

**DIESEL.**

**593597C91R Diesel Injection Technical Data**

**SKU: Z1K3593597C91R**

# COMMON RAIL

**DIESEL**

# INJECTOR

**G2 G3 G4 X1 X2 | E1 E3 | M11 N14 XPI**

**0445110 0445120 | 320D C7 C9 C-9**

**DIESEL  
INJECTIONS**



**TECHNICAL  
DOCUMENTATION**

**DIESEL  
INJECTOR**

## 593597C91R Diesel Injection Technical Data

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**593597C91R Diesel Injection Technical Data****1. 593597C91R Diesel Injection Introduction****1.1. 593597C91R Diesel Injection Basic Information**

Title	593597C91R Diesel Injection MTU Series China Made New
SKU	Z1K3593597C91R

**1.2. 593597C91R Diesel Injection Common Part Number****1) 593597C91R Diesel Injection Exchange Information**

Diesel Injection Part Number	Re-manufactured Part Number	Replacement Number	OE Number
593597C91R	1830692C91	2593597C91	1830691C1

**2) 593597C91R Diesel Injection Matching Information**

Car Model	Engine Model	Engine Model	Engine Model	Engine Model	Engine Model	Engine Model	Engine Model
FORD	1306	1300	/	/	/	/	/
Truck	MTU	Navistar	/	/	/	/	/

**1.3. 593597C91R Diesel Injection Part Number Common Writing**

593597C91R, 178-0199, 198-6605, 126-6601

**1.4. 593597C91R Diesel Injection Parameter**

Diesel Injection Adaptation System: [Common Rail System](#)

Diesel Injection Series: [MTU Series](#)

Diesel Injection Type: [Electromagnetic Diesel Injection](#)

Vehicle Configuration Information: [MTU Engines](#)

Diesel Injection Size: [34cm\\* 13cm \\*13cm](#)

Diesel Injection Net Weight: [1.37kg](#)

Diesel Injection Gross Weight: [1.4kg](#)

Diesel Injection Quality: [China Made New](#)

Diesel Injection Package Size: [35 cm\\* 15cm \\*15 cm](#)

Diesel Injection Type: [Common Rail Diesel Injection](#)

Diesel Injection MOQ: [4 Pieces](#)

**1.5. 593597C91R Diesel Injection Quality Control****1) Diesel Injection Testing**

All diesel Injections are tested for electrical characteristics, accuracy, high temperature, low temperature, withstand voltage, leakage, durability, and various working conditions.

**2) Diesel Injection Assembling**



For quality control during the production and installation process of diesel Injections, our company strictly follows the standard product installation data and product installation steps for installation and testing, such as injector stroke test, injector solenoid valve tightening torque test, injector nozzle tightening torque test, etc.

### 3) Diesel Injection Inspection

The factory inspection of the diesel Injection is undergone full inspection, random inspection, and batch inspection three inspections. Different brands of test benches are used to test the same diesel injection for a total of more than three times for factory inspection, and the diesel injection installation testing environment are progressed in dust-free workshop.

#### 1.6. 593597C91R Diesel Injection Customized Service

- 1) **Diesel Injection Customized Service Coverage:** Meet the customized needs of OEM manufacturers for shell lettering, logo engraving, diesel injection internal packaging, diesel injection external packaging and labels customized, etc.

No.	1	2
Image		
Name	Diesel Injection Nozzle Engraving	Diesel Injection Box And Label

#### 2) Diesel Injection Customized Service Requirements:

The purchase of [customized diesel injections](#) are not less than **10 pieces**.







The purchase of [customized diesel injection packages](#) are no less than **1000 pieces**.

When the customized products involve the need of specify logo, the OEM manufacturer is asked to provide trademark authorization and the sample of logo image file.

