2291017

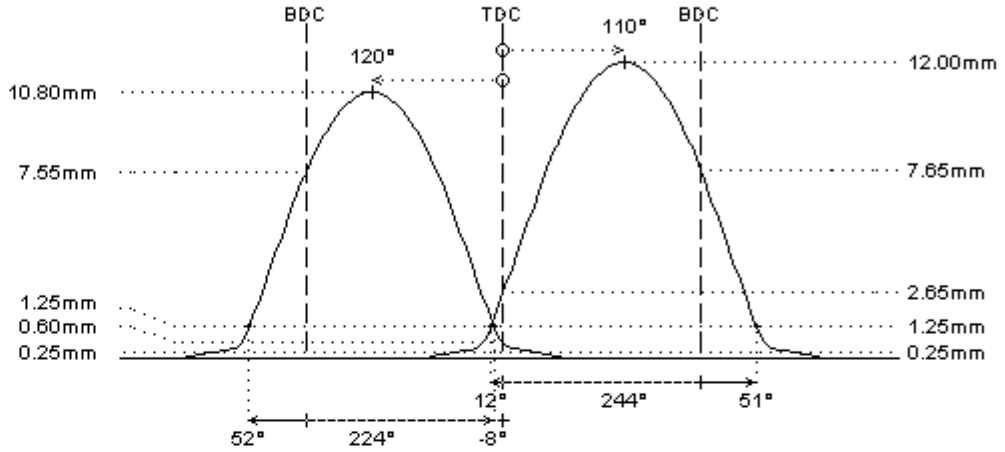
turbo conversion

Ford ALDA ST170, VVT

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

	intake	exhaust
camshaft data:		
lash ramp	: 0.25mm	0.25mm
duration @ 0.1mm	: 277°	262°
duration @ 1.0mm	: 243°	224°
valve lift	: 12.00mm	10.80mm
cam lift	: 12.00mm	10.80mm
lobe angle	: 110°	120°
timing @ 1.0mm	: 12° / 51°	52° / -8°
valve lift @ TDC	: 2.65mm	0.60mm
parts setup:		
cam wheels :	:	: **CTFO170**
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	: **99391/s**	: **99391/s**
lower retainer	: O.E.M.	: O.E.M.
exterior spring	: **PAC-S90015**	: **PAC-S90015**
interior spring		
fitted load / length	: 27kg @ 38.8mm	: 27kg @ 38.8mm
max. load / lift	: 74kg @ 12.5mm	: 74kg @ 12.5mm

REMARKS :



REMARKS :

\# --> intake camshaft for use with vvt system (like original intake)
--> The cam trigger will need to be transferred from oem camshaft

\# In the factory valve setup, the valve clearance is set by cam followers of individual lengths.

Cat Cams offers two options to adjust the valve clearance:
1/ camshafts with factory cam base diameter of 38.2mm: use O.E.M. tappets with appropriate inner stud length to adjust the clearance. It may be required to replace the cam followers to obtain the correct valve clearance.
2/ camshafts with reduced cam base diameter to 35.0mm: use lash caps (dia. 6mm) with appropriate thickness to adjust the clearance
- -> Please indicate the cam base diameter when ordering.

\# 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

\# for TURBO conversion (atmospheric to turbo)

\# Valve lift and timing data are illustrated on a locked centerline. The VANOS system changes the centerlines and

- Valve lift and timing data are illustrated on a locked centerline. The VANOS system changes the centerlines and therefore the timing data and lift on TDC.
  - The centerline and TDC data should not be used when installing the camshaft with full cam intake retard (disengaged VANOS system)!!! WRONG INSTALLATION WILL CAUSE THE VALVES TO HIT THE PISTONS!!!
  - We insist to install the VANOS camshaft(s) in such way that the distance between valves and piston is at least 1mm at full advance of the intake (or full retard at the exhaust)