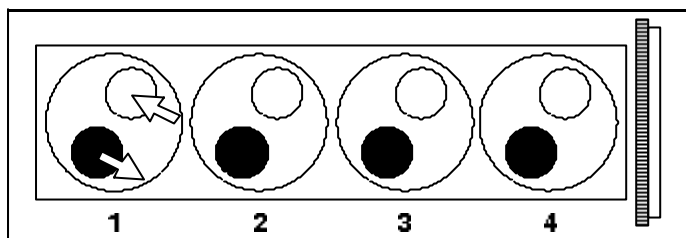


# Adjustment data

## Engine

### - A13SM and A15SM

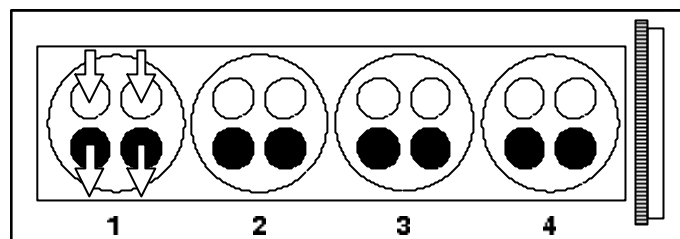


<b>identification</b>	
engine code	A13SM A15SM
cubic capacity	A13SM: 1349 cm <sup>3</sup> A15SM: 1498 cm <sup>3</sup>
engine lay-out	4 cylinder in-line engine 8 valves
ignition / fuel system	engine management
features	EGR system evaporative emission control system 3 way controlled catalytic converter
<b>mechanical</b>	
oil pressure	no data available

compression	
- normal	no data available
- minimum	6,9 bar
- maximum difference between cylinders	the lowest compression is a minimum of 70 % of the highest compression
valves	
- valve operation	timing belt; OHC; rocker arms; hydraulic valve clearance adjusters
<b>ignition system</b>	
type	fully electronic
make and model	part of engine management; make and type: no data available
firing order	1 - 3 - 4 - 2
ignition timing	10 °; before TDC
coil; make and model	no data available
coil resistance; primary	no data available
coil resistance; secondary	no data available
HT leads resistance	30 kΩ

spark plugs	
- make and model	Champion RN9YC Woojin BPR6ES
- spark plug gap	0,70 - 0,80 mm
- torque setting	40 Nm
<b>fuel system</b>	
type	multipoint injection
make and model	part of engine management; make and type: no data available
fuel pump pressure	no data available
system pressure	2,8 - 3,3 bar
inlet manifold vacuum	no data available
idle speed	no data available
fast idle speed	no data available
<b>emission</b>	
CO percentage	at idle speed; beyond cata- lytic converter: max. 0,5 %
CO <sub>2</sub> percentage	no data available
HC content	no data available
O <sub>2</sub> percentage	no data available
<b>cooling system</b>	
radiator / header tank cap release pressure	0,9 - 1,2 bar
thermostat opening tempera- ture	87 °C

## - A16DM



<b>identification</b>	
engine code	A16DM
cubic capacity	1598 cm <sup>3</sup>
engine lay-out	4 cylinder in-line engine 16 valves
ignition / fuel system	engine management
features	EGR system evaporative emission control system 3 way controlled catalytic converter variable intake system
<b>mechanical</b>	
oil pressure	no data available

compression	
– normal	no data available
– minimum	6,9 bar
– maximum difference between cylinders	the lowest compression is a minimum of 70 % of the highest compression
valves	
– valve operation	timing belt, DOHC; hydraulic tappets
<b>ignition system</b>	
type	fully electronic
make and model	part of engine management; make and type: no data available
firing order	1 - 3 - 4 - 2
ignition timing	10 °; before TDC
coil; make and model	no data available
coil resistance; primary	no data available
coil resistance; secondary	no data available
HT leads resistance	30 kΩ
spark plugs	
– make and model	Wooijn BKRGE-11
– spark plug gap	1,00 - 1,10 mm
– torque setting	25 Nm
<b>fuel system</b>	
type	multipoint injection

make and model	part of engine management; make and type: no data available
fuel pump pressure	no data available
system pressure	2,8 - 3,3 bar
inlet manifold vacuum	no data available
idle speed	no data available
fast idle speed	no data available
<b>emission</b>	
CO percentage	at idle speed; beyond catalytic converter: max. 0,5 %
CO <sub>2</sub> percentage	no data available
HC content	no data available
O <sub>2</sub> percentage	no data available
<b>cooling system</b>	
radiator / header tank cap release pressure	0,9 - 1,2 bar
thermostat opening temperature	87 °C

## Driveline and chassis

### Clutch

operation	hydraulic
self-adjusting	yes
free play	
– pedal	6 - 12 mm
– lever	no data available
pedal height	no data available
pedal travel (working stroke + free play)	no data available
pedal working stroke	130 mm

### Brake system

pedal free play	no data available
pedal height	no data available
parking brake	
– free play	no data available
– total travel	no data available

### front disc brakes

disc thickness	
– new	<b>versions with OHC engine:</b> 20 mm <b>versions with DOHC engine:</b> 24 mm
– minimum	<b>versions with OHC engine:</b> 19 mm <b>versions with DOHC engine:</b> 23 mm
min. brake pad thickness	7 mm; with back plate

### rear drum brakes

brake drum diameter	
– new	200 mm
– maximum	201 mm
min. lining thickness	0,5 mm; with no back plate

### Suspension

conditions for wheel alignment	check tracking with 2 people in the car
wheelbase	2520 mm
<b>front wheels</b>	
track width	1405 mm

tracking; total	0 ± 1 mm / 0° 00' ± 10' adjustable on both track rods
camber	-0°25' ± 45' max. difference left / right: 1° non-adjustable
castor	<b>versions without power steering:</b> 1° 30' ± 1° max. difference left / right: 1° non-adjustable <b>versions with power steering:</b> 2° 45' ± 1° max. difference left / right: 1° non-adjustable
king pin inclination	no data available
<b>rear wheels</b>	
track width	1425 mm
tracking; total	toe-in 1,5 mm ± 2,5 mm/0° 15' ± 25' non-adjustable
camber	-1° 40' ± 30' max. difference LH/RH: 30' non-adjustable