

Castlemaine **ROD SHOP**

AP134.DOC

TOYOTA 3 LITRE 6 CYL TO CHEV V8 AUTOMATIC TRANSMISSIONS.

READ ALL INSTRUCTIONS BEFORE STARTING.

THIS CONVERSION IS DESIGNED TO FIT THE FOLLOWING TOYOTA MOTORS:

**1JZ-GE 3 LITRE TWIN CAM 24 VALVE STRAIGHT 6
2JZ-GE 3 LITRE TWIN CAM 24 VALVE STRAIGHT 6**

**THESE MOTORS ARE AVAILABLE IN EITHER 'NATURALLY ASPRIATED' OR
TWIN TURBO CHARGED.**

**NOTE: THE STANDARD TOYOTA STARTER AND DRIVE PLATE SET UP IS USED
ON THIS CONVERSION**

VERY IMPORTANT TRANSMISSION INFORMATION:

**THIS CONVERSION WILL SUIT THE FOLLOWING AUTOMATIC
TRANSMISSIONS.**

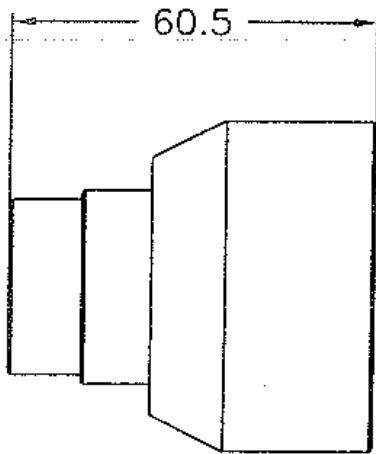
- (1) POWERGLIDE – TURBO 400 – TURBO 700 – ALL PRE GEN 3**
- (2) GENERATION 3 – (GEN 3) AUTO TRANSMISSIONS**

**IMPORTANT – The only difference between the PRE- Gen 3 auto and
Gen 3 auto conversions is the adaptor is used to adapt the crankshaft to the
torque converter snout. These are different lengths and are DEFINITELY NOT
inter changeable. CHECK part numbers on this sheet and ATTACHED
DRAWING to make sure you are using the correct crank adaptor.**

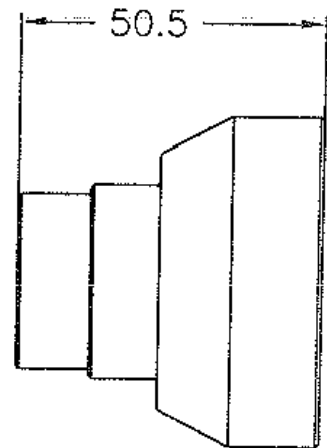
2.

KIT CHECK LIST:

- 1 off Adaptor plate fitted with dowels – CRS2066 – AP 134
- 5 off Special countersunk head bolts – M12 x 1.25 x 30 – CRS2046 – Adaptor to motor.
(Bolt 23)
- 2 off Special countersunk head bolts – M10 x 1.25 x 25 – CRS2065 – Adaptor to motor.
(Bolt 24)
- 2 off M10 x 1.25 x 30 bolts with flat washers – Adaptor to motor.
- 1 off Crankshaft/Torque converter adaptor – available in two types.
TYPE 1 suits PRE GEN 3 Auto's – T400 – T700 – CRS2081 (TC Locator 27)
TYPE 2 suits GEN 3 auto transmissions – CRS2082 (TC Locator 28)
See information above and check you have the correct adaptor



PRE GEN3
POWER SLIDE - T400 - T700



GEN 3
(ONLY)

- 1 off Aluminium Drive Ring – CRS2067 – Toyota drive plate to Chev Torque converter –
(TC Spacer 16)
NOTE: This ring is drilled to suit large and small bolt pattern Chev torque
Converter bolt pattern as well as Gen 3 torque converter bolt pattern.
- 6 off M10 x 1.5P x 25 bolts – Drive plate to aluminium drive ring.
- 6 off 3/8" UNC x 1-1/2" long bolts with flat and spring washers – trans to adaptor.
- 2 off M8 x 1.25 x 65mm long special starter motor with flat and spring washers.

