

# ARIAS

FORGED RACING PISTONS

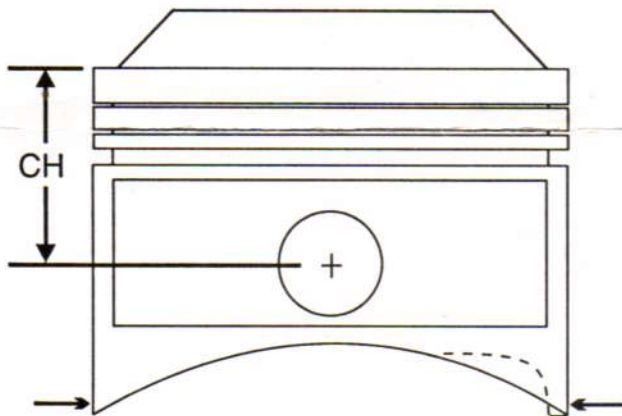
## Motorcycle Piston Installation Sheet

### FORGED ALUMINUM PISTONS

**IMPORTANT** - Before balancing these pistons, be sure they are as you ordered! Used or altered parts cannot be returned for refund, credit, or exchange, regardless of the circumstances. In the event that your pistons are not as ordered, contact your dealer or the factory immediately as all credits, exchanges or repairs must be completed within 30 days of purchase. In the event that your pistons do need to be returned for rework, please be sure to remove all rings, end locks, pins, and connecting rods. A handling fee may be applicable if degreasing or the removal of hardware is required.

1) **ARIAS Forged Pistons** are manufactured from either 2618 (non silicon) or 4032 (high silicon) aluminum alloy. All 4032 alloy pistons, whether custom or stocking, are identified by a "★" stamped under the pin boss (as of 9/93).

2) **BORE SIZE** - Check piston diameter at the point indicated on the drawing below. Although piston skirt-to-cylinder wall clearances vary somewhat among engine builders and designers, we recommend the following minimum clearances for our pistons. On custom piston orders, our engineers have incorporated the proper piston-to cylinder wall clearance into the pistons for the bore size called out at the time the pistons were ordered.



#### **RECOMMENDED CLEARANCES FOR AIR COOLED: FOR STREET USE:**

4032 MATERIAL = .001"  
2618 MATERIAL = .002"

#### **RACE USE:**

4032 MATERIAL = .002"  
2618 MATERIAL = .003"

#### **TURBO / BLOWN / NITROUS:**

4032 MATERIAL - Call Factory  
2618 MATERIAL - Call Factory

**NOTE:** For water-cooled engines add .0005" to .001" additional clearance.

3) **COMPRESSION HEIGHT** - (C.H.) is the dimension from the center of the pin hole to deck of piston as shown on drawing. Check pistons in the block to verify the compression height. We recommend a minimum piston-to-head clearance of .040" on steel connecting rod motors and .055" if aluminum rods are used. This includes the deck clearance plus the gasket. Example: .020" compressed gasket, .020" deck clearance = .040" piston-to-head clearance.

4) **VALVE POCKET DEPTH** - Minimum acceptable valve-to-piston clearance is dependent on many factors, including cam lobe lift rate, valve spring tension and valve actuating mechanism weight, etc. However, we have found that a minimum of .060" for both intake and exhaust is sufficient in most instances. Check valve-to-piston clearance (using either clay or light spring method) making sure that the camshaft is degreed as it will be operated, as a few of advance or retard at the camshaft can radically alter the valve-to-piston clearance.

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