

## CAE Performance Products

### Steering Rack and Pinion Data Street Request

Please be aware custom conversions cannot be refunded so it is important the information you provide here is accurate and may affect the way the steering performs in the final result.

This document is to help you to determine the correct figures you require to fill out the measurements on page 3.

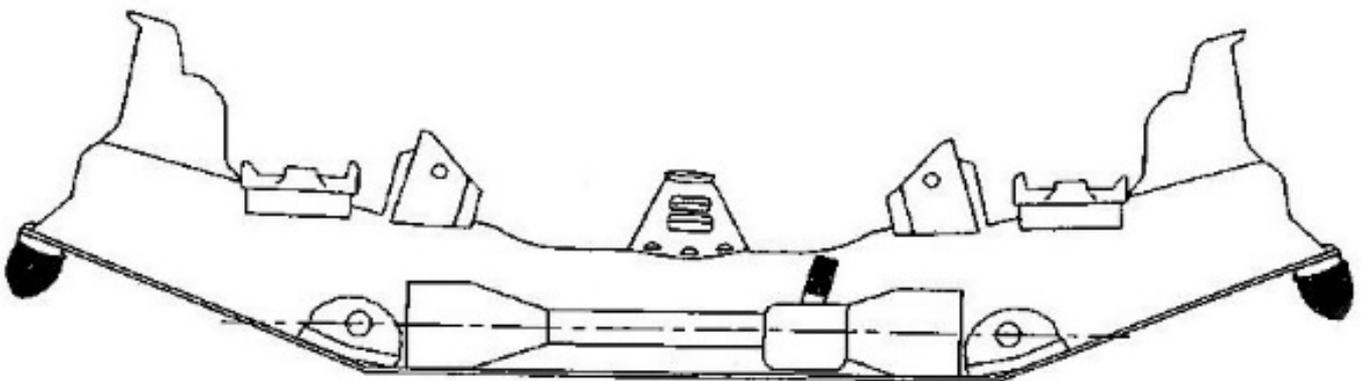
To fit a rack and pinion you must have the correct position for it in relationship to the suspension. If this is not correct it may cause the steering to behave in an unpredictable way.

1(a) You must horizontally align the rack and pinion centre with the lower control arm. Some front suspensions are not horizontally aligned with the centre line of the car, looking from the side, the front pivot is higher than the rear pivot. To determine the correct position a line must be projected through the centre of both arm pivots to the rack ball.

1(b) Determine the rack length from ball to ball. The ball joints fitted to the end of the rack must be in line with the rotating axis of the lower control arm. Most arms do not rotate parallel to the centre line of the car (looking from the top), so a line must be projected from the rear arm pivot through the centre of the front pivot. This line must intersect the rack end ball.

