

**PJ70704**

PJ70704

**1106D-E66TA**

2012/07/18

The information given within this parts book was correct at the time of printing and is subject to change without notice. Always refer to your local Perkins outlet for the latest information. Only fully trained personnel should carry out servicing of engines. Before working on any engine always refer to the correct user service and maintenance manual.

Always refer to your local Perkins outlet before purchasing any parts

Subject to any existing rights of third parties, the information given in this document is the property of Perkins Engines Limited and should not be copied, in whole or part, without the prior written consent of the Company.



## **Contents**

- |    |                             |         |
|----|-----------------------------|---------|
| 1. | Introduction                | Pg. 4   |
| 2. | How To Use Your Parts Book  | Pg. 4   |
| 3. | Engine Breakdown            | Pg. 5   |
| 4. | Symbol Descriptions         | Pg. 11  |
| 5. | Parts Lists & Illustrations | Pg. 13  |
| 6. | Parts Index                 | Pg. 224 |

## **Introduction**

The build list of your engine, found on the front page of this parts book, provides a unique reference to the components fitted to your engine; therefore this parts book is only applicable to this particular engine

Always quote your build list and engine serial number when contacting your Perkins outlet.

## **How to use your Parts Book**

This parts book has been designed to provide you with all the information you need to identify parts to service your engine. There are several features within the book to make it easy to find the parts you require.

### **Front Page**

This lists your build list number and the date of publication of this book

### **Symbol Descriptions**

Provides a quick reference guide to the symbols used within the book.

### **Engine Breakdown**

Use this to identify all the major sections of your engine and the relevant pages within the book.

### **Parts Lists & Illustrations**

This section shows each major section of your engine broken down into individual part numbers along with an associated illustration for identifying the parts you require.

The illustrations used in this parts book are representational only and should only be used for identification purposes.

For fitting instructions please refer to your engine Service Manual.

### **Parts Index**

Using either the part number or description of the part you require this section will help you locate the page within the **Parts Lists & Illustrations** section where the part appears.

<b>Section</b>	<b>Page</b>
<b>Level 1 - Service AAAAAAPJ</b>	<b>13</b>
<b>Level 2 - Repair AAAAAAPJ</b>	<b>15</b>
<b>Recommended Service Parts - 3000 Hour AAAAAAPJ</b>	<b>17</b>
<b>Short Engine ACE39876</b>	<b>19</b>
<b>Cylinder Block &amp; Liners ACHP0010</b>	<b>21</b>
<b>Rear End Oil Seal ACHP0010</b>	<b>23</b>
<b>Crankshaft, Main &amp; Big End Bearings ACHP0010</b>	<b>25</b>
<b>Crankshaft, Main &amp; Big End Bearings ACHP0010</b>	<b>27</b>
<b>Crankshaft, Main &amp; Big End Bearings ACHP0010</b>	<b>29</b>
<b>Pistons &amp; Rings ACHP0010</b>	<b>31</b>
<b>Connecting Rods ACHP0010</b>	<b>33</b>
<b>Connecting Rods ACHP0010</b>	<b>35</b>
<b>Cylinder Head Assembly ACHP0010</b>	<b>37</b>

<b>Section</b>	<b>Page</b>
<b>Cylinder Head Assembly ACHP0010</b>	<b>39</b>
<b>Rocker Shaft Assembly ACHP0010</b>	<b>41</b>
<b>Timing Gear &amp; Camshaft ACHP0010</b>	<b>43</b>
<b>High Pressure Fuel Pump AFH04639</b>	<b>45</b>
<b>Fuel Rail AFH04639</b>	<b>47</b>
<b>Fuel Rail AFH04639</b>	<b>49</b>
<b>Atomisers AFH04639</b>	<b>51</b>
<b>High Pressure Fuel Pipes AFH04639</b>	<b>53</b>
<b>Pipework AFH04639</b>	<b>55</b>
<b>Engine Control Module AFH04639</b>	<b>57</b>
<b>Engine Control Module AFH04639</b>	<b>59</b>
<b>Engine Control Module AFH04639</b>	<b>61</b>
<b>Engine Control Module AFH04639</b>	<b>63</b>

**Engine Breakdown**

<b>Section</b>	<b>Page</b>
<b>Sensors AFH04639</b>	<b>65</b>
<b>Sensors AFH04639</b>	<b>67</b>
<b>Sensors AFH04639</b>	<b>69</b>
<b>Flashfile Software AAG00500</b>	<b>71</b>
<b>Flywheel Housing CDH01077</b>	<b>73</b>
<b>Flywheel &amp; Starter Ring DDH02053</b>	<b>75</b>
<b>Starter Motor EDH00939</b>	<b>77</b>
<b>Fan Drive FBH01079</b>	<b>79</b>
<b>Sump GBH02855</b>	<b>81</b>
<b>Dipstick &amp; Filler Tube GBH02855</b>	<b>83</b>
<b>Oil Strainer GBH02855</b>	<b>85</b>
<b>Cylinder Head Cover HBH03158</b>	<b>87</b>
<b>Cylinder Head Cover HBH03158</b>	<b>89</b>

<b>Section</b>	<b>Page</b>
<b>Cylinder Head Cover HBH03158</b>	<b>91</b>
<b>Cylinder Head Cover Base HBH03158</b>	<b>93</b>
<b>Cylinder Head Cover Base HBH03158</b>	<b>95</b>
<b>Cylinder Head Cover Base HBH03158</b>	<b>97</b>
<b>Breather HBH03158</b>	<b>99</b>
<b>Breather HBH03158</b>	<b>101</b>
<b>Blanking Plates HBH03158</b>	<b>103</b>
<b>Filler HDH00002</b>	<b>105</b>
<b>Blanking Plates HDH00002</b>	<b>107</b>
<b>Blanking Plates HDH00002</b>	<b>109</b>
<b>Oil Cooler JBH02569</b>	<b>111</b>
<b>Oil Filter JBH02569</b>	<b>113</b>
<b>Blanking Plates JBH02569</b>	<b>115</b>

<b>Section</b>	<b>Page</b>
<b>Oil Filter JDH00038</b>	<b>117</b>
<b>Front End Drive Input KBH00709</b>	<b>119</b>
<b>Front End Drive Input KBH00709</b>	<b>121</b>
<b>Water Pump LBH02281</b>	<b>123</b>
<b>Water Pump LBH02281</b>	<b>125</b>
<b>Pipes LBH02281</b>	<b>127</b>
<b>Water Outlet Housing LDH00712</b>	<b>129</b>
<b>Fan MDH01457</b>	<b>131</b>
<b>Alternator NDH02830</b>	<b>133</b>
<b>Pulleys NDH02830</b>	<b>135</b>
<b>Alternator Bracket &amp; Fixings NDH02830</b>	<b>137</b>
<b>Timing Case QCH00049</b>	<b>139</b>
<b>Timing Case QCH00049</b>	<b>141</b>

