



CATERHAM

ASSEMBLY GUIDE

SIGMA – EDITION 2.2

CATERHAM

ASSEMBLY GUIDE

SIGMA – EDITION 2.2

Your feedback and comments are welcome: assemblyguide@caterham.com

For help and build support enquiries contact: buildsupport@caterham.com

WELCOME TO YOUR NEW CATERHAM KIT

Building your own Caterham is immensely rewarding and satisfying. Of course, it should be remembered that you are building a high performance sports car, not a flat-pack wardrobe, so it will be a little challenging from time to time; but we've set out to make it as easy as possible for anyone, whatever their skill level and help is just a phone call away.

But before you do anything else, pop the kettle on or pour yourself a G&T with a slice; and

READ THE NEXT THREE PAGES - THEY ARE REALLY IMPORTANT

No, they will not be very exciting unfortunately, but they are important nonetheless and you will regret it later if you don't.

So there are four important things we need to think about **NOW** before picking up a spanner:

- **This isn't the only guide you'll need**
- **When to apply for an IVA test**
- **Photography (no, really)**
- **Arranging a post build check**

Although we have made this guide as comprehensive as possible, the requirements of IVA change from time to time and even from test centre to test centre. Therefore, it **MUST** be read in conjunction with the 'IVA Checklist Guide', the latest version of which can be **downloaded from the Caterham website**. You'll find the refer-to-IVA-manual symbol in the bottom of each illustration where attention is required. Reading through it now, will save pain later! Don't assume that because you've found a reference to one item relating to that page, it is the only one...

Once you have completed the assembly of your Seven, you are required by law to present it for an 'Individual Vehicle Approval' test (better known as IVA), which is conducted by the Vehicle and Operator Services Agency (VOSA) at a regional test centre.

We **STRONGLY** recommend that you apply for your IVA appointment at least a month before you think you will complete your build, to allow for the application form to be processed at the snail's pace of bureaucracy. Once accepted, your IVA application is valid for 6 months and test dates can be changed up to a minimum of 3 working days prior to your appointment with VOSA (any later and you may incur a charge).

The IVA and Registration application forms, and a guide on how to complete them, are sent out on request when you are midway or nearing completion of your build. Please email ivaapplications@caterham.com for a copy of your prefilled documents.



VOSA and the DVLA are a suspicious bunch and in order to register your car, you will need to provide proof that it is amateur built. When you apply for registration, you will need to include photos from various stages of you build, which will demonstrate to them that it is an 'amateur build'.

Recruiting a few extras (your kids, your spouse, the cat, etc.) and some props (last year's Xmas tree, a radio from the 1980's and a rusty bike) will all contribute to a more authentic home-garage feel; proving that no professional help (i.e. commercial workshop/garage) was involved in the build. Of course, feel free to have yourself working away on the kit in the photos if one of your 'extras' can be trusted with the camera (not the cat; they never get the exposure right).

Finally, we know you haven't started yet, but we need to tell you about the Post Build Inspection now, due to availability at our service centres and the time it takes to get you a slot. Plan ahead!

What is the Post Build Inspection? This is a free service offered by all Caterham service centres which we wholeheartedly recommend you take up on prior to your IVA test. It ensures that your car is correctly assembled and is road-worthy. All safety and operational aspects of your Seven will be checked, concluding in a road test. This will enable us to advise you of any corrective work that may be required (which we will be happy to carry out for you*). It is important to note that this is not the same as the IVA test and whilst every effort will be made to ensure your car passes, there is **NO GUARANTEE** of a first time IVA pass.

*Obviously any additional work is not for free, but we will speak to you first so you can decide whether you want to pay us to do the corrections or you want to do them yourself.

REMEMBER: Post Build Inspection slots are in high demand at our service centres and there may be a two-month lead time at busy times, so please check on availability and book ahead!

All our service centres will be able to offer you a Post Build Inspection and IVA service, where they take the car to IVA on your behalf. This tends to increase the likelihood of a first time pass and means you don't need to take a day out to endure the test, which is beyond dull.

As a guide, the Post Build Inspection through to registration can take around 6 weeks to complete.

That's it, we're ready to start assembly

ENJOY

MY BUILD NOTES

Download the IVA Checklist Guide: www.caterhamcars.com

Book IVA Test

Take plenty of photos

Arrange post build check

This was more fun than I ever expected!

HINTS & TIPS

When using a torque wrench, listen/feel the click and then stop. It does not need to be any tighter and you might actually weaken the fixing by 'over-torquing' it. Always wind your torque wrench setting back to free when you've finished with it.

John K

A 'nyloc' nut is one with a nylon insert that gets cut by the bolt thread, making it resistant to unwinding itself. This means that they should not be repeatedly re-used.

Chris B

This guide covers optional equipment your car may not have!

Tiago O

1Nm of torque equals 0.736lbft.

Mick F

Thread lock is used to stop something coming undone, but it only needs a little drop on the thread to be effective.

Jamie A

When using a spanner, always use the ring end wherever possible. The open end is really only for those times that access is too limited for a ring spanner or socket.

Mick A

Generally, metric Nyloc nuts have a blue nylon insert and imperial ones a white nylon insert.

Grant P

Teabag, boiling water, then the milk, in that order.

Simon L

Left and right are as viewed from the driver's seat.

Harrison P

You can tell if you have 'wide track suspension' car by looking at the front dampers. Wide track has a 25mm long hexagonal spacer between the top spring retainer and the mounting bush.

Matt T

A 'caphead bolt' has a circular head with a hexagonal drive inside it. It is tightened with an allen key or hex drive socket. Capheads are useful where there is limited space around the head for a spanner or socket. They look nice too!

Richard T

A bolt size is described by its diameter (e.g. M10=10mm) by the length not including the head (e.g. 65mm).

James A

A 'spring washer' has a split in it and squashes up closed when a fixing is tightened. It is usually used under a bolt head to help resist it coming undone.

John S



Speak to an expert
buildsupport@caterham.com



Video Guides
[https://www.youtube.com/
user/OfficialCaterhamUK](https://www.youtube.com/user/OfficialCaterhamUK)
Playlist coming soon

KEY

SYMBOLS

1 Item number

AA
AJ
AM Fixing item


S **R** S Pack / R Pack specific instructions


Nm Required torque (where applicable)


S3
S5 S3 / S5 chassis specific instructions

REPEAT Repeat on other side



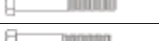
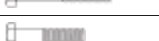







 Advice from factory professionals


 Now is a good time to take some photos

 Reminder to apply for your IVA test

 Refer to IVA Checklist Guide

FIXINGS

Pack A		CATERHAM		44	
		PACK NUMBER		38F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	FIXING DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AA Bolt M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	
2	AB Bolt M12 x 65 Grade 10.9	BM12X65	2	Lower wishbone front	
3	AC Bolt M10 x 65 Grade 10.9	BM10X65	2	Upper wishbone rear	
4	AD Bolt M10 x 60 Grade 10.9	BM10X60	2	Upper wishbone front	
5	AE Bolt M8 x 40 Grade 10.9	BM8X40	4	Anti-roll bar mounting brackets	
6	AF Plain Nut M14 x 1.5 thread	NM14	1	Temporary use to help lock upper wishbone ball joint	
7	AG Nylon Nut M12	NM12	2	Lower wishbone rear	
8	AH Nylon Nut M10	NM10	4	Upper wishbone	
9	AL Plain Washer M12 Cheated	WPCM12	18	Lower wishbone	
10	AK Plain Washer M8 (non-cheated)	WPC8	4	Anti-roll bar mounting brackets	
11	AL Plain Washer M12 (cheated)	WPC12	2	Steering damper	


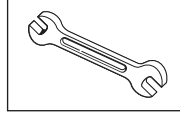
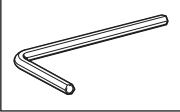
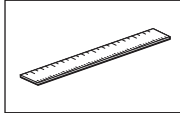
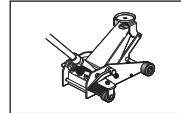
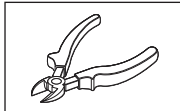
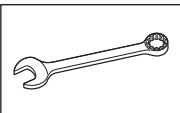
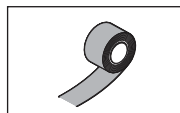

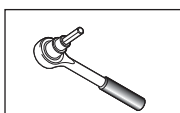
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AA Bolt M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	

x4 ← (Indicates number of each fixing required)

← (Greyed out area indicates fixings are not required for current step)

KEY

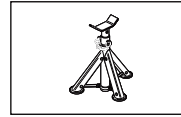
TOOLS

	Adjustable spanner		Engine hoist		Power adhesive		Spanner		Torque wrench
	Allen key		Flat head screwdriver		Pozidrive screwdriver		Spirit level		Torx
	Assistance		Grease		Ruler		Spray adhesive		Trolley jack
	Axle stand		Junior hacksaw		Scissors		Spray lube		WD40
	Cable tie		Latex gloves		Side cutters		Stanley knife		
	Combination spanner		Long nose pliers		Silicon		Super glue		
	Copper grease		Marker Pen		Silicon gun		Tape		
	Drill		Muscle		Socket wrench		Tape measure		
	Drill bit		Pop rivet gun		Socket wrench (allen)		Thread lock / LocTite		

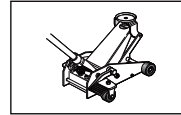
LET'S GET READY

PARTS

TOOLS



x3



FIXINGS

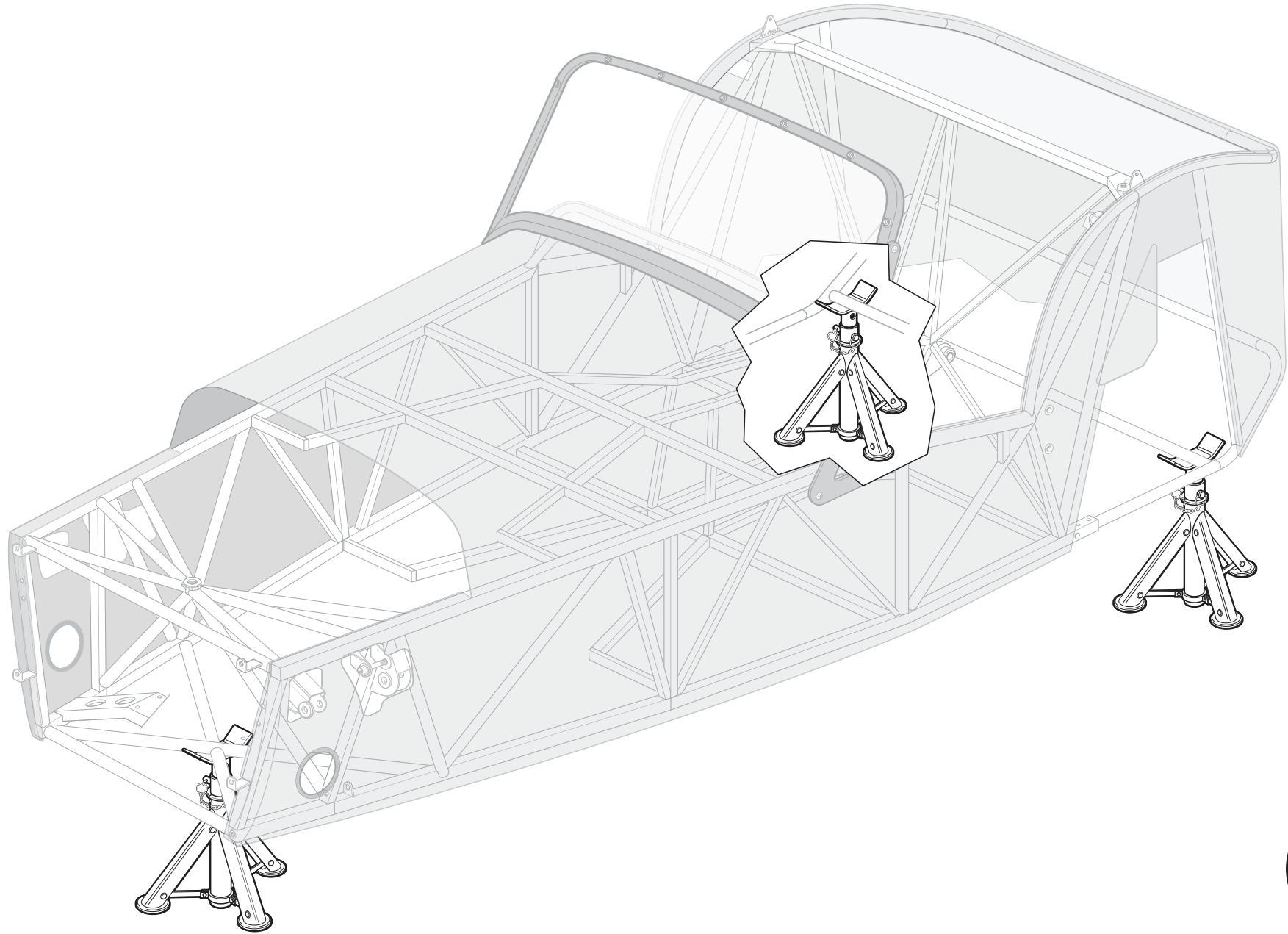
TIPS

When deciding how high your axle stands should be (the higher the better for working on), don't forget that a complete car will need to come down off them, so make sure your trolley jack can reach and lift the height you set them too!

Mick F

Some tape or foam on the top of the axle stands will stop them scratching the chassis.

Matt T

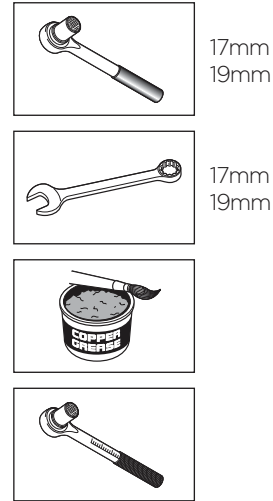


START WITH THE SUSPENSION WISHBONES

PARTS

- 1 Lower wishbone
- 2 Upper wishbone
- 3 Wishbone bush sleeve

TOOLS



FIXINGS

Pack A		CATERHAM		44	
		PACK NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Nut M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	
2	Bush M12 x 65 Grade 10.9	BM12X65	2	Lower wishbone front	
3	Bush M10 x 65 Grade 10.9	BM10X65	2	Upper wishbone rear	
4	Bush M10 x 60 Grade 10.9	BM10X60	2	Upper wishbone front	
5	Bush 60 x 42 Grade 10.9	BM60X42	4	Anti-roll bar mounting brackets	
6	Plain Nut M12 x 100 Grade 10.9	NM12X100	1	Temporary (use to temporarily mount wishbone ball joint)	
7	Wylex Nut M12	NM12F12	2	Lower wishbone rear	
8	Wylex Nut M10	NM10F10	4	Upper wishbone	
9	Plain Washer M12 Dishhead	WPCM12	18	Lower wishbone	
10	Plain Washer 60 Grade 10.9	WPM60	4	Anti-roll bar mounting brackets	
11	Plain Washer 12 Grade 10.9	WPM12	2	Brake pipe	

Pack A		CATERHAM		44	
		PACK NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Spring Washer M12	WSM12	2	Lower wishbone front	
13	Spring Washer M12	WSM12	4	Lower ball mounting brackets & Upper wishbone rear	
14	Washed 12 Grade 10.9	WPM12	2	Ball kit pads	
15	Washer 12 Grade 10.9	WPM12	2	Wing nuts	
16	Washer 12 Grade 10.9	WPM12	2	Front brake caliper mounting (and track rod) pads	

x2

x2

x2

x2

x2

x4

x14

x2

TIPS

For now, only tighten the nuts/bolts lightly and then torque them up when the car is finished and on the ground. This sets the bushes correctly and ensures the best handling.

Harrison P

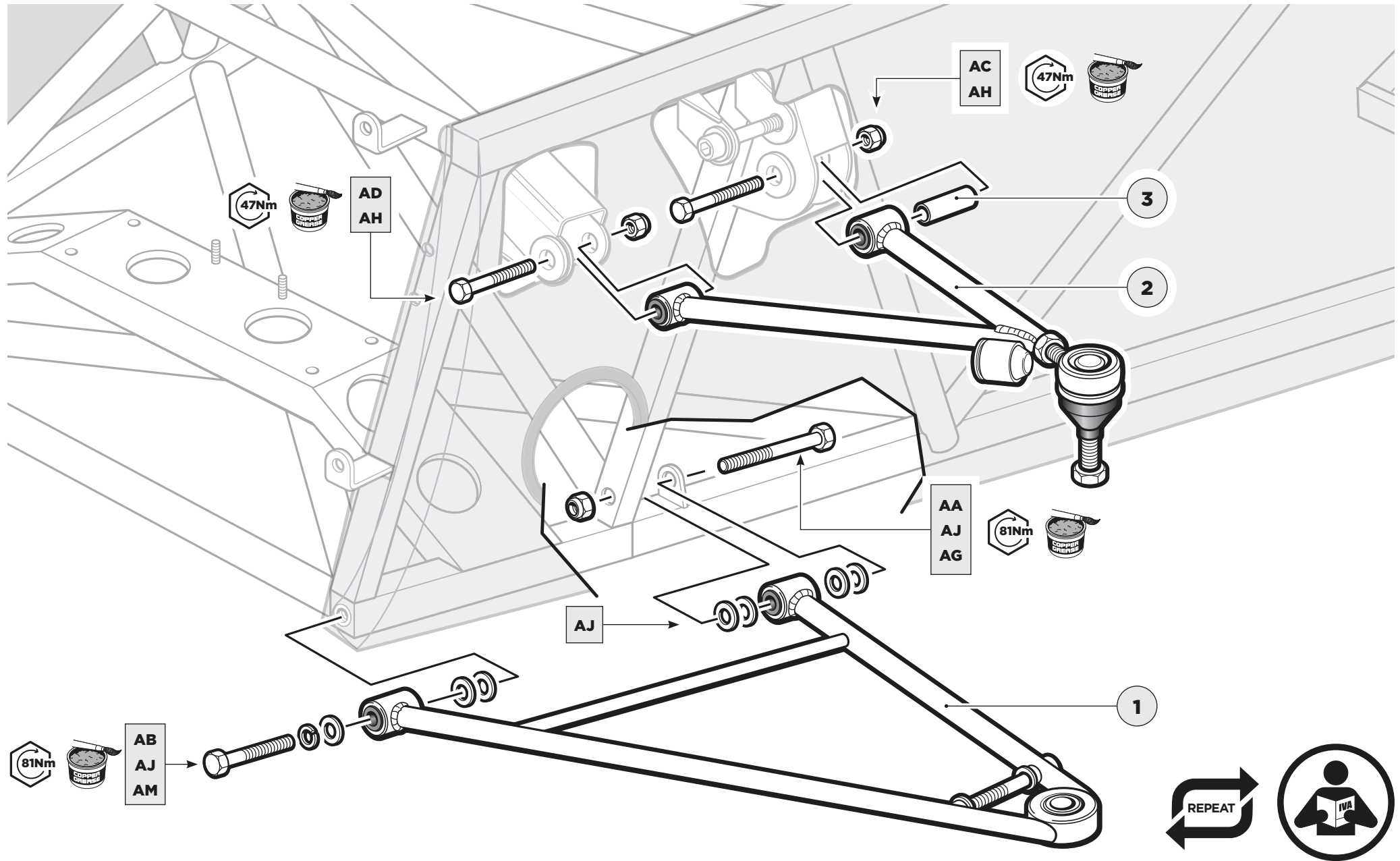
The big washers are chamfered and the chamfered side should be towards the wishbone.

Alex H

Leave bolt AD loose for now, as we have to take it back out again to put the headlight bracket on later.

John K

START WITH THE SUSPENSION WISHBONES

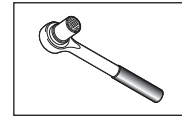


NOW FOR THE STEERING RACK

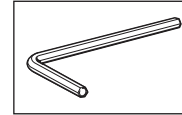
PARTS

- 1 Steering rack
- 2 Rack clamps
- 3 Column universal joint
- 4 Track rod end
- 5 IVA cover

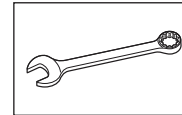
TOOLS



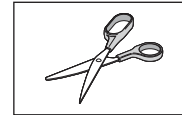
13mm



5mm



10mm
13mm
22mm
3/4"



FIXINGS

Pack B		CATERHAM		55	
		PACK NUMBER		31620021	
		RELEASED NOV-13			
STEERING DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	BA Caphead Bolt M6 x 70 Grade 8.8	BMCHEX70	4	Rack clamps	x4
2	BA Bolt M6 x 40 Grade 8.8	BMCH40	2	Column clamp	x2
3	BA Bolt M6 x 40 Grade 8.8	BMCHEX40	2	Columns to rack universal joint	x2
4	BE Plain Nut M6	NFF102	1	Steering wheel nuts	x1
5	BE Plain Nut M6	NFF102	2	Track rod lock nut	x2
6	BE Plain Nut M6	NFF102	1	Column clamp (optional locking)	x1
7	BG Nyloc Nut M6	NH978	2	Column to rack universal joint	x2
8	BH Nyloc Nut M6	NH976	4	Steering rack clamps	x4
9	BE Plain Washer 12 x 16 x 1.6	WPH12	1	Steering wheel nuts	x1
10	BK Plain Washer 12 x 16 x 1.6	WPH14	6	Rack clamps and column clamp	x4
11	BE Spring Washer 12 x 16 x 1.6	WPH14	2	Column clamp	x2

TIPS

Finding the right IVA cover isn't obvious because it is effectively a long cap. To use it, you cut the closed end off.

Jamie A

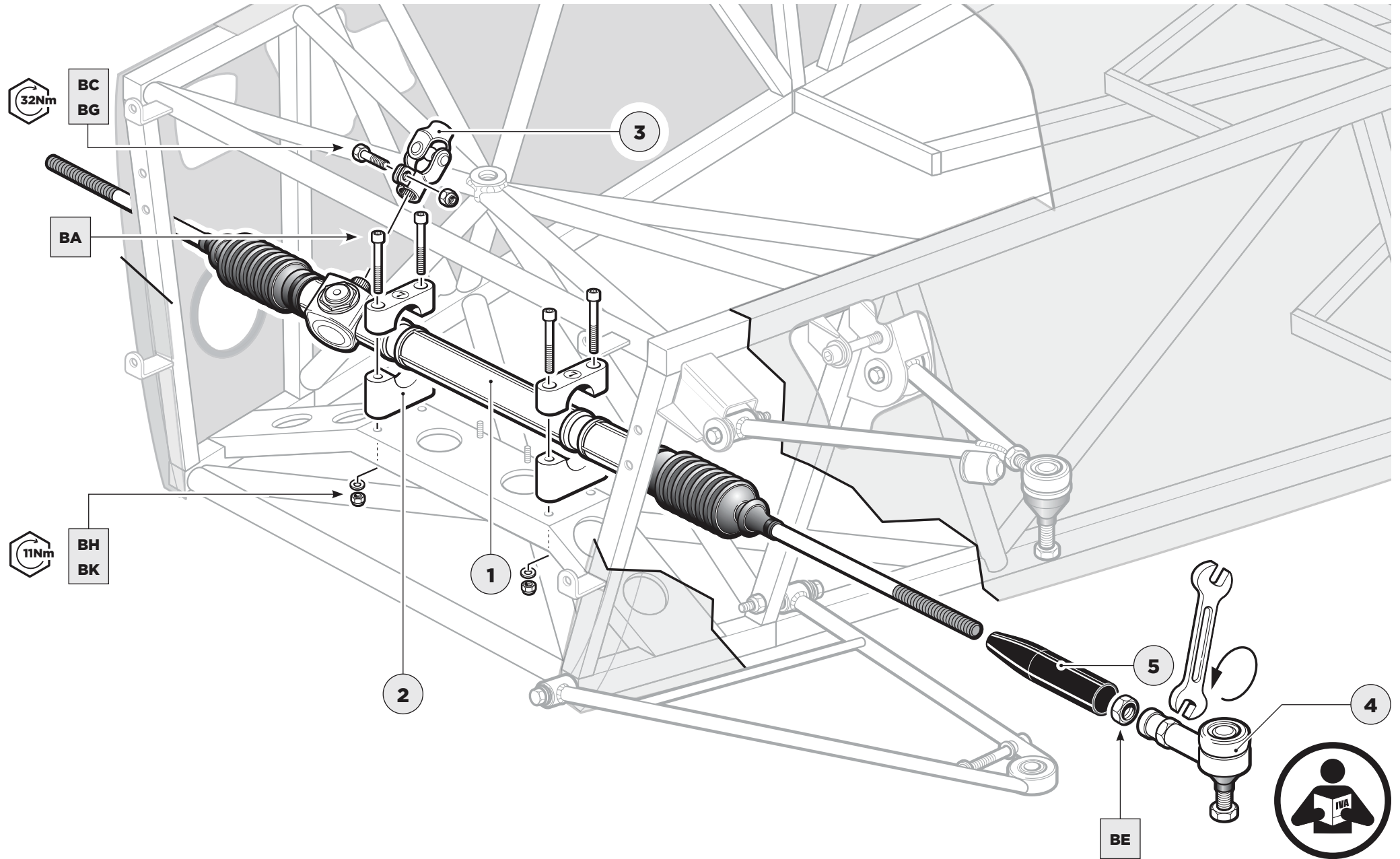
The trackrod end needs to screw on about 12 turns (it will be properly set later when the tracking is done).

Matthew H

Don't fully tighten steering rack for now.

Dan D

NOW FOR THE STEERING RACK

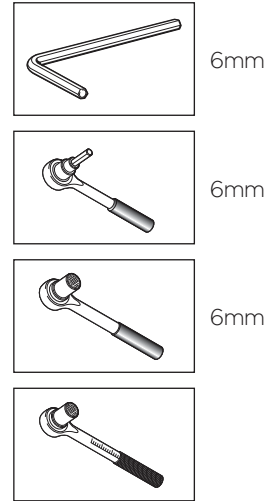


AND THEN THE DAMPERS

PARTS

- 1 Spring / damper
- 2 Lower damper sleeve
- 3 Upper damper sleeve

TOOLS



FIXINGS

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AM	30F015B	2	Lower wishbone stud	
2	AS	30F015B	2	Lower wishbone stud	
3	AD	30F015B	2	Upper wishbone stud	
4	AD	30F015B	2	Upper wishbone stud	
5	AD	30F015B	4	Anti-roll bar mounting brackets	
6	AD	30F015B	1	Temporarily use to inspect upper wishbone ball joint	
7	AD	30F015B	2	Lower wishbone stud	
8	AD	30F015B	4	Upper wishbone stud	
9	AD	30F015B	18	Lower wishbone stud	
10	AD	30F015B	4	Anti-roll bar mounting brackets	
11	AD	30F015B	2	Brake pads	

Illustrations are for illustrative purposes only and are not to scale. Page 1 of 2

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	AM	30F015B	2	Lower wishbone stud	
13	AN	30F015B	6	Anti-roll bar mounting brackets & upper damper mount	
14	AP	30F015B	2	Roller pads	
15	AD	30F015B	2	Wing nuts	
16	AS	30F015B	2	Press brake springs mounting (add track rod)	

Illustrations are for illustrative purposes only and are not to scale. Page 2 of 2

Fixings not contained in the pack will be supplied loosely fitted to the chassis and the wishbone

TIPS

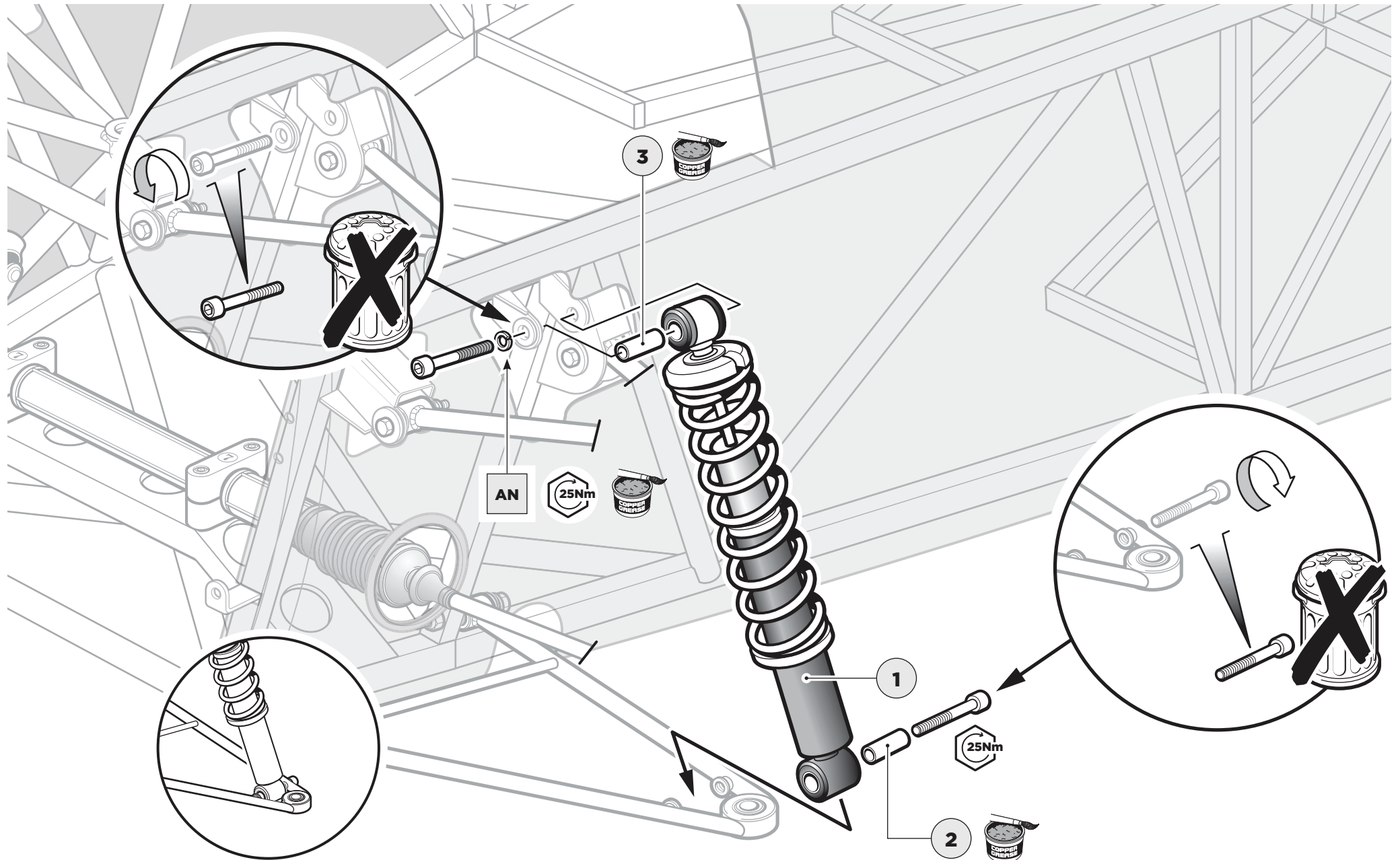
Put the top of the damper on first and be careful not to let it swing into the side of the chassis.

Grant P

The bottom can be a tight fit!

Mick F

AND THEN THE DAMPERS

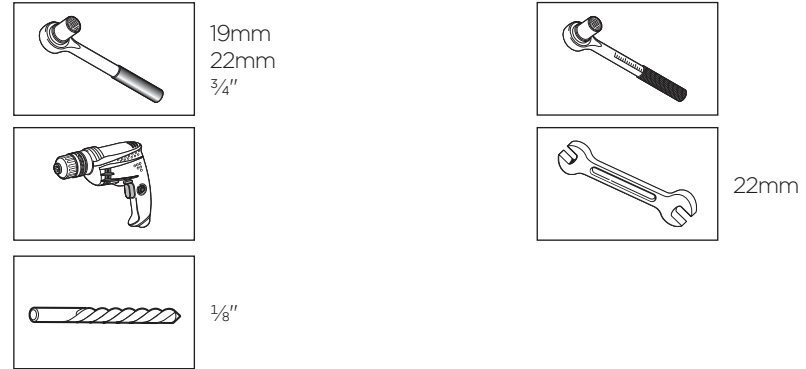


IT'S TIME FOR THE WINGSTAYS

PARTS

- 1 Wingstay
- 2 Front brake & upright assembly

TOOLS



FIXINGS

Pack A		CATERHAM		PART NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)							
This pack may include extra fasteners to cover different options							
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION		
1	AM	19x22x3/4 Wingstay	2	Lower wishbone	[Illustration]		
2	AS	Washer 1.5 x 1.5	2	Lower wishbone	[Illustration]		
3	AS	Washer 1.5 x 1.5	2	Upper wishbone	[Illustration]		
4	AS	Washer 1.5 x 1.5	2	Upper wishbone	[Illustration]		
5	AS	Washer 1.5 x 1.5	4	Anti-roll bar mounting brackets	[Illustration]		
6	AS	Plain Nut M14 x 1.5 thread	1	Temporary use to help lock upper wishbone ball joint	[Illustration]		
7	AS	Nylon Nut M14 x 1.5	2	Lower wishbone	[Illustration]		
8	AS	Nylon Nut M14 x 1.5	4	Upper wishbone	[Illustration]		
9	AS	Plain Washer 1.5 x 1.5	16	Lower wishbone	[Illustration]		
10	AS	Plain Washer 1.5 x 1.5	4	Anti-roll bar mounting brackets	[Illustration]		
11	AS	Plain Washer 1.5 x 1.5	2	Brake pipe	[Illustration]		

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack A		CATERHAM		PART NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)							
This pack may include extra fasteners to cover different options							
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION		
12	AM	Spring Shackle Nut	2	Lower W/ Wishbone	[Illustration]		
13	AN	Spring Shackle Nut	4	Anti-roll bar mounting brackets & Upper wishbone	[Illustration]		
14	AP	Washer 1.5 x 1.5	2	Anti-roll bar	[Illustration]		
15	AR	Nylon Nut 1/2" thread	2	Wing stay	[Illustration]		
16	AS	Nylon Nut 1/2" thread	2	Front brake, upright mounting (std track ONLY)	[Illustration]		

Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

x1

x2

x2

TIPS

The drilled hole is for the side repeater earth that we'll fit later. It's easier to drill from the top and down through both sides of the tube, rather than through one side from the bottom (where the earth will be fixed).

Tiago O

Put the 'upright' into the lower wishbone joint then attach the steering before tightening the bottom nut. This stops it all swinging around hitting the side of the chassis.

John S

Some of the fixings required and shown on the drawings, such as the ball joint nut, are already on the part and not in the fixing pack.

Anthony L

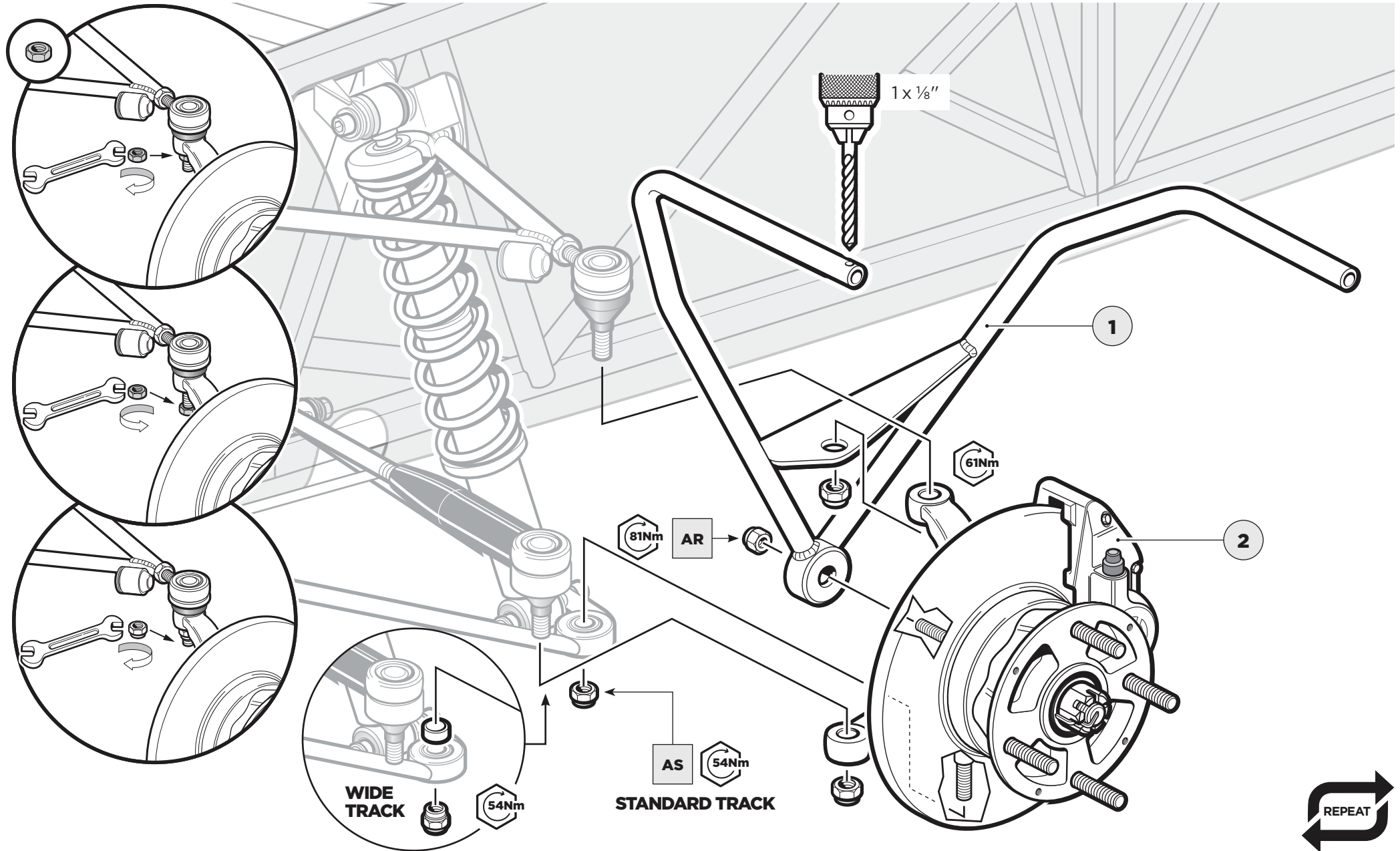
Remove and discard the washer that comes on the back of the assembly before fitting the wingstay; it's not needed.

Rich T

Use the plain nut to pull the top ball joint home before using a nyloc, otherwise the thread will spin.

Chris N

IT'S TIME FOR THE WINGSTAYS





Now is a good time to take some photos



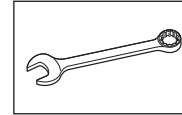
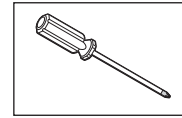
Have you applied for your IVA yet?

LET THERE BE LIGHTS

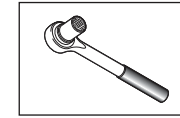
PARTS

- 1 Headlight assembly
- 2 Indicator pod
- 3 Indicator assembly
- 4 Headlight bracket
- 5 IVA trim

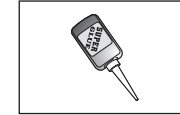
TOOLS



17mm
24mm



17mm



17mm

FIXINGS

Pack C		CATERHAM		45	
LIGHTING & HORNS					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Screw 10 x 12 Black headcap	71080	6	Indicator assembly to indicator pod	
2	Indicator pod	71071	2	Indicator assembly to indicator pod	
3	Indicator assembly	71072	4	Indicator assembly to indicator pod	
4	Indicator assembly	71073	4	Indicator assembly to indicator pod	
5	Indicator assembly	71074	2	Indicator assembly to indicator pod	
6	Indicator assembly	71075	2	Indicator assembly to indicator pod	
7	Indicator assembly	71076	2	Indicator assembly to indicator pod	
8	Indicator assembly	71077	2	Indicator assembly to indicator pod	
9	Indicator assembly	71078	2	Indicator assembly to indicator pod	

x6

Page 1 of 1

TIPS

It's very important to read the IVA Guide before starting this job to ensure grommets and sheathing are in the right place. It's very difficult to add them once fitted!

John S

This is the trickiest job on the car, so once done you can breathe a sigh of relief!

Tiago A

The wiring for the headlights is attached to the chassis when you receive your kit. The wires go through the hole in the end of the headlight bracket and out of the other hole in order to go up into the headlight and over to the indicator.

Jamie A

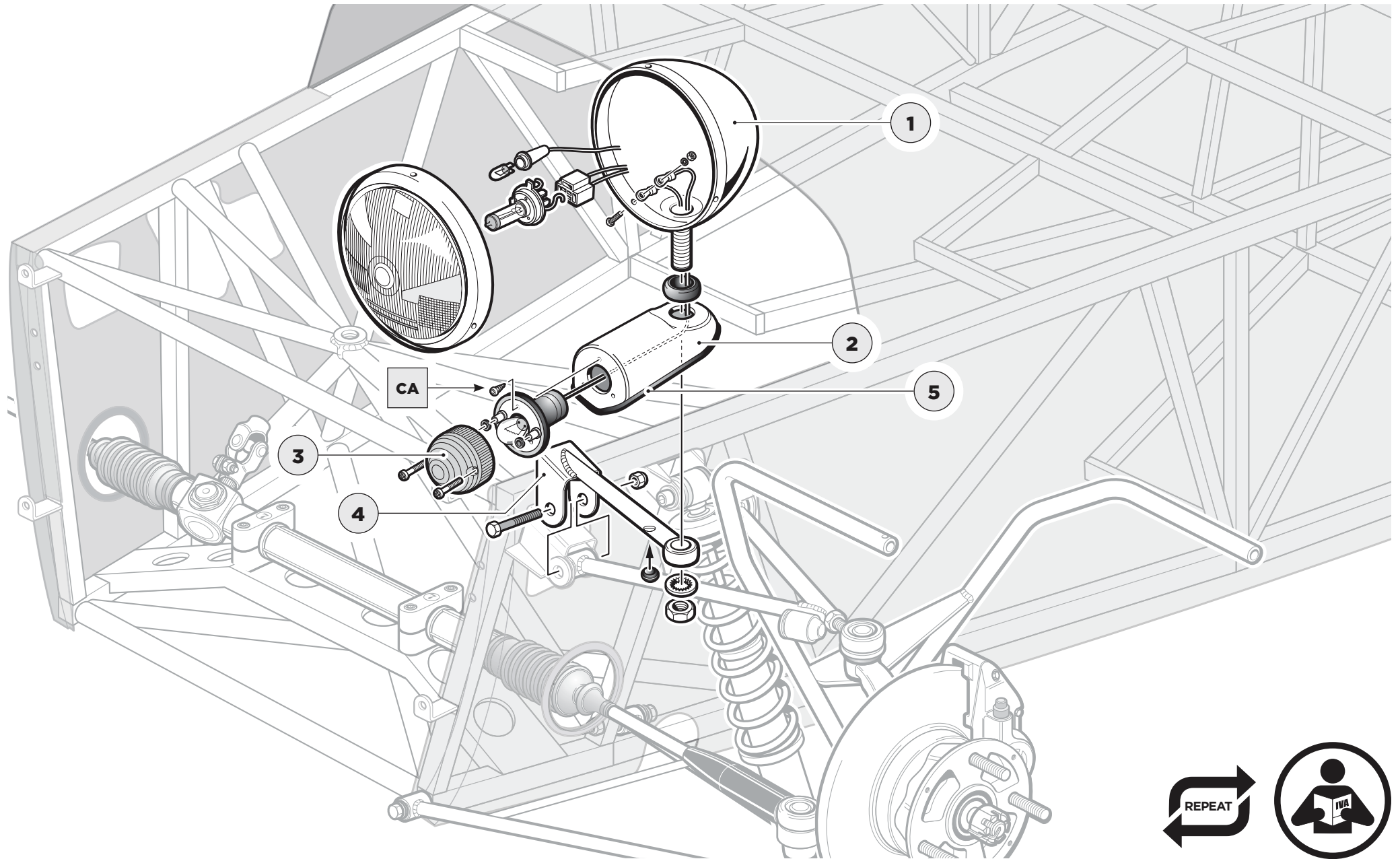
Glue IVA trim all around the edge of the pod before fitting.

Chris B

The tab on the headlight bracket ④ hooks under the wishbone bracket on the chassis.

Harrison P

LET THERE BE LIGHTS

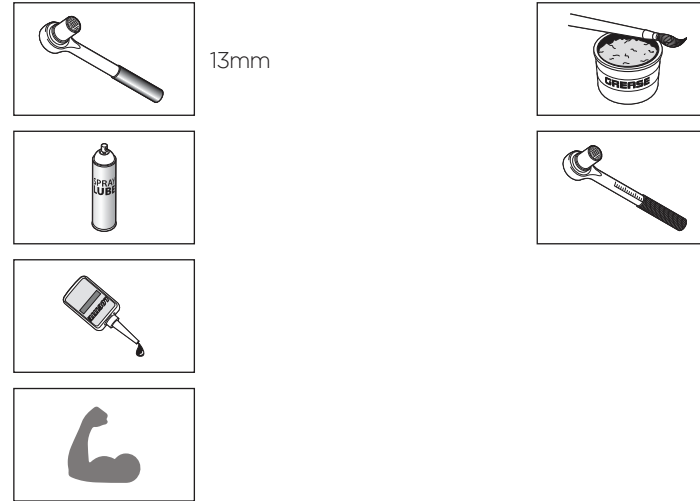


LAST PART OF THE FRONT SUSPENSION: CONNECTING THE TWO SIDES TOGETHER

PARTS

- 1 Anti-roll bar
- 2 Anti-roll bar bracket
- 3 Anti-roll bar rubber
- 4 Anti-roll bar ball
- 5 Anti-roll bar dust cover

TOOLS



FIXINGS

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Roller Ball	8812110	2	Lower wishbone	
2	Roller Ball	8812101	2	Lower wishbone	
3	Roller Ball	8812102	2	Upper wishbone	
4	Roller Ball	8812103	2	Upper wishbone	
5	Roller Ball	8812104	2	Upper wishbone	
6	Roller Ball	8812105	2	Upper wishbone	
7	Roller Ball	8812106	2	Upper wishbone	
8	Roller Ball	8812107	2	Upper wishbone	
9	Roller Ball	8812108	2	Upper wishbone	
10	Roller Ball	8812109	2	Upper wishbone	
11	Roller Ball	8812110	2	Upper wishbone	

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Roller Ball	8812111	2	Upper wishbone	
13	Roller Ball	8812112	2	Upper wishbone	
14	Roller Ball	8812113	2	Upper wishbone	
15	Roller Ball	8812114	2	Upper wishbone	
16	Roller Ball	8812115	2	Upper wishbone	

x4

x4

TIPS

Use four small cable ties to secure the dust cover.

Mick F

Grease the balls and cups generously.

Matt T

Check that the colour of the mounting rubbers matches the colour spot on the bar.

John K

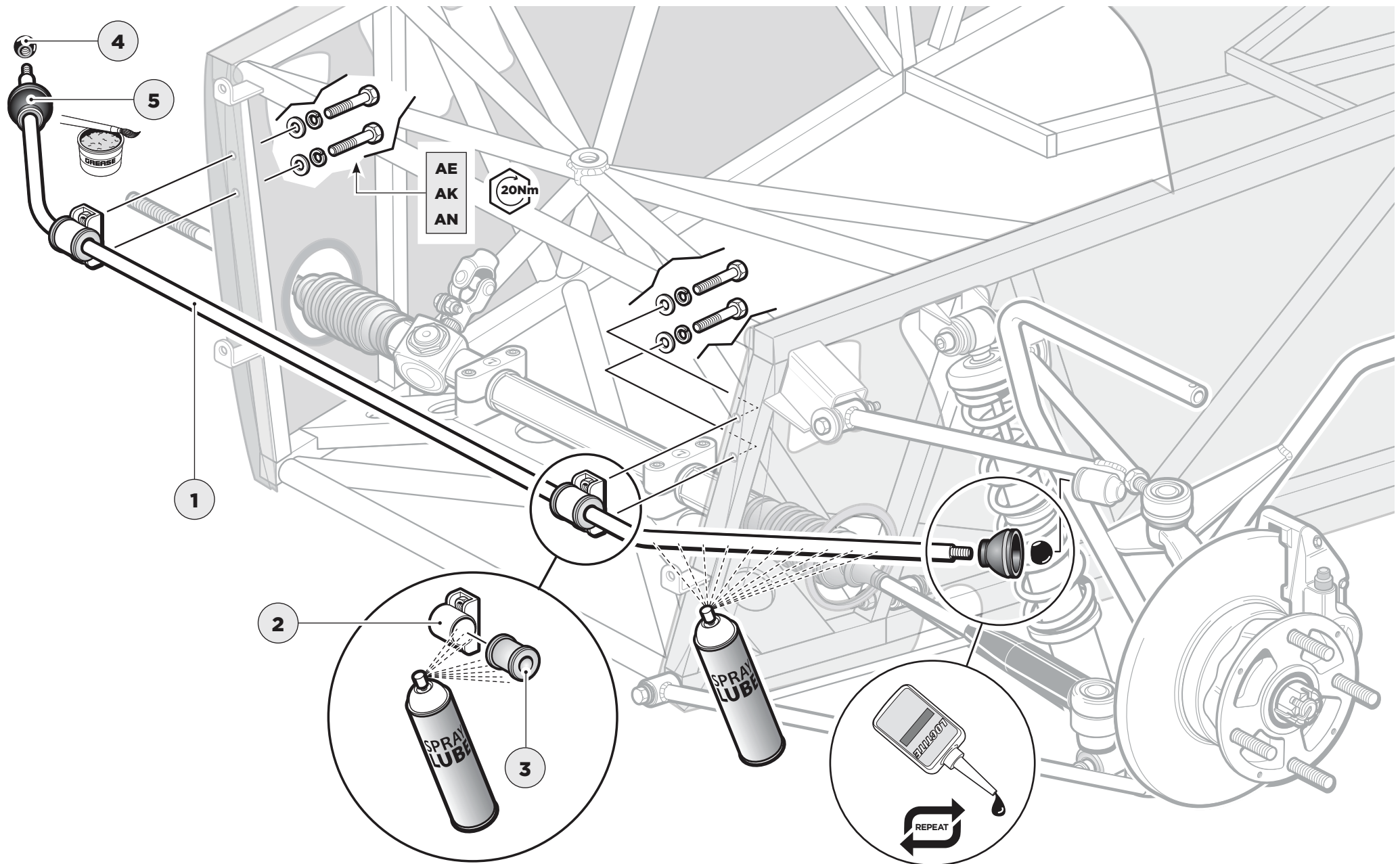
Use the thread lock on the thread of the anti-roll bar, not in the thread of the ball.

Dan D

Getting the assembled anti-roll bar fully into both cups on the upper wishbone can be a bit of a fight. It's made of springy stuff, so don't worry that you are bending it.