FITTING INSTRUCTIONS:

Step 1: PREPARING THE MOTOR:

**** Remove the drive plate from the motor and check that the aluminium drive ring supplied with this kit does not foul with the weld that holds the starter gear to the drive plate. The aluminium drive ring is designed to clear the weld, but it may be that some drive plates have larger welds. Bolt the aluminium ring to the drive plate as shown on drawing of Toyota crank set up supplied with these instructions (SEE SECTION ON IMPORTANT INFORMATION) . Use the M10 x 1.5 bolts – if the ring fouls with any of the welds you will need to CAREFULLY grind THE WELD until it clears the ring. When or if the welds clear, remove the aluminium ring and bolt the drive plate back onto the motor taking care that the spacer washer and disc washer are in the original positions as shown on the drawing.**

**** Clean the transmission face of the motor. Carefully remove any "BURRS" or "HIGH SPOTS" with a file.**

3.

**** Carefully remove the transmission spigot bearing from the end of the crankshaft if the motor was previously used in a manual transmission vehicle.**

**** Clean the crankshaft thoroughly.**

**** Make sure the two original transmission location dowels are still fitted to the trans face of the motor.**

**** Make sure the original Toyota drive plate and spacers are bolted to the motor in their original position.**

STEP 2: FITTING THE ADAPTOR PLATE:

(Refer to the ADAPTOR PLATE DRAWING supplied with these instructions)

**** Fit the adaptor plate to the motor, locating it on the two dowels that protrude from the face of the motor.**

**** Bolt into position using the bolts described on the adaptor plate drawing – we recommend the use of "Loctite" metal adhesive on these bolts for added retention. We use "Loctite type 243" which is a medium strength adhesive that will UNDO with normal tools. "Loctite" can be purchased at most good automotive, engineering or bearing suppliers.**

TAKE NOTE that two of the bolts (M10 x 1.25 x 30) go through holes in the lower part of the aluminium sump – these bolts are fitted from the motor side and screw into the adaptor plate – see holes marked * on adaptor drawing.

**** Bolt the starter motor in to its original position using the 8mm x 1.25 x 65 bolts and flat and spring washers. The bolts will slide through the existing threaded holes in the starter motor and screw into the holes in the adaptor plate. Make sure you have a flat and spring washer fitted to each bolt then tighten the starter into place. You will notice that the threaded end of these bolts will stick out past the face of the adaptor plate. You will need to measure how much they protrude, then remove the bolt and then shorten the bolt by 1/64" or 0.5mm more than the amount you measured. Fit the bolt and washer back into the starter and tighten into place. When the bolt is tight it should not protrude past the face of the adaptor and should be just below the surface so that it does not foul with the transmission when it is fitted later. Leave the starter bolts in place when this modification is completed.**

STEP 3: FIT THE CRANKSHAFT/TORQUE CONVERTER LOCATOR.

**** The crankshaft/torque converter locator is made so that it is a firm fit in the bore of the crankshaft. Because some crankshafts have become worn with use, we recommend that you use a smear of loctite adhesive on the outside of the locator as you fit it to the crank – this will “take up” any normal wear that may have occurred and will hold the locator in place. (You will notice that the locator has a thread in it, this thread is 1/2” UNC and is to allow the removal of the adaptor at a later stage by screwing a 1/2” UNC x 3” long set screw into it and tightening it until the locator is forced out.) REFER TO ATTACHED DRAWING FOR FITTING METHOD.**

STEP 4: PREPARING THE TRANSMISSION:

**** The aluminium drive ring needs to be fitted to the torque converter from the Chev transmission that you are using. You will notice that there is provision for 3 types of torque converters to be bolted to the drive ring – it is drilled to suit a standard Chev**

4.

torque converter with a small bolt pattern which is 3 equally spaced holes on 10-3/4” P.C.D. – as used on small block chev. It is also drilled to suit a standard Chev torque converter with a large bolt pattern – 3 equally spaced holes on 11-1/2” P.C.D. – as used on big block Chev’s.

The other bolt pattern is to suit a torque converter from an auto trans from a GEN 3 V8.

REFER TO *DRIVE RING DRAWING* SUPPLIED WITH THESE INSTRUCTIONS FOR HOLE IDENTIFICATION AND SPECIAL SET-UP INFORMATION.