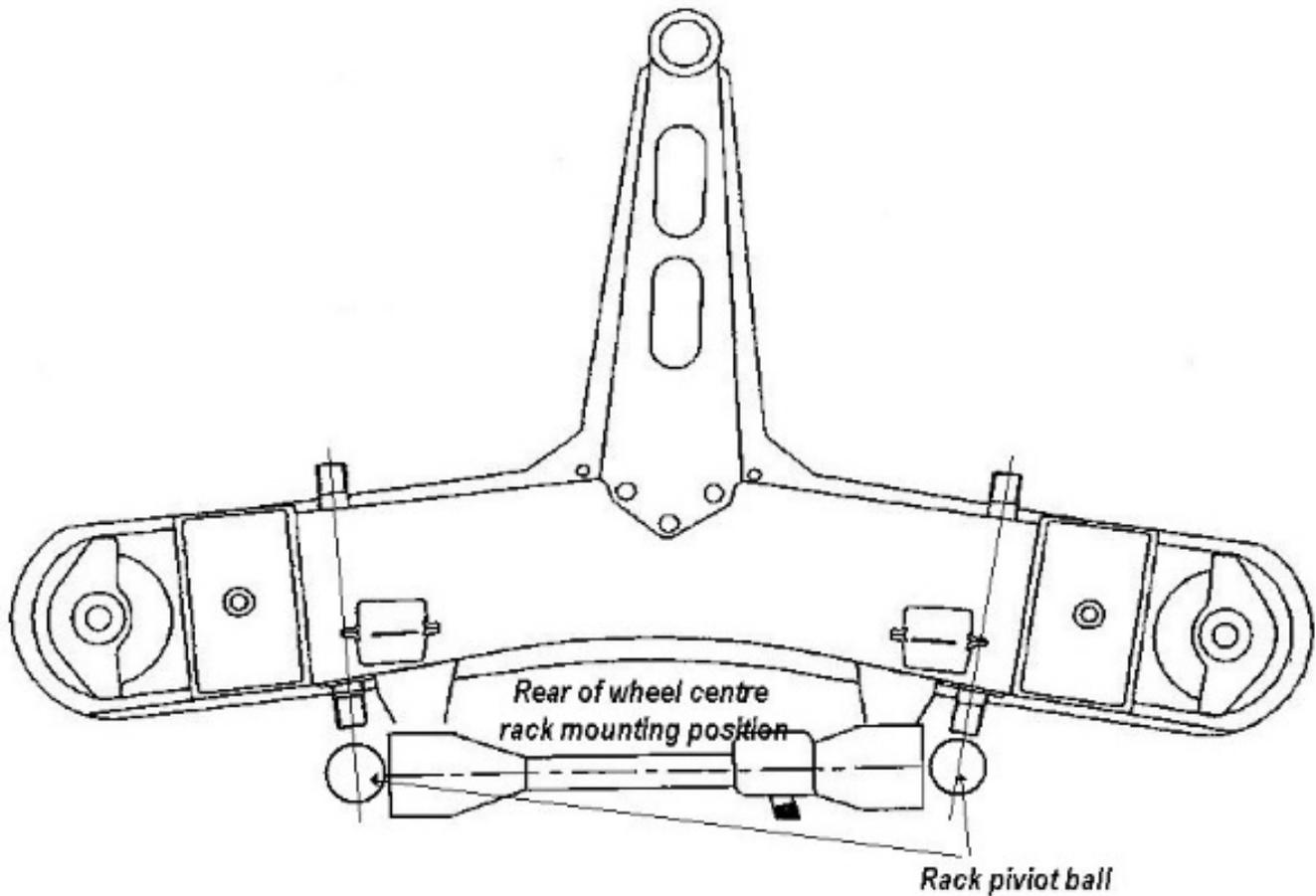
Both 1(a) and 1(b) use the basically the same method to the position of the rack inner ball and ultimately the rack length.

This image Fig 1 and Fig 2 (page 2) helps describes the Horizontal alignment procedure.



### **MOUNT RACK ON CENTER POINT OF LOWER PINS**

Images provided are for reference purpose only and may not represent your car suspension layout but does show the basic theory on how to determine the correct position for the rack.



***Image for illustration purpose not drawn to scale***

Fig 2 Shows the top view of the lower control pivot arm and rack ball alignment.

All other measurements can be determined by where you position the Rack.

Image on Page 3 has all details of the measurements we require.

Print page 3 and fill out the measurements for your own reference and to transfer them to the Steering Rack and Pinion Information Request page found on our website link below.

[http://www.caepformanceproducts.com.au/r-p\\_steering\\_info.php](http://www.caepformanceproducts.com.au/r-p_steering_info.php)

If you choose to submit by conventional Post (mail) you can send page 3 but please keep a copy for your own reference.

There is a copy of this document and a separate larger copy of page 3 available from our Support document page on the website.

