



CATERHAM

ASSEMBLY GUIDE

EDITION 1.0

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

WELCOME TO YOUR NEW CATERHAM KIT

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

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

READ THE NEXT THREE PAGES - THEY ARE REALLY IMPORTANT

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

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

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

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

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

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

The application form and a guide on how to complete it, is contained within an envelope of documents provided with your kit and which is probably acting as a coaster for your g&t at the moment. Take this moment to find it and remove it from the garage and place it somewhere safe (and memorable).



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

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

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

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

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

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

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

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

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

ENJOY

MY BUILD NOTES

Download the IVA Checklist Guide: www.caterhamcars.com

Book IVA Test

Take plenty of photos

Arrange post build check

This was more fun than I ever expected!

HINTS & TIPS

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

John K

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

Chris B

1Nm of torque equals 0.736lbft.

Mick F

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

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

Simon L

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

Harrison P

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

Matt T

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

Richard T

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

James A

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

John S

KEY

SYMBOLS

1 Item number

AA
AJ
AM Fixing item


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


Nm Required torque (where applicable)


S3
S5 S3 / S5 chassis specific instructions

REPEAT Repeat on other side


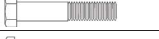









 Advice from factory professionals


 Now is a good time to take some photos

 Reminder to apply for your IVA test

 Refer to IVA Checklist Guide

FIXINGS

| Pack A | | CATERHAM | | 44 | |
|--|----------------------------------|-------------|-----|--|---|
| | | PACK NUMBER | | 38F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | 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 85 Grade 10.9 | BM12X85 | 2 | Lower wishbone front |  |
| 3 | Bolt M10 x 85 Grade 10.9 | BM10X85 | 2 | Upper wishbone rear |  |
| 4 | Bolt M10 x 80 Grade 10.9 | BM10X80 | 2 | Upper wishbone front |  |
| 5 | Bolt M8 x 40 Grade 10.9 | BM8X40 | 4 | Anti-roll bar mounting brackets |  |
| 6 | Plain Nut M14 x 1.0 thread | NM14 | 1 | Temporary use to help lock upper wishbone ball joint |  |
| 7 | Nylon Nut M12 | NM12 | 2 | Lower wishbone rear |  |
| 8 | Nylon Nut M10 | NM10 | 4 | Upper wishbone |  |
| 9 | Plain Washer M12 Oversized | WPCM12 | 18 | Lower wishbone |  |
| 10 | Plain Washer M8 Heavy Duty | WPH8 | 4 | Anti-roll bar mounting brackets |  |
| 11 | Plain Washer M12 x 22 Heavy Duty | WPH22 | 2 | Steering pipe |  |

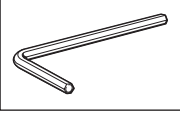




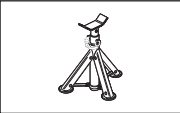
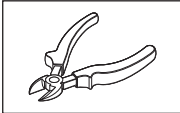

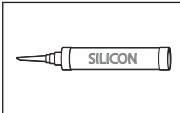
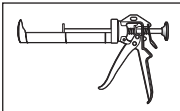

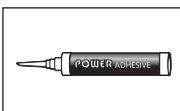
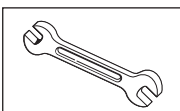

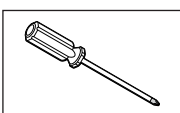
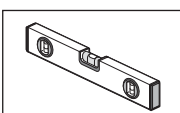
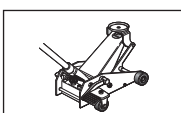
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|------------------------------|-------------|-----|---------------------|---|
| 1 | AA Bolt M12 x 100 Grade 10.9 | BM12X100 | 2 | Lower wishbone rear |  |

x4 ← (Indicates number of each fixing required)

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

KEY

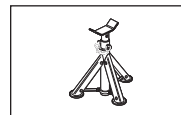
TOOLS

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

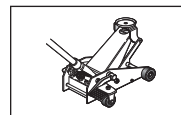
LET'S GET READY

PARTS

TOOLS



x3



FIXINGS

TIPS

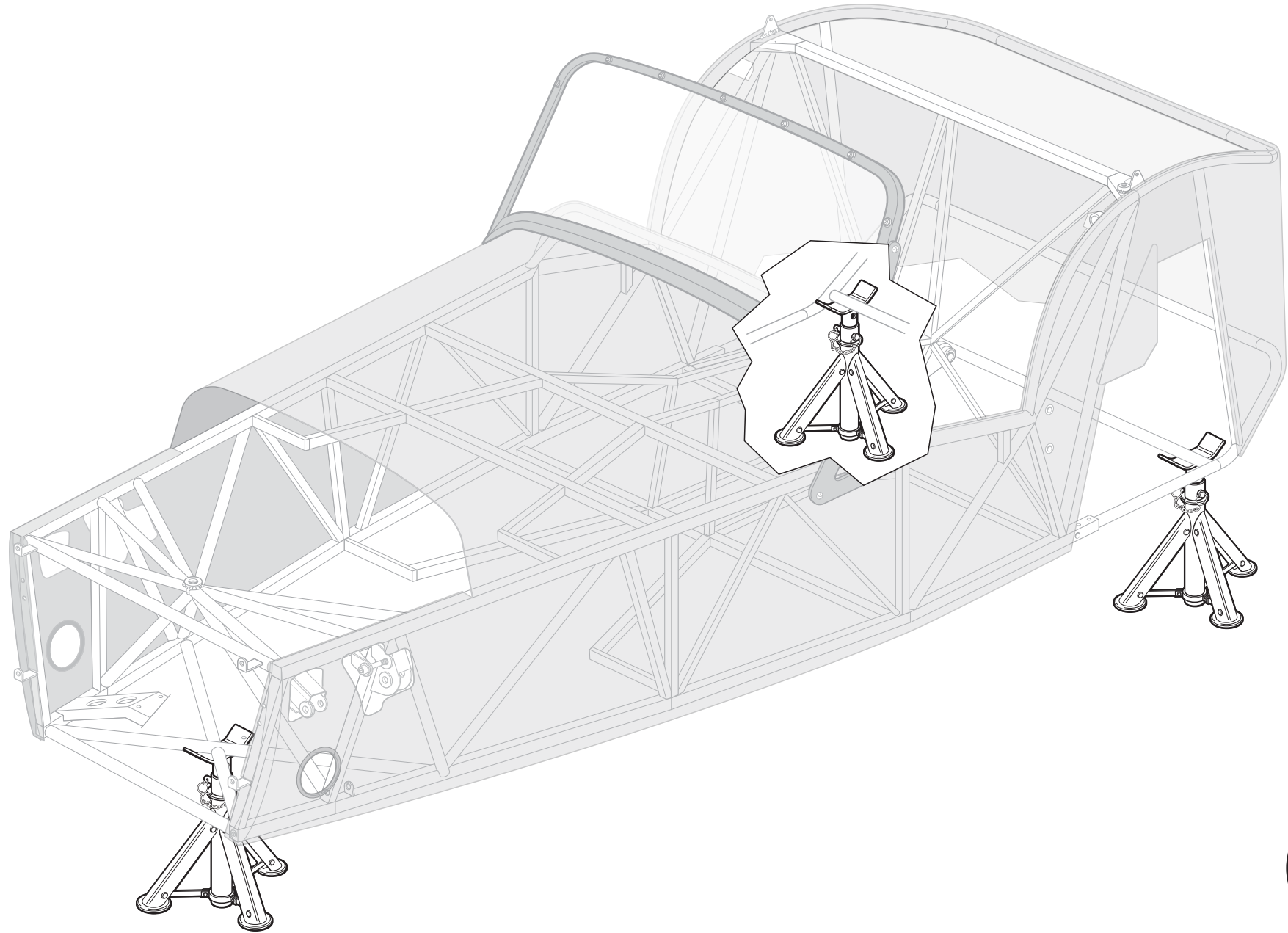
When deciding how high your axle stands should be (the higher the better for working on), don't forget that a complete car will need to come down off them, so make sure your trolley jack can reach and lift the height you set them too!

Mick F

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

Matt T

LET'S GET READY

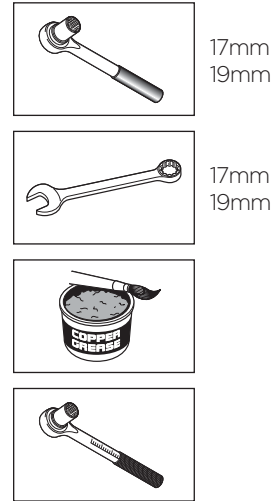


START WITH THE SUSPENSION WISHBONES

PARTS

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

TOOLS



FIXINGS

| Pack A | | CATERHAM | | 44 | |
|--|----------------------------------|-------------|-----|--|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | 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 40 Grade 10.9 | BM8X40 | 4 | Anti-roll bar mounting brackets | |
| 6 | Flan Nut M12 x 1.5 Thread | NM12F1.5 | 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 | Flan Washer M12 Overhead | WPM12 | 18 | Lower wishbone | |
| 10 | Flan Washer M8 Overhead | WPM8 | 4 | Anti-roll bar mounting brackets | |
| 11 | Flan Washer 1/2" x 1/2" Overhead | WPM1/2 | 2 | Brake pipe | |

| Pack A | | CATERHAM | | 44 | |
|--|--------------------------|-------------|-----|---|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | 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 pipe | WSD1/2 | 2 | Brake pipe | |
| 15 | Nylon Nut 1/2" Headlight | NM1/2F1/2 | 2 | Wing stay | |
| 16 | Nylon Nut 1/2" Headlight | NM1/2F1/2 | 2 | Front brake, spring mounting (old track) | |

x2

x2

x2

x2

x2

x4

x14

x2

TIPS

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

Harrison P

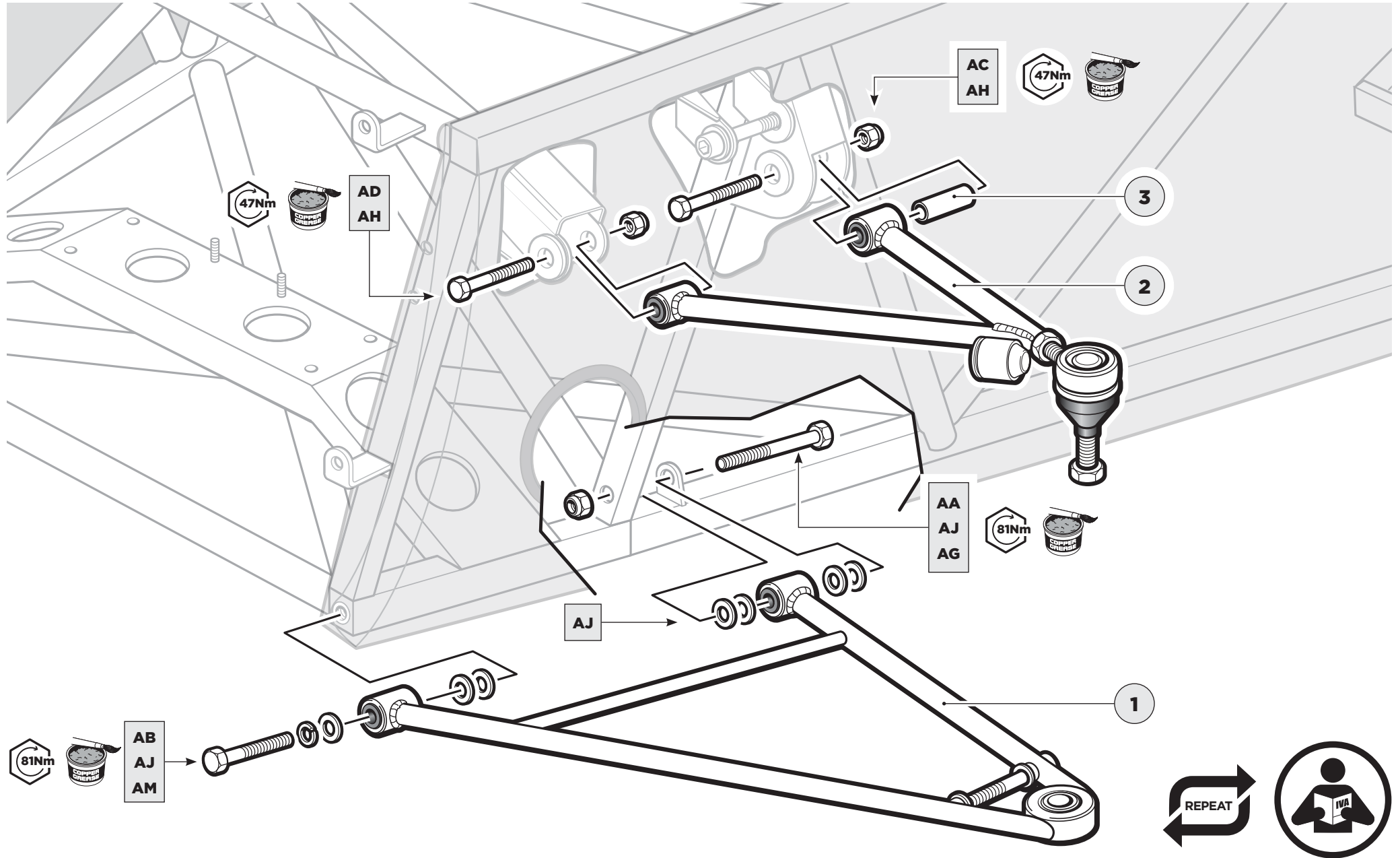
The big washers are chamfered and the chamfered side should be towards the wishbone.

Alex H

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

John K

START WITH THE SUSPENSION WISHBONES

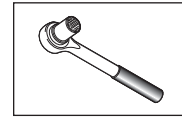


NOW FOR THE STEERING RACK

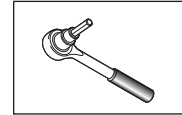
PARTS

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

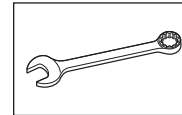
TOOLS



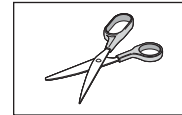
10mm
13mm



5mm



13mm
22mm
3/4"



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 | Clamp Rod M6 x 70 DR112 | BMCHEX70 | 4 | Rack clamps | |
| 2 | Ball 12 x 12 | BP1401.12 | 2 | Column clamp | |
| 3 | Ball M6 x 25 Green 8.8 | BMSX35 | 2 | Column to rack universal joint | |
| 4 | Plain Nut 12 Self Locking | NP1212 | 1 | Steering wheel base | |
| 5 | Plain Nut 12 | NP1212 | 2 | Track rod lock nut | |
| 6 | Plain Nut 12 Self Locking | NP1212.1 | 1 | Column clamp Subscrew locknut | |
| 7 | Nylon Nut M6 | NM7F8 | 2 | Column to rack universal joint | |
| 8 | Nylon Nut M6 | NM7F6 | 4 | Steering rack clamps | |
| 9 | Plain Washer 12 x 12 DR112 | WP1212 | 1 | Steering wheel base | |
| 10 | Plain Washer 12 Heavy Duty | WP1214 | 6 | Rack clamps and column clamp | |
| 11 | Safety Washer Heavy Duty | WS1214 | 2 | Column clamp | |

x4

x2

x2

x2

x4

x4

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

TIPS

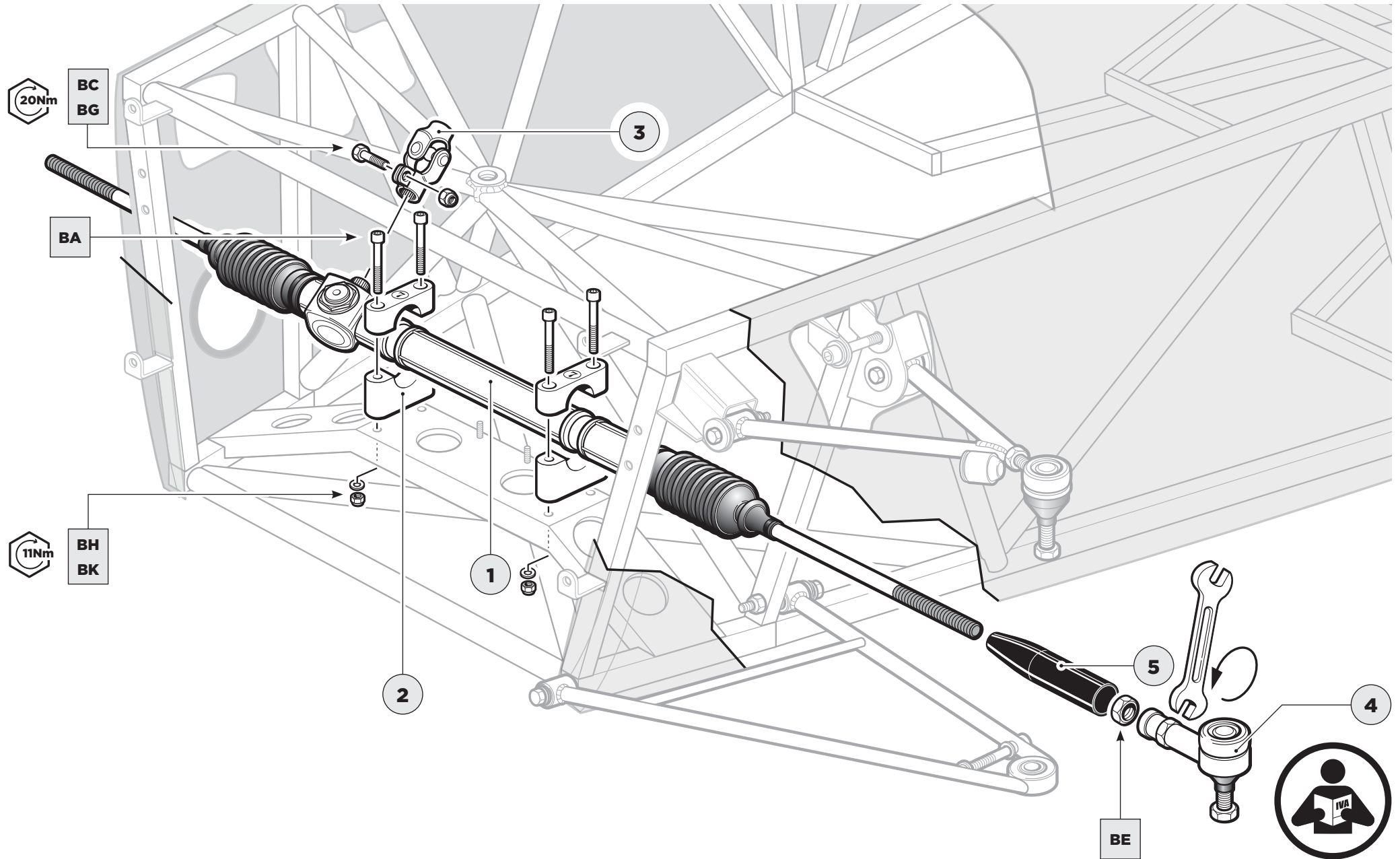
Finding the right IVA cover isn't obvious because it is effectively a long cap. To use it, you cut the closed end off.

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

NOW FOR THE STEERING RACK

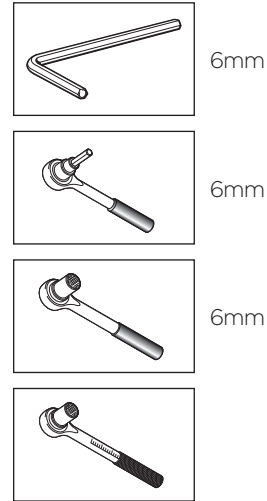


AND THEN THE DAMPERS

PARTS

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

TOOLS



FIXINGS

| Pack A | | CATERHAM | | 44 | |
|--|---|-----------------|-----|---|--------------|
| | | PACK NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball M12 x 100 Chrome 10.9 | 8M12100 | 2 | Lower wishbone rear | |
| 2 | Ball M12 x 60 Chrome 10.9 | 8M12060 | 2 | Lower wishbone front | |
| 3 | Ball M12 x 60 Chrome 10.9 | 8M12060 | 2 | Upper wishbone rear | |
| 4 | Ball M12 x 60 Chrome 10.9 | 8M12060 | 2 | Upper wishbone front | |
| 5 | Ball M8 x 40 Chrome 10.9 | 8M0840 | 4 | Anti-roll bar mounting brackets | |
| 6 | Flan 10x 10x14 x 1.5 Thread | 8M0914 | 1 | Temporary use to temporarily lock upper wishbone ball joint | |
| 7 | Nylon Nut M12 | 8M0712 | 2 | Lower wishbone rear | |
| 8 | Nylon Nut M10 | 8M0710 | 4 | Upper wishbone | |
| 9 | Flan Wishbone M12 Chrome 10.9 | 8M0812 | 18 | Lower wishbone | |
| 10 | Flan Wishbone M8 Chrome 10.9 | 8M0808 | 4 | Anti-roll bar mounting brackets | |
| 11 | Flan Wishbone 1/2" x 1/2" Chrome 10.9 | 8M0808 | 2 | Brake pipe | |

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

| Pack A | | CATERHAM | | 44 | |
|--|------------------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Spring Washer M12 | 8M0812 | 2 | Lower wishbone rear | |
| 13 | Spring Washer M8 | 8M0808 | 6 | Anti-roll bar mounting brackets & upper damper mount | |
| 14 | Washer 1/2" Brake pipe | 8M0808 | 2 | Brake pipe | |
| 15 | Nylon Nut 1/2" Brake pipe | 8M0710 | 2 | Wing stay | |
| 16 | Nylon Nut 1/2" Brake pipe | 8M0710 | 2 | Front brake, spring mounting (old track rod) | |

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

TIPS

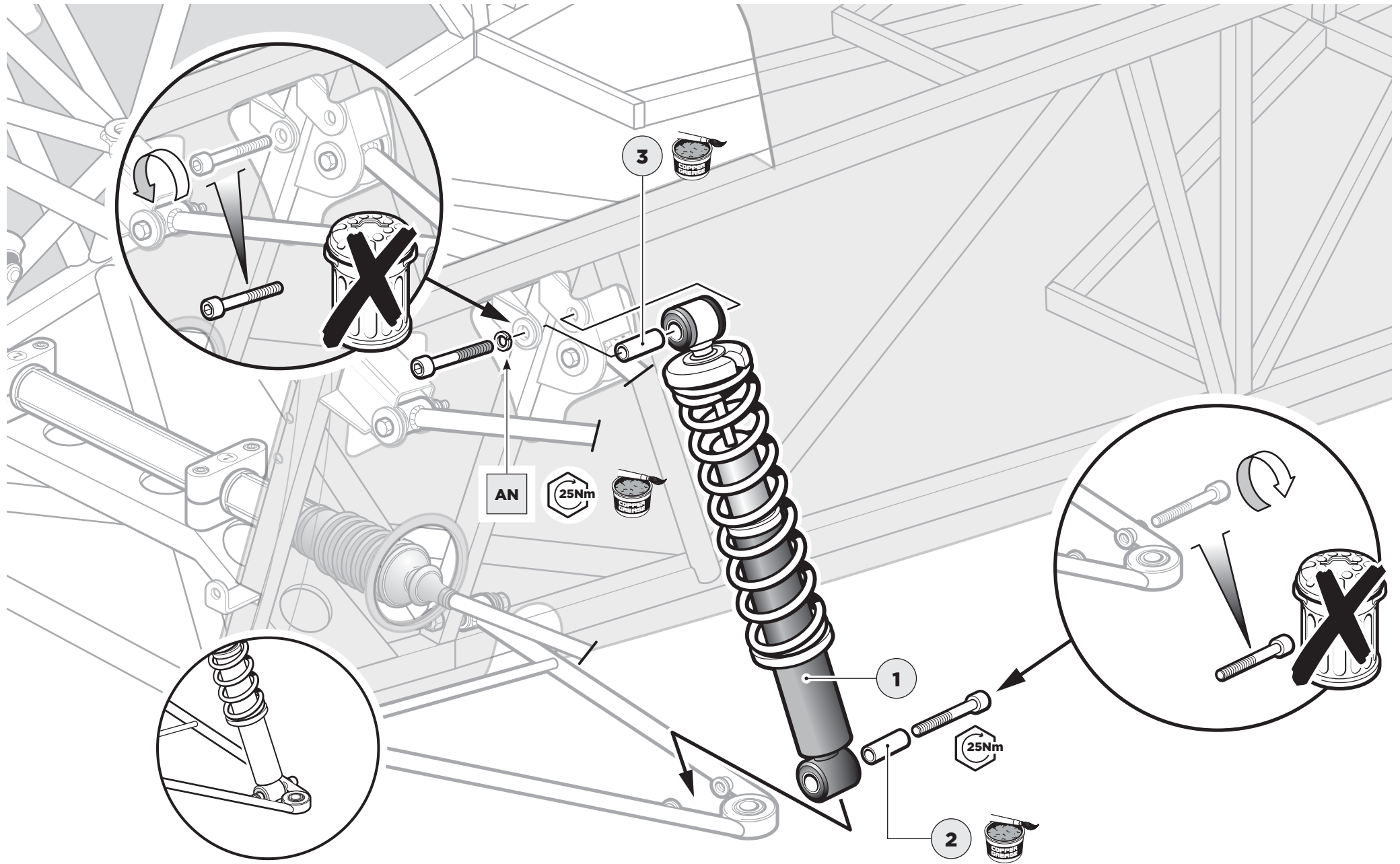
Put the top of the damper on first and be careful not to let it swing into the side of the chassis.

Grant P

The bottom can be a tight fit!

Mick F

AND THEN THE DAMPERS

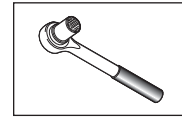


IT'S TIME FOR THE WINGSTAYS

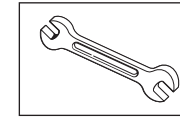
PARTS

- 1 Wingstay
- 2 Front brake & upright assembly

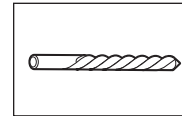
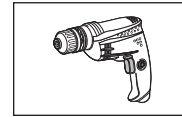
TOOLS



19mm
22mm
3/4"



22mm



1/8"



FIXINGS

| Pack A | | CATERHAM | | 44 | |
|--|-----------------------------------|-----------------|-----|--|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball MJ2 x 65 (Metric 65) | BM22100 | 2 | Lower wishbone rear | |
| 2 | Ball MJ2 x 65 (Metric 65) | BM22090 | 2 | Lower wishbone front | |
| 3 | Ball MJ2 x 65 (Metric 65) | BM22080 | 2 | Upper wishbone rear | |
| 4 | Ball MJ2 x 65 (Metric 65) | BM22070 | 2 | Upper wishbone front | |
| 5 | Ball MJ x 65 (Metric 65) | BM22060 | 4 | Anti-roll bar mounting brackets | |
| 6 | Plain Nut M14 x 1.5 Thread | NM1414 | 1 | Temporary use to help lock upper wishbone ball joint | |
| 7 | Nylon Nut M12 | NM1212 | 2 | Lower wishbone rear | |
| 8 | Nylon Nut M10 | NM1010 | 4 | Upper wishbone | |
| 9 | Plain Washer M12 (Metric) | WP1212 | 18 | Lower wishbone | |
| 10 | Plain Washer M8 (Metric) | WP0808 | 4 | Anti-roll bar mounting brackets | |
| 11 | Plain Washer 1/2" x 1/2" (Metric) | WP1208 | 2 | Brake pipe | |

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

| Pack A | | CATERHAM | | 44 | |
|--|-----------------------------------|-----------------|-----|--|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Spring Washer M12 | WSM1212 | 2 | Lower wishbone rear | |
| 13 | Spring Washer M8 | WSM0808 | 6 | Anti-roll bar mounting brackets & upper damper mount | |
| 14 | Plain Washer 1/2" x 1/2" (Metric) | WP1208 | 2 | Brake pipe | |
| 15 | Nylon Nut 1/2" (Metric) | NM1212 | 2 | Wing stay | |
| 16 | Nylon Nut 1/2" (Metric) | NM1212 | 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

TIPS

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

Tiago O

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

John S

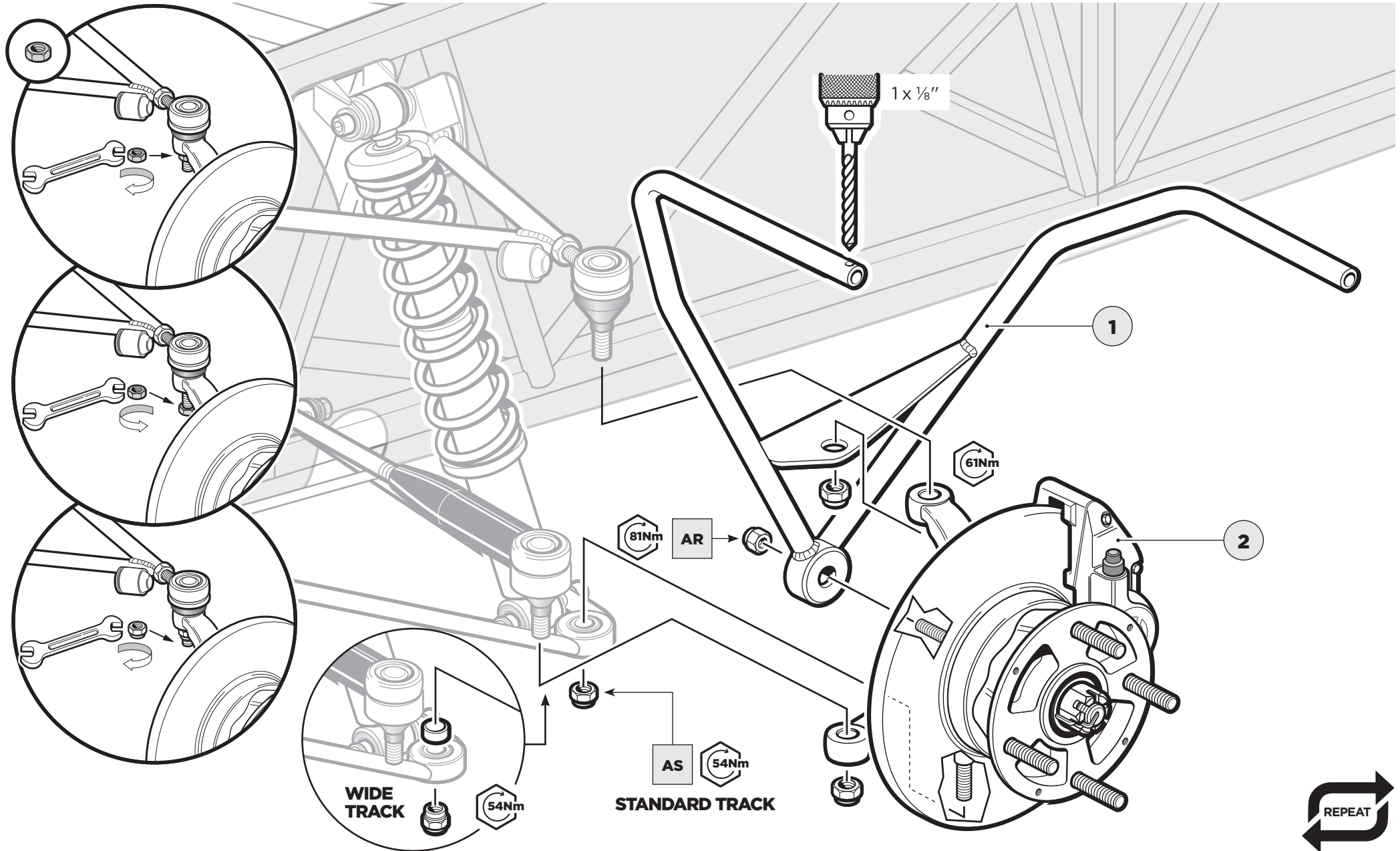
Use the plain nut to pull the top ball joint home before using a nyloc, otherwise the thread will spin.

Chris N

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

IT'S TIME FOR THE WINGSTAYS





Now is a good time to take some photos



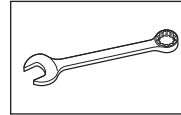
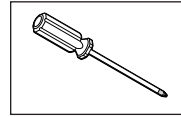
Have you applied for your IVA yet?

LET THERE BE LIGHTS

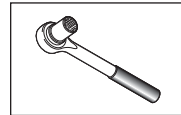
PARTS

- 1 Headlight assembly
- 2 Indicator pod
- 3 Indicator assembly
- 4 Headlight bracket

TOOLS



17mm
24mm



17mm

FIXINGS

| Pack C | | CATERHAM | | 45 | |
|------------------|-----------------------------|-------------|-----|---|--------------|
| LIGHTING & HORNS | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Screw 10 x 1" (flat head) | F1080 | 6 | Indicator assembly to indicator pod | |
| 2 | Screw 8 x 1" (flat head) | F1071 | 2 | Side regulator earth on wing/body | |
| 3 | Screw 12 x 1/2" (flat head) | F1072 | 4 | Rear light cluster upper fixing | |
| 4 | Screw 12 x 1/2" (flat head) | F1073 | 4 | Rear light cluster lower fixing | |
| 5 | Wash Hex 10 | H0176 | 2 | Horn bracket to mounting rack platform (1602/1702/19) | |
| 6 | Wash Washer 10 | W0176 | 2 | Horn bracket to mounting rack platform (1602/1702/19) | |
| 7 | Ball 10 x 10 (steel 1.2) | B0010 | 1 | Through steering rack platform & spacer (1602) | |
| 8 | Wash Washer 10 | W0176 | 2 | Ball Head/hut | |
| 9 | Wash Hex 10 | H0176 | 1 | Horn base | |

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

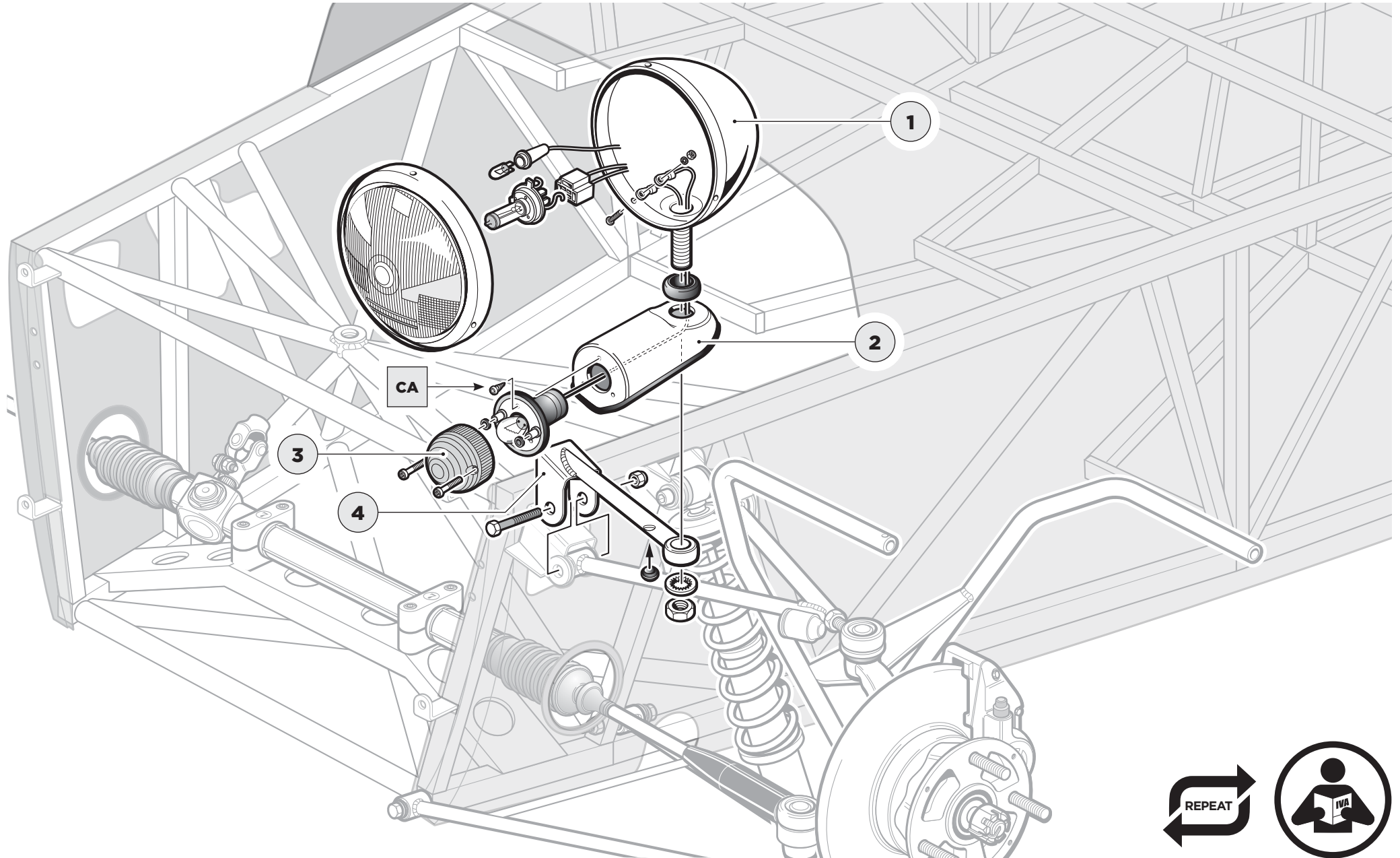
x6

TIPS

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

Jamie A

LET THERE BE LIGHTS

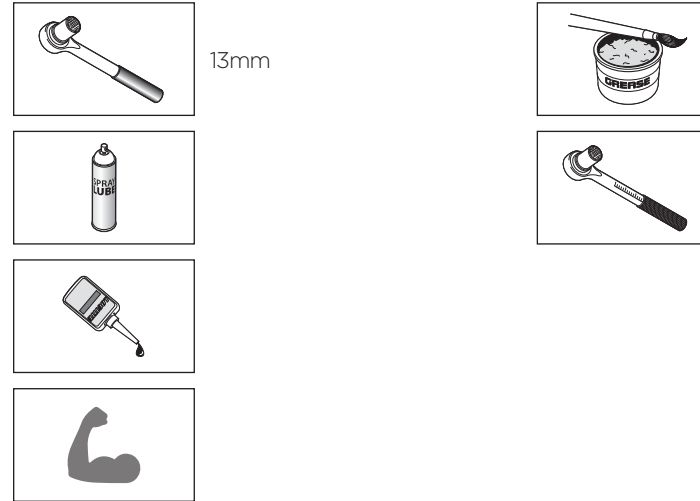


LAST PART OF THE FRONT SUSPENSION: CONNECTING THE TWO SIDES TOGETHER

PARTS

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

TOOLS



FIXINGS

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|-----------------------------------|-------------|-----|--|--------------|
| 1 | Ball MJ2 x 40 (Metric) | BM12100 | 2 | Lower wishbone rear | |
| 2 | Ball MJ2 x 40 (Metric) | BM12000 | 2 | Lower wishbone front | |
| 3 | Ball MJ2 x 40 (Metric) | BM12040 | 2 | Upper wishbone rear | |
| 4 | Ball MJ2 x 40 (Metric) | BM12000 | 2 | Upper wishbone front | |
| 5 | Ball M6 x 40 (Metric) | BM640 | 4 | Anti-roll bar mounting brackets | |
| 6 | Plain Nut M14 x 1.5 Thread | BNM14 | 1 | Temporary use to help lock upper wishbone ball joint | |
| 7 | Nylon Nut M12 | BNM12 | 2 | Lower wishbone rear | |
| 8 | Nylon Nut M10 | BNM10 | 4 | Upper wishbone | |
| 9 | Plain Washer M12 (Metric) | WPM12 | 18 | Lower wishbone | |
| 10 | Plain Washer M8 Heavy Duty | WPM8 | 4 | Anti-roll bar mounting brackets | |
| 11 | Plain Washer 1/2" x 1/2" (Metric) | WPM16 | 2 | Brake pads | |

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

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|-------------------------|-------------|-----|--|--------------|
| 12 | Spring Washer M8 | WSM8 | 2 | Lower wishbone rear | |
| 13 | Spring Washer M8 | WSM8 | 6 | Anti-roll bar mounting brackets & upper damper mount | |
| 14 | Washer 1/2" (Metric) | WSM16 | 2 | Brake pads | |
| 15 | Nylon Nut 1/2" (Metric) | BNM16 | 2 | Wing nut | |
| 16 | Nylon Nut 1/2" (Metric) | BNM16 | 2 | Front brake, spring mounting (old track pads) | |

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

x4

x4

x4

TIPS

Use four small cable ties to secure the dust cover.

Mick F

Grease the balls and cups generously.

Matt T

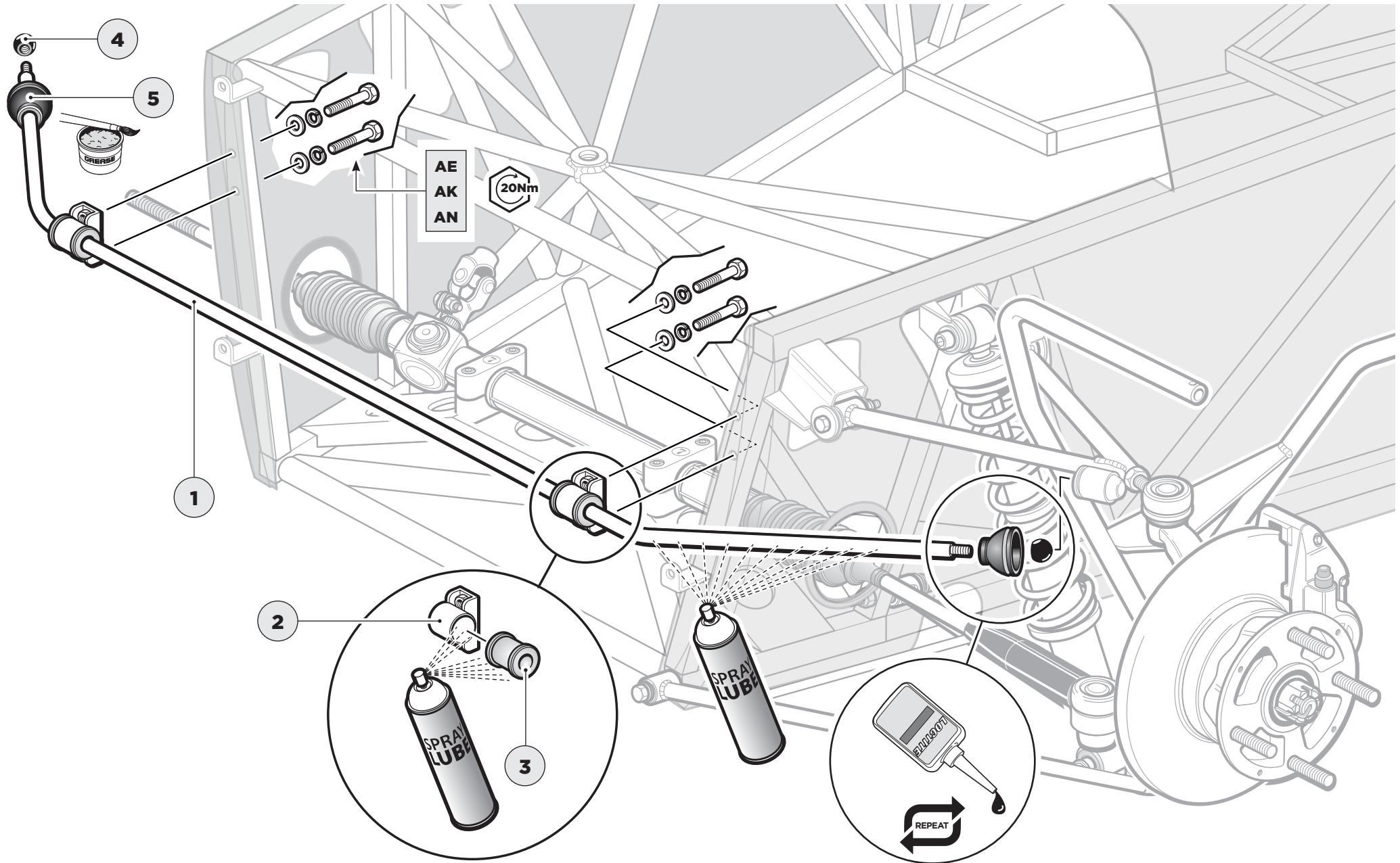
Getting the assembled anti-roll bar fully into both cups on the upper wishbone can be a bit of a fight. It's made of springy stuff, so don't worry that you are bending it.

Jamie A

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

John K

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

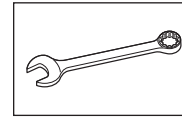


FITTING THE BRAKE HOSES

PARTS

1 Brake hose

TOOLS



13mm (x2)
9/16"

FIXINGS

| Pack A | | CATERHAM | | 44 | |
|--|---|-----------------|-----|---|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | AA Bolt M12 x 100 Hex Hd | BA122100 | 2 | Lower wishbone rear | |
| 2 | AE Bolt M12 x 60 Hex Hd | BA120060 | 2 | Lower wishbone front | |
| 3 | AC Bolt M12 x 60 Hex Hd | BA120060 | 2 | Upper wishbone rear | |
| 4 | AD Bolt M12 x 60 Hex Hd | BA120060 | 2 | Upper wishbone front | |
| 5 | AE Bolt M8 x 40 Hex Hd | BA080040 | 4 | Anti-roll bar mounting brackets | |
| 6 | AP Flan N°1 M14 x 1.5 Thread | WP0114 | 1 | Temporary use to fit the lock upper wishbone ball joint | |
| 7 | AG Nylon Nut M12 | BA0112 | 2 | Lower wishbone rear | |
| 8 | AM Nylon Nut M12 | BA0112 | 4 | Upper wishbone | |
| 9 | AJ Flan Washer M12 Oval/Hex | WP0212 | 18 | Lower wishbone | |
| 10 | AK Flan Washer M8 Hex Hd | WP0308 | 4 | Anti-roll bar mounting brackets | |
| 11 | AL Flan Washer 1/2" x 1/2" Hex Hd | WP0308 | 2 | Brake pipe | |

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

| Pack A | | CATERHAM | | 44 | |
|--|-----------------------------|-----------------|-----|--|--------------|
| | | PART NUMBER | | 30F015B | |
| FRONT SUSPENSION DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | AM Spring Washer M12 | WP0412 | 2 | Lower wishbone front | |
| 13 | AN Spring Washer M8 | WP0408 | 6 | Anti-roll bar mounting brackets & upper damper rod ends | |
| 14 | AP Washer 1/2" Hex Hd | WP0308 | 2 | Brake pipe | |
| 15 | AA Nylon Nut 1/2" Hex Hd | BA0112 | 2 | Wing stay | |
| 16 | AB Nylon Nut 1/2" Hex Hd | BA0112 | 2 | Front brake, spring mounting (not track rod) | |

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

x2

x2

TIPS

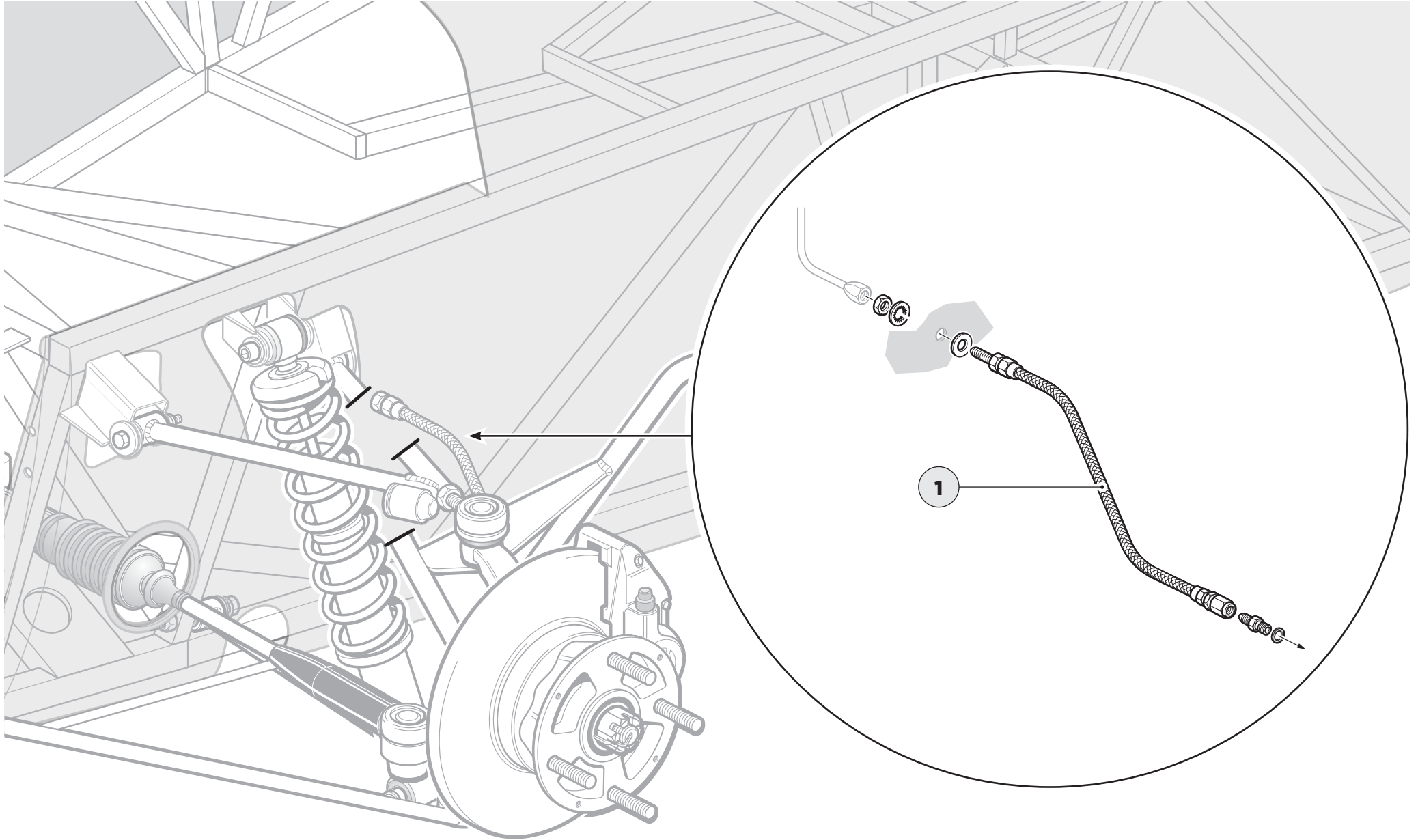
The hose will want to curve once fitted. Make sure the curve points towards the front of the car.

