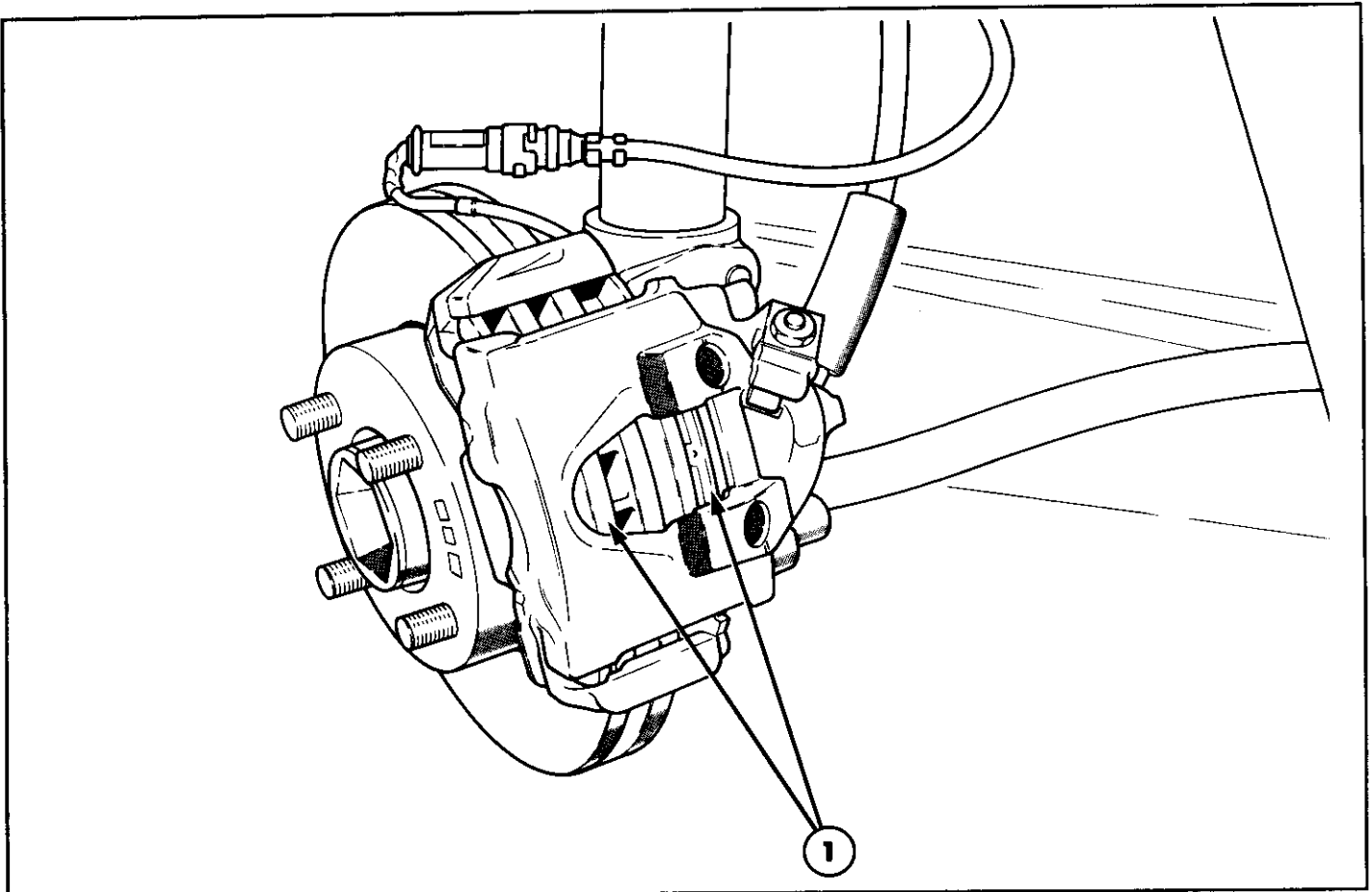
NOTE: Front ride height is measured from centre line T.C.A. joint to ground on recommended tyre (A). Rear ride height is measured from steady plate mounting face to ground on recommended tyre (B). Camber/castor figures quoted are within production tolerances of $\pm 1^\circ$. Ride heights should be increased by 10 – 15mm on rough gravel or bumpy tarmac.



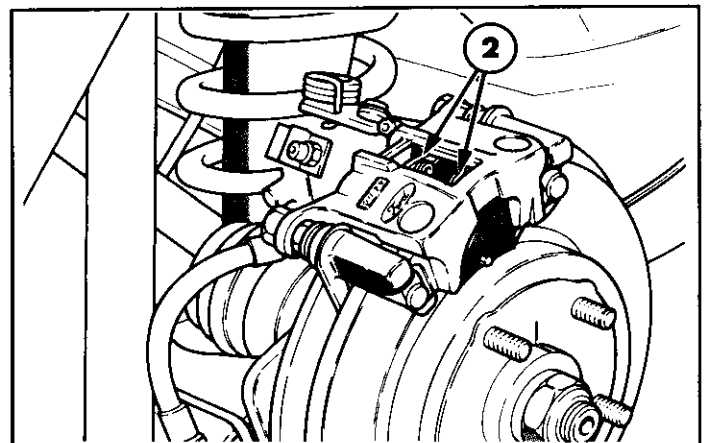
Two grades of carbon brake pads are now available. Blue carbon has the higher friction. The 'red' carbon material is less prone to brake 'grab' and not so aggressive to the discs. A change in balance can be achieved by using different material front and rear (i.e. red at the rear on Tarmac will avoid rear brake lockup.)

To bed in: Make a few gentle stops to remove high spots, then several hard applications from high speed down to 30 kph with recovery in between. Continue until fade is no longer apparent. Drive until brakes cool down. Bed new discs with used pads and vice versa. Check discs regularly during events. Disconnect ABS module inside car.

For additional cooling the optional lower grille end shields and duct covers should not be fitted.



Description	Finis Code	Comments	Qty.
1 Brake Pads, Front Carbon	9094826	Blue	4
or	9095473	Red (Alt.)	4
2 Brake Pads, Rear Carbon	9095333	Blue	4
or	9095472	Red (Alt.)	4
Recommended Fluid:		AP 600	
Torques			
Caliper Mounting Bolts:		61 Nm	



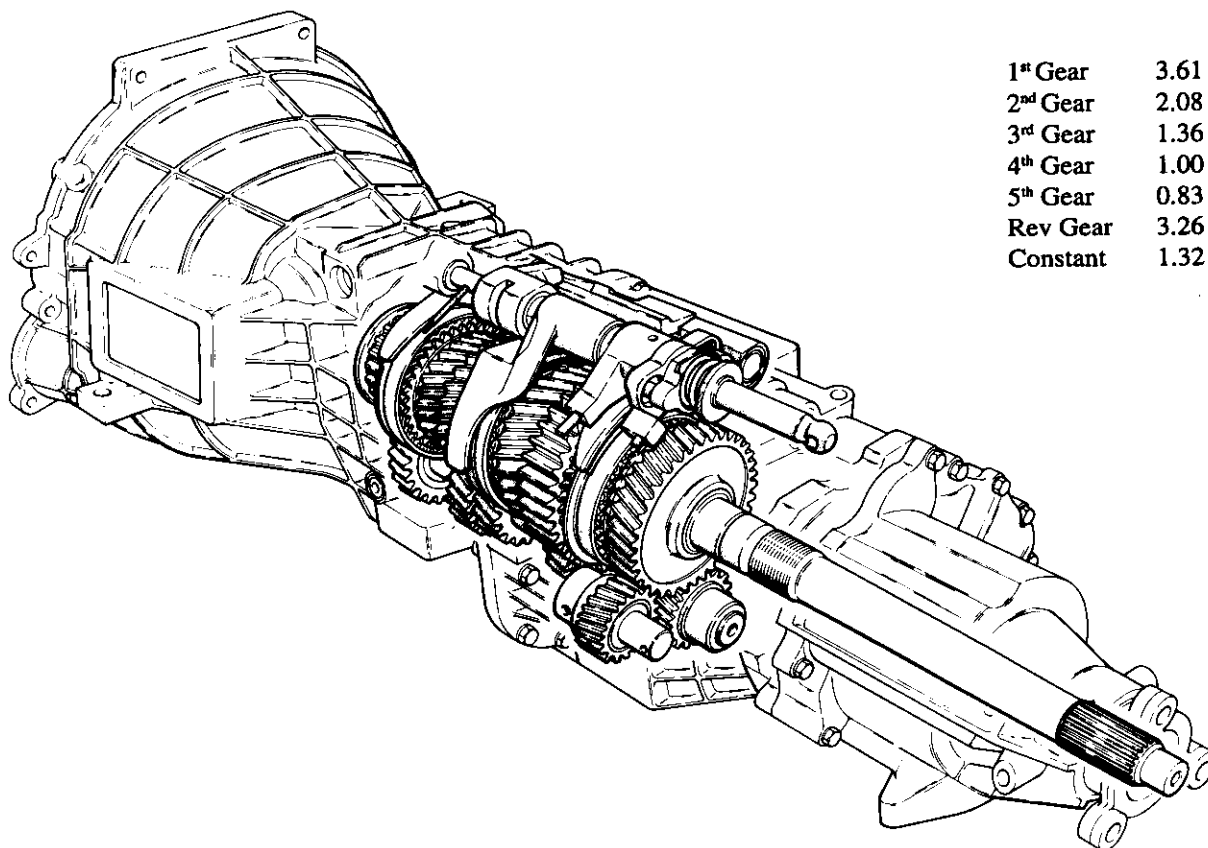
The Escort RS Cosworth transmission is very similar to the Sierra 4x4, but with a slightly longer output shaft to suit the new rubber propshaft coupling.

Considerable attention has been paid to gears to ensure reliability, and the Motorsport gearbox is now fitted with the highest quality production gears available. The centre VC. is set at 50nm.