***IMPORTANT NOTE:* We have not supplied bolts to bolt the drive ring to your torque converter – the reason for this is that some torque converters have 3/8” UNC threads, some torque converters have 3/8” UNF threads, some torque converters use a 3/8” bolt and a nut and GEN 3 torque converters use metric bolts. You will need to determine which type of bolt suits your torque converter then purchase 3 new bolts with the same thread that are either 1/2” or 13mm LONGER THAN THE ORIGINAL CHEV torque converter to drive plate bolts.**

VERY IMPORTANT: BOLTING THE RING TO THE CONVERTER:

Bolt the aluminium drive ring to the torque converter with the 3 bolts that suit (as described above.)

IT IS VERY IMPORTANT THAT THIS RING IS SET TRUE TO THE SNOUT OF THE TORQUE CONVERTER.

Refer to the set up procedure instructions on the DRIVE RING DRAWING.

STEP 5: FIT THE TORQUE CONVERTER WITH DRIVE RING TO THE TRANSMISSION:

**** Carefully slide the torque converter onto the drives of the automatic transmission. You will need to rotate and “jiggle” the torque converter as you fit it so that it locates fully on all the drives and goes fully into position. The face of the aluminium drive ring will protrude past the face of the transmission by 10-13mm when fully in place – DO NOT FORCE ON.**

STEP 6: FIT THE TRANSMISSION TO THE MOTOR

**** Carefully fit the transmission to the location dowels protruding from the adaptor plate. MAKE SURE THE TORQUE CONVERTOR STAYS IN ITS “FULLY ON” POSITION AND**

DOES NOT SLIDE FORWARD ON THE DRIVES AS YOU FIT IT, IF IT DOES MOVE YOU WILL NEED TO REPOSITION IT AS DESCRIBED IN STEP NO.5.

Do not force the transmission – take care not to damage it as you fit it into position. When the transmission is fully in place, bolt it in place with the 3/8" UNC x 1-1/2" long bolts and washers supplied with this kit.

If any of these bolts hit the back of the motor before they tighten onto the face of the transmission you will need to shorten them until they tighten properly onto the trans.

5.

STEP 7: BOLT THE DRIVE RING TO THE DRIVE PLATE

**** Using the access window in the lower half of the motor, rotate the motor drive plate until one of the bolt holes is visible, then rotate the torque converter until one of the threaded holes lines up with the drive plate hole. Screw one of the M10 x 1.5 x 25 long bolt in to place so that it is fully done up BUT ONLY FINGER TIGHT.**