Jamie A

LAST PART OF THE FRONT SUSPENSION: CONNECTING THE TWO SIDES TOGETHER

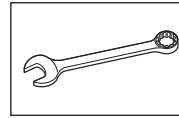


FITTING THE BRAKE HOSES

PARTS

- 1 Brake hose
- 2 Copper washer

TOOLS



13mm (x2)
9/16"

FIXINGS

Pack A		CATERHAM		44	
		PACK NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	WA	WAS332.010 (Front only)	2	Lower wishbone rear	
2	AS	WAS332.010 (Front only)	2	Lower wishbone front	
3	AL	WAS332.010 (Front only)	2	Upper wishbone rear	
4	AL	WAS332.010 (Front only)	2	Upper wishbone front	
5	AL	WAS332.010 (Front only)	4	Anti-roll bar mounting brackets	
6	AS	WAS332.010 (Front only)	1	Temporary use to replace upper wishbone ball joint	
7	AL	WAS332.010	2	Lower wishbone rear	
8	AS	WAS332.010	4	Upper wishbone	
9	AL	WAS332.010	18	Lower wishbone	
10	AS	WAS332.010	4	Anti-roll bar mounting brackets	
11	AL	WAS332.010	2	Brake pipe	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack A		CATERHAM		44	
		PACK NUMBER		30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	AM	WSS38	2	Lower tie rod ends front	
13	AN	WSS38	4	Lower tie rod mounting brackets & upper tie rod rod ends	
14	AP	WSS38	2	Brake pipe	
15	AS	WSS38	2	Wing nuts	
16	AS	WSS38	2	Front brake caliper mounting (and back rod ends)	

Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

x2

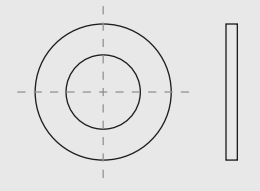
x2

TIPS

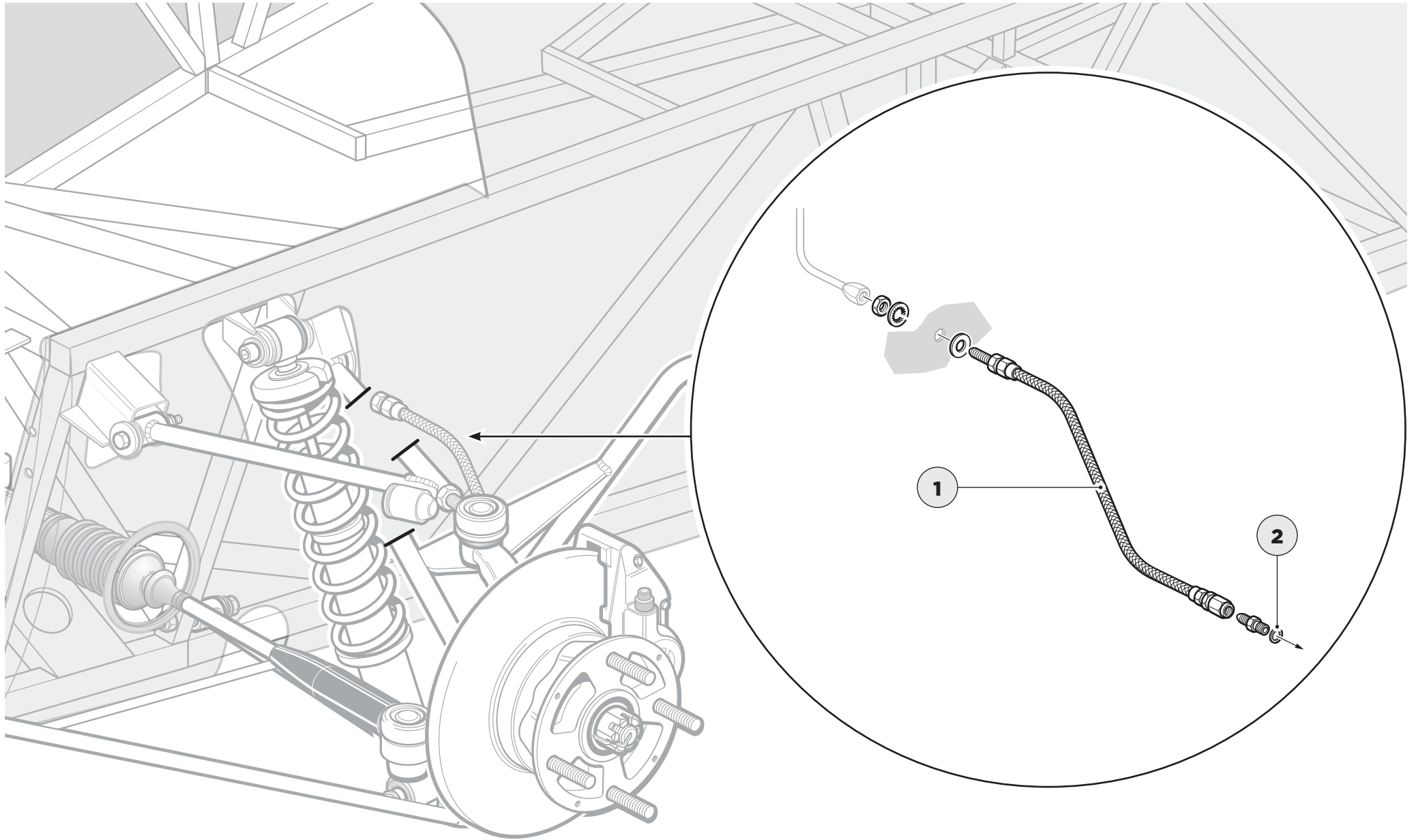
The hose will want to curve once fitted. Make sure the curve points towards the front of the car.
Khalfani D

Brake hoses come in packs of 3: 2 front, 1 back.
Anthony L

The copper washer should be this size.
James A



FITTING THE BRAKE HOSES

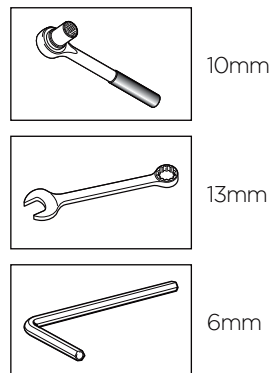


LET'S MAKE SOME NOISE

PARTS

- 1 Horn kit (x2)
- 2 Spacer (miscellaneous box)
- 3 Bolt for spacer

TOOLS

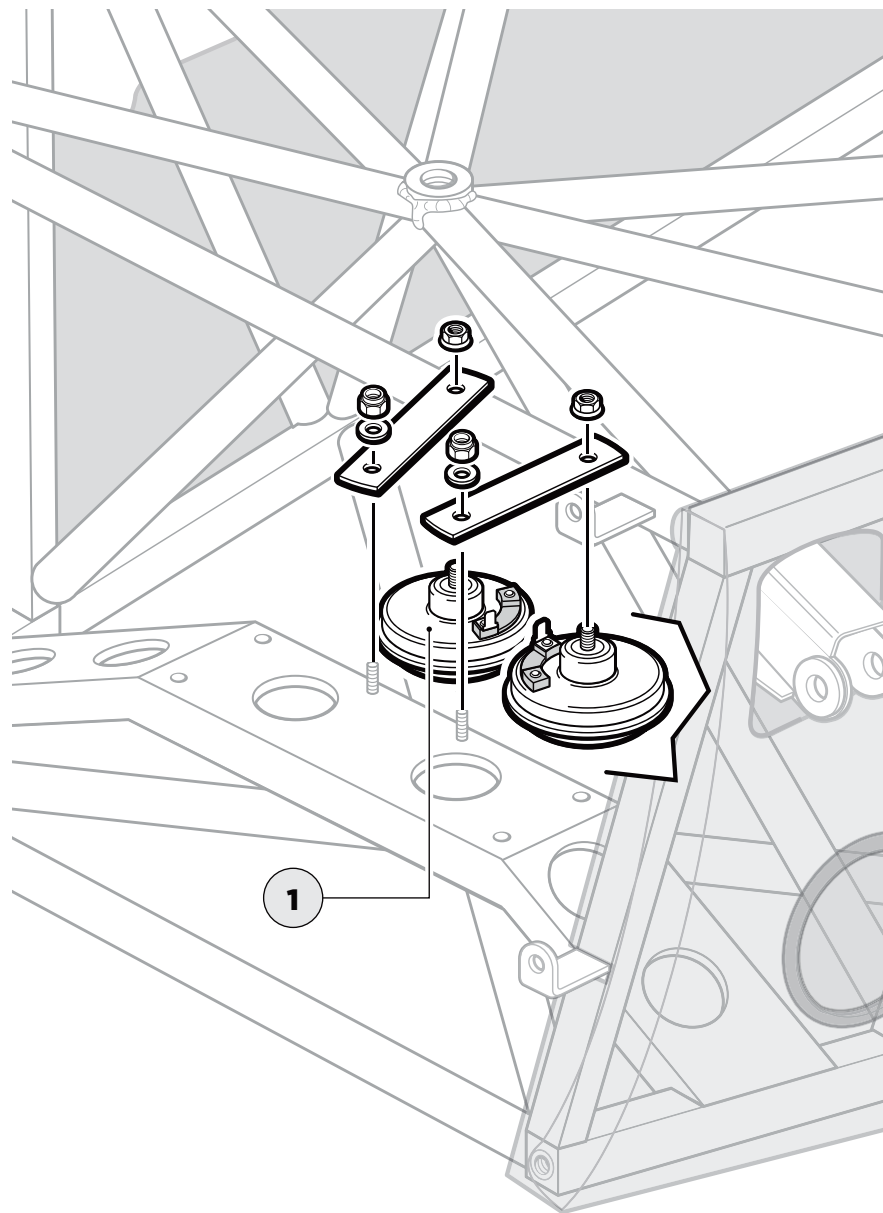


FIXINGS

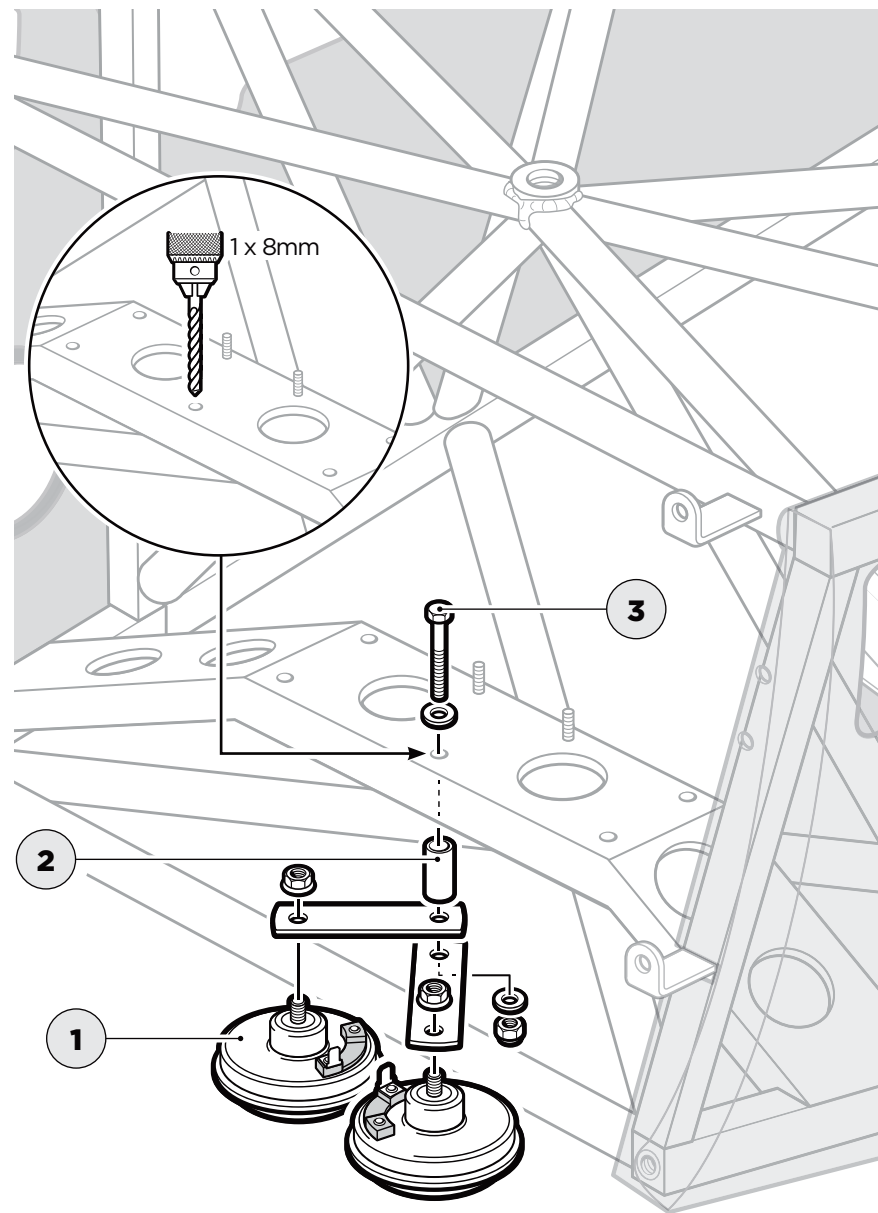
Miscellaneous box

TIPS

270/310/360



420

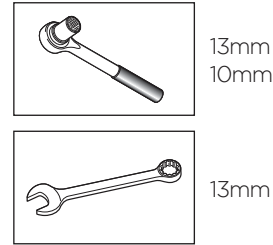


FITTING THE RADIATOR ON THE STANDARD CHASSIS

PARTS

- 1 Radiator
- 2 Fan brackets (x2)
- 3 Fan
- 4 Radiator bobbins (x4)

TOOLS



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SICCATB	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Bolt M8 x 16 Hex Head			Expansion tank bracket to chassis	
2	DB Bolt M8 x 16 Hex Head	WPH020A	1	Expansion tank to bracket	
3	DD Bolt M8 x 16 with square section	WPH020A	4	SM radiator bracket	
4	DE Bolt M8 x 16 with square section	WPH020A	4	Fan brackets for fan	
5	DF Nylon Nut M8	NM816	4	Fan for radiator cooling - 20 (only)	
6	DG Plain Nut M8	NM816	8	x4 Fan to radiator x4 DV radiator bracket	
7	DH Plain Nut M8	NM816	8	Radiator bobbin	
8	DI Nylon Nut M8	NM816	1	Expansion tank bracket	
9	DJ Plain Washer 5/16" x 1/2" Heavy Duty	WPH016	13	8 x DV Fan Bracket x4 DV Fan Bracket x4 Expansion tank bracket	
10	DK Plain Washer 5/16" x 1/2" Heavy Duty	WPH016	4	Radiator bobbin back	
11	DL Plain Washer 5/16" x 1/2" Heavy Duty	WPH016	4	Radiator bobbin front	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x4

x4

x8

x4

x4

Pack D		CATERHAM		44	
		PACK NUMBER		SICCATB	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DL Plain Washer 5/16" x 1/2" Heavy Duty	WPH016	1	Expansion tank bracket	
13	DM Spring Washer 5/16" Heavy Duty	WPH017	9	8 x Radiator bobbin 1 x Expansion tank	
14	DN Hex Clip 1/2" x 1/2"	WPH040	6	8 x DV Fan Bracket x4 DV Fan Bracket x4 Expansion tank bracket	
15	DO Hex Clip 1/2" x 1/2"	WPH038	2	8 x DV Fan Bracket x4 DV Fan Bracket x4 Expansion tank bracket	
16	DP Hex Clip 1/2" x 1/2"	WPH038	18	8 x DV Fan Bracket x4 DV Fan Bracket x4 Expansion tank bracket	
17	DD Hex Clip 1/2" x 1/2"	WPH038	6	Expansion tank small 1 piece	
18	DR Metal Blank	WPH010	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x8

TIPS

The fan may have four plastic legs or feet that slot into it.

Vincent M

The fan may have a 'flat' section on the rim. This should be at the top.

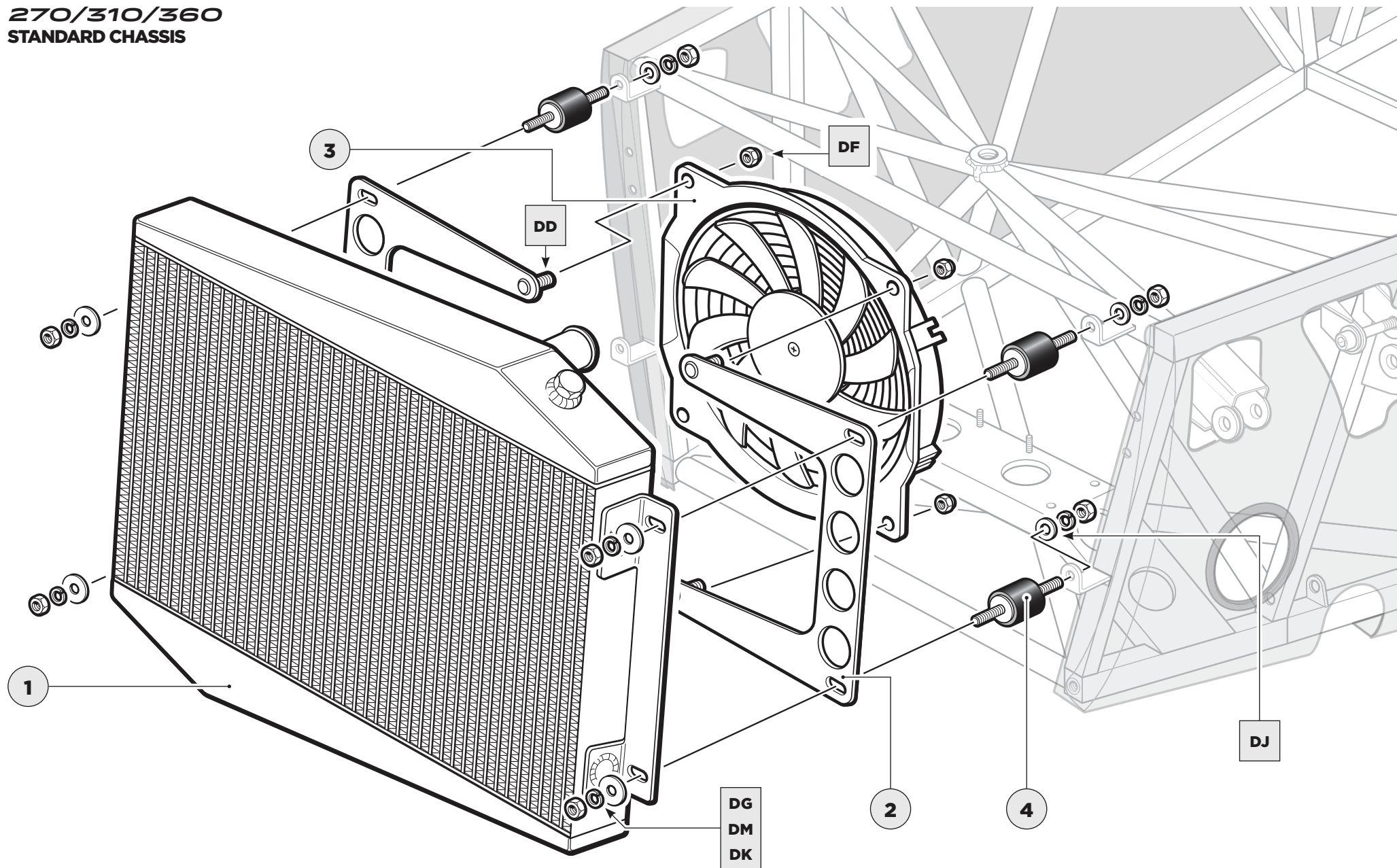
James S

Be careful to tighten the fan on gently and just with a nip.

Lloyd D

FITTING THE RADIATOR ON THE STANDARD CHASSIS

270/310/360
STANDARD CHASSIS

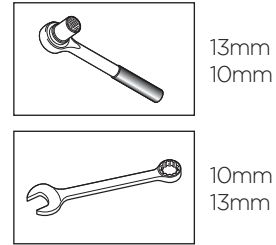


THE RADIATOR MOUNTING FOR THE WIDE-BODIED CHASSIS IS SLIGHTLY DIFFERENT

PARTS

- 1 Radiator
- 2 Fan brackets (x2)
- 3 Fan
- 4 Radiator bobbins (x4)
- 5 Brackets

TOOLS



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SIZES/TS	
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Ball MB 3/16 1/2" x 3/16"	W19122A	1	Expansion tank bracket to chassis	
2	Ball MB 3/16 1/2" x 3/16"	W19122A	1	Expansion tank to bracket	
3	Setscrew M3x0.5 Grade 8.8	SMS320	4	SV radiator bracket	
4	Ball MB X 16 with square section	W27122A	4	Fan brackets for fan	
5	Ball MB X 16 with square section	W27122A	4	Fan to radiator bracketing - SV only	
6	Nylon Nut M4	NM916	8	4x Fan to radiator 4x SV radiator bracket	
7	Plain Nut M5	NMP9	8	Radiator bobbin	
8	Nylon Nut 1/4"	NM114	1	Expansion tank bracket	
9	Plain Washer 1/4" Heavy Duty	WPH14	13	8 x SV rad bracket 4 x Fan fixings 1 x Expansion tank bracket	
10	Plain Washer 3/16" Heavy Duty	WPH316	4	Radiator bobbin back	
11	Plain Washer 3/16" x 1/4" Heavy Duty	WPH317214	4	Radiator bobbin front	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x4

x4

x4

x8

x12

x4

x4

Pack D		CATERHAM		44	
		PACK NUMBER		SIZES/TS	
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Ball MB 3/16 1/2" x 3/16"	W19122A	1	Expansion tank bracket	
13	Spring Washer 3/16" Heavy Duty	WSP316	9	8 x Radiator bobbin 1 x Expansion tank	
14	Plain Clip 1/4"	W17214	6	2 x 2x3mm expansion bracket 2 x 2x3mm radiator bracket	
15	Plain Clip 1/4"	W17214	2	1 x 2x3mm expansion bracket 1 x 2x3mm radiator bracket	
16	Plain Clip 1/4"	W171214	18	1 x 2x3mm expansion bracket 1 x 2x3mm radiator bracket	
17	Plain Clip 1/4"	W171214	6	Expansion tank small 1 piece	
18	Black-Black expansion	W181214	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x8

TIPS

The fan may have four plastic legs or feet that slot into it.

Vincent M

The fan may have a 'flat' section on the rim. This should be at the top.

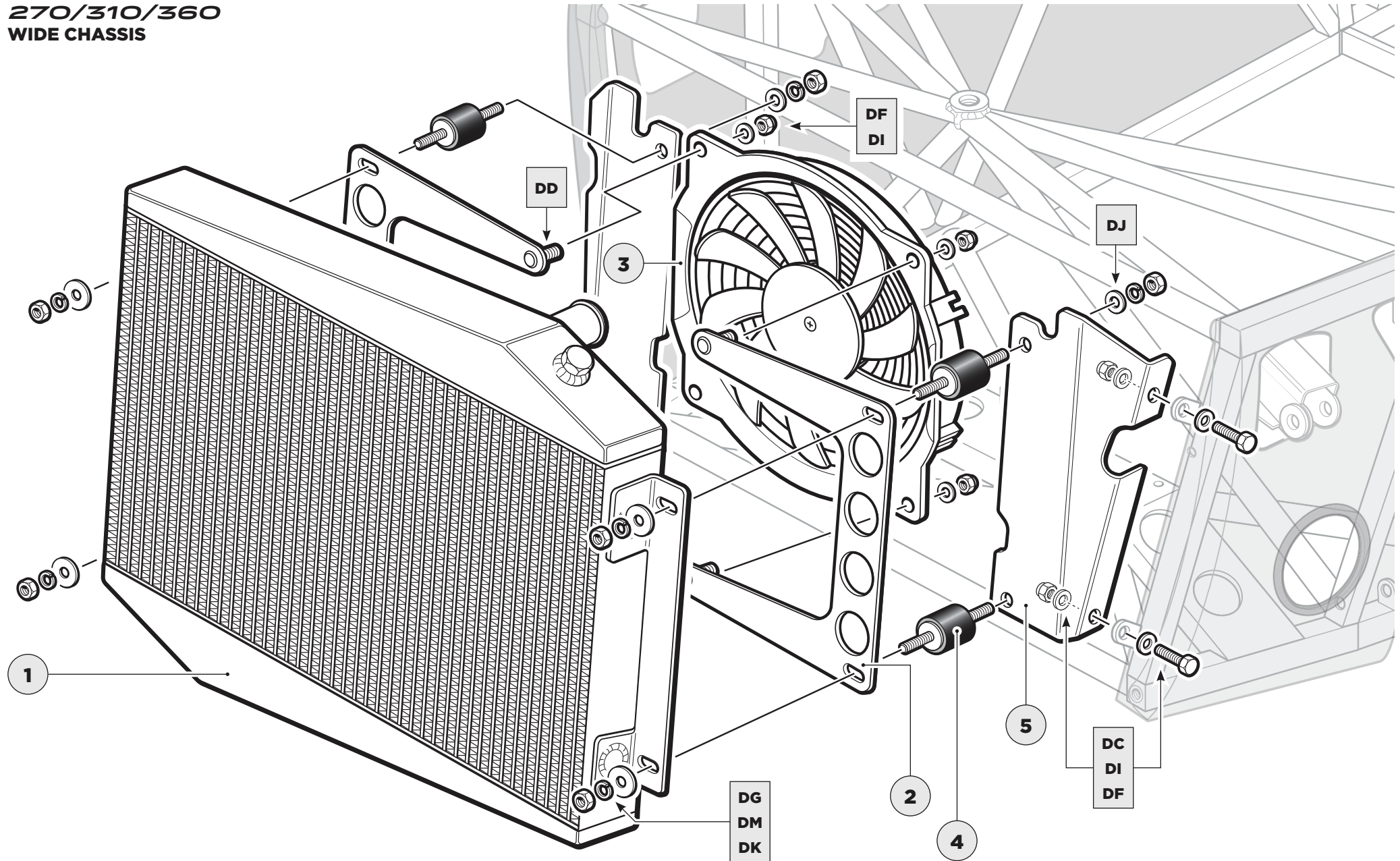
James S

Be careful to tighten the fan on gently and just with a nip.

Lloyd D

THE RADIATOR MOUNTING FOR THE WIDE-BODIED CHASSIS IS SLIGHTLY DIFFERENT

270/310/360
WIDE CHASSIS

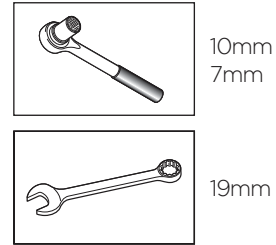


THINGS ARE HEATING UP

PARTS

- 1 Heater
- 2 Valve
- 3 Heater cable
- 4 Lower hose 110mm (cut from long length)
- 5 Upper hose 120mm (cut from long length)
- 6 Grommet

TOOLS



FIXINGS

Pack D CATERHAM 44					
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. Tank	1000000000	1	Expansion tank	
2	Exp. Tank Bracket	1000000000	1	Expansion tank bracket	
3	SW Radiator Bracket	1000000000	4	SW radiator bracket	
4	Fan Bracket	1000000000	4	Fan brackets to fit	
5	Fan to radiator coating - SW only	1000000000	4	Fan to radiator coating - SW only	
6	SW Radiator Bracket	1000000000	3	SW Radiator Bracket	
7	Radiator Bobbin	1000000000	3	Radiator bobbin	
8	Expansion Tank Bracket	1000000000	1	Expansion tank bracket	
9	SW Radiator Bracket	1000000000	13	SW Radiator Bracket	
10	Radiator Bobbin	1000000000	4	Radiator bobbin	
11	Radiator Bobbin	1000000000	4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

Pack D CATERHAM 44					
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Exp. Tank	1000000000	1	Expansion tank	
13	SW Radiator Bracket	1000000000	3	SW Radiator Bracket	
14	SW Radiator Bracket	1000000000	6	SW Radiator Bracket	
15	SW Radiator Bracket	1000000000	2	SW Radiator Bracket	
16	SW Radiator Bracket	1000000000	18	SW Radiator Bracket	
17	SW Radiator Bracket	1000000000	6	SW Radiator Bracket	
18	SW Radiator Bracket	1000000000	12	SW Radiator Bracket	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x4

TIPS

Remember to remove bungs from heater.

Jamie A

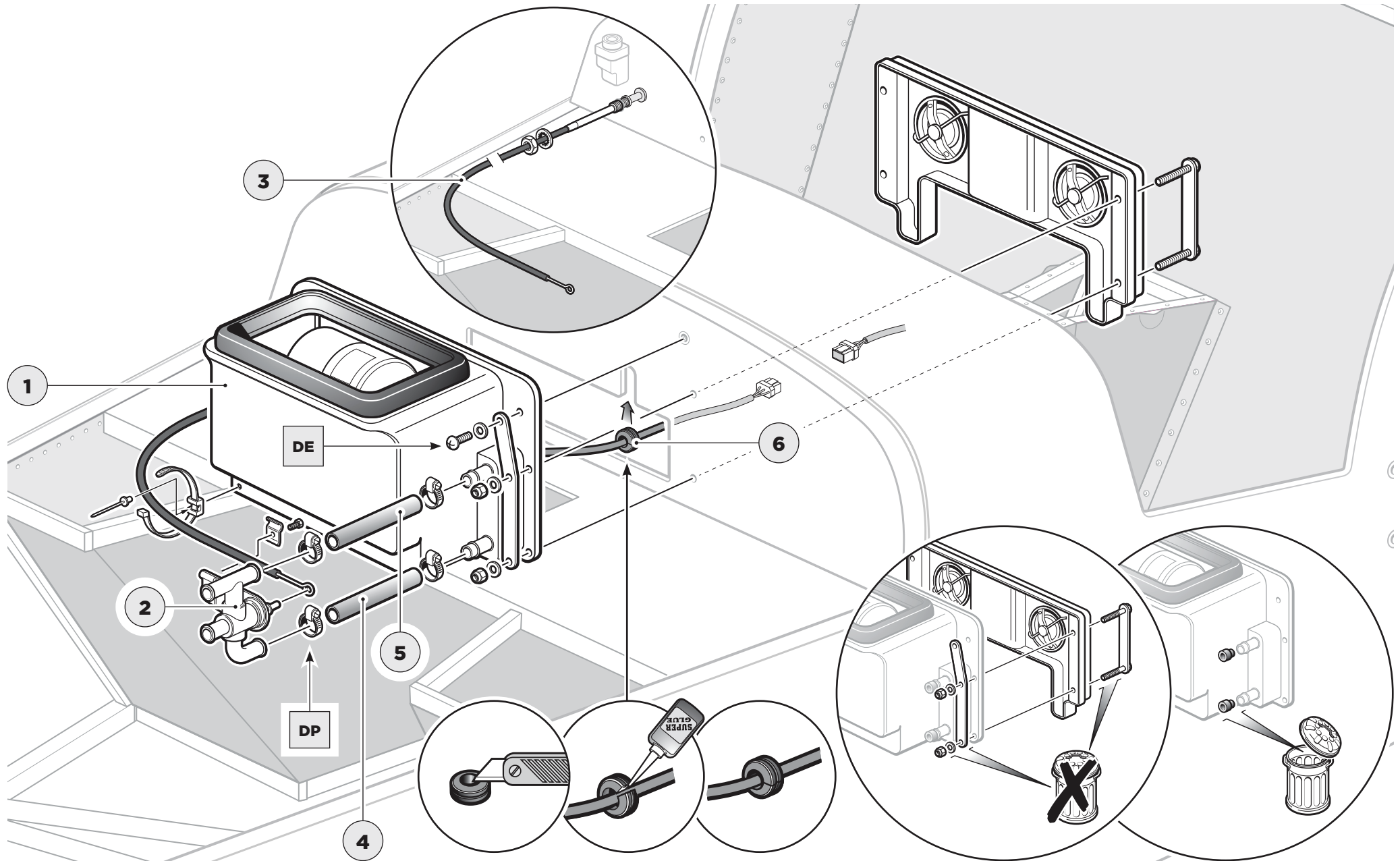
Use 7mm for jubilee clips but not too tight!

Chris B

It's worth re-tightening the jubilee clips after a couple of uses of car.

John S

THINGS ARE HEATING UP

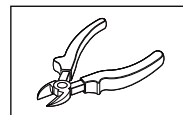
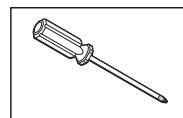


KEEPING THE AIR CLEAN

PARTS

- 1 Air box
- 2 Air filter
- 3 Rubber mounts
- 4 Trim

TOOLS



8mm

FIXINGS

Unmarked bag:

- M5 (x6)
- Spring (x6)
- Flats (x6)
- Nylocs M5 (x3)
- 3/16 washers (x3)
- 3/4 washers (x3)
- Screws (x20)

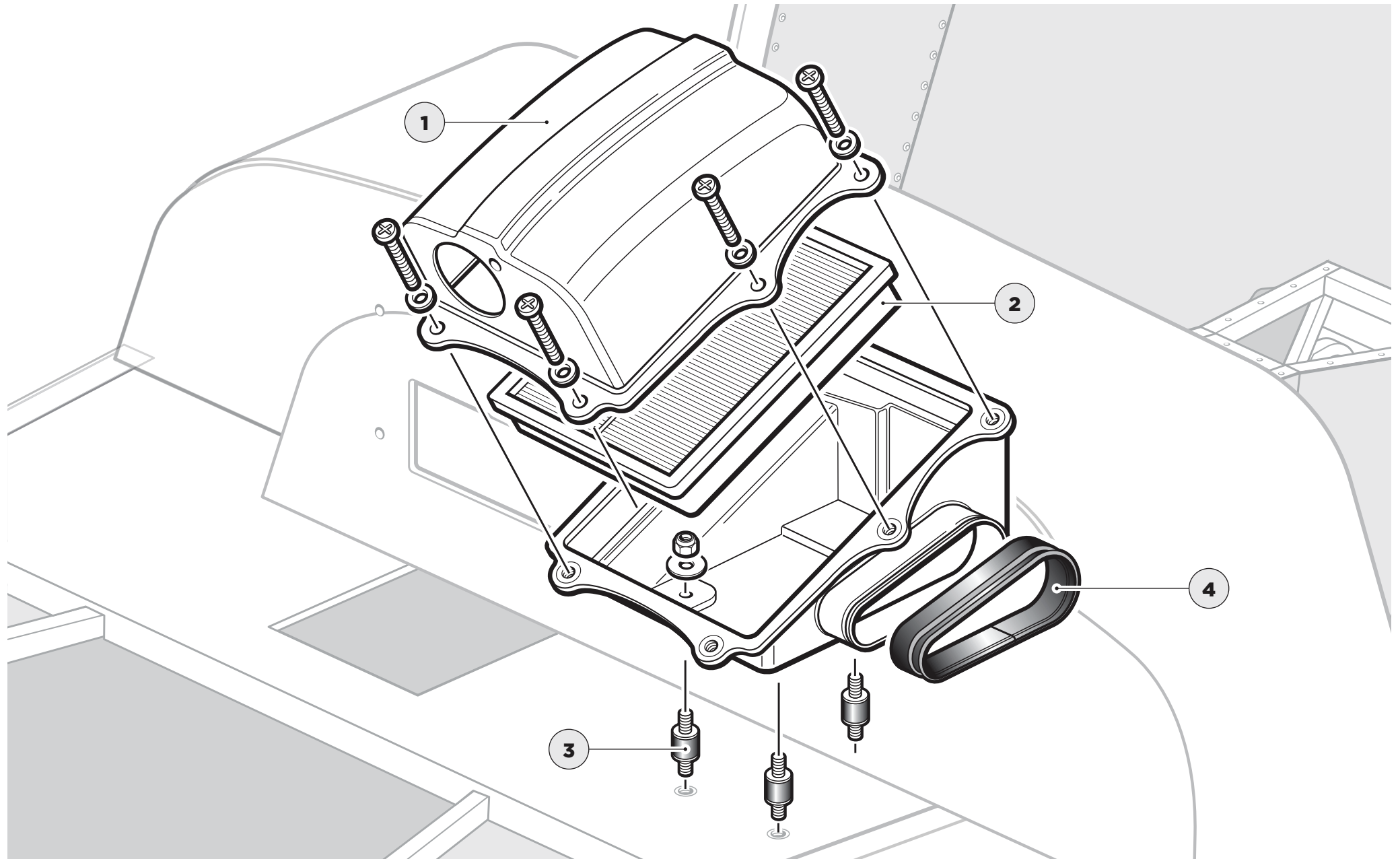
TIPS

Bobbins are screwed into the car by hand.

John K

The rubber lip of the trim should 'flare out' from the intake hole, not in.

Grant P

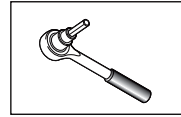


GETTING READY TO PUT THE ENGINE IN

PARTS

- 1 Engine mount
- 2 Starter motor
- 3 Bellhousing

TOOLS



6mm
8mm

FIXINGS

TIPS

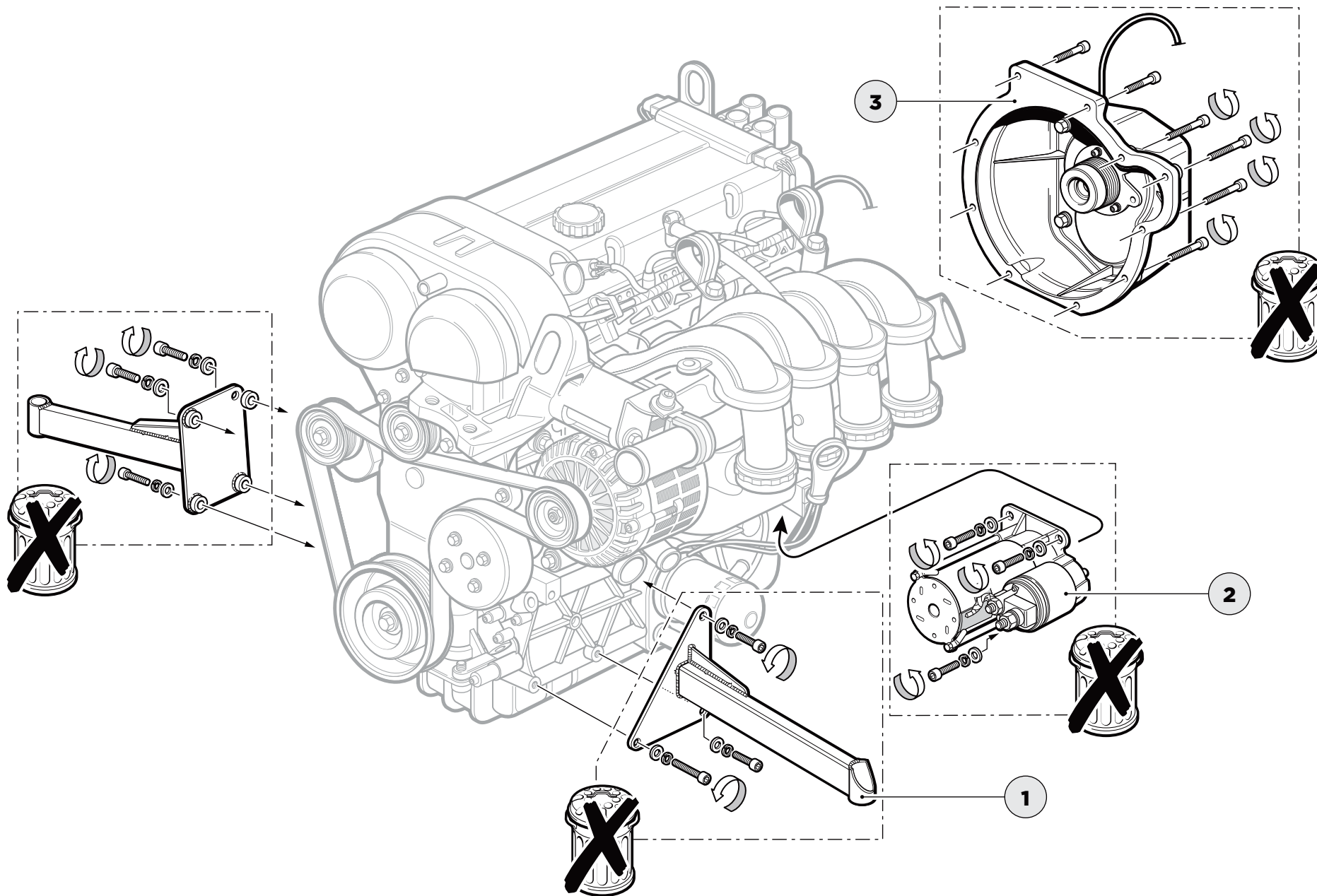
You will need to remove the engine mounts and starter motor but don't throw away the bolts – keep them safe!

Chris N

Remember when the bolts go.

Dan P

GETTING READY TO PUT THE ENGINE IN

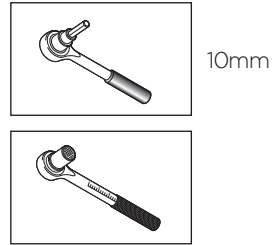


ATTACH THE GEARBOX TO THE BELLHOUSING

PARTS

- 1** Gearbox
- 2** Bell housing

TOOLS



10mm

FIXINGS

Pack E		CATERHAM		66	
		PART NUMBER		3E21105F	
SIGMA GEARBOX 5 SPEED					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	EA Gear Box 12.5	3E21105A	2	AV Mount	
2	EQ Caphead Bolt M12 x 10 Grade 12.9 Cover Flange	3E21105A	4	AV Mount	
3	EC Caphead Bolt M12 x 10 Grade 12.9 Cover Flange	3E21142A	4	Gearbox	
4	EQ Caphead Bolt M12 x 10 Grade 12.9	3E21105A	4	1 x Bellhousing 1 x Starter Motor	
5	EE Caphead Bolt M12 x 10 Grade 12.9	3E21105B	3	Bellhousing	
6	EF Caphead Bolt M12 x 10 Grade 12.9	3E21105A	3	Bellhousing	
7	EG Caphead Bolt M12 x 10 Grade 12.9	3E21105C	2	Engine Mount SHS Top	
8	EAH Caphead Bolt M12 x 10 Grade 12.9	3E21105D	2	Engine Mount 1 x LHG Top 1 x LHG Bottom	
9	EBH Caphead Bolt M12 x 10 Grade 12.9	3E21105E	1	Engine Mount SHS Bottom	
10	EJ Caphead Bolt M12 x 10 Grade 12.9	3E21105D	2	Engine Mount SHS Bottom	
11	EBK Caphead Bolt M12 x 10 Grade 12.9	3E21105D	3	Clutch Slave Cylinder	

x4

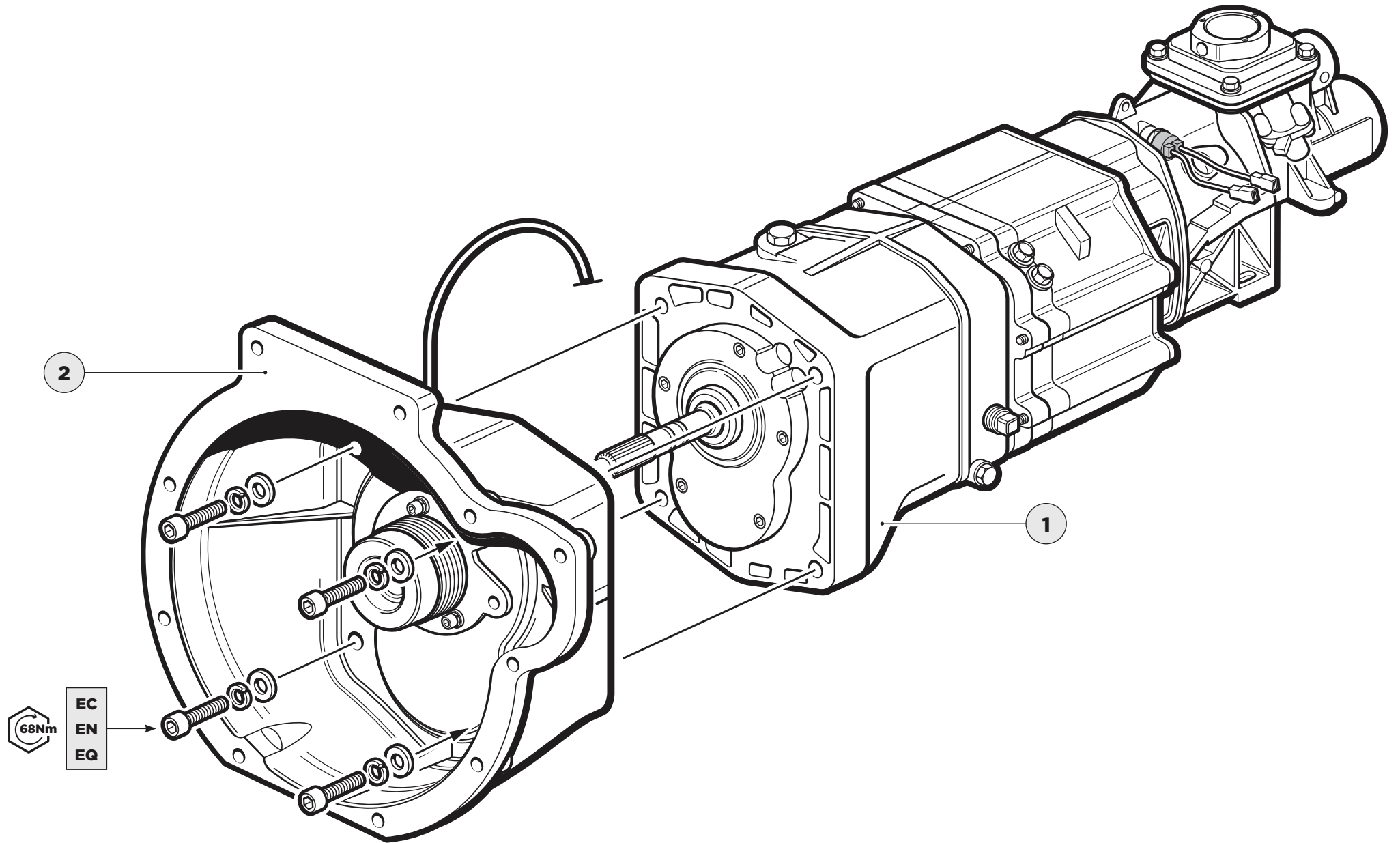
Pack E		CATERHAM		66	
		PART NUMBER		3E21105F	
SIGMA GEARBOX 5 SPEED					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	EL Gear Lever	3E21105F	1	Gear Lever	
13	EM Pin Bolt M12 x 10	3E21105F	2	AV Mount	
14	EN Plain Washer M12	3E22031A	4	Gearbox	
15	EQ Plain Washer M12	3E22031A	3	Gear Lever	
16	EM Pin Bolt M12 x 10	3E21105F	3	AV Mount	
17	EQ Spring Washer M12	3E22031A	4	Gearbox	
18	EQ Spring Washer M12	3E22031A	10	1 x Bellhousing 3 Engine Mount	
19	ES Shim Washer M12	3E22031A	3	Starter Motor	
20	EQ Spring Washer M12	3E22031A	3	Engine Mount	
21	EQ Spring Washer M12	3E22031A	3	Clutch Slave Cylinder	
22	EM Pin Bolt M12 x 10	3E21105F	4	AV Mount	
23	EQ Spring Washer M12	3E22031A	2	AV Mount	

x4

x4

TIPS

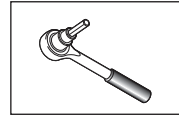
ATTACH THE GEARBOX TO THE BELLHOUSING



AND THEN THE GEARBOX TO THE ENGINE

PARTS

TOOLS



8mm



FIXINGS

TIPS

Pack E		CATERHAM		66	
		PACK NUMBER		3E2105P	
SIGMA GEARBOX 5 SPEED					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Caphead Bolt M12 x 55 Grade 12.9	3E2105A	2	AV Mount	
2	Caphead Bolt M8 x 40 Grade 12.9	3E2105A	4	AV Mount	
3	Caphead Bolt M10 x 55 Grade 12.9 (Starter Motor)	3E2114A	4	Clearbox	
4	Caphead Bolt M12 x 55 Grade 12.9	3E2105A	4	1 x Bellhousing 3 x Starter Motor	
5	Caphead Bolt M12 x 55 Grade 12.9	3E2105A	3	Bellhousing	
6	Caphead Bolt M12 x 40 Grade 12.9	3E2105A	3	Bellhousing	
7	Caphead Bolt M12 x 55 Grade 12.9	3E2105A	2	Engine Mount (RHS Top)	
8	Caphead Bolt M8 x 20 (Starter Motor)	3E2105A	2	Engine Mount (1 x LHS Top, 1 x LHS Bottom)	
9	Caphead Bolt M8 x 20 (Starter Motor)	3E2105A	1	Engine Mount (LHS Bottom)	
10	Caphead Bolt M8 x 20 (Starter Motor)	3E2105A	2	Engine Mount (RHS Bottom)	
11	Caphead Bolt M8 x 20 (Starter Motor)	3E2105A	3	Clutch Slave Cylinder	

x1

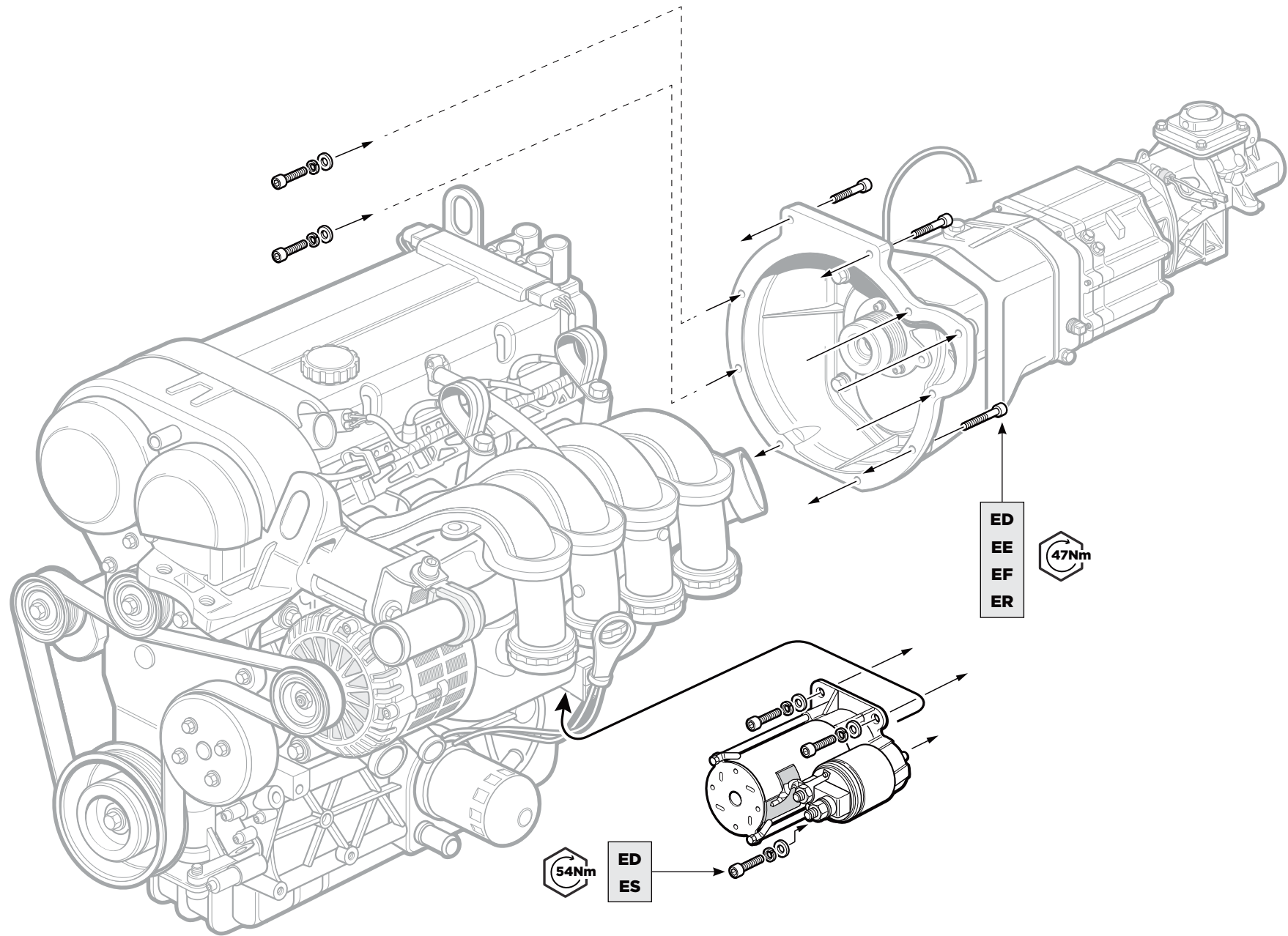
x3

x3

Pack E		CATERHAM		66	
		PACK NUMBER		3E2105P	
SIGMA GEARBOX 5 SPEED					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Pin (Starter Motor)	3E2105A	2	Clear Lever	
13	Pin (Starter Motor)	3E2105A	2	AV Mount	
14	Pin (Starter Motor)	3E2105A	4	Clearbox	
15	Pin (Starter Motor)	3E2105A	3	Clear Lever	
16	Pin (Starter Motor)	3E2105A	3	AV Mount	
17	Spring Washer (Starter Motor)	3E2105A	4	Clearbox	
18	Spring Washer (Starter Motor)	3E2105A	10	1/7 Bellhousing 3 Engine Mount	
19	Spring Washer (Starter Motor)	3E2105A	3	Starter Motor	
20	Spring Washer (Starter Motor)	3E2105A	3	Engine Mount	
21	Spring Washer (Starter Motor)	3E2105A	3	Clutch Slave Cylinder	
22	Washers (Starter Motor)	3E2105A	4	AV Mount	
23	Spring Washer (Starter Motor)	3E2105A	2	AV Mount	

x7

AND THEN THE GEARBOX TO THE ENGINE

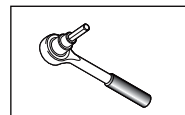
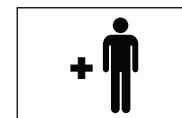
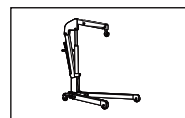


AT LAST, THE ENGINE IS GOING IN

PARTS

- 1 Engine mounts
- 2 Engine rubbers
- 3 Tensioner

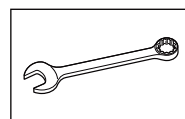
TOOLS



6mm
8mm
3/8"



13mm



13mm
15mm

FIXINGS

Miscellaneous pack

- Bolt 1/2" x 2 1/2" (x1)
- Bolt 1/2" x 1" (x1)
- Bolt M8 x 50 (x1)
- Bolt M8 x 45 (x3)
- Washer M8 (x4)
- Nyloc M8 (x4)

TIPS

When fitting the engine rubbers and mounts, do them as loosely as possible so you can wiggle things to get bolts in. Tighten it all up gradually once all the bolts are in.

Jamie A

The shorter 1/2" bolt fits the nearside of the chassis.

Dan P

It's 47asNm for the bolts tightened with the 8mm hex socket & 30Nm for the 6mm hex socket.

Grant P

Protect the chassis with soft stuff such as cardboard or folded towels/blankets. Just not your fingers.

Tiago O

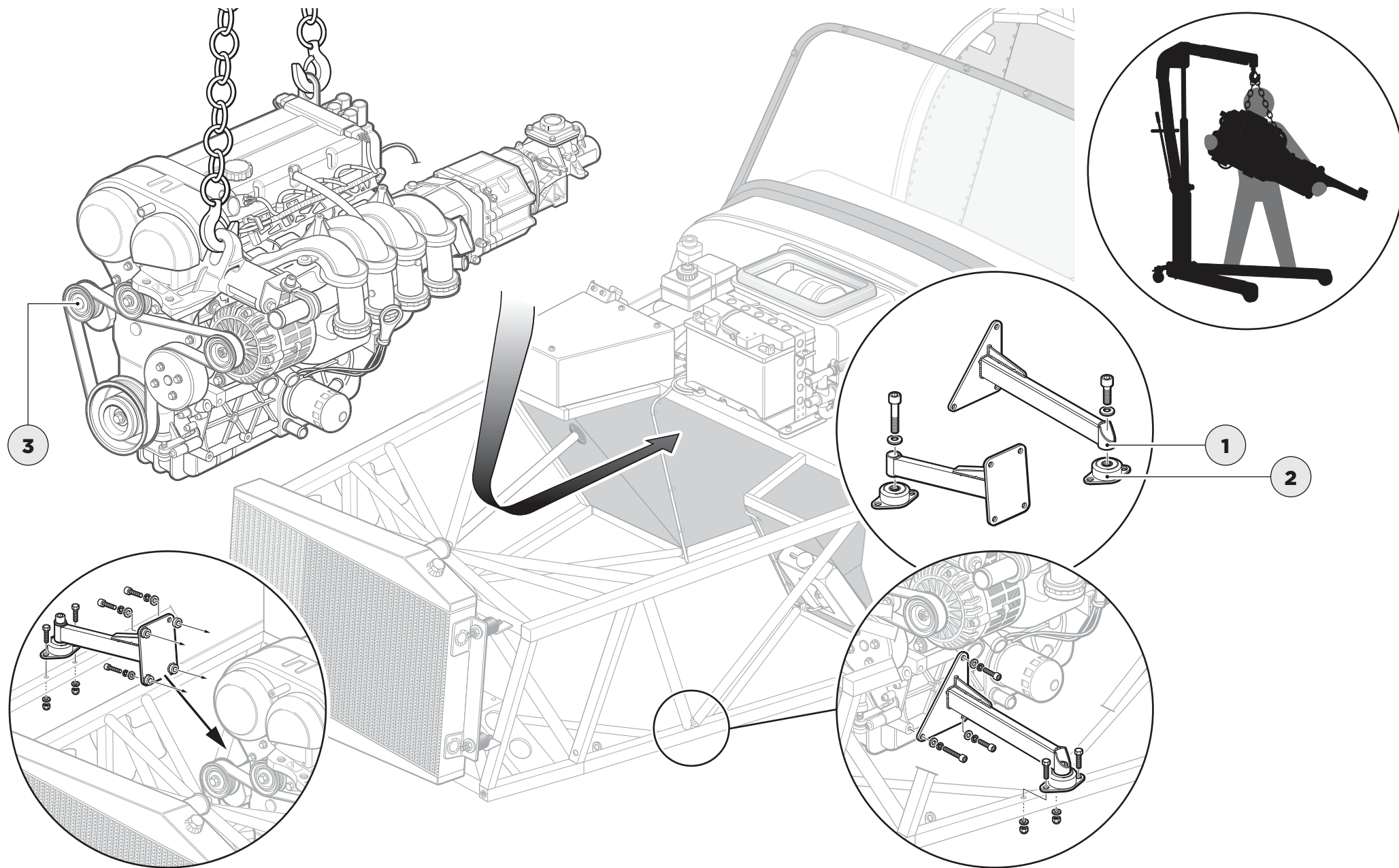
It will fit – keep at it!

Rich T

Removing the tensioner will make things much easier.

