



***CATERHAM***

**ASSEMBLY GUIDE**

SUZUKI – EDITION 1.3

# ***CATERHAM***

## **ASSEMBLY GUIDE**

SUZUKI – EDITION 1.3

Your feedback and comments are welcome: [assemblyguide@caterham.com](mailto:assemblyguide@caterham.com)

For help and build support enquiries contact: [buildsupport@caterham.com](mailto:buildsupport@caterham.com)

For help and support with IVA and registrations contact: [ivaapplications@caterham.com](mailto:ivaapplications@caterham.com)

**CATERHAM**

## 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 available should you need it.

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](mailto: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.

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

**ENJOY**



## MY BUILD NOTES

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Download the IVA Checklist Guide: [www.caterhamcars.com](http://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**

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

**Grant P**

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**

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

**Harrison P**

1Nm of torque equals 0.736lbft.

**Mick F**

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

**Simon L**

It's good practise to keep your work area clean and tidy, as you don't want to damage yourself or your new car!

**Lee B**

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 thread 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](mailto:buildsupport@caterham.com)

# KEY

## SYMBOLS

**1** Item number

**AA**  
**AJ**  
**AM** Fixing item

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

**Nm** Required torque (where applicable)

**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

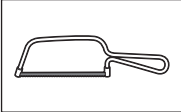
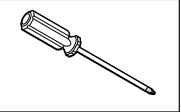

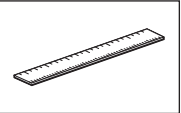
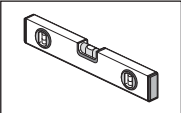


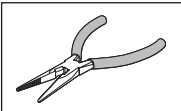

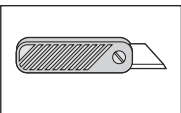
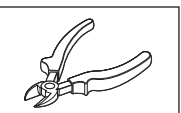
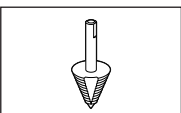
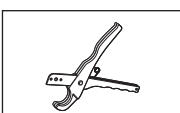
Pack A		CATERHAM		44	
		PACK NUMBER		3AC2001A	
FRONT SUSPENSION DeDION CARS (METRIC)					
This pack may include extra fasteners to cover different options					
ITEM	FIXING DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AA Bolt M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	
2	AB Bolt M12 x 65 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 Nyloc Nut M12	NM12	2	Lower wishbone rear	
8	AH Nyloc Nut M10	NM10	4	Upper wishbone	
9	AI Plain Washer M12 Oversized	WPCM12	18	Lower wishbone	
AK	Plain Washer M8 Heavy Duty	WPH8	4	Anti-roll bar mounting brackets	
AL	Plain Washer M2 x 2.5 Heavy Duty	WPH2.5	2	Steak pipe	

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)

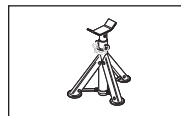
TOOLS

	Adjustable spanner		Drill bit		Instant gasket		Power adhesive		Socket wrench (allen)		Torque wrench
	Allen key		Engine hoist		Junior hacksaw		Pozidrive screwdriver		Spanner		Torx
	Assistance		File		Latex gloves		Ruler		Spirit level		Trolley jack
	Axle stand		Flat head screwdriver		Loctite		Sanding Drum		Spray adhesive		WD40
	Brake cleaner		Foam tape		Long nose pliers		Scissors		Spray lube		
	Cloth		Funnel		Mallet		Seal drift		Stanley knife		
	Combination spanner		Grease		Masking tape		Side cutters		Stepped drill bit		
	Copper grease		Heat gun		Muscle		Silicone gun		Super glue		
	Drill		Hose cutters		Pop rivet gun		Socket wrench		Tape measure		

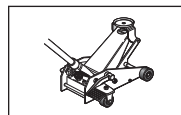
# LET'S GET READY

## PARTS

## TOOLS



x3



## FIXINGS

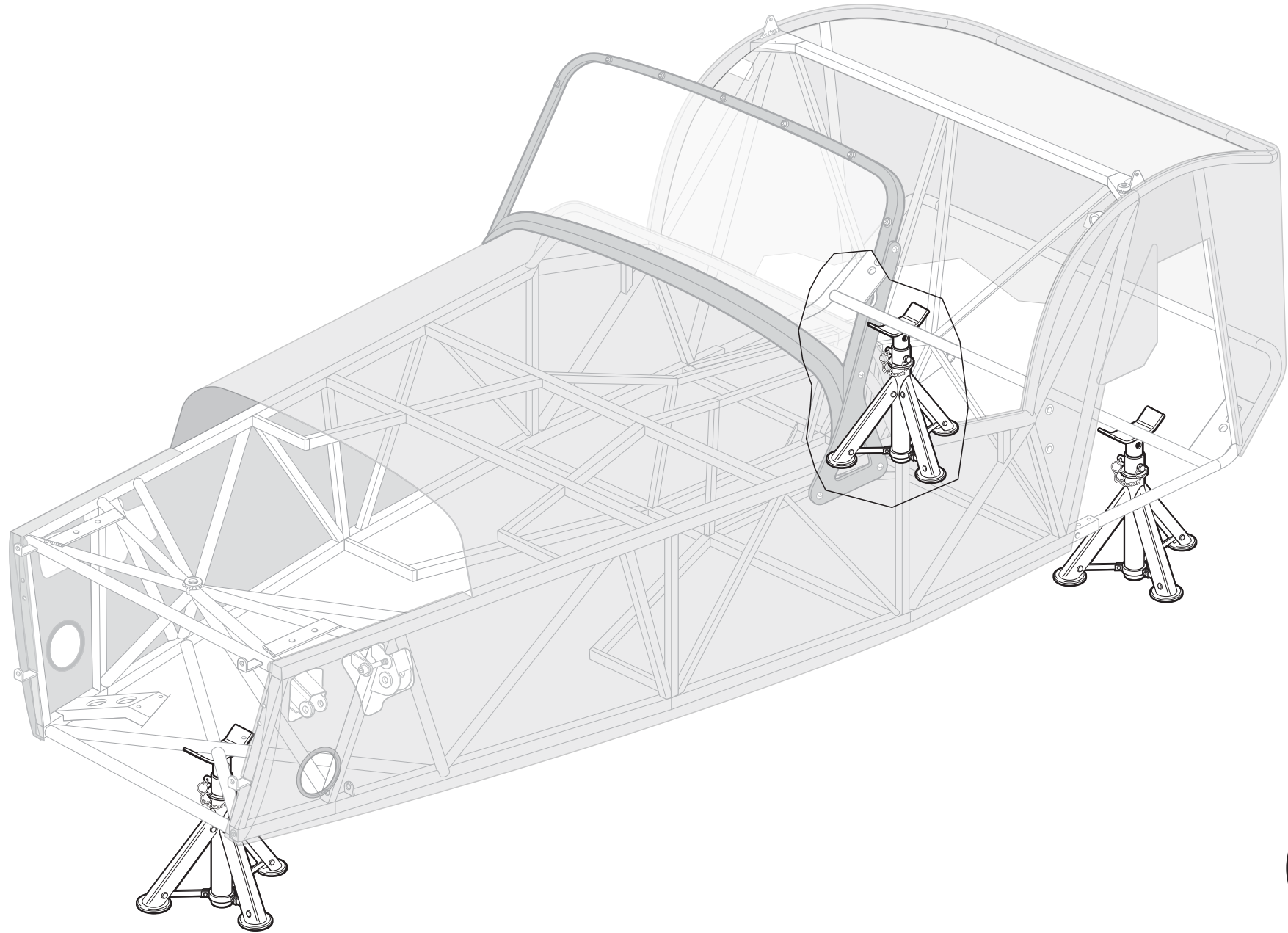
## TIPS

*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**



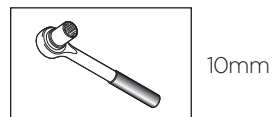


# LET'S MAKE SOME NOISE

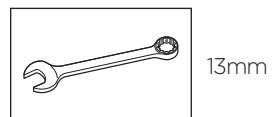
## PARTS

- 1** Horn kit (x2)

## TOOLS



10mm



13mm

## FIXINGS

Pack <b>C</b>		<b>CATERHAM</b>		45	
		PACK NUMBER		3AC20003A	
LIGHTING & HORNS					
ITEM	ITEM DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Screw 10 x 17 Black stainless	F1261	6	Indicator assembly to indicator pack	
2	Screw 8 x 17 Black stainless	F1271	2	Side regulator earth on energy rail	
3	Screw 12 x 17 Self tapping	F1272	4	Rear light cluster upper fixing	
4	Screw 12 x 17 Self tapping	F1273	4	Rear light cluster lower fixing	
5	Nut Hex Nut M6	NM175	2	Horn bracket to steering rack platform (160Z70310)	
6	Plain Washer 16 Heavy duty	WP1614	2	Horn bracket to steering rack platform (160Z70310)	
7	Self Nut 16 Track 17	SN1610	1	Through steering rack platform & spacer (420)	
8	Plain Washer 16 17	WP1613	2	Self Headnut	
9	Nut Hex Nut M6	NM175	1	Horn Nut	

x2

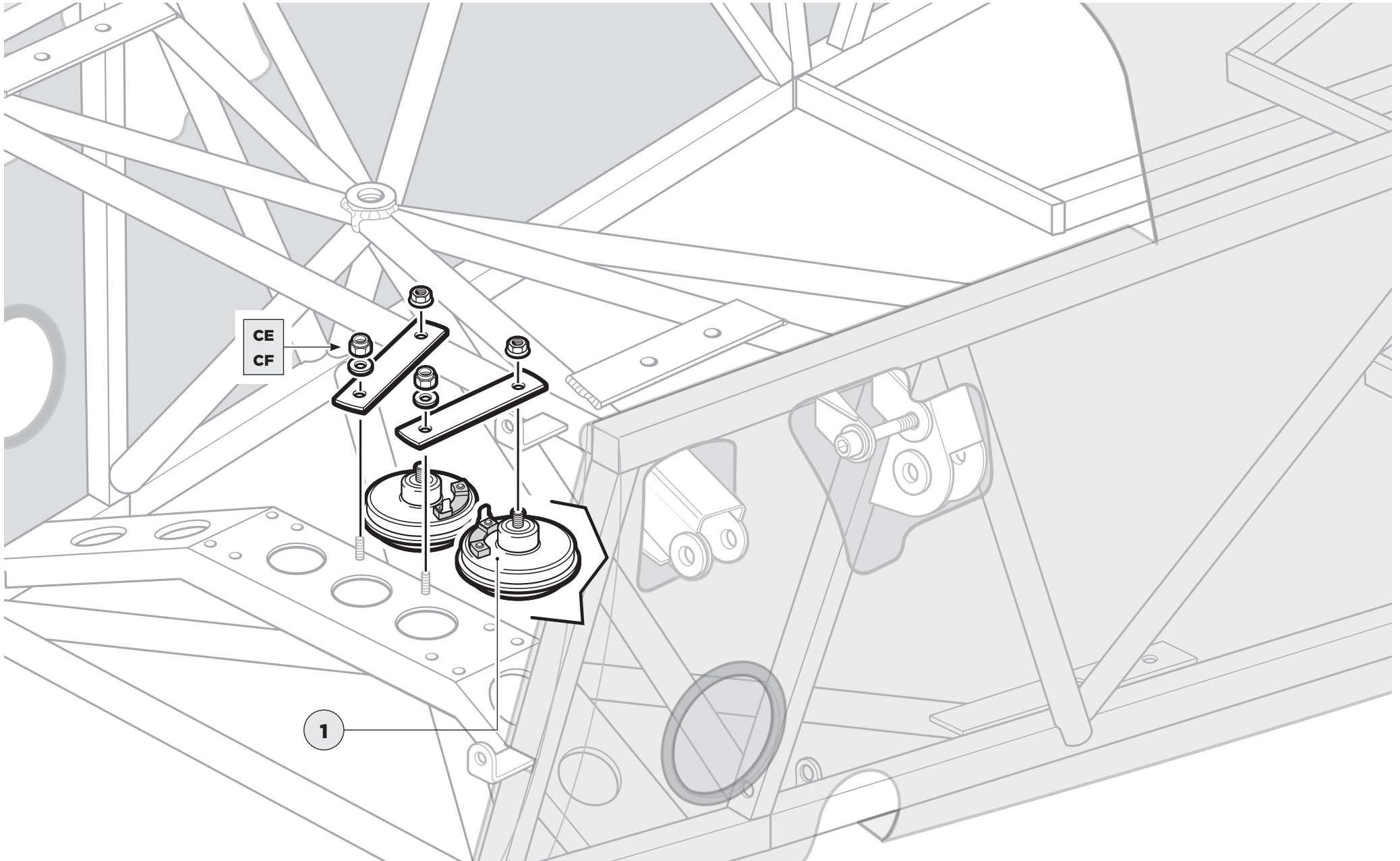
x2

## TIPS

You may need to loosen the 13mm nuts and rotate the horns in order to bring the electrical connectors closer together.

**Rich T**

# LET'S MAKE SOME NOISE

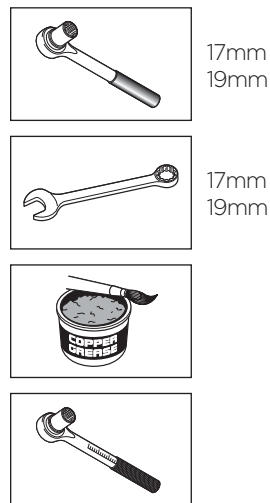


# START WITH THE SUSPENSION WISHBONES

## PARTS

- 1 Lower wishbone (LH & RH)
- 2 Upper wishbone (LH & RH)
- 3 Wishbone bush sleeve (x2)

## TOOLS



## FIXINGS

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PART NUMBER		3AC20001A	
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	Bolt M12 x 100 Grade 10.9	BM12X100	2	Lower wishbone rear	
2	Bolt M12 x 65 Grade 10.9	BM12X65	2	Lower wishbone front	
3	Bolt M10 x 65 Grade 10.9	BM10X65	2	Upper wishbone rear	
4	Bolt M10 x 60 Grade 10.9	BM10X60	2	Upper wishbone front	
5	Bush M8 x 60 Grade 10.9	BM8X60	4	Anti-roll bar mounting brackets	
6	Plain Nut M12 x 1.5 Thread	NM12F12	1	Temporary use to fit the lower upper wishbone ball joint	
7	Nylon Nut M12	NM12F12	2	Lower wishbone rear	
8	Nylon Nut M10	NM10F10	4	Upper wishbone	
9	Plain Washer M12 Oversize	WPM12	18	Lower wishbone	
10	Plain Washer M8 Oversize	WPM8	4	Anti-roll bar mounting brackets	
11	Plain Washer 1/2" x 1/2" Oversize	WPM16	2	Brake pads	

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PART NUMBER		3AC20001A	
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 M8	WSM8	4	Anti-roll bar mounting brackets & upper damper rodent	
14	Washer 1/2" Brake pad	WBS16	2	Brake pads	
15	Nylon Nut 1/2" Thread	NM12F12	2	Wing nuts	
16	Nylon Nut 1/2" Thread	NM12F12	2	Front brake spring mounting (add track bar)	

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**

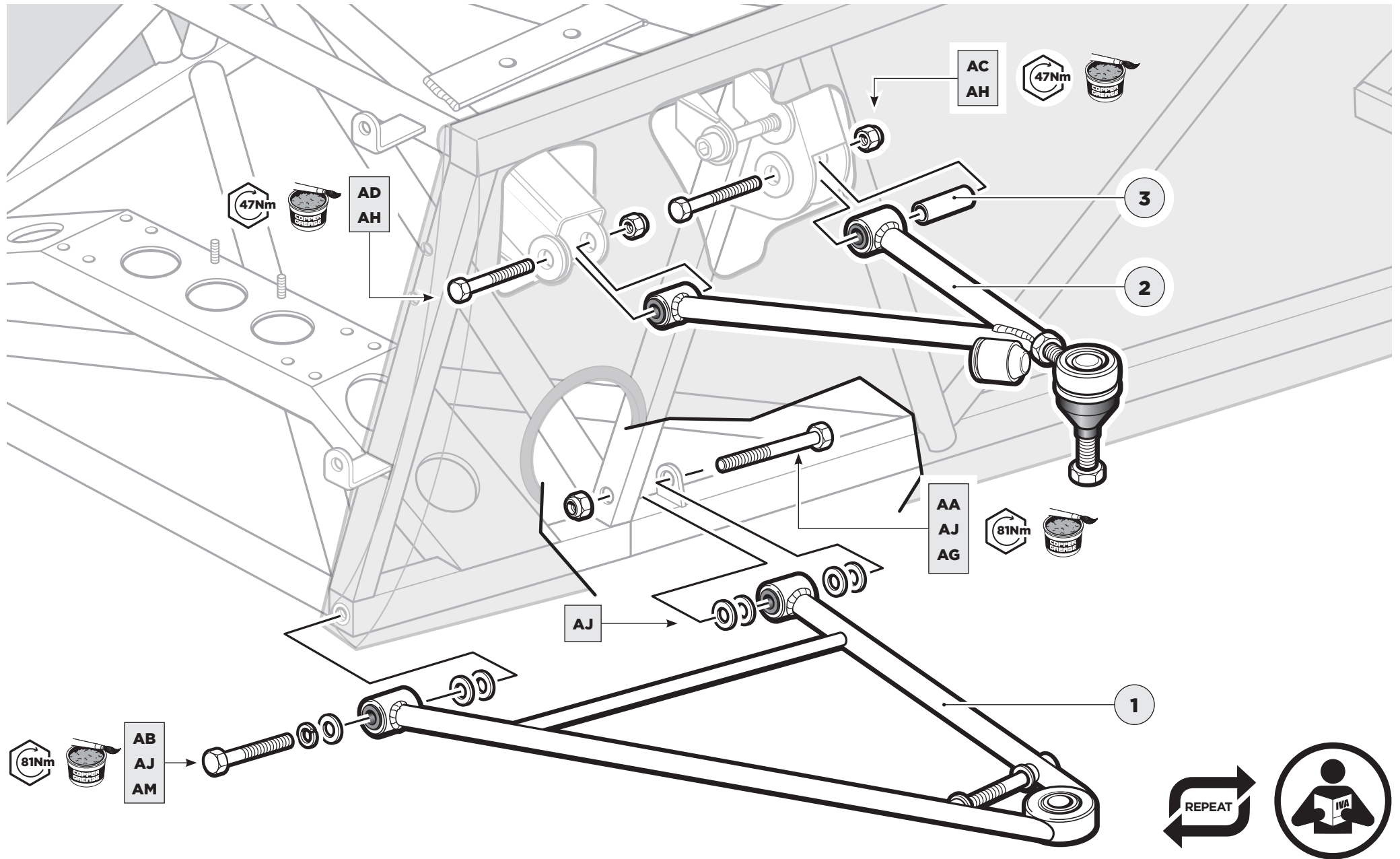
The big washers are chamfered and the chamfered side should be towards the wishbone.

**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

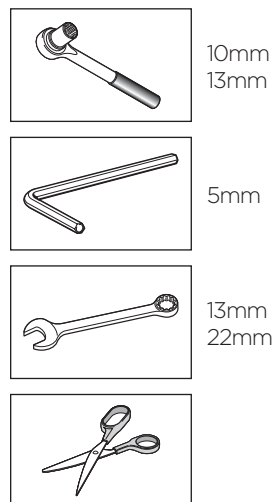


# NOW FOR THE STEERING RACK

## PARTS

- 1 Steering rack
- 2 Rack clamps (x2)
- 3 Column universal joint
- 4 Track rod end (x2)
- 5 IVA cover (x2)

## TOOLS



## FIXINGS

Pack B		CATERHAM		55	
		PACK NUMBER		3AC250008	
		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 M8 x 70 DIN 913	8MCH8X70	4	Rack clamps	x4
2	BB Bolt M8 x 40 Grade 10.9	8M8X40	2	Column clamp	x2
3	BC Bolt M8 x 40 Grade 10.9	8M8X40	2	Column to rack universal joint	x2
4	BD Plain Nut M8	N8P12	2	Track rod lock nut	x2
5	BE Plain Nut M8	N8P12	2	Track rod lock nut	x2
6	BF Plain Nut M8	N8P12	1	Column clamp (drive/rear locknut)	x2
7	BG Nyloc Nut M8	N8P12	2	Column to rack universal joint	x2
8	BH Nyloc Nut M8	N8P12	4	Steering rack clamps	x4
9	BI Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4
10	BK Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4
11	BL Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4
12	BM Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4
13	BN Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4
14	BO Plain Washer 10 x 12	W1012	1	Steering wheel boss	x4

## 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 the steering rack for now.

Dan D

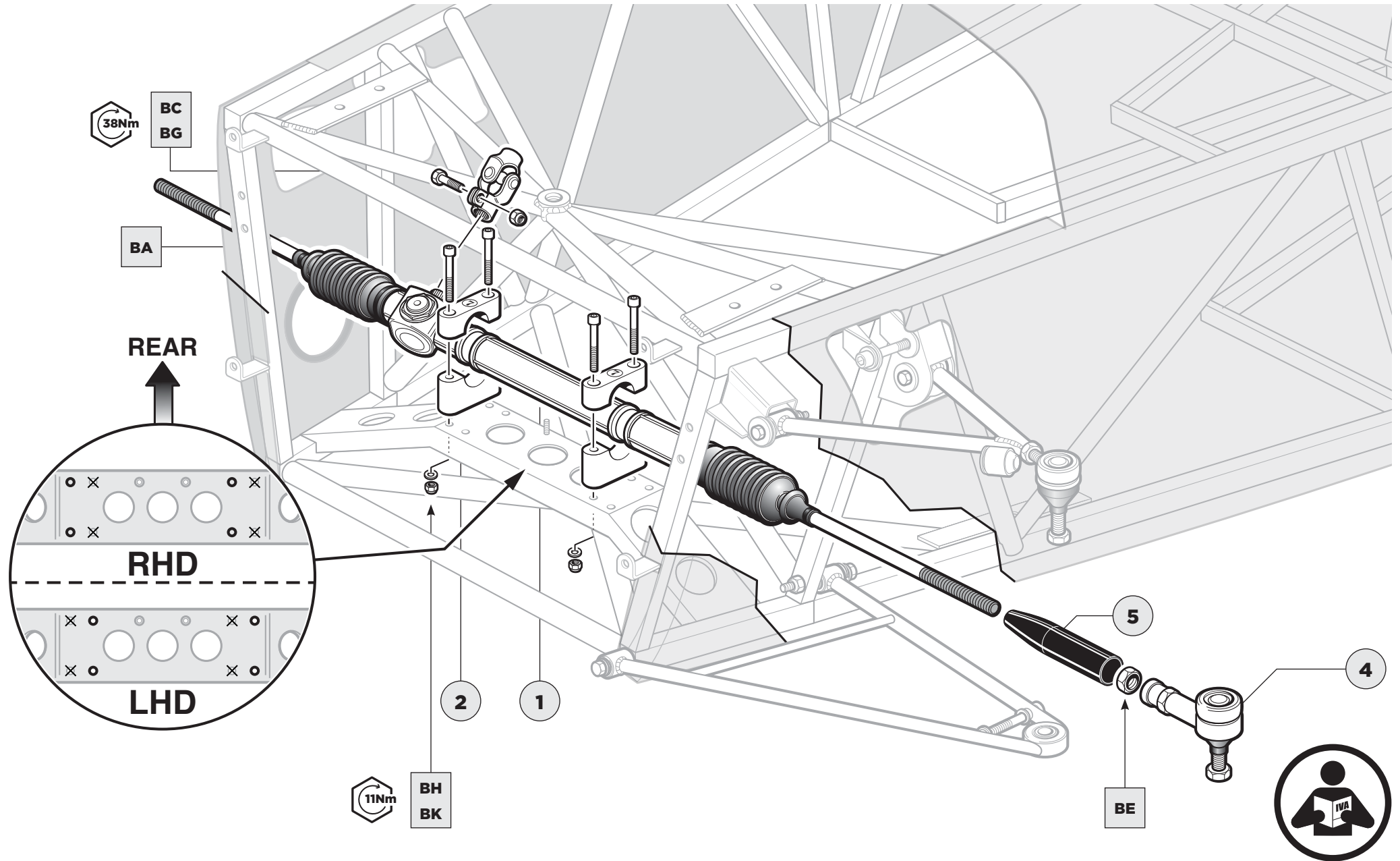
Apply grease to the inner surfaces of the rack clamps which will make it easier to rotate the steering rack later on.

Chris B

Remove the protective plastic cups from the track rod ends before fitting.

Lee B

# NOW FOR THE STEERING RACK

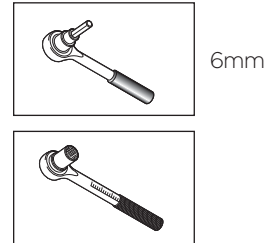


# AND THEN THE DAMPERS

## PARTS

- 1 Spring / damper (x2)
- 2 Bush sleeves (x4)

## TOOLS



6mm

## FIXINGS

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PACK NUMBER		3AC2001A	
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	Bush M12 x 60 (Metric)	8812110	2	Lower wishbone rear	
2	Bush M12 x 60 (Metric)	8812100	2	Lower wishbone front	
3	Bush M12 x 60 (Metric)	8812080	2	Upper wishbone rear	
4	Bush M12 x 60 (Metric)	8812090	2	Upper wishbone front	
5	Bush M8 x 40 (Metric)	880300	4	Anti-roll bar mounting brackets	
6	Plan No 8214 x 1.2 Thread	880914	1	Temporary use to help lock upper wishbone ball joint	
7	Nylon Nut M12	880912	2	Lower wishbone rear	
8	Nylon Nut M12	880910	4	Upper wishbone	
9	Washers M12 (Metric)	880312	18	Lower wishbone	
10	Plan Washer M8 (Metric)	881008	4	Anti-roll bar mounting brackets	
11	Washer 12 x 12 (Metric)	881008	2	Brake pipe	

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

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PACK NUMBER		3AC2001A	
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	881012	2	Lower wishbone rear	
13	Spring Washer M8	881008	6	Anti-roll bar mounting brackets & upper damper mount	
14	Washer 12 (Metric)	880312	2	Brake pipe	
15	Nylon Nut 12 (Metric)	881012	2	Wing stay	
16	Nylon Nut 12 (Metric)	881012	2	Front brake, spring mounting (old track pipe)	

Drawings 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

x2

## 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

You may need to press inwards the side skin to make sufficient clearance for the upper damper bolt. Don't worry, you won't damage your paint in doing this.

James A

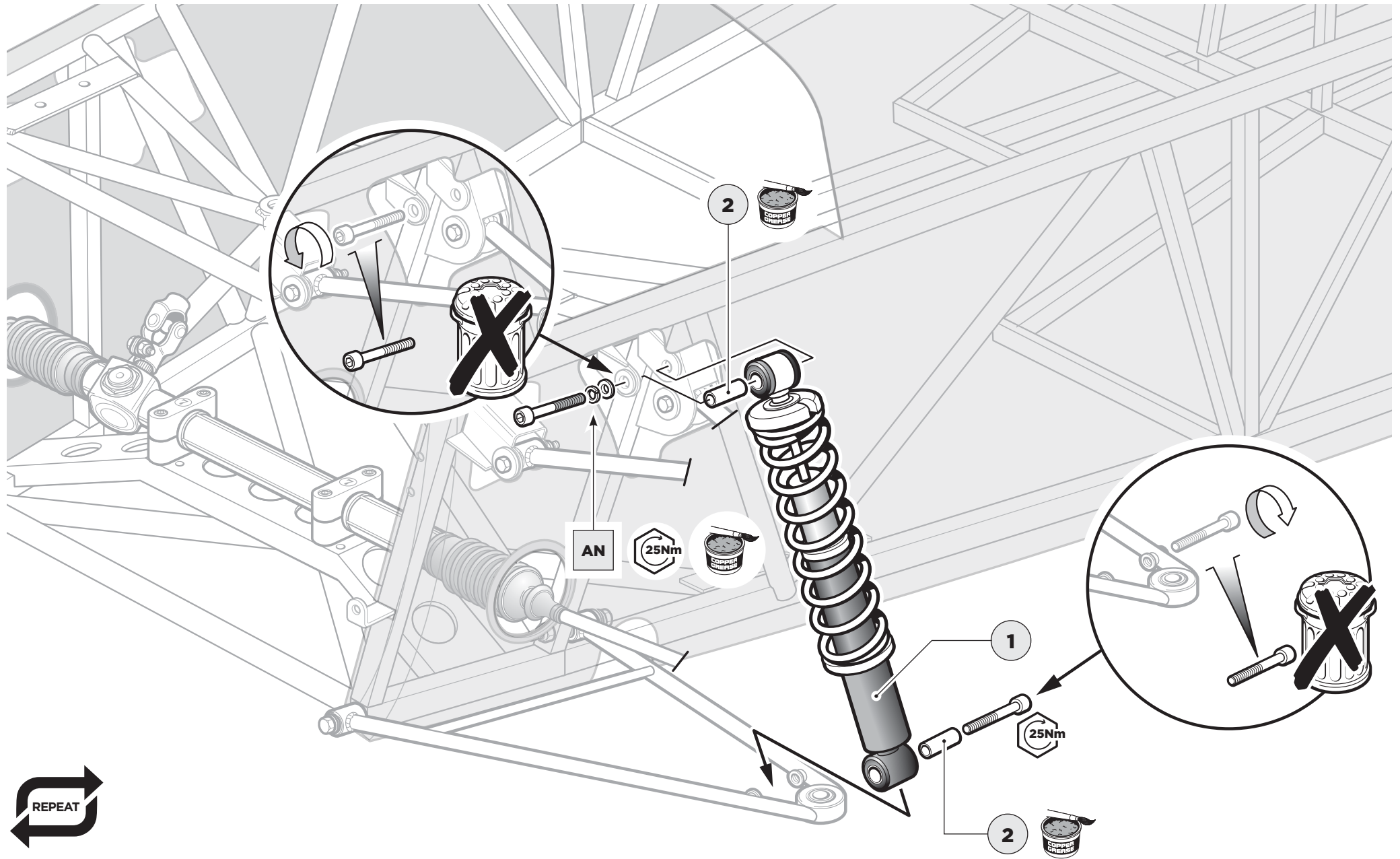
The front damper bush sleeves are identical and can be fitted in either the top or bottom bushes.

Richard T

It is much easier to tighten the top damper bolt using a 6mm ball ended Allen socket.

Lee B

# AND THEN THE DAMPERS



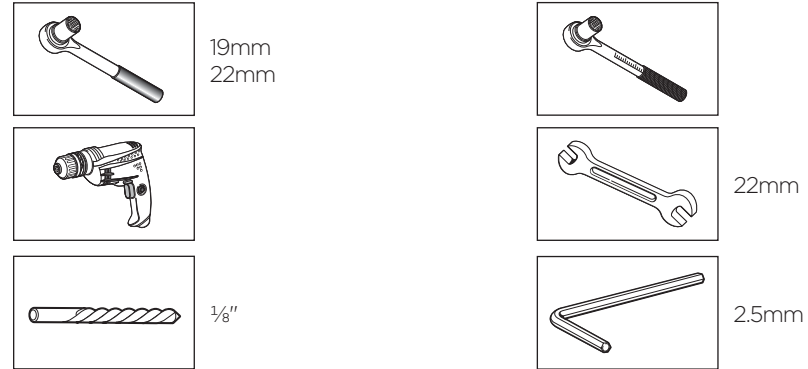


# IT'S TIME FOR THE WINGSTAYS

## PARTS

- 1 Wingstay (LH & RH)
- 2 Front brake & upright assembly (LH & RH)
- 3 Steel wheel hub spacers (x2)
- 4 Screws (x4)

## TOOLS



## 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 assembly into the lower wishbone spherical joint, then attach the track rod end before tightening the lower upright nut. This will prevent the assembly from turning and contacting the side skin.

**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**

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

**Chris N**

Remove and discard the washer and full nyloc that comes fitted on the back of the stub axle before fitting the wingstay. A half nyloc from the fixings pack should then be fitted but without a washer.

**Rich T**

Hub spacers are only required when using steel wheels.

**Grant P**

## FIXINGS

Pack <b>A</b>		<b>CATERHAM</b>		PART NUMBER 3AC20001A	
FRONT SUSPENSION DeDION CARS (METRIC)		PART NUMBER		QTY	
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	AA Stub Bolt M12 x 100 (Metric)	8M12100	2	Lower wishbone rear	
2	AE Stub Bolt M12 x 60 (Metric)	8M12060	2	Lower wishbone front	
3	AC Stub Bolt M12 x 60 (Metric)	8M12060	2	Upper wishbone rear	
4	AD Stub Bolt M12 x 60 (Metric)	8M12060	2	Upper wishbone front	
5	AE Stub Bolt M12 x 60 (Metric)	8M12060	4	Anti-roll bar mounting brackets	
6	AF Plain Nut M14 x 1.5 thread	8M1414	1	Temporary use to help lock upper wishbone ball joint	
7	AG Nyloc Nut M12	8M1212	2	Lower wishbone rear	
8	AH Nyloc Nut M12	8M1212	4	Upper wishbone	
9	AJ Plain Washer M12 (Metric)	8P1212	18	Lower wishbone	
10	AK Plain Washer M12 (Metric)	8P1212	4	Anti-roll bar mounting brackets	
11	AL Plain Washer 1/2" x 1/2" (Imperial)	8P1212	2	Brake pipe	

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

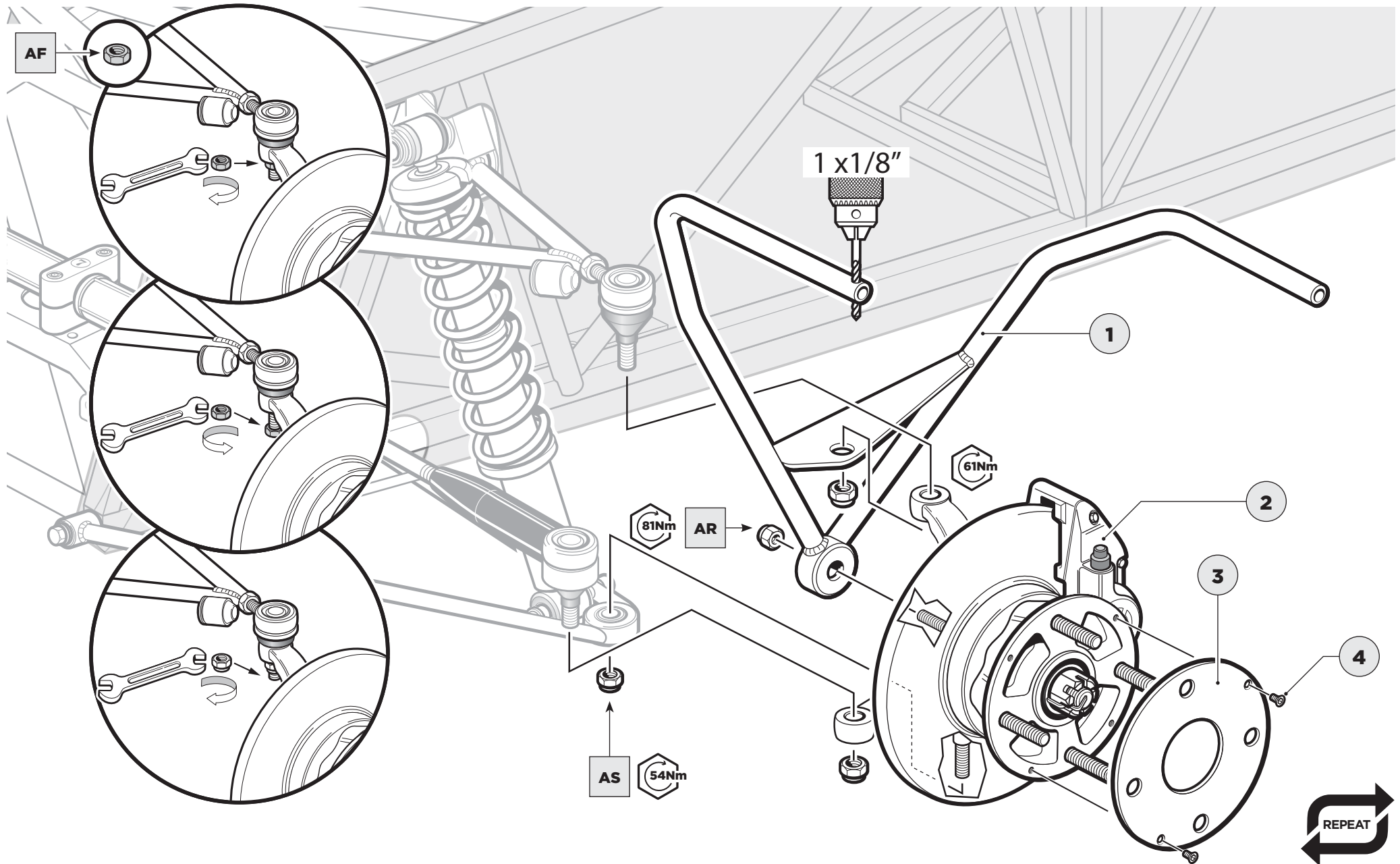
Pack <b>A</b>		<b>CATERHAM</b>		PART NUMBER 3AC20001A	
FRONT SUSPENSION DeDION CARS (METRIC)		PART NUMBER		QTY	
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	AM Spring Washer 1/2"	8W1212	2	Lower wishbone rear	
13	AN Spring Washer 1/2"	8W1212	6	Anti-roll bar mounting brackets & upper damper rodnut	
14	AP Washer 1/2" (Metric)	8W1212	2	Brake pipe	
15	AR Nylon Nut 1/2" (Metric)	8N1212	2	Wing stay	
16	AS Nylon Nut 1/2" (Metric)	8N1212	2	Front brake, upright mounting (std track ONLY)	

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

x2

x2

# 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 (x2)
- 2 Indicator pod (LH & RH)
- 3 Indicator assembly (x2)
- 4 Headlight bracket (LH & RH)
- 5 IVA trim
- 6 Heat shrink
- 7 Grommet (x2)

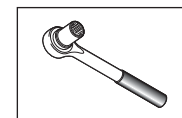
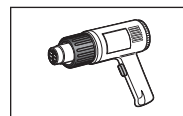
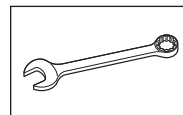
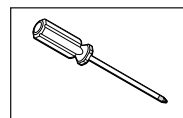
## FIXINGS

Pack C		CATERHAM		45	
		PACK NUMBER		3ACZ0003A	
LIGHTING & HORNS					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Screw 10 x 17 Zinc Plating	F1080	6	Indicator assembly to indicator pod	
2	Screw 8 x 17 Zinc Plating	F1071	2	Side regulator switch on wingstay	
3	Screw 12 x 17 Zinc Plating	F1079	4	Rear light cluster upper fixing	
4	Screw 12 x 17 Zinc Plating	F1078	4	Rear light cluster lower fixing	
5	Wash Hex 100	H0070	2	Horn bracket to steering rack platform (1800270701)	
6	Wash Washer 16.00	W0010	2	Horn bracket to steering rack platform (1800270701)	
7	Ball Ball 60 Steel 6.0	B0000	1	Through steering rack platform & wiper H001	
8	Wash Washer 16.00	W0010	2	Ball Headstud	
9	Wash Hex 100	H0070	1	Horn Side	

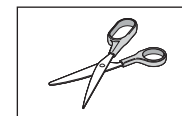
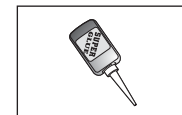
Drawings are for illustrative purposes only and are not to scale. Page 1 of 1

x6

## TOOLS



17mm



8mm  
17mm  
24mm

## 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

Do not attach the econoseal plug onto the headlight wires until they have passed through the upper wishbone bracket. Leave this unplugged from the chassis connector for the time being as you will need to add another wire later on.

Jamie A

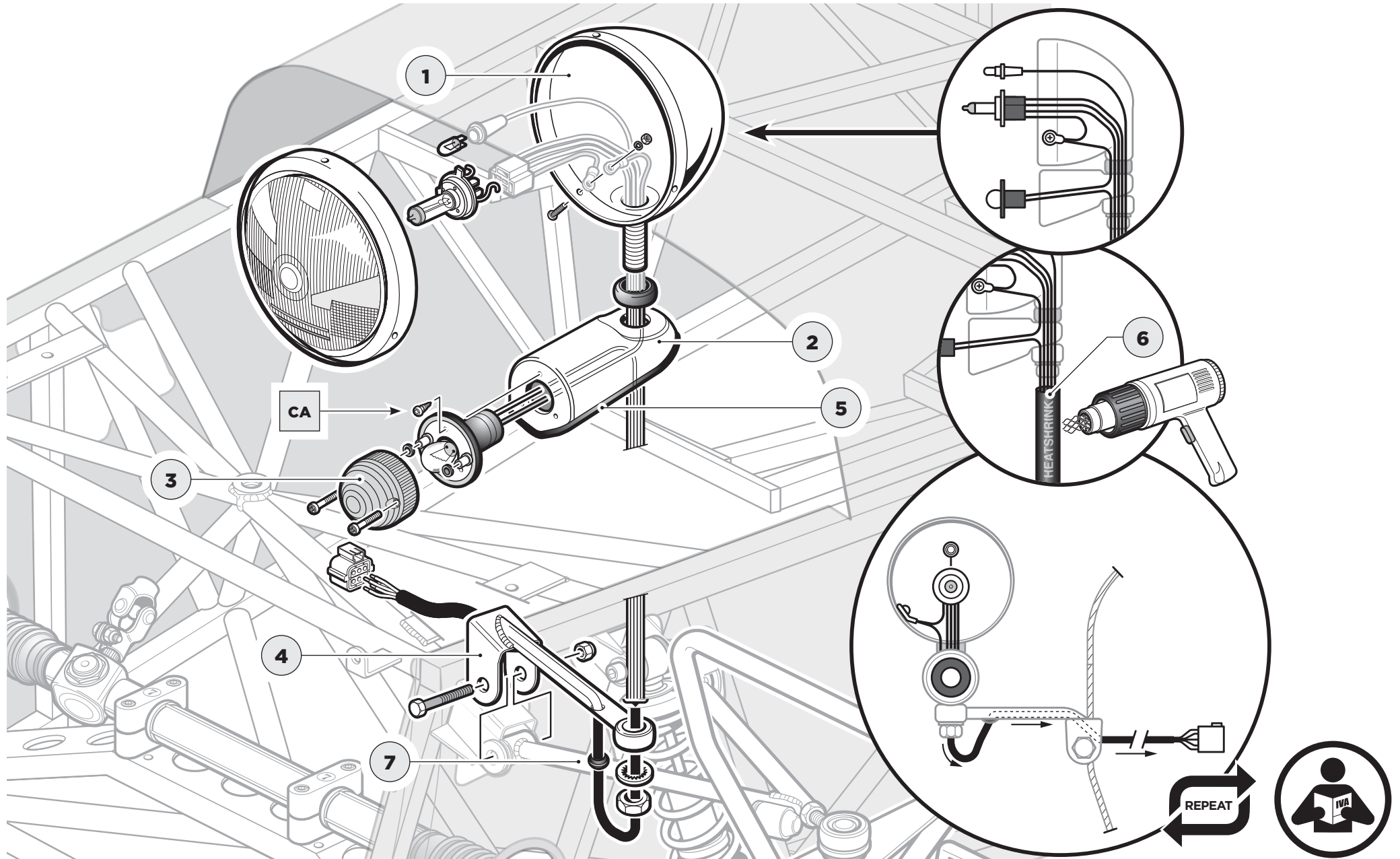
Glue IVA trim all around the edge of the pod before fitting. The smaller side should face outwards.