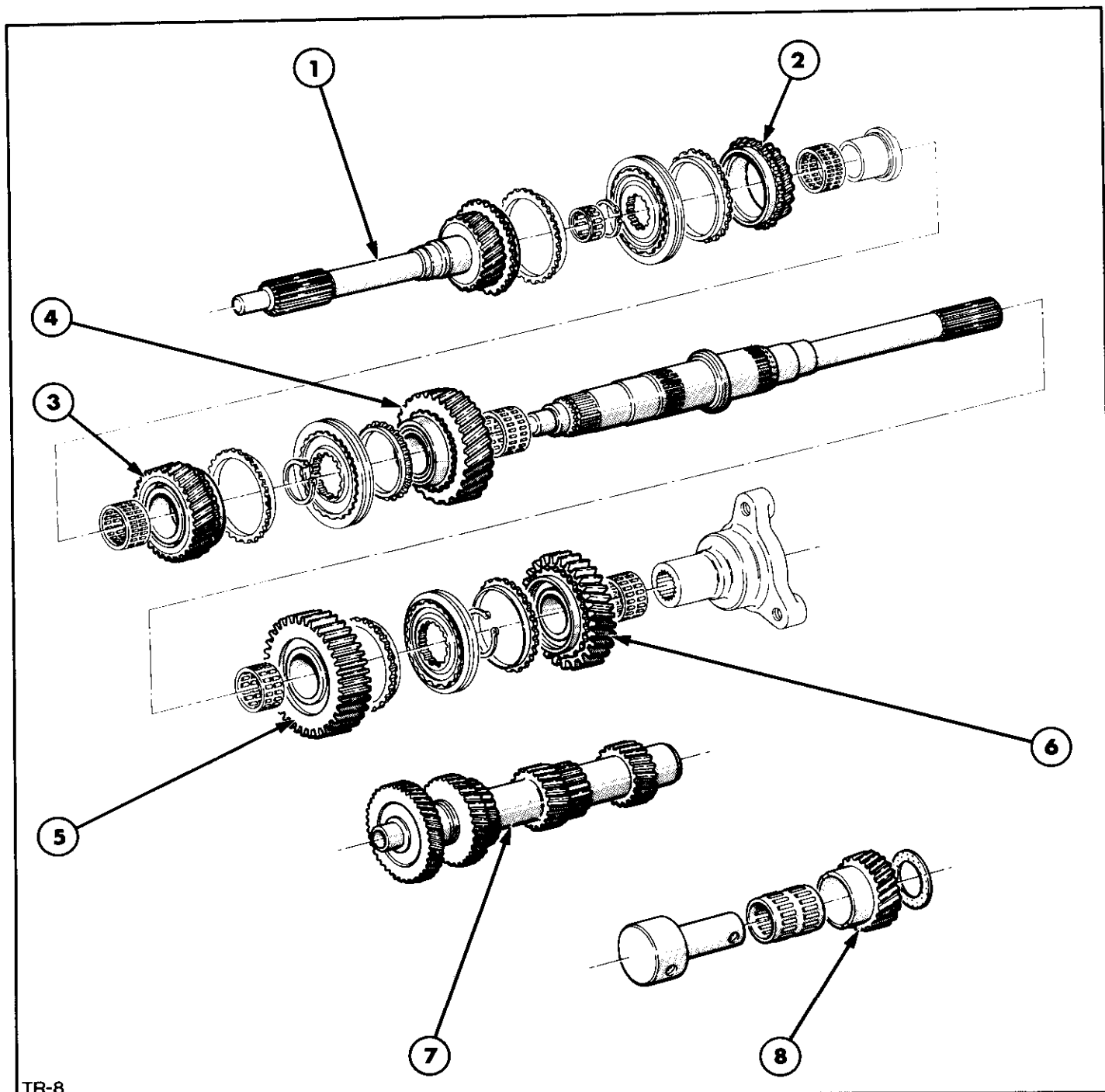
The recommended service interval is 500 km stage mileage in normal conditions. At each rebuild cracktest all gears, replace 3rd gear bearing and sleeve (6152807). Warm sleeve before fitting to shaft. Check selector forks for wear or bending. Tighten countershaft bearing housing while rotating transmission, until shaft is locked, then slacken off by one tooth to ensure bearing preload.

Use a good quality synthetic gear oil. For full repair procedure see the workshop manual (MT75 transmission publication No. CG1502/EN).

Check driveshaft and propshaft joints regularly and repack with grease. When building the car, check front driveshaft plunge in all suspension positions (no spring fitted and inner gaiter rolled back) To ensure that the driveshaft joint will not pull-out, plunge must be within 3-15mm measured at the hub stub shaft (with nut removed).



1 st Gear	3.61 : 1
2 nd Gear	2.08 : 1
3 rd Gear	1.36 : 1
4 th Gear	1.00 : 1
5 th Gear	0.83 : 1
Rev Gear	3.26 : 1
Constant	1.32 : 1

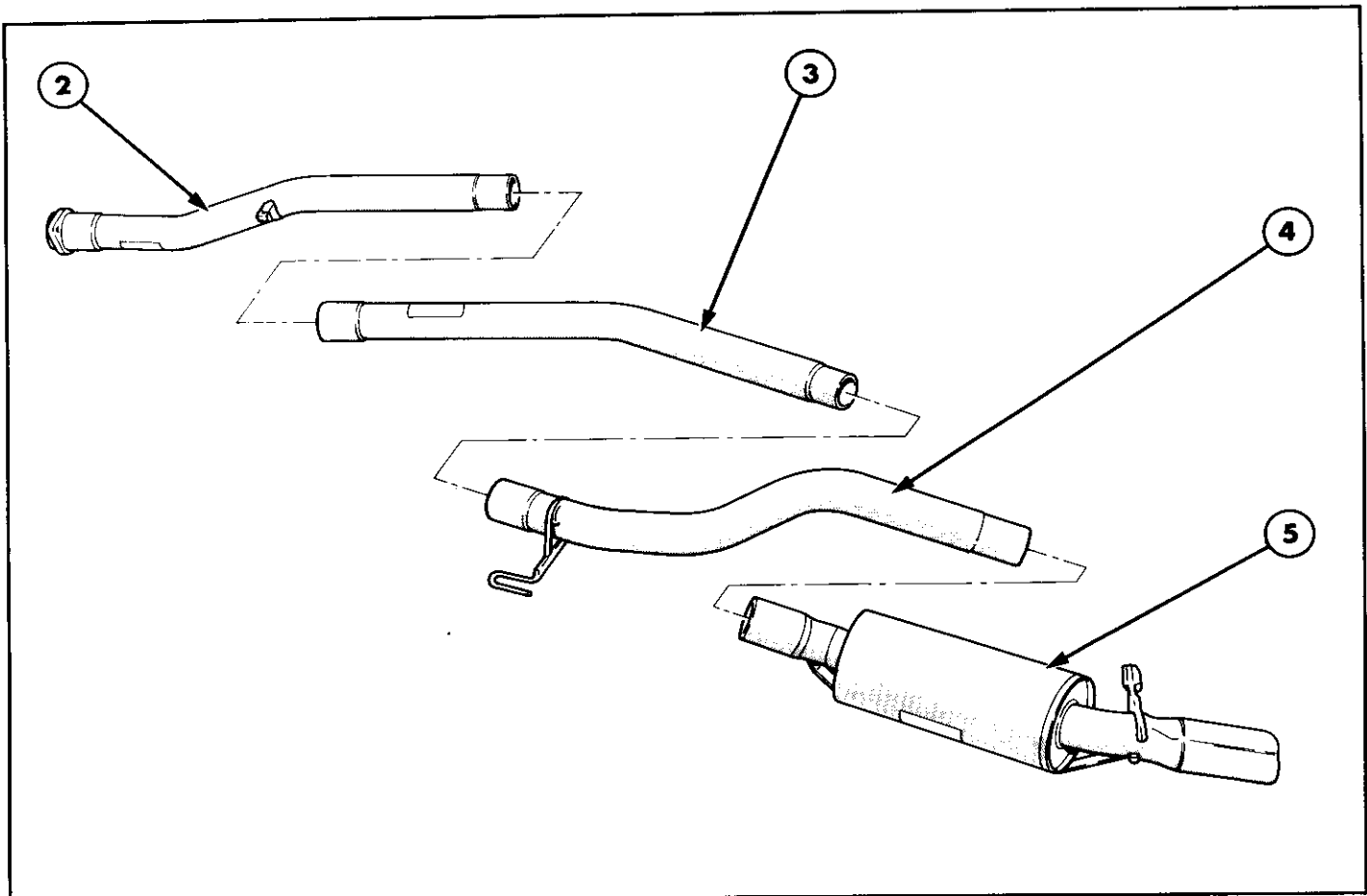


TR-8

Description	Finis Code	Comments	Qty.
1 Input Shaft	9095172		1
2 3rd Gear Main	9095507		1
3 2nd Gear Main	9095509		1
4 1st Gear Main	9095510		1
5 Reverse Gear	9095574		1
6 5th Gear Main	9095178		1
7 Countershaft	9095512		1
8 Reverse Gear Idler	9095575		1

NOTE: THESE GEARS SUIT TRANSMISSION 9095468 ONLY

The exhaust system can be modified (replaced) from the first silencer providing that the diameter is not increased. The 'first silencer' is the catalyst fitted to the downpipe - so the non-catalyst downpipe is substituted. The Motorsport exhaust system is routed above the rear beam to avoid damage, and exits through the bumper.



Description	Finis Code	Comments	Qty.
1 Downpipe	*6494220	Std.	1
2 Front Pipe	9095490	Stainless	1
3 Intermediate Pipe	9095491	Stainless	1
4 Intermediate Pipe RR	9095494	Stainless	1
5 Silencer	9095495	Stainless	1
6 Catalyst	TBE	Fit to downpipe	1

Additional auxiliary gauges "may be freely installed, provided that their fitting is not likely to create any danger".

