



Customer TTZ130236

Test facility

Customer number

Job number 1

Telephone

Fax

Remark

Test user

EPS708 -3

Type number 0445115039	--	Type designation CRI 3-16	Revision date 26.06.2013	Compensation
Manufacturer Bosch	Component CRI	Type Piezo	Control point 	Temperature 40 °C

Complaint

Problem

Remark

	Injector A	Injector B	Injector C	Injector D	Injector E	Injector F
Serial number	AARVC1WAF5	SB5CC1YA18	SARVC1VAT5			
Date of manuf.						
Repair ID						
Repair res.						
Leak test						
IMA identifier	----	EUTLLII	----			

7 Conditioning Flow meas.

Conditioning test bench

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→ ←	1000	→ ←	40.0	→ ←	30.00	→ ←	125	→ ←	2500	→ ←	10.0	→ ←	20		----
	250	↓↑	20.0	↓↑	2.0				600	↓↑	5.0	↓↑	10		100
=	1001	=	39.9	=	30.0					=	10.0	=	20.0	=	100

8 Start test Flow meas.

Start test Injector

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→ ←	1000	→ ←	40.0	→ ←	30.00	→ ←	110	→ ←	2500	→ ←	10.0	→ ←	20		----
	250	↓↑	20.0	↓↑	2.0				600	↓↑	5.0	↓↑	10		----
=	997	=	39.7	=	30.0					=	10.0	=	20.0	=	30

p kPa \bar{Q} mm³/H \bar{Q} mm³/H \bar{Q} mm³/H



Type number	Type designation	Revision date	Compensation
0445115039	CRI 3-16	26.06.2013	
Manufacturer	Component	Control point	Temperature
Bosch	CRI		40 °C

Serial number	Injector A	Injector B	Injector C	Injector D	Injector E	Injector F
	AARVC1WAF5	SB5CC1YA18	SARVC1VAT5			
Date of manuf.						

	----	→↔ 65.0	→↔ 65.0	→↔ 65.0
		↓↑ 35.0	↓↑ 35.0	↓↑ 35.0
		↗A= 78.6	↗B= 79.3	↗C= 77.2

9 Back pressure Flow meas.
 Back pressure prepare

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→↔	1000	→↔	40.0	→↔	30.00	→↔	125	→↔	2500	→↔	10.0	→↔	20		----
	250	↓↑	20.0	↓↑	2.0				600	↓↑	5.0	↓↑	10		120
=	998	=	40.0	=	30.0					=	10.0	=	20.0	=	120

10 Conditioning Flow meas.
 Pressure step for ISA

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→↔	2000	→↔	40.0	→↔	130.0	→↔	125	→↔	700	→↔	10.0	→↔	20		----
	250	↓↑	20.0	↓↑	2.0				2000	↓↑	5.0	↓↑	10		5
=	1997	=	40.0	=	130.2					=	10.0	=	20.0	=	5

11 Conditioning Flow meas.
 Conditioning for ISA

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→↔	2000	→↔	40.0	→↔	160.0	→↔	125	→↔	700	→↔	10.0	→↔	20		----
	250	↓↑	20.0	↓↑	5.0				2000	↓↑	5.0	↓↑	10		35
=	1998	=	40.1	=	160.1					=	10.0	=	20.1	=	35

12 Warm up Flow meas. °C
 Warm up Testbench for ISA = 40

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
→↔	2000	→↔	40.0	→↔	160.0	→↔	125	→↔	700	→↔	10.0	→↔	20		----
	250	↓↑	1.0	↓↑	5.0				2000	↓↑	5.0	↓↑	10		----
=	1998	=	40.1	=	160.1					=	10.0	=	20.1	=	0

13 ISA detection ISA calibration
 ISA detection

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
---	------	--	----	---	-----	---	---	---	----	---	-----	---	-----	--	---



Type number	Type designation	Revision date	Compensation
0445115039	CRI 3-16	26.06.2013	
Manufacturer	Component	Control point	Temperature
Bosch	CRI		40 °C


















Serial number	Injector A	Injector B	Injector C	Injector D	Injector E	Injector F
	AARVC1WAF5	SB5CC1YA18	SARVC1VAT5			
Date of manuf.						

	2000		40.0		160.0		125		700		10.0		20		----
	250		1.0		5.0		----		2000		5.0		10		----
	= 1998		= 40.8		= 159.7						= 10.0		= 19.3		= 37

p /	kPa	ISA /	ISA /	ISA /
	1000			
		/A=	/B=	/C=

14 Conditioning
Pressure step for VL point



















Flow meas.

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
	1000		40.0		130.0		----		500		10.0		20		----
	250		1.0		1.0				400		5.0		10		150
=	999	=	40.3	=	130.0					=	10.1	=	19.3	=	150

15 Warm up
Warm up Testbench


















Flow meas.

°C
= 40

n	/min		°C	p	MPa	U	V		μs	p	kPa	p	kPa		s
	1000		40.0		130.0		----		500		10.0		20		----
	250		1.0		1.0				400		5.0		10		----
=	999	=	40.3	=	130.0					=	9.9	=	19.3	=	0


















16 Conditioning
Conditioning for VL point

Flow meas.