Chris B

The tab on the headlight bracket 4 hooks under the wishbone bracket on the chassis. The wires exiting the headlight bracket are then fed through the hole in the upper wishbone bracket.

Harrison P

# LET THERE BE LIGHTS

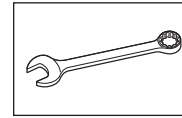


# FITTING THE BRAKE HOSES

## PARTS

- 1 Brake hose kit
- 2 Copper washer (x2)

## TOOLS



13mm (x2)  
9/16"

## FIXINGS

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PACK NUMBER		3AC20001A	
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	Ball MJ2 x 65 (Metric)	BM12100	2	Lower wishbone rear	
2	Ball MJ2 x 65 (Metric)	BM12090	2	Lower wishbone front	
3	Ball MJ2 x 65 (Metric)	BM12080	2	Upper wishbone rear	
4	Ball MJ2 x 65 (Metric)	BM12070	2	Upper wishbone front	
5	Ball MJ2 x 65 (Metric)	BM0300	4	Anti-roll bar mounting brackets	
6	Plan Nut M14 x 1.5 Thread	BM0914	1	Temporary use to help lock upper wishbone ball joint	
7	Nylon Nut M12	BM0712	2	Lower wishbone rear	
8	Nylon Nut M10	BM0710	4	Upper wishbone	
9	Plan Washer M12 (Metric)	WP0312	18	Lower wishbone	
10	Plan Washer M10 (Metric)	WP0310	4	Anti-roll bar mounting brackets	
11	Plan Washer 1/2" x 1/2" Heavy Duty	WP0308	2	Brake pipe	

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

Pack <b>A</b>		<b>CATERHAM</b>		44	
		PACK NUMBER		3AC20001A	
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 kit	WSPR01	2	Lower wishbone rear	
13	Spring Washer kit	WSPR06	6	Anti-roll bar mounting brackets & upper damper rod ends	
14	Washer 1/2" Brake end	WBS08	2	Brake pipe	
15	Nylon Nut 1/2" (Metric)	NP1112	2	Wing stay	
16	Nylon Nut 1/2" (Metric)	NP1112	2	Front brake, spring mounting (add track rod)	

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 rear of the car.

**Khalfani D**

Brake hoses come in packs of 3: 2 front, 1 rear.

**Anthony L**

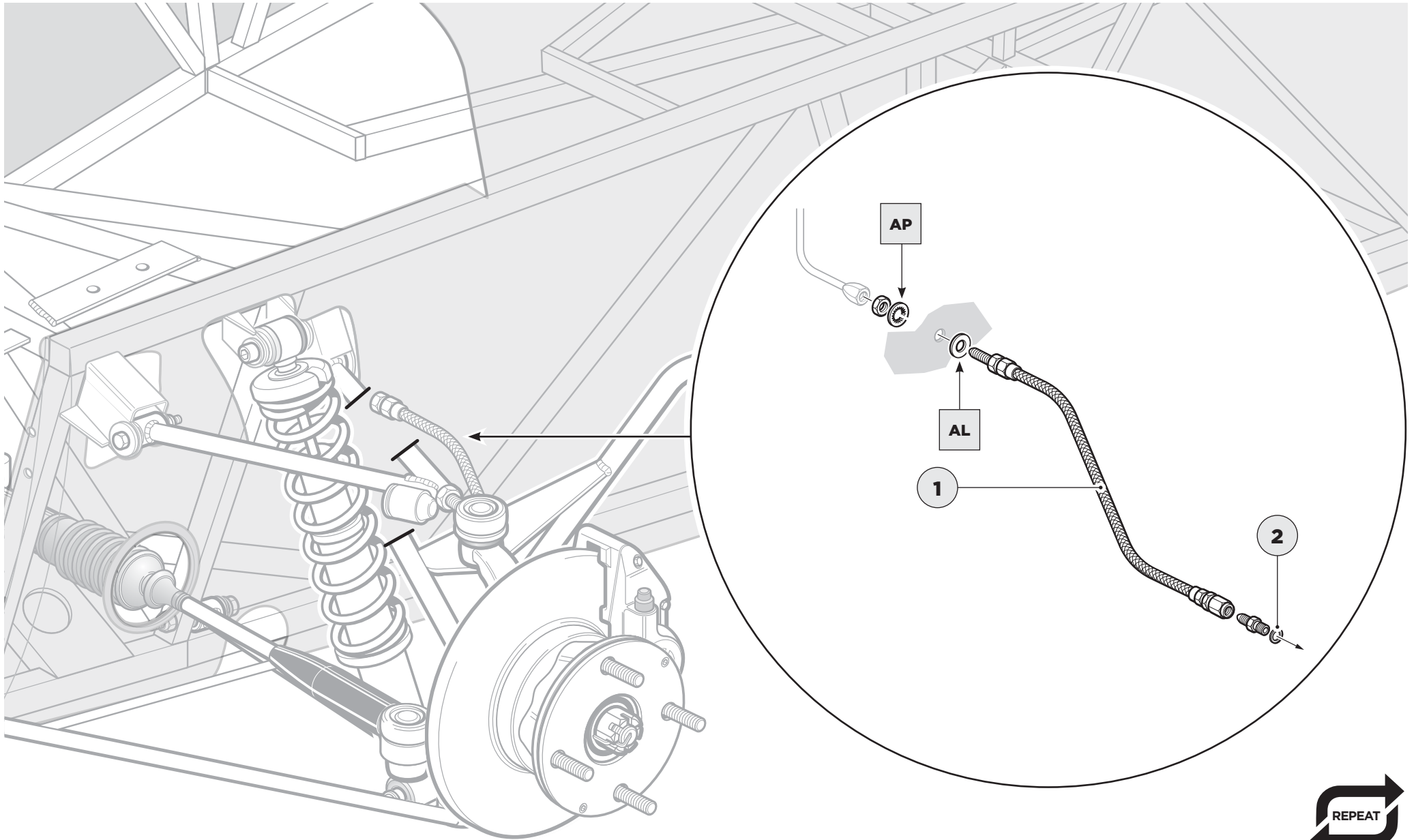
Discard the gold coloured adaptors and fit the grey coloured adaptors which have a step for the copper washer to locate over.

**Simon L**

Do not use the small copper washers supplied with the brake hoses. The correct ones are supplied separately and measure 18mm external diameter.

**Mick F**

# FITTING THE BRAKE HOSES







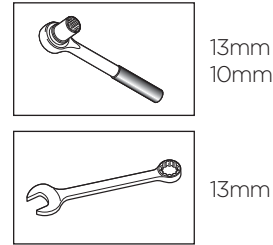


# FITTING THE RADIATOR

## PARTS

- 1 Radiator
- 2 Fan
- 3 Radiator bobbins (x4)
- 4 Fan mounting feet (x4)

## TOOLS



## FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Nut M8 x 20 Heavy duty	888442	1	Expansion tank bracket to chassis	
2	DB Bolt M8 x 30	88714224	1	Expansion tank to bracket	
3	DC Radiator W800 Heavy duty	888422	4	SM radiator bracket	
4	DD Nut M8 x 18 with square section	88710724	4	Fan brackets to fan	
5	DE Radiator W800 Heavy duty	88842212	4	Fan to radiator mounting - 20 (1/2)	
6	DF Nylon Nut M8	NM976	8	84 Fan to radiator bracket	
7	DG Plain Nut M8	NM978	8	Radiator bobbin	
8	DH Nylon Nut 14	88710714	1	Expansion tank bracket	
9	DI Plain Washer 14 Heavy duty	WPH114	13	8 x SV rad bracket 4 x Fan bobbins 1 x Expansion tank bracket	
10	DJ Plain Washer 12 Heavy duty	WPH116	4	Radiator bobbin back	
11	DK Plain Washer 14 Heavy duty	888417028	4	Radiator bobbin foot	

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

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
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 14 Heavy duty	WPH114	1	Expansion tank bracket	
13	DM Spring Washer 8 Heavy duty	WSP811	9	8 x Radiator bobbin 1 x Expansion tank	
14	DN Hex Cap 16	88710140	6	6 x 4 Fan to radiator bracket	
15	DO Hex Cap 16	88710138	2	1 x Engine outlet to top of frame 1 x Engine outlet to motor (1/2)	
16	DP Hex Cap 16	88710125	18	8 x 4 Fan to radiator bracket	
17	DD Hex Cap 16	88710138	6	Expansion tank small 1/2 piece	
18	DR Bolt - Black 12 x 16	88710110	12	Cooling fan	

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

x8

x4

x8

x4

x4

x4

## TIPS

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

Dan P

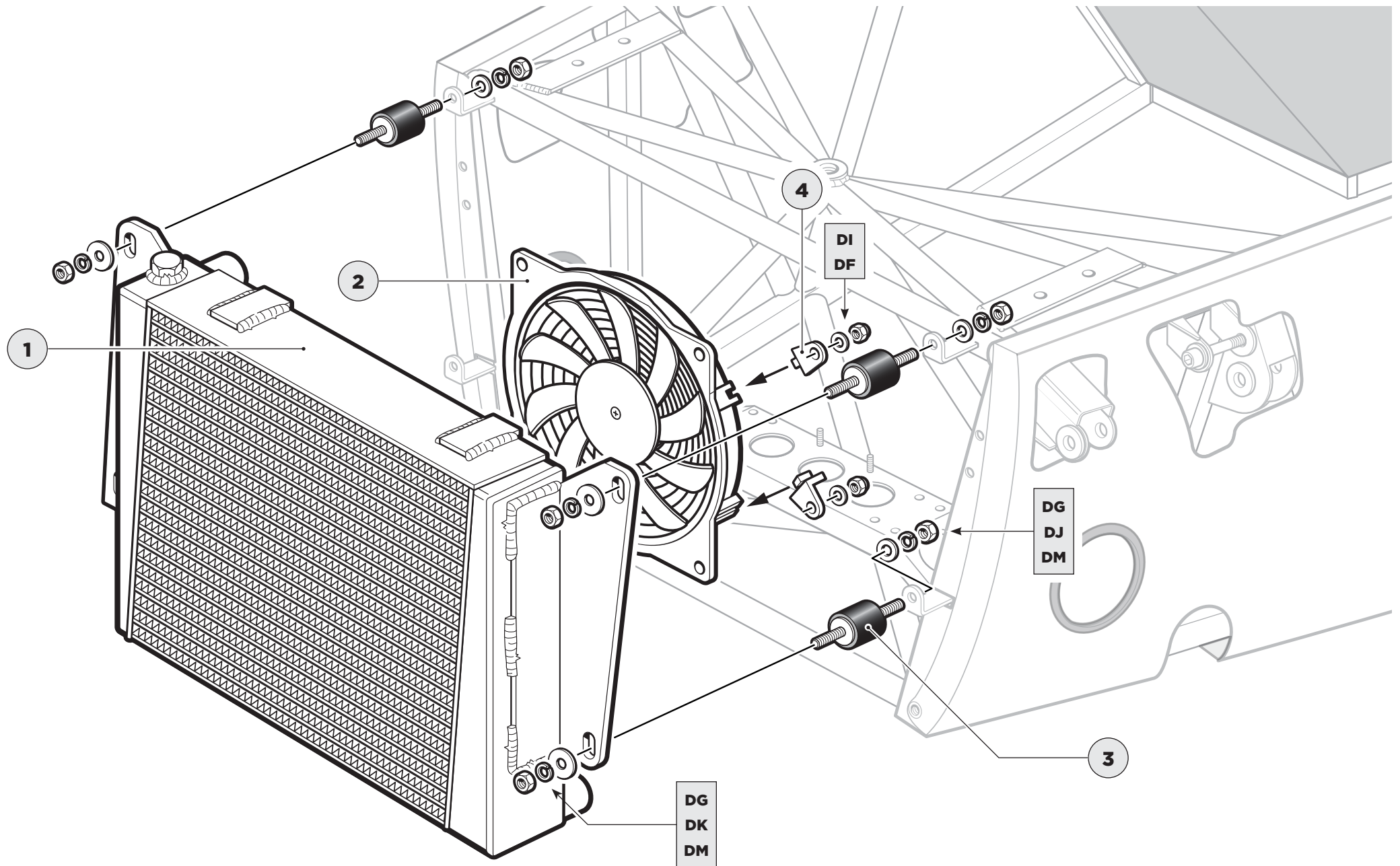
The fan should have a 'flat' section on the rim. This should be at the top and bottom.

Grant P

Be careful when tightening the rubber bobbins as they can twist and split.

James A

# FITTING THE RADIATOR

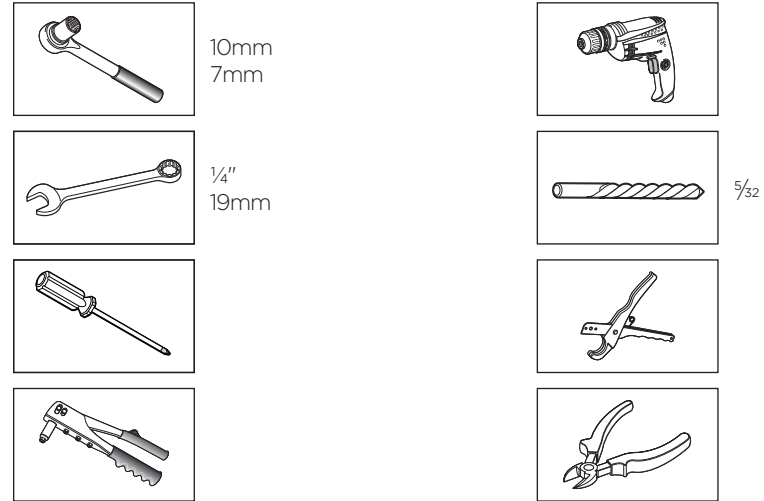


# THINGS ARE HEATING UP

## 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
- 7** Cable tie
- 8** Cradle clip
- 9** 5/32 rivet

## TOOLS



## FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Expansion tank bracket	888440	1		
2	Expansion tank to bracket	888441	1		
3	SM radiator bracket	888420	4		
4	Fan brackets to fan	882102A	4		
5	Fan to radiator coating - SU only	8884015	4		
6	1/4 Fan to radiator	888475	3		
7	Radiator bobbin	888476	8		
8	Expansion tank bracket	887114	1		
9	1/4 Fan to radiator	888475	13		
10	Radiator bobbin back	888477	4		
11	Radiator bobbin front	888478	4		

x2

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
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	888440	1		
13	Expansion tank to bracket	888441	1		
14	SM radiator bracket	888420	4		
15	Fan brackets to fan	882102A	4		
16	Fan to radiator coating - SU only	8884015	4		
17	1/4 Fan to radiator	888475	3		
18	Radiator bobbin	888476	8		
19	Expansion tank bracket	887114	1		
20	1/4 Fan to radiator	888475	13		
21	Radiator bobbin back	888477	4		
22	Radiator bobbin front	888478	4		

x4

## TIPS

Remember to remove bungs from heater.  
**Jamie A**

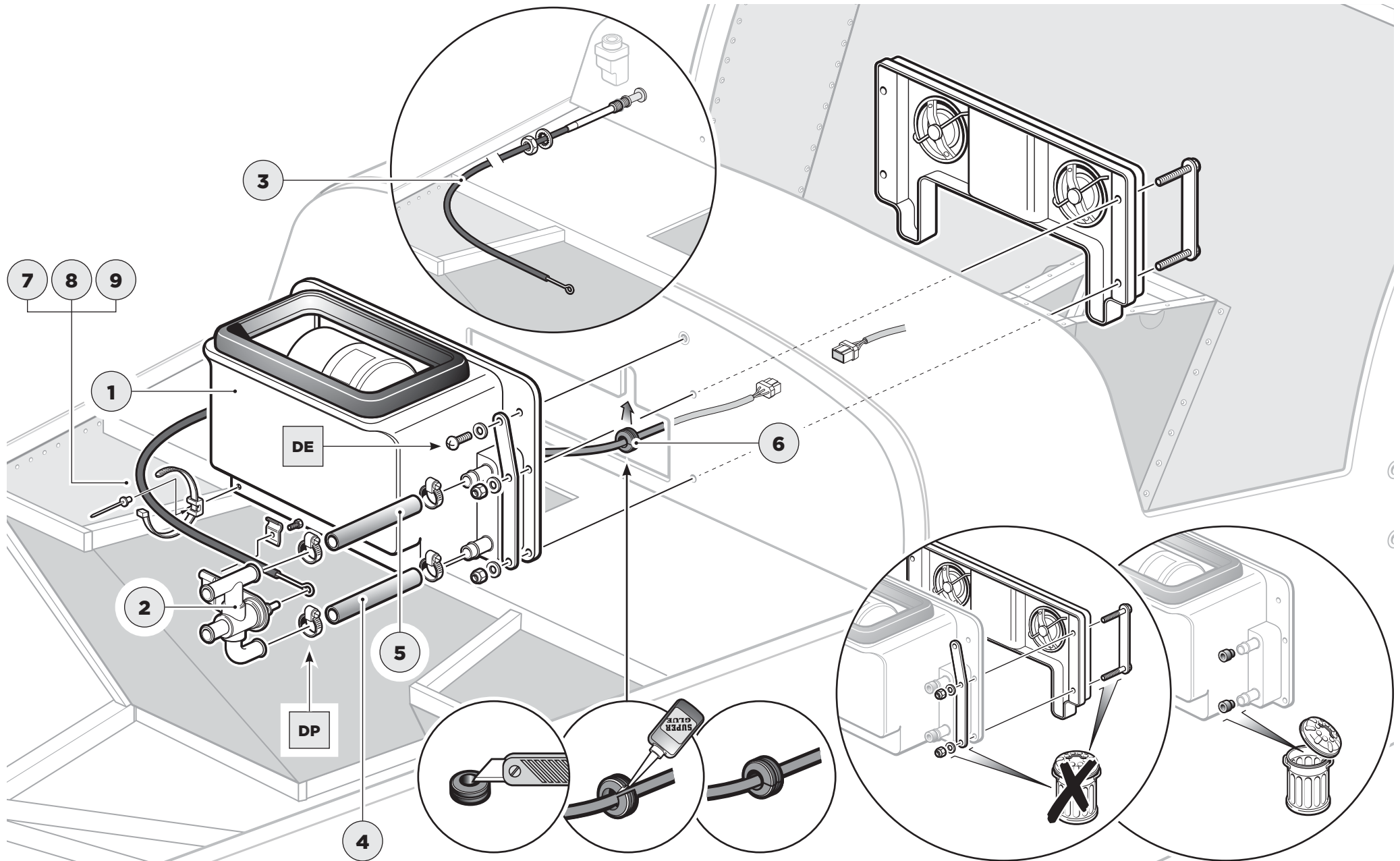
You'll know when you have adjusted the cable correctly as the valve will be able to reach both the fully open and fully closed positions.  
**Chris B**

It's worth re-tightening the jubilee clips after a couple of journeys.  
**John S**

If you don't have a cradle clip and a rivet to hand, you will find some in the chassis fixture pack (ZCHO1).  
**Lee B**

Cutting and gluing the grommet back together is easier than removing the wires from the plug.  
**Anthony L**

# THINGS ARE HEATING UP



# THE ENGINE GOES IN

## PARTS

- 1 Engine / gearbox assembly
- 2 Engine mounting rubbers (x2)

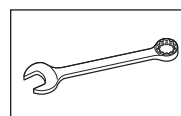
## TOOLS



Engine crane



10mm socket  
13mm socket



13mm



## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BMBX50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BMBX45	3	
4	Setcrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SMBX25	2	
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SMBX20	4	
6	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SMBX20	2	
7	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SMBX16	3	
8	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SMBX16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

Page 1 of 2

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M8 X 25 Plain Washer Heavy-Duty	WPHM8X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

Please note: Drawings are not to scale

Page 2 of 2

## TIPS

When fitting engine rubbers and mounts, fit as loosely as possible so you can wiggle things to get bolts in.

James A

Tighten gradually once all bolts are in.

Chris N

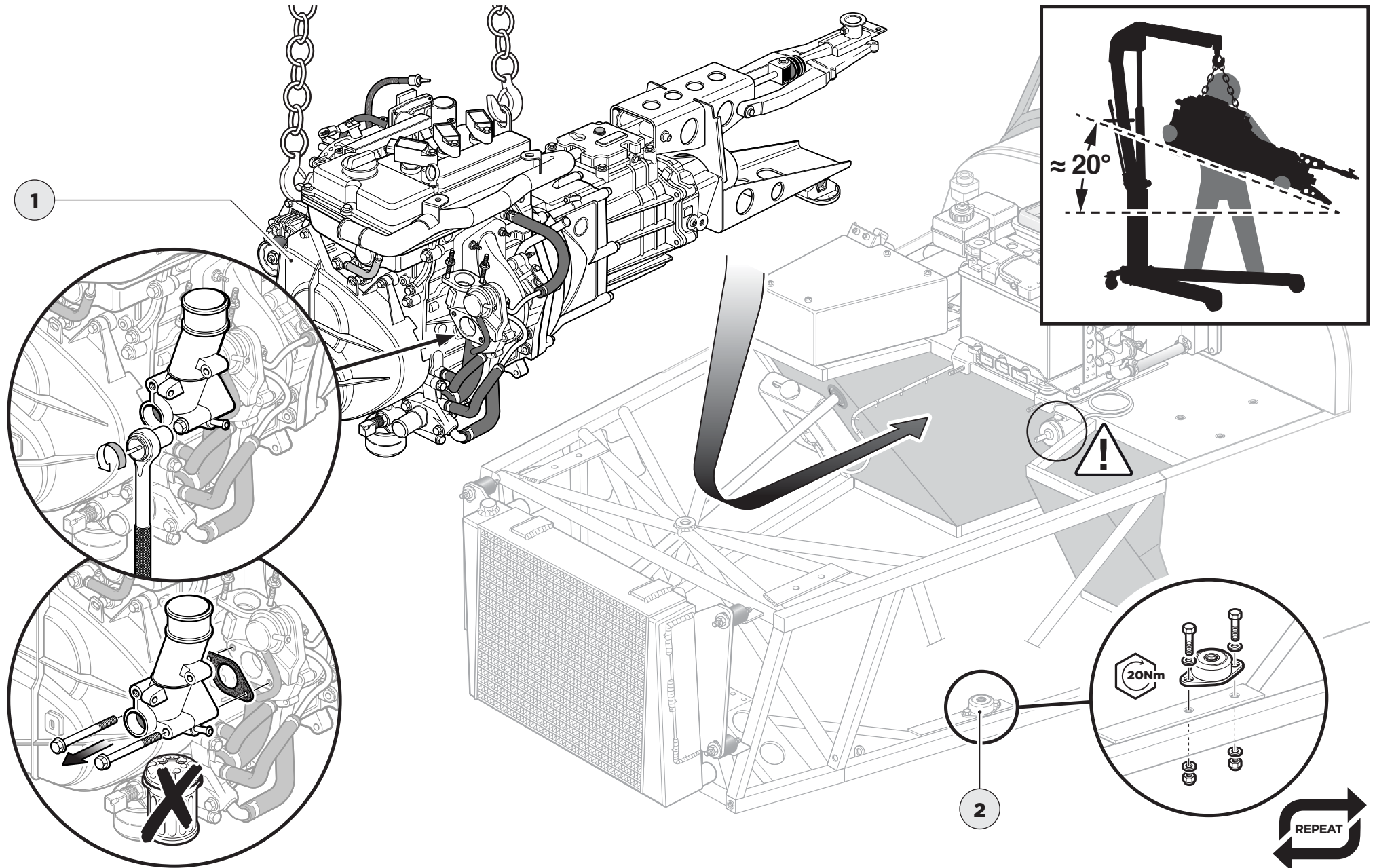
Protect the chassis with soft stuff such as cardboard or folded towels / blankets.

Harry P

Be careful not to damage the fuel purge valve when manoeuvring the gearbox into position.

Lee B

# THE ENGINE GOES IN



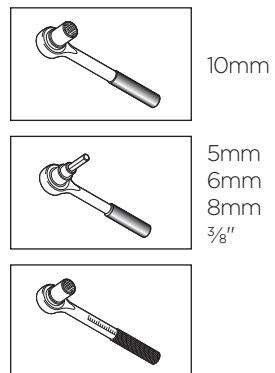


# THE ENGINE IS FINALLY IN

## PARTS

- 1 Engine mounts (x2)
- 2 Turbo inlet housing

## TOOLS



## FIXINGS

### Unmarked bag:

- M6 bolts (x1)
- M8 bolts (x2)
- M10 bolts (x5)
- 1/2' Schnorr Washers (x2)

## TIPS

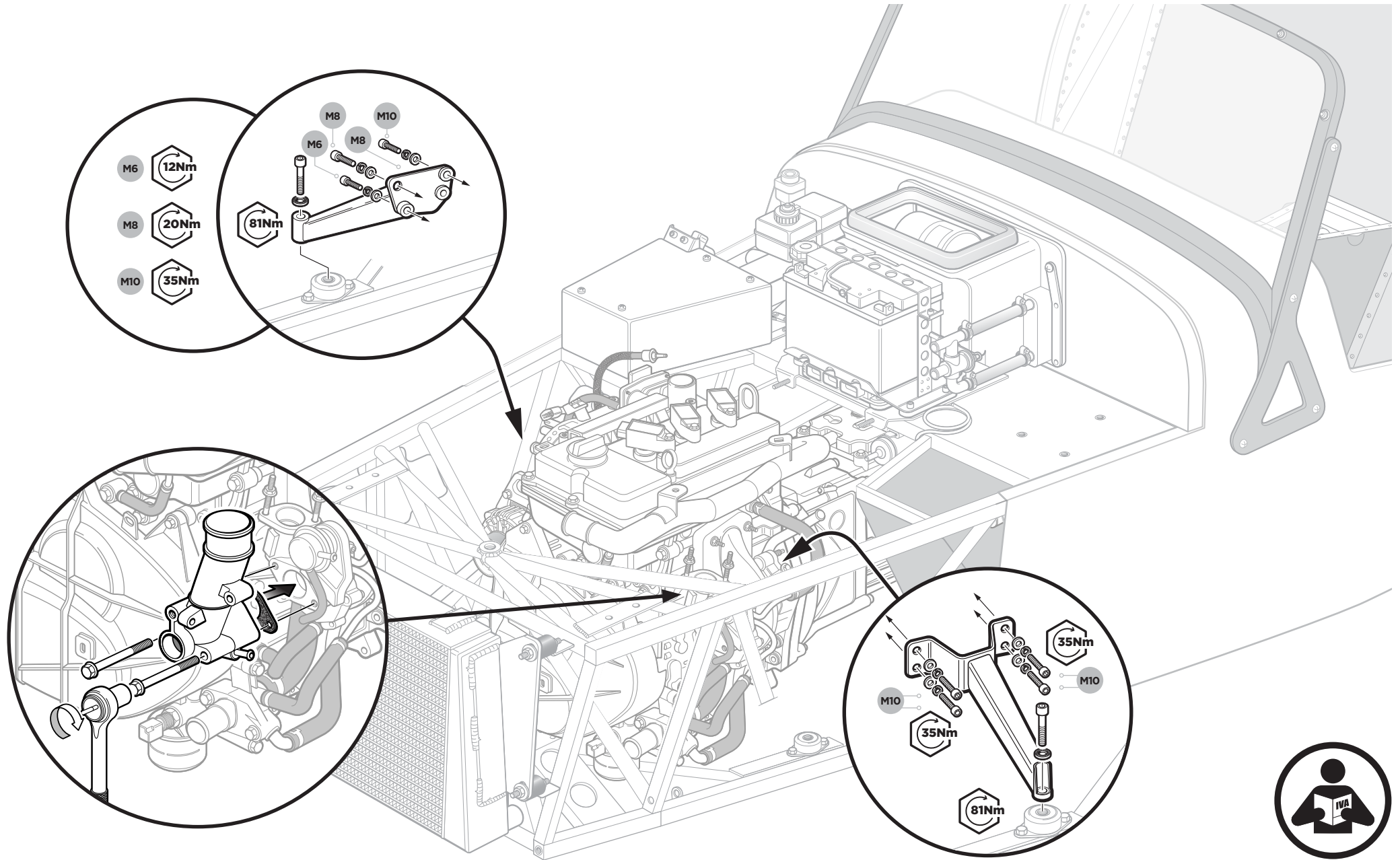
Once the engine is in, the wiring can be connected to the car's loom. It should be self explanatory.

**Chris B**

See IVA guide – how to secure a loom.

**Grant P**

# THE ENGINE IS FINALLY IN

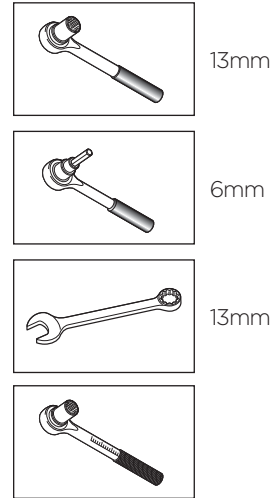


# FINISHING THE GEARBOX

## PARTS

- 1 Gear lever
- 2 Gear lever mount
- 3 Gearbox mount

## TOOLS



## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER
49			30P012A
FASTNER PACK - MISCELLANEOUS (METRIC)			
Please note: This pack may include extra fasteners to cover different options			
No	DESCRIPTION	PART NUMBER	QTY
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCM1292.5	2
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X50	1
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X45	1
4	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	2
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	4
6	Setcrew M8 X 20 Grade 8.8 Hexagon head & metric full threaded section	SM8X20	2
7	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM8X16	3
8	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM8X16	4
9	Nut M8 With Metric thread & Nylon locking mechanism	NM8YF8	10
10	Nut M8 With Metric thread & Nylon locking mechanism	NM8YF8	2
11	Nut M8 Plain nut with metric thread	NM8PF8	2

Please note: Drawings are not to scale

SERIAL NUMBER	CATERHAM		PACK NUMBER
49			30P012A
FASTNER PACK - MISCELLANEOUS (METRIC)			
Please note: This pack may include extra fasteners to cover different options			
No	DESCRIPTION	PART NUMBER	QTY
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13
13	Split pin 1/16" X 3/4"	SP116X3/4	1
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6
18	Washer M8 X 25 Plain Washer Heavy-Duty	WPHM8X25	2
19	Washer M8 Plain Washer Heavy-Duty	WPHM8	6
20	Washer M8 X 20 Plain Washer Heavy-Duty	WPHM8X20	1
21	Bolt 1/2" X 1 1/4" UNF Caphead bolt with plain section & imperial threaded section	BFCM1292.5	1

Please note: Drawings are not to scale

Gearbox mount fixings pre-assembled

## TIPS

It can be fiddly to align the gearbox mounting bolts... a bit of patience and perseverance will help.

Mick F

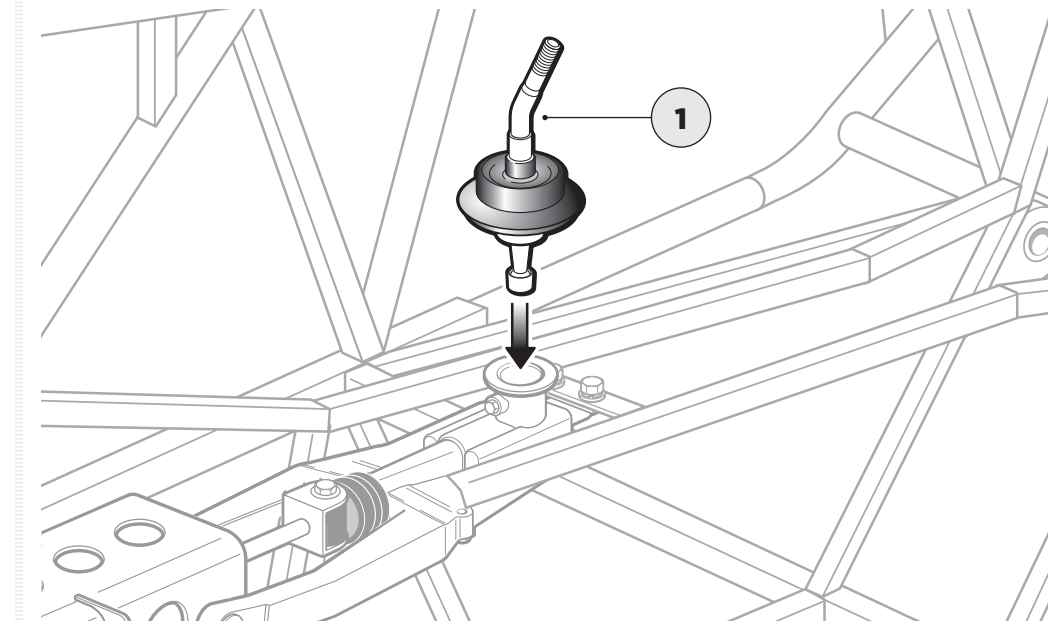
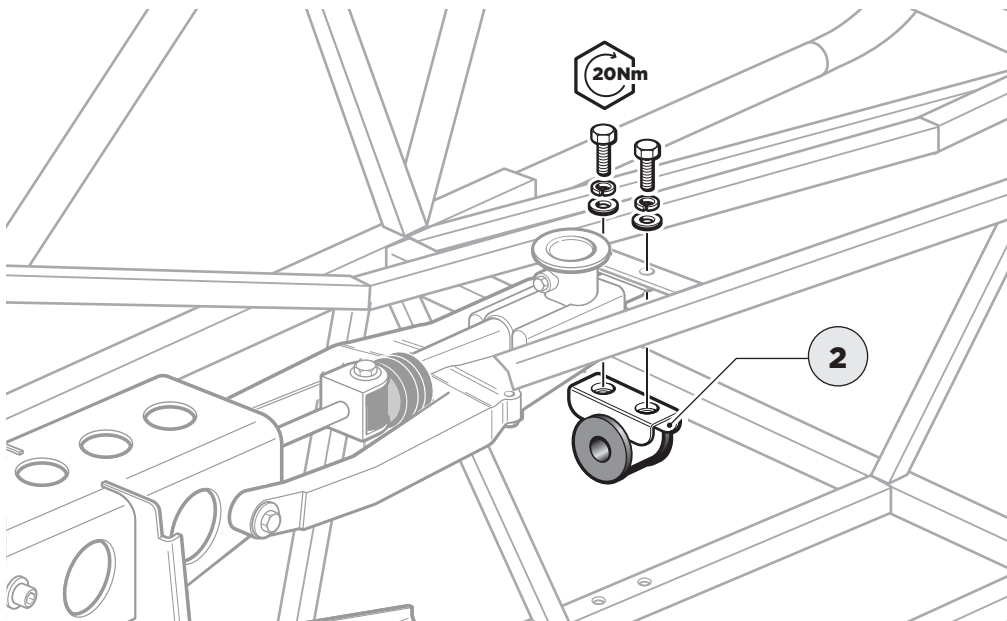
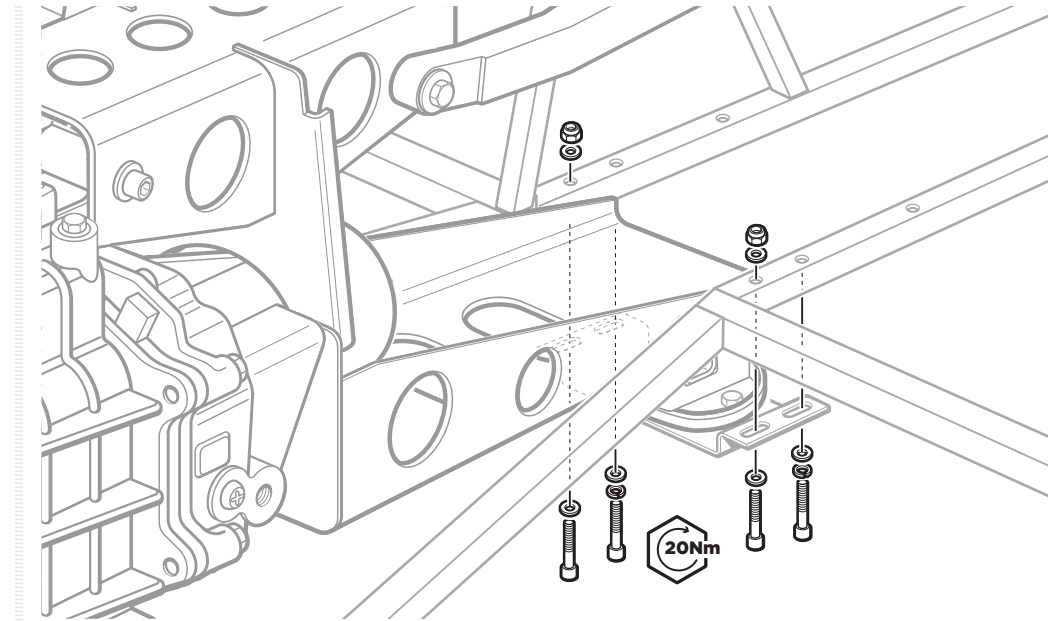
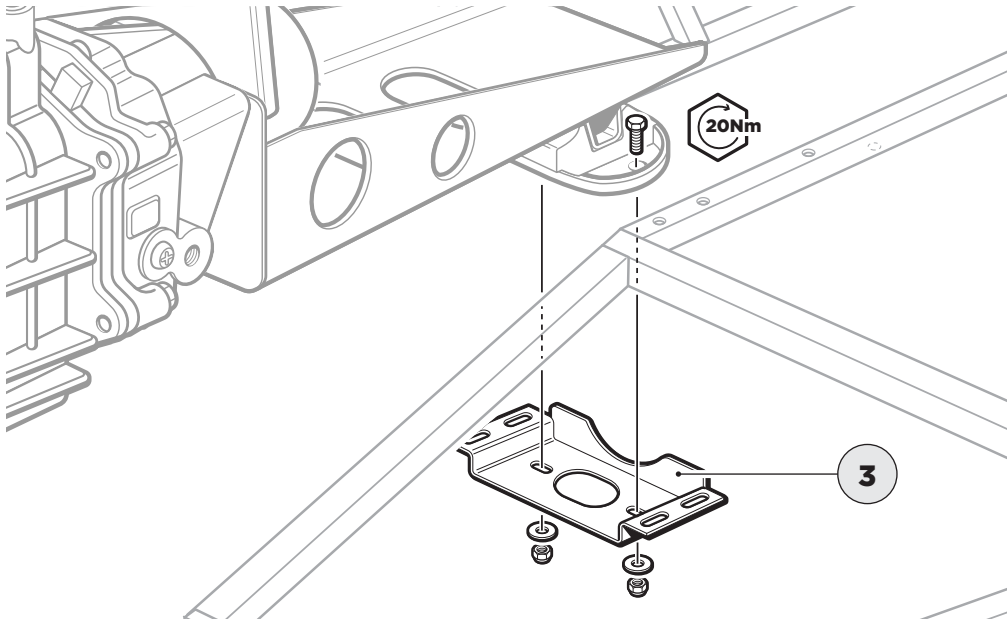
You will need to unwind the two gear lever housing bolts to allow the gear lever to drop into place. These bolts can then be re-tightened and the plastic cup inserted on top.

Chris B

Slide the gear lever mount onto the post at the rear of the gear lever bracket before securing to the chassis.

Chris N

## FINISHING THE GEARBOX



## FILLING AND CHECKING THE ENGINE AND GEARBOX OILS

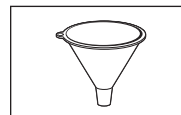
### PARTS

- 1 Gear 300 75W90 oil (x2)

### TOOLS



19mm



### FIXINGS

### TIPS

The engine is supplied pre-filled with oil from the factory, but it is always best to double check the level on the dipstick before starting the engine.

**Lee B**

The gearbox is supplied pre-filled with oil from the factory and the filler plug pen marked. If in doubt, you can use the square drive of a ratchet to loosen the level plug on the left-hand side and check.

**Harry P**



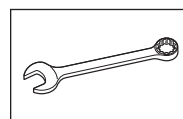
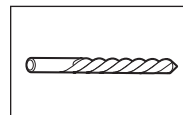
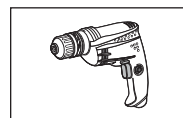
**Suzuki 660cc Turbo Charged Engine**  
Engine oil capacity = 2.35 Litres  
Gearbox oil capacity = 1.25 Litres

# FITTING THE AIRBOX

## PARTS

- 1 Airbox
- 2 Air filter
- 3 Sealing rubber
- 4 Rubber bobbins (x3)
- 5 MAF sensor

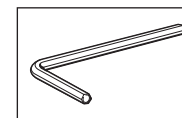
## TOOLS



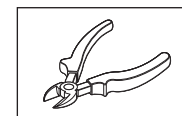
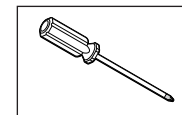
6mm

8mm

10mm



5mm



## FIXINGS

### fixings packed with airbox:

- Cross head screws (x6)
- Shake proof washers (x6)
- M5 plain washers (x3)
- M5 spring washers (x3)
- M5 plain nuts (x3)
- M6 cap head bolts (x2)
- M6 plain washers (x2)
- M6 nyloc nuts (x2)

## TIPS

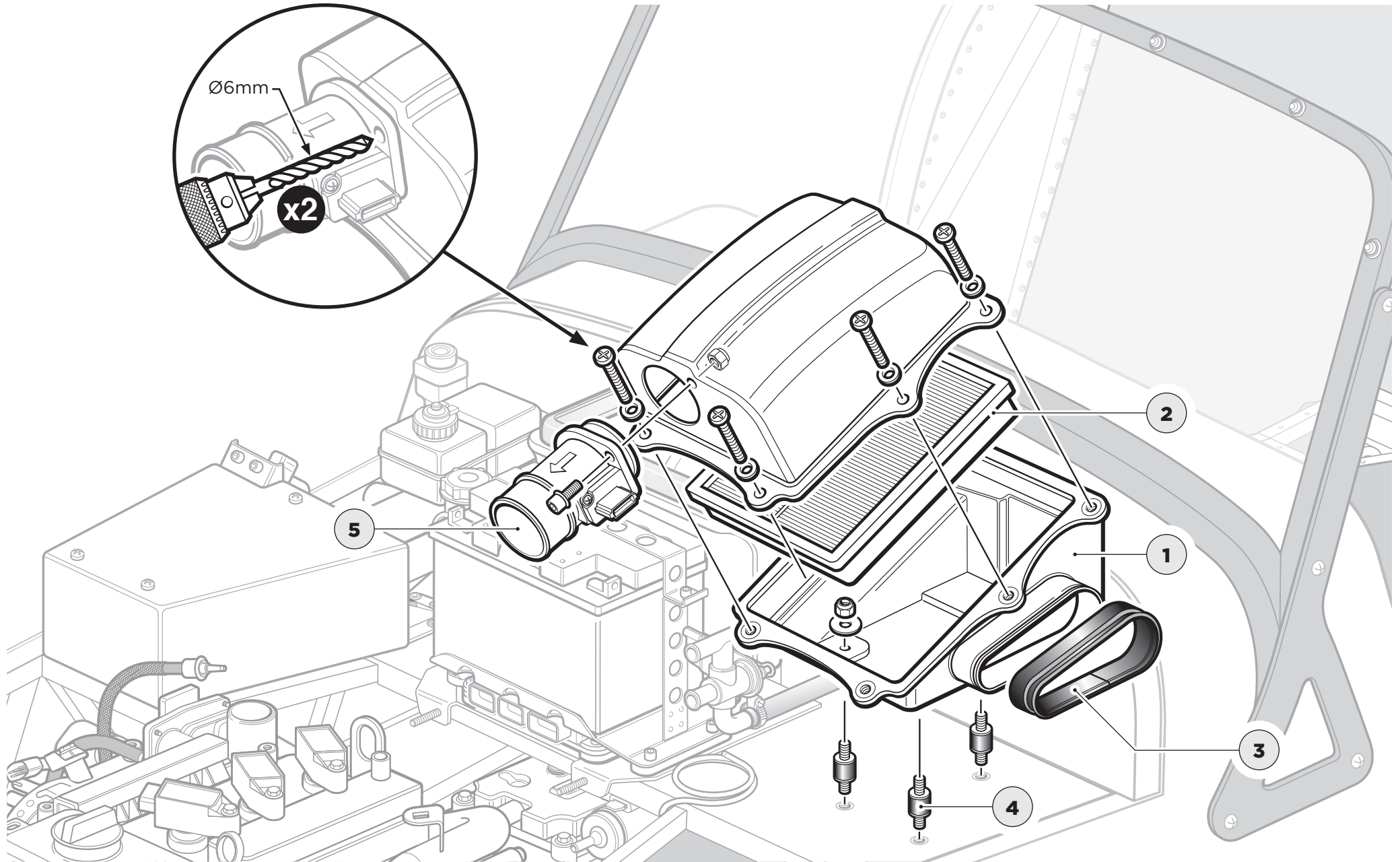
If the MAF sensor is a tight fit then you can enlarge the airbox opening using some sandpaper.