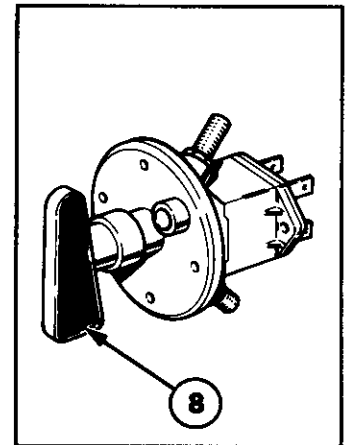
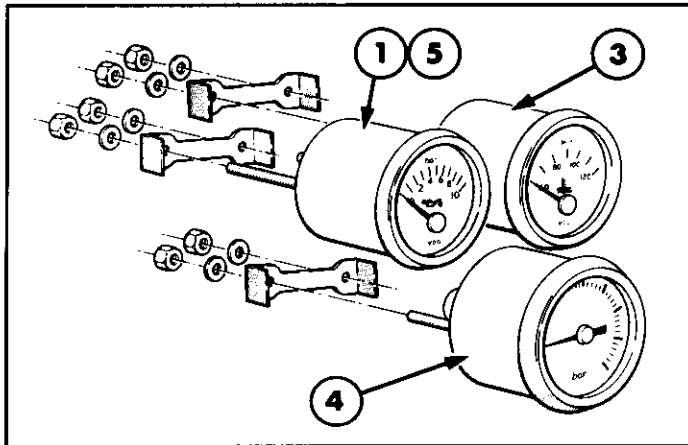
The horn may be changed or an additional one added "possibly for passenger use". The air horn kit is ideal for this purpose, with a foot operated button on the navigators footrest.

Ensure any additional lamps are wired through separate relays to avoid overloading the standard wiring. Problems are caused by chafing wires or radio interference. Keep radio equipment away from engine electronics.

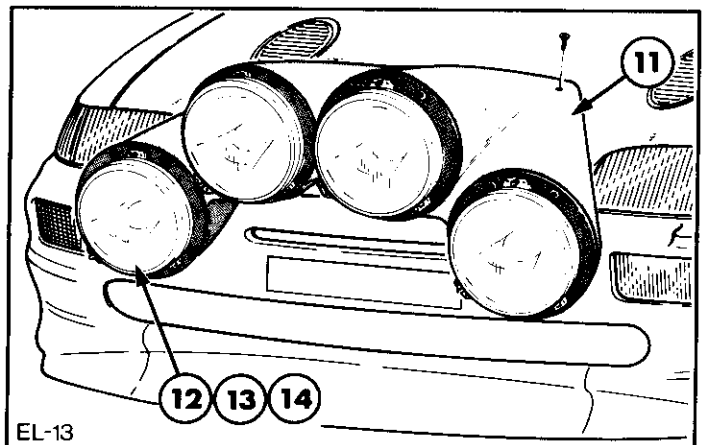


WARNING

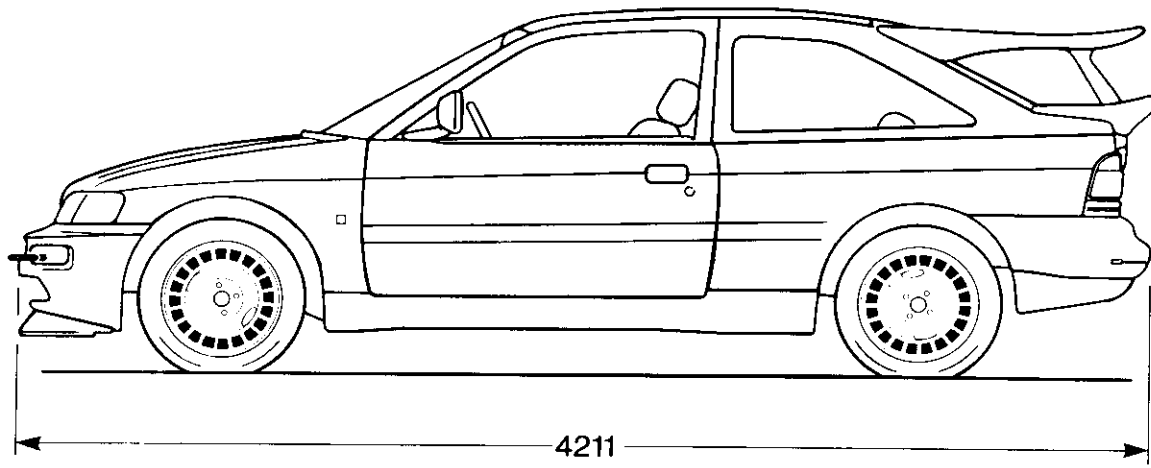
Disconnect the battery before conducting electrical work on the vehicle to avoid any damage to the electrical system.
Disconnect the E.C.U. before welding.



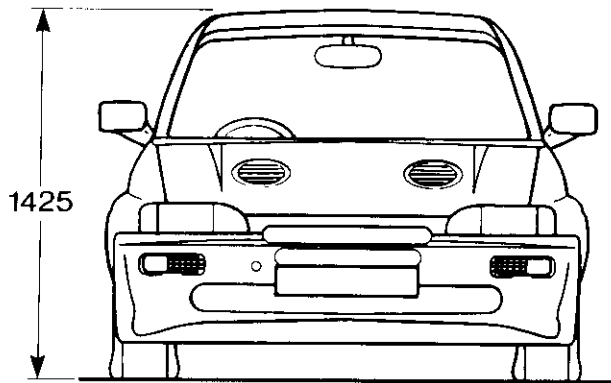
Description	Finis Code	Comments	Qty.
1 Gauge - Oil Pressure	9090780		1
2 Gauge, Water Temperature	9090777		1
3 Gauge, Turbo Boost	9090778	1.5 Bar	1
4 Gauge, Fuel Pressure	9091435		1
5 Gauge, Fuel Level	9090776		1
6 Pressure Sender	9091956	Oil and fuel	1
7 Switch, Master Cut Off	9092629		1
8 Kit, Air Horns	*5006122		1
9 Alternator, 150 Amp	9092574		1
10 Map Reading Lamp	9095676		1
11 Lamp - Pod	9095590	4 Lamp - bonnet mounting	1
12 Lamp - Fog	9095979		2
13 Lamp - Driving	9095977		2
14 Lamp - Long range	9095978		2



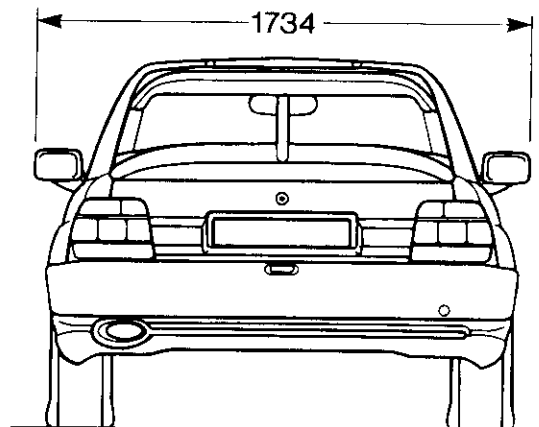
EL-13



Homologated minimum weight 1185Kg (no rollcage) 1215Kg (with rollcage)



Maximum front track 1490mm



Maximum rear track 1505mm

MS NUMBERS APPLICABLE TO STICKERS, BADGES AND LITERATURE

STICKERS:

MS13	3" Ford Oval
MS14	8" Ford Oval
MS15	10" Ford Oval
MS16	14" Ford Oval
MS17	20" Ford Oval
MS18	30" Ford Oval
MS19	40" Ford Oval
MS23	4 1/2" Ford Oval
MS24	6" Ford Oval
MS38	4" x 2" Ford Motorsport
MS39	6" x 3" Ford Motorsport
MS40	8" x 4" Ford Motorsport
MS41	12" x 6" Ford Motorsport

BADGES:

MS26	Oval Cloth
9091528	Rectangular with Ford in Oval

LITERATURE:

MS36	Escort Group 'N' Preparation Manual (Illustrated)
MS37	Escort Group 'A' Preparation Manual (Illustrated)

YOUR CONTACTS AT FORD MOTORSPORT:

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Fax number: 0245 450680 (Please use fax when placing your orders) Office Hours: Monday to Friday 8.00 am – 4.00 pm.

Graham Robson Performance News Editor Fax: 0308 897416

P.M.I./Ford Motorsport Clothing C. Halstead, A. Patel 081-902-1485

BODYSHELL

The Motorsport Escort RS Cosworth bodysells are seam welded, strengthened and fitted with a welded in safety roll cage to give high torsional rigidity, long life and inherent safety.

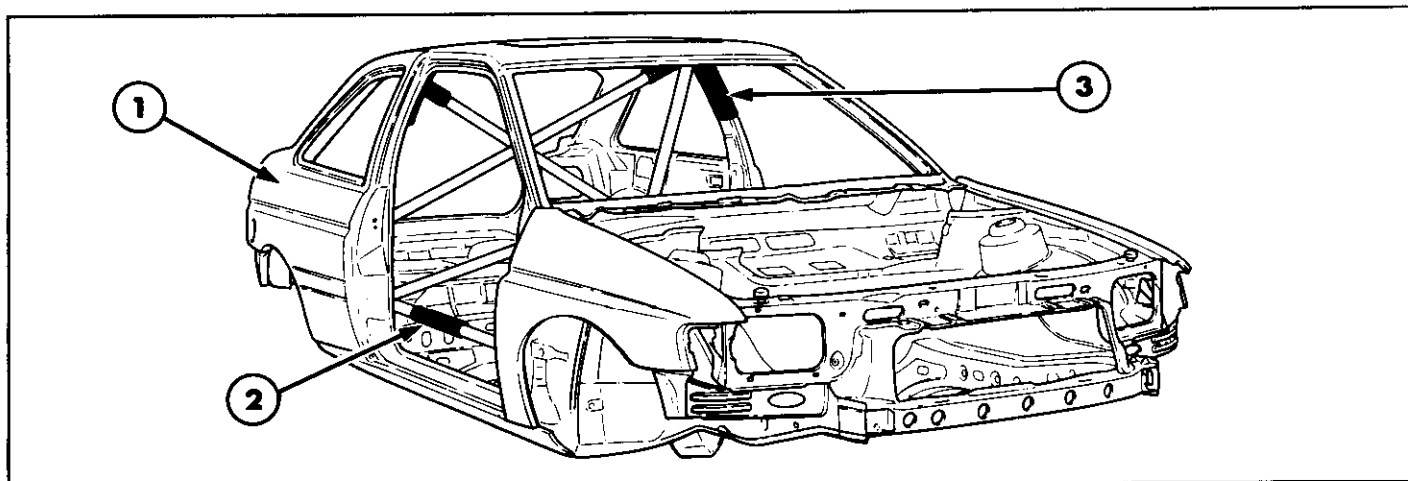
Bonnet locking pins should be fitted to the hood top and the tailgate. The best location for the tailgate fixing is on the rear window pillars, below the upper spoiler.