Khalfani D

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

Anthony L

FITTING THE BRAKE HOSES

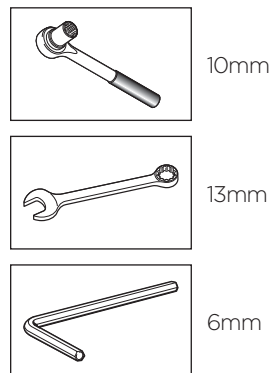


LET'S MAKE SOME NOISE

PARTS

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

TOOLS

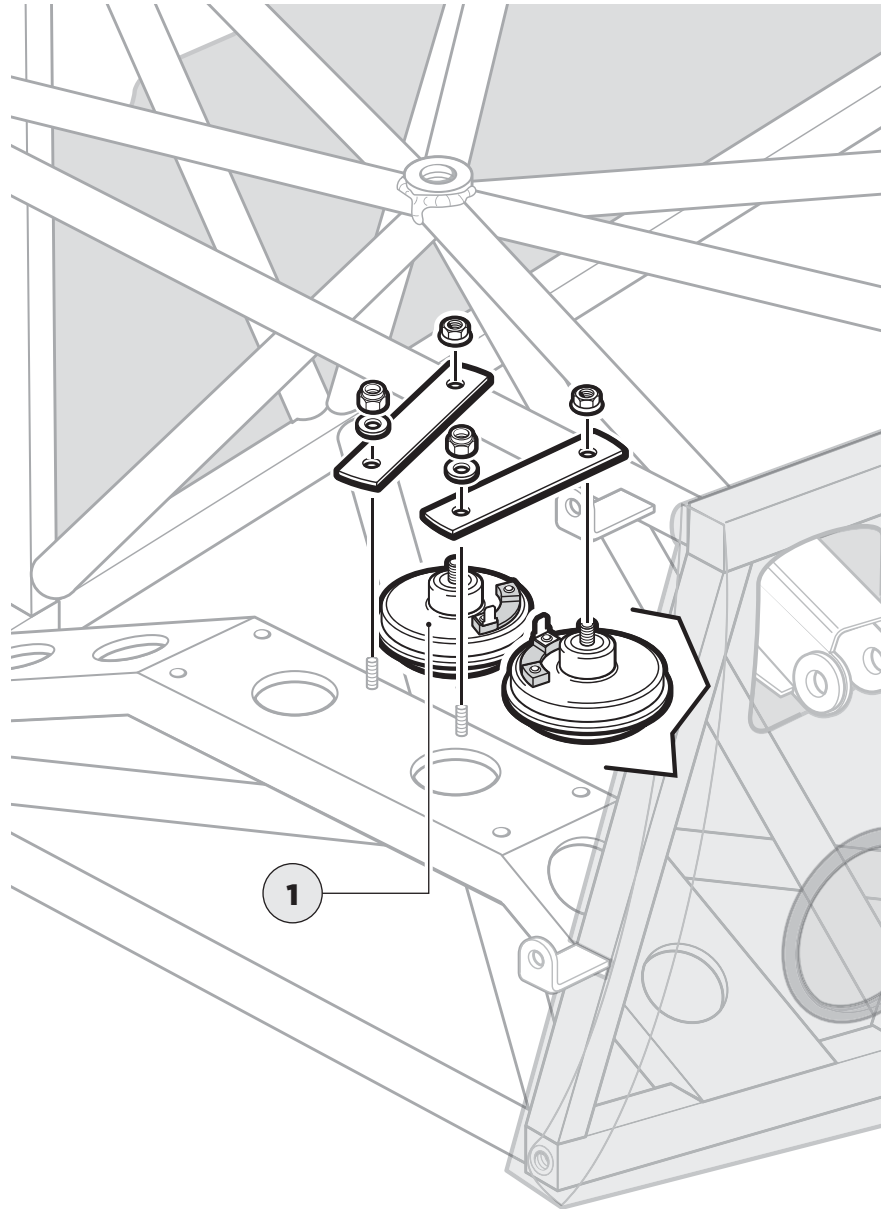


FIXINGS

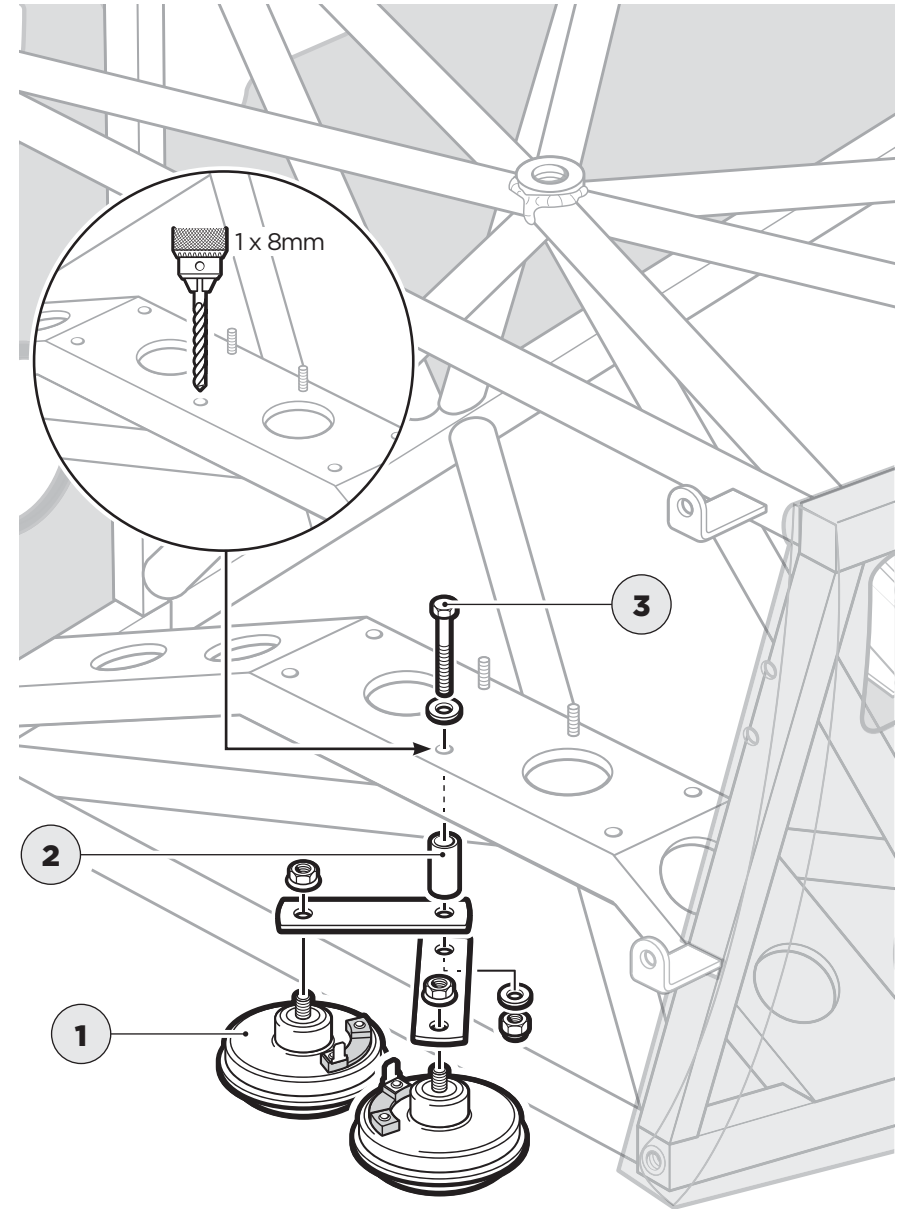
Miscellaneous box

TIPS

270/310/360



420

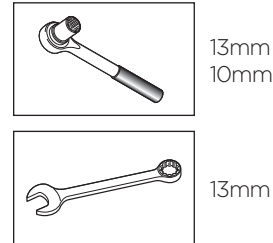


FITTING THE RADIATOR ON THE STANDARD CHASSIS

PARTS

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

TOOLS



FIXINGS

| Pack D | | CATERHAM | | 44 | |
|---|-------------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | SIZES/TS | |
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball MS 2.0 Hex 2.0 | 888A02 | 1 | Expansion tank bracket to chassis | |
| 2 | Ball MS 2.0 Hex 2.0 | 888A02 | 1 | Expansion tank to bracket | |
| 3 | Ball MS 2.0 Hex 2.0 | 888A02 | 4 | SM radiator bracket | |
| 4 | Ball MS X 16 with square section | 802102A | 4 | Fan brackets to fan | |
| 5 | Ball MS X 16 with square section | 802102A | 4 | Fan to radiator mounting - 20 (top) | |
| 6 | Hyloc Nut M8 | NMPF6 | 8 | 4x Fan to radiator bracket | |
| 7 | Plain Nut M8 | NMPF8 | 8 | Radiator bobbin | |
| 8 | Hyloc Nut 1/2" | WPH14 | 1 | Expansion tank bracket | |
| 9 | Plain Washer 1/2" Heavy Duty | WPH14 | 13 | 8 x SV rad bracket 4 x Fan fixings 1 x Expansion tank bracket | |
| 10 | Plain Washer 1/2" Heavy Duty | WPH16 | 4 | Radiator bobbin back | |
| 11 | Plain Washer 1/2" x 1/4" Heavy Duty | WPH17A2B | 4 | Radiator bobbin front | |

| Pack D | | CATERHAM | | 44 | |
|---|-------------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | SIZES/TS | |
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Plain Washer 1/2" x 1/4" Heavy Duty | WPH17A2B | 1 | Expansion tank bracket | |
| 13 | Spring Washer 5/16" Heavy Duty | WSPH11 | 9 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Hex Cap 1/2" | 501701-40 | 6 | 2 x 1/2" engine bracket 2 x 1/2" radiator hose 2 x 1/2" radiator hose | |
| 15 | Hex Cap 1/2" | 501701-20 | 2 | 1 x Engine outlet to top of frame 1 x Engine outlet to motor (top) | |
| 16 | Hex Cap 1/2" | 501701-20 | 18 | 2 x 1/2" engine bracket 2 x 1/2" radiator hose 2 x 1/2" radiator hose | |
| 17 | Hex Cap 1/2" | 501701-20 | 6 | Expansion tank small T piece | |
| 18 | Hex - Black 1/2" x 1/4" | 101701-0110 | 12 | Crossing cap | |

x8

x4

x4

x8

x4

x4

x4

TIPS

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

Vincent M

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

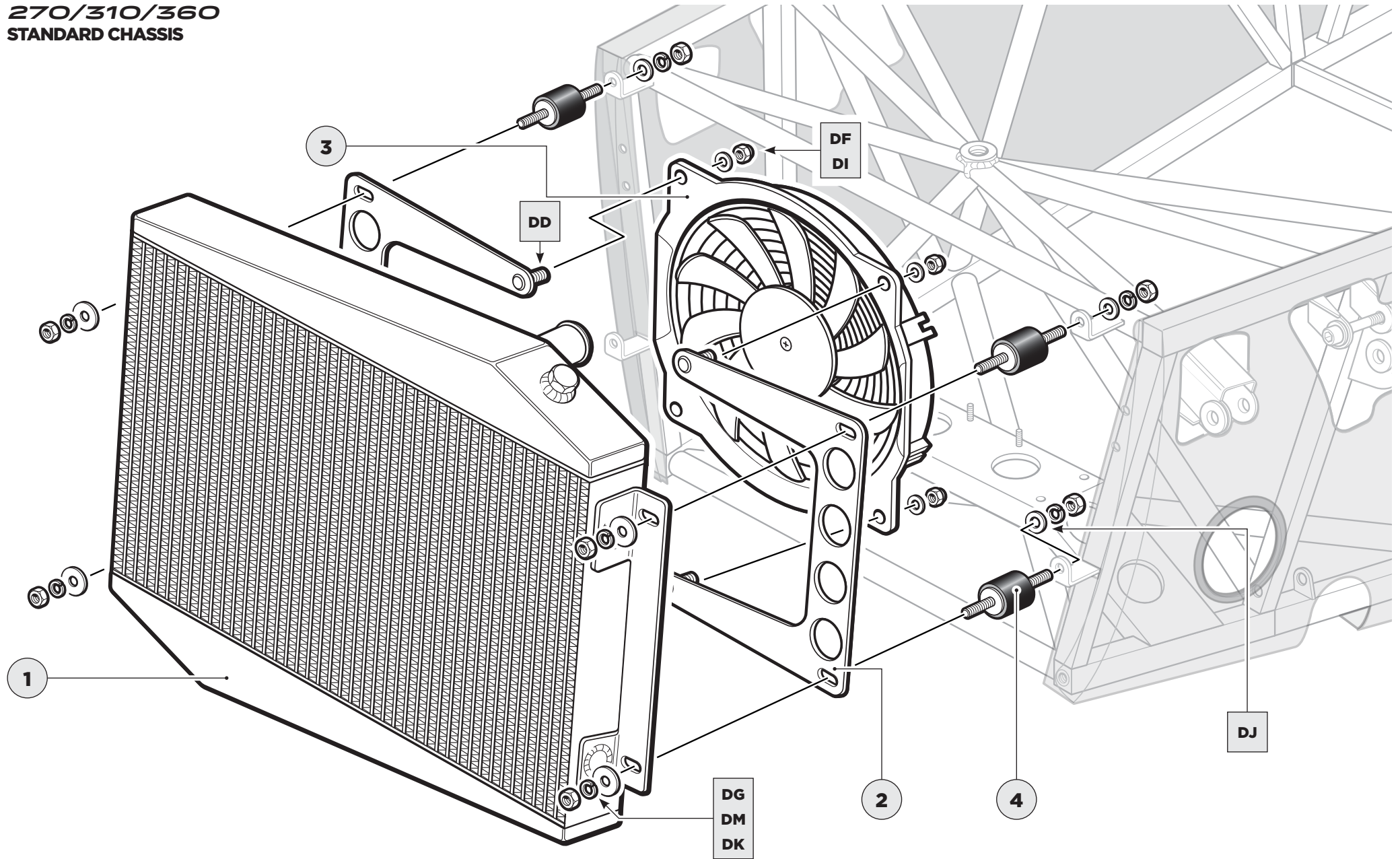
James S

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

Lloyd D

FITTING THE RADIATOR ON THE STANDARD CHASSIS

270/310/360
STANDARD CHASSIS

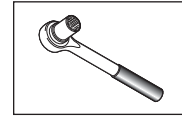


THE RADIATOR MOUNTING FOR THE WIDE-BODIED CHASSIS IS SLIGHTLY DIFFERENT

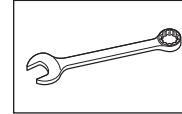
PARTS

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

TOOLS



13mm
10mm



10mm
13mm

FIXINGS

| Pack D | | CATERHAM | | 44 | |
|---|---------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | SECURITY | |
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | DA Nut M8 x 20 Hexclad | 888840 | 1 | Expansion tank bracket to chassis | |
| 2 | DB Washer 10 x 20 Hexclad | 887142/4 | 1 | Expansion tank to bracket | |
| 3 | DC Boltscrew M8x20 Grade 8.8 | 888820 | 4 | SV radiator bracket | |
| 4 | DD Nut M8 x 18 with Square neck | 887127/4 | 4 | Fan brackets to fan | |
| 5 | DE Boltscrew M8x20 Hexclad | 888820/10 | 4 | Fan to radiator mounting (2) (10) | |
| 6 | DF Nylon Nut M8 | 888795 | 8 | 4x Fan to radiator 4x SV radiator bracket | |
| 7 | DG Plain Nut M8 | 888795 | 8 | Radiator bobbin | |
| 8 | DH Nylon Nut 10 | 887114 | 1 | Expansion tank bracket | |
| 9 | DI Plain Washer 10 x 20 Hexclad | 887114 | 13 | 8 x SV rad bracket 4 x Fan bolings 1 x Expansion tank bracket | |
| 10 | DJ Plain Washer 10 x 20 Hexclad | 887114 | 4 | Radiator bobbin back | |
| 11 | DK Plain Washer 10 x 20 Hexclad | 888217/10 | 4 | Radiator bobbin back | |

x4

x4

x8

| Pack D | | CATERHAM | | 44 | |
|---|---------------------------------|-------------|-----|--|--------------|
| | | PACK NUMBER | | SECURITY | |
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | EL Plain Washer 10 x 20 Hexclad | 887114/10 | 1 | Expansion tank bracket | |
| 13 | EM Spring Washer 10 Hexclad | 888810/10 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | EN Hex Cap 10 Hexclad | 887120/40 | 6 | 2 x 4 Hexclad Hexclad nut 2 x 4 Expansion tank 2 x Radiator bobbin | |
| 15 | EO Hex Cap 10 Hexclad | 887120/30 | 2 | 1 x Engine outlet to top 1 frame 1 x Engine outlet to lower frame | |
| 16 | EP Hex Cap 10 Hexclad | 887120/25 | 18 | 6 Radiator bobbin 6 Fan Springs 6 Expansion tank 6 Fan Springs 6 Fan Springs | |
| 17 | ED Hex Cap 10 Hexclad | 887120/18 | 6 | Expansion tank small 6 piece | |
| 18 | ER Hex Bolt 10 x 20 Hexclad | 887120/10 | 12 | Cooling fan | |

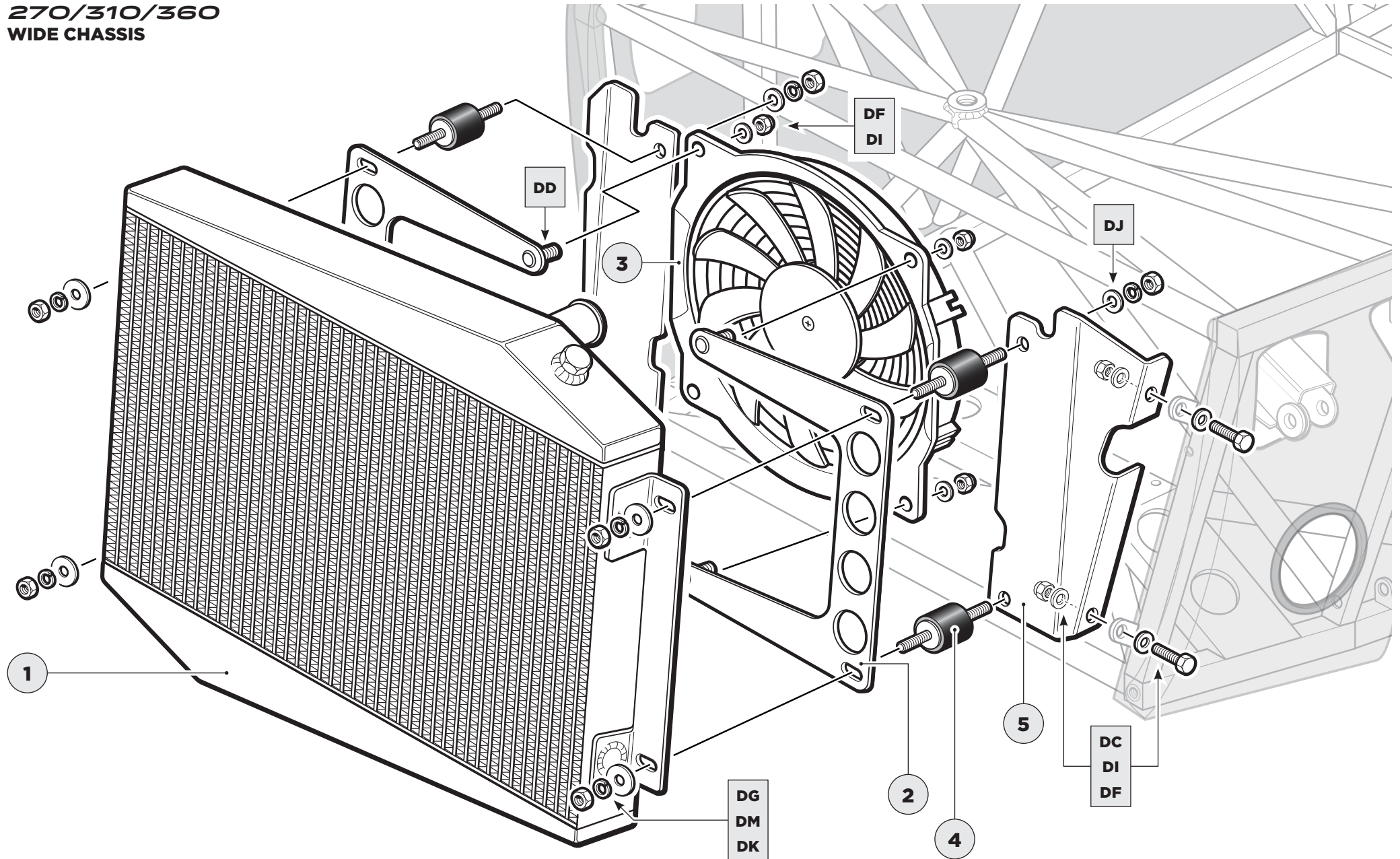
Drawings are for illustrative purposes only and are not to scale.

Page 1 of 2

TIPS

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

270/310/360
WIDE CHASSIS

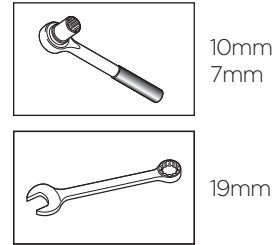


THINGS ARE HEATING UP

PARTS

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

TOOLS



FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|----------------------|-------------|-----|-----------------------------------|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | EA Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | DB Radiator Fan 2.0L | 888440 | 1 | Expansion tank to bracket | |
| 3 | DC Radiator Fan 2.0L | 888440 | 4 | SM radiator bracket | |
| 4 | DD Radiator Fan 2.0L | 888440 | 4 | Fan brackets to fan | |
| 5 | DE Radiator Fan 2.0L | 888440 | 4 | Fan to radiator coating - SV only | |
| 6 | DF Radiator Fan 2.0L | 888440 | 3 | 1st Fan to radiator | |
| 7 | DG Radiator Fan 2.0L | 888440 | 8 | Radiator bobbin | |
| 8 | DH Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket | |
| 9 | DI Radiator Fan 2.0L | 888440 | 13 | 1st & 2nd Fan brackets | |
| 10 | DJ Radiator Fan 2.0L | 888440 | 4 | Radiator bobbin back | |
| 11 | DK Radiator Fan 2.0L | 888440 | 4 | Radiator bobbin front | |

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

x2

| Pack D | | CATERHAM | | 44 | |
|--|----------------------|-------------|-----|------------------------------------|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | EL Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket | |
| 13 | EM Radiator Fan 2.0L | 888440 | 8 | 1st Radiator bobbin | |
| 14 | EN Radiator Fan 2.0L | 888440 | 6 | 2nd Radiator bobbin | |
| 15 | EO Radiator Fan 2.0L | 888440 | 2 | 1st Engine outlet to top of tank | |
| 16 | EP Radiator Fan 2.0L | 888440 | 18 | 1st Engine outlet to heater outlet | |
| 17 | EQ Radiator Fan 2.0L | 888440 | 6 | Expansion tank small T-piece | |
| 18 | ER Radiator Fan 2.0L | 888440 | 12 | Cooling fan | |

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

x4

TIPS

Remember to remove bungs from heater.

Jamie A

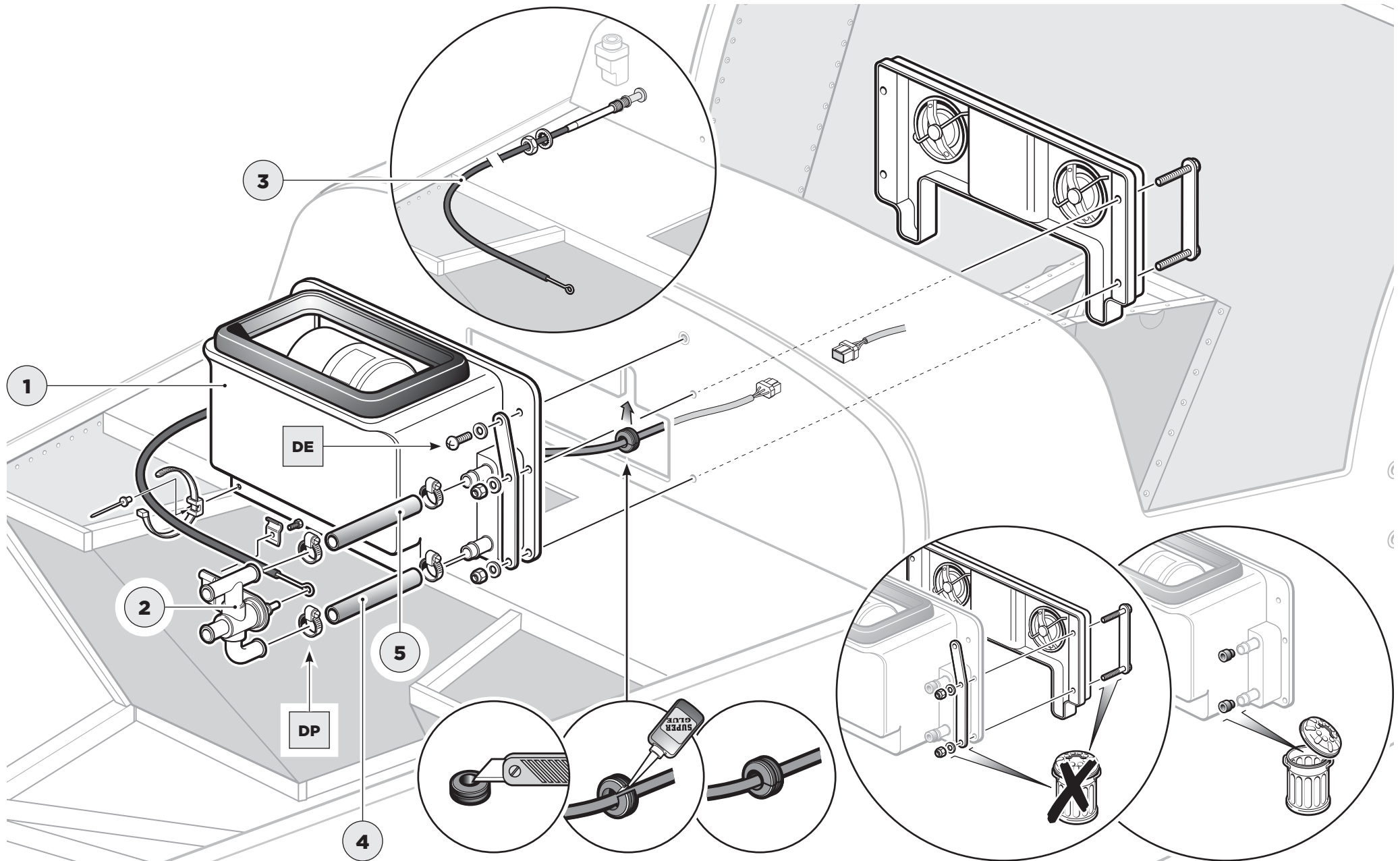
Use 7mm for jubilee clips but not too tight!

Chris B

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

John S

THINGS ARE HEATING UP

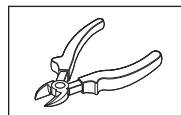
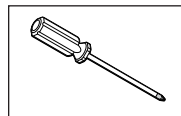


KEEPING THE AIR CLEAN

PARTS

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

TOOLS



8mm

FIXINGS

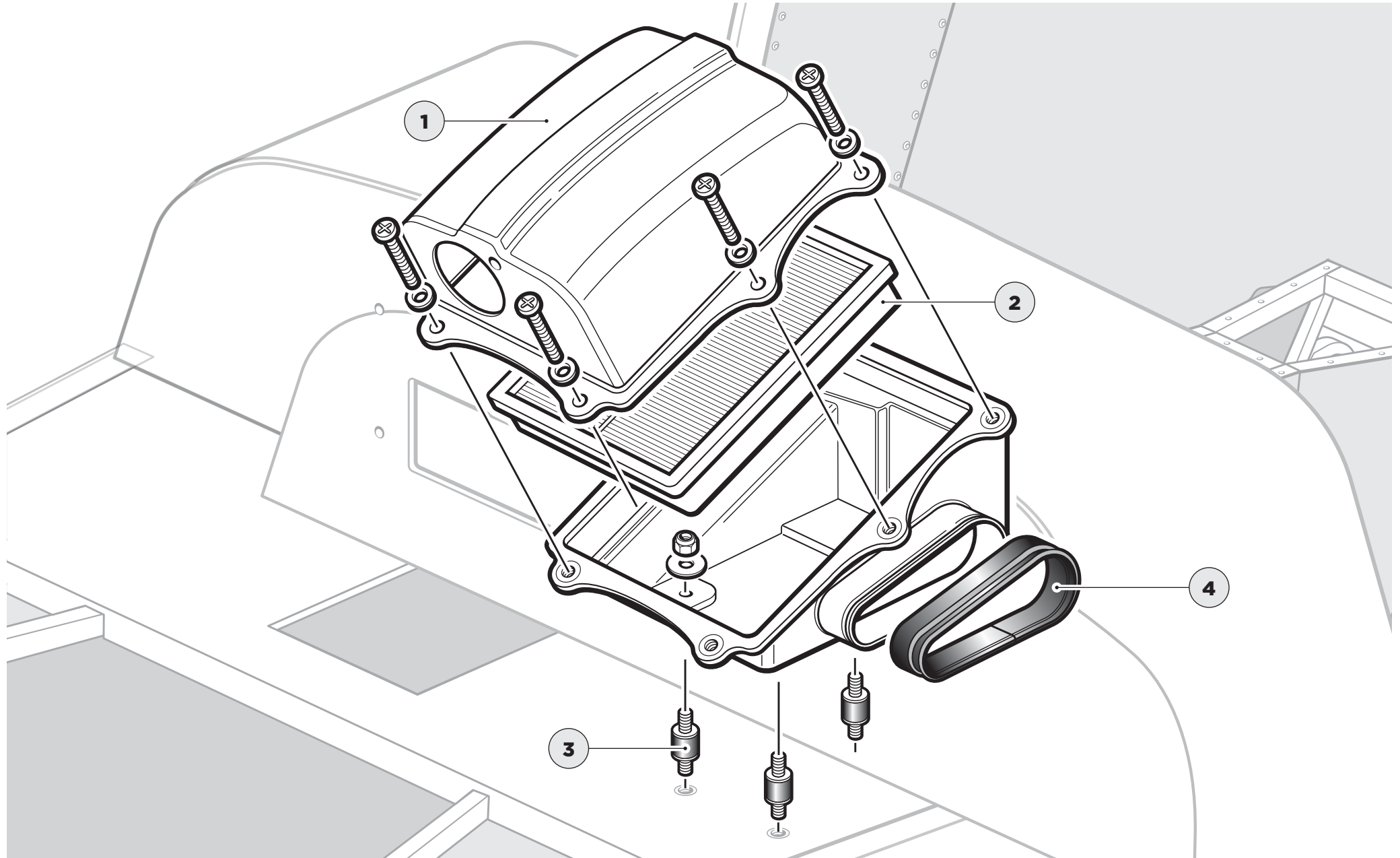
Unmarked bag:

- M5 (x6)
- Spring (x6)
- Flats (x6)
- Nylocs M5 (x3)
- $\frac{3}{16}$ washers (x3)
- $\frac{3}{4}$ washers (x3)
- Screws (x20)

TIPS

Bobbins are screwed into the car by hand.

John K

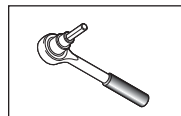


GETTING READY TO PUT THE ENGINE IN

PARTS

- 1 Engine mount
- 2 Starter motor
- 3 Bellhousing

TOOLS



6mm
8mm

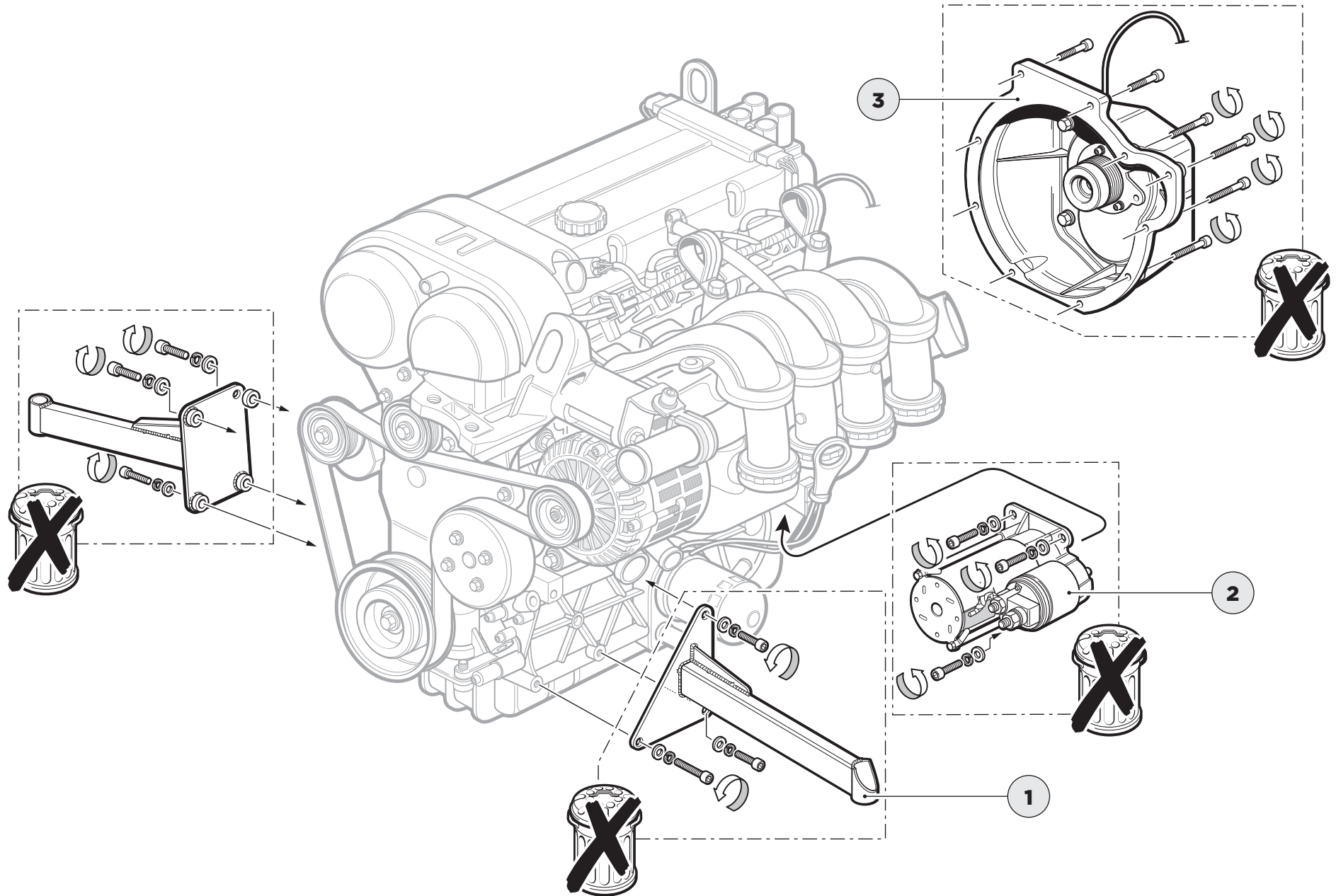
FIXINGS

TIPS

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

Chris N

GETTING READY TO PUT THE ENGINE IN

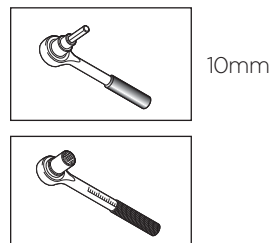


ATTACH THE GEARBOX TO THE BELLHOUSING

PARTS

- 1** Gearbox
- 2** Bell housing

TOOLS



FIXINGS

| Pack E | | CATERHAM | | Model number 66 |
|--|---|--------------------------------|-----|---|
| | | Part number 3E21105F | | |
| SIGMA GEARBOX 5 SPEED | | | | |
| This pack may include extra fasteners to cover different options | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON |
| 1 | Ball Bush 4.00 Grade 12.9 | 3E21120A | 2 | AV Mount |
| 2 | Cuphead Bolt M12 x 40 Grade 12.9 | 3E21121A | 4 | AV Mount |
| 3 | Cuphead Bolt M12 x 50 Grade 12.9 Cover Thread | 3E21142A | 4 | Gearbox |
| 4 | Cuphead Bolt M12 x 30 Grade 12.9 | 3E21120A | 4 | 1 x Bellhousing 3 x Starter Motor |
| 5 | Cuphead Bolt M12 x 30 Grade 12.9 | 3E21120A | 3 | Bellhousing |
| 6 | Cuphead Bolt M12 x 40 Grade 12.9 | 3E21121A | 3 | Bellhousing |
| 7 | Cuphead Bolt M12 x 30 Grade 12.9 | 3E21120A | 2 | Engine Mount RHS Top |
| 8 | Cuphead Bolt M8 x 20 Grade 12.9 | 3E21191C | 2 | Engine Mount 1 x LHS Top 1 x LHS Bottom |
| 9 | Cuphead Bolt M8 x 20 Grade 12.9 | 3E21191C | 1 | Engine Mount LHS Bottom |
| 10 | Cuphead Bolt M8 x 20 Grade 12.9 | 3E21191C | 2 | Engine Mount RHS Bottom |
| 11 | Cuphead Bolt M8 x 20 Grade 12.9 | 3E21191C | 3 | Clutch Slave Cylinder |

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

x4

| Pack E | | CATERHAM | | Model number 66 |
|--|----------------------------------|--------------------------------|-----|-----------------------------------|
| | | Part number 3E21105F | | |
| SIGMA GEARBOX 5 SPEED | | | | |
| This pack may include extra fasteners to cover different options | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON |
| 12 | Backward Bolt M8 x 20 Grade 12.9 | 3E21120A | 1 | Gear Lever |
| 13 | Plan Washer 8x12 | 3E21121A | 2 | AV Mount |
| 14 | Plan Washer M12 | 3E22031A | 4 | Gearbox |
| 15 | Plan Washer 8x12 | 3E21121A | 3 | Gear Lever |
| 16 | Plan Washer 8x12 | 3E21121A | 3 | AV Mount |
| 17 | Spring Washer M12 | W58M12 | 4 | Gearbox |
| 18 | Spring Washer M12 | W58M12 | 10 | 1 x Bellhousing 3 Engine Mount |
| 19 | Plan Washer 8x12 | W58M12 | 3 | Starter Motor |
| 20 | Spring Washer M8 | W58M8 | 3 | Engine Mount |
| 21 | Spring Washer M8 | W58M8 | 3 | Clutch Slave Cylinder |
| 22 | Wash Nut M8 | W58M8 | 4 | AV Mount |
| 23 | Spring Washer M12 | 3E22032A | 2 | AV Mount |

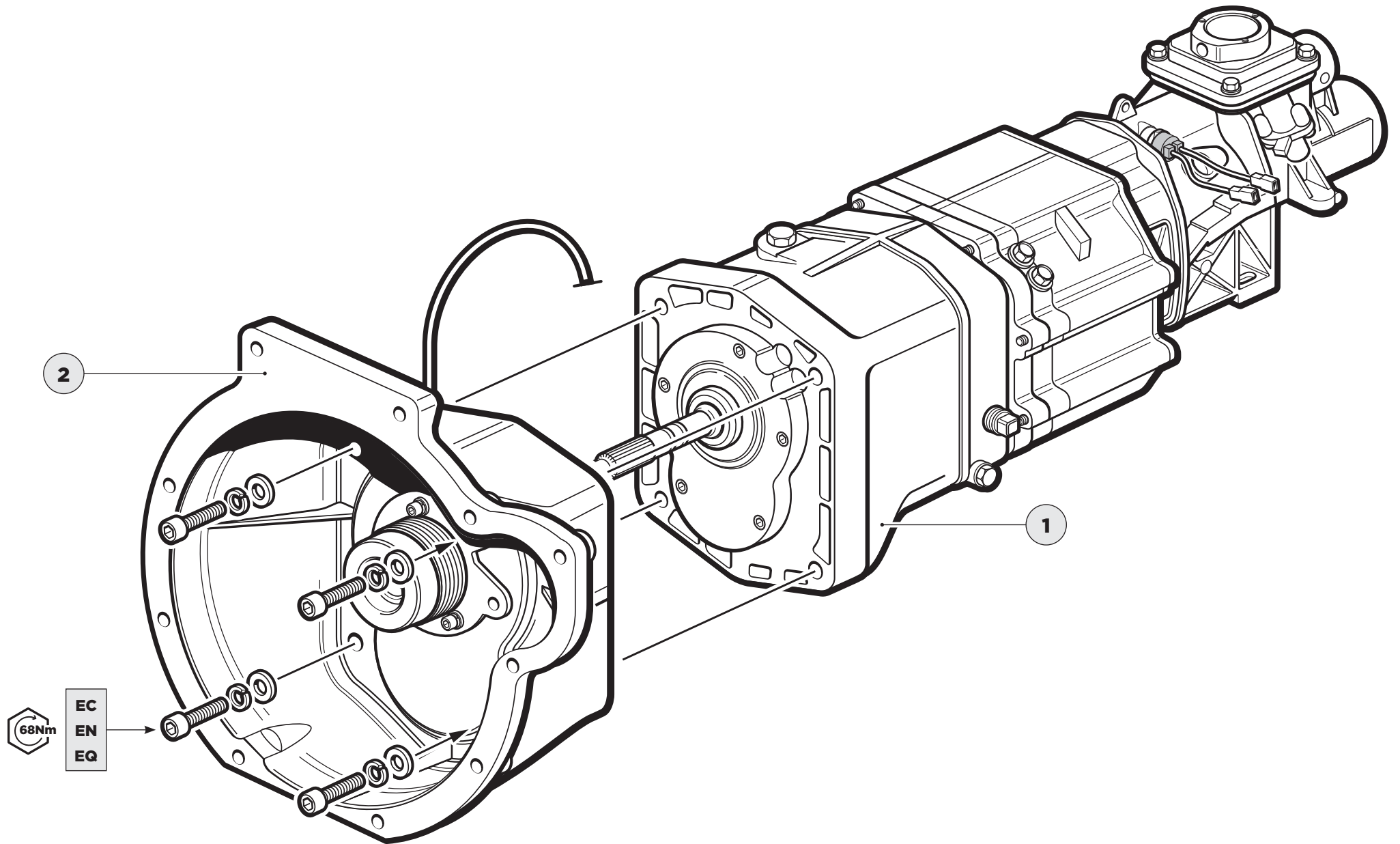
Drawings are for illustrative purposes only and are not to scale. Page 2 of 2

x4

x4

TIPS

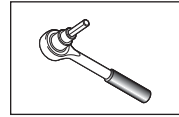
ATTACH THE GEARBOX TO THE BELLHOUSING



AND THEN THE GEARBOX TO THE ENGINE

PARTS

TOOLS



8mm



FIXINGS

TIPS

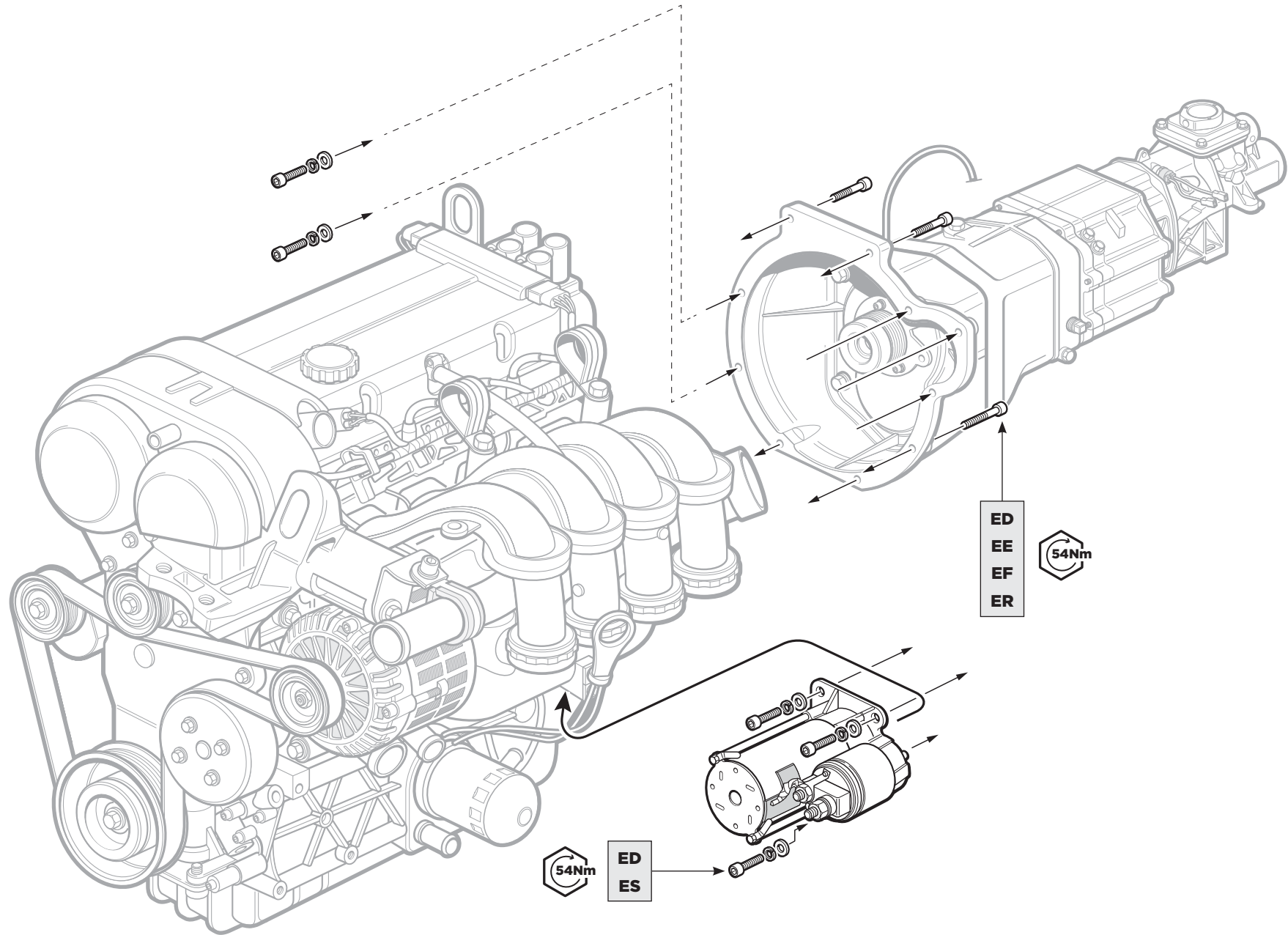
| Pack E | | CATERHAM | | 66 | |
|--|---|-------------|-----|---|--------------|
| | | PART NUMBER | | 3E21105F | |
| SIGMA GEARBOX 5 SPEED | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | EA Bell Bolt 2.00 Grade 12.9 | 3E21105A | 2 | AV Mount | |
| 2 | EB Clutch Bolt M6 x 40 Grade 12.9 | 3E21105A | 4 | AV Mount | |
| 3 | EC Clutch Bolt M10 x 55 Grade 12.9 (Clutch Cover) | 3E21105A | 4 | Gearbox | |
| 4 | ED Clutch Bolt M10 x 60 Grade 12.9 | 3E21105B | 4 | 1 x Bellhousing 3 x Starter Motor | |
| 5 | EE Clutch Bolt M10 x 55 Grade 12.9 | 3E21105B | 3 | Bellhousing | |
| 6 | EF Clutch Bolt M10 x 60 Grade 12.9 | 3E21105C | 3 | Bellhousing | |
| 7 | EG Clutch Bolt M6 x 20 Grade 12.9 | 3E21105D | 2 | Engine Mount RHS Top | |
| 8 | EH Clutch Bolt M6 x 20 Grade 12.9 | 3E21105D | 2 | Engine Mount 1 x LHS Top 1 x LHS Bottom | |
| 9 | EI Clutch Bolt M6 x 20 Grade 12.9 | 3E21105D | 1 | Engine Mount LHS Bottom | |
| 10 | EJ Clutch Bolt M6 x 20 Grade 12.9 | 3E21105D | 2 | Engine Mount RHS Bottom | |
| 11 | EK Clutch Bolt M6 x 20 Grade 12.9 | 3E21105D | 3 | Clutch Slave Cylinder | |

x1
x3
x3

| Pack E | | CATERHAM | | 66 | |
|--|-------------------------------------|-------------|-----|-----------------------------------|--------------|
| | | PART NUMBER | | 3E21105F | |
| SIGMA GEARBOX 5 SPEED | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | EL Backward Bolt M6 x 20 Grade 12.9 | 3E21105A | 1 | Clutch Lever | |
| 13 | EM Plain Washer M6 | 3E21105A | 2 | AV Mount | |
| 14 | EN Plain Washer M6 | 3E21105A | 4 | Gearbox | |
| 15 | EO Plain Washer M6 | 3E21105A | 1 | Clutch Lever | |
| 16 | EP Plain Washer M6 | 3E21105A | 3 | AV Mount | |
| 17 | EQ Spring Washer M6 | 3E21105A | 4 | Gearbox | |
| 18 | ER Spring Washer M10 | 3E21105B | 10 | 1 x Bellhousing 3 Engine Mount | |
| 19 | ES Plain Washer M10 | 3E21105B | 3 | Starter Motor | |
| 20 | ET Spring Washer M6 | 3E21105B | 1 | Engine Mount | |
| 21 | EU Spring Washer M6 | 3E21105B | 1 | Clutch Slave Cylinder | |
| 22 | EV Plain Nut M6 | 3E21105C | 4 | AV Mount | |
| 23 | EW Spring Washer M6 | 3E21105C | 2 | AV Mount | |

x7

AND THEN THE GEARBOX TO THE ENGINE

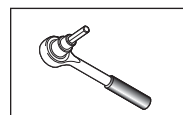


AT LAST, THE ENGINE IS GOING IN

PARTS

- 1 Engine mounts
- 2 Engine rubbers
- 3 Tensioner

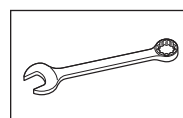
TOOLS



6mm
8mm
3/8"



13mm



13mm
15mm

FIXINGS

TIPS

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

Jamie A

It's 54Nm for the bolts tightened with the 8mm hex socket & 30Nm for the 6mm hex socket.

Grant P

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

Tiago O

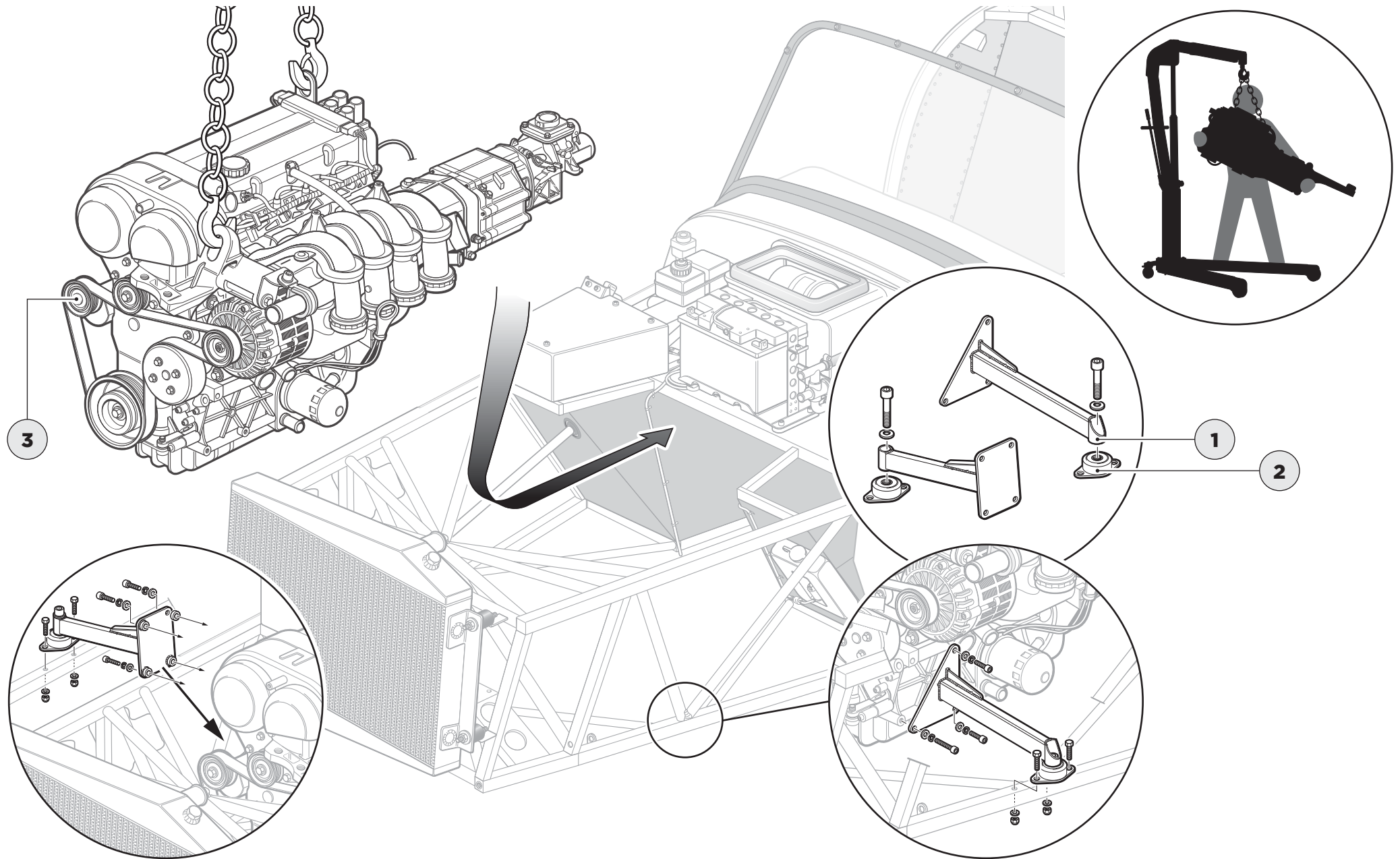
It will fit – keep at it!