<b>Section</b>	<b>Page</b>
<b>Timing Cover QCH00049</b>	<b>143</b>
<b>Blanking Plugs QDH01415</b>	<b>145</b>
<b>Lubricating Oil Pump &amp; Delivery Housing RBH00032</b>	<b>147</b>
<b>Turbocharger SBH01678</b>	<b>149</b>
<b>Feed Pipes SBH01678</b>	<b>151</b>
<b>Leak-Off Pipes SBH01678</b>	<b>153</b>
<b>Pipework &amp; Connections SBH01678</b>	<b>155</b>
<b>Exhaust Manifold SBH01678</b>	<b>157</b>
<b>Wastegate Sensor SBH01678</b>	<b>159</b>
<b>Air Filters SBH01678</b>	<b>161</b>
<b>Air Filters SBH01678</b>	<b>163</b>
<b>Exhaust Outlet SDH00420</b>	<b>165</b>

**Engine Breakdown**

<b>Section</b>	<b>Page</b>
<b>Induction Manifold TBH00939</b>	<b>167</b>
<b>Pipework &amp; Connections TBH00939</b>	<b>169</b>
<b>Low Pressure Fuel Pipes VBH02553</b>	<b>171</b>
<b>Low Pressure Fuel Pipes VBH02553</b>	<b>173</b>
<b>Fuel Leak-Off Pipe VBH02553</b>	<b>175</b>
<b>Fuel Leak-Off Pipe VBH02553</b>	<b>177</b>
<b>Fuel Filter VBH02553</b>	<b>179</b>
<b>Miscellaneous VBH02553</b>	<b>181</b>
<b>Fuel Filter VDH00015</b>	<b>183</b>
<b>Fuel Filter VDH00015</b>	<b>185</b>
<b>Heater Plugs WDH00372</b>	<b>187</b>
<b>Engine Lifting Eyes XBH00469</b>	<b>189</b>
<b>Engine Mounts ZCH01201</b>	<b>191</b>



















<b>Section</b>	<b>Page</b>
<b>Lubricating Oil Pressure Switch/Gauge ZJH00544</b>	<b>193</b>
<b>Lubricating Oil Pressure Switch/Gauge ZJH00544</b>	<b>195</b>
<b>Radiator &amp; Cowling ZMH01391</b>	<b>197</b>
<b>Radiator Bracket &amp; Fixings ZMH01391</b>	<b>199</b>
<b>Radiator Bracket &amp; Fixings ZMH01391</b>	<b>201</b>
<b>Radiator Bracket &amp; Fixings ZMH01391</b>	<b>203</b>
<b>Radiator &amp; Hoses ZMH01391</b>	<b>205</b>
<b>Radiator &amp; Hoses ZMH01391</b>	<b>207</b>



<b>Section</b>	<b>Page</b>
<b>Guards ZMH01391</b>	<b>209</b>
<b>Guards ZMH01391</b>	<b>211</b>
<b>Wiring Looms ZNH00267</b>	<b>213</b>
<b>Wiring Loom Service Connectors ZNH00267</b>	<b>215</b>
<b>Water Trap ZVH01037</b>	<b>217</b>
<b>Water Trap ZVH01037</b>	<b>219</b>
<b>Fuel Pre-Lift Pump ZVH01037</b>	<b>221</b>
<b>Miscellaneous &amp; Auxiliaries ZZH01054</b>	<b>223</b>

## Engine Breakdown

## Symbols and Notes

Symbol	Description
	From Engine Number
	Upto Engine Number
	Repairs and Replaces
	See Appropriate Section - Reference Number
	Alternative
	Order
	Remanufactured Part
	New for Old Part
	Number of Teeth
	Thickness
	Bottom
	Top
	Left Hand
	Right Hand
	Reference for Detailed Breakdown
	Other Service Options Available
	Cylinder Number
	See History Section

AAAAAAPJ

#### Recommended stocking and service lists

Perkins provides Recommended stocking and service lists, for Distributor use when recommending parts stocks for Dealers, preferred customers (eg fleets) etc. These lists are based on agreed workshop capability and are at three distinct levels:

##### Level 1 - Service

The Level 1 workshop has the ability to perform basic non-intrusive maintenance on Perkins engines.

##### Listes recommandées pour le stock et la maintenance

Perkins fournit des listes recommandées pour le stock et la maintenance afin d'aider le Distributeur dans ses conseils aux Agents, aux clients habituels, etc.. Ces listes sont basées sur le niveau technique des Ateliers avec trois niveaux distincts :

##### Niveau 1- Maintenance

L'atelier de niveau 1 est capable d'exécuter l'entretien de base des moteurs Perkins (sans démontage).

##### Empfohlene Lagerbestands- und Servicelisten

Perkins stellt empfohlene Lagerbestands- und Servicelisten bereit, welche die Vertragshändler verwenden können, um Händlern und Kunden (z.B. Fuhrparks) einen bestimmten Ersatzteilbestand zu empfehlen. Diese Listen basieren auf den vereinbarten Werkstofffähigkeiten, welche in die folgenden drei Stufen unterteilt werden:

##### Stufe 1 - Service

Werkstätten der Stufe 1 können grundlegende und einfache Wartungsarbeiten an Perkins-Motoren ohne Spezialwerkzeug durchführen.

##### Listas de servicio y de stock recomendadas

Perkins proporciona Listas de servicio y de stock recomendadas, para que las use el Distribuidor al recomendar stocks de repuestos a los Distribuidores, a los clientes preferidos (por ejemplo, flotas), etc. Estas listas se basan en capacidad del taller acordada y se dividen en tres niveles diferentes:

##### Nivel 1 - Servicio

El taller del Nivel 1 puede llevar a cabo un mantenimiento no intrusivo en los motores Perkins.

##### Elenco parti consigliate ad uso stock ed assistenza

Perkins fornisce ai distributori un elenco di parti consigliate ad uso stock ed assistenza; ciò per soddisfare le richieste dei dealers, clienti preferenziali ecc. Questi elenchi tengono in considerazione la capacità operativa concordata con l'officina e sono distinti in tre livelli

##### Livello 1 - Assistenza

Il livello 1 prevede che l'officina sia in grado di operare in maniera basilare sui motori Perkins.

<b>Level 1 - Service</b>	<b>Plate A</b>
	<b>AAAAAAPJ</b>

Item	Part No.	References	Qty.	Description	Notes
1			1	LEVEL 1 - SERVICE	

AAAAAAPJ

#### Recommended stocking and service lists

Perkins provides Recommended stocking and service lists, for Distributor use when recommending parts stocks for Dealers, preferred customers (eg fleets) etc. These lists are based on agreed workshop capability and are at three distinct levels:

#### Level 2 - Repair

The Level 2 workshop has the ability to perform maintenance service, and inspection service on Perkins engines.