Roll cage sleeving is available in two sizes. Use 9092652 on door bars, and 9095218 on the main roll hoop near the occupant's head.

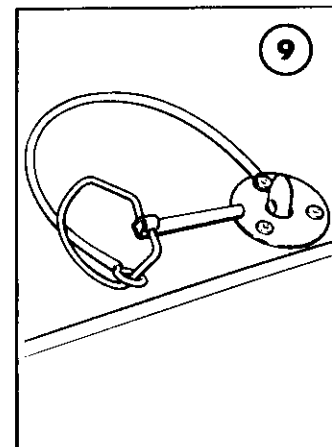
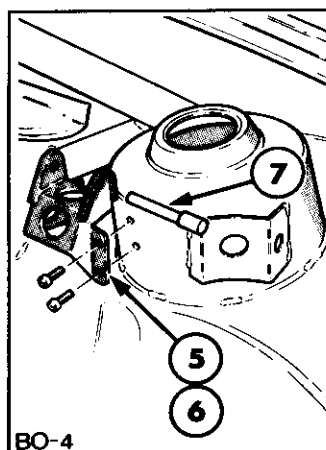
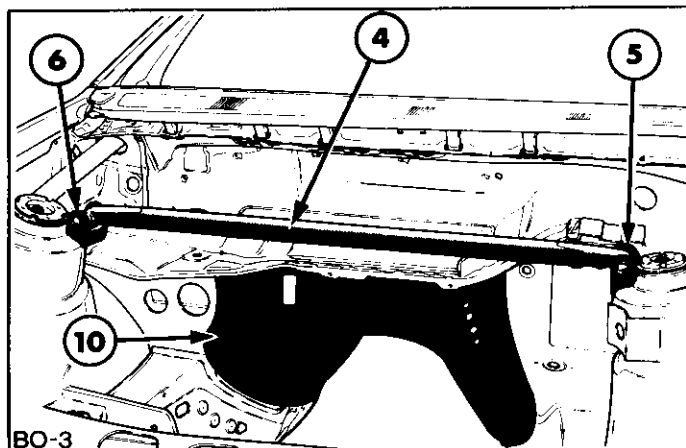
The netting is useful for carrying helmets and jackets in the rear, or as a map container on the navigator's door.

The trimmed bodysells include glass, lights, instrument panel, heater and some interior trim but do not include seats or mechanical parts.

Note: The 1994 rollcage changes proposed by FISA will not be applied retrospectively to bodysells bought during 1993.

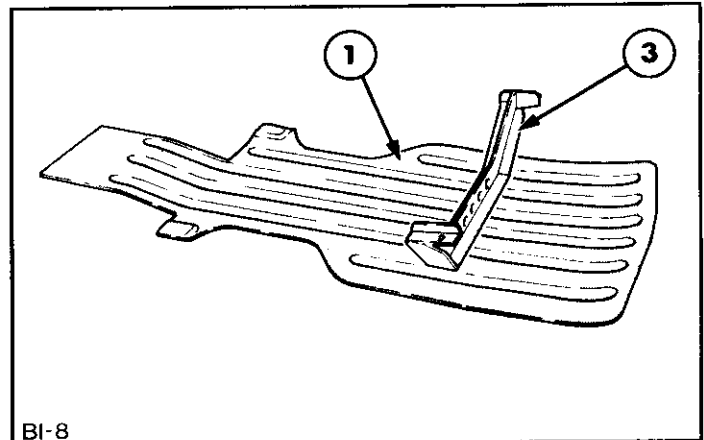


Description	Finis Code	Comments	Qty.
1 Bodysell - RHD	9095475	Fully prepared including	1
Bodysell - LHD	9095476	Welded in Roll Cage	1
Bodysell - LHD	9095315	Primer - no Cage	1
Bodysell - RHD	9095316	Primer - no Cage	1
Bodysell - LHD	9095579	Trimmed	1
Bodysell - RHD	9095585	Trimmed	1
2 Sleeving, Roll Cage	9092652	2 x 2 metre lengths	1
3 Sleeving, Roll Cage	9095218	54mm 1 x 2M length	1
4 Crossbrace, Turret	9093717	Lightweight Support	1
5 Bracket, Crossbrace, LH	9094871	Use with Crossbrace	1
6 Bracket, Crossbrace, RH	9094875	Use with Crossbrace	1
7 Pin, Turret Brace Fixing (Quick Releasing)	9094870	Use with 9093717	2
8 Netting, Side Storage	*6122596	9094871 and 9094875	2
9 Bonnet Pin Set	9095221	Aluminium	2
10 Heatshield - Transmission Tunnel	9094778		1
11 Seat Rail	9092968		4
12 Front Plate	9095412	Seat Mounting	4
13 Rear Plate	9095411	Seat Mounting	4

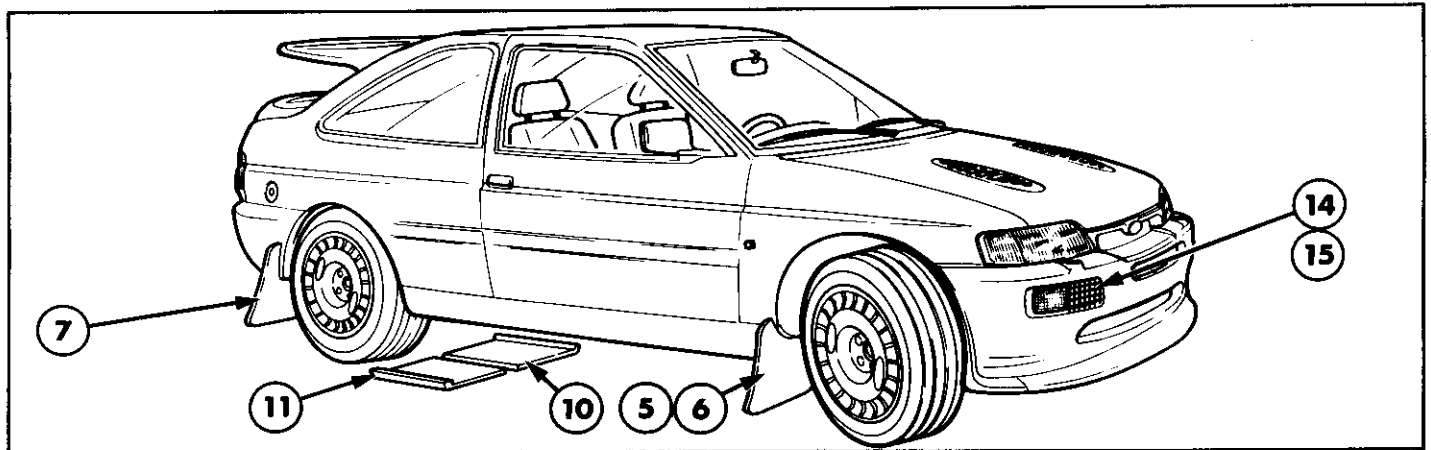


The under shield is mounted onto a front bracket supported by two aluminium side brackets, a centre support fitted just ahead of the suspension crossmember, and two bolts into the chassis rails. A foam pad should be fitted between the undershield and the suspension cross member/sump.

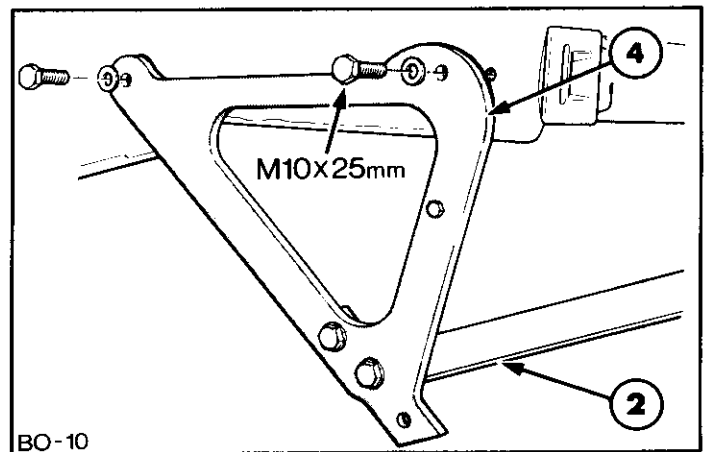
Shields are also available to protect the rear floor pan, windscreen washer bottle, rear axle and production fuel tank. On gravel events mudflaps are recommended.



