

DLLA148P2267 Injector Nozzle Technical File

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Content

1. DLLA148P	2267 Injector	Nozzle Introdu	iction	11	(7)511			3
1.1. DLL	A148P2267 I	niector Nozzle'	s Basic Informa	tion	800	80.00	39.00	3
	A1/QD2267 I	aiactor Nazzla'	Common Write	ton Bart Numbe)r			2
1.3. DLL	A148P2267 II	niector Nozzle's	s Application Inf	ormation for Ir	iectors	1. 19 M	1. 10 C	
1.4. DLL	148P2267 In	iector Nozzle's	Specifications a	and Dimensions	Parameters.	36.	34.	
1.6 DLL	1148P2267 In	jector Nozzle's	Quality Control Customized Ser	vice	10 A.S.			
1 7 DLL/	1148P2267 In	jector Nozzle's	Packing List	191. SH	31	30	30	Δ
			Warranty Instr					
	Δ148P2267 H	njector Nozzle's	s Manufacturer.	uctions	10	A.S.		5
2 DI I A 148P	2267 Injector	Nozzle's Techn	ical Support				. 994	- 443 5
			s Installation Pre					
2.1. DLL	A14012207 m	njector Nozzle .	Inspection.	cautions	19 _3.30°		AN COMPANY	
2.2. DLL	A14012207au	njector Nozzle i	Test Measurem					0 6
			Installation					
	A140F2207 A140F2267	njector Nozzle :	Testing After Ma	intenance	an a	an a	in an	···· 0
		-	List of Tools Use					
			Causes of Dama					
	A140P2207 II		Technical Supp	ge	Aotheade	A. S. C.	an a	o
3. DLLA148P	2267 Injector	Nozzie s Purch	ase and Deliver	y		5		9 5 0
3.1. DLL	A I 48P / / h / II	niector Nozzie s	s Purchase Payl	nent methods				9
	A140D2207	ionton Norslo'	Main Calas Ma	1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 -		- C. C. C.		•
3.2. DLL	2267 Injector A148P2267 II A148P2267 II	njector Nozzle's	s Main Sales Ma	rket		34	- 1999	9
3.3. DLL	A148P2267 II	niector Nozzle's	S Declaration R	eauirements				9
3.3. DLL	A148P2267 II	niector Nozzle's	S Declaration R	eauirements				9
3.3. DLL 3.4. DLL 3.5. DLL	A148P2267 II A148P2267 II A148P2267 II	njector Nozzle's njector Nozzle's njector Nozzle's	S Declaration Re S Shipping Ways S Lead Time	equirements	al and		and a	9 9 9
3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL	A148P2267 II A148P2267 II A148P2267 II A148P2267 II	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's	S Declaration Re S Shipping Ways S Lead Time S Logistics Time	equirements for Destinatio	n Out of Chin	na's Area	s	9 9 9 9
3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL	A148P2267 II A148P2267 II A148P2267 II A148P2267 II	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's	S Declaration Re S Shipping Ways S Lead Time S Logistics Time	equirements for Destinatio	n Out of Chin	na's Area	s	9 9 9 9
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing S Standard	equirements e for Destinatio	n Out of Chin	na's Area	s	9 9 9 10 11
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing S Standard	equirements e for Destinatio	n Out of Chin	na's Area	s	9 9 9 10 11
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Comp 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing S Standard	equirements for Destinatio	n Out of Chi	na's Area	s	9 9 9 10 11 12 12
 3.3. DLL. 3.4. DLL. 3.5. DLL. 3.6. DLL. 3.7. DLL. 4. DLLA148P2 5.Company Inf 5.1. Comp 5.2. Sales 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways S Lead Time S Logistics Time	equirements for Destinatio	n Out of Chi	na's Area	s	9 9 9 10 11 12 12
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Comp 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing S Standard	equirements for Destinatio	n Out of Chi	na's Area	s	9 9 9 10 11 12 12
 3.3. DLL. 3.4. DLL. 3.5. DLL. 3.6. DLL. 3.7. DLL. 4. DLLA148P2 5.Company Inf 5.1. Comp 5.2. Sales 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing S Standard	equirements for Destinatio	n Out of Chi	na's Area	s	9 9 9 10 11 12 12
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Compose 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chi	na's Area	s	9 9 9 10 11 12 12 12 13
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Compose 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chi	na's Area	s	9 9 9 10 11 12 12 12 13
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Compose 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chi	na's Area	s	9 9 9 10 11 12 12 12 13
 3.3. DLL. 3.4. DLL. 3.5. DLL. 3.6. DLL. 3.7. DLL. 4. DLLA148P2 5.Company Inf 5.1. Comp 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduce -men's Contact tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Ro S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area	S	9 9 9 10 11 12 12 12 13
 3.3. DLL. 3.4. DLL. 3.5. DLL. 3.6. DLL. 3.7. DLL. 4. DLLA148P2 5.Company Inf 5.1. Comp 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduce -men's Contact tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Ro S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area	S	9 9 9 10 11 12 12 12 13
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3.3. DLL 3.4. DLL 3.5. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12 13
3.3. DLL 3.4. DLL 3.5. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12 13
3.3. DLL 3.4. DLL 3.5. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12 13
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Ro S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Ro S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12
 3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S 	A148P2267 II A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduc -men's Contac tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Ro S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12
3.3. DLL 3.4. DLL 3.5. DLL 3.6. DLL 3.7. DLL 4. DLLA148P2 5.Company Inf 5.1. Com 5.2. Sales 6. Copyright S	A148P2267 II A148P2267 II A148P2267 II A148P2267 II 2267 Injector Formation pany Introduce -men's Contace tatement	njector Nozzle's njector Nozzle's njector Nozzle's njector Nozzle's Nozzle's Storag	S Declaration Re S Shipping Ways Lead Time Logistics Time Packing e Standard	equirements	n Out of Chin	na's Area		9 9 9 10 11 12 12 12 12 13

