

# 4600109

tarmac rally - race

Opel CIH (1.6 > 2.4L)

I-4cyl 2.0L 8v SOHC (FTH/FTH)



intake exhaust

## camshaft data:

lash ramp	: 0.30mm	0.30mm
duration @ 0.1mm	: 341°	341°
duration @ 1.0mm	: 283°	283°
valve lift	: 13.05mm	13.05mm
cam lift	: 8.70mm	8.70mm
lobe angle	: 104°	104°
timing @ 1.0mm	: 38° / 65°	66° / 37°
valve lift @ TDC	: 5.20mm	5.05mm

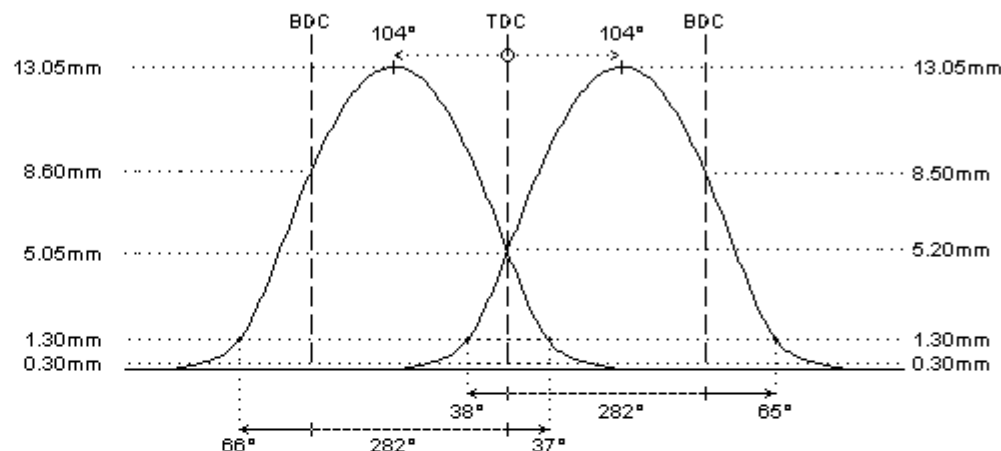
## parts setup:

cam wheels :	:  TOPCIH	:  TOPCIH
follower	:  CAT046	:  CAT046
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	:  PAC-S90006	:  PAC-S90007
interior spring		

fitted load / length	: 0kg @ 0.0mm	: 0kg @ 0.0mm
max. load / lift	: 0kg @ 0.0mm	: 0kg @ 0.0mm

## REMARKS :

# in most engines, the std valve springs can be replaced by PAC-S99006 (intake) and PAC-S99007 (exhaust) without further modifications.



## REMARKS :

- # - chilled cast iron camshafts
- # Valve lift and timing specifications assume fixed rocker arm ratio of RR1,500. This can be obtained by replacing the O.E.M. rocker arms by the Catcams Roller rocker arms.
- # 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
- # ONLY for use in competition engines with independent engine management (throttle position sensor) or carburetors