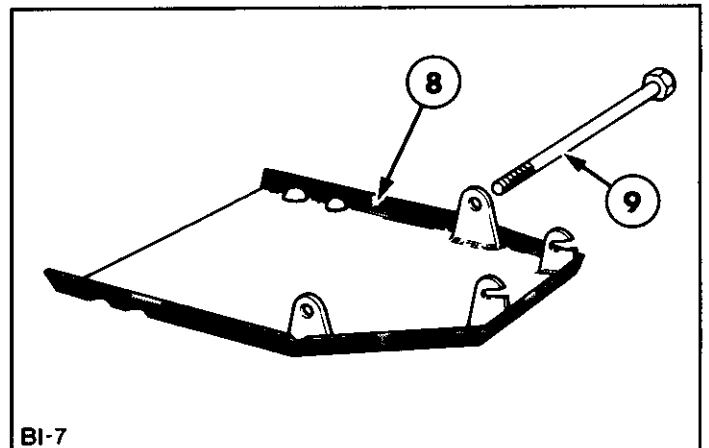
BI-8



Description	Finis Code	Comments	Qty.
1 Undershield, Front Kevlar	9095489	Tarmac or Gravel	1
2 Undershield Support Bracket, Front	9095504		1
3 Undershield Support	9094697	Gold	1
4 Bracket, Sump Shield, Side	9095503		2
5 Mudflap Front LH	9095618		1
6 Mudflap Front RH	9095619		1
7 Bracket - Mudflap	9095709		2
8 Mudflap - Rear LH	9095616		1
9 Mudflap - Rear RH	9095617		1
10 Undershield, 7" Axle	9095014	Use with standard 7" axle	1
11 Bolt - Axle	9093217		1
12 Floor Pan Shield LH	TBE	Gravel use	1
13 Floor Pan Shield RH	TBE	Gravel use	1
14 Kit - Fuel Tank Guard	9095499	For std. tank	1
15 Shield - Washer Bottle	9095501	Kevlar	1
16 Grille LH	9092971		1
17 Grille RH	9092972		1



BO-10



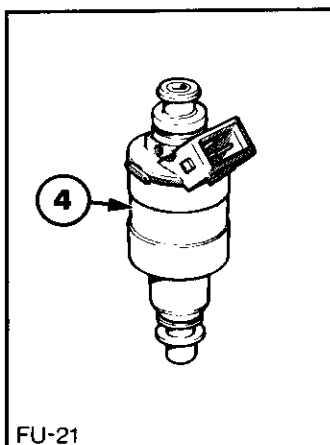
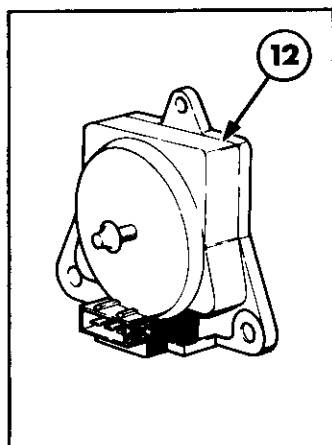
BI-7

ENGINE

The basic engine is virtually a carry over from the Sierra Cosworth 4x4, but with a larger turbo, and a water-cooled intercooler. Water injection (I.S.S) is also fitted to the first 2500 cars. This can only be activated with the correct EPROM.

As the car was homologated with water injection, the system **MUST** be fitted in the car to comply with group 'N'.

Fit the recommended injectors, and spark plugs, map sensor and fuel pump. Set the boost to 1.5 bar peak. Excessive boost will raise the water temperature and shorten turbo and gasket life. The turbocharger will normally last for 800km between rebuilds. Ensure air filter element is replaced regularly in dusty conditions or if wet. Seal gaps around radiator/intercooler with tape.



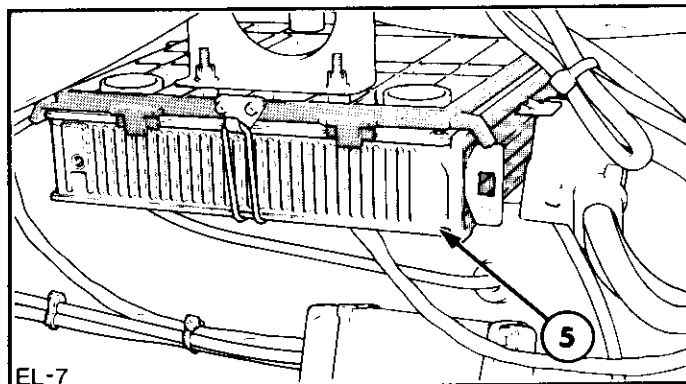
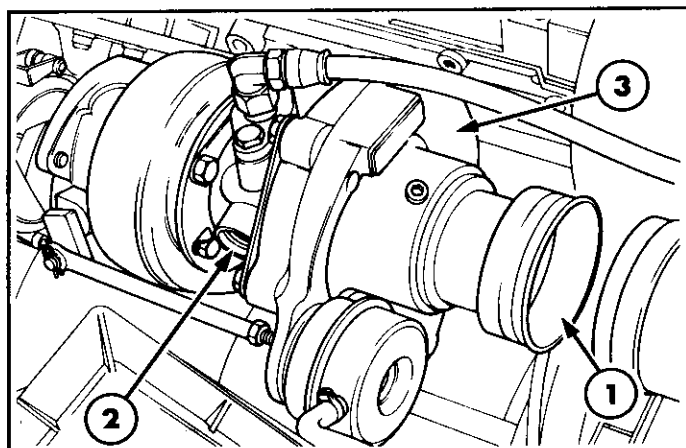
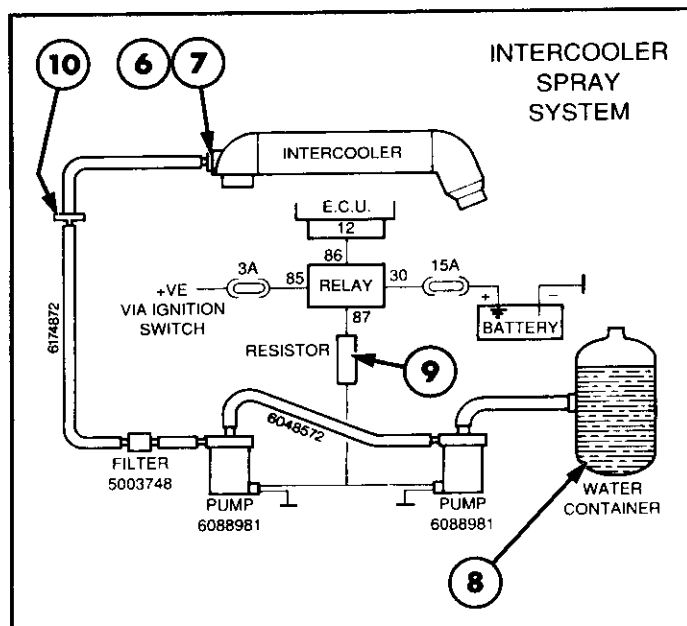
Description	Finis Code	Comments	Qty.
1 Restrictor Turbo	9095484	36mm diameter gold	1
2 CHRA Turbo Core	9095477	Balanced	1
3 Compressor Hsg.	9095446	To suit restrictor	1
4 Fuel Injector	9095156	'Green'	4
5 EPROM Board	9095877	Level P8	1
6 Adaptor - Jet	9095677		1
7 Jet - I.S.S.	9095584		1
8 Water Bag	9095582		1
9 Resistor	—	R22 Ohms 100W	1
10 Flow Valve	9095871		1
11 Sparking Plug	9094884	AGP 601	4
12 Air Pressure Sensor	9092433	3.0 Bar	1
13 Cyl. Head Gasket	9092431		1

ONLY SUPER UNLEADED FUEL (98 OCTANE) SHOULD BE USED

Wastegate Setting	:	9 P.S.I.
Max. Boost	:	1.5 Peak (Overboost)
Fuel Pressure (Idle)	:	3 Bar \pm 0.2
Engine Oil	:	Mobil 1 (Change after 1000km)
Inlet Timing (Max. opening)	:	110° ATDC
Exhaust Timing (Max. opening)	:	110° BTDC
Crank Sensor Gap at Pulley	:	1.1 - 1.3mm
Spark Plug Gap	:	0.5mm
Wastegate Restrictor	:	0.8mm

The EPROM board asy. 9095877 can be used with or without a catalyst, but the production lambda (HEGO) sensor must be connected.

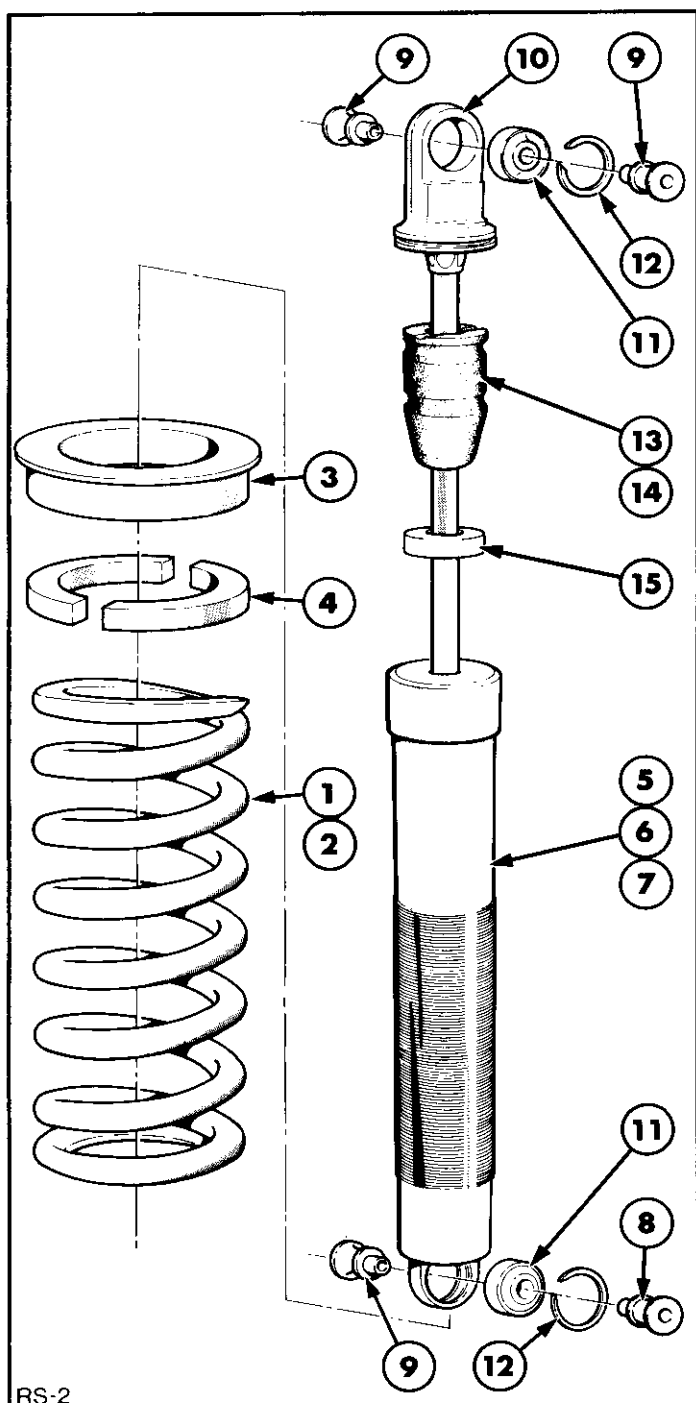
The water temperature should be approx. 90°C at 20°C ambient. In warm climates, restrict the intercooler pre-cooler water flow and run the radiator fans continuously (fit an override switch). The intercooler spray system (ISS) will keep the plenum temperature at 40°C (ensure container is filled at service points) The thermostat can be modified or replaced. Use new cylinder head bolts at each rebuild. The sump can be baffled to reduce oil surge.