SHUMFITT Shenzhen Shumatt Technology Co., Ltd **DLLA148P2267 Injector Nozzle Technical File**

REPARTS

1. DLLA148P2267 Injector Nozzle Introduction

TitleCommon Rail Injector Nozzle DLLA148P2267 China made newBrandSku1G1X9LA148P2267XINGMASku2G1HX16A148P2267ShumattSku2G1HX16A148P2267China made	1.1. DLLA148P220	7 Injector Nozzle's Basic Information	SV. SV.	-90
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China made	Sku1	G1X9LA148P2267	XINGMA	
China made	sin Sku2 si	G1HX16A148P2267	Shumatt	ŝ
Sku3 G1K6LA148P2267 neutral	Sku3	G1K6LA148P2267	China made neutral	с
Sku4 G1Z17LA148P2267 LIWEI	Shiri Shiri Shu4	G1Z17LA148P2267	LIWEI	-98 -

1.2. DLLA148P2267 Injector Nozzle's Common Written Part Number

In	jector No	zzle Ord	er Numb	er		In	jector	Nozzl	e Engrav	/ed Nu	mber	. ¹ 780
370		37	- 19 ²⁰		32,000	100		61 C	- 31	- 37		 1 - St.
		0.	4331722	267					DLLA14	48P226	67	
		15	1	100	1	1	1		ð	- C	-	 15

1.3. DLLA148P2267 Injector Nozzle's Application Information for Injectors (1) DLLA148P2267 Injector Nozzle's Application for Injectors Part Number

Injector Part Number	Series	System Pressure	Re-manufactured Part Number	System Pressure	ALEANT' SH
0 445 120 296	CRIN2-16-BL	1600	1700 1700 1700	The Tree	
(2) DLLA14	48P2267 Injector No	ozzle's Car Model Ma	atching Information	State State 2	shi ^{on} shi