**⚠ Once the customized diesel injection is sold, it cannot be returned or exchanged if there is no quality problems.**

#### 1.7. 593597C91R Diesel Injection Packing List and Package Size

##### 1) Diesel Injection Spare Parts List

No.	1	2	3
Image			
Name	Diesel Injection	VCI anti-rust bag	Nozzle Protective Cover
Description	Diesel Injection part number <a href="#">593597C91R</a>	Protect the oil nozzle hole from contamination and clogging	Used to ensure the tight fit between the nut end of the diesel injection and the engine
No.	4	5	
Image			
Name	Lining	Diesel Injection packing box	Oil absorbing paper

<b>Description</b>	Prevent the injector from being damaged by external forces	Package for diesel injection and diesel injection accessories	Prevent oil leakage
--------------------	------------------------------------------------------------	---------------------------------------------------------------	---------------------

⚠ Minors are forbidden to use the diesel injection assembly, O-ring, gasket, nozzle protective cover, diesel injection house protective cover, solenoid valve protective cover, VCI anti-rust bag, and air bubble bag to avoid personal injury.

⚠ O-ring and gasket are disposable installation accessories, and need to be replaced for re-installation.

⚠ The nozzle protective cover, the diesel injection house protective cover, and the solenoid valve protective cover are recyclable accessories that can be reused.

⚠ VCI anti-rust bags and bubble bags are non-degradable materials, please dispose of them properly after using.

⚠ The diesel injection and the installation parts should be coated with appropriate sealing oil during installation.

## 2) Diesel Injection Box Size



Pic No.1

No.	Name	Diesel Injection Package Size (cm)
1	Diesel Injection Box	22*13*13

### 1.8. 593597C91R Diesel Injection Testing Standard and Certificate

We can provide the factory quality inspection test report of each diesel injection to ensure that each diesel injection delivered meets the engine performance indicators.

BOTEN		测试报告		4.05.2019 10:42:09	
企业名称: _____					
电话: _____		地址: _____			
传真: _____		检测人: _____			
客户地址: _____		检测单位: _____			
电话: _____		客户姓名: _____			
传真: _____		检测日期: _____			
检测项目: _____					
检测名称: _____					
型号-零件号: _____					
检测地点: _____					
<b>检测结果</b>					
检测标准: C05002-0511					
	检测项目	检测结果	标准范围	检测结果	合格/不合格
ICAR TEST:	38	4	6.5	20.0±1.0	✓
Back:	38	4	15.0	20.0±1.0	✓
WARM:	38	127.0±10.0	0.0	-----	✗
Mod:	29.0	218.0±14.4	0.0	-----	✓
TL:	28.4	25.0±8.5	0.0	-----	✓
UL:	14.1	15.0±4.8	0.0	-----	✓
VE:	0.2	4.0±1.0	0.0	-----	✓
检测人: _____ 检测日期: _____					
检测地点: _____					

Pic No.2

## 1.9. 593597C91R Diesel Injection Warranty Instructions

### 1) Product Warranty Conditions and Instructions

It is necessary to provide pictures, videos, or test reports detected by the diesel injection inspection equipment as evidence to feed back to the salesman when the diesel injection is abnormal during using.

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) Diesel Injection Warranty Coverage

Within 15 days after customer receives the 593597C91R diesel injection, if there is a performance failure and the product has no appearance damage, customer can choose to replace it or repair it;

If the 593597C91R diesel injection 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 diesel injection 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.

**⚠ Tips:** For products not covered by warranty, our company can provide paid maintenance services. For products after paid repaired, the same performance problem will have a free warranty period within 3 months from the date of repairing.

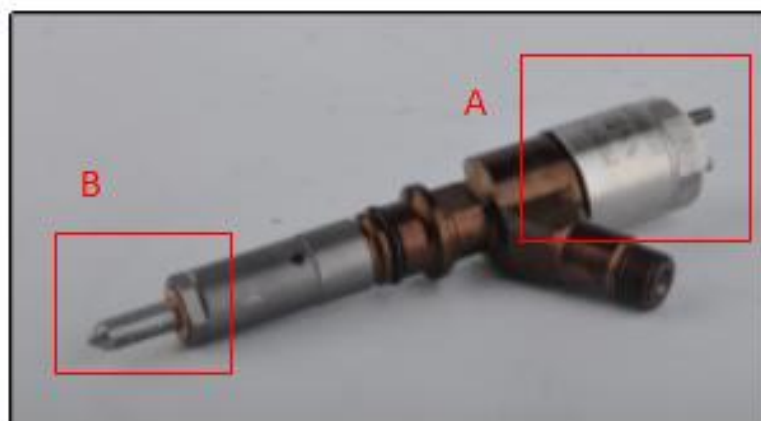
### 3) Diesel Injection Out of Warranty Coverage