When building up the rear suspension, check the tracking which should be 3mm toe-in. If required, slot inner joint mounting holes to achieve correct figure and weld reinforcing washers in correct location. The rear springs are designed to give the lowest ride heights required. For some events it will be necessary to fit one or more spacers (item 4) above spring to avoid 'bottoming out' of the suspension.

The production semi trailing arms on the Escort are stronger than Sierra and fitted with uniball joints. On rough gravel events check regularly for bending and cracking around flanges. Similarly, check rear hubs. Shotpeening will help prevent fatigue cracking.

The rear beam and semi-trailing arms can be reinforced by the addition of material. In the case of the rear beam, any reinforcement must follow the original shape and be in contact with it.



Description	Finis Code	Comments	Qty.
1 Road Spring, Rear	9095482	Gravel, 78 N/mm	2
2 Road Spring, Rear	9095483	Tarmac, 85 N/mm	2
3 Upper Spring Seat	9094800	Bolt to bodyshell	2
4 Spacer, Upper Spring Seat	9094861	Optional, for 15mm ride height increase	4
5 Shock Absorber, Rear	9095478	Tarmac 400/170	2
6 Shock Absorber, Rear	9093519	Tarmac 340/160	2
7 Shock Absorber, Rear	9095163	Gravel 350/130	2
8 Insert, Damper	9094859	Lower inner	2
9 Insert, Damper	9092545	Top & lower outer	6
10 Damper Top	9093257		2
11 Spherical Bearing, Rear Damper	9092816	Use with recommended shock absorbers	2
12 Circlip, Rear Damper	9092815	Use with 9092816	4
13 Bump Stop	9092536	Off road use 75mm	2
14 Bump Stop	9092517	Tarmac use 50mm	2
15 Spacer, Bump Stop 6mm	9095298		2

Torques

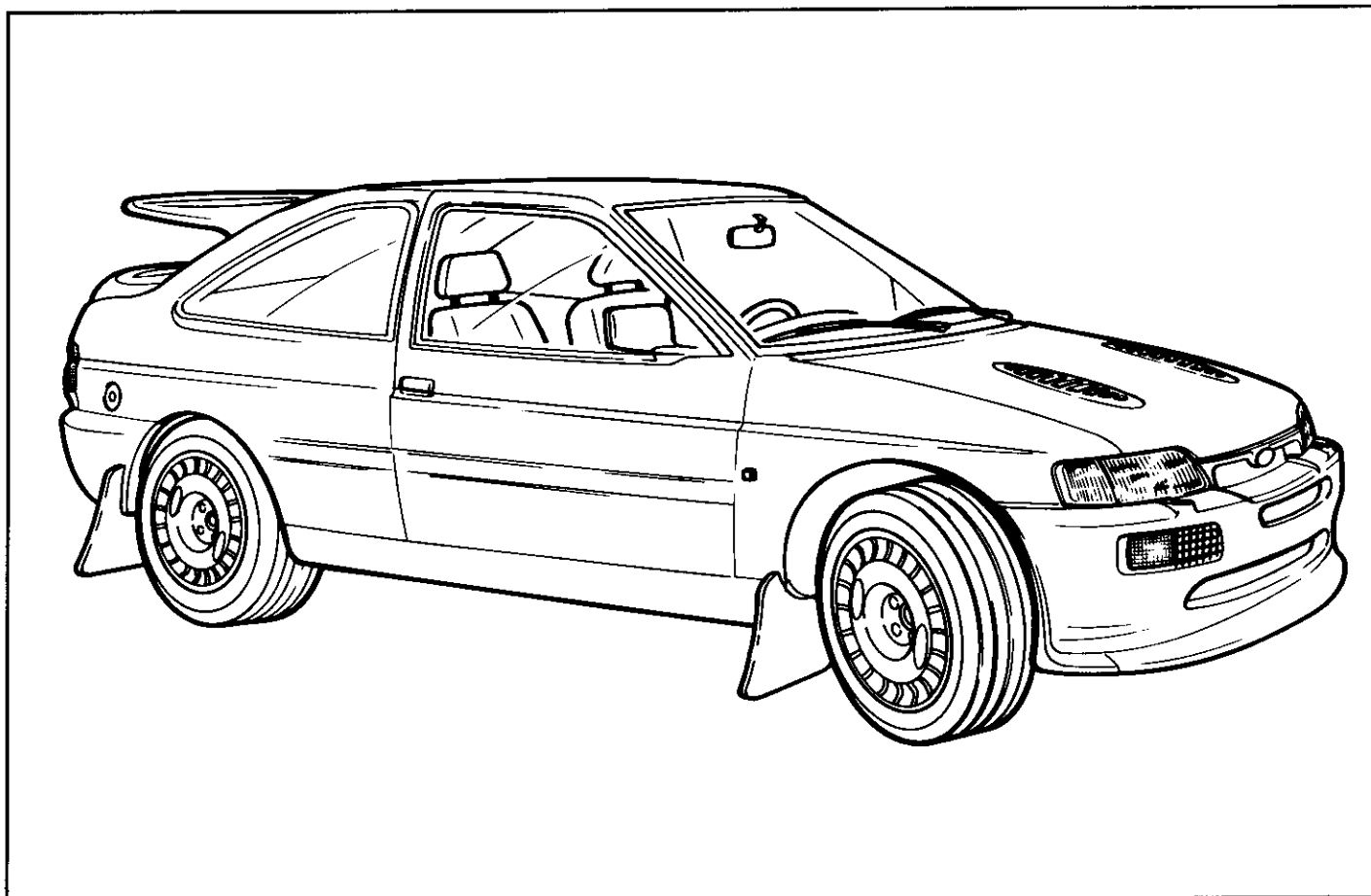
Hub Nuts	300 Nm
Trailing Arm to Beam	95 Nm
Damper Mountings	95 Nm

RS-2

The standard wheel size fitted to the Ford Escort RS Cosworth is 8" x 16" with 25mm offset.

For gravel, 6" x 16" or 7" x 16" is recommended with a maximum tyre size of 660 diameter.

For Tarmac 7" x 16" or 8" x 16" is recommended with a tyre diameter of 620mm. Maximum tyre width in 1993 is unrestricted. Longer studs are available to suit competition wheels, if required.



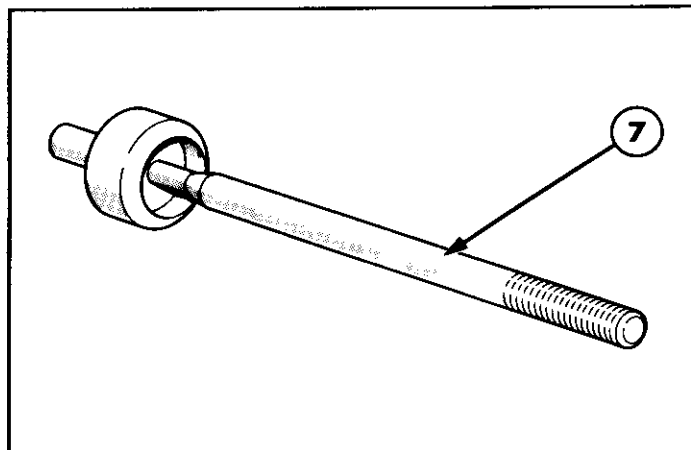
Description	Finis Code	Comments	Qty.
1 Wheel 16" x 7"	9095498	Aluminium	5
2 Wheel 16" x 6"	T.B.E.		
3 Wheel 16" x 8"	*6647997	Std. (Tarmac)	5
4 Wheel Stud	9095118	Longer than std.	16
5 Wheel Nut	9095122	Use with 9095498	16
6 Wheel Brace	9090628	(Shown on page 3)	1
7 Steering Track Rod	9095344	H.D. Joint	2

Tyre Pressures: 2.0 Bar

Torques

Wheel Nuts	90 Nm
Track Rod Inner Joint	88 Nm
Track Rod to Stg. Arm	30 Nm
Steering Rack Mounting	45 Nm

