



# **H4Bt – TCe 90**

## **0.9 Turbo MPI - Gasoline Euro5**

# H4Bt - CUSTOMER BENEFITS

***Renault's first turbocharged, 3-cylinder gasoline engine  
An all-aluminum 0.9 Energy engine aimed at replacing a  
naturally aspirated 1.4. It offers the best ratio of its category  
between drivability and fuel consumption.***

## **ENERGY PACKAGE <sup>E</sup>**

- Variable Valve Timing (VVT). Combined with an integrated turbo manifold, VVT ensures that maximum torque is available at low engine speeds and across a broad rev-band.
- Stop & Start with ultra fast start-up:  
Reduction in fuel consumption by 25 per cent
- Variable displacement oil pump



## **DRIVING COMFORT - FUN TO DRIVE**

- Turbocharged three-cylinder 0.9-litre engine (898cc)
- Maximum power: 90PS
- Maximum torque: 135 Nm from 2,000 to 3,500 rpm, with 90 percent available from 1,650 rpm



## **ENVIRONMENT FRIENDLY**

- Euro5 compliant, Euro6 ready



## **MAINTENANCE - TOTAL COST OF OWNERSHIP\***

- Timing chain: lifetime
- Reduced service intervals



## **AVAILABLE TRANSMISSIONS**

- Manual transmission, 5 speed

## **DRIVETRAIN LAYOUTS**

- East-West available
- North-South layout possible, according to the customer request and after Renault validations



## **A WIDE RANGE OF APPLICATIONS**

- ☐ A to B segment Cars
- ☐ Equips Renault and other manufacturers' vehicles

# H4Bt - SPECIFICATIONS

## MAIN SPECIFICATIONS

	<b>TCe90</b>
<b>Number of Cylinders</b>	<b>3</b>
<b>Number of Valves</b>	<b>12</b>
<b>Bore x Stroke (mm)</b>	<b>72.2 x 73.1</b>
<b>Total Displacement (cc)</b>	<b>898</b>
<b>Max. Power, kW (HP)</b>	<b>66 (90)</b>
<b>Speed at max power (RPM)</b>	<b>5000</b>
<b>Max. torque (Nm (lbf.ft))</b>	<b>135 (100)</b>
<b>Speed at max torque (RPM)</b>	<b>2000-3500</b>
<b>Compression Ratio</b>	<b>9.5 :1</b>
<b>Fuel Injection</b>	<b>Sequential Multipoint</b>
<b>Turbocharger</b>	<b>Waste Gate</b>
<b>Fuel</b>	<b>RON 95</b>
<b>Emissions Standard</b>	<b>Euro5 (Euro6 ready)</b>
<b>Dimensions (LxWxH)</b>	<b>575 x 637 x 691</b>
<b>Weight (kg)</b>	<b>94</b>

