

FUEL PUMP PLUNGER



Fuel Pump Plunger



HP0 HP3 HP4 HP5



294100-0050 Fuel Pump Plunger HP5 Series Technical File

SKU: C1Y32941000050



294100-0050 Fuel Pump Plunger HP5 Series Technical File

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294100-0050 Fuel Pump Plunger HP5 Series Technical File

1. 294100-0050 Fuel Pump Plunger Introduction

1.1. 294100-0050 Fuel Pump Plunger Basic Information

Title	294100-0050 Fuel Pump Plunger HP5 Series	Quality
SKU1	C1Y32941000050	Disassembly

1.2. 294100-0050 Fuel Pump Plunger Common Part Number

(1) Fuel Pump Plunger Exchange Information

Fuel Pump Plunger Part Number	OE Number	OE Number	OE Number
294100-0050	/	/	/

(2) Fuel Pump Plunger Application Information

Fuel Pump Part Number	OE Number	Vehicle Brand	Engine Model
22100-OE010	/	TOYOTA	/
22100-OE020	/	Hilux	/

(3) Fuel Pump Plunger Common Writing

294100-0050

1.3. 294100-0050 Fuel Pump Plunger Parameter

Adaptation System: [Common Rail System](#)

Fuel Pump Plunger Series: [HP5 Series](#)

Fuel Pump Plunger Type: [High Pressure Common Rail Fuel Pump Plunger](#)

1.4. 294100-0050 Fuel Pump Plunger Specifications And Dimensions

Fuel Pump Plunger Size: [8cm* 8cm *1cm](#)

Fuel Pump Plunger Net Weight: [1000g](#)

Fuel Pump Plunger Gross Weight: [1030g](#)

Fuel Pump Plunger Quality: [Re-manufactured/China Made New](#)

Fuel Pump Plunger Package Size: [10cm* 10cm *1cm](#)

Fuel Pump Plunger MOQ: [1 Pieces](#)

1.5. 294100-0050 Fuel Pump Plunger Quality Control

(1) Fuel Pump Plunger Testing

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

(2) Fuel Pump Plunger Assembling

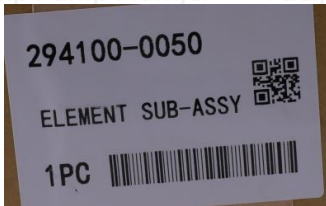
For the quality control of the fuel pump plunger production and installation process, our company strictly follows the standard product installation data and product installation steps to install.

(3) Fuel Pump Plunger Inspection

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

1.6. 294100-0050 Fuel Pump Plunger Customized Service

(1) Fuel Pump Plunger Customized Service Coverage: Meet the customized needs of OEM manufacturers for shell lettering, logo engraving, fuel pump plunger internal packaging, fuel pump plunger external packaging and labels customized, etc.

No.	1	2
Image		
Name	White Neutral Packaging Box	White Label

(2) Fuel Pump Plunger Customized Service Requirements:

The quantity of customized fuel pump plungers shall not be less than **10 pieces**.

The quantity of customized fuel pump plunger packages shall not be 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.

⚠ Once the customized fuel pump plunger is sold, it cannot be returned or exchanged if there are no quality problems.

1.7. 294100-0050 Fuel Pump Plunger Packing List and Package Size

(1) Fuel Pump Plunger Spare Parts List

No.	1	2	3
Image			
Name	Fuel Pump Plunger	Bubble Bag	White Anti-rust Bag
Description	Fuel pump plunger part number: 294100-0050	Prevent the fuel pump plunger from being damaged by external forces	Prevent fuel pump plunger from rusting
No.	4	5	6

Image			
Name	Desiccant	Fuel Pump Plunger Packing Box	Plunger Core
Description	Prevent fuel pump plunger from rusting; absorb moisture	Place the fuel pump plunger and fuel pump plunger accessories	(short core 75mm)

⚠ Minors are prohibited from using the fuel pump plunger assembly, O-rings, fuel pump plunger housing covers, oil return covers, VCI anti-rust bags, and bubble bags to avoid personal injury.

⚠ The fuel pump plunger housing cover and oil return cover are recyclable accessories and can be recycled.

⚠ VCI anti-rust bags and bubble bags are non-degradable materials. Please dispose of them properly after use.

⚠ The fuel pump plunger and the installation parts guide tube should be treated with appropriate sealing oil during installation.