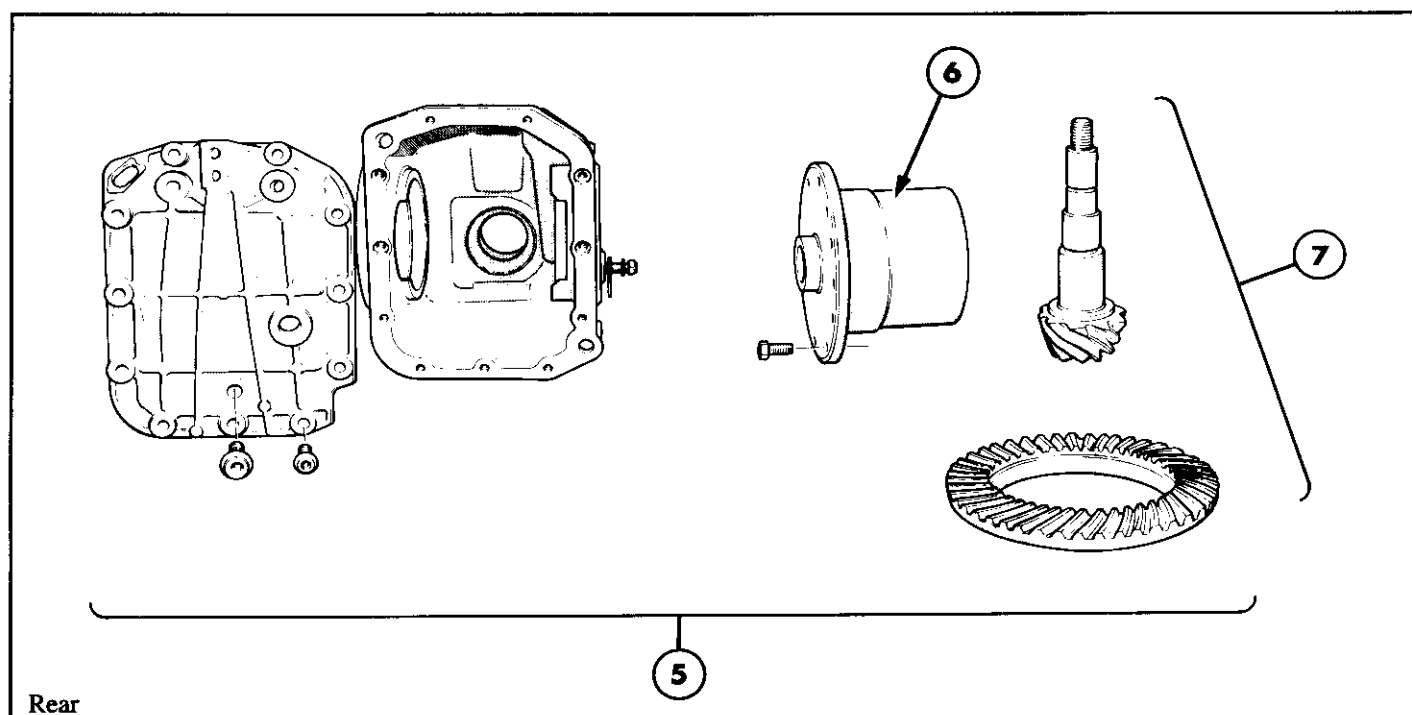
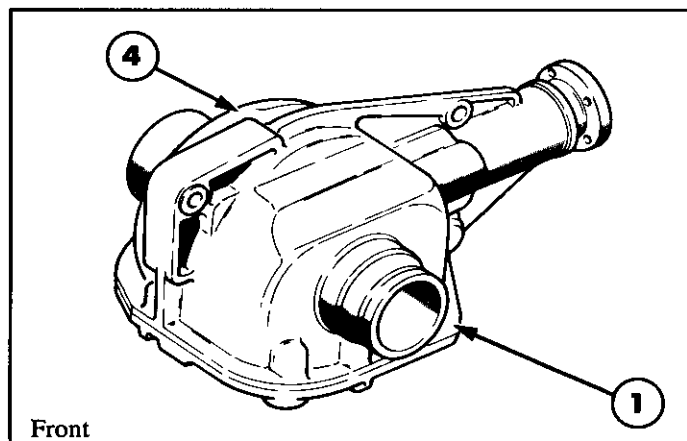
NOTE: Remove steering lock from steering column.



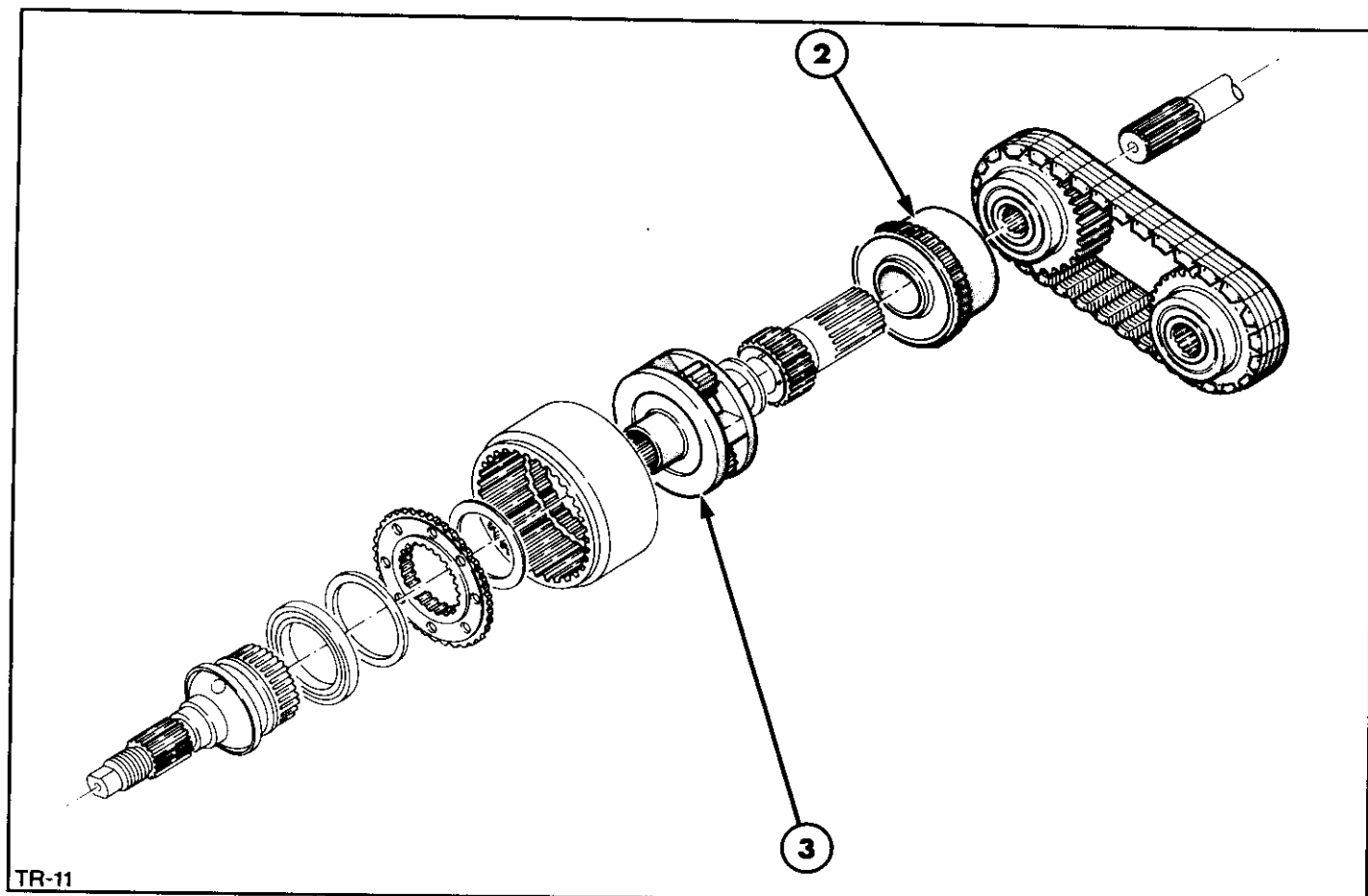
5 The Motorsport front and rear axles have been dismantled, crack tested, shotpeened and carefully reassembled to improve their service life. In normal rally conditions the axles should be overhauled after 600km, but if the car has had a puncture or broken shaft, the axle should be changed as soon as possible. The rear VC. can be overhauled by F.F.D. at Coventry.

Crack test all gears at each rebuild and change casings after 1200km to avoid fatigue cracks. See workshop manual for rebuild procedures. Note that the front R.H. driveshaft joint is normally retained in the axle by a circlip.

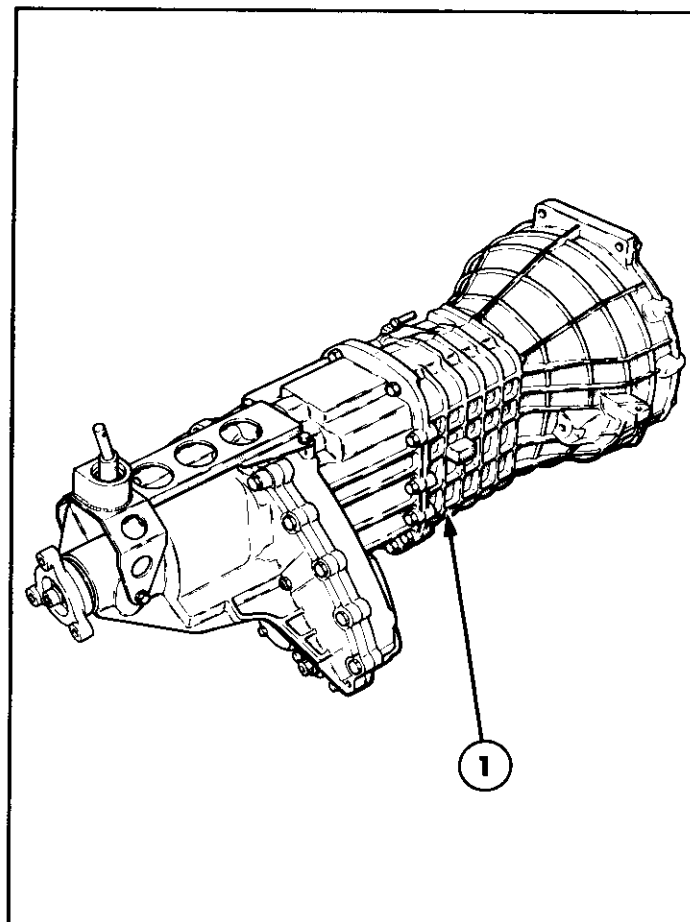
The optional case for the front axle is selected for maximum wall thickness to give added security on gravel events.