Injector Part Number	Car Number	OE Number	OE Number	OE Number
0 445 120 296	-90	-94 - 594	221	301 301

(3) DLLA148P2267 Injector Nozzle Part Number Common Writing P. Pellow 1990 -0433172267 , DILA148P2267 , 0 433 172 267 , DLLA 148 P 2267 , 0433 172 267 , DLLA148 P 2267 , 0433172 267, DLLA148P 2267, 0 433 172267, DLLA148 P2267, 0 433172267, DLLA 148P2267, 0 SHERRIN SHRIPPITT SHUMMERT 433172 267,DLLA 148P 2267

-Star

1.4. DLLA148P2267 Injector Nozzle's Specifications and Dimensions Parameters

Injector Nozzle Size: 6 cm*1.5cm *1.5 cm

Injector Nozzle Barrel Dimensions: 7 cm *2 cm *2 cm

Single Injector Nozzle Weight: 0.03kg

all^{er} Injector Nozzle 10 PCS Per Box: 10 cm *8 cm *4cm

Injector Nozzle Weight 10 PCS Per Box : 0.3kg

Injector Nozzle Quality: China Made New Injector Nozzle Injector Nozzle MOQ: 10 PCS

1.5. DLLA148P2267 Injector Nozzle Quality Control

(1) Injector Nozzle Testing

All parts of the injector nozzle are subjected to precision testing, high temperature testing, low temperature testing, withstand pressure testing, leakage testing, durability testing, and various working conditions testing.

(2) Injector Nozzle Inspection

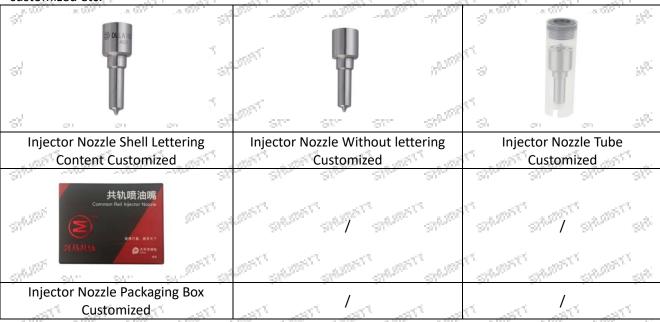
The factory inspection of the injector nozzle is undergone full inspection, random inspection, and batch inspection three inspections. Different brands of test benches are used to test the same injector nozzle for a total of no less than three times for factory inspection, and the fuel injector installation testing environment are progressed in dust-free workshop.

(3) Injector Nozzle Installation

When matching the valve cap and valve steam, Shumatt strictly complies with the standard of valve cap and valve stem clearance technical indicators to ensure that each valve assembly meets the factory standards and use standards.

1.6. DLLA148P2267 Injector Nozzle's Customized Service

(1) Injector Nozzle's Customized Service: Meet the customized needs of OEM manufacturers for shell lettering (logo, nozzle part number, date and series number), nozzle without lettering, nozzle tube, nozzle box customized etc.



(2) Injector Nozzle's Customized Service Quantity Requirements:

The purchased of Customized injector nozzle's shell lettering or without lettering are no less than 100 pieces. The purchased of Customized injector nozzle tubes are no less than 2000-3000 pieces.

The purchased of customized injector nozzle boxes are no less than 1000 pieces.

Customized products involve the need of specify logo, the OEM manufacturer needs to provide trademark authorization and the sample of logo image file.

A Once the customized injector nozzle is sold, it can't be returned or exchanged if there is no quality problems.

1.7. DLLA148P2267 Injector Nozzle's Packing List (1) Injector Nozzle's Spare Parts List



Mob/Whatsapp: +86 13410541523 Email : <u>ruby@shumatt.com</u> © 2022 Shenzhen Shumatt Technology Co., Ltd Tel: +8675523215133 Website : www.shumatt.com

SHUMFITT Shenzhen Shumatt Technology Co., Ltd

Name	Injector Nozzle Assy	Nozzle Tube	Injector Nozzle Box
Description	Injector Nozzle Part Number DLLA148P2267	Prevent Nozzle Rusting and Damaging from Collision	10 PCS/Box

Minors are prohibited to use fuel injector nozzle assembly, nozzle packing box to avoid injury. and i

▲ Injector nozzle box is recyclable and can be reused.