#### Listes recommandées pour le stock et la maintenance

Perkins fournit des listes recommandées pour le stock et la maintenance afin d'aider le Distributeur dans ses conseils aux Agents, aux clients habituels, etc.. Ces listes sont basées sur le niveau technique des Ateliers avec trois niveaux distincts :

#### Niveau 2 - Maintenance & reparation

L'atelier de niveau 2 est capable d'exécuter toutes les opérations d'entretien, la reparation des composants externes (démarrateur, alternateur, etc) et le diagnostic pour les problèmes touchant à l'électronique

#### Empfohlene Lagerbestands- und Servicelisten

Perkins stellt empfohlene Lagerbestands- und Servicelisten bereit, welche die Vertragshändler verwenden können, um Händlern und Kunden (z.B. Fuhrparks) einen bestimmten Ersatzteilbestand zu empfehlen. Diese Listen basieren auf den vereinbarten Werkstattfähigkeiten, welche in die folgenden drei Stufen unterteilt werden:

#### Stufe 2 - Reparatur

Werkstätten der Stufe 2 können Instandsetzungs- und Inspektionsarbeiten an Perkins-Motoren durchführen.

#### Listas de servicio y de stock recomendadas

Perkins proporciona Listas de servicio y de stock recomendadas, para que las use el Distribuidor al recomendar stocks de repuestos a los Distribuidores, a los clientes preferidos (por ejemplo, flotas), etc. Estas listas se basan en capacidad del taller acordada y se dividen en tres niveles diferentes:

#### Nivel 2 - Reparación

El taller de Nivel 2 puede llevar a cabo el servicio de mantenimiento y el servicio de inspección en los motores Perkins.

#### Elenco parti consigliate ad uso stock ed assistenza

Perkins fornisce ai distributori un elenco di parti consigliate ad uso stock ed assistenza; ciò per soddisfare le richieste dei dealers, clienti preferenziali ecc. Questi elenchi tengono in considerazione la capacità operativa concordata con l'officina e sono distinti in tre livelli :

#### Livello 2 - Riparazione

Nel livello 2 l'officina è in grado di svolgere la manutenzione e di fare controlli di assistenza sui motori Perkins.

<b>Level 2 - Repair</b>	<b>Plate A</b>
	<b>AAAAAAPJ</b>

Item	Part No.	References	Qty.	Description	Notes
1			1	LEVEL 2 - REPAIR	

AAAAAAPJ

Recommended Service Parts - 3000 Hour  
Pièces d'entretien recommandées - 3000 Heures  
Empfohlene Service-Teile - 3000 Stunde  
Piezas de servicio recomendadas - 3000 Horas  
Parti di ricambio suggerite - 3000 Ore



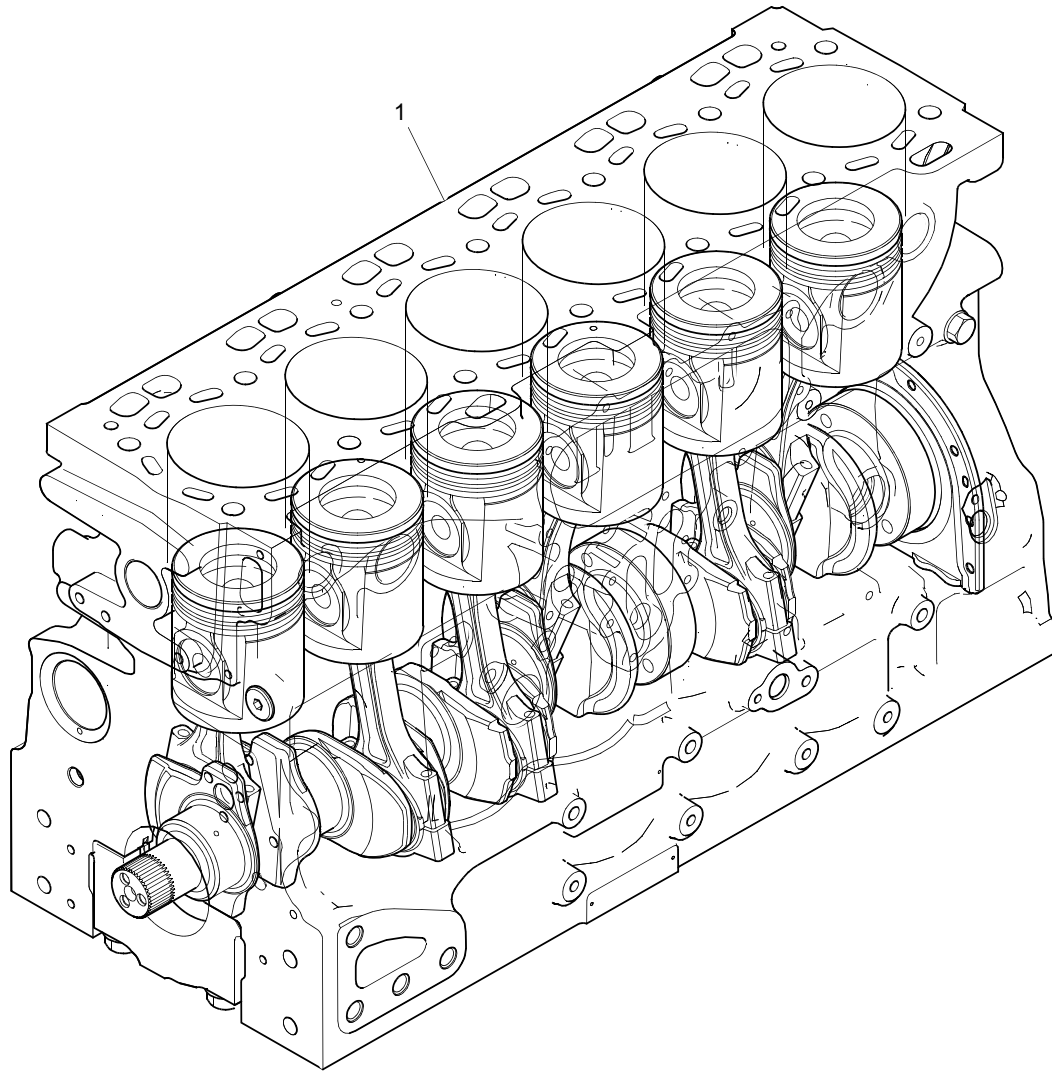
**Recommended Service Parts - 3000 Hour**