- ① The warranty period has expired.
- ② Diesel injection failure caused by high temperature, high pressure, humidity, rain and snow, saline-alkali land, earthquake, and used in abnormal environment.
- ③ Customer disassembles or repairs the diesel injection personally resulting in damage to the diesel injection.
- ④ Diesel injection damage caused by man-made reasons (throwing, strong magnetic field magnetization, set fire).
- ⑤ Diesel injection failure or diesel injection damage caused by non-fuel injector design, technology, manufacturing, quality and other issues.
- ⑥ Diesel injection failure due to system pressure exceeding system approved pressure.
- ⑦ Diesel injection failure caused by system voltage exceeding approved voltage.
- ⑧ Diesel injection failure caused by impurities (water, lead, aluminum powder, iron powder, sulfide) in the system fuel exceeding the standard requirements.
- ⑨ Diesel injection failure caused by not installing according to the tightening torque specified in the vehicle engine maintenance manual (the tightening torque is too large or too small).
- ⑩ Diesel injection failure caused by not following the installation angle specified in the vehicle engine maintenance manual.
- 11 Diesel injection failure caused by not following the cleaning requirements specified in the vehicle engine maintenance manual.
- 12 Diesel injection failure caused by failure to replace consumable parts as specified in the vehicle engine maintenance manual.
- 13 Diesel injection failure caused by not complying with the intake system fit clearance and exhaust system fit clearance requirements specified in the vehicle engine maintenance manual.
- 14 Failure to replace the consumable parts and the fitting clearance of the oil inlet system pipeline and the diesel injection connection in accordance with the fuel intake system specified in the vehicle engine maintenance manual.

## 2. 593597C91R Diesel Injection Technical Support

### 2.1. 593597C91R Diesel Injection Part Number Location

1) E.g.: See the diesel injection part number as follows:



Pic No.3

No.	Name
-----	------

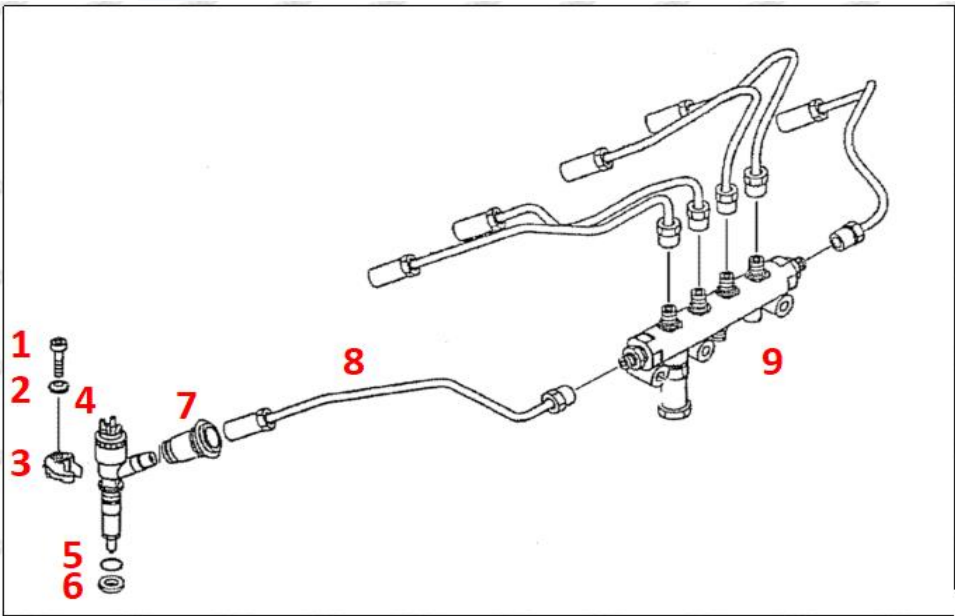
A	brand, logo, part number, series number
B	nozzle part number

2.2. 593597C91R Diesel Injection Application Scenarios



Pic No.4

Matching Car Model: **Caterpillar 320D excavator**



Pic No.5


No.	Name	No.	Name	No.	Name
1	Adaptor Fixing Bolt	2	Intake Gasket	3	Fuel Injection Adaptor
4	Diesel Injection	5	Diesel Injection O-ring	6	Diesel Injection Nozzle Gasket
7	Intake Gasket	8	Intake	9	High Pressure Common Rail Pipe

