



NEW  
RELEASE  
INFORMATION  
Vol.370

# COMPLETE ENGINE COMPLETE BLOCK SERIES

For EJ20/25

Now also  
available in  
2.0L!



| BASE ENGINE    | EJ20Y                       |                             | EJ257                              |
|----------------|-----------------------------|-----------------------------|------------------------------------|
|                | EJ20                        | EJ22                        | EJ26                               |
| TYPE           | <b>CPB-EJ20-D</b>           | <b>CPB-EJ22-D</b>           | <b>CPB-EJ26</b>                    |
| APPLICATION    | GDB C-G/GRB/GVB/VAB         | GDB C-G/GRB/GVB/VAB         | EJ255/EJ257                        |
| P/N            | 215012                      | 214311                      | 215011                             |
| JPY            | <b>1,100,000</b>            | <b>1,200,000</b>            | <b>1,200,000</b>                   |
| BORE*STROKE    | Φ92.5 × 75.0mm              | Φ92.5 × 79.0mm              | Φ99.75 × 83.0mm                    |
| DISPLACEMENT   | 2015cc                      | 2123cc                      | 2593cc                             |
| PISTON         | TOMEI FORGED Φ92.5          | TOMEI FORGED Φ92.5          | TOMEI FORGED Φ99.75                |
| CONNECTING ROD | TOMEI FORGED H-BEAM 130.5mm | TOMEI FORGED H-BEAM 130.5mm | TOMEI FORGED H-BEAM 128.5mm        |
| CRANKSHAFT     | STD                         | TOMEI BILLET 79.0mm         | TOMEI BILLET FULL COUNTERED 83.0mm |
| MAIN BEARING   | TOMEI COMPETITION           |                             |                                    |
| CONROD BEARING | TOMEI COMPETITION           |                             |                                    |
| MAIN BOLTS     | TOMEI REINFORCED TYPE       |                             |                                    |
| CYLINDER BLOCK | STD                         |                             |                                    |

## Precisely hand built by the Engine Specialist

### DECK HEIGHT & SURFACE CORRECTION

When the blocks surface is deformed which at times happens even with new blocks from factory it will need to be corrected. The surface is then milled and corrected within 0.1mm accuracy. With the horizontal face corrected with a perfectly flat surface the meeting face is improved which also improves sealing characteristics for maintaining the right combustion gas pressure.

### DUMMY HEAD INSTALLATION

Boring the block with the dummy head attached greatly enhances the machining results so that during the boring process the block is not deformed more than 0.01mm. This is another key factor in achieving the highest precision possible with each engine build. The block is assembled with a dummy head (of the same height as the stock head), head gasket and crank caps to replicate the same condition as an assembled engine.

### CYLINDER BORING & PLATEAU HONING

The results of boring the block with the dummy head attached provide the best precision. Plateau honing with a crosshatch layout helps smooth the surface while still holding oil in the cylinder walls, greatly reducing friction and significantly enhancing engine life and durability.

### PISTON TO CYLINDER WALL CLEARANCE INSPECTION

The block is then left in the climate controlled room for a minimum of 24 hours to maintain a stable temperature at 20 °C, this is the best temperature for checking and verifying piston clearance with tolerances kept within an acceptable range of  $\pm 5\mu$ .

### BLOCK BURR CHECK AND CLEANUP

To maintain precision, the cylinder block is inspected for casting burrs and debris. This ensures clean oil and water passages and prevents damage during assembly.

### WEIGHT MEASUREMENTS AND ADJUSTMENTS

All TOMEI products are pre-checked and balanced prior to packing. During short block assembly, weights are re-checked at multiple stages. The final rod and piston assemblies are matched within 0.1 g, ensuring improved response, increased power, smoother operation, and extended engine durability.

### DYNAMIC BALANCING OF THE CRANKSHAFT

Dynamic balancing of the crankshaft helps improve throttle response and deliver extra power gains, while significantly reducing unwanted vibrations. This eases stress on the bearings and helps minimize the need for rebuilds. The crankshaft is also checked for any signs of bending or other faults, and if any are found, they will be corrected during this process.

### CRANKSHAFT & CONNECTING ROD BEARINGS

Each bearing clearance is carefully checked to ensure the correct oil film is maintained in the proper areas for optimum crankshaft lubrication without causing unwanted friction. Thrust direction is also checked, and the entire process is carried out in a climate-controlled room, with all parts and essential equipment maintained at a constant 20 °C.

### PISTON RINGS

The Piston ring is designed to provide the best sealing properties and clearance. These piston rings are designed as a perfect circle for the protection of the cylinder walls and for maximum sealing properties. This also aids with the best protection possible for the cylinder walls for extending the life of the engine.

**TOMEI POWERED INC.**

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■ Prices are subjected to changes without prior notice ■ The images are for illustration purposes only & the color may differ from the actual product due to printing and publication errors.