(2) Fuel Pump Plunger Box Size



Pic No.1

No.	Name	Fuel Pump Plunger Packing Size (cm)
1	Fuel Pump Plunger Box	17*7.5*7

1.8. 294100-0050 Fuel Pump Plunger Testing Standard and Certificate

We can provide the factory quality inspection test report of each fuel pump plunger to ensure that each fuel pump plunger 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: _____ 电话: _____ 送检单位: _____ 传真: _____ 客户姓名: _____ 检测描述: _____ 检测名称: 检测器 型号-零件号: _____ 检测时间: _____																																					
检测结果																																					
检测编号: C04002-6511 <table border="1"> <thead> <tr> <th>检测项目</th> <th>检测结果</th> <th>标准值</th> <th>判定</th> </tr> </thead> <tbody> <tr> <td>IGAR TEST</td> <td>3.8</td> <td>4.0</td> <td>合格</td> </tr> <tr> <td>Back</td> <td>3.8</td> <td>4.0</td> <td>合格</td> </tr> <tr> <td>WARM</td> <td>3.8</td> <td>4.0</td> <td>合格</td> </tr> <tr> <td>Max</td> <td>21.5</td> <td>21.8</td> <td>合格</td> </tr> <tr> <td>TL</td> <td>28.4</td> <td>28.5</td> <td>合格</td> </tr> <tr> <td>EL</td> <td>14.1</td> <td>14.2</td> <td>合格</td> </tr> <tr> <td>VE</td> <td>1.7</td> <td>1.8</td> <td>合格</td> </tr> </tbody> </table>						检测项目	检测结果	标准值	判定	IGAR TEST	3.8	4.0	合格	Back	3.8	4.0	合格	WARM	3.8	4.0	合格	Max	21.5	21.8	合格	TL	28.4	28.5	合格	EL	14.1	14.2	合格	VE	1.7	1.8	合格
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检测日期: _____ 检测地点: _____ ☐ 维修前 ☐ 维修后																																					

Pic No.2

1.9. 294100-0050 Fuel Pump Plunger Warranty Instructions

(1) Product Warranty Conditions and Instructions

It is necessary to provide pictures, videos, or test reports detected by the fuel pump plunger inspection equipment when the fuel pump plunger 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) Fuel Pump Plunger Warranty Coverage

Within 15 days after customer receives the 294100-0050 fuel pump plunger, if there is a performance failure and the product has no appearance damage, customer can choose to replace it or repair it;

If the 294100-0050 fuel pump plunger 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 fuel pump plunger 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) Fuel Pump Plunger Out of Warranty Coverage

- ① The warranty period has expired.
- ② Fuel pump plunger 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 fuel pump plunger personally resulting in damage to the Fuel Pump Plunger.
- ④ Fuel pump plunger damage caused by man-made reasons (throwing, strong magnetic field magnetization, set fire).
- ⑤ Fuel pump plunger failure or fuel pump plunger damage caused by non-fuel pump plunger design, technology, manufacturing, quality, and other issues.
- ⑥ Fuel pump plunger failure due to system pressure exceeding system approved pressure.
- ⑦ Fuel pump plunger failure caused by system voltage exceeding approved voltage.
- ⑧ Fuel pump plunger failure caused by impurities (water, lead, aluminum powder, iron powder, sulfide) in the system fuel exceeding the standard requirements.
- ⑨ Fuel pump plunger 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 Fuel pump plunger failure caused by not following the installation angle specified in the vehicle engine maintenance manual.
- 11 Fuel pump plunger failure caused by not following the cleaning requirements specified in the vehicle engine maintenance manual.
- 12 Fuel pump plunger failure caused by failure to replace consumable parts as specified in the vehicle engine maintenance manual.
- 13 Fuel pump plunger 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 fuel pump plunger connection in accordance with the fuel intake system specified in the vehicle engine maintenance manual.

2. 294100-0050 Fuel Pump Plunger Technical Support

2.1. 294100-0050 Fuel Pump Plunger Installation Precautions

- (1) The replacement of the fuel pump plunger 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 fuel pump plunger, the fitting clearance of the fuel pump plunger connection, the installation angle and tightening torque of the fuel pump plunger, 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 fuel pump plunger.

- (3) When installing the fuel pump plunger on the engine, it is necessary to clean the engine block, cylinder head and other parts connected to the fuel pump plunger, and ensure that there is no dust, carbon deposits, water, rust spots, etc.
- (4) When installing the fuel pump plunger on the engine, please carefully check the components related to the installation of the fuel pump plunger, such as the fuel pump plunger pressure plate, screw, fuel pump plunger rod and other accessories are not deformed, and install it in strict accordance with the operation steps of the engine maintenance manual.
- (5) It is forbidden to operate the bare fuel pump plunger for a long time in an environment with serious dust pollution and corrosion to iron products.
- (6) It is forbidden to operate the bare fuel pump plunger for a long time in a strong magnetic field environment.

