

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 **09/95 up to 05/96 (MSA 15.1)**
as of 06/96 (MSA 25.1)

Engine	606.912	606.912
Version/Code	KAT/62/0	KAT/62/0
IFI system designation	MSA 15.1	MSA 25.1
Closed throttle (idle) position, check, adjust (07-2053) ¹²⁾		
Selector lever position HHT display	P/N	P/N
Engine coolant temperature ° C	>60	>60
Engine speed rpm	610 – 710	560 – 660

¹²⁾ Time Guide operation no. and/or SMS job no.

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 **09/95 up to 05/96 (MSA 15.1)**
as of 06/96 (MSA 25.1)

Engine		606.912		606.912
Version/Code		KAT/62/0		KAT/62/0
IFI system designation		MSA 15.1		MSA 25.1
Engine, check, adjust	(07-1100) ¹²⁾	Page 1		
Engine speed (selector lever in P/N position)	rpm	610 – 710		610 – 710
Start of delivery or GIM value	°CKA after TDC	14 + 0.5		14 + 0.5
Engine coolant temperature	° C	>60		>60
Fuel rack travel	mm	7.5 – 9.5		7.5 – 9.5
Fuel temperature	° C	>20		>20
Selector lever position	HHT display	P/N		P/N
WOT recognition at idle	HHT display	ON		ON
Closed throttle recognition at WOT	HHT display	OFF		OFF
IFI accelerator pedal position sensor	%	CTP – 0, WOT – 100		CTP – 0, WOT – 100
Injection Quantity/stroke	ME	>5		>5
Stop lamp switch				via CAN
Brake pedal not depressed	HHT display	OFF		OFF
Brake pedal depressed	HHT display	ON		ON
EGR	RPM	>1000	>3200	>1000 >3200
HHT display		ON	OFF	ON OFF
Pressure control flap	RPM	610 – 710	>3700	610 – 710 >3700
HHT display		ON	OFF	ON OFF
Intake manifold pressure >2000 rpm	mbar	900 – 920		900 – 920
Barometric pressure	mbar	see barometer		see barometer

¹²⁾ Time Guide operation no. and/or SMS job no.

A Test and Adjustment Data

Engine 606 IFI

**Engine 606.912 09/95 up to 05/96 (MSA 15.1)
as of 06/96 (MSA 25.1)**

Engine	606.912			606.912		
Version/Code	KAT/62/0			KAT/62/0		
IFI system designation	MSA 15.1			MSA 25.1		
Engine, check, adjust (07-1100) ¹²⁾ Page 2						
Intake line resonance flap ¹⁾ at rpm	610 – 710	>3700	no load	610 – 710	>3700	no load
Intake manifold resonance switchover valve (Y22/6) or resonance intake manifold switch (S35) ⁴⁾ HHT display	CLOSED	OPEN		CLOSED	OPEN	
Intake manifold resonance flap at rpm	610 – 710	1300 – 2800	> 2800 ³⁾	< 1300	1300 – 2800	> 2800 ³⁾
Resonance intake line switchover valve (Y22/7) or resonance intake line switch (S35/1) . . . HHT display	CLOSED	OPEN	CLOSED	CLOSED	OPEN	CLOSED
Oil level switch HHT display	–			✓		
Engine speed rpm	610 – 690 ²⁾		1900 ± 2100	610 – 690 ²⁾		1900 ± 2100
EGR valve lift sender Nominal value mm	1.4 ± 1.6		Nom. - actual	1.4 ± 1.6		Nom. - actual
After EGR off, the nom. value remains at 1.5 mm for approx. 50 sec.			value compar.			value compar.
EGR valve lift sender Actual value mm	0 ²⁾			0 ²⁾		
Actual value after EGR off and after (approx. 50 sec.)						
EGR valve %	2 ²⁾		25 – 35	2 ²⁾		25 – 35
Value after EGR off and after (approx. 50 sec.)						
Intake manifold pressure > 1000 rpm mbar	Nom. - actual value compar.		Nom. - actual value compar.	Nom. - actual value compar.		Nom. - actual value compar.
EGR HHT display	OFF		ON	OFF		ON
Display after EGR off and after (approx. 50 sec.)						
Maximum no load engine speed rpm	5200 – 5600			5200 – 5600		

1) When actuating the IFI/DFI accelerator pedal position sensor > 50% the intake line resonance flap opens.
 2) If EGR was recirculated previously, a waiting time of 50 seconds must be observed, after that, the values can be checked.
 3) Except at maximum no-load engine rpm.
 4) MSA 25.1 only.
 12) Time Guide operation no. and/or SMS job no.

**Engine 606.912 09/95 up to 05/96 (MSA 15.1)
as of 06/96 (MSA 25.1)**

Engine	606.912	606.912
Version/Code	KAT/62/0	KAT/62/0
IFI system designation	MSA 15.1	MSA 25.1
Cold start (07-2320) ¹²⁾		
Engine speed	rpm >200	>200
Engine coolant temperature	° C <20	<20
Intake air temperature	° C <20	<20
Fuel rack travel	mm 12 – 18	12 – 18
Voltage at circuit 87	V >9	>9
Circuit 15	HHT display ON	ON
Warmup (07-2023) ¹²⁾		
Engine speed	rpm 610 – 710	610 – 710
Engine coolant temperature	° C <20	<20
Intake air temperature	° C –	>20
Fuel rack travel	mm –	–
Transmission selector lever position	HHT display P/N	P/N

¹²⁾ Time Guide operation no. and/or SMS job no.