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
	1000		40.0		160.0		----		540		10.0		20		----
	250		1.0		1.0				400		5.0		10		400
=	999	=	40.1	=	160.1					=	10.0	=	20.2	=	400

17 VL
Measure point VL

Flow meas.

n	/min		°C	p	MPa	U	V	t	μs	p	kPa	p	kPa		s
	1000		40.0		160.0		----		540		10.0		20		----
	250		1.0		1.0				400		5.0		10		----
=	1000	=	40.4	=	160.1					=	10.0	=	19.3	=	99



Type number	Type designation	Revision date	Compensation
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Manufacturer	Component	Control point	Temperature
Bosch	CRI		40 °C

Serial number	Injector A	Injector B	Injector C	Injector D	Injector E	Injector F
	AARVC1WAF5	SB5CC1YA18	SARVC1VAT5			
Date of manuf.						

p / kPa	Q / mm³/H	Q / mm³/H	Q / mm³/H
1000	→← 46.7	→← 46.7	→← 46.7
	↓↑ 5.5	↓↑ 5.5	↓↑ 5.5
	/A= 44.0	/B= 44.7	/C= 44.5
p / kPa	Q / mm³/H	Q / mm³/H	Q / mm³/H
1000	→← 11.5	→← 11.5	→← 11.5
	↓↑ 4.5	↓↑ 4.5	↓↑ 4.5
	/A= 10.8	/B= 10.5	/C= 10.8

18 Conditioning
Conditioning for VE point

Flow meas.

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→← 2000	→← 40.0	→← 120.0	→← ---	→← 165	10.0	20	→← ---
250	↓↑ 1.0	↓↑ 1.0		n/min 400	↓↑ 5.0	↓↑ 10	→← 300
= 1998	= 40.7	= 119.9			= 10.0	= 20.8	= 300

19 VE
Measure point VE

Flow meas.

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→← 2000	→← 40.0	→← 120.0	→← ---	→← 165	10.0	20	→← ---
250	↓↑ 1.0	↓↑ 1.0		n/min 400	↓↑ 5.0	↓↑ 10	→← ---
= 1998	= 40.5	= 120.1			= 9.9	= 20.3	= 50

p / kPa	Q / mm³/H	Q / mm³/H	Q / mm³/H
1000	→← 1.9	→← 1.9	→← 1.9
	↓↑ 1.5	↓↑ 1.5	↓↑ 1.5
	/A= 1.6	/B= 1.4	/C= 1.4

20 Conditioning
Conditioning for LL point

Flow meas.

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→← 1000	→← 40.0	→← 25.00	→← ---	→← 520	10.0	20	→← ---
250	↓↑ 1.0	↓↑ 1.0		n/min 400	↓↑ 5.0	↓↑ 10	→← 250
= 1000	= 40.2	= 25.1			= 10.0	= 20.0	= 250

21 LL
Measure point LL

Flow meas.



Type number	Type designation	Revision date	Compensation
0445115039	CRI 3-16	26.06.2013	X
Manufacturer	Component	Control point	Temperature
Bosch	CRI		40 °C

Serial number	Injector A	Injector B	Injector C	Injector D	Injector E	Injector F
	AARVC1WAF5	SB5CC1YA18	SARVC1VAT5			
Date of manuf.						

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→ ← 1000	→ ← 40.0	→ ← 25.00	→ ← ----	→ ← 520	→ ← 10.0	→ ← 20	→ ← ----
250	↓↑ 1.0	↓↑ 1.0		400	↓↑ 5.0	↓↑ 10	----
= 999	= 39.8	= 25.0			= 10.0	= 20.0	= 40

p kPa	\bar{Q} mm³/H	\bar{Q} mm³/H	\bar{Q} mm³/H
1000	→ ← 3.7	→ ← 3.7	→ ← 3.7
	↓↑ 2.7	↓↑ 2.7	↓↑ 2.7
	/A= 2.4	/B= 2.7	/C= 3.4

22 Conditioning
 Conditioning for EM point

Flow meas.

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→ ← 1000	→ ← 40.0	→ ← 80.00	→ ← ----	→ ← 460	→ ← 10.0	→ ← 20	→ ← ----
250	↓↑ 1.0	↓↑ 1.0		330	↓↑ 5.0	↓↑ 10	300
= 1000	= 40.1	= 80.0			= 10.0	= 20.0	= 300

23 EM
 Measure point EM

X IMA setting
A, C,

Flow meas.

n /min	°C	p MPa	U V	t μs	p kPa	p kPa	s
→ ← 1000	→ ← 40.0	→ ← 80.00	→ ← ----	→ ← 460	→ ← 10.0	→ ← 20	→ ← ----
250	↓↑ 1.0	↓↑ 1.0		330	↓↑ 5.0	↓↑ 10	----
= 1001	= 40.3	= 80.0			= 10.0	= 20.0	= 48

p kPa	\bar{Q} mm³/H	\bar{Q} mm³/H	\bar{Q} mm³/H
1000	→ ← 19.2	→ ← 19.2	→ ← 19.2
	↓↑ 4.3	↓↑ 4.3	↓↑ 4.3
	/A= 16.4	/B= 17.4	/C= 7.9