**Plate A**

**AAAAAAPJ**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1			1	LEVEL 3 - OVERHAUL	

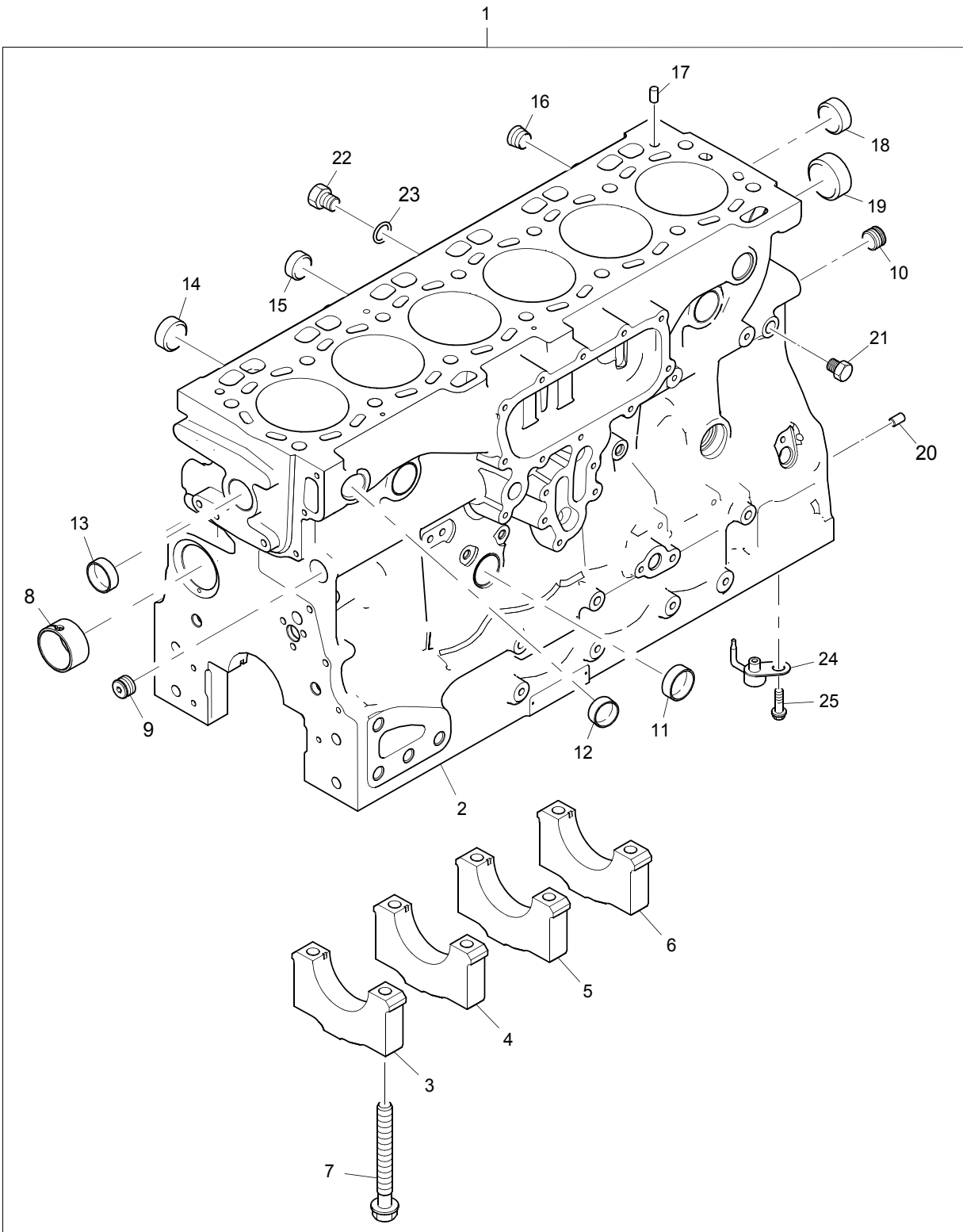
ACE39876



ACE39876

Item	Part No.	References	Qty.	Description	Notes
1	PJ39876		1	SHORT ENGINE - ASSEMBLY	
2	—4181V021		1	CYLINDER BLOCK ASSEMBLY	
3	—2418F705		1	REAR OIL SEAL HOUSING	
4	—3211C002		8	METRIC BOLT	
5	—	Ⓢ	6	CON ROD ASSEMBLY	
6	—ZZ90242		1	CRANKSHAFT KIT	
7	—T407599		1	DISC	
8	—2316T244		3	SCREW	
9	—U5PR0058	Ⓢ	6	PISTON AND RING KIT	
10	—3218R048		1	BANJO BOLT	
11	—2415D253		1	WASHER	
12	—3623A009		1	BLANKING PLATE	
13	—3688A039		1	GASKET - OIL FILTER HEAD	
14	—2314H003		4	SCREW	
15	—3278A004		1	PLUG	
16	—2415H002		1	SEAL - O RING	
<b>Service Options</b>					
5	4115C341		6	CON ROD ASSEMBLY	GRADE F
5	4115C342		6	CON ROD ASSEMBLY	GRADE J
5	4115C343		6	CON ROD ASSEMBLY	GRADE L
9	U5PR0058B	$\frac{+}{-}$ (+)0.50MM	6	PISTON AND RING KIT - O/S	

