

CAE PERFORMANCE PRODUCTS

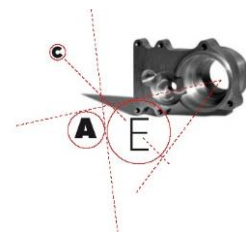
7 MAIN ROAD CHEWTON 3451

Telephone: (03) 5472 1442

Email: info@caenterprises.com.au

Website: www.caepperformance.com.au

RP-PWR-TORANA-LH-LX-UC



Serial no:

DATE:



LH-LX TORANA 'RACK-IT' POWER STEERING RACK INSTRUCTIONS

Important Information:

The purchase of this kit includes an Engineer's Compliance Certificate. In order to prevent fraudulent activity, a copy of this document will be accessible through a Registered Engineer. Please have your engineer phone or email us to supply an Engineer's Compliance Certificate.

Note: CAE Performance Products recommends fitment of this product be installed by qualified mechanic/personnel.

Substituted parts will void compliance and warranty.

Kit Contents:

1 x Power Rack & Pinion (Assembled w/ Tie Rods) - P/N TE-3051	1 x M16 x 1.5 -> #6 Male Fitting (Fitted)
2 x Aluminium Mounting Brackets, includes mounting bolts - P/N CAE-133C+D	1 x M14 x 1.5 -> #6 Male Fitting (Fitted)
1 x Steering Shaft – Machined to Suit OEM Steering Uni P/N STEER.TORANA	1 x M14 x 1.5 -> OEM Style Fitting
2 x Special nut inserts P/N CAE-133I	1 x M14 x 1.5 -> OEM Style Fitting

Installing your new "RACK-IT" Power Steering Rack is relatively straight forward. Please read instructions & be aware of modifications required prior to installation.

Note: CAE cannot guarantee fitment of all header/extractor applications due to availability of engines & exhaust components used. You may have to modify driver's side headers to suit the rack & pinion supplied.

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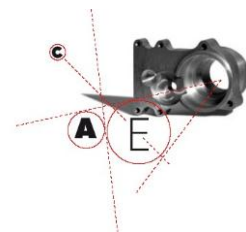
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LH-LX-UC TORANA 'RACK-IT' POWER STEERING RACK INSTRUCTIONS

Installing the new "RACK-IT" power steering rack is relatively straight forward and only requires a few basic hand tools, i.e. socket set, spanners a ball-joint/tie-rod separation tool, 2 Allen keys (5/16th and 3/8th) and an angle grinder.

Prior to fitting your new power steering, we recommend having the front end totally cleaned with a high-pressure washer to remove any old grease/dirt build up. This will give neat look and a clean area to work with. If possible, we suggest removing the engine to make life easier, as this will also allow more room to modify the driver side engine mount.

1. Remove the old Rack and pinion from the front end and punch out the old bolts that locate it to the Cross member.
2. Mark out and cut engine mount bracket on k-frame to suit the new rack (use photos in these instructions as a guide to do so). Paint the cut away sections to match the existing colour of your front end.
3. If you haven't already done so, remove steering arms from the stub axles and have them reamed to suit the taper of the new tie-rod ends. You can send these arms to CAE to carry out this process.
4. After refitting the steering arms to the front end assemble the mounting blocks to the new rack and screw on the new tie rod ends. Don't tighten the bolt on the mount blocks to tight, loosen the bolts on the new rack so they move freely. (If using VT-VZ brake upgrade some small modification may be necessary to calliper for tie rod clearance)
5. Assemble the LH and RH tie rod ends to the steering arms and tighten. Doing this allows the suspension to hold the weight of the rack while you fit it up.
6. With the new special square nut, reach through the hole in the sub frame where the bottom wishbone locates and push the square section into the hole now left by the old rack mounting bolt. (refer to photo).

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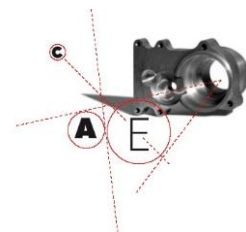
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For this next step you may require help to fit the rack as you have to check several things at once. Trial fit the rack to get the correct angle, as it goes through the engine mount cut out. Once you have the correct angle and you are happy with the clearance, do the top bolt up on the mounting clamp until the bolt is nipped up.