18 an¹⁵ ▲ Injector nozzle barrels is non-degradable material, please dispose of it properly after use. at C

1.8. DLLA148P2267 Injector Nozzle's Warranty Instructions

(1) . Injector Nozzle's Warranty Conditions and Instructions

19.2⁹⁹ It is necessary to provide pictures, videos, or test reports detected by the injector nozzle inspection equipment when the injector nozzle is abnormal during use as evidence to feed back to the salesman.

Abnormal conditions are properly explained such as: 1.Smoke, 2. Engine shake, 3. Difficulty starting the engine, 4. Engine noise, 5. oil leakage etc.

(2) . Injector Nozzle Warranty Coverage

1000 15 18 C ad Sta - 18 m al Car where within 15 days after customer receives the DLLA148P2267 injector nozzle if there is a performance failure and the product has no appearance damage, customer can choose to replace it or repair it;

26 B - - -

If the DLLA148P2267 injector nozzle has performance problems during the warranty period (6-12 months), and it is confirmed that it is product's problems after testing, you can contact our salesmen to replace the same model or a reworked product with the same performance for free;

If the injector house has obvious scratches, it can only be repaired and it will be returned as it is if the product is confirmed to be fault-free.

(3) . Injector Nozzle Out of Warranty Coverage

The warranty period has expired.

Injector nozzle failure caused by high temperature, high pressure, humidity, rain and snow, saline-alkali land, earthquake, and used in abnormal environment.

Injector nozzle damage caused by man-made reasons (throwing, strong magnetic field magnetization, set fire).

Injector nozzle failure or injector damage caused by non-injector design, technology, manufacturing, quality and other issues.

Injector nozzle failure due to system pressure exceeding system approved pressure.

Injector nozzle failure caused by system voltage exceeding approved voltage.

Injector nozzle failure caused by impurities (water, lead, aluminum powder, iron powder, sulfide) in the system fuel exceeding the standard requirements.

Injector nozzle failure caused by not installing according to the tightening torque specified in the vehicle 37.573 engine maintenance manual (the tightening torque is too large or too small).

Injector nozzle failure caused by not following the installation angle specified in the injector maintenance manual. No. the the 18 E.

Injector nozzle failure caused by not following the cleaning requirements specified in the injector maintenance maintenance manual.

Injector nozzle failure caused by failure to replace consumable parts as specified in the injector Star Bar $\mathcal{C}^{[n]}$ $S^{2,3}$ $\mathcal{C}^{(0)}$ maintenance manual. -28

1.9. DLLA148P2267 Injector Nozzle's Manufacturer

Injector nozzle's manufacturer: Shenzhen Shumatt Technology Co., Ltd

2. DLLA148P2267 Injector Nozzle's Technical Support

2.1. DLLA148P2267 Injector Nozzle's Installation Precautions

- Clean the injector nozzle in an ultrasonic cleaner for 3-5 minutes before installation, so as to make (1)the stains, dust, rust-proof oil oxides, paraffin base, naphthenic base, intermediate base, salt, lead SPANEST naphthenate, zinc naphthenate, sodium petroleum sulfonate, barium petroleum sulfonate, calcium petroleum sulfonate, tallow diamine trioleate, rosinamine on the surface of the injector nozzle fall off. 10 s
- (2)Use compressed air to clean the cleaning fluid attached to the surface of the injector nozzle after

cleaning, and clean it up to the standard of use.

