

Engine Code Decoder Card

Every character in the code stamped on your crankcase, what it means, and why 139QMB and 1P39QMB are the same engine.

The code on your crankcase is the strongest identifier on the machine. Six positions, each carrying one fact.

POSITION BY POSITION

How the code stamped on the crankcase is read, using 1P39QMB as the example

POSITION	IN 1P39QMB	MEANS
First digit	1	Number of cylinders
Letter, if present	P	Cylinder orientation. P is horizontal; V is a V-twin; nothing at all means vertical
Two digits	39	Bore in millimetres — the single most useful character pair on the engine
Cooling letter	Q	Forced air cooling. F appears on the vertical-cylinder families
Use letter	M	Motorcycle
Final letter	B	Displacement class — see the table below

THE FINAL LETTER

The final letter and the displacement class it denotes

LETTER	CLASS	LETTER	CLASS
B	50 cc	G	100 cc
C	60 cc	H	110 cc
D	70 cc	I	125 cc
F	90 cc	J	150 cc

HOW WELL SOURCED IS THIS?

This scheme is consistent across the owner community, several retailers and enthusiast references, and it is self-consistent — the bore digits in 139QMB, 144QMC, 147QMD and 157QMJ line up with the displacements those engines are sold as. We have not found a Chinese national standard document defining it, so we describe it as a well-established convention rather than as a published specification. Letters that appear BEFORE the code identify the factory and are not part of the scheme.

THE QUESTION EVERYBODY ASKS

139QMB AND 1P39QMB ARE THE SAME ENGINE

The P records that the cylinder is horizontal. Every engine in this family has a horizontal cylinder, so some factories stamp the P and some do not, and the two codes appear on otherwise identical engines. Two claims circulate that are not supported: that 1P39QMB is a 60cc version, and that the P indicates a different valve length. Neither holds up. If you are searching for parts, search both spellings.

THE TWO CHARACTERS PEOPLE MISREAD

Q gets read as O, and 1 gets read as I. A code written down as "1P390MB" is a 1P39QMB, and "IP39QMB" is the same engine again. Before concluding your code is not in any list, try it with the Q and the 1 swapped back.

YOUR ENGINE

CODE AS STAMPED, EXACTLY

Including any letters before it

CYLINDER COUNT

P PRESENT?

Horizontal cylinder either way

BORE FROM THE CODE

 mm

COOLING LETTER

DISPLACEMENT CLASS LETTER

RUBBING OF THE STAMPING

Paper over it, rub with a soft pencil

- ☐ Cleaned the pad and used a torch at a low angle
- ☐ Photographed the stamping close up
- ☐ Checked what I wrote against the photograph
- ☐ Tried it with Q instead of O
- ☐ Tried it with 1 instead of I

THE CODE DESCRIBES THE ENGINE AS IT WAS BUILT

If somebody has fitted a big-bore kit, the case still carries the original bore digits — nobody re-stamps a crankcase. So the code tells you what the engine started as, which is what you want for identifying the cases, the transmission and most of the chassis. For the top end, measure it.

Need to work out what you actually own?

The Scooter Parts Registry is a free public record of the Chinese factories behind US-market scooters, ATVs and go-karts — brand, engine family, VIN prefix, factory and related machines. No account, no email.

thescooterparts.com/identify