

# 7602301

full race

Volkswagen BYD-BWJ-BHZ EA113 TFSI 230-240-265hp

I-4cyl 2.0L 16v DOHC (RPRH/RPRH)



intake exhaust

## camshaft data:

|                  |             |           |
|------------------|-------------|-----------|
| lash ramp        | : 0.35mm    | 0.38mm    |
| duration @ 0.1mm | : 308°      | 292°      |
| duration @ 1.0mm | : 266°      | 254°      |
| valve lift       | : 13.15mm   | 12.70mm   |
| cam lift         | : 7.80mm    | 7.55mm    |
| lobe angle       | : 105°      | 105°      |
| timing @ 1.0mm   | : 29° / 57° | 51° / 23° |
| valve lift @ TDC | : 4.85mm    | 4.15mm    |

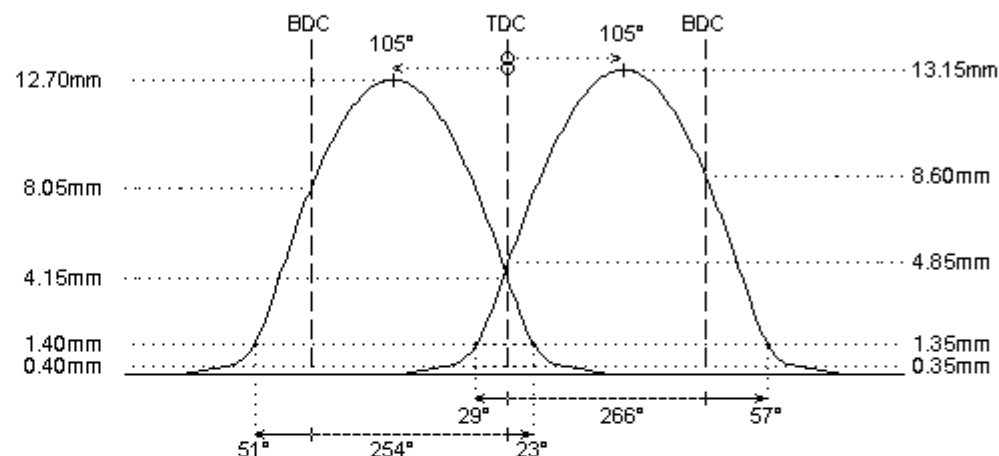
## parts setup:

|                 |              |              |
|-----------------|--------------|--------------|
| cam wheels :    | :            | CTVW038      |
| follower        | : CC084      | : CC084      |
| valve lash      | : TS103      | : TS103      |
| valve           | : O.E.M.     | : O.E.M.     |
| valve locks     | : O.E.M.     | : O.E.M.     |
| upper retainer  | : 99545/s    | : 99545/s    |
| lower retainer  | : 99546/O    | : 99546/O    |
| exterior spring | : PAC-E99865 | : PAC-E99865 |
| interior spring | : PAC-I99865 | : PAC-I99865 |

|                      |                 |                 |
|----------------------|-----------------|-----------------|
| fitted load / length | : 32kg @ 31.0mm | : 35kg @ 30.0mm |
| max. load / lift     | : 80kg @ 13.5mm | : 80kg @ 12.5mm |

## REMARKS :

- # machining of cylinder head NOT required
- # use PAC-D99864 dual valve spring + 99423 upper retainer + 99503 lower retainer for 88kg MAX possible load, requires head machining to clear outer diameter



## REMARKS :

- # - camshafts for use with stand alone injection setup
- no fuel lobe
- including adjustable sprockets for connecting chain (VVT sprocket can be used as well)
- # FOR COMPETITION APPLICATIONS ONLY. Following details must be verified:
  - the camshafts 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
- # VVT reprogramming, operating range adjustment or even eliminating the VVT system should be considered for camshafts with increased duration
- # ONLY for use in competition engines with independent engine management (throttle position sensor) or carburetors
- # for ATMO engines