

Disassembly list

Cylinder head, OHC

Position number one cylinder at TDC compression using timing marks
Remove cam(s) evenly to avoid distortion
Remove head bolts in reverse order of assembly
Upon removal, check head gasket surfaces for signs of leakage
Check ports for oil and fuel
Check combustion chambers for signs of coolant leakage
Reinstall cam(s) without followers and check for cam rotation
Measure cam journals for roundness and check cam for straightness
Hang cam on rack
Check head for warpage on the cam side of the head
Shock retainers
Compress springs, remove keepers, and remove springs
Measure installed stem height
Measure installed spring height
Measure head thickness
Clean head casting in hot tank, soda blast if necessary
Check for cracks using die penetrant or pressure tester
Measure valve stem diameter for taper and size
Check valve margin thickness (at least 1/32")
Check valve seat width
Measure valve guide inside diameter for taper and wear
Check guide-to-seat concentricity

Cylinder head, OHV

Remove rockers assemblies and pushrods
Remove head bolts in reverse order of assembly
Upon removal, check head gasket surfaces for signs of leakage
Check ports for oil and fuel
Check combustion chambers for signs of coolant leakage
Check head for warpage on the deck side of the head
Shock retainers
Compress springs, remove keepers, and remove springs
Measure installed stem height
Measure installed spring height
Clean head casting in hot tank, soda blast if necessary
Check for cracks using dry magnaflux powder
Measure valve stem diameter for taper and size
Check valve margin thickness (at least 1/32")
Check valve seat width
Measure valve guide inside diameter for taper and wear
Check guide-to-seat concentricity

Block, OHC

Measure deck clearance

Measure rod side clearance

Make sure that the rods and mains are numbered correctly. If not, number them from front-to-rear

Remove piston and rod assemblies using plastic boots on rod bolts

Install the caps on the rods immediately after removal

Measure crankshaft end-play

Remove main caps and remove crankshaft

Hang crankshaft on rack

Install main caps back on the block

Remove core plugs

Remove any oil gallery plugs

Remove oil squirters if present

Clean block in hot tank

Check for cracks – Dry mag for Iron blocks and dye penetrant for Aluminum

Measure main housing bore diameters

Measure cylinder for taper and out-of-roundness

Check deck surface for warpage

Block, OHV

Measure deck clearance

Measure rod side clearance

Make sure that the rods and mains are numbered correctly. If not, number them from front-to-rear

Remove piston and rod assemblies using plastic boots on rod bolts

Install the caps on the rods immediately after removal

Measure crankshaft end-play

Remove timing set

Remove main caps and remove crankshaft

Hang crankshaft on rack

Install main caps back on the block

Remove camshaft (preferably by standing the block up)

Remove lifters from the outside pushing them in one-at-a-time

Remove core plugs

Remove any oil gallery plugs

Clean block in hot tank

Check for cracks – Dry mag for Iron blocks and dye penetrant for Aluminum

Measure main housing bore diameters

Measure cylinder for taper and out-of-roundness

Check deck surface for warpage