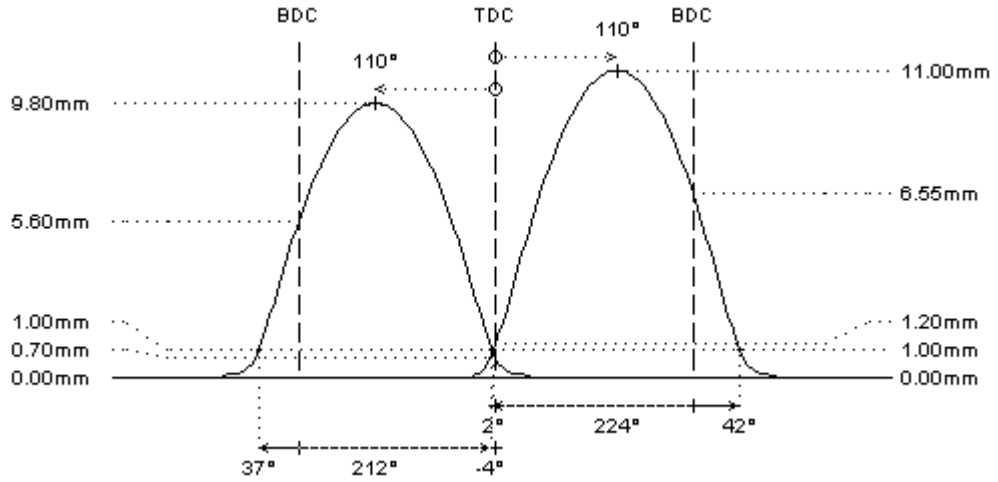
O.E.M.

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: hydro	hydro
duration @ 0.1mm	: 265°	263°
duration @ 1.0mm	: 224°	213°
valve lift	: 11.00mm	9.80mm
cam lift	:	
lobe angle	: 110°	110°
timing @ 1.0mm	: 2° / 42°	37° / -4°
valve lift @ TDC	: 1.20mm	0.70mm
parts setup:		
cam wheels :	:	:
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	: 28kg @ 38.0mm	: 32kg @ 37.0mm
max. load / lift	: 86kg @ 12.0mm	: 86kg @ 11.0mm

REMARKS :



REMARKS :

steel billet camshafts

The exact valve timing data of the original camshafts are not known. Valve timing data are illustrated on estimated peak angle of 110°. The actual valve timing in the engine may be different, as well as the indicated lift at TDC.

5220211

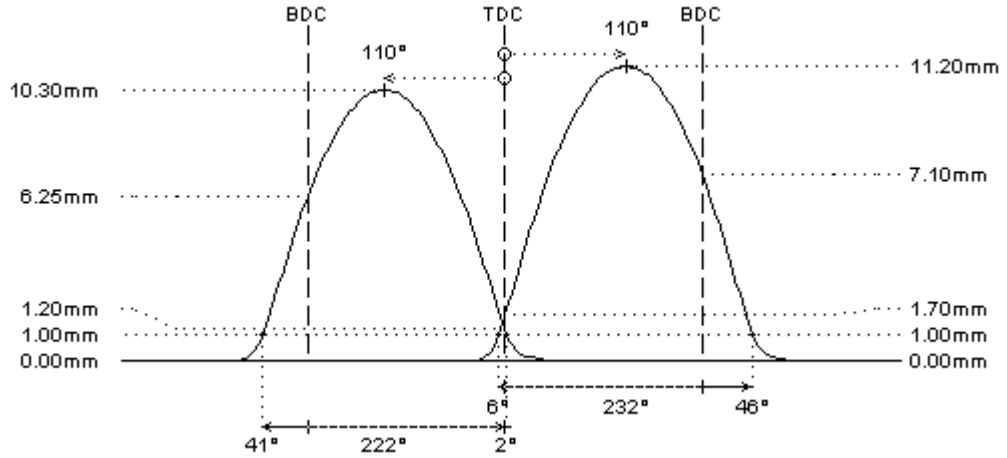
sport

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: hydro	hydro
duration @ 0.1mm	: 267°	263°
duration @ 1.0mm	: 232°	223°
valve lift	: 11.20mm	10.30mm
cam lift	:	
lobe angle	: 110°	110°
timing @ 1.0mm	: 6° / 46°	41° / 2°
valve lift @ TDC	: 1.70mm	1.20mm
parts setup:		
cam wheels :	:	:
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	: 28kg @ 38.0mm	: 32kg @ 37.0mm
max. load / lift	: 86kg @ 12.0mm	: 86kg @ 11.0mm