7. Insert the long bottom bolt M12 through the mount block and tighten finger tight. Repeat this on opposite side.



You should now be able to tighten up all your bolts on the mounts and tie rod ends. Next fit the supplied steering shaft as per photo and couple to the original universal joint on the steering column.
Note: The Steering Shaft supplied does not have the slot for a Cotter Pin/Bolt to pass through due to variances in universals available. Check and make sure this universal joint is not worn out. If it is, CAE Performance have replacements - Part No. STUNI-01.

POWER STEERING PUMPS:

We have had success using either late model GM PWR Steering pumps or the remote mounted "Electric" Holden Astra pumps.

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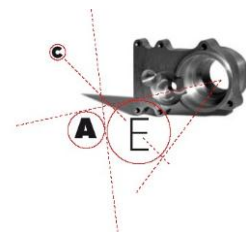
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C.A.E. can supply Astra steering pump and mounting bracket to suit.

Power steering fluid – use ATF DX-3.

Note - Using an electric pump will need an alternator capable of charging 140amp or more.

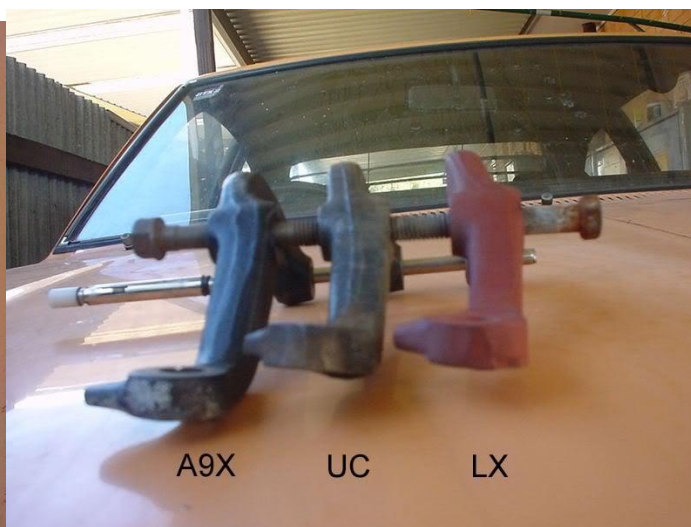
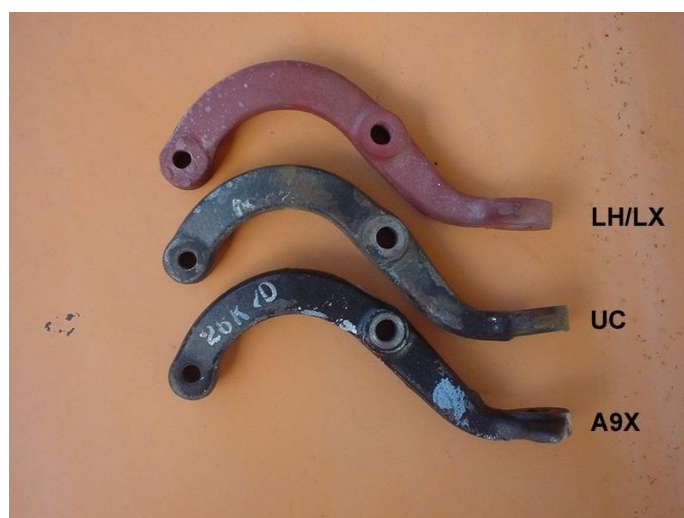
STEERING ARMS:

We can supply the Harrop steering arms which are a copy of the A9X units as shown in the pictures comparing steering arms.

These position the tie rod down lower and improves on bump steer.

Part No. 99-ARM2066-10

Part No. 99-ARM2066-20



Hoses and fittings can be supplied if required. Please advise on hose lengths and fitting orientation 45 deg, 90 deg or straight.

Please call if you require any further information regarding this or other components from CAE Performance Products on ph: **03 5472 1442**.