Rich T

Removing the tensioner will make things much easier.

James A

AT LAST, THE ENGINE IS GOING IN



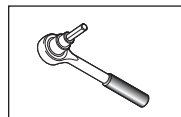
AND THE GEARBOX IS FIXED IN PLACE

PARTS

5 Speed



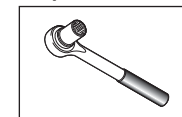
13mm
22mm



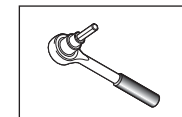
6mm

TOOLS

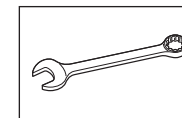
6 Speed



13mm
19mm



6mm



13mm

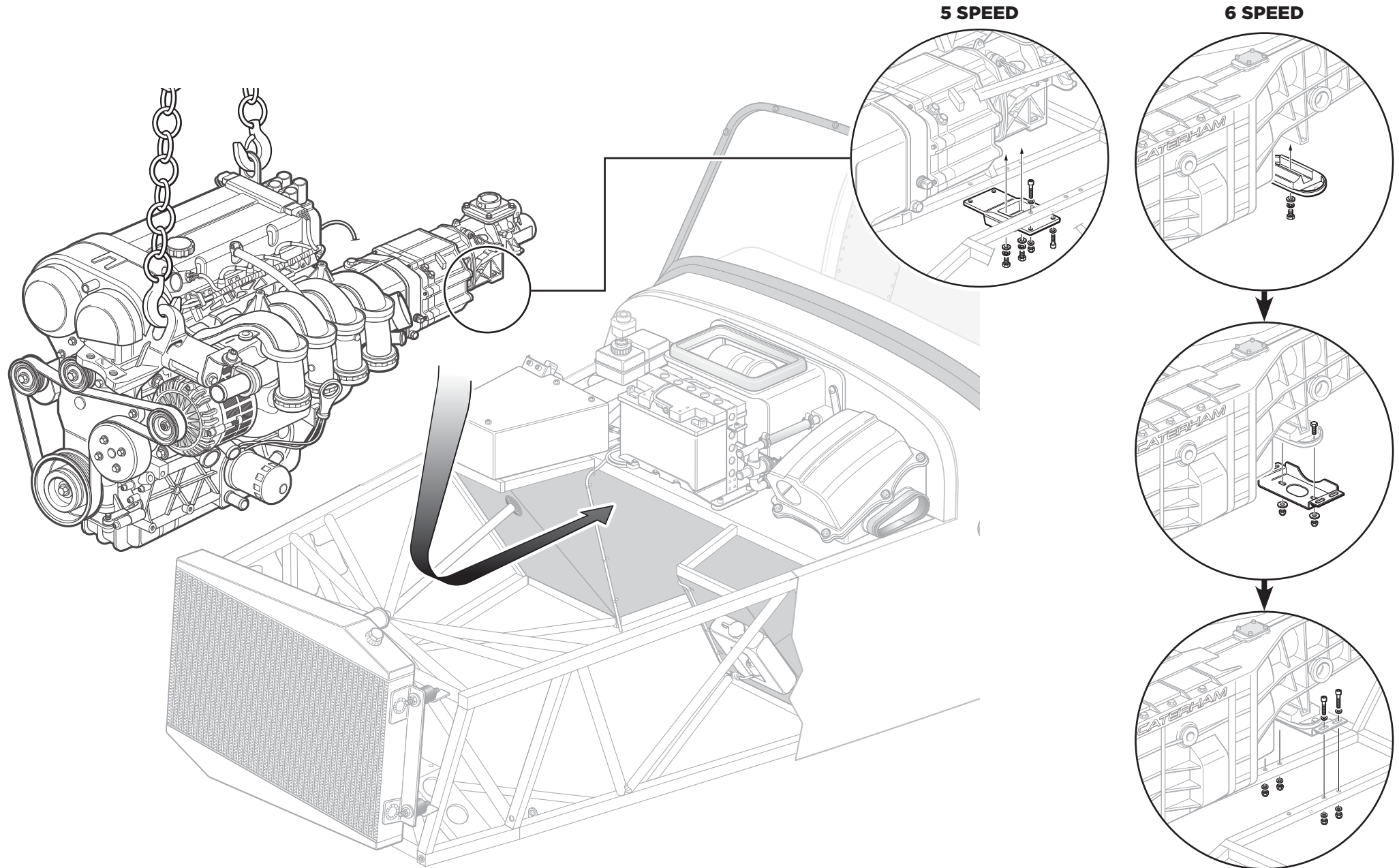
FIXINGS

TIPS

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

Chris B

AND THE GEARBOX IS FIXED IN PLACE



FILLING THE ENGINE AND GEARBOX WITH OIL

PARTS

Engine oil SW-30

Gear oil GL4

TOOLS

FIXINGS

TIPS



Ford 1.6L Engine = 3.8 Litres

5 Speed Gearbox = (Pre-Filled)

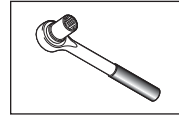
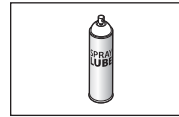
6 Speed Gearbox = Fill to level of filling point
on the side of gearbox

START PLUMBING

PARTS

- 1 Lower radiator hose

TOOLS



7mm

FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|-----------------------|-------------|-----|---|--------------|
| PACK NUMBER | | SICCATS | | | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | DN Radiator Hose 2.0m | 808440 | 1 | Expansion tank bracket to chassis | |
| 2 | DN Radiator Hose 2.0m | 808440 | 1 | Expansion tank to bracket | |
| 3 | DN Radiator Hose 2.0m | 808440 | 4 | SM radiator bracket | |
| 4 | DN Radiator Hose 2.0m | 808440 | 4 | Fan brackets to fan | |
| 5 | DN Radiator Hose 2.0m | 808440 | 4 | Fan to radiator mounting - 20 (top) | |
| 6 | DN Radiator Hose 2.0m | 808440 | 8 | 4x Fan to radiator and 4x radiator bracket | |
| 7 | DN Radiator Hose 2.0m | 808440 | 8 | Radiator bobbin | |
| 8 | DN Radiator Hose 2.0m | 808440 | 1 | Expansion tank bracket | |
| 9 | DN Radiator Hose 2.0m | 808440 | 13 | 8 x 50V nut bracket 4 x 2 Fan brgs 1 x Expansion tank bracket | |
| 10 | DN Radiator Hose 2.0m | 808440 | 4 | Radiator bobbin back | |
| 11 | DN Radiator Hose 2.0m | 808440 | 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 | | SICCATS | | | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | DN Radiator Hose 2.0m | 808440 | 1 | Expansion tank bracket | |
| 13 | DN Radiator Hose 2.0m | 808440 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | DN Radiator Hose 2.0m | 808440 | 6 | 2 x 4 shape hose to water rail 2 x Fan radiator hose 2 x Bottom radiator hose | |
| 15 | DN Radiator Hose 2.0m | 808440 | 2 | 1 x Engine outlet to top 1 hose 1 x Engine outlet to bottom hose | |
| 16 | DN Radiator Hose 2.0m | 808440 | 18 | 8 x Radiator bobbin 4 x Expansion tank 4 x Fan Hose 4 x 20mm | |
| 17 | DN Radiator Hose 2.0m | 808440 | 6 | Expansion tank small 1 piece | |
| 18 | DN Radiator Hose 2.0m | 808440 | 12 | Coupling cap | |

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

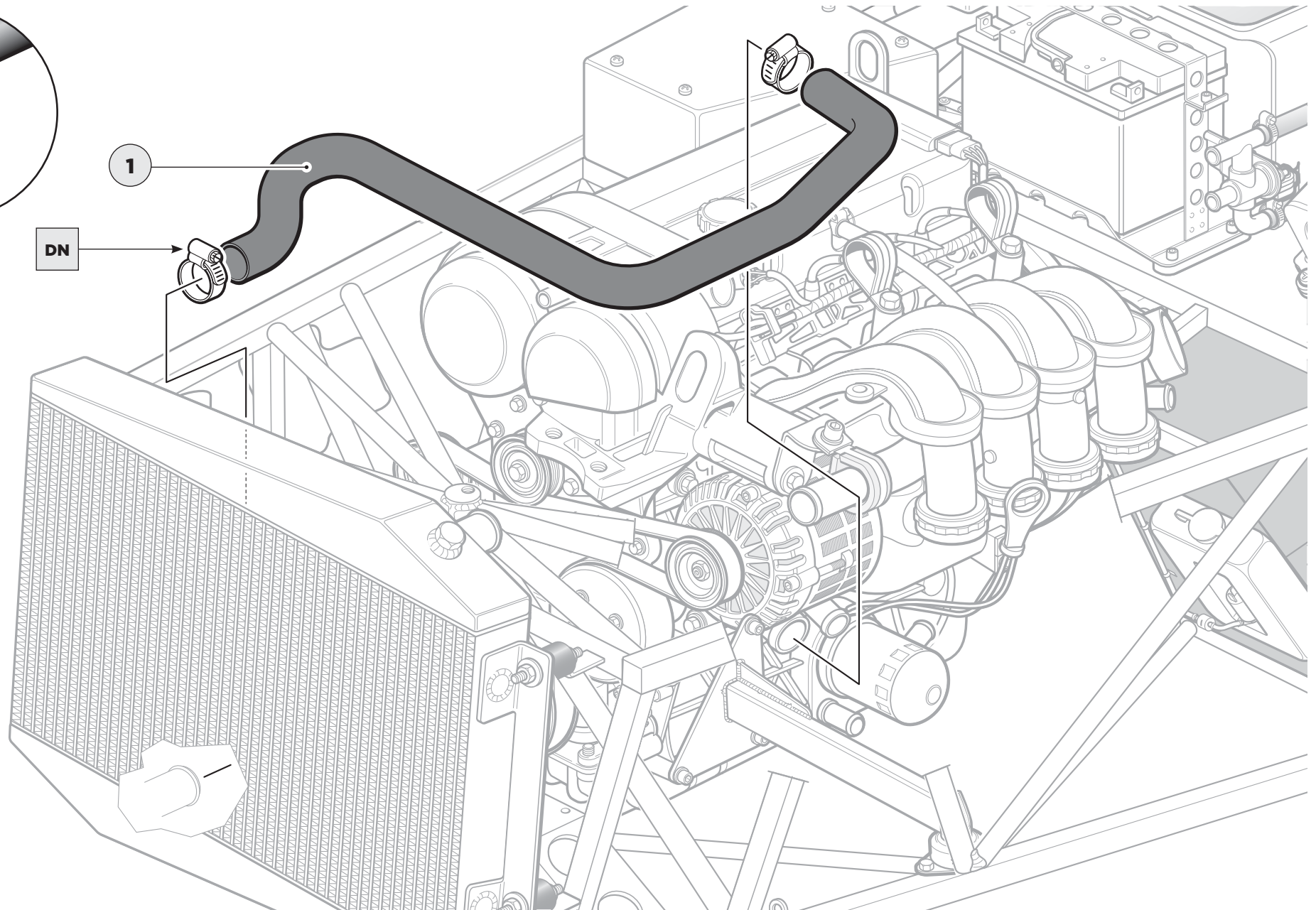
x2

TIPS

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

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

START PLUMBING

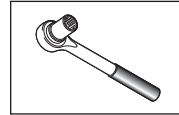
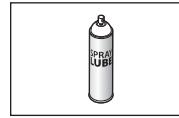


AND KEEP PLUMBING

PARTS

- 1 Upper radiator hose

TOOLS



7mm

FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|--------------------------|-------------|-----|--|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Nut 2.00 Hex 2.0 | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Ball Nut 1.50 Hex 1.5 | 887142/4 | 1 | Expansion tank to bracket | |
| 3 | Ball Nut 1.50 Hex 1.5 | 888420 | 4 | SM radiator bracket | |
| 4 | Ball Nut 2.00 Hex 2.0 | 887107/4 | 4 | Fan brackets to fan | |
| 5 | Ball Nut 1.50 Hex 1.5 | 888441/4 | 4 | Fan to radiator mounting - 20 100g | |
| 6 | Ball Nut 1.50 Hex 1.5 | 888474 | 8 | 4x Fan to radiator 4x 200 radiator bracket | |
| 7 | Ball Nut 1.50 Hex 1.5 | 888475 | 8 | Radiator bobbin | |
| 8 | Ball Nut 1.50 Hex 1.5 | 887114 | 1 | Expansion tank bracket | |
| 9 | Ball Nut 1.50 Hex 1.5 | 888414 | 13 | 13 x 200 rad bracket 4 x 2 Fan brackets 1 x Expansion tank bracket | |
| 10 | Ball Nut 1.50 Hex 1.5 | 887115 | 4 | Radiator bobbin back | |
| 11 | Ball Nut 1.50 Hex 1.5 | 888415/2 | 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 | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Ball Nut 1.50 Hex 1.5 | 888442/4 | 1 | Expansion tank bracket | |
| 13 | Ball Nut 1.50 Hex 1.5 | 888416 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Hose Clip 20 40mm | S0725-40 | 6 | 2 x U shape hose to water rail 2 x Top radiator hose 2 x Bottom radiator hose | |
| 15 | Hose Clip 20 20mm | S0723-20 | 2 | 1 x Engine outlet to top 1 10mm 1 x Engine outlet to bottom 10mm | |
| 16 | Hose Clip 20 20mm | S0716-20 | 18 | 18 Radiator bobbin 1 x Expansion tank 1 x 200 10mm 1 x 200 10mm | |
| 17 | Hose Clip 20 10mm | S0718-16 | 6 | Expansion tank small 1 piece | |
| 18 | Ball - Black 10 20 10 10 | 10716-01010 | 12 | Crossing flap | |

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

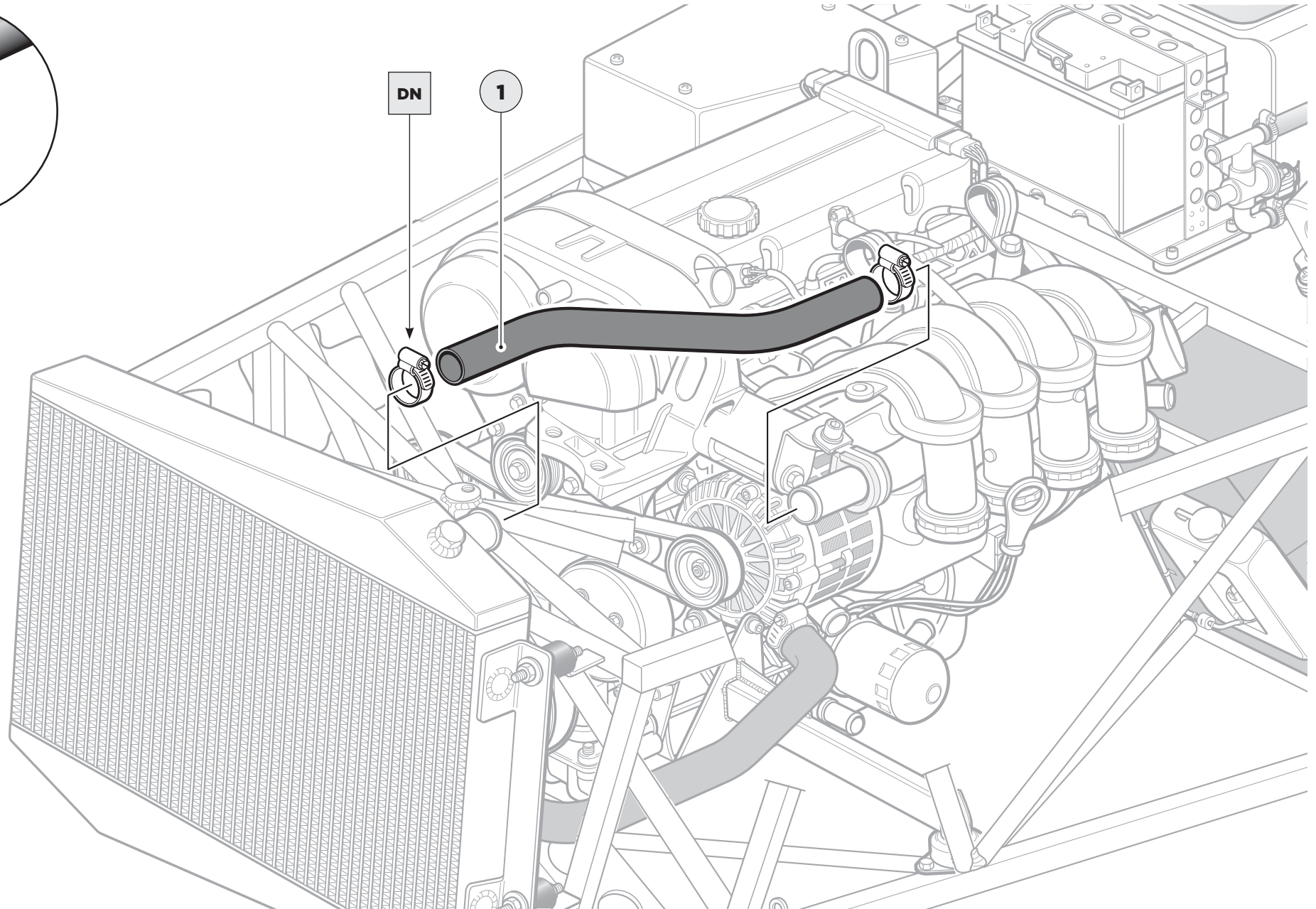
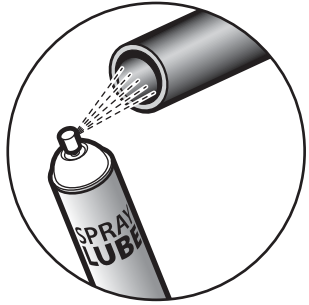
x2

TIPS

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

James A

AND KEEP PLUMBING





Now is a good time to take some photos



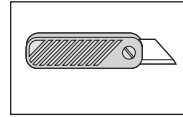
Have you applied for your IVA yet?

A BIT OF SUB-ASSEMBLY - SOME HOSES NEED MODIFYING

PARTS

- 1 Silicone hoses

TOOLS



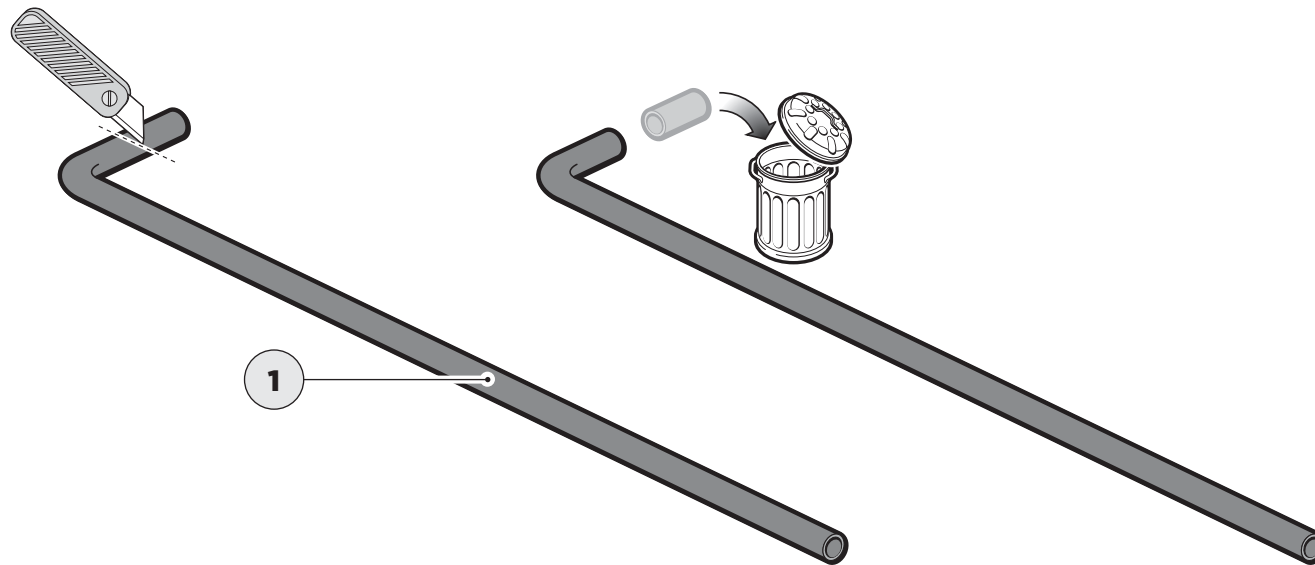
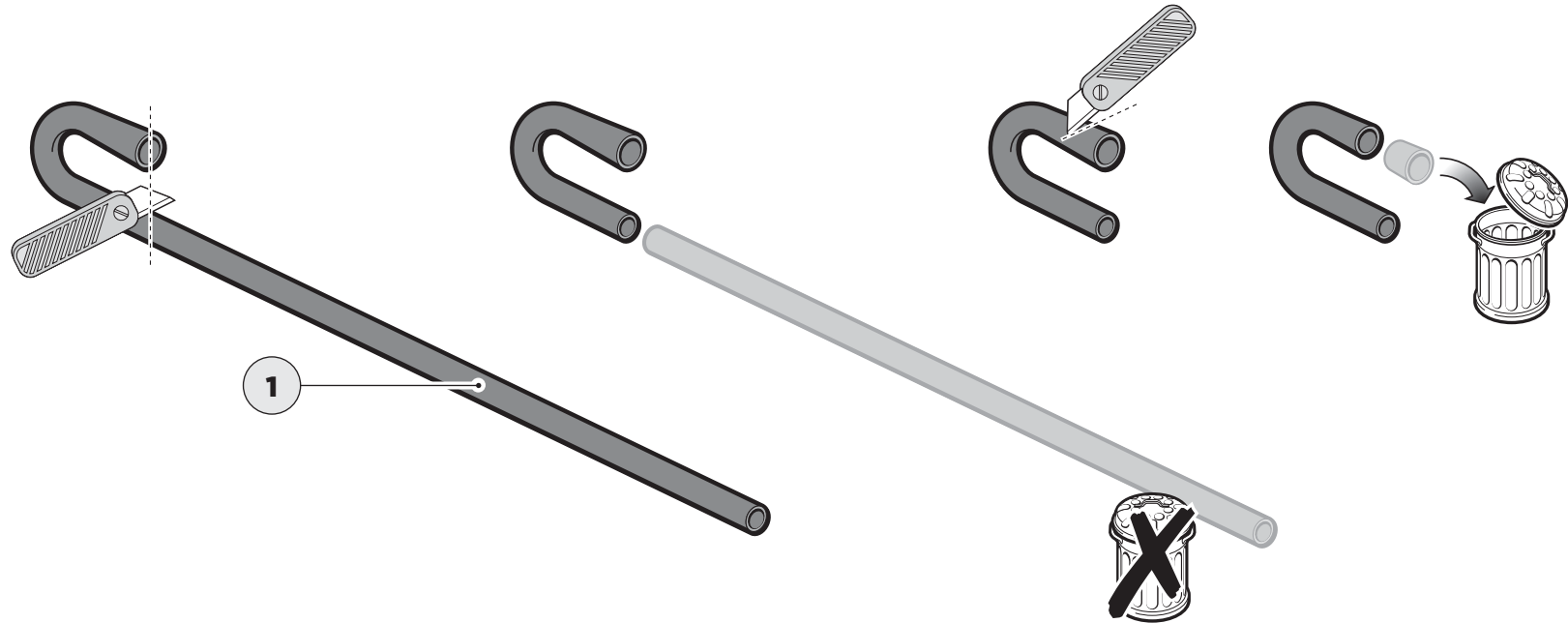
FIXINGS

TIPS

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

Rich T

A BIT OF SUB-ASSEMBLY - SOME HOSES NEED MODIFYING

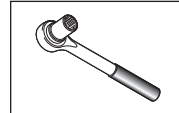
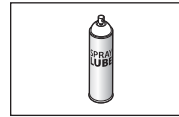


SUB-ASSEMBLY - TEMPERATURE SENSOR

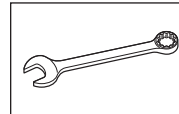
PARTS

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

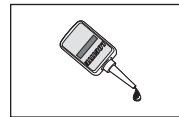
TOOLS



7mm



13mm
10mm



FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|-----------------------|-------------|-----|-----------------------------------|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Exp. tank 2.50 | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Exp. tank 1.50 | 88714224 | 1 | Expansion tank to bracket | |
| 3 | SM radiator bracket | 888420 | 4 | SM radiator bracket | |
| 4 | Fan brackets to fan | 88710724 | 4 | Fan brackets to fan | |
| 5 | Fan to radiator | 8884210 | 4 | Fan to radiator | |
| 6 | Rad Fan to radiator | 88710724 | 8 | Rad Fan to radiator | |
| 7 | Radiator bobbin | 888776 | 8 | Radiator bobbin | |
| 8 | Exp. tank bracket | 88710724 | 1 | Expansion tank bracket | |
| 9 | 18 x 10V rad bracket | 8884210 | 13 | 18 x 10V rad bracket | |
| 10 | Radiator bobbin back | 88710724 | 4 | Radiator bobbin back | |
| 11 | Radiator bobbin front | 8884210 | 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 | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Exp. tank bracket | 888440 | 1 | Expansion tank bracket | |
| 13 | Spring Washer | 8884210 | 8 | 8 x Radiator bobbin | |
| 14 | Wash. Cap | 88710724 | 6 | Wash. Cap | |
| 15 | Wash. Cap | 88710724 | 2 | Wash. Cap | |
| 16 | Hose Clip | 88710724 | 18 | Hose Clip | |
| 17 | Wash. Cap | 88710724 | 6 | Wash. Cap | |
| 18 | Wash. Cap | 88710724 | 12 | Wash. Cap | |

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

x2

TIPS

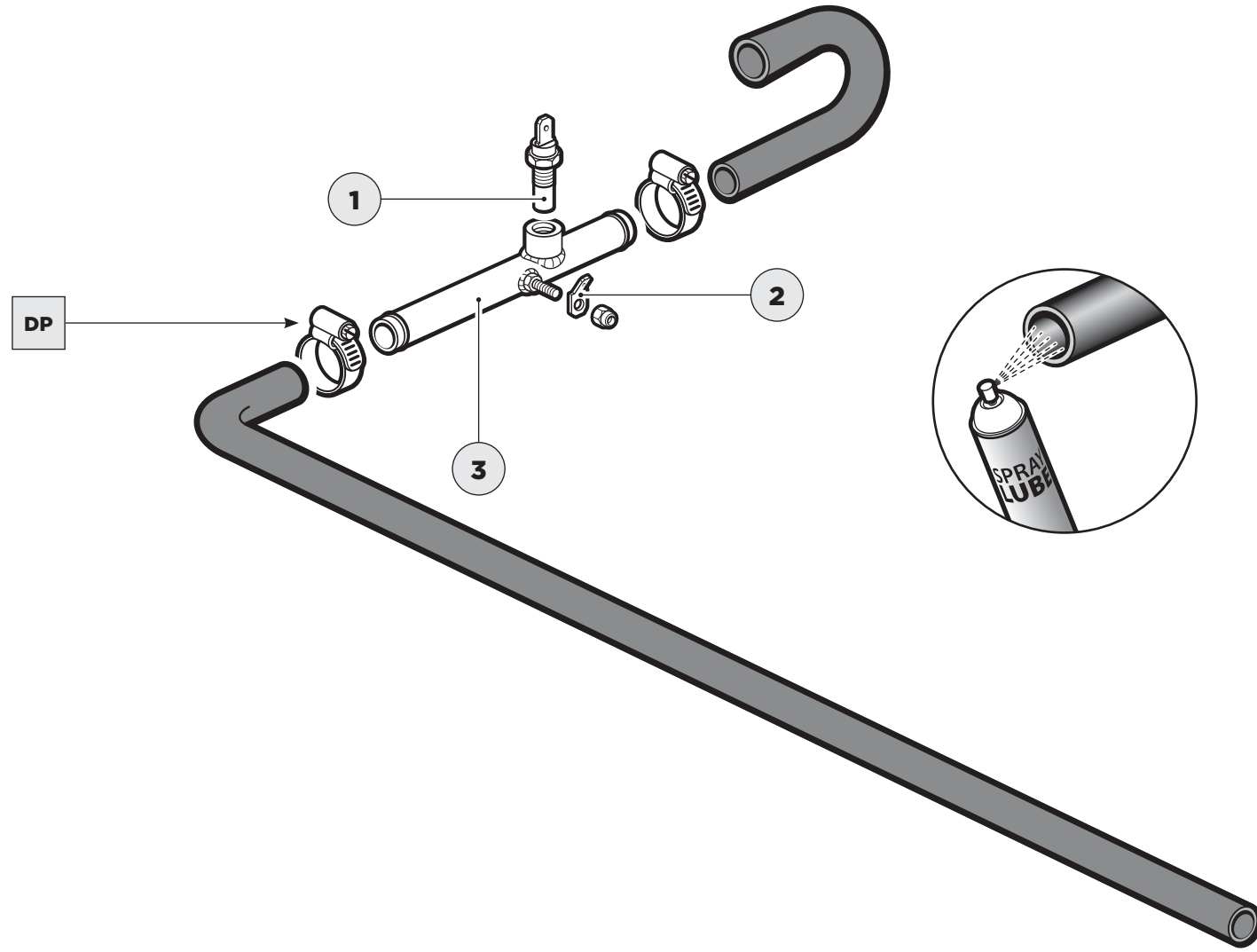
Use a drop of Locktite on the sender.

Tiago O

Be careful not to over-tighten the sender.

Jamie A

SUB-ASSEMBLY - TEMPERATURE SENSOR

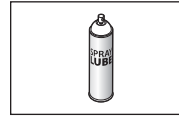


BACK TO THE PLUMBING

PARTS

1 Submarine assembly

TOOLS



7mm

FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|--------------------------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Rail Kit 2-20 Pencil Kit | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Ballbearing 1.5x 3/4" | 887142/4 | 1 | Expansion tank to bracket | |
| 3 | Submarine 88320 Pencil Kit | 888420 | 4 | SM radiator bracket | |
| 4 | Rail Kit 2-18 with Square bracket | 882102/4 | 4 | Fan brackets to fan | |
| 5 | Submarine 88310 Pencil Kit | 888410/4 | 4 | Fan to radiator mounting - 20 (1/2) | |
| 6 | Wash Nut M8 | 88317/4 | 8 | 4x Fan to radiator 4x DV radiator bracket | |
| 7 | Wash Nut M8 | 88317/4 | 8 | Radiator bobbin | |
| 8 | Wash Nut 1/4" | 88711/4 | 1 | Expansion tank bracket | |
| 9 | Wash Washer 1/4" Hex Head | 88712/4 | 13 | 18 x DV Fan bracket 4 x Fan Brackets 1 x Expansion tank bracket | |
| 10 | Wash Washer 1/4" Hex Head | 88712/4 | 4 | Radiator bobbin back | |
| 11 | Wash Washer 1/4" Hex Head | 888431/4/4 | 4 | Radiator bobbin front | |

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

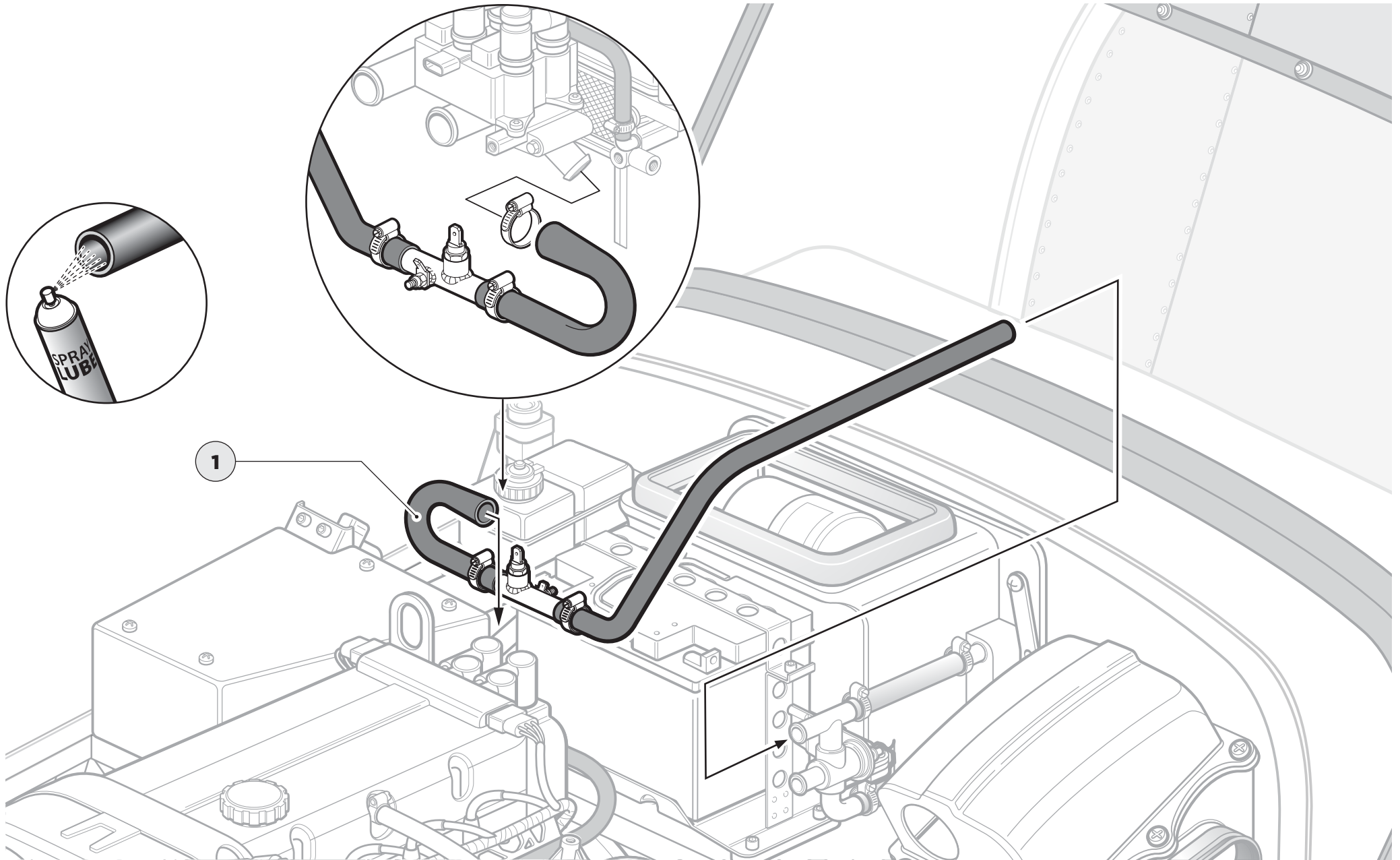
| Pack D | | CATERHAM | | 44 | |
|--|--------------------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Flare Washer 1/4" Hex Head | 88811/4/4/4 | 1 | Expansion tank bracket | |
| 13 | Spring Washer 1/4" Hex Head | 88810/12 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Wash Clip 1/4" Hex | 88720-40 | 6 | 2 x 18 where hoses connect 2 x 4 on radiator hose 2 x Radiator bobbin | |
| 15 | Wash Clip 1/4" Hex | 88720-30 | 2 | 1 x Engine outlet to top 1/2 hose 1 x Engine outlet to hose/clip | |
| 16 | Wash Clip 1/4" Hex | 88716-25 | 18 | 6 x Radiator bobbin 14 x Fan 1 x Expansion tank 1 x Dip Pump 1 x Dip Switch | |
| 17 | Wash Clip 1/4" Hex | 88716-16 | 6 | Expansion tank small 1/2 piece | |
| 18 | Wash - Blank 1/4" Hex | 88716-01/12 | 12 | Coupling cap | |

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

x1

TIPS

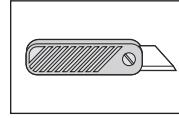
BACK TO THE PLUMBING



MORE PLUMBING

PARTS

TOOLS



FIXINGS

TIPS

| Pack D | | CATERHAM | | 44 | |
|--|----------------------------------|-----------------|-----|--|--------------|
| | | PACK NUMBER | | 3002478 | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Nut 2-20 Hex Nut | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Ball Nut 1-18 Hex Nut | 887142/4 | 1 | Expansion tank to bracket | |
| 3 | Ball Nut M8x1.0 Hex Nut | 888420 | 4 | SM radiator bracket | |
| 4 | Ball Nut 2-18 with Square Washer | 887107/4 | 4 | Fan brackets to fan | |
| 5 | Ball Nut M8x1.0 Hex Nut | 888420/10 | 4 | Fan to radiator mounting - 20 (10) | |
| 6 | Washer Nut M8 | 888776 | 8 | 4 x Fan to radiator on SM radiator bracket | |
| 7 | Washer Nut M8 | 888776 | 8 | Radiator bobbin | |
| 8 | Washer Nut 1/4" | 887114 | 1 | Expansion tank bracket | |
| 9 | Washer Washer 1/4" Hex Washer | 888414 | 13 | 8 x 1/4" Hex Washer 1/4" Fan Brackets 1 x Expansion tank bracket | |
| 10 | Washer Washer 1/4" Hex Washer | 888414/10 | 4 | Radiator bobbin back | |
| 11 | Washer Washer 1/4" Hex Washer | 888414/10 | 4 | Radiator bobbin front | |

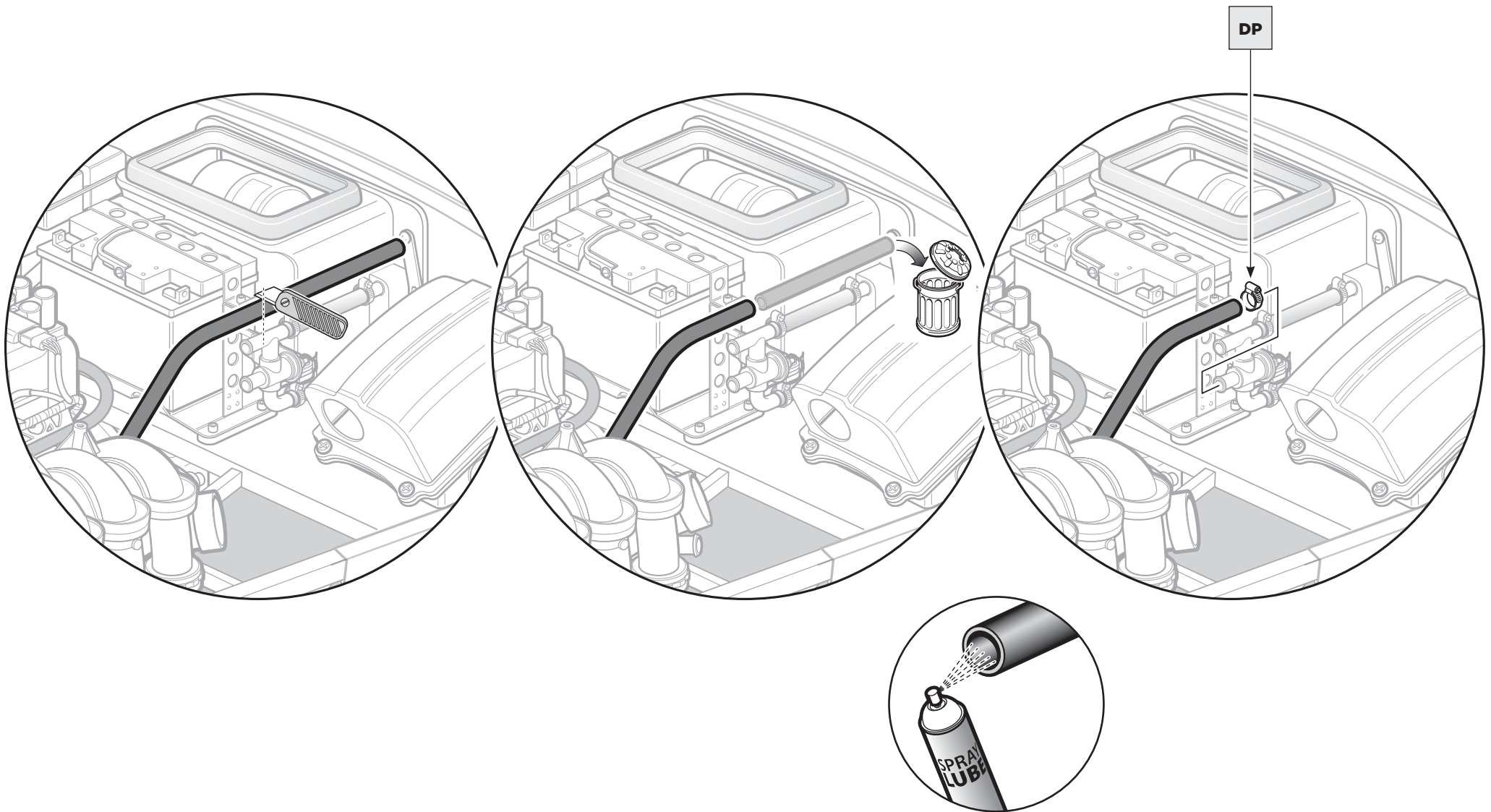
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

| Pack D | | CATERHAM | | 44 | |
|--|-------------------------------------|-----------------|-----|--|--------------|
| | | PACK NUMBER | | 3002478 | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | EL Washer Washer 1/4" Hex Washer | 888414/10 | 1 | Expansion tank bracket | |
| 13 | EM Spring Washer 1/4" Hex Washer | 888414/10 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | ON Hose Clip 1/2" Hose | 88720-40 | 6 | 2 x 1/2" hose from engine to 2 x 1/2" radiator hose 2 x Radiator bobbin hose | |
| 15 | DO Hose Clip 1/2" Hose | 88720-30 | 2 | 1 x Engine outlet to top 1/2" hose 1 x Engine outlet to bottom hose | |
| 16 | DP Hose Clip 1/2" Hose | 88716-25 | 18 | 6 x Radiator bobbin 10 x Fan 1 x Expansion tank 1 x Dip Pump 1 x Dip Switch | |
| 17 | EO Hose Clip 1/2" Hose | 88716-16 | 6 | Expansion tank small 7 piece | |
| 18 | OR Seal - Black 1/2" x 1/4" | 88716-010/10 | 12 | Cooling fan | |

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

x1

MORE PLUMBING

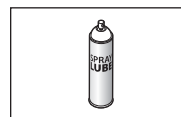


STILL MORE PLUMBING

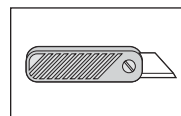
PARTS

1 U shape hose

TOOLS



7mm



FIXINGS

TIPS

| Pack D | | CATERHAM | | 44 | |
|--|---|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SOCKETS | |
| 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 1000x20 | 888640 | 1 | Expansion tank bracket to chassis | |
| 2 | DB Radiator 1.50 5.50" | 88714024 | 1 | Expansion tank to bracket | |
| 3 | DC Radiator 887020 1000x20 | 888620 | 4 | SM radiator bracket | |
| 4 | DD Rail Kit 2.10 with Square bracket | 88710204 | 4 | Fan brackets to fan | |
| 5 | DE Radiator 887010 Fan/clip | 88868110 | 4 | Fan to radiator connecting - 20 100g | |
| 6 | DF Fan Kit 88 | 888770 | 8 | 4x Fan to radiator 4x DV radiator bracket | |
| 7 | DG Fan Nut 88 | 888770 | 8 | Radiator bobbin | |
| 8 | DH Fan Nut 147 | 8871014 | 1 | Expansion tank bracket | |
| 9 | DI Fan Washer 147 Hex/clip | 8881014 | 13 | 13 x DV Fan bracket 1 x Expansion tank bracket | |
| 10 | DJ Fan Washer 147 Hex/clip | 8881014 | 4 | Radiator bobbin back | |
| 11 | DK Fan Washer 147 Hex/clip | 8881014 | 4 | Radiator bobbin front | |

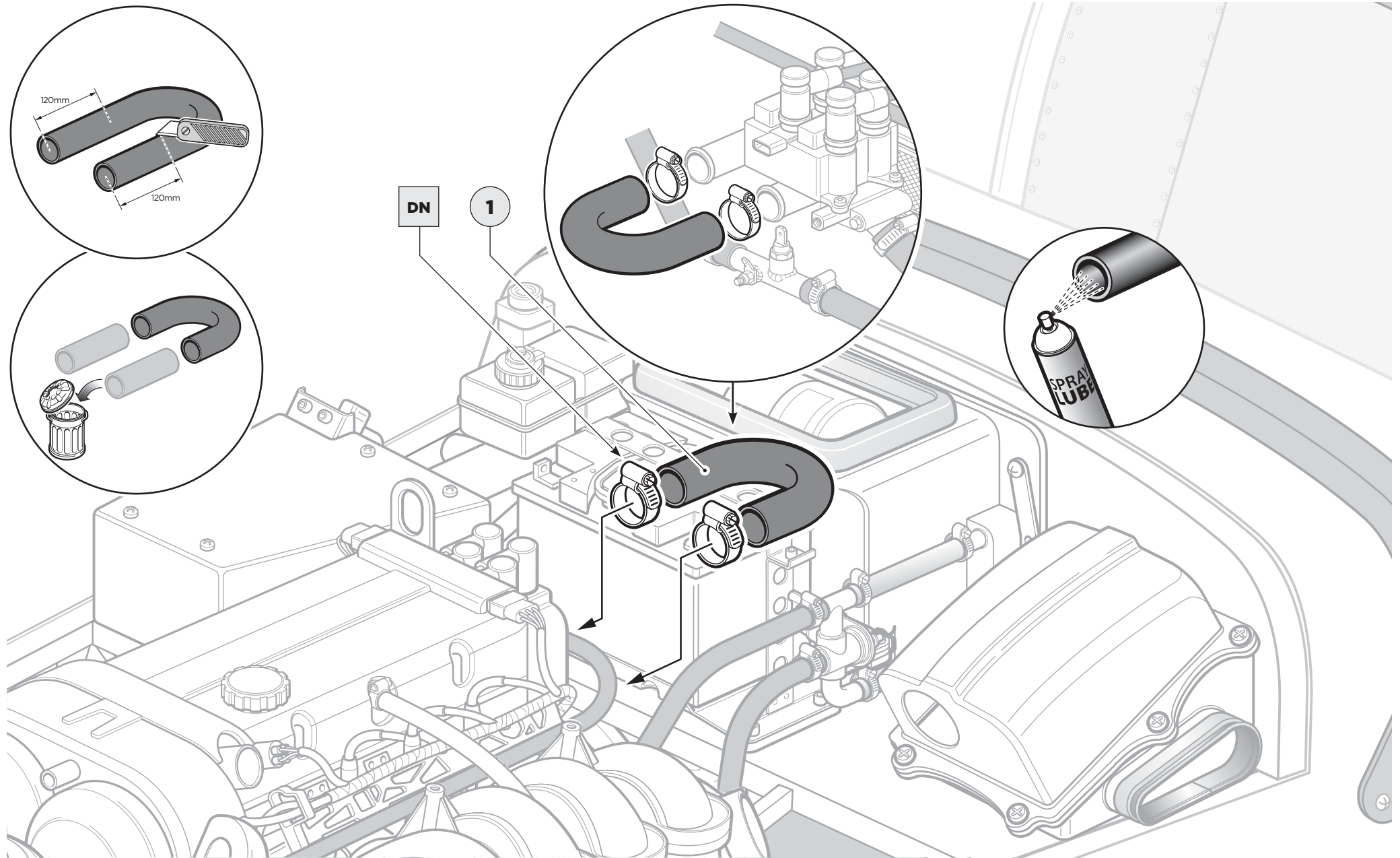
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

| Pack D | | CATERHAM | | 44 | |
|--|----------------------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SOCKETS | |
| 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 147 Hex/clip | 8881014 | 1 | Expansion tank bracket | |
| 13 | EM Spring Washer 147 Hex/clip | 8881014 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | DN Hose Clip 20 40mm | 50725-40 | 6 | 2 x U shape hose to water rail 2 x Fan radiator hose 2 x Bottom radiator hose | |
| 15 | DD Hose Clip 20 20mm | 50723-20 | 2 | 1 x Engine outlet to top 1 frame 1 x Engine outlet to middle frame | |
| 16 | DP Hose Clip 17 20mm | 50710-20 | 16 | 16 frame bracket to fan frame 2 x Radiator hose to fan frame 1 x Fan hose to fan frame | |
| 17 | DD Hose Clip 8 10mm | 50709-10 | 6 | Expansion tank small 1 piece | |
| 18 | DR Head - Black 17.5 x 17.5" | 10709-01010 | 12 | Coupling cap | |

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

x2

STILL MORE PLUMBING

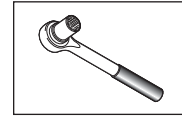


A BREAK FROM PLUMBING TO FIT THE EXPANSION BOTTLE

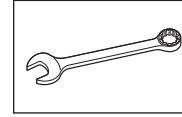
PARTS

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

TOOLS



13mm
11mm



11mm

FIXINGS

| Pack D CATERHAM 44 PACK NUMBER SIGCATE | | | | | |
|---|------------------------------------|-------------|-----|---|--------------|
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | DA Bolt M8 x 20 Grade 8.8 | BMS030 | 1 | Expansion tank bracket to chassis | |
| 2 | DB Self-tapper 1/4" x 3/4" | SP14234 | 1 | Expansion tank to bracket | |
| 3 | DC Caterham M8x20 Grade 8.8 | BMS030 | 4 | 5M radiator bracket | |
| 4 | DD Bolt M8 x 18 with square neck | MS10724 | 4 | Fan brackets to fan | |
| 5 | DE Caterham M8x20 Fastener | BMS030 | 4 | Fan to radiator mounting - 20 (top) | |
| 6 | DF Nylon Nut M8 | M8N076 | 8 | 4x Fan to radiator 4x 5M radiator bracket | |
| 7 | DG Plain Nut M8 | M8N076 | 8 | Radiator bobbin | |
| 8 | DH Nylon Nut 1/4" | M1/4N14 | 1 | Expansion tank bracket | |
| 9 | DI Plain Washer 1/4" Heavy duty | WP1/4 | 13 | 8 x 5/16 rad bracket 4 x Fan Bolings 1 x Expansion tank bracket | |
| 10 | DJ Plain Washer 1/4" Heavy duty | WP1/4 | 4 | Radiator bobbin back | |
| 11 | DK Plain Washer 1/4" Heavy duty | WP1/4 | 4 | Radiator bobbin front | |

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

x1

x1

x1

x1

| Pack D CATERHAM 44 PACK NUMBER SIGCATE | | | | | |
|---|---|-------------|-----|---|--------------|
| COOLING SIGMA | | | | | |
| <i>This pack may include extra fasteners to cover different options</i> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | DL Plain Washer 1/4" x 3/4" Heavy duty | WP1/4274 | 1 | Expansion tank bracket | |
| 13 | DM Spring Washer 5/16" Heavy duty | WSP5/16 | 9 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | DN Hex Cap 1/4" Steel | SC1720-40 | 6 | 2 x 5/16 Hex Cap 2 x 1/4 Hex Cap 2 x Radiator bobbin | |
| 15 | DO Hex Cap 3/8" Steel | SC1720-38 | 2 | 1 x Engine outlet to top 1 x Engine outlet to bottom | |
| 16 | DP Hex Cap 1/2" Steel | SC1710-25 | 18 | 6 Radiator bobbin 6 Expansion tank 6 Fan Bolings 6 Fan Bolings | |
| 17 | DD Hex Cap 5/16" Steel | SC16-16 | 6 | Expansion tank small 7 piece | |
| 18 | DR Bolt - Black 1/2" x 3/4" | BS16-01010 | 12 | Cooling fan | |