Description	Finis Code	Comments	Qty.	Description	Finis Code	Comments	Qty.
1 Front Axle Assembly Complete	9095165		1	5 Rear Axle Assembly 7"	9095164	Selected	1
Service Parts for 9095165				Service Parts for 9095164 Include:			
2 Crown Wheel and Pinion Set, Front Differential	9094796	Selected and shotpeened	1	6 Differential Assembly (Rear) Including Viscous Coupling,	9094797	Selected gears 180 Nm setting	1
3 Differential Assembly, Front 3.62:1	9094798	Selected gears	1	7 Crown Wheel and Pinion	9094794	Selected and shotpeened	1
4 Case - Front Axle (not included in 9095165)	9095239	Selected thickness	1				

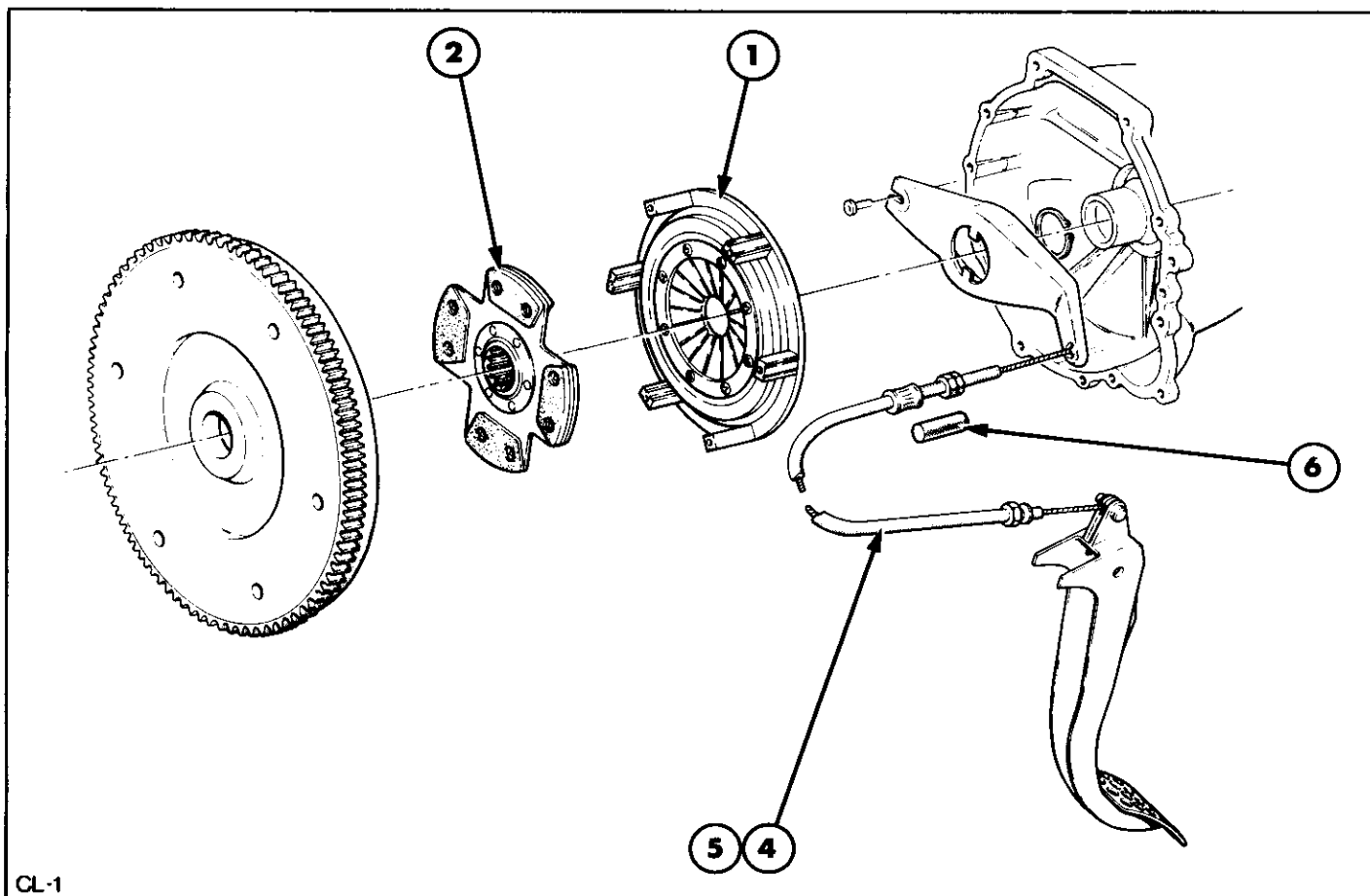


Description	Finis Code	Comments	Qty.
1 Transmission and Transfer Gearbox Assembly	9095468	Complete transmission, fitted with selected gears and centre VC 9095486	1
2 Viscous Coupling Centre Differential	9095486	Selected 50 N/m setting	1
3 Carrier, Centre Differential Planet Gears	9094668	Selected standard items, crack tested	1



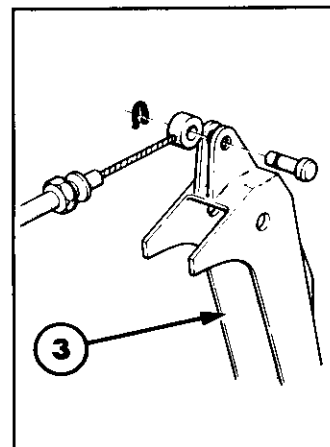
The clutch recommended for group 'N' is a cerra-metallic 4 paddle with sprung centre and has proved to be very reliable in the Sierra. The standard cable is replaced with an adjustable version.

Large pedal pads can be welded to the standard pedals and should be fitted with nonslip material.



CL-1

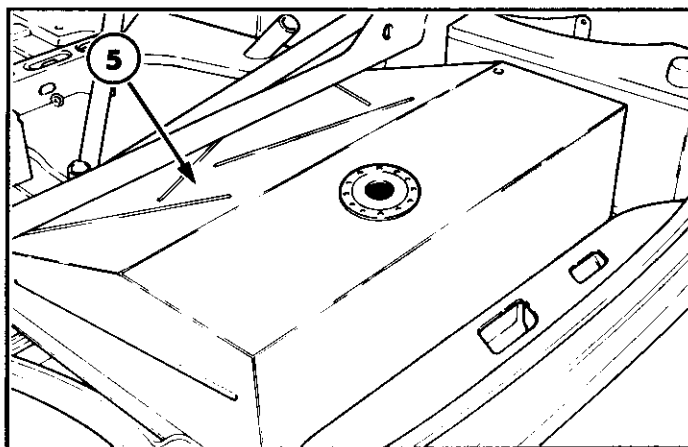
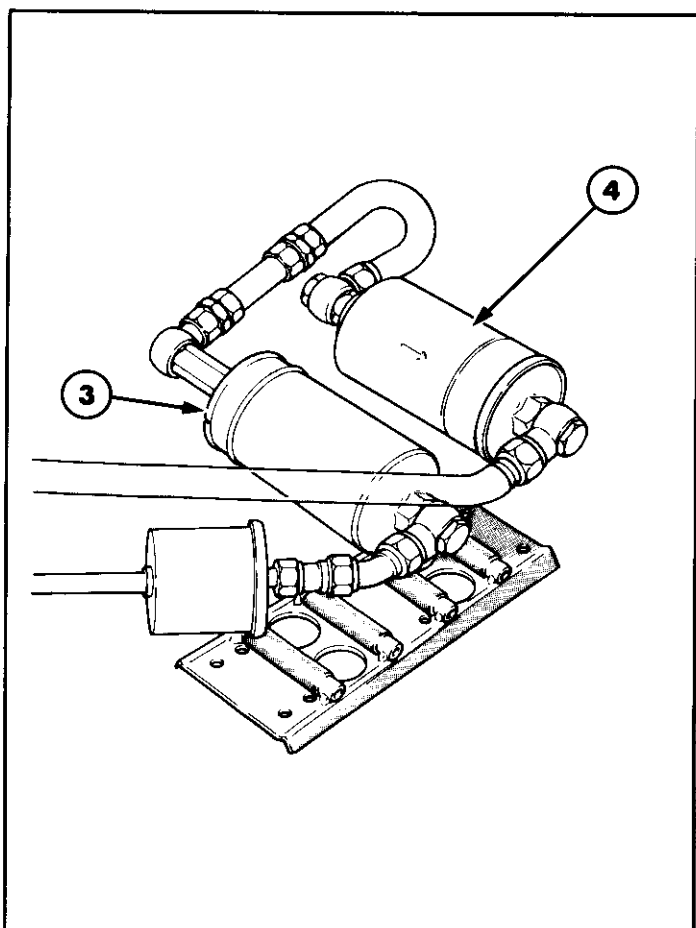
Description	Finis Code	Comments	Qty.
1 Clutch Cover Assembly	9092484	Use with 9095154 and standard release bearing	1
2 Clutch Driven Plate	9095154	With sprung centre	1
3 Clutch Pedal Assembly	9093132	Extended pad and no self-adjuster	1
4 Cable Assembly LHD	9093711	Adjustable	1
5 Cable Assembly RHD	9093712	Adjustable	1
6 Spacer, Clutch Cable	9093715	Use with 9093711 or 9093712	1
7 Accel. Pedal	9094822	High ratio with pedal stop	1



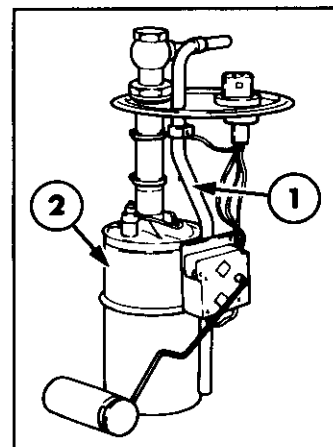
The standard fuel tank can be retained, but it is necessary to ensure that the recommended Bosch Pump is fitted rather than the AC Delco. The pump is attached to the in-tank sender unit. A new sender unit with Bosch pump fitted is available from Motorsport.

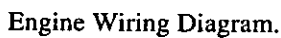
Disconnect fuel pump inertia switch situated in the drivers side lower panel.

A 65 litre FT3 safety tank is now available. This will fit in the boot space after removal of the access panel on the R.H.S. (in some models this panel is fixed and must be cut out). The metal edges must be turned and covered to protect the fuel tank. The complete tank must be enclosed in a fuel and fire proof cover (usually aluminium). The fuel pump and filter can be positioned under the floor, aviation type fuel lines must be used.



Description	Finis	Comments	Qty.
1 Fuel pump and sender	9095517	STD Tank only	1
2 Fuel pump	9095466	Service part	1
3 Fuel pump	9092162	FT3 Tank (Alt.)	1
4 Filter	9090275	FT3 Tank	1
5 Fuel Tank	9095576	FT3 Tank	1





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