REMARKS :



REMARKS :

\# steel billet camshafts

5220212

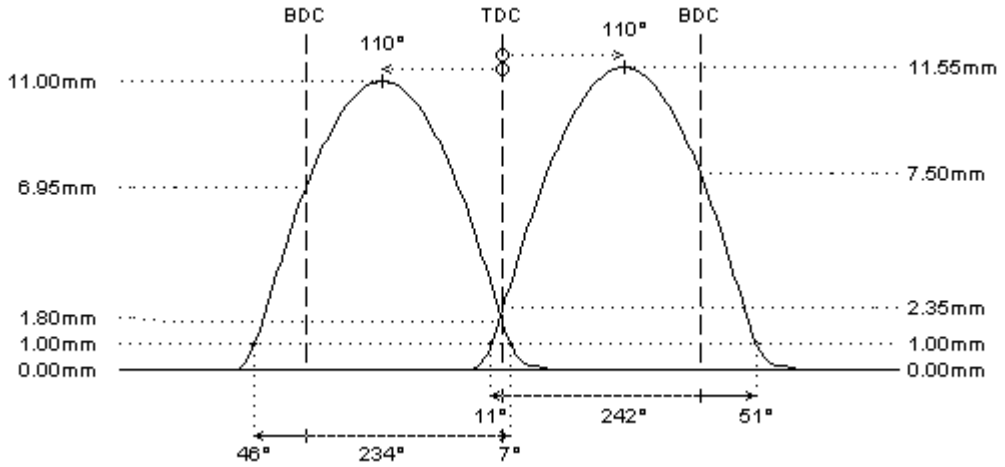
hot street - dirt track

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: hydro	hydro
duration @ 0.1mm	: 283°	272°
duration @ 1.0mm	: 242°	233°
valve lift	: 11.55mm	11.00mm
cam lift	:	
lobe angle	: 110°	110°
timing @ 1.0mm	: 11° / 51°	46° / 7°
valve lift @ TDC	: 2.35mm	1.80mm
parts setup:		
cam wheels :	:	:
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	: 28kg @ 38.0mm	: 32kg @ 37.0mm
max. load / lift	: 86kg @ 12.0mm	: 86kg @ 11.0mm

REMARKS :



REMARKS :

\# steel billet camshafts

\# Distance between valve and piston should be 1.0mm at least:
- check 5-15° after TDC on intake
- check 5-15° before TDC on exhaust

Machine pistons if required. Wrong installation can cause severe engine damage!

\# ECU reprogramming required

5220213

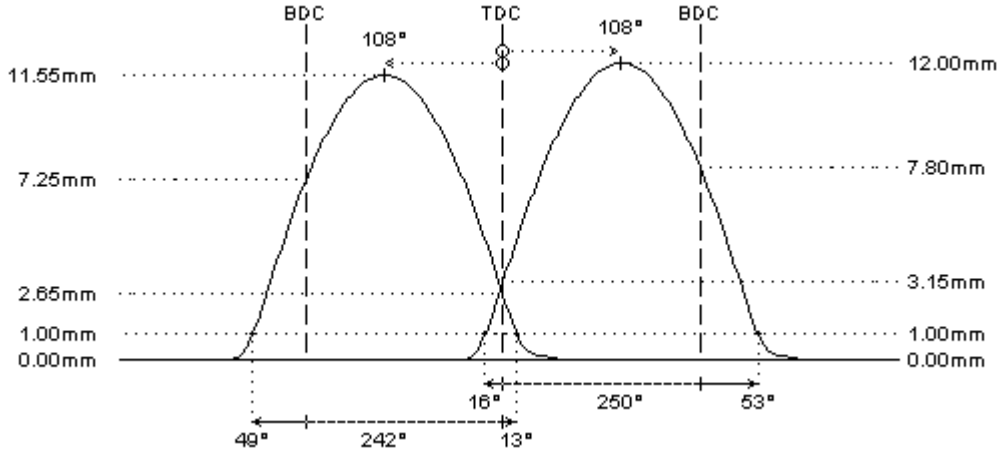
tarmac rally - race

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: hydro	hydro
duration @ 0.1mm	: 290°	283°
duration @ 1.0mm	: 249°	242°
valve lift	: 12.00mm	11.55mm
cam lift	:	
lobe angle	: 108°	108°
timing @ 1.0mm	: 16° / 53°	49° / 13°
valve lift @ TDC	: 3.15mm	2.65mm
parts setup:		
cam wheels :	:	:
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	: **99322/s**	: **99322/s**
lower retainer	: O.E.M.	: O.E.M.
exterior spring	: **PAC-E95009**	: **PAC-E95009**
interior spring	: **PAC-I95009**	: **PAC-I95009**
fitted load / length	: 34kg @ 36.0mm	: 39kg @ 35.0mm
max. load / lift	: 110kg @ 14.0mm	: 110kg @ 13.0mm