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

x1

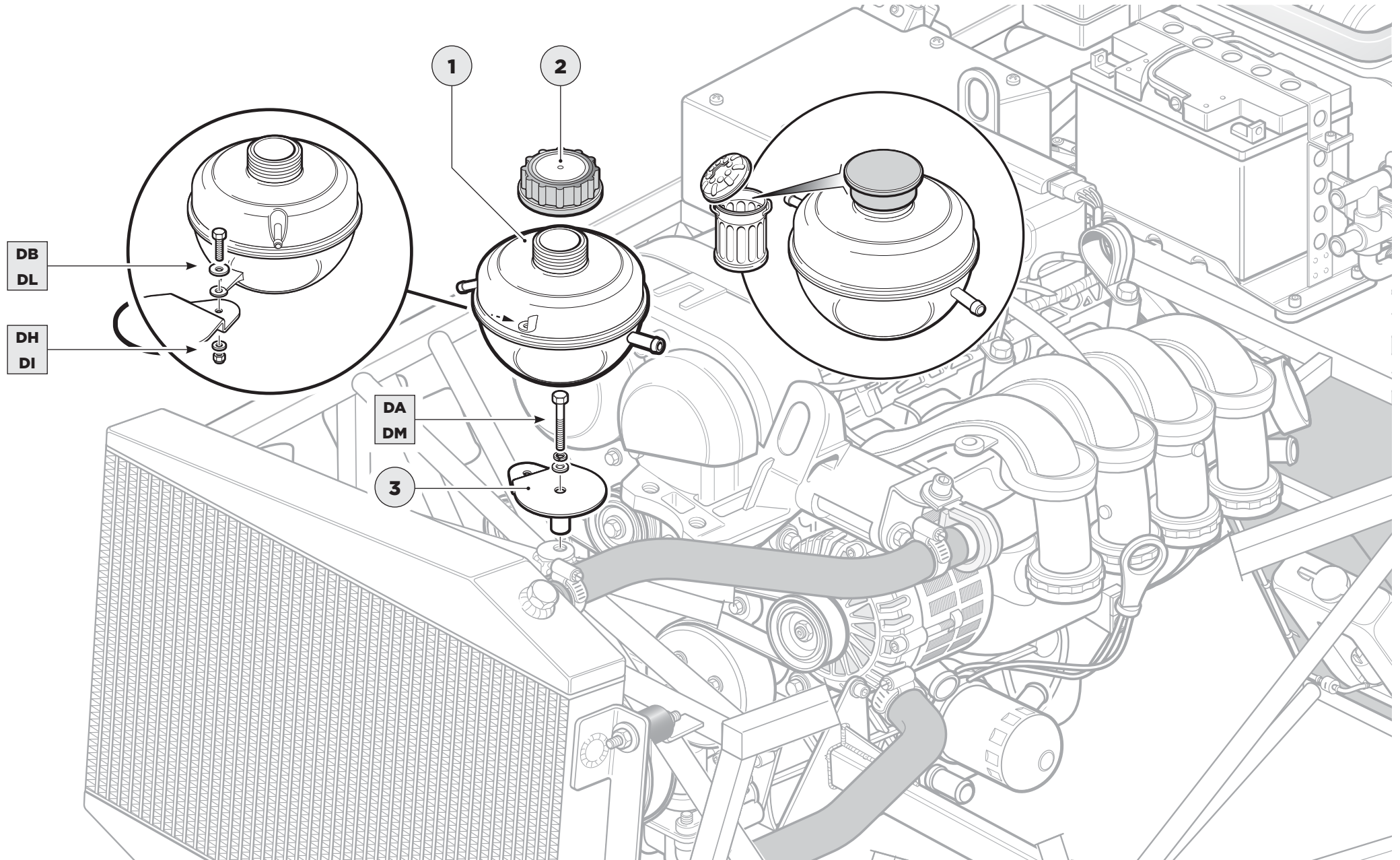
x1

TIPS

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

Grant P

A BREAK FROM PLUMBING TO FIT THE EXPANSION BOTTLE

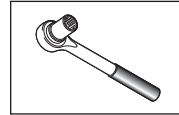
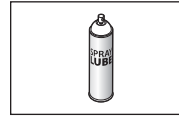


SOME MORE HOSE MODIFICATION

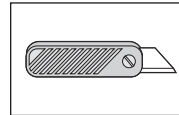
PARTS

1 T-Piece

TOOLS



7mm



FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|--------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Nut 2-20 Hex Nut | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Ball Nut 1-18 Hex Nut | 887142/4 | 1 | Expansion tank to bracket | |
| 3 | Ball Nut 1-18 Hex Nut | 888420 | 4 | SM radiator bracket | |
| 4 | Ball Nut 1/8-18 Square Neck | 887107/4 | 4 | Fan brackets to fan | |
| 5 | Ball Nut 1-18 Hex Nut | 888420/10 | 4 | Fan to radiator mounting - 20 (10) | |
| 6 | Ball Nut 1-18 Hex Nut | 888420 | 8 | 40 Fan to radiator and 20 radiator bracket | |
| 7 | Ball Nut 1-18 Hex Nut | 888420 | 8 | Radiator bobbin | |
| 8 | Ball Nut 1-18 Hex Nut | 887104 | 1 | Expansion tank bracket | |
| 9 | Ball Nut 1-18 Hex Nut | 888420 | 13 | 18 x 20 Fan bracket 4 x 2 Fan brackets 1 x Expansion tank bracket | |
| 10 | Ball Nut 1-18 Hex Nut | 887104 | 4 | Radiator bobbin back | |
| 11 | Ball Nut 1-18 Hex Nut | 888420/10 | 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 | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Ball Nut 1-18 Hex Nut | 888420/10 | 1 | Expansion tank bracket | |
| 13 | Spring Washer Hex Head Nut | 888420/10 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Hex Clip 1/8-18mm | 887104-40 | 6 | 2 x 18 where hoses connect to fan 2 x 20 radiator hose 2 x Radiator bobbin hose | |
| 15 | Hex Clip 1/8-18mm | 887104-20 | 2 | 1 x Engine outlet to top 1 frame 1 x Engine outlet to lower frame | |
| 16 | Hose Clip 1/2-20mm | 887104-20 | 18 | 8 x Header bracket 16 x 20 Fan 1 x Expansion tank 1 x Dip Sump 1 x Radiator | |
| 17 | Hex Clip 1/8-18mm | 887104 | 6 | Expansion tank small 6 pieces | |
| 18 | Ball Nut 1/8-18mm | 887104-10 | 12 | Crossing leg | |

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

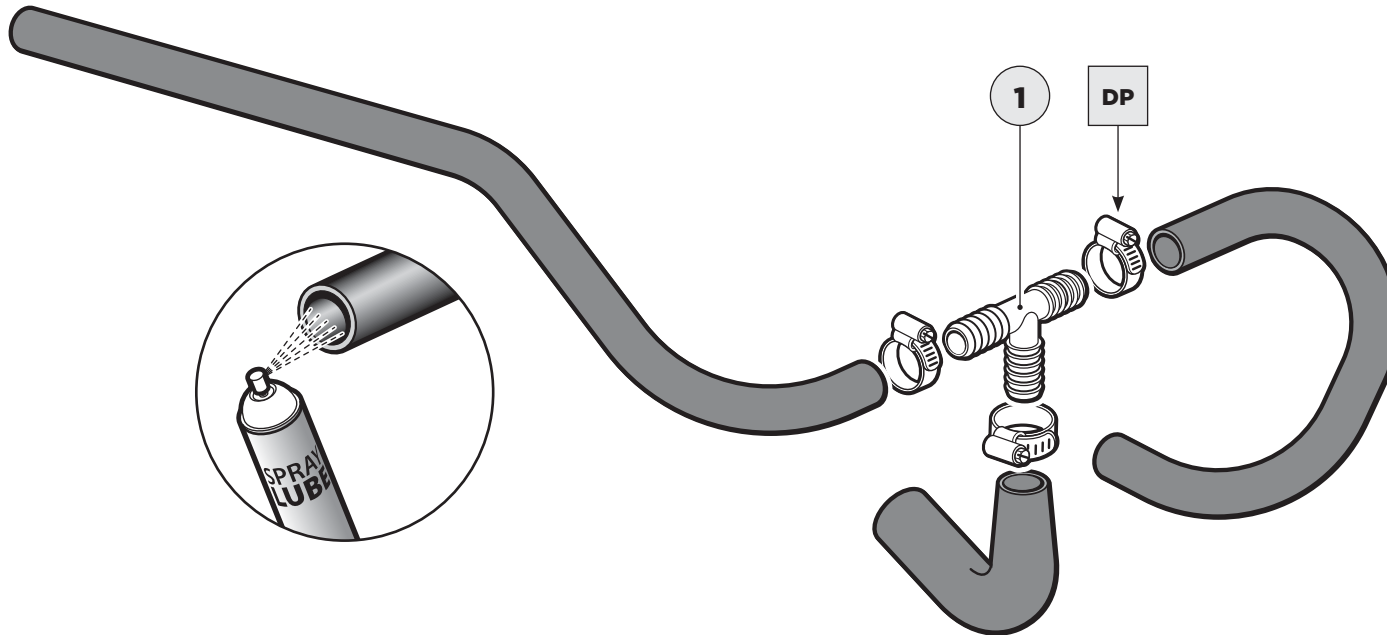
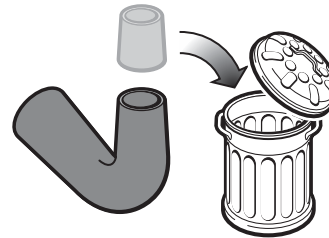
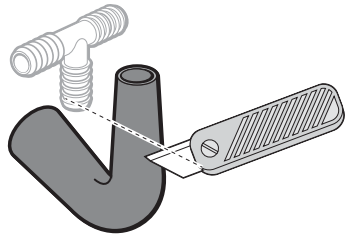
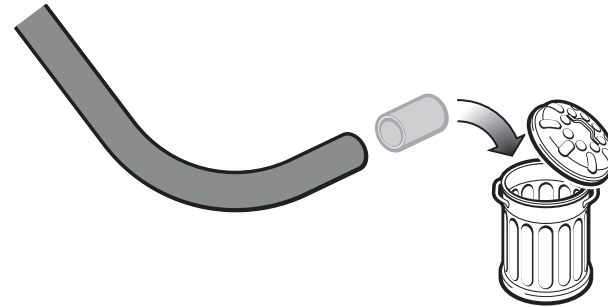
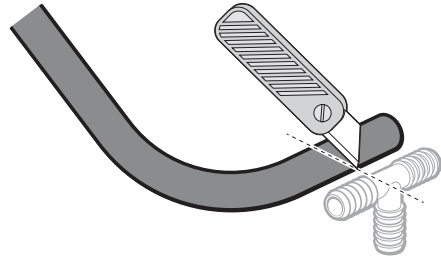
x3

TIPS

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

John S

SOME MORE HOSE MODIFICATION

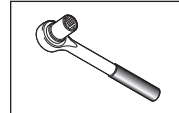
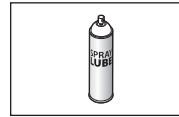


AND BACK TO PLUMBING

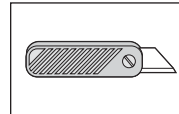
PARTS

1 T-Piece assembly

TOOLS



7mm



FIXINGS

TIPS

| Pack D | | CATERHAM | | 44 | |
|--|---------------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Rad Kit 2-20 Rad Kit 2 | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Rad Kit 2-20 Rad Kit 2 | 888440 | 1 | Expansion tank to bracket | |
| 3 | Rad Kit 2-20 Rad Kit 2 | 888440 | 4 | SM radiator bracket | |
| 4 | Rad Kit 2-20 Rad Kit 2 | 888440 | 4 | Fan brackets to fan | |
| 5 | Rad Kit 2-20 Rad Kit 2 | 888440 | 4 | Fan to radiator mounting - 20 1/2" | |
| 6 | Rad Kit 2-20 Rad Kit 2 | 888440 | 8 | Rad Fan to radiator 48 1/2" radiator bracket | |
| 7 | Rad Kit 2-20 Rad Kit 2 | 888440 | 8 | Radiator bobbin | |
| 8 | Rad Kit 2-20 Rad Kit 2 | 888440 | 1 | Expansion tank bracket | |
| 9 | Rad Kit 2-20 Rad Kit 2 | 888440 | 13 | 18 x 10V Rad Bracket 48 1/2 Fan Brackets 1 x Expansion tank bracket | |
| 10 | Rad Kit 2-20 Rad Kit 2 | 888440 | 4 | Radiator bobbin back | |
| 11 | Rad Kit 2-20 Rad Kit 2 | 888440 | 4 | Radiator bobbin front | |

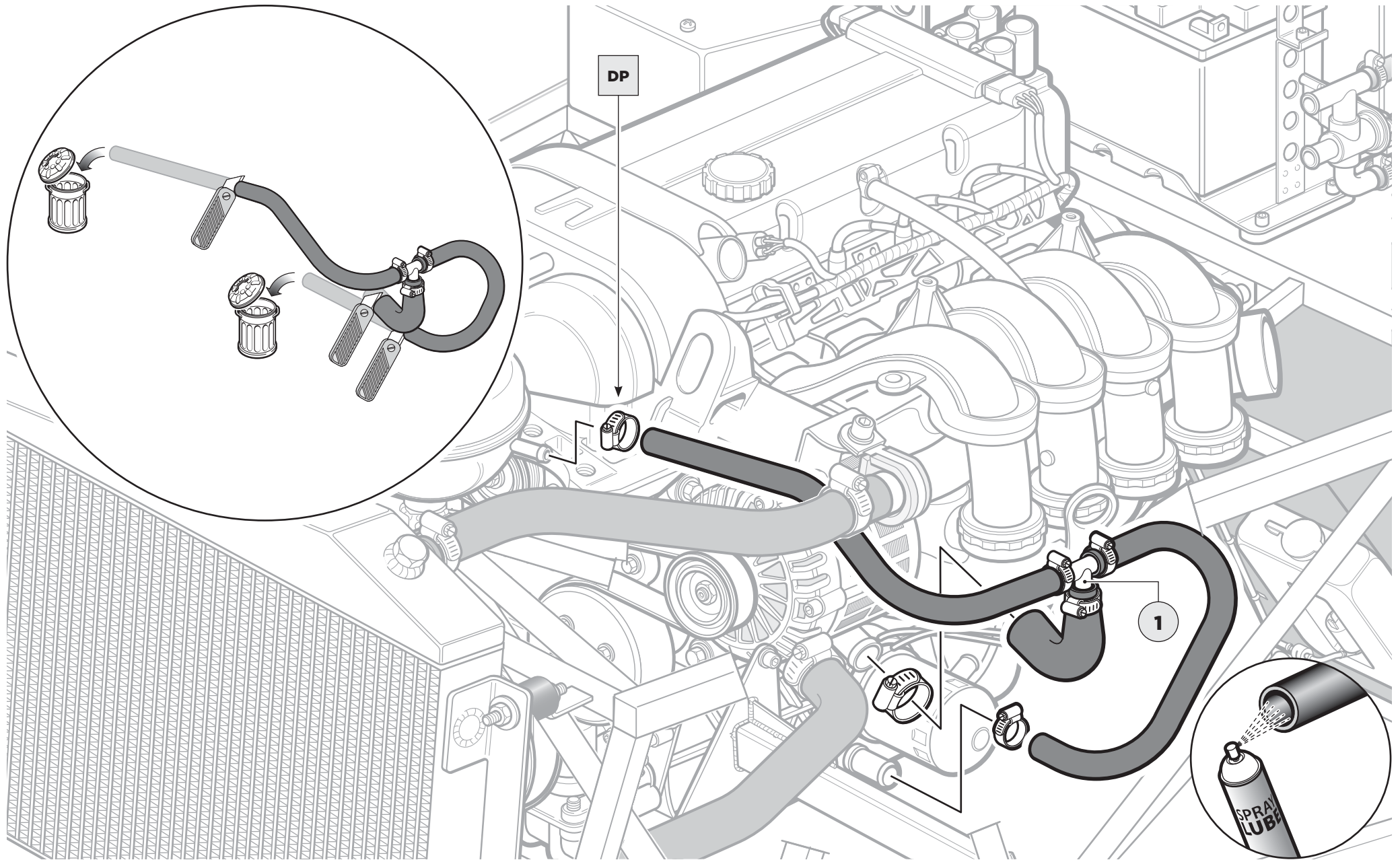
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

| Pack D | | CATERHAM | | 44 | |
|--|------------------------|-----------------|-----|------------------------|--------------|
| | | PACK NUMBER | | SICCATB | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 13 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 14 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 15 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 16 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 17 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 18 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 19 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 20 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 21 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 22 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 23 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 24 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 25 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 26 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 27 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 28 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 29 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 30 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 31 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 32 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 33 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 34 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 35 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 36 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 37 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 38 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 39 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 40 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 41 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 42 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 43 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |
| 44 | Expansion tank bracket | 888440 | 1 | Expansion tank bracket | |

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

x1

AND BACK TO PLUMBING

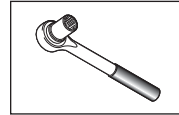
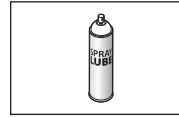


LAST BIT OF PLUMBING

PARTS

1 5/8" Hose

TOOLS



7mm

FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|------------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | 300476 | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Rad Kit 2.0 Hose 2.0 | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Water Hose 1.8 x 3/4" | 88714424 | 1 | Expansion tank to bracket | |
| 3 | Water Hose 2.0 Hose 2.0 | 888420 | 4 | SM radiator bracket | |
| 4 | Rad Kit 2.0 with Square bracket | 88710724 | 4 | Fan brackets to fan | |
| 5 | Water Hose 2.0 Fan Hose 2.0 | 88842110 | 4 | Fan to radiator connecting - 20 1/2" | |
| 6 | Water Nut M8 | 888776 | 8 | 4x Fan to radiator 4x 2.0 radiator bracket | |
| 7 | Water Nut M8 | 888776 | 8 | Radiator bobbin | |
| 8 | Water Nut 1/4" | 8871114 | 1 | Expansion tank bracket | |
| 9 | Water Washer 1.8 Hose 1.8 | 88842114 | 13 | 13 x 1/4" rad bracket 4 x Fan Hangers 1 x Expansion tank bracket | |
| 10 | Water Washer 1.8 Hose 1.8 | 88842114 | 4 | Radiator bobbin back | |
| 11 | Water Washer 1.8 Hose 1.8 | 88842114 | 4 | Radiator bobbin front | |

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

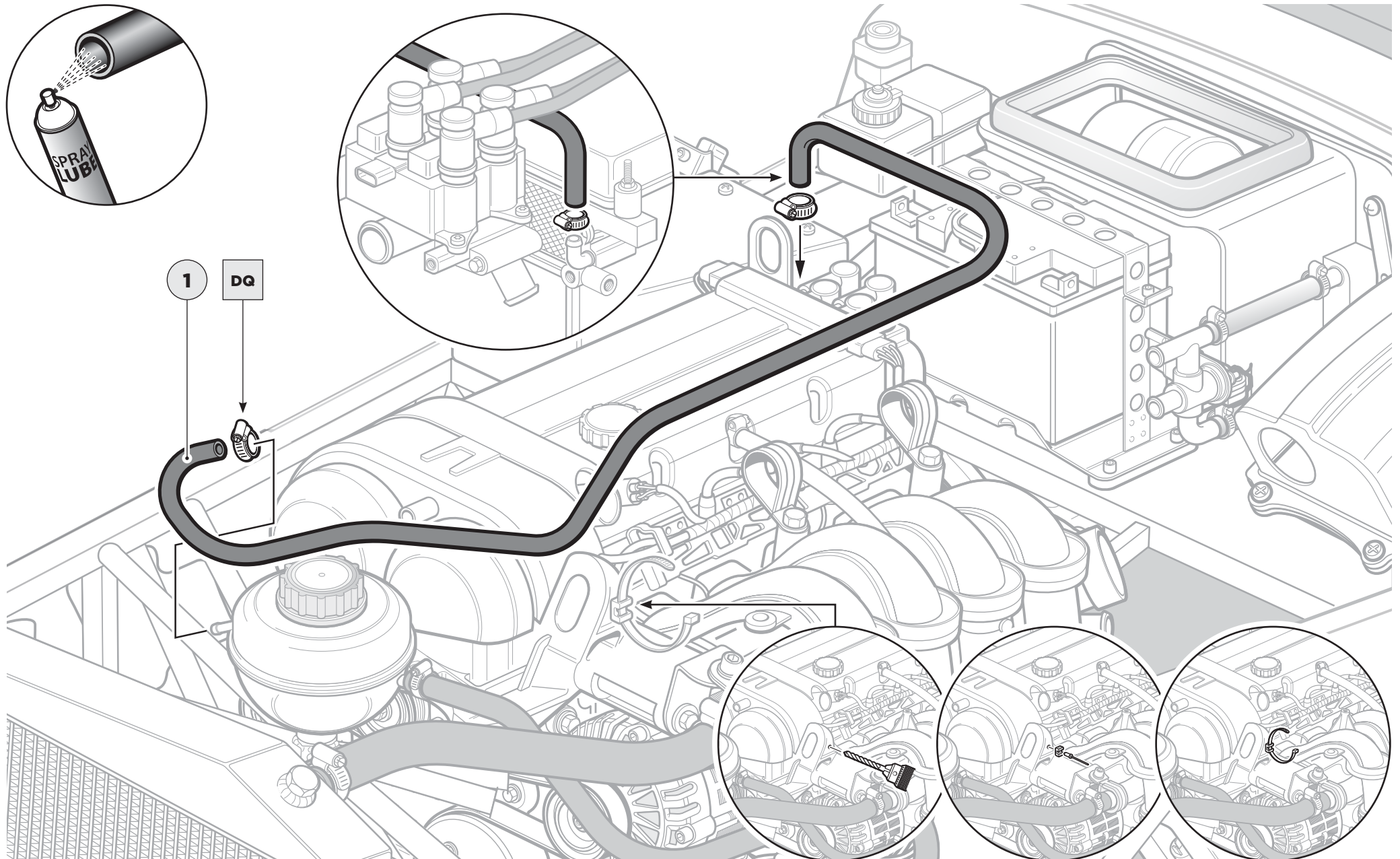
| Pack D | | CATERHAM | | 44 | |
|--|-------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | 300476 | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Expansion tank bracket | 88811044 | 1 | Expansion tank bracket | |
| 13 | Spring Washer 1.8 Hose 1.8 | 88842112 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Wash Clip 1/4" Hose 1/4" | 88710140 | 6 | 2 x 1/4" where hoses meet fan 2 x 1/4" radiator hose 2 x Radiator bobbin | |
| 15 | Wash Clip 1/4" Hose 1/4" | 88710138 | 2 | 1 x Engine outlet to top T-piece 1 x Engine outlet to middle T-piece | |
| 16 | Wash Clip 1/4" Hose 1/4" | 88710128 | 18 | 6 where hoses meet fan 6 Expansion tank 4 where hoses meet fan | |
| 17 | Wash Clip 1/4" Hose 1/4" | 88710116 | 5 | Expansion tank small T-piece | |
| 18 | Hex - Black 1/4" x 1/4" | 887610110 | 12 | Crossing fan | |

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

x2

TIPS

LAST BIT OF PLUMBING



CONNECTING THE FUEL LINE

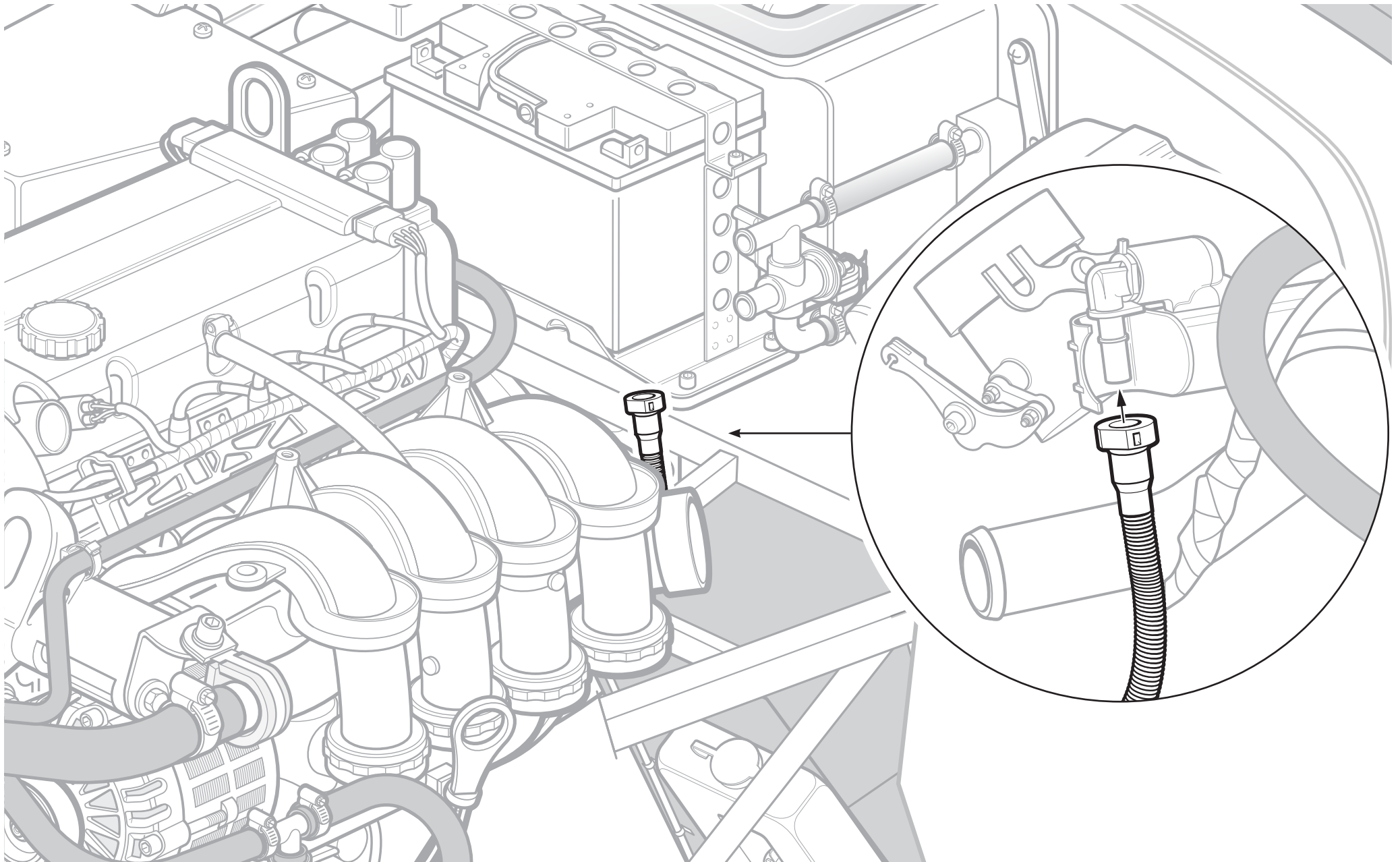
P A R T S

T O O L S

F I X I N G S

T I P S

CONNECTING THE FUEL LINE

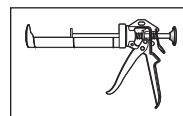
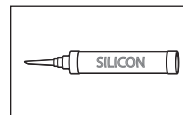
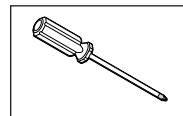


FIT THROTTLE CABLE

PARTS

- 1** Throttle cable

TOOLS



FIXINGS

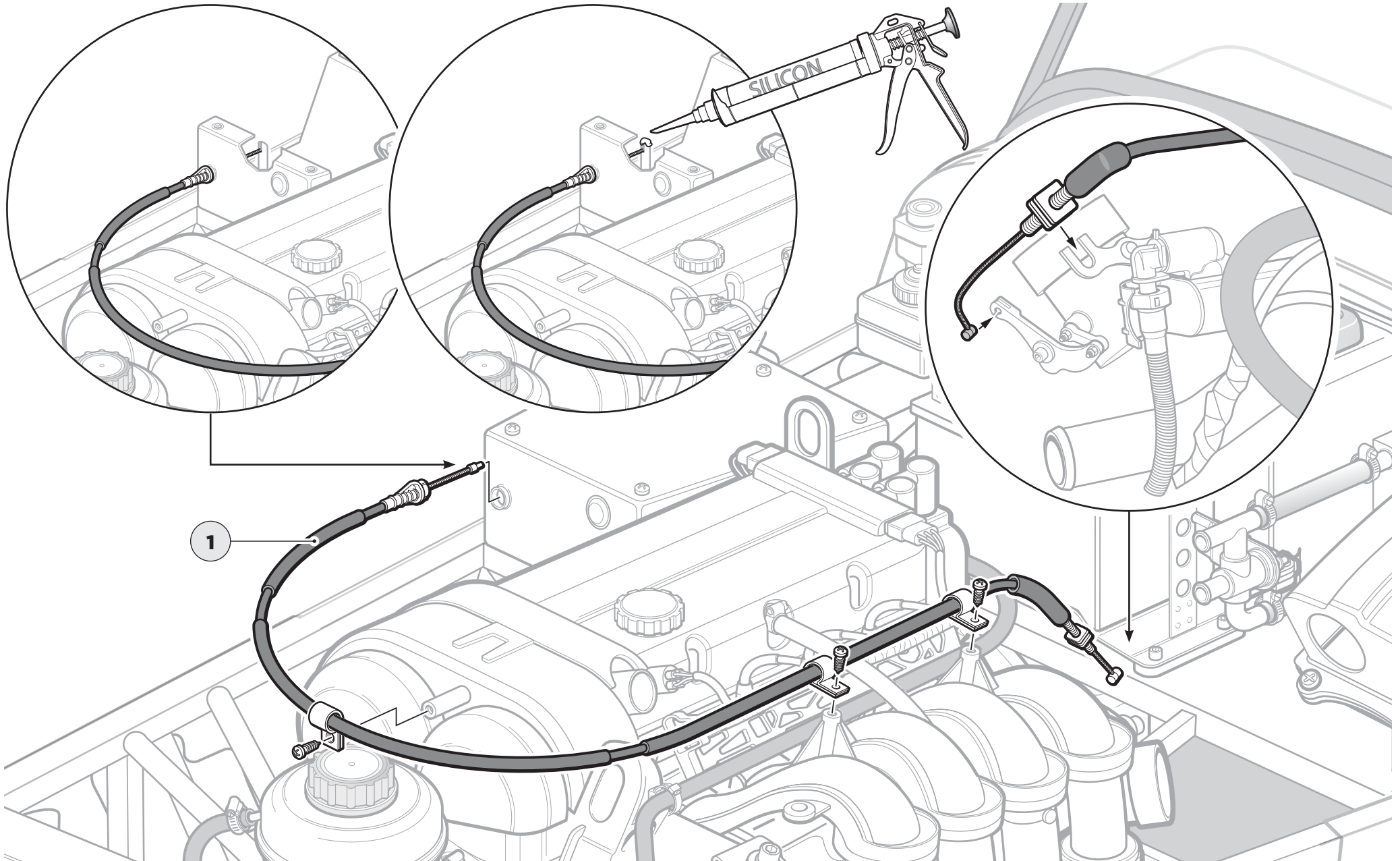
Fixings are supplied loosely attached to the engine in place

TIPS

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

Rich T

FIT THROTTLE CABLE

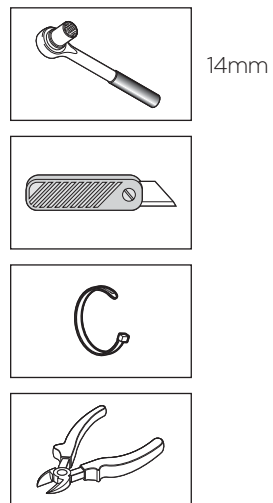


PROTECTING & ATTACHING THE CLUTCH HOSE

PARTS

- 1 8mm water hose

TOOLS



FIXINGS

TIPS

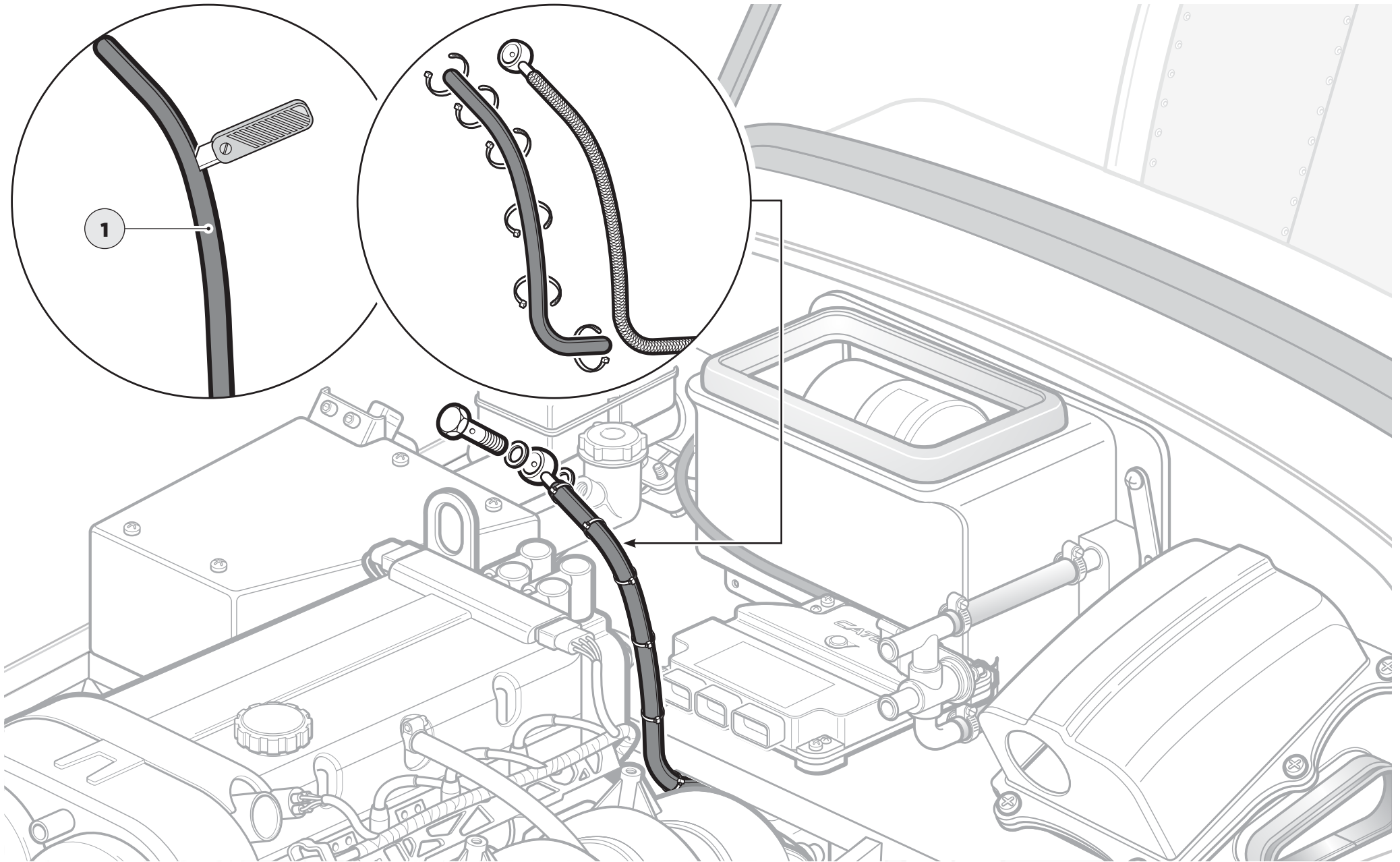
Nip up the banjo bolt.

John K

The hose is used to stop chaffing.

James A

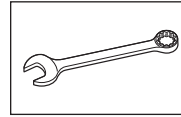
PROTECTING & ATTACHING THE CLUTCH HOSE



CONNECTING THE BATTERY (POSITIVE / RED FIRST)

PARTS

TOOLS



10mm (x2)

FIXINGS

TIPS

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

Chris B

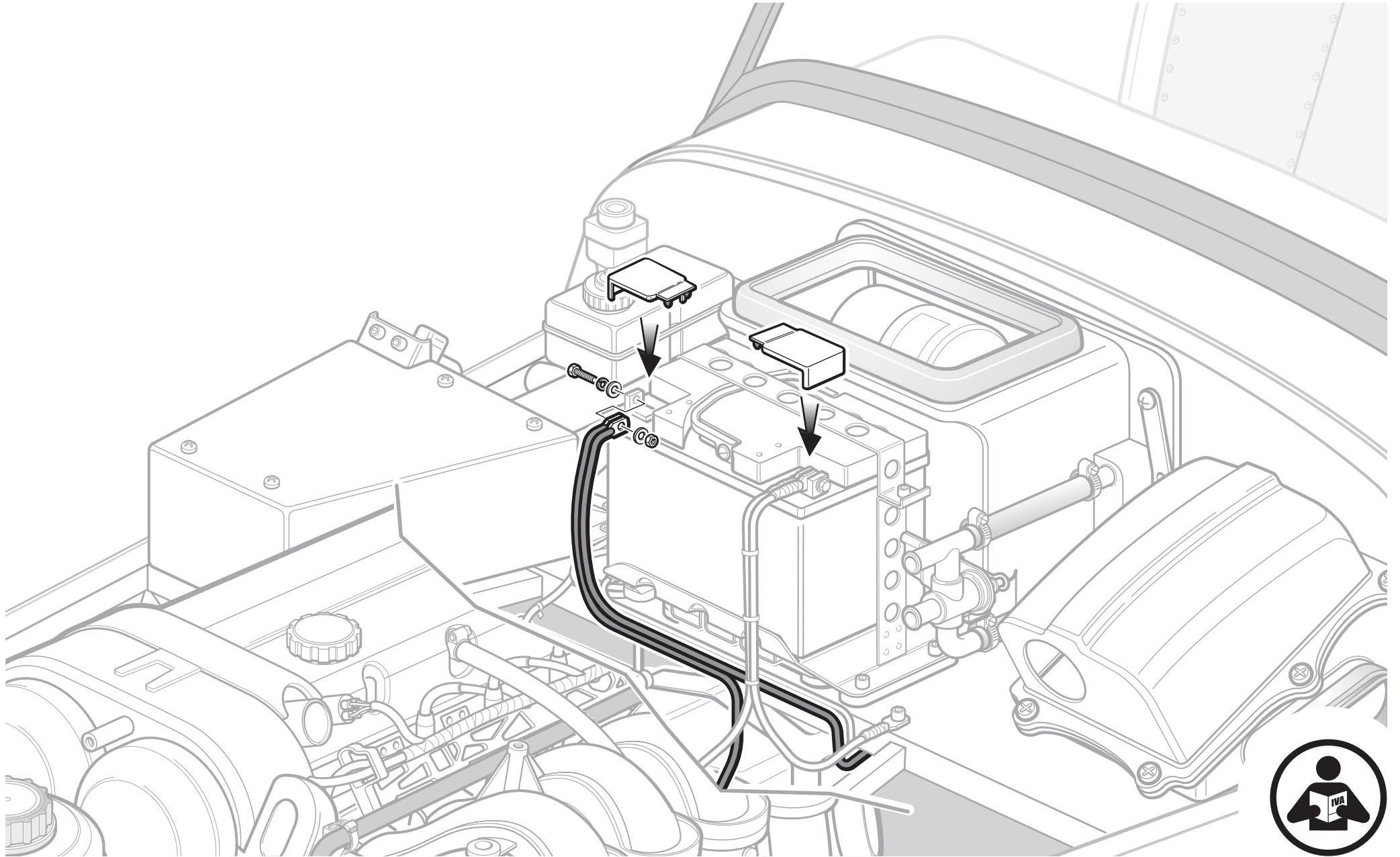
Make the battery the last thing you connect.

Jamie A

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

Dan D

CONNECTING THE BATTERY (POSITIVE / RED FIRST)



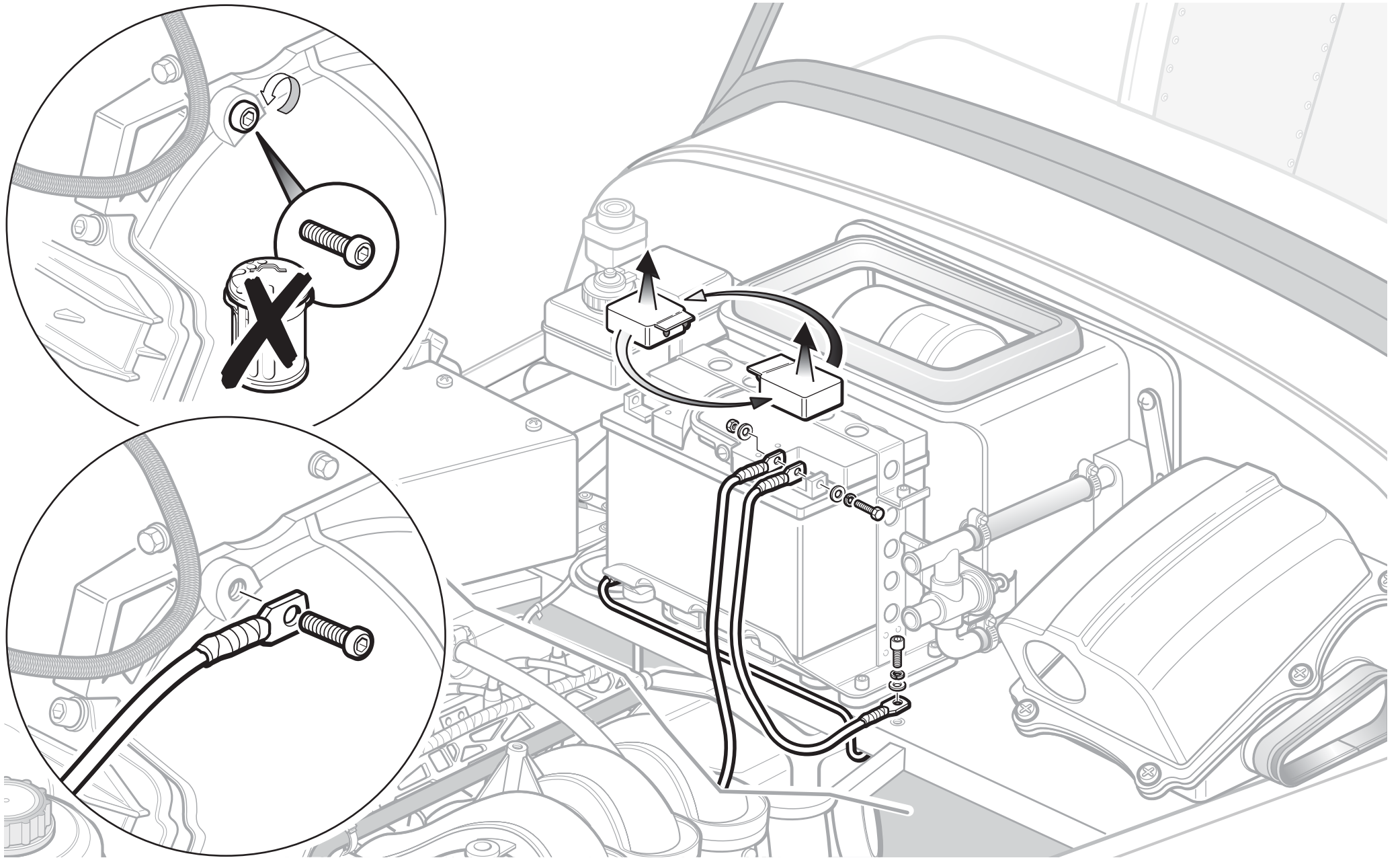
IT LIVES!

PARTS

TOOLS

FIXINGS

TIPS

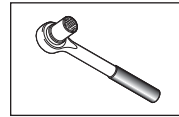


ONE LAST BIT OF PLUMBING...

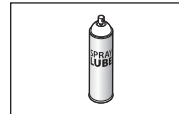
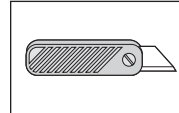
PARTS

1 Hose

TOOLS



7mm



FIXINGS

| Pack D | | CATERHAM | | 44 | |
|--|----------------------|-----------------|-----|---|--------------|
| | | PACK NUMBER | | SICCATS | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | EA Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | EB Radiator Fan 2.0L | 888440 | 1 | Expansion tank to bracket | |
| 3 | EC Radiator Fan 2.0L | 888440 | 4 | SM radiator bracket | |
| 4 | ED Radiator Fan 2.0L | 888440 | 4 | Fan brackets to fan | |
| 5 | EE Radiator Fan 2.0L | 888440 | 4 | Fan to radiator mounting - 20 100g | |
| 6 | EF Radiator Fan 2.0L | 888440 | 8 | 40 Fan to radiator 40 200 radiator bracket | |
| 7 | EG Radiator Fan 2.0L | 888440 | 8 | Radiator bobbin | |
| 8 | EH Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket | |
| 9 | EI Radiator Fan 2.0L | 888440 | 13 | 18 x 50V Fan Bracket 40 200 Fan Bracket 18 x Expansion tank bracket | |
| 10 | EJ Radiator Fan 2.0L | 888440 | 4 | Radiator bobbin back | |
| 11 | EK Radiator Fan 2.0L | 888440 | 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 | | SICCATS | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | EL Radiator Fan 2.0L | 888440 | 1 | Expansion tank bracket | |
| 13 | EM Radiator Fan 2.0L | 888440 | 8 | 4 x Radiator bobbin 1 x Expansion tank | |
| 14 | EN Radiator Fan 2.0L | 888440 | 6 | 2 x 40 Fan Bracket 40 200 Fan Bracket 18 x Expansion tank | |
| 15 | EO Radiator Fan 2.0L | 888440 | 2 | 1 x Expansion bracket to fan 1 200g 1 x Expansion bracket to fan 200g | |
| 16 | EP Radiator Fan 2.0L | 888440 | 18 | 18 x Fan Bracket 40 200 Fan Bracket 18 x Expansion tank 4 x Dip Sump 4 x Dip Sump | |
| 17 | EQ Radiator Fan 2.0L | 888440 | 6 | Expansion tank small 2 pieces | |
| 18 | ER Radiator Fan 2.0L | 888440 | 12 | Crossing clip | |

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

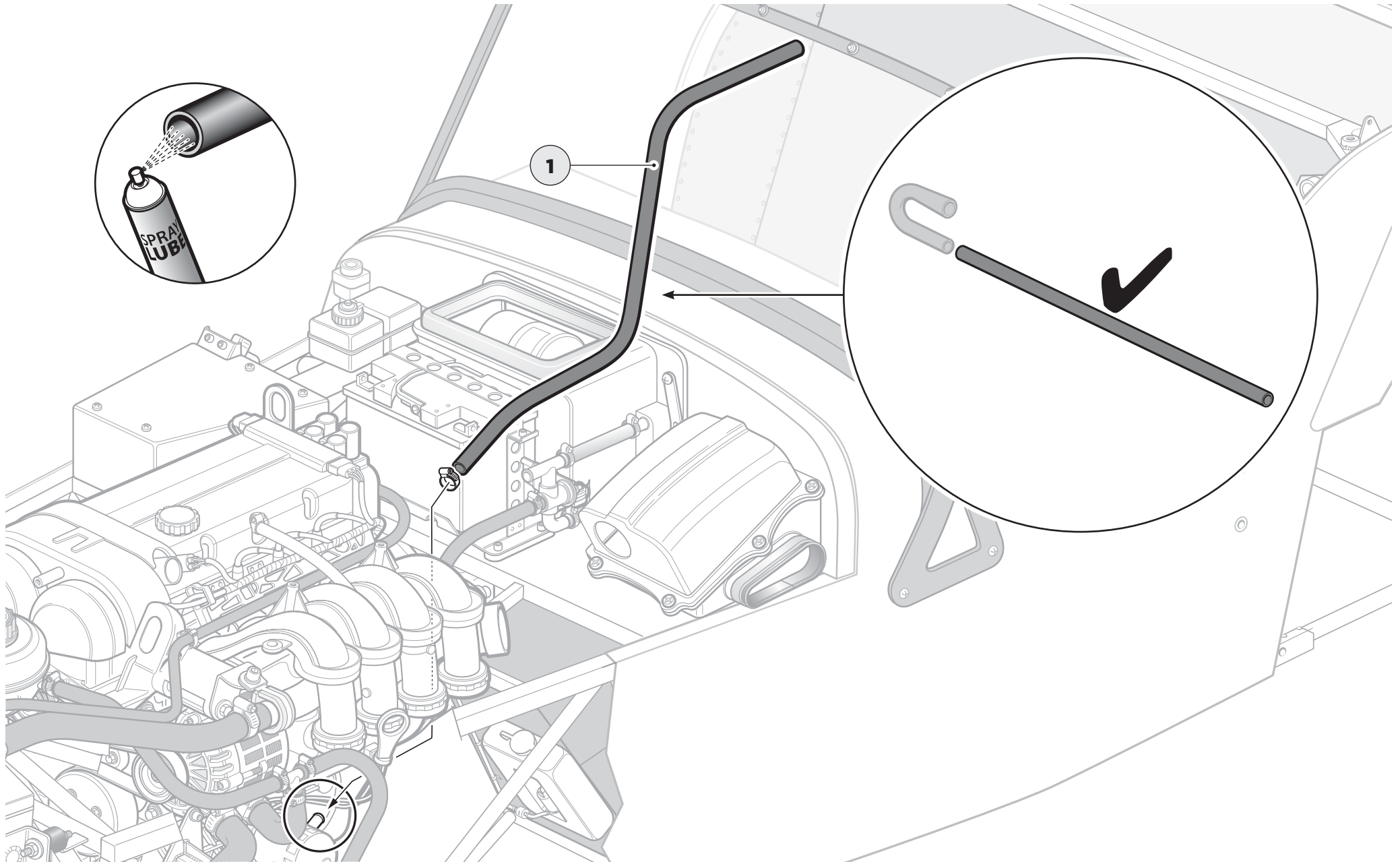
x1

TIPS

Cut off hook and trim if required.

Grant P

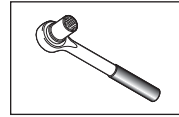
ONE LAST BIT OF PLUMBING...