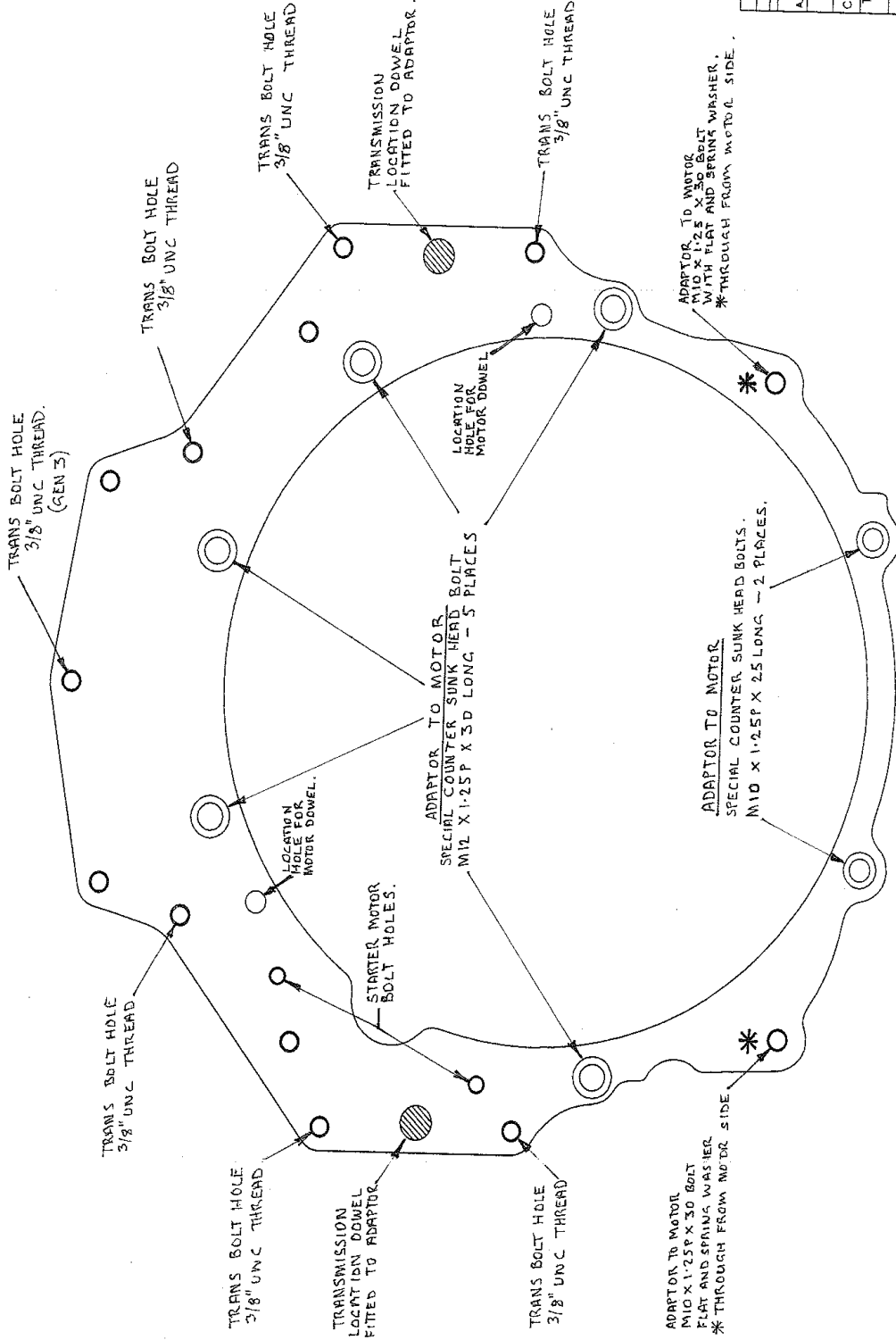
****Rotate the crank until the next set of bolt holes is visible in the access window. Fit the next bolt as described above. Rotate and fit the next bolts in the same way, until all six M10 bolts are fitted and finger tight.**

**** Remove one bolt, put a small amount of "LOCTITE type 243" on the thread. Re-fit and tighten fully with a spanner. Rotate the crank and do the same to the rest of the bolts.**

**** When this has been done the standard Chev dust cover can be bolted to the transmission.**

The motor to transmission is now complete and can be fitted to your vehicle, transmission mounts and other modifications can then be made to suit. CRS can supply modified tailshafts and may be able to provide other needs. Please phone for details.

ALL THE BEST WITH YOUR PROJECT – C.R.S.



| | | |
|---|--------------------------------|------------|
| UNITS | 12mm M.S. | SCALE |
| METRIC TOLERANCES | UNLESS SPECIFIED | |
| A.S. | 1100.201 - 1992 ISSUE AT GR. F | |
| C. R. S. ENGINEERING | | |
| CRS2066 | DRAWN BY T.S. | 27/01/2004 |
| TOYOTA 6 CYL. SUPRA 2JZG | | |
| TO 1400 - 1700 TRANS | | |
| DECIMAL TOL. ON ANGLES 0.25 | | |
| ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED | | |

