



Identifying International Harvester® Engines.

Specifying parts for International 414, 436, and 466 cubic inch displacement engines can be done reliably, providing that certain information is available.

1. You must start with the correct engine model:

- D414 — 414 cubic inch displacement / naturally aspirated
- DT414 — 414 cubic inch displacement / turbocharged
- D436 — 436 cubic inch displacement / naturally aspirated
- DT436 — 436 cubic inch displacement / turbocharged
- D466 — 466 cubic inch displacement / naturally aspirated
- DT466 — 466 cubic inch displacement / turbocharged

2. Originally all of these engines had the crankcase breather installed on the block to address blow-by issues. International later installed the breather on the valve cover. Many of the earlier engines with the breather on the block were converted at the time the engines were overhauled. Engines with the breather on the block should be overhauled using narrow gap rings. Those with the breather on the valve cover should be overhauled using wide gap rings. The difference between narrow and wide gap rings is the intermediate compression ring only. The intermediate compression ring for narrow gap ring sets is .020" to .033" and for wide gap ring sets it is .065" to .075".

3. Over time International changed crankshaft designs and increased the width of main bearings in the later engines. The wide and narrow bearing crankshafts can be used interchangeably although the main bearings used are specific to the crankshaft. Many older engines that were originally built using narrow bearings were upgraded to a wide bearing crankshaft and bearings. Narrow bearing crankshafts require bearings that are 1.22" wide and wide bearing crankshafts use bearings that are 1.30" wide. Thrust bearings are the same for narrow and wide bearing crankshafts.

To summarize, we must first have the correct engine model number. We must know the location of the crankcase breather. And finally, we must know the main bearing width to properly specify overhaul components for these engines.

For further assistance, please contact Reliance Customer Service: (800) 776-3113