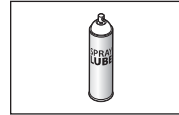
...TO CONNECT THE HEATER

PARTS

TOOLS



7mm



FIXINGS

TIPS

| Pack D | | CATERHAM | | 44 | |
|--|-------------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | 30C047B | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Nut 2.25 Hex 2.5 | 888440 | 1 | Expansion tank bracket to chassis | |
| 2 | Ball Nut 1.50 Hex 2.0 | 88714024 | 1 | Expansion tank to bracket | |
| 3 | Ball Nut M8x20 Hex 8.0 | 888420 | 4 | SM radiator bracket | |
| 4 | Ball Nut 2.18 with Square Washer | 88210204 | 4 | Fan brackets to fan | |
| 5 | Ball Nut M8x16 Hex 8.0 | 88840110 | 4 | Fan to radiator mounting - 20 100g | |
| 6 | Plan Nut M8 | 888770 | 8 | 40 Fan to radiator and 20 radiator bracket | |
| 7 | Plan Nut M8 | 888770 | 8 | Radiator bobbin | |
| 8 | Plan Nut 1.47 | 8871114 | 1 | Expansion tank bracket | |
| 9 | Plan Washer 16 Hex 16.0 | 8881114 | 13 | 18 x 20 Fan bracket 4 x 20 Fan bracket 1 x Expansion tank bracket | |
| 10 | Plan Washer 12.5 Hex 12.5 | 8881116 | 4 | Radiator bobbin back | |
| 11 | Plan Washer 12.5 Hex 12.5 | 8881116 | 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 | | 30C047B | |
| COOLING SIGMA | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Plan Washer 16 Hex 16.0 | 8881114 | 1 | Expansion tank bracket | |
| 13 | Spring Washer 16 Hex 16.0 | 88810110 | 8 | 8 x Radiator bobbin 1 x Expansion tank | |
| 14 | Wash Clip 16 Hex 16.0 | 8872040 | 6 | 2 x 18 where hoses connect to 2 x 20 radiator hose 2 x Radiator bobbin hose | |
| 15 | Wash Clip 20 Hex 20.0 | 8872030 | 2 | 1 x Engine outlet to top 1 20mm 1 x Engine outlet to bottom 20mm | |
| 16 | Hose Clip 17-20mm | 8871625 | 18 | 8 x Heater hoses 16 x 20 Fan hoses 1 x Expansion tank 4 x Dip Sump 4 x Radiator | |
| 17 | Wash Clip 8-10mm | 8871616 | 6 | Expansion tank small 1 piece | |
| 18 | Plan - Black 12.5 Hex 12.5 | 88710110 | 12 | Cooling fan | |

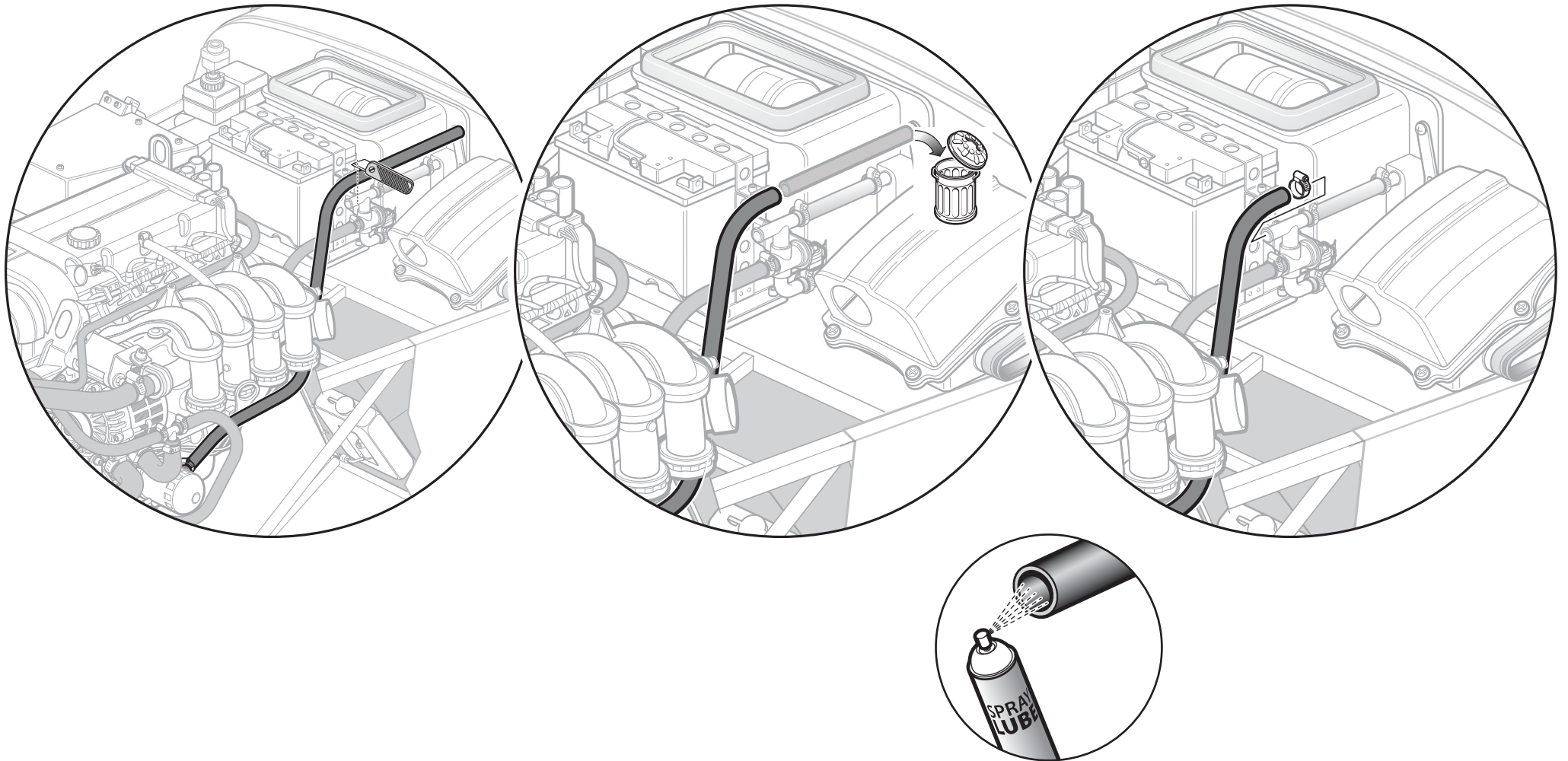
Drawings are for illustrative purposes only and are not to scale. Page 1 of 2

x1

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

Anthony L

...TO CONNECT THE HEATER



FILL WITH COOLANT

PARTS

Coolant concentrate

TOOLS



FIXINGS

TIPS



Fill expansion bottle to max mark

CONNECT THE AIRBOX TO THE ENGINE

PARTS

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

TOOLS



7mm

FIXINGS

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

TIPS

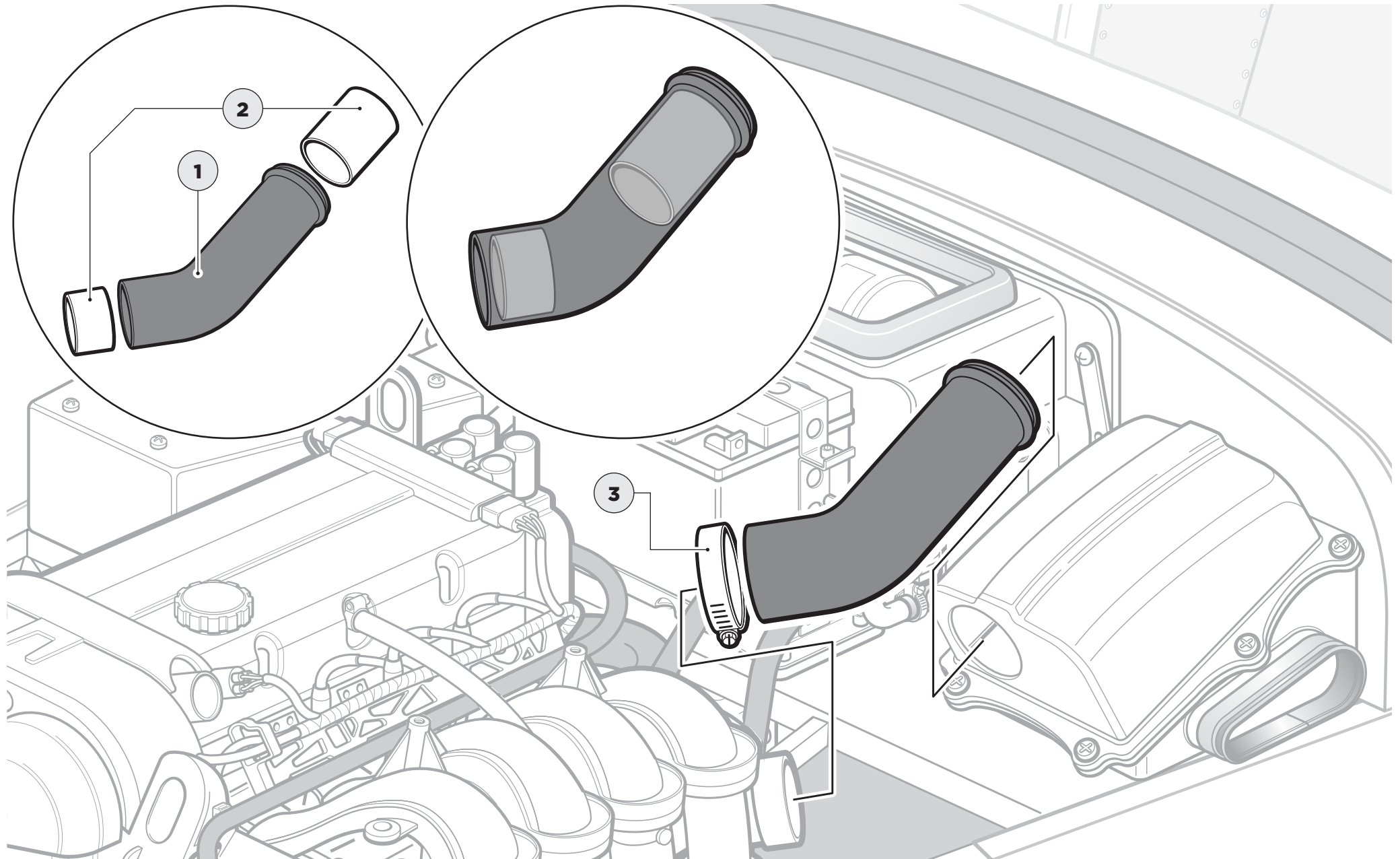
To help push insert in use the work bench.

Rich T

Spray brake cleaner in the hose and on the insert.

John K

CONNECT THE AIRBOX TO THE ENGINE

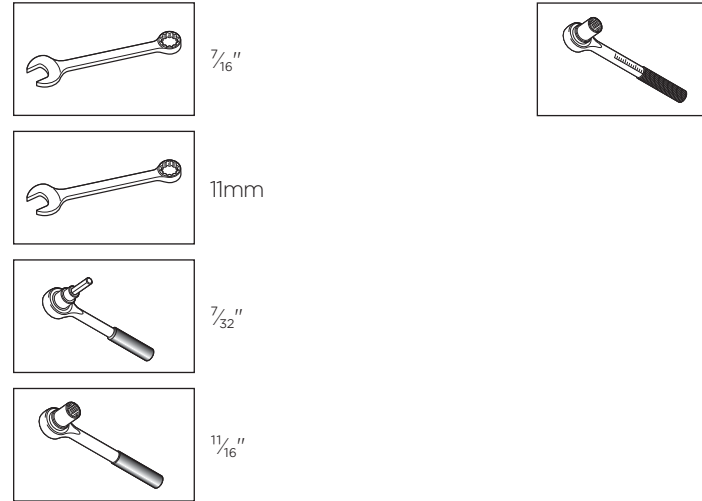


GIVING IT SOME DIRECTION

PARTS

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

TOOLS



FIXINGS

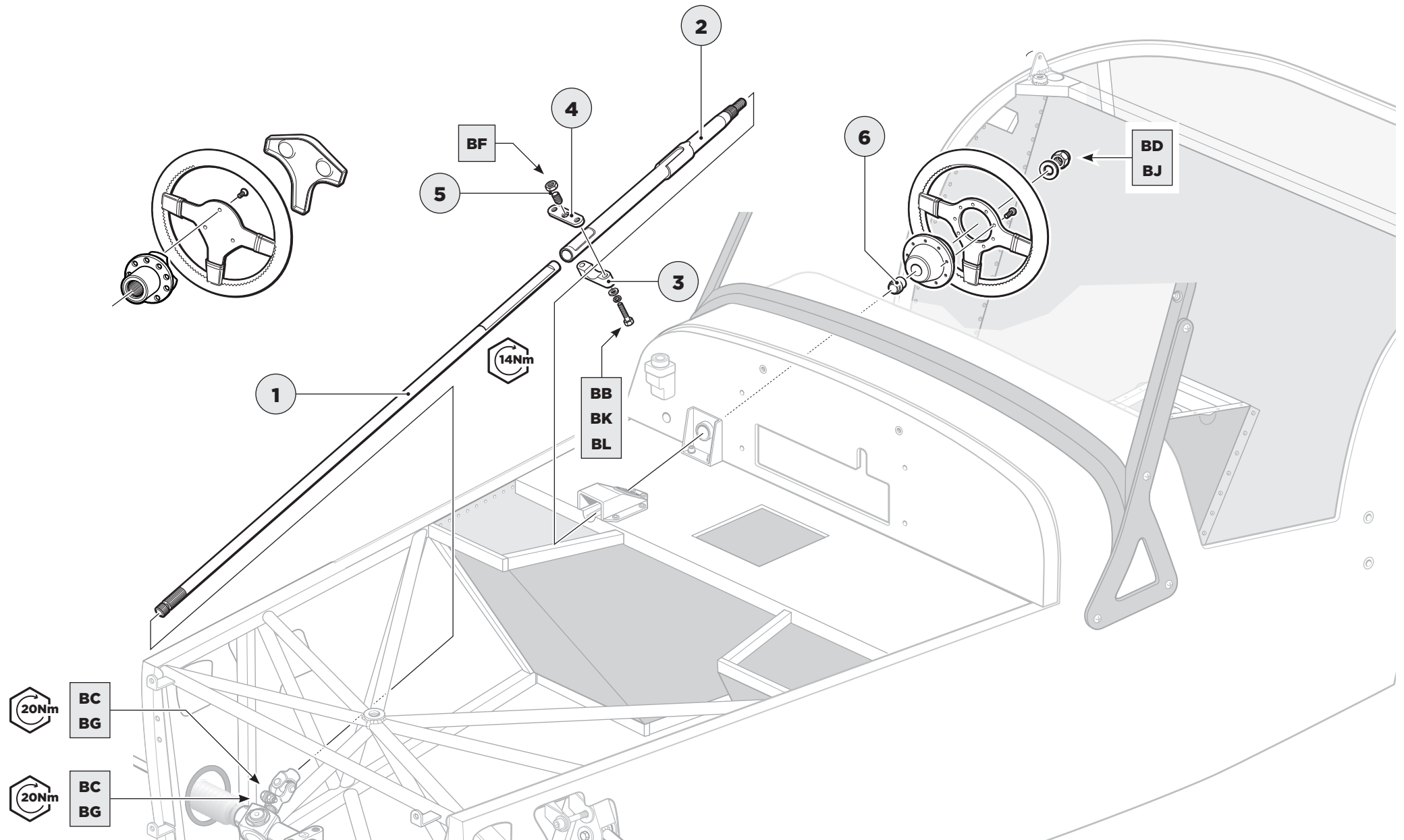
| Pack B | | CATERHAM | | 55 | |
|--|--------------------------------|-------------|-----|---------------------------------|--------------|
| | | | | PACK NUMBER: 305003B | |
| STEERING DeDION CARS (METRIC) | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Rack clamp | SMC30070 | 4 | Rack clamps | |
| 2 | Column clamp | SP1401 12 | 2 | Column clamp | |
| 3 | Bush M6 x 25 Green 8.8 | BMSX35 | 2 | Column to rack universal joint | |
| 4 | Nylon Nut 12 nut height | NY1112 | 1 | Steering wheel boss | |
| 5 | Plain Nut 12 | NP1112 | 2 | Track rod lock nut | |
| 6 | Plain Nut 12 nut height | NP110712 | 1 | Column clamp grub screw locknut | |
| 7 | Nylon Nut M6 | NMF6 | 2 | Column to rack universal joint | |
| 8 | Nylon Nut M6 | NMF6 | 4 | Steering rack clamps | |
| 9 | Plain Washer 12 x 12 Overtight | WP1112 | 1 | Steering wheel boss | |
| 10 | Plain Washer 12 x 12 | WP1114 | 8 | Rack clamps and column clamp | |
| 11 | Spring Washer 12 x 12 | WS1114 | 2 | Column clamp | |

x2
x1
x2
x1

TIPS

- Put the clamp in the middle of column recess.
Jamie A
- Fit the clamp bolts first, then grubscrew & finish with the locking nut.
Tiago O
- Grease the steering bushes.
Lee A

GIVING IT SOME DIRECTION

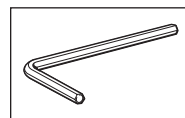


THIS IS EXHAUSTING

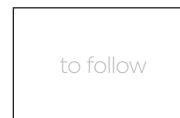
PARTS

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

TOOLS

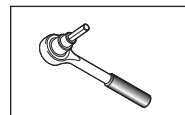


8mm

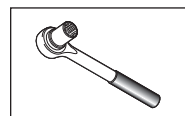


to follow

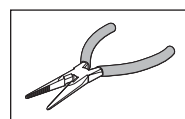
Extension



8mm



17mm
(270 & 310 only)



FIXINGS

Fixings are supplied loosely attached to the engine in place

TIPS

Use cable ties to compress exhaust spring.

Mick F

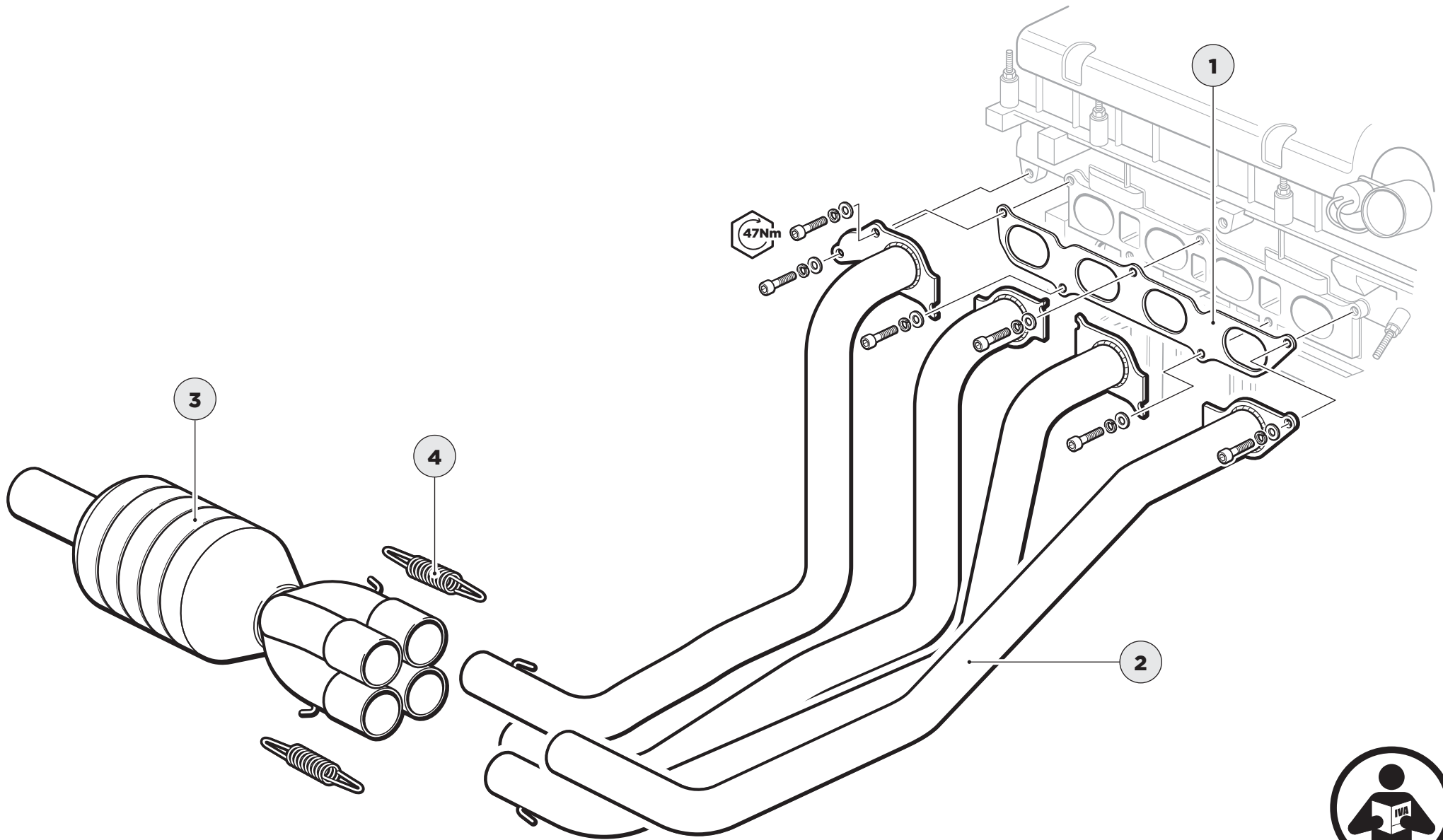
A pair of pliers are best to help hook over.

James A

Put masking tape round exhaust hole to prevent scratches.

Chris B

THIS IS EXHAUSTING

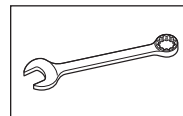


FITTING THE HANDBRAKE

PARTS

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

TOOLS



13mm (x2)

FIXINGS

Miscellaneous pack

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

TIPS

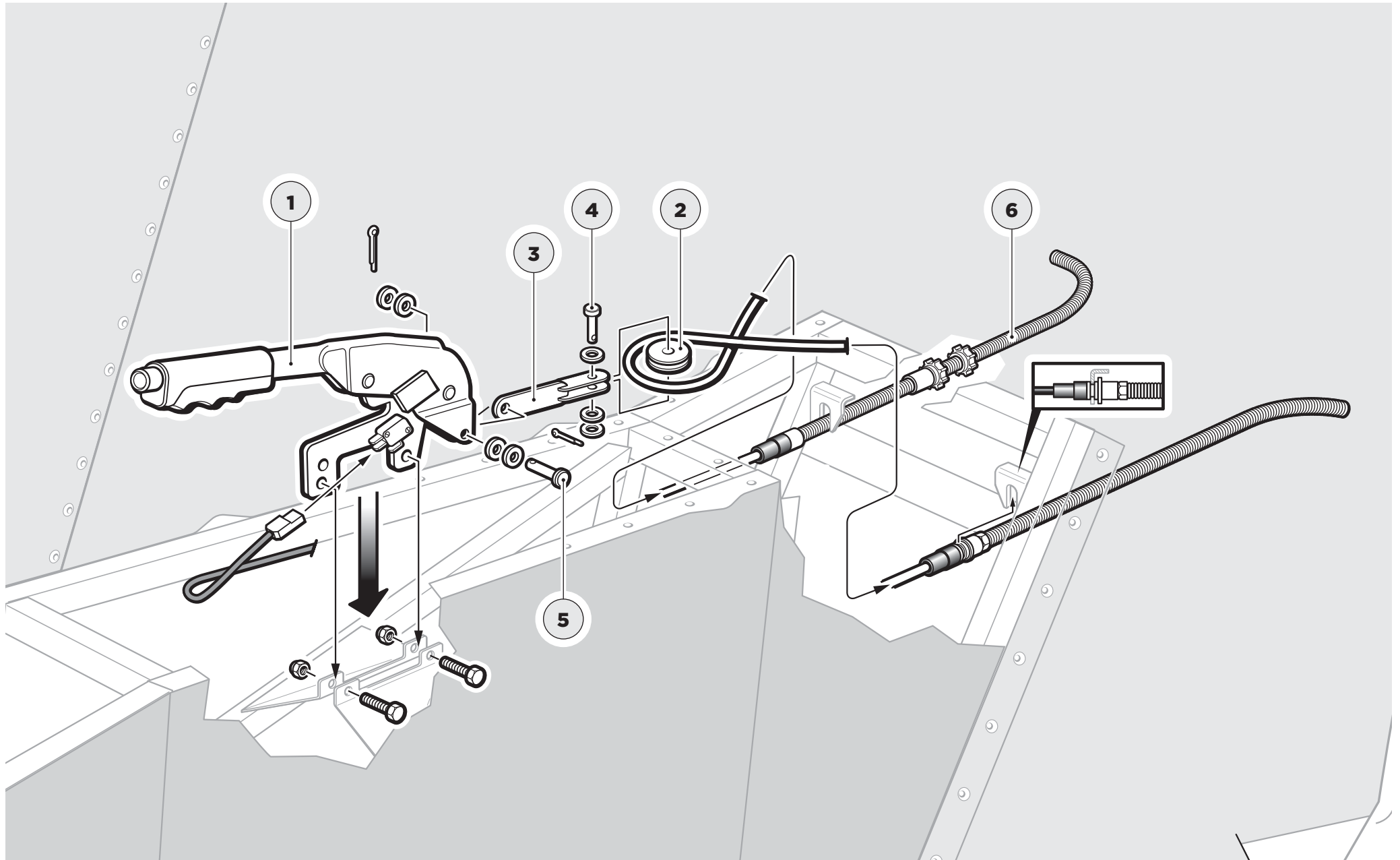
Remember to put a loop in inner cable around pulley.

Grant P

Cable tie adjuster end of cable to diff.

Dan D

FITTING THE HANDBRAKE



SLIDE IN THE PROPSHAFT

PARTS

- 1 Propshaft

TOOLS



FIXINGS

TIPS

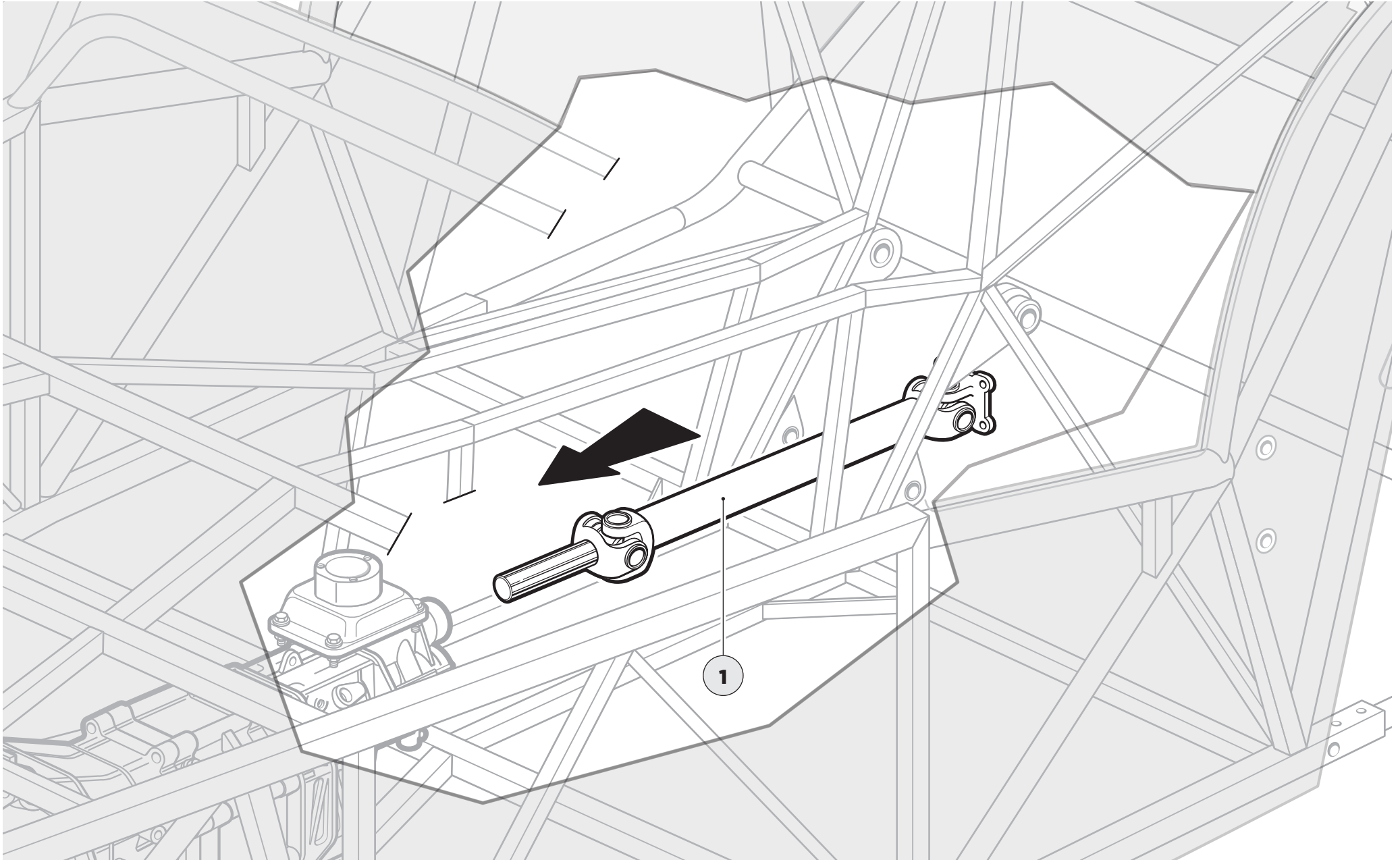
Line the splines in the propshaft to the gearbox.

Anthony L

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

John S

SLIDE IN THE PROPSHAFT

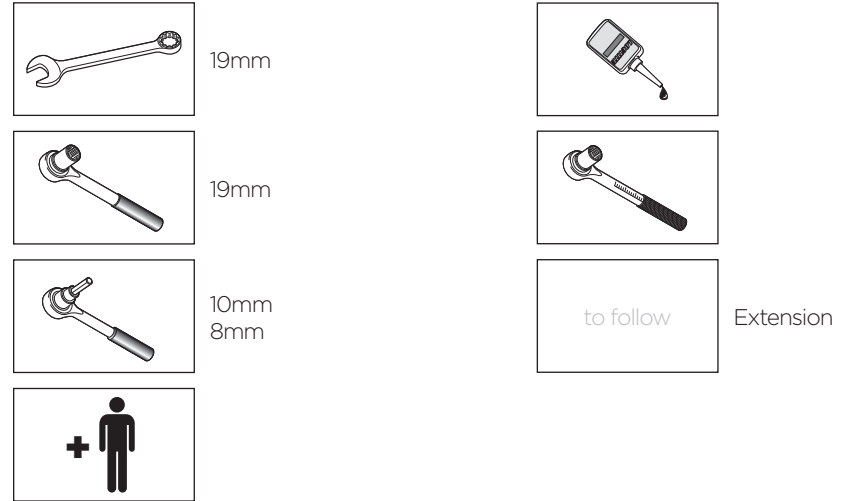


HEAVY STUFF: FITTING THE DIFF

PARTS

1 Differential

TOOLS



FIXINGS

| Pack 1 | | CATERHAM | | 44 | |
|--|--|-------------|-----|---|--------------|
| | | PART NUMBER | | 30Z1067B | |
| AXLE DE Dion METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | 1/2" x 11" LWF | BP12X11 | 1 | Upper diff mounting bolt | |
| 2 | Caphead Bolt M12 x 55 Grade 10.9 | BMCH12X55 | 2 | Lower diff mounting bolt | |
| 3 | Self Drilling Bolt M10 x 25 Grade 10.9 | BM10X25 | 4 | Rear hub through axle to front DeDion | |
| 4 | Self Drilling Bolt M10 x 25 Grade 10.9 | BM10X25 | 8 | 3 x 4 Front hub through ear x 4 Caliper carrier bolts | |
| 5 | Self Drilling Bolt M10 x 25 Grade 10.9 | BM10X25 | 4 | Through rear of axle into Reinforced DeDion tubes | |
| 6 | Caphead Bolt M12 x 25 Grade 12.9 | BMCH12X25 | 4 | Propshaft bolts | |
| 7 | Caphead Bolt M12 x 25 Grade 12.9 | BMCH12X25 | 2 | Diff cage | |
| 8 | Half Nuts 1/2" Type | NFY112 | 1 | Upper diff bolt | |
| 9 | Rear Hub Bolt | BMH110 | 8 | Hub through axle to DeDion | |
| 10 | 1/2" x 11" LWF | BP12X11 | 4 | Rear axle roll bar straps | |
| 11 | Plain washer 1/2" x 3/4" | W12X3/4 | 2 | Brake pipe | |

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

x1
x2
x4
x1

| Pack 1 | | CATERHAM | | 44 | |
|--|--------------------------|-------------|-----|----------------------------------|--------------|
| | | PART NUMBER | | 30Z1067B | |
| AXLE DE Dion METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Plain washer 1/2" x 3/4" | W12X3/4 | 16 | Fit behind diff shells | |
| 13 | Plain washer 1/2" x 3/4" | W12X3/4 | 8 | Free play on diff | |
| 14 | Plain washer 1/2" x 3/4" | W12X3/4 | 16 | Diff shim washers | |
| 15 | Washer M12 | W12X12 | 16 | Rear DeDion Carrier Carrier Hub | |
| 16 | Spring Washer M12 | WS12X12 | 16 | Rear DeDion Tube Carrier Carrier | |
| 17 | Softner washer M12 | WS12 | 4 | Behind bolt heads on diff | |
| 18 | Reinforced washer 1/2" | WR12X1/2 | 1 | Braked brake hose | |
| 19 | Rear 1/2" x 5.31" | 161-044 | 5 | P-clips on DeDion for brake pipe | |
| 20 | P-Clip | NX1 | 5 | Brake pipe on DeDion | |

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

*
*
x4

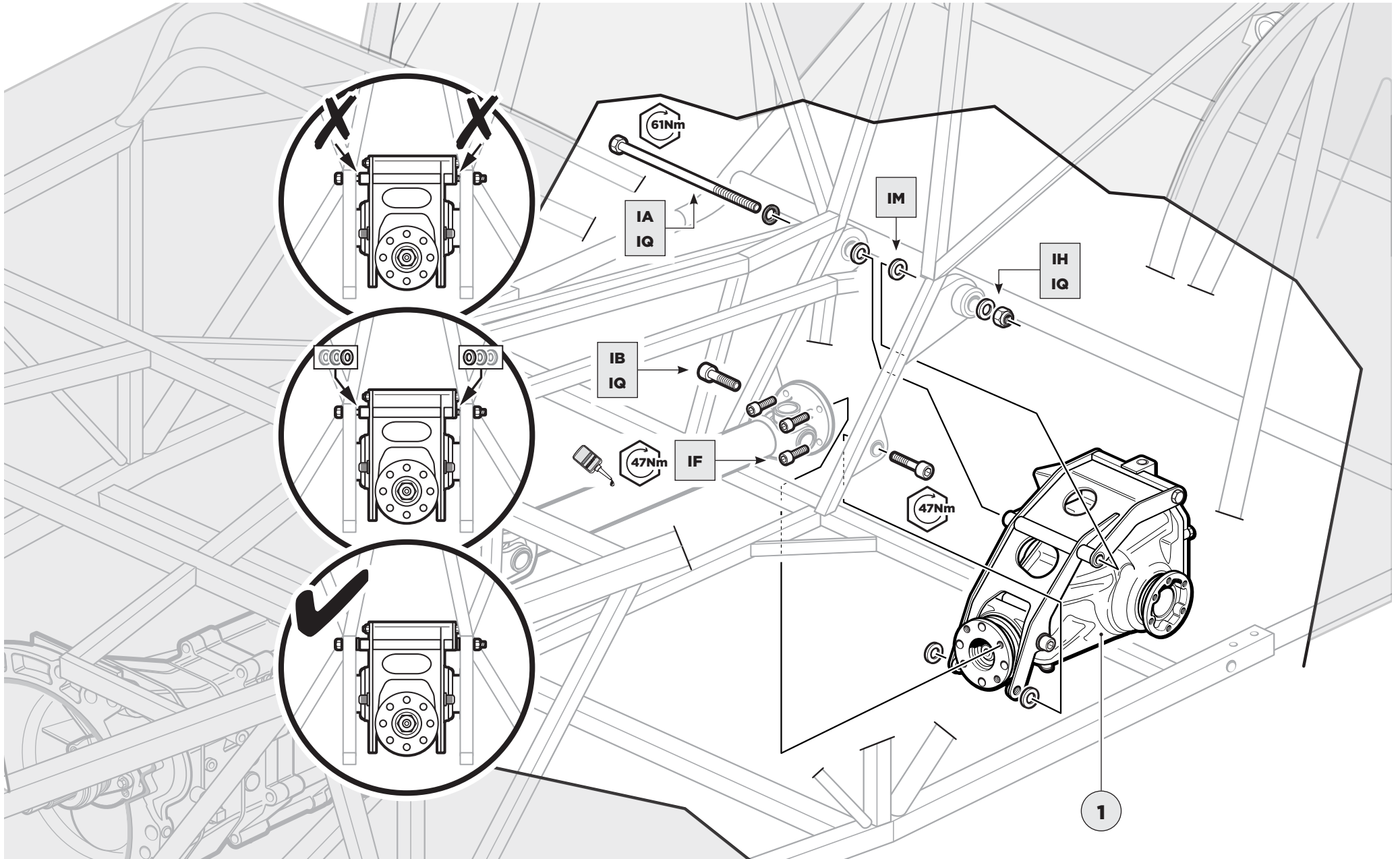
* Use as required for spacing

TIPS

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

Make sure propshaft is in first!
Harry P

HEAVY STUFF: FITTING THE DIFF



FILL THE DIFFERENTIAL WITH OIL

P A R T S

T O O L S

Differential oil

F I X I N G S

T I P S



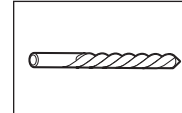
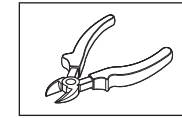
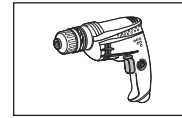
Differential = 0.8L

PREPARING THE DEDION TUBE

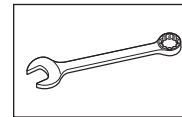
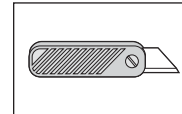
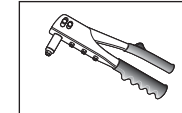
PARTS

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

TOOLS



1/8"



11mm
13mm
14mm

FIXINGS

| Pack H | | CATERHAM | | 53 | |
|--|--------------------------------------|-------------|-----|---|--------------|
| | | PACK NUMBER | | 30R01TD | |
| REAR SUSPENSION DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Joint LHS Dish 10.0 | SM124100 | 2 | A-frame front mountings | |
| 2 | Coilover Rod 16.0 x 0.80 | SM121000 | 2 | Front radius arm (through coilover) | |
| 3 | Rod 12.0 x 2.0 x 2.0 Dish 10.0 | SM123010 | 4 | x 2 Lower Race Champs x 2 Rear Radius Arm | |
| 4 | Rear Axle Rod Dish 10.0 | SM123010 | 4 | Rear Axle Rod Bar Mounting Blocks | |
| 5 | Ball Joint LHS Dish 10.0 | SM123010 | 4 | A-frame to DeDion | |
| 6 | Half Nuts 12.0 x 0.80 | SM123010 | 3 | x 2 Rear Radius Arm x 1 A-frame to DeDion | |
| 7 | Nuts 12.0 x 0.80 | SM123010 | 2 | A-frame front mounting | |
| 8 | Half Nuts 12.0 x 0.80 | SM123010 | 2 | Front radius arm (through coilover) | |
| 9 | Half Nuts 12.0 x 0.80 | SM123010 | 2 | Rear Axle Rod Bar Drop Link | |
| 10 | Nuts 12.0 x 0.80 | SM123010 | 4 | Rear Axle Rod Bar Mounting Blocks | |
| 11 | HK Metric Nut 14" | SM123010 | 1 | 3-way union on DeDion tube | |

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

x1

| Pack I | | CATERHAM | | 44 | |
|--|--|-------------|-----|--|--------------|
| | | PACK NUMBER | | 30Z1067B | |
| AXLE DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Upper Off mounting Bolt | SM123010 | 1 | Upper off mounting bolt | |
| 2 | Lower Off mounting Bolt | SM123010 | 2 | Lower off mounting bolt | |
| 3 | Rear Rod through ear to front DeDion | SM123010 | 4 | Rear Rod through ear to front DeDion | |
| 4 | x 4 Front nut through ear x 4 Carbon carrier nuts | SM123010 | 8 | x 4 Front nut through ear x 4 Carbon carrier nuts | |
| 5 | Through rear of ear into threaded DeDion tubes | SM123010 | 4 | Through rear of ear into threaded DeDion tubes | |
| 6 | Coilover Rod 16.0 x 0.80 Dish 10.0 | SM123010 | 4 | Coilover Rod 16.0 x 0.80 Dish 10.0 | |
| 7 | Frontshaft bolts | SM123010 | 4 | Frontshaft bolts | |
| 8 | Off cage | SM123010 | 2 | Off cage | |
| 9 | Upper off bolt | SM123010 | 1 | Upper off bolt | |
| 10 | Hub through ear to DeDion | SM123010 | 8 | Hub through ear to DeDion | |
| 11 | 12.0" Nuts 14" | SM123010 | 4 | Rear axle roll bar drop link | |
| 12 | Brake pipe | SM123010 | 2 | Brake pipe | |

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

x2

| Pack I | | CATERHAM | | 44 | |
|--|--|-------------|-----|--|--------------|
| | | PACK NUMBER | | 30Z1067B | |
| AXLE DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Front spring off nut | SM123010 | 10 | Front spring off nut | |
| 13 | Front spring off nut | SM123010 | 8 | Front spring off nut | |
| 14 | Off shock washers | SM123010 | 14 | Off shock washers | |
| 15 | Rear DeDion Carrier Center Hub | SM123010 | 10 | Rear DeDion Carrier Center Hub | |
| 16 | Rear DeDion Carrier Center Hub | SM123010 | 10 | Rear DeDion Carrier Center Hub | |
| 17 | Behind ball nuts on off | SM123010 | 4 | Behind ball nuts on off | |
| 18 | Braked brake hose | SM123010 | 1 | Braked brake hose | |
| 19 | P-clips on DeDion for brake pipe | SM123010 | 5 | P-clips on DeDion for brake pipe | |
| 20 | Brake pipe on DeDion | SM123010 | 5 | Brake pipe on DeDion | |

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

x1
x5
x5

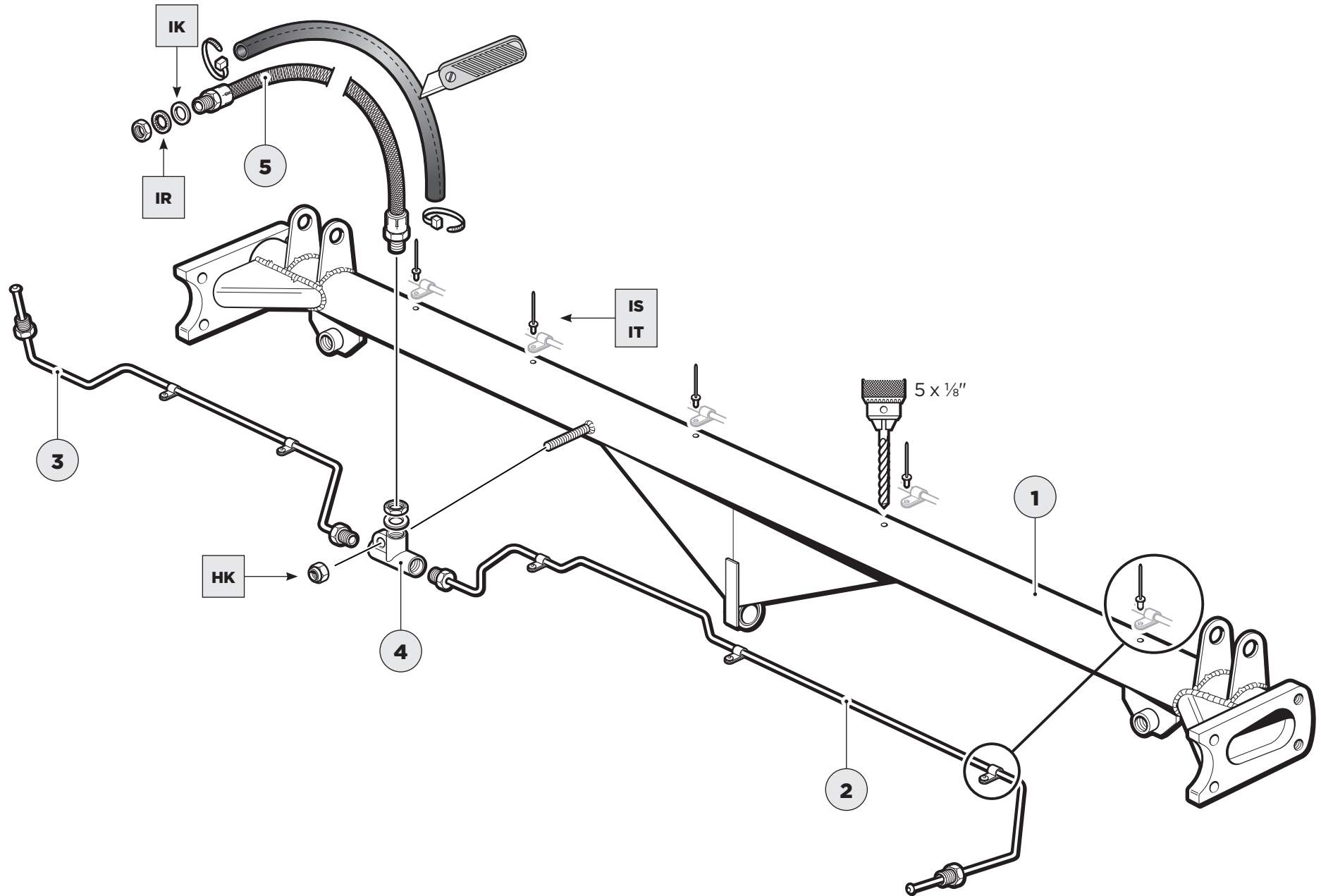
Brake pipe washers and nuts are included with the hose

TIPS

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

John K

PREPARING THE DEDION TUBE



AND FITTING IT IN PLACE

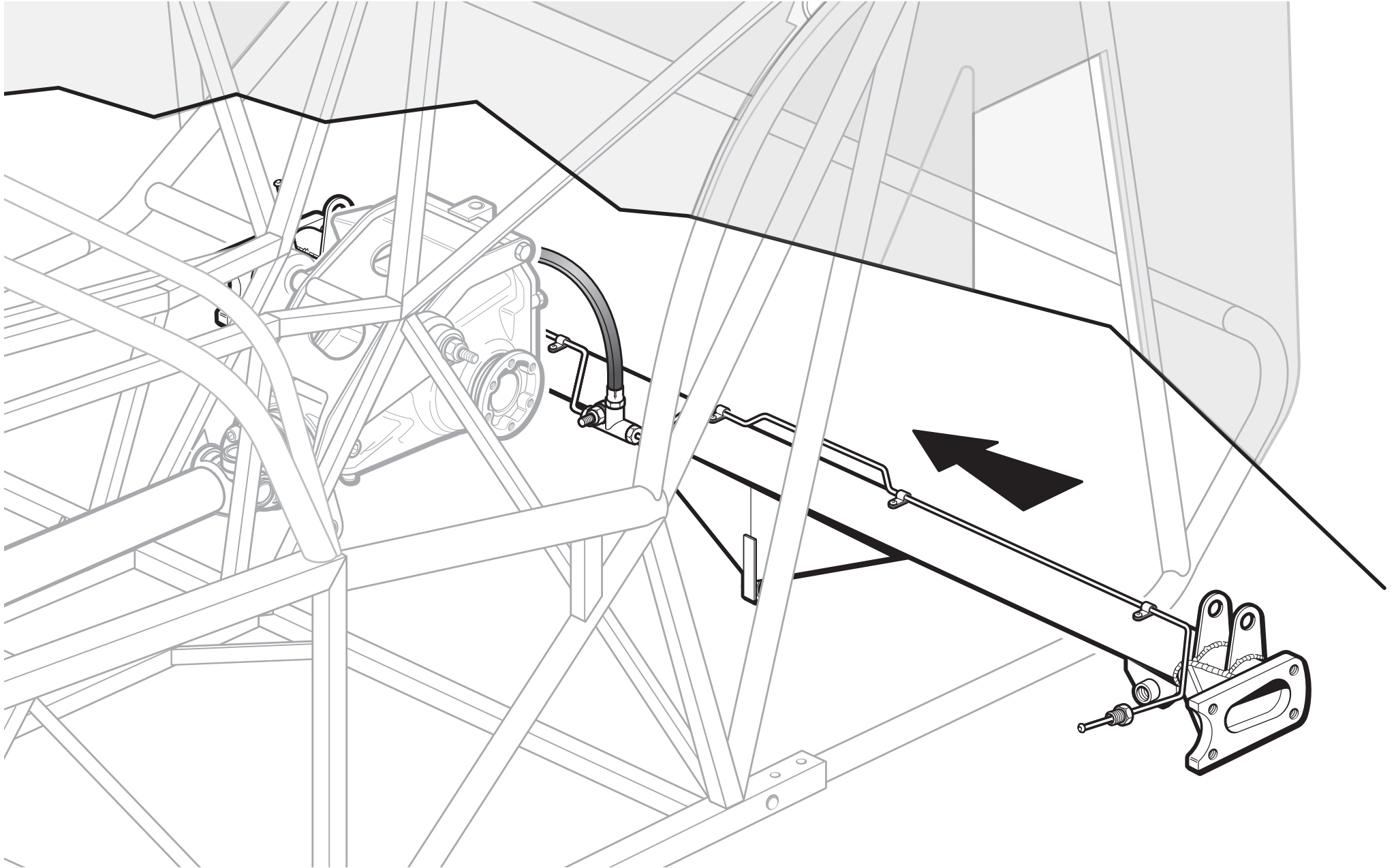
P A R T S

T O O L S

F I X I N G S

T I P S

AND FITTING IT IN PLACE

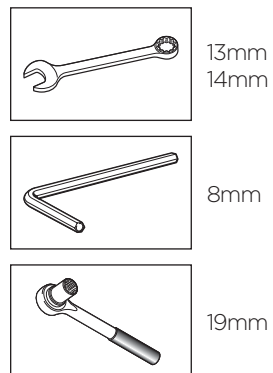


ATTACHING THE REAR DAMPERS

PARTS

- 1 Rear damper assembly
- 2 Rear damper sleeve

TOOLS



FIXINGS

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|-------------------------------------|-------------|-----|--|--------------|
| 1 | Ball Joint A-Frame Caster 10.3° | BM212100 | 2 | A-frame front mountings | |
| 2 | Coilover Fork 1000 0.000 | BM211000 | 2 | Front radius arm (through cockpit) | |
| 3 | Ball 10" x 2.10" Caster 10.3° | BF1202 1/2 | 4 | x 2 Lower Rear Damper x 2 Rear Radius Arm | |
| 4 | Ball 10" x 2.10" Caster 10.3° | BM2100 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 5 | Ball 10" x 2.10" Caster 10.3° | BF1202 3/4 | 1 | A-frame to DeCleon | |
| 6 | Half Nuts 100 0.000 | BM2101 | 3 | x 2 Rear Radius Arm x 1 A-frame to DeCleon | |
| 7 | Nuts 100 100 0.000 | BM2102 | 2 | A-frame front mounting | |
| 8 | Nuts 100 100 0.000 | BM2103 | 2 | Front radius arm (through cockpit) | |
| 9 | Half Nuts 100 0.000 | BM2104 | 2 | Rear Anti Roll Bar Drop Link | |
| 10 | Nuts 100 100 0.000 | BM2105 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 11 | Nuts 100 100 0.000 | BM2106 | 1 | x 1 Nut on top of DeCleon tube | |

x2

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|--------------------------------|-------------|-----|---|--------------|
| 12 | Washer | 7020 | 10 | Differential Isolation | |
| 13 | Plain Washer 1/2" Chamfered | WFH1/2 | 20 | x 2 Lower Damper x 10 A-frame washers x 4 Radius Arm | |
| 14 | Plain Washer 5/8" x 3/4" | WPH5/8 3/4 | 2 | Front Radius Arm | |
| 15 | Plain Washer 100 0.000 | WPH100 | 4 | Rear Anti Roll Bar Mounting Block | |
| 16 | Shim Washer M12 | 3021008A | 2 | Lower Damper | |

x4

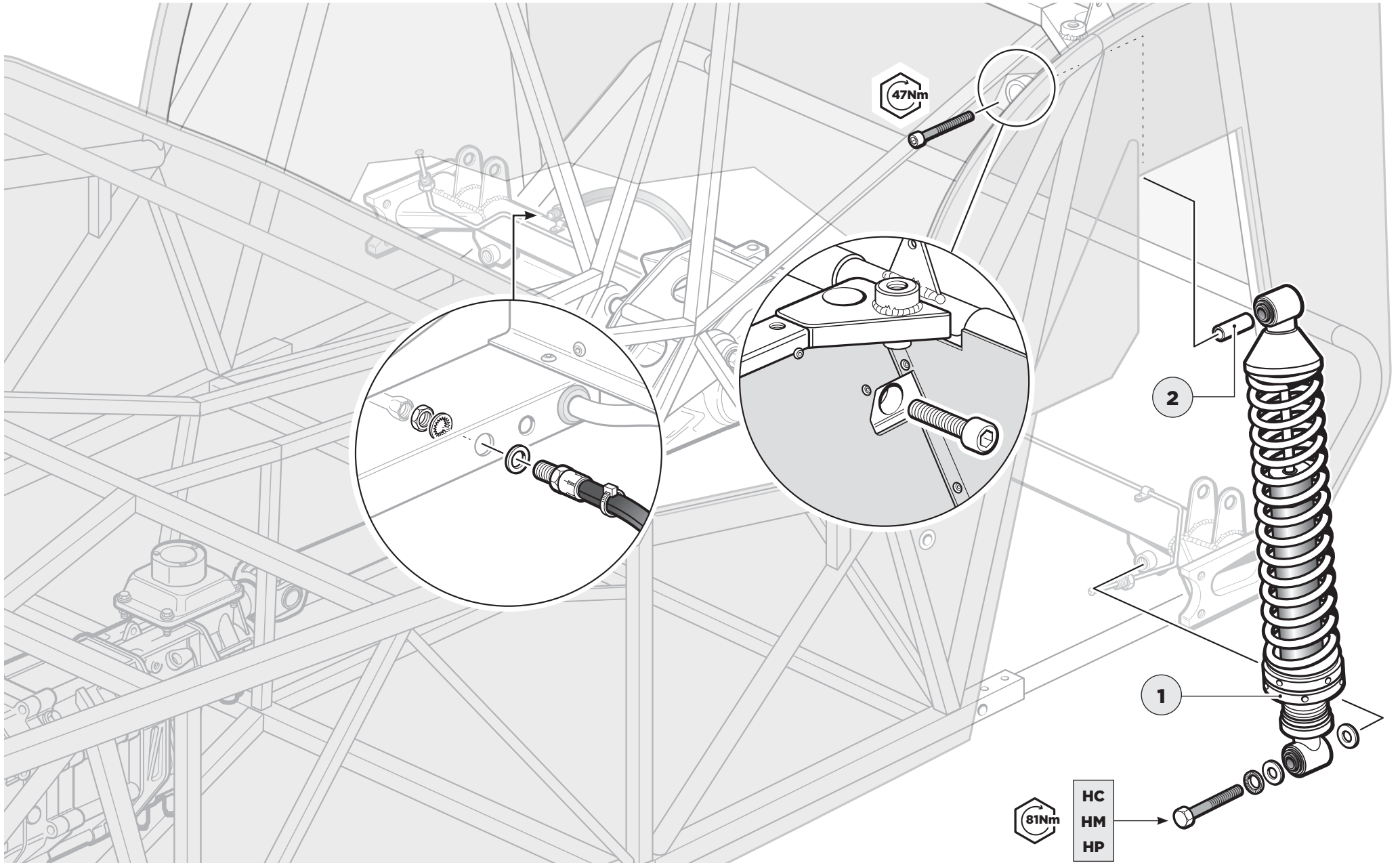
x2

TIPS

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

Jamie A

ATTACHING THE REAR DAMPERS

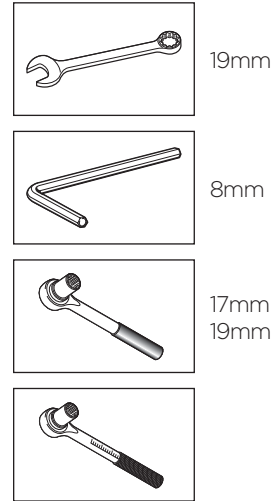


THEN THE RADIUS ARM

PARTS

1 Radius arm

TOOLS



FIXINGS

| Pack H | | CATERHAM | | 53 | |
|--|--------------------------------|-----------------|-----|--|--------------|
| | | PACK NUMBER | | 30R011D | |
| REAR SUSPENSION DEDEION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Joint 1.100 (Crank 10.5) | BM212100 | 2 | A-frame front mountings | |
| 2 | Caphead Bolt M10 X 65 | BMCH10X65 | 2 | Front radius arm (through cockpit) | |
| 3 | Bolt 1/2" x 2.125 (Crank 10.5) | BF12X2.125 | 4 | x 2 Lower Rear Damper x 2 Rear Radius Arm | |
| 4 | Roller Nut X 40 (Crank 10.5) | BMN40 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 5 | Roll 1/2" x 2.125 (Crank 10.5) | BF12X2.125 | 1 | A-frame to DeDion | |
| 6 | Half Nuts 1/2" (Crank 10.5) | NFY112 | 3 | x 2 Rear Radius Arm x 1 A-frame to DeDion | |
| 7 | Roller Nut M12 | NBM112 | 2 | A-frame front mountings | |
| 8 | Nylon Nut M10 | NBM110 | 2 | Front radius arm (through cockpit) | |
| 9 | Roller Nut M8 | NBM108 | 2 | Rear Anti Roll Bar Drop Link | |
| 10 | Roller Nut M8 | NBM108 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 11 | Nylon Nut M10 | NFY110 | 1 | Half nylon on DeDion tube | |

x2
x2
x2
x2

| Pack H | | CATERHAM | | 53 | |
|--|-----------------------------|-----------------|-----|--|--------------|
| | | PACK NUMBER | | 30R011D | |
| REAR SUSPENSION DEDEION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Washer | 7620 | 10 | Differential Isolation | |
| 13 | Plain Washer 1/2" (Cranked) | WPH12 | 20 | x 2 Lower Damper x 10 A-frame washers x 6 Radius Arm | |
| 14 | Plain Washer 3/8" X 1/8" | WPH3/8X1/8 | 2 | Front Radius Arm | |
| 15 | Plain Washer 1/4" | WPH1/4 | 4 | Rear Anti Roll Bar Mounting Block | |
| 16 | Conical Washer M10 | SW1010A | 2 | Lower Damper | |

