



TOYOTA

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Revision

18/09/2014

4 pages

# Technical Service Bulletin

Subject: 1KD-FTV engine: piston crack	Engine
Models: HILUX; LAND CRUISER	
Model codes: KUN26; KDJ120; KDJ125; KDJ150; KDJ155	

Revision

## INTRODUCTION

This Technical Service Bulletin is to inform you of the production change and repair method for the subject concern. Applicable to vehicles equipped with Euro4 engines, produced before the production change effective engine numbers shown below.

Revision contents:

- New production change information
- New parts information
- Injector identification information updated

## DESCRIPTION OF PHENOMENON

Some customers may experience and report a sudden strong knocking noise from the engine, black smoke from the exhaust and/or lack of power. This is caused by a damaged piston.

## PRODUCTION CHANGE

1. Improved injectors to prevent wrong combustion
2. The piston shape has changed in order to be more robust.

## PRODUCTION CHANGE INFORMATION

Piston change:

Model	Model code	Specification	Plant	Production change effective engine number	Implementation date
Land Cruiser 120	KDJ120	Euro 4	Daihatsu	Out of production	January 2014
	KDJ125				
Land Cruiser 150	KDJ150	Euro 4	Tico	A477120	July 2014
	KDJ155				
Hilux	KUN26	Euro5	Daihatsu	Since Start of Production	
	KDJ150				
Land Cruiser 150	KDJ155	Euro5	Tico	Since Start of Production	
	KUN26				

## PARTS INFORMATION

Previous part number	Current part	Part name	Quantity
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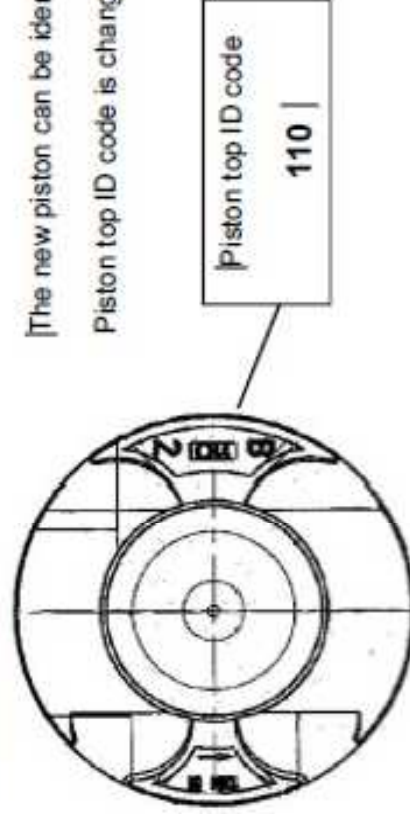
		number	
13101-30090-01	13101-30150-01	13101-30200-01	Piston sub assy, W/pin
13101-30090-02	13101-30150-02	13101-30200-02	
13101-30090-03	13101-30150-03	13101-30200-03	
1301#-####		Same *	Ring set, piston
11401-####		Same *	Block sub-assy, cylinder
			**

\* Part number is depending on vehicle specification.

\*\* To be ordered when cylinder wall is damaged.

**HINT:**

It is advised to confirm the piston top ID code upon arrival of the new parts. If an older version of pistons is installed, replace them by new ones.



[The new piston can be identified by the piston top ID code.

Piston top ID code is changed from 080 to 110 |

**Non re-usable parts:**

For an overview of the required non re-usable parts, refer to the models repair manual:

Drive train and body parts:

“ENGINE > 1KD-FTV ENGINE MECHANICAL > ENGINE ASSEMBLY > COMPONENTS”.

Engine unit parts:

“ENGINE > 1KD-FTV ENGINE MECHANICAL > ENGINE UNIT > COMPONENTS”.

**Injector improvement and identification table:**

Vehicle	Old injector part number	New injector part number	Production period	Type	Identification judgment
LC120	23670-39186	Same	– 2008/3	G2S	G2S: Generation 2 Solenoid Only Injectors with 2 marks are of the latest available type.
	23670-39316		2007/10 –	G2S	
	23670-39186		– 2008/3	G2S	
	23670-39285		2008/3 – 2008/10	G2S	
	23670-39316		2008/3 – 2009/8	G2S	
Hilux	23670-39355		2009/8 – 2011/8	G3S	G3S: Generation 3 Solenoid G3P: Generation 3 Piézo All injectors are of the latest available type.
	23670-39365		2009/08 – 2013/8	G3S	
	23670-39445		2011/07 –	G3P	
	23670-39455		2011/07 –	G3P	





LC150	23670-39365	2009/08 --	G3S
	23670-39445	2010/10 --	G3P

### REPAIR PROCEDURE

1. Confirm the injectors and replace them if required.

Refer to above injector identification judgement to identify the latest available injector types.

If the injectors are not of the latest available type it is advised to replace them.

2. Disassemble the engine unit.

For the detailed description of the disassembly procedure, refer to the model's repair manual:

**"ENGINE > 1KD-FTV ENGINE MECHANICAL > ENGINE UNIT > DISASSEMBLY"**.

3. Carefully check if the cylinders are damaged.

For the detailed description of the check procedure, refer to the model's repair manual:

**"ENGINE > 1KD-FTV ENGINE MECHANICAL > ENGINE UNIT > INSPECTION"**.

If the cylinders are damaged, replace the 'block sub assy, cylinder'.

#### HINT:

It is advised to confirm the piston top ID code upon arrival of the new shortblock. If an older version of pistons is installed, replace them by new ones.

4. Replace the piston sub assy, W/pin.

For the detailed description of the repair procedure, refer to the model's repair manual:

**"ENGINE > 1KD-FTV ENGINE MECHANICAL > ENGINE UNIT > REASSEMBLY"**. ]

### WARRANTY INFORMATION

For the warranty application, please refer to the applicable warranty policy and procedures manual.

- Land Cruiser 120:

OP code	Operation	Time	OFF	T1	T2
132011	Piston assembly with pin (all)	15.6		05	
132011H	Add: E.G.R.	0.1		06	
132011K	Add: Air-conditioning	0.1	13101-30###	08	12
132011L	Add: Power steering	0.3		17	
801013	Usage of IT2	0.2		19	

- Land Cruiser 150:

OP code	Operation	Time	OFF	T1	T2
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132011	Piston assembly with pin (all)	15.8	13101-30###	05 06 08 17 19	12
13201H	Add.: Viscous Heater	0.5			
13201J	Add: E.G.R.	0.3			
13201K	Add: Air-conditioning	0.1			
13201L	Add: Power steering	0.6			
801013	Usage of IT2	0.2			

- **Hilux:**

OP code	Operation	Time	OFF	T1	T2
132011	Piston assembly with pin (all)	12.5	13101-30###	05 06 08 17 19	12
13201J	Add: E.G.R.	0.1			
13201K	Add: Air-conditioning	0.2			
13201L	Add: Power steering	0.5			
801013	Usage of IT2	0.2			

**Note:** The implementation of this TSB for rectification of the phenomenon reported requires the mandatory CCR (Condition, Cause, Remedy) comments in the warranty claim for further detailed technical analysis. It is required to mention this TSB number in the Remedy field. Failure to comply with this requirement could lead to claim rejection.