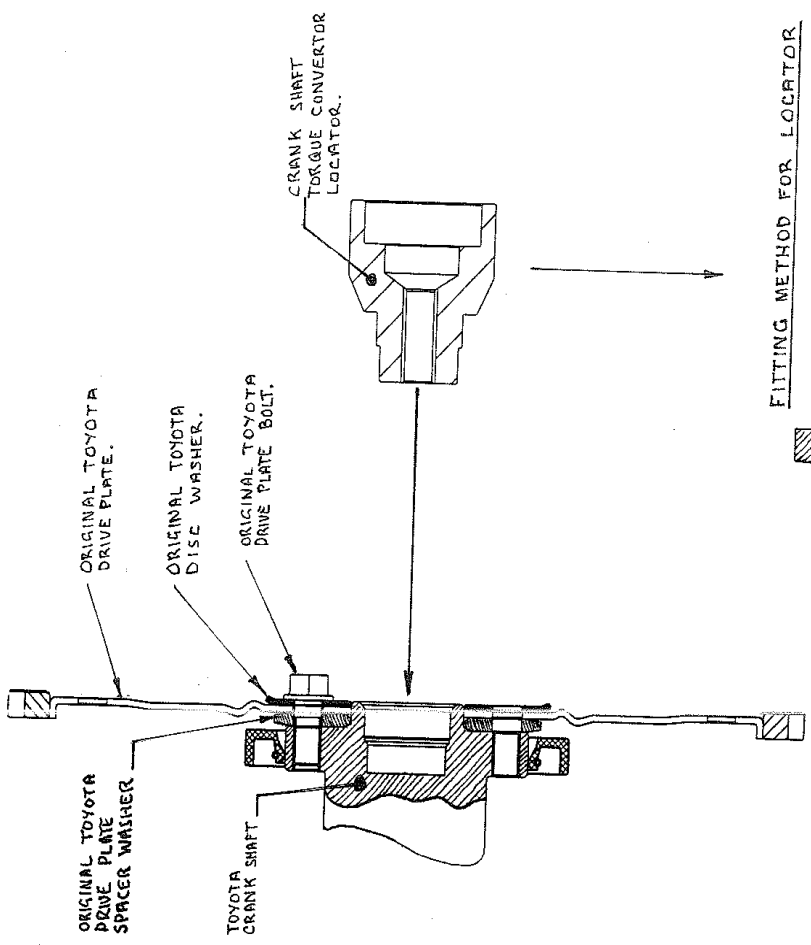
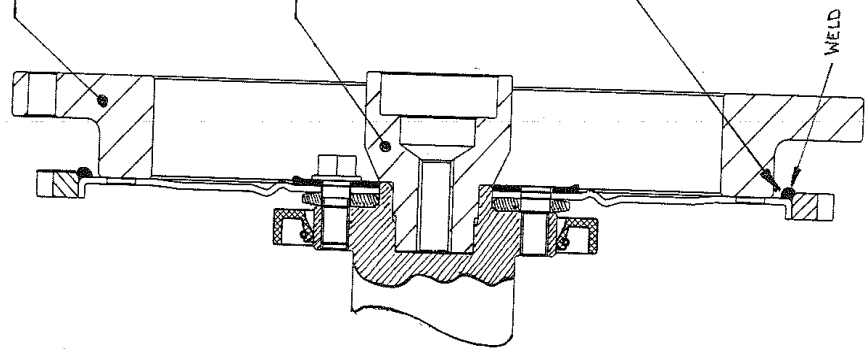


ALUMINIUM DRIVE RING.
SHOWING POSITION ONLY.
* SEE FITTING INSTRUCTION
NO. FOR CORRECT
FITTING PROCEDURE BEFORE
ATTEMPTING TO BOLT THE RINGS
TO THE DRIVE PLATE.

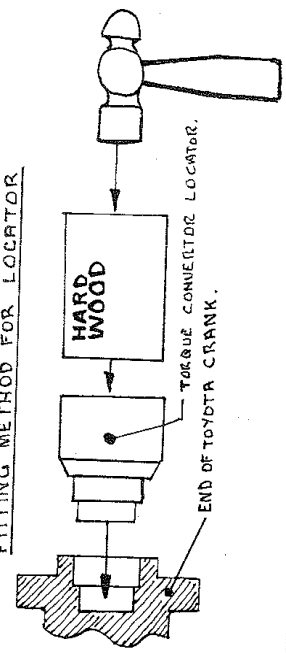
CRANK SHAFT
TORQUE CONVERTOR
FULLY FITTED TO THE
CRANK SHAFT.

IMPORTANT INFORMATION!
CHECK THAT THE ALUMINIUM
DRIVE RING DOES NOT HIT
ON THE WELD ON THE DRIVE
PLATE AS DESCRIBED IN THE
INSTRUCTIONS - SEE No. 1

| | | |
|---|------------------|------------|
| LAST REV. | MATERIAL | SCALE |
| METRIC TOLERANCE UNLESS SPECIFIED A.S. 1100 .201 - 1992 TABLE A1 GR. F | | |
| C.R.S. ENGINEERING | | |
| CRS2062 | DRAWN BY T.S. | 20/01/2004 |
| TOYOTA 6 CYL. 2JZGE CRANK | | |
| DECIMAL TOL. ON ANGLES 0.25° | | |
| ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED | | |