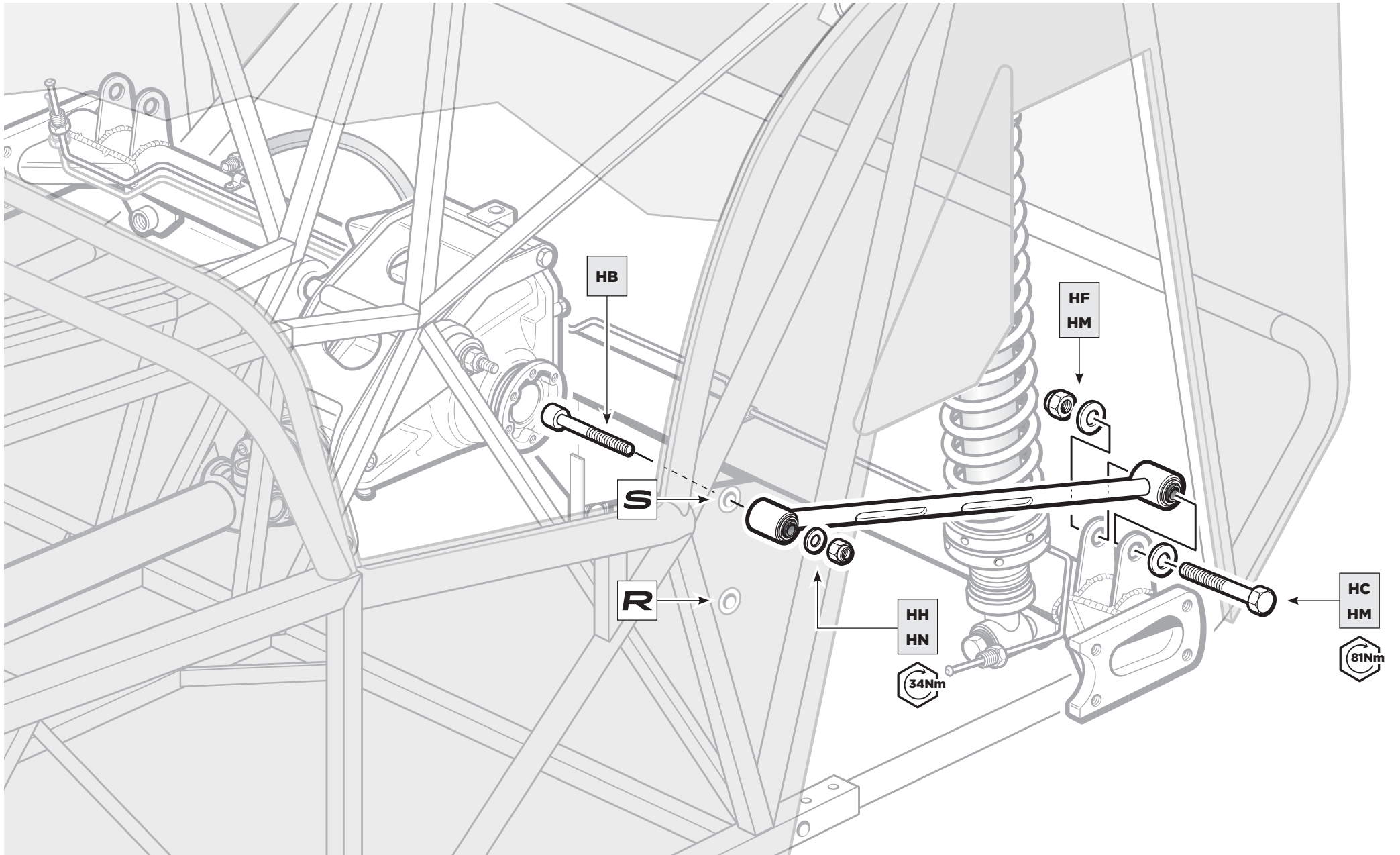
x4
x2

TIPS

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

Mick F

THEN THE RADIUS ARM

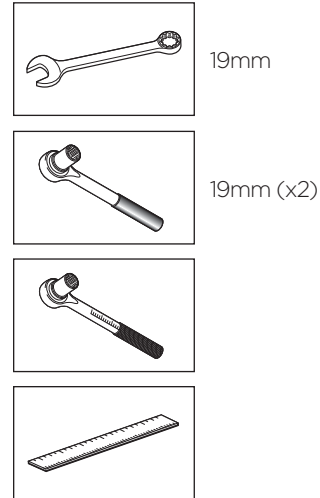


AND NOW THE (CAREFULLY SPACED) A-FRAME

PARTS

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

TOOLS



FIXINGS

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|-------------------------------------|-------------|-----|--|--------------|
| 1 | HA Half 1/2" x 1/8" Grade 10.9 | BM12X100 | 2 | A-frame front mountings | |
| 2 | HG Coplanar Bush 1/8" x 1/8" | BM12X100 | 2 | Front radius arm (through cockpit) | |
| 3 | HC Bush 1/2" x 2.2" 10.9 Grade 10.9 | BF12X2.2 | 4 | x 2 Lower Rear Champs x 2 Rear Radius Arm | |
| 4 | HD Bolt M6 x 40 Grade 10.9 | BM6X40 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 5 | HE Bolt 1/2" x 2.2 10.9 Grade 10.9 | BF12X2.2 | 1 | A-frame to DeDion | |
| 6 | HF Half Nylon 1/2" x 1/8" | NF1/2X1/8 | 3 | x 2 Rear Radius Arm x 1 A-frame to DeDion | |
| 7 | HG Nylon Nut M12 | NM12 | 2 | A-frame front mounts | |
| 8 | HA Nylon Nut 1/2" | NM1/2 | 2 | Front radius arm (through cockpit) | |
| 9 | HA Nylon Nut 1/8" | NM1/8 | 2 | Rear Anti Roll Bar Drop Link | |
| 10 | HA Nylon Nut 1/8" | NM1/8 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 11 | HG Nylon Nut 1/4" | NM1/4 | 1 | x 1 Nylon nut on DeDion tube | |

x2

x1

x1

x2

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|--------------------------------|-------------|-----|--|--------------|
| 12 | HL Washer | 7620 | 10 | Differential Isolation | |
| 13 | HM Plain Washer 1/2" Chamfered | WFH1/2 | 20 | x 2 Lower Champs x 10 A-frame washers x 4 Radius Arm | |
| 14 | HN Plain Washer 3/8" x 3/8" | WFH3/8X3/8 | 2 | Front Radius Arm | |
| 15 | HD Plain Washer 1/8" | WFH1/8 | 4 | Rear Anti Roll Bar Mounting Block | |
| 16 | HP Lower Washer M12 | 3212056 | 2 | Lower Champs | |

*

* Use as required for spacing

TIPS

Make sure the DeDion tube is equal on both sides.

Tiago O

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

John K

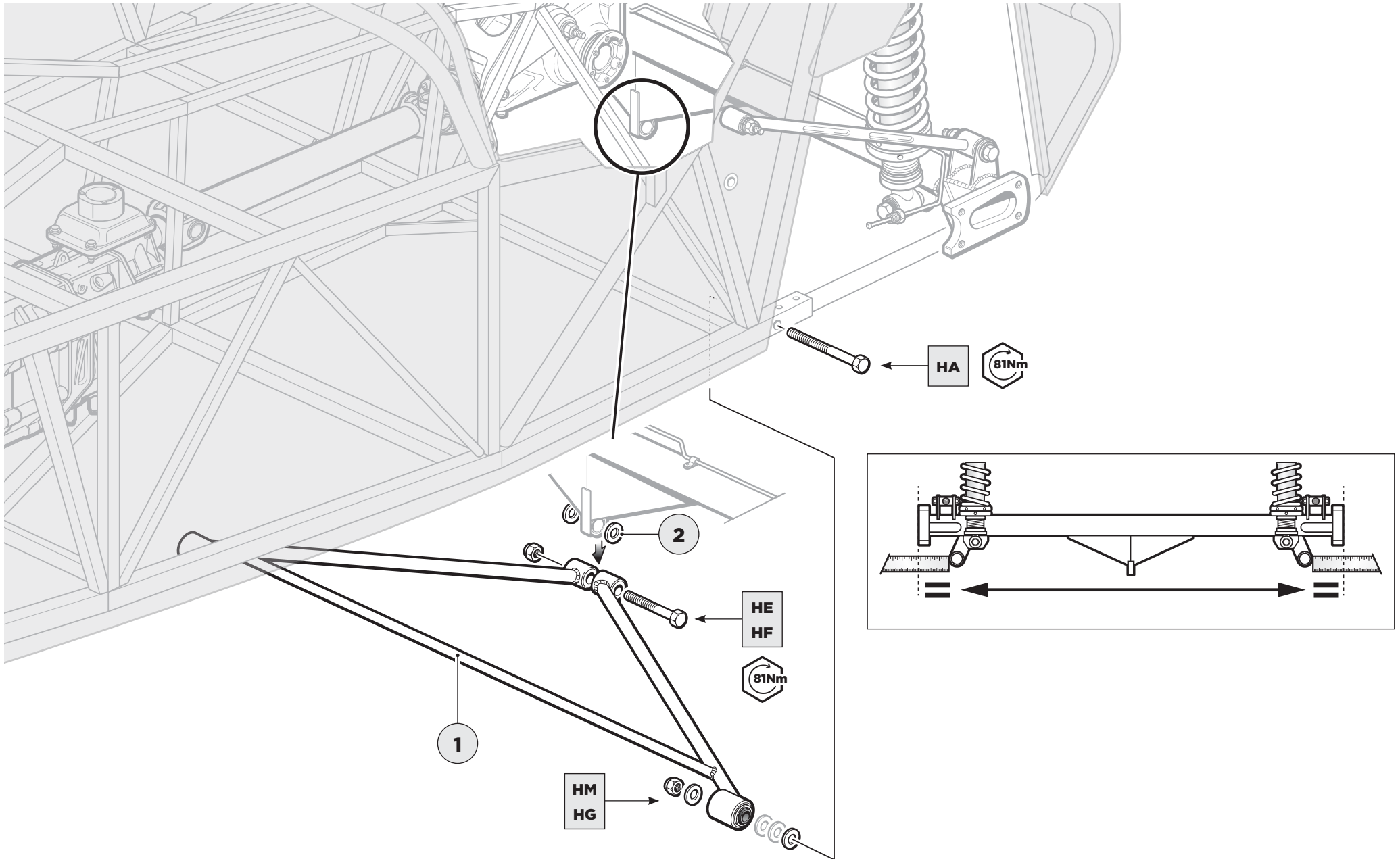
Torque up as before on axle stands.

Rich T

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

Lee A

AND NOW THE (CAREFULLY SPACED) A-FRAME

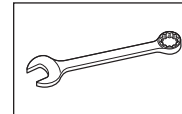
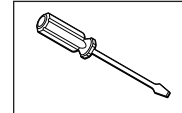
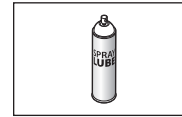


IF YOU HAVE THE OPTIONAL REAR ANTI-ROLL BAR, IT GOES ON LIKE THIS

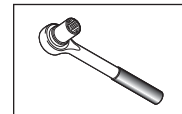
PARTS

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

TOOLS



10mm



10mm

FIXINGS

| Pack H | | CATERHAM | | 53 | |
|--|--------------------------------------|-------------|-----|--|--------------|
| | | PART NUMBER | | 30R011D | |
| REAR SUSPENSION DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Ball Joint 1.000 Grade 10.9 | BM214100 | 2 | A-frame front mountings | |
| 2 | Coilover Fork 100 x 6.00 | BM211000 | 2 | Front radius arm (through coilover) | |
| 3 | Shock 120 x 2.2 100 Grade 10.9 | BM120210 | 4 | x 2 Lower Rear Dampers x 2 Rear Radius arm | |
| 4 | Bolt M8 x 40 Grade 10.9 | BM8X40 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 5 | Ball Joint 1.000 Grade 10.9 | BM214100 | 1 | A-frame to DeCleon | |
| 6 | Half Nuts 100 x 6.00 | BM10110 | 3 | x 2 Rear Radius Arm x 1 A-frame to DeCleon | |
| 7 | Nuts M10 100 | BM10110 | 2 | A-frame front mounting | |
| 8 | Nuts M10 100 | BM10110 | 2 | Front radius arm (through coilover) | |
| 9 | Half Nuts 100 | BM10110 | 2 | Rear Anti Roll Bar Drop Link | |
| 10 | Nuts M8 100 | BM0710 | 4 | Rear Anti Roll Bar Mounting Blocks | |
| 11 | Nuts M10 100 | BM10110 | 1 | x 1 Half union on DeCleon tube | |

x4

x4

| Pack H | | CATERHAM | | 53 | |
|--|---------------------------------|-------------|-----|---|--------------|
| | | PART NUMBER | | 30R011D | |
| REAR SUSPENSION DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Washer | W020 | 10 | Differential isolation | |
| 13 | Plain Washer 100 (Clearance) | W10010 | 20 | x 2 Lower Damper x 10 A-frame washers x 4 Radius Arm | |
| 14 | Plain Washer 50 x 9 100 | W509100 | 2 | Front Radius Arm | |
| 15 | Plain Washer M8 | W0808 | 4 | Rear Anti Roll Bar Mounting Block | |
| 16 | Lower Damper M10 | SD1000A | 2 | Lower Damper | |

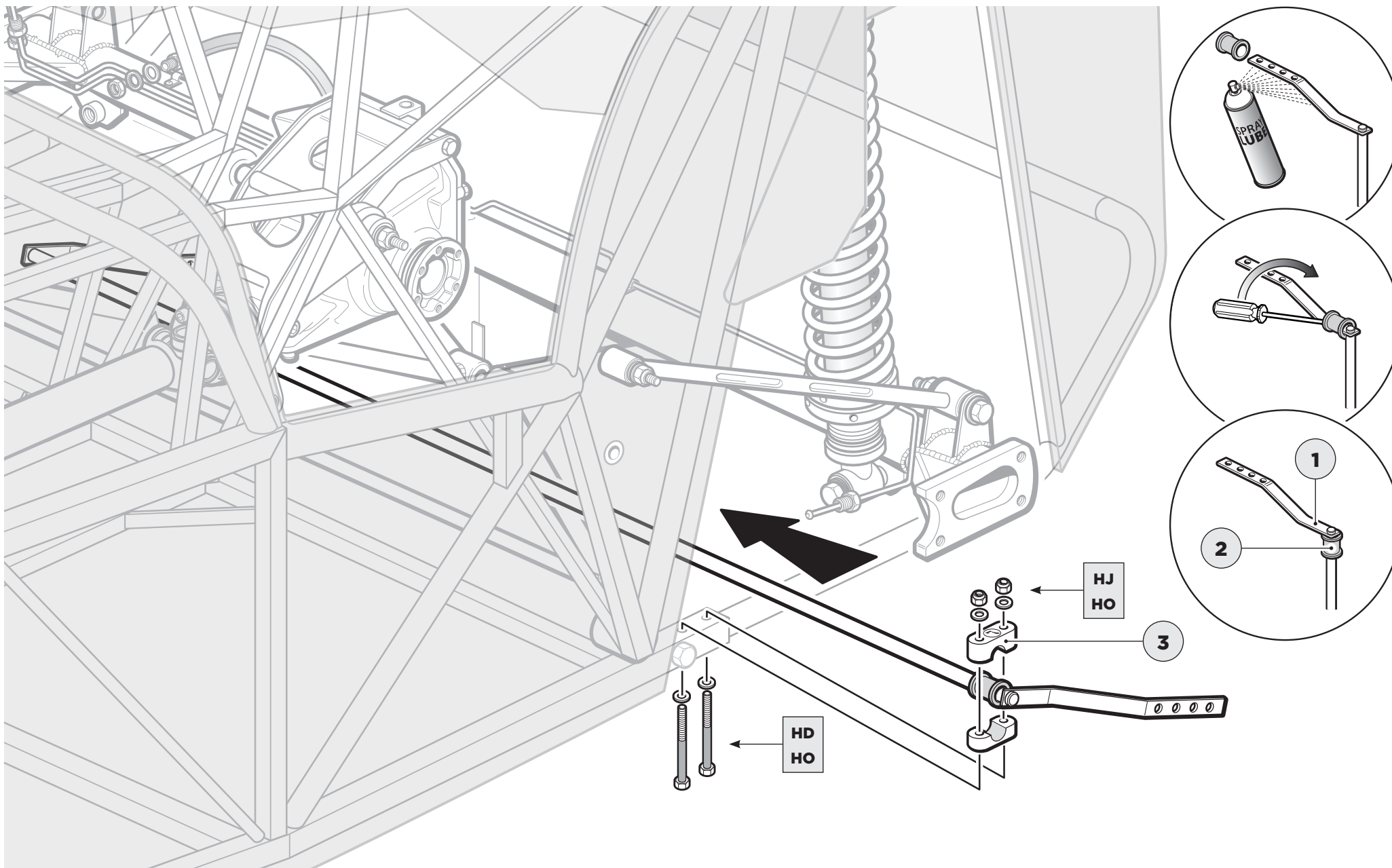
x8

TIPS

Be careful not to slip with the screwdriver!

John S

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



INSERT THE DRIVESHAFTS

PARTS

- 1 Driveshaft
- 2 Driveshaft nut

TOOLS

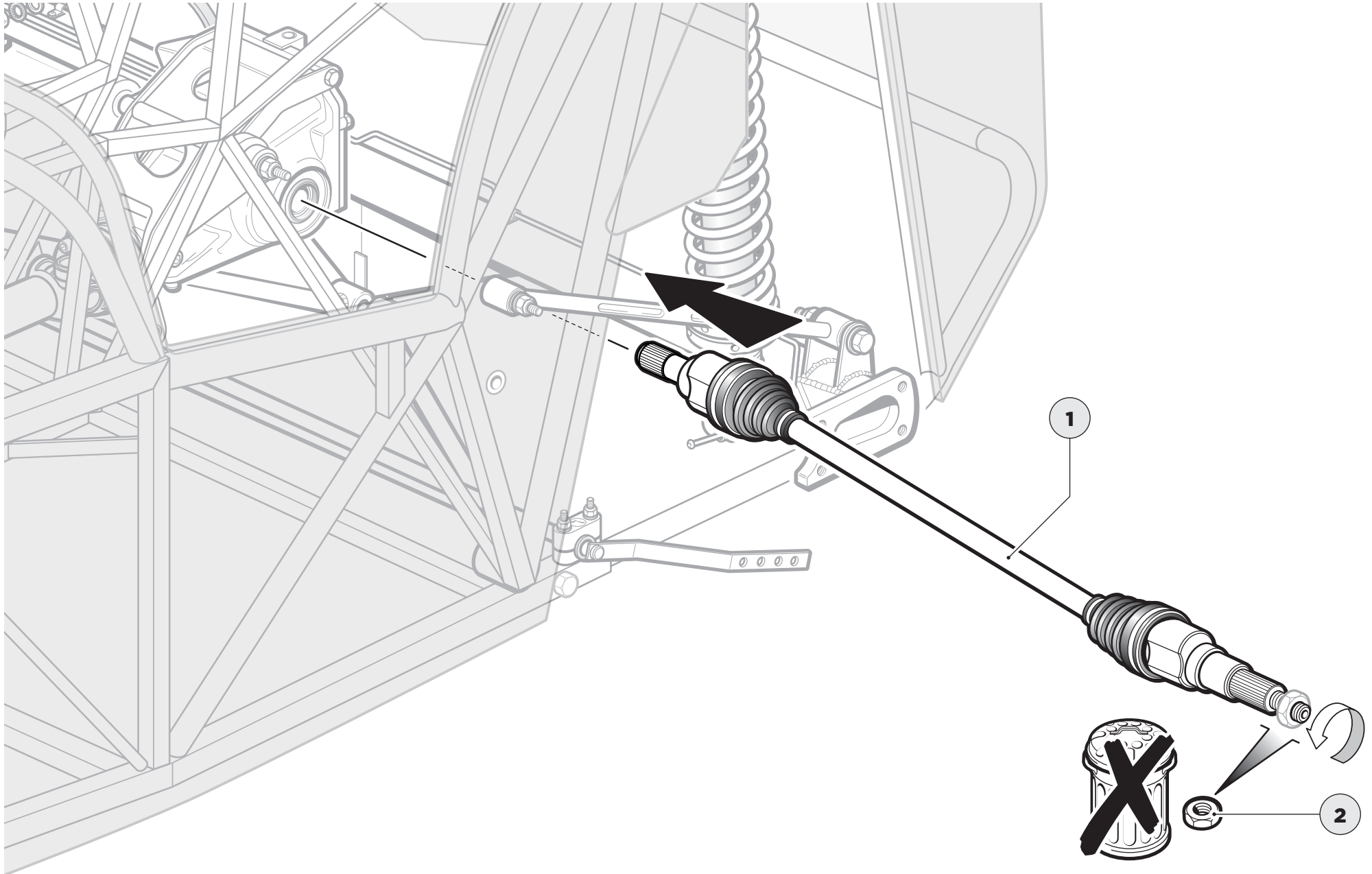
FIXINGS

TIPS

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

James A

INSERT THE DRIVESHAFTS

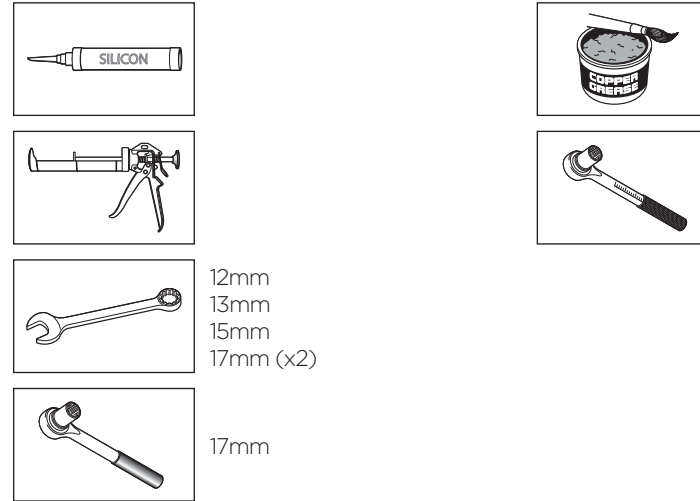


FITTING THE REAR HUB

PARTS

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

TOOLS



FIXINGS

| Pack 1 | | CATERHAM | | 44 | |
|--|-------------------------------|-------------|-----|---|--------------|
| AXLE DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Hub 120 x 117 404 | 8P120A1 | 1 | Upper off mounting bolt | |
| 2 | Upper ear 102 x 50 Grade 10.9 | 8P120A2 | 2 | Lower off mounting bolt | |
| 3 | Bolt M10 x 65 Grade 10.9 | 8M10A5 | 4 | Rear hub through ear to front DeDion | |
| 4 | Bolt M10 x 55 Grade 10.9 | 8M10A5B | 8 | x 4 Front hub through ear x 4 Caliper carrier bolts | |
| 5 | Bolt M10 x 40 Grade 10.9 | 8M10A4 | 4 | Through rear of ear into threaded DeDion holes | |
| 6 | Upper ear 102 x 50 Grade 10.9 | 8P120A2 | 4 | Proprietary bolts | |
| 7 | Upper ear 102 x 50 Grade 10.9 | 8P120A2 | 2 | DIF cage | |
| 8 | Hub Nuts 120 x 117 404 | 8P120A1 | 1 | Upper off bolt | |
| 9 | Nylon Nut M10 | 8NM10 | 8 | Hub through ear to DeDion | |
| 10 | 1/2" Nylon Nut 180 | 8NM18 | 4 | Rear anti roll bar droplink | |
| 11 | Hub washer 120 x 117 | 8P120A1A | 2 | Brake pads | |

x4
x8
x4
x8
x4

| Pack 1 | | CATERHAM | | 44 | |
|--|----------------------------------|-------------|-----|-----------------------------------|--------------|
| AXLE DEDION METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 12 | Plain washer 120 x 50 7000 | 8P120A1B | 16 | Front bearing off setup | |
| 13 | Plain washer 120 x 50 7000 | 8P120A1B | 8 | Front ply off off | |
| 14 | Plain washer 120 x 50 x 1.5 7000 | 78203 | 16 | DIF shim washers | |
| 15 | Washer M10 | 8P120A1B | 16 | Rear DeDion Caliper Carrier Hub | |
| 16 | Spring Washer M10 | 8P120A1B | 16 | Rear DeDion Tube Caliper Carrier | |
| 17 | Ballnut washer 102 | 8P120A1B | 4 | Behind ball nuts on off | |
| 18 | Brake pad 120 | 8P120A1B | 1 | Braked brake hose | |
| 19 | Hub 120 x 117 404 | 8P120A1 | 1 | Phillips on DeDion for brake pads | |
| 20 | Phillips 180 | 8P120A1 | 5 | Washer pins on DeDion | |

x16
x8

TIPS

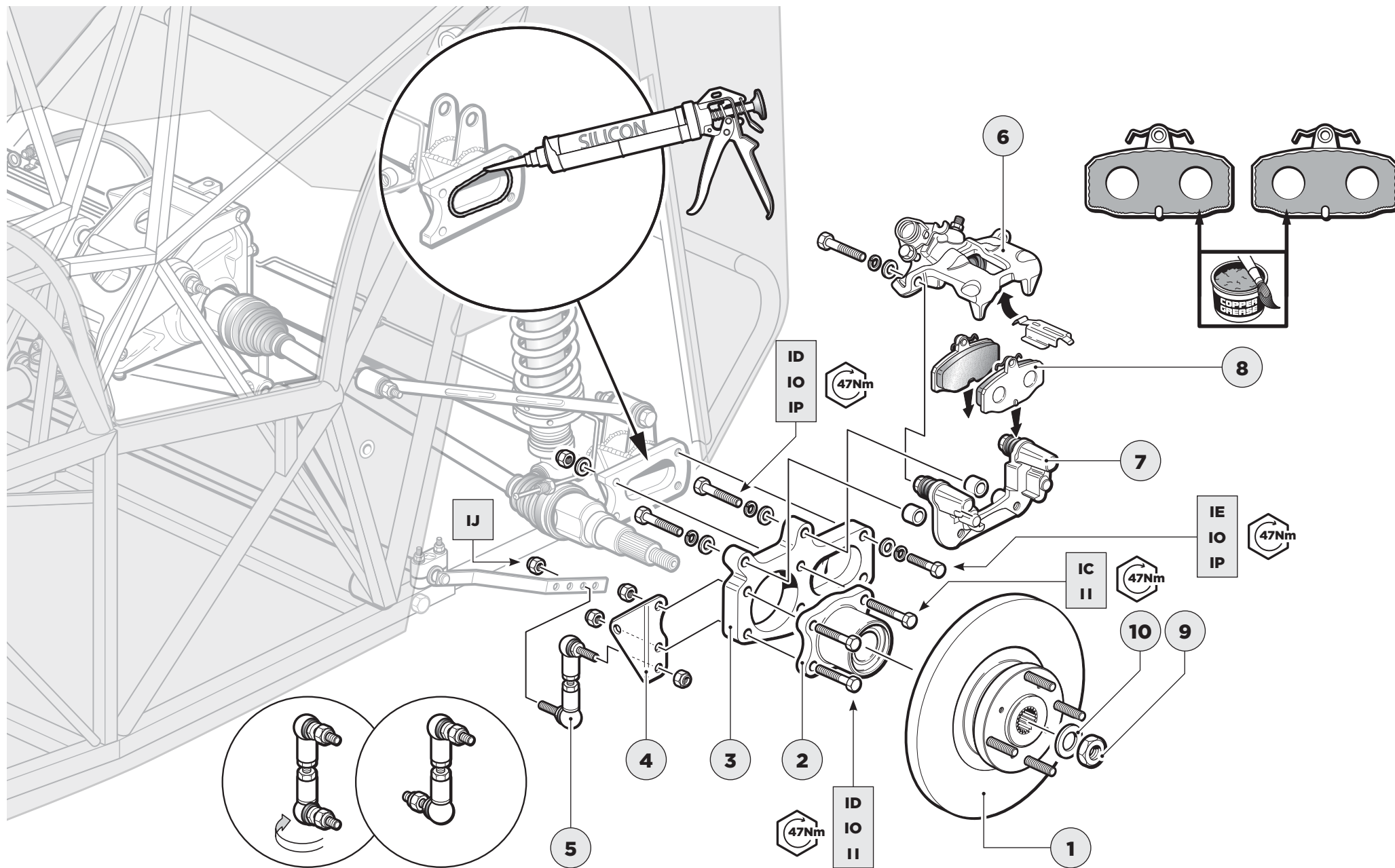
Swap the plain nuts on the droplinks for nylons.
Chris B

Remember the driveshaft nuts are handed.
Grant P

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

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

FITTING THE REAR HUB

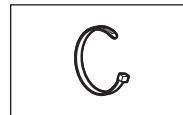


AND SPEED SENSOR (ONE SIDE ONLY)

PARTS

- 1** Speed sensor

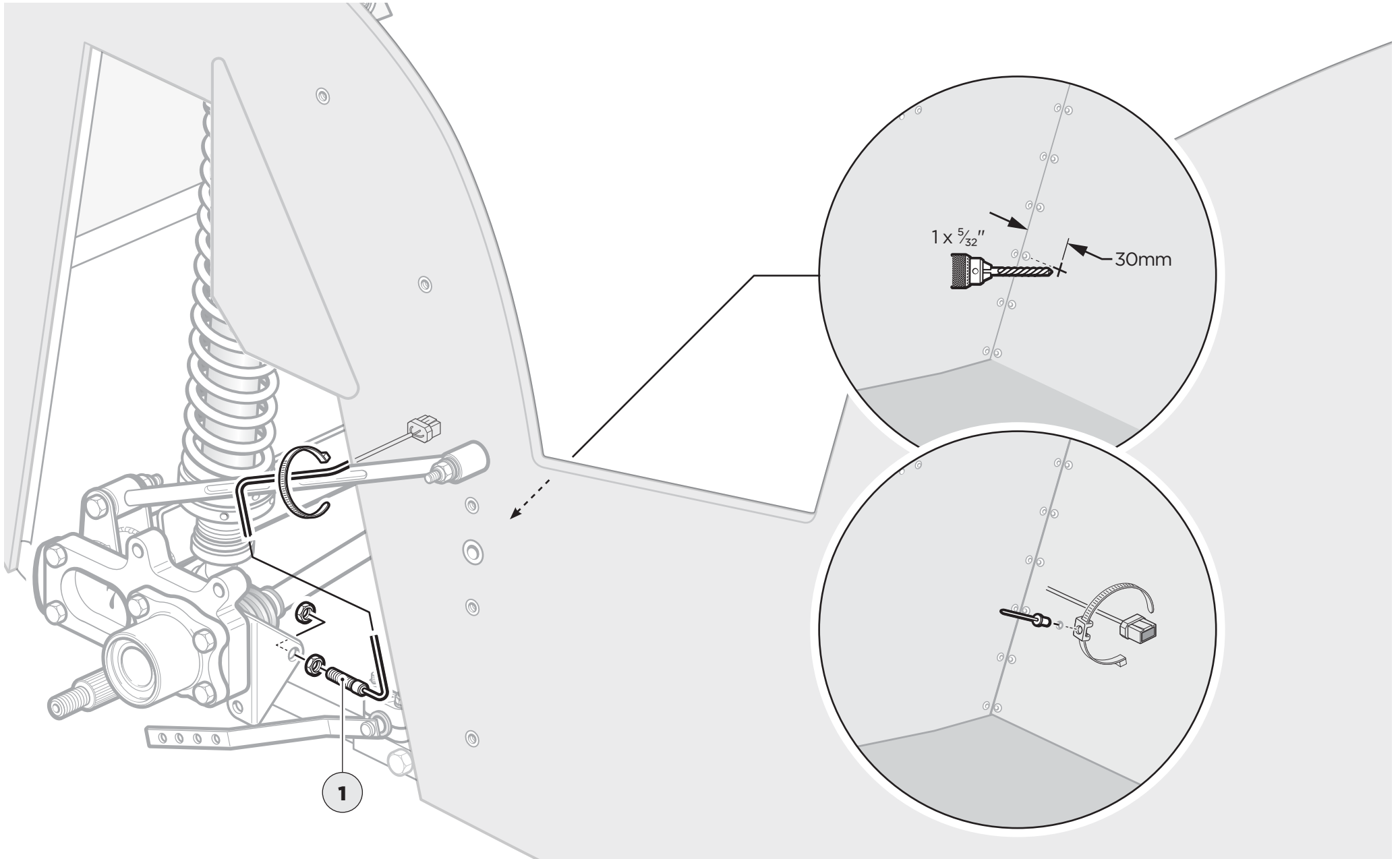
TOOLS



FIXINGS

TIPS

AND SPEED SENSOR (ONE SIDE ONLY)





Now is a good time to take some photos



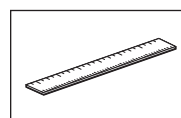
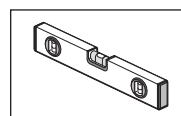
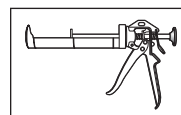
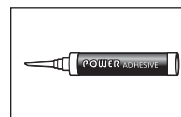
Have you applied for your IVA yet?

JUST WING IT

PARTS

- 1 Cycle wing
- 2 Wheel
- 3 Wheel nuts

TOOLS



FIXINGS

TIPS

Key the wing & wingstay before using adhesive.

John S

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

Anthony L

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

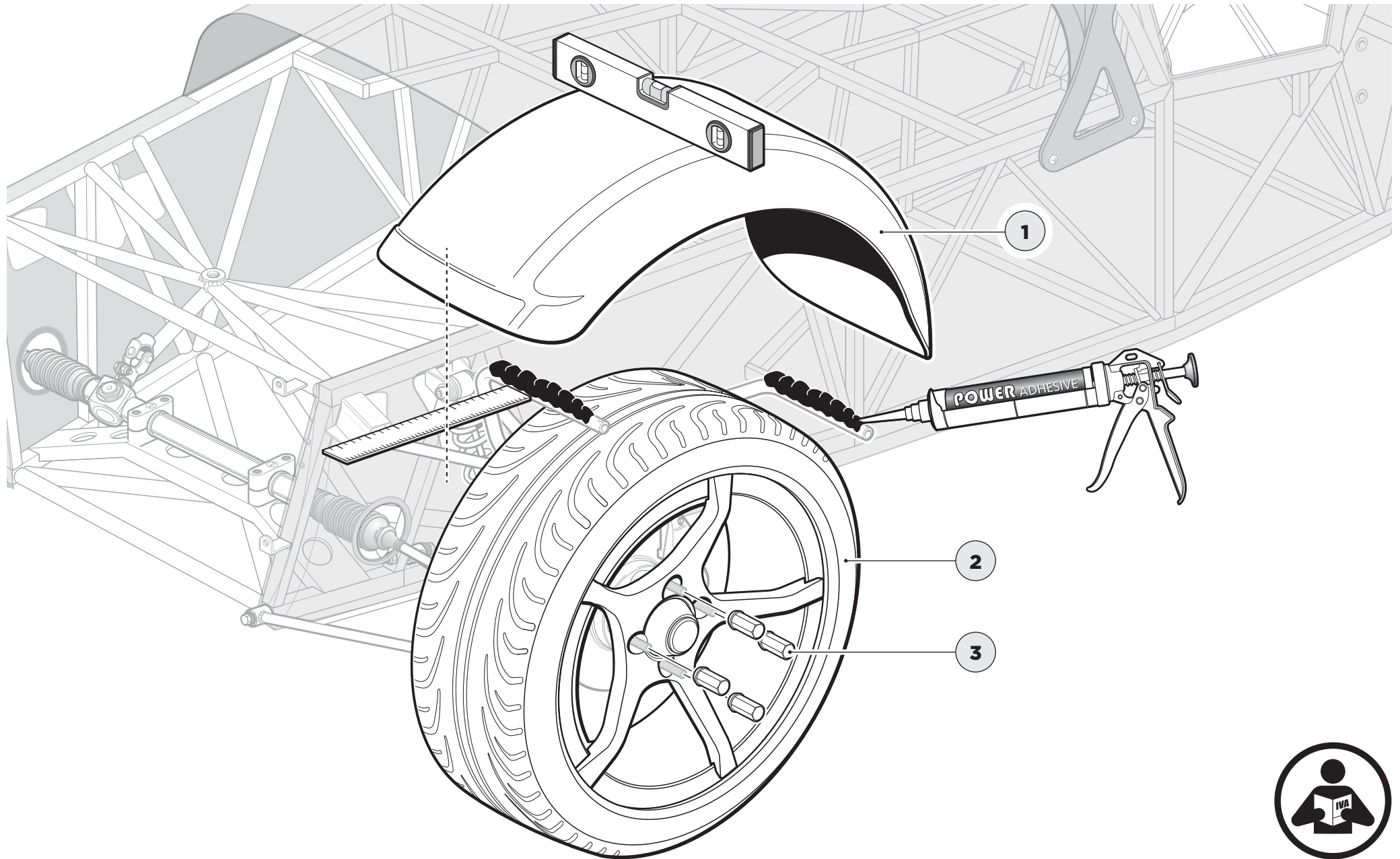
Harry P

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

Lee A

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

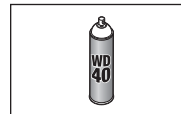
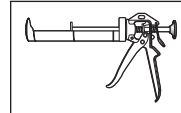
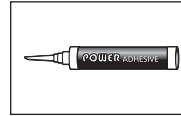
Chris N



SOME EXTRA ADHESIVE UNDERNEATH

PARTS

TOOLS

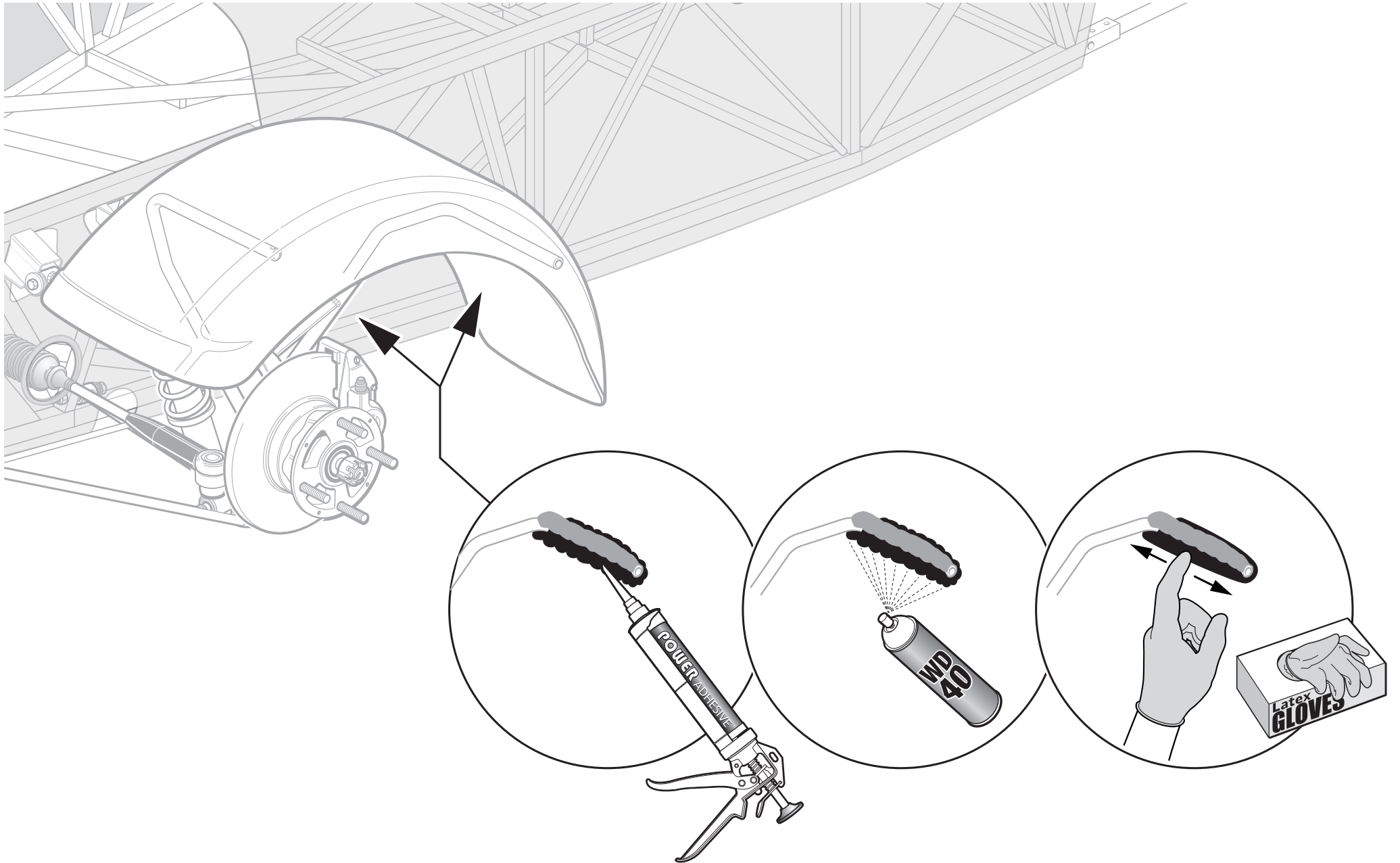


FIXINGS

TIPS

The WD40 will help spread the adhesive.