[http://www.caepformanceproducts.com.au/support\\_info.php](http://www.caepformanceproducts.com.au/support_info.php)

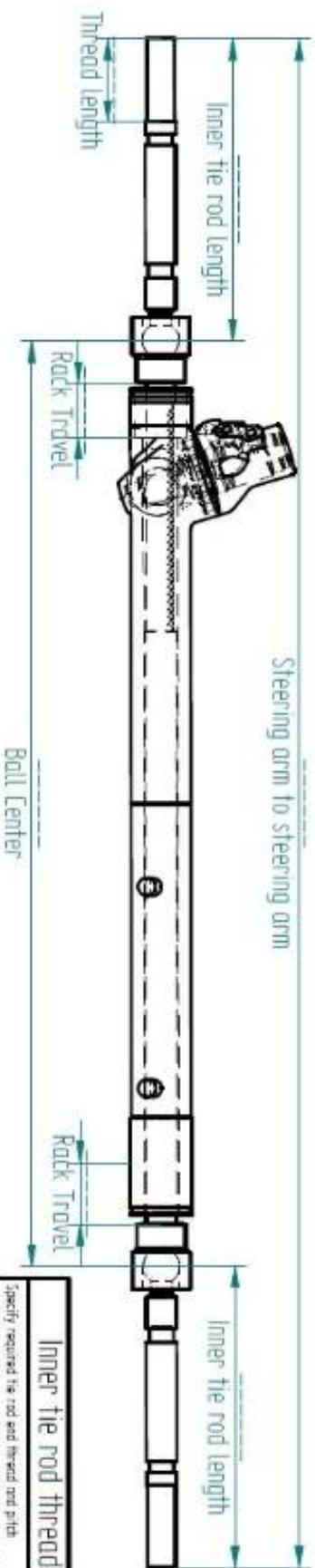
Customer Name	.....
Phone	.....
E-Mail	.....
Vehicle type	.....

By signing below, you acknowledge that the info given, which needs to be filled out in full, is what you want. CAE Performance Products will deliver you a product within their tolerances to the specifications you have given if possible. As these are a made to order or custom product they are a non-returnable product.

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

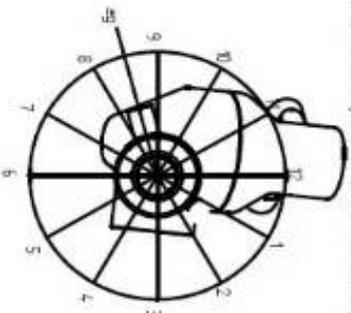
### Rack Measurements

Fill out your required measurements for dimensions on below above writing



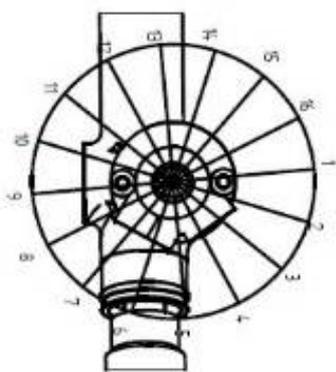
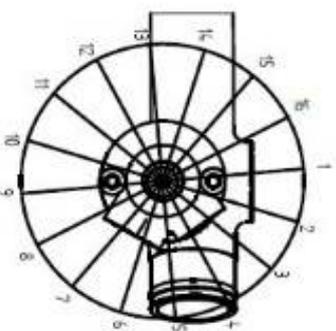
### Port holes position

Mark the orientation you desire for your part lines  
 Keep in mind, below a rear steer set up is shown, a front steer set up will have the servo housing on the other side  
 eg. the below picture is at 8.5 on the clock



### Servo Housing lines position

On one of the two drawings below, please indicate by circling a number what orientation you desire the lines to point  
 Below is a front steer set up with the lines in position 5  
 Below is a rear steer set up with the lines in position 5



### Inner tie rod thread

Specify required tie rod end thread and pitch  
 All threads are to be male, sleeve to adapt to female threads are available upon request.  
 We offer the following thread sizes in a range of pitches  
 1/2", 3/8", M16, M18  
 Thread size and pitch: \_\_\_\_\_

### R&P Type

Front Steer Unit mounted in front of front axle	<input type="checkbox"/>	Rear Steer Unit mounted Behind front axle	<input type="checkbox"/>
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## CAE Performance Products

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