Lee A

The sealing rubber can be hard to push onto the airbox edge, so holding the inside of the inlet tube will prevent it from splitting.

Dan P

# FITTING THE AIRBOX





## FITTING THE EXPANSION BOTTLE

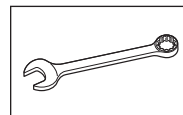
### PARTS

- 1 Expansion bottle
- 2 Expansion bottle cap
- 3 Expansion bottle bracket
- 4 Mounting bar

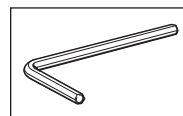
### TOOLS



13mm socket



10mm (x2)  
13mm



3mm

### FIXINGS

Fixings packed in cooling box

### TIPS

*You may find it easier to assemble these parts on the workbench.*

**Jamie A**

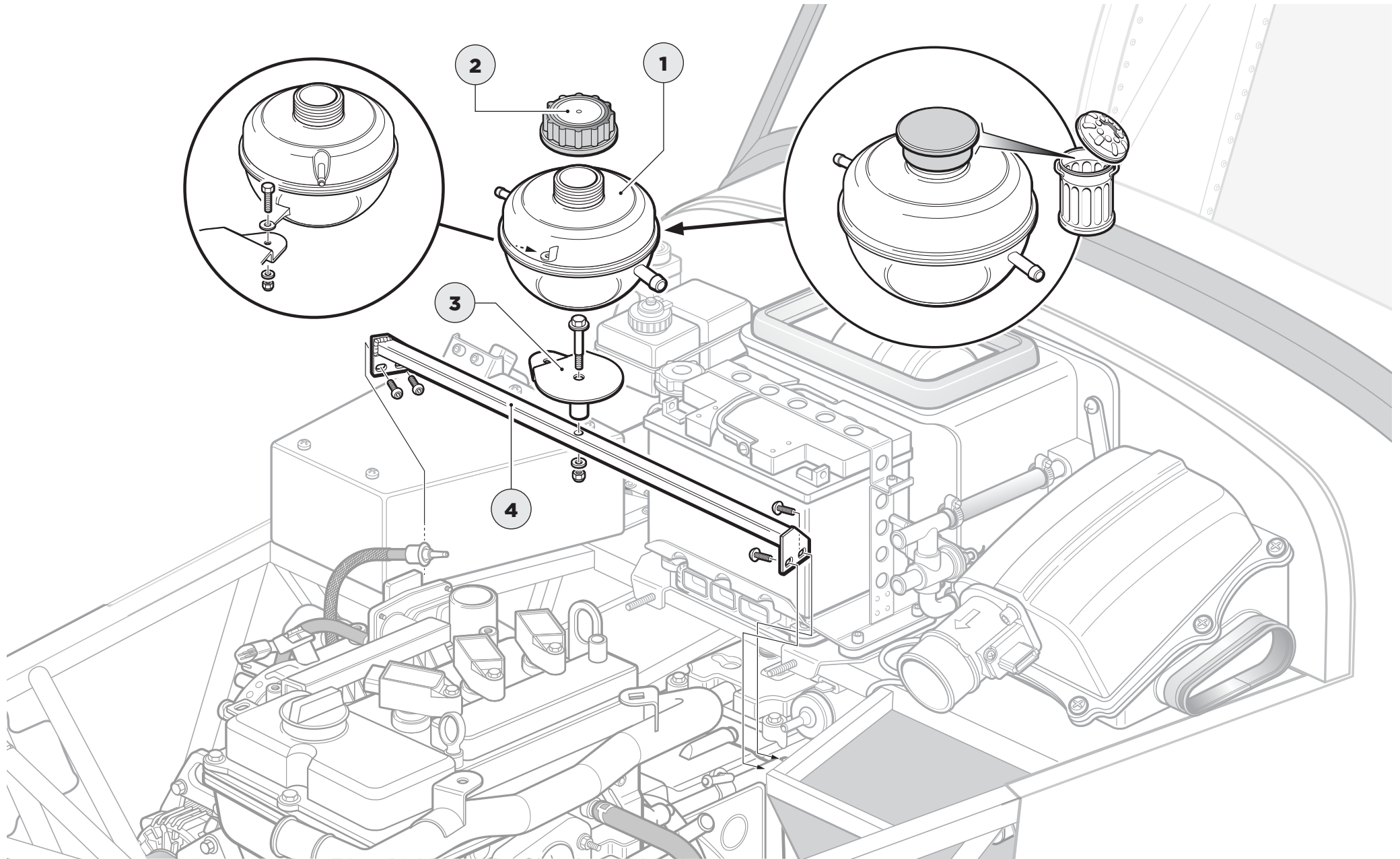
*Simply tighten the bottle cap until it clicks.*

**Chris N**

*It's important that the mounting bar is fitted using M5x12mm domed head bolts to prevent damage to the chassis threads.*

**Simon L**

## FITTING THE EXPANSION BOTTLE

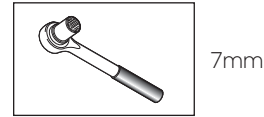


# FITTING THE BOTTOM RADIATOR HOSE

## PARTS

- 1 Bottom radiator hose

## TOOLS



## FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DN Rail Kit 2.00 1.00 x 2.00	888440	1	Expansion tank bracket to chassis	
2	DB Hoseclip 1.50 1.50 x 3.00	8871422A	1	Expansion tank to bracket	
3	DC Radiator Bracket 1.00 x 2.00	888420	4	SM radiator bracket	
4	DD Rail Kit 2.00 1.00 x 2.00	8871272A	4	Fan brackets to fan	
5	DE Radiator Bracket 1.00 x 2.00	8884210	4	Fan to radiator mounting - 20 (top)	
6	DF Fan Nut M8	888770	8	4 x Fan to radiator and 4 x radiator bracket	
7	DG Fan Nut M8	888770	8	Radiator bobbin	
8	DH Fan Nut M8	8871114	1	Expansion tank bracket	
9	DI Fan Washer 1.00 1.00 x 2.00	8884218	13	10 x DV Fan Bracket 1 x Expansion tank bracket	
10	DJ Fan Washer 1.00 1.00 x 2.00	8884219	4	Radiator bobbin back	
11	DK Fan Washer 1.00 1.00 x 2.00	8884219	4	Radiator bobbin front	

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

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	EL Fan Washer 1.00 1.00 x 2.00	8884218	1	Expansion tank bracket	
13	EM Spring Washer 1.00 1.00 x 2.00	8884219	8	8 x Radiator bobbin 1 x Expansion tank	
14	DN Hose Clip 2.00 2.00 x 4.00	80725-40	6	2 x U shape hose to water rail 2 x Top radiator hose 2 x Bottom radiator hose	
15	DD Hose Clip 2.00 2.00 x 4.00	80723-30	2	1 x Engine outlet to top 1 hose 1 x Engine outlet to bottom hose	
16	DP Hose Clip 1.00 1.00 x 2.00	80710-20	18	6 Radiator bobbin to top hose 6 Expansion tank to top hose 6 Top hose to bottom hose	
17	DD Hose Clip 1.00 1.00 x 2.00	80710-10	6	Expansion tank small 1 piece	
18	DR Hex - Black 1.00 1.00 x 2.00	1019-01010	12	Coupling cap	

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

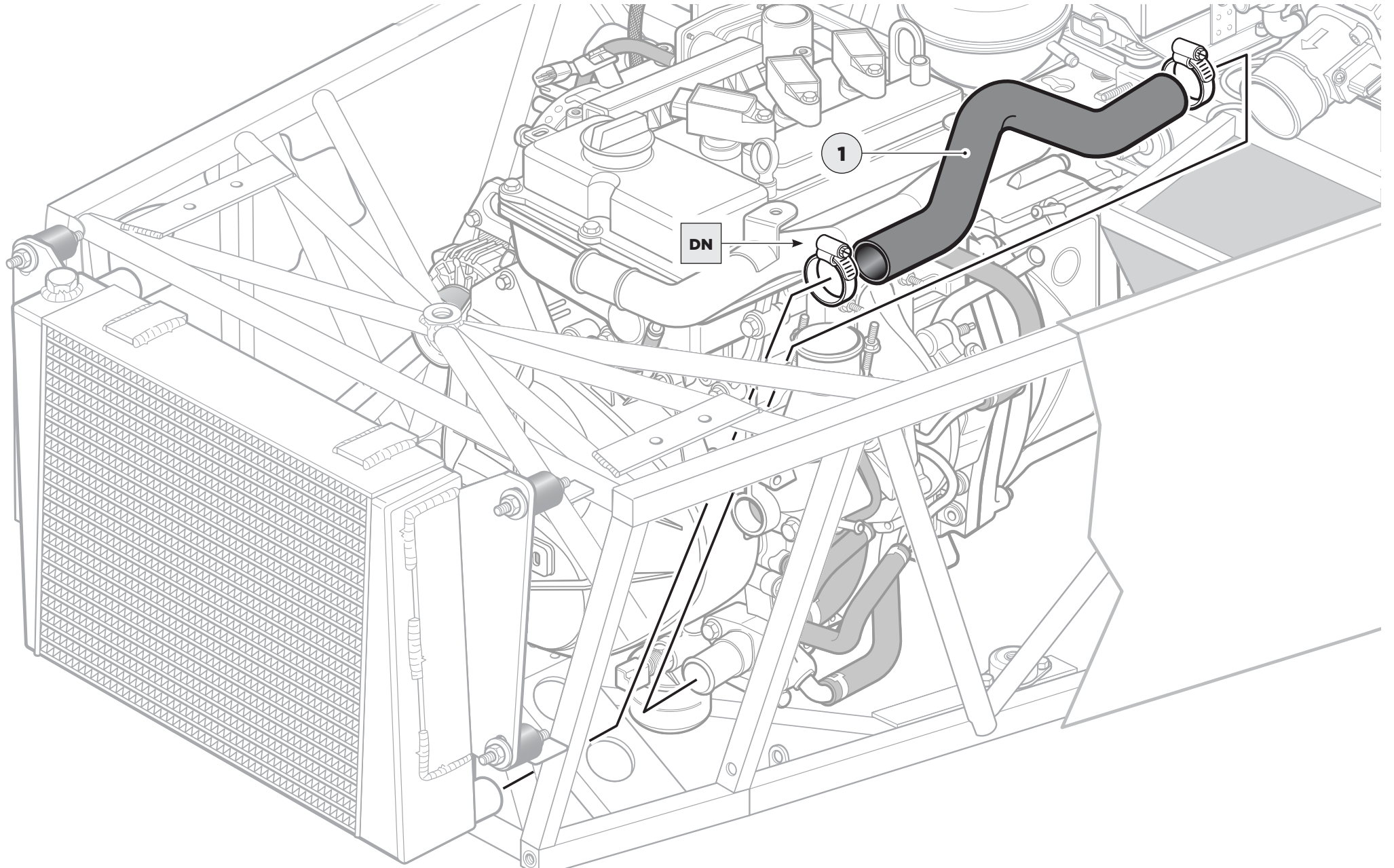
x2

## TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

Grant P

## FITTING THE BOTTOM RADIATOR HOSE

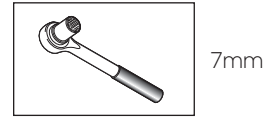


# FITTING THE TOP RADIATOR HOSE

## PARTS

- 1 Top radiator hose

## TOOLS



## FIXINGS

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DN Rail Kit 2.00 Hose Kit	888640	1	Expansion tank bracket to chassis	
2	DB Hoseclip 1.50 3.50"	881462/4	1	Expansion tank to bracket	
3	DC Radiator 881020 Hose Kit	888620	4	SM radiator bracket	
4	DD Rail Kit 2.18 with Square bracket	881102/4	4	Fan brackets to fan	
5	DE Radiator 881020 Fan Kit	888681/2	4	Fan to radiator mounting - 20 (top)	
6	DF Hose Nut M8	880795	8	4x Fan to radiator 4x DV radiator bracket	
7	DG Plain Nut M8	880795	8	Radiator bobbin	
8	DH Hose Nut 1/2"	881714	1	Expansion tank bracket	
9	DI Plain Washer 10 Hose Kit	881018	13	18 x DV Fan bracket 4 x Fan brackets 1 x Expansion tank bracket	
10	DJ Plain Washer 10 Hose Kit	881018	4	Radiator bobbin back	
11	DK Plain Washer 10 Hose Kit	881018	4	Radiator bobbin front	

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

Pack D		CATERHAM		44	
		PACK NUMBER		SAC22004A	
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 10 Hose Kit	881018	1	Expansion tank bracket	
13	DM Spring Washer 10 Hose Kit	881018	8	8 x Radiator bobbin 1 x Expansion tank	
14	DN Hose Clip 20 - 40mm	SOT25-40	6	2 x U shape hose to water rail 2 x Top radiator hose 2 x Bottom radiator hose	
15	DD Hose Clip 20 - 25mm	SOT23-25	2	1 x Engine outlet to top 1 frame 1 x Engine outlet to middle frame	
16	DE Hose Clip 17 - 20mm	SOT19-20	18	8 Radiator bobbin 4 Expansion tank 4 Frame 6 DV Hose	
17	DD Hose Clip 8 - 10mm	SOT8-10	6	Expansion tank small 1 piece	
18	DR Plain - Black 10 x 10 x 1.5mm	1019-01010	12	Covering cap	

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

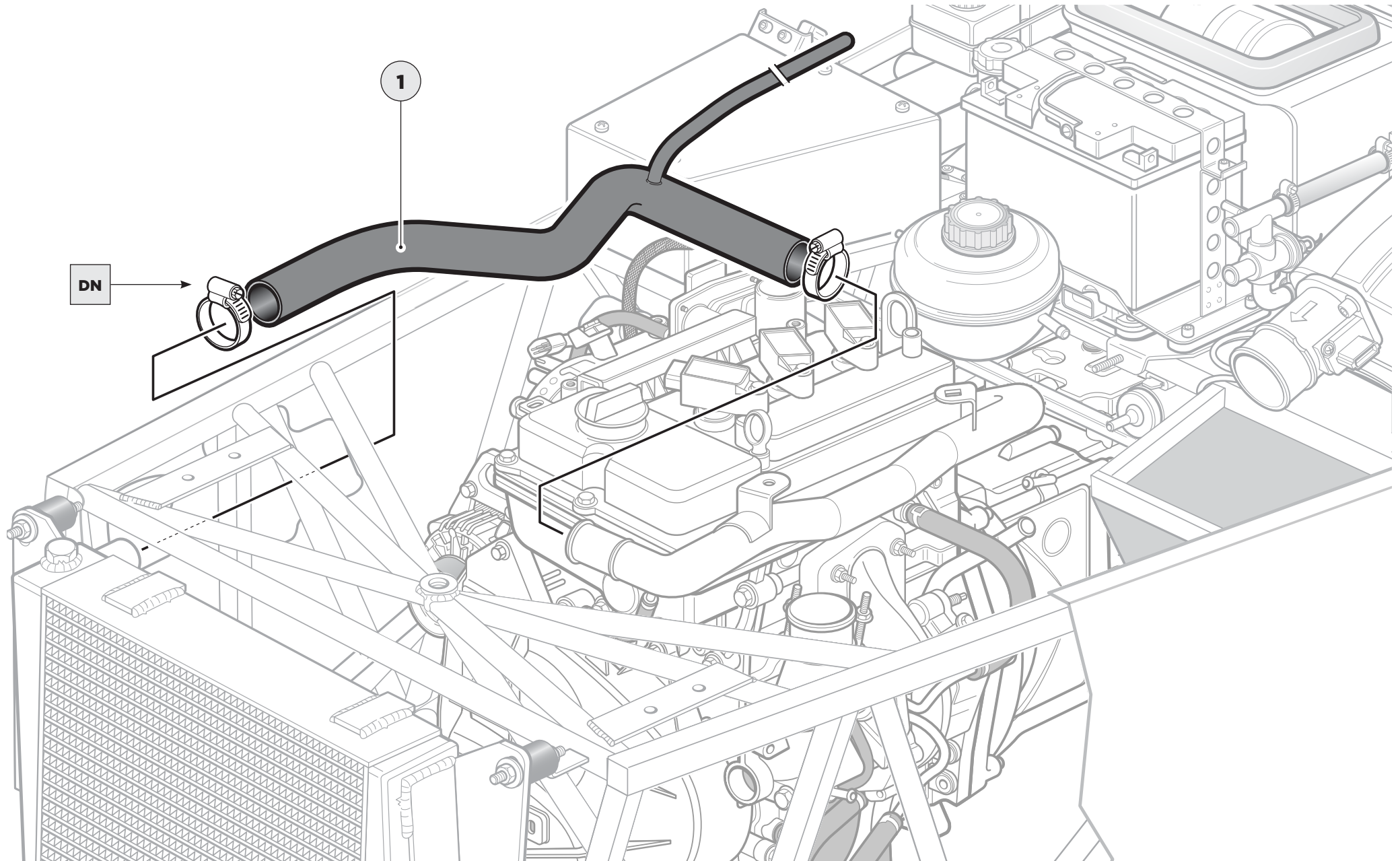
x2

## TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

Grant P

## FITTING THE TOP RADIATOR HOSE

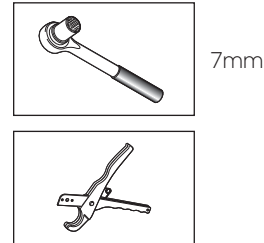


# CONNECTING THE TOP HOSE RETURN

## PARTS

- 1 Top radiator hose

## 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	DA Bolt M6 x 10 with lock washer	888432	1	Expansion tank bracket to chassis	
2	DB Washer 140 x 34	881432A	1	Expansion tank to bracket	
3	DC Universal M8x20 lock nut	888432	4	SV radiator bracket	
4	DD Bolt M6 x 10 with square washer	881572A	4	Rain track-hold to fan	
5	DE Universal M8x10 Fan nut	888432B	4	Fan to radiator coupling - SV only	
6	DF Nylon Nut M8	M8P10	8	4 x Fan to radiator and SV radiator bracket	
7	DG Plain Nut M8	M8P10	8	Radiator bobbin	
8	DH Nylon Nut L47	M12P14	1	Expansion tank bracket	
9	DI Plain Washer 170 x 34	M12P14	13	8 x SV rail bracket & 4 track-holds & 1 x Expansion tank bracket	
10	DJ Plain Washer 140 x 34	M8P10	4	Radiator bobbin back	
11	DK Plain Washer 140 x 34	M8P10	4	Radiator bobbin front	

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

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	DL Plain Washer 140 x 34	M8P10	1	Expansion tank bracket	
13	DM Spring Washer 140 x 34	M8P10	9	8 x Radiator bobbin & 1 x Expansion tank	
14	DN Hose Clip 10 - 16mm	88125-01	6	2 x 3 hose hoses to radiator & 2 x 3 hose radiator hose to radiator return hose	
15	DO Hose Clip 20 - 26mm	88125-02	2	1 x Engine water to top T-piece	
16	DP Hose Clip 10 - 16mm	88125-01	18	4 hose connections to 2 hose hoses & 2 hose hoses to 2 hose hoses	
17	DD Hose Clip 8 - 16mm	88176-04	6	Expansion tank small T-piece	
18	DR Heavy Duty Crowding Rag	1816-01010	12	Crowding Rag	

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

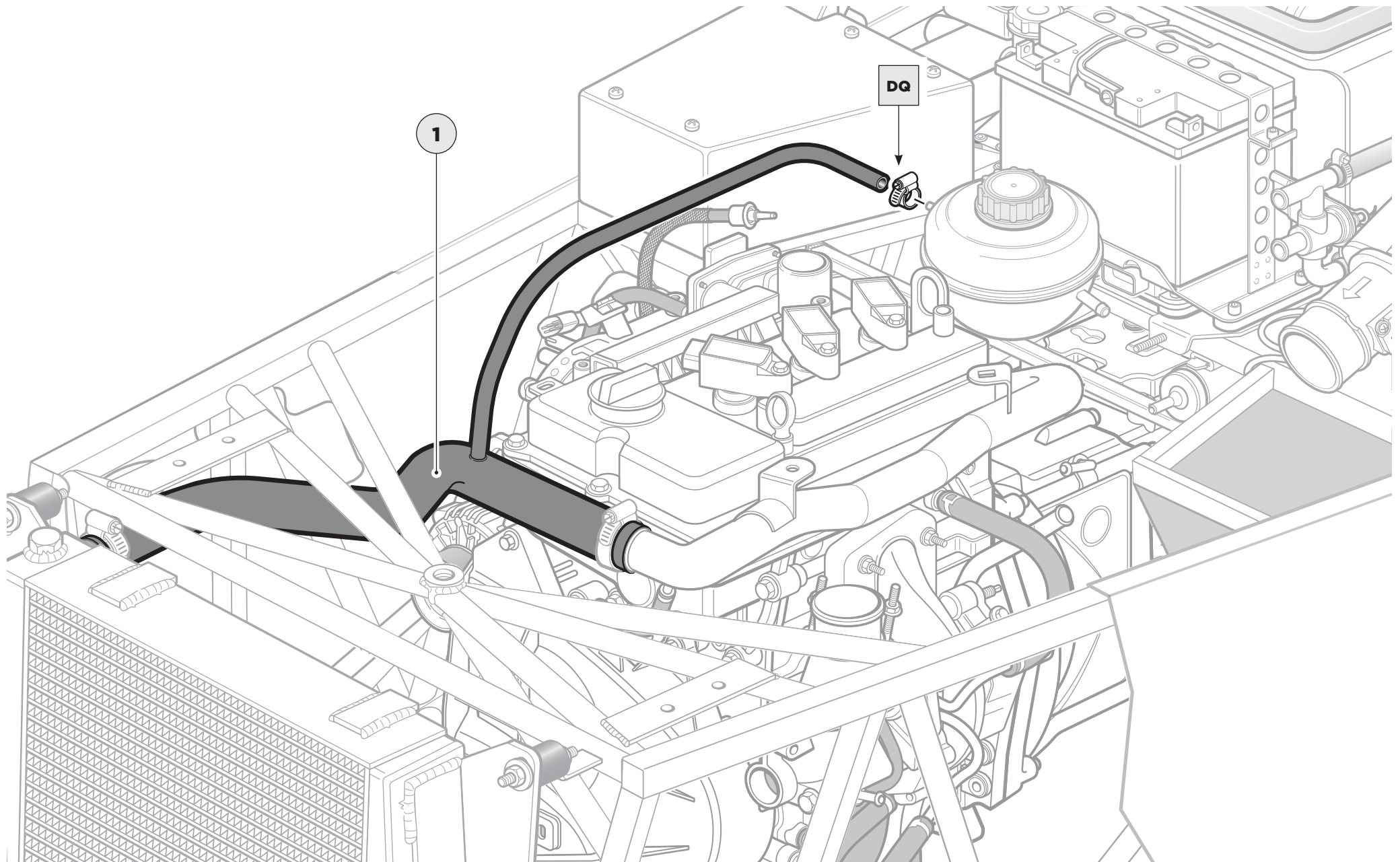
x1

## TIPS

The thin length which connects to the expansion tank may need to be trimmed a little depending on the orientation of the spout.

Tiago O

## CONNECTING THE TOP HOSE RETURN





## FINISH THE TURBO PLUMBING AND CONNECT THE FUEL HOSE

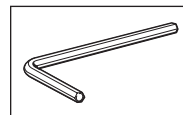
### PARTS

- 1** Turbo casting assembly

### TOOLS



10mm



5mm

### FIXINGS

### TIPS

Make sure that you remove any protective tape covering the exhaust gasket before assembling.

**Anthony L**



## FITTING THE INTERCOOLER

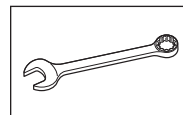
### PARTS

- 1 Intercooler
- 2 Rubber bobbins (x4)

### TOOLS



8mm



8mm

### FIXINGS

#### Unmarked bag:

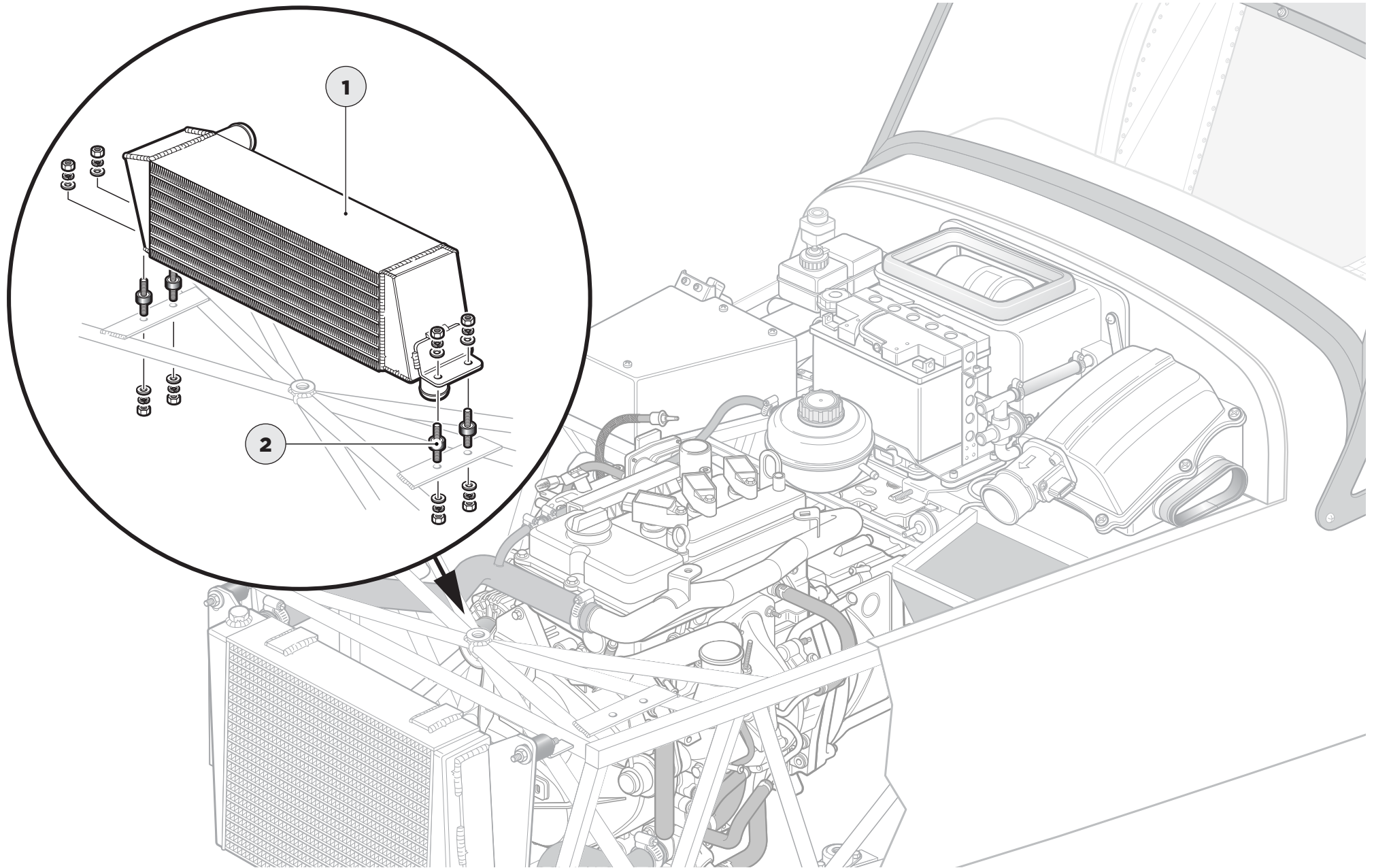
- M5 plain washers (x8)
- M5 spring washers (x8)
- M5 plain nuts (x8)

### TIPS

Don't overtighten the bobbins as they can twist and split.

**John S**

# FITTING THE INTERCOOLER



## FITTING THE THROTTLE BODY HOSE

### PARTS

- 1 Throttle body hose

### TOOLS



7mm

### FIXINGS

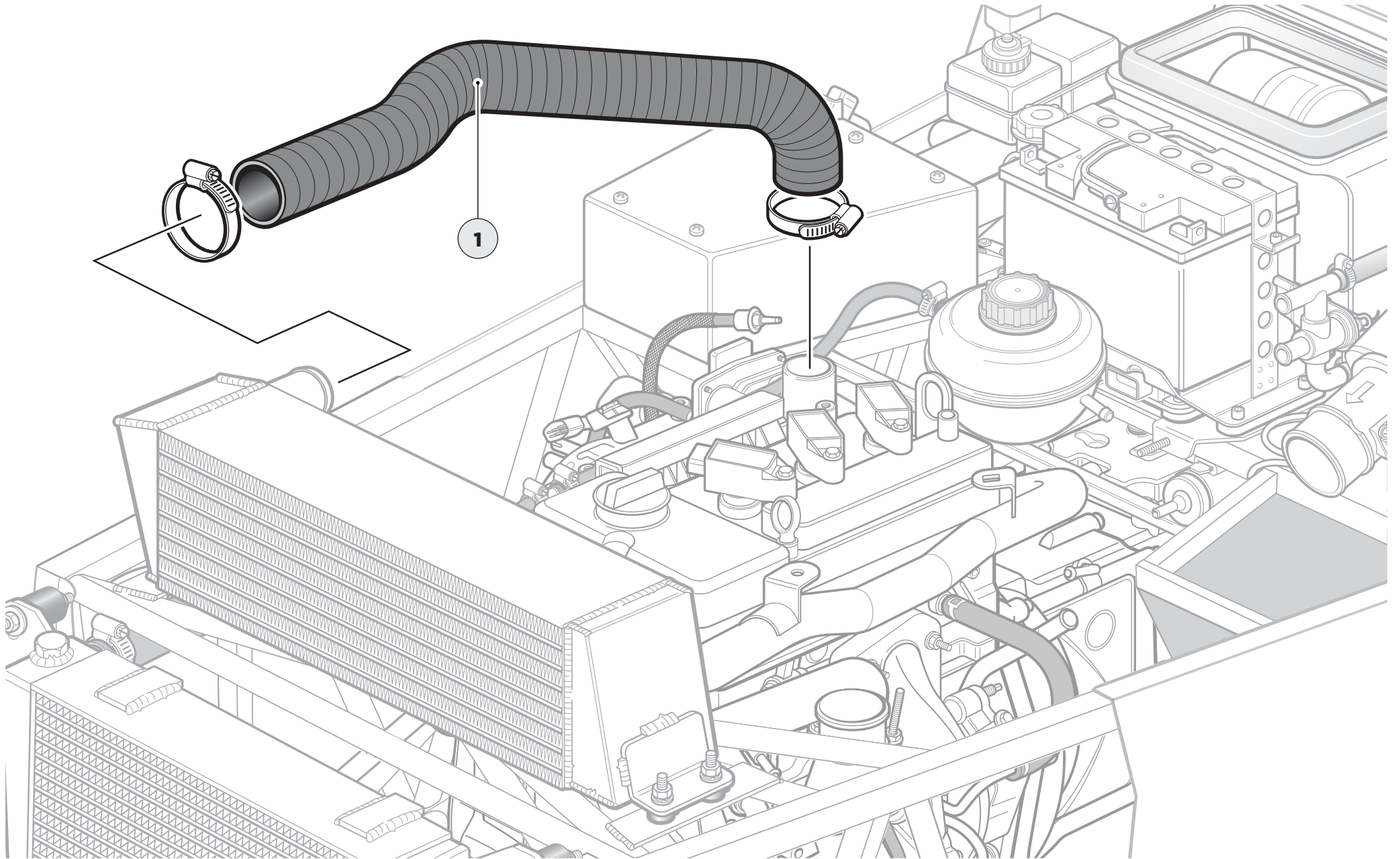
Fixings packed with airbox

### TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

**Grant P**

## FITTING THE THROTTLE BODY HOSE

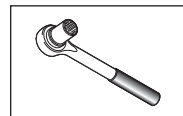


## FITTING THE INTERCOOLER INLET HOSE

### PARTS

- 1 Intercooler hose

### TOOLS



7mm

### FIXINGS

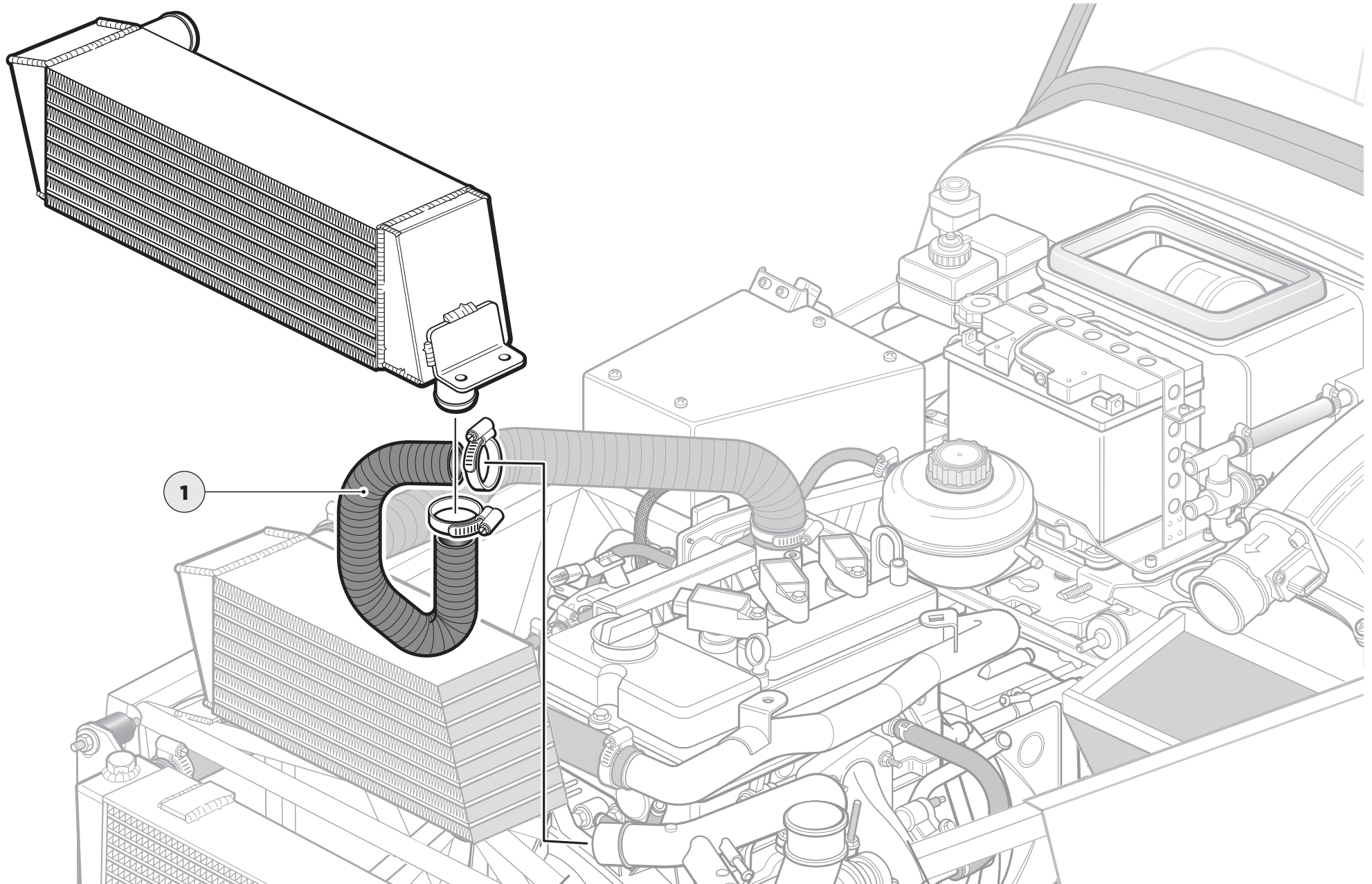
Fixings packed with airbox

### TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

**Grant P**

## FITTING THE INTERCOOLER INLET HOSE





## FITTING THE PURGE VALVE HOSE

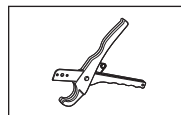
### PARTS

- 1 7.9mm hose reel

### TOOLS



7mm



### FIXINGS

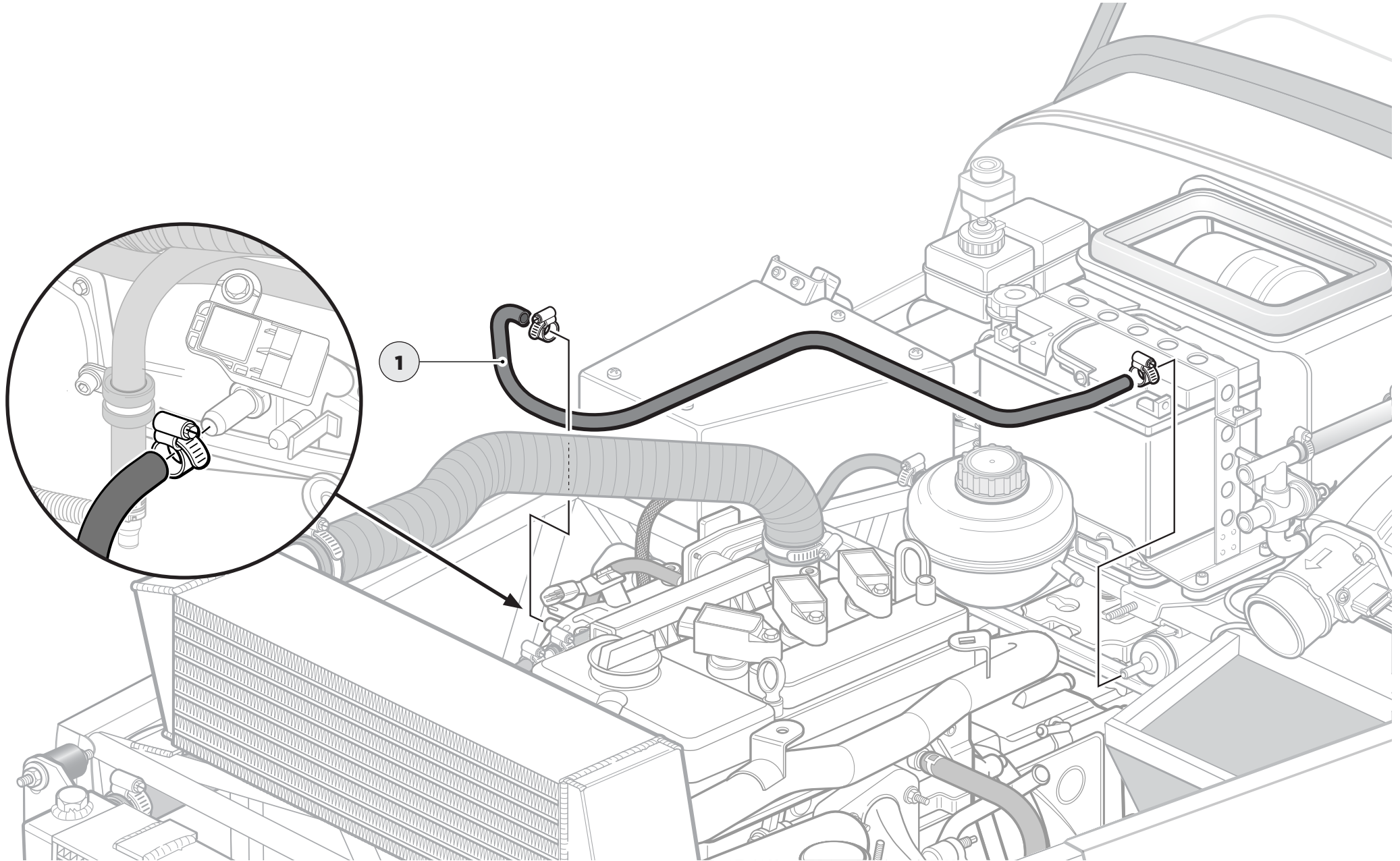
Fixings packed in cooling box

### TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

**Grant P**

## FITTING THE PURGE VALVE HOSE

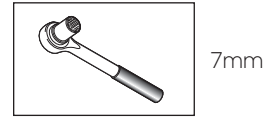


# FITTING THE LOWER HEATER VALVE HOSE

## PARTS

- 1 Lower heater valve hose

## TOOLS



## FIXINGS

Pack D		CATERHAM		44	
		PART NUMBER		SAC2004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Ball MR X 10 10mm x 1.0	888432	1	Expansion tank connected to chassis	
2	Ball MR X 10 10mm x 1.0	888432	1	Expansion tank to chassis	
3	Ball MR X 10 10mm x 1.0	888432	4	SV radiator bracket	
4	Ball MR X 10 10mm x 1.0	888432	4	Fan bracket to fan	
5	Ball MR X 10 10mm x 1.0	888432	4	Fan to radiator coupling - SV only	
6	Ball MR X 10 10mm x 1.0	888432	8	Fan to radiator and SV radiator bracket	
7	Ball MR X 10 10mm x 1.0	888432	8	Radiator bobbin	
8	Ball MR X 10 10mm x 1.0	888432	1	Expansion tank bracket	
9	Ball MR X 10 10mm x 1.0	888432	13	13 x SV radiator bracket 1 x Expansion tank bracket	
10	Ball MR X 10 10mm x 1.0	888432	4	Radiator bobbin bracket	
11	Ball MR X 10 10mm x 1.0	888432	4	Radiator bobbin bracket	

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

Pack D		CATERHAM		44	
		PART NUMBER		SAC2004A	
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Ball MR X 10 10mm x 1.0	888432	1	Expansion tank bracket	
13	Ball MR X 10 10mm x 1.0	888432	8	8 x Radiator bobbin 1 x Expansion tank	
14	Ball MR X 10 10mm x 1.0	888432	6	6 x SV radiator hose to radiator 6 x SV radiator hose to Expansion tank	
15	Ball MR X 10 10mm x 1.0	888432	2	1 x Engine cooler to radiator 1 x Engine cooler to Expansion tank	
16	Ball MR X 10 10mm x 1.0	888432	18	18 x Heater hose to 13 x SV radiator 1 x Expansion tank 1 x Heater hose to Expansion tank	
17	Ball MR X 10 10mm x 1.0	888432	8	Expansion tank small 1-piece	
18	Ball MR X 10 10mm x 1.0	888432	12	Cooling flap	