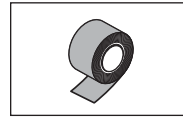
Mick F



TAPE IN PLACE FOR 24 HOURS

P A R T S

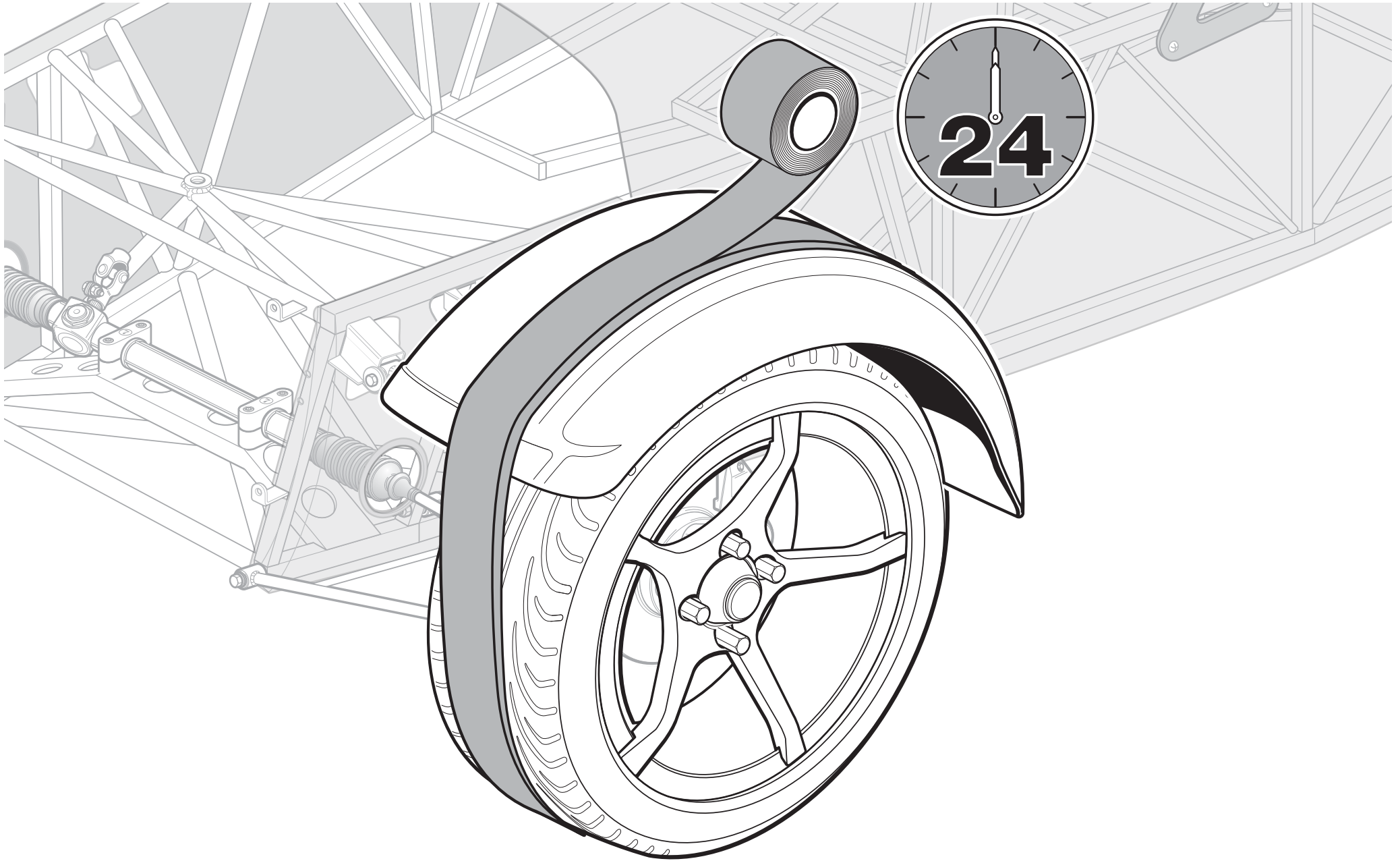
T O O L S



F I X I N G S

T I P S

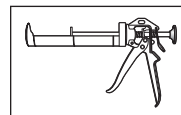
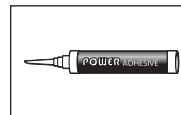
TAPE IN PLACE FOR 24 HOURS



FINISH WITH TRIM

PARTS

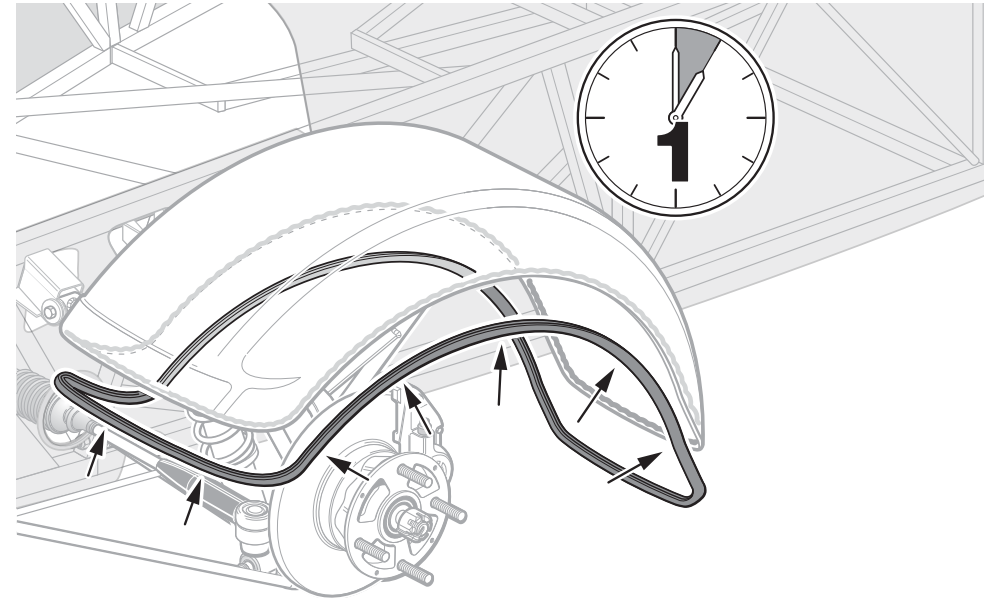
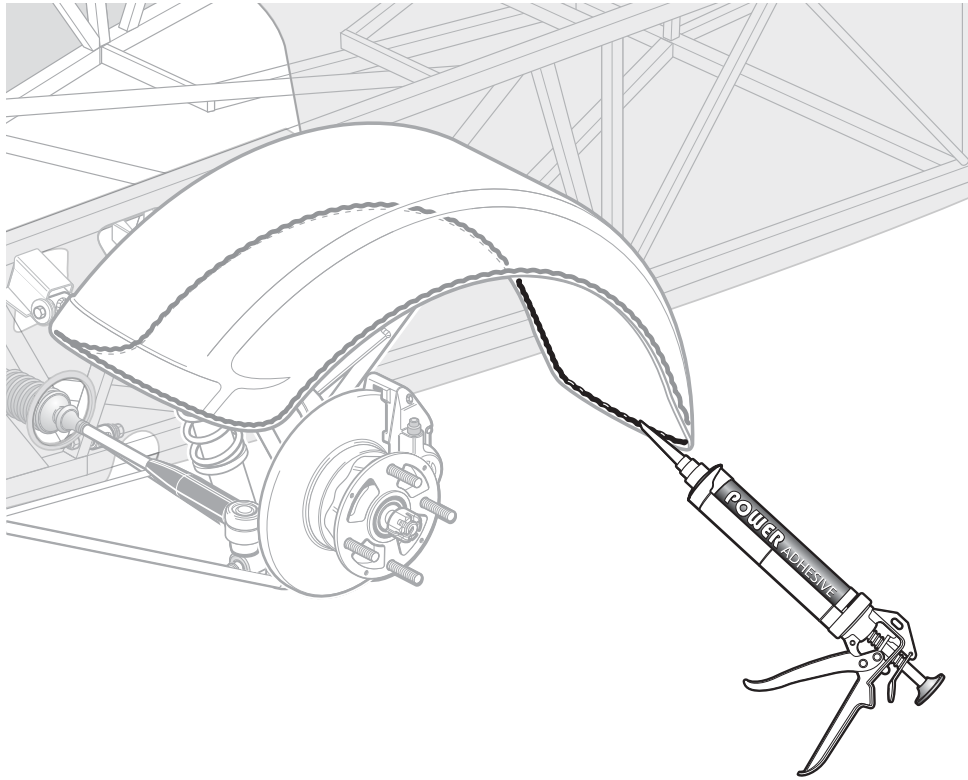
TOOLS



FIXINGS

TIPS

FINISH WITH TRIM

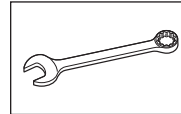
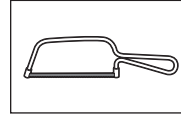
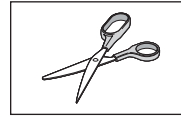


FITTING THE REAR WINGS

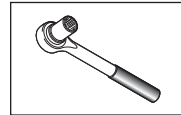
PARTS

1 Rear wing

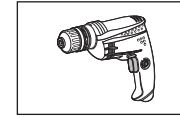
TOOLS



8mm



8mm



Sanding Drum

FIXINGS

| Pack Q | | CATERHAM | | 31 | | |
|--|-------------------|------------------------------|------------|---------|----------------------------|--|
| | | PART NUMBER | | 2FG12 | | |
| REAR WINGS | | | | | | |
| This pack may include extra fasteners to cover different options | | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION | |
| 1 | OA | Self Sealer M5 X 20 | 8MSK20 | 20 | Rear Wings | |
| 2 | OB | Nylon Nut M5 | N8NFF5 | 10 | Rear wings through boot | |
| 3 | OC | Flare Washer 3/16" X 3/4" | WPP518X3/4 | 30 | Wing washers | |
| 4 | OD | Wing Pin 1/4" X 1" | 76902 | 4 | Between wing and body | |

x20

x10

x30

x4

TIPS

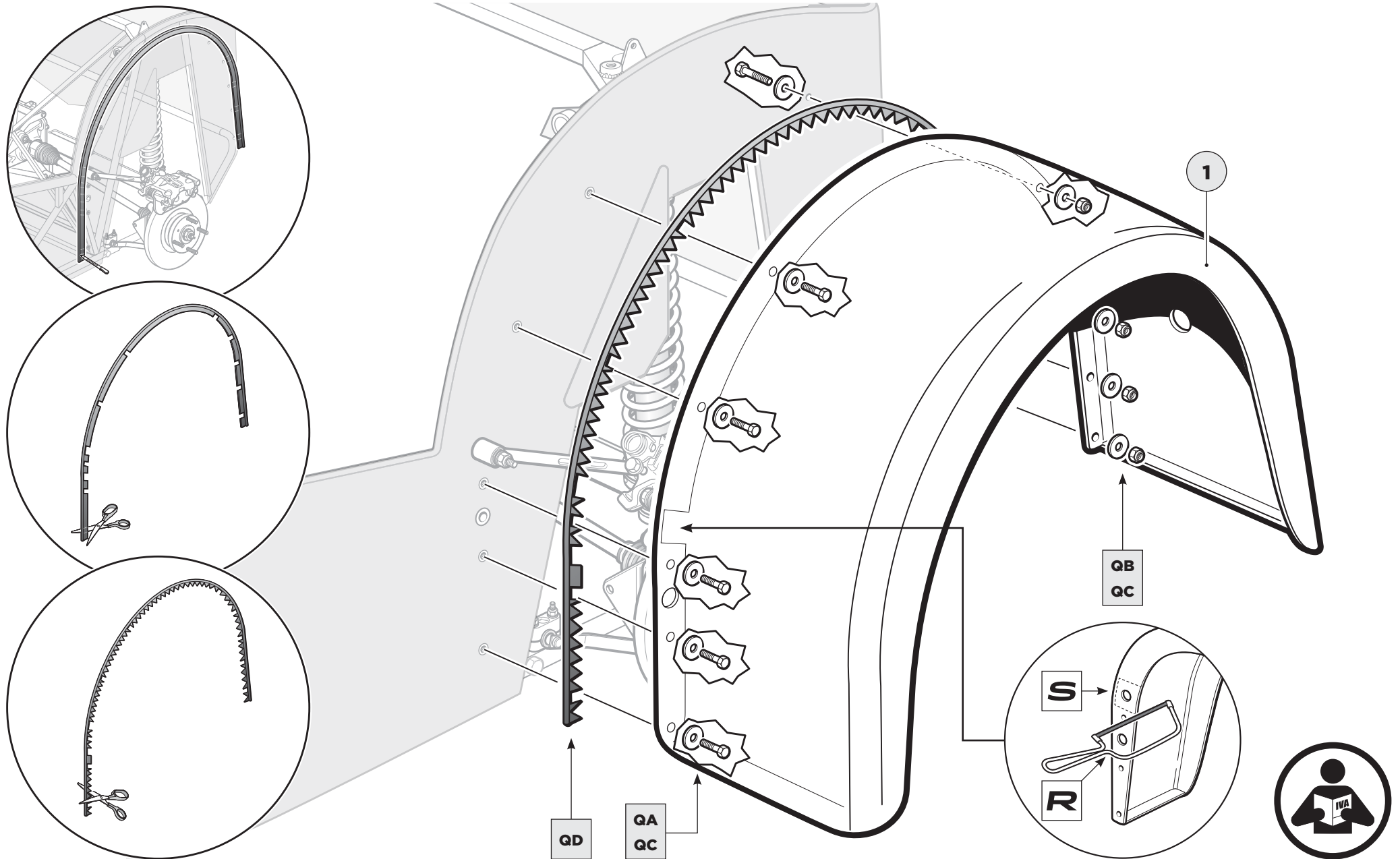
Cut the supplied piping in half and it will be enough for both wings.

Rich T

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

Tiago O

FITTING THE REAR WINGS

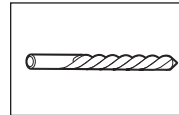
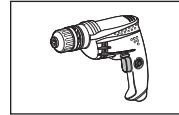
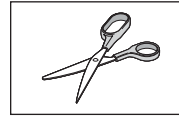


AND THE WING PROTECTORS

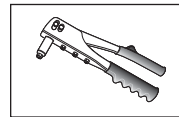
PARTS

- 1 Wing protector

TOOLS



1/8"



FIXINGS

For stainless steel protectors

| Pack O | | CATERHAM | | <small>Part Number</small> ZWS01 | |
|--|----------------------------|-----------------|-----|--|--------------|
| WING PROTECTORS STAINLESS STEEL | | | | | |
| <small>This pack may include extra fasteners to cover different options</small> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | OA Reel 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 P | | CATERHAM | | <small>Part Number</small> ZWS02 | |
|--|----------------------------------|-----------------|-----|--|--------------|
| WING PROTECTORS CARBON FIBRE | | | | | |
| <small>This pack may include extra fasteners to cover different options</small> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | PA Reel Black 1/8" X 0.51" | 1610-01046 | 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

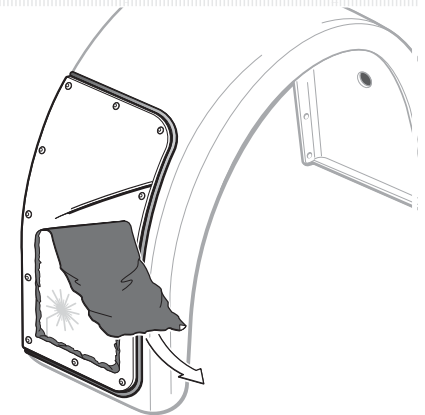
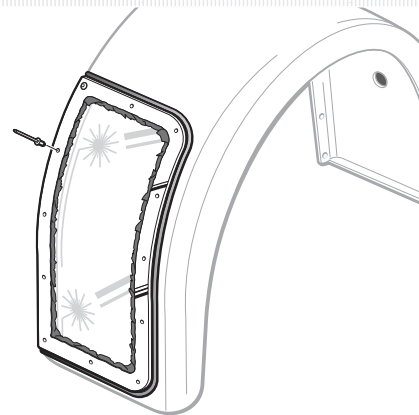
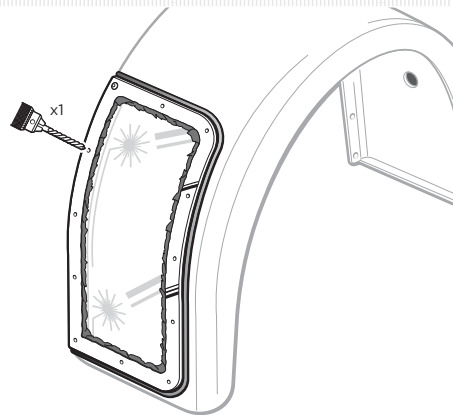
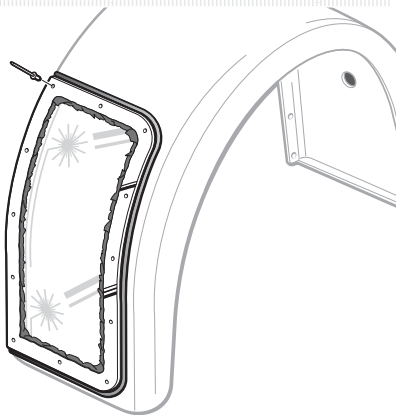
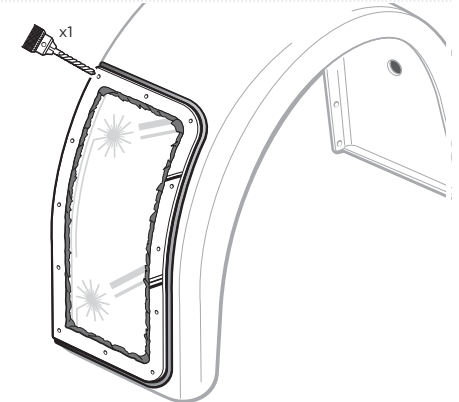
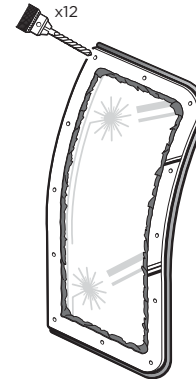
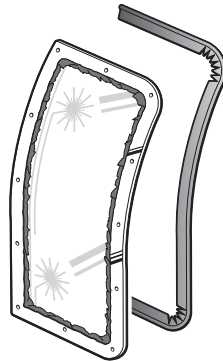
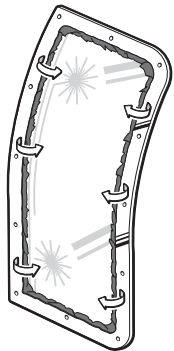
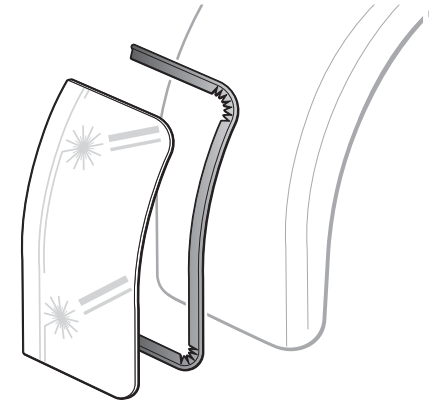
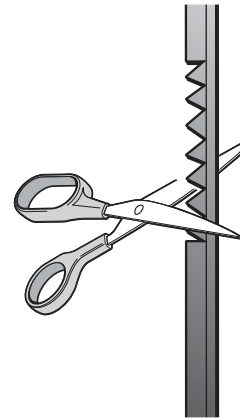
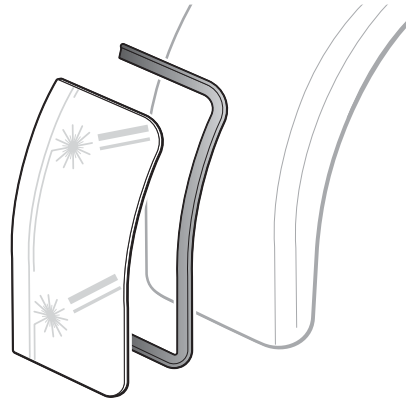
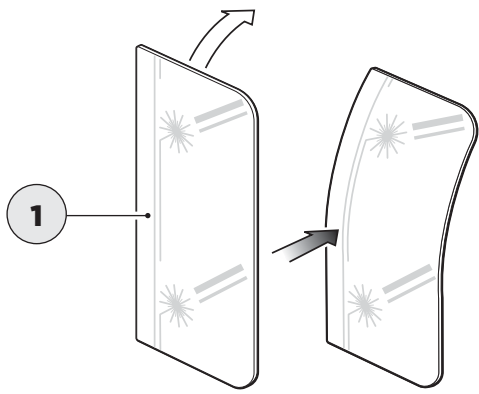
When drilling through protector start on the closest edge to the body. This will help the protector fit correctly.

Chris B

Carbon fibre protectors will not have the protective film shown.

Anthony L

AND THE WING PROTECTORS

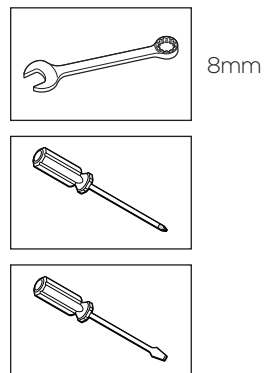


FITTING THE LIGHTS

PARTS

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

TOOLS



FIXINGS

| Pack C | | CATERHAM | | Item 45 Pack Number 30L002B | |
|--|-----------------------------------|-----------------|-----|--|--------------|
| FASTENER PACK - LIGHTING | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | CA Screw 10 x 37 Black hexagon | 71062 | 6 | Indicators connecting to indicator pad | |
| 2 | CB Screw 8 x 11 Black hexagon | 71071 | 2 | Side repeater parts on wingstay | |
| 3 | CC Screw 12 x 11* Self tapping | 71070 | 4 | Rear light cluster upper fixing | |
| 4 | CD Screw 12 x 11* Self tapping | 71070 | 4 | Rear light cluster lower fixing | |
| <small>Drawings are for illustrative purposes only and are not to scale. Page 1 of 1</small> | | | | | |

x4

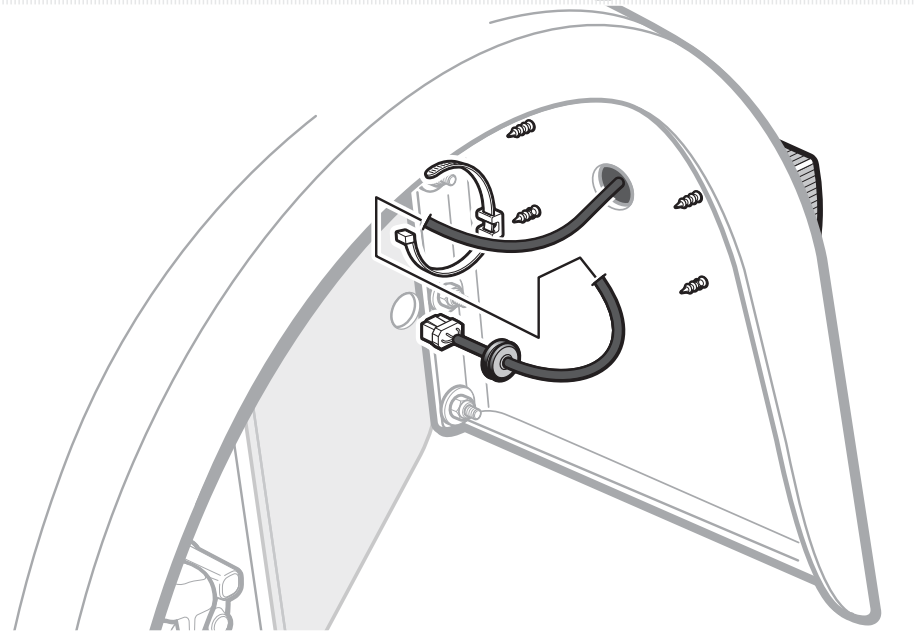
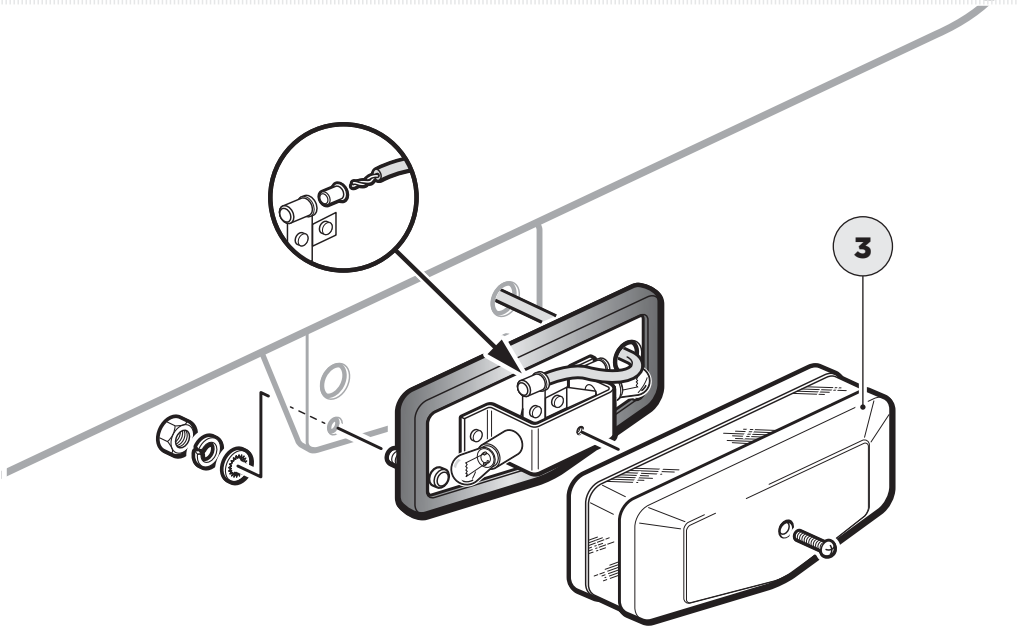
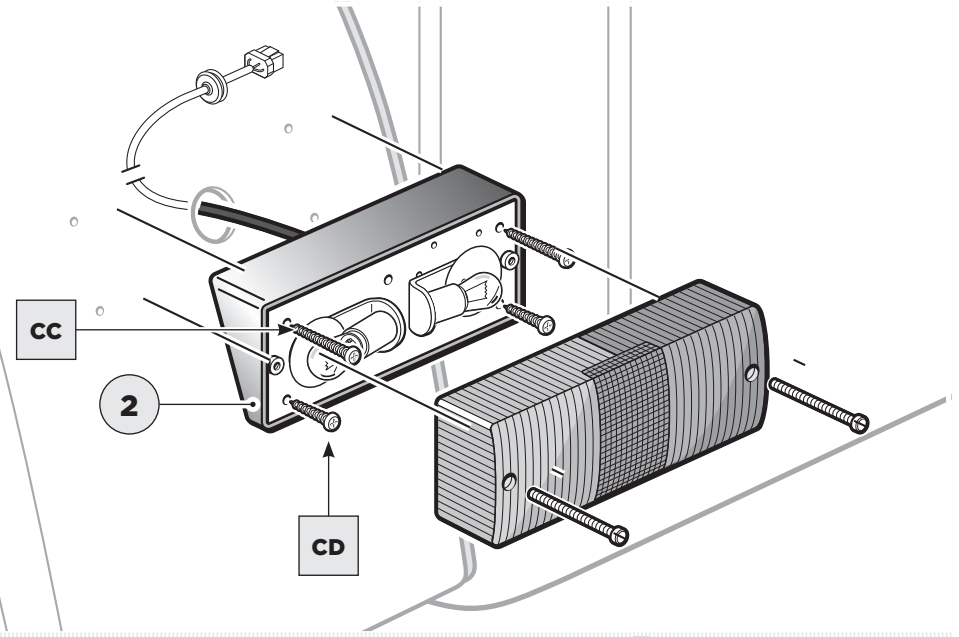
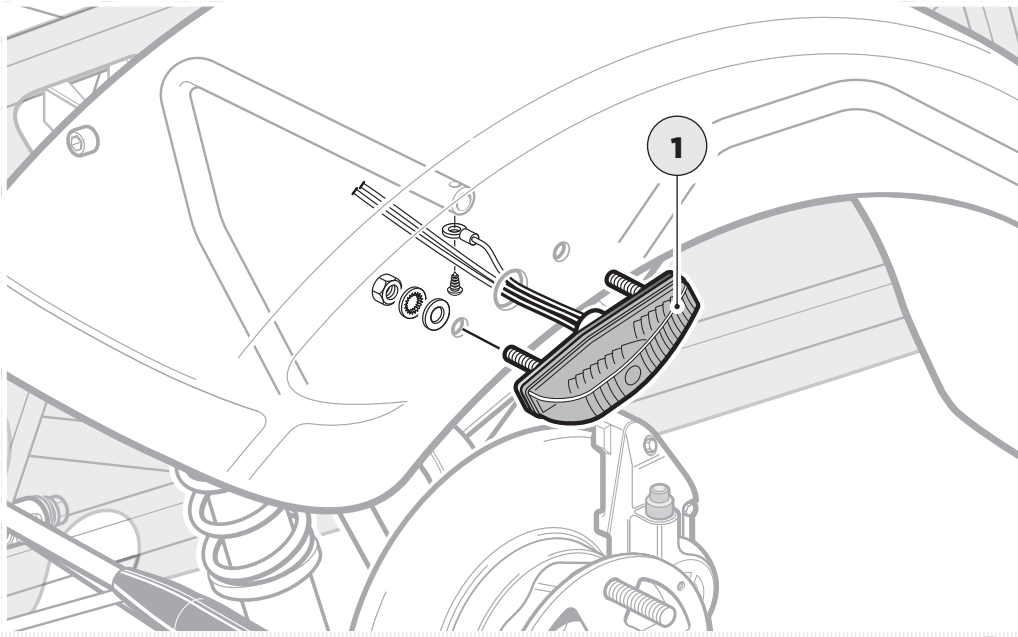
x4

TIPS

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

John S

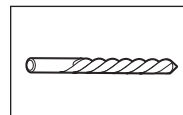
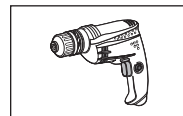
FITTING THE LIGHTS



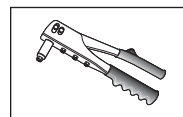
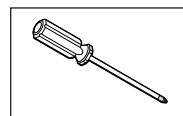
FUSE BOX COVER & KNEE TRIM PADS

PARTS

TOOLS



$\frac{5}{32}$ "



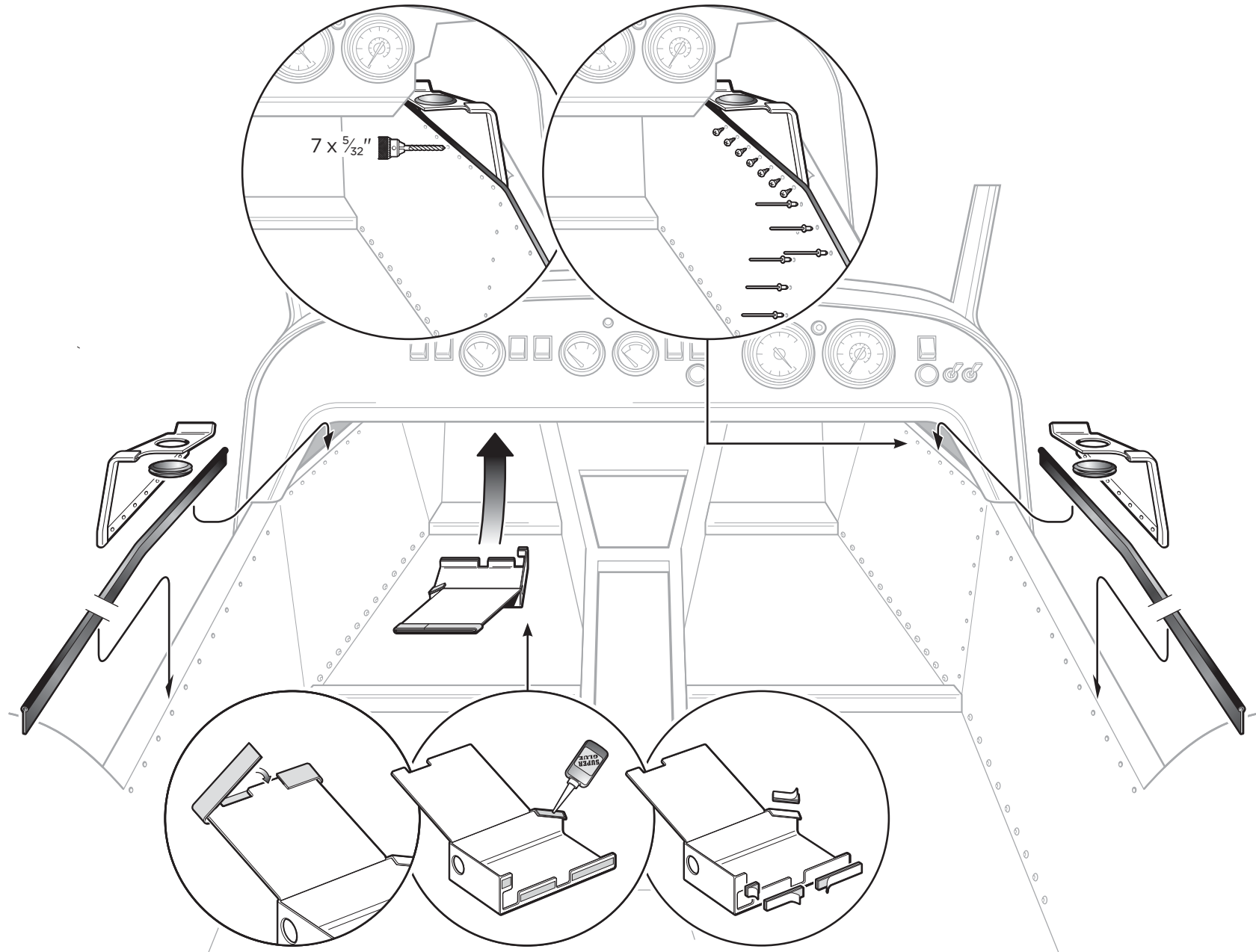
FIXINGS

TIPS

Chassis fastener pack ZCH01 supplied loose:

- Screw $\frac{3}{4}$ " x 10
- Rivet $\frac{5}{32}$ x 0.47"

FUSE BOX COVER & KNEE TRIM PADS



FIT THE TUNNEL CARPET

PARTS

TOOLS



FIXINGS

TIPS

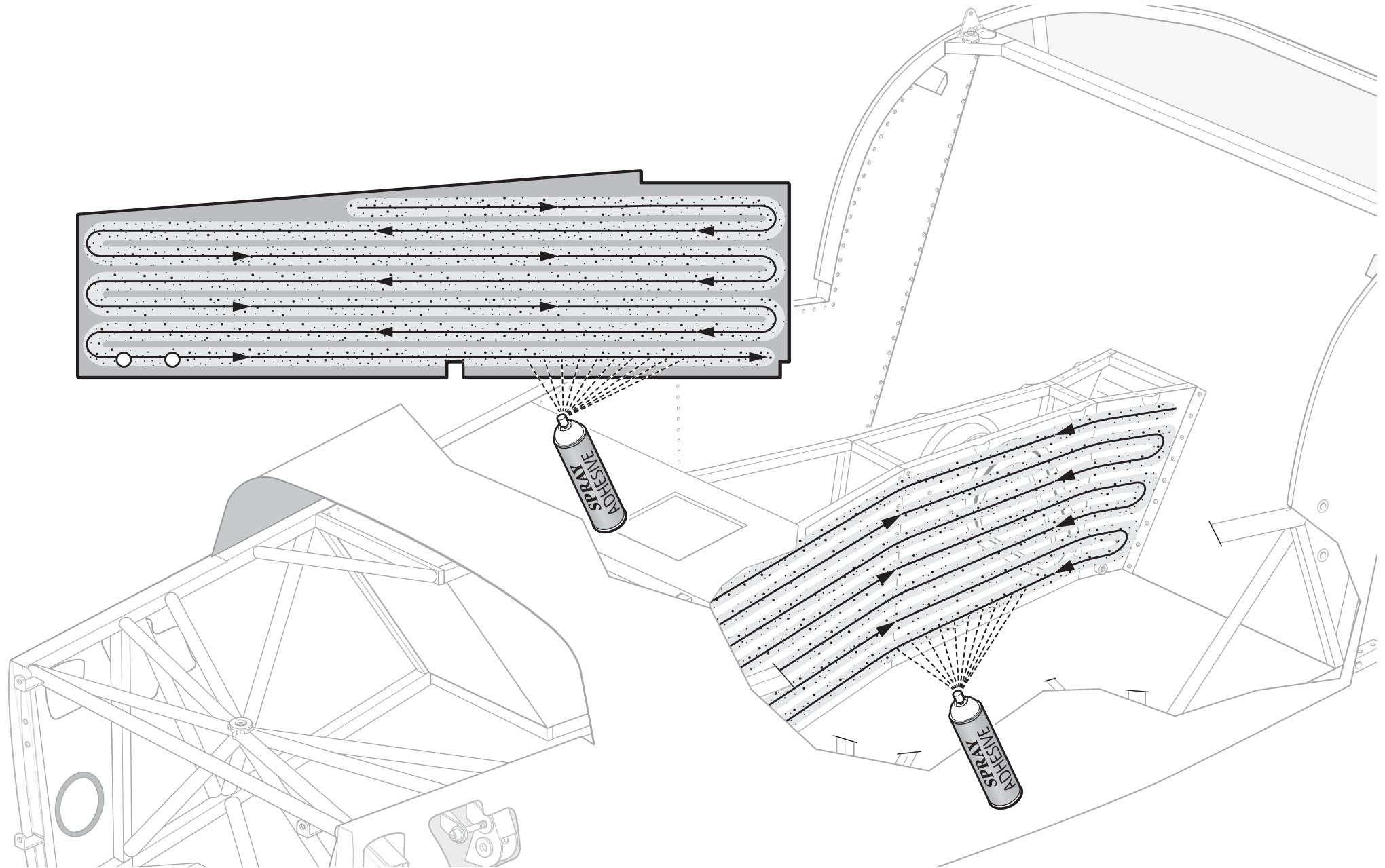
Spray on both tunnel panel and carpet.

John K

Allow the adhesive to go tacky before fitting.

Harry P

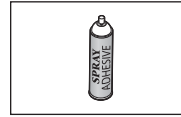
FIT THE TUNNEL CARPET



AND THE BOOT CARPET

PARTS

TOOLS



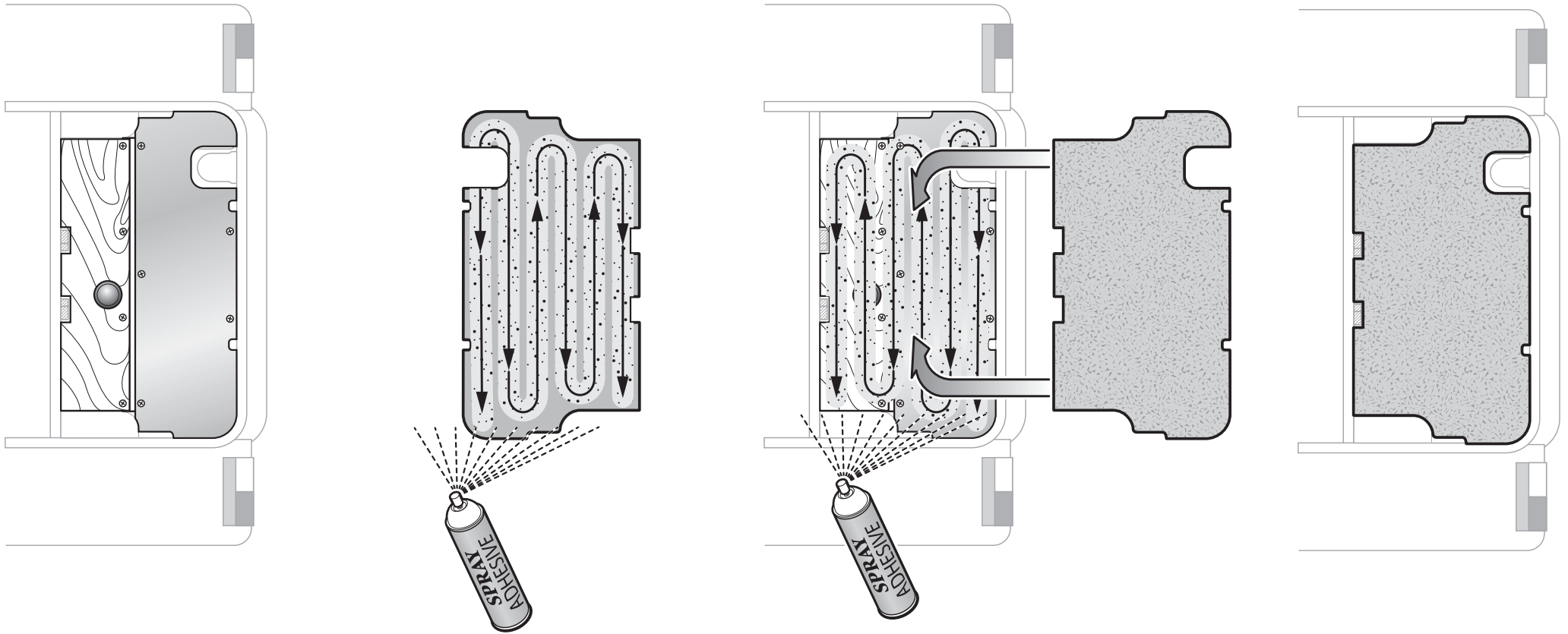
FIXINGS

TIPS

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

John S

AND THE BOOT CARPET

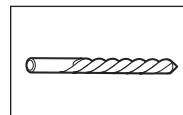
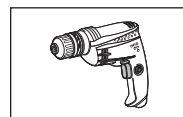


THIS IS A COVER UP

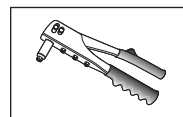
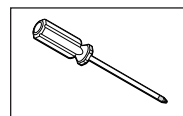
PARTS

- 1 Fuel filler cove
- 2 Tunnel closing panel

TOOLS



$\frac{5}{32}$ "



FIXINGS

Supplied loose:

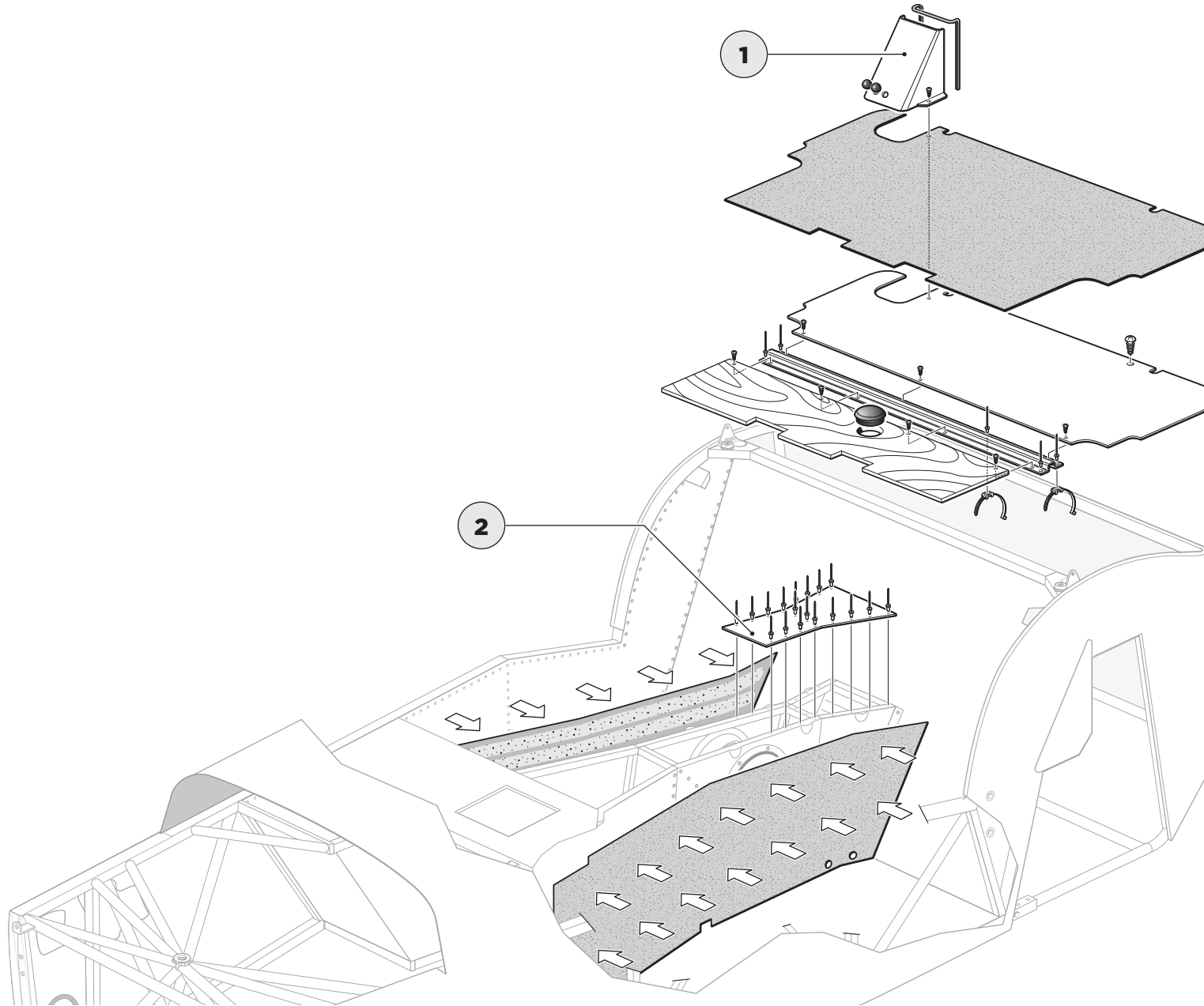
- Rivets
- Screws

TIPS

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

Rich T

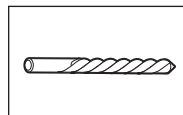
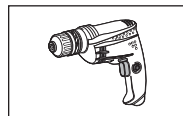
THIS IS A COVER UP



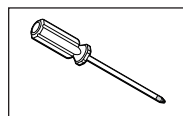
NOW FIT THE TUNNEL TOP

PARTS

TOOLS



1/8"



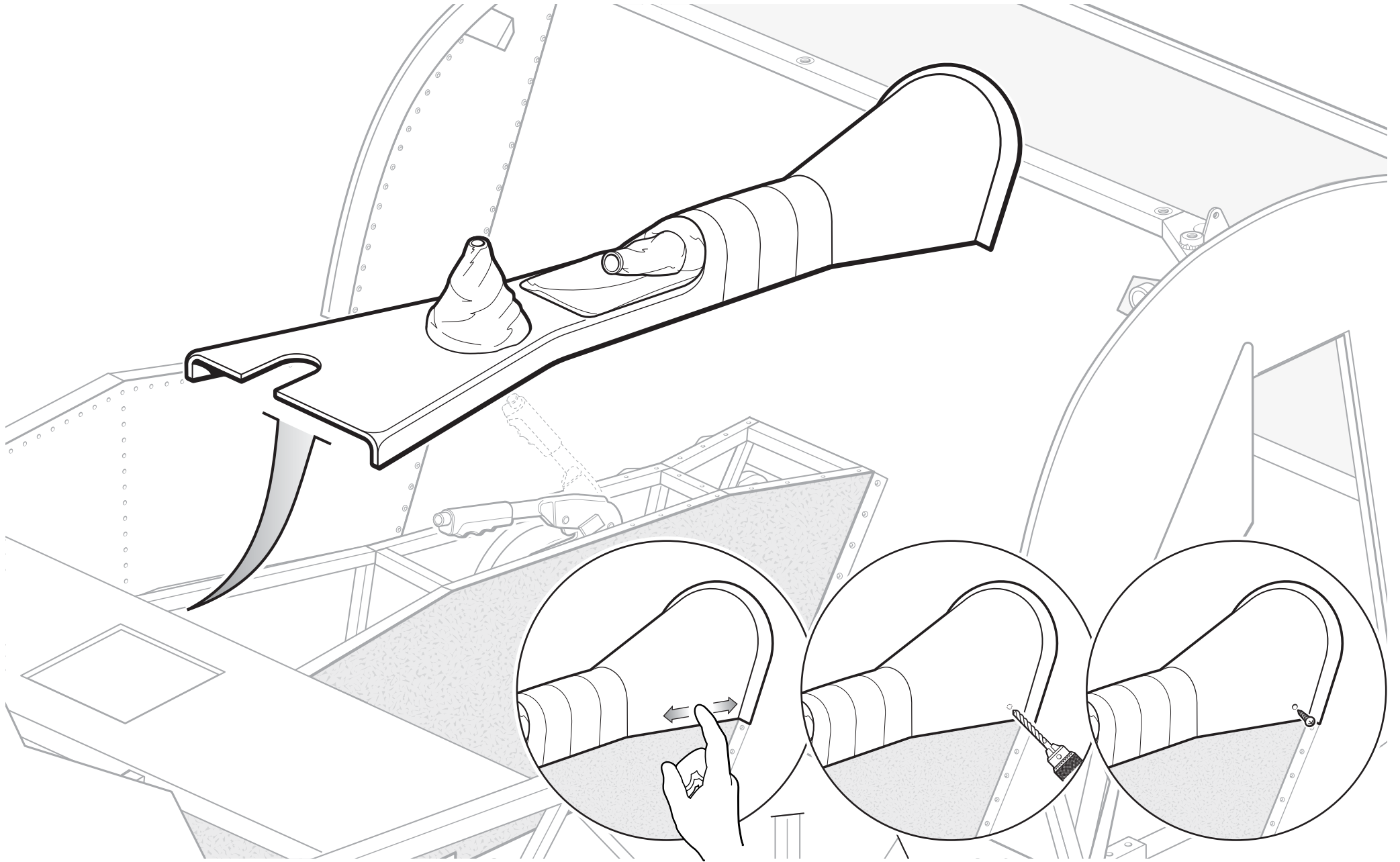
FIXINGS

TIPS

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

Mick F

NOW FIT THE TUNNEL TOP



BELT UP

PARTS

TOOLS



FIXINGS

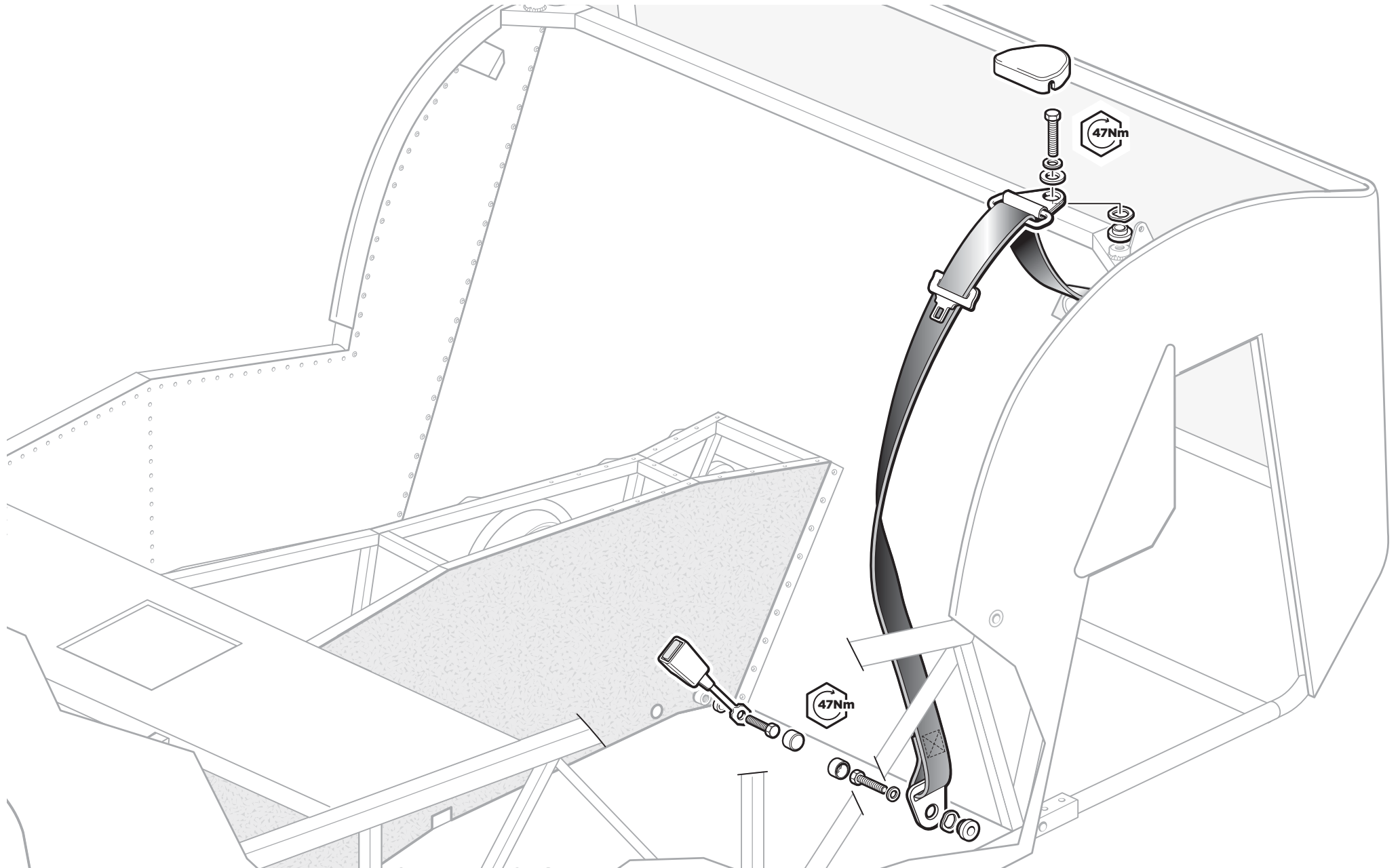
Supplied with seat belts

TIPS

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

Chris N

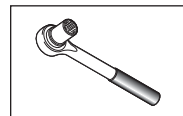
BELT UP



FITTING THE FOUR-POINT HARNESS

PARTS

TOOLS



17mm



FIXINGS

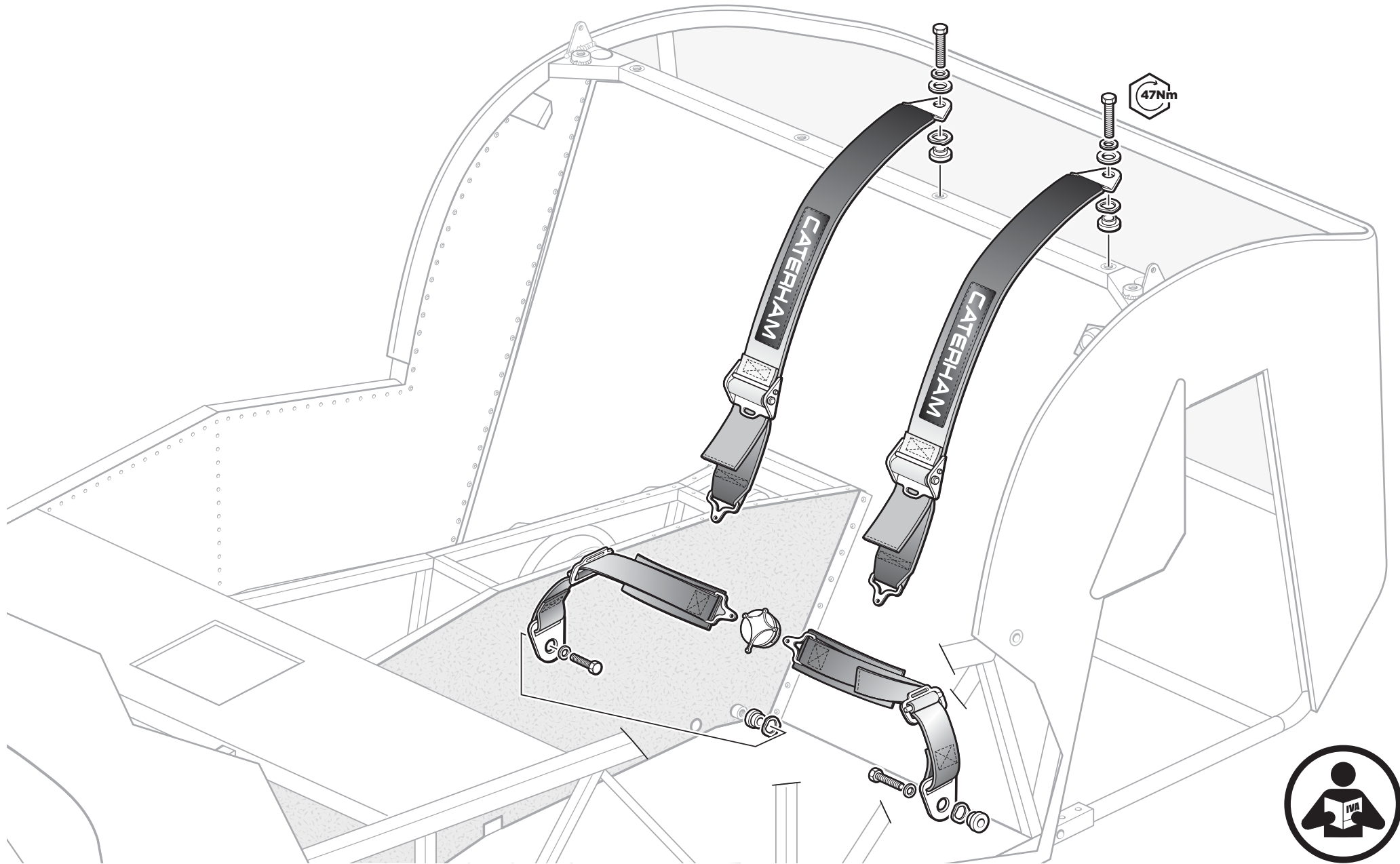
All fixings supplied with the harnesses

TIPS

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

Chris N

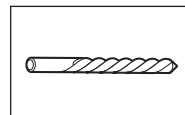
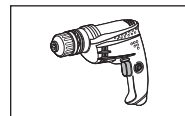
FITTING THE FOUR-POINT HARNESS



