## 7105151

## full race

Toyota 4A-GE

I-4cyl 1.6L 16v DOHC (DTs/DTs)



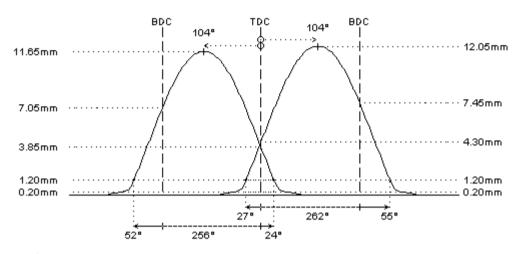
|                  | intake      | exhaust   |
|------------------|-------------|-----------|
| camshaft data:   |             |           |
| lash ramp        | : 0.20mm    | 0.20mm    |
| duration @ 0.1mm | : 287°      | 278°      |
| duration @ 1.0mm | : 256°      | 246°      |
| valve lift       | : 11.65mm   | 11.15mm   |
| cam lift         | :           |           |
| lobe angle       | : 104°      | 104°      |
| timing @ 1.0mm   | : 24° / 52° | 47° / 19° |
| valve lift @ TDC | : 3.85mm    | 3.40mm    |
|                  |             |           |

|                      |      |                  | 0.10.1 |                  |
|----------------------|------|------------------|--------|------------------|
| parts setup:         | 6    |                  |        |                  |
| follower             |      | CTTO018<br>CC020 | -      | CTTO018<br>CC020 |
| valve lash           | >    | N/A              | ×      | N/A              |
| valve                | :    | O.E.M.           | :      | O.E.M.           |
| valve locks          | :    | O.E.M.           | :      | O.E.M.           |
| upper retainer       | :    | 99373/s          | :      | 99373/s          |
| lower retainer       | >    | remove           | ×      | remove           |
| exterior spring      | 6    | NAC-E99862       | Θ,     | PAC-E99862       |
| interior spring      |      |                  |        |                  |
|                      |      |                  |        |                  |
| fitted load / length | : 33 | 34.0mm           | : 37   | kg @ 33.0mm      |
| max. load / lift     | : 87 | 'kg @ 12.5mm     | : 87   | kg @ 11.5mm      |
|                      |      |                  |        |                  |

## **REMARKS:**

# STD followers MUST be replaced by race followers [ref. CC020] with # effective contact area of 28mm

followers [ref. CC020] can only be used with retainers [ref. 99373] (lash adjustment shim centered in retainer, see picture)



## **REMARKS:**

- # FOR COMPETITION APPLICATIONS ONLY. Following details must be verified:
  - the camshafs must turn smooth in the cylinderhead, provide free travel by machining where needed
  - distance between valve seal and retainer at full lift must be 0.6mm at least
  - minimum valve spring travel of 1.0mm at full lift must be provided
  - distance between valve and piston 1.0mm (pref. 1.5mm). check 5-15° before TDC on exhaust, and after TDC on intake
- # ONLY for use in competition engines with independent engine management (throttle position sensor) or carburettors
- # only available in steel billet WITHOUT distributor drive gear on exhaust camshaft.