**2.3. 593597C91R Diesel Injection Installation Precautions**

- 1) The replacement of the diesel injection must strictly follow the electrical system, the approved pressure of the low-pressure fuel intake system, the approved pressure of the high-pressure fuel circuit system, and fuel system replacement consumables requirements (including the low-pressure fuel circuit system filter and the high-pressure fuel circuit) specified in the vehicle engine maintenance manual;
- 2) Replacement of wearing parts of the fuel system, cleaning requirements for the connection between the fuel system and the diesel injection, the fitting clearance of the diesel injection connection, the installation angle and tightening torque of the diesel injection, the fitting clearance of the intake system, and the fitting clearance of the exhaust system to ensure the service life of the engine and the normal operation of the diesel injection.
- 3) When installing the diesel injection on the engine, it is necessary to clean the engine block, cylinder head and other parts connected to the diesel injection, and ensure that there is no dust, carbon deposits, water, rust spots, etc.
- 4) Before installing, check whether the diesel injection nozzle gasket has been replaced and installed on the diesel injection.
- 5) When installing the diesel injection, apply lubricant between the diesel injection, fuel nozzle sealing gasket and O-ring.
- 6) Failure to replace the gasket with a new one may result in: deformation of the tight cap of nozzle, deformation of nozzle, deformation of nozzle orifice, oil leakage and air leakage, which will cause serious damage to the diesel injection and nozzle to break and cause damage to the engine.
- 7) When installing the diesel injection on the engine, please carefully check the components related to the installation of the diesel injection, such as the diesel injection pressure plate, screw, diesel injection rod and other accessories are not deformed, and install it in strict accordance with the operation steps of the engine maintenance manual.
- 8) It is forbidden to operate the bare diesel injection for a long time in an environment with serious dust pollution and corrosion to iron products.
- 9) It is forbidden to operate the bare diesel injection for a long time in a strong magnetic field environment.

**2.4. Reasons for 593597C91R Diesel Injection Not Working Normally**

- 1) There is air in the oil circuit of the engine fuel system.
- 2) Vehicle oil pump oil supply system is not normal.
- 3) Engine common rail system oil leakage or pressure limiting valve is damaged.
- 4) There is a short circuit, cutting out and poor contact in the wiring harness connected to the diesel injection of the vehicle.
- 5) The long-term placement of the diesel injection causes the anti-rust oil to solidify, and the internal components are stuck or the oil holes are blocked.

 **Before installing, carefully check whether other components in the common rail system except the diesel injections are damaged so as to prevent the diesel injection from not working properly after being replaced.**

**2.5. Causes of 593597C91R Diesel Injection Being Damaged**

- 1) Failure to operate correctly according to the engine maintenance manual during disassembly and assembly resulted in damage to the diesel injection.
- 2) The fuel used for the vehicle does not meet the standard, causing damage to the diesel injection, such as: the water content in the fuel oil exceeds the standard, iron powder, aluminum powder, sulfide impurities exceed the standard, etc.

- 3) The engine is not regularly maintained according to the engine maintenance manual (please refer to the vehicle maintenance manual for the maintenance mileage). For example, failure to replace the lubricating oil of the engine system for a long time will cause abnormal wear of the engine, excessive exhaust gas volume or a large amount of carbon deposits inside the engine. The filter is not replaced during maintenance or the replaced filter cannot reach the original filter standard. All above reasons can cause damage to the diesel injection.
- 4) The abrasion of the oil pump produces iron powder and aluminum powder enter the diesel injection and cause damage to the diesel injection.
- 5) The deformation and abrasion of fuel tank result in iron powder or aluminum powder entering the diesel injection and causing damage to the diesel injection.
- 6) The diesel injection is damaged due to replacement or adjustment of the relevant parts of the diesel injection. For example, the valve clearance does not meet the standard after the engine is repaired, the replacement or modification of the wiring harness connected to the diesel injection fails to meet the original standard.
- 7) The engine is overheated and overloaded for a long time working results in damage to the diesel injection.
- 8) The diesel injection will be damaged naturally at the end of its working life.
- 9) The diesel injection is magnetized (diesel injection parts' magnetic exceeded) causing the diesel injection to not work properly.