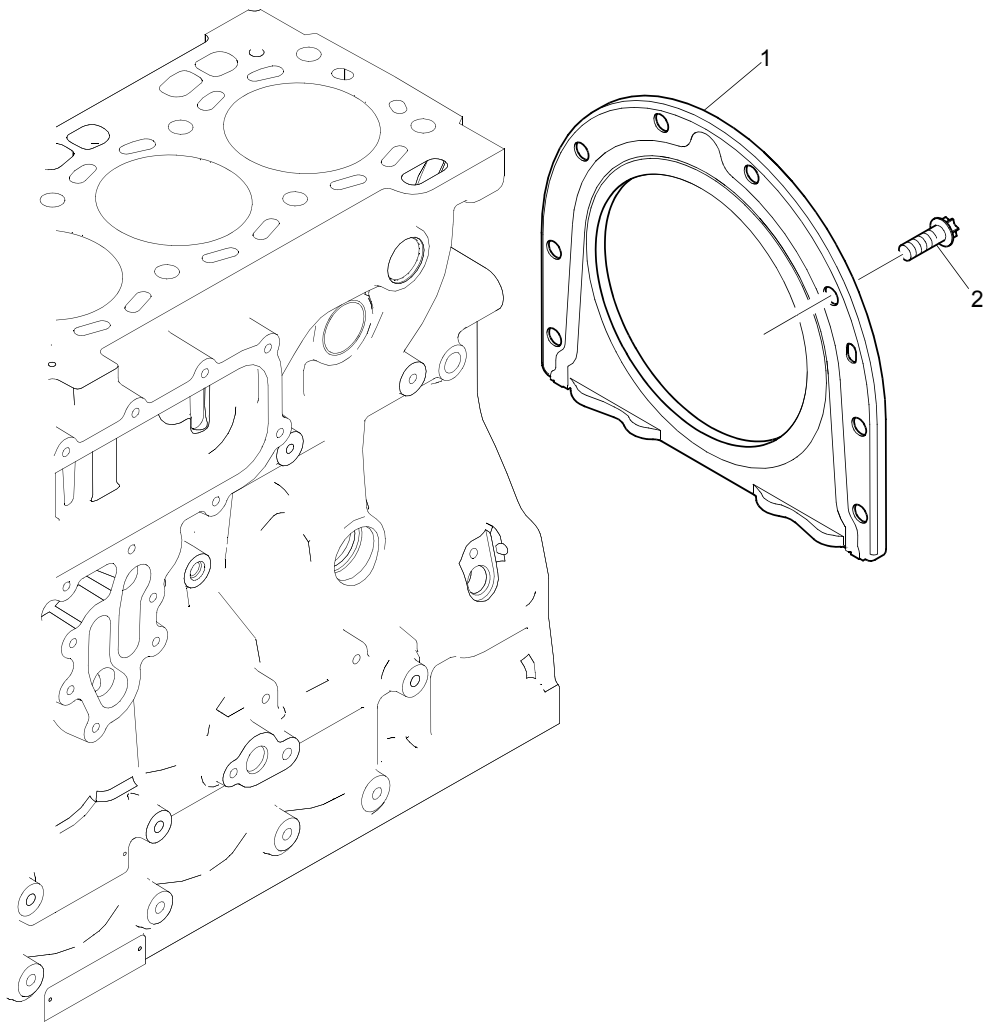
ACHP0010



ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	4181V021		1	CYLINDER BLOCK ASSEMBLY	
2	—	⇒ 4181V021	1	CYLINDER BLOCK	
3	—	⇒ 4181V021	1	BEARING CAP	
4	—	⇒ 4181V021	1	BEARING CAP	
5	—	⇒ 4181V021	1	BEARING CAP	
6	—	⇒ 4181V021	4	BEARING CAP	
7	—3218A511		14	SCREW	
8	—3112D091		1	CAMSHAFT BUSH	
9	—3212P008		1	PLUG	
10	—3212P008		1	PLUG	
11	—2485A526		4	PLUG	
12	—0650710		2	PLUG	
13	—2485A526		1	PLUG	
14	—3241A011		2	PLUG	
15	—0650710		1	PLUG	
16	—2431154		1	PLUG	
17	—3244A009		2	DOWEL	
18	—2485A526		1	PLUG	
19	—3241A012		1	PLUG	
20	—0350010		1	DOWEL	
21	—32141316		1	PLUG	
22	—3278A006		1	PLUG	
23	—2415H519		1	SEAL - O RING	
24	—2113A003		6	PISTON COOLING JET	
25	—2314F001		6	SCREW	

ACHP0010

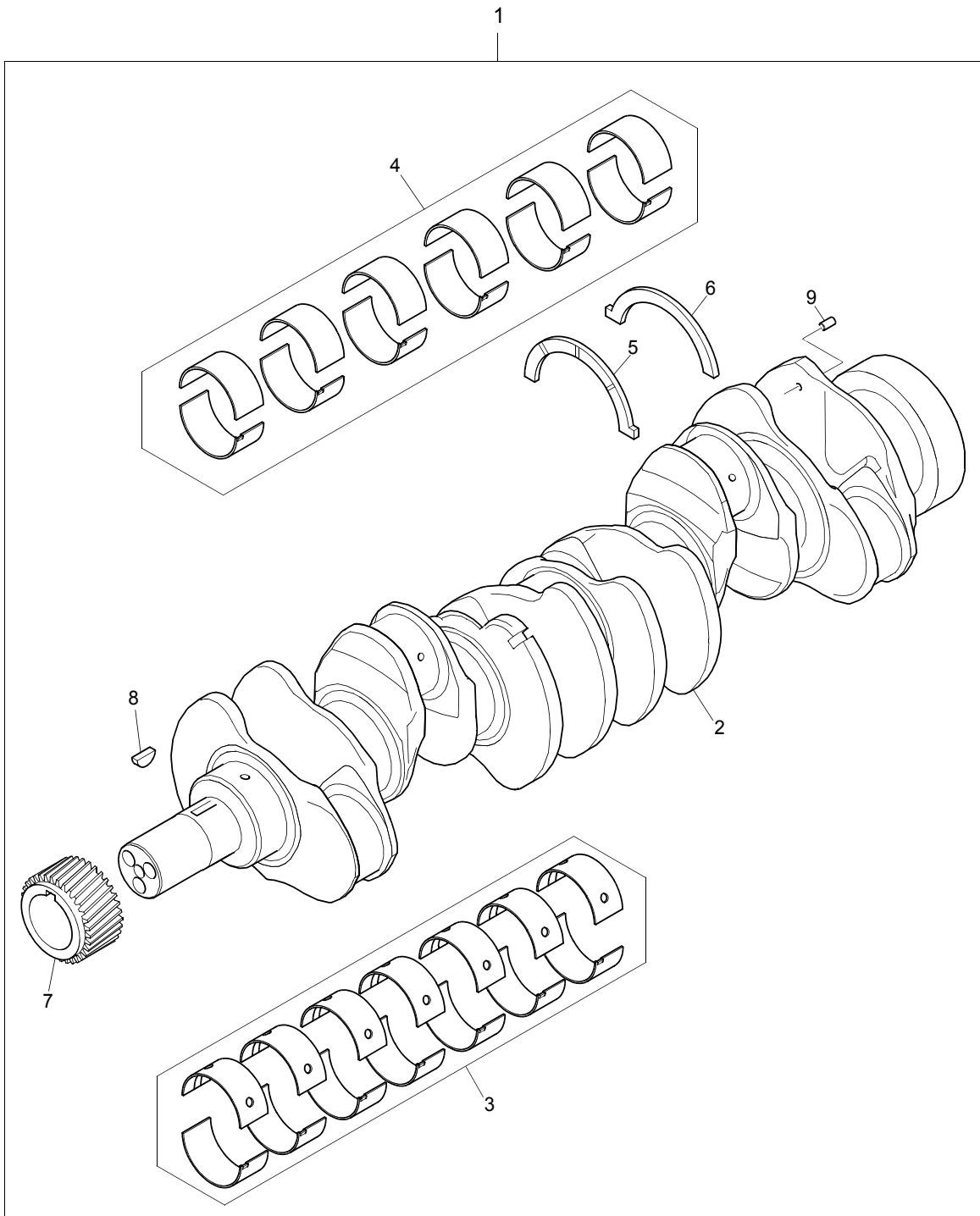


<b>Rear End Oil Seal</b>	<b>Plate A</b>
	<b>ACHP0010</b>

Item	Part No.	References	Qty.	Description	Notes
1	2418F706		1	SEAL - REOS HOUSING	
2	3211C002		8	METRIC BOLT	