James A

AT LAST, THE ENGINE IS GOING IN



AND THE GEARBOX IS FIXED IN PLACE

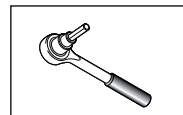
PARTS

TOOLS

5 Speed



13mm
22mm

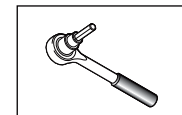


6mm

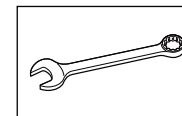
6 Speed



13mm
19mm



6mm



13mm

FIXINGS

TIPS

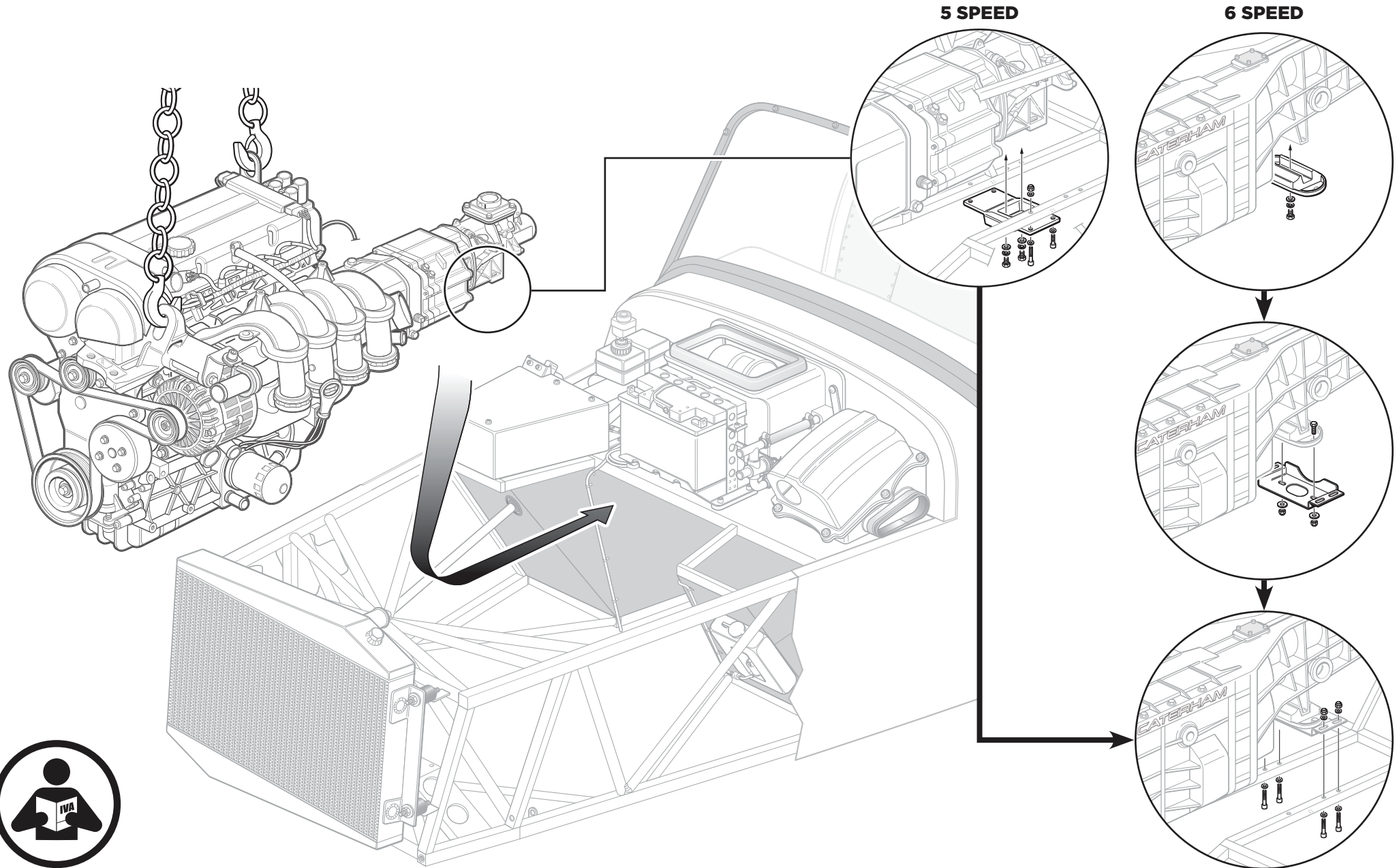
Once the engine is in, the wiring can be connected to the car's loom. It should be self explanatory.

Chris B

See IVA guide – how to secure a loom.

Grant P

AND THE GEARBOX IS FIXED IN PLACE



FILLING THE ENGINE AND GEARBOX WITH OIL

PARTS

Engine oil SW-30

Gear oil GL4

TOOLS

FIXINGS

TIPS



Ford 1.6L Engine = 3.8 Litres (Pre-Filled)

5 Speed Gearbox = (Pre-Filled)

Before Installation. You can double check the oil level by removing the plug on the side. The oil should be to this level.

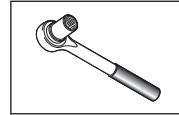
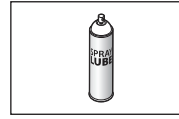
6 Speed Gearbox = Fill to level of filling point on the side of gearbox

START PLUMBING

PARTS

- 1 Lower radiator hose

TOOLS



7mm

FIXINGS

Pack D CATERHAM 44 PACK NUMBER SICCATB					
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. Tank 3.0L		1	Expansion tank	
2	Expansion tank to bracket		1	Expansion tank to bracket	
3	SM radiator bracket		4	SM radiator bracket	
4	Fast brackets to top		4	Fast brackets to top	
5	Fast to radiator		4	Fast to radiator	
6	Fast to radiator		3	Fast to radiator	
7	Radiator bobbin		3	Radiator bobbin	
8	Expansion tank bracket		1	Expansion tank bracket	
9	8 x 30V fast bracket		13	8 x 30V fast bracket	
10	Radiator bobbin		4	Radiator bobbin	
11	Radiator bobbin		4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D CATERHAM 44 PACK NUMBER SICCATB					
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Expansion tank		1	Expansion tank	
13	Expansion tank		3	Expansion tank	
14	Hose Clip	SOT25-40	6	Hose clips	
15	Hose Clip	SOT25-38	2	Hose clips	
16	Hose Clip	SOT16-25	18	Hose clips	
17	Hose Clip	SOT16-18	6	Hose clips	
18	Covering cap		12	Covering cap	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

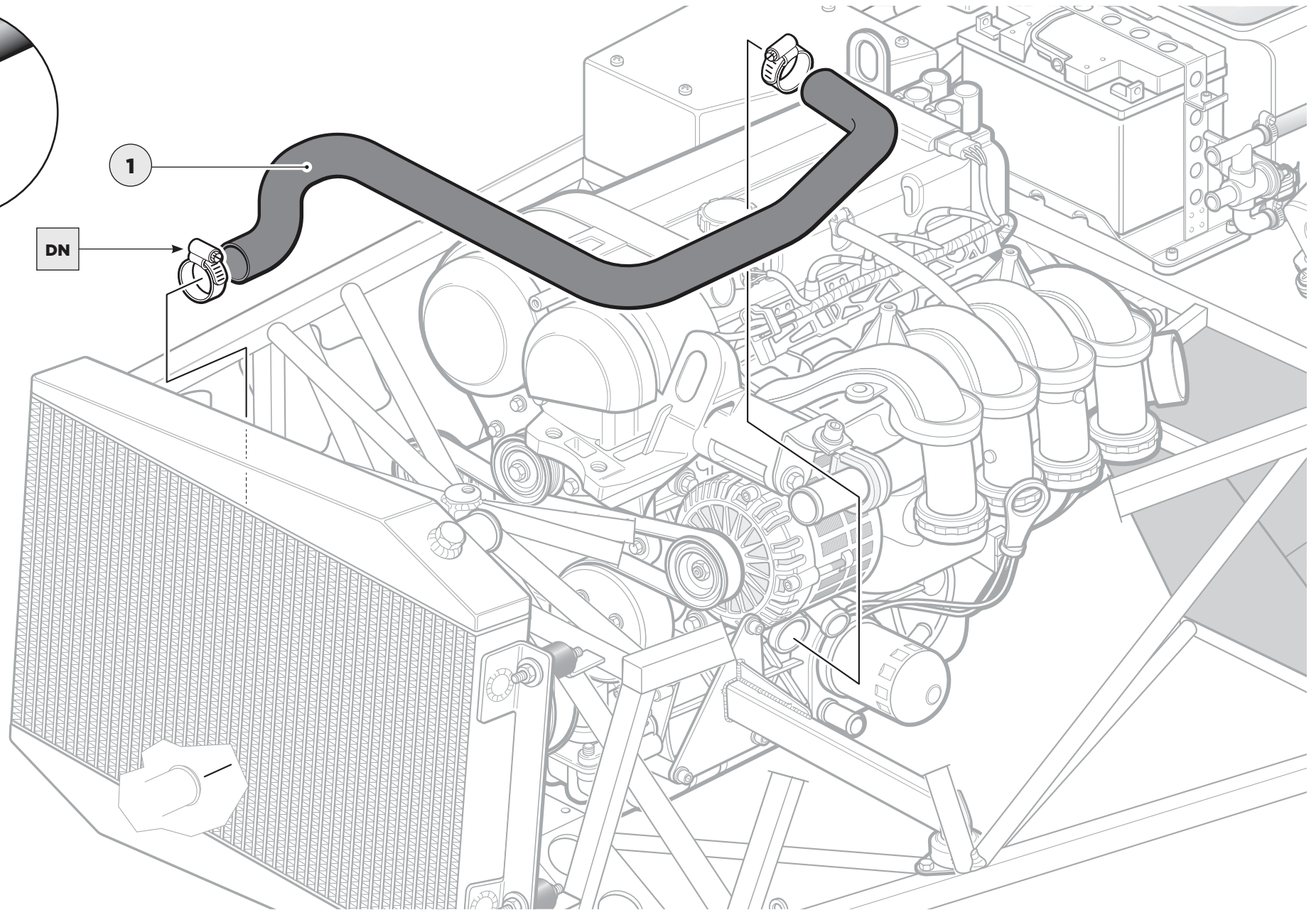
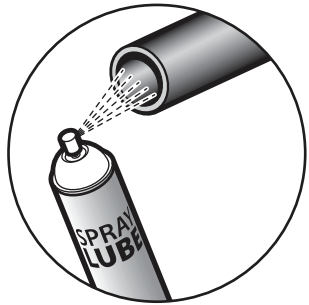
TIPS

Reminder for later on: nip up the clips once the car has been run.
Grant P

Fit the hose to the larger outlet on the engine.
Mick F

Support hose by cable tying to chassis rails – make sure they are clear of the steering rack.
Lee A

START PLUMBING

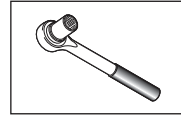
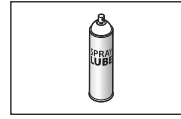


AND KEEP PLUMBING

PARTS

- 1 Upper radiator hose

TOOLS



7mm

FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		300476	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DN Radiator hose	50725-40	1	Expansion tank bracket	
2	DN Radiator hose	50725-40	1	Expansion tank bracket	
3	DN Radiator hose	50725-40	4	DN radiator bracket	
4	DN Radiator hose	50725-40	4	Fan brackets to fan	
5	DN Radiator hose	50725-40	4	Fan for radiator cooling - 50 (only)	
6	DN Radiator hose	50725-40	3	40 Fan for radiator	
7	DN Radiator hose	50725-40	3	Radiator bobbin	
8	DN Radiator hose	50725-40	1	Expansion tank bracket	
9	DN Radiator hose	50725-40	13	8 x 10V fan bracket	
10	DN Radiator hose	50725-40	4	Radiator bobbin	
11	DN Radiator hose	50725-40	4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		44	
		PACK NUMBER		300476	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DN Radiator hose	50725-40	1	Expansion tank bracket	
13	DN Radiator hose	50725-40	3	8 x 10V fan bracket	
14	DN Radiator hose	50725-40	6	2 x 11 shape hose to water rail	
15	DN Radiator hose	50725-40	2	2 x 11 shape hose to expansion tank	
16	DN Radiator hose	50725-40	18	Expansion tank	
17	DN Radiator hose	50725-40	6	Expansion tank small 1 piece	
18	DN Radiator hose	50725-40	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

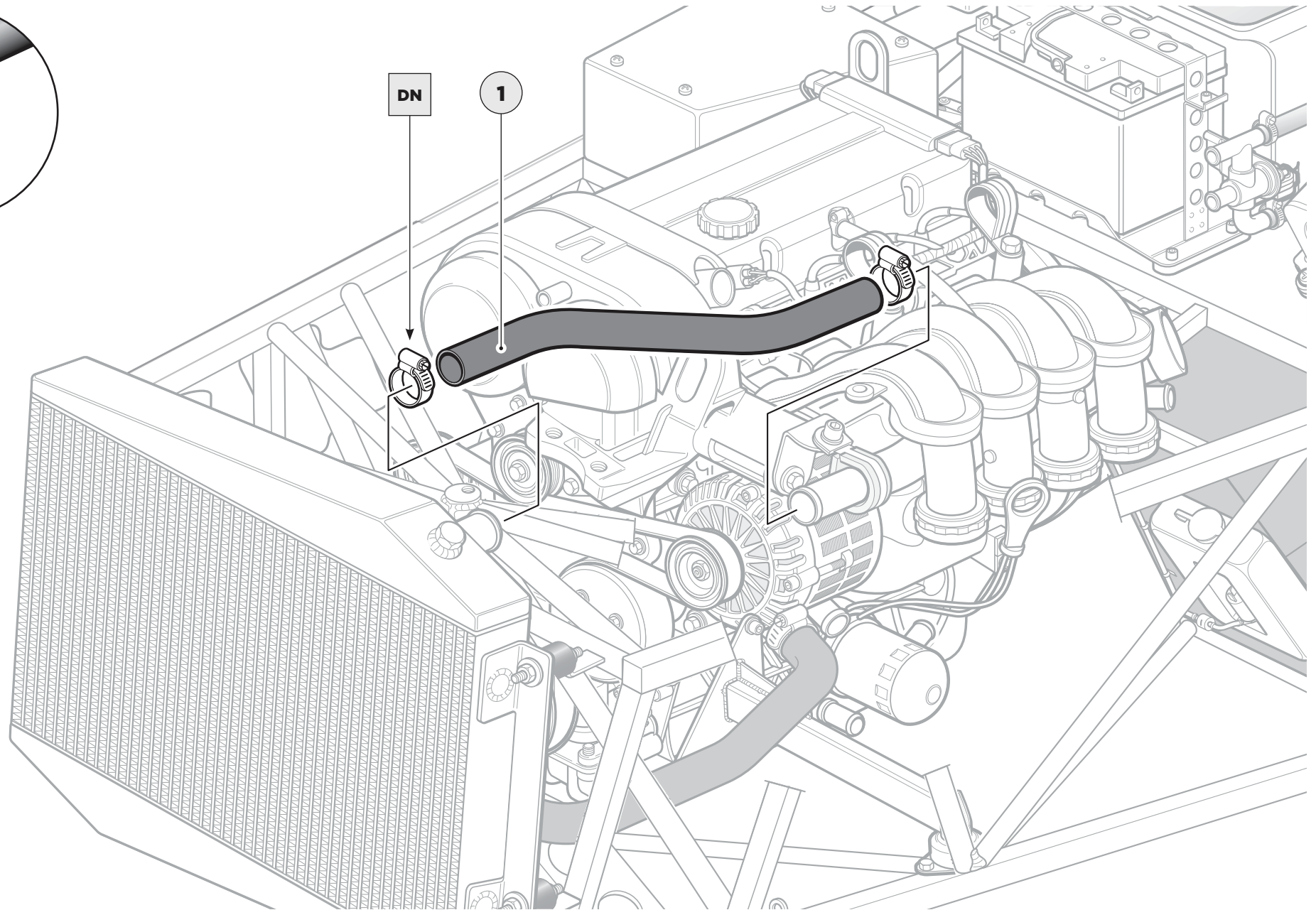
x2

TIPS

Reminder for later on: nip up the clips once the car has been run.

James A

AND KEEP PLUMBING





Now is a good time to take some photos



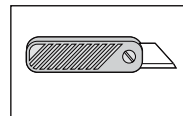
Have you applied for your IVA yet?

A BIT OF SUB-ASSEMBLY - SOME HOSES NEED MODIFYING

PARTS

- 1 Silicone hoses

TOOLS



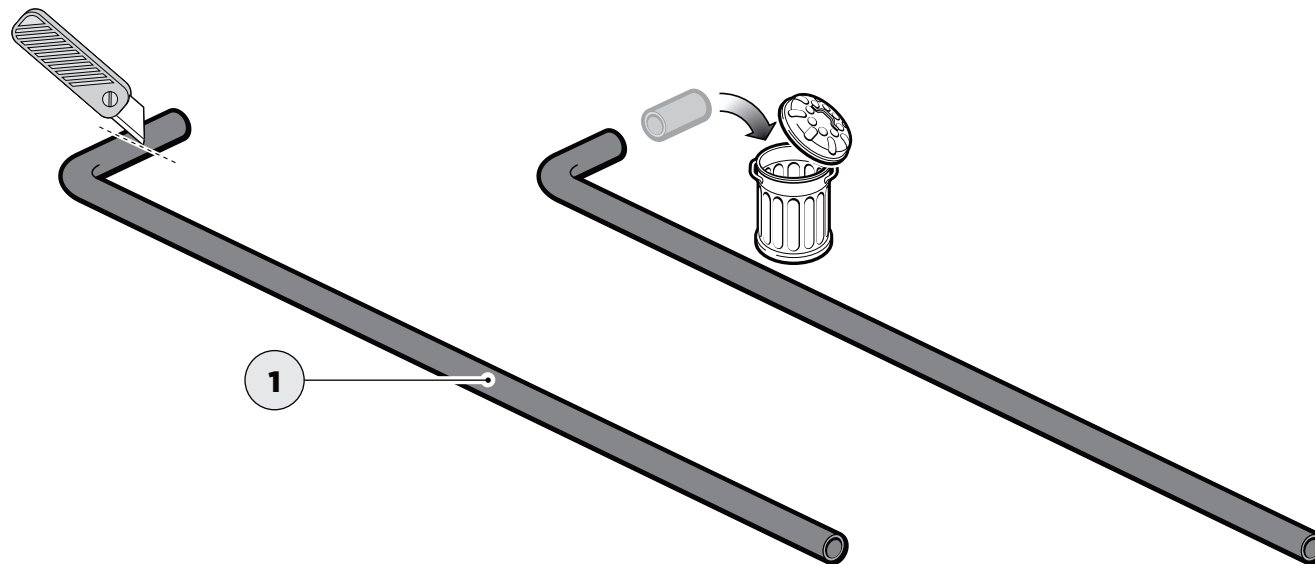
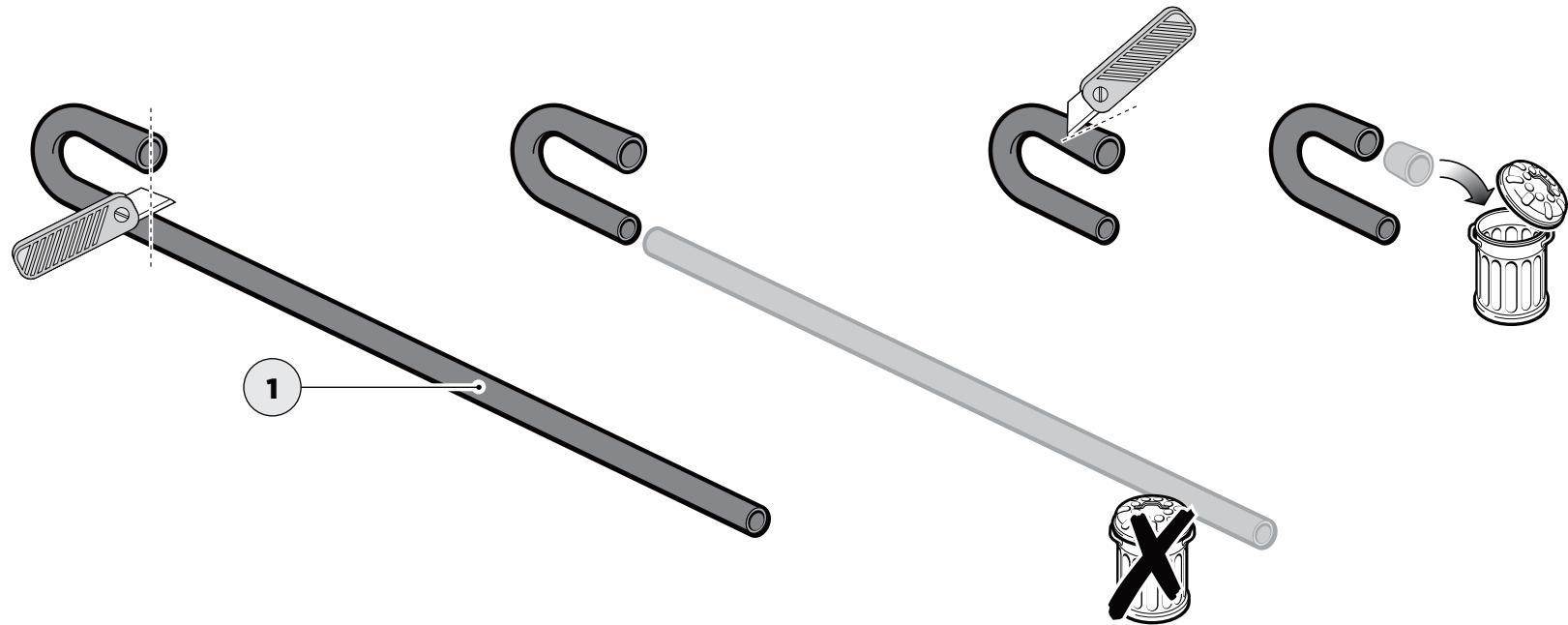
FIXINGS

TIPS

Don't throw away the long piece of hose after cutting.

Rich T

A BIT OF SUB-ASSEMBLY - SOME HOSES NEED MODIFYING

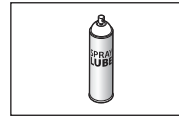


SUB-ASSEMBLY - TEMPERATURE SENSOR

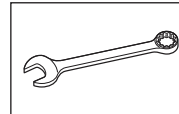
PARTS

- 1 Temperature sender
- 2 Earth tag
- 3 Cooling submarine

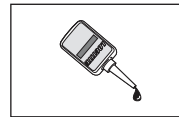
TOOLS



7mm
8mm



13mm



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SUCR47B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. tank			Expansion tank	
2	Expansion tank bracket		1	Expansion tank bracket	
3	SM radiator bracket		4	SM radiator bracket	
4	Fan brackets to fan		4	Fan brackets to fan	
5	Fan for radiator		4	Fan for radiator	
6	Rad Fan for radiator		3	Rad Fan for radiator	
7	Radiator bobbin		3	Radiator bobbin	
8	Expansion tank bracket		1	Expansion tank bracket	
9	8 x 10V rad bracket		13	8 x 10V rad bracket	
10	Radiator bobbin tank		4	Radiator bobbin tank	
11	Radiator bobbin tank		4	Radiator bobbin tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		44	
		PACK NUMBER		SUCR47B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Expansion tank bracket		1	Expansion tank bracket	
13	8 x 10V rad bracket		3	8 x 10V rad bracket	
14	Rad Fan for radiator		6	Rad Fan for radiator	
15	Fan brackets to fan		2	Fan brackets to fan	
16	Expansion tank bracket		18	Expansion tank bracket	
17	Expansion tank bracket		6	Expansion tank bracket	
18	Cooling fan		12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

TIPS

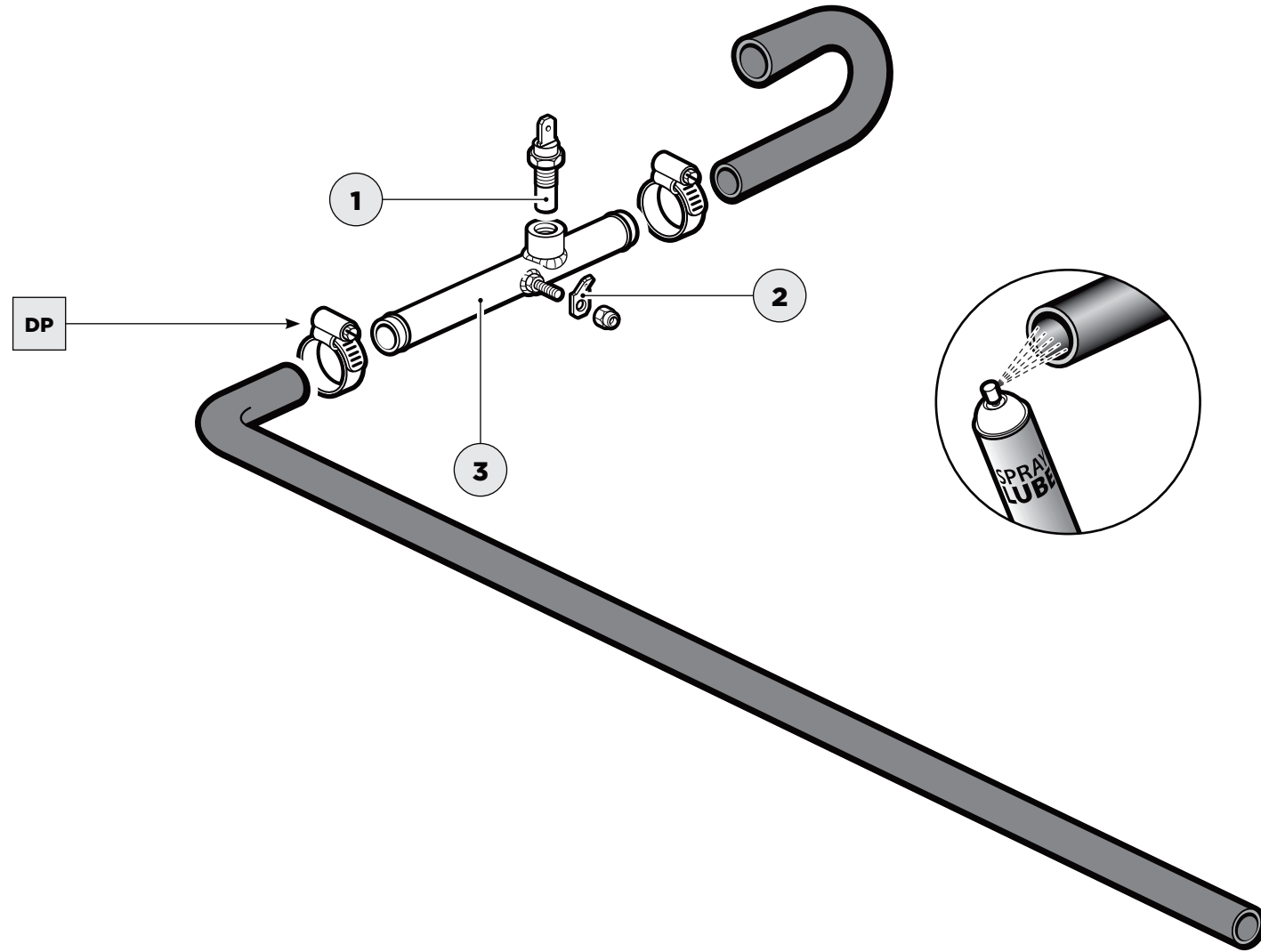
Use a drop of Loctite on the sender.

Tiago O

Be careful not to over-tighten the sender.

Jamie A

SUB-ASSEMBLY - TEMPERATURE SENSOR

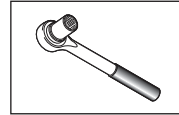
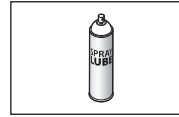


BACK TO THE PLUMBING

PARTS

1 Submarine assembly

TOOLS



7mm

FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		352476	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. tank	100720-01	1	Expansion tank	
2	Expansion tank bracket	100720-02	1	Expansion tank bracket	
3	SM radiator bracket	100720-03	4	SM radiator bracket	
4	Fast brackets to fan	100720-04	4	Fast brackets to fan	
5	Fan for radiator	100720-05	4	Fan for radiator	
6	Rad Fan for radiator	100720-06	3	Rad Fan for radiator	
7	Radiator bobbin	100720-07	3	Radiator bobbin	
8	Expansion tank bracket	100720-08	1	Expansion tank bracket	
9	8 x 10V Rad Bracket	100720-09	13	8 x 10V Rad Bracket	
10	Radiator bobbin	100720-10	4	Radiator bobbin	
11	Radiator bobbin	100720-11	4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

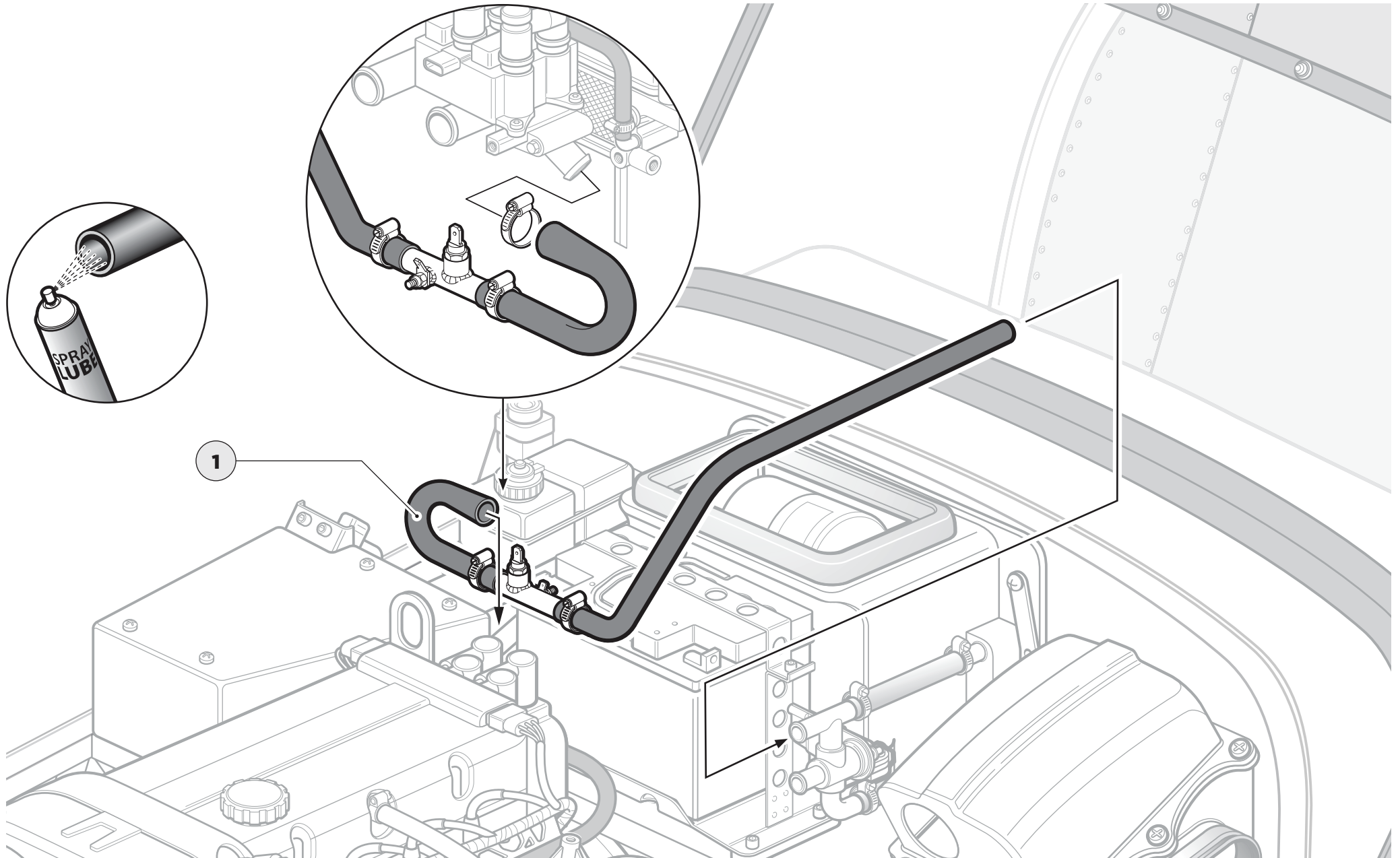
Pack D		CATERHAM		44	
		PACK NUMBER		352476	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Expansion tank	100720-12	1	Expansion tank	
13	8 x 10V Rad Bracket	100720-13	8	8 x 10V Rad Bracket	
14	Fast Clip	100720-14	6	Fast Clip	
15	Fast Clip	100720-15	2	Fast Clip	
16	Fast Clip	100720-16	18	Fast Clip	
17	Expansion tank	100720-17	6	Expansion tank	
18	Cooling fan	100720-18	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

TIPS

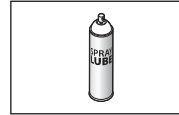
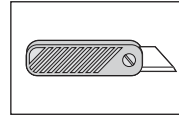
BACK TO THE PLUMBING



MORE PLUMBING

PARTS

TOOLS



FIXINGS

TIPS

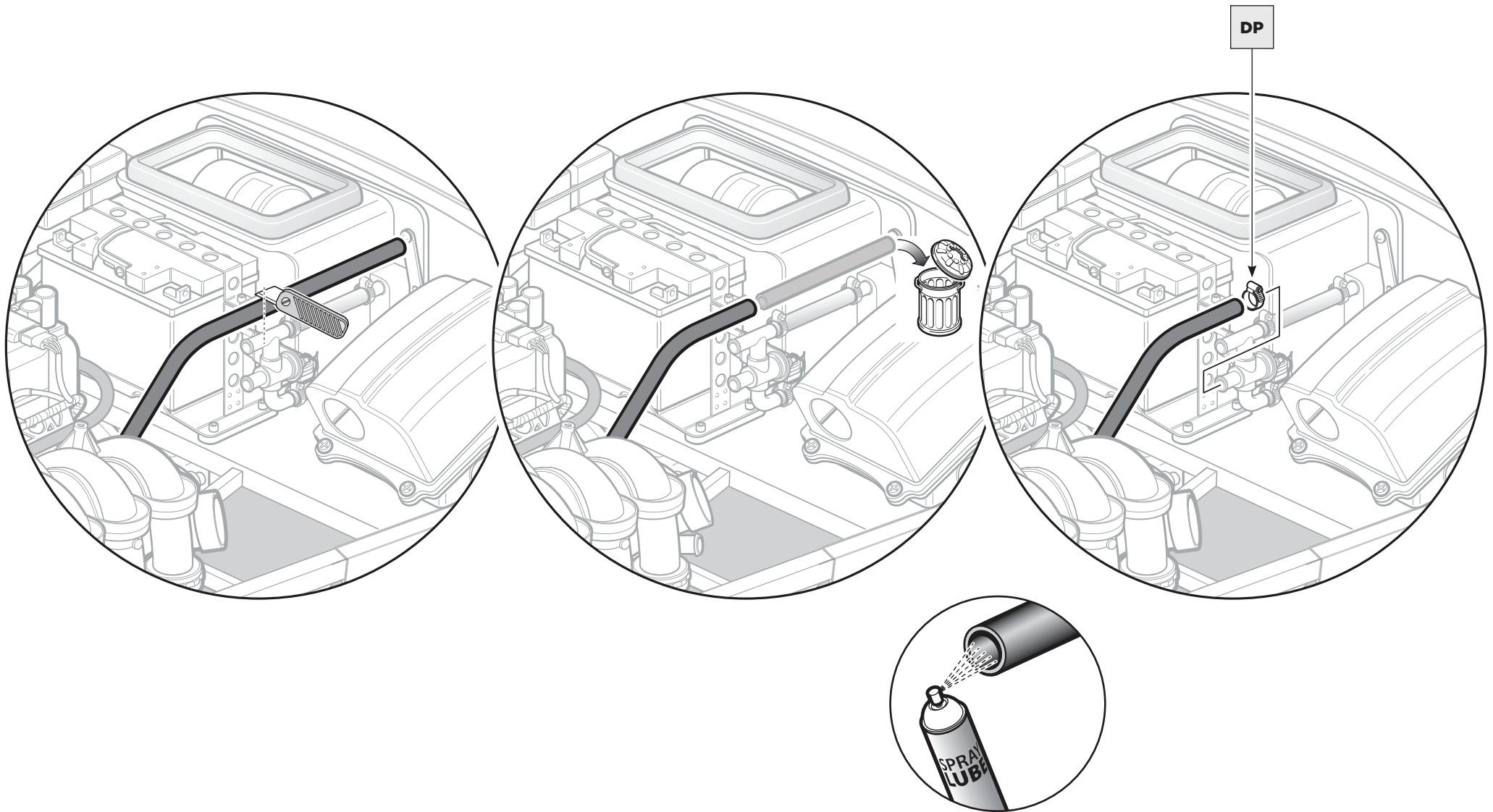
Pack D		CATERHAM		44	
		PACK NUMBER		35C247B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. tank	10170-01	1	Expansion tank	
2	Exp. tank bracket	10170-02	1	Expansion tank bracket	
3	SW radiator bracket	10170-03	4	SW radiator bracket	
4	SW radiator	10170-04	4	SW radiator	
5	SW radiator fan	10170-05	4	Fan for radiator	
6	SW radiator fan bracket	10170-06	3	Fan for radiator	
7	Radiator bobbin	10170-07	3	Radiator bobbin	
8	Exp. tank bracket	10170-08	1	Expansion tank bracket	
9	SW radiator fan bracket	10170-09	13	SW radiator fan bracket	
10	Radiator bobbin	10170-10	4	Radiator bobbin	
11	Radiator bobbin	10170-11	4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		44	
		PACK NUMBER		35C247B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Exp. tank	10170-12	1	Expansion tank	
13	SW radiator	10170-13	3	SW radiator	
14	SW radiator fan	10170-14	6	SW radiator fan	
15	SW radiator fan bracket	10170-15	2	SW radiator fan bracket	
16	Exp. tank	10170-16	18	Expansion tank	
17	Exp. tank	10170-17	6	Expansion tank	
18	Covering cap	10170-18	12	Covering cap	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

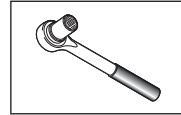
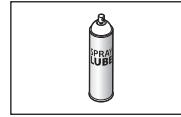


STILL MORE PLUMBING

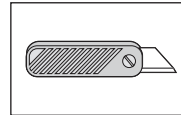
PARTS

1 U shape hose

TOOLS



7mm



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		352478	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DN 16 x 20 Radiator			Expansion tank bracketed to chassis	
2	Expansion tank to bracket		1	Expansion tank to bracket	
3	16V radiator bracket		4	16V radiator bracket	
4	16V radiator to fan		4	Fan brackets to fan	
5	Fan to radiator		4	Fan to radiator	
6	16V radiator to fan		3	16V radiator to fan	
7	Radiator bobbin		3	Radiator bobbin	
8	Expansion tank bracket		1	Expansion tank bracket	
9	16V radiator to fan		13	16V radiator to fan	
10	Radiator bobbin		4	Radiator bobbin	
11	Radiator bobbin		4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

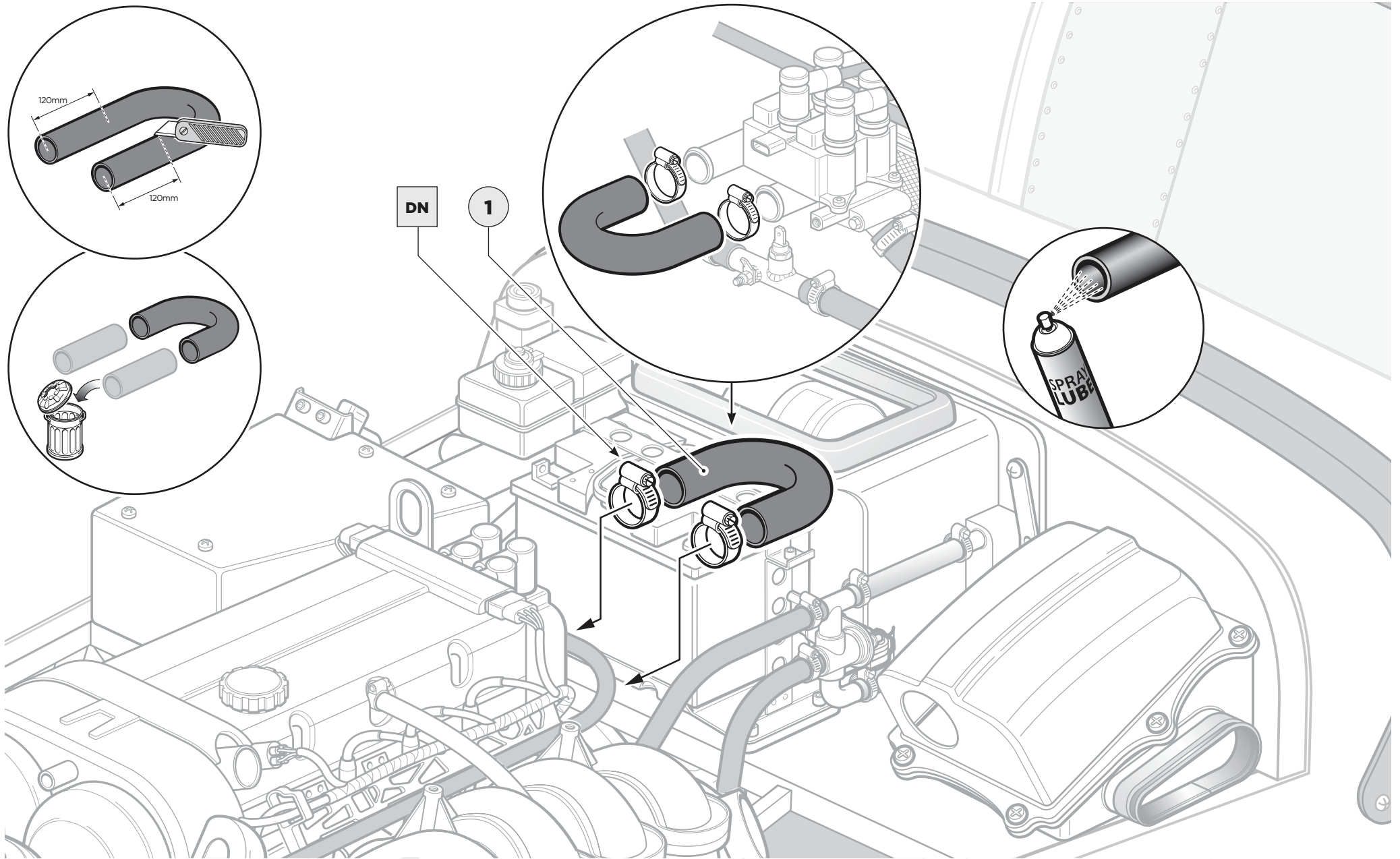
Pack D		CATERHAM		44	
		PACK NUMBER		352478	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Expansion tank		1	Expansion tank	
13	16V radiator to fan		3	16V radiator to fan	
14	U shape hose to water rail		6	U shape hose to water rail	
15	U shape hose to top of radiator		2	U shape hose to top of radiator	
16	U shape hose to bottom of radiator		2	U shape hose to bottom of radiator	
17	Expansion tank small 1 piece		6	Expansion tank small 1 piece	
18	Cooling fan		12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

TIPS

STILL MORE PLUMBING



A BREAK FROM PLUMBING TO FIT THE EXPANSION BOTTLE

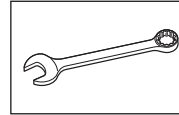
PARTS

- 1 Expansion bottle
- 2 Expansion bottle cap
- 3 Expansion bottle bracket

TOOLS



13mm
11mm



11mm

FIXINGS

Pack D		CATERHAM		44	
PACK NUMBER		SIZES		SIZES	
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Ball Mt X 50 Crack 5/8"	BMA300	1	Expansion tank bracket to chassis	
2	Ballnut X 5/4"	SF14034	1	Expansion tank to bracket	
3	5/8" x 5/8" x 1/2" SV radiator bracket	WMA320	4	SV radiator bracket	
4	Ball Mt X 1/2 4/8 Square section	WQ1024	4	Fan brackets to fan	
5	5/8" x 5/8" x 1/2" SV radiator bracket	WMA320	4	Fan to radiator cooling - SV only	
6	Ball Mt X 1/2 4/8 Square section	WQ1024	3	Ball Fan to radiator SV radiator bracket	
7	Plain Nut 1/2"	WAP10	3	Radiator bobbin	
8	Hyloc Nut 1/4"	WY114	1	Expansion tank bracket	
9	Plain Washer 1/4 Heavy duty	WPH14	13	8 x 5/8 rad bracket 4 x Fan Bolings 1 x Expansion tank bracket	
10	Plain Washer 1/2 Heavy duty	WPH12	4	Radiator bobbin tank	
11	Plain Washer 1/2 Heavy duty	WPH12	4	Radiator bobbin tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

x1

x1

x1

Pack D		CATERHAM		44	
PACK NUMBER		SIZES		SIZES	
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain Washer 1/4 x 1/4 Heavy duty	WPH14014	1	Expansion tank bracket	
13	Spring Washer 5/8 Heavy duty	WSP117	9	8 x Radiator bobbin 1 x Expansion tank	
14	Wash Clip 1/2 Heavy duty	W1210-01	6	8 x Radiator bobbin 2 x Expansion tank 2 x Radiator bobbin tank	
15	Wash Clip 1/2 Heavy duty	W1210-02	2	8 x Radiator bobbin 2 x Expansion tank 2 x Radiator bobbin tank	
16	Wash Clip 1/2 Heavy duty	W1210-03	18	8 x Radiator bobbin 2 x Expansion tank 2 x Radiator bobbin tank	
17	Wash Clip 1/2 Heavy duty	W1210-04	6	Expansion tank small T-piece	
18	Wash-Block Heavy duty	W1210-05	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

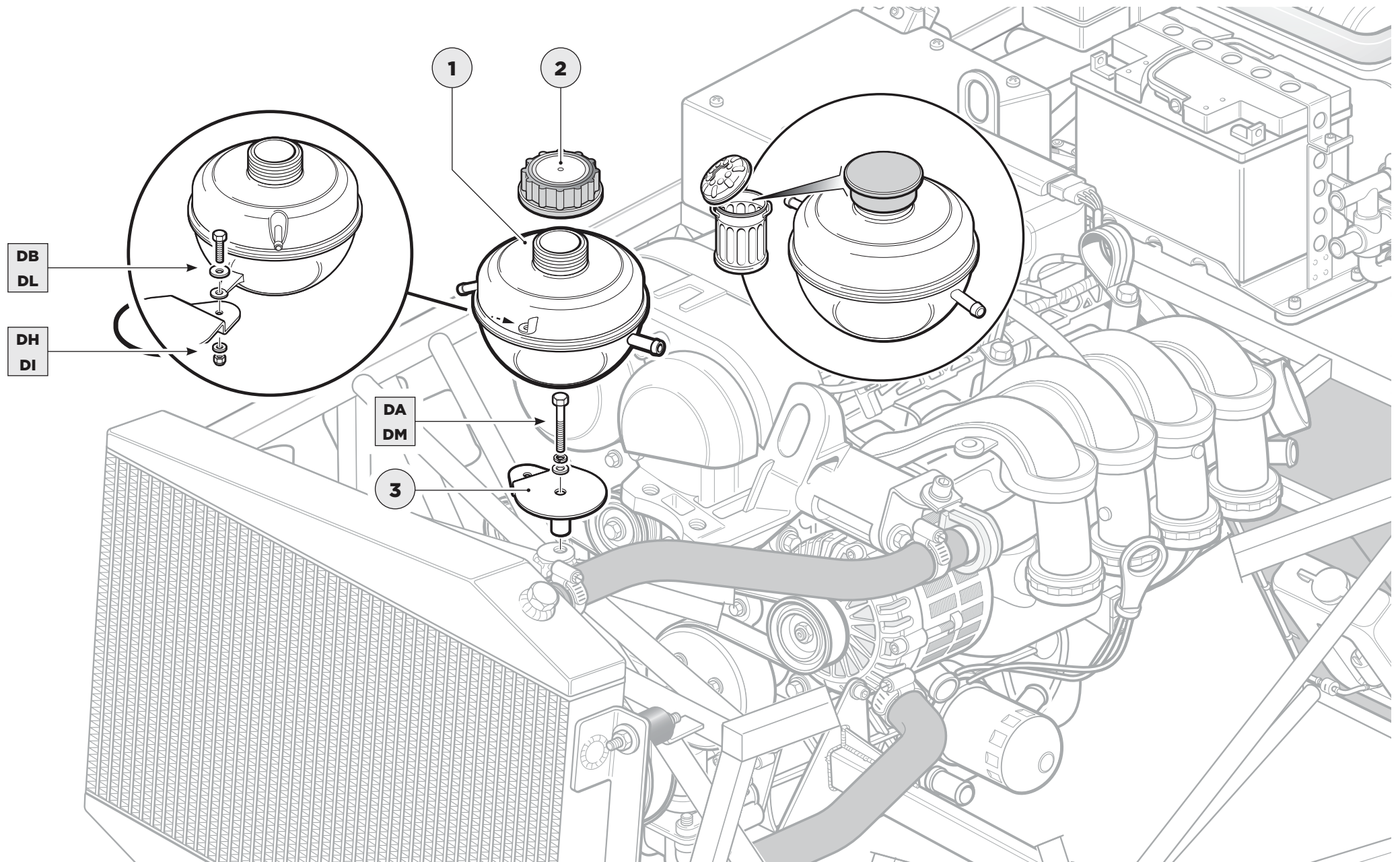
x1

TIPS

Throw away the red cap that came on the expansion bottle.