REMARKS :



REMARKS :

\# steel billet camshafts

\# 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

5221211

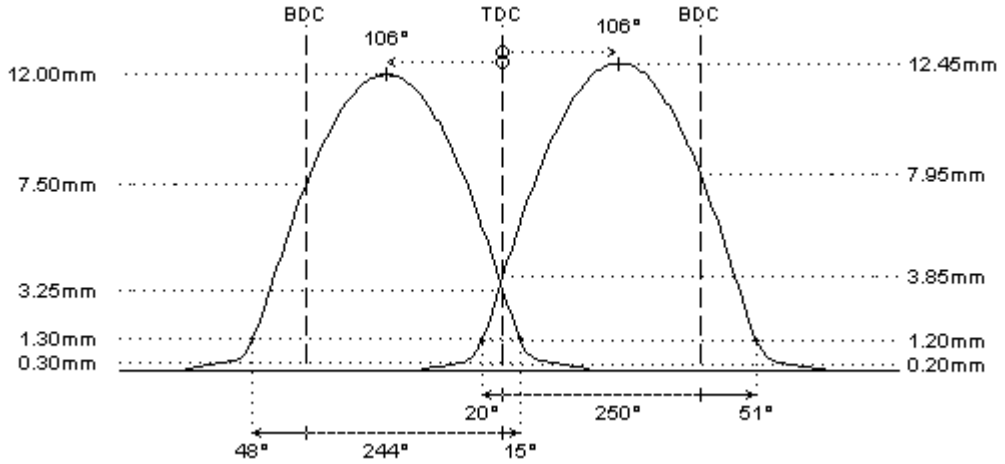
tarmac rally - race

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: 0.20mm	0.30mm
duration @ 0.1mm	: 292°	279°
duration @ 1.0mm	: 251°	243°
valve lift	: 12.45mm	12.00mm
cam lift	:	
lobe angle	: 106°	106°
timing @ 1.0mm	: 20° / 51°	48° / 15°
valve lift @ TDC	: 3.85mm	3.25mm
parts setup:		
cam wheels :	:	:
follower	: **CC005**	: **CC005**
valve lash	: **TS102**	: **TS102**
valve	: O.E.M.	: O.E.M.
valve locks	: O.E.M.	: O.E.M.
upper retainer	: **99322/s**	: **99322/s**
lower retainer	: O.E.M.	: O.E.M.
exterior spring	: **PAC-E95009**	: **PAC-E95009**
interior spring	: **PAC-I95009**	: **PAC-I95009**
fitted load / length	: 34kg @ 36.0mm	: 39kg @ 35.0mm
max. load / lift	: 109kg @ 14.0mm	: 109kg @ 13.0mm

REMARKS :



REMARKS :

\# steel billet camshafts

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- 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

