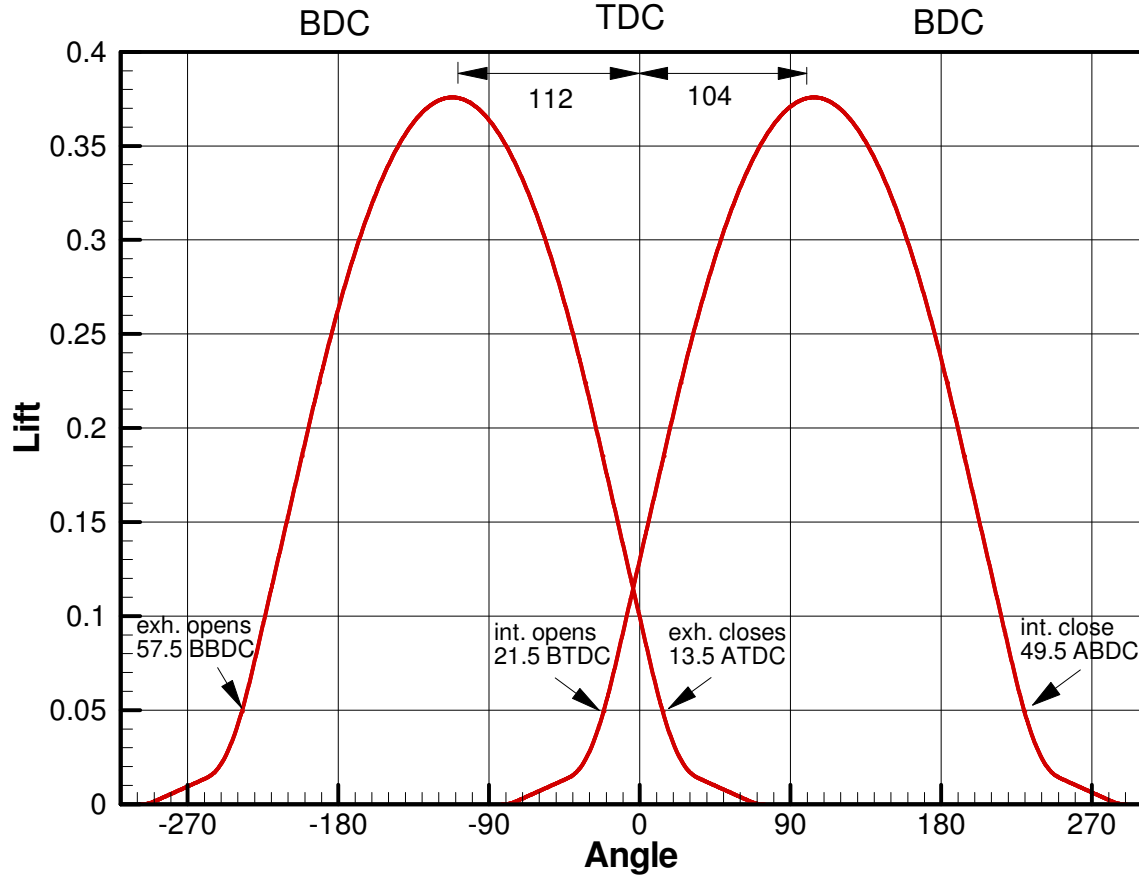


Installation of TR298Dx Cam

TR298Dx Cam Installation with 4 Degrees Advance



The graph shows the lobe centers and opening and closing angles at 0.050 tappet rise for the recommended advance of 4 degrees. Other specifications and recommendations are listed below.

Cam lift: 0.376
 Valve lift: 0.556 (gross), approx. 0.537 (net)
 Lobe separation: 108 degrees
 Advance: 4 degrees
 Exhaust center: 112 degrees BTDC
 Intake center: 104 degrees ATDC
 Valve lash: 0.015 hot
 Lifter diameter 0.935 inch
 Lifter crown 50 to 100 inch radius of curvature
 Spring seat force 90 to 110 lb
 Spring constant 250 lb/in (235 lb at full lift)

	Duration	Intake open BTDC	Intake close ABDC	Exhaust open BBDC	Exhaust close ATDC
0.050 tappet rise	251	21.5	49.5	57.5	13.5
Seat-to-Seat	298	45	73	81	37

Clearance Issues

This cam probably has more lift than you are used to. I measure approximately 0.540 net lift at the valve. When installed I recommend that you mock everything up before the final installation, and make sure you can get 0.600 travel. Install the valves with some light springs. Make sure the valve retainers will not hit the valve guides. Then put the head on the block with an old head gasket. With a typical milled head, the valves will go well down past the deck. Large intake valves will hit the cylinder liner if you do not have a deep enough chamfer on the edge of the liner.

Calculations have shown that a properly installed cam will not cause interference between the valve and piston. Be careful during the installation process. When installing the rocker assembly make sure the adjusters are backed off and all the adjuster balls are seated in the pushrods. If the head is already installed, make sure the degree of the camshaft is not so far off that you could have piston to valve interference.

Pushrods

In order to achieve the maximum strength and stiffness, these cams are ground to maximum shaft diameter. When ground on a new chilled cast iron blank, the base circle diameter of the front four lobes are approximately 1.070 in, while the base circle of the rear lobes is about 0.953 in, so the lobes will clear the bearings. For a reground cam, the base circle diameter will be about 0.910 in for all lobes. Depending on the amount your head is milled, you may have to use pushrods that are less than stock length, but the difference between front and rear lobes is not large enough to require different length pushrods.

Lifters

In order to achieve quicker opening and more lift, the cam is designed to use the entire 0.935 inch lifter minus a safety factor of 0.050 inch. Recently, we have found some lifters have a large chamfer which could cause the cam to run into the chamfer. Do not use lifters with a large chamfer. Recommended lifters are: British Parts Northwest lifters (bpnorthwest.com) after resurfacing by Rocker Arm Specialist (phone 530-378-1075, ask for Gary) to remove the chamfer or Greg Solow's (gregmogdoc@surfnetusa.com) reconditioned OEM lifters.

Degreeing the Cam

Everyone probably has their favorite way to degree the cam. I prefer to use the intake centerline. Set up a degree wheel and dial indicator. I just set the dial indicator on a push rod. Measure the angles at say 0.200, 0.250, and 0.300 both opening and closing. If you average those six numbers you will have a very accurate centerline angle. You can then make adjustments. If you have the conventional style pulley that can only adjust within 4 degrees, I'd recommend going for more advance rather than less. For additional information and a downloadable spreadsheet, see www.tildentechnologies.com/Technical/Tip_DegreeCam.html.

Break-in Procedure

Observe the normal break-in procedure for the first 20 minutes of engine operation. Maintain a fast slowly varying idle speed. Do not blip the throttle. I highly recommend the use of only outer valve springs during break-in. My current oil preference is Brad Penn Racing Oil For more information on break-in read the excellent articles at www.cranecams.com/pdf/548e.pdf and www.cranecams.com/?show=faq&id=1.