Grant P

A BREAK FROM PLUMBING TO FIT THE EXPANSION BOTTLE

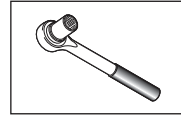
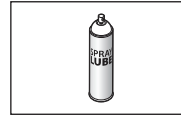


SOME MORE HOSE MODIFICATION

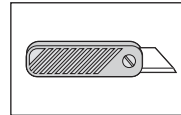
PARTS

1 T-Piece

TOOLS



7mm



FIXINGS

Pack D		CATERHAM		Part Number	44
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Bolt M6 x 20 Hex Head	0000000000	1	Expansion tank bracket	
2	DB Washer M6 Hex Head	0000000000	1	Expansion tank bracket	
3	DC Expansion tank bracket	0000000000	4	Expansion tank bracket	
4	DD Bolt M6 x 16 Hex Head	0000000000	4	Fan brackets to fan	
5	DE Fan bracket to fan	0000000000	4	Fan to radiator cooling fan	
6	DF Fan to radiator	0000000000	3	Fan to radiator	
7	DG Radiator bobbin	0000000000	3	Radiator bobbin	
8	DH Expansion tank bracket	0000000000	1	Expansion tank bracket	
9	DI Fan to radiator	0000000000	13	Fan to radiator	
10	DJ Radiator bobbin	0000000000	4	Radiator bobbin	
11	DK Radiator bobbin	0000000000	4	Radiator bobbin	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		Part Number	44
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DL Expansion tank bracket	0000000000	1	Expansion tank bracket	
13	DM Radiator bobbin	0000000000	3	Radiator bobbin	
14	DN Hose Clip	0000000000	6	Hose clip	
15	DO Hose Clip	0000000000	2	Hose clip	
16	DP Hose Clip	0000000000	18	Hose clip	
17	DD Hose Clip	0000000000	6	Hose clip	
18	DR Hose Clip	0000000000	12	Hose clip	

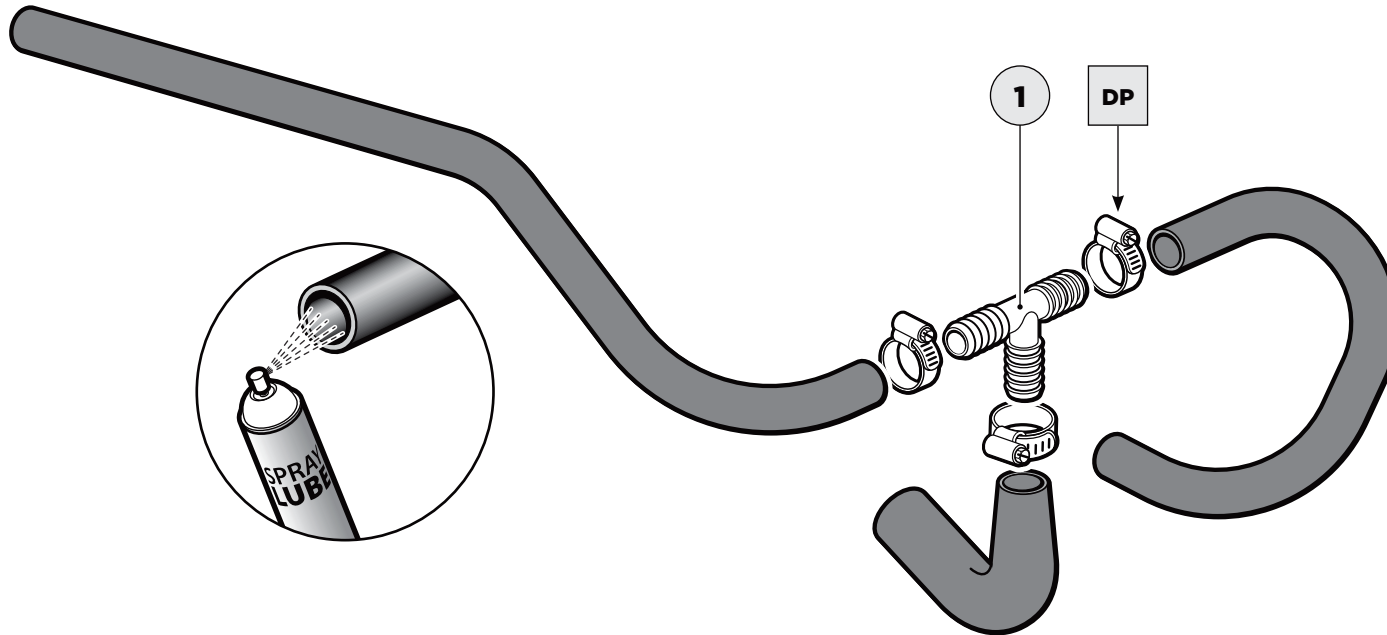
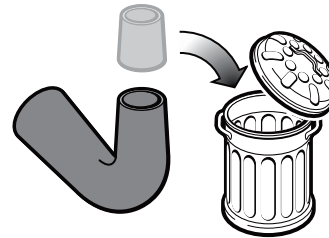
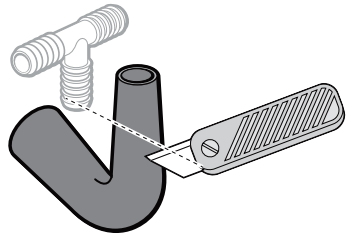
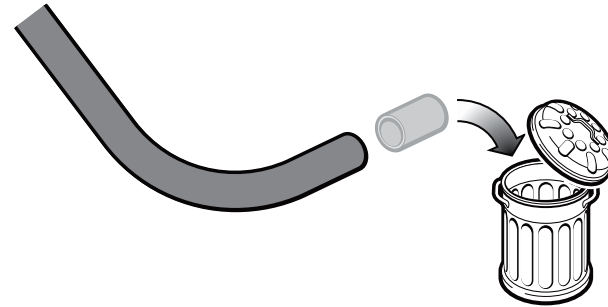
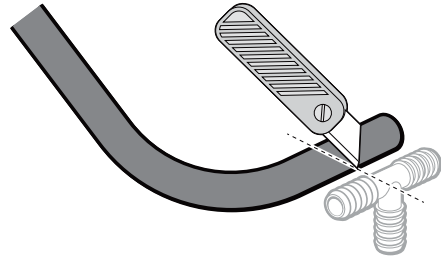
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x3

TIPS

The short 'L' shaped hose is pre-formed.
John S

SOME MORE HOSE MODIFICATION

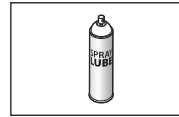


AND BACK TO PLUMBING

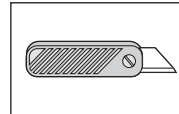
PARTS

1 T-Piece assembly

TOOLS



7mm



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SIGMA7B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Radiator fan 12V (12V)	1000000000	1	Expansion tank bracket	
2	DB Radiator fan 12V (12V)	1000000000	1	Expansion tank bracket	
3	DC Radiator fan 12V (12V)	1000000000	4	SM radiator bracket	
4	DD Radiator fan 12V (12V)	1000000000	4	Fan brackets to fan	
5	DE Radiator fan 12V (12V)	1000000000	4	Fan for radiator cooling - 12V only	
6	DF Radiator fan 12V (12V)	1000000000	3	12V Fan for radiator fan 12V radiator bracket	
7	DG Radiator fan 12V (12V)	1000000000	3	Radiator bobbin	
8	DH Radiator fan 12V (12V)	1000000000	1	Expansion tank bracket	
9	DI Radiator fan 12V (12V)	1000000000	13	12V 12V fan bracket 12V 12V fan bracket 12V 12V fan bracket	
10	DJ Radiator fan 12V (12V)	1000000000	4	Radiator bobbin tank	
11	DK Radiator fan 12V (12V)	1000000000	4	Radiator bobbin tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

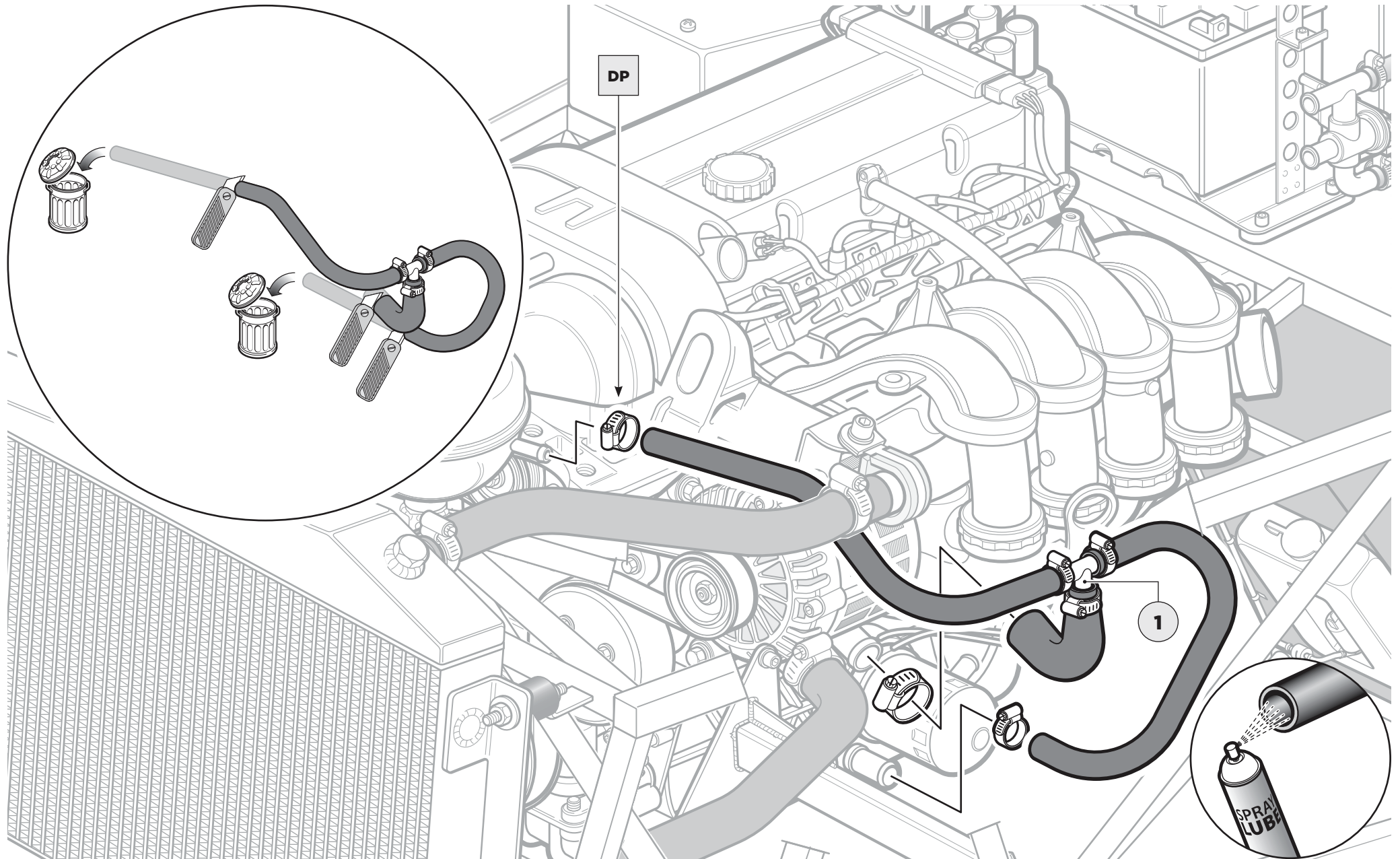
Pack D		CATERHAM		44	
		PACK NUMBER		SIGMA7B	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DL Radiator fan 12V (12V)	1000000000	1	Expansion tank bracket	
13	DM Radiator fan 12V (12V)	1000000000	3	12V Radiator bracket 12V Expansion tank	
14	DN Radiator fan 12V (12V)	1000000000	6	12V Radiator bracket 12V Expansion tank 12V Expansion tank	
15	DO Radiator fan 12V (12V)	1000000000	2	12V Radiator bracket 12V Expansion tank 12V Expansion tank	
16	DP Radiator fan 12V (12V)	1000000000	18	12V Radiator bracket 12V Expansion tank 12V Expansion tank 12V Expansion tank	
17	DD Radiator fan 12V (12V)	1000000000	6	Expansion tank small T-piece	
18	DR Radiator fan 12V (12V)	1000000000	12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

TIPS

AND BACK TO PLUMBING

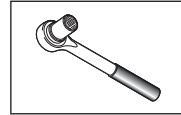
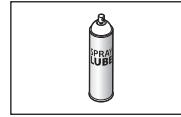


LAST BIT OF PLUMBING

PARTS

1 50' Hose

TOOLS



7mm

FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SIGCATE	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Radiator 3.0L (1000000000)			Expansion tank bracketed by chassis	
2	DD Radiator 3.0L (1000000000)		1	Expansion tank to bracket	
3	DD Radiator 3.0L (1000000000)		4	SW radiator bracket	
4	DD Radiator 3.0L (1000000000)		4	Pin brackets to fan	
5	DD Radiator 3.0L (1000000000)		4	Pin for radiator cooling - SW only	
6	DD Radiator 3.0L (1000000000)		3	Pin for radiator SW radiator bracket	
7	DD Radiator 3.0L (1000000000)		3	Radiator bobbin	
8	DD Radiator 3.0L (1000000000)		1	Expansion tank bracket	
9	DD Radiator 3.0L (1000000000)		13	8 x 30V nut bracket SW SW Radiator 3.0L Expansion tank bracket	
10	DD Radiator 3.0L (1000000000)		4	Radiator bobbin tank	
11	DD Radiator 3.0L (1000000000)		4	Radiator bobbin tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

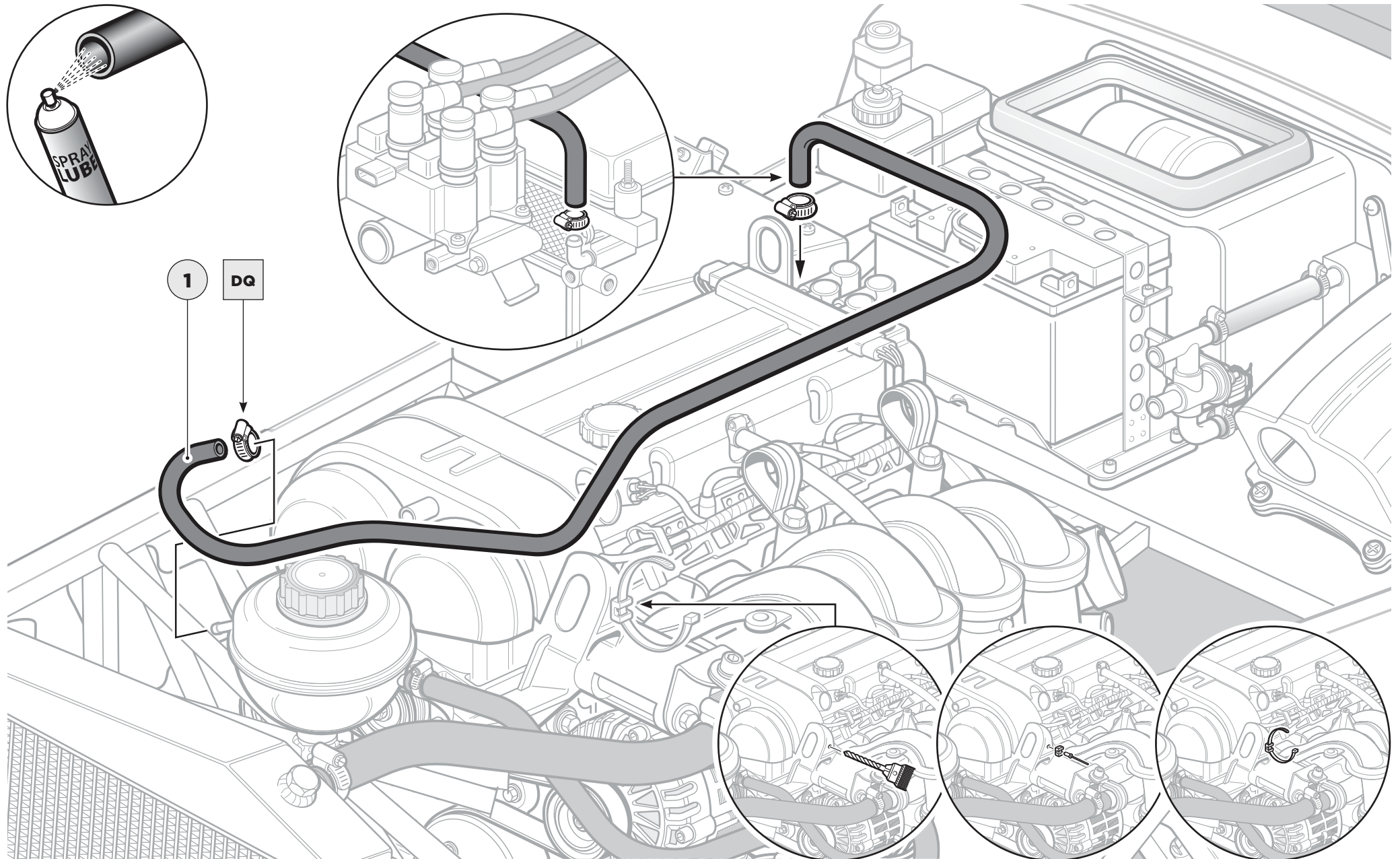
Pack D		CATERHAM		44	
		PACK NUMBER		SIGCATE	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DL Radiator 3.0L (1000000000)		1	Expansion tank bracket	
13	DM Radiator 3.0L (1000000000)		3	SW Radiator bobbin 1 x Expansion tank	
14	DN Radiator 3.0L (1000000000)		6	SW Radiator bobbin 2 x Expansion tank	
15	DD Radiator 3.0L (1000000000)		2	Pin for expansion tank SW Radiator 3.0L Expansion tank to bracket	
16	DD Radiator 3.0L (1000000000)		18	Expansion bobbin 1 x SW Radiator 3.0L Expansion tank SW Radiator 3.0L Expansion tank	
17	DD Radiator 3.0L (1000000000)		6	Expansion tank small T-piece	
18	DD Radiator 3.0L (1000000000)		12	Cooling fan	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

TIPS

LAST BIT OF PLUMBING



CONNECTING THE FUEL LINE

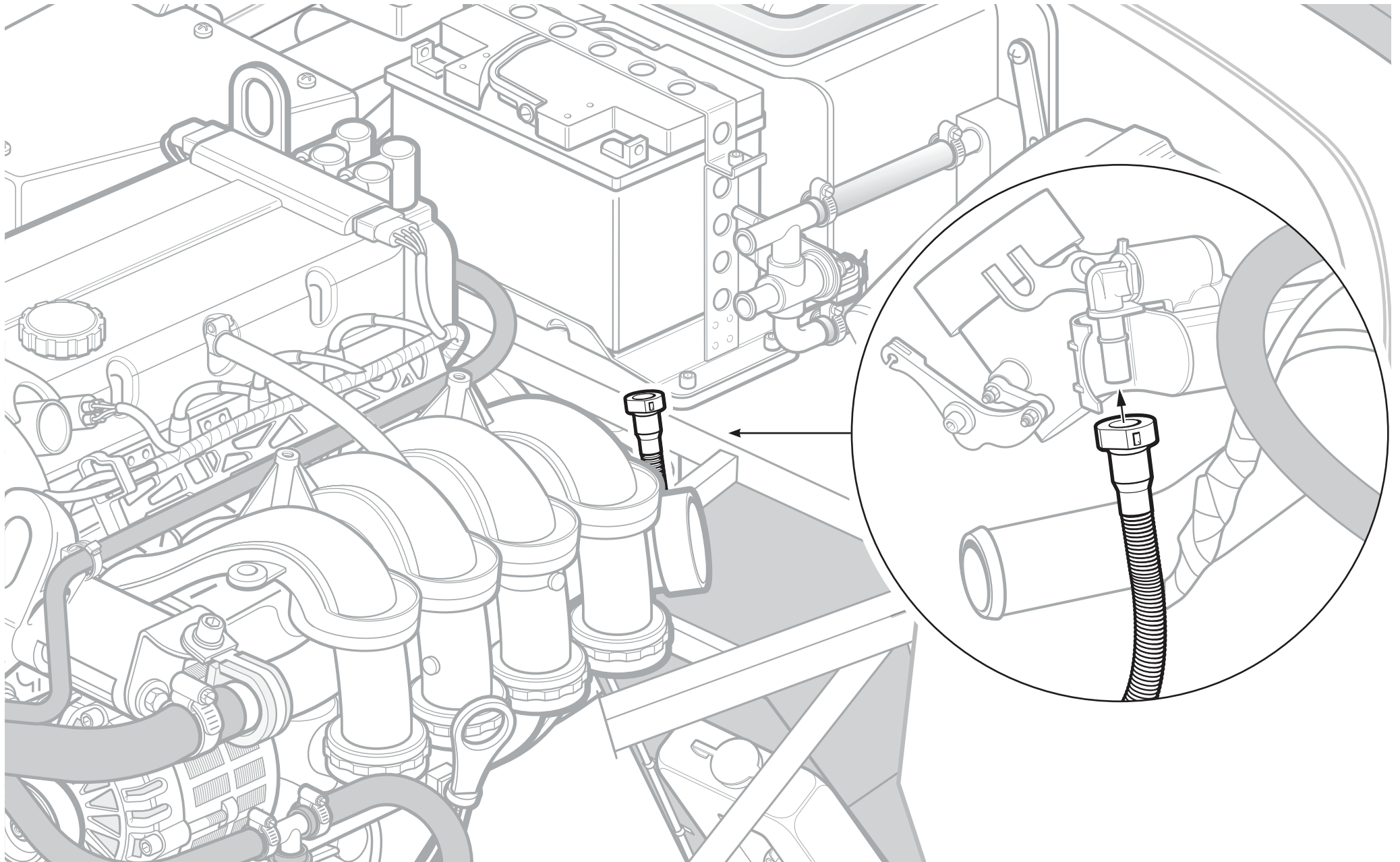
P A R T S

T O O L S

F I X I N G S

T I P S

CONNECTING THE FUEL LINE

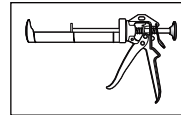
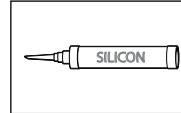
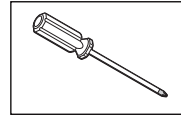


FIT THROTTLE CABLE

PARTS

- 1** Throttle cable

TOOLS



FIXINGS

Fixings are supplied loosely attached to the engine in place

TIPS

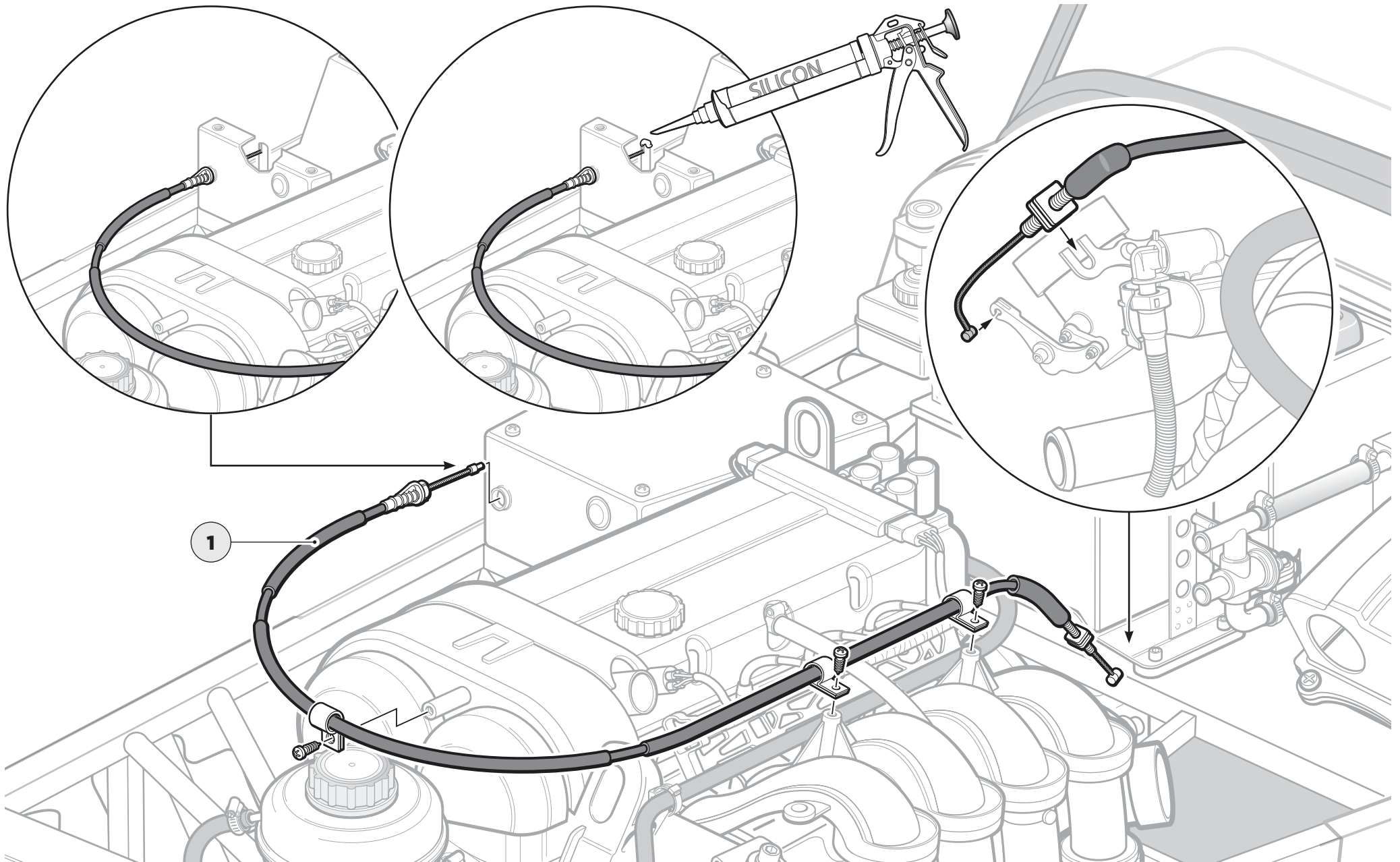
The silicone goes in the top of the pedal to prevent the cable coming out.

Rich T

Max throttle pedal travel may need adjusting in the pedalbox.

Jamie A

FIT THROTTLE CABLE

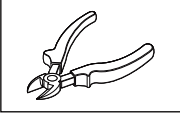
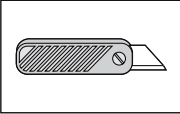
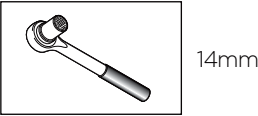


PROTECTING & ATTACHING THE CLUTCH HOSE

PARTS

1 8mm water hose

TOOLS



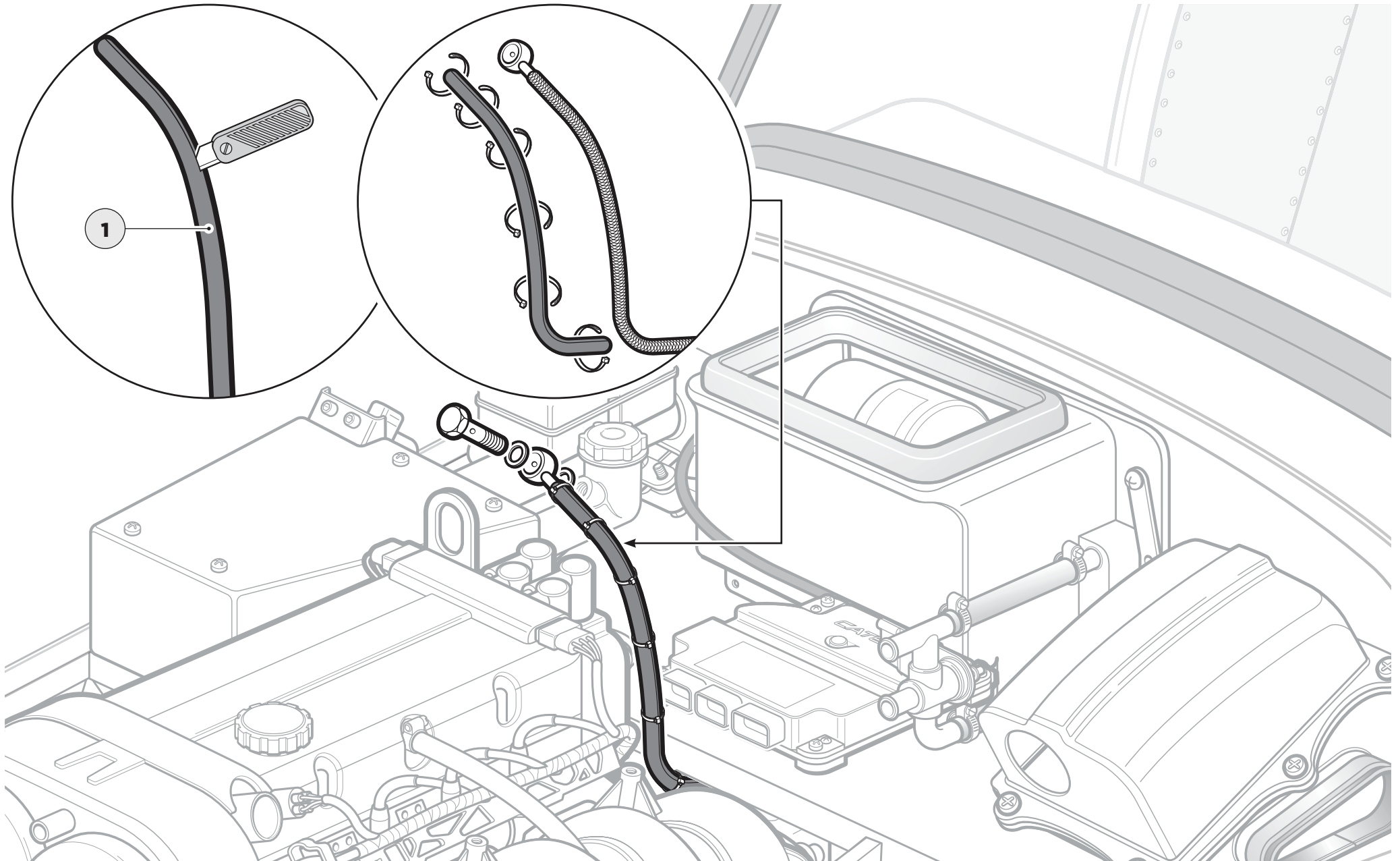
FIXINGS

TIPS

Nip up the banjo bolt.
John K

The hose is used to stop chaffing.
James A

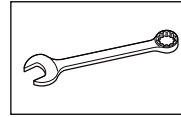
PROTECTING & ATTACHING THE CLUTCH HOSE



CONNECTING THE BATTERY (POSITIVE / RED FIRST)

PARTS

TOOLS



10mm (x2)

FIXINGS

TIPS

Always connect live side of battery first (red wire).

Chris B

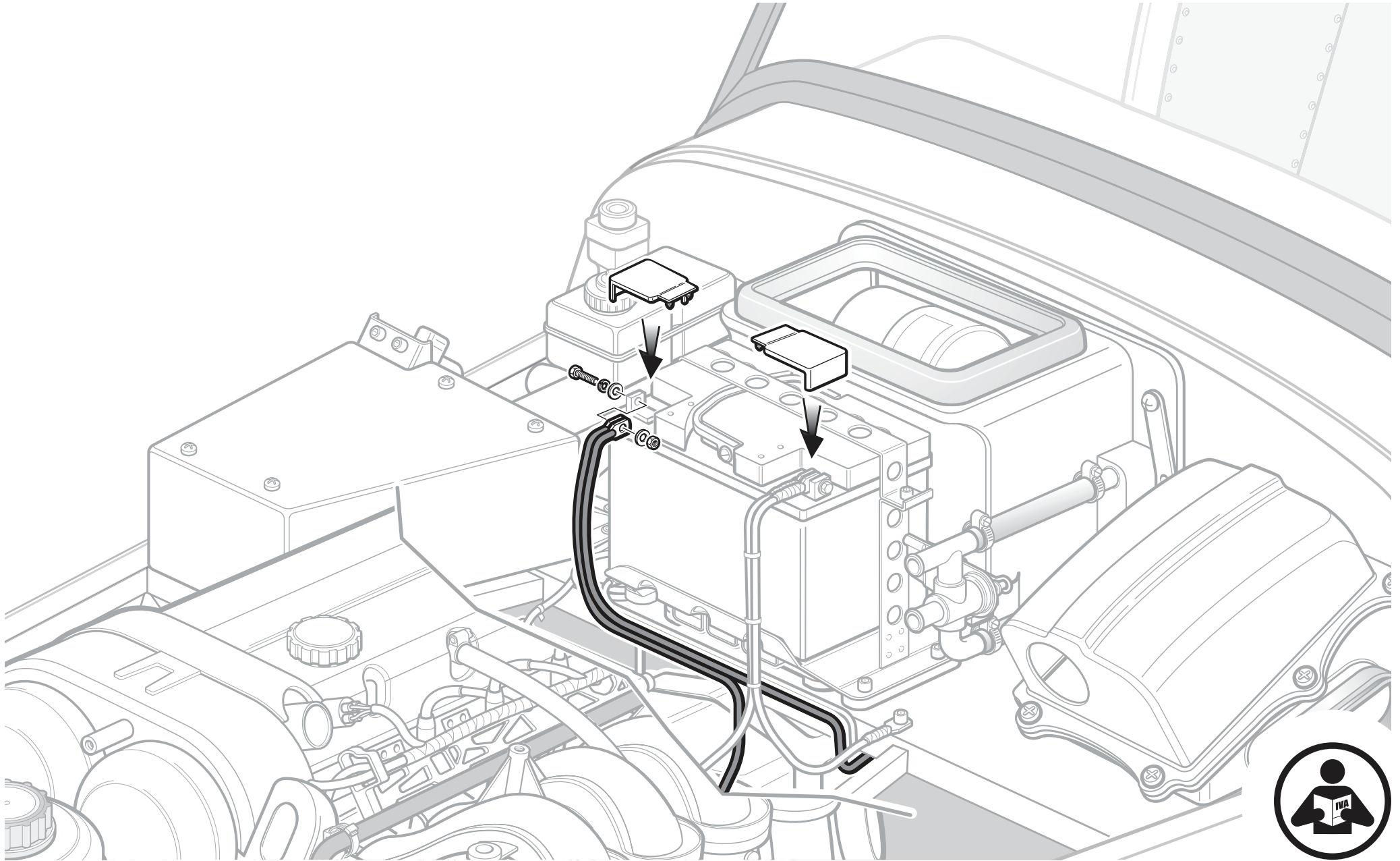
Make the battery the last thing you connect.

Jamie A

Be careful to ensure that the red leads go to the + side and the black wires to the - side.

Dan D

CONNECTING THE BATTERY (POSITIVE / RED FIRST)



PARTS

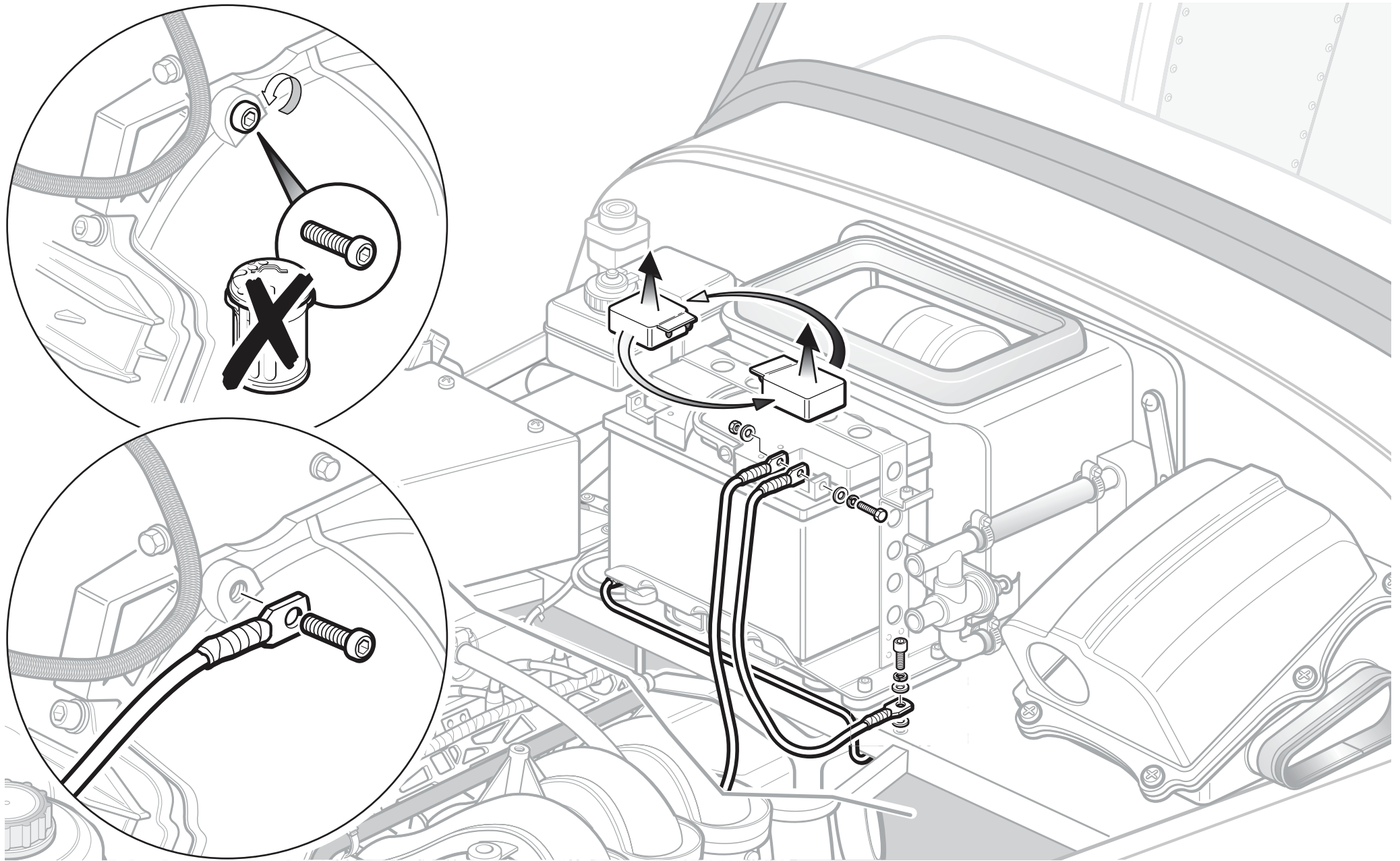
TOOLS

FIXINGS

TIPS

Add a plain M8 or $\frac{5}{16}$ washer underneath the earth lead to chassis.

Dan P

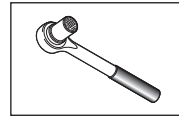


ONE LAST BIT OF PLUMBING...

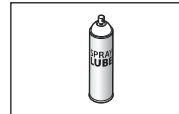
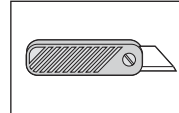
PARTS

1 Hose

TOOLS



7mm



FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SICCATS	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. tank	100720-01	1	Expansion tank	
2	Exp. tank bracket	100720-02	1	Expansion tank bracket	
3	Exp. tank bracket	100720-03	4	Exp. tank bracket	
4	Exp. tank bracket	100720-04	4	Exp. tank bracket	
5	Exp. tank bracket	100720-05	4	Exp. tank bracket	
6	Exp. tank bracket	100720-06	3	Exp. tank bracket	
7	Exp. tank bracket	100720-07	3	Exp. tank bracket	
8	Exp. tank bracket	100720-08	1	Expansion tank bracket	
9	Exp. tank bracket	100720-09	13	Exp. tank bracket	
10	Exp. tank bracket	100720-10	4	Exp. tank bracket	
11	Exp. tank bracket	100720-11	4	Exp. tank bracket	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		44	
		PACK NUMBER		SICCATS	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Exp. tank	100720-12	1	Expansion tank	
13	Exp. tank	100720-13	8	Expansion tank	
14	Exp. tank	100720-14	6	Expansion tank	
15	Exp. tank	100720-15	2	Expansion tank	
16	Exp. tank	100720-16	18	Expansion tank	
17	Exp. tank	100720-17	6	Expansion tank	
18	Exp. tank	100720-18	12	Expansion tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

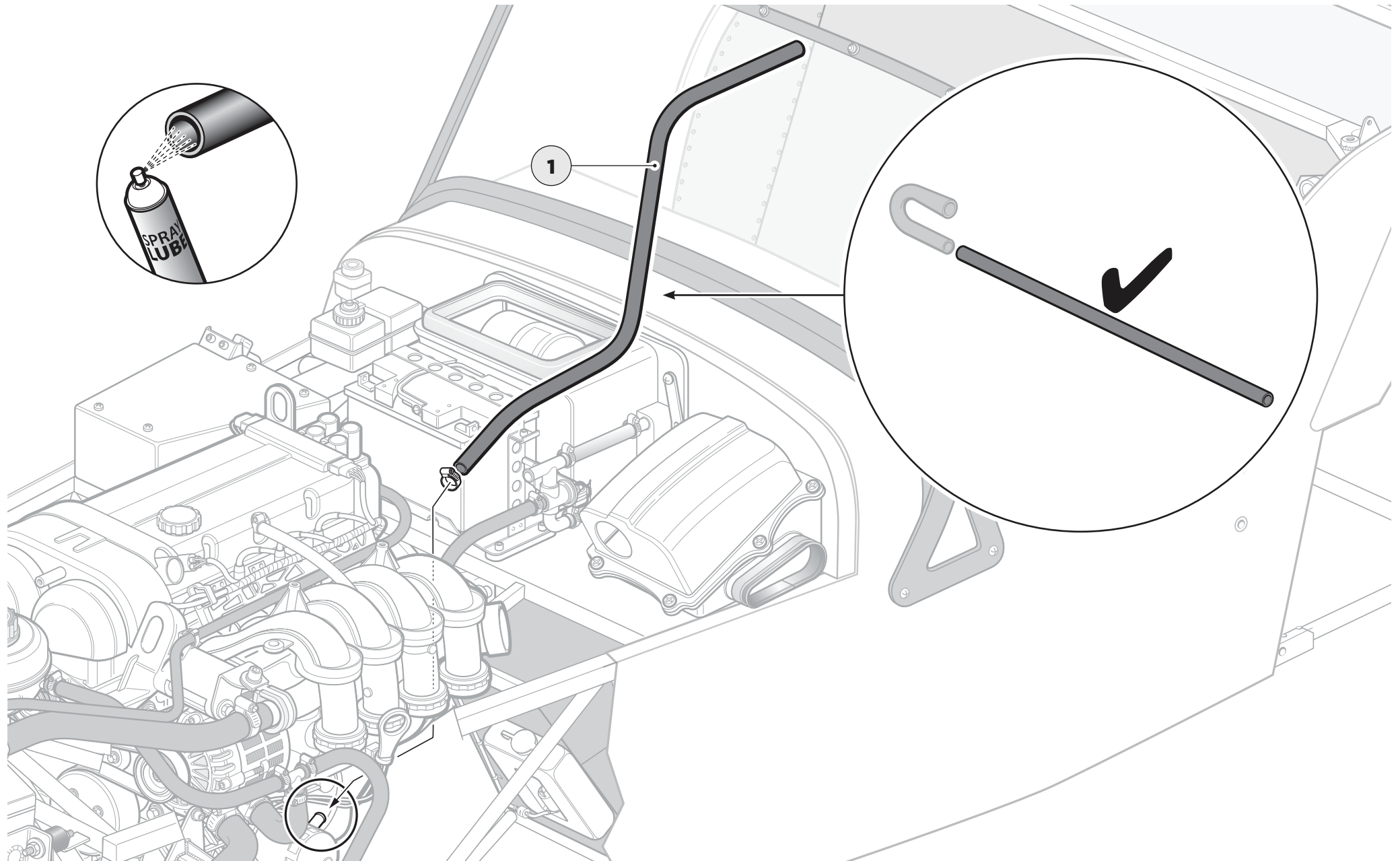
x1

TIPS

Cut off hook and trim if required.

Grant P

ONE LAST BIT OF PLUMBING...



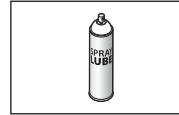
...TO CONNECT THE HEATER

PARTS

TOOLS



7mm



FIXINGS

TIPS

Pack D		CATERHAM		44	
		PACK NUMBER		SECURITE	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Exp. tank 1/2" (15.24mm)	1000000000	1	Expansion tank bracket	
2	Exp. tank 1/2" (15.24mm)	1000000000	1	Expansion tank bracket	
3	Exp. tank 1/2" (15.24mm)	1000000000	4	SM radiator bracket	
4	Exp. tank 1/2" (15.24mm)	1000000000	4	Fast brackets to fan	
5	Exp. tank 1/2" (15.24mm)	1000000000	4	Fan for radiator cooling - 50 (only)	
6	Exp. tank 1/2" (15.24mm)	1000000000	3	1/2" Fan for radiator	
7	Exp. tank 1/2" (15.24mm)	1000000000	3	Radiator bobbin	
8	Exp. tank 1/2" (15.24mm)	1000000000	1	Expansion tank bracket	
9	Exp. tank 1/2" (15.24mm)	1000000000	13	1/2" x 1/4" fast bracket	
10	Exp. tank 1/2" (15.24mm)	1000000000	4	Radiator bobbin tank	
11	Exp. tank 1/2" (15.24mm)	1000000000	4	Radiator bobbin tank	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack D		CATERHAM		44	
		PACK NUMBER		SECURITE	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Exp. tank 1/2" (15.24mm)	1000000000	1	Expansion tank bracket	
13	Exp. tank 1/2" (15.24mm)	1000000000	3	1/2" Radiator bobbin	
14	Exp. tank 1/2" (15.24mm)	1000000000	6	1/2" Radiator bobbin	
15	Exp. tank 1/2" (15.24mm)	1000000000	2	1/2" Radiator bobbin	
16	Exp. tank 1/2" (15.24mm)	1000000000	18	1/2" Radiator bobbin	
17	Exp. tank 1/2" (15.24mm)	1000000000	6	Expansion tank small 1/2 piece	
18	Exp. tank 1/2" (15.24mm)	1000000000	12	Cooling fan	

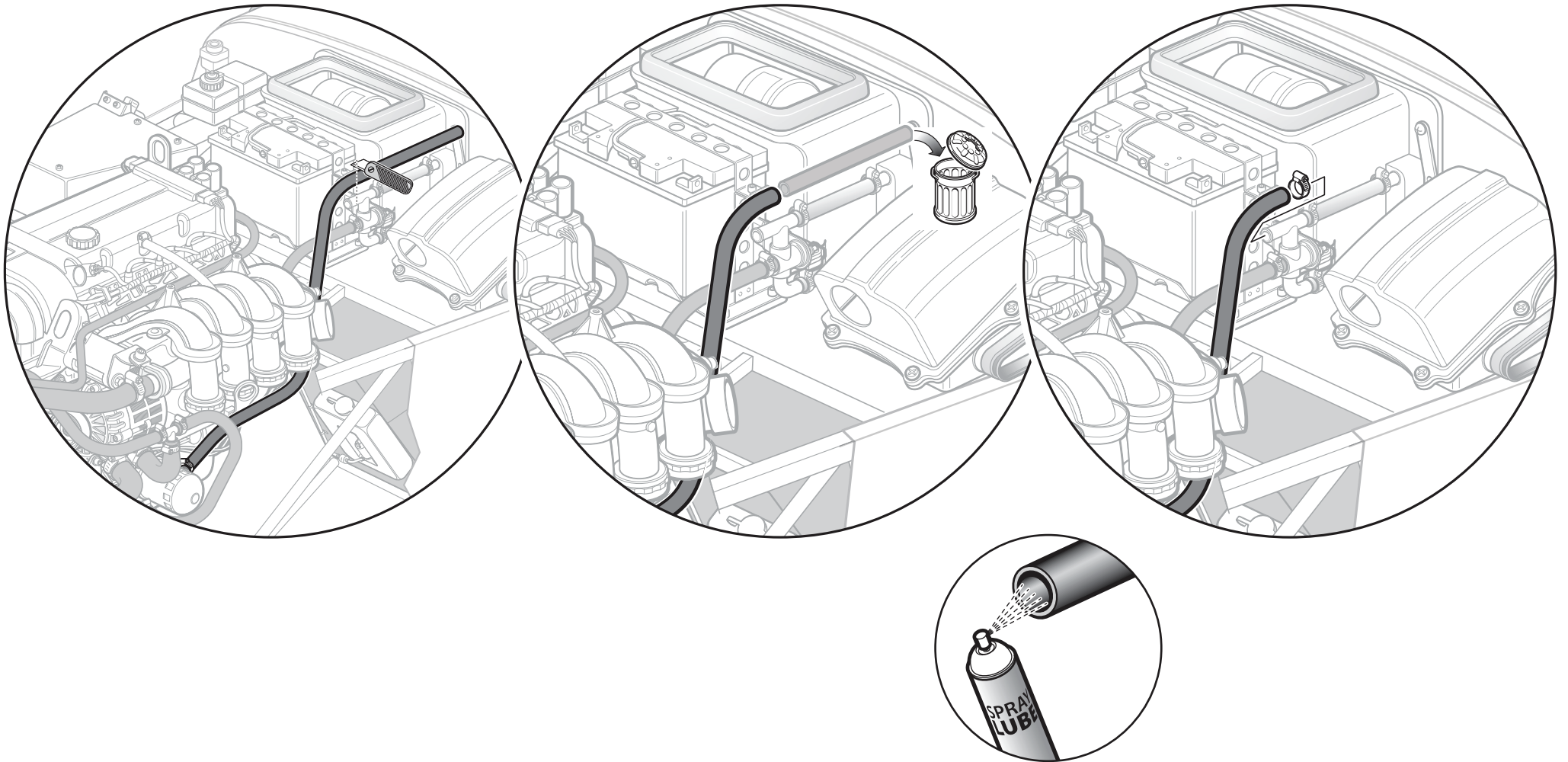
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

The coolant concentrate should be diluted 50/50 with water. It does not need to be exact!

Anthony L

...TO CONNECT THE HEATER



FILL WITH COOLANT

PARTS

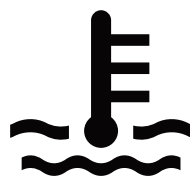
Coolant concentrate

TOOLS



FIXINGS

TIPS



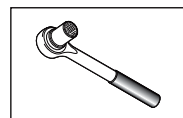
Fill expansion bottle to max mark

CONNECT THE AIRBOX TO THE ENGINE

PARTS

- 1 Airbox hose
- 2 Insert set
- 3 Hose clip

TOOLS



7mm

FIXINGS

All fixings for this step should be in the supplied airbox box

TIPS

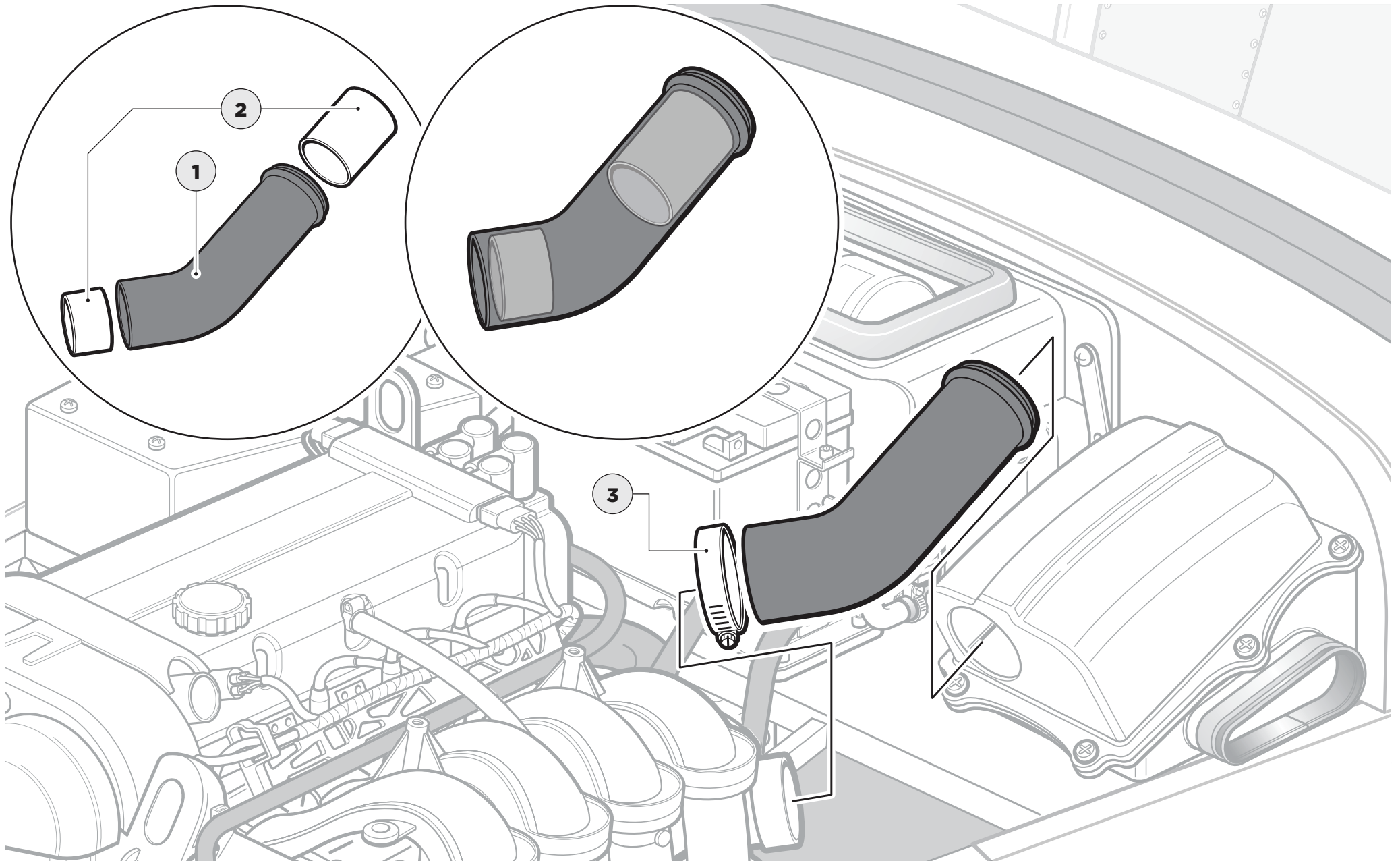
To help push insert in use the work bench.

Rich T

Spray brake cleaner in the hose and on the insert.

John K

CONNECT THE AIRBOX TO THE ENGINE

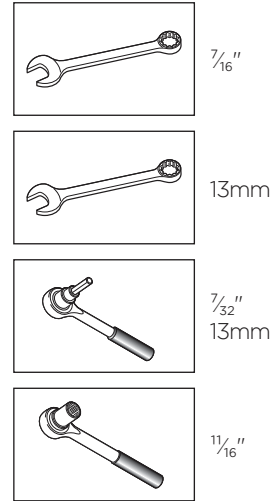


GIVING IT SOME DIRECTION

PARTS

- 1 Lower steering column
- 2 Upper steering column
- 3 Steering column clamp
- 4 Steering column clamp plate
- 5 Grub screw
- 6 Steering column bush

TOOLS



FIXINGS

Pack B		CATERHAM		55	
		PACK NUMBER		56C20021	
		RELEASED NOV-13			
STEERING DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	BA Locking Bolt 1/2" x 7/16"	BMX4070	4	Rack clamps	
2	BE Bolt 1/2" x 1 1/2"	BF1901-112	2	Column clamp	
3	BC Bolt 1/8" x 1/2" Grade 15.8	BMX40	2	Column to rack universal joint	
4	BD Nylon Nut 17" height	NF1112	1	Steering wheel boss	
5	BE Plain Nut 17"	NF1112	2	Track rod lock out	
6	BE Plain Nut 17" height	NF1112	1	Column clamp endarm bracket	
7	BG Nylon Nut M8	NF1118	2	Column to rack universal joint	
8	BA Nylon Nut M8	NF1118	4	Steering rack clamps	
9	BJ Plain Washer 3/4" x 1/4" O.D. 1/4"	WF1112	1	Steering wheel boss	
10	BA Plain Washer 1/2" x 1/4" x 1/4"	WF1114	6	Rack clamps and column clamp	
11	BE Grub Washer 1/2" x 1/4" x 1/4"	WF1114	2	Column clamp	

x2

x1

x2

x1

TIPS

Check clearance between steering column & Aux belt tensioner once engine is installed. If necessary, rotate steering rack.

Dan P

Put the clamp in the middle of column with the grooved face of the clamp plate ④ against the column.

Jamie A

Steering rack to be rotated to fit column – don't forget to tighten rack brackets!

Harrison P

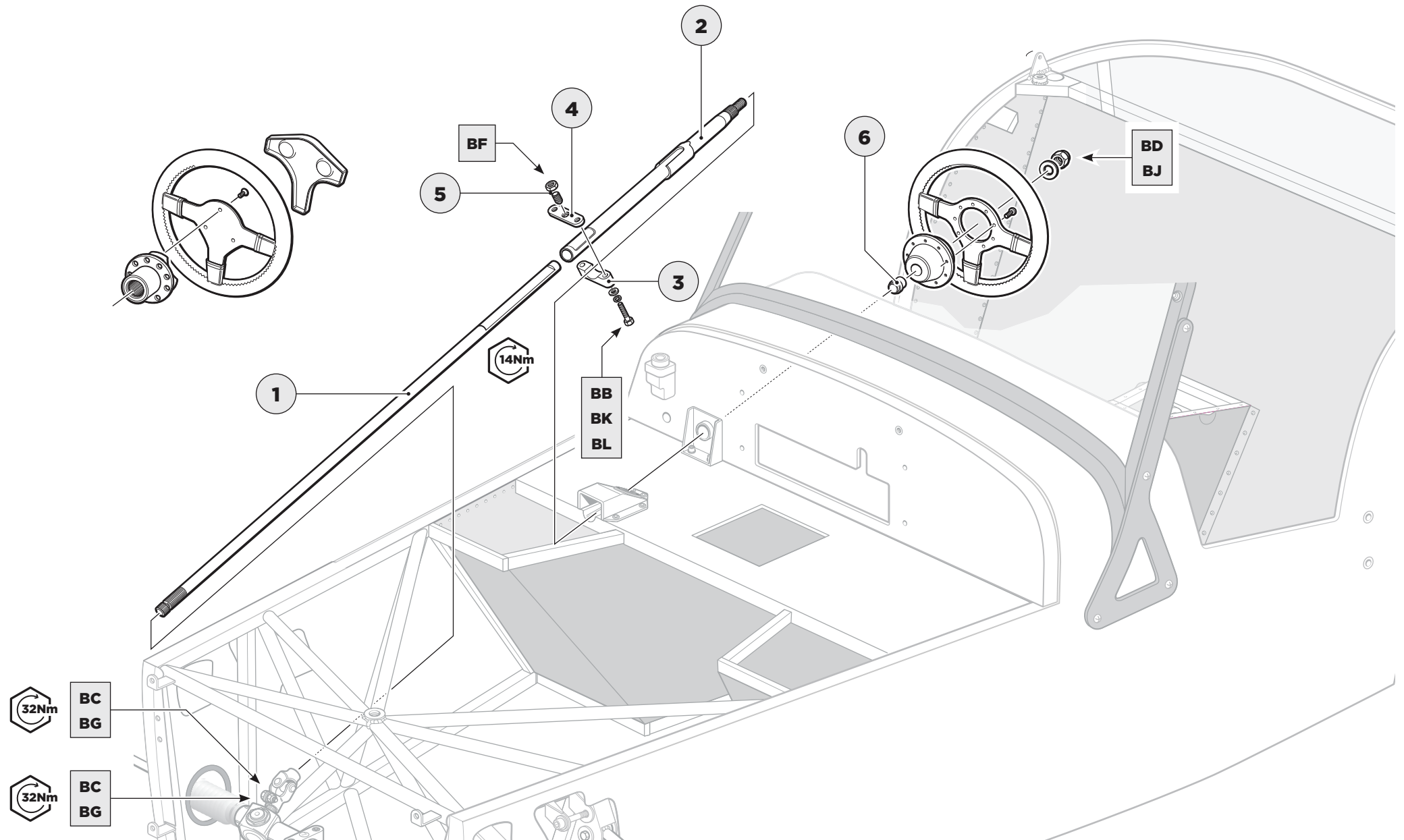
Grease the steering bushes.

Lee A

Fit the clamp bolts first, then grub screw & finish with the locking nut.

Tiago O

GIVING IT SOME DIRECTION

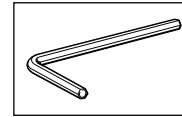


THIS IS EXHAUSTING

PARTS

- 1 Exhaust manifold gasket
- 2 Exhaust primary pipes
- 3 Cat / Collector
- 4 Exhaust collector springs

TOOLS

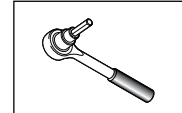


8mm

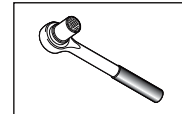


to follow

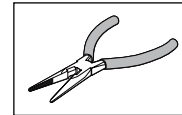
Extension



8mm



17mm
(270 & 310 only)



FIXINGS

Fixings are supplied loosely attached to the engine in place

TIPS

Use cable ties to compress exhaust spring.

Mick F

A pair of pliers are best to help hook over.