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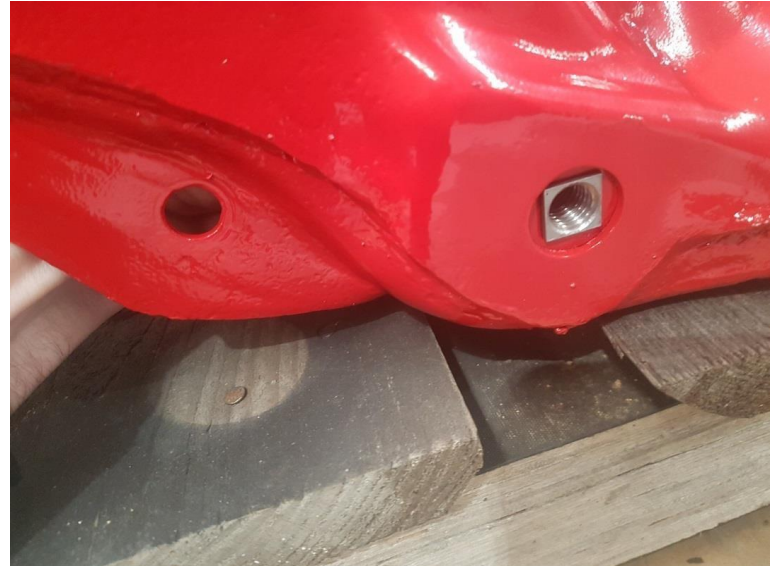
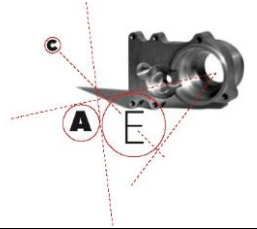
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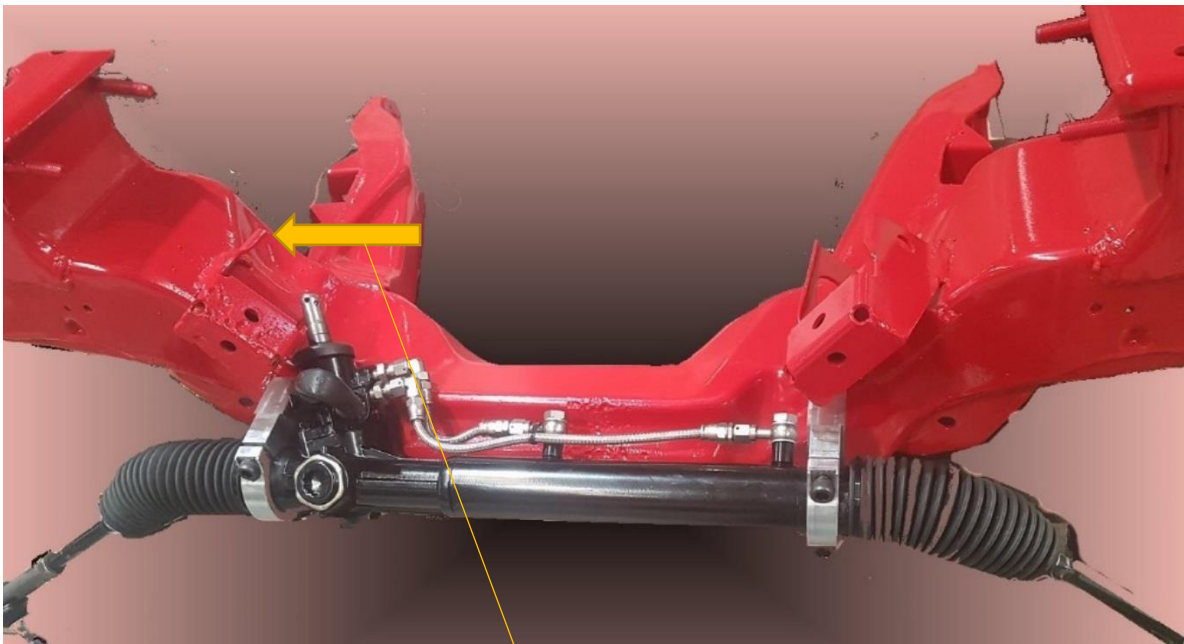
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SPECIAL NUT INSERTED



