

Your Ultimate Source for OEM Repair Manuals

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2004 CHEVROLET Matiz / Spark (M150) OEM Service and Repair Workshop Manual

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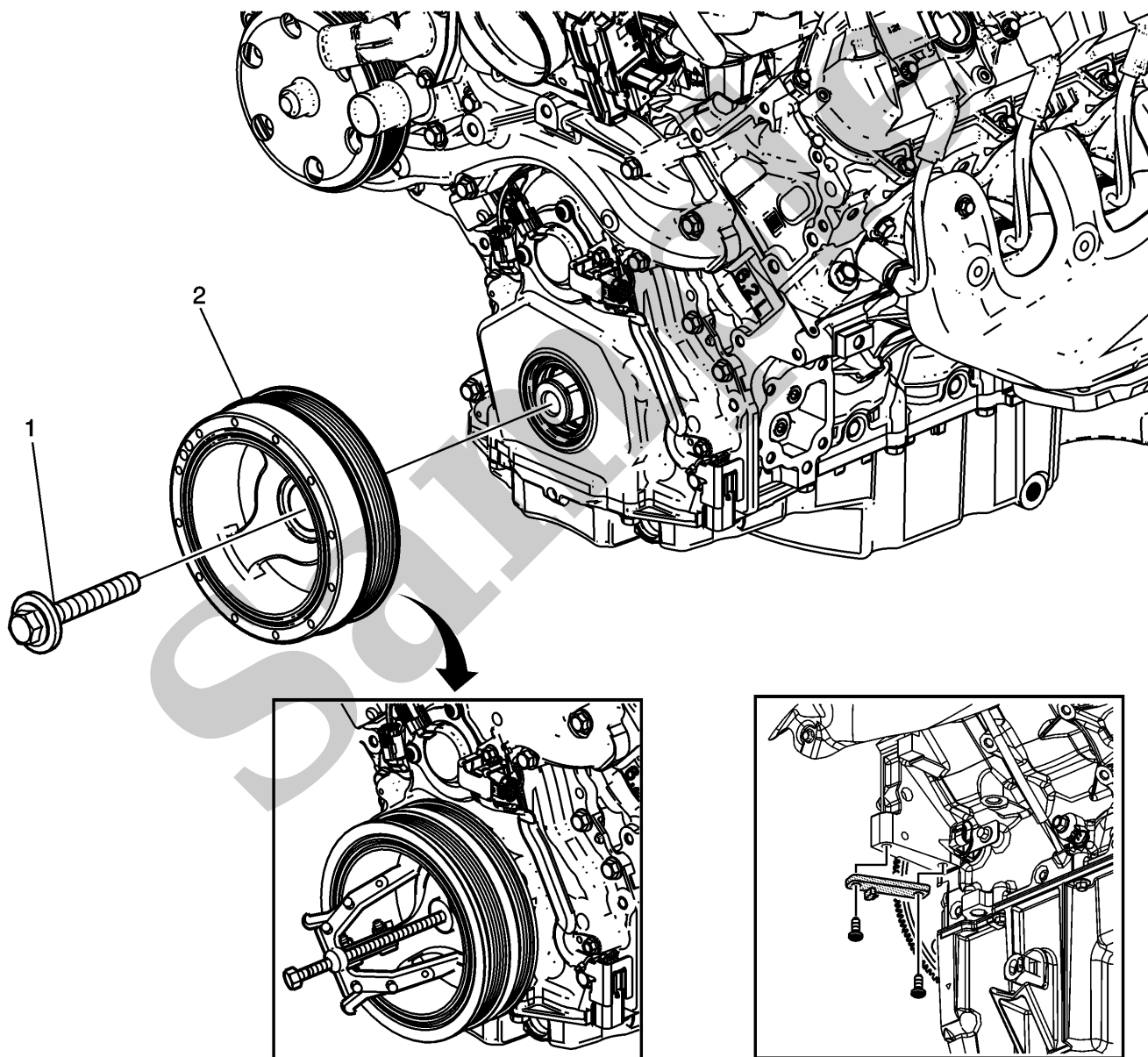
Callout	Component Name
	<ol style="list-style-type: none"> 1. Install the used crankshaft balancer bolt and tighten to 330 N·m (240 lb ft) to fully seat the balancer. 2. Remove the used crankshaft balancer bolt. 3. Measure for correctly installed balancer. The nose of the crankshaft (a) should be recessed 2.92–5.46 mm (0.115–0.215 in) into the balancer bore. If the balancer is not installed to proper dimensions, install the EN-41665 installer and repeat the installation procedure. 4. Install the NEW crankshaft balancer bolt: <ol style="list-style-type: none"> 1. Tighten the crankshaft balancer bolt to 150 N·m (110 lb ft). 2. Loosen the crankshaft balancer bolt 360 degrees. 3. Tighten the crankshaft balance bolt to 80 N·m (59 lb ft). 4. Tighten the crankshaft balancer bolt a final pass to: <ul style="list-style-type: none"> • Balancer bolt with flanged head tighten to 125 degrees using the EN-45059 angle meter. • Balancer bolt with retained rotating washer tighten to 200 degrees using the EN-45059 angle meter. 5. Remove the EN-42386-A flywheel holding tool. <p>Special Tools</p> <ul style="list-style-type: none"> • EN-41665 Crankshaft Balancer and Sprocket Installer • EN-42386-A Flywheel Holding Tool • EN-45059 Angle Meter <p>For equivalent regional tools, refer to Special Tools.</p>