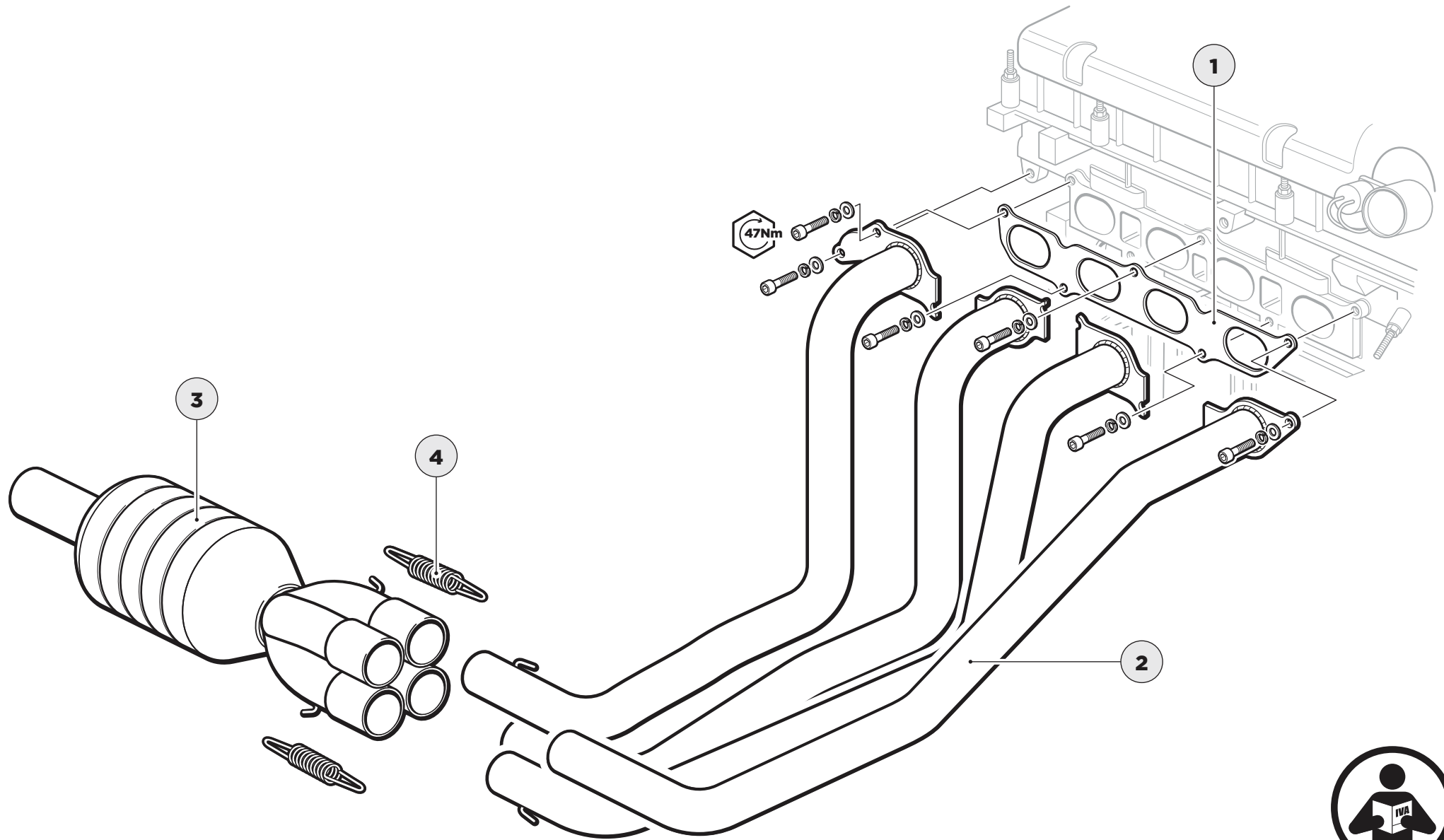
James A

Put masking tape round exhaust hole to prevent scratches.

Chris B

Work out which primary pipe goes where, individually then put all four in plane, starting with the front one & working back. Take care with the hooks on your paintwork.

Chris N

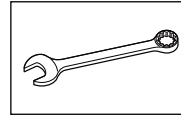


FITTING THE HANDBRAKE

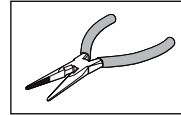
PARTS

- 1 Handbrake assembly
- 2 Handbrake pulley
- 3 Handbrake clevis
- 4 Pulley clevis pin
- 5 Handbrake clevis pin
- 6 Handbrake cable

TOOLS



13mm (x2)



FIXINGS

Miscellaneous pack

- Setscrew 8 (x25)
- Washer M8
- Washer M6

TIPS

Remember to put a loop in inner cable around pulley.

Grant P

Cable tie adjuster end of cable to diff.

Dan D

Use pliers to bend the legs of the split-pins once in place, which then holds them loosely in the clevis pins.

Chris B

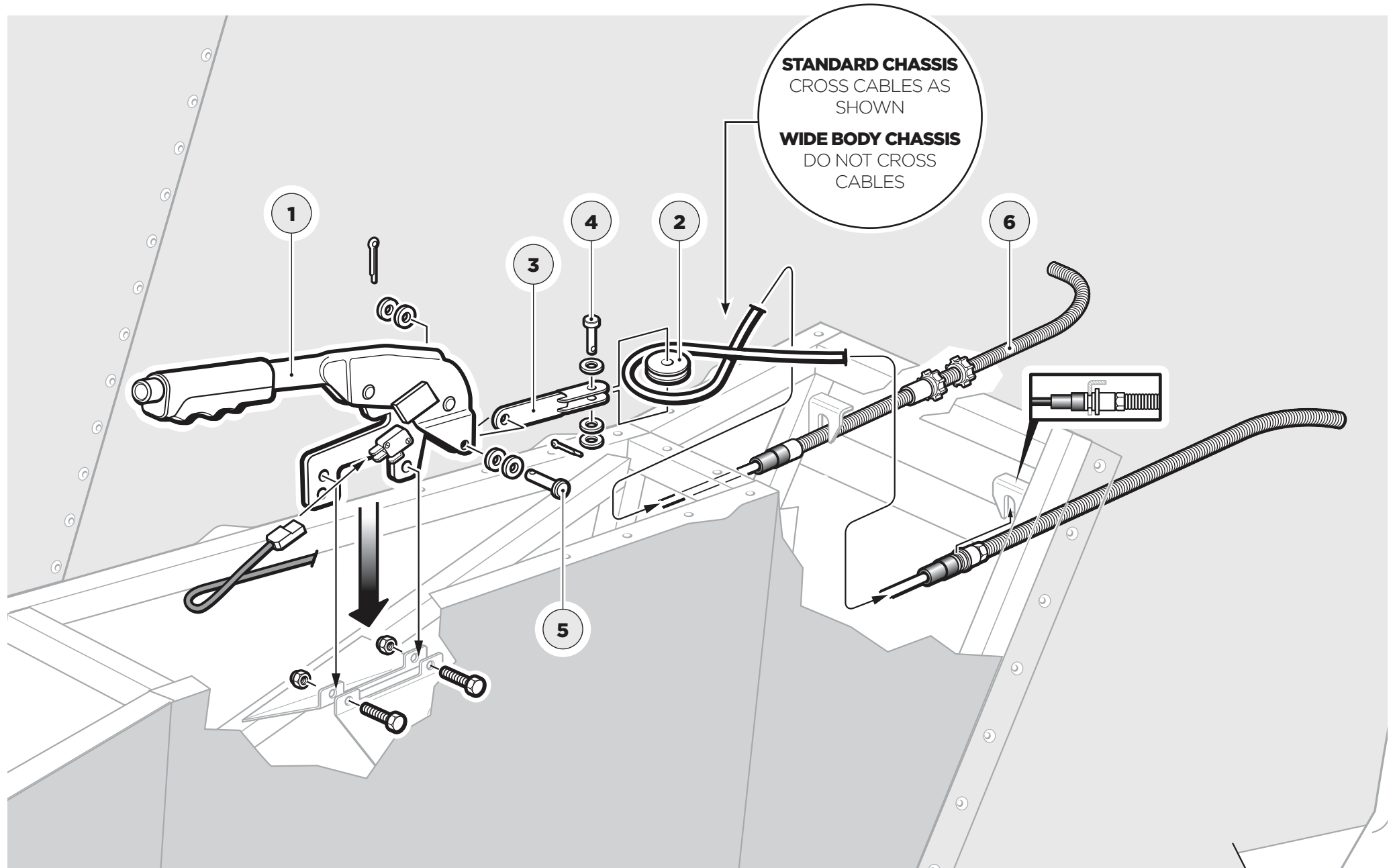
Handbrake wire connector goes to top of terminal & ties up.

Jamie A

After plugging in connector, cable tie and secure any excess wiring.

Dan P

FITTING THE HANDBRAKE



SLIDE IN THE PROPSHAFT

PARTS

- 1 Propshaft

TOOLS



FIXINGS

TIPS

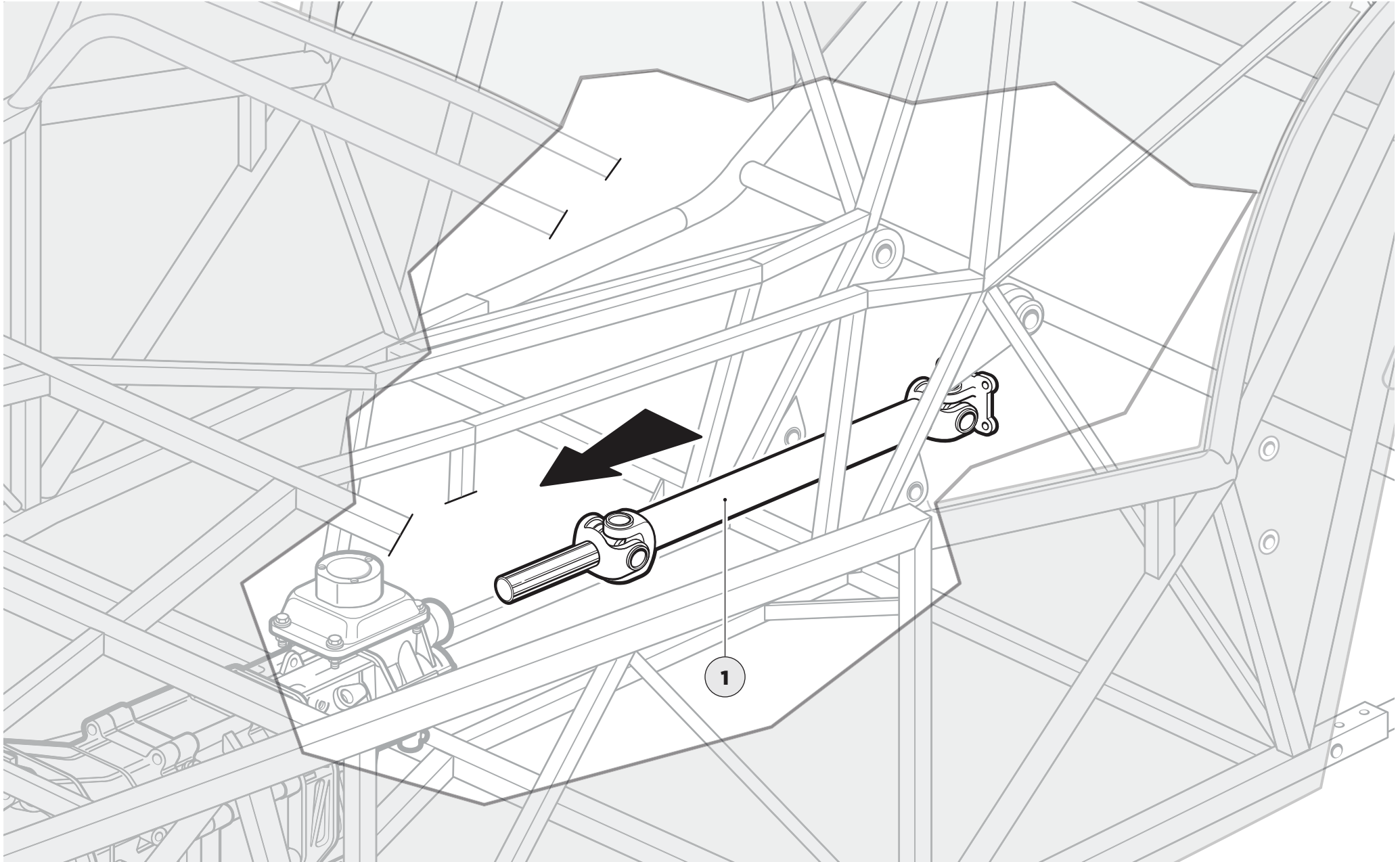
Line the splines in the propshaft to the gearbox.

Anthony L

Grease prop if necessary, it will have a grease nipple.

John S

SLIDE IN THE PROPSHAFT

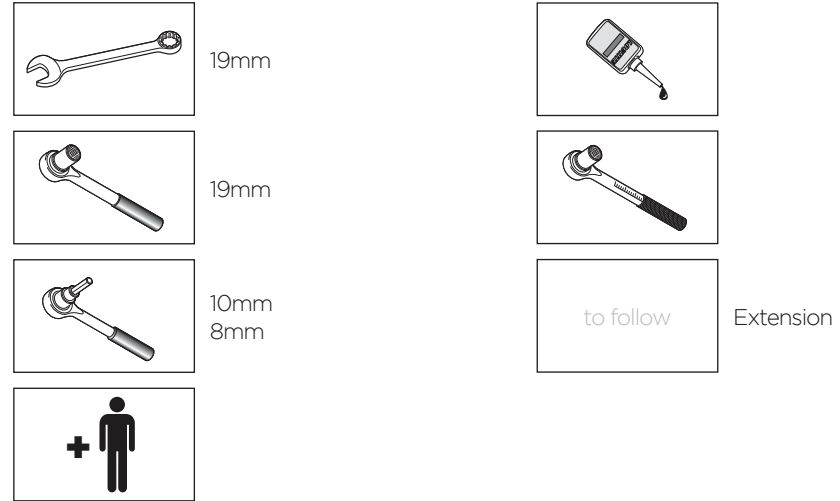


HEAVY STUFF: FITTING THE DIFF

PARTS

1 Differential

TOOLS



FIXINGS

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	1/4" 12" x 11" LNF	BP12X11	1	Upper diff mounting bolt	
2	Caphead Bolt M12 x 65 Grade 10.9	BMCH2X65	2	Lower diff mounting bolt	
3	Self-Locking Nut M12 x 65 Grade 10.9	BNM12x65	4	Lower diff through axle for front axle	
4	Self-Locking Nut M12 x 65 Grade 10.9	BNM12x65	4	2 x Front hub through axle & Capgear carrier bolts	
5	Self-Locking Nut M12 x 65 Grade 10.9	BNM12x65	4	Through axle of axle and rearward DeDion tubes	
6	Caphead Bolt M12 x 20 Grade 12.9	BMCH10X20	4	Propshaft bolts	
7	Caphead Bolt M12 x 20 Grade 12.9	BMCH10X20	2	Diff spacers	
8	Half Nuts 1/2" 11" Type	NH11x12	1	Upper diff bolt	
9	Steel Bolt M12	NBM12x10	3	Hub through axle to dustboot	
10	Locking Washers M12	NLM12x10	4	Hub axle nut bar stopper	
11	Plain washer 1/2" x 3/4" Thick	NW12x10	2	Brake pipe	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1
x2
x4
x1

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain washer 1/2" x 3/4" Thick	NW12x10	10	Diff mounting diff springs	
13	Plain washer 1/2" x 3/4" Thick	NW12x10	8	Free play on diff	
14	Plain washer 1/2" x 3/4" x 1/16" Thick	NW12x10	14	Diff stem washers	
15	Washer M12	NW12x10	10	Rear DeDion / Capgear Carrier Hub	
16	Spring Washers M12	NW12x10	10	Rear DeDion / Hub Capgear Carrier	
17	Sloped washer M12	NW12x10	4	Behind bolt heads on diff	
18	Ball Joint Washer M12	NW12x10	1	Ball joint brake hose	
19	Rivet 1/8" x 3/16"	1861-0414	5	P-clips on DeDion for brake pipe	
20	P-clip	NK1	5	Brake pipe on DeDion	

Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

*
*
x4

* Use as required for spacing

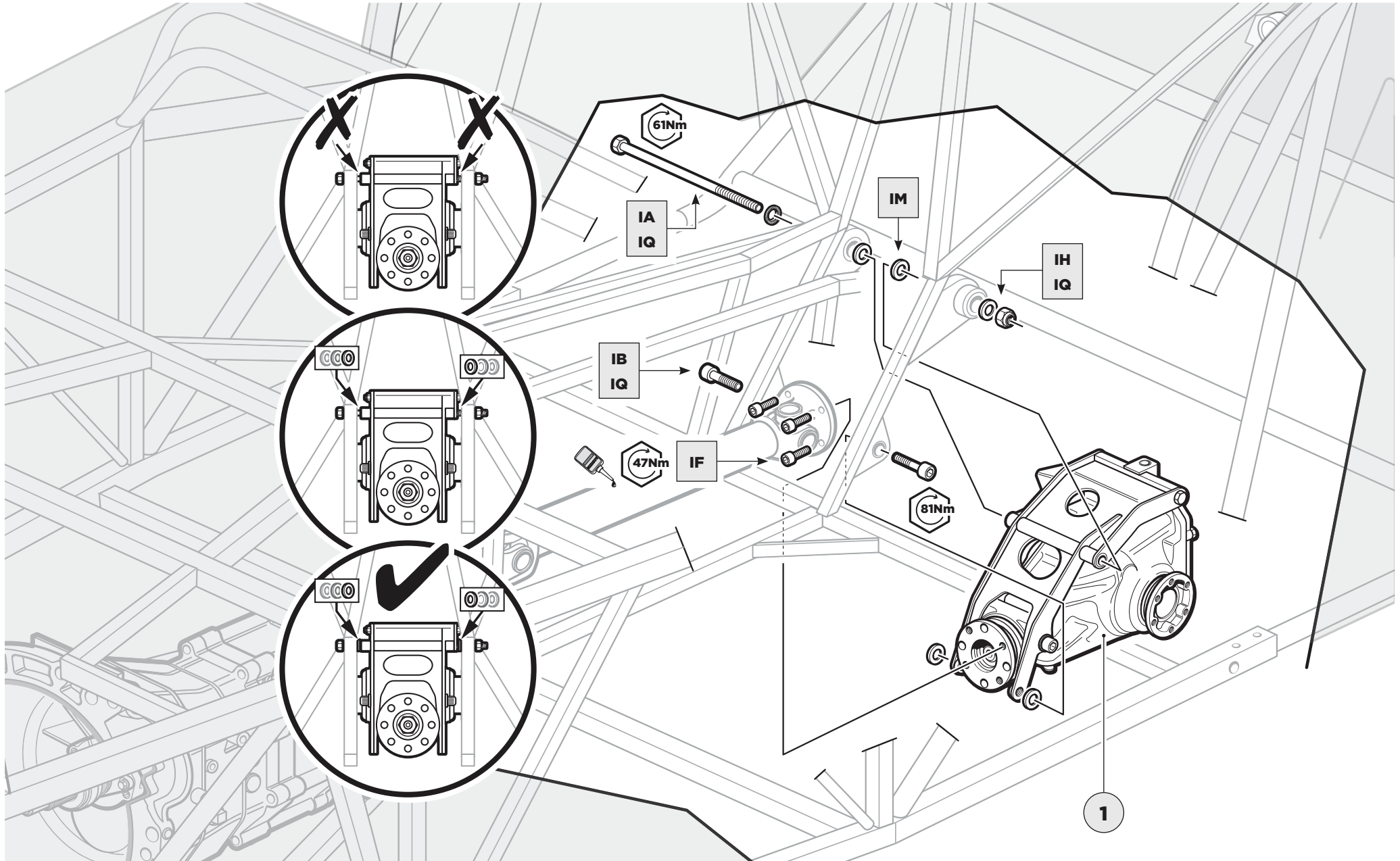
TIPS

Start at bottom right with spanner & work your way around.
Chris B

Make sure propshaft is in first!
Harry P

Lower diff bolts may require more than one washer – try to keep them even.
Tiago O

HEAVY STUFF: FITTING THE DIFF



FILL THE DIFFERENTIAL WITH OIL

PARTS

Differential oil

TOOLS

FIXINGS

TIPS



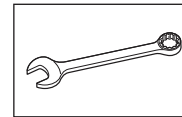
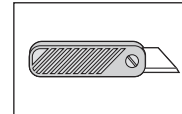
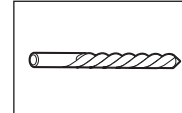
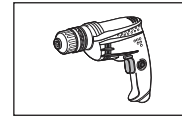
Differential = 0.8L

PREPARING THE DEDION TUBE

PARTS

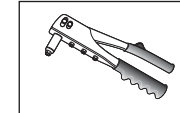
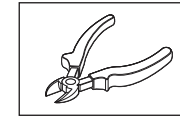
- 1 DeDion tube
- 2 LHS brake pipe
- 3 RHS brake pipe
- 4 3 way union
- 5 Brake hose

TOOLS



1/8"

11mm
13mm
14mm



FIXINGS

Pack H		CATERHAM		ITEM NUMBER	53
				PACK NUMBER	30R11D
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	SAE BRG 1.38 (Grade 5)	SAE12120	2	A-frame front mounting	
2	Conical Bolt M12 x 30 (Grade 5.8)	SAE12120	2	Front radius arm through axle tube	
3	Pin 1/2" x 3.125 (Grade 5)	SAE12120	4	X-2 Lower Rear Damper 2-Rear Dedion Arm	
4	Ball Mt. X-20 (Grade 5.8)	SAE12120	4	Rear Axle Rod Mt. Mounting Block	
5	Ball Mt. X-20 (Grade 5.8)	SAE12120	1	A-frame to DeDion	
6	Ball Mt. X-20 (Grade 5.8)	SAE12120	3	X-2 Rear Radius Arm 1-A-frame to DeDion	
7	Ball Mt. X-20 (Grade 5.8)	SAE12120	2	A-frame front mounts	
8	Ball Mt. X-20 (Grade 5.8)	SAE12120	1	Front radius arm through axle tube	
9	Ball Mt. X-20 (Grade 5.8)	SAE12120	2	Rear Axle Rod Mt. Drop Link	
10	Ball Mt. X-20 (Grade 5.8)	SAE12120	4	Rear Axle Rod Mt. Mounting Blocks	
11	Ball Mt. X-20 (Grade 5.8)	SAE12120	1	3-way union on DeDion tube	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

Pack I		CATERHAM		ITEM NUMBER	44
				PACK NUMBER	30Z1067B
AXLE DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	SAE BRG 1.38 (Grade 5)	SAE12120	1	Lower off mounting tool	
2	Conical Bolt M12 x 30 (Grade 5.8)	SAE12120	2	Lower off mounting tool	
3	Ball Mt. X-20 (Grade 5.8)	SAE12120	4	Front ball through axle tube to DeDion	
4	Ball Mt. X-20 (Grade 5.8)	SAE12120	8	X-2 Front Mt. through axle & 4-Caster center - SCS	
5	Ball Mt. X-20 (Grade 5.8)	SAE12120	4	Through rear of rear axle bracket DeDion tubes	
6	Conical Bolt M12 x 30 (Grade 5.8)	SAE12120	4	Propshaft bolts	
7	Conical Bolt M12 x 30 (Grade 5.8)	SAE12120	2	Washers	
8	Ball Mt. X-20 (Grade 5.8)	SAE12120	1	Upper off tool	
9	Ball Mt. X-20 (Grade 5.8)	SAE12120	8	Rear through rear DeDion	
10	Ball Mt. X-20 (Grade 5.8)	SAE12120	4	Rear axle rod Mt. drop link	
11	Ball Mt. X-20 (Grade 5.8)	SAE12120	2	Brake pipe	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

Pack I		CATERHAM		ITEM NUMBER	44
				PACK NUMBER	30Z1067B
AXLE DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	SAE BRG 1.38 (Grade 5)	SAE12120	16	Through rear axle	
13	Ball Mt. X-20 (Grade 5.8)	SAE12120	8	Front thru axle	
14	Ball Mt. X-20 (Grade 5.8)	SAE12120	14	Diff thru axle	
15	Ball Mt. X-20 (Grade 5.8)	SAE12120	16	Rear Dedion Lower Center	
16	Ball Mt. X-20 (Grade 5.8)	SAE12120	16	Rear Dedion Upper Center	
17	Ball Mt. X-20 (Grade 5.8)	SAE12120	2	Behind ball mount on diff	
18	Shanknut washer 3/8"	W3238	1	Braked brake hose	
19	Pin 1/2" x 3.125"	1661-0414	3	P-clips on DeDion for brake pipe	
20	P-clip	NO1	5	Brake pipe on DeDion	

Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

x1
x5
x5

Brake pipe washers and nuts are included with the hose

TIPS

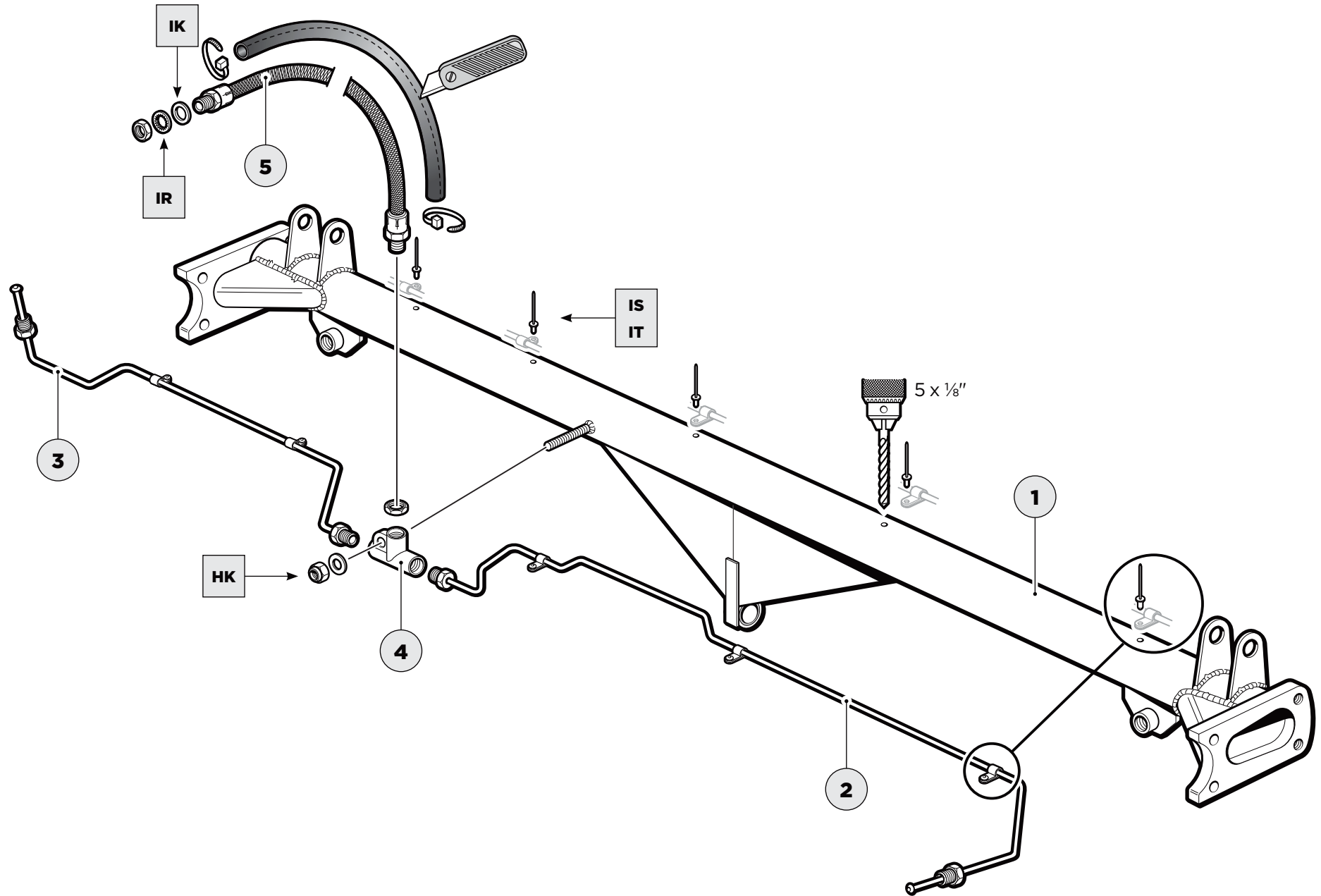
The upper brake hose fittings will become self explanatory on the rear damper installation page.

John K

Tighten the braided pipe 5 into the union before nipping up the locknut.

Chris N

PREPARING THE DEDION TUBE



AND FITTING IT IN PLACE

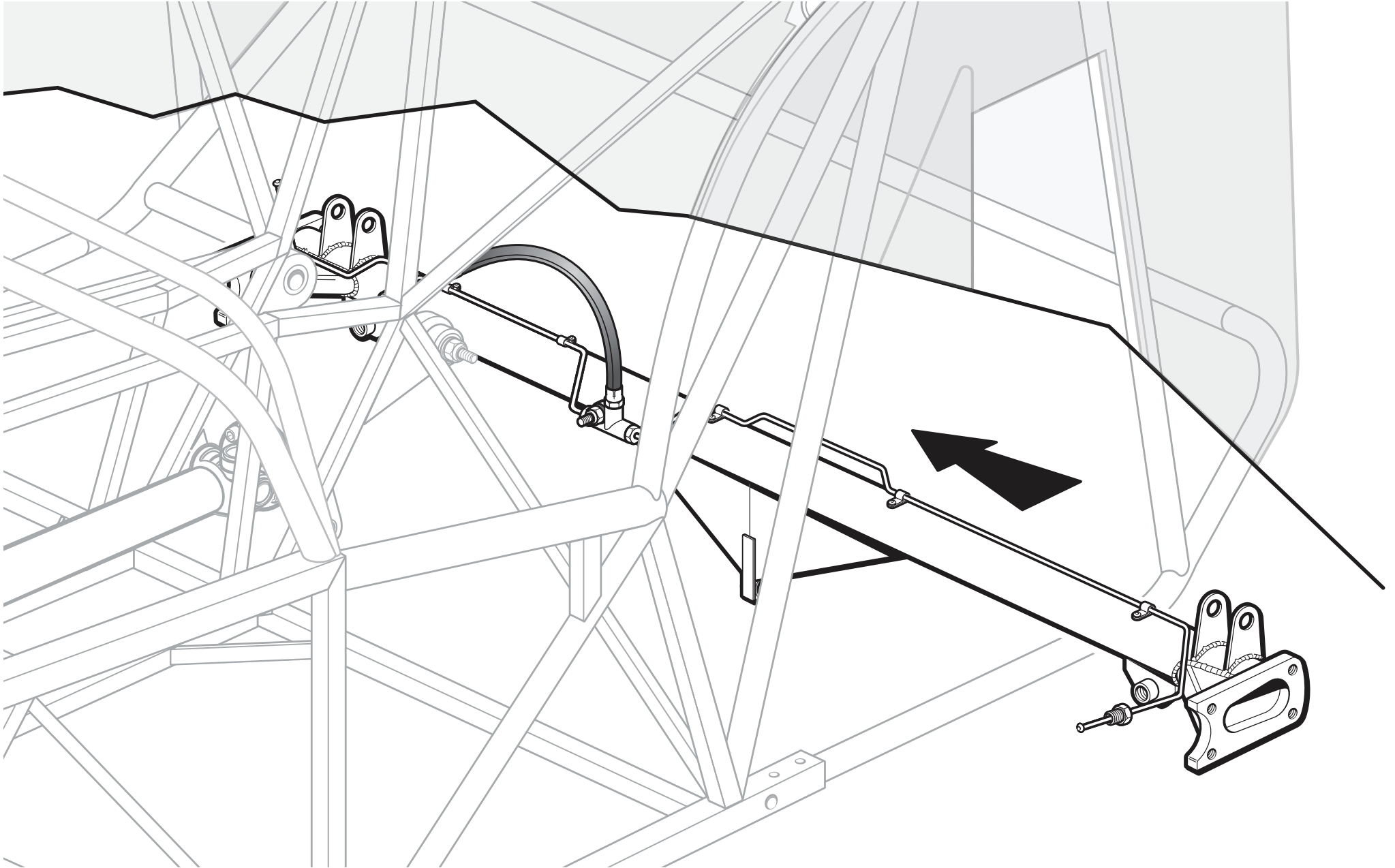
P A R T S

T O O L S

F I X I N G S

T I P S

AND FITTING IT IN PLACE

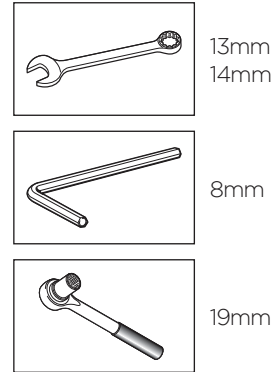


ATTACHING THE REAR DAMPERS

PARTS

- 1 Rear damper assembly
- 2 Rear damper sleeve

TOOLS



FIXINGS

Pack H		CATERHAM		53	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Roll Over Bar (Dedion)	SR12100	2	A-frame front mounting	
2	Conner Bar (Dedion)	SR12100	2	Front radius arm through conner	
3	Bolt 1/2" x 2 1/2" Grade 8.8	SF1202 1/2	4	x 2 Lower Rear Damper x 2 Rear Radius Arm	
4	Bolt M8 x 40 Grade 8.8	SR1204	4	Rear Arm Roll Bar Mounting Block	
5	Bolt 1/2" x 2 1/4" Grade 8.8	SF1202 1/4	1	A-frame to Dedion	
6	Roll Over Bar (Dedion)	SR12100	3	x 2 Rear Radius Arm x 1 A-frame to Dedion	
7	Rear Roll Bar (Dedion)	SR12100	2	A-frame front mounts	
8	Roll Over Bar (Dedion)	SR12100	2	Front radius arm through conner	
9	Rear Arm Roll Bar Drop Link	SR12100	2	Rear Arm Roll Bar Drop Link	
10	Rear Arm Roll Bar Mounting Block	SR12100	4	Rear Arm Roll Bar Mounting Block	
11	Rear Roll Bar (Dedion)	SR12100	1	Roll over bar on Dedion Sub	

x2

Pack H		CATERHAM		53	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Washer	7020	10	Differential Inboard	
13	Plain Washer 1/2" Chamfered	WP102	20	x 2 Lower Damper x 10 A-frame x 4 Radius Arm	
14	Roll Over Bar (Dedion)	SR12100	2	Front Radius Arm	
15	Plain Roll Bar (Dedion)	SR12100	4	Rear Arm Roll Bar Mounting Block	
16	Sleeve Washer M12	SR1206A	2	Lower Damper	

x4

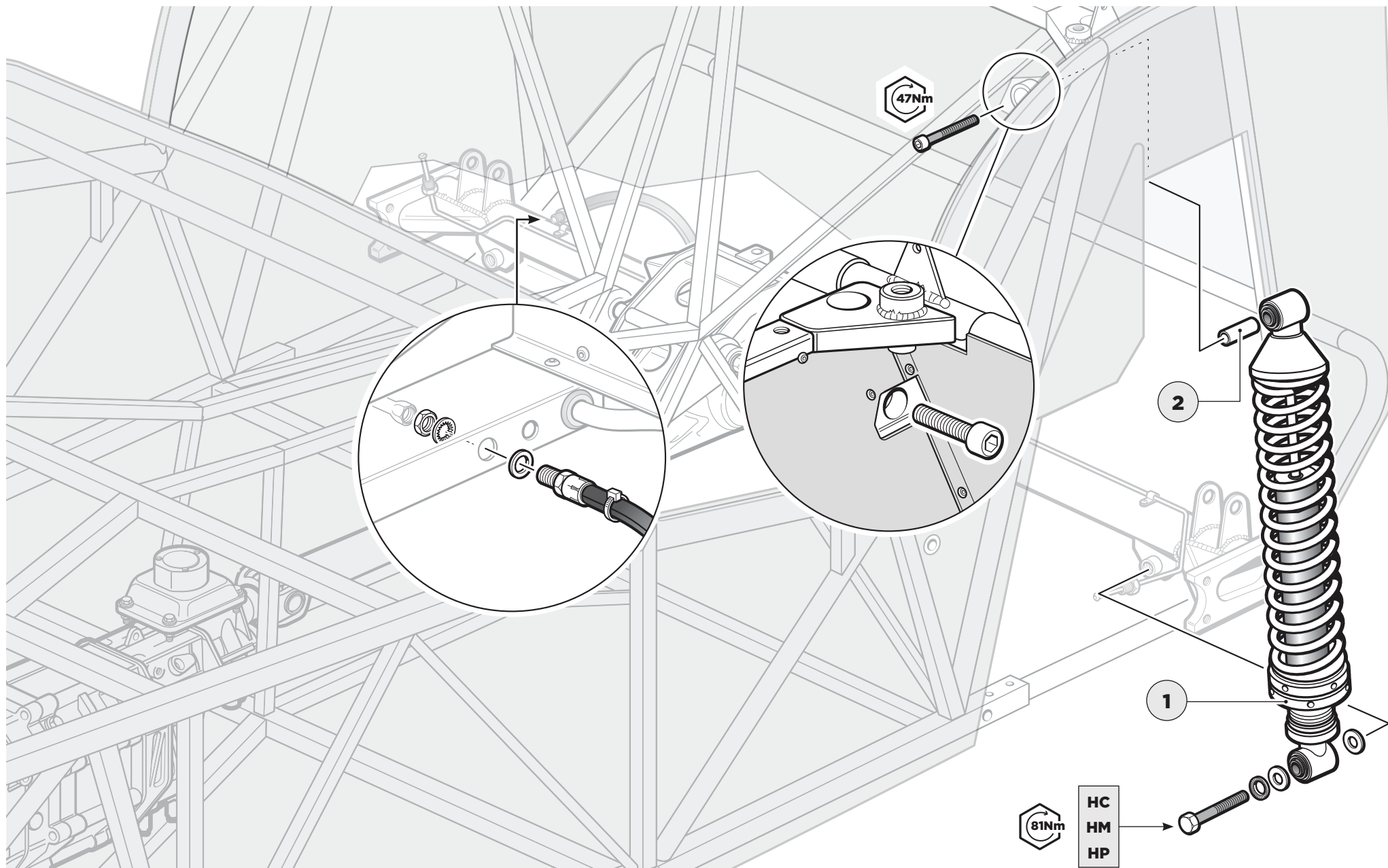
x2

TIPS

Although we show the fitting of the dampers here as part of the rear suspension, it is better to leave this step until you've fitted the roll over bar much later in the process.

Jamie A

ATTACHING THE REAR DAMPERS

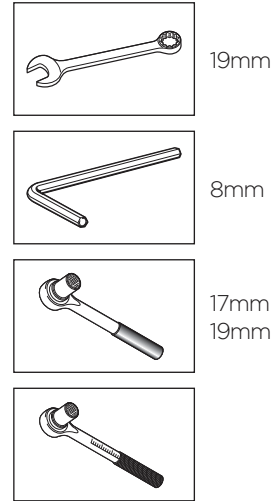


THEN THE RADIUS ARM

PARTS

1 Radius arm

TOOLS



FIXINGS

Pack H		CATERHAM		53	
		PACK NUMBER		39R11D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Ball Joint 1.5" (38mm) x 1.5"	BM121201	2	A-frame front mounting	
2	Coilover Bolt M10 x 65	BMCH1065	2	Front radius arm (through cockpit)	
3	Bolt 1/2" x 2.1/2" Grade 10.9	SF15202.1/2	4	x 2 Lower Rear Damper x 2 Rear Radius Arm	
4	Bolt M8 x 40 Grade 10.9	BM0840	4	Rear Arm Roll Bar Mounting Block	
5	Bolt 1/2" x 2.1/2" Grade 10.9	SF15202.1/2	1	A-frame to DeDion	
6	Half Nuts 1/2" x 1.5"	NF15112	3	x 2 Rear Radius Arm x 1 A-frame to DeDion	
7	Washer 1/2"	WF12	2	A-frame front mounts	
8	Nut M10	NM10	2	Front radius arm (through cockpit)	
9	Washer 1/2"	WF12	2	Rear Arm Roll Bar Drop Lane	
10	Nut M8	NM08	4	Rear Arm Roll Bar Mounting Block	
11	Washer 1/2"	WF12	1	Washer on DeDion tube	

x2
x2
x2
x2

Pack H		CATERHAM		53	
		PACK NUMBER		39R11D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Washer	WF12	10	Differential Inboard	
13	Plain Washer 1/2" (Clearance)	WF112	20	x 2 Lower Damper x 10 A-frame x 4 Radius Arm	
14	Plain Washer 3/8" x 7/8"	WF103078	2	Front Radius Arm	
15	Plain Nut M8	NM08	4	Rear Arm Roll Bar Mounting Block	
16	Washer 1/2"	WF12	2	Lower Damper	

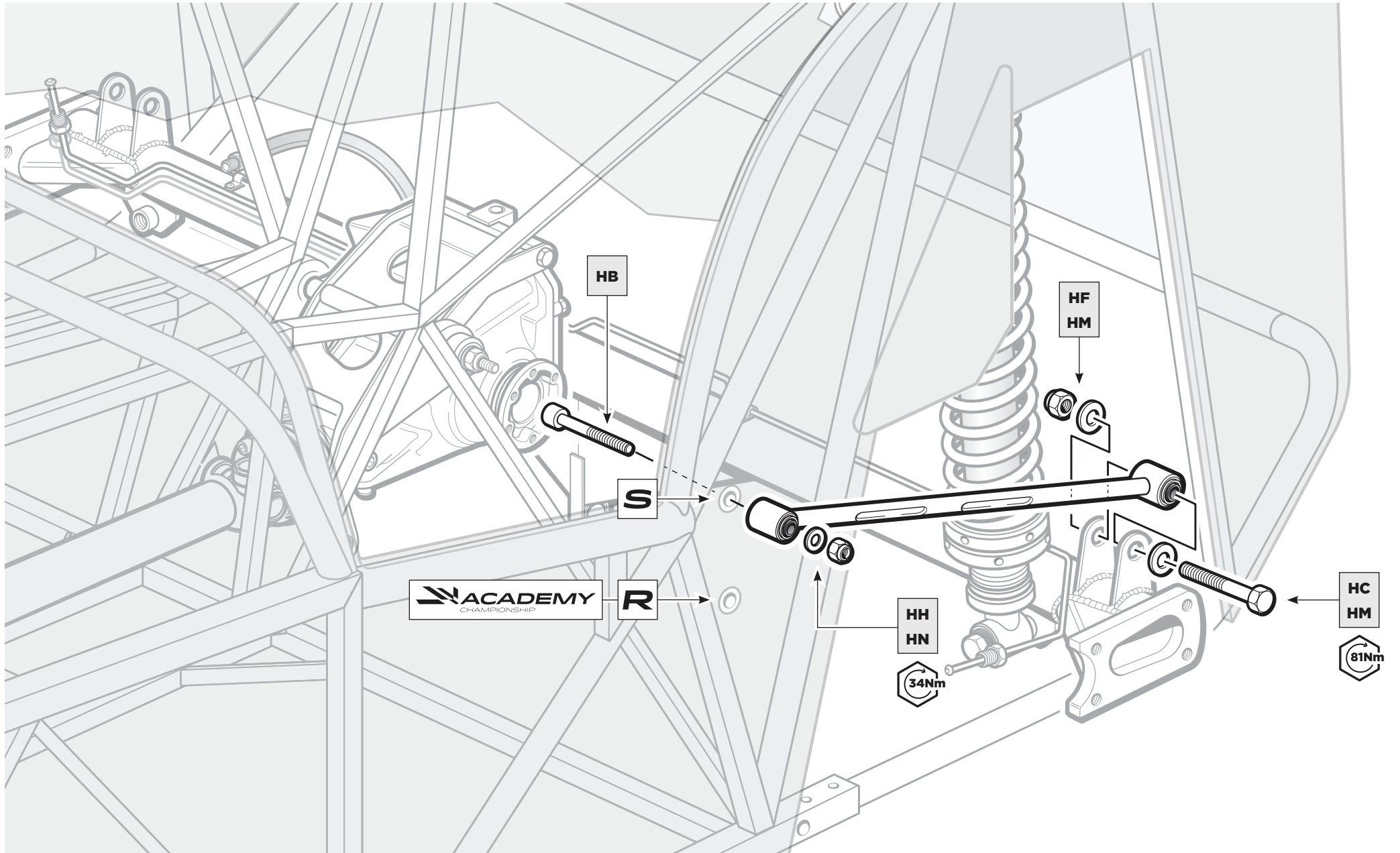
x4
x2

TIPS

Before torquing up these bolts, reposition the axle stands to under the DeDion tube (to hold up the suspension). Make sure front has two axle stands so it is steady when jacking up the rear!

Mick F

THEN THE RADIUS ARM

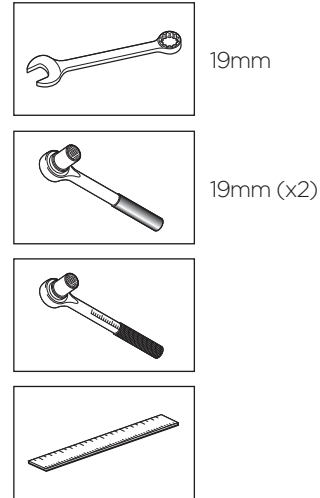


AND NOW THE (CAREFULLY SPACED) A-FRAME

PARTS

- 1 A-frame
- 2 White nylon anti-squeak washers

TOOLS



FIXINGS

Pack H		CATERHAM		53	
		PACK NUMBER		30R011D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	HA Bolt M12 x 100 Grade 10.9	BM12X100	2	A-frame front mountings	
2	HG Conical front roller	HM12X100	2	Front radius arm through coilover	
3	HG Bolt M12 x 80 Grade 10.9	SF12X82-12	4	x 2 Lower Damper x 2 Front Radius Arm	
4	HG Bolt M12 x 80 Grade 10.9	BM12X80	4	Rear Anti Roll Bar Mounting Block	
5	HE Bolt 12" x 2.25" Grade 10.9	SF12X2-3/4	1	A-frame to DeDion	
6	HF Half Nylon 12" UBP	NF12112	3	x 2 Rear Radius Arm x 1 A-frame to DeDion	
7	HG Nylon Nut M12	NMF12	2	A-frame front mounts	
8	HG Nylon Nut M12	NMF12	2	Front radius arm through coilover	
9	HG Half Nylon 12" UBP	NF12112	2	Rear Anti Roll Bar Drop Core	
10	HG Nylon Nut M12	NMF12	4	Rear Anti Roll Bar Mounting Block	
11	HG Nylon Nut M12	NMF12	1	Front radius arm through coilover	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x2

x1

x1

x2

Pack H		CATERHAM		53	
		PACK NUMBER		30R011D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	HL Washer	W12	10	Differential Inboard	
13	HM Plain Washer 1/2" Chamfered	WPH12	20	x 2 Lower Damper x 10 A-frame washers x 4 Radius Arm	
14	HN Plain Nut M12 x 100	WN12-100	2	Front Radius Arm	
15	HG Plain Nut M12 x 80	WN12-80	4	Rear Anti Roll Bar Mounting Block	
16	HD Washer 12" x 2.25"	W12-225	2	Lower Damper	

Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

*

* Use as required for spacing

TIPS

Make sure the DeDion tube is equal on both sides.

Tiago O

Use as many HM washers as required to space A-frame.

John K

The A-frame has a 'way up'. The arms should be offset downwards in relation to the front bushes.

Chris N

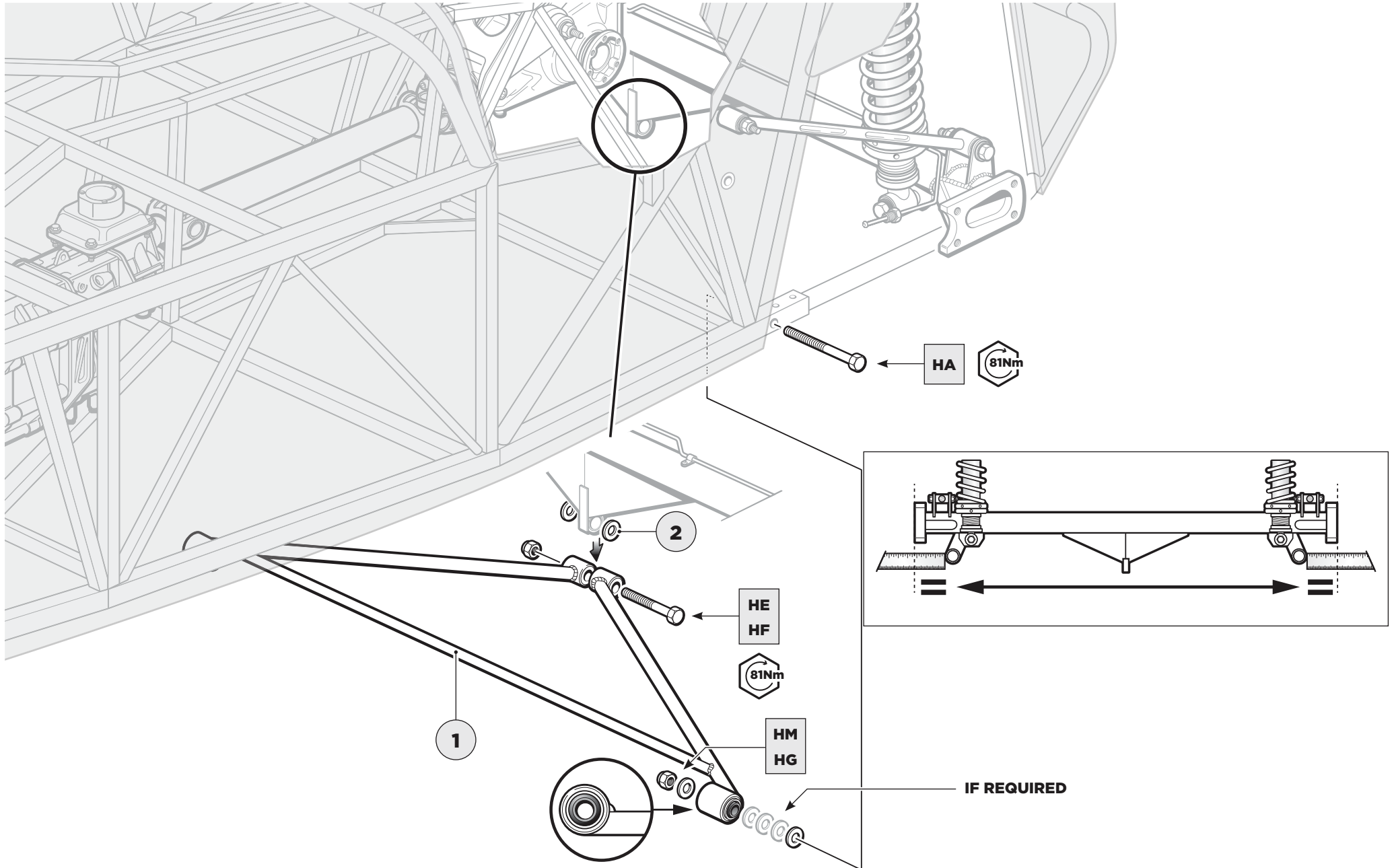
Take care to use the correct nuts as there is a mixture of metric and imperial here.

Lee A

Torque up as before on axle stands.

Rich T

AND NOW THE (CAREFULLY SPACED) A-FRAME

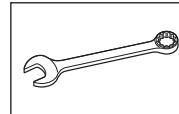
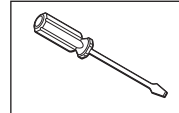
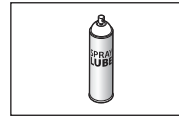


IF YOU HAVE THE OPTIONAL REAR ANTI-ROLL BAR, IT GOES ON LIKE THIS

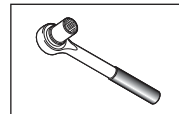
PARTS

- 1 Rear anti roll bar
- 2 Anti roll bar rubber
- 3 Rear anti roll bar clamp

TOOLS



10mm



10mm

FIXINGS

Pack H		CATERHAM		53	
		PACK NUMBER		30R011D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Roll Over Protection Device (ROD)	SM124100	2	A-frame front mounting	
2	Component from 30R011B	SM124104	2	Front radius arm (through coilover)	
3	Roll Over Protection Device (ROD)	SM124102	4	x 2 Lower Rear Damper x 2 Rear Radius Arm	
4	Bar MB X 80 Gross 10.9	BMX80	4	Rear Anti Roll Bar Mounting Blocks	
5	Roll Over Protection Device (ROD)	SM124104	1	A-frame to DuctIon	
6	Roll Over Protection Device (ROD)	SM124102	3	x 2 Rear Radius Arm x 1 A-frame to DuctIon	
7	Rear Bar MB1	MB1012	2	A-frame front mounts	
8	Roll Over Protection Device (ROD)	SM124104	1	Front radius arm (through coilover)	
9	Roll Over Protection Device (ROD)	SM124102	2	Rear Anti Roll Bar Damp Lane	
10	Roll Over Protection Device (ROD)	MB1016	4	Rear Anti Roll Bar Mounting Blocks	
11	Roll Over Protection Device (ROD)	SM124104	1	Front radius arm (through coilover)	

x4

x4

Pack H		CATERHAM		53	
		PACK NUMBER		30R011D	
REAR SUSPENSION DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Washer	W024	10	Differential Inboard	
13	Plain Washer (10) (DuctIon)	WPH10	20	x 2 Lower Damper x 10 A-frame x 4 Radius Arm	
14	Roll Over Protection Device (ROD)	SM124102	2	Front Radius Arm	
15	Plain Washer MB	WPHMB	4	Rear Anti Roll Bar Mounting Block	
16	Lower Damper MB12	SD1000A	2	Lower Damper	

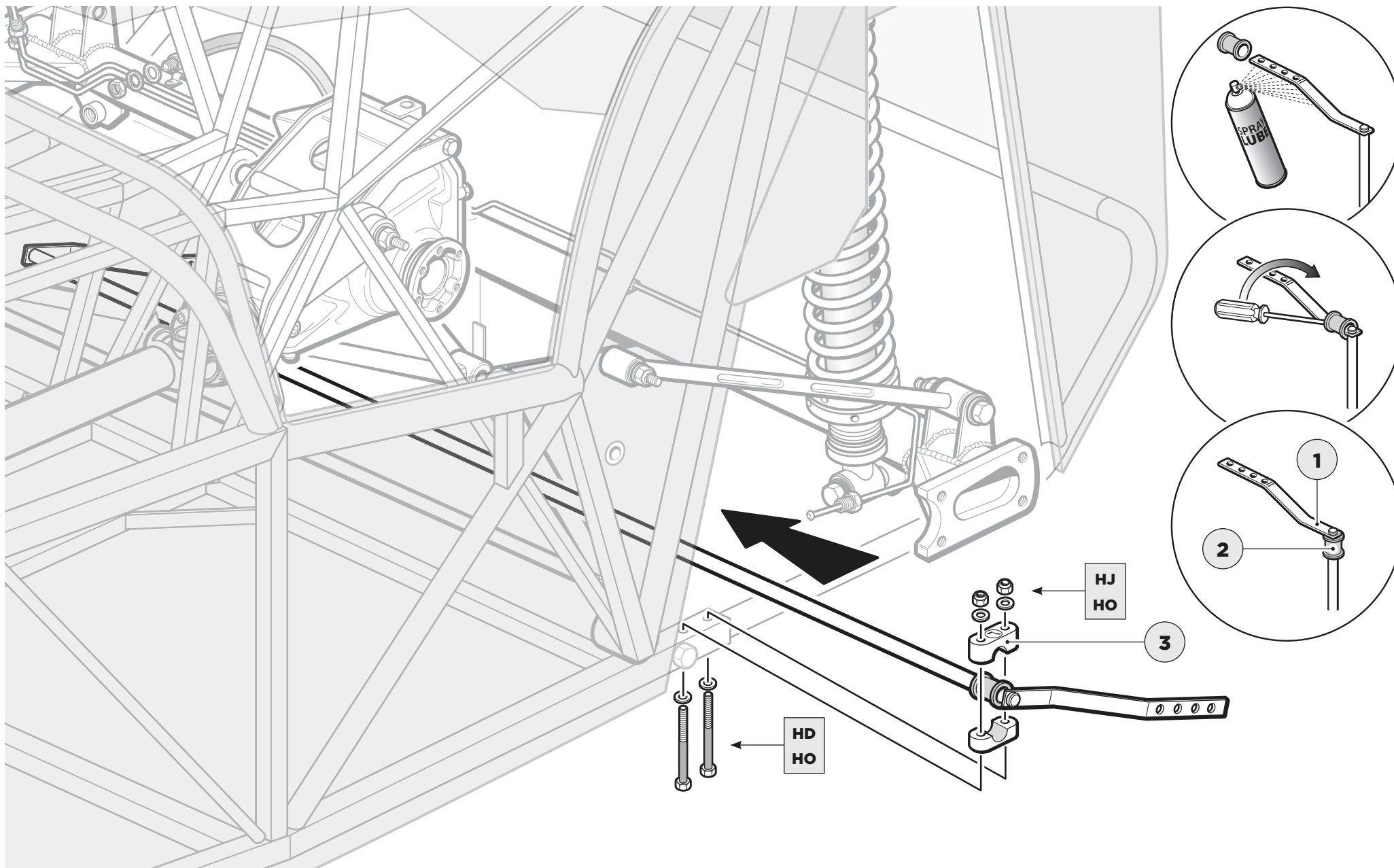
x8

TIPS

Be careful not to slip with the screwdriver!

