

**4602432**

sport

Opel X16XEL small block ecotec (1.4L-1.6L-X18XE1-Z18XE)

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

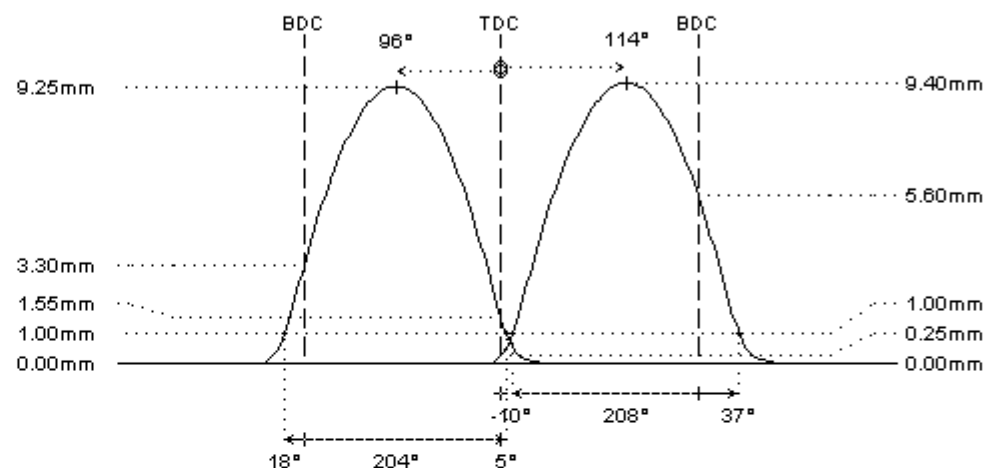
**intake****exhaust****camshaft data:**

|                  |              |          |
|------------------|--------------|----------|
| lash ramp        | : hydro      | hydro    |
| duration @ 0.1mm | : 247°       | 240°     |
| duration @ 1.0mm | : 207°       | 203°     |
| valve lift       | : 9.40mm     | 9.25mm   |
| cam lift         | :            |          |
| lobe angle       | : 114°       | 96°      |
| timing @ 1.0mm   | : -10° / 37° | 18° / 5° |
| valve lift @ TDC | : 0.25mm     | 1.55mm   |

**parts setup:**

|                 |            |            |
|-----------------|------------|------------|
| cam wheels :    | :  CTOP015 | :  CTOP015 |
| follower        | : O.E.M.   | : O.E.M.   |
| valve lash      | : O.E.M.   | : O.E.M.   |
| valve           | : O.E.M.   | : O.E.M.   |
| valve locks     | : O.E.M.   | : O.E.M.   |
| upper retainer  | : O.E.M.   | : O.E.M.   |
| lower retainer  | : O.E.M.   | : O.E.M.   |
| exterior spring | : O.E.M.   | : O.E.M.   |
| interior spring | :          |            |

|                      |                 |                 |
|----------------------|-----------------|-----------------|
| fitted load / length | : 27kg @ 0.0mm  | : 27kg @ 0.0mm  |
| max. load / lift     | : 60kg @ 10.0mm | : 60kg @ 10.0mm |

**REMARKS :****REMARKS :**

- # - camshafts for use in **1.4L-1.6L-X18XE1-Z18XE** short block 'ecotec' engines
- CAUTION: Opel has fitted different types of sprockets and camshafts with different dowel pin positions and cam lobes. Therefore it is required to check the std camshafts before ordering for sports applications!
- # Sport version for X1.4XE and X1.8XE with std cam lift of 8.5mm/8.0mm (in/ex)
- # Due to different dowel pin references on original cam wheels and camshafts, we advise to use adjustable cam wheels ref. **CTOP015** for all applications. In any way, it is necessary to check the valve lift at TDC and adjust if required