

## **New Scroll Plunger And Barrel Updates 3300 + 3400 Series Engines**

**DIPACO**  
**DIESEL**  
**PARTS**  
**U S A**

When reusing plungers and barrels in Caterpillar fuel pumps, care must be taken to insure the plunger length meets the minimum usable length. You will not be able to adjust the phase timing in these fuel pumps when the plunger length is less than the minimums listed below. The P&B must be replaced or late timing problems will occur.

In the past it was recommended to reuse P&B spacers as long as they were placed back in the same bore they were removed from. It is now recommended to use new spacers whenever a new or used P&B is installed. The spacers are made to a specific thickness and are part of the timing measurements. The spacers are crushed during P&B installation and reuse can lead to the spacer thickness being less than minimum which will affect the phase timing. An undersized spacer can also cause the P&B rack to bind.

### **3300 Series Engines**

#### **Non-Turbocharged**

P&B Number D1W6541 (Single Helix)  
9 MM Plunger Diameter  
New Plunger Length - 2.9089"± .0005"  
Used Plunger Minimum Length - 2.9084"  
Use with spacer 4W6869  
Bushing Torque 120 lbft± 10 lbft

#### **Turbocharged**

P&B Number D7W5929 (Single Helix)  
10 MM Plunger Diameter  
New Plunger Length - 2.9089"± .0005"  
Used Plunger Minimum Length - 2.9084"  
Use with spacer 4W6869  
Bushing Torque 120 lbft± 10 lbft

#### **Turbocharged**

P&B Number D4P9830 (Single Helix)  
10.5 MM Plunger Diameter  
New Plunger Length - 2.9089"± .0005"  
Used Plunger Minimum Length - 2.9084"  
Use with spacer 4W6869  
Bushing Torque 120 lbft± 10 lbft

### **3400 Series Engine**

#### **Early**

P&B Number D108-6631 (Single Helix)  
(Replaces P&B D2W3414)  
11 MM Plunger Diameter  
New Plunger Length - 3.1120"± .0005"  
Used Plunger Minimum Length - 3.1115"  
Use with spacer D8N0672 (.1988")  
Bushing Torque 190 lbft± 10 lbft

#### **Late**

P&B Number D108-2104 (Double Helix)  
(Replaces P&B D7E6007) (Single or Double Helix)  
11 MM Plunger Diameter  
New Plunger Length - 3.0481"± .0005"  
Used Plunger Minimum Length - 3.0476"  
Use with spacer D7E9907 (.2662")  
Bushing Torque 190 lbft± 10 lbft

*An Employee Owned Company*

105 East Parr Blvd.  
Reno, NV 89512  
(800) 648-4720

**DIPACO.com**  
**DTECHPRODUCTS.com**

There is no easily determined serial number break point between early and late style 3400 series engines. You need to examine the removed P&Bs to determine the correct replacement.