Check for clearance

FINAL FITMENT

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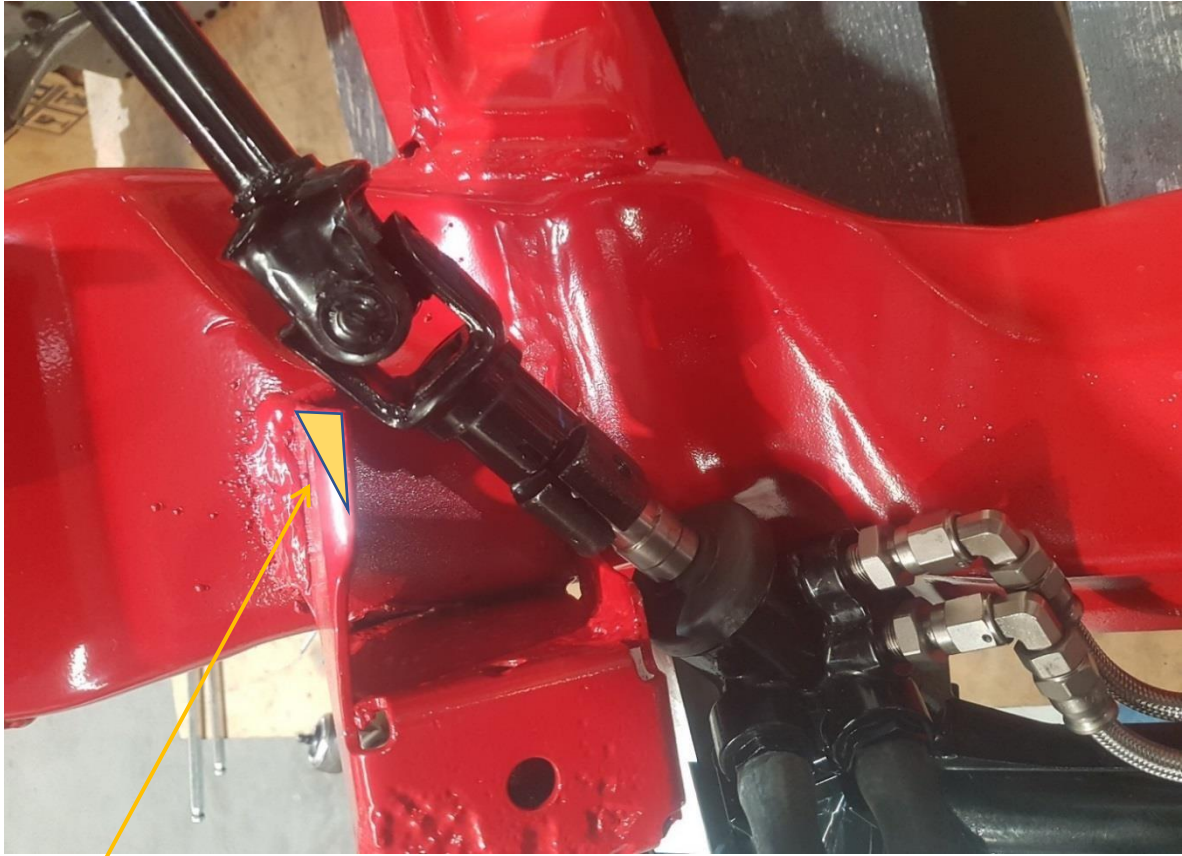
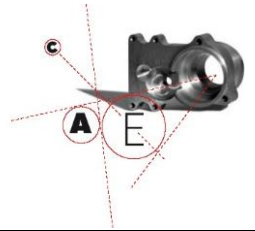
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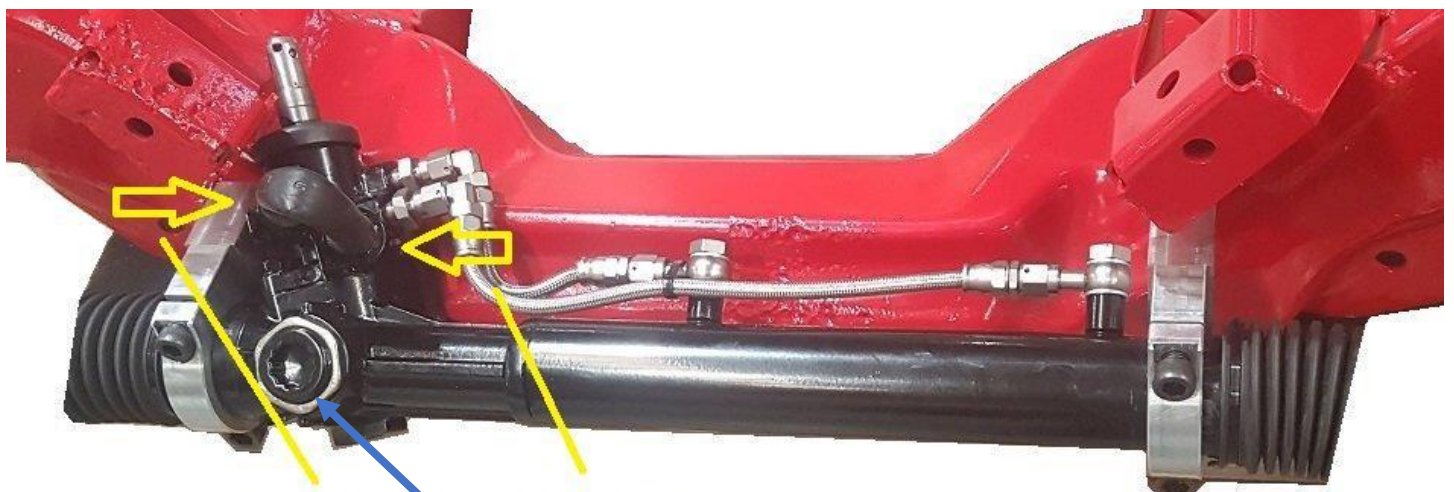
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Make sure there is clearance.

