MITSUBISHI MOTORS

SERVICE BULLETIN

GLOBAL AFTER SALES OFFICE, MITSUBISHI MOTORS CORPORATION

PURPOSE : CORRECTION	ISSUE NO. : MSB-12EXL11-501	DATE : 2012-04-18
SUBJECT : VALVE SPRING FREE HEIGHT		<MODEL> <M/Y> (As shown below)
GROUP : ENGINE		

1. Description:

See the attached sheets for the correction of the error existing in the current service manual.

2. Applicable Manual :

Applicable manual	Applicable title	Contents
WORKSHOP MANUAL ・L200 ・L200 SPORTERO ・TRITON ・STRADA ・STRADA SPORTERO ・PAJERO SPORT ・MONTERO SPORT ・NATIVA ・CHALLENGER **with 4D5 DOHC ENGINE**	SERVICE SPECIFICATIONS	Attached sheet (1/2)
	CYLINDER HEAD AND VALVES	Attached sheet (2/2)

※ **This service bulletin is for the above cars with the 4D5 DOHC engine**

※ **Destination listed**
EUR/RUSSIA/EASTERNEUROPEAN COUNTRIES/G.EXP/GCC/CHINA/MMAL/NZ/SOUTH AFRICA/THAI/MOROCCO/ARGENTINA

3. Details:

See the attached sheets

Attached sheet (1/2)

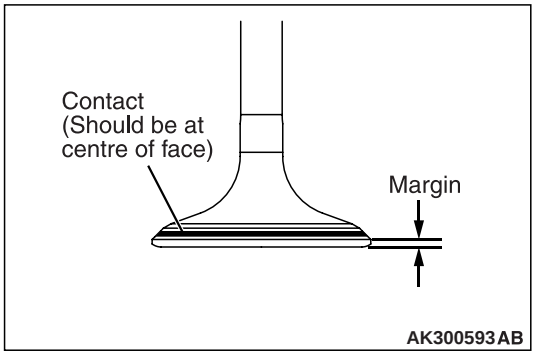
SERVICE SPECIFICATIONS

M1113000303601

Item				Standard	Limit
Timing belt					
Auto-tensioner rod extension length (with timing belt installed) mm				2.3 – 7.6	–
Auto-tensioner rod extension length (when free) mm				14.5	–
Auto-tensioner rod retraction length (when pressed with force of 100 – 200 N·m) mm				Less than 1	–
Rocker arm and camshaft					
Valve clearance mm			Intake	0.09	–
			Exhaust	0.14	–
Cam height mm	Intake	Except Euro5		35.47	34.97
		Euro5		35.42	34.92
	Exhaust			35.41	34.91
Cylinder head and valves					
Flatness of gasket surface mm *Grinding is not suitable for correction.				0.03	*0.2
Cylinder head overall height mm				129.9 – 130.1	–
Valve thickness of valve head mm (margin)			Intake	1.3 52.1	0.8
			Exhaust	1.5 <Correct>	1.0
Valve length mm			Intake	107.58	107.08
			Exhaust	107.98	107.48
Valve spring free height mm			53.1	54.3 <Incorrect>	53.3 <Incorrect>
Valve spring cut-of-squareness			<Correct>	2° or less	Max. 4°
Valve seat contact width mm				1.1 – 1.5	–
Valve stem-to guide clearance mm			Intake	0.020 – 0.047	0.10
			Exhaust	0.035 – 0.062	0.15
Valve guide protrusion				18.3 – 18.9	–
Oil pan and oil pump					
Balancer shaft oil clearance mm		Front	Right	0.02 – 0.05	–
			Left	0.02 – 0.06	–
		Rear		0.06 – 0.10	–
Oil pump tip clearance mm				0.11 – 0.24	–
Oil pump side clearance mm				0.04 – 0.10	–
Oil pump body clearance mm				0.10 – 0.18	0.35
Piston and connecting rod					

Attached sheet (2/2)

VALVE

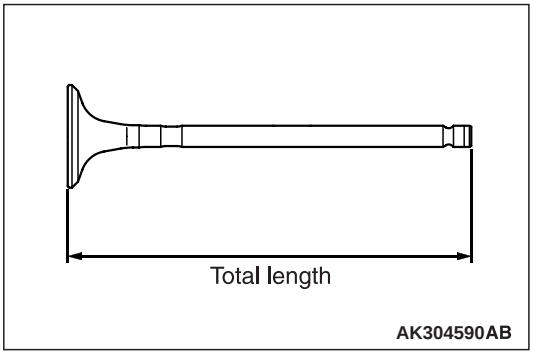


1. Check the valve face for correct contact. If incorrect, reface using valve refacer. Valve seat contact should be maintained uniform at the centre of valve face.
2. If the margin is smaller than the service limit, replace the valve.

   Standard value:
   Intake: 1.3 mm
   Exhaust: 1.5 mm

   Limit:
   Intake: 0.8 mm
   Exhaust: 1.0 mm

Standard value: 53.1 mm
Limit: 52.1 mm
<Correct>

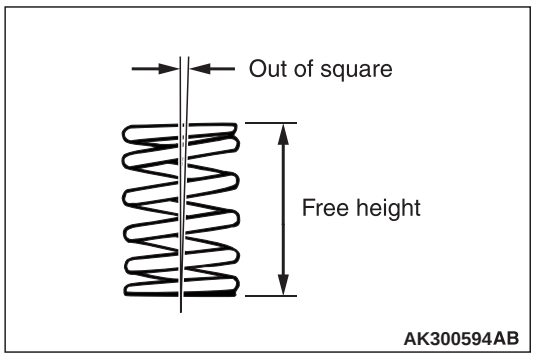


3. Measure the valves total length. If the measurement is less than the limit, replace the valve.

   Standard value:
   Intake: 107.58 mm
   Exhaust: 107.98 mm

   Limit:
   Intake: 107.08 mm
   Exhaust: 107.48 mm

VALVE SPRING



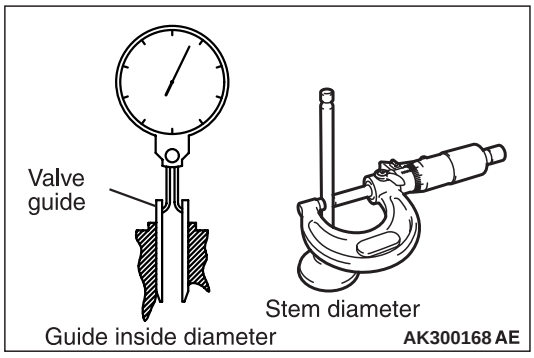
1. Measure the free height of spring and if it is smaller than the limit, replace.

   ~~**Standard value: 54.3 mm**~~
   ~~**Limit: 53.3 mm**~~ <Incorrect>

2. Measure the squareness of the spring and, if the limit is exceeded, replace.

   Standard value: 2° or less
   Limit: Max. 4°

VALVE GUIDE



Measure the clearance between the valve guide and valve stem. If the limit is exceeded, replace the valve guide or valve, or both.

Standard value:
Intake: 0.020 – 0.047 mm
Exhaust: 0.035 – 0.062 mm

Limit:
Intake: 0.10 mm
Exhaust: 0.15 mm