## OTHER SPECIFICATIONS

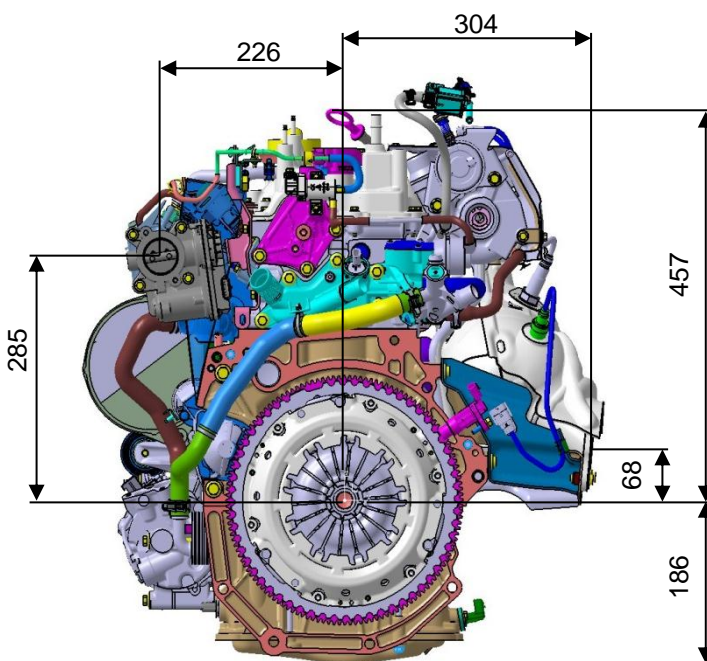
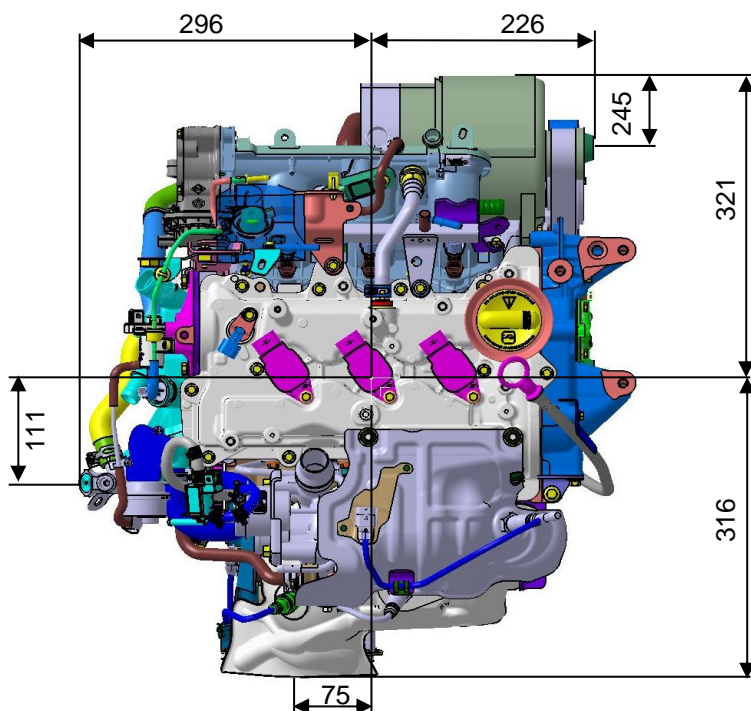
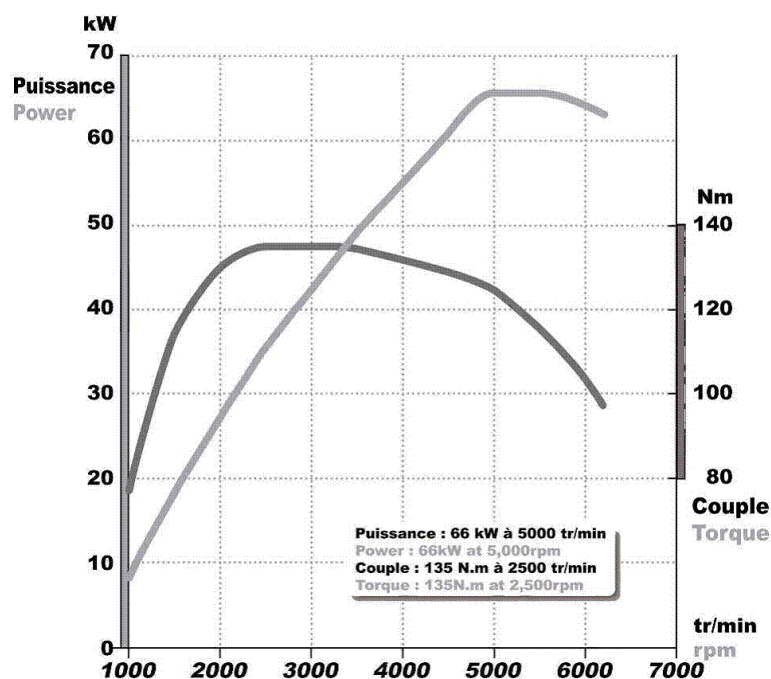
<b>Cylinder Block Material</b>	<b>Aluminum</b>
<b>Cylinder Head Material</b>	<b>Aluminum</b>
<b>Oil Sump Material</b>	<b>Aluminum</b>
<b>Emissions Control System</b>	<b>Catalyst</b>
<b>Power Steering</b>	<b>Electric *</b>
<b>Standard Engine Position</b>	<b>East-West, intake towards the front</b>
<b>Standard Engine Tilt</b>	<b>8 degrees towards exhaust</b>
<b>Electric Interface to vehicle</b>	<b>CAN Bus</b>

\*Hydraulic power steering to be validated by Renault



# H4Bt – PERFORMANCE AND MAIN DIMENSIONS

Energy TCe 90



Dimensions in mm

([www.powertrain.renault.com](http://www.powertrain.renault.com))

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POWERTRAIN

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**afaq**  
ISO 9001  
Qualité  
AFNOR CERTIFICATION