When installing steering shaft ensure units are phased in-line with steering shaft



Pressure Line

Return Line

Snubber – adjusts backlash on rack bar



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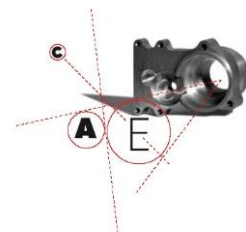
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C.A.E. PERFORMANCE PRODUCTS ***‘RACK-IT’ POWER STEERING WARRANTY***

Manufacturer’s Warranty:-

All ‘Rack-It’ Racks & Components manufactured or modified by C.A.E. Performance Products Pty Ltd will be guaranteed against faulty workmanship for a period of twelve months.

The warranty is subject to the following conditions:-

- C.A.E. Performance Products recommends that this product be fitted by qualified personnel.
- All claims must be made within the warranty period.
- Any ‘Rack-It’ Rack & Components manufactured or modified that has been found to have faulty workmanship or related faults due to the workmanship of C.A.E. Performance Products will be replaced or repaired free of charge.
- The warranty will not apply to ‘Rack-It’ Racks & Components that has been installed incorrectly or has been subject to neglect, intentional or accidental damage, unauthorized repairs or modifications or used for the wrong application.
- The warranty does not cover installation of removal of ‘Rack-It’ Racks & Components or freight costs.
- The warranty will only apply to ‘Rack-It’ Racks & Components used for normal road use.

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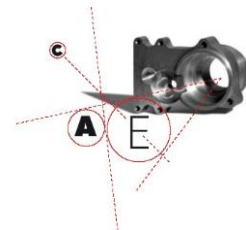
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ORDERING

Orders can be placed by phone or e-mail. We prefer official purchase orders from account customers. Please quote the part number, quantity and any special requirements when ordering.

SHIPPING

All orders are dispatched upon payment (except account customers). We ship Australia-wide every day. If you wish to use your own courier, please advise us of your courier name & account details & we can organize pick-up. Transport insurance can be arranged at the request of the purchaser.

DAMAGE

All goods are shipped in good condition & are packed accordingly. We can only handle damage claims for prepaid freight.

RETURN OF GOODS

All parts returned will incur a 20% re-stocking fee. Goods must be returned within 30 days & in resalable condition. Freight is to be paid by customer unless the goods are being returned due to manufacturing defect or shipping error, in which case they are to be shipped using our Australia Post Reply Paid account. Goods specifically made to customer requests cannot be returned for credit. All goods remain the property C.A.E. Performance Products Pty Ltd until paid for in full.

PAYMENT

Payment can be made by credit card (surcharge), direct deposit, cheque/money order or cash over the counter. Please note that cheques & money orders must include the full amount of the order & freight costs. Personal cheques are subject to bank clearance (5 business days).