Callout	Component Name
1	<p>Crankshaft Balancer Assembly</p> <div data-bbox="233 266 1528 349" style="background-color: #FFD700; padding: 5px;">CAUTION</div> <div data-bbox="233 349 1528 533" style="padding: 10px;"> <p>Caution</p> <p>Refer to Fastener Caution.</p> </div> <div data-bbox="233 551 1528 633" style="background-color: #005696; color: white; padding: 5px;">NOTE</div> <div data-bbox="233 633 1528 891" style="padding: 10px;"> <p>Note</p> <ul style="list-style-type: none"> • Ensure the teeth of the tool engage the engine flywheel teeth. • The used crankshaft balancer bolt is used only during the installation procedure. Install a NEW crankshaft balancer bolt during final assembly. </div> <p>Procedure</p> <ol style="list-style-type: none"> 1. Install the EN-42386-A flywheel holding tool . Use 1 M10 – 1.5 x 120 mm and 1 M10 – 1.5 x 45 mm bolt for proper tool operation and tighten bolts to 50 N·m (37 lb ft) . 2. Assemble the EN-41478 installer threaded rod, nut, washer and the EN-41665 installer . 3. Insert the smaller end of the installer into the front of the balancer. Use a wrench and hold the hex end of the threaded rod. Use a second wrench and rotate the installation tool nut clockwise until the balancer is started onto the crankshaft. 4. Remove the tool and reverse the installation tool. Position the larger end of the installer against the front of the balancer. Use wrench and hold the hex end of the threaded rod. Use a second wrench and rotate the nut clockwise until the balancer is installed onto the crankshaft. 5. Remove the balancer installation tools. <p>Special Tools</p> <ul style="list-style-type: none"> • EN-41478 Crankshaft Front Oil Seal Installer • EN-41665 Crankshaft Balancer and Sprocket Installer • EN-42386-A Flywheel Holding Tool <p>For equivalent regional tools, refer to Special Tools.</p>
2	<p>Crankshaft Balancer Bolt</p> <p>Procedure</p>

YOUR CURRENT VEHICLE

Crankshaft Balancer Removal

Crankshaft Balancer Removal (LT1)