John S

IF YOU HAVE THE OPTIONAL REAR ANTI-ROLL BAR, IT GOES ON LIKE THIS



INSERT THE DRIVESHAFTS

PARTS

- 1 Driveshaft
- 2 Driveshaft nut

TOOLS

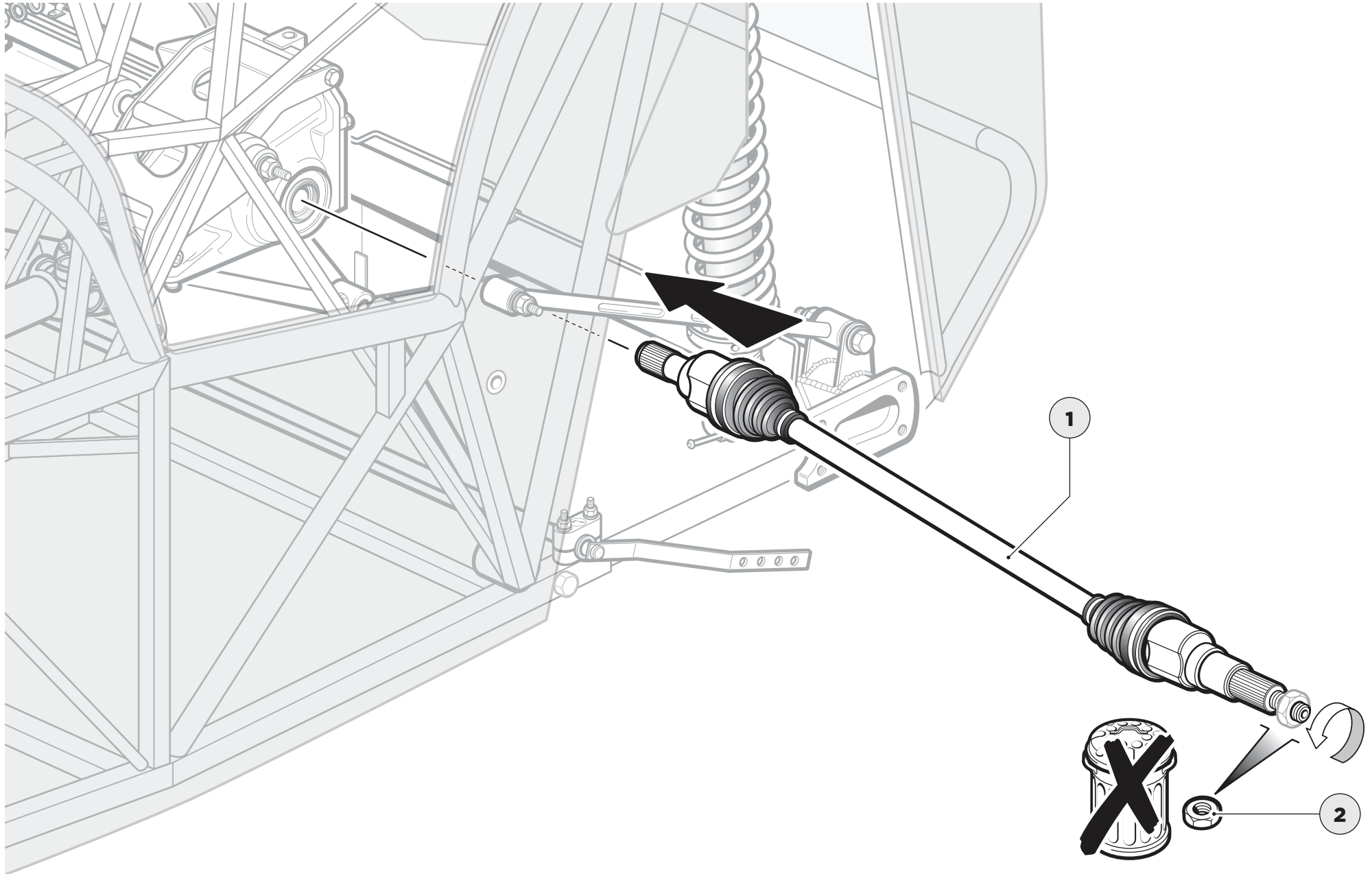
FIXINGS

TIPS

Driveshafts are handed, and so are the nuts, the left hand nut tightens anti-clockwise.

James A

INSERT THE DRIVESHAFTS

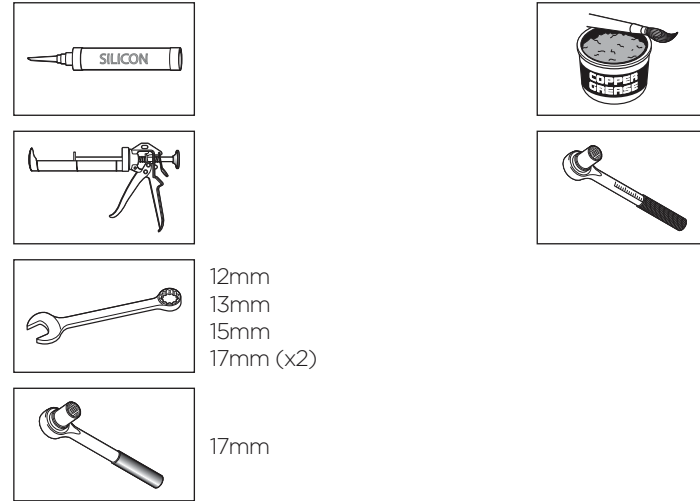


FITTING THE REAR HUB

PARTS

- 1** Rear brake disc / flange assembly
- 2** Rear hub
- 3** DeDion ear
- 4** Anti roll bar bracket
- 5** Anti roll bar drop link
- 6** Brake calliper
- 7** Brake calliper mount
- 8** Brake pads
- 9** Driveshaft nut
- 10** Driveshaft washer

TOOLS



12mm
13mm
15mm
17mm (x2)

17mm

FIXINGS

Pack 1		CATERHAM		44	
AXLE DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Hub 102 x 117	BM10211	1	Upper off-road disc	
2	Upper ear 102 x 117	BM10211	2	Upper ear mounting	
3	Hub 110 x 85	BM1085	4	Rear hub through ear to front DeDion	
4	Hub 110 x 55	BM1055	8	x 4 Front hub through ear x 4 Caliper carrier bolts	
5	Hub 110 x 45	BM1045	4	Through rear of ear into threaded DeDion tubes	
6	Upper ear 102 x 117	BM10211	4	Proportion bolts	
7	Upper ear 102 x 117	BM10211	2	Off-roader	
8	Hub 110 x 45	BM1045	2	Upper off-road	
9	Nylon Nut M10	NM10	8	Hub through ear to DeDion	
10	1/2" Nylon Nut 188	NM18	4	Rear anti roll bar droplink	
11	Rear washer 102 x 117	BM10211	2	Brake pads	

x4
x8
x4
x8
x4

Pack 1		CATERHAM		44	
AXLE DEDION METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Rear washer 102 x 117	BM10211	16	Anti bearing off-roader	
13	Rear washer 102 x 117	BM10211	8	Off-roader front	
14	Rear washer 102 x 117	BM10211	14	Off-roader rear	
15	Washer M10	WM10	16	Rear DeDion Caliper Carrier Hub	
16	Spring Washer M10	WSM10	16	Rear DeDion Tube Caliper Carrier	
17	Caliper carrier 102	CC102	4	Behind both discs on off	
18	Brake pad 102	BP102	1	Braked brake hose	
19	Hub 110 x 85	BM1085	4	Pushes on DeDion for double pads	
20	Hub 110 x 85	BM1085	5	Brake pads on DeDion	

x16
x8

TIPS

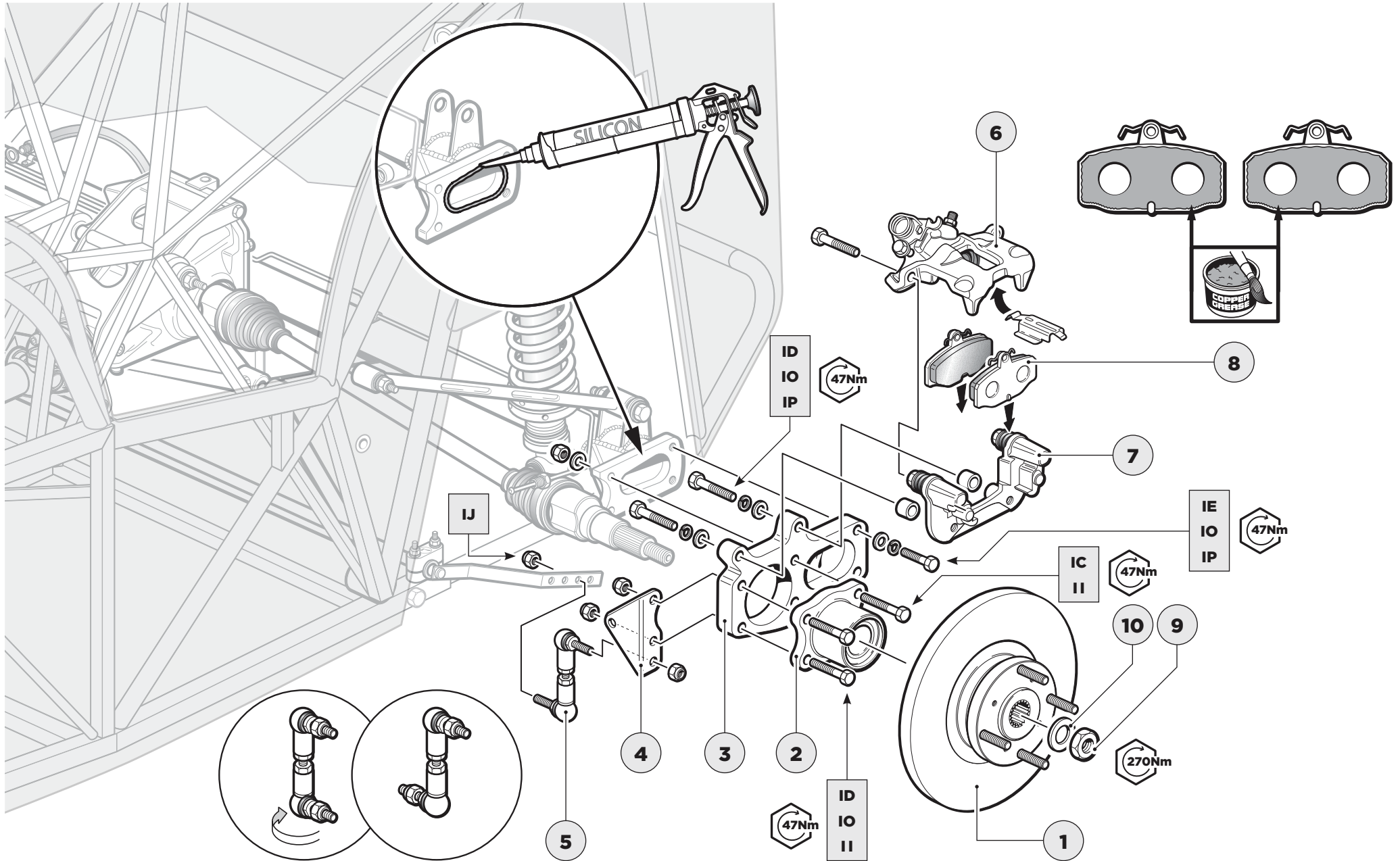
Swap the plain nuts on the droplinks for nylons.
Chris B

Remember the driveshaft nuts are handed.
Grant P

Torque up the bearing and ear before fitting the disc.
Dan D

If you don't have an anti roll bar you will only have one bracket (for the right hand side) which holds the speed sensor.
Rich T

FITTING THE REAR HUB

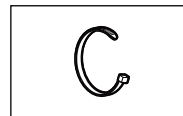


AND SPEED SENSOR (ONE SIDE ONLY)

PARTS

- 1 Speed sensor

TOOLS



FIXINGS

TIPS

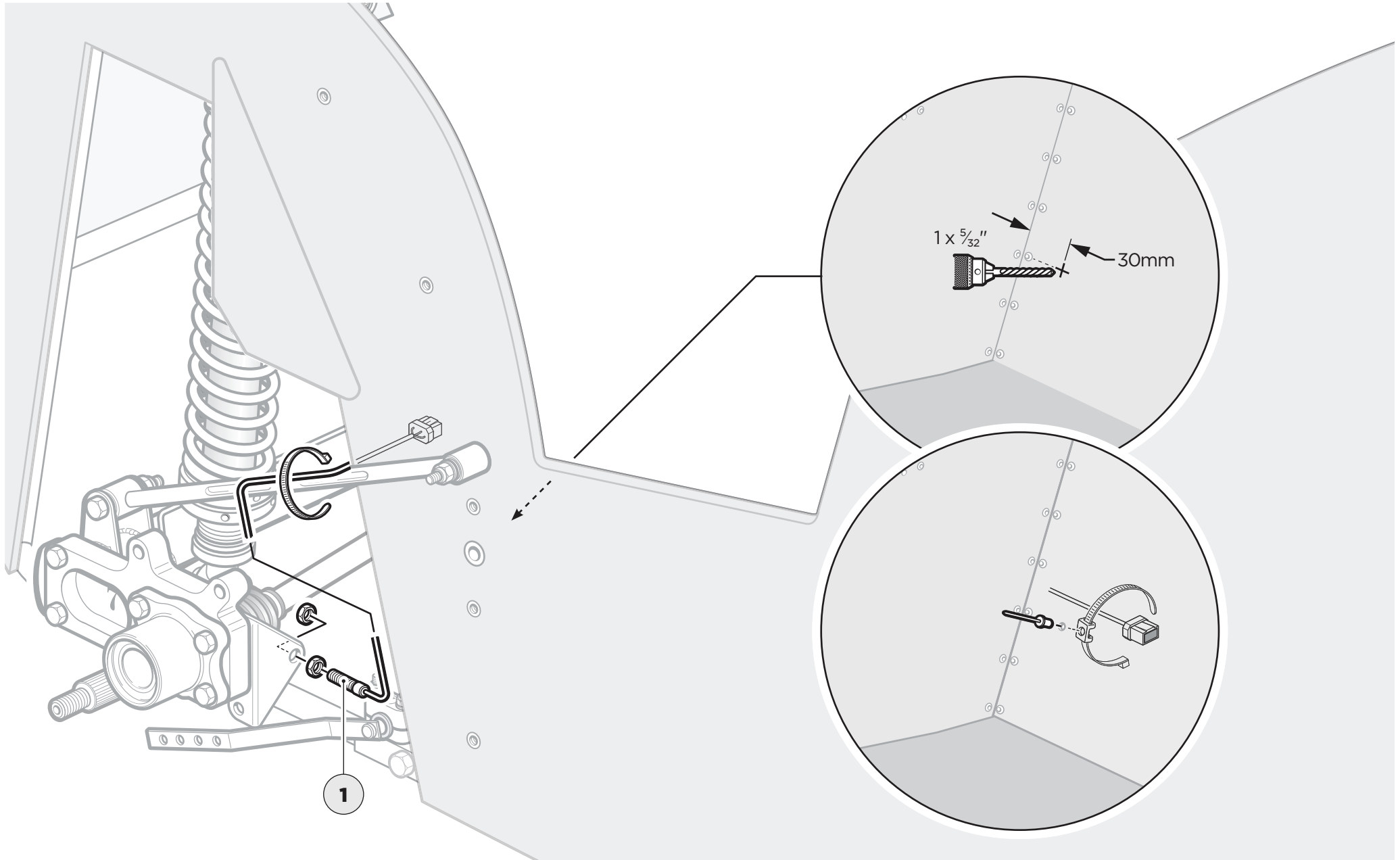
Ensure there is enough slack in the wire to allow for suspension travel.

Tiago O

Adjust sensor gap to approx. 0.8–0.9mm.

Lloyd D

AND SPEED SENSOR (ONE SIDE ONLY)





Now is a good time to take some photos



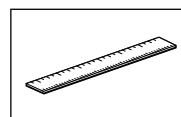
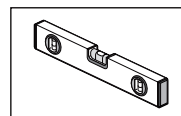
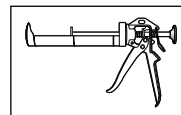
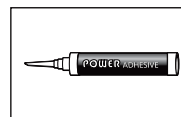
Have you applied for your IVA yet?

JUST WING IT

PARTS

- 1 Cycle wing
- 2 Wheel
- 3 Wheel nuts

TOOLS



FIXINGS

TIPS

Key the wing & wingstay before using adhesive.

John S

You may need to bend the arms of the wingstay to make the wing level.

Anthony L

The $\frac{1}{8}$ " hole you drilled earlier is for the indicator earth.

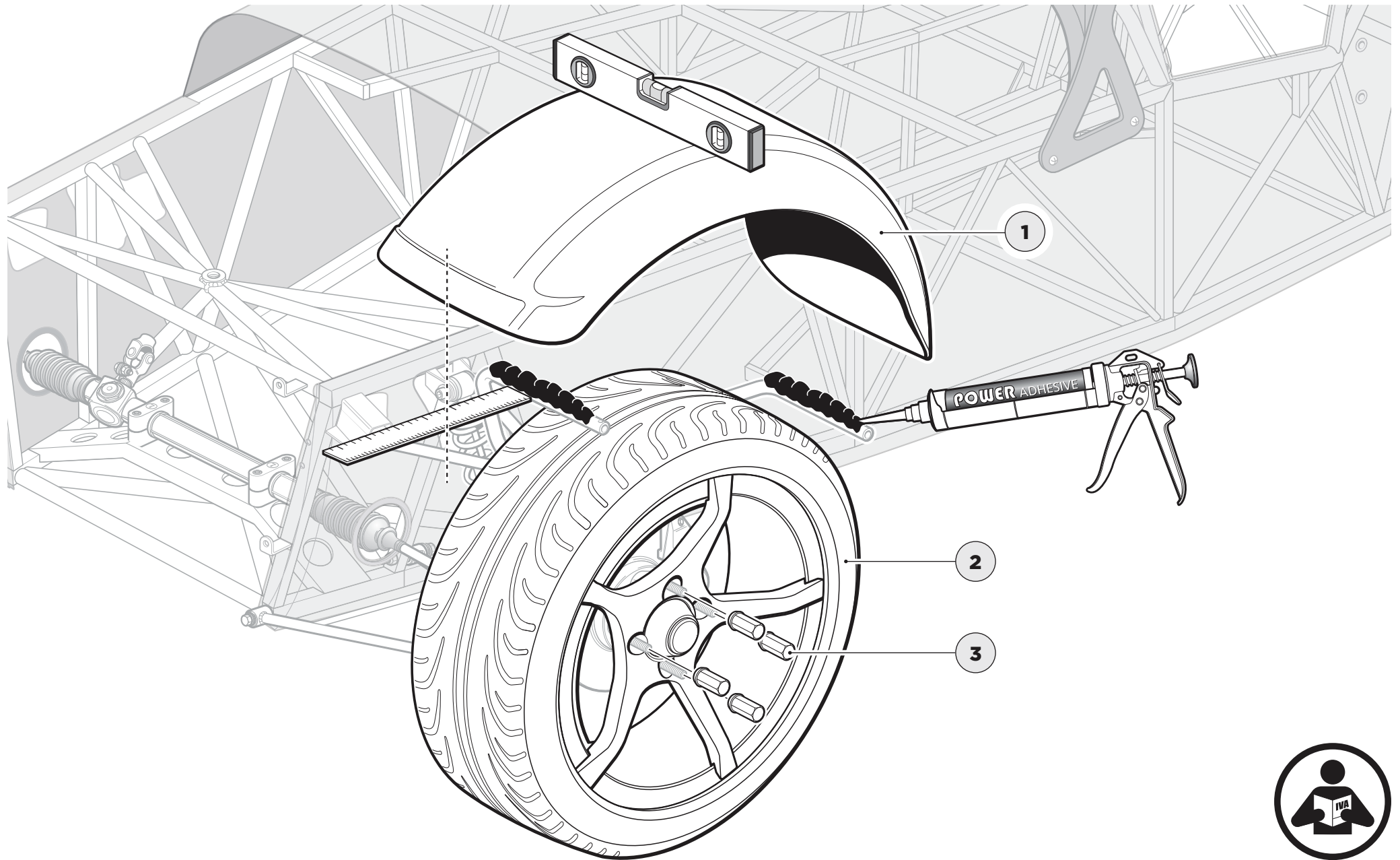
Harry P

The distance from the front edge of the wing to the wingstay should be 80mm.

Lee A

Do a 'dry run' first to make sure the wings are level before using power adhesive.

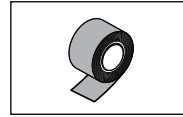
Chris N



TAPE IN PLACE FOR 24 HOURS

P A R T S

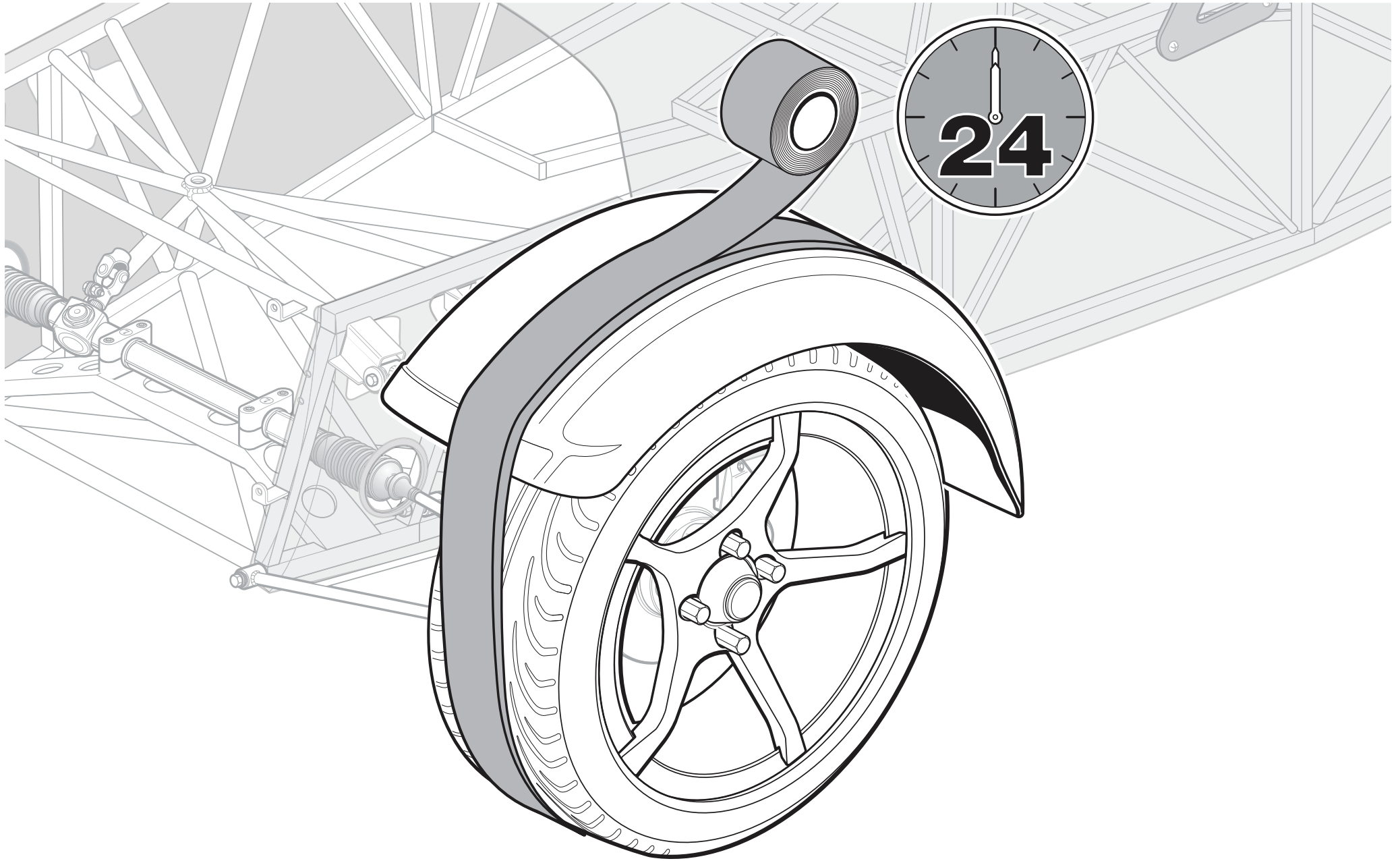
T O O L S



F I X I N G S

T I P S

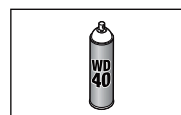
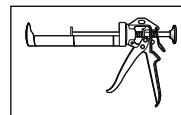
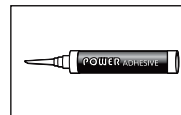
TAPE IN PLACE FOR 24 HOURS



SOME EXTRA ADHESIVE UNDERNEATH

PARTS

TOOLS

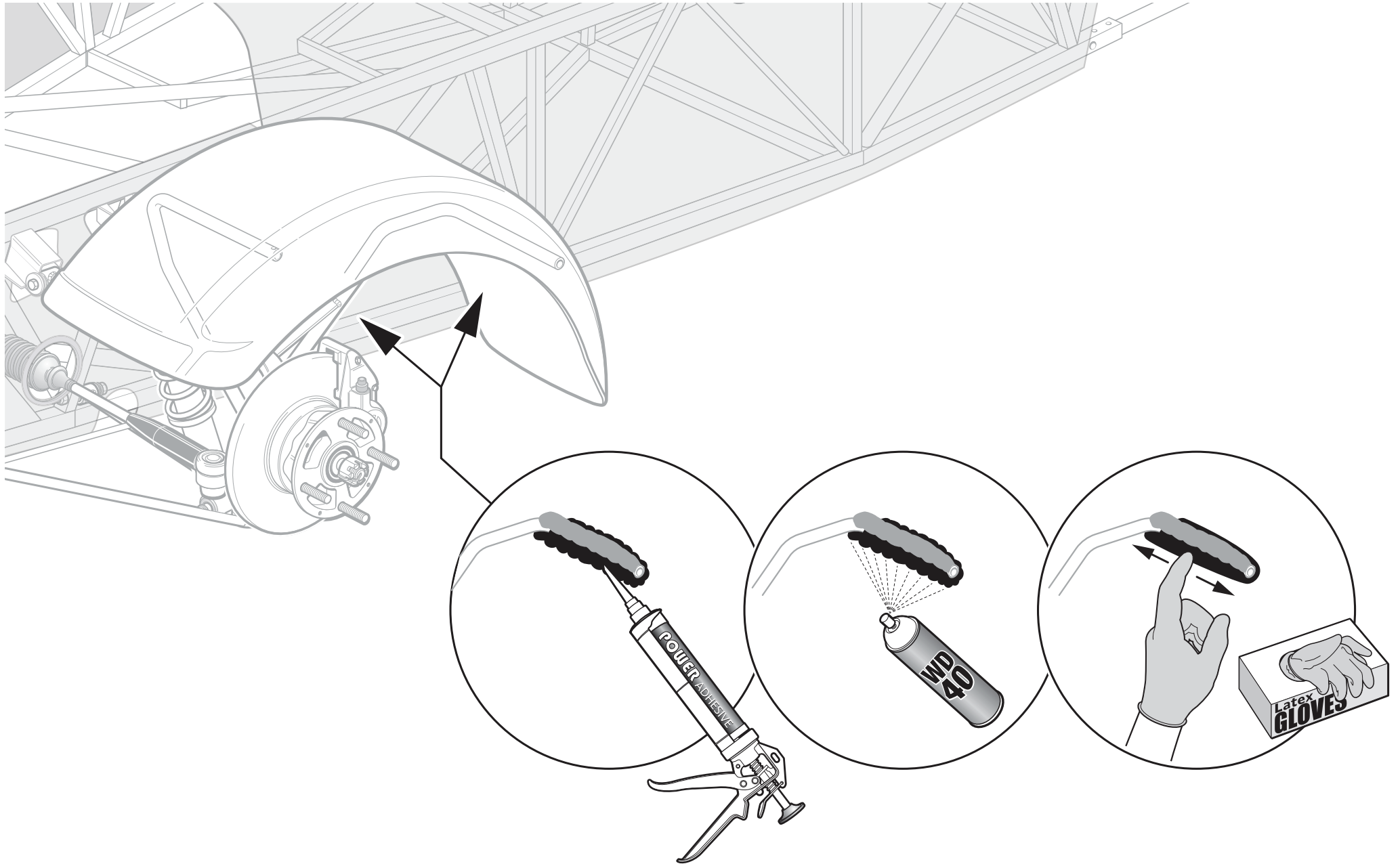


FIXINGS

TIPS

The WD40 will help spread the adhesive.

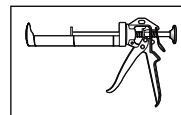
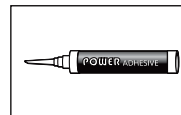
Mick F



FINISH WITH TRIM

PARTS

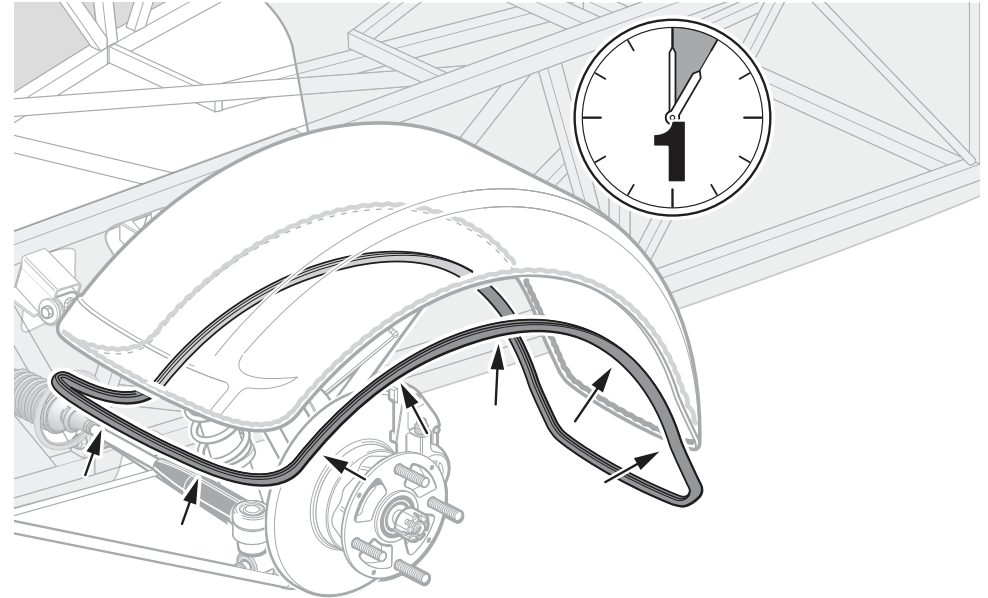
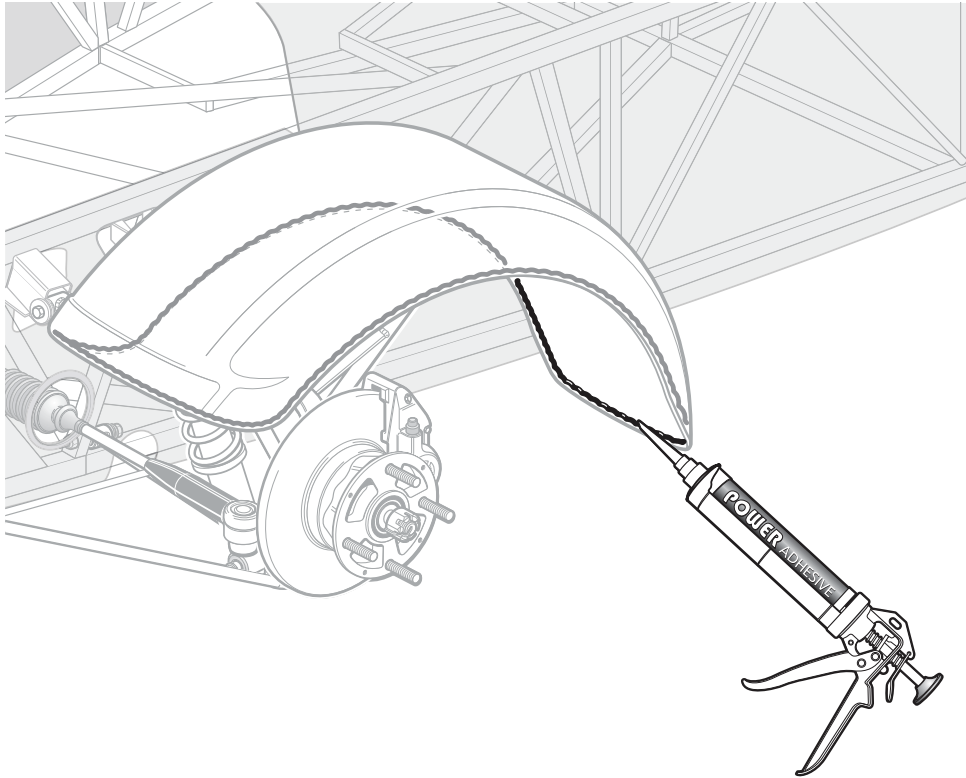
TOOLS



FIXINGS

TIPS

FINISH WITH TRIM

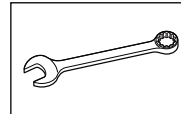
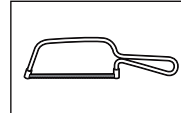
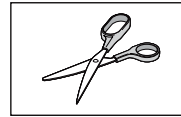


FITTING THE REAR WINGS

PARTS

1 Rear wing

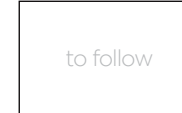
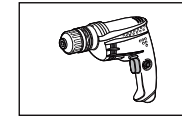
TOOLS



8mm



8mm



Sanding Drum

FIXINGS

Pack Q		CATERHAM		31	
		PART NUMBER		2FG12	
REAR WINGS					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	OA Std Screw M5 X 20	SMSX20	20	Rear Wings	
2	OB Nyloc Nut M5	NMYN5	10	Rear wings through boot	
3	OC Plain Washer 3/16" X 3/4"	WPS16X34	30	Wing washers	
4	OD Wing Pinrod 1/4" X 1"	7602	4x	Between wing and body	

x20

x10

x30

x4

TIPS

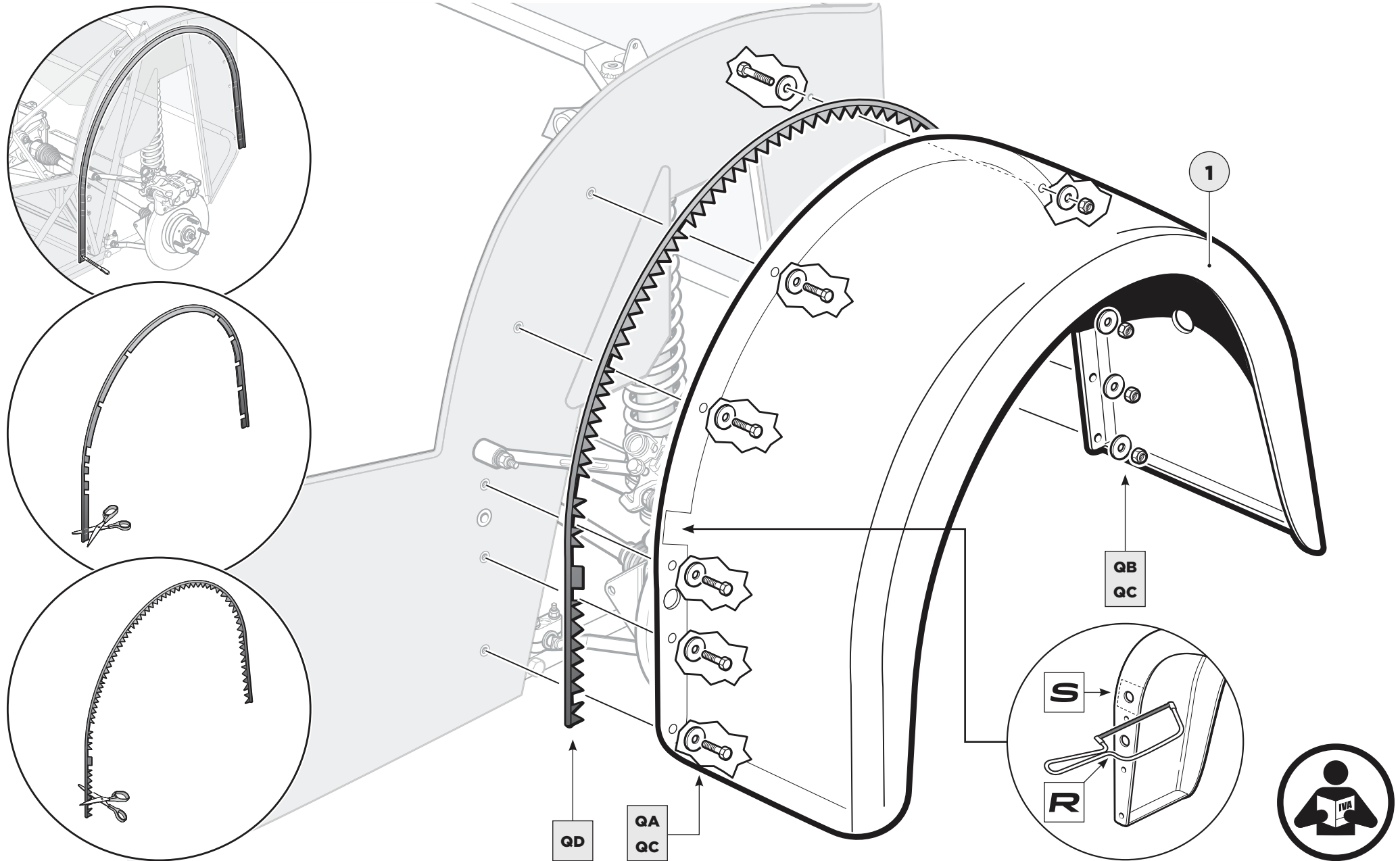
Cut the supplied piping in half and it will be enough for both wings.

Rich T

Don't forget the fuel tank earth strap gets bolted to the RH wing bolt.

Tiago O

FITTING THE REAR WINGS

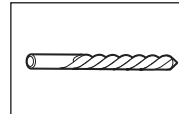
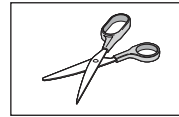


AND THE WING PROTECTORS

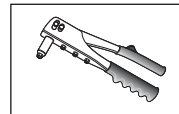
PARTS

- 1 Wing protector

TOOLS



1/8"



FIXINGS

For stainless steel protectors

Pack O		CATERHAM		<small>Part Number</small> ZWS01	
WING PROTECTORS STAINLESS STEEL					
<small>This pack may include extra fasteners to cover different options</small>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	OA Rivet 1/8" X 0.51"	1661-0414	30	Wing protector to wing	
2	OB Wing Pin	7601	2m	Between wing protector and wing	
<small>Drawings are for illustrative purposes only and are not to scale. Page 1 of 1</small>					

For carbon fibre protectors

Pack P		CATERHAM		<small>Part Number</small> ZWS02	
WING PROTECTORS CARBON FIBRE					
<small>This pack may include extra fasteners to cover different options</small>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	PA Rivet Black 1/8" X 0.51"	1610-01046	30	Wing protector to wing	
2	PB Wing Pin	7601	2m	Between wing protector and wing	
<small>Drawings are for illustrative purposes only and are not to scale. Page 1 of 1</small>					

TIPS

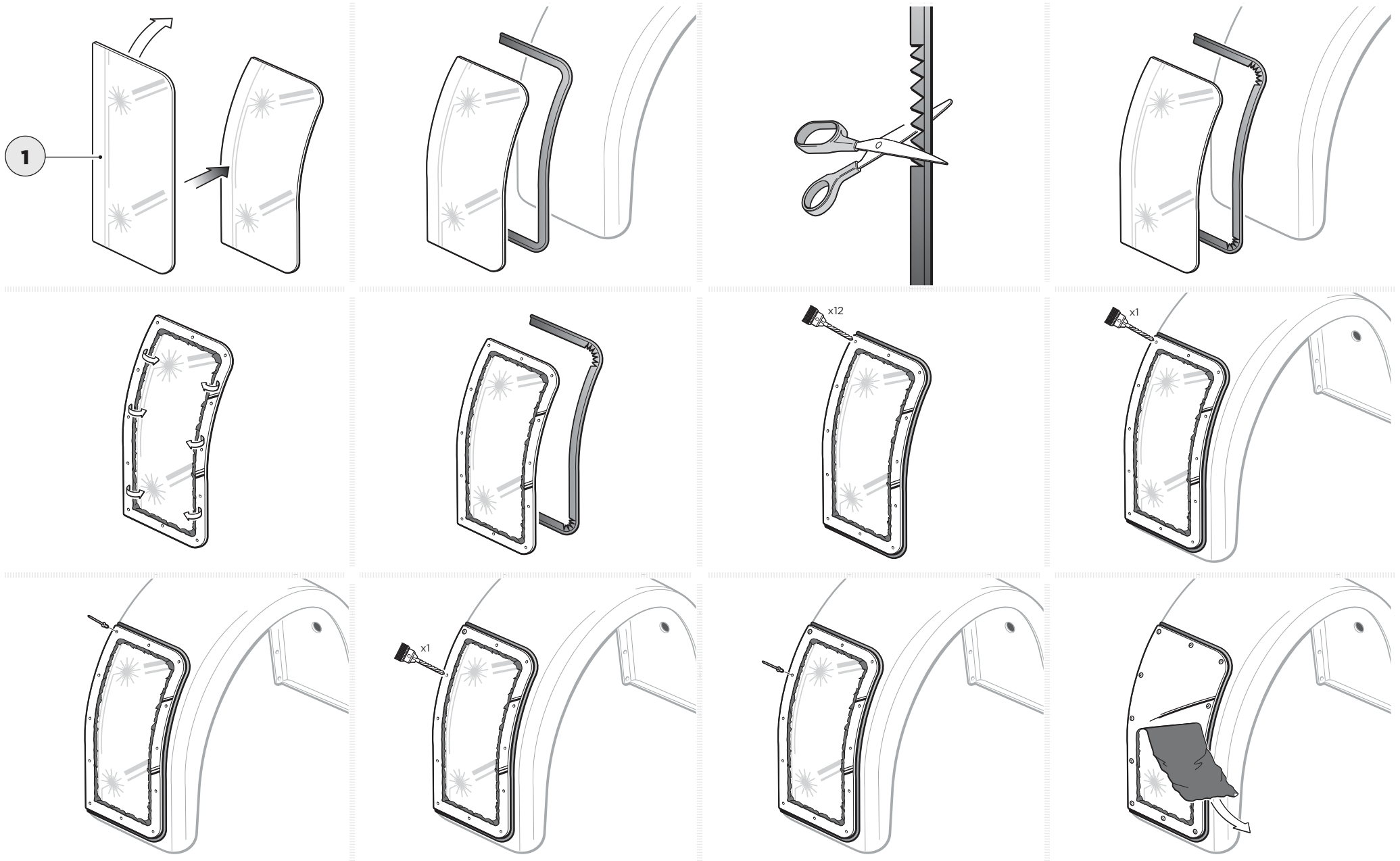
When drilling through protector start on the closest edge to the body. This will help the protector fit correctly.

Chris B

Carbon fibre protectors will not have the protective film shown.

Anthony L

AND THE WING PROTECTORS

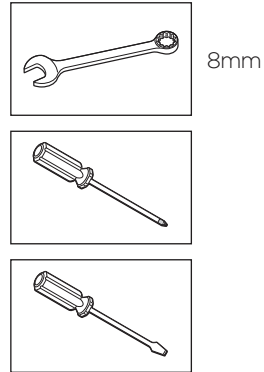


FITTING THE LIGHTS

PARTS

- 1 Side repeater
- 2 Rear light
- 3 Numberplate lamp

TOOLS



FIXINGS

Pack C		CATERHAM		45	
		PART NUMBER		39L002B	
FASTENER PACK - LIGHTING					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	CA Screw 10 x 30 Black Oxide	71060	6	Indicator repeater's indicator post	
2	CA Screw 8 x 17 Black Oxide	71071	2	Side repeater's indicator post	
3	CC Screw 12 x 14* Self-tapping	71079	4	Rear light cluster upper fixing	
4	CC Screw 12 x 14* Self-tapping	71078	4	Rear light cluster lower fixing	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

x4

x4

TIPS

Use a cradle clip & cable tie to keep the rear light loom out of the way.

John S

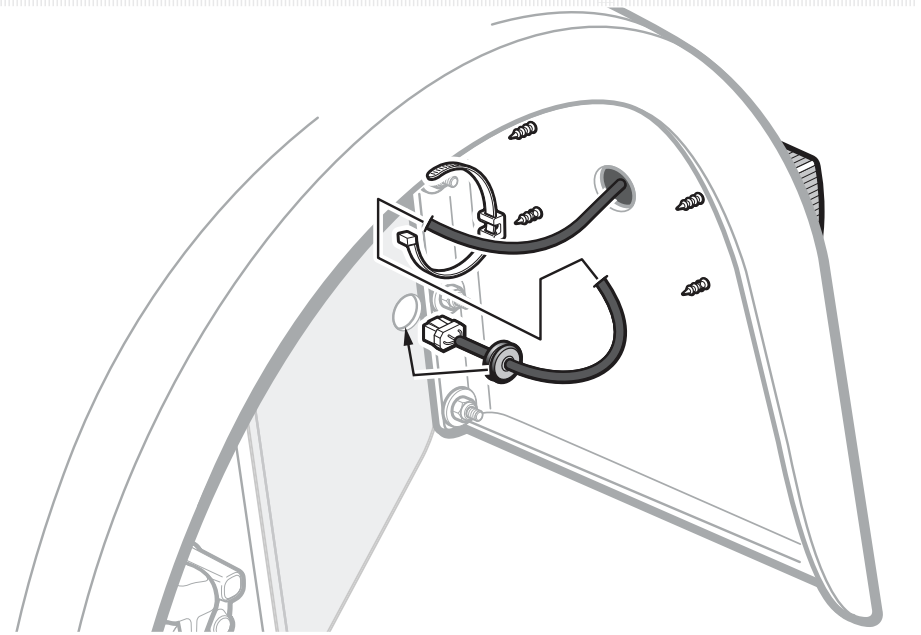
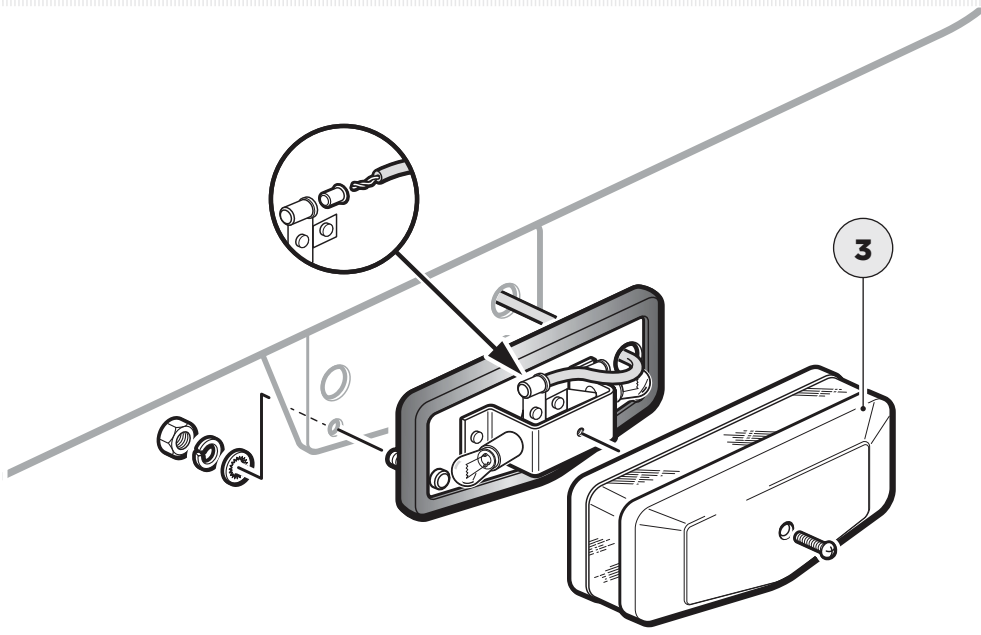
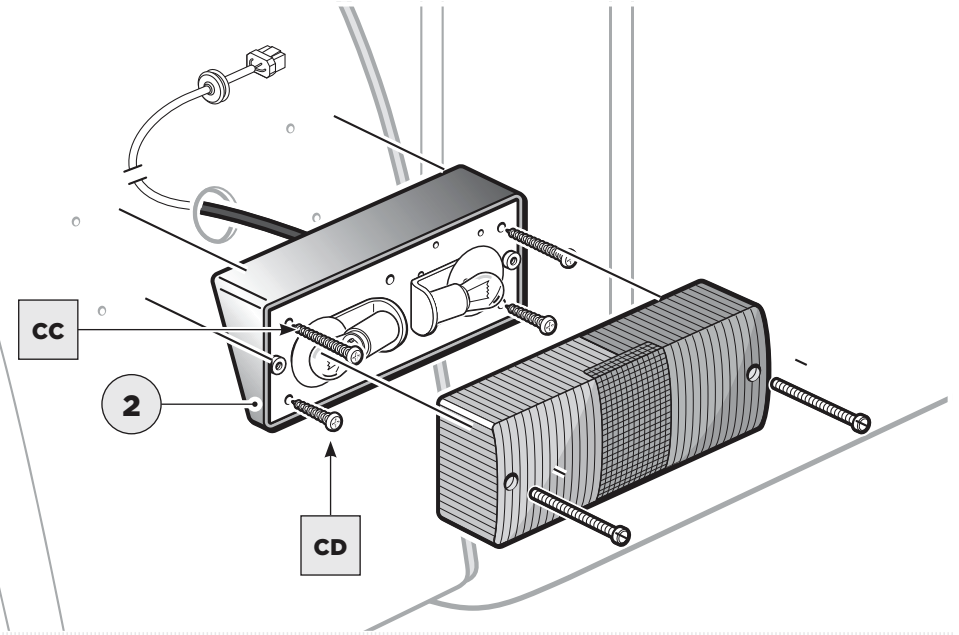
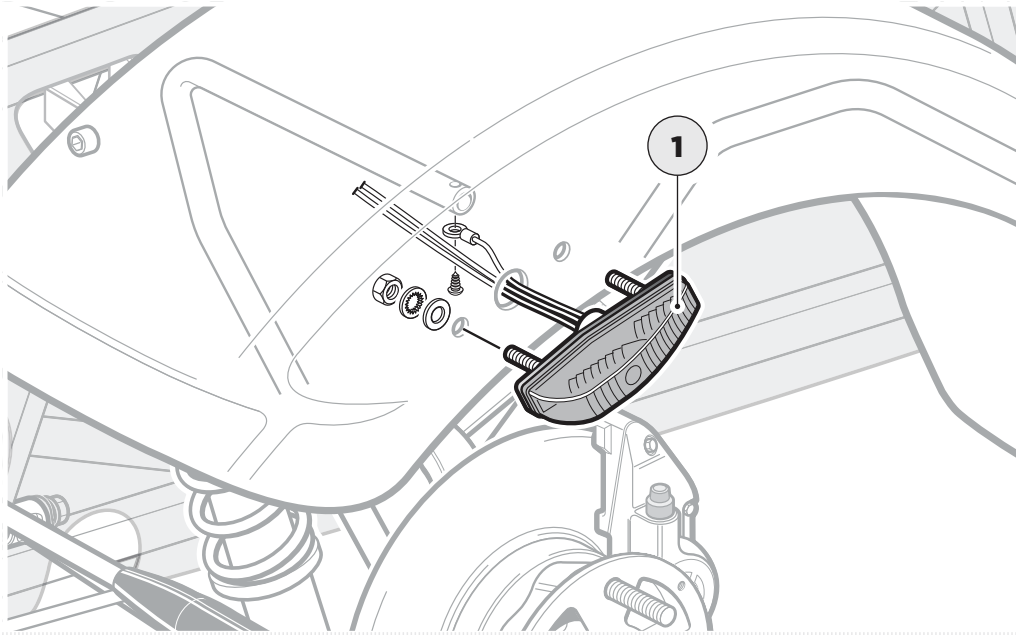
Rubber grommet on rear light goes in the body not the wing.

Jamie A

Indicator repeater wires go through the wingstay.