A Test and Adjustment Data

Engine 606 IFI

**Engine 606.912 09/95 up to 05/96 (MSA 15.1)
as of 06/96 (MSA 25.1)**

Engine	606.912	606.912
Version/Code	KAT/62/0	KAT/62/0
IFI system designation	MSA 15.1	MSA 25.1
Engine performance ¹⁾ and exhaust gas test (07-1203)¹²⁾		
Engine speed	rpm 4900	4900
Fuel rack travel	mm >12	>12
Injection Quantity/stroke	ME >30 – 33	>30 – 33
Intake air temperature	° C <30	<30
Engine coolant temperature	° C >60	>60
Intake manifold resonance flap	rpm 4900	4900
	HHT display OPEN	OPEN
Intake line resonance flap	rpm 4900	4900
	HHT display OPEN	OPEN
Intake manifold pressure	mbar >950 ²⁾	>950 ²⁾
AT selector lever position 3	kW 71	71
Opacity	1/m <1.6	<1.6
Start of delivery	CKA before TDC +2 to +6	+2 to +6

1) These are minimum performance values. Do not exceed speed of 80 mph.

2) Depending on barometric pressure, see nominal - actual value under "Engine check, adjust". Value is approx. 30 mbar lower than at CTP.

12) Time Guide operation no. and/or SMS job no.

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 **09/95 up to 05/96 (MSA 15.1)**
as of 06/96 (MSA 25.1)

Engine	606.912	606.912
Version/Code	KAT/62/0	KAT/62/0
IFI system designation	MSA 15.1	MSA 25.1
Cruise control test (30-7100) ¹²⁾		
Safety contact		
CC switch actuated	HHT display ON	ON
CC switch not actuated	HHT display OFF	OFF
Selector lever position	HHT display P/N	P/N
Move cruise control switch into the following positions,		
Display is divided into:	D/A/R/O	D/A/R/O
Stop lamp switch		via CAN
Brake pedal not depressed	HHT display ON	ON
Brake pedal depressed	HHT display OFF	OFF
Vehicle speed	HHT display –	

¹²⁾ Time Guide operation no. and/or SMS job no.

- D = Decelerate/set
- A = Accelerate/set
- R = Resume
- O = Off

**Engine 606.912 09/95 up to 05/96 (MSA 15.1)
as of 06/96 (MSA 25.1)**

Engine		606.912	606.912
IFI system designation		MSA 15.1	MSA 25.1
Drive authorization system (DAS)			
Engine control module identified	HHT display	YES ¹⁾	YES
Engine control module locked	HHT display	YES ¹⁾	YES
Starting authorized	HHT display	YES	YES
Vehicle locked with RCL	HHT display	NO	NO
RCL and engine control modules compatible	HHT display	YES	YES
Engine control module	HHT display	✓	✓
CAN reception from RCL	HHT display	✓	✓
Test readiness OBD II			
Ready for test (OBD II)	HHT display	YES	YES

¹⁾ The display can also be NO on isolated vehicles.

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 09/95 up to 05/96 (MSA 15.1)
 as of 06/96 (MSA 25.1)

Engine	606.912	606.912
IFI system designation	MSA 15.1	MSA 25.1
CAN Bus		
Engine control module or CAN bus	HHT display	√
IFI receives from ETS/ABS/ASR	HHT display	YES
IFI receives from ETC	HHT display	YES
IFI transmits to ASR/ESP/automatic AC/ETC	HHT display	YES
IFI transmits to ETC/CI	HHT display	YES
IFI transmits to ETC/ASR	HHT display	YES
IFI transmits to CI/ASR/ETC	HHT display	YES
IFI receives from ETS/ABS	HHT display	YES
IFI receives from CI	HHT display	YES

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 **09/95 up to 05/96 (MSA 15.1)**
as of 06/96 (MSA 25.1)

Engine		606.912	606.912
Version/Code		KAT/62/0	KAT/62/0
IFI system designation		MSA 15.1	MSA 25.1
Fuel pump test (07- 5701) ¹²⁾			
Closed throttle position (idle)	rpm	610 – 710	610 – 710
Delivery quantity after 30 seconds	cm ³	>200	>200
Fuel pressure test (07- 1603) ¹²⁾			
Closed throttle position (idle)	bar	>0.3	>0.3
Wide open throttle position	bar	>0.5	>0.5
Vacuum pump test (43 - 0500) ¹²⁾			
Engine coolant temperature	°C	<20	<20
At closed throttle position (idle) after 30 seconds	mbar	>700	>700
Vacuum control valve test (27- 0037) ¹²⁾			
Closed throttle position (idle)	mbar	>400	>400
Engine off, wide open throttle position	mbar	<0	<0
Injector test (07- 6712) ¹²⁾			
Opening pressure			
New injectors	bar	115 – 125	115 – 125
Used injectors	bar	>110	>110

¹²⁾ Time Guide operation no. and/or SMS job no.

A Test and Adjustment Data

Engine 606 IFI

Engine 606.912 **09/95 up to 05/96 (MSA 15.1)**
as of 06/96 (MSA 25.1)

Engine	606.912	606.912
Model	210.020	210.020
Version/Code	KAT/62/0	KAT/62/0
Fuel injection pump		
Bosch designation	PES 6 M 55 C 320 RS 204	PES 6 M 55 C 320 RS 204
MB part number	606 070 05 01	606 070 05 01
Bosch combination number	0 400 196 002	0 400 196 002
Fuel delivery pump		
Bosch designation	FP/KG M 150	FP/KG M 150
Injector		
Injector nozzle		
Bosch designation	DN O SD 310	DN O SD 310
Lucas designation	NB 001 R	NB 001 R
Injector holder		
Bosch designation	KCE 27 S3	KCE 27 S3
Lucas designation	LDC 001 R02	LDC 001 R02