5221212

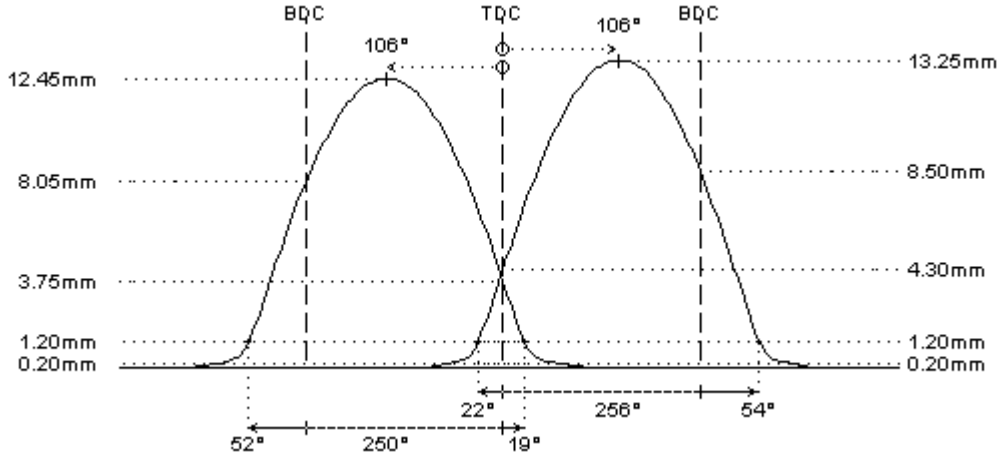
tarmac rally - race

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: 0.20mm	0.20mm
duration @ 0.1mm	: 299°	292°
duration @ 1.0mm	: 256°	251°
valve lift	: 13.25mm	12.45mm
cam lift	:	
lobe angle	: 106°	106°
timing @ 1.0mm	: 22° / 54°	52° / 19°
valve lift @ TDC	: 4.30mm	3.75mm
parts setup:		
cam wheels :	:	:
follower	: **CC005**	: **CC005**
valve lash	: **TS102**	: **TS102**
valve	: O.E.M.	: O.E.M.
valve locks	: O.E.M.	: O.E.M.
upper retainer	: **99322/s**	: **99322/s**
lower retainer	: O.E.M.	: O.E.M.
exterior spring	: **PAC-E95009**	: **PAC-E95009**
interior spring	: **PAC-I95009**	: **PAC-I95009**
fitted load / length	: 34kg @ 36.0mm	: 39kg @ 35.0mm
max. load / lift	: 109kg @ 14.0mm	: 109kg @ 13.0mm

REMARKS :



REMARKS :

steel billet camshafts

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- 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

5221213

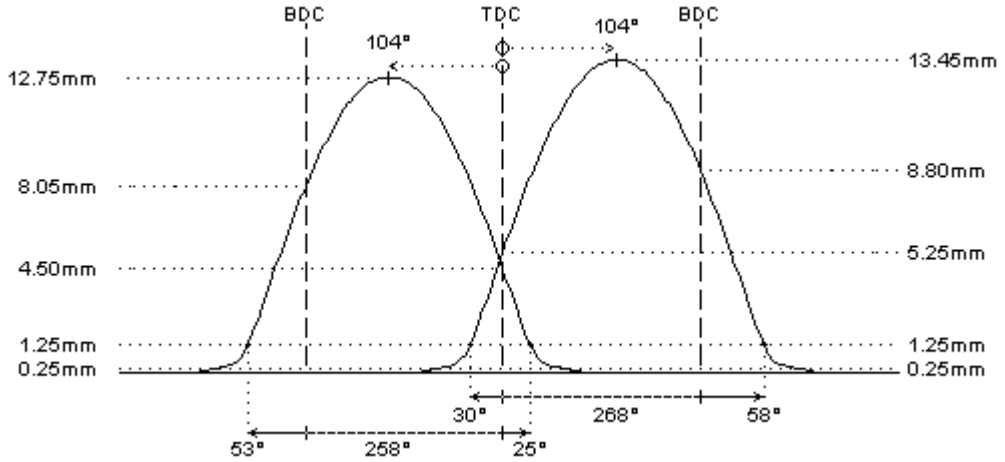
tarmac rally - race

Porsche 944 S2

I-4cyl 3.0L 16v DOHC (DTH/DTH)

	intake	exhaust
camshaft data:		
lash ramp	: 0.25mm	0.25mm
duration @ 0.1mm	: 303°	293°
duration @ 1.0mm	: 268°	258°
valve lift	: 13.45mm	12.75mm
cam lift	:	
lobe angle	: 104°	104°
timing @ 1.0mm	: 30° / 58°	53° / 25°
valve lift @ TDC	: 5.25mm	4.50mm
parts setup:		
cam wheels :	:	:
follower	: **CC005**	: **CC005**
valve lash	: **TS102**	: **TS102**
valve	: O.E.M.	: O.E.M.
valve locks	: O.E.M.	: O.E.M.
upper retainer	: **99322/s**	: **99322/s**
lower retainer	: O.E.M.	: O.E.M.
exterior spring	: **PAC-E95009**	: **PAC-E95009**
interior spring	: **PAC-I95009**	: **PAC-I95009**
fitted load / length	: 34kg @ 36.0mm	: 39kg @ 35.0mm
max. load / lift	: 109kg @ 14.0mm	: 109kg @ 13.0mm

REMARKS :



REMARKS :

\# steel billet camshafts

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- 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

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