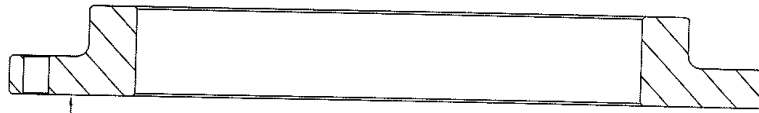


FITTING METHOD FOR LOCATOR

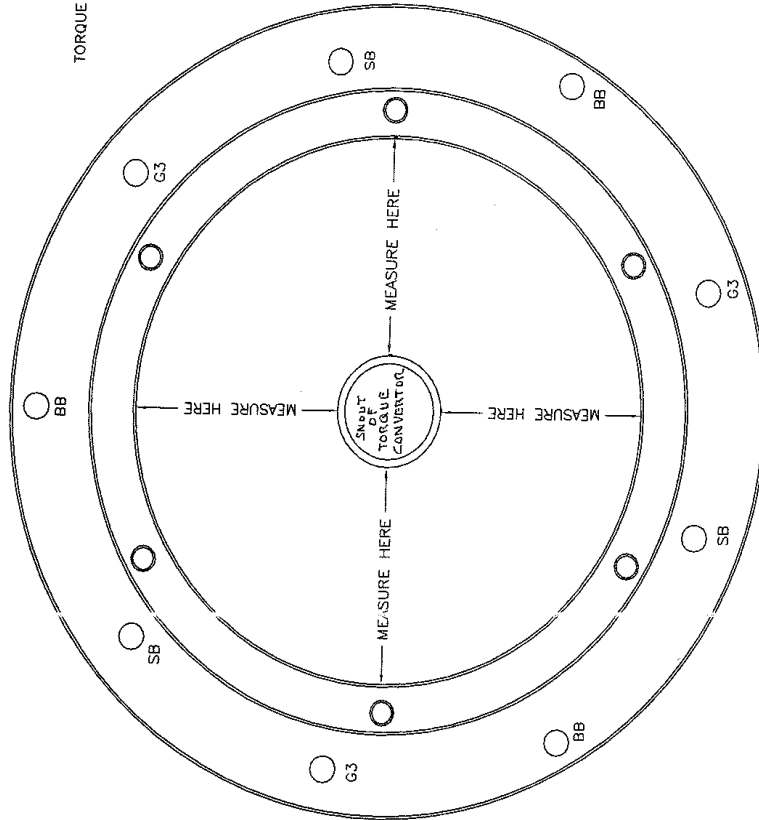


TO SET ALUMINIUM DRIVE RING TRUE TO TORQUE CONVERTER, CAREFULLY FOLLOW THESE PROCEDURES. BOLT THE RING TO THE TORQUE CONVERTER. REFER TO INSTRUCTION SHEET BOLT INTO POSITION FIRMLY BUT NOT TOO TIGHT. MEASURE THE DISTANCE IN FOUR PLACES WITH A VERNIER CALIPER OR MICROMETERS AND ADJUST UNTIL THE SAME MEASUREMENT IS OBTAINED IN 4 PLACES. THESE MEASUREMENTS NEED TO BE WITHIN .05mm OR (.002").

TIGHTEN THESE BOLTS FULLY AND THEN CHECK THAT THE RING HAS REMAINED IN THE POSITION. IT WOULD BE ADVISABLE TO USE A MEDIUM STRENGTH LOCTITE SUCH AS TYPE 243 ON THESE BOLTS WHEN YOU FINALLY TIGHTEN THEM.



TORQUE CONVERTER SIDE



| | | | |
|---|----------|------------|--------|
| REF. NO. | T6 | ALUM. | SPACER |
| METRIC TOLERANCE UNLESS SPECIFIED | | | |
| A.S. 1100 .201 - 1992 TABLE AT GR. F | | | |
| C.R.S. ENGINEERING | | | |
| CRS2067 | DRAWN BY | 28/01/2004 | |
| | T.S. | | |
| T400 TO SUPRA DRIVE RING | | | |
| DECIMAL TOL. ON ANGLES 0.25° | | | |
| ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED | | | |



PART NO. TC SPACER 16