2.2. DLLA148P2267 Injector Nozzle Inspection.

1997 N (1) Check whether there is deformation, cracking, thread damage, quenching, leakage and rust in the guide sleeve, spring, gasket and tight cap of the nozzle. The tight cap of the nozzle must be replaced after being disassembled for more than 5 times, as shown in the following.



(2) Replace the tight cap of the nozzle and the copper gasket of the injector nozzle

(3) Check whether the gap between the nozzle needle and the nozzle shell is within the standard range and whether it reaches the standard for use

- All parts should be examined for wear under a microscope at least 20 times larger
- ▲ Nozzle tight cap deformation, cracking, thread damage, quenching, leakage, will lead to black smoke vehicle cap, fuel injector damage.
- Injector opening pressure greater than or less than the specified range may cause injector damage. A
- Failure to replace wearing parts in time during maintenance may lead to fuel injector damage. A

2.3. DLLA148P2267 Injector Nozzle Test Measurement

(1) Nozzle opening pressure test

Test whether the opening pressure range of the nozzle is within the range specified in the injector maintenance manual (to be verified), if not within the normal range, adjust the nozzle spring to adjust the 3.9⁵¹ gasket

- If the value is greater than normal, reduce the oil nozzle spring adjusting gasket; if the value is less than normal, increase the oil nozzle spring adjusting gasket.
- (2) Stroke Measurement of Nozzle Needle Valve

Use a measuring tool to measure whether the stroke of the nozzle needle valve is within the range (15-45um) specified in the injector maintenance manual. If not, adjust the stroke of the nozzle to adjust the gasket.



If the value is greater than normal, thicken the gasket for oil-nozzle needle valve lift adjustment; if the value is less than normal, reduce the gasket for oil-nozzle needle valve lift adjustment

2.4. DLLA148P2267 Injector Nozzle's Installation

1778

(1) Tightening torque of injector nozzle

The torque lever and tightening moment specified in the injector maintenance manual must be installed when the injector nozzle is installed. (50Nm)



The tightening torque of the nozzle cap must be installed in accordance with the tightening torque specified in the injector maintenance manual

2.5. DLLA148P2267 Injector Nozzle Testing After Maintenance

(1) After installation, it needs to be tested on the test bench.



The correct injector type should be selected for testing

 $(2)\,$. The test results need to be ensured that the following items are within the standard data range of the test stand.

LEAK TEST: Test whether sealing test is up to standard or not

In this step, no injector collector should be installed at the nozzle during the test so as to observe whether the nozzle is dripping oil, meanwhile observe that all joints are no oil leaking.

The static oil return of the test should not exceed 8mm2/H, otherwise, you need to check whether the high-pressure sealing ring, valve assembly, and stroke parameters of the injector are within the standard range.

VL: Test whether full load oil (main injection, high speed) is up to standard or not

This step needs to be combined with vehicle driving conditions, such as power, fuel consumption and smoke as well as the maintenance of the engine, if there is situation of insufficient power, fuel consumption is high, thick black smoke and irregularly maintenance of the engine, the engine needs to be maintained according to the maintenance handbook at very first time. Each of injector part needs to be adjusted and checked if there is any damage according to above situations to ensure the injector is normal. After make sure the injector works normal, you need to reduce the armature stroke if too much oil injection, and increase the armature stroke if too little oil injection. The error of each injector should be controlled in 6mm3/HH when adjusting.

TL\EM: Test whether the torque point, emission point, exhaust limit, fuel supply reach standard or not Through this test, it is detected that when the oil injection is too little, the engine's acceleration is slow, vice versa, when the oil injection is too much, the engine's acceleration will produce black smoke and the engine excessive exhaust emissions.

Injector nozzle spring force gasket, armature stroke, lift gasket and solenoid valve spring force gasket determine whether exhaust restriction and injector fuel supply reach standard structure str

LL: Test if the idle fuel supply reaches the standard

- mThis test detects oil injection is too much will cause engine idle smoke, otherwise if the oil injection too

little will cause engine idling easy to stall, or difficult to start.