Chris B

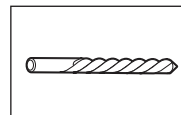
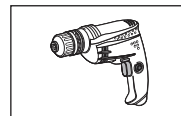
FITTING THE LIGHTS



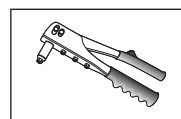
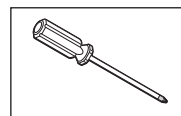
FUSE BOX COVER & KNEE TRIM PADS

PARTS

TOOLS



$\frac{5}{32}$ "



FIXINGS

Chassis fastener pack ZCH01 supplied loose:

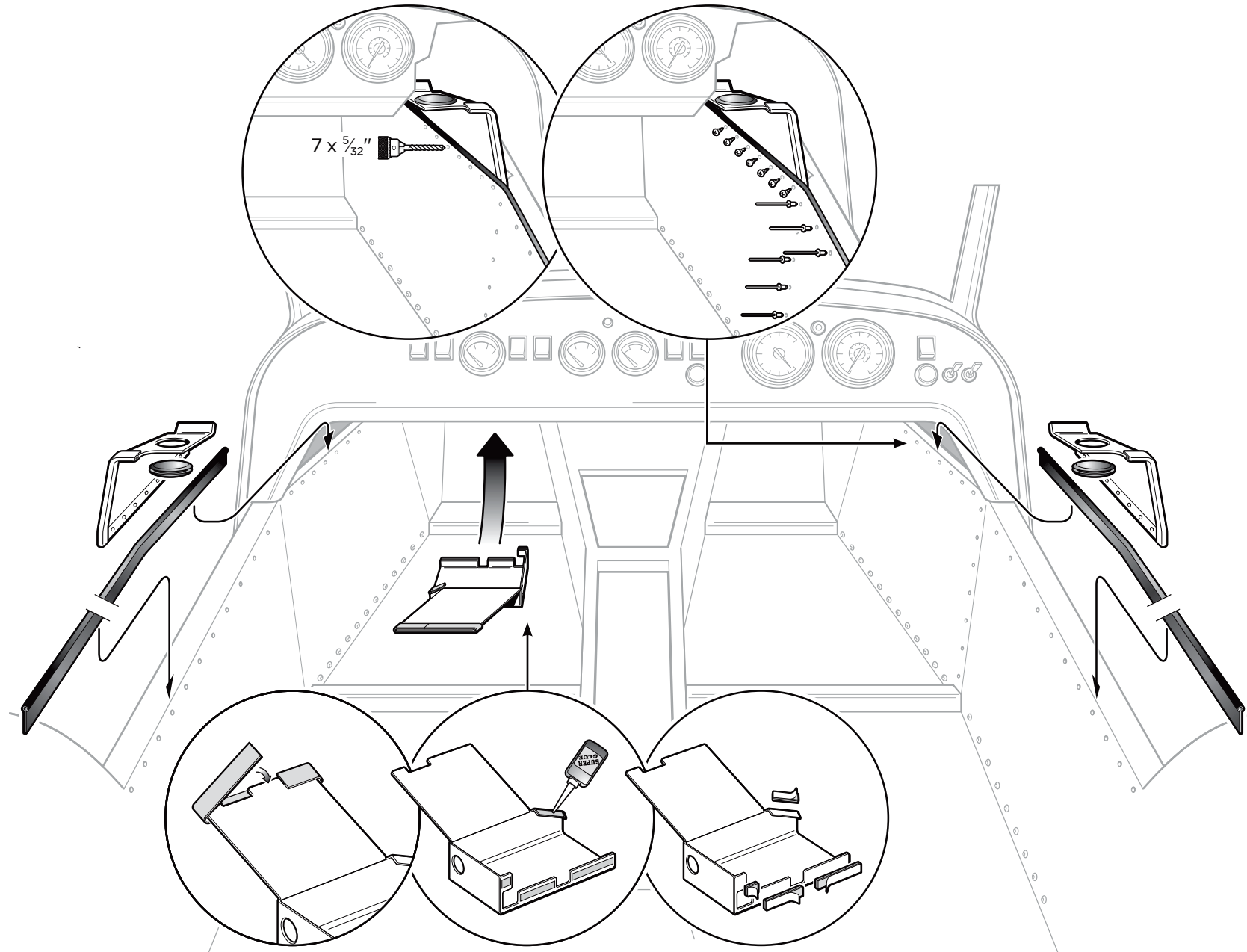
- Screw $\frac{3}{4}$ " x 10
- Rivet 532x 0.47"

TIPS

Building an Academy Car? If so you'll need to leave the riveting-in of the side panels until after you've fitted the roll cage (p154–155) as the front legs go behind the panel, not over the top of it.

John S

FUSE BOX COVER & KNEE TRIM PADS



FIT THE TUNNEL CARPET

PARTS

TOOLS



FIXINGS

TIPS

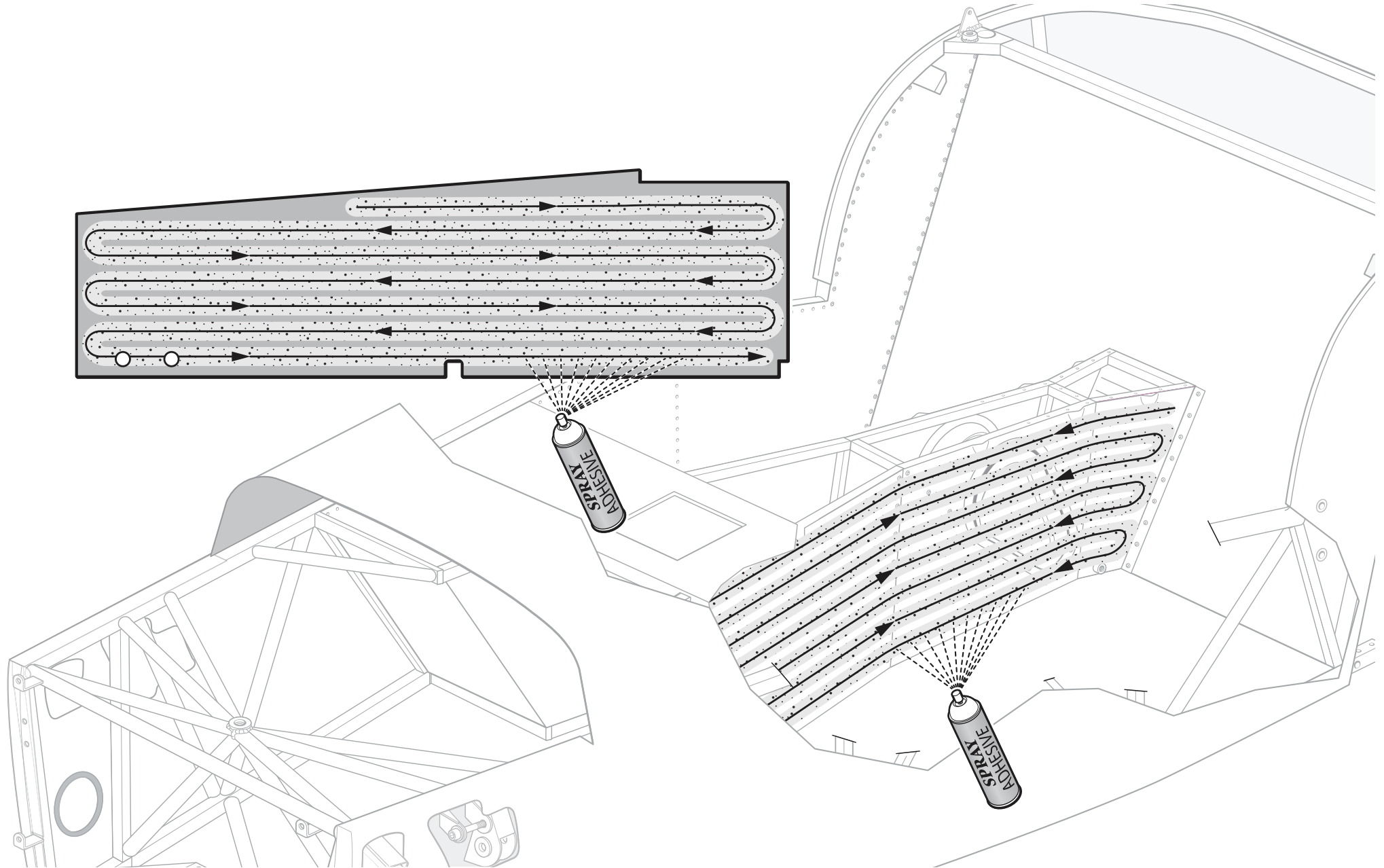
Spray on both tunnel panel and carpet.

John K

Allow the adhesive to go tacky before fitting.

Harry P

FIT THE TUNNEL CARPET



AND THE BOOT CARPET

PARTS

TOOLS



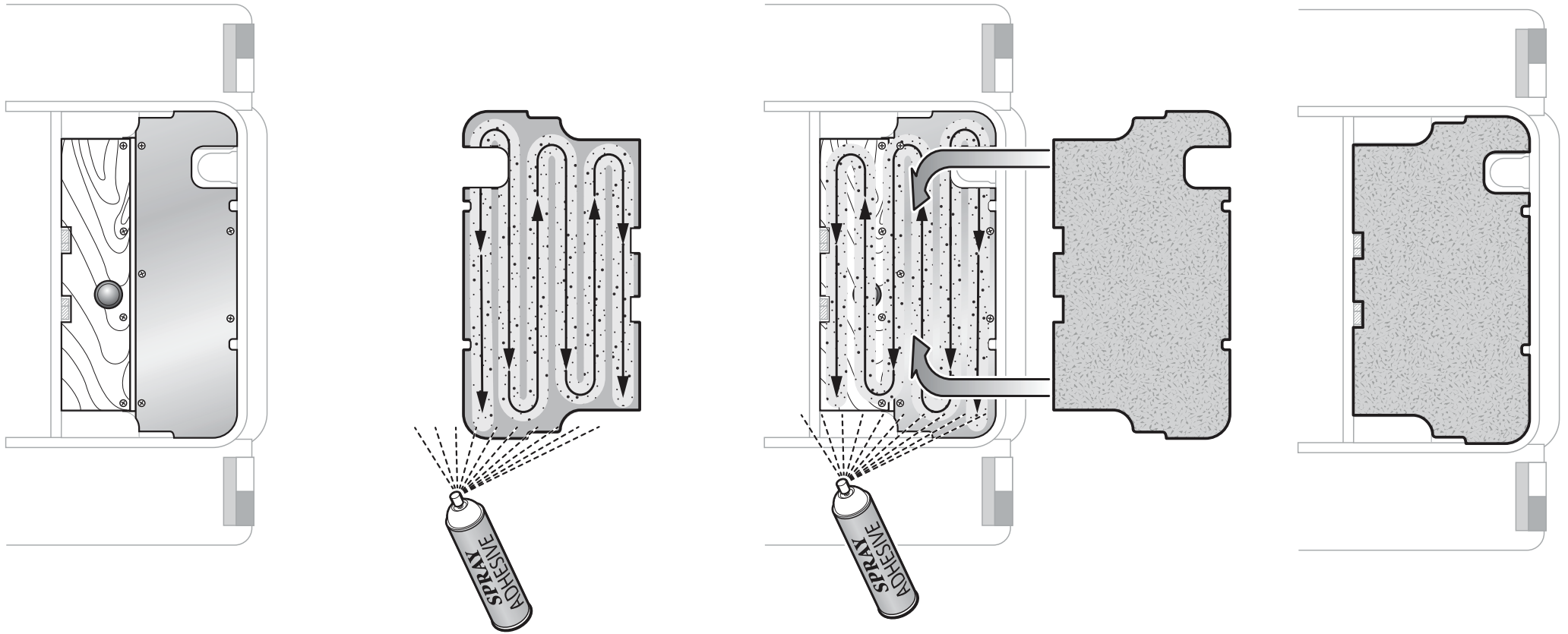
FIXINGS

TIPS

S-Pack cars have a fully carpeted boot. It's something of a jigsaw pattern, but the parts are simply glued in place like the bigger bits.

John S

AND THE BOOT CARPET

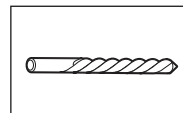
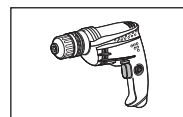


THIS IS A COVER UP

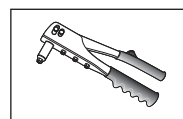
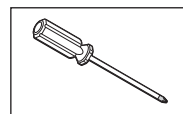
PARTS

- 1 Fuel filler cove
- 2 Tunnel closing panel

TOOLS



5/32"



FIXINGS

Supplied loose:

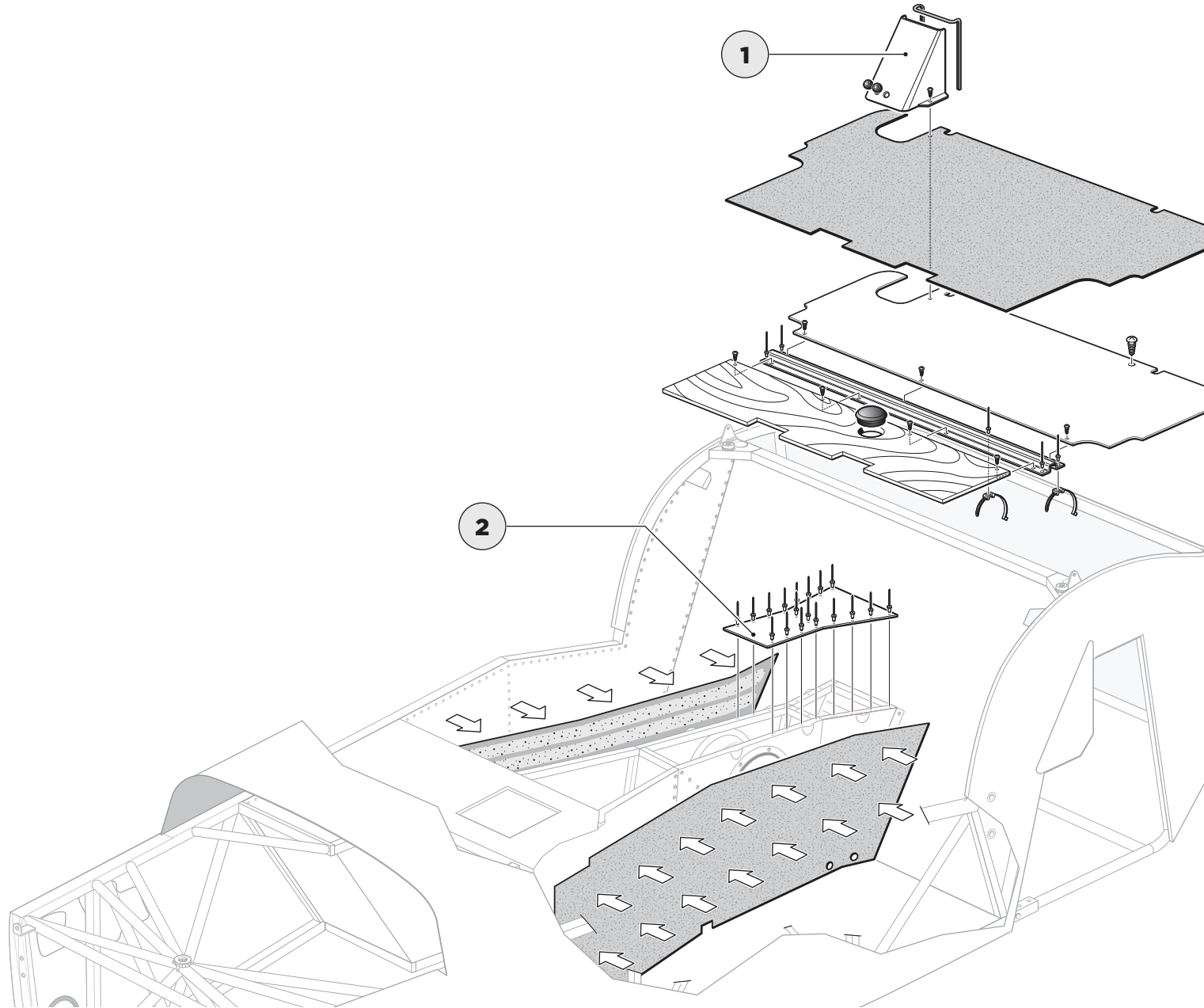
- Rivets
- Screws

TIPS

The fuel filler cover just screws to the boot floor. Drill two holes and use self tapping screws.

Rich T

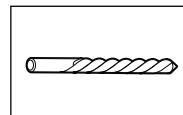
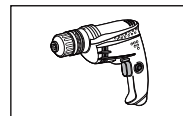
THIS IS A COVER UP



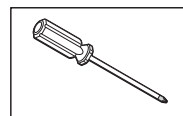
NOW FIT THE TUNNEL TOP

PARTS

TOOLS



1/8"



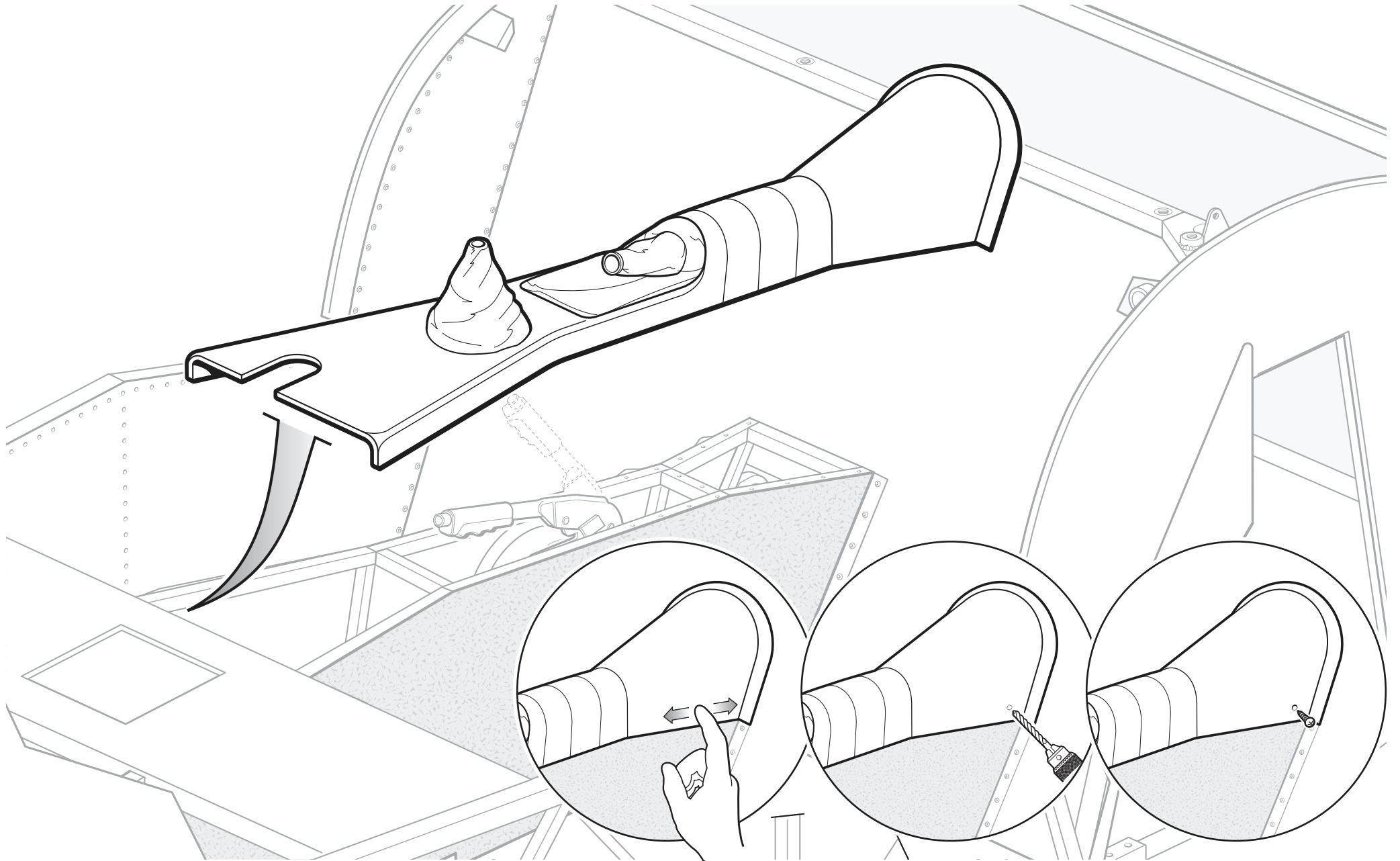
FIXINGS

TIPS

The hole can be seen if you flip the tunnel top over.

Mick F

NOW FIT THE TUNNEL TOP



BELT UP

PARTS

TOOLS



FIXINGS

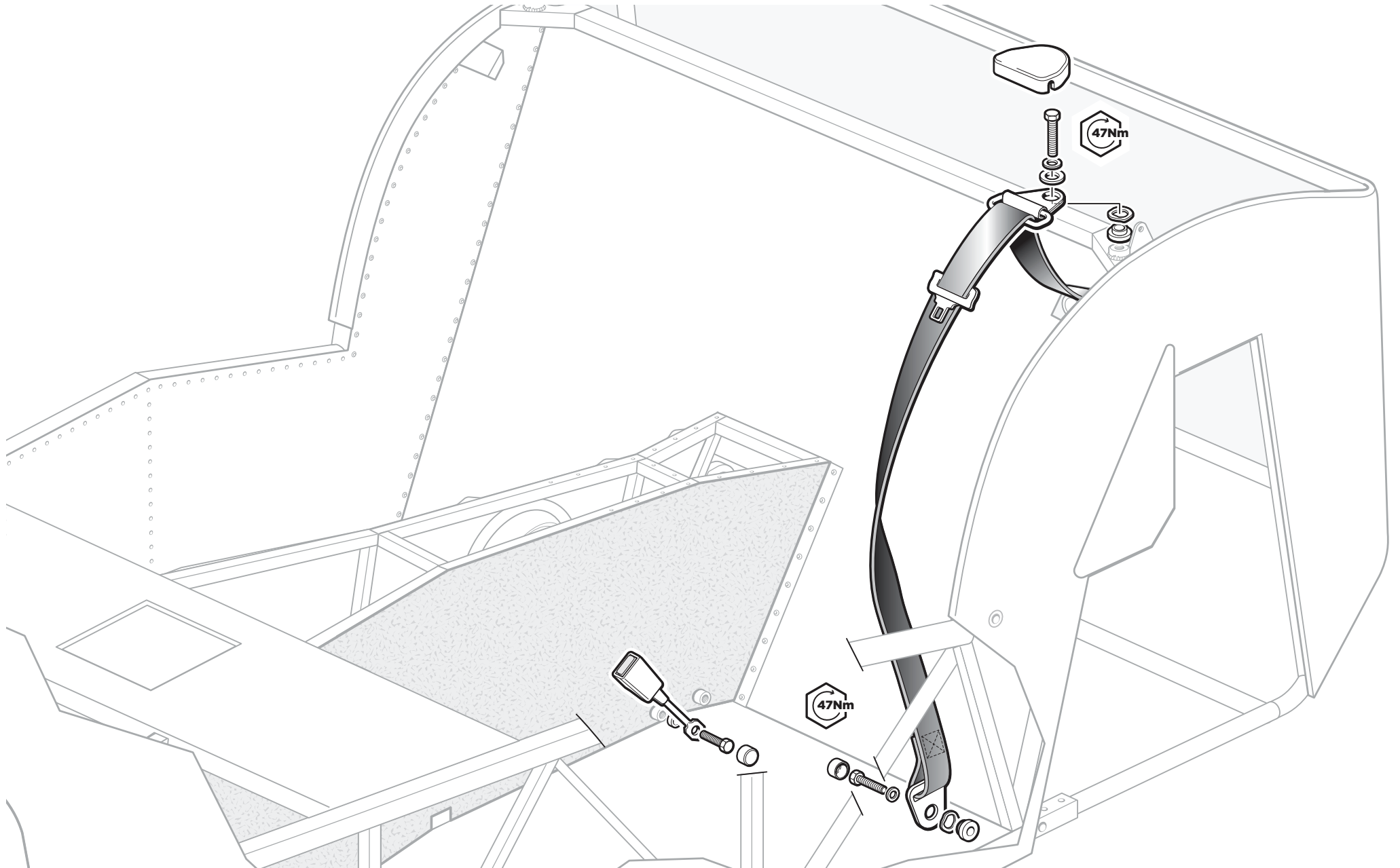
Supplied with seat belts

TIPS

These will be loosely fitted already – you'll need to tighten & torque.

Chris N

BELT UP



FITTING THE FOUR-POINT HARNESS

PARTS

TOOLS



17mm



FIXINGS

All fixings supplied with the harnesses

TIPS

The buckle is attached to a lap strap and this should be fitted to the tunnel side.

Chris N

For Academy cars with Schroth Harnesses see Page 148.

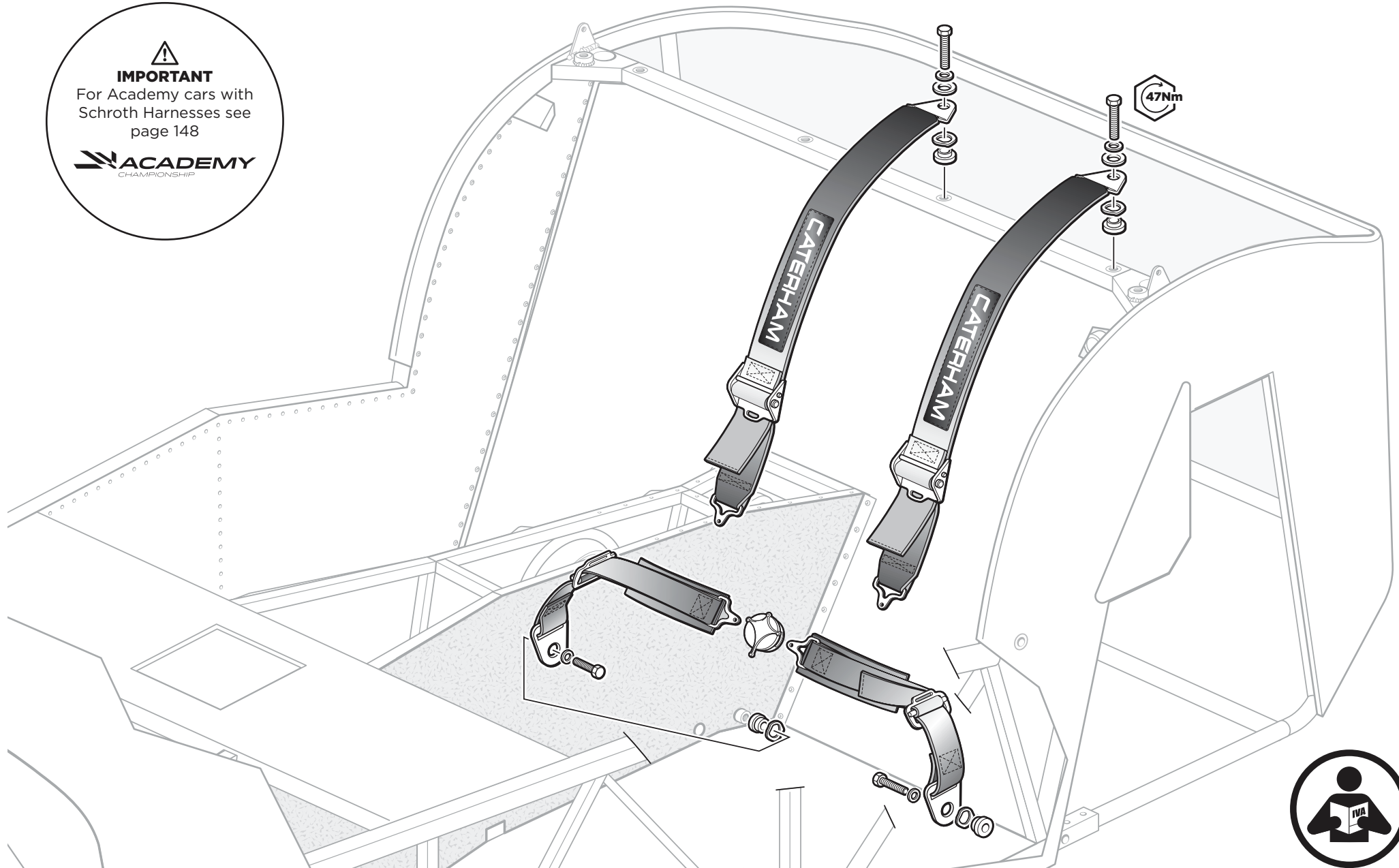
Dan P

FITTING THE FOUR-POINT HARNESS

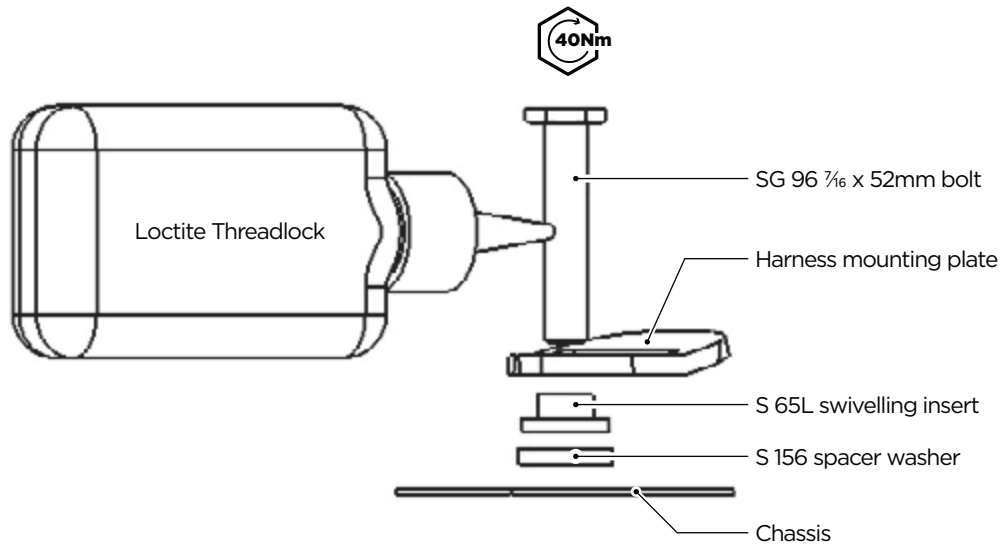


IMPORTANT

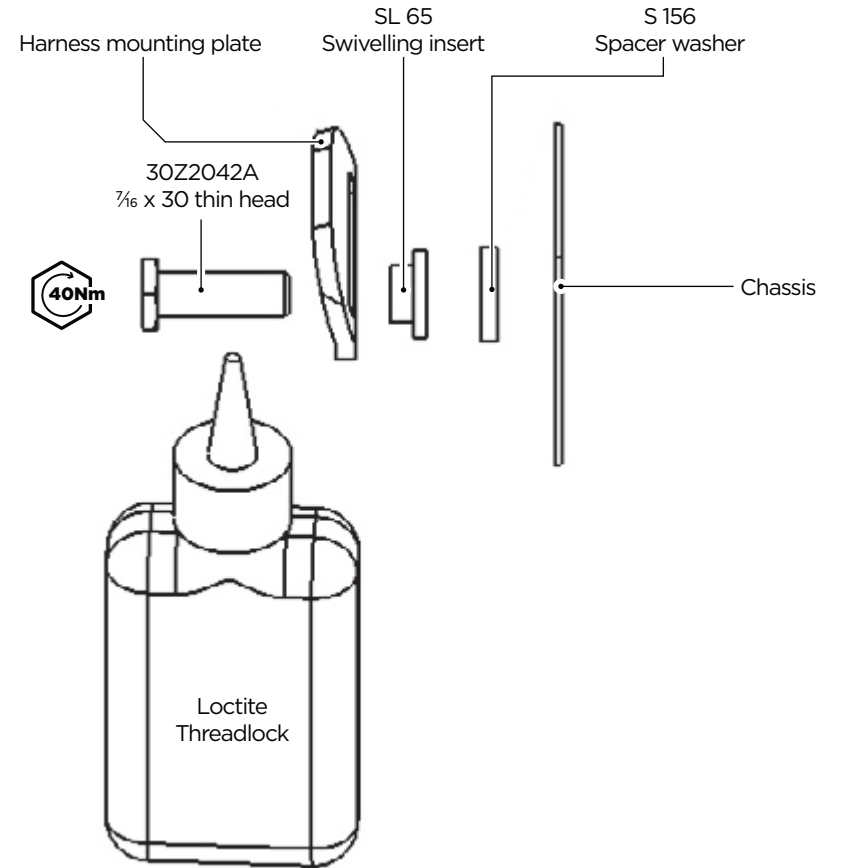
For Academy cars with Schroth Harnesses see page 148



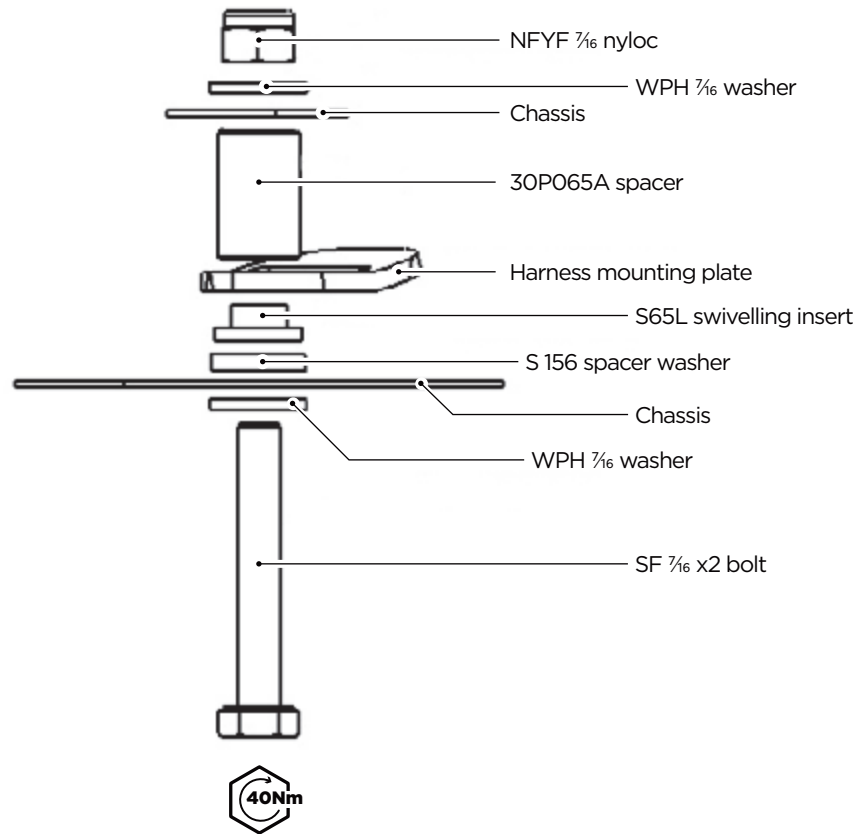
SHOULDER STRAP MOUNTING ORIENTATION



WAIST STRAP MOUNTING ORIENTATION



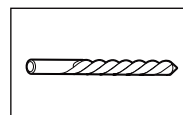
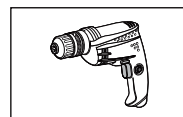
CRUTCH STRAP MOUNTING ORIENTATION



FITTING THE SIX-POINT HARNESS

PARTS

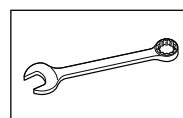
TOOLS



7/16"



16mm
17mm



16mm
17mm

FIXINGS

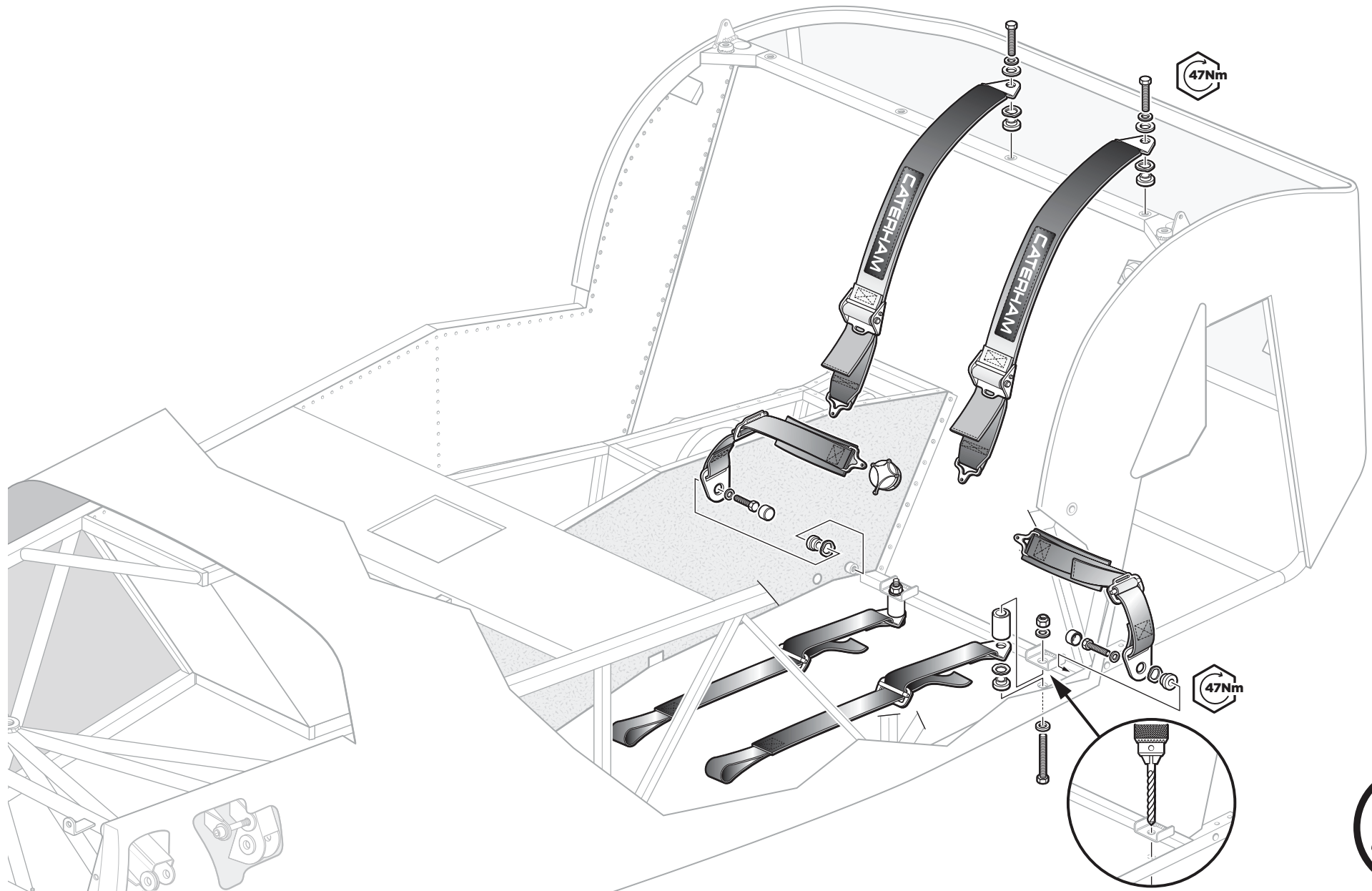
All fixings supplied with the harnesses

TIPS

The buckle is attached to a lap strap and this should be fitted to the tunnel side.

Lee A

FITTING THE SIX-POINT HARNESS

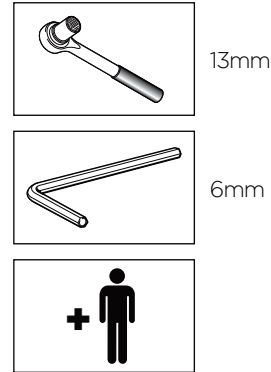


FITTING CLOTH OR LEATHER SEATS

PARTS

- 1** Seat
- 2** Seat base
- 3** Headrest

TOOLS



FIXINGS

Pack L	CATERHAM		62		
			302195B		
CLOTH/LEATHER SEATS ALL CARS					
<small>This pack may include extra fasteners to cover different options</small>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	LA Crested Bolt M8 x 20 Grade 12.9	SMCH8020	4	Through seat runner & floor	
2	LB Nyloc Nut M8	NNY8	4	Under floor	
3	LC Plain Washer M8 x 30	WPH830	4	Under floor	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

x4

x4

x4

TIPS

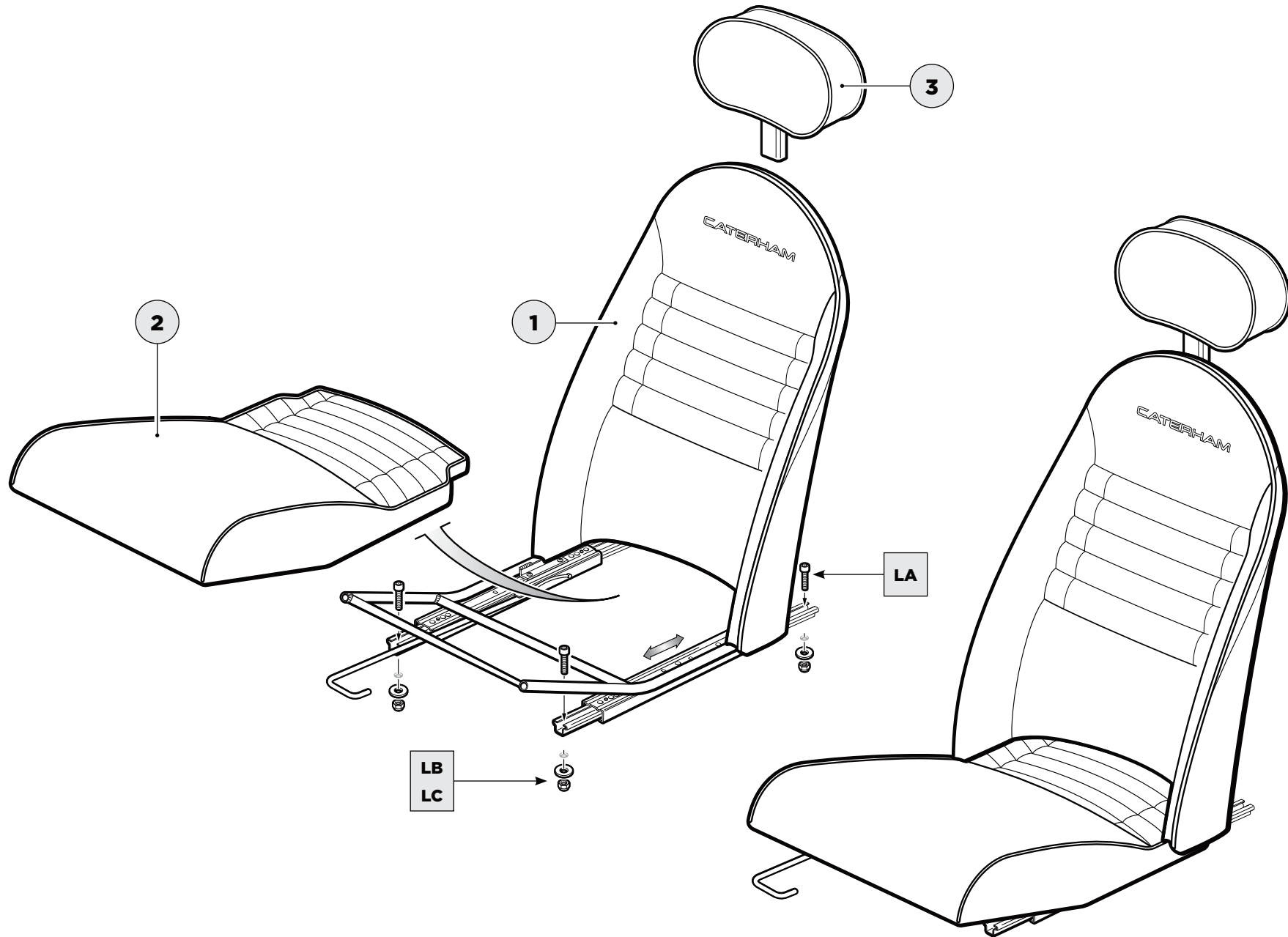
Loosely fit the rear bolts to help locate the front.

Dan D

Nip up all bolts once fitted.

Anthony L

FITTING CLOTH OR LEATHER SEATS

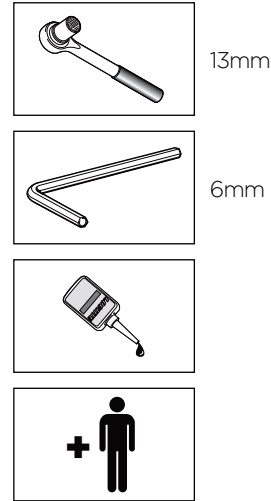


OR FITTING THE RACE SEATS

PARTS

- 1 Seat
- 2 Adjustable runner
- 3 Fixed seat spacer

TOOLS



FIXINGS

For fixed seats

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	MA Caphead Bolt M8 X 20	8MACHX20	4	Spacer box section to seat	
2	MB Caphead Bolt M8 X 20	8MACHX20	4	Floor to mount in spacer box section	
3	MC Spring Washer 5/16"	W5/16S16	8	Bolt heads	
4	MD Washer 5/16" X 1 1/4"	W5/16X1 1/4	4	Under floor	
5	ME Washer M8 X 18	W8M8X18	4	Spacer box section to seat	
7	MF Spacer Blank Plastic	TW2	3	Seat spacer	
8	MG Spacer Blank Plastic	TW3	5	Seat spacer	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

For adjustable seats

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	NA Caphead Bolt M8 X 20	8MACHX20	4	Runner to seat	
2	NB Caphead Bolt M8 X 20	8MACHX20	4	Runner to floor	
3	NC Washer 5/16" X 1 1/4"	W5/16X1 1/4	4	Under floor	
4	ND Nylon Nut M8	N8NY8	4	Under floor	
5	NE Spacer Blank Plastic	TW2	3	Seat spacer	
6	NF Spacer Blank Plastic	TW3	5	Seat spacer	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

TIPS

Put a bit of Loctite on bolts that go into the seat on the runner version.

Chris B

Runners / seat spacers can be fitted to seat before putting in car.

Mick F

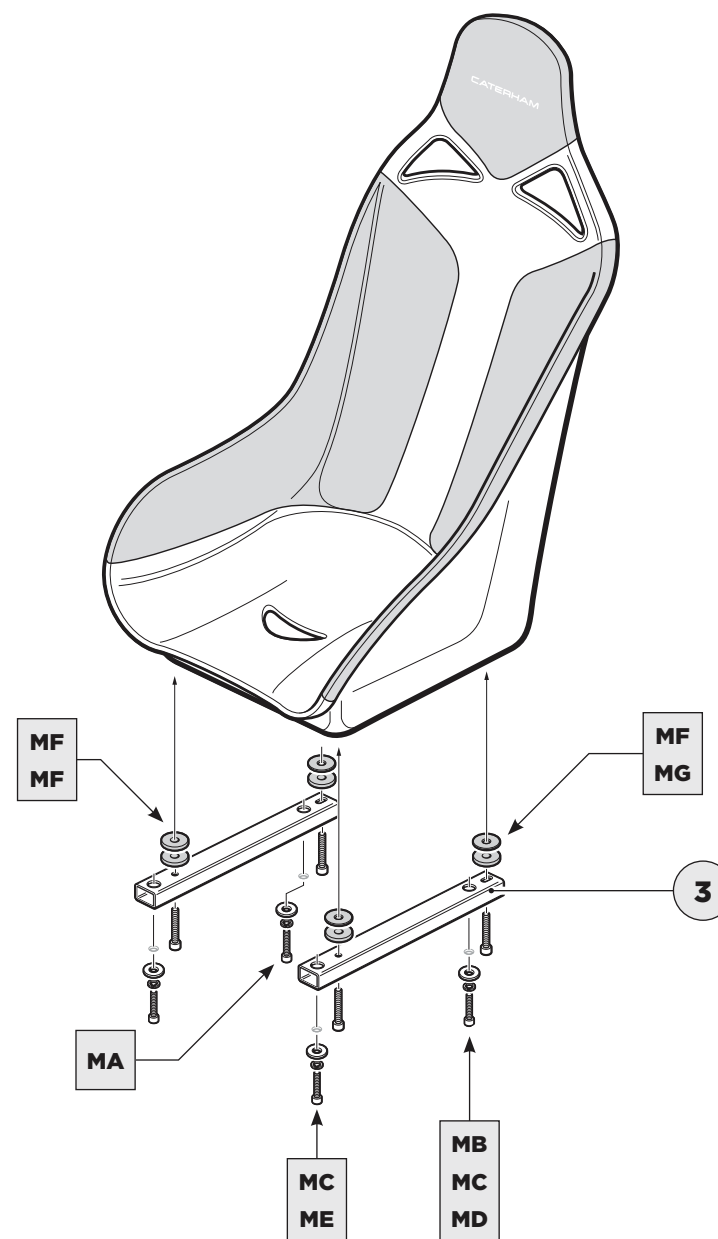
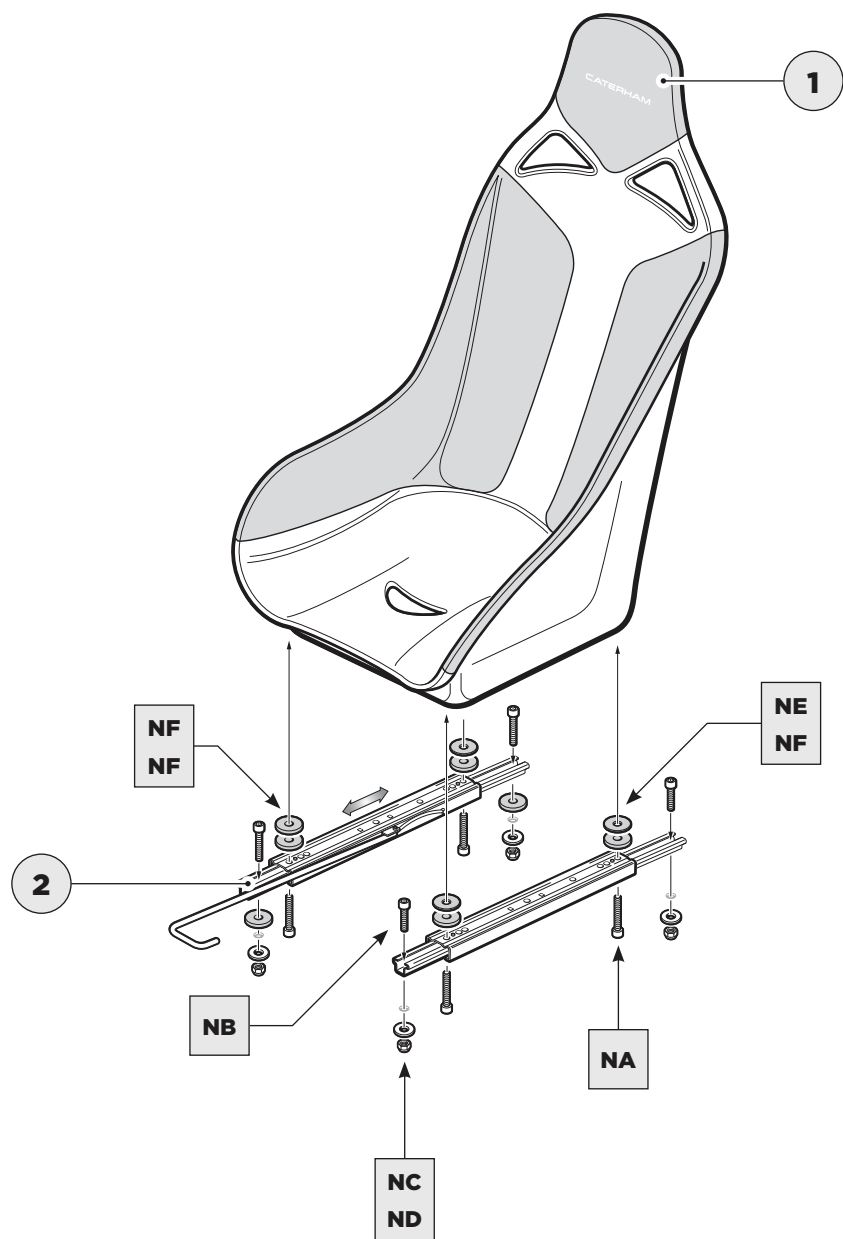
Loosely fit the rear bolts to help locate the front.

Harry P

The fixed position seat is for the passenger side!

Chris N

OR FITTING THE RACE SEATS

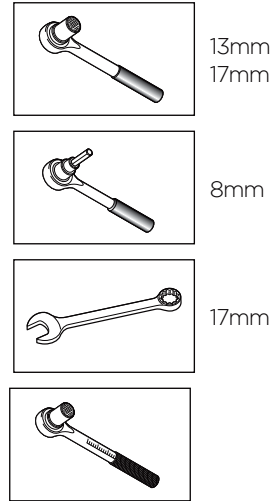


FITTING THE ROLL OVER BAR

PARTS

- 1** Roll over bar

TOOLS



FIXINGS

Pack J		CATERHAM		47	
		PACK NUMBER		30P010A	
ROLL OVER & TRACK DAY BAR SERIES 3 METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Roll M10 x 20 Grade 8.8	BM10060	2	Rear diagonals of roll over bar to mounting brackets	
2	Set screw M8 x 20 Grade 8.8	SMN00	2	Roll over bar bracket to chassis	
3	Cap nut M10 x 20	BMCH10020	2	Roll over bar boss	
4	Nylon Nut M10	NMNF10	2	Rear diagonals of roll over bar to mounting brackets	
5	Plain Washer M8	WPM8	2	Roll over bar bracket to chassis	
6	Spring Washer M8	WSM8	2	Roll over bar bracket to chassis	
7	Plain Washer M10	WPM10	4	Rear diagonals of roll over bar to mounting brackets	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

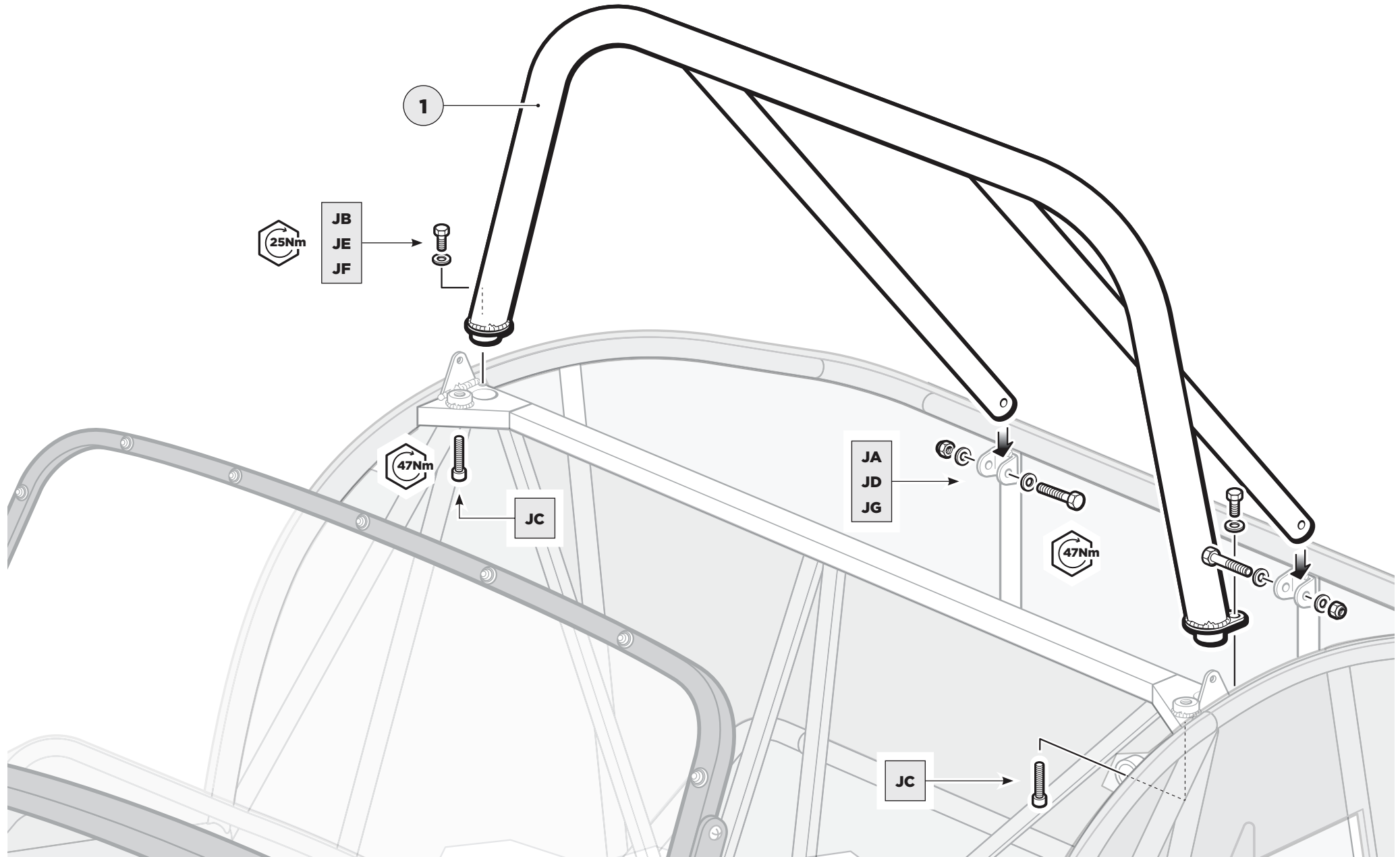
x2
x2
x2
x2
x2
x2
x4

TIPS

If you've fitted the rear dampers they'll need to come off again to do this properly.