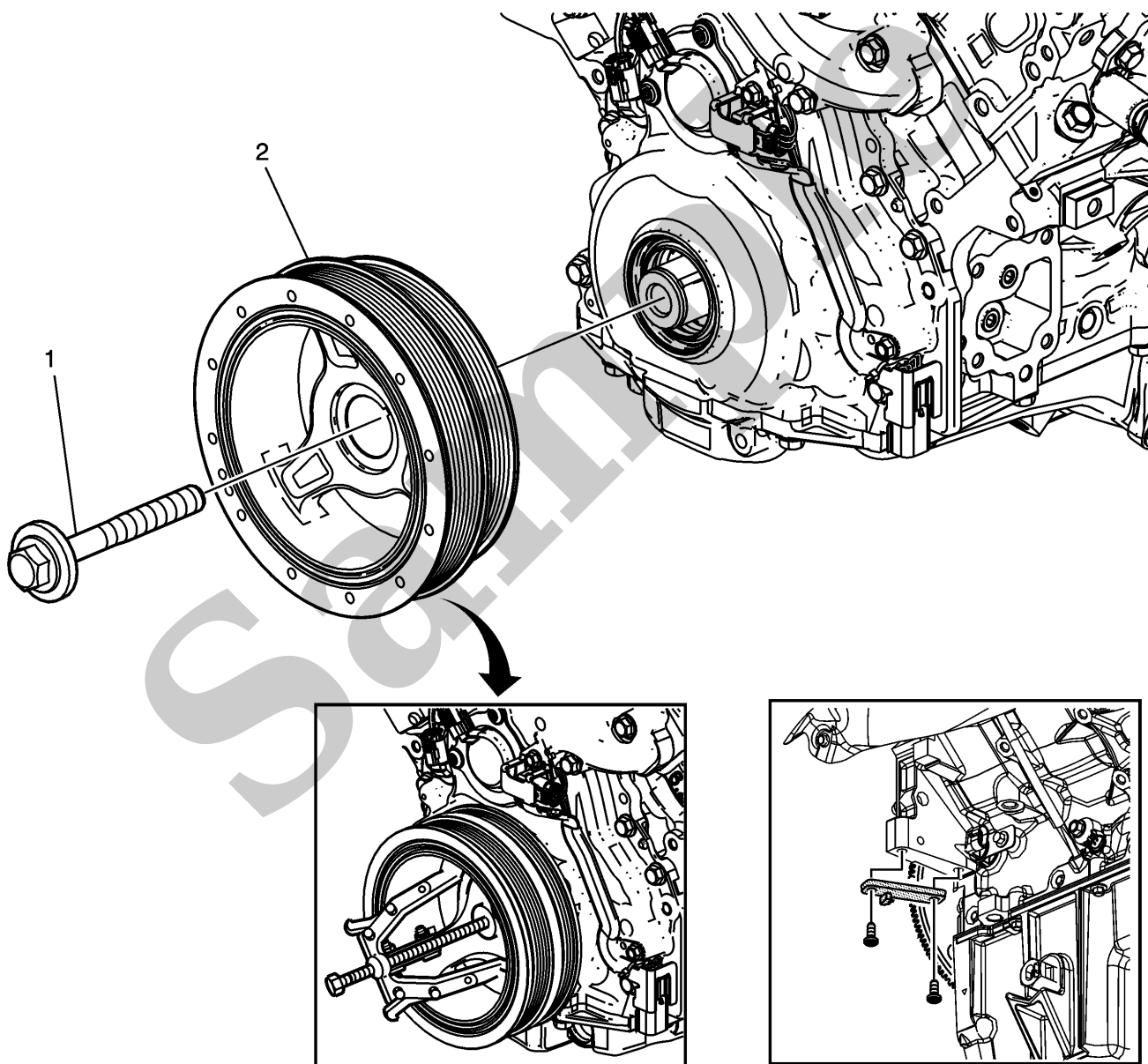
Crankshaft Balancer Removal



YOUR CURRENT VEHICLE

Crankshaft Balancer Removal

Crankshaft Balancer Removal (LT4)



Crankshaft Balancer Removal

