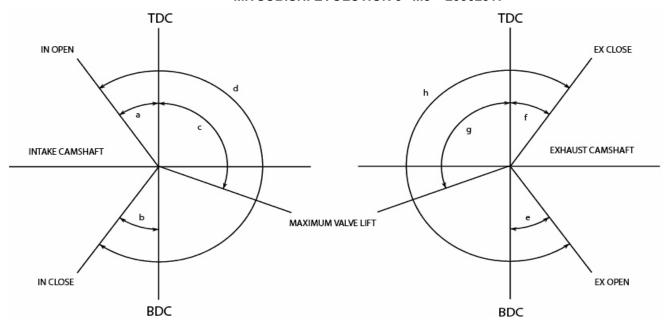
## COSWORTH

## COMPUTER MODEL DESIGNED CAMSHAFTS MITSUBISHI EVOLUTION 9 "M3"- 20002517



## **INTAKE CAMSHAFT**

| PART#               | 20002698  |
|---------------------|-----------|
| Rocker Ratio        | 1.73:1    |
| Max Valve Lift      | 11.6mm    |
| Valve Lash          | Hydraulic |
| Advertised Duration | 280°      |
| 1mm Valve Lift      |           |
| a=Valve Opens       | 17° ATDC  |
| b=Valve Closes      | 63° ABDC  |
| c=Lobe Center       | 131°      |
| d=Total Duration    | 226°      |
| .050" Valve Lift    |           |
| a=Valve Opens       | 14° ATDC  |
| b=Valve Closes      | 60° ABDC  |
| c=Lobe Center       | 131°      |
| d=Total Duration    | 226°      |

## **EXHAUST CAMSHAFT**

| PART#                      | PR8103    |
|----------------------------|-----------|
| Rocker Ratio               | 1.73:1    |
| Max Valve Lift             | 11.0mm    |
| Valve Lash                 | Hydraulic |
| <b>Advertised Duration</b> | 272°      |
| 1mm Valve Lift             |           |
| e=Valve Opens              | 39° BBDC  |
| f=Valve Closes             | 2° ATDC   |
| g=Lobe Center              | 114°      |
| h=Total Duration           | 221°      |
| .050" Valve Lift           |           |
| e=Valve Opens              | 36° BBDC  |
| f=Valve Closes             | 5° ATDC   |
| g=Lobe Center              | 114°      |
| h=Total Duration           | 221°      |

- Do not use an impact wrench to tighten the cam sprocket on the nose of the camshaft.
- New camshafts MUST always be cleaned thoroughly, deburred, and blown with compressed air before use.
- To properly install this part, you MUST have a genuine factory shop manual for references and torque specs.
- These camshafts should only be installed by experienced mechanics and technicians.
- Camshaft cap bolts should be tightened in 3 steps to 14.5 foot/pounds of torque.
- ECU calibration will be necessary after installation of these camshafts to optimize fuel and ignition parameters.
- Due to differences in critical factors (e.g. valve tip heights, rocker wear, hydraulic lifter machining tolerances, condition of head, etc.) your results may vary because of slightly different rocker geometry.
- During the measuring of these valve events, a solid lifter with a lash of .003" was used in place of hydraulic unit.
- Factory valve tip height range for Intake valve is 1.937-1.956" and Exhaust valve is 1.905-1.925". Above measurements were taken with valve tip heights at 1.947" and 1.916" for intake and exhaust respectively.
- It is absolutely critical that valve tip heights are within the above ranges.
- These camshafts MUST be used with Cosworth valve springs for proper operation.
- Intake valve events were measured with VVT pulley at default position. Full swing of the VVT pulley is 30°.
- Break in procedure: hold engine at 2000rpm for 10-15 minutes and 50 miles of varying load under 4000rpm.