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

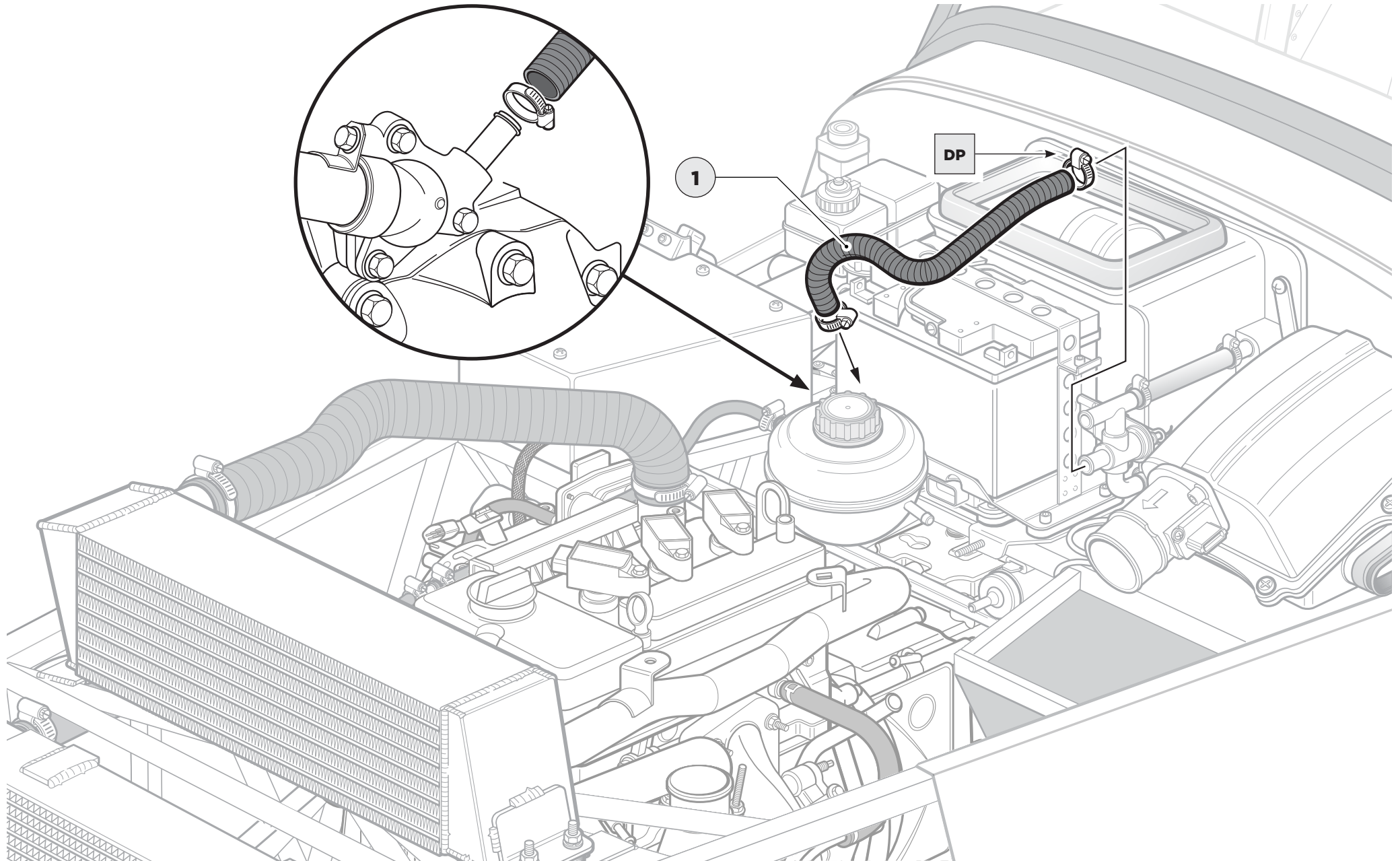
x2

## TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

Grant P

## FITTING THE LOWER HEATER VALVE HOSE

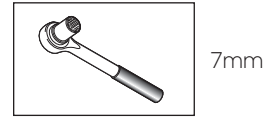


# FITTING THE UPPER HEATER VALVE HOSE

## PARTS

- 1** Upper heater valve hose

## TOOLS



## FIXINGS

Pack <b>D</b>		<b>CATERHAM</b>		44	
COOLING SIGMA		PART NUMBER		PACK NUMBER	
SAC2004A		SAC2004A		SAC2004A	
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Ball MR X 10 1/8 inch	888432	1	Expansion tank connected to chassis	
2	Ball MR X 10 1/8 inch	888432	1	Expansion tank to chassis	
3	Ball MR X 10 1/8 inch	888432	4	SV radiator bracket	
4	Ball MR X 10 1/8 inch	888432	4	Fan bracket to fan	
5	Ball MR X 10 1/8 inch	888432	4	Fan to radiator coupling - SV only	
6	Ball MR X 10 1/8 inch	888432	8	4 Fan to radiator and SV radiator bracket	
7	Ball MR X 10 1/8 inch	888432	8	Radiator bobbin	
8	Ball MR X 10 1/8 inch	888432	1	Expansion tank bracket	
9	Ball MR X 10 1/8 inch	888432	13	8 x SV radiator bracket 4 x Fan bracket 1 x Expansion tank bracket	
10	Ball MR X 10 1/8 inch	888432	4	Radiator bobbin bracket	
11	Ball MR X 10 1/8 inch	888432	4	Radiator bobbin bracket	

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

Pack <b>D</b>		<b>CATERHAM</b>		44	
COOLING SIGMA		PART NUMBER		PACK NUMBER	
SAC2004A		SAC2004A		SAC2004A	
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Ball MR X 10 1/8 inch	888432	1	Expansion tank bracket	
13	Ball MR X 10 1/8 inch	888432	8	8 x Radiator bobbin 1 x Expansion tank	
14	Ball MR X 10 1/8 inch	888432	6	6 x SV radiator hose to expansion tank 2 x SV radiator hose to radiator tank	
15	Ball MR X 10 1/8 inch	888432	2	1 x Engine cooler to top 2 pieces 1 x Engine cooler to radiator tank	
16	Ball MR X 10 1/8 inch	888432	18	8 x Heater hose to 12 1/2 1/2 hose 1 x Expansion tank 1 x Heater 1 x Dip Sump 1 x Silencer	
17	Ball MR X 10 1/8 inch	888432	8	Expansion tank small 1 piece	
18	Ball MR X 10 1/8 inch	888432	12	Cooling Fan	

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

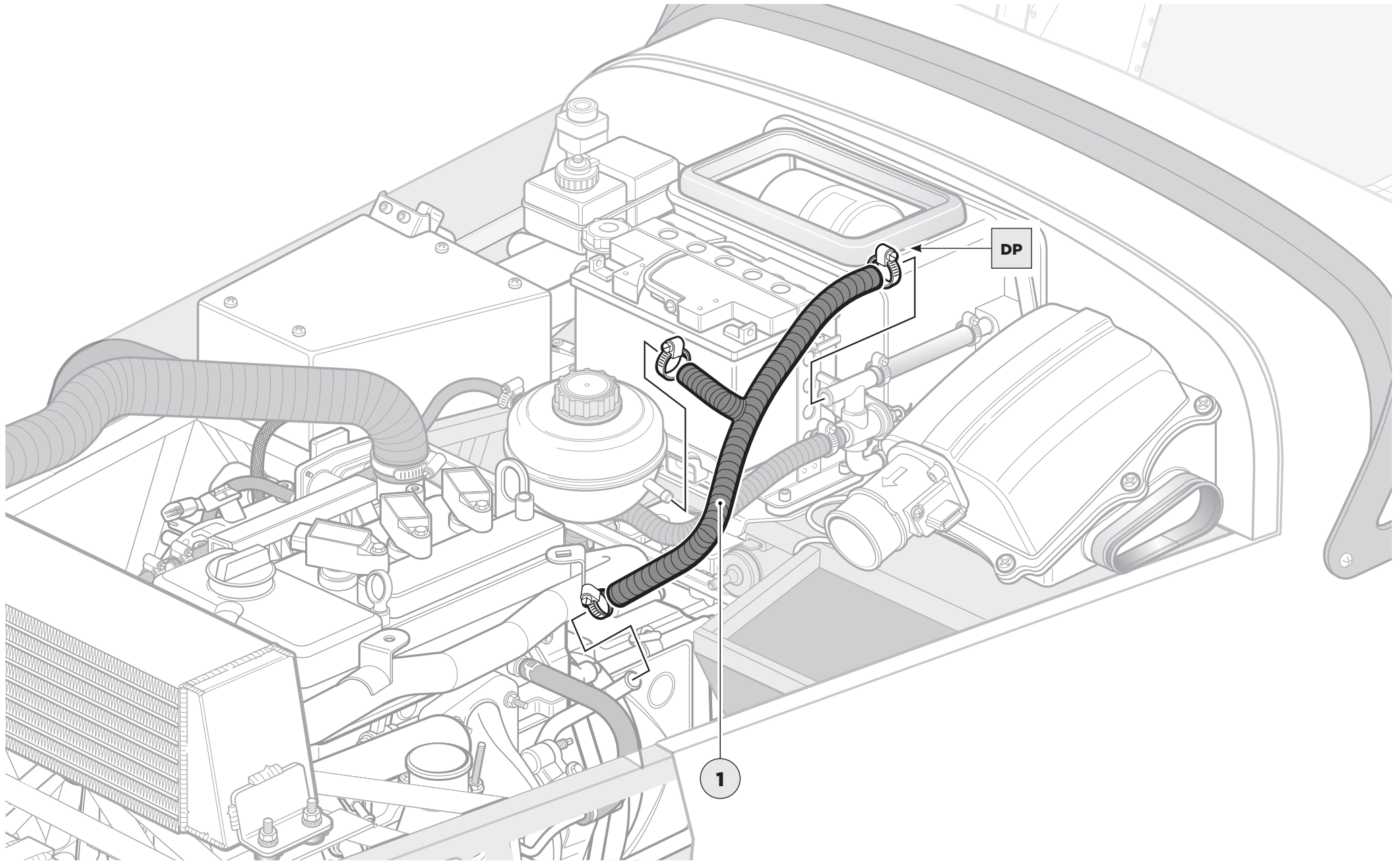
x3

## TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

Grant P

## FITTING THE UPPER HEATER VALVE HOSE



## FITTING THE AIRBOX HOSE

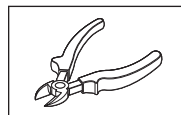
### PARTS

- 1 Airbox hose
- 2 Cable tie

### TOOLS



7mm



### FIXINGS

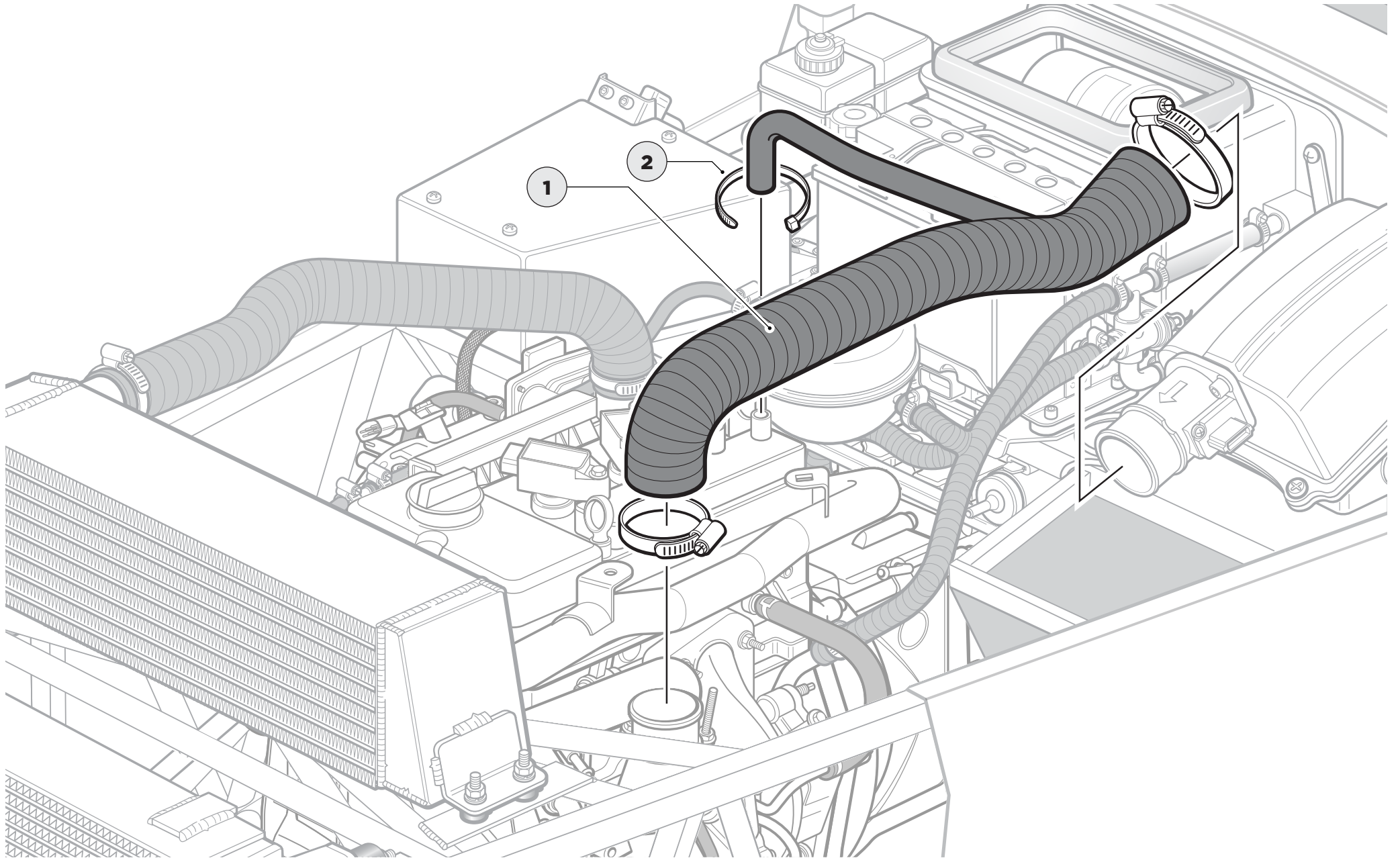
Fixings packed with airbox

### TIPS

If the hose is a tight fit then a squirt of rubber lubricant will help.

**Grant P**

## FITTING THE AIRBOX HOSE



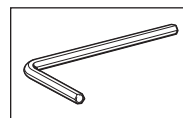


## FITTING THE TURBO SOLENOID PIPES

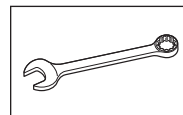
### PARTS

- 1 Solenoid pipes (x5)
- 2 P-clip
- 3 M6 cap head bolt
- 4 M6 plain washer
- 5 M6 nyloc nut

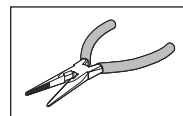
### TOOLS



5mm



10mm



### FIXINGS

Fixings packed with engine

### TIPS

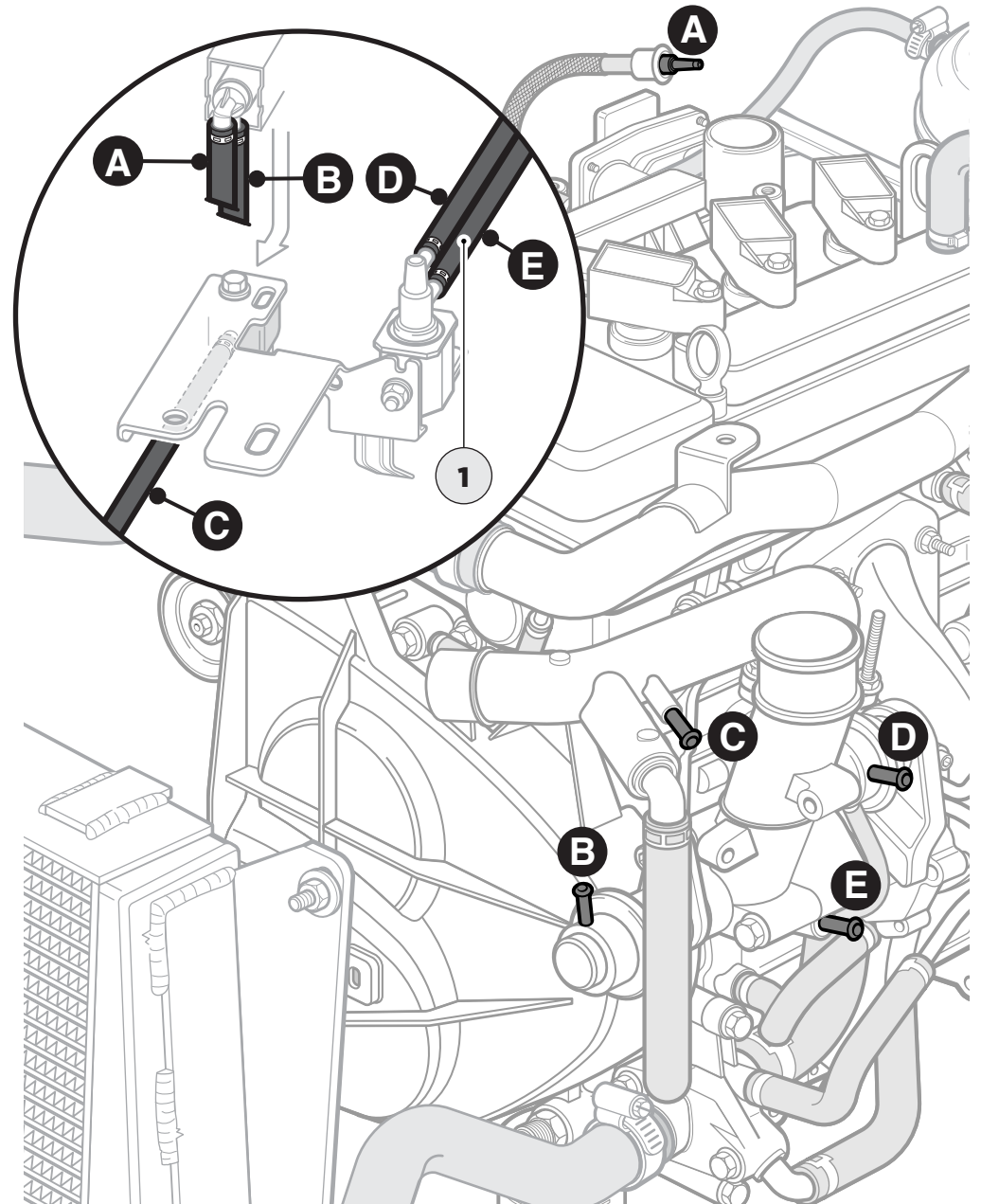
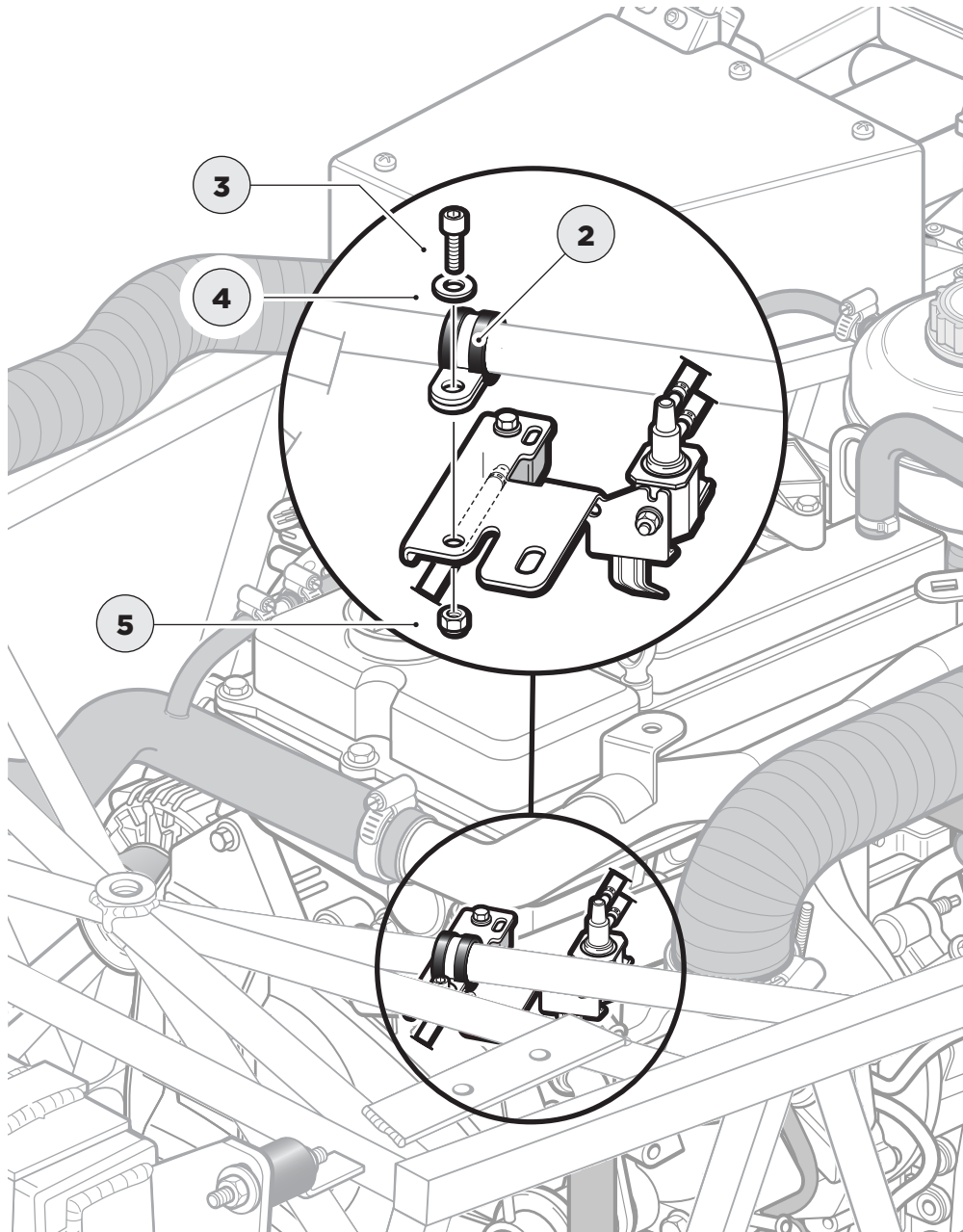
It is very important that these pipes are connected to the correct places so take your time.

**Chris N**

It is important that these pipes are not restricted or kinked in any way, therefore you should be careful not to overtighten your cable ties.

**Lee B**

## FITTING THE TURBO SOLENOID PIPES

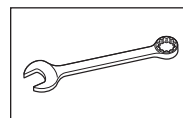


## FITTING THE CLUTCH HOSE

### PARTS

- 1 Clutch hose
- 2 Adaptor
- 3 Banjo bolt
- 4 Copper washers (x2)

### TOOLS



$\frac{9}{16}$   
 $\frac{7}{16}$

### FIXINGS

Fixings supplied in clutch hose kit

### TIPS

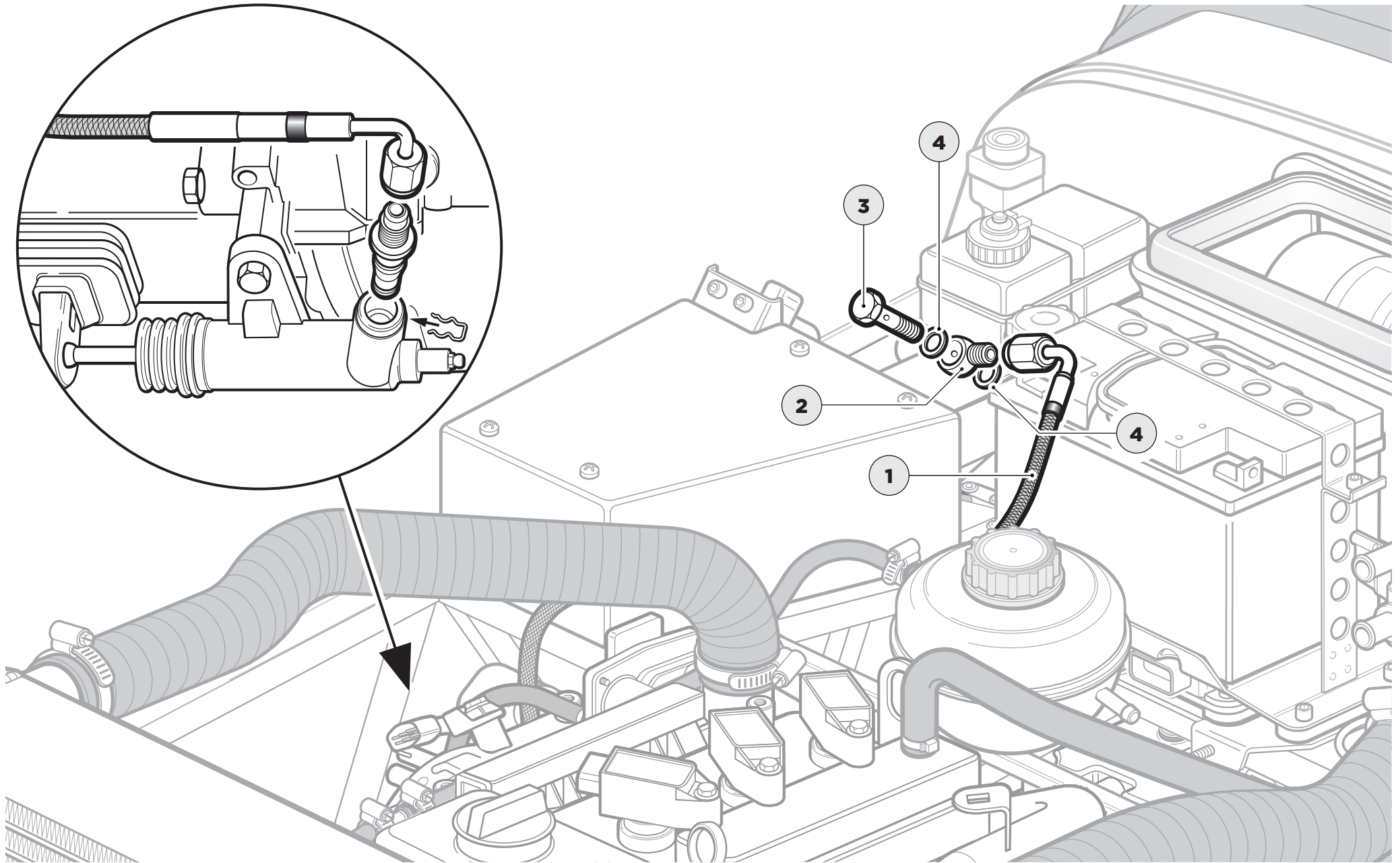
*Once fully tightened, ensure that the hose is not kinked or twisted.*

**John S**

*The locking clip is supplied pre-fitted to the slave cylinder; therefore, you will need to remove this before fitting the adaptor and refitting the clip.*

**Mick F**

## FITTING THE CLUTCH HOSE



# FITTING THE PROPSHAFT

---

## PARTS

- 1** Propshaft

## TOOLS

## FIXINGS

## TIPS

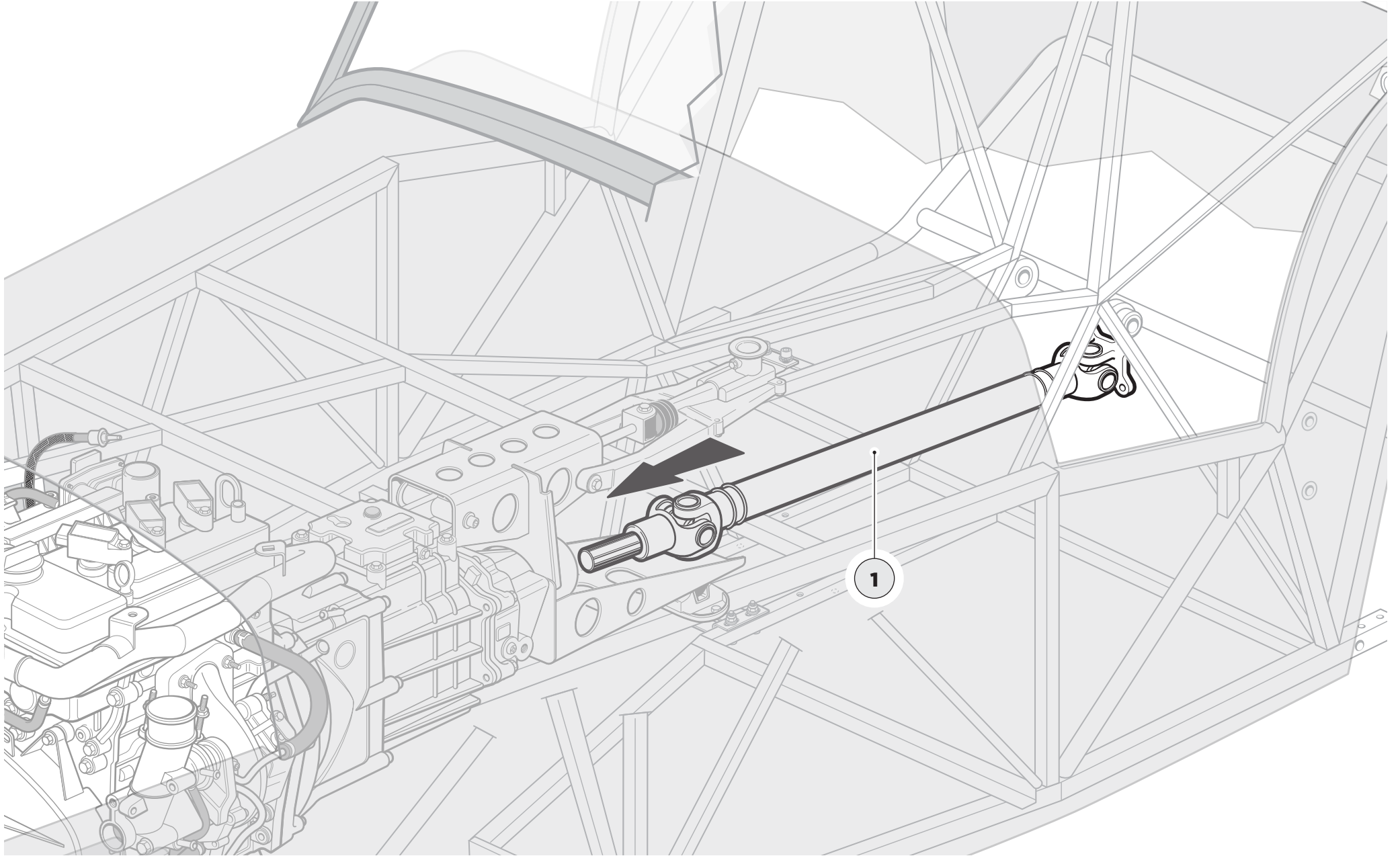
Remove the plastic bung from the tail of the gearbox before attempting to fit the propshaft.

**John S**

Be careful when inserting the propshaft into the tail of the gearbox, as you do not want to damage the oil seal.

**Mick F**

## FITTING THE PROPSHAFT



# ASSEMBLING THE AXLE

## PARTS

- 1** Differential
- 2** Axle
- 3** Copper brake pipe
- 4** Brake pipe clips (x5)
- 5** Oil filler plug & washer
- 6** Oil drain plug & washer
- 7** Breather cap
- 8** Breather spring
- 9** Breather seal
- 10** Differential bolts (x8)

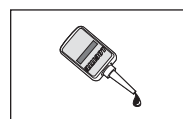
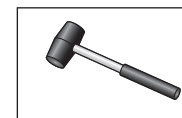
## FIXINGS

Fixings packed with axle

## TOOLS



12mm  
19mm



Loctite 577

## TIPS

It's easier to push the clip bases into the axle brackets, followed by fitting the clip jaws and lastly the brake pipe.

Lee A

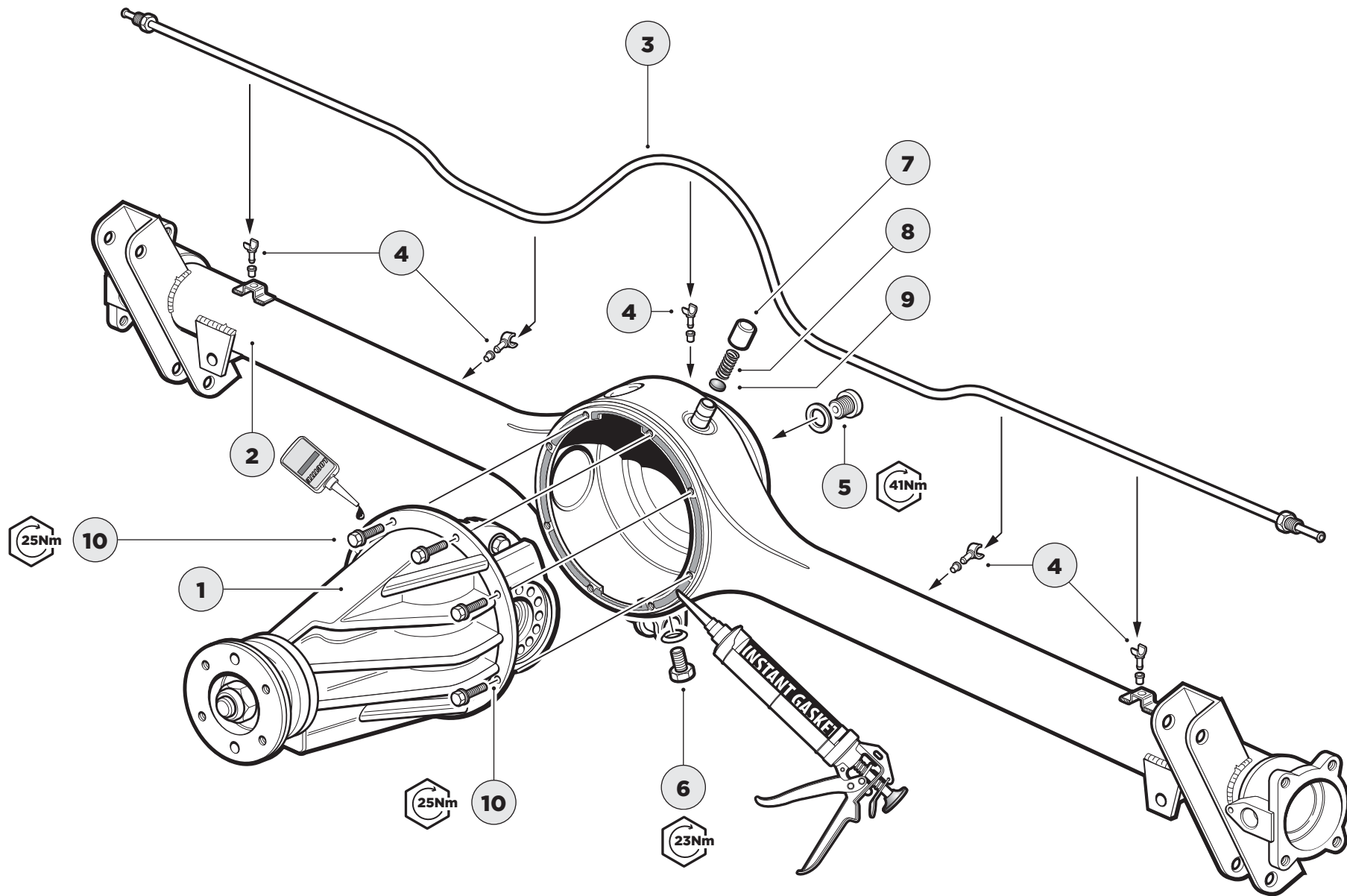
The plastic washer is for the filler plug, not the drain plug.

Chris N

The indentations in the breather cap are designed to fit into the slot in the axle breather. A tap with a mallet will help to get it seated.

John K

# ASSEMBLING THE AXLE





# INSTALLING THE AXLE AND CONNECTING THE PROPSHAFT

## PARTS

- 1** M8 bolts (x4)
- 2** M8 spring washers (x4)

## TOOLS



12mm



## FIXINGS

Fixings packed with axle

## TIPS

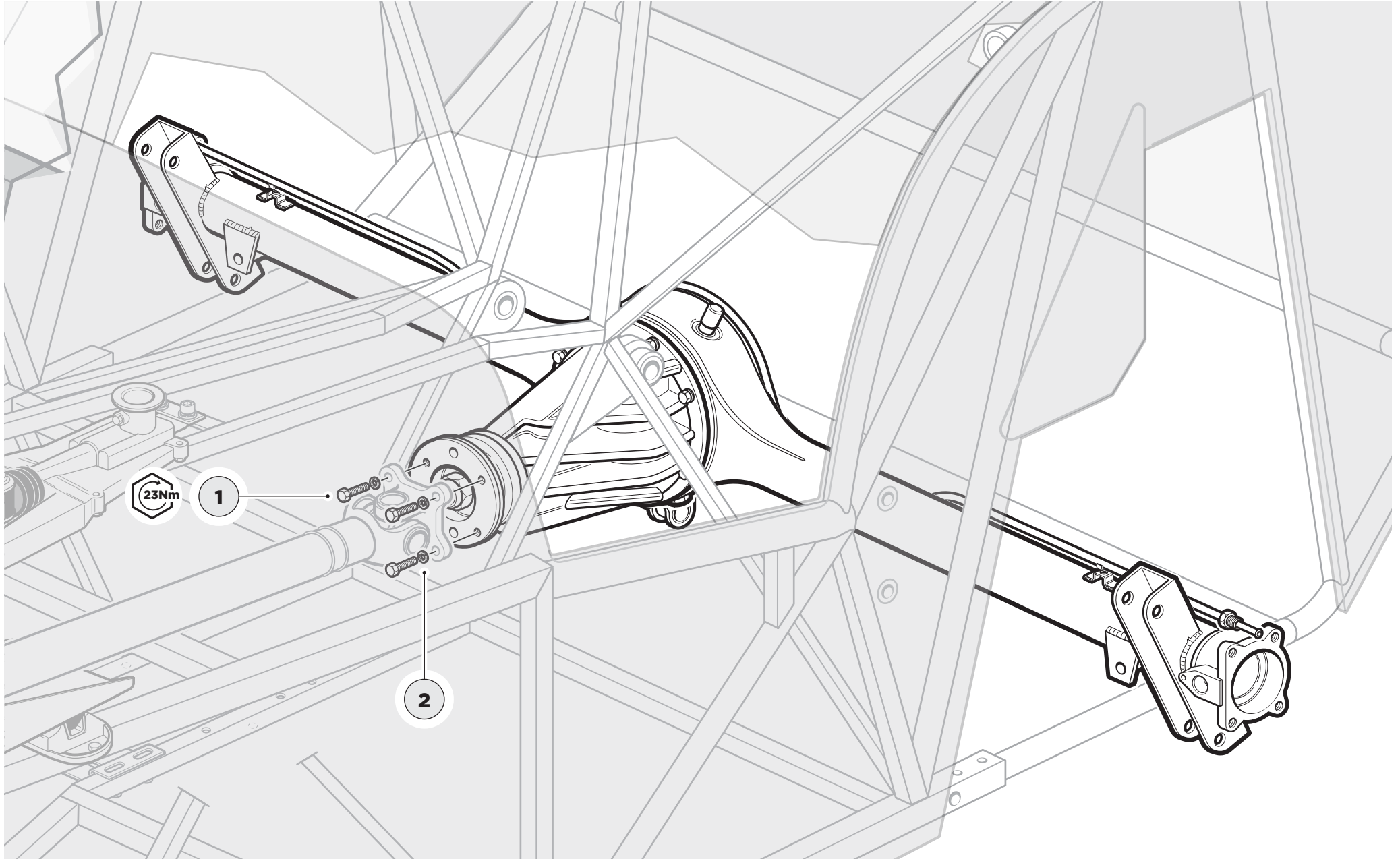
Lifting the axle into the chassis is a two-person job, one laying underneath the chassis and the other feeding the axle in from the left-hand side.

**John S**

The diff is the heaviest part so the axle will always try and rotate downwards.