→ U030232V

ACHP0010





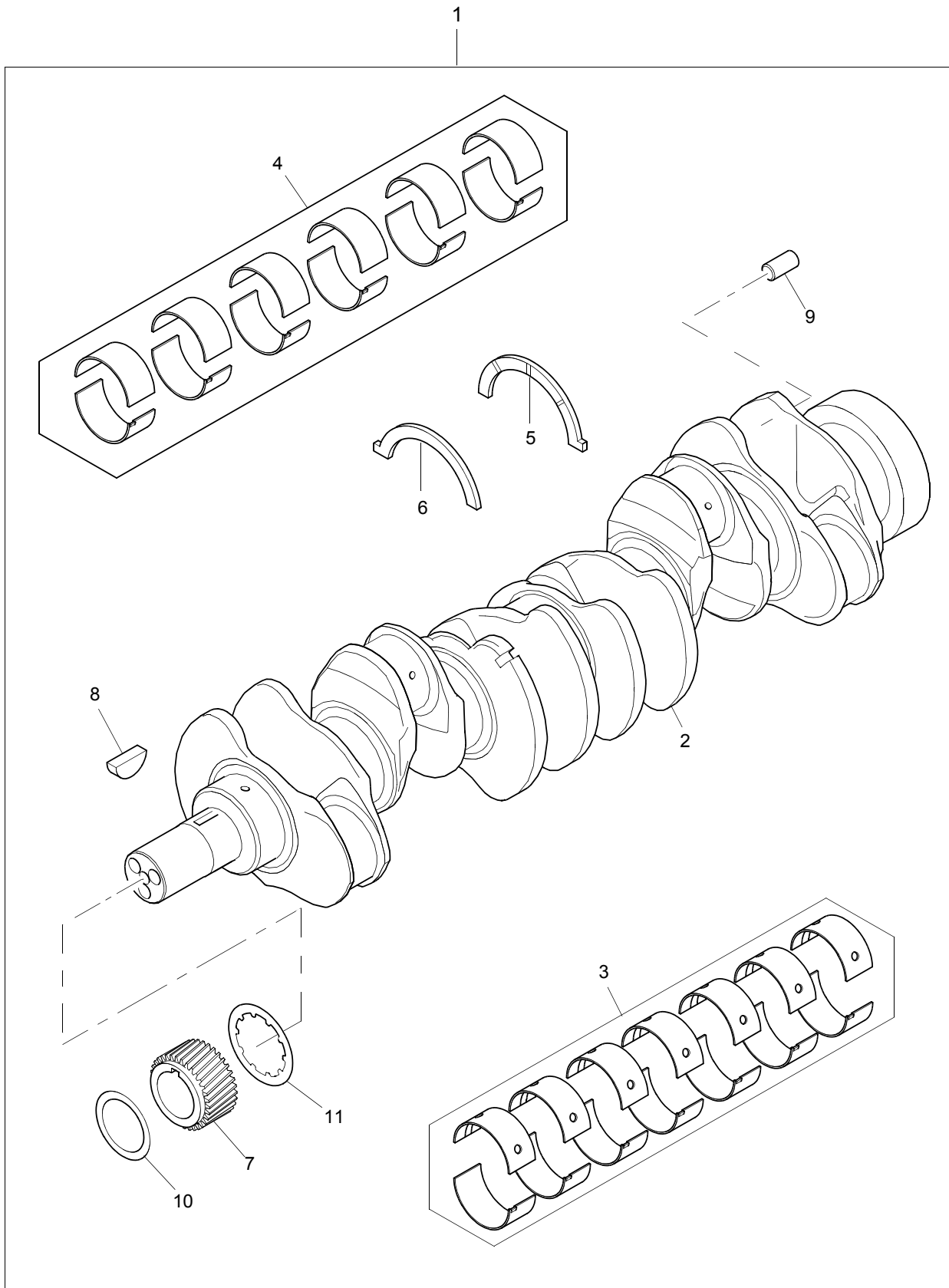
→ U030232V

ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	4181V019		1	CRANKSHAFT KIT	
2	—	⇒ 4181V019	1	CRANKSHAFT	
3	— U5MB0020		1	MAIN BEARING KIT	
4	— U5ME0022		1	BIG END BEARING KIT	
5	— 3112T011		1	THRUST WASHER	
6	— 3112T011		1	THRUST WASHER	
7	— 3117C341		1	CRANKSHAFT GEAR	
8	— 0500012		1	WOODRUFF KEY	
9	— 3313A036		1	DOWEL	