**⚠ Before replacing the diesel injection, please check the engine parts carefully according to the engine maintenance manual to avoid the diesel injection being damaged again after replacement.**

## 2.6. **593597C91R Diesel Injection Storage Standard**

### 1) **Choose a Suitable Storage Place**

The warehouse and cargo yard where the diesel injection is 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 diesel injections 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 diesel injections must be protected from damage.

### 3) **Keep the warehouse dry and preventing moisture**

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

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

If the diesel injection 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 diesel injection exposed in the air for a long time.
- ⚠ It is forbidden to store acid, alkali, salt and other substances together with the diesel injection.
- ⚠ The unpacked diesel injection must be rust-proof during secondary storage.

## 2.7. 593597C91R Diesel Injection Technical Support Obtaining Methods

- 1) Diesel Injection Technical Data: <https://www.dieselinjections.com/download/>
- 2) Diesel Injection Videos: <https://www.dieselinjections.com/videos/>
- 3) Diesel Injection Encyclopedia: <https://www.dieselinjections.com/category/news/encyclopedia/>
- 4) YouTube:

Visit [https://www.youtube.com/channel/UCByvYBx7VjV\\_mAfxh\\_Hu-aw](https://www.youtube.com/channel/UCByvYBx7VjV_mAfxh_Hu-aw) to get the technical videos, stay tuned for more information.

## 3. 593597C91R Diesel Injection Purchase and Delivery

### 3.1. 593597C91R Diesel Injection Purchase Payment Term

**Payment Terms:** T/T, PayPal, Alipay, WeChat

- ⚠ Please contact our salesmen for specific payment information.

### 3.2. 593597C91R Diesel Injection Main Sales Markets

Diesel Injection Main Sales Markets: Asia, Europe, North America, South America, Africa etc.

### 3.3. 593597C91R Diesel Injection Declaration Requirements

We 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.

### 3.4. 593597C91R Diesel Injection Shipping Ways

**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 by customers.

### 3.5. 593597C91R Diesel Injection Lead time

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

### 3.6. 593597C91R Diesel Injection Logistics Time for Destination Out of China's Areas

**DHL Logistics Time:**

Country or Region of Departure	Hong Kong, China	Other Countries or Regions of Asia	Australia and New Zealand	Europe	America	Other Countries
--------------------------------	------------------	------------------------------------	---------------------------	--------	---------	-----------------

China's Mainland	7 Days	7 Days	8 Days	8 Days	8-12 Days	7-10 Days
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**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	5-7Days	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
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	Israel	5-7 Days	Mexico	7-10 Days
France	5-7 Days	America	5-7 Days	United Arab Emirates	5-7 Days
Italy	5-7 Days	Netherlands	5-7 Days	Bengal	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 logistics time is for reference only and is subject to the actual arrival.

**3.7. 593597C91R Diesel Injection Packing**

**Domestic Express Packaging:** Usually wrapped in waterproof scotch tape.

**International Express Packaging:** Wrapped with waterproof yellow tape after wrapping the black protective film.




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

**⚠** 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.

No.	1	2	3
-----	---	---	---

Image			
Name	Domestic Express Packaging	International Express Packaging	Pallet Shipping
Description	Wrapped by transparent tape	Wrapped with yellow tape after wrapping black protective film	Use pallet that meet export requirements, and use white wrapping protective film to wrap and bind with cable ties


4. Company Information





Pic No. 6


4.1. Company Introduction

 **Mob Phone/WeChat:** +86-13410541523

 **HK Telephone:** +852-67653519

 **Telephone:** +86-755-23215133

 **Shenzhen Office:** 11-12, Floor 14, Building 13, Qinchengda Building, Exit A, Honglang North Subway Station, Bao'an District, Shenzhen, China's Mainland

 **Shenzhen Office:** Exit C, Qiao Touxu Metro Station, NO. 66 Chongqing Road, Fuhai Avenue, Bao'an District,

Shenzhen, China 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: [1.9. 593597C91R Diesel Injection Warranty Instructions](#))

#### 4.2. Contact Information

Name	WeChat/ WhatsApp
Ruby	+86-13410541523

#### 5. Copyright Statement

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