**Chris B**

## INSTALLING THE AXLE AND CONNECTING THE PROPSHAFT

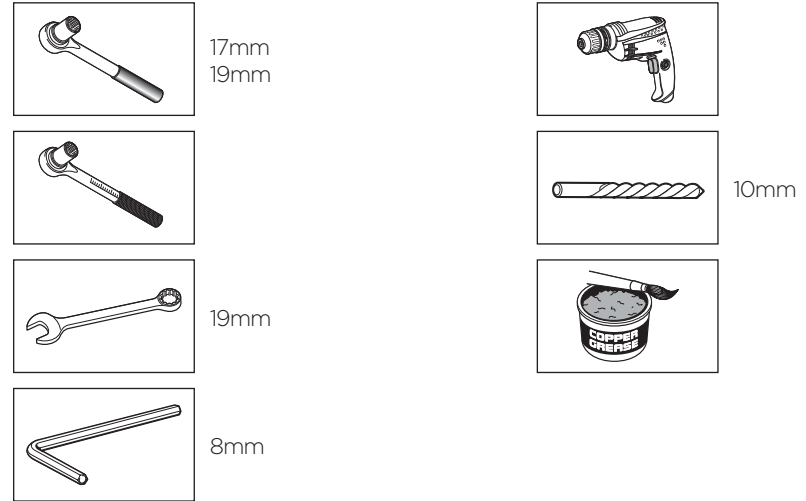


# FITTING THE RADIUS ARMS

## PARTS

- 1 Radius arms (x2)
- 2 Bush sleeves (x2)

## TOOLS



## FIXINGS

Pack 74		CATERHAM		PART NUMBER 3G0Z001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Bush M12 X 100 Grade 10.9	BM12X100	2	Drop bracket to A-Frame	
2	Bush M12 X 60 Grade 8.8	3G22002A	2	Drop bracket to chassis	
3	Bush 12" X 2.34" Grade 10.9	BF12X2.34	1	A-frame to diff	
4	Bush M12 X 120 Grade 10.9	3G22022A	2	Damper	
5	Crowned M12 X 75 Grade 8.8	3G22004A	2	Radius arm to chassis	
6	Crowned M8 X 45 Grade 10.9	BM8X45A	4	Drop bracket to chassis through ARB mount	
7	Nylon Nut M12	NM12	4	Drop bracket to A-frame & drop bracket to chassis	
8	Half Nylon 1/2" UNF	NF1/2	1	A-frame to diff	
9	Nylon Nut M10	3G22023A	4	Damper	
10	Nylon Nut M8	NM8	4	Drop bracket fixings	
11	Plain Washer M12 Frame-A	3G22006A	13		

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

Pack 74		CATERHAM		PART NUMBER 3G0Z001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain Washer M12 X 1.5 X 30 Frame-C	WP12	2		
13	Plain Washer 1/2"	WP1/2	16	A-frame spacing	
14	Washer M12 X 1.5 X 30 Plain Washer	3G22007A	6	Damper	
15	Plain Washer M8	WP8	8	Drop bracket fixings	
16	Stainless Steel Washer 3/8" ID	WS3/8	1		
17	Nylon Washer 17 X 5 X 32 X 1mm	Z201463	2	A-frame	

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

## TIPS

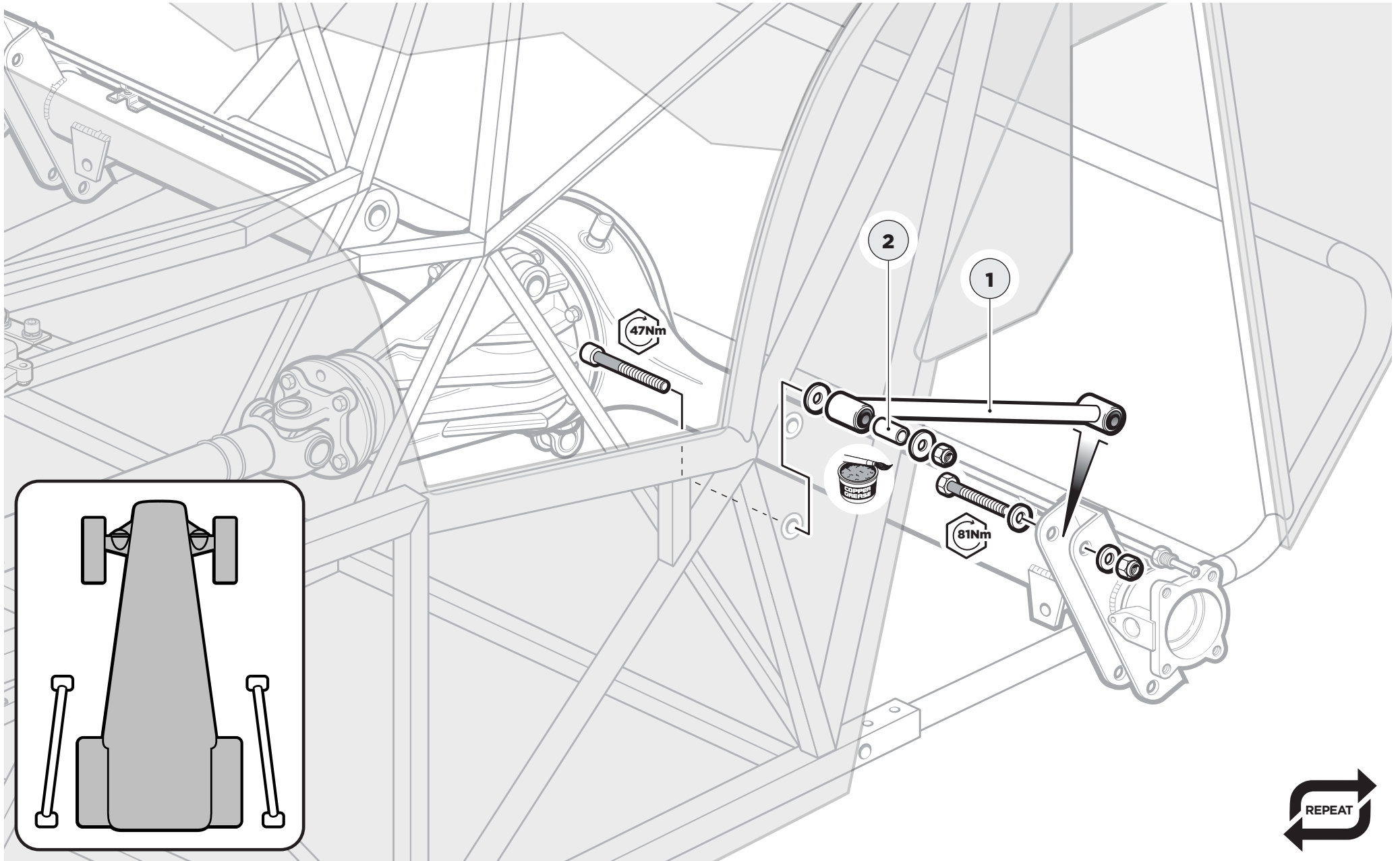
If necessary, run a 10mm drill bit through the chassis bosses to clear any excess powder coat.

Chris B

It is best to torque the rear suspension fixings under load, to prevent the bushes from becoming stressed.

John S

## FITTING THE RADIUS ARMS

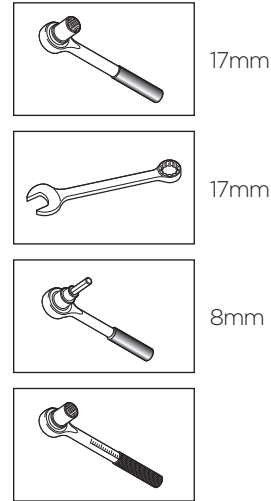


# FITTING THE REAR DAMPERS

## PARTS

- 1 Dampers (x2)
- 2 Damper sleeves (x4)

## TOOLS



## FIXINGS

Pack 74		CATERHAM		PART NUMBER 3GBZ001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Bolt M12 X 100 Grade 10.9	BM12X100	2	Drop bracket to A-Frame	
2	Bolt M12 X 60 Grade 8.8	3GJ2002A	2	Drop bracket to chassis	
3	Bolt 1/2" X 2 3/4" Grade 10.9	BF1/2X2.34	1	A-frame to diff	
4	Bolt M12 X 120 Grade 10.9	3GJ2022A	2	Damper	
5	Clamped M12 X 75 Grade 8.8	3GJ2004A	2	Radius arm to chassis	
6	Clamped M8 X 45 Grade 10.9	BMCH8X45	4	Drop bracket to chassis through ARB mount	
7	Nylon Nut M12	NM12	4	Drop bracket to A-frame & drop bracket to chassis	
8	Half Nylon 1/2" UNF	NF1/2	1	A-frame to diff	
9	Nylon Nut M10	3GJ2023A	4	Damper	
10	Nylon Nut M8	NM8	4	Drop bracket fixings	
11	Plain Washer M12 Form-A	3GJ2006A	13		

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

Pack 74		CATERHAM		PART NUMBER 3GBZ001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain Washer M12 X 1.5 X 30 Form-C	WP1M12	2		
13	Plain Washer 1/2"	WP1/2	16	A-frame spacing	
14	Washer M12 X 1.5 X 30 Plain Washer	3GJ2007A	6	Damper	
15	Plain Washer M8	WP8M8	8	Drop bracket fixings	
16	Shocksproof Washer 3/8" ID	WSS3/8	1		
17	Nylon Washer 1/2 X 3/2 X 1mm	Z201463	2	A-frame	

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

## TIPS

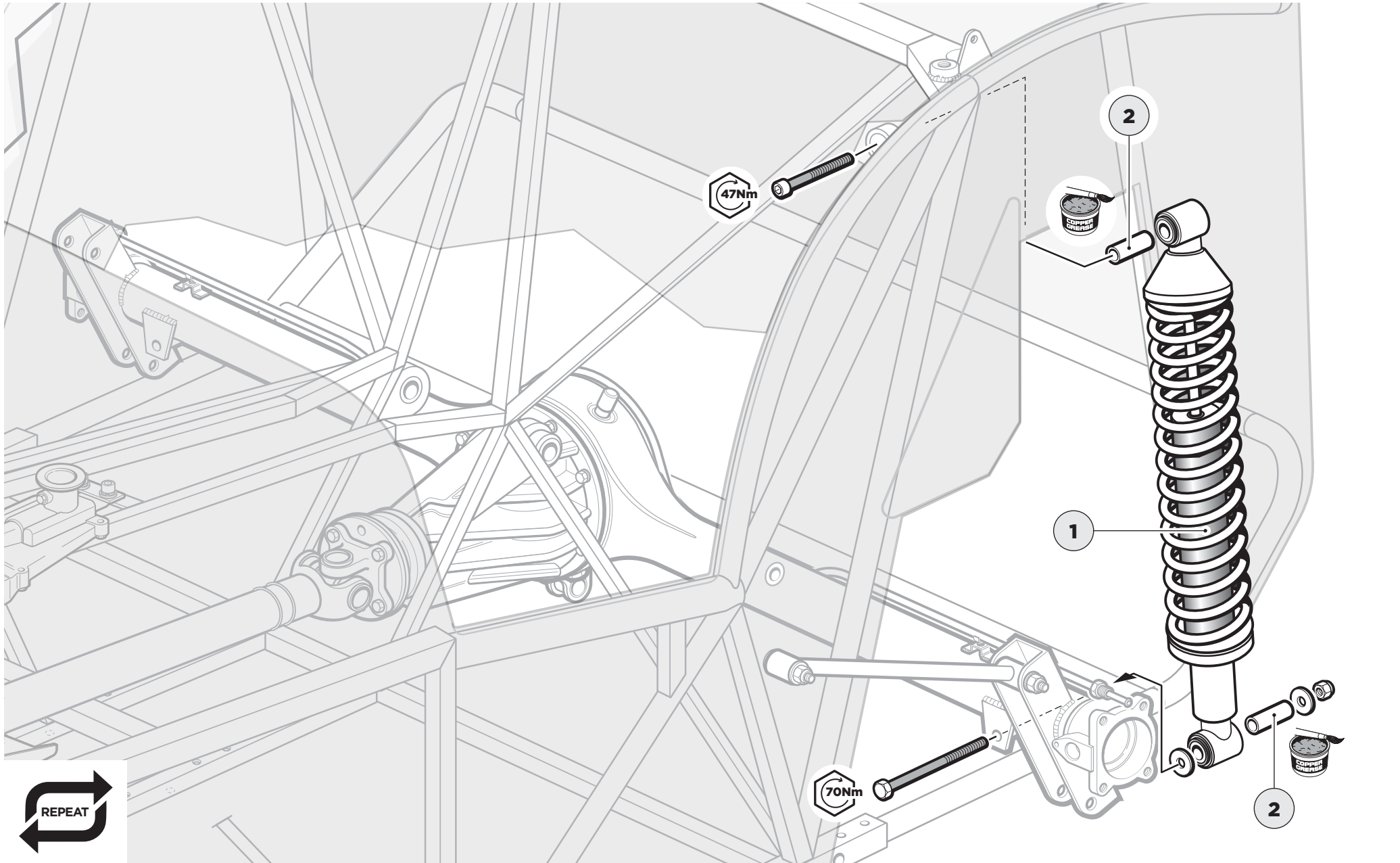
It's easier to fit the top of the damper into the chassis before tackling the bottom.

Lloyd D

The lower damper bolts can be fitted in either orientation.

Simon L

# FITTING THE REAR DAMPERS



# FITTING THE HALF SHAFT AND BRAKE ASSEMBLIES

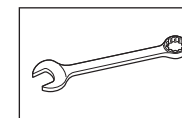
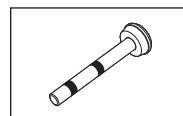
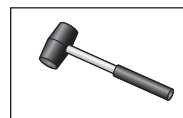
## PARTS

- 1** Half shaft assembly (x2)
- 2** Wheel speed sensor (x2)
- 3** Oil seal (x2)
- 4** Oil seal protector (x2)
- 5** M8 bolts (x8)
- 6** M6 bolts (x2)
- 7** Brake hose kit
- 8** Brake pipe / hose clip

## FIXINGS

Fixings packed with axle

## TOOLS



11mm  
13mm  
14mm  
15mm

10mm  
12mm

60mm

## TIPS

The seals should be fitted with the hollow side facing inwards.

**John K**

Carefully hit the oil seal into place until it seats against the plastic seal protector.

**Jamie A**

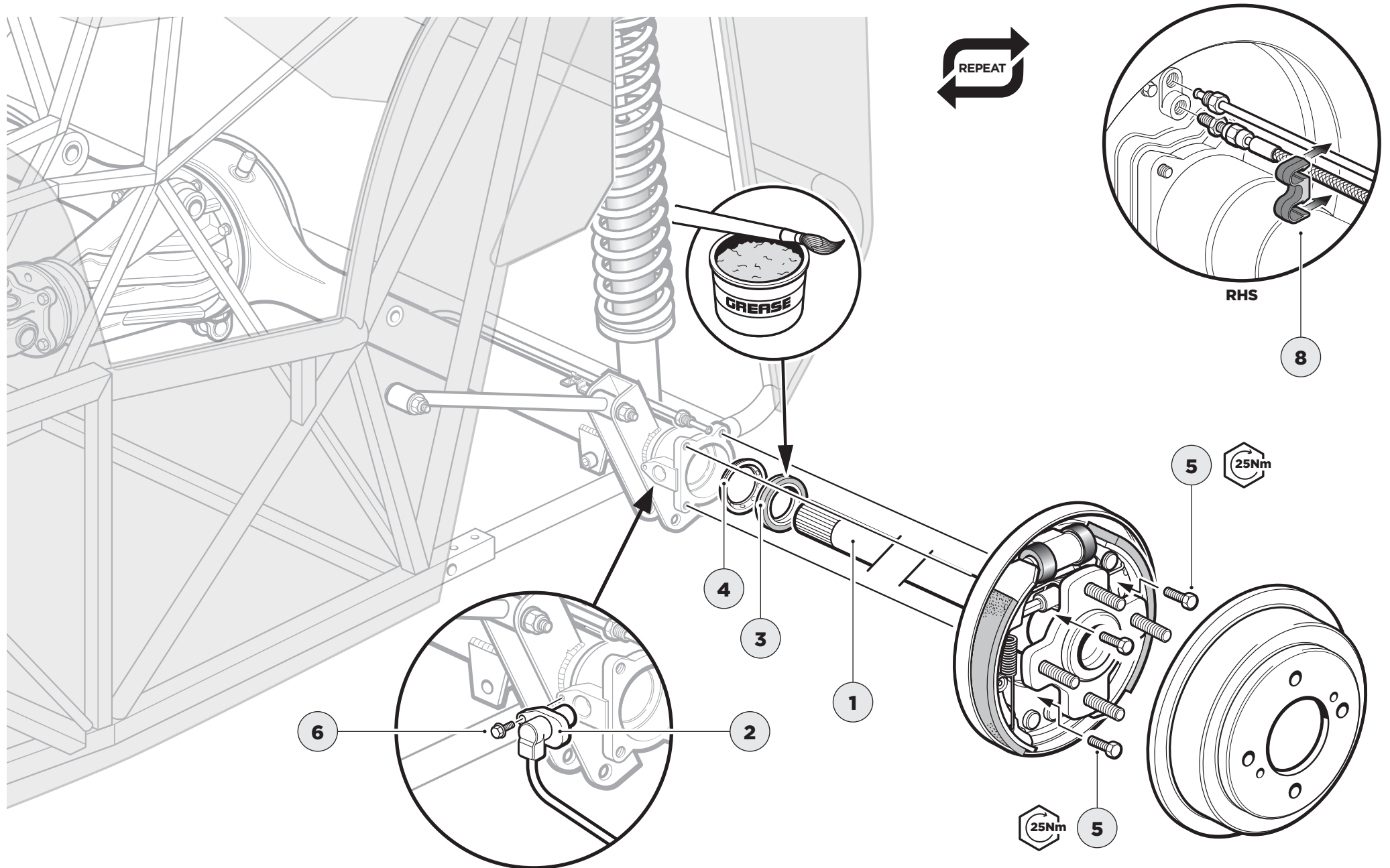
The brake hose assembly sequence is critical for I.V.A. ... brake hose – thread adapter short end – plain washer – chassis bracket – shakeproof washer – plain nut – copper pipe.

**Lee B**

The speed sensors are handed, as the wires should be facing downwards.

**Lloyd D**

# FITTING THE HALF SHAFT AND BRAKE ASSEMBLIES



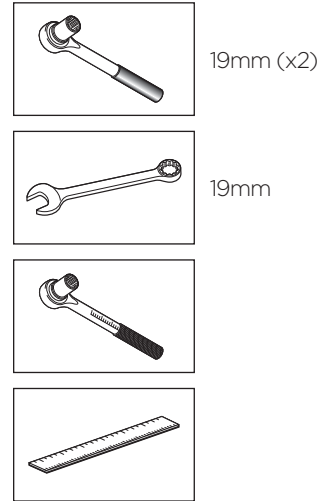


# FITTING THE A-FRAME

## PARTS

- 1 A-frame
- 2 Nylon washers (x2)

## TOOLS



## FIXINGS

Pack 74		CATERHAM		PART NUMBER 3G0Z001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Bush M12 X 100 Grade 10.9	BM12X100	2	Drop bracket to A-Frame	
2	Bush M12 X 60 Grade 8.8	3G2200A	2	Drop bracket to chassis	
3	Bush 12" X 2.34" Grade 10.9	BF12X2.34	1	A-frame to diff	
4	Bush M12 X 120 Grade 10.9	3G2202A	2	Damper	
5	Chassis M12 X 70 Grade 8.8	3G2200A	2	Radius arm to chassis	
6	Chassis M8 X 45 Grade 10.9	BMCH8X45	4	Drop bracket to chassis through ARB mount	
7	Nylon Nut M12	NM12	4	Drop bracket to A-frame & drop bracket to chassis	
8	Half Nylon 1/2" LHF	NF11/2	1	A-frame to diff	
9	Nylon Nut M10	3G2202A	4	Damper	
10	Nylon Nut M8	NM8	4	Drop bracket fixings	
11	Plain Washer M12 Form-A	3G2200A	13		

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

Pack 74		CATERHAM		PART NUMBER 3G0Z001A	
FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain Washer M12 X 1.5 X 30 Form-C	WP1M12	2		
13	Plain Washer 10"	WP112	16	A-frame spacing	
14	Washer M12 X 1.5 X 30 Plain Washer	3G2200FA	6	Damper	
15	Plain Washer M8	WP8M8	8	Drop bracket fixings	
16	Shockproof Washer 3/8" ID	WSS3/8	1		
17	Nylon Washer 17.5 X 32 X 1mm	Z2021403	2	A-frame	

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

## TIPS

You are aiming to centralise the axle in the chassis, by adjusting the number of spacing washers between the forward bushes and the chassis.

Vincent M

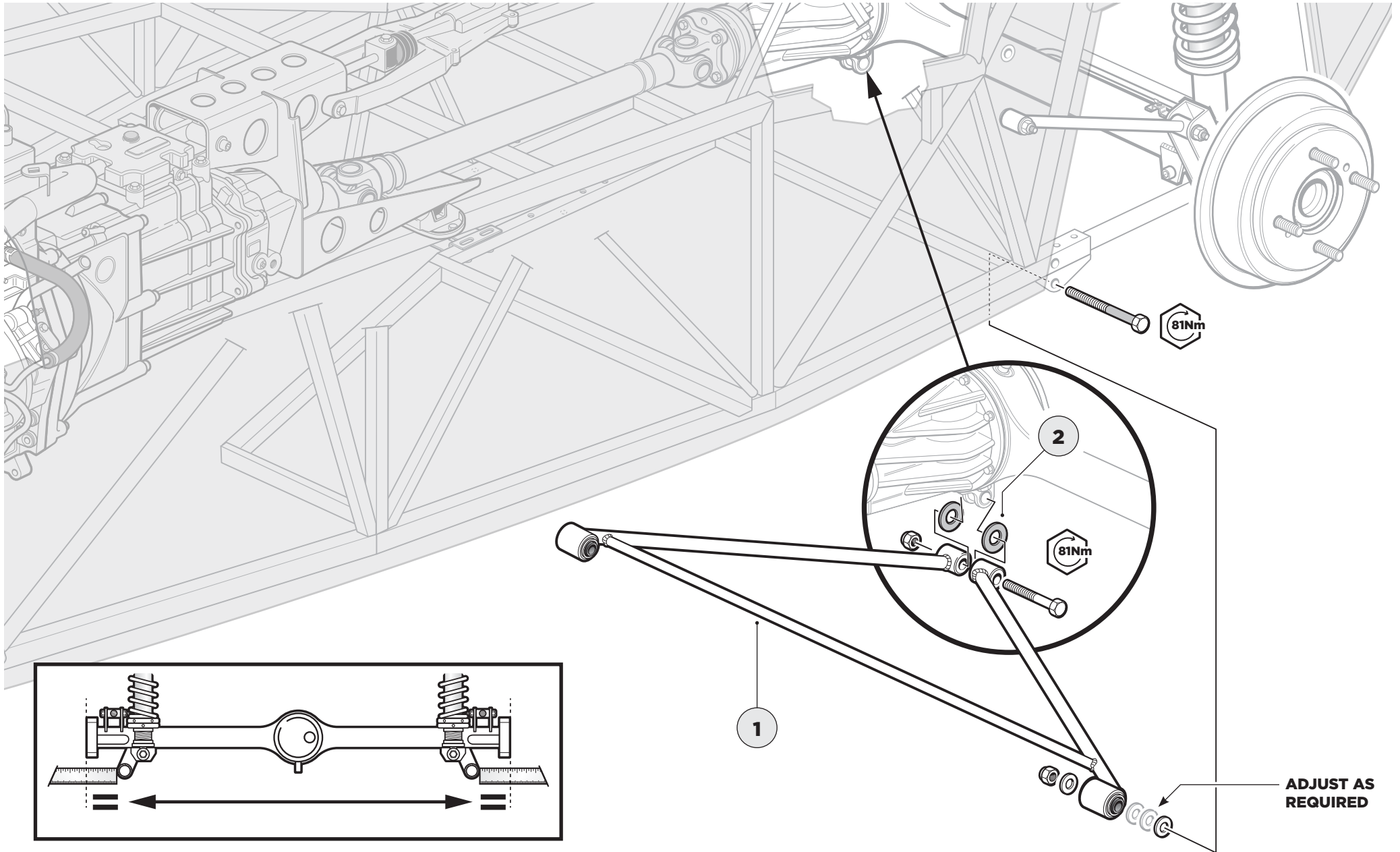
It is best to torque these fixings under load to prevent the bushes from twisting.

Mick F

The A-frame can be fitted in either orientation.

Tiago O

# FITTING THE A-FRAME



# FITTING THE HANDBRAKE

## PARTS

- 1 Handbrake assembly
- 2 Handbrake clevis pin
- 3 Handbrake clevis
- 4 Clevis pivot
- 5 Clevis pivot bolt
- 6 Cable locking pins (x2)
- 7 Handbrake cable

## FIXINGS

SERIAL NUMBER	CATERHAM	PACK NUMBER		
49		30P012A		
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BMBX50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BMBX45	3	
4	Setcrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SMBX25	2	
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SMBX20	4	
6	Setcrew M8 X 20 Grade 8.8 Hexagon head & metric full threaded section	SMBX20	2	
7	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SMBX16	3	
8	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SMBX16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

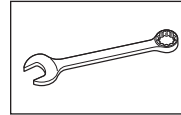
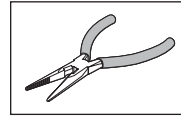
Page 1 of 2

SERIAL NUMBER	CATERHAM	PACK NUMBER		
49		30P012A		
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M6 X 25 Plain Washer Heavy-Duty	WPHM6X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

Please note: Drawings are not to scale

Page 2 of 2

## TOOLS



10mm (x2)  
13mm (x2)

## TIPS

The clevis pivot does not want to be locked. Doing the fixings up tight and then loosening by 1/4 of a turn is a good guide.

**Grant P**

Connect the handbrake warning light connector onto the upper of the two terminals.

**Dan D**

The handbrake lever bracket should be mounted in the lower of the two holes.

**Anthony L**

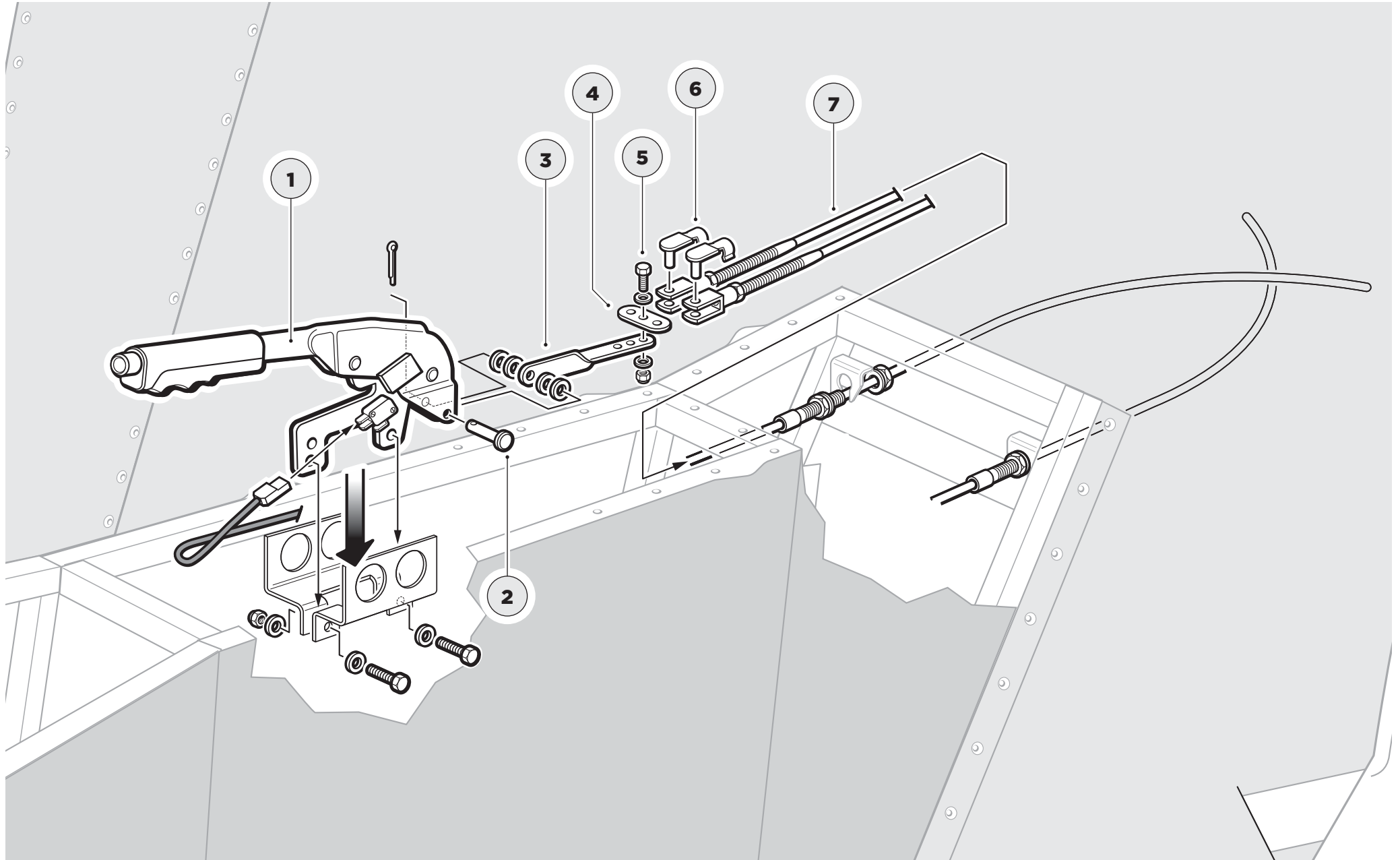
Use pliers to bend the legs of the split-pins once in place, which then holds them loosely in the clevis pins.

**Chris B**

After plugging on the connector, secure any excess wire with a cable tie.

**Dan P**

# FITTING THE HANDBRAKE

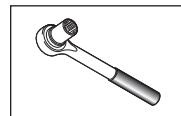


## FILLING THE DIFFERENTIAL OIL

### PARTS

- 1 Gear 300 LS 75W90 oil (x2)

### TOOLS



$\frac{3}{8}$ " Drive

### FIXINGS

### TIPS

You can use the square drive of the ratchet to loosen the filler plug.

**Tiago O**



Differential = 1.3L



Now is a *good time to take some photos*



*Have you applied for your IVA yet?*



## FITTING THE EXHAUST

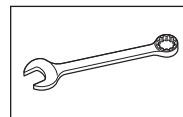
### PARTS

- 1 Catalyst
- 2 Link pipe
- 3 Silencer
- 4 Mounting brackets (x2)
- 5 Bobbins (x2)
- 6 Clamps (x2)
- 7 Lambda sensor

### TOOLS



10mm  
13mm



13mm  
22mm

### FIXINGS

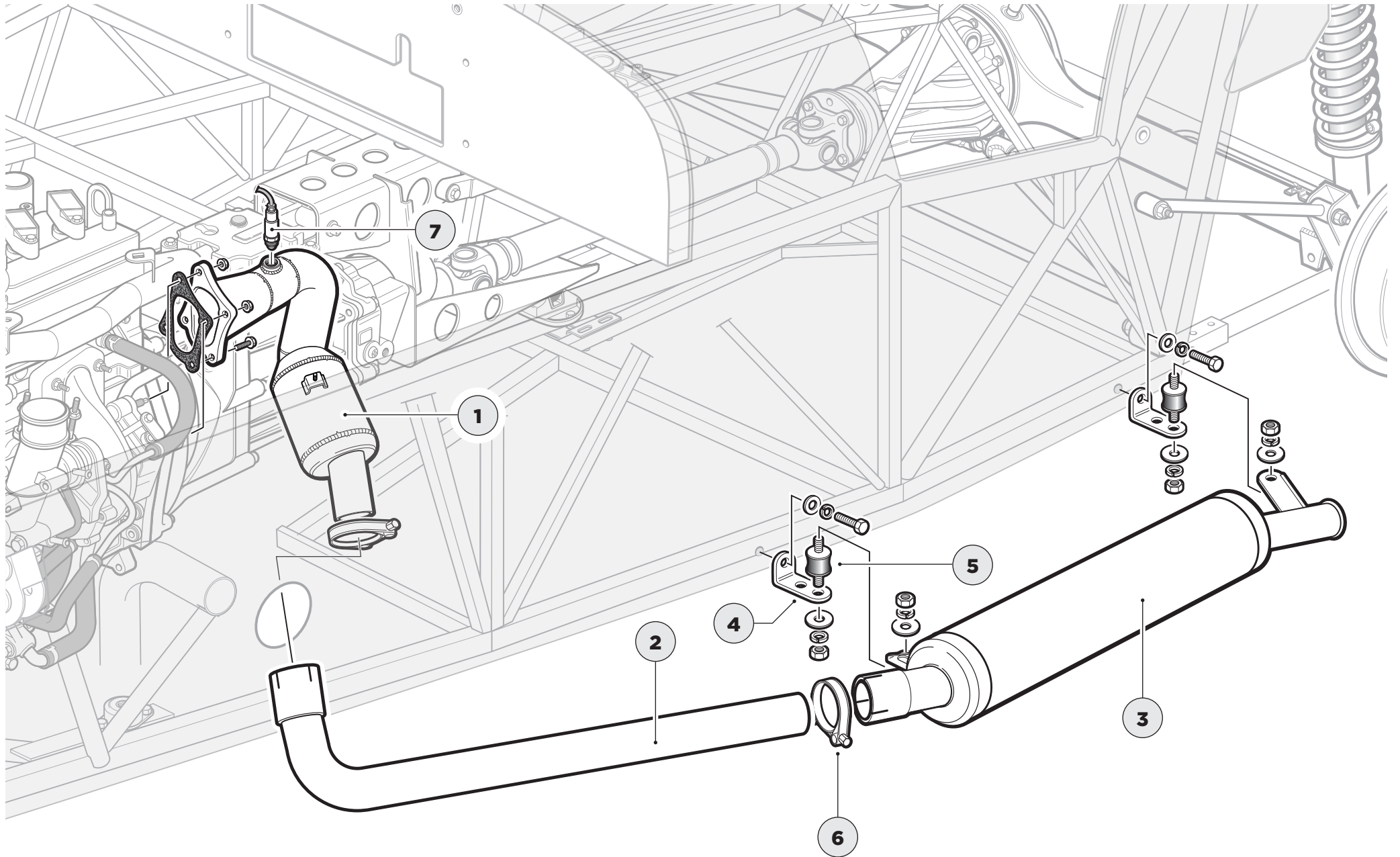
Fixings packed with exhaust

### TIPS

Don't overtighten the bobbins as they can twist and split.

Harry P

## FITTING THE EXHAUST

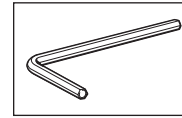


# GIVING IT SOME DIRECTION

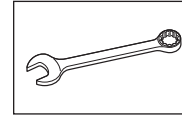
## PARTS

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

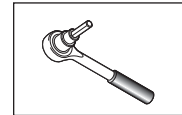
## TOOLS



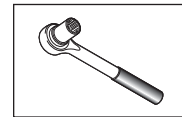
5mm  
4mm



7/16"  
10mm  
13mm



7/32"



11/16"



## FIXINGS

Pack B		CATERHAM		55	
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 7/8" (20 x 22)	4	Rack clamps	
2	BB	Bolt 1/2" x 1 1/2"	2	Column clamp	
3	BC	Bolt 5/8" x 1 1/2" Grade 5.8	2	Column to rack universal joint	
4	BD	Nylon Nut 1/2" hex/leg	1	Steering wheel boss	
5	BE	Plain Nut 1/2"	2	Track rod lock nut	
6	BF	Plain Nut 1/2" hex/leg	1	Column clamp grub screw locknut	
7	BG	Nylon Nut 5/8"	2	Column to rack universal joint	
8	BH	Nylon Nut 3/8"	4	Steering rack clamp	
9	BJ	Plain Washer 1/2" x 1/2" Chained	1	Steering wheel boss	
10	BK	Plain Washer 1/2" Heavy Duty	6	Rack clamps and column clamp	
11	BL	Spring Washer 5/8" Heavy Duty	2	Column clamp	

x2  
x2  
x1  
x1  
x2  
x1  
x2  
x2

## TIPS

Check clearance along the length of the steering column to ensure that it does not foul against any components. If necessary, rotate the steering rack.

Dan P

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

Jamie A

Once the steering rack is in the correct position, you can go ahead and tighten the rack clamp fixings.

Harrison P

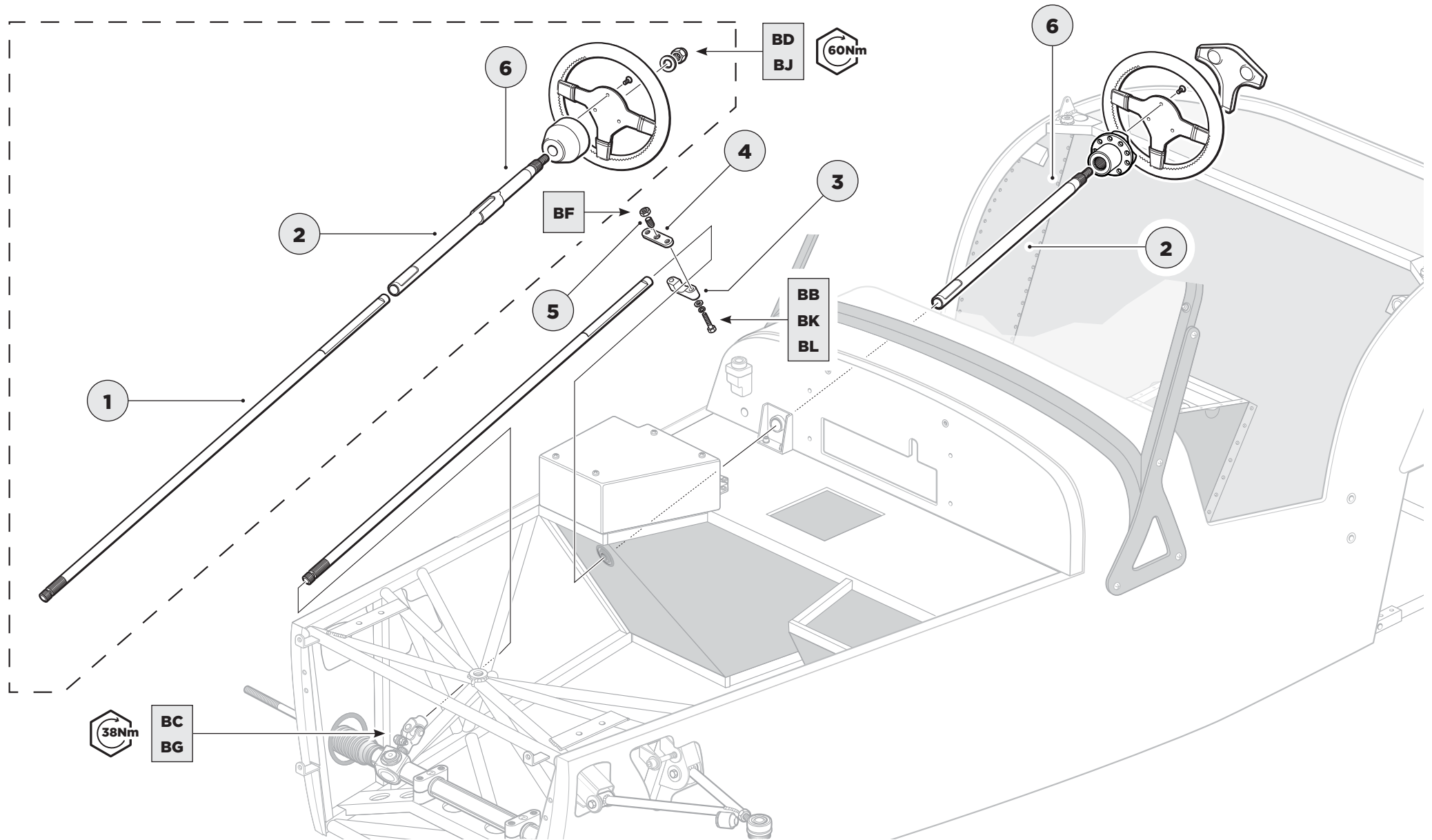
Grease the steering bushes.

Lee A

When fitting the steering column clamp, begin by fitting the two clamp bolts, then tighten the grub screw and finally secure it with the locknut.

Tiago O

# GIVING IT SOME DIRECTION



# JUST WING IT

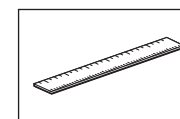
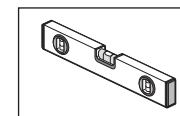
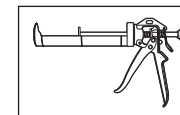
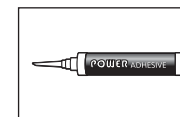
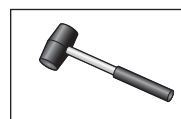
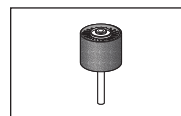
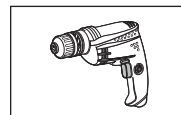
## PARTS

- 1** Cycle wing (x2)
- 2** Wheel (x2)
- 3** Wheel nuts (x8)

## TOOLS



19mm



## 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.

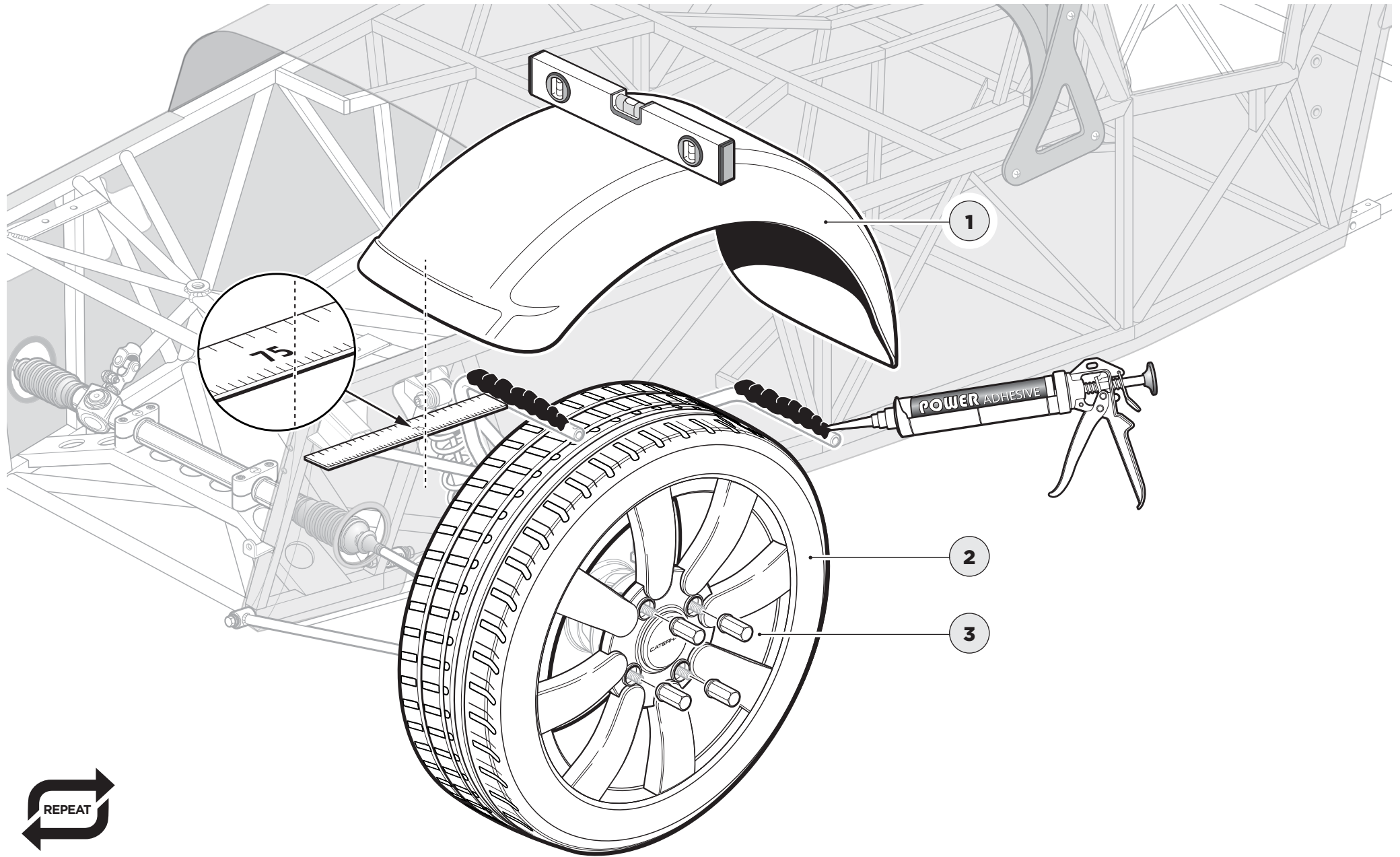
**Anthony L**

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

**Chris N**

The distance from the front edge of the wing to the wingstay should be 75mm.