↳ U030233V

ACHP0010



**Crankshaft, Main & Big End Bearings**

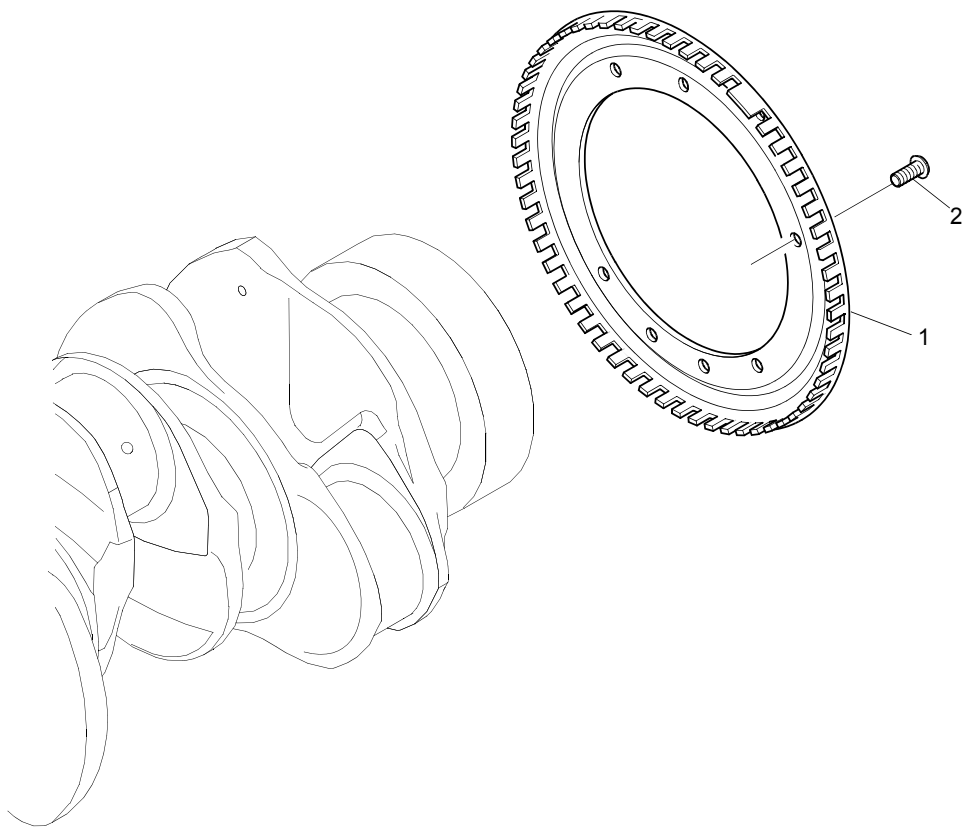
**Plate B**

↳ U030233V

ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	ZZ90242		1	CRANKSHAFT KIT	
2	—	⇒ ZZ90242	1	CRANKSHAFT	
3	—U5MB0020		1	MAIN BEARING KIT	
4	—U5ME0022		1	BIG END BEARING KIT	
5	—3112T011		1	THRUST WASHER	
6	—3112T011		1	THRUST WASHER	
7	—3117C341		1	CRANKSHAFT GEAR	
8	—0500012		1	WOODRUFF KEY	
9	—3313A036		1	DOWEL	
10	—T405526		1	SHIM	
11	—T405527		1	SHIM	

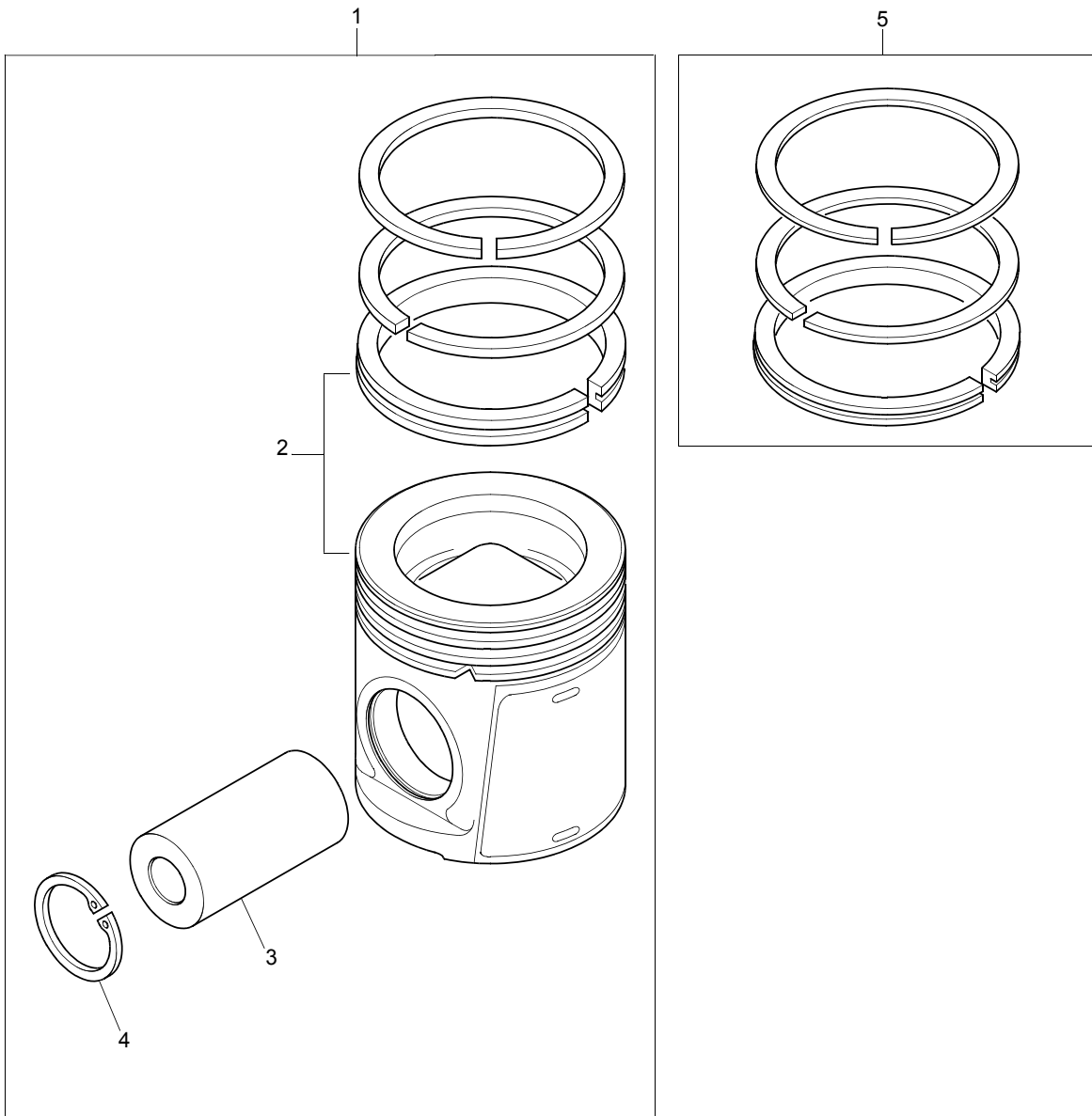
ACHP0010



**Crankshaft, Main & Big End Bearings****Plate B****ACHP0010**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	T407599		1	DISC	
2	2316T244		3	SCREW	

