SERVICE TRAINING AND PUBLICATION BULLETIN

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TRAINING	
PUBLICATION	■
INFORMATION	
ADVANCE ORDER	
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APPLICABLE COUNTRIES:

	ALL COUNTRIES		N. AMERICA	■	GENERAL COUNTRIES, EUROPE
	Other				

To: Service Manager

CORRECTION TO
- [x] REPAIR MANUAL
- [ ] ELECTRICAL WIRING DIAGRAM
- [ ] NEW CAR FEATURES
- [ ] BODY REPAIR MANUAL
- [ ] SERVICE DATA SHEET

The following manual has revised service information:

Pub. No.: **RM19U1E** Pub. Name: **LAND CRUISER 200 Repair Manual**

Section	Title	Paragraph
SPECIFICATIONS	1UR-FE ENGINE MECHANICAL	SERVICE DATA (2012/01-)
1UR-FE ENGINE MECHANICAL	ENGINE UNIT	INSPECTION (2012/01-)

The revised pages listed above are attached.
(The corrected parts are indicated by arrows.)

Please attach the accompanying revised pages to the applicable pages in the manual above.

This Bulletin does not cause the Flat Rate Manual to be changed.

This bulletin is also available on the OASIS Global Service Information Center.
Inquiries : BM_correction_information@mta.mx.toyota.co.jp

KEEP IN BINDER TOGETHER WITH SERVICE PUBLICATIONS GUIDE

TOYOTA QUALITY SERVICE

TOYOTA MOTOR CORPORATION
VEHICLE ENGINEERING DEPARTMENT
TECHNICAL SERVICE DIVISION
CUSTOMER FIRST PROMOTION GROUP

1UR-FE ENGINE MECHANICAL

SERVICE DATA

ENGINE

Standard ignition timing	Terminal TC and CG of DLC3 connected (Transmission in neutral and A/C switch off)	8 to 12° BTDC @ idle
	Terminals TC and CG of DLC3 disconnected (Transmission in neutral and A/C switch off)	7 to 24° BTDC @ idle
Standard idle speed (Transmission in neutral and A/C switch off)		650 to 750 rpm
Compression	Standard	1300 kPa (13.3 kgf/cm^2, 189 psi) or higher
	Minimum	1000 kPa (10.2 kgf/cm^2, 145 psi)
	Difference	100 kPa (1.0 kgf/cm^2, 15 psi) or less

ENGINE UNIT

Cylinder head set bolt	Outside diameter	Standard [Corrected]		10.85 to 11.00 mm (0.427 to 0.433 in.)
		Minimum		10.60 mm (0.417 in.)
Camshaft	Circle runout	Maximum		0.04 mm (0.00157 in.)
	Cam lobe height	Intake	Standard	43.456 to 43.566 mm (1.711 to 1.715 in.)
			Minimum	43.406 mm (1.709 in.)
		Exhaust	Standard	43.800 to 43.910 mm (1.724 to 1.729 in.)
			Minimum	43.750 mm (1.722 in.)
	Journal diameter	No. 1 journal	Standard	29.956 to 29.970 mm (1.1793 to 1.1799 in.)
		Other journals		25.959 to 25.975 mm (1.0220 to 1.0226 in.)
Timing chain	No. 1 chain	Chain elongation	Maximum	136.9 mm (5.39 in.)
	No. 2 chain			137.6 mm (5.42 in.)
Sprocket diameter (w/ chain)	Crankshaft timing sprocket RH	Minimum		61.4 mm (2.42 in.)
	Crankshaft timing sprocket LH			61.4 mm (2.42 in.)
No. 2 chain tensioner	Depth	Maximum		0.9 mm (0.0354 in.)
No. 3 chain tensioner				0.9 mm (0.0354 in.)
Chain tensioner slipper				1.0 mm (0.0394 in.)
No. 1 chain vibration damper				1.0 mm (0.0394 in.)
Exhaust manifold	Maximum warpage			0.7 mm (0.0276 in.)
Ring pin	Protrusion height	Ring pin A		7.5 to 8.5 mm (0.295 to 0.335 in.)
		Ring pin B		3.6 to 4.6 mm (0.142 to 0.181 in.)

CYLINDER HEAD

Camshaft oil clearance	No. 1 journal	Standard	0.030 to 0.065 mm (0.00118 to 0.00256 in.)
		Maximum	0.10 mm (0.00394 in.)
	Other journals	Standard	0.025 to 0.062 mm (0.000984 to 0.00244 in.)
		Maximum	0.09 mm (0.00354 in.)

(e) After bleeding the air, remove SST. Then try to quickly and firmly press the plunger with your fingers.
OK:
Plunger can be pressed 3 times.
If the plunger can still be compressed after pressing it 3 times, replace the valve lash adjuster assembly with a new one.

EM

4. INSPECT CAMSHAFT SUB-ASSEMBLY

(a) Inspect the camshaft runout.
(1) Place the camshaft on V-blocks.
(2) Using a dial indicator, measure the circle runout at the center journal.
Maximum circle runout:
0.04 mm (0.00157 in.)
If the circle runout is more than the maximum, replace the camshaft sub-assembly.
HINT:
Check the oil clearance after replacing the camshaft.

(b) Using a micrometer, measure the cam lobe height.
Standard Cam Lobe Height

Item	Specified Condition
Intake [Corrected]	43.456 to 43.566 mm (1.711 to 1.715 in.)
Exhaust	43.800 to 43.910 mm (1.724 to 1.729 in.)

Minimum Cam Lobe Height

Item [Corrected]	Specified Condition
Intake	43.406 mm (1.709 in.)
Exhaust	43.750 mm (1.722 in.)

If the cam lobe height is less than the minimum, replace the camshaft sub-assembly.

(c) Using a micrometer, measure the journal diameter.
Standard Journal Diameter

Item	Specified Condition
No. 1 journal	29.956 to 29.970 mm (1.1793 to 1.1799 in.)
Other journals	25.959 to 25.975 mm (1.0220 to 1.0226 in.)

If the journal diameter is not as specified, check the oil clearance.

5. INSPECT CAMSHAFT TIMING GEAR ASSEMBLY

(a) Install the camshaft bearing cap (See page).
HINT:
Only install the intake camshaft.

(b) Install the camshaft housing (See page).
HINT:
Do not use seal packing when installing the camshaft housing as the installation is temporary.