**Lee A**

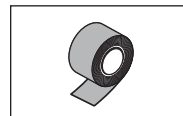


## TAPE IN PLACE FOR 24 HOURS

---

### PARTS

### TOOLS



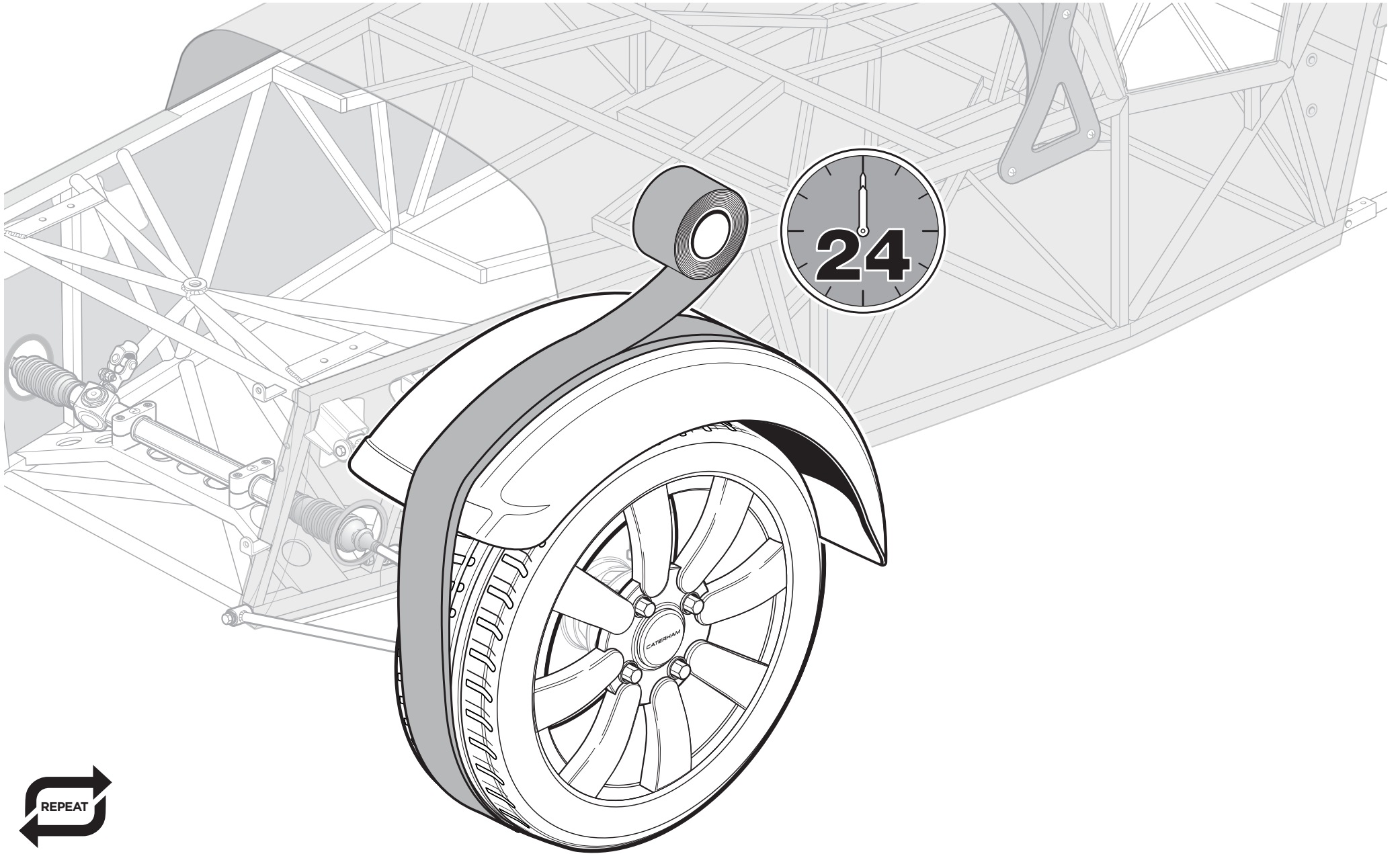
### FIXINGS

### TIPS

Once you are happy with the wing position, apply tape with one hand whilst preventing the wheel from turning with the other.

**Anthony L**

**TAPE IN PLACE FOR 24 HOURS**

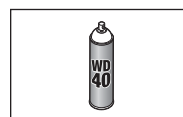
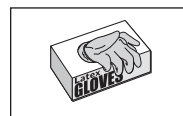
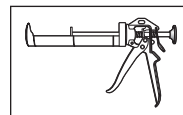
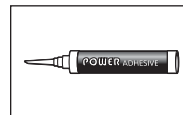




## SOME EXTRA ADHESIVE UNDERNEATH

### PARTS

### TOOLS



### FIXINGS

### TIPS

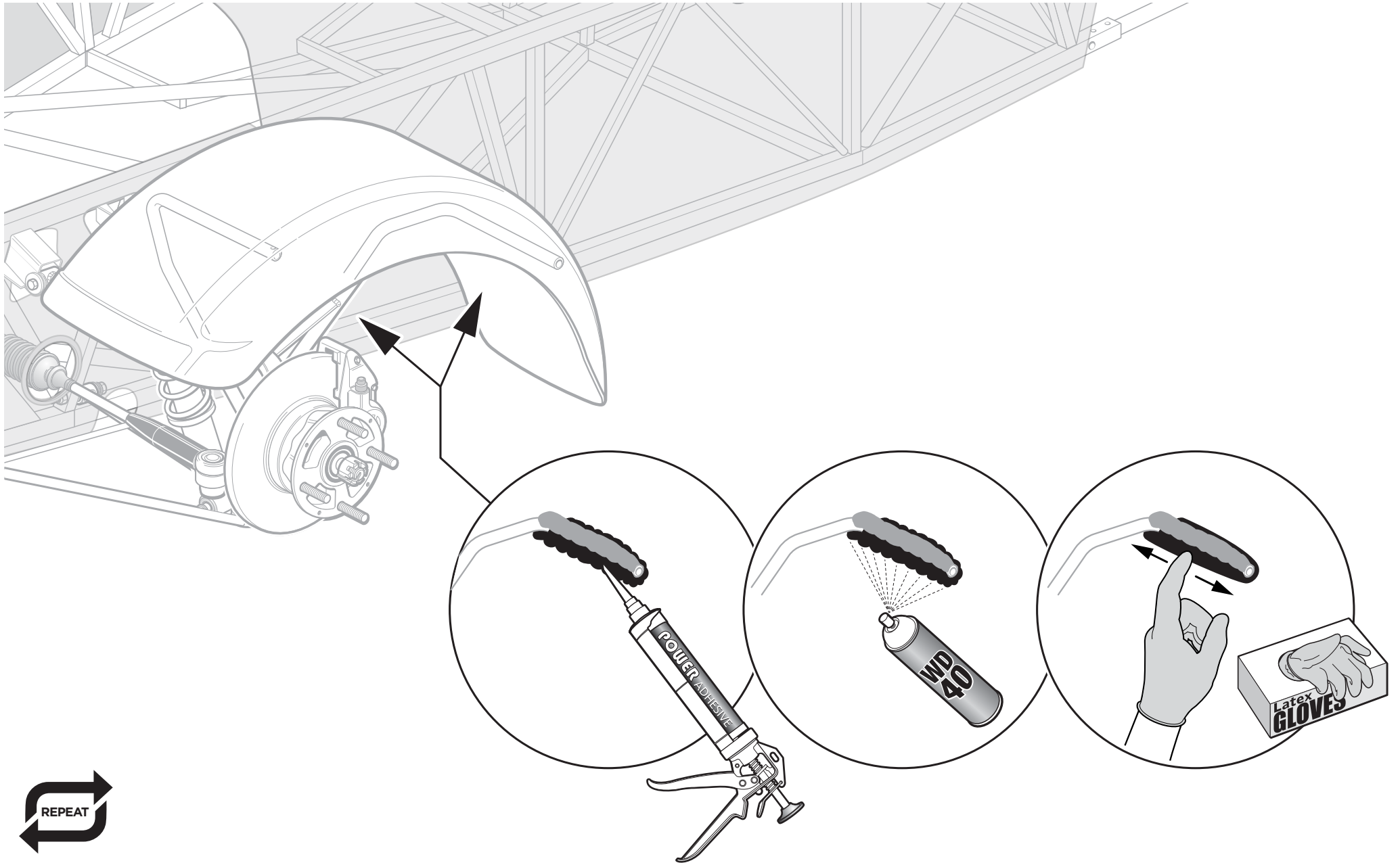
The WD40 will help spread the adhesive.

**Mick F**

Make sure that you do not cover up the wingstay hole which you drilled earlier.

**Anthony L**

## SOME EXTRA ADHESIVE UNDERNEATH

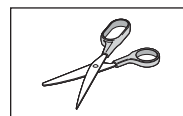
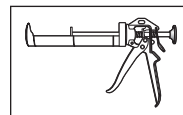
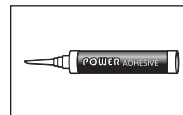


## FINISH WITH TRIM

### PARTS

- 1** Rubber trim

### TOOLS



### FIXINGS

### TIPS

It's best to test fit and cut to size before sticking.

**Chris B**

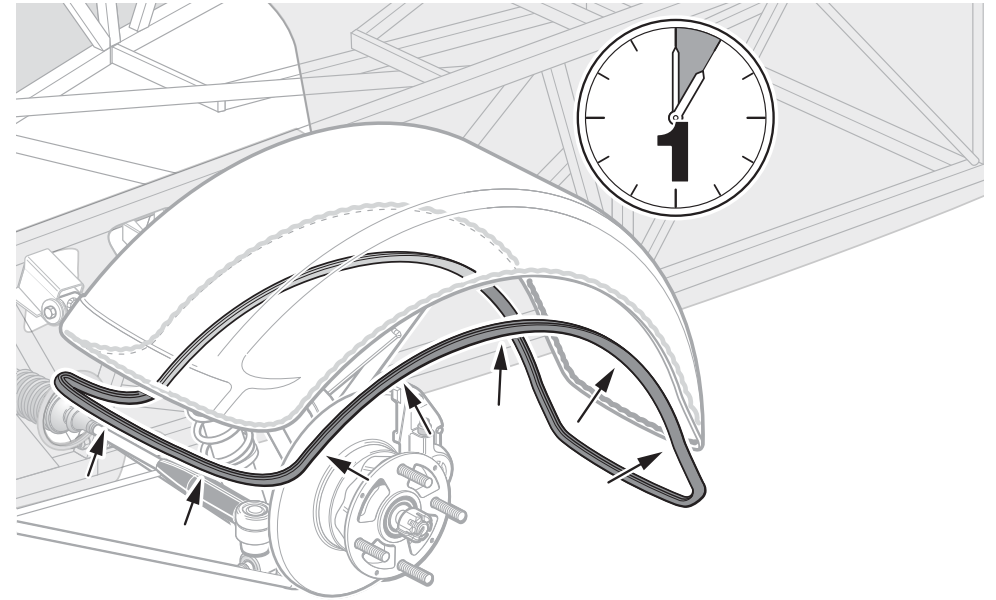
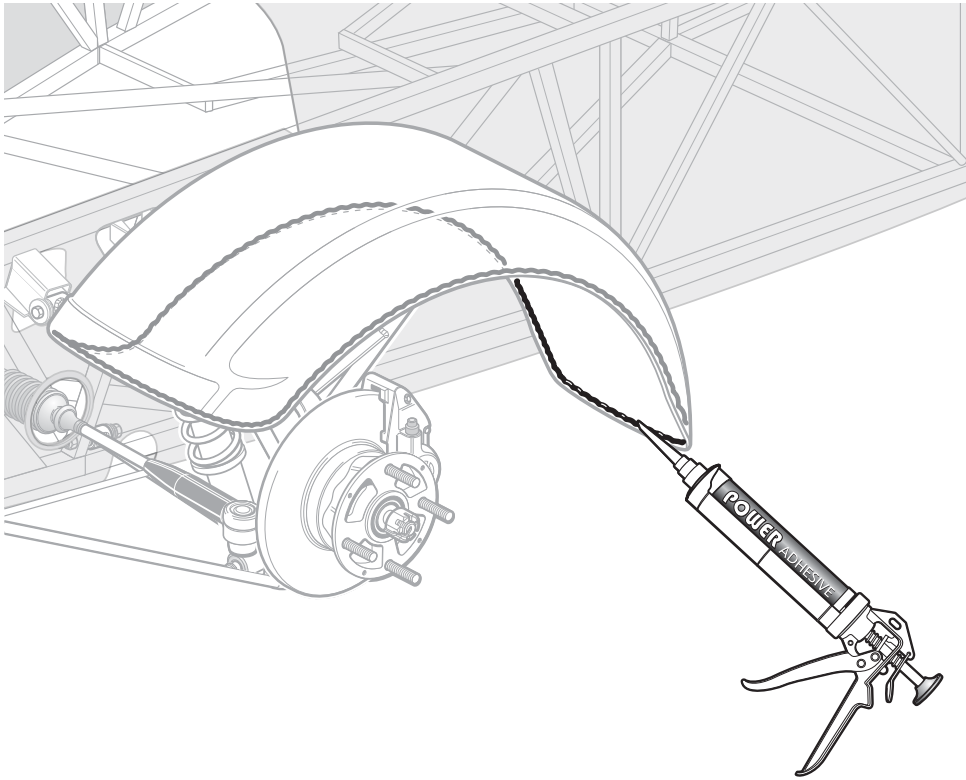
Fit the wider section on the underside of the cycle wing.

**Mick F**

Hide the rubber trim join on the inside of the cycle wing, behind the rear leg of the wingstay. It will look much neater.

**Rich T**

## FINISH WITH TRIM

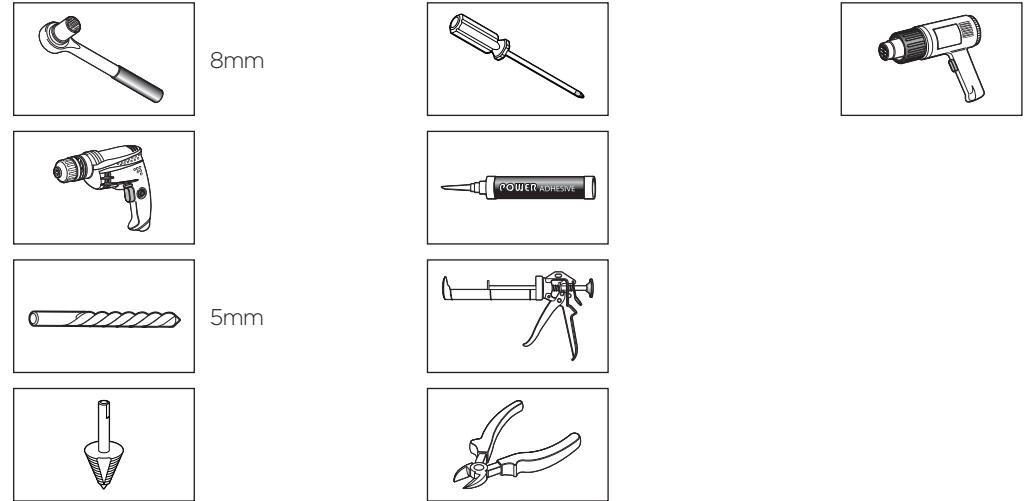


# FITTING THE SIDE REPEATERS

## PARTS

- 1 Side repeaters (x2)
- 2 Cable ties
- 3 Cable tie brackets (x2)
- 4 Heat shrink
- 5 Grommets (x2)

## TOOLS



## FIXINGS

Pack C		CATERHAM		45	
LIGHTING & HORNS					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Screw 12 x 17 Self-tapping	71262	6	Front cluster to indicator post	
2	Screw 8 x 11 Black Superfin	71277	2	Side repeater earth on wingstay	
3	Screw 12 x 17 Self-tapping	71272	4	Rear light cluster upper fixing	
4	Screw 12 x 17 Self-tapping	71273	4	Rear light cluster lower fixing	
5	Wash Nut M6	N6176	2	Horn bracket to steering rack platform (1802210210)	
6	Flare Washnut 1/2"	W6176	2	Horn bracket to steering rack platform (1802210210)	
7	Ball Stud M6 Thread L2	B62020	1	Through steering rack platform & indicator (1802210210)	
8	Flare Washnut 1/2"	W6176	2	Ball Headstud	
9	Wash Nut M6	N6176	1	Horn Side	

x2

## TIPS

Trying to feed the wire out from inside the wingstay can be tricky. Do this before fitting the grommet into the wingstay hole.

**Rich T**

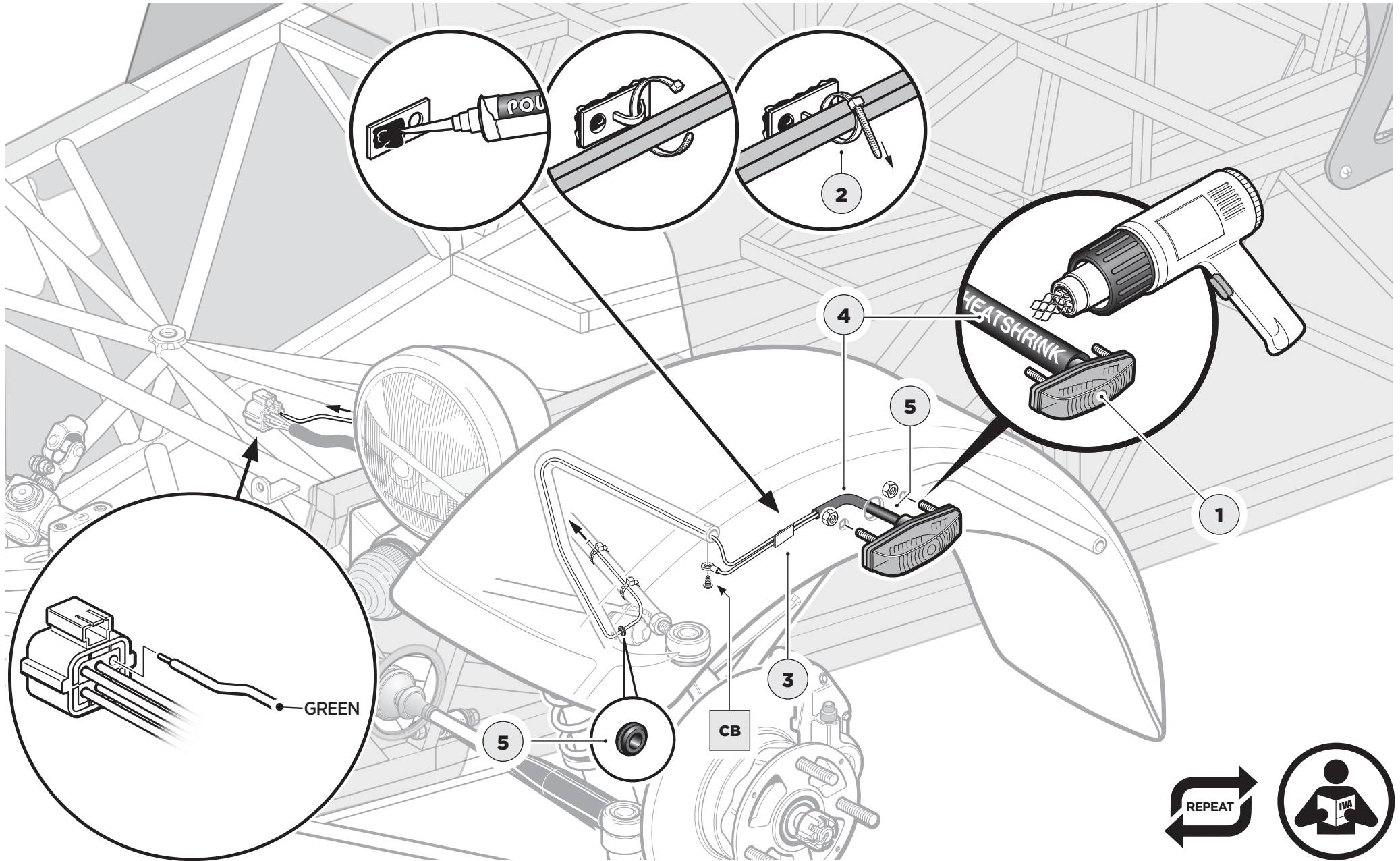
Before securing the wire to the upper wishbone, make sure that the steering can reach full lock without the side repeater wire snagging.

**Tiago O**

The side repeater holes are pre-drilled with smaller pilot holes. Enlarge the outer pilot holes to 5mm and enlarge the centre hole to 13mm, but go slowly as you do not want to damage the paint!

**Jamie A**

# FITTING THE SIDE REPEATERS

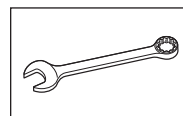
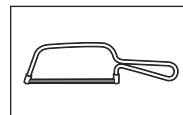
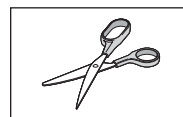


# FITTING THE REAR WINGS

## PARTS

- 1** Rear wing (x2)

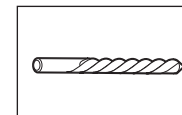
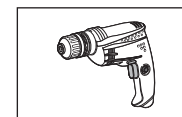
## TOOLS



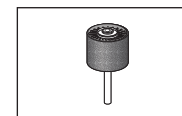
8mm



8mm



8mm



## FIXINGS

Pack <b>Q</b>		<b>CATERHAM</b>		31	
		PART NUMBER		3AC20017A	
REAR WINGS					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	OA Self Drilling M5 X 20	5MSK20	20	Rear Wings	
2	OB Nyloc Nut M5	N5NFF5	10	Rear wings through boot	
3	OC Flare Washer 3/16" X 3/4"	WFF516X34	30	Wing washers	
4	OD Wing Pin 1/4" X 1"	7502	4	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**

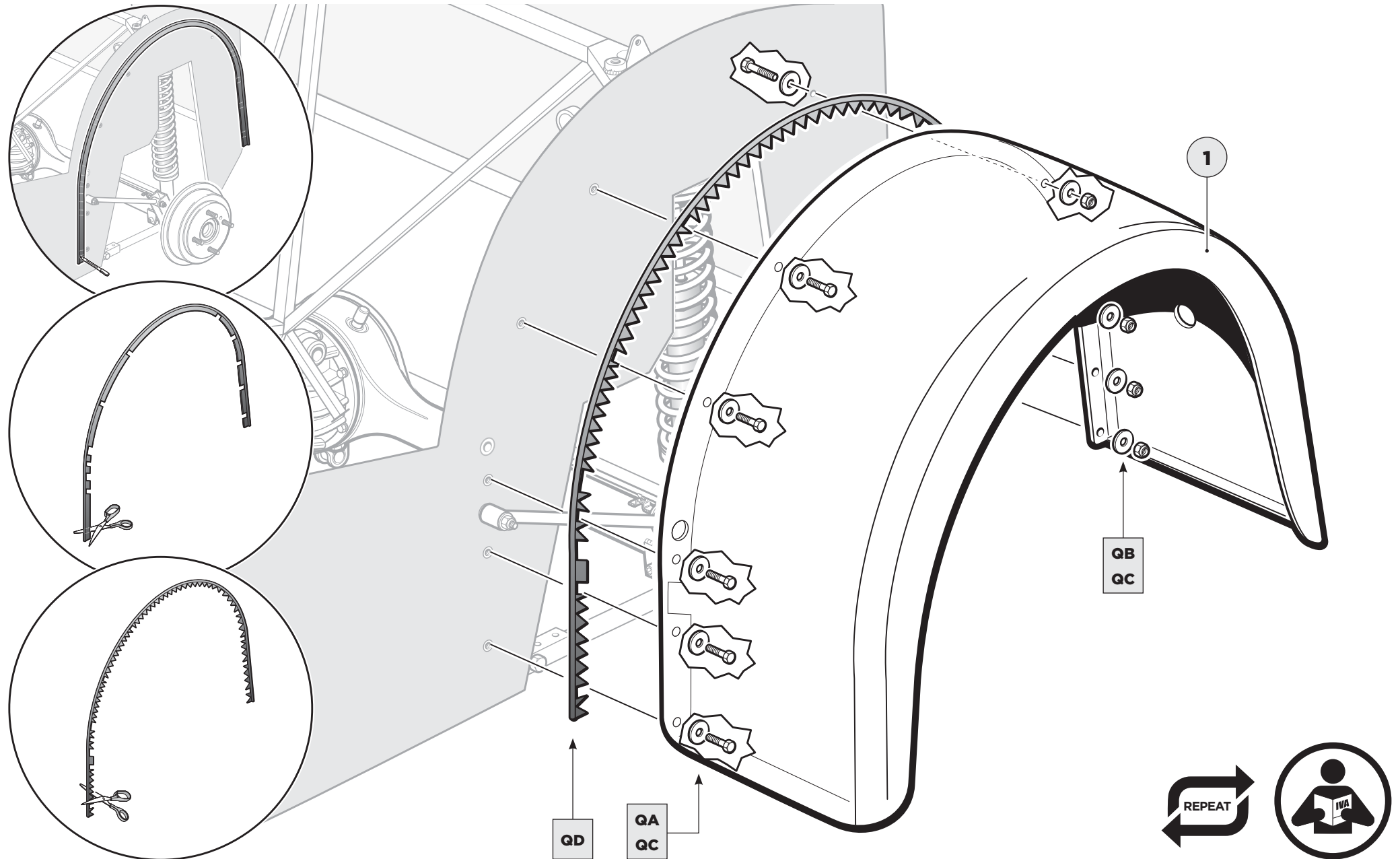
You may need to clear the wing mounting holes with a drill bit.

**Chris N**

A slot will need to be cut to make way for the radius arm. Cut with a hacksaw and neaten with a drum sander.

**Lee B**

# FITTING THE REAR WINGS



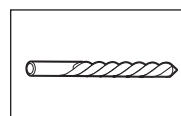
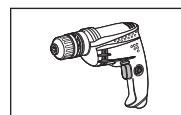
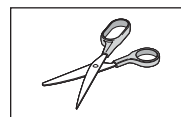


# ADD THE WING PROTECTORS

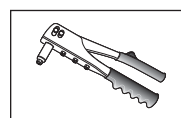
## PARTS

- 1 Wing protector (x2)

## TOOLS



1/8"



## FIXINGS

### For stainless steel protectors

Pack <b>O</b>		<b>CATERHAM</b>		<small>Part Number</small> <small>Pack Number</small> <b>3ACZ0016A</b>	
<b>WING PROTECTORS STAINLESS STEEL</b>					
<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 Plug	76901	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 <b>P</b>		<b>CATERHAM</b>		<small>Part Number</small> <small>Pack Number</small> <b>3ACZ0016A</b>	
<b>WING PROTECTORS CARBON FIBRE</b>					
<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"	1610-01040	30	Wing protector to wing	
2	PB Wing Plug	76901	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 fitting the wing protector, start with the top hole closest to the body. Whilst holding the wing protector flat against the wing, work your way across the top and then evenly down the sides.

**Chris B**

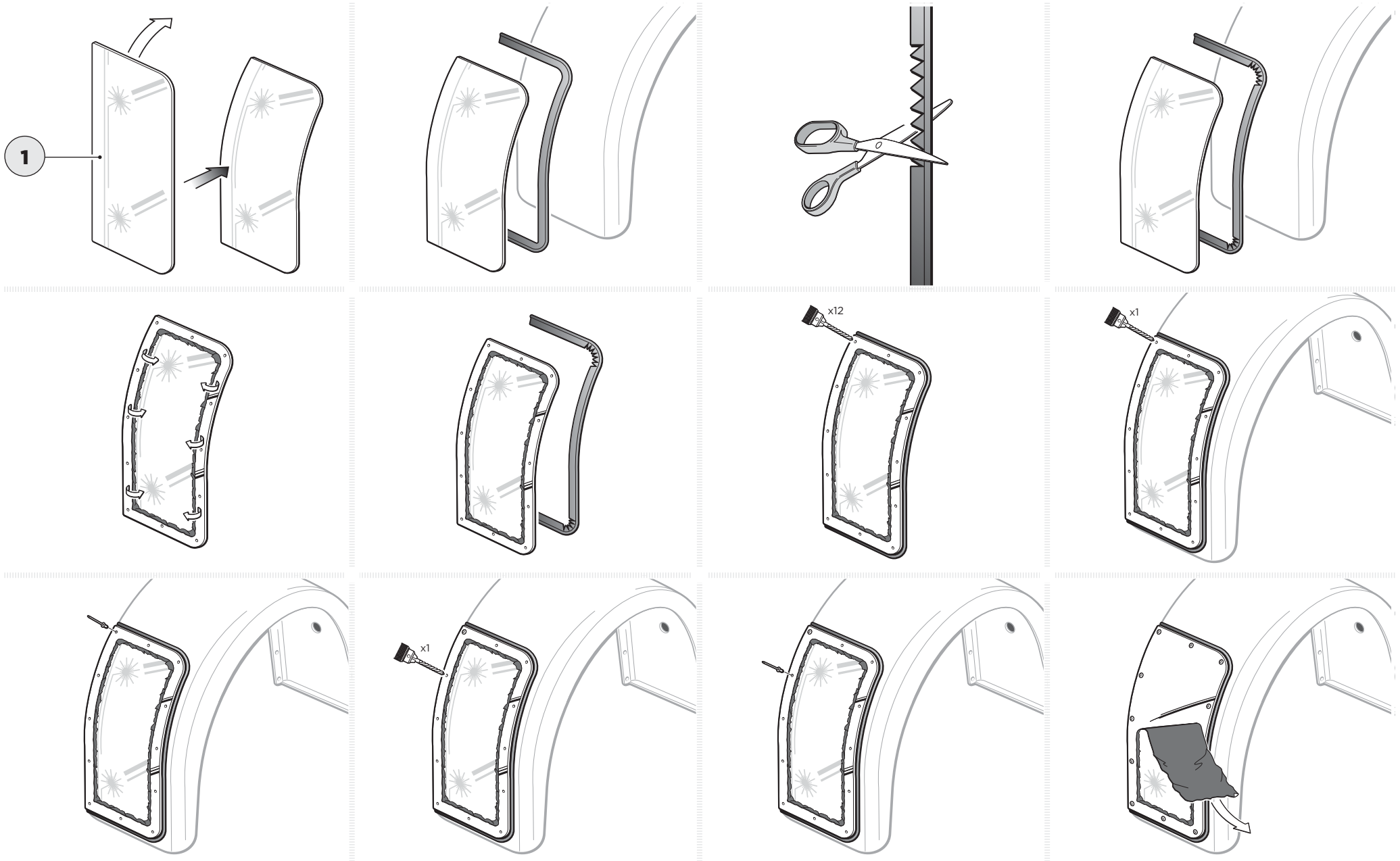
Carbon fibre protectors will not have the protective film shown.

**Anthony L**

Position the wing protector slightly above the bottom edge of the wing, so that the piping will sit flush with the bottom of the wing.

**Harrison P**

# ADD THE WING PROTECTORS

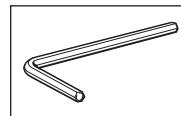


## FITTING THE REAR LIGHTS

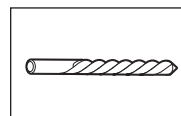
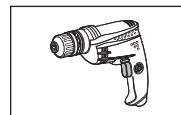
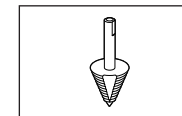
### PARTS

- 1 Light cluster (x2)
- 2 Light housing (x2)
- 3 Rubber gasket (x2)
- 4 Spacer (x4)
- 5 Bolt (x4)
- 6 P-clip (x2)

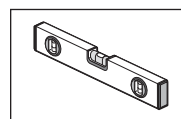
### TOOLS



7/16"



10mm



### FIXINGS

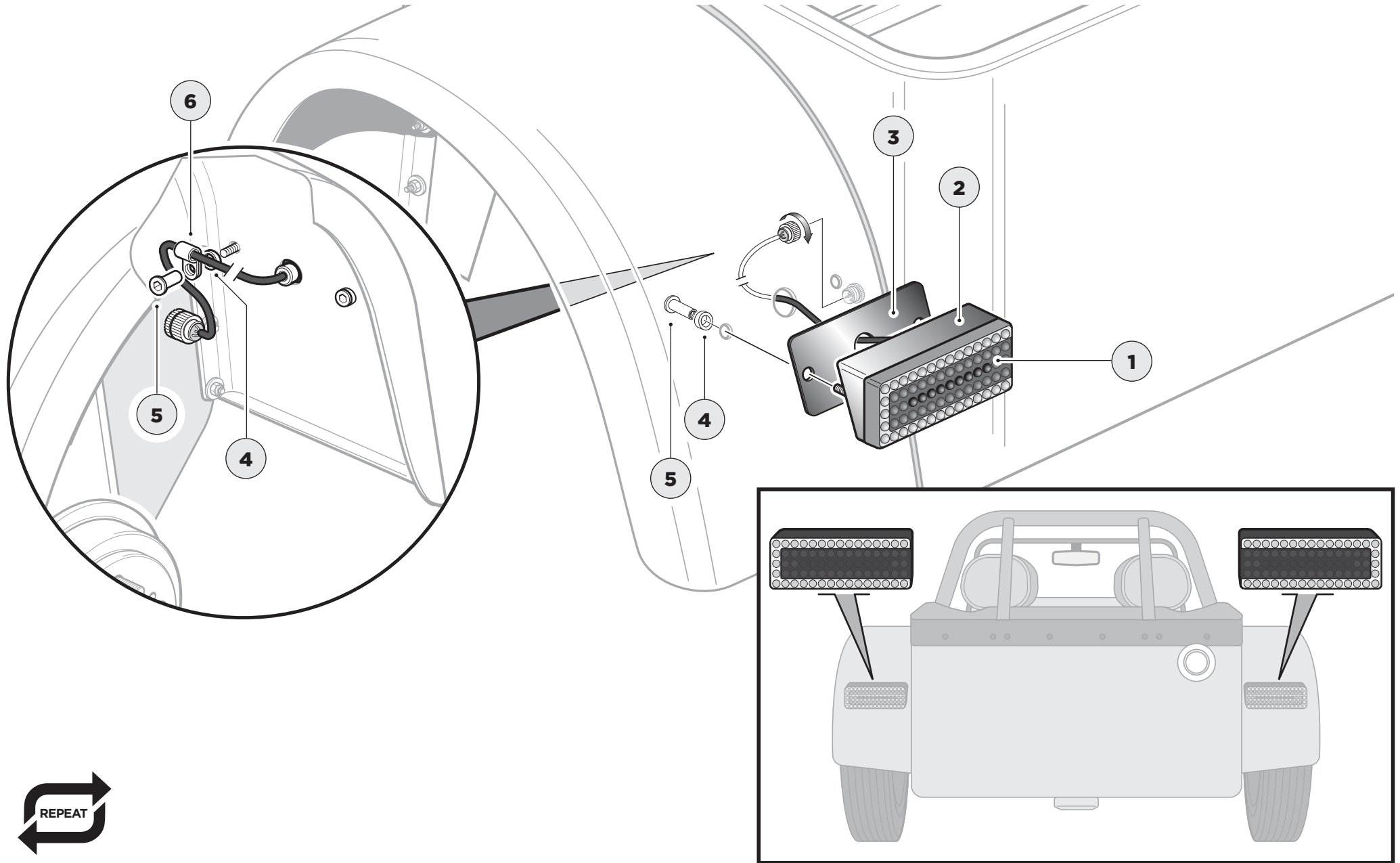
Fixings packed in lighting box

### TIPS

The rear light cluster holes are pre-drilled with smaller pilot holes. Enlarge the outer pilot holes to 10mm and enlarge the centre hole to 32mm, but go slowly as you do not want to damage the paint.

**Tiago O**

# FITTING THE REAR LIGHTS

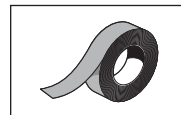
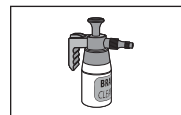


# FITTING THE TUNNEL CARPET

## PARTS

**1** Carpet

## TOOLS



## FIXINGS

## TIPS

Brake cleaner is great for removing any excess glue.

**John K**

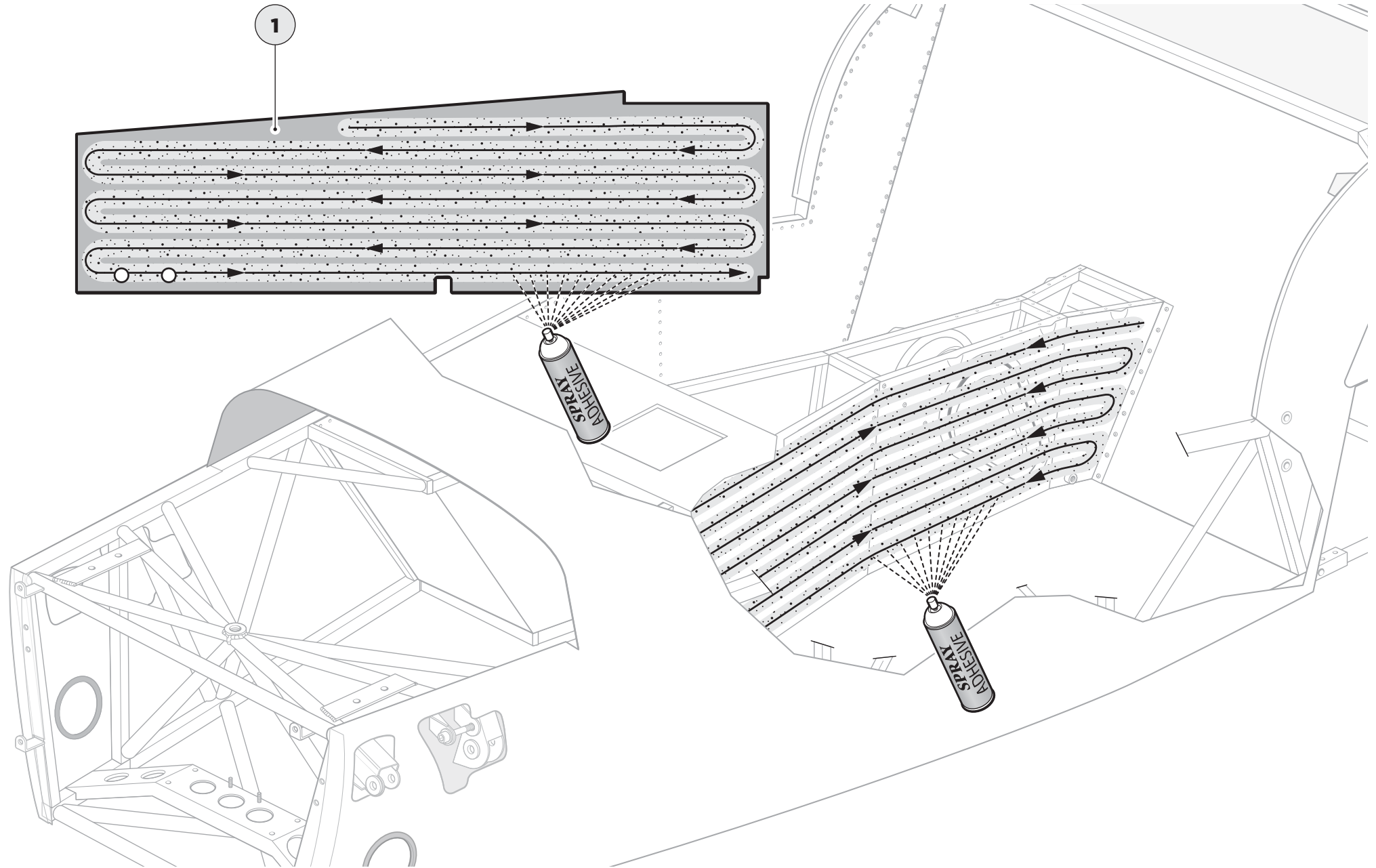
You can use masking tape to prevent glue from getting where it isn't wanted.

**Harry P**

Make sure that you apply glue to both the panel and the carpet, paying extra attention to the edges.

**Lee B**

# FITTING THE TUNNEL CARPET

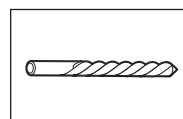
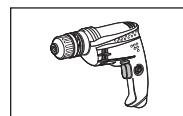
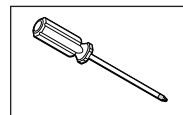
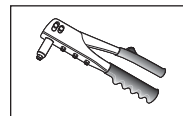


# THIS IS A COVER UP

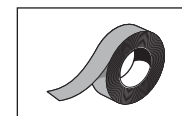
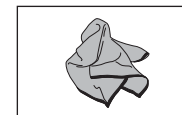
## PARTS

- 1 Tunnel blanking plate
- 2 Boot boards
- 3 Boot carpet
- 4 Fuel filler neck cover
- 5 Grommets (x2)
- 6 Rubber trim

## TOOLS



1/8"  
5/32"  
10mm



## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER	
57			ZCH01	
<b>FASTNER PACK – CHASSIS FIXTURE (KIT CAR ONLY)</b>				
<small>Please note: This pack may include extra fasteners to cover different options</small>				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Screw 6 x 1/2" Pan Head Post	PDB	6	
2	Rivet 1/8" X 0.39"	1661-0410	4	
3	Rivet 1/8" X 0.51"	1661-0414	4	
4	Rivet 5/32" X 0.47"	1661-0512	5	
5	Rivet – black 5/32" X 0.47"	1610-01015	110	
6	Rivet – black 5/32" X 0.59"	1610-9931	6	
7	Screw 8mm X 1/2" superflange	71077	4	
8	Screw 10mm X 3/4" superflange	71080	14	
9	hose clip 9.5mm to 12mm	SGT 9.5-12	2	
10	Setscrew Panhead opzi 5mm X 16mm	76227	2	
11	Cradle clip	KR6GS	5	
12	Setscrew Panhead Post 5mm X 35mm	SPHMSX35 map sensor	2	
13	Setscrew Panhead Post 5mm X 16mm	76227S	2	

Please note: Drawings are not to scale

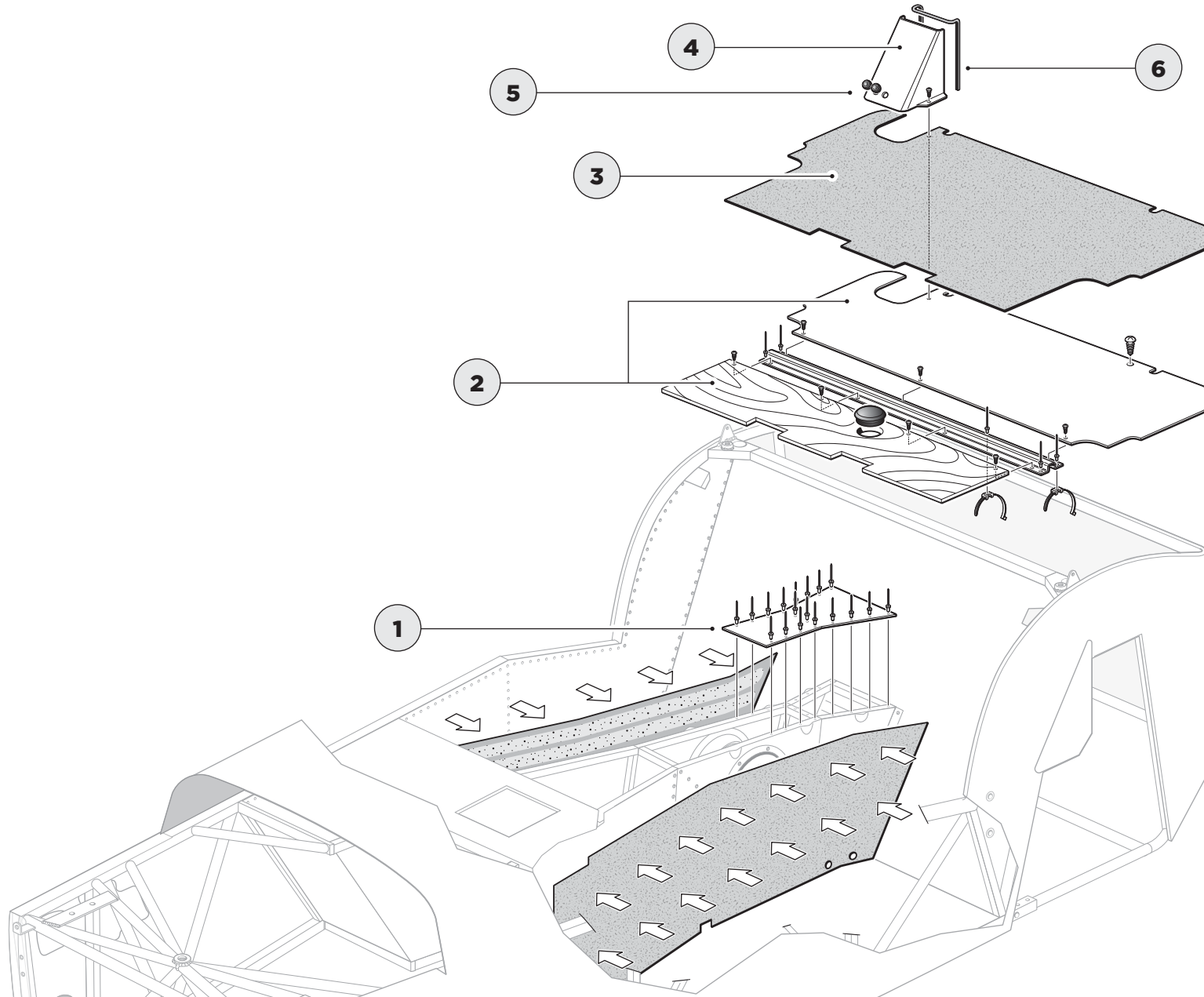
Page 1 of 1

## TIPS

You will need to drill a pair of holes in the front of the fuel filler neck cover in order to feed through your washer pump wires and washer tube from under the boot floor.