2.2. 294100-0050 Fuel Pump Plunger Not Working Normally

- (1) There is air in the oil circuit of the engine fuel system.
- (2) Vehicle oil pump's oil supply system is not normal.
- (3) Engine common rail system oil leakage or pressure limiting valve damage.
- (4) There is a short circuit, cutting out and poor contact in the wiring harness connected to the fuel pump plunger of the vehicle.
- (5) The long-term placement of the fuel pump plunger 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 fuel pump plunger are damaged to prevent the fuel pump plunger from not working properly after being replaced.

2.3. 294100-0050 Fuel Pump Plunger Causes of Being Damaged

- (1) Didn't operate properly according to engine maintenance manual during disassembly or installation, resulting in damage to the fuel pump plunger.
- (2) The fuel oil used for the vehicle does not meet the standard cause damage to the fuel pump plunger, 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 fuel pump plunger.
- (4) The abrasion of the fuel pump plunger produces iron powder and aluminum powder enter the fuel pump plunger and cause damage to the fuel pump plunger.
- (5) The deformation and abrasion of fuel tank result in iron powder or aluminum powder entering the fuel pump plunger and causing damage to the fuel pump plunger.
- (6) The fuel pump plunger is damaged due to replacement or adjustment of the relevant parts of the fuel pump plunger. 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 fuel pump plunger fails to meet the original standard.

- (7) The engine is overheated and overloaded for a long-time working result in damage to the fuel pump plunger.
- (8) The fuel pump plunger will be damaged naturally at the end of its working life.
- (9) The fuel pump plunger is magnetized (fuel pump plunger parts' magnetic exceeded) causing the fuel pump plunger to not work properly.

⚠ Before replacing the fuel pump plunger, please check the engine parts carefully according to the engine maintenance manual to avoid the fuel pump plunger being damaged again after replacement.

2.4. 294100-0050 Fuel Pump Plunger Technical Support Obtaining Methods

- (1) Fuel Injector Valve Rod Technical Data: <https://www.fuelpumpplunger.com/download/>
- (2) Fuel Injector Valve Rod Videos: <https://www.fuelpumpplunger.com/videos/>
- (3) Fuel Injector Valve Rod Encyclopedia: <https://www.fuelpumpplunger.com/category/news/encyclopedia/>

3. 294100-0050 Fuel Pump Plunger Purchase and Delivery

3.1. 294100-0050 Fuel Pump Plunger Purchase Payment Term

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

⚠ Please contact our salesmen for specific payment information.

3.2. 294100-0050 Fuel Pump Plunger Main Sales Markets

Fuel Pump Plunger Main Sales Markets: Asia, Europe, North America, South America, Africa etc.

3.3. 294100-0050 Fuel Pump Plunger 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. 294100-0050 Fuel Pump Plunger 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. 294100-0050 Fuel Pump Plunger Lead Time

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

3.6. 294100-0050 Fuel Pump Plunger 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

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. 294100-0050 Fuel Pump Plunger Packing

Domestic Express Packaging: Usually wrapped in waterproof scotch tape, such as picture No. 1.

International Express Packaging: Wrapped with waterproof yellow tape After wrapping the black protective film, such as picture No. 2.

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. 3, 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 with 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. 294100-0050 Fuel Pump Plunger Storage Standard

(1) Choose a Suitable Storage Place

The warehouse and cargo yard where the fuel pump plunger is stored should be kept clean and dry, and away from the factory buildings that generate harmful gases and dust; do not mix with acids, 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 fuel pump plungers are put into storage, the surface cleaning work should be done well to remove water traces, oil stains, ashes, and other dirt, remove the rust and do anti-rust treatment in time. Packaged fuel pump plungers must be protected from damage.

(3) Keep The Warehouse Dry And Preventing Moisture

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

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

If the fuel pump plunger 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 fuel pump plunger exposed in the air for a long time.

⚠ It is forbidden to store acids, alkalis, salts, and other substances together with the fuel pump plunger.

⚠ The unpacked fuel pump plunger must be rust-proof during secondary storage.

5. Company Information



- Office Locations
- Global Exhibitions

Pic No.3

5.1. 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. 294100-0050 Fuel Pump Plunger Warranty Instructions](#))

5.2. Contact Information

Name	WeChat/ WhatsApp
Ruby	+86-13410541523

6. Copyright Statement

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