The uneven of oil injection causes the unstable rotation speed of engine, making noise, and increase the engine swing in the acceleration process.

Each injector error should be controlled within 2mm3/HH when adjusting.

Idle speed fuel supply quantity mainly by adjusting the nozzle spring force gasket

VE: Test whether the pre-injection meets the standard

This test detects when oil injection is too much will cause cylinder knocking while the engi and the exhaust emissions is not up to standard (smoke). while when oil injection is too little will cause big noise while the engine is working, the engine is difficult to start, the engine weak acceleration, slow response of injector.

Each injector error should be controlled within 0.5mm3/HH when adjusting

2.6. DLLA148P2267 Injector Nozzle List of Tools Used During Measurement and Installation

Mage St	shun et stratter i		
SKU	CRT084	CRT220	CRT079
Structure of the state of the s	Torque wrench: 19-110nm 1/2 It is used to control tightening force and angle during installation	Fuel injector stroke measuring tool: is used to measure buffer stroke of fuel injector, armature stroke and remaining air gap	Micrometer: is used to measure gasket thickness
SHUDDATT SH Image			NATORI SHATORI SHATORI SH
SKU		CRT281	
Description	Ultrasonic cleaning machine: is used for cleaning fuel injector and parts	Common rail injector test bench: check the injector working condition	

2.7. DLLA148P2267 Injector Nozzle Causes of Damage

(1) Fuel injector nozzle failure caused by impurities (water, lead, aluminum powder, iron powder, sulfide) - 3¹³ in fuel exceeding standard requirements. - Aller

(2) The nozzle is normally worn due to long time working under high temperature

(3) Nozzle needle wear leads to oil hole blockage, insufficient fuel injection injector cannot work properly.

Mozzle needle wear leads to oil hole blockage, insufficient fuel injection injector can't work properly.

The wear of the nozzle leads to the increase of fuel quantity, resulting in black smoke of the vehicle, and the fuel injector can't work properly when it is serious. $S_{\rm eff}$

If the nozzle needle can't move smoothly stuck may cause serious damage to the injector nozzle

The rusting of the nozzle spring leads to spring fracture and black smoke from the vehicle. A

A The opening pressure of the nozzle decreases, and the oil quantity of the injector increases, leading to black smoke of the vehicle, and the injector can't work properly when it is serious.

A Oil-nozzle needle valve lift adjustment gasket wear oil-nozzle needle valve stroke becomes larger, the fuel injector oil quantity becomes larger, resulting in black smoke of vehicles, resulting in the fuel injector can't work properly when serious.

The cracking of the nozzle cap is caused by high intensity work under high temperature.

1.575 16⁹⁶⁶ 2.8. DLLA148P2267 Injector Nozzle Technical Support Obtaining Methods

(1) Injector Nozzle Technical File, visit http://shumatt.com to get the technical file (2) Injector Technical Videos - Allon

Facebook: Visit <u>https://www.facebook.com/hison.li</u> constantly follow can get more information. YouTube: Visit https://www.youtube.com/channel/UCByvYBx7ViV mAfxh Hu-aw to get the technical videos, and can learn more information if you follow. $\mathcal{A}^{(n)}$ air. **Shumatt:** Visit <u>http://shumatt.com</u> to get the technical videos.

(3) Injector Nozzle Information Query Software

178 B.C. UNITE T and the TruckBook Parts EPC APP, Android/Apple App Store download and install, visit http://shumatt.com to get the download and installation tutorial

(4) Search The injector nozzle test data through TruckBook Parts EPC APP.

3. DLLA148P2267 Injector Nozzle's Purchase and Delivery.

3.1. DLLA148P2267 Injector Nozzle's Purchase Payment Methods Payment Methods: T/T, PayPal, Alipay, WeChat Please contact our salesmen for specific payment information.

3.2. DLLA148P2267 Injector Nozzle's Main Sales Market. Injector Nozzle's main sales markets: Asia, Europe, North America, South America, Africa etc.