ACHP0010

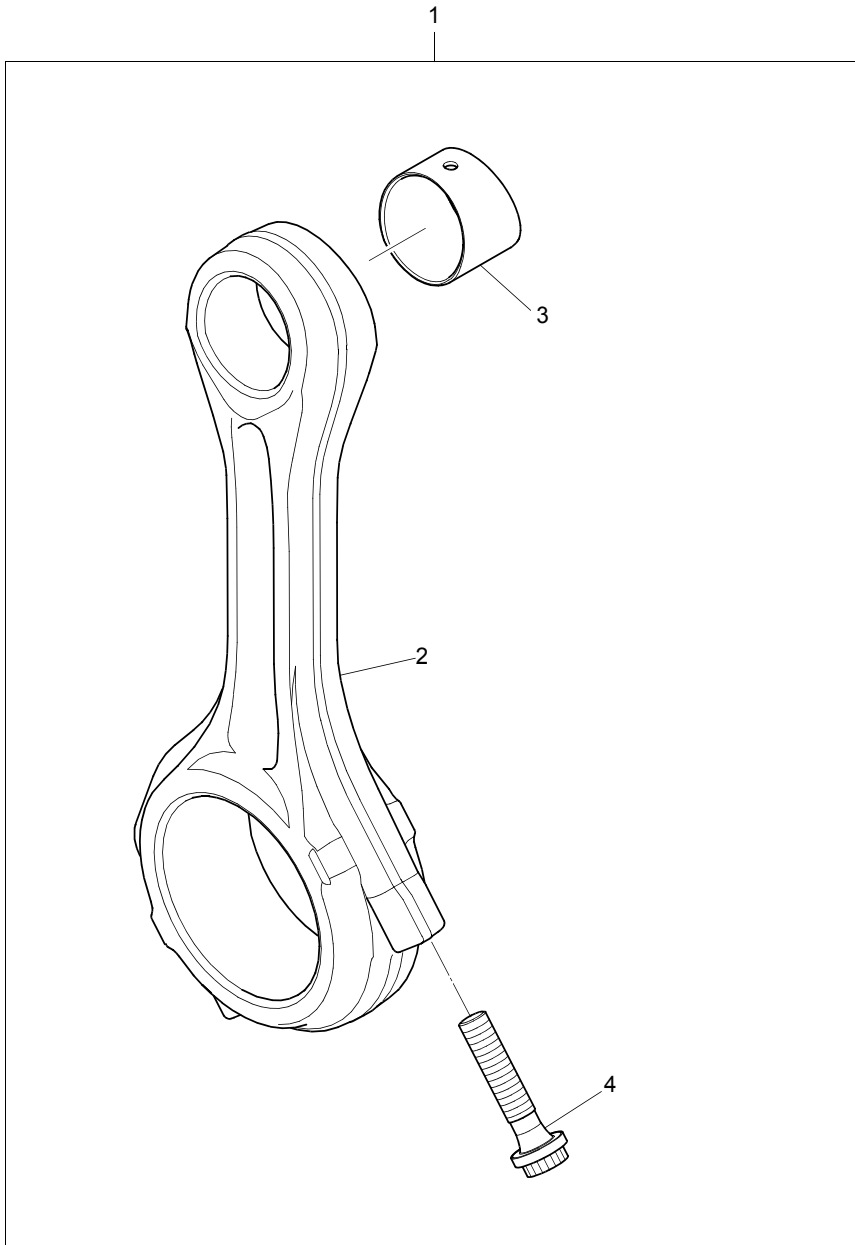


ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	U5PR0059	Ⓢ	6	PISTON AND RING KIT	
2		⇒ U5PR0059	1	PISTON	
3		⇒ U5PR0059	1	GUDGEON PIN	
4	2721332		2	CIRCLIP	
5	UPRK0005	Ⓢ	6	PISTON RING KIT	
<b>Service Options</b>					
1	U5PR0059B	⅞ (+)0.50MM	6	PISTON AND RING KIT - O/S	
5	UPRK0005B	⅞ (+)0.50MM	6	PISTON RING KIT - OVERSIZE	

→ U023763U

ACHP0010





**Connecting Rods**

**Plate A**

→ U023763U

**ACHP0010**

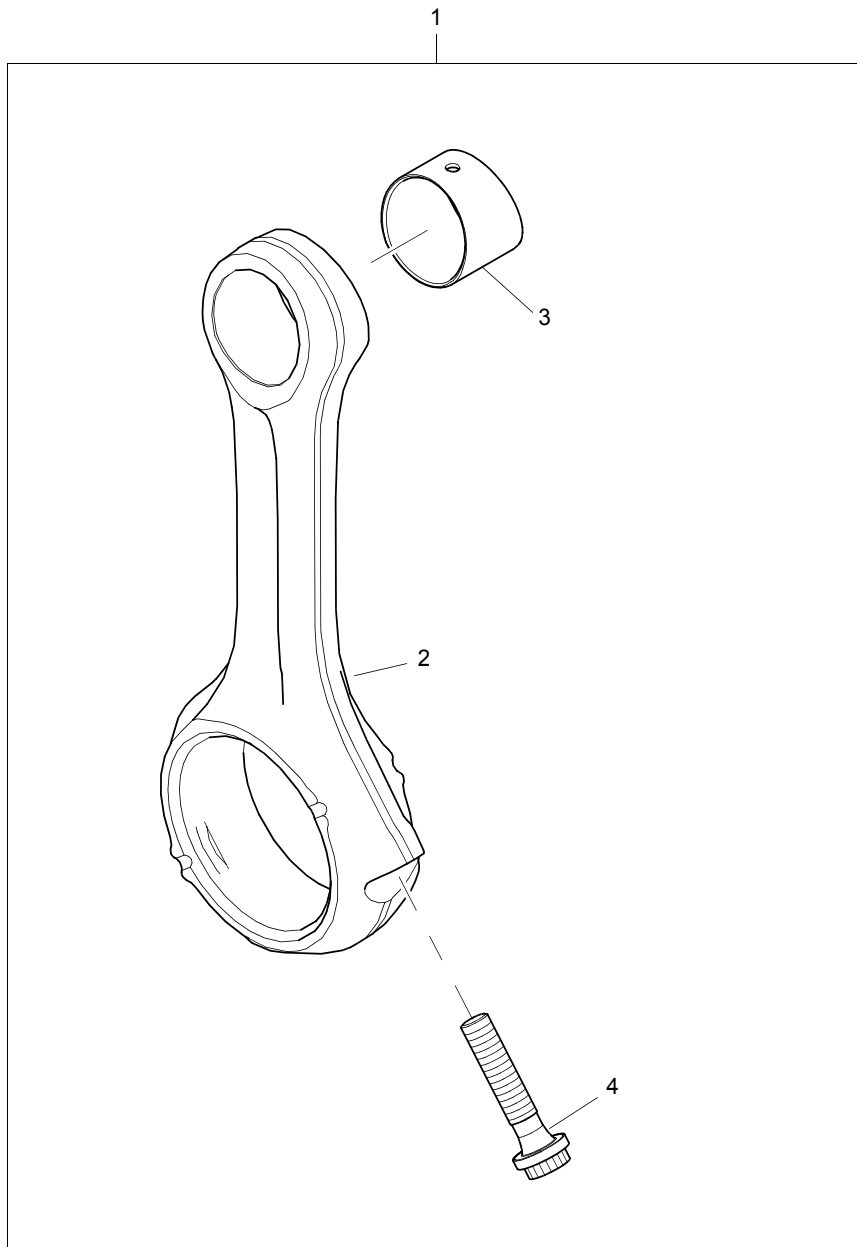
Item	Part No.	References	Qty.	Description	Notes
1		Ⓢ	6	CON ROD ASSEMBLY	
2		⇒ SERVICE OPTION	1	CON ROD	
3	3112E031		1	SMALL END BUSH	
4	3212V003		2	CON ROD BOLT	(A)
<b>Service Options</b>					
1	4115C341		6	CON ROD ASSEMBLY	GRADE F
1	4115C342		6