## 4603021

tarmac rally - race

Opel X20XEV big block ecotec (1.8-2.0-2.2L)

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



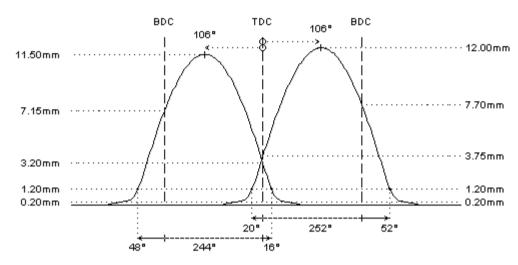
	intake	exhaust
camshaft data:		
lash ramp	: 0.20mm	0.20mm
duration @ 0.1mm	: 290°	282°
duration @ 1.0mm	: 252°	244°
valve lift	: 12.00mm	11.50mm
cam lift	:	
lobe angle	: 106°	106°
timing @ 1.0mm	: 20° / 52°	48° / 16°
valve lift @ TDC	: 3.75mm	3.20mm

## parts setup:

cam wheels :	: 🔍 СТОРК01	: 🔍 СТОРК01
follower	: 🔍 CC004	: 🔍 CC004
valve lash	: 🔍 TS101	: 🔍 TS101
valve	: O.E.M.	: O.E.M.
valve locks	: O.E.M.	: O.E.M.
upper retainer	: 99145/s	: 99145/s
lower retainer	: × remove	: × remove
exterior spring	: 🔍 PAC-E92009	: 🔍 PAC-E92009
interior spring	: 🔍 PAC-192009	: 🔍 PAC-192009
fitted load / length	: 35kg @ 33.0mm	: 35kg @ 33.0mm
max. load / lift	: 97kg @ 12.5mm	: 97kg @ 12.5mm

## **REMARKS:**

# replace OEM lower retainer to obtain a correct installation / fitted length (currently not available)



## **REMARKS:**

- # camshafts for use in 1.8-2.0-2.2L long block 'ecotec' engines
- # valve clearance is to be adjusted using mechanical lash caps. these can have different shapes according the application:
  - plates available in different diameters and thickness
  - cups for different valve stem diameters. these center on either tappet or valve stem
  - other specific shapes available on request
- # 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