

Engine Rattle/Noise on Cold Start-Up

Service Category Engine/Hybrid System

Section Engine Mechanical

Market USA

Scion Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2012 – 2013	iQ	

Introduction

Some 2012 – 2013 model year iQ vehicles may exhibit one or more of the following conditions:

- Rattle type noise for first couple minutes following a cold start
- Excessive combustion chamber carbon build-up
- Idle speed momentarily drops to 500 rpm after a cold start

Follow the repair procedure in this bulletin to address these conditions.

Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VIN shown below.

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
iQ	Takaoka	CVT	JTNJJXB0#DJ025093

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
EG1310	R & R Piston Sub-assembly with Pin (ALL), Piston Ring Set, and Oil Jets	15.6	13101-47021	91	43

APPLICABLE WARRANTY

- This repair is covered under the Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Engine Rattle/Noise on Cold Start-Up

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
13011-47030 13011-47031	13011-47032	Ring Set, Piston*	1
13101-47020 13101-47021	13101-47022	Piston Sub-assy, w/Pin	4
15708-47040	15708-47031	Nozzle Sub-assy, Oil, No.1	4

* Parts listed are sets in quantities of 4, only order 1 of each.

Required Tools & Equipment

TOOLS & MATERIAL	QTY
FIPG Sealant: Three Bond 1207B, or Equivalent	As Needed
Piston Ring Expander	1
Piston Ring Compressor	1
Torque Wrench	1

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Piston Pin Press*	09221-25026	1

* Essential SST.

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

Repair Procedure

1. Confirm condition as described in the Introduction.
2. Remove engine assembly.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Engine Unit: Removal”

Engine Rattle/Noise on Cold Start-Up

Repair Procedure (Continued)

3. Disassemble engine assembly to gain access to the short block.

Refer to TIS, applicable model and model year Repair Manual:

- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Engine Unit: Disassembly”

HINT

ONLY disassemble what is necessary for the parts being replaced.

4. Disassemble short block.

Refer to TIS, applicable model and model year Repair Manual:

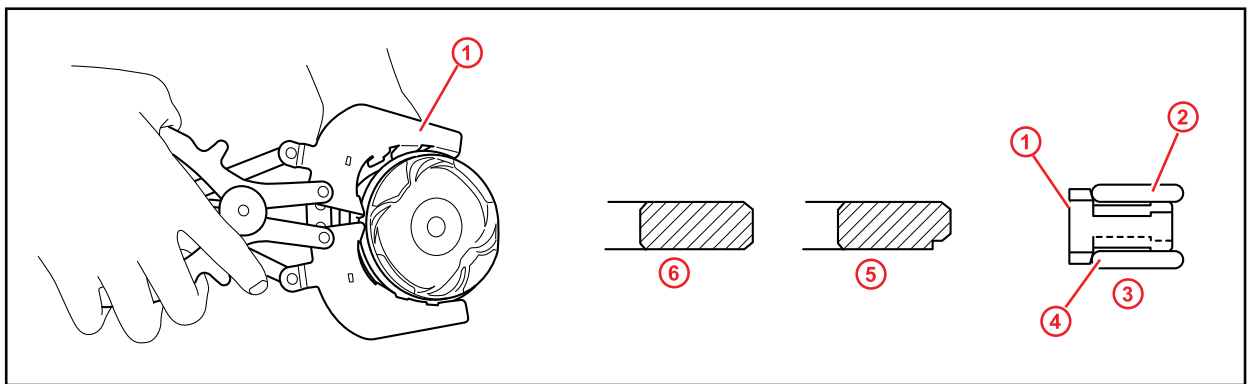
- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Cylinder Block: Disassembly”

5. Remove carbon deposits from all areas of combustion chamber, including cylinder head and short block.
6. Replace the Pistons, Piston Ring set, and Oil Jets with updated parts.

NOTICE

Be sure to follow Figures 1 and 2 closely for proper ring installation and gap orientation.

Figure 1. Ring Identification



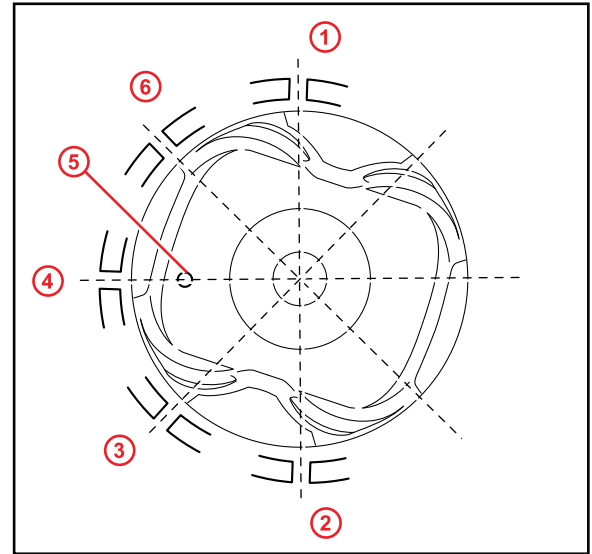
1	Piston Ring Expander
2	Upper Side Rail
3	Oil Ring

4	Lower Side Rail
5	No. 2 Ring
6	No. 1 Ring

Engine Rattle/Noise on Cold Start-Up

Repair Procedure (Continued)

Figure 2. Ring Alignment



1	Lower Side Rail
2	Upper Side Rail
3	No. 1 Ring
4	Oil Ring Expander
5	Front Mark
6	No. 2 Ring

7. Reassemble short block.

Refer to TIS, applicable model and model year Repair Manual:

- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Cylinder Block: Reassembly”

8. Reassemble and install engine assembly.

Refer to TIS, applicable model and model year Repair Manual:

- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Engine Unit: Reassembly”
- [2012](#) / [2013](#) iQ:
Engine/Hybrid System – Engine Mechanical – “1NR-FE Engine Mechanical: Engine Unit: Installation”

9. Confirm repair.