3.3. DLLA148P2267 Injector Nozzle's Declaration Requirements

1⁷⁷193 179 Shumatt can assist customers to provide the following documents for import customs clearance: contract, invoice, packing list, bill of lading, insurance policy, certificate of origin, etc. AURIST 12.275-17

3.4. DLLA148P2267 Injector Nozzle's Shipping Ways

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Destination in China areas: SF Express, Debon Express, the corresponding logistics company can be provided according to customer requirements in special cases.

Destinations out of China' s areas: DHL, UPS, FedEx, TNT air, ocean or other shipping methods required 10000 by customers.

3.5. DLLA148P2267 Injector Nozzle's Lead Time

Lead time: Send out within 3 – 7 working days after receiving payment (Except for special products and special cases).

55 3.6. DLLA148P2267 Injector Nozzle's Logistics Time for Destination Out of China's Areas **DHL Logistics Time:**

	tries
China's Mainland 7 Days 7 Days 8 Days 8 Days 8-12 Days 7-10	Days

UPS Logistics Time: Country or Region of Departure: China's Mainland

Country of Destination	Estimated Arrival Time	Country of Destination	Estimated Arrival Time	Country of Destination	Estimated Arrival Time
Japan	3 Days	UK	5-7 Days	Egypt	5-7 Days
Turkey	5-7 Days	Singapore	3 Days	Switzerland	5-7 Days
Bahrain	5-7 Days	Latvia	7-10 Days	New Zealand	7-10 Days

SHUMA	She	enzhen Shumatt	Technolog	gy Co., Ltd	
Sri Lanka	5-7 Days	Thailand	3 Days	Austria	5-7 Days
Romania	5-7 Days	Vietnam	3-5 Days	Estonia	5-7 Days
Malaysia	3-5 Days	Israe	5-7 Days	Mexico	7-10 Days
France	5-7 Days	America	5-7 Days	United Arab Emirates	5-7 Days
Staly Italy	5-7 Days	Netherlands	5-7 Days	Bengal State	7-10 Days
Lebanon	5-7 Days	Philippine	3-5 Days	Greece	7-10 Days
South Korea	3 Days	Spain	5-7 Days	Myanmar	5-7 Days
Canada	5-7 Days	Germany	5-7 Days	Saudi Arabia	7-10 Days
Portugal	5-7 Days	Australia	5-7 Days	South Africa	7-10 Days
Denmark	5-7 Days	Belgium	5-7 Days	Ukraine	7-10 Days
India	7-10 Days	Qatar	7-10 Days	Poland	5-7 Days
Indonesia	3-5 Days	Morocco	7-10 Days	Pakistan	7-10 Days
Kuwait	7-10 Days	The The The	and and	a the they a	all with

The logistics time is for reference only, subjects are according to the actual arrival.

3.7. DLLA148P2267 Injector Nozzle's Packing

Domestic express packaging: Usually wrapped in waterproof scotch tape, such as picture No.2. **International express packaging:** Wrapped with waterproof yellow tape After wrapping the black protective film, such as picture No. 3.

Pallet Shipping: Use fumigation free and recycling trays that meet export requirements, and use white wrapping protective film to wrap and bind with cable ties for the outside, such as picture No. 4,

Also, the products can be packaged according to customers' requirements.

A The packing tray is made of plastic and can be recycled.

Transparent tape, yellow tape, black wrapping protective film, white wrapping protective film are non-degradable materials, please dispose of them properly.

Minors are prohibited from using transparent tape, yellow tape, black wrapping protective film, and white wrapping protective film to avoid personal injury.



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Pallet Shipping: Use pallet that meet export requirements, and use white wrapping protective film to wrap and bind with cable ties

4. DLLA148P2267 Injector Nozzle's Storage Standard

(1) Choose a suitable storage place

The warehouse and cargo yard where the injector nozzles are stored should be kept clean and dry, and away from the factory buildings that generate harmful gases and dust; do not mix with acid, alkali, salt and other substances; the storage place should have a good drainage system; the cargo yard should be flattened with gravel or furnace ash etc. to enhance the water permeability of the surface layer to keep the reservoir area dry.