**Tiago O**

# THIS IS A COVER UP



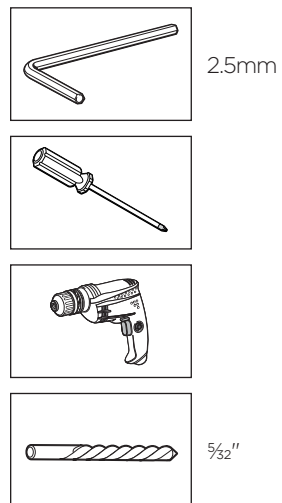


# NOW FIT THE TUNNEL TOP

## PARTS

- 1 Tunnel top
- 2 Gear knob

## TOOLS



## FIXINGS

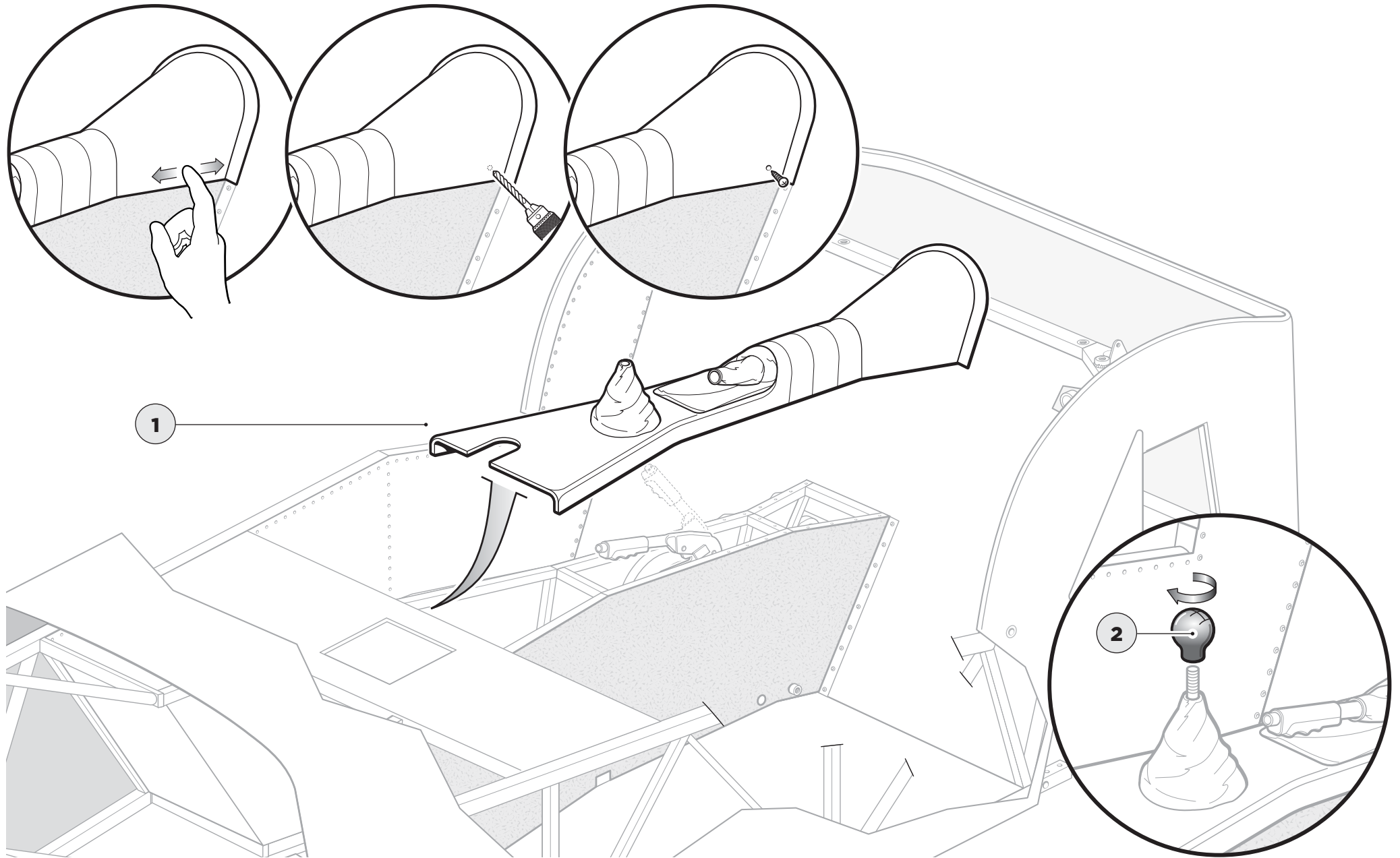
## TIPS

SERIAL NUMBER		CATERHAM		PACK NUMBER	
57		CATERHAM		ZCH01	
FASTNER PACK – CHASSIS FIXTURE (KIT CAR ONLY)					
Please note: This pack may include extra fasteners to cover different options					
No	DESCRIPTION	PART NUMBER	QTY	DRAWING	
1	Screw 6 x 1/2" Pan Head Post	PDB	6		
2	Rivet 1/8" X 0.39"	1661-0410	4		
3	Rivet 1/8" X 0.51"	1661-0414	4		
4	Rivet 5/32" X 0.47"	1661-0512	5		
5	Rivet – black 5/32" X 0.47"	1610-01015	110		
6	Rivet – black 5/32" X 0.59"	1610-9931	6		
7	Screw 8mm X 1/2" superflange	71077	4		
8	Screw 10mm X 3/4" superflange	71080	14		
9	hose clip 9.5mm to 12mm	SGT 9.5-12	2		
10	Setscrew Panhead opti 5mm X 16mm	76227	2		
11	Cradle clip	KR6GS	5		
12	Setscrew Panhead Post 5mm X 35mm	SPHMSX35 map sensor	2		
13	Setscrew Panhead Post 5mm X 16mm	76227S	2		

Please note: Drawings are not to scale

Page 1 of 1

## NOW FIT THE TUNNEL TOP



# BELT UP

## PARTS

## TOOLS



17mm



## FIXINGS

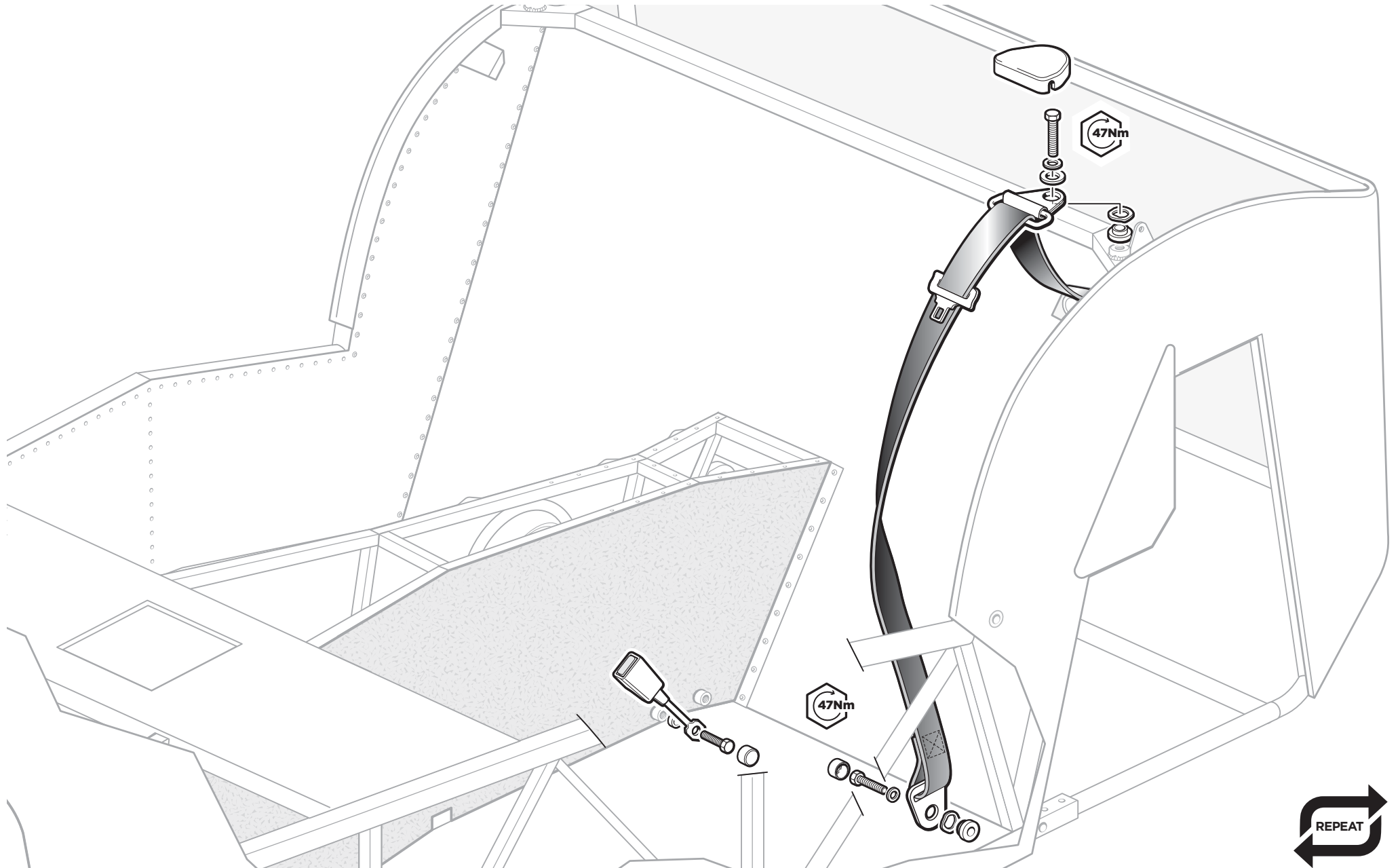
Supplied with seat belts

## TIPS

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

**Chris N**

# BELT UP

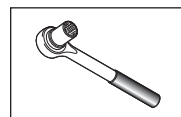


# FITTING THE FOUR-POINT HARNESS

## PARTS

- 1 Harness kit (x2)

## TOOLS



17mm



## FIXINGS

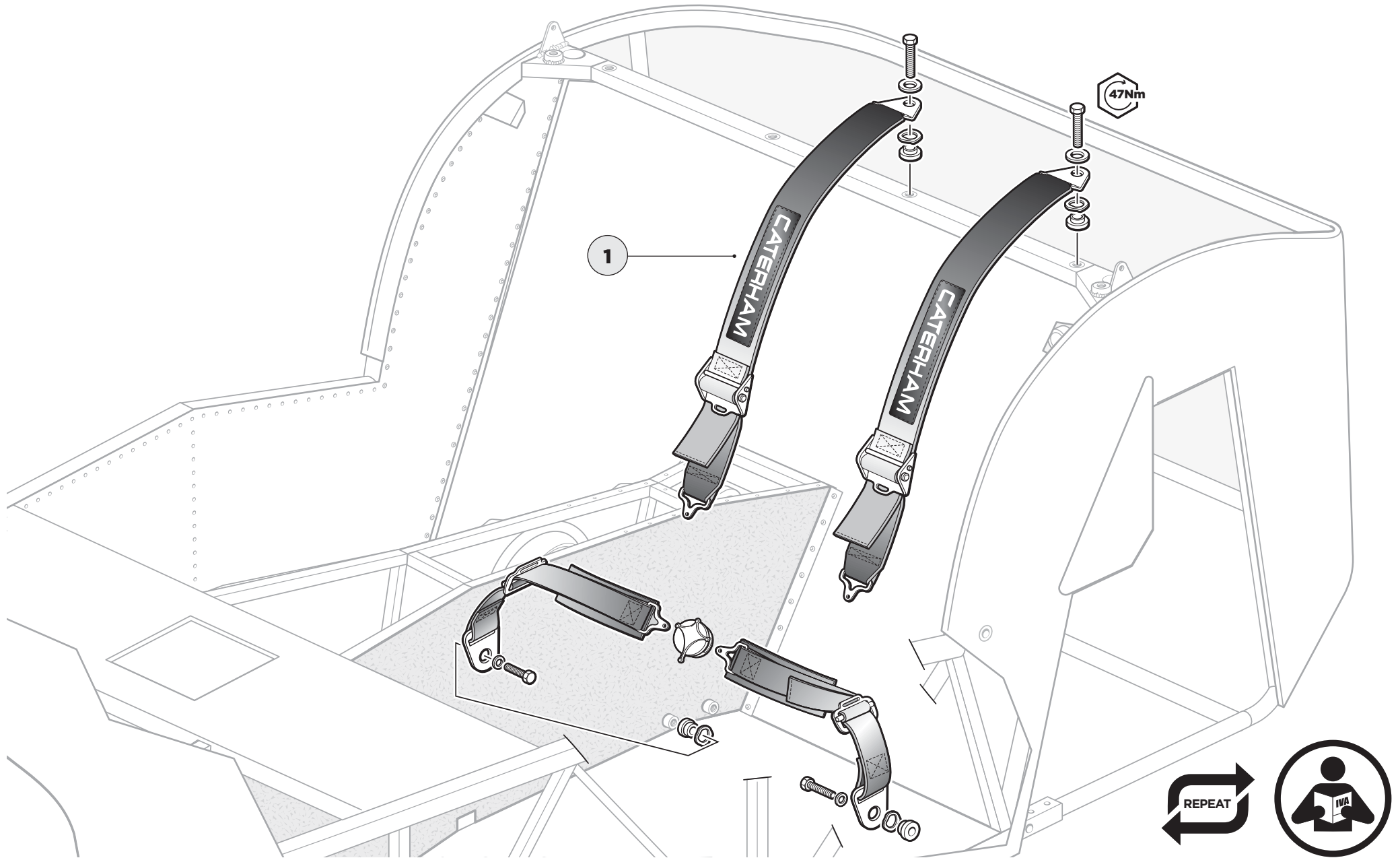
All fixings supplied with the harnesses

## TIPS

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

**Chris N**

# FITTING THE FOUR-POINT HARNESS

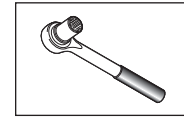


# FITTING THE ROLL OVER BAR

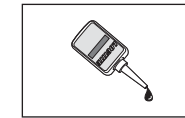
## PARTS

- 1 Roll over bar

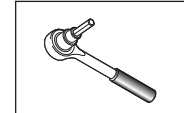
## TOOLS



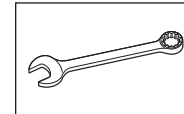
13mm  
17mm



Loctite 243



8mm



17mm



## FIXINGS

Pack J		CATERHAM		47	
		PART NUMBER		3AC20010A	
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	BM10080	2	Rear diagonals of roll over bar to mounting brackets.	
2	Set screw M8 x 20 Grade 8.8	SM8X20	2	Roll over bar bracket to chassis	
3	Cap head bolt M10 x 20	SMCH10X20	2	Roll over bar boss	
4	Nylon Nut M10	NMNF10	2	Rear diagonals of roll over bar to mounting brackets	
5	Flan Washer M8	WP8M8	2	Roll over bar bracket to chassis	
6	Spring Washer M8	WS8M8	2	Roll over bar bracket to chassis	
7	Flan Washer M10	WP8M10	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

You will need to remove the rear dampers in order to install the lower roll over bar mounting bolts.

Chris B

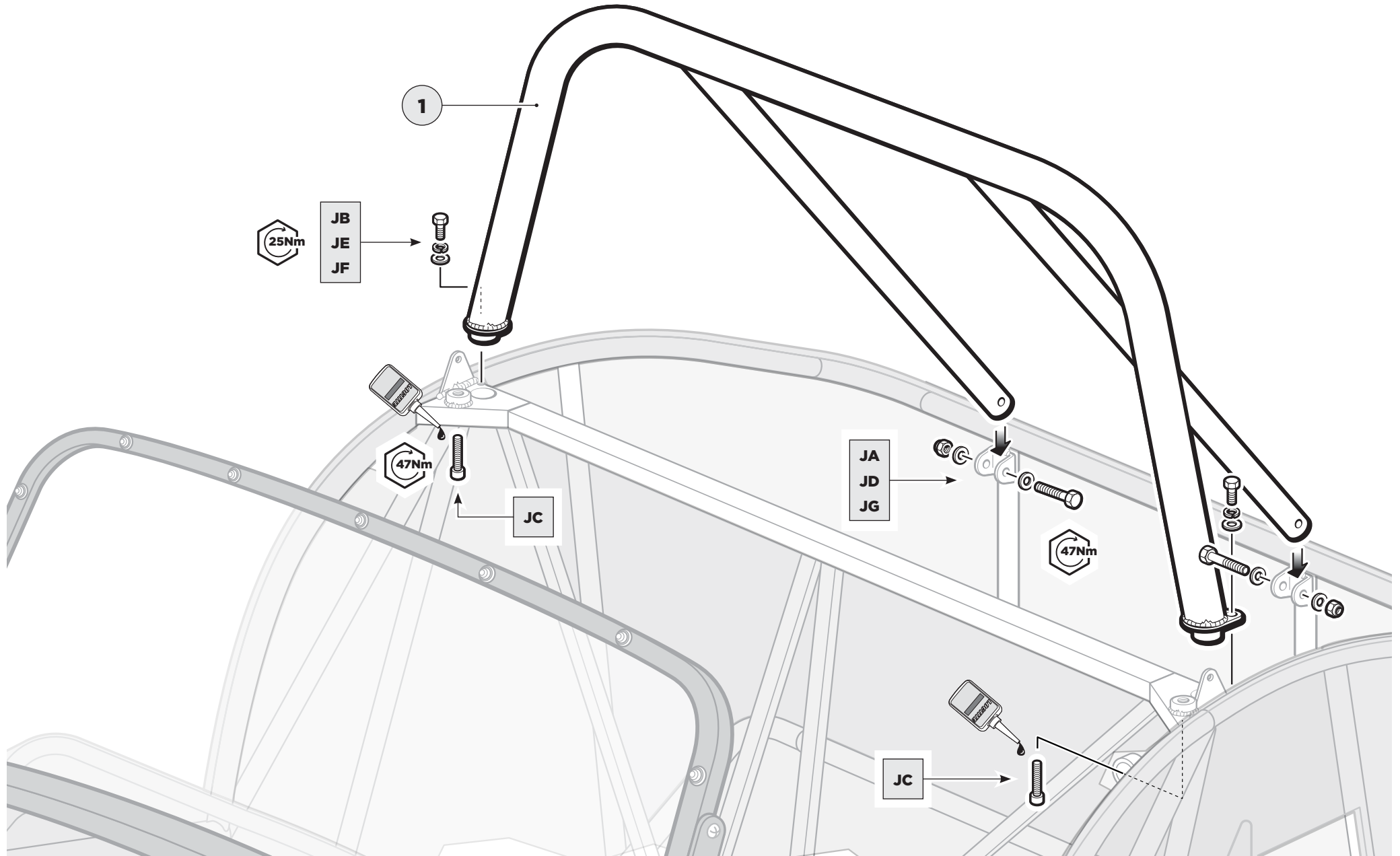
Begin by fitting the cap head bolts from underneath, followed by the small hex bolts and lastly the rear mounting bolts.

James A

Fit all the bolts finger tight and then torque at the end.

Harry P

# FITTING THE ROLL OVER BAR



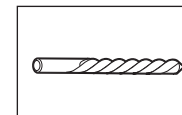
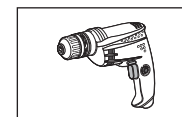
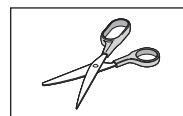
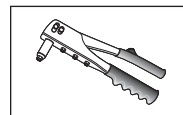
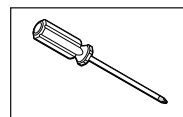


# FITTING THE FUSE BOX COVER AND KNEE TRIM PANELS

## PARTS

- 1 Knee trim panels (LH & RH)
- 2 Fuse box cover
- 3 Velcro

## TOOLS



5/32

## FIXINGS

SERIAL NUMBER		CATERHAM		PACK NUMBER	
57		CATERHAM		ZCH01	
FASTNER PACK – CHASSIS FIXTURE (KIT CAR ONLY)					
Please note: This pack may include extra fasteners to cover different options					
No	DESCRIPTION	PART NUMBER	QTY	DRAWING	
1	Screw 6 x 1/2" Pan Head Post	PDB	6		
2	Rivet 1/8" X 0.39"	1661-0410	4		
3	Rivet 1/8" X 0.51"	1661-0414	4		
4	Rivet 5/32" X 0.47"	1661-0512	5		
5	Rivet – black 5/32" X 0.47"	1610-01015	110		
6	Rivet – black 5/32" X 0.59"	1610-9931	6		
7	Screw 8mm X 1/2" superflange	71077	4		
8	Screw 10mm X 3/4" superflange	71080	14		
9	hose clip 9.5mm to 12mm	SGT 9.5-12	2		
10	Setscrew Panhead opti 5mm X 16mm	76227	2		
11	Cradle clip	KR6GS	5		
12	Setscrew Panhead Post 5mm X 35mm	SPHMSX35 map sensor	2		
13	Setscrew Panhead Post 5mm X 16mm	76227S	2		

Please note: Drawings are not to scale Page 1 of 1

## TIPS

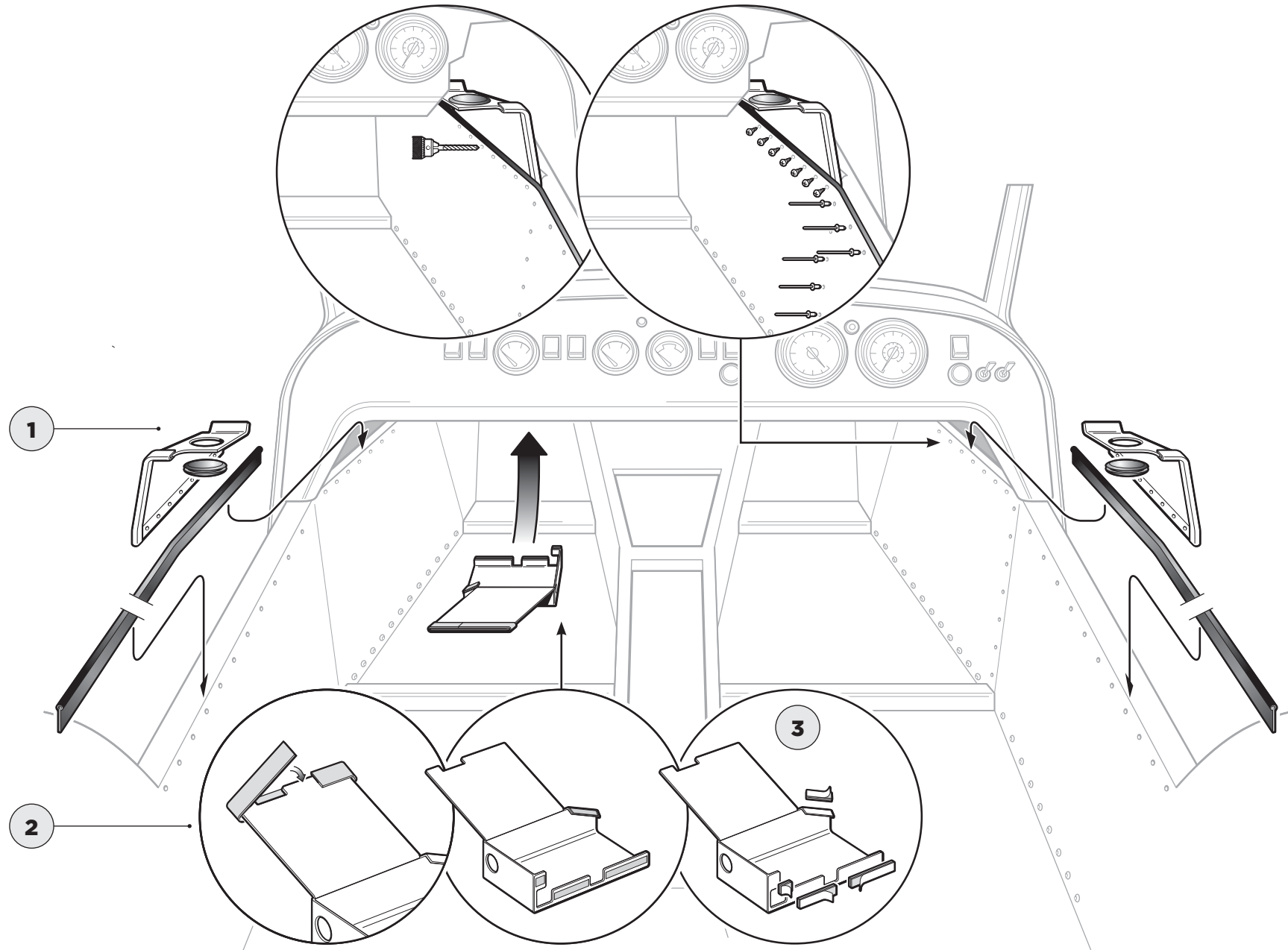
If you're fitting a 12v power socket then you will need to push the outer plastic ring into the fuse box cover before inserting the power socket.

John S

Apply foam tape to the flat section of the fuse box cover and Velcro to the four mounting tabs.

Tiago O

# FITTING THE FUSE BOX COVER AND KNEE TRIM PANELS

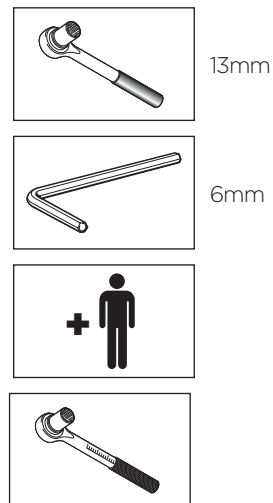


# FITTING LEATHER SEATS

## PARTS

- 1 Seat (x2)
- 2 Seat base (x2)
- 3 Headrest (x2)

## TOOLS



## FIXINGS

Pack <b>L</b>		<b>CATERHAM</b>		62	
				3AC2012A	
<b>CLOTH/LEATHER SEATS ALL CARS</b>					
<small>This pack may include extra fasteners to cover different options</small>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	LA Cleathead Bolt M8 X 20 Grade 12.9	SMCH0020	4	Through seat runner & floor	
2	LB Nyloc Nut M8	N8N78	4	Under floor	
3	LC Plain Washer M8 X 30	WPH0030	4	Under floor	

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

x4  
x4  
x4

## TIPS

It's best to start by loosely fitting the rear bolts, followed by the fronts. Once all the bolts are located you can fully torque them.

Dan D

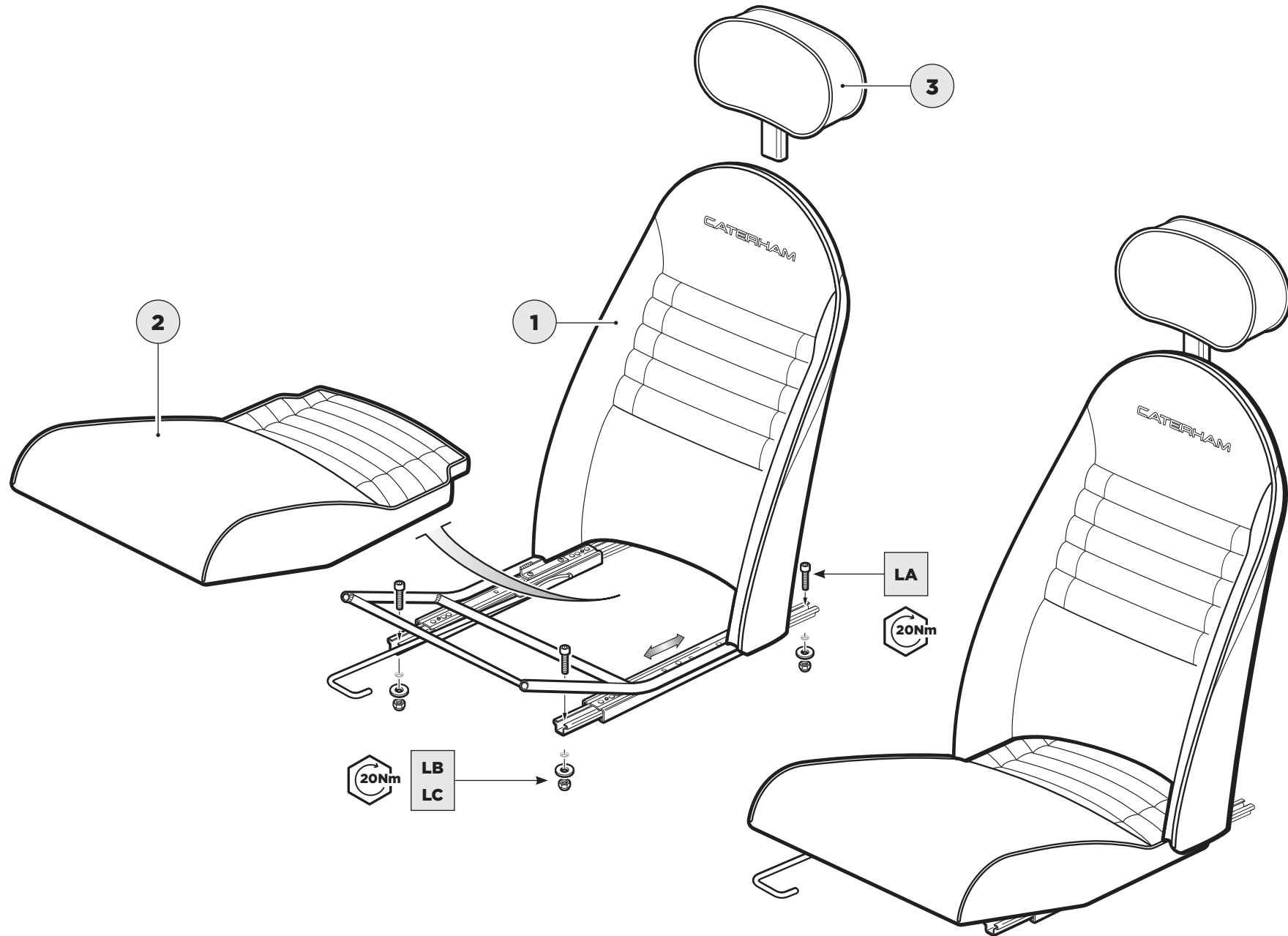
This can be a fiddly job, so patience is key.

Anthony L

You will find it much easier to tighten these bolts using a ball ended socket for the rears, and a short Allen key for the fronts.

Lee A

# FITTING LEATHER SEATS

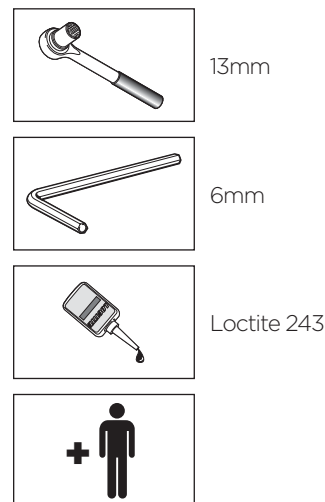


# FITTING THE RACE SEATS

## 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	Caphead Bolt M8 X 20	8MCH8X20	4	Spacer box section to seat	
2	Caphead Bolt M8 X 20	8MCH8X20	4	Floor to mount in spacer box section	
3	Spring Washer "Grip"	WSPH516	8	Bolt heads	
4	Washer 5/16" X 1 1/4"	WPS16X1 1/4	4	Under floor	
5	Washer M8 X 18	WPM8X18X1	4	Spacer box section to seat	
7	Spacer Block Plastic	TW2	3	Seat spacer	
8	Spacer Block Plastic	TW3	5	Seat spacer	

### For adjustable seats

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Caphead Bolt M8 X 20	8MCH8X20	4	Runner to seat	
2	Caphead Bolt M8 X 20	8MCH8X20	4	Runner to floor	
3	Washer 5/16" X 1 1/4"	WPS16X1 1/4	4	Under floor	
4	Nylon Nut M8	8MNY8	4	Under floor	
5	Spacer Block Plastic	TW2	3	Seat spacer	
6	Spacer Block Plastic	TW3	5	Seat spacer	

## TIPS

Apply Loctite to the bolts which secure the runners to the seat base.

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

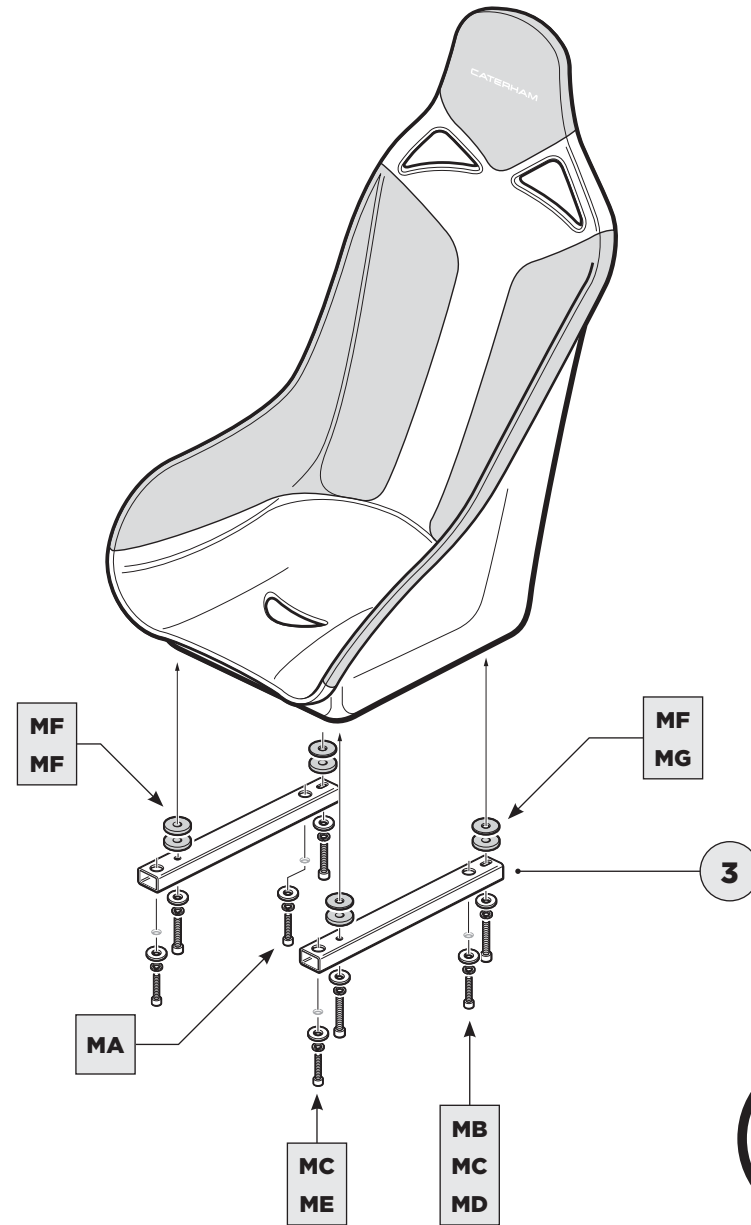
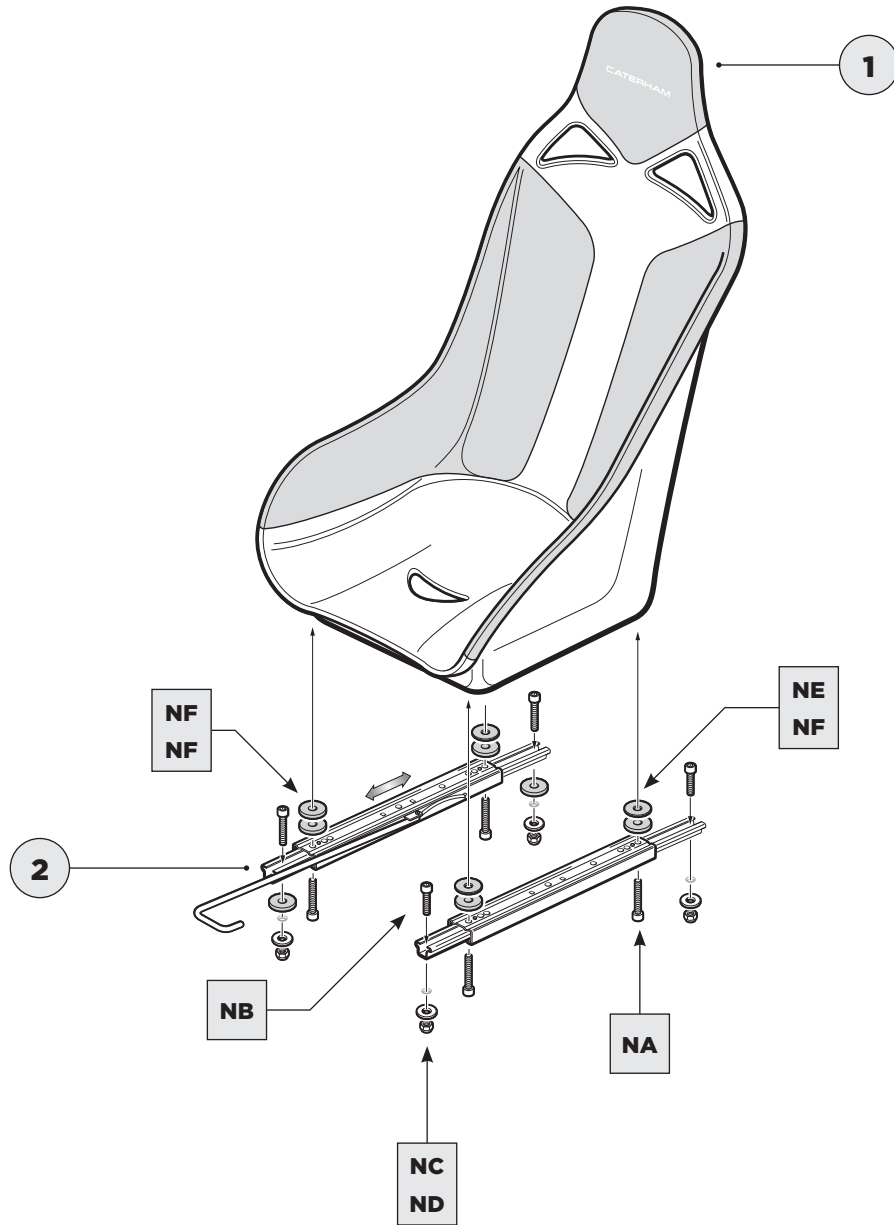
You will need to fit one thin and one thick spacer in each corner between the seat base and the runners, except for the right front corner which will need two thick washers.

Grant P

The fixed position seat is for the passenger side!