Chris B

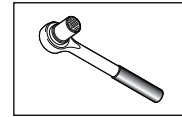
FITTING THE ROLL OVER BAR



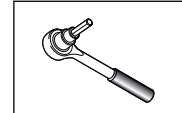
OR THE ROLL CAGE FOR ACADEMY CARS

PARTS

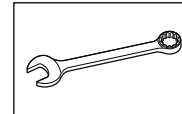
TOOLS



17mm



8mm



17mm



FIXINGS

TIPS

Pack K		CATERHAM		47	
		PACK NUMBER		30P017A	
ROLL CAGE SERIES 3 METRIC					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Bolt M10 x 20 Grade 8.8	BM10X20	2	Rear diagonals of roll over bar to mounting brackets	
2	Set screw M8 x 16 Grade 8.8	SM8X16	4	Front cage bracket	
3	Cap screw M10 x 20	BMCH10X20	2	Roll over bar boss	
4	Nylon Nut M10	NMNF10	2	Rear diagonals of roll over bar to mounting brackets	
5	Plan Washer M10	WPM10	8	x 4 Front cage brackets Rear diagonals	

x2

x4

x2

x2

x8

Mask up the paintwork before fitting to avoid scratches.

John S

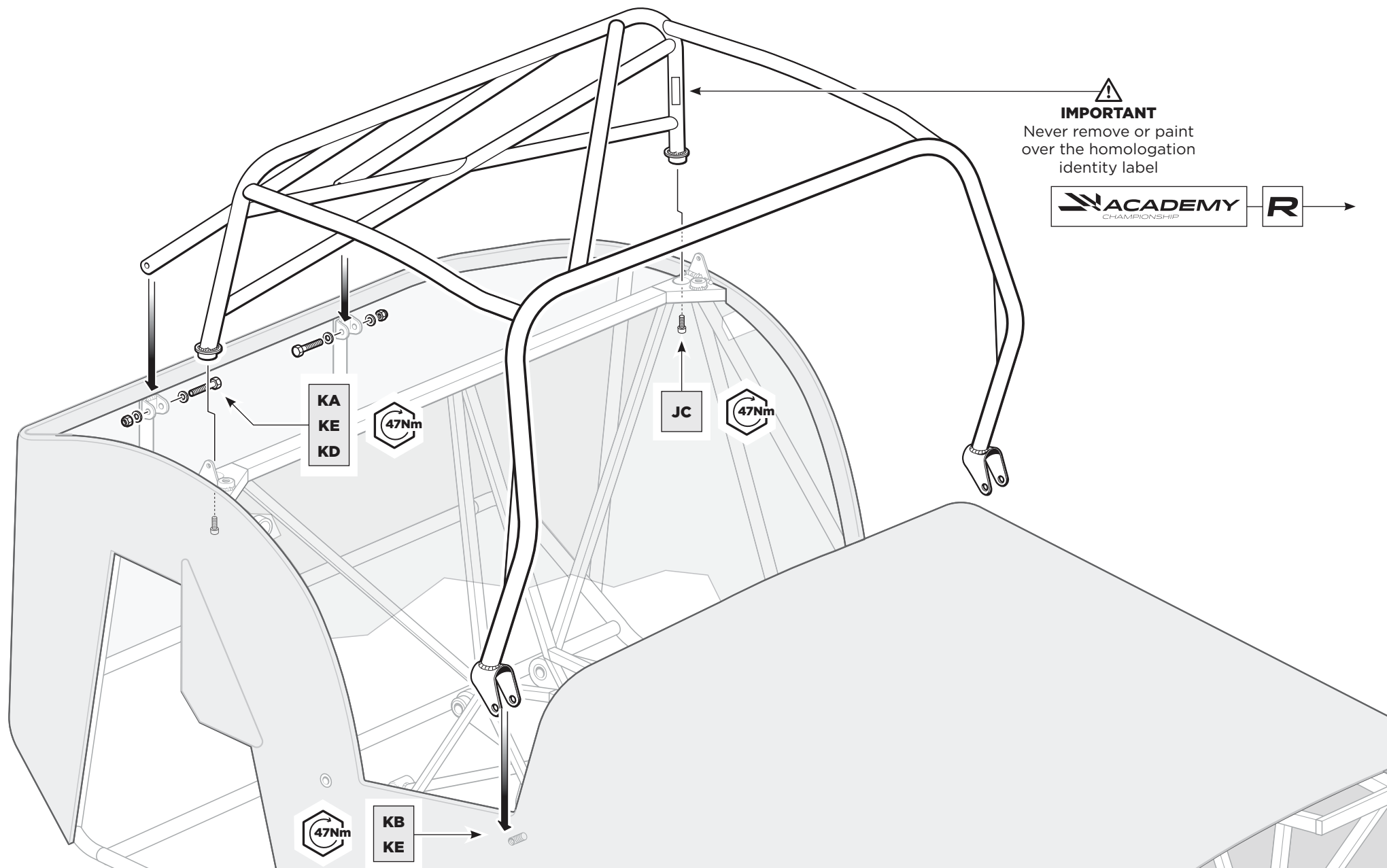
The front leg has two bolts – one from the inside & one from the outside. Great care should be taken to ensure they go in straight.

James A.

The front legs go over the sill and inside the inner panel, not over the panel.

Mick F

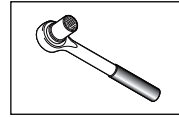
OR THE ROLL CAGE FOR ACADEMY CARS



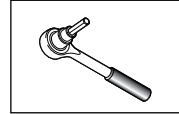
AND THE SIDE IMPACT BAR

PARTS

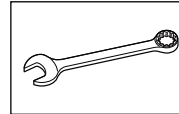
TOOLS



17mm
19mm



3/8"



19mm



FIXINGS

TIPS

Pack R		CATERHAM		46	
				PACK NUMBER	
				30P090C	
SIDE PROTECTION BAR SERIES 3					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Roller Bolt 3/16" X 1-1/2" Grade 10.9	BM12X120	1	A-frame	
2	Clamp Bolt 3/16" X 1-1/2"	WCH016X1.5	1	Boss on top of chassis	
3	Roller Nut 3/16" X 1-1/2" Grade 10.9	SM10X25	1	Front cage bracket	
4	Plain Washer 3/16"	WPH010	1	Front cage bracket	
5	Spring Washer 7/16"	WSH0716	1	Boss on top of chassis	
<small>Drawings are for illustrative purposes only and are not to scale. Page 1 of 1</small>					

Use washers from rollcage pack

x1

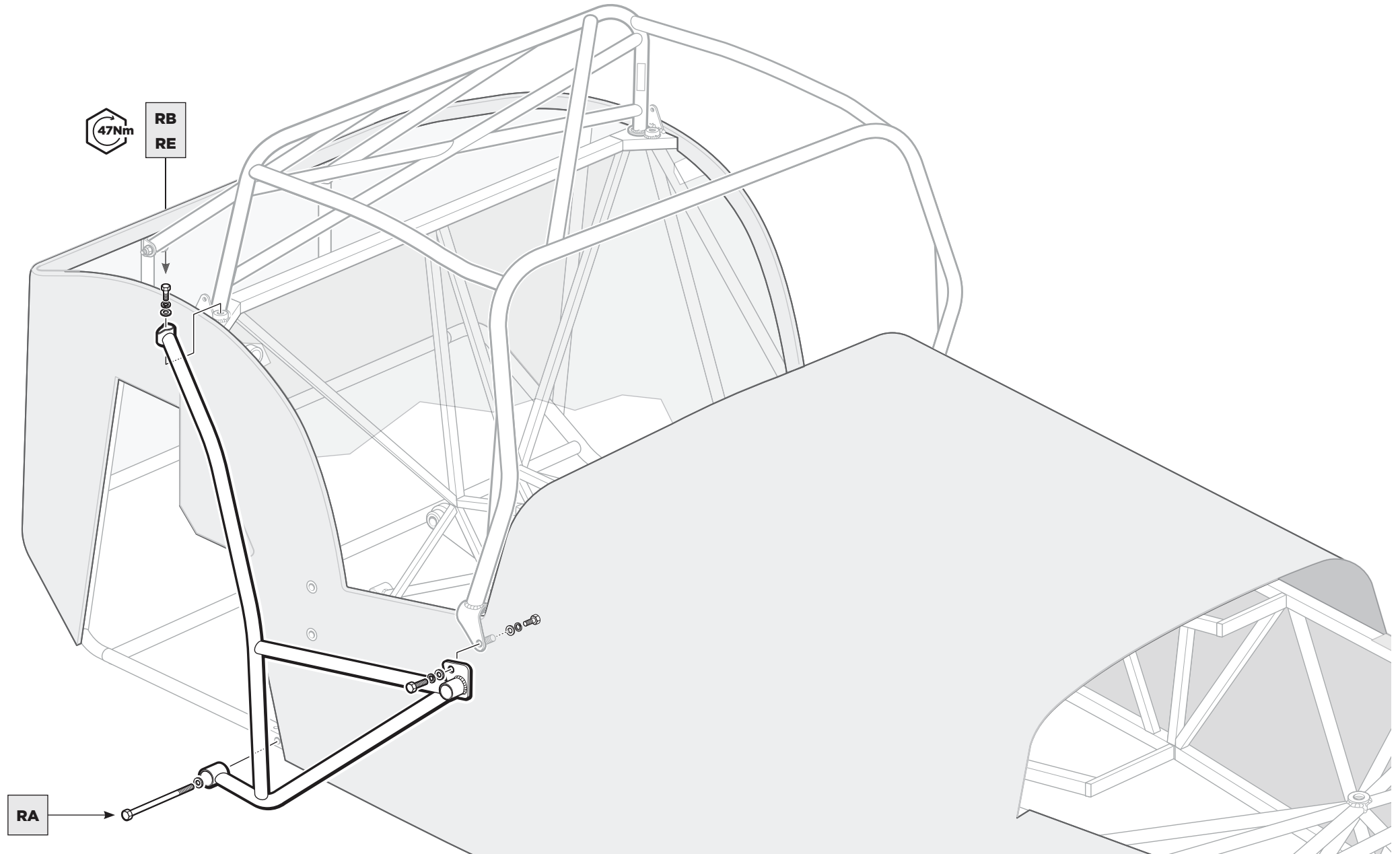
x1

x1

x1

x1

AND THE SIDE IMPACT BAR

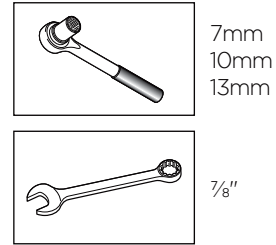


EVEN MORE EXHAUSTING

PARTS

- 1 Silencer
- 2 Exhaust clamp
- 3 Lambda sensor
- 4 Cat guard
- 5 Clip
- 6 Silencer mounting bracket
- 7 Exhaust mounting bobbin

TOOLS



FIXINGS

Pack G		CATERHAM		56	
				39X020B	
EXHAUST					
<small>This pack may include extra fasteners to cover different options</small>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Silencer MB x 25 Grade 8.8	SMBK25	1	Exhaust Mounting Bracket	
2	Plain Nut M8	NPF8	2	Exhaust Bobbin	
3	Spring Washer M8	WSM8	3	x 1 Exhaust Mounting Bracket x 2 Exhaust Bobbin	

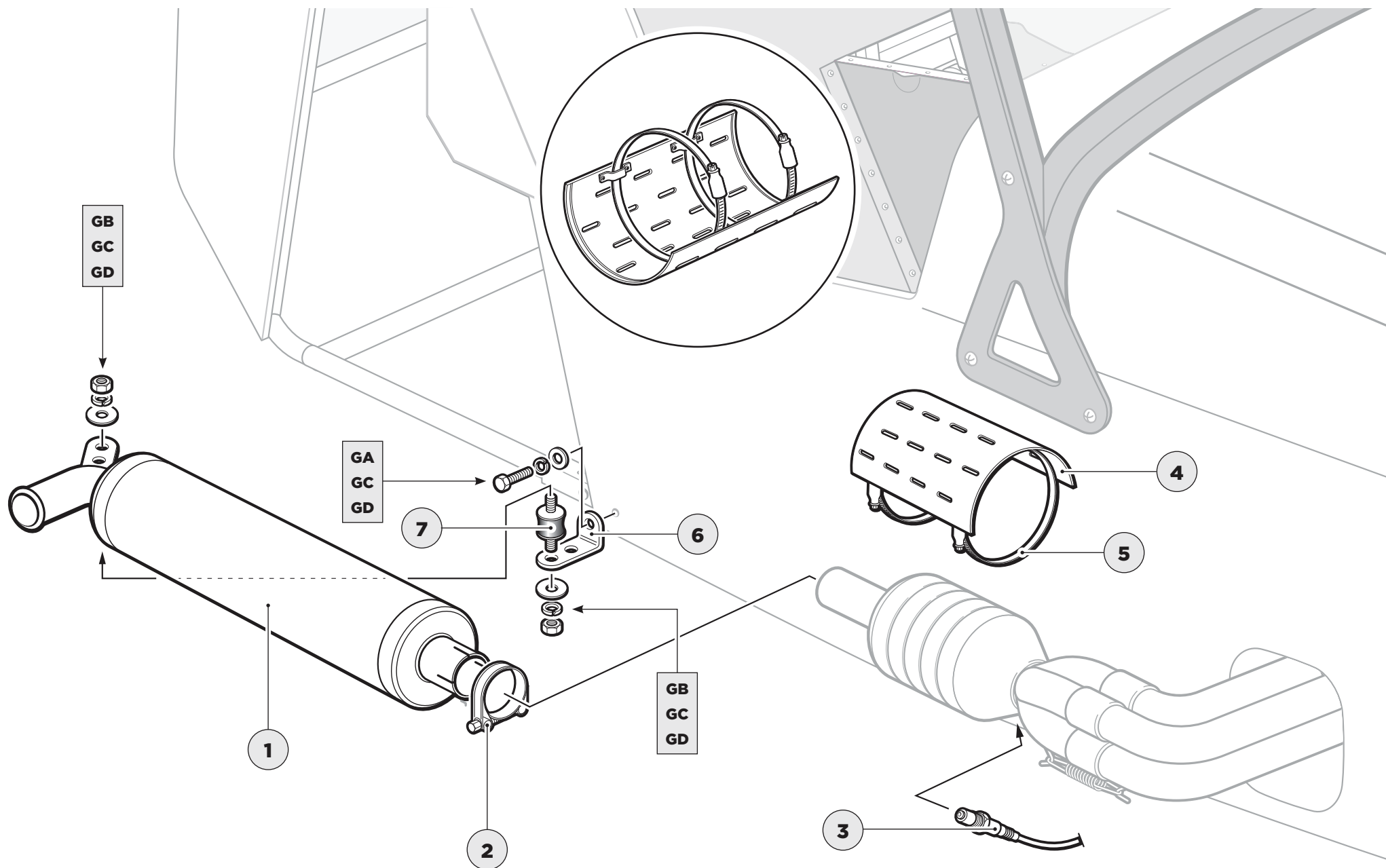
x1
x2
x3

TIPS

Cable tie the Lambda sensor lead neatly out of the way.

Lee A

EVEN MORE EXHAUSTING

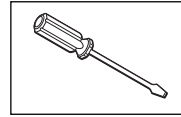


THE NOSE CONE BADGE

PARTS

- 1 Nose cone
- 2 Bonnet
- 3 Badge

TOOLS



FIXINGS

TIPS

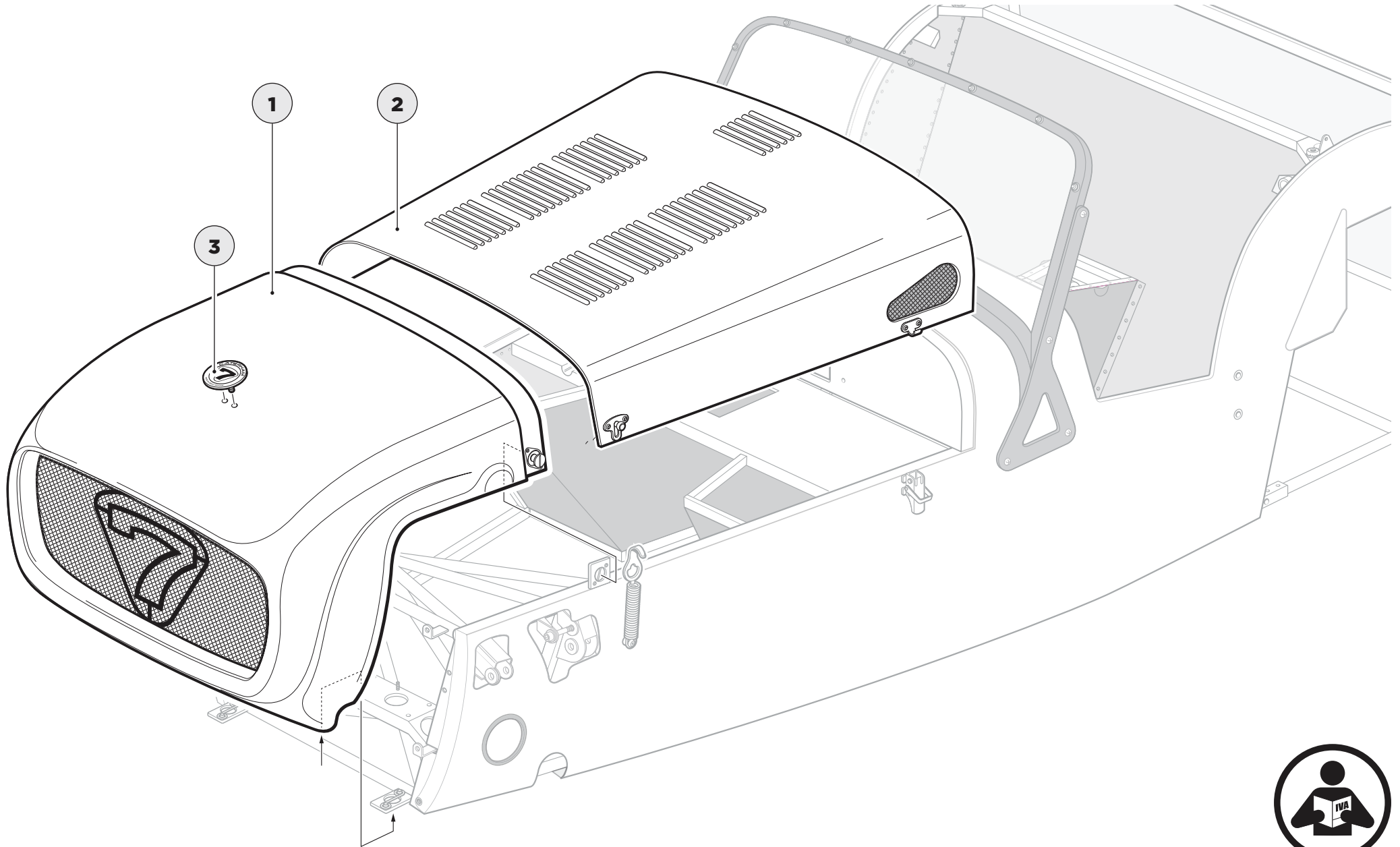
The nose cone goes on before the bonnet.

Anthony L

Stick the supplied foam around the edge of the nose and scuttle where the bonnet will sit (if you've not done already).

Harry P

THE NOSE CONE BADGE



FITTING THE WIPERS

PARTS

- 1 Wiper arm
- 2 Wiper blade

TOOLS

FIXINGS

TIPS

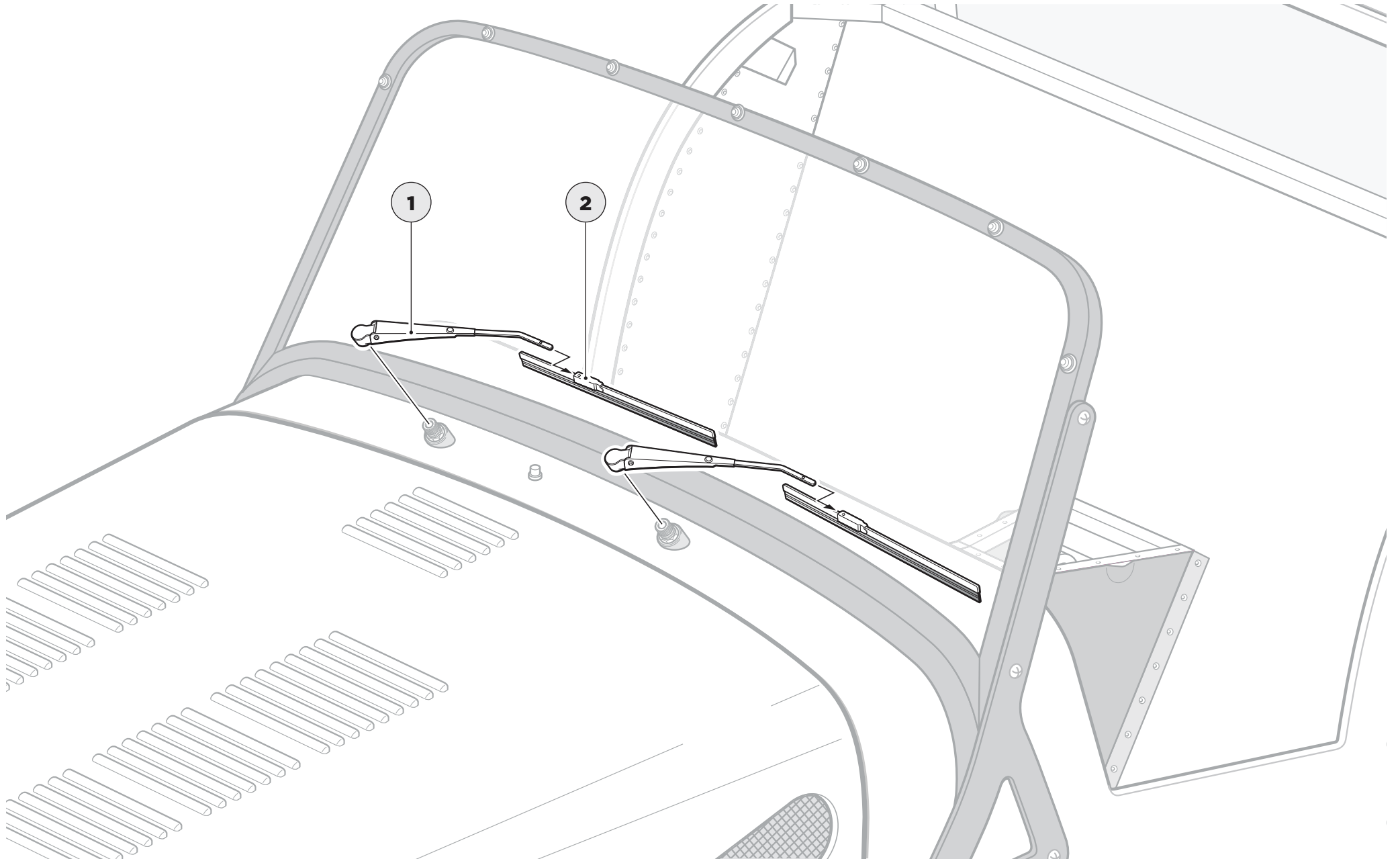
Ensure wipers are in *paused* position before fitting the wiper arms.

John S

Now would be a good time to fill the washer bottle with fluid and test the washers and wipers.

Chris B

FITTING THE WIPERS

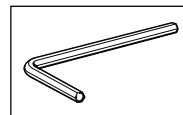
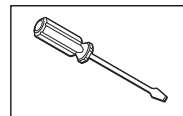


AND FINALLY, AT LAST, THE WING MIRRORS

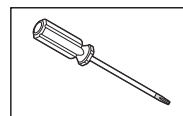
PARTS

-  Mirror head
-  Mirror mount
-  Mirror mount stud
-  Grub screw
-  Fibre washer

TOOLS



2.5mm



T20

FIXINGS

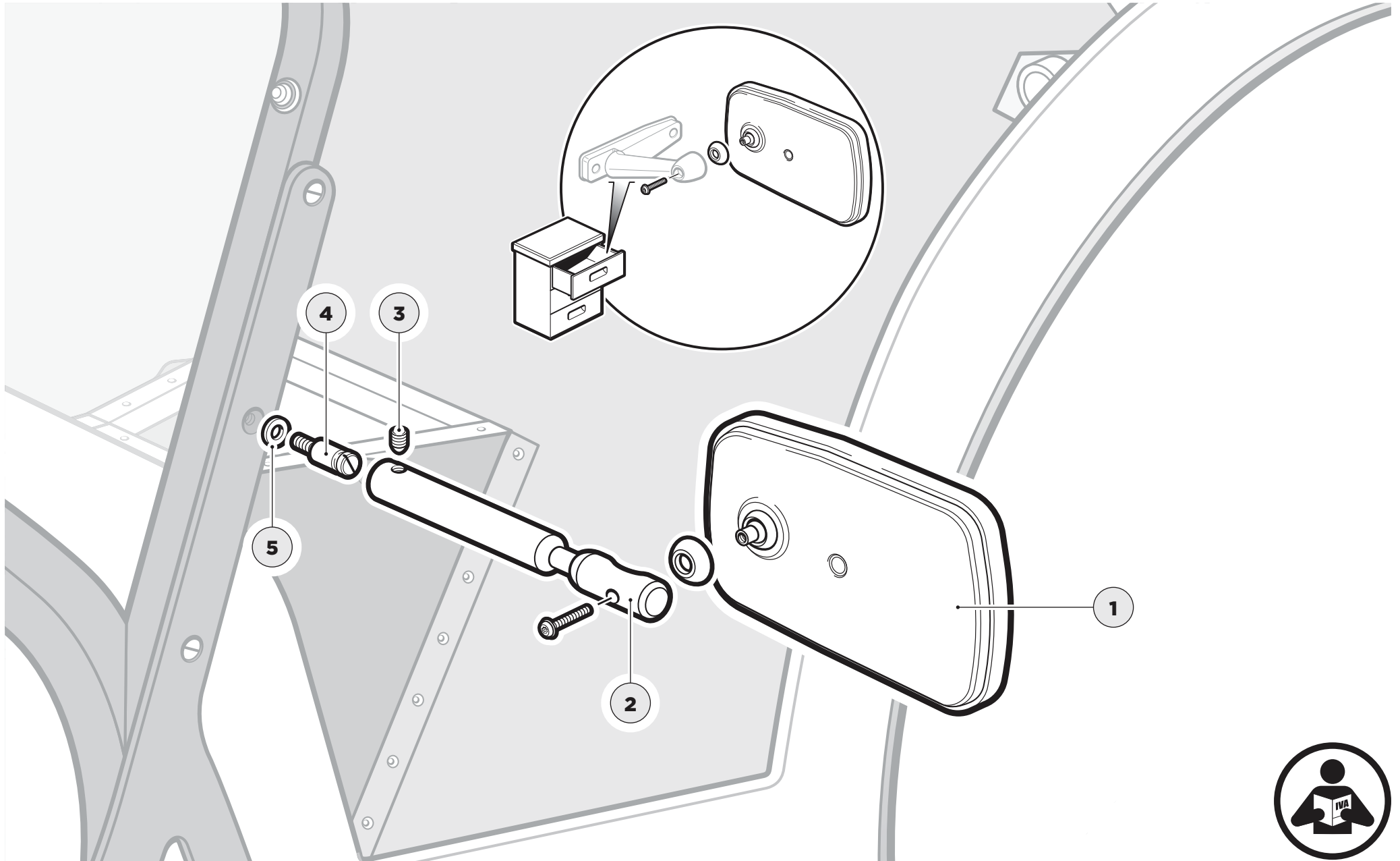
Wing mirror bag

TIPS

You may have to unclick the glass out to tighten up.

Mick F

AND FINALLY, AT LAST, THE WING MIRRORS



WIRING THE STARTER MOTOR

PARTS

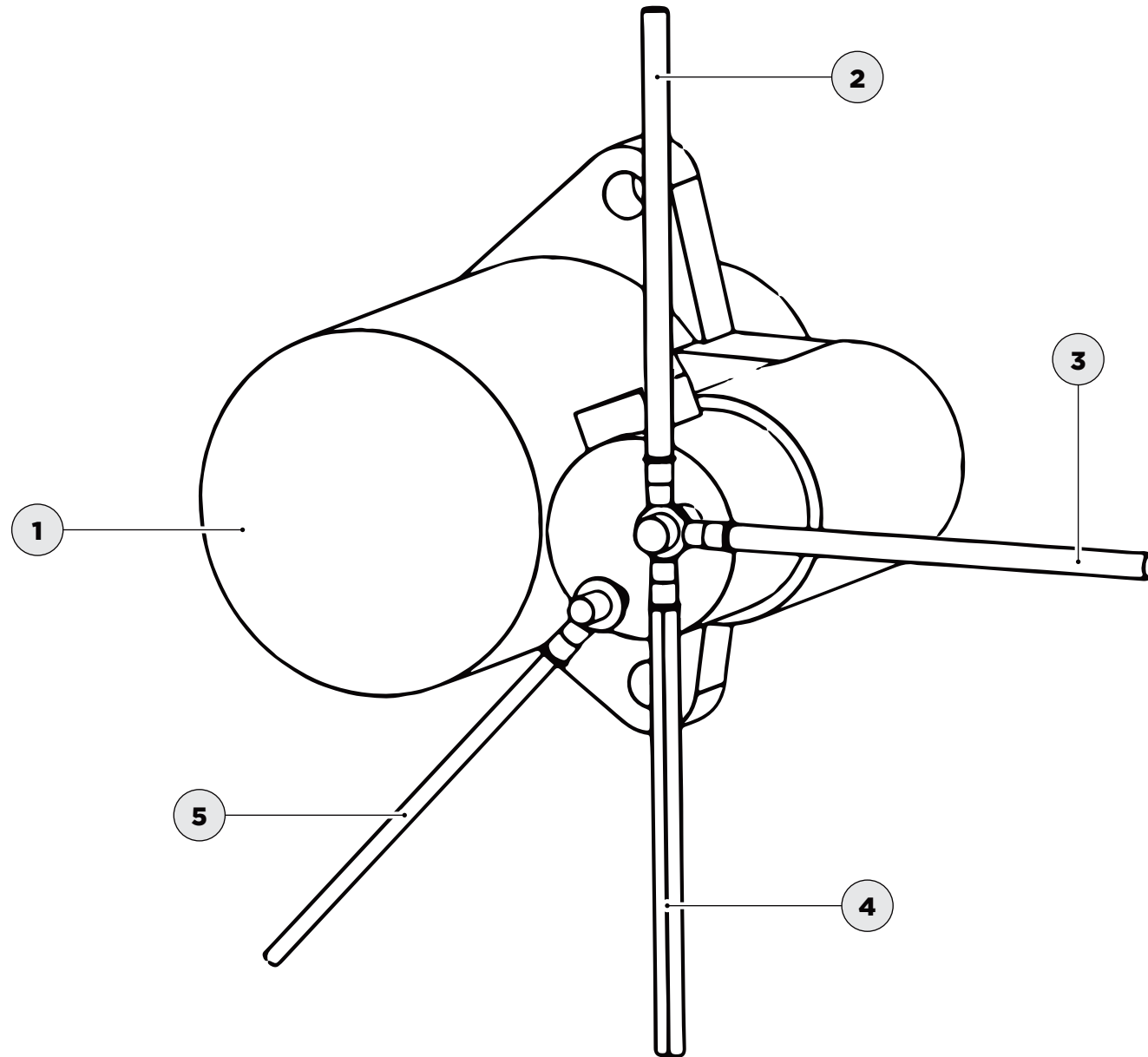
- 1** Starter motor
- 2** Cable from alternator
(brown wire with black sheath)
- 3** Cable from battery
(positive - red wire)
- 4** 2 cables from main loom
(2 brown wires joined)
- 5** Cable from engine loom
(white wire with red stripe)

TOOLS

FIXINGS

TIPS

WIRING THE STARTER MOTOR



THE LAST FEW STEPS...

Your car is almost complete, but before you can drive triumphantly out of the garage (and legally, as far as the end of your driveway) there are a few important things that need to be done. These are, bleeding the brakes, preparing the engine for its first grand firing-up ceremony (it will feel like that, even if you are doing it on your own) and lastly torquing up the suspension.

So, on with bleeding the brakes which cannot be explained with a simple diagram unfortunately:

- 1** Assemble the things you'll need: Brake fluid, both a 10mm and an 11mm spanner, a length of washer hose (or similar clear plastic hose) and a waste fluid receptacle (some form of used bottle is ideal; you won't want to use it again after this)
- 2** Find a volunteer. They need to be able to reach and press the brake pedal, plus respond to your instructions, so whilst a child is fine for this job, someone's might be more inclined to listen to you.
- 3** Fill the brake master cylinder with fresh brake fluid and leave the cap off. **BE CAREFUL NOT TO SPILL ANY ONTO THE PAINTWORK**; if you do, wipe it off immediately. Brake fluid will react with the paintwork causing it to blister and peel.
- 4** Starting at the left rear corner, locate the bleed nipple on the caliper. It will have a rubber cap on it. Remove the cap, remember where you put it, and attach the washer hose to the nipple and put the other end in the waste bottle. This sometimes needs the hose warming up in a cup of hot water to allow it to stretch over the nipple.

- 5 Using the 10mm spanner, 'crack off' the nipple about half of a turn.
- 6 Ask your assistant to pump the pedal a few times. You should see bubbly fluid flowing through the pipe. When the bubbles die down, ask them to hold the pedal down, then tighten the nipple back up. Check and top of the fluid level in the reservoir as necessary.
- 7 Ask them to lift off, then pump it a couple of times, then press the pedal down and hold it down.
- 8 Crack off the nipple again and let the fluid and bubbles flow. It will stop flowing as soon as your assistant has run out of brake pedal travel. Tighten the nipple.
- 9 Repeat steps 8 and 9 until you get 100% bubble free fluid passing through the pipe, remembering to check and top up the reservoir. You will waste quite a lot of brake fluid during this process.
- 10 Once you are satisfied that there are no more bubbles (no more air in the caliper), then you can remove the washer hose and refit the dust cover.
- 11 Repeat steps 5 to 10 for the remaining brakes in this order, right rear next, then right front and lastly left front. The front brake nipples use an 11mm spanner.
- 12 Although tedious, getting all the air out of the braking system is important and will give you a good, firm brake pedal, which is what you need; not a soft spongy one like you have in a regular car. You may need to repeat the whole process after the first drive or two (or even after the car has had a ride on a trailer); air in the braking system is very good at hiding.

Brakes bled and we are ready to fire up the engine. Again, it's easier to explain in writing than draw a diagram. The only thing you'll need for this job is to ensure that you have put some fuel in the car. The shape of the Caterham fuel tank does not lend itself to making use of every last drop, so we recommend an absolute minimum of 10 litres in the tank before trying to start the car. With the tank filled, we are ready for initialisation.

But before anything else:

YOU DID REMEMBER TO PUT OIL IN THE ENGINE AND GEARBOX, RIGHT?

- ① Reassure yourself the engine is full of oil.
- ② Disconnect the inertia switch; it's the black thing attached to the engine bay bulkhead under the windscreen that has rubber cap on top and a plug with two wires connecting from underneath. By disconnecting the inertia switch, the fuel pump will not work, so intentionally, the engine will not fire.
- ③ Ensure the gearbox is in neutral, then turn the ignition key and press and hold the start button.
- ④ As the engine cranks over, watch the oil pressure gauge. Keep cranking until the needle starts to climb, then steadies out.
- ⑤ We now have oil pressure circulating in the engine, which means the engine is ready to be started.
- ⑥ Reconnect the inertia switch.
- ⑦ Take a deep breath, mutter 'this is it', cross your fingers and brace yourself.
- ⑧ Turn the ignition key, press and hold the start button. It will take a few moments for the fuel to get through, so do not expect an instant start.
- ⑨ All things willing, the engine will start. Hooray! If it stops straight away, don't worry. Try again and once it starts give it a little rev.

YOUR SEVEN *Adventure* AWAITS

That's it. Your car is complete! Well done – you have built a car; a real live car; not many people can say that. If you remembered to put in gearbox and differential oil, and fill the system with coolant, then a tentative edge out onto the driveway is in order. You'll need to pop the wheels on and lower it from the axle stands and just tighten the suspension first.

Let's just run through that quickly:







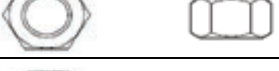
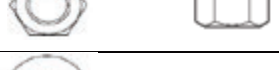



- i. Put a wheel on and do the nuts up a few turns by hand (to ensure they do not cross-thread).**
- ii. Tighten them up the best you can with the wheels off the ground.**
- iii. Lower the car from the axle stands, front first; taking care that it doesn't lean back on the axle stands at the back (a helper might be handy).**
- iv. Torque the wheel nuts to 65lbft (about 85Nm).**
- v. Flick back to the pages where we put the wishbones on and torque as shown**
- vi. That's it, you're ready to go!**

Take care and good luck with the IVA and registration process.




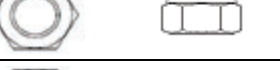
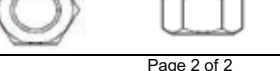
You will soon be experiencing the sheer pleasure of being a Caterham driver. Once again, enjoy!

APPENDIX

FIXING PACKS

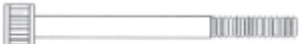










Pack A		CATERHAM		SERIAL NUMBER 44	
				PACK NUMBER	
				30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AA Bolt M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	
2	AB Bolt M12 x 65 Grade 10.9	BM12X65	2	Lower wishbone front	
3	AC Bolt M10 x 65 Grade 10.9	BM10X65	2	Upper wishbone rear	
4	AD Bolt M10 x 60 Grade 10.9	BM10X60	2	Upper wishbone front	
5	AE Bolt M8 x 40 Grade 10.9	BM8X40	4	Anti-roll bar mounting brackets	
6	AF Plain Nut M14 x 1.5 thread	NMPH14	1	Temporary use to help lock upper wishbone ball joint	
7	AG Nyloc Nut M12	NMYF12	2	Lower wishbone rear	
8	AH Nyloc Nut M10	NMYF10	4	Upper wishbone	
9	AJ Plain Washer M12 Chamfered	WPCM12	18	Lower wishbone	
10	AK Plain Washer M8 Heavy duty	WPHM8	4	Anti-roll bar mounting brackets	
11	AL Plain Washer 3/8" x 3/8" Heavy duty	WPH3/8	2	Brake pipe	










Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack A		CATERHAM		SERIAL NUMBER 44	
				PACK NUMBER	
				30F015B	
FRONT SUSPENSION DeDION CARS (METRIC)					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	AM Spring Washer M12	WSHM12	2	Lower wishbone front	
13	AN Spring Washer M8	WSHM8	6	Anti-roll bar mounting brackets & upper damper mount	
14	AP Washer 3/8" Shake-proof	WSS3/8	2	Brake pipe	
15	AR Nyloc Nut 1/2" Half height	NFYH1/2	2	Wing stay	
16	AS Nyloc Nut 1/2" Full height	NFYF1/2	2	Front brake, upright mounting (std track ONLY)	












Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

FIXING PACKS

Pack B		CATERHAM		SERIAL NUMBER 55	
				PACK NUMBER 3ACZ0021	
		RELEASED NOV-19			
STEERING DeDION CARS (METRIC)					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	BA Caphead Bolt M6 x 70 DIN 912	BMCH6X70	4	Rack clamps	
2	BB Bolt 1/4" x 1 1/2"	BF1/4X1.1/2	2	Column clamp	
3	BC Bolt M8 x 40 Grade 10.9	BM8X40	2	Column to rack universal joint	
4	BD Nyloc Nut 1/2" Half height	NFYH1/2	1	Steering wheel boss	
5	BE Plain Nut 1/2"	NFPF1/2	2	Track rod lock nut	
6	BF Plain Nut 3/16" Half height	NFPFH7/16	1	Column clamp grubscrew locknut	
7	BG Nyloc Nut M8	NMYF8	2	Column to rack universal joint	
8	BH Nyloc Nut M6	NMYF6	4	Steering rack clamps	
9	BJ Plain Washer 1/2" x 1 1/4" Chamfered	WPH1/2	1	Steering wheel boss	
10	BK Plain Washer 1/2" Heavy duty	WPH1/4	6	Rack clamps and column clamp	
11	BL Spring Washer 1/4" Heavy duty	WSH1/4	2	Column clamp	
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 1








Pack C		CATERHAM		SERIAL NUMBER 45	
				PACK NUMBER 30L002B	
		RELEASED NOV-19			
LIGHTING & HORNS					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	CA Screw 10 x 1/2" Black Supaflange	71080	6	Indicator assembly to indicator pod	
2	CB Screw 8 x 1/2" Black Supaflange	71077	2	Side repeater earth on wingstay	
3	CC Screw 12 x 1 1/4" Self tapping	71079	4	Rear light cluster upper fixing	
4	CD Screw 12 x 1" Self tapping	71078	4	Rear light cluster lower fixing	
5	CE Nyloc Nut M6	NMYF6	2	Horn bracket to steering rack platform (160/270/310)	
6	CF Plain Washer 1/4" Heavy duty	WPH1/4	2	Horn bracket to steering rack platform (160/270/310)	
7	CG Bolt M8 x 5 Grade 8.8	BM8X50	1	Through steering rack platform & spacer (420)	
8	CH Plain Washer 5/16"	WPH5/16	2	Bolt head/nut	
9	CI Nyloc Nut M8	NMYF8	1	Horn bolt	
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 1

FIXING PACKS

Pack D		CATERHAM		SERIAL NUMBER	44
				PACK NUMBER	30C047B
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Bolt M8 X 50 Grade 8.8	BM8X50	1	Expansion tank bracket to chassis	
2	DB Setscrew 1/4" X 3/4"	SF1/4X3/4	1	Expansion tank to bracket	
3	DC Setscrew M8X20 Grade 8.8	SM6X20	4	SV radiator bracket	
4	DD Bolt M6 X 16 with square section	30Z1072A	4	Fan brackets to fan	
5	DE Setscrew M6X16 Panhead Pozzi	SPHM6X16	4	Fan to radiator cowling - SV only	
6	DF Nyloc Nut M6	NMYF6	8	x4 Fan to radiator x4 SV radiator bracket	
7	DG Plain Nut M8	NMPF8	8	Radiator bobbin	
8	DH Nyloc Nut 1/4"	NFYF1/4	1	Expansion tank bracket	
9	DI Plain Washer 1/4" Heavy duty	WPH1/4	13	8 x SV rad bracket 4 x Fan fixings 1 x Expansion tank bracket	
10	DJ Plain Washer 5/16" Heavy duty	WPH5/16	4	Radiator bobbin back	
11	DK Plain Washer 5/16" X 7/8" Heavy duty	WPH5/17X7/8	4	Radiator bobbin front	

Drawings are for illustrative purposes only and are not to scale.







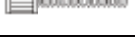
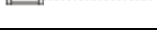
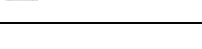
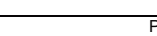
Page 1 of 2

Pack D		CATERHAM		SERIAL NUMBER	44
				PACK NUMBER	30C047B
COOLING SIGMA					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	DL Plain Washer 1/4" X 7/8" Heavy duty	WPH1/4X7/8	1	Expansion tank bracket	
13	DM Spring Washer 5/16" Heavy duty	WSH5/17	9	8 x Radiator bobbin 1 x Expansion tank	
14	DN Hose Clip 30 - 40mm	SGT25-40	6	2 x U shape hose to water rail 2 x Top radiator hose 2 x Bottom radiator hose	
15	DO Hose Clip 23 - 35mm	SGT23-35	2	1 x Engine outlet to big T piece 1 x Engine outlet to heater inlet	
16	DP Hose Clip 17 - 25mm	SGT16-25	18	6 x Heater inlet/outlet 3 x Big T-piece 1 x Expansion tank 2 x Modine 4 x Dry Sump 2 x Submarine	
17	DQ Hose Clip 8 - 16mm	SGT8-16	6	Expansion tank small T-piece	
18	DR Rivet - Black 5/32" X 0.47"	1610-01015	12	Cowling flap	











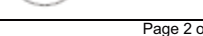

Drawings are for illustrative purposes only and are not to scale.

Page 1 of 2

FIXING PACKS












Pack E		CATERHAM		SERIAL NUMBER 66	
				PACK NUMBER	
				3EZ1105F	
SIGMA GEARBOX 5 SPEED					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	EA Bolt M14 X 40 Grade 12.9	3EZ1137A	2	AV Mount	
2	EB Caphead Bolt M8 X 40 Grade 12.9	30Z1076A	4	AV Mount	
3	EC Caphead Bolt M12 X 50 Grade 12.9 Coarse Thread	3EZ1142A	4	Gearbox	
4	ED Caphead Bolt M10 X 60 Grade 12.9	BMCH10X60	4	1 x Bellhousing 3 x Starter Motor	
5	EE Caphead Bolt M10 X 55 Grade 12.9	BMCH10X55	3	Bellhousing	
6	EF Caphead Bolt M10 X 40 Grade 12.9	BMCH10X40	3	Bellhousing	
7	EG Caphead Bolt M10 X 35 Grade 12.9	BMCH10X35	2	Engine Mount RHS Top	
8	EH Caphead Bolt M8 X 25 Grade 12.9	BMCH8X25	2	Engine Mount 1 x LHS Top 1 x LHS Bottom	
9	EI Caphead Bolt M8 X 30 Grade 12.9	BMCH8X30	1	Engine Mount LHS Bottom	
10	EJ Caphead Bolt M8 X 35 Grade 12.9	BMCH8X35	2	Engine Mount RHS Bottom	
11	EK Caphead Bolt M6 X 25 Grade 12.9	BMCH6X25	3	Clutch Slave Cylinder	

Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack E		CATERHAM		SERIAL NUMBER 66	
				PACK NUMBER	
				3EZ1105F	
SIGMA GEARBOX 5 SPEED					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	EL Buttonhead Bolt M6 X 10 Grade 10.9 Internal Hex	3GZ1163A	3	Gear Lever	
13	EM Plain Washer M14	WPH14	2	AV Mount	
14	EN Plain Washer M12	30Z2031A	4	Gearbox	
15	EO Plain Washer M6	WPHM6	3	Gear Lever	
16	EP Plain Washer 5/16"	WPH5/16	8	AV Mount	
17	EQ Spring Washer M12	WSHM12	4	Gearbox	
18	ER Spring Washer M10	WSHM10	10	x 7 Bellhousing 3 Engine Mount	
19	ES Wire Spring Washer M10	WSHM10	3	Starter Motor	
20	ET Spring Washer M8	WSHM8	5	Engine Mount	
21	EU Spring Washer M6	WSHM6	3	Clutch Slave Cylinder	
22	EV Myloc Nut M8	NMYF8	4	AV Mount	
23	EW Spring Washer M14	30Z2030A	2	AV Mount	






Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

FIXING PACKS

Pack F		CATERHAM		SERIAL NUMBER 66	
				PACK NUMBER	
				3EZ2029B	
DURATEC GEARBOX 5 SPEED					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	FA Bolt M14 X 30 X 1.5 Grade 12.9	30Z2032A	2	AV Mount	
2	FB Caphead M12 X 40 X 1.75 Grade 12.9	BMCH12X40	4	Bellhousing	
3	FC Caphead Bolt M10 X 90 Grade 12.9	BMCH10X90	1	Bellhousing	
4	FD Caphead Bolt M10 X 55 Grade 12.9	BMCH10X55	3	Bellhousing	
5	FE Caphead Bolt M10 X 45 Grade 12.9	BMCH10X45	7	x 5 Bellhousing x 2 Starter Motor	
6	FF Caphead Bolt M8 X 40 Grade 12.9	30Z1076A	4	AV Mount	
7	FG Caphead Bolt M6 X 25 Grade 12.9	BMCH6X25	3	Clutch Release Bearing	
8	FH Buttonhead Bolt M6 X 10 Grade 10.9 Internal Hex	3GZ1163A	3	Gear Lever	
9	FI Nyloc Nut M8	NMYF8	4	AV Mount	
10	FJ Plain Washer M14	WPH14	2	AV Mount	
11	FK Plain Washer M12	30Z2031A	4	Bellhousing	

Drawings are for illustrative purposes only and are not to scale.

Page 1 of 2

Pack F		CATERHAM		SERIAL NUMBER 66	
				PACK NUMBER	
				3EZ2029B	
DURATEC GEARBOX 5 SPEED					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	FL Plain Washer M6	WPHM6	3	Gear Lever	
13	FM Spring Washer M14	30Z2030A	2	AV Mount	
14	FN Spring Washer M12	WSHM12	4	Gearbox	
15	FO Spring Washer M10	WSHM10	4	x 2 Starter Motor x 2 Front Bellhousing	
16	FP Spring Washer M6	WSHM6	3	Clutch Slave Cylinder	

Drawings are for illustrative purposes only and are not to scale.

Page 2 of 2

FIXING PACKS




Pack **G**

CATERHAM

SERIAL NUMBER	56
PACK NUMBER	30X020B

EXHAUST

This pack may include extra fasteners to cover different options

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	GA Setscrew M8 X 25 Grade 8.8	SM8X25	1	Exhaust Mounting Bracket	
2	GB Plain Nut M8	NFPF8	2	Exhaust Bobbin	
3	GC Spring Washer M8	WSHM8	3	x 1 Exhaust Mounting Bracket x 2 Exhaust Bobbin	

Drawings are for illustrative purposes only and are not to scale.








Page 1 of 1



FIXING PACKS

Pack H		CATERHAM		SERIAL NUMBER 53 PACK NUMBER 30R011D	
REAR SUSPENSION DEDION METRIC					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	HA Bolt M12 X 100 Grade 10.9	BM12X100	2	A-frame front mountings	
2	HB Caphead Bolt M10 X 65	BMCH10X65	2	Front radius arm (through cockpit)	
3	HC Bolt 1/2" X 2.1/2" Grade 10.9	BF1/2X2.1/2	4	x 2 Lower Rear Damper x 2 Rear Radius Arm	
4	HD Bolt M6 X 80 Grade 10.9	BM6X80	4	Rear Anti Roll Bar Mounting Blocks	
5	HE Bolt 1/2" X 2.3/4" Grade 10.9	BF1/2X2.3/4	1	A-frame to DeDion	
6	HF Half Nyloc 1/2" UNF	NFYH1/2	3	x 2 Rear Radius Arm x 1 A-frame to DeDion	
7	HG Nyloc Nut M12	NMYF12	2	A-frame front mounts	
8	HH Nyloc Nut M10	NMYF10	2	Front radius arm (through cockpit)	
9	HI Half Nyloc M8	NMYH8	2	Rear Anti Roll Bar Drop Link	
10	HJ Nyloc Nut M6	NMYF6	4	Rear Anti Roll Bar Mounting Blocks	
11	HK Nyloc Nut 1/4"	NFYF1/4	1	3 - way union on DeDion tube	
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 2



Pack H		CATERHAM		SERIAL NUMBER 53 PACK NUMBER 30R011D	
REAR SUSPENSION DEDION METRIC					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	HL Washer	79029	10	Differential Isolation	
13	HM Plain Washer 1/2" Chamfered	WPH1/2	20	x 2 Lower Damper x 10 A-frame washers x 4 Radius Arm	
14	HN Plain Washer 3/8" X 7/8"	WPH3/8X7/8	2	Front Radius Arm	
15	HO Plain Washer M6	WPHM6	4	Rear Anti Roll Bar Mounting Block	
16	HP Schnorr Washer M12	30Z1069A	2	Lower Damper	
Drawings are for illustrative purposes only and are not to scale.					Page 2 of 2





FIXING PACKS

Pack J		CATERHAM			SERIAL NUMBER		47	
					PACK NUMBER		30P010A	
ROLL OVER & TRACK DAY BAR SERIES 3 METRIC								
<i>This pack may include extra fasteners to cover different options</i>								
ITEM		BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION		
1	JA	Bolt M10 X 60 Grade 8.8	BM10X60	2	Rear diagonals of roll over bar to mounting brackets			
2	JB	Setscrew M8 X 20 Grade 8.8	SM8X20	2	Roll over bar bracket to chassis			
3	JC	Caphead Bolt M10 X 20	BMCH10X20	2	Roll over bar boss			
4	JD	Nyloc Nut M10	NMYF10	2	Rear diagonals of roll over bar to mounting brackets			
5	JE	Plain Washer M8	WPHM8	2	Roll over bar bracket to chassis			
6	JF	Spring Washer M8	WSHM8	2	Roll over bar bracket to chassis			
7	JG	Plain Washer M10	WPHM10	4	Rear diagonals of roll over bar to mounting brackets			
Drawings are for illustrative purposes only and are not to scale.						Page 1 of 1		

Pack O		CATERHAM			SERIAL NUMBER			
					PACK NUMBER		ZWS01	
WING PROTECTORS STAINLESS STEEL								
<i>This pack may include extra fasteners to cover different options</i>								
ITEM		BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION		
1	OA	Rivet 1/8" X 0.51"	1661-0414	30	Wing protector to wing			
2	OB	Wing Piping	76901	2m	Between wing protector and wing			
Drawings are for illustrative purposes only and are not to scale.						Page 1 of 1		

FIXING PACKS

Pack P		CATERHAM			SERIAL NUMBER PACK NUMBER ZWS02	
WING PROTECTORS CARBON FIBRE						
<i>This pack may include extra fasteners to cover different options</i>						
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION	
1	PA Rivet Black 1/8" X 0.51"	1610-01049	30	Wing protector to wing		
2	PB Wing Piping	76901	2m	Between wing protector and wing		
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 1	

Pack Q		CATERHAM			SERIAL NUMBER 31 PACK NUMBER ZFG12	
REAR WINGS						
<i>This pack may include extra fasteners to cover different options</i>						
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION	
1	QA Set Screw M5 X 20	SM5X20	20	Rear Wings		
2	QB Nylc Nut M5	NMYF5	10	Rear wings through boot		
3	QC Plain Washer 3/16" X 3/4"	WP3/16X3/4	30	Wing washers		
4	QD Wing Piping 1/4" X 1"	76902	4m	Between wing and body		
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 1	

CATERHAM

Caterham Cars Limited, 2-3 Kennet Road, Dartford, Kent, DA1 4QN
+44 (0) 1322 625800

CATERHAMCARS.COM

 /CaterhamCars  @caterhamcars

Content is subject to change without notice.

© Caterham 2022

Edition 2.2S 11/22

Images are for illustrative purposes only.