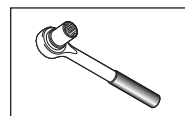
FITTING THE SIX-POINT HARNESS

PARTS

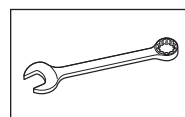
TOOLS



7/16"



16mm
17mm



16mm
17mm

FIXINGS

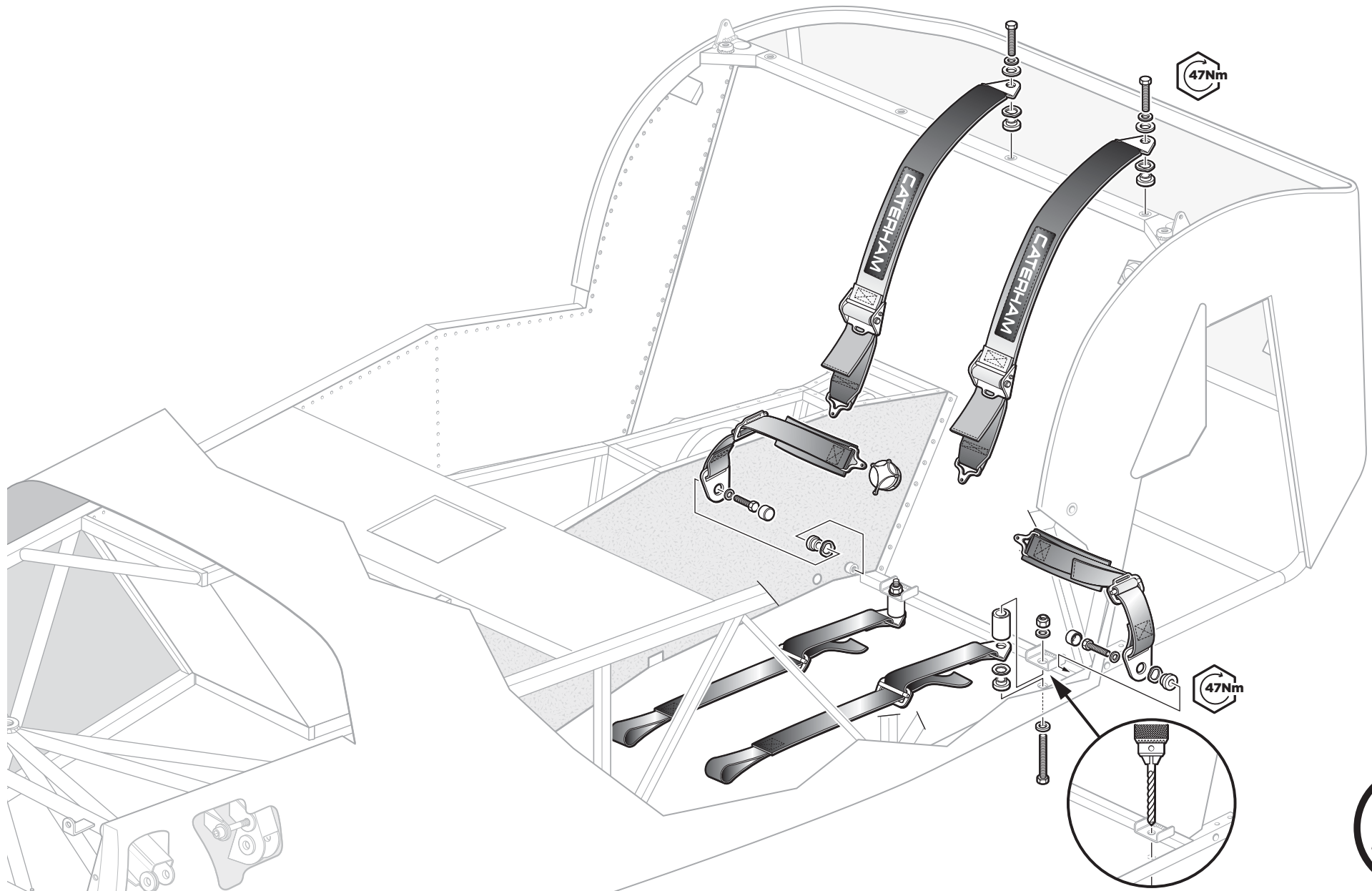
All fixings supplied with the harnesses

TIPS

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

Lee A

FITTING THE SIX-POINT HARNESS

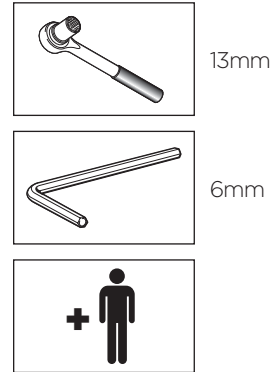


FITTING CLOTH OR LEATHER SEATS

PARTS

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

TOOLS



FIXINGS

| Pack L | | CATERHAM | | 62 | |
|---|---|-----------------|-----|-----------------------------|--------------|
| | | | | 302105B | |
| CLOTH/LEATHER SEATS ALL CARS | | | | | |
| <small>This pack may include extra fasteners to cover different options</small> | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | LA Cleat Bolt M8 X 20 Grade 12.9 | SMCH002 | 4 | Through seat runner & floor | |
| 2 | LB Nyloc Nut M8 | N8NY8 | 4 | Under floor | |
| 3 | LC Plain Washer M8 X 30 | WPH003 | 4 | Under floor | |

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

x4

x4

x4

TIPS

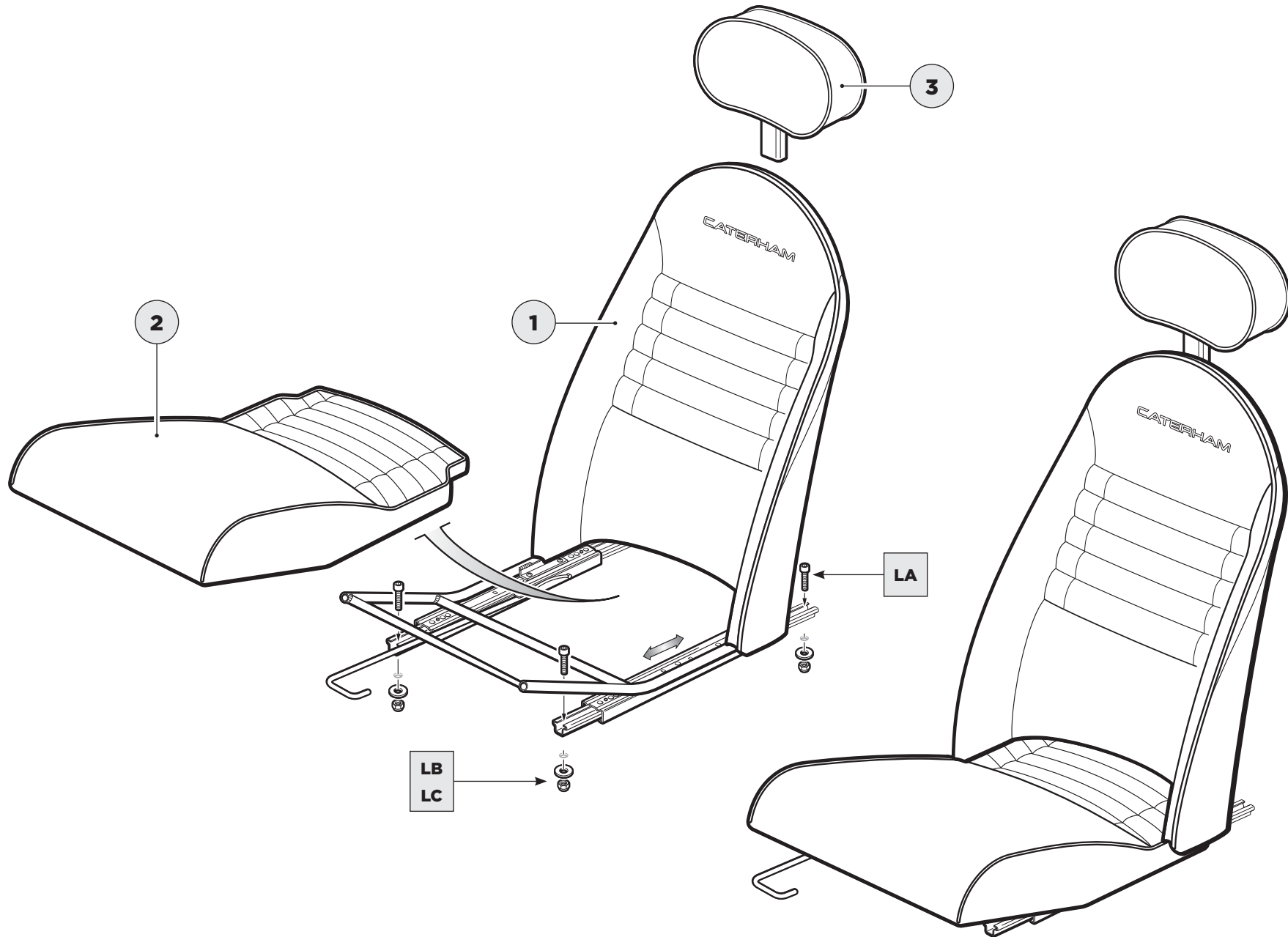
Loosely fit the rear bolts to help locate the front.

Dan D

Nip up all bolts once fitted.

Anthony L

FITTING CLOTH OR LEATHER SEATS

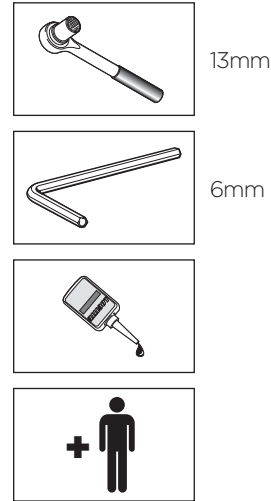


OR FITTING THE RACE SEATS

PARTS

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

TOOLS



FIXINGS

For fixed seats

| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
|------|-----------------------|-------------|-----|--------------------------------------|--------------|
| 1 | 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 5/16" | W5/16S16 | 8 | Bolt heads | |
| 4 | Washer 5/16" X 1 1/4" | W5/16X1 1/4 | 4 | Under floor | |
| 5 | Washer M8 X 18 | W8M8X18E1 | 4 | Spacer box section to seat | |
| 7 | Spacer Block Plastic | TW2 | 3 | Seat spacer | |
| 8 | Spacer Block Plastic | TW3 | 5 | Seat spacer | |

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

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" | W5/16X1 1/4 | 4 | Under floor | |
| 4 | Nylon Nut M8 | N8NY8 | 4 | Under floor | |
| 5 | Spacer Block Plastic | TW2 | 3 | Seat spacer | |
| 6 | Spacer Block Plastic | TW3 | 5 | Seat spacer | |

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

TIPS

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

Chris B

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

Mick F

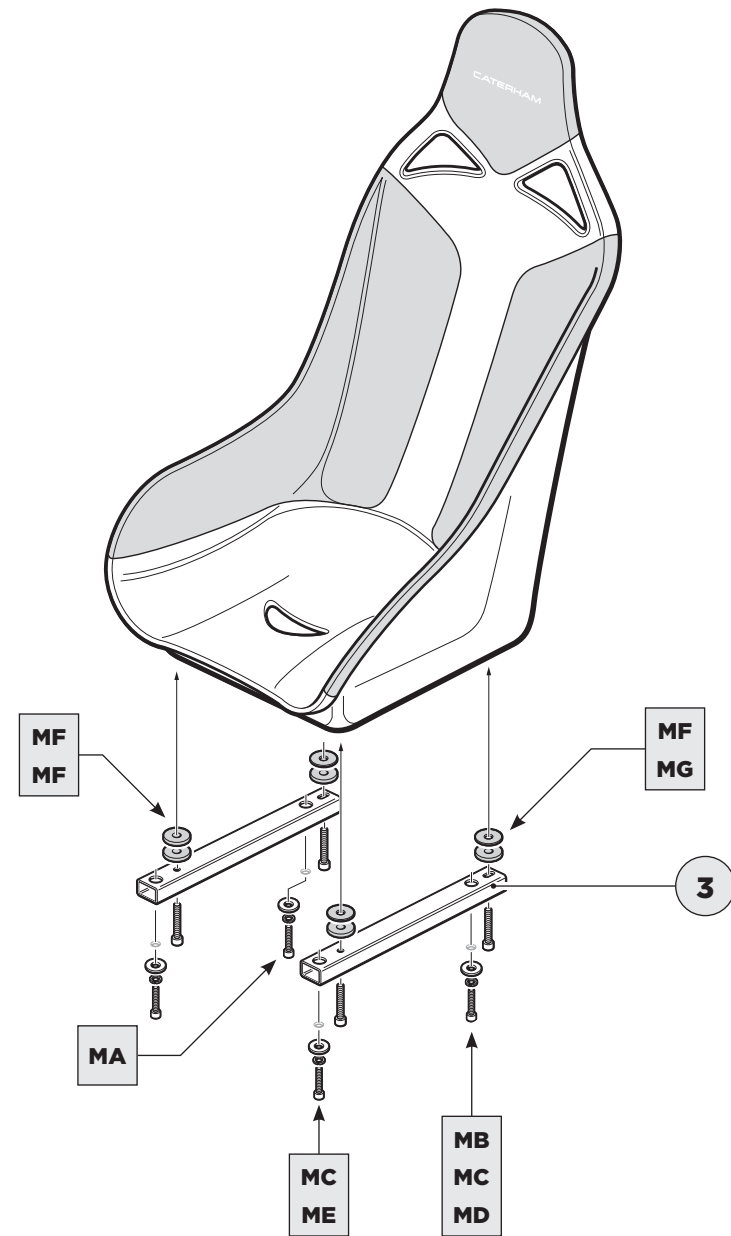
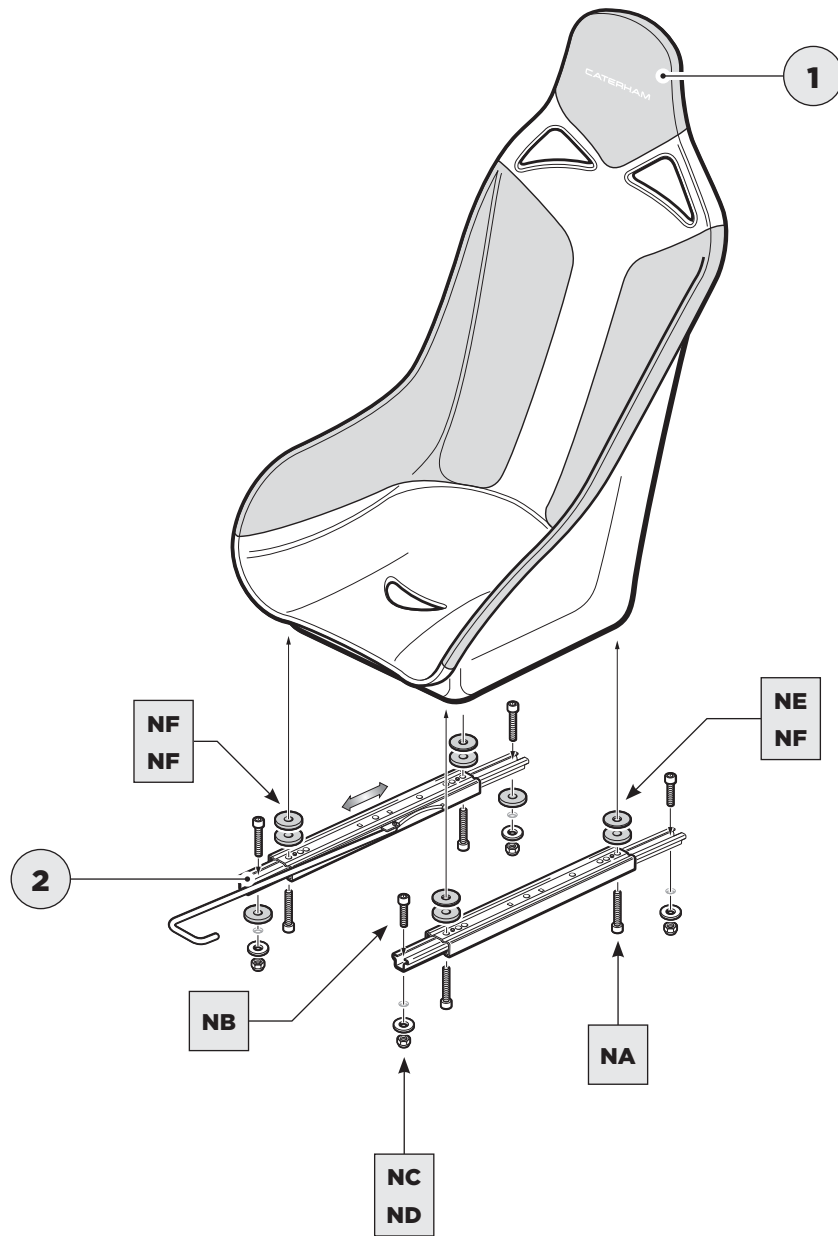
Loosely fit the rear bolts to help locate the front.

Harry P

The fixed position seat is for the passenger side!

Chris N

OR FITTING THE RACE SEATS

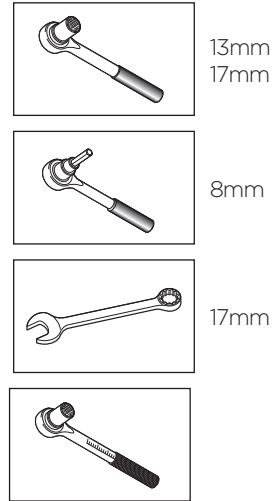


FITTING THE ROLL OVER BAR

PARTS

1 Roll over bar

TOOLS



FIXINGS

| Pack J | | CATERHAM | | 47 | |
|--|-----------------------------|-------------|-----|--|--------------|
| | | PACK NUMBER | | 30P010A | |
| ROLL OVER & TRACK DAY BAR SERIES 3 METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Nut 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 | SM8020 | 2 | Roll over bar bracket to chassis | |
| 3 | Clamped Bar M10 x 20 | SMCH10X20 | 2 | Roll over bar boss | |
| 4 | Nyloc Nut M10 | NMNF10 | 2 | Rear diagonals of roll over bar to mounting brackets | |
| 5 | Flan Washer M8 | WPM88 | 2 | Roll over bar bracket to chassis | |
| 6 | Spring Washer M8 | WSP888 | 2 | Roll over bar bracket to chassis | |
| 7 | Flan Washer M10 | WPM1010 | 4 | Rear diagonals of roll over bar to mounting brackets | |

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

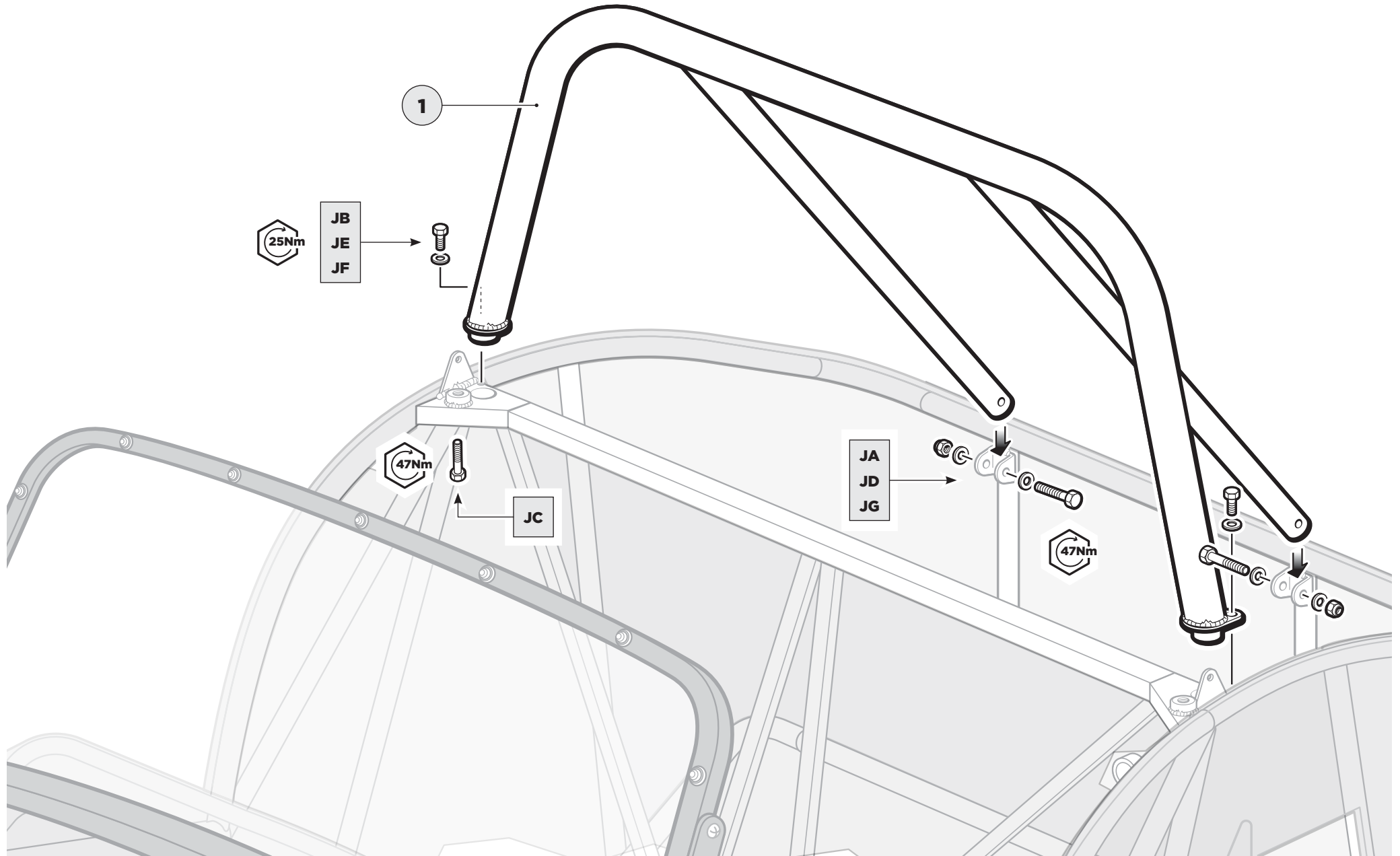
x2
x2
x2
x2
x2
x2
x4

TIPS

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

Chris B

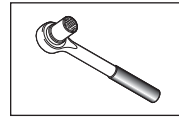
FITTING THE ROLL OVER BAR



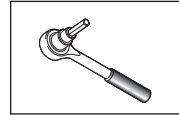
OR THE ROLL CAGE FOR ACADEMY CARS

PARTS

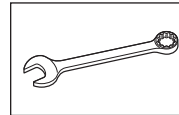
TOOLS



17mm



8mm



17mm



FIXINGS

TIPS

| Pack K | | CATERHAM | | 47 | |
|--|-----------------------------|-----------------|-----|--|--------------|
| | | PACK NUMBER | | 30P017A | |
| ROLL CAGE SERIES 3 METRIC | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Nut M10 x 80 Grade 8.8 | BM10080 | 2 | Rear diagonals of roll over bar to mounting brackets | |
| 2 | Set screw M8 x 16 Grade 8.8 | SM10X16 | 4 | Front cage bracket | |
| 3 | Clamped Bar M10 x 20 | SMCH10X20 | 2 | Roll over bar boss | |
| 4 | Nyloc Nut M10 | NMNF10 | 2 | Rear diagonals of roll over bar to mounting brackets | |
| 5 | Flan Washer M10 | WPM10 | 8 | x 4 Front cage bracket Rear diagonals | |

x2

x4

x2

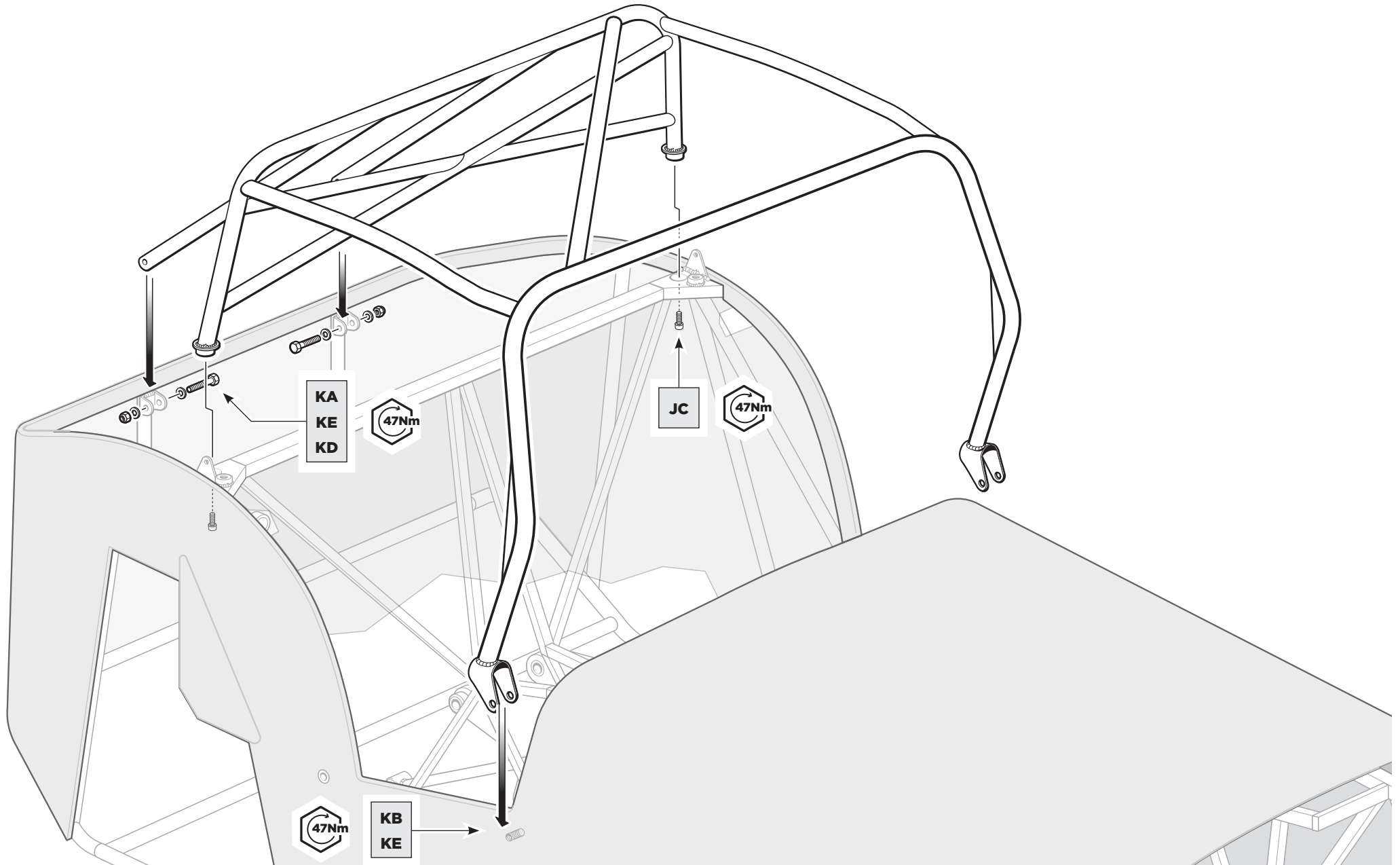
x2

x8

Mask up the paintwork before fitting to avoid scratches.

John S

OR THE ROLL CAGE FOR ACADEMY CARS



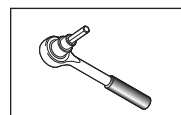
AND THE SIDE IMPACT BAR

PARTS

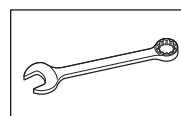
TOOLS



17mm
19mm



5/16"



19mm



FIXINGS

TIPS

Use washers from rollcage pack

| Pack R | | CATERHAM | | 46 | |
|--|--|-----------------|-----|---------------------------|--------------|
| | | PACK NUMBER | | 30P090C | |
| SIDE PROTECTION BAR SERIES 3 | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | Roll Bolt A 120 Grade 10.9 | BM12X120 | 1 | A-frame | |
| 2 | Caphead Bolt 7/16" X 1 1/2" | WCH7/16X1.5 | 1 | Boss on top of chassis | |
| 3 | Self screw M10 X 25 - Grade 10.9 | SM10X25 | 1 | Front cage bracket | |
| 4 | Plain Washer M10 | WPM10 | 1 | Front cage bracket | |
| 5 | Spring Washer 7/16" | WSH7/16 | 1 | Boss on top of chassis | |

x1

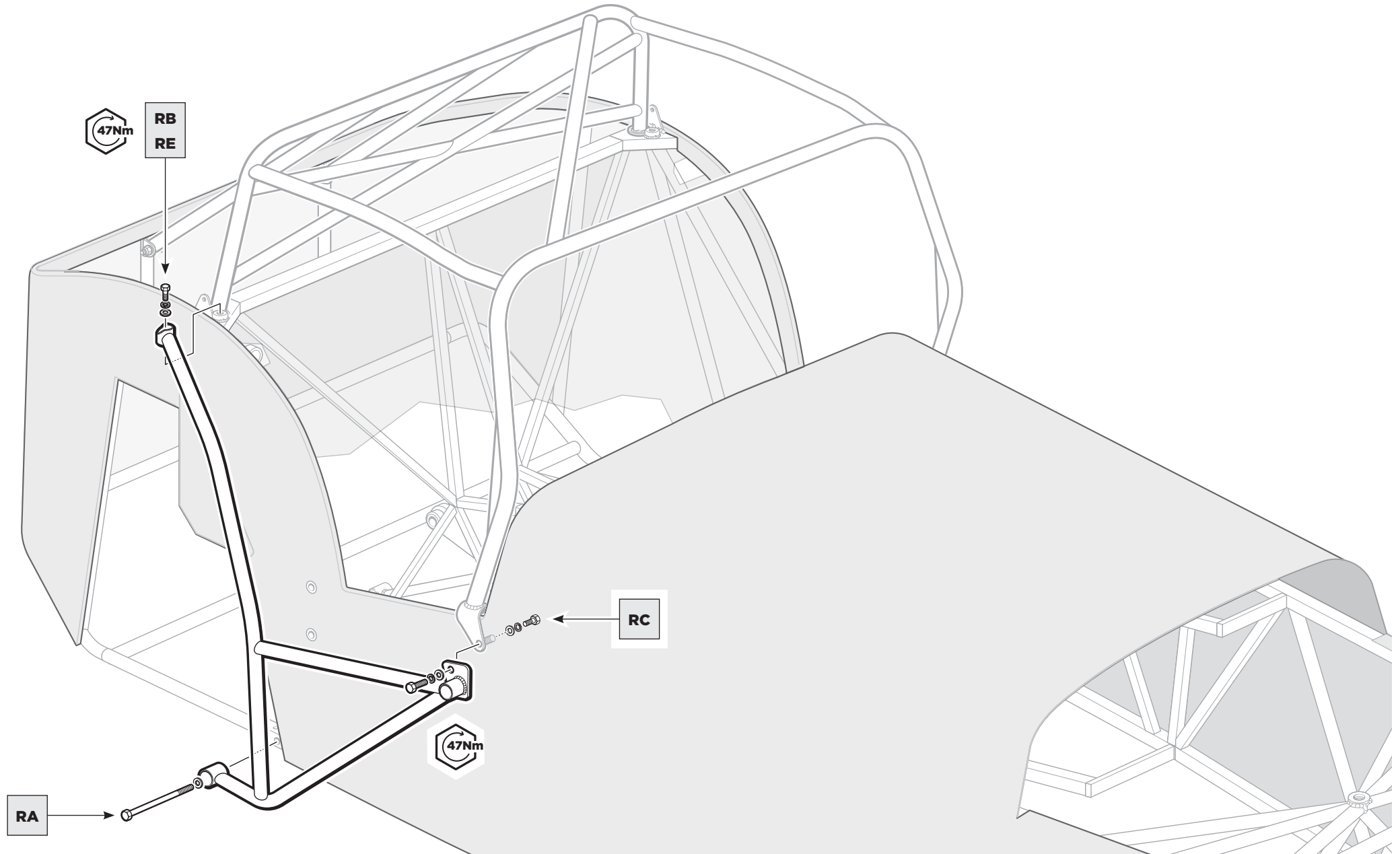
x1

x1

x1

x1

AND THE SIDE IMPACT BAR

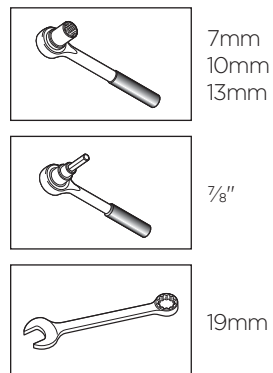


EVEN MORE EXHAUSTING

PARTS

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

TOOLS



FIXINGS

| Pack G | | CATERHAM | | 56 | |
|--|-------------------------------------|-----------------|-----|--|--------------|
| | | PART NUMBER | | 30X020E | |
| EXHAUST | | | | | |
| This pack may include extra fasteners to cover different options | | | | | |
| ITEM | BASIC DESCRIPTION | PART NUMBER | QTY | USED ON | ILLUSTRATION |
| 1 | GA Screw M5 X 25 Grade 8.8 | 5M5X25 | 1 | Exhaust Mounting Bracket | |
| 2 | GB Plain Nut M5 | N5M5 | 2 | Exhaust Bobbin | |
| 3 | GC Spring Washer M5 | W5M5 | 3 | x 1 Exhaust Mounting Bracket x 2 Exhaust Bobbin | |

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

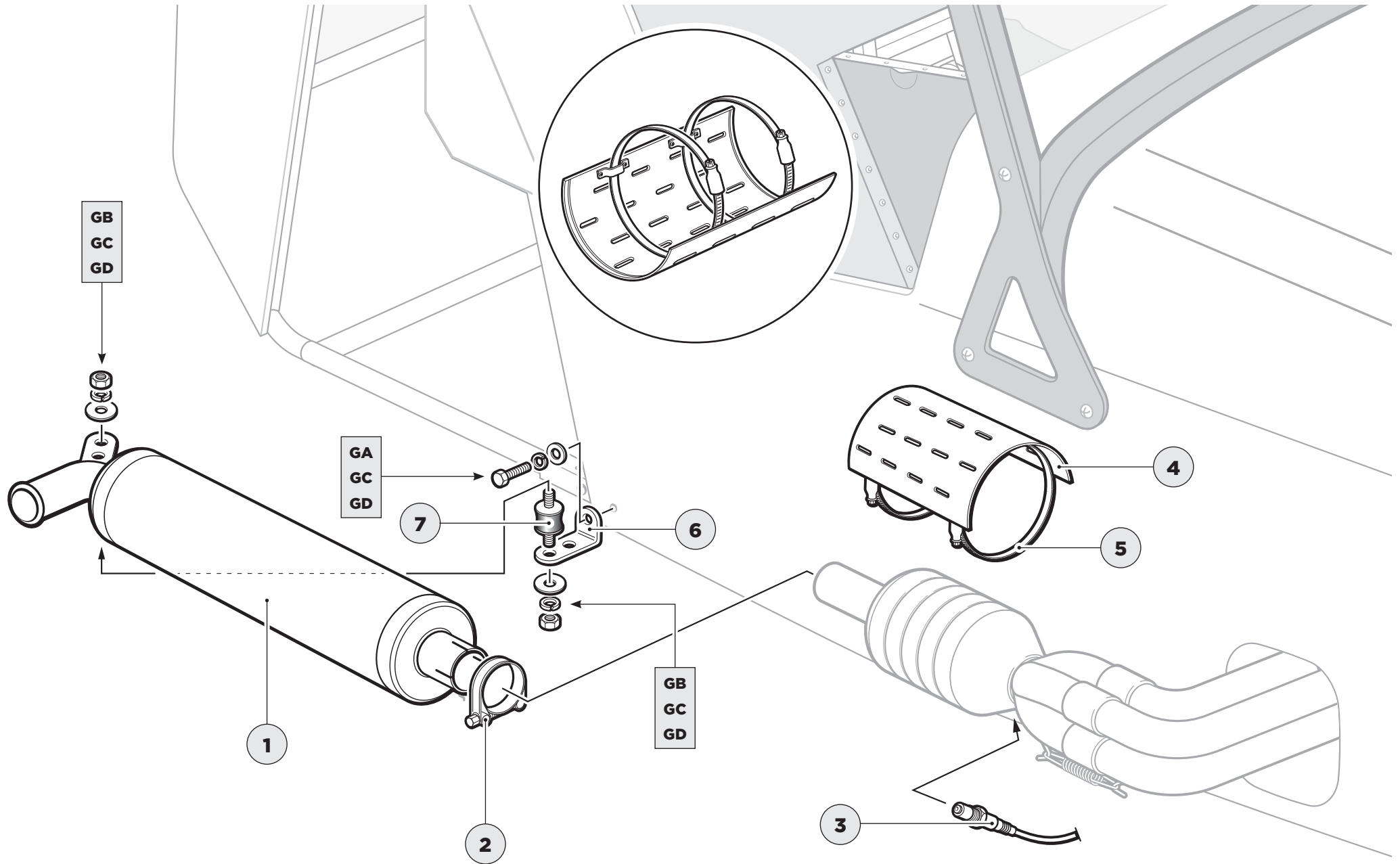
x1
x2
x3

TIPS

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

Lee A

EVEN MORE EXHAUSTING

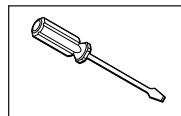


THE NOSE CONE BADGE

PARTS

- 1 Nose cone
- 2 Bonnet
- 3 Badge

TOOLS



FIXINGS

TIPS

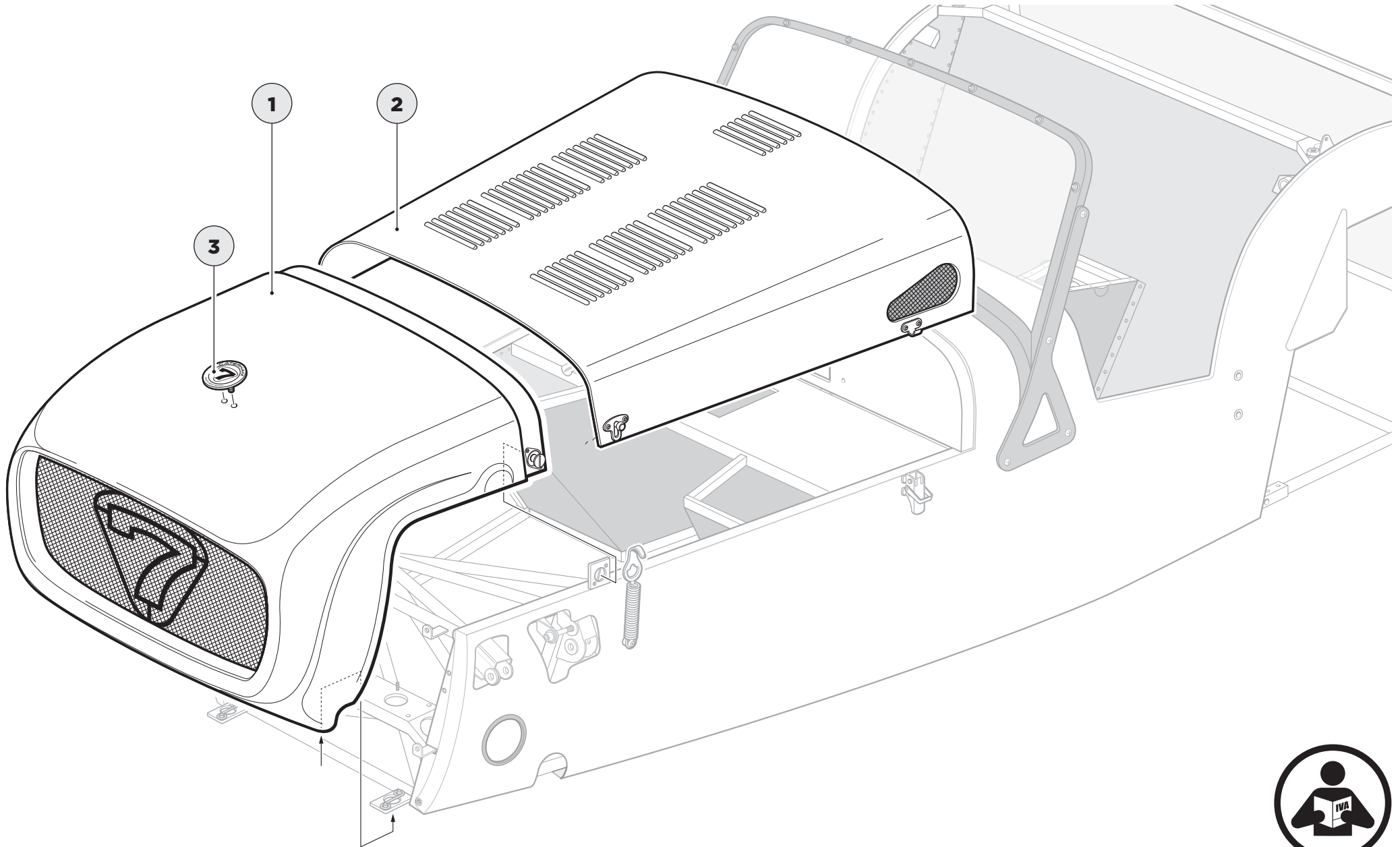
The nose cone goes on before the bonnet.

Anthony L

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

Harry P

THE NOSE CONE BADGE



FITTING THE WIPERS

PARTS

- 1 Wiper arm
- 2 Wiper blade

TOOLS

FIXINGS

TIPS

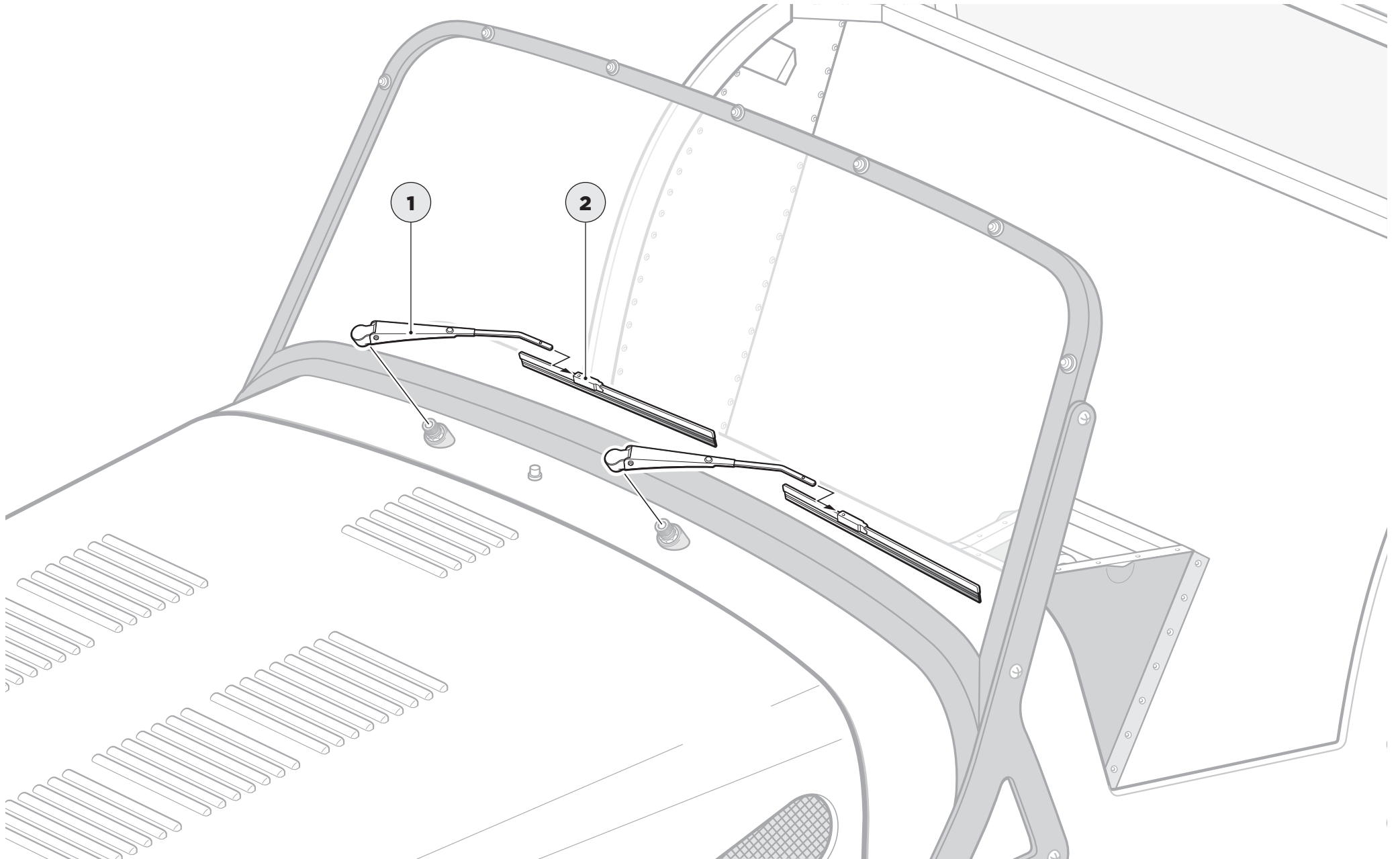
Ensure wipers are in *paused* position before fitting the wiper arms.

John S

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

Chris B

FITTING THE WIPERS

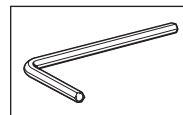
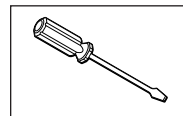


AND FINALLY, AT LAST, THE WING MIRRORS

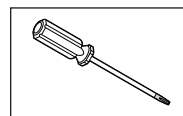
PARTS

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

TOOLS



25mm



T20

FIXINGS

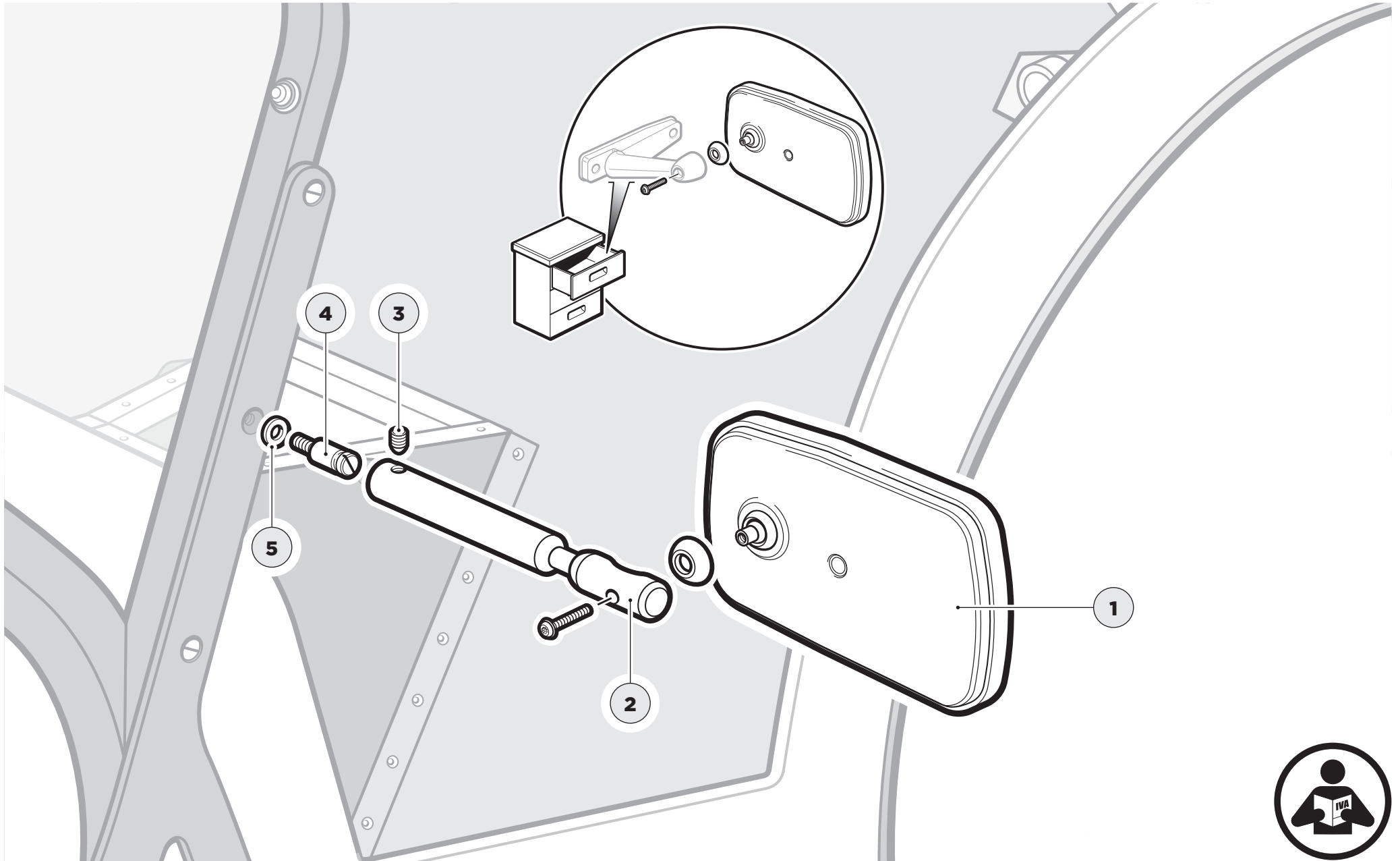
Wing mirror bag

TIPS

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

Mick F

AND FINALLY, AT LAST, THE WING MIRRORS



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 and preparing the engine for its first grand firing-up ceremony (it will feel like that, even if you are doing it on your own).

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

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

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

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

But before anything else:

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

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

YOUR SEVEN *Adventure* AWAITS

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

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. 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

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