Chris N

# FITTING THE RACE SEATS

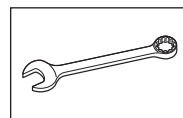


## ASSEMBLING THE SPARE WHEEL CARRIER

### PARTS

- 1 Spare wheel carrier
- 2 Numberplate light
- 3 Sub loom
- 4 Grommets (x2)

### TOOLS



8mm

### FIXINGS

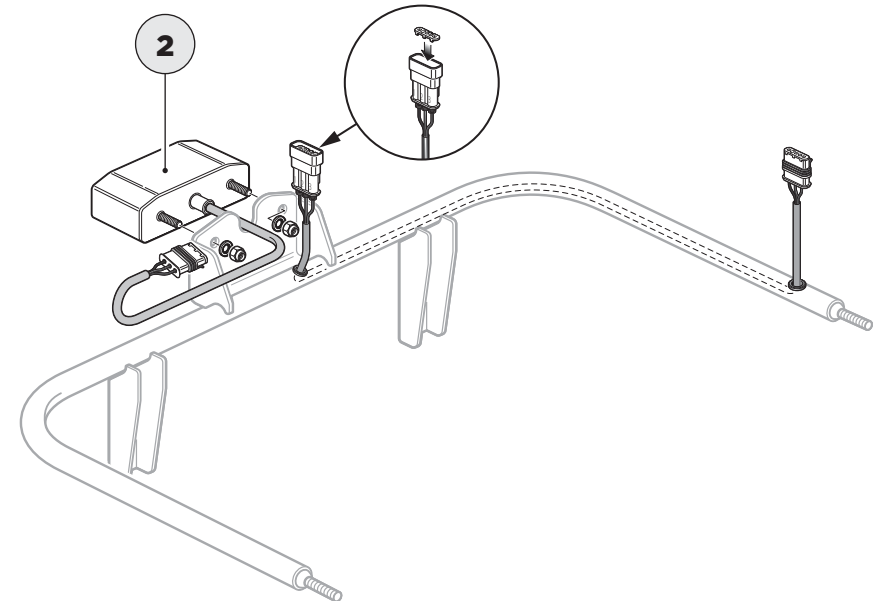
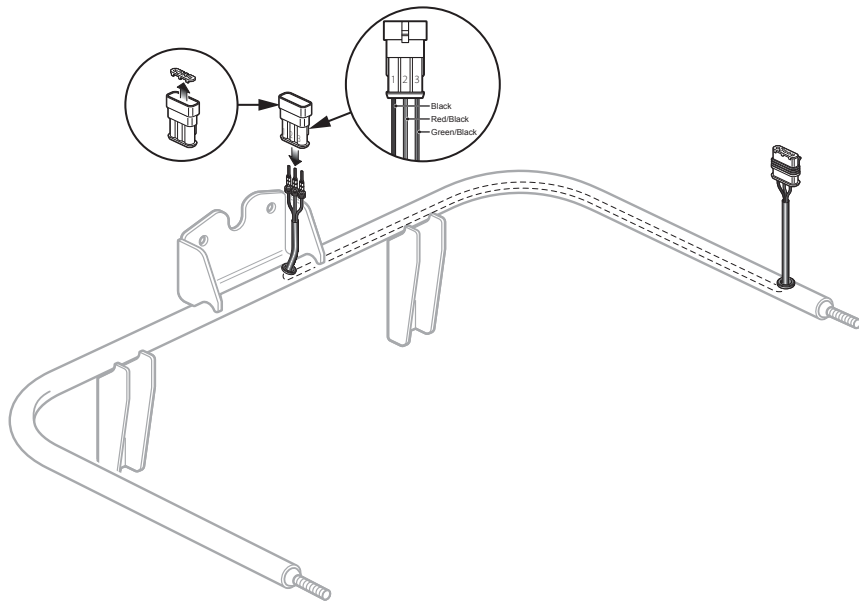
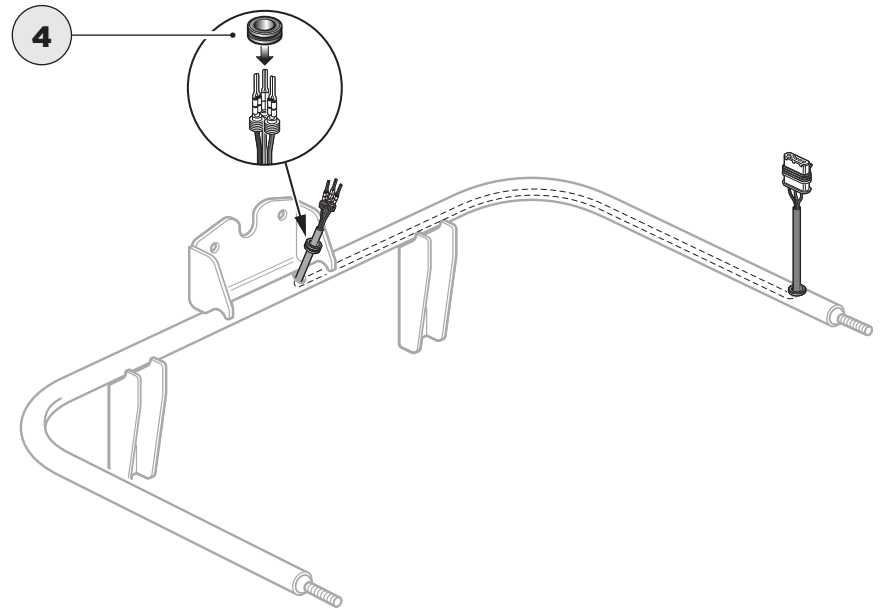
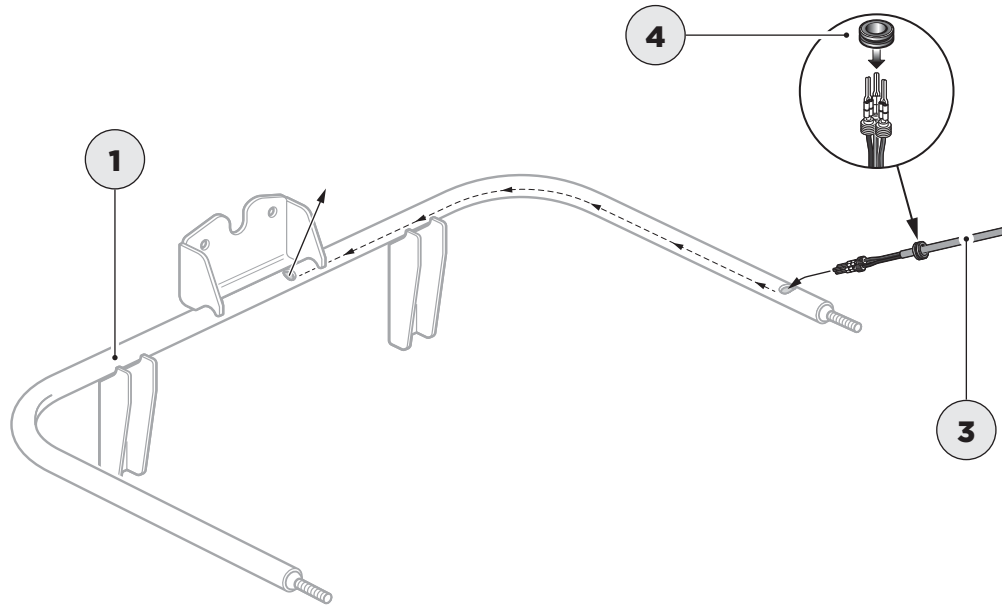
Fixings supplied with numberplate light

### TIPS

*Feed a grommet down the wires before feeding the wires into the spare wheel carrier.*

**Simon L**

# ASSEMBLING THE SPARE WHEEL CARRIER





## FITTING THE SPARE WHEEL AND CARRIER

### PARTS

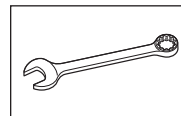
- 1 Spare wheel carrier
- 2 Wheel & tyre assembly
- 3 Wheel mounting bracket
- 4 Machined mounting bolt
- 5 Bolt sleeve
- 6 Fibre washer
- 7 Wheel nuts (x2)

### FIXINGS

#### Unmarked bag:

- M8 half nyloc (x2)

### TOOLS



13mm

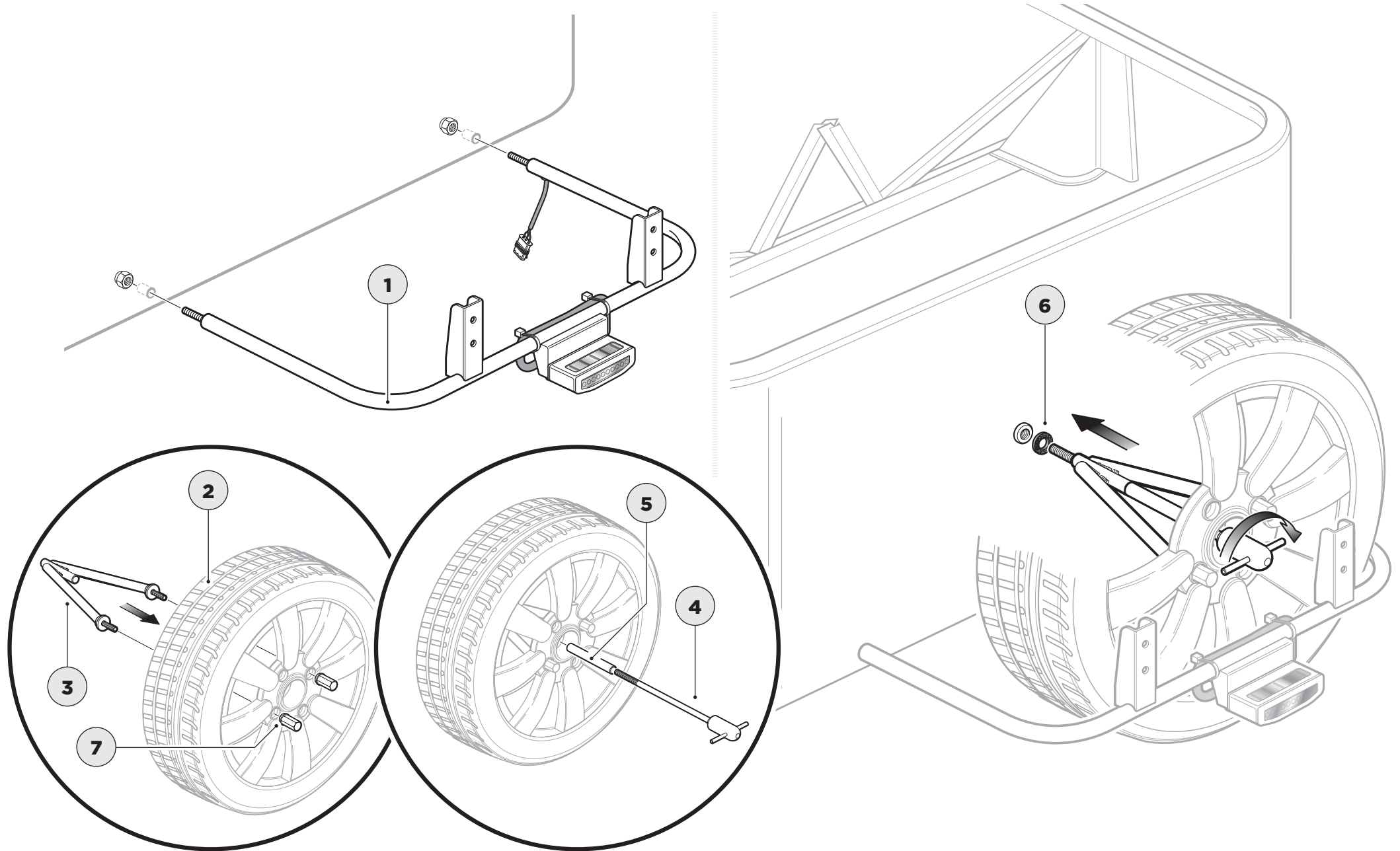


### TIPS

*It's advisable to add a smear of copper slip to the mounting bolt and wheel nut threads to aid removal at the roadside!*

**Mick F**

# FITTING THE SPARE WHEEL AND CARRIER

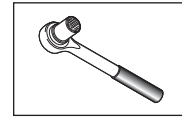


# CONNECTING THE BATTERY - NON MASTER SWITCH

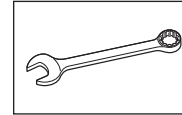
## PARTS

- 1 Starter motor

## TOOLS



10mm  
13mm



10mm (x2)

## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X45	3	
4	Setcrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SM8X25	2	
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	4	
6	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	2	
7	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SM8X16	3	
8	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SM8X16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

Page 1 of 2

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M6 X 25 Plain Washer Heavy-Duty	WPHM6X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

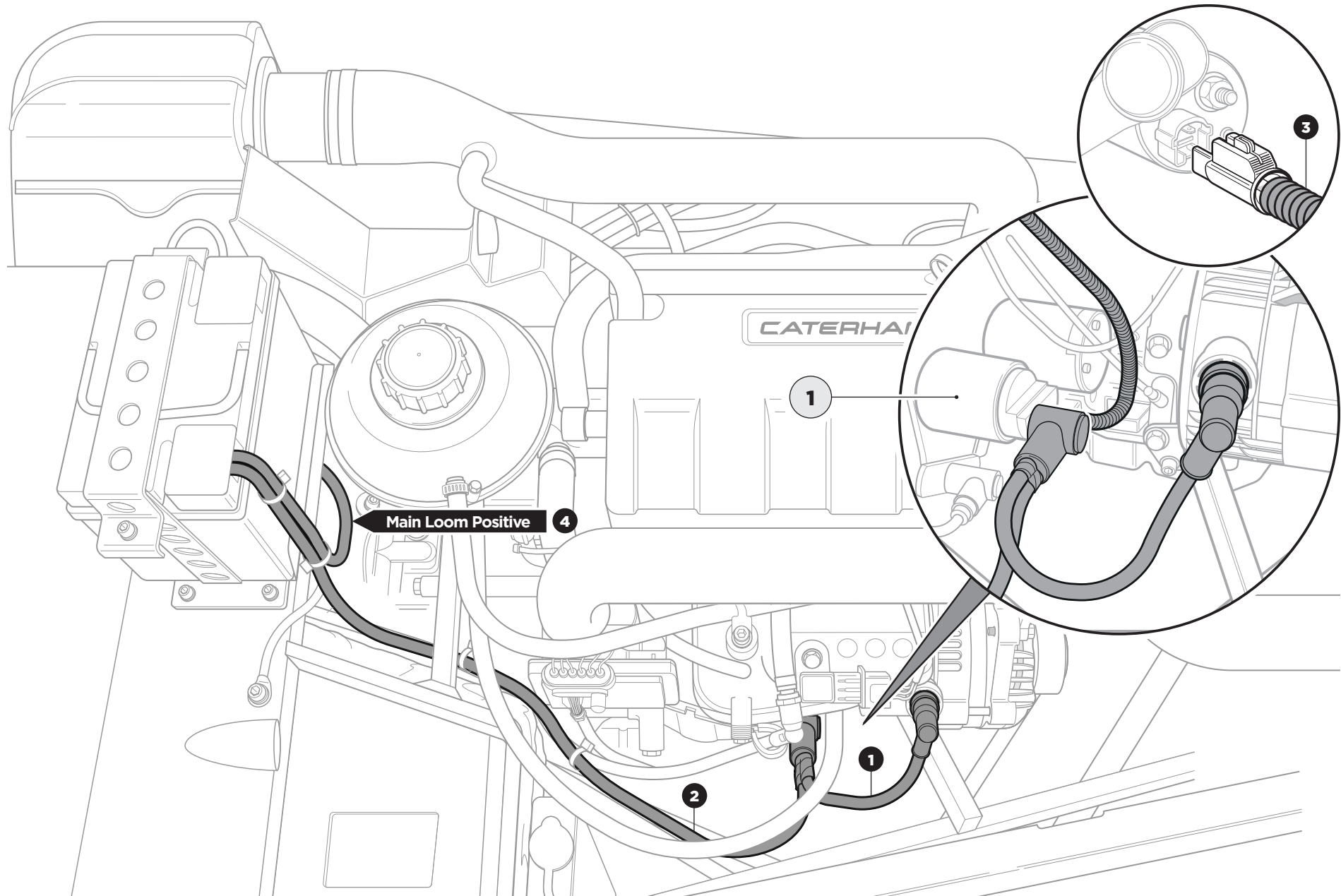
Please note: Drawings are not to scale

Page 2 of 2

## WIRING KEY

- 1 Starter motor - alternator
- 2 Starter motor - battery positive
- 3 Solenoid trigger wire
- 4 Main loom feed - battery positive

## CONNECTING THE BATTERY - NON MASTER SWITCH

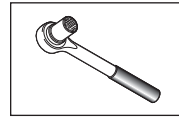


# CONNECTING THE BATTERY - MASTER SWITCH

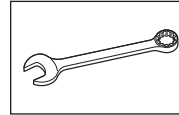
## PARTS

- 1 Starter motor

## TOOLS



10mm  
13mm



10mm (x2)

## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X45	3	
4	Setcrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SM8X25	2	
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	4	
6	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	2	
7	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SM8X16	3	
8	Setcrew M8 X 16 Grade 8.8 Hexagonal head & metric full threaded section	SM8X16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

Page 1 of 2

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M6 X 25 Plain Washer Heavy-Duty	WPHM6X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

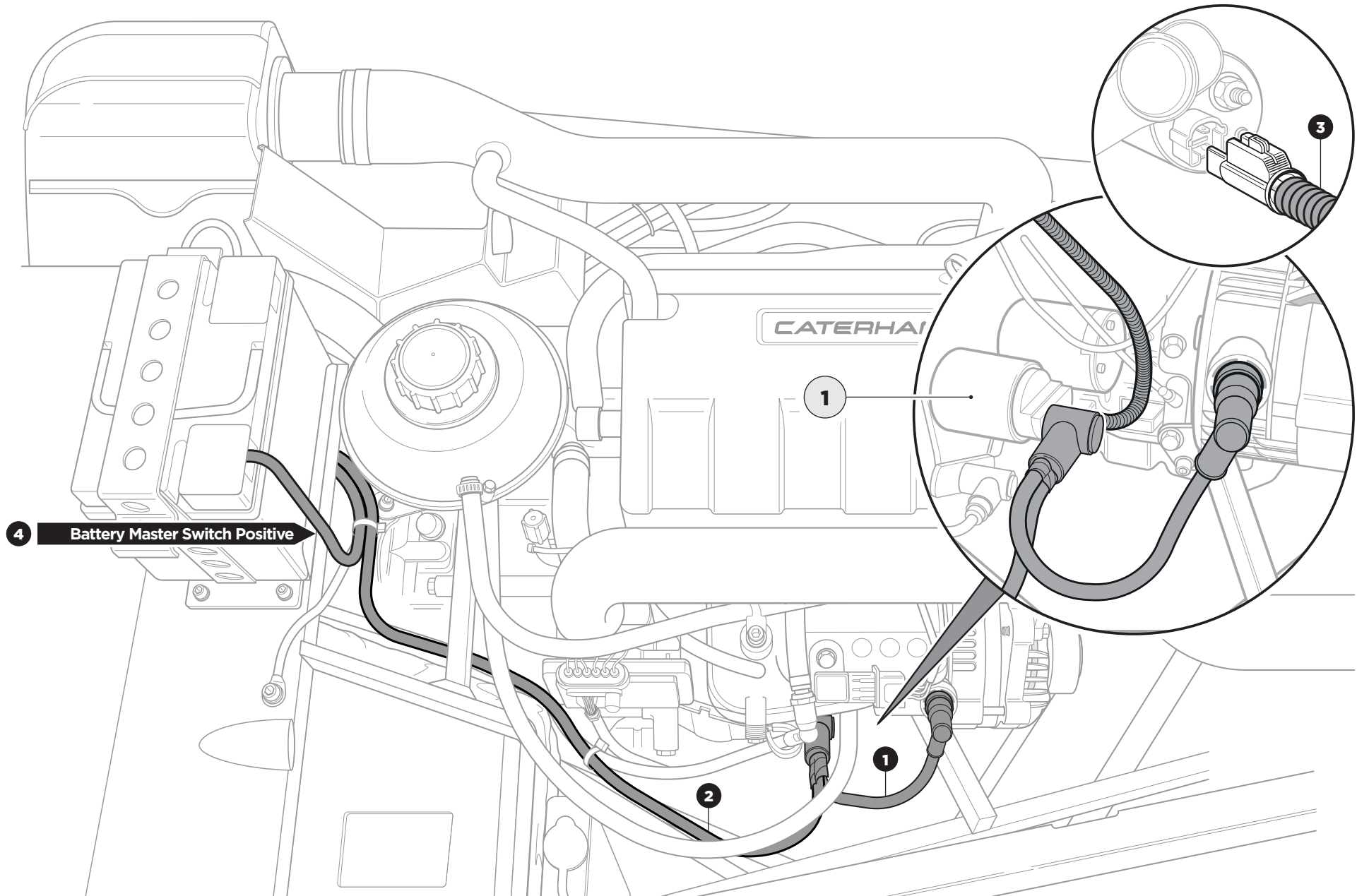
Please note: Drawings are not to scale

Page 2 of 2

## WIRING KEY

- 1 Starter motor - alternator
- 2 Starter motor - battery master switch
- 3 Solenoid trigger wire
- 4 Battery master switch to battery positive

## CONNECTING THE BATTERY - MASTER SWITCH

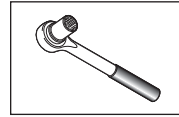


# CONNECTING THE BATTERY EARTHS

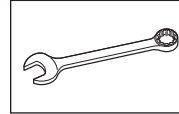
## PARTS

- 1 Earth cables (x2)

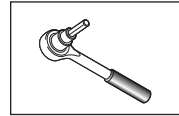
## TOOLS



14mm



10mm (x2)



6mm

## FIXINGS

SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X45	3	
4	Setcrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SM8X25	2	
5	Setcrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	4	
6	Setcrew M8 X 20 Grade 8.8 Hexagon head & metric full threaded section	SM8X20	2	
7	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM8X16	3	
8	Setcrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM8X16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

Page 1 of 2

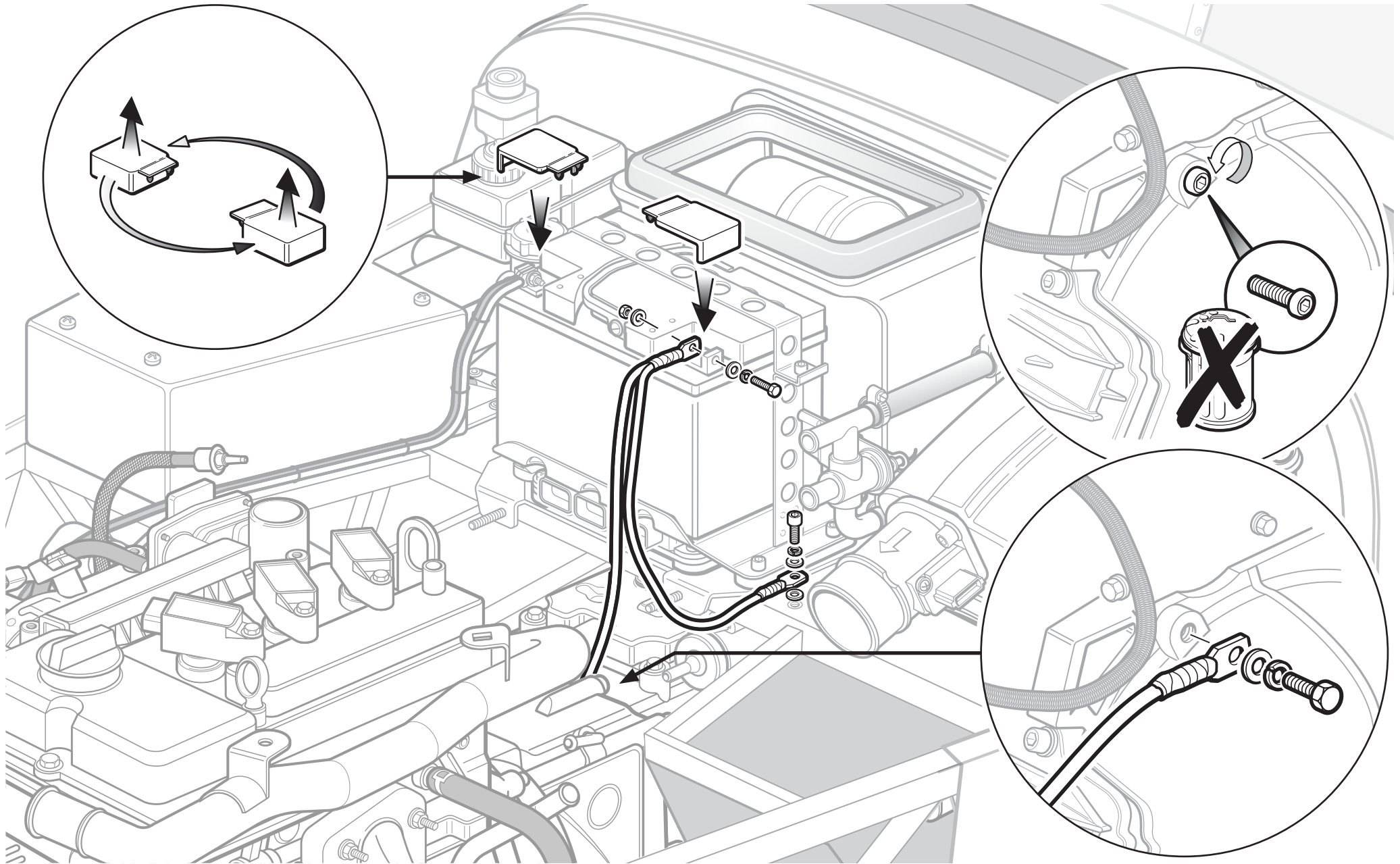
SERIAL NUMBER	CATERHAM		PACK NUMBER	
49			30P012A	
FASTNER PACK - MISCELLANEOUS (METRIC)				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M6 X 25 Plain Washer Heavy-Duty	WPHM6X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

Please note: Drawings are not to scale

Page 2 of 2

## TIPS

## CONNECTING THE BATTERY EARTHS





## FITTING THE WIPERS AND INTERIOR MIRROR

### PARTS

- 1 Wiper arm (x2)
- 2 Wiper blade (x2)
- 3 Interior mirror

### TOOLS

### FIXINGS

### TIPS

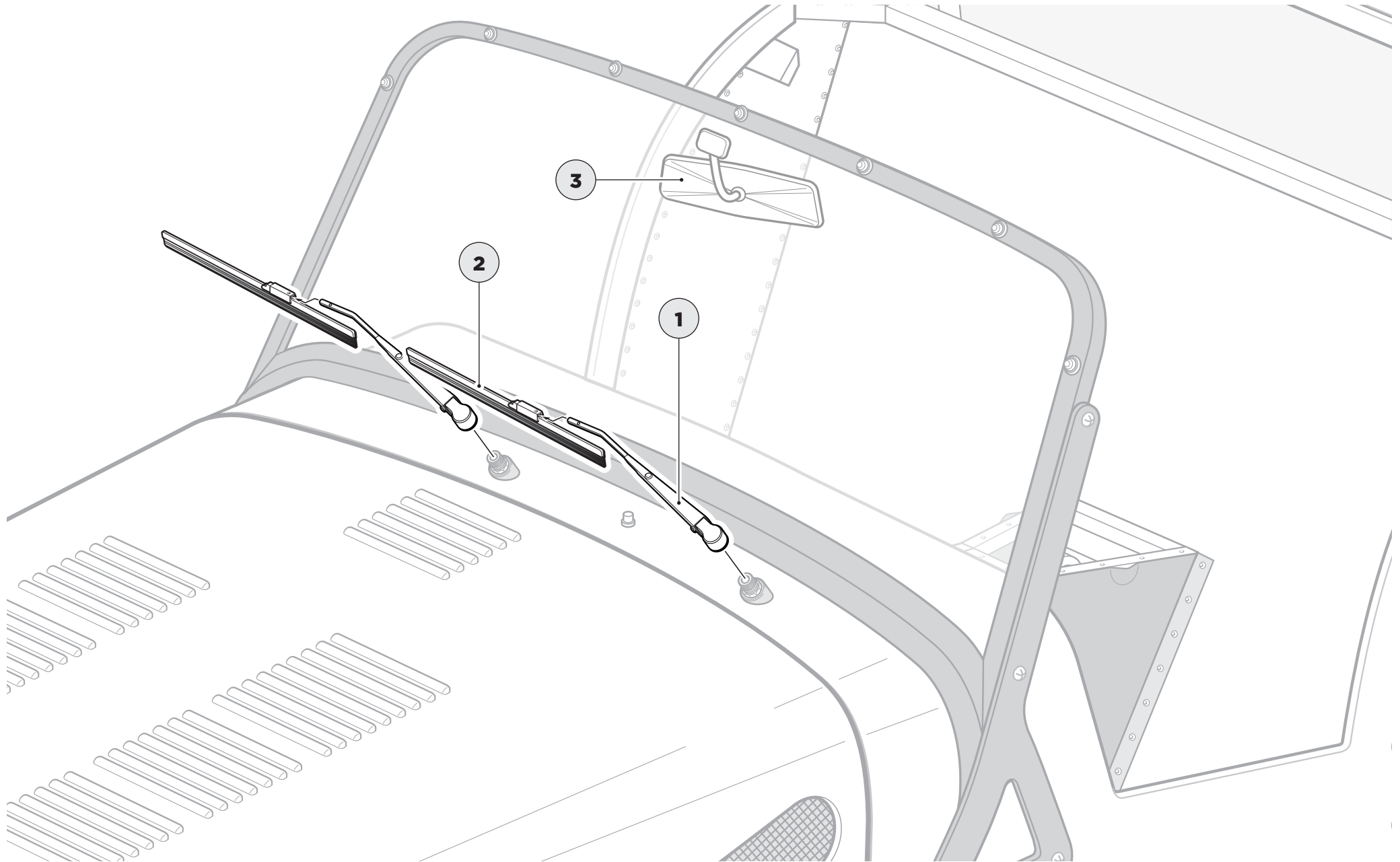
Ensure that the wiper motor is in the parked position before fitting the wiper arms.

**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 INTERIOR MIRROR

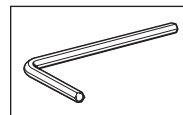
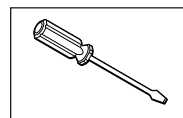


## FITTING THE SIDE MIRRORS

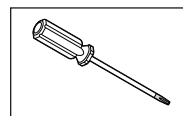
### PARTS

- 1 Mirror head (x2)
- 2 Mirror mount (x2)
- 3 Grub screw (x2)
- 4 Mirror mount stud (x2)
- 5 Fibre washer (x2)

### TOOLS



2.5mm



T20

### FIXINGS

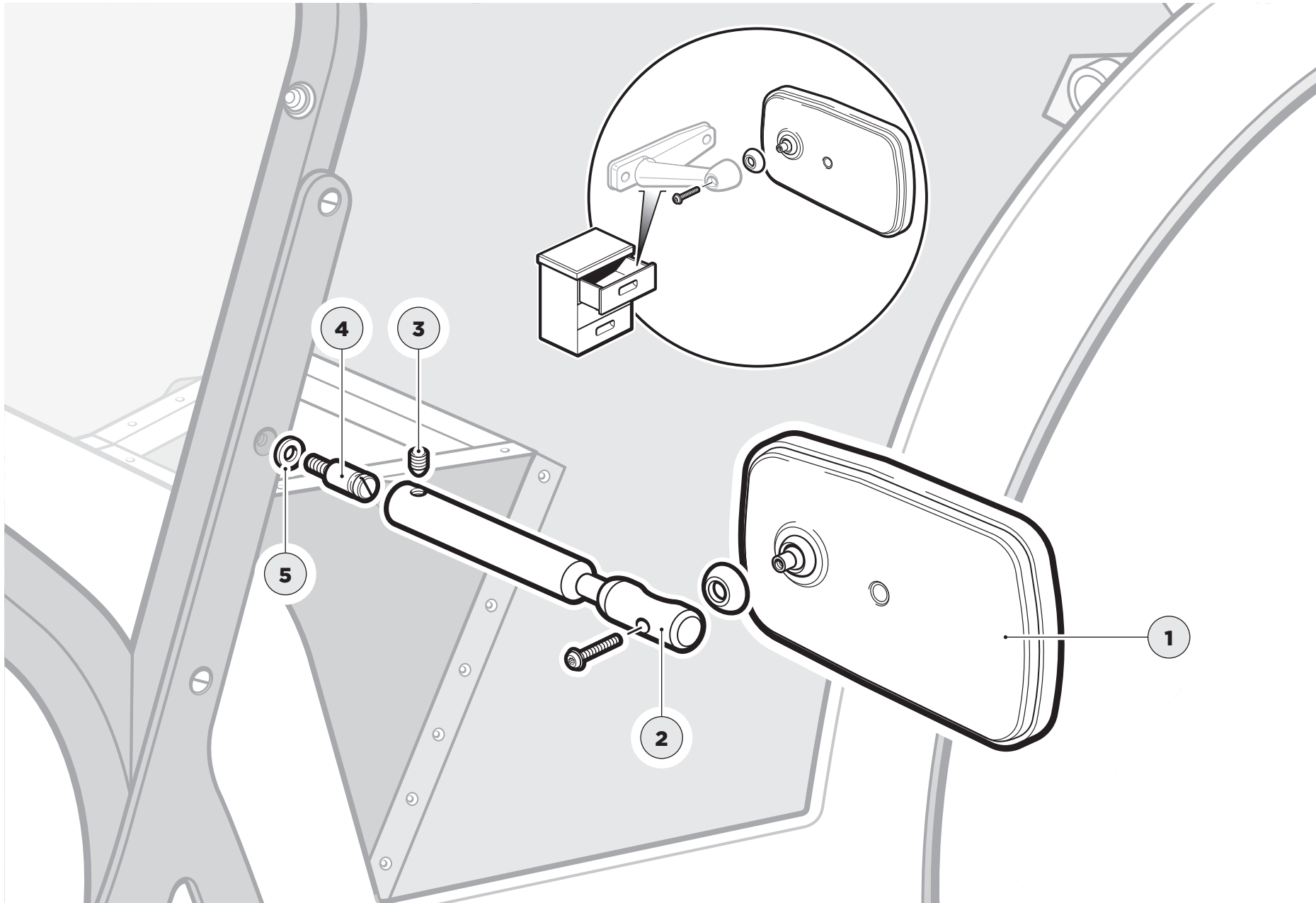
Fixings packed with mirrors

### TIPS

You will need to pop off the surround and remove the glass from the mirror housing in order to attach the mirror mount.

**Mick F**

# FITTING THE SIDE MIRRORS

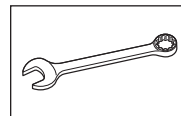


## FILL WITH COOLANT

### PARTS

Coolant concentrate

### TOOLS



17mm

### FIXINGS

### TIPS

The bleed bolt on the top of the radiator will need to be removed before filling the coolant.

**Grant P**

Open the heater valve by pulling the cable which will allow the heater matrix to fill with coolant.

**Lloyd D**

Coolant will flow out of the bleed bolt hole when all the air is expelled.

**Vincent M**



Fill expansion bottle to max mark

## 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 an 8mm 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 whilst responding to your instructions, so although a child could do this job, you may wish to find somebody 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 backplate. 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 8mm 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 up 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. Whilst still holding the pedal to the floor, tighten the nipple.
- 9** Repeat steps 7 and 8 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, tighten the nipple and remove the washer hose. You can then clean any residue from the area and refit the dust cover.
- 11** Repeat steps 5-10 for the front calipers, (left then right). The front brake nipples will require 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.
- 13** The clutch system will need to be bled using exactly the same principle as the brake system, however you'll be pleased to learn that it's much quicker to do as there is only one bleed nipple to expel the air from.



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:**

- 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!

**CATERHAM**

# APPENDIX

# FIXING PACKS

Pack <b>A</b>		<b>CATERHAM</b>		SERIAL NUMBER <b>44</b>	
				PACK NUMBER	
				3ACZ0001A	
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 3/4" x 3/4" Heavy duty	WPH3/8	2	Brake pipe	

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

Page 1 of 2

Pack <b>A</b>		<b>CATERHAM</b>		SERIAL NUMBER <b>44</b>	
				PACK NUMBER	
				3ACZ0001A	
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 3/4" 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>B</b>		<b>CATERHAM</b>		SERIAL NUMBER	55
				PACK NUMBER	3ACZ0002B
				RELEASED	NOV-19
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 DIN 912	BMCH6X70	4	Rack clamps	
2	BB Bolt 1/4" x 1 1/4"	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 1/4" 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 <b>C</b>		<b>CATERHAM</b>		SERIAL NUMBER	45
				PACK NUMBER	3ACZ0003A
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

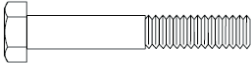






Pack <b>D</b>		<b>CATERHAM</b>		SERIAL NUMBER	44
				PACK NUMBER	3ACZ0004A
COOLING SIGMA					
This pack may include extra fasteners to cover different options					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	DA Bolt M8 X 50 Grade 8.8	BM8X50	1	Expansion tank bracket to chassis	
2	DB 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 Pozi	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	

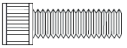

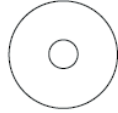
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

Pack <b>D</b>		<b>CATERHAM</b>		SERIAL NUMBER	44
				PACK NUMBER	3ACZ0004A
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 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




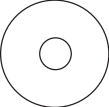



# FIXING PACKS

<b>Pack J</b>		<b>CATERHAM</b>			SERIAL NUMBER <b>47</b>	
					PACK NUMBER <b>3ACZ0010A</b>	
<b>ROLL OVER &amp; TRACK DAY BAR SERIES 3 METRIC</b>						
<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	



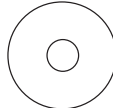



<b>Pack L</b>		<b>CATERHAM</b>			SERIAL NUMBER <b>62</b>	
					PACK NUMBER <b>3ACZ0012A</b>	
<b>CLOTH/LEATHER SEATS ALL CARS</b>						
<i>This pack may include extra fasteners to cover different options</i>						
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION	
1	LA Caphead Bolt M8 X 20 Grade 12.9	SMCH8X20	4	Through seat runner & floor		
2	LB Nyloc Nut M8	NMYF8	4	Under floor		
3	LC Plain Washer M8 X 30	WPH8X30	4	Under floor		
Drawings are for illustrative purposes only and are not to scale.					Page 1 of 1	



# FIXING PACKS



Pack <b>M</b>		<b>CATERHAM</b>		SERIAL NUMBER <b>63</b>	
				PACK NUMBER	
				3ACZ0013A	
SEATS FIXED TILLET RACING					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	MA Caphead Bolt M8 X 25	BMCH8X25	4	Spacer box section to seat	
2	MB Caphead Bolt M8 X 20	SMCH8X20	4	Floor to rivnut in spacer box section	
3	MC Spring Washer 5/16"	WSH5/16	8	Bolt heads	
4	MD Washer 5/16" X 1 1/4"	WP5/16X1.1/4	4	Under floor	
5	ME Washer M8 X 18	WPM8X18X1	4	Spacer box section to seat	
7	MF Spacer Black Plastic	TW2	3	Seat spacer	
8	MG Spacer Black Plastic	TW3	5	Seat spacer	



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

Pack <b>N</b>		<b>CATERHAM</b>		SERIAL NUMBER <b>64</b>	
				PACK NUMBER	
				3ACZ0014A	
SEATS ADJUSTABLE TILLET RACING					
<i>This pack may include extra fasteners to cover different options</i>					
ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	NA Caphead Bolt M8 X 25	BMCH8X25	4	Runner to seat	
2	NB Caphead Bolt M8 X 20	SMCH8X20	4	Runner to floor	
3	NC Washer 5/16" X 1 1/4"	WP5/16X1.1/4	4	Under floor	
4	ND Nyloc Nut M8	NMYF8	4	Under floor	
5	NE Spacer Black Plastic	TW2	3	Seat spacer	
6	NF Spacer Black Plastic	TW3	5	Seat spacer	

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

# FIXING PACKS

<b>Pack O</b>		<b>CATERHAM</b>			SERIAL NUMBER	
					PACK NUMBER	
					3ACZ0015A	
<b>WING PROTECTORS STAINLESS STEEL</b>						
<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	

<b>Pack P</b>		<b>CATERHAM</b>			SERIAL NUMBER	
					PACK NUMBER	
					3ACZ0016A	
<b>WING PROTECTORS CARBON FIBRE</b>						
<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	

# FIXING PACKS





Pack **Q**

**CATERHAM**

SERIAL NUMBER **31**  
 PACK NUMBER  
**3ACZ0017A**

## REAR WINGS

*This pack may include extra fasteners to cover different options*

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	QA Set Screw M5 X 20	SM5X20	20	Rear Wings	
2	QB Nyloc 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




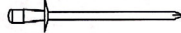









SERIAL NUMBER  
**57**

**CATERHAM**

PACK NUMBER  
**ZCH01**

## FASTNER PACK – CHASSIS FIXTURE (KIT CAR ONLY)

*Please note: This pack may include extra fasteners to cover different options*

No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Screw 6 x 1/2" Pan Head Pozi	PD8	6	
2	Rivet 1/8" X 0.39"	1661-0410	4	
3	Rivet 1/8" X 0.51"	1661-0414	4	
4	Rivet 5/32" X 0.47"	1661-0512	5	
5	Rivet – black 5/32" X 0.47"	1610-01015	110	
6	Rivet – black 5/32" X 0.59"	1610-9931	6	
7	Screw 8mm X 1/2" superflange	71077	4	
8	Screw 10mm X 3/4" superflange	71080	14	
9	hose clip 9.5mm to 12mm	SGT 9.5-12	2	
10	Setscrew Panhead opzi 5mm X 16mm	76227	2	
11	Cradle clip	KR6GS	5	
12	Setscrew Panhead Pozi 5mm X 35mm	SPHM5X35 map sensor	2	
13	Setscrew Panhead Pozi 5mm X 16mm	76227S	2	

Please note: Drawings are not to scale

Page 1 of 1

# FIXING PACKS

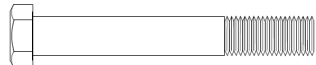
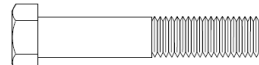
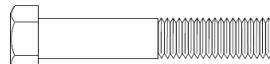
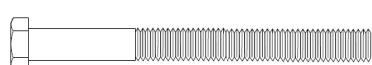
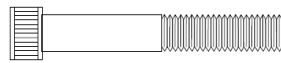
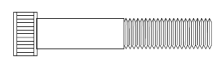





Pack 74

# CATERHAM

SERIAL NUMBER  
PACK NUMBER  
3G0Z0001A

## FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME

*This pack may include extra fasteners to cover different options*

ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
1	Bolt M12 X 100 Grade 10.9	BM12X100	2	Drop bracket to A-Frame	
2	Bolt M12 X 65 Grade 8.8	3GZ2002A	2	Drop bracket to chassis	
3	Bolt 1/2" X 2.3/4" Grade 10.9	BF1/2X2.3/4	1	A-frame to diff	
4	Bolt M10 X 130 Grade 10.9	3GZ2022A	2	Damper	
5	Caphead M10 X 70 Grade 8.8	3GZ2004A	2	Radius arm to chassis	
6	Caphead M6 X 45 Grade 10.9	BMCH6X45	4	Drop bracket to chassis through ARB mount	
7	Nyloc Nut M12	NMYF12	4	Drop bracket to A-frame & drop bracket to chassis	
8	Half Nyloc 1/2" UNF	NFYH1/2	1	A-frame to diff	
9	Nyloc Nut M10	3GZ2023A	4	Damper	
10	Nyloc Nut M6	NMYF6	4	Drop bracket fixings	
11	Plain Washer M12 Form A	3GZ2006A	13		

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

Page 1 of 2







Pack 74

# CATERHAM

SERIAL NUMBER  
PACK NUMBER  
3G0Z0001A

## FASTENER PACK - SEVEN 160/165 LIVE AXLE & A-FRAME

*This pack may include extra fasteners to cover different options*

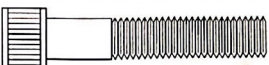
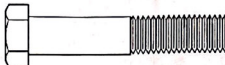
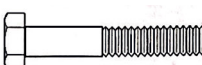
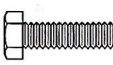

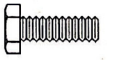


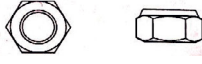


ITEM	BASIC DESCRIPTION	PART NUMBER	QTY	USED ON	ILLUSTRATION
12	Plain Washer M12 X 1.5 X 30 Form C	WPHM12	2		
13	Plain Washer 1/2"	WPH1/2	16	A-frame spacing	
14	Washer M10 X 1.5 X 30 Penny Washer	3GZ2007A	6	Damper	
15	Plain Washer M6	WPHM6	8	Drop bracket fixings	
16	Shakeproof Washer 3/8" ID	WSS3/8	1		
17	Nylon Washer 17.5 X 32 X 1mm	ZZ021463	2	A-frame	

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

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





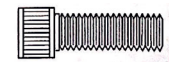
# CATERHAM

# FIXING PACKS

SERIAL NUMBER		PACK NUMBER		
49		30P012A		
<b>CATERHAM</b>				
<b>FASTNER PACK – MISCELLANEOUS (METRIC)</b>				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
1	Bolt 1/2" X 2 1/2" UNF Caphead Bolt with plain section & imperial threaded section	BFCH1/2X2.5	2	
2	Bolt M8 X 50 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X50	1	
3	Bolt M8 X 45 Grade 8.8 Bolt with plain section & Metric threaded section	BM8X45	3	
4	Setscrew M8 X 25 Grade 8.8 Hexagonal head & metric full threaded section	SM8X25	2	
5	Setscrew M8 X 20 Grade 8.8 Hexagonal head & metric full threaded section	SM8X20	4	
6	Setscrew M6 X 20 Grade 8.8 Hexagon head & metric full threaded section	SM6X20	2	
7	Setscrew M8 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM8X16	3	
8	Setscrew M6 X 16 Grade 8.8 Hexagon head & metric full threaded section	SM6X16	4	
9	Nut M8 With Metric thread & Nyloc locking mechanism	NMYF8	10	
10	Nut M6 With Metric thread & Nyloc locking mechanism	NMYF6	2	
11	Nut M6 Plain nut with metric thread full size	NMPF6	2	

Please note: Drawings are not to scale

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SERIAL NUMBER		PACK NUMBER		
49		30P012A		
<b>CATERHAM</b>				
<b>FASTNER PACK – MISCELLANEOUS (METRIC)</b>				
Please note: This pack may include extra fasteners to cover different options				
No	DESCRIPTION	PART NUMBER	QTY	DRAWING
12	Washer M8 Plain Washer Heavy-Duty	WPHM8	13	
13	Split pin 1/16" X 3/4"	SP1/16X3/4	1	
14	Split pin 7/64" X 3/4"	SP7/64X3/4	1	
15	Washer 1/2" Spring Washer Heavy-Duty	WSH1/2	2	
16	Washer M8 Spring Washer Heavy-Duty	WSHM8	3	
17	Washer 3/8" X 3/4" Plain Washer Heavy-Duty	WPH3/8	6	
18	Washer M6 X 25 Plain Washer Heavy-Duty	WPHM6X25	2	
19	Washer M6 Plain Washer Heavy-Duty	WPHM6	8	
20	Washer M5 X 20 Plain Washer Heavy-Duty	WPHM5X20	1	
21	Bolt 1/2" X 1" UNF Caphead bolt with plain section & imperial threaded section	BFCH1/2X1	1	

Please note: Drawings are not to scale

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