(2) Strict requirements of warehousing

Strict inspections should be carried out when the injector nozzles are put into storage, the surface cleaning work should be done well to remove water traces, oil stains, ash and other dirt, remove the rust and do anti-rust treatment in time. Packaged nozzles must be protected from damage.

(3) Keep the warehouse dry and preventing moisture

The relative humidity is usually below 70% for the injector nozzles placed in the room, and the corrosion of the injector nozzles is significantly reduced.

Injector nozzles must be stored in the warehouse, and they are forbidden to store in the same warehouse with commodities with high water content.

(4) Stack Properly

After the injector nozzle is exposed to rain, the corrosion rate will increase significantly. The purpose of sealing is to isolate the injector from rainwater and humid air, so the warehouse window should be checked in time to avoid rainwater entering the warehouse

If the injector nozzle package is damaged, it should be repaired or replaced; when the package is damp, the packaging material should be dried; if the original anti-corrosion and oil applied at the factory is found to be damaged or dried up, it should be cleaned and re-applied oil in time.

It is forbidden to leave the injector nozzle exposed in the air for a long time.

It is forbidden to store acid, alkali, salt and other substances together with the injector nozzle.
 The unpacked diesel injector nozzle must be rust-proof during secondary storage.

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SHUMATT



Mob Phone/WeChat: +86-13410541523

HK Telephone: +852-67653519

Telephone: +86-755-23215133

Email: ruby@shumatt.com

Website: www.shumatt.net

52.20 Shenzhen Office: 11-12, Floor 14, Building 13, Qinchengda Building, Exit A, Honglang North Subway Station, 199⁵ and. Bao'an District, Shenzhen, China's Mainland all^a at Ch

Shenzhen Office: Room 428-430, Building B, Huafeng Zhigu Technology Industrial Park, Exit B, Fuyong Metro Station, Bao'an District, Shenzhen, China's Mainland

Hong Kong Office: Jianfa Street Industrial Zone, Tuen Mun, New Territories, Hong Kong, China After-sales Service Address: Please contact our salesmen to obtain and provide the corresponding product maintenance reasons (Reference: <u>1.8. DLLA148P2267 Injector Warranty Instructions</u>)

No.	Name	WeChat/ WhatsApp	Email	Facebook	YouTube
1	Ruby	+86-13410541523	ruby@shumatt.com	Hison Li	Hison Li
2	lvy	+86-18025309821	sales@shumatt.com	Ivy Shumatt	Shumatt IVY
3	Rebecca	+86-18025349821	sales01@shumatt.com	Rebecca SHUMATT	SHUMATT Rebecca
4	Janny	+86-18028749821	sales02@shumatt.com	Janny shumatt	Janny Shumatt
5	Sam	+86-13316859821	Sales8@shumatt.com	Shumatt Sam	Sam Shumatt
6	Natalie	+86- 18938945856	sales15@shumatt.com	Shumatt Natalie	Lin Natalie
7	Ada	+86-1342286353	sales5@shumatt.com	Shumatt Ada	Ada Shumatt
80.000	Hison Li	+86-18318811871	web@shumatt.com	Hison Li	Hison Li
9	Mecca	+86-18938948618	sales11@shumatt.com	Shumatt Mecca	Shumatt Mecca
10	Eric	+86 18319033618	sales3@shumatt.com		
11 , 198	Wayne (Joaquín en español)	+86-13316959821	wayne@shumatt.com	shumattwayne	Wayne Shumatt
12	Sylvia	+86 18312499884	sales6@shumatt.com		

Mob/Whatsapp: +86 13410541523 Email : ruby@shumatt.com © 2022 Shenzhen Shumatt Technology Co., Ltd

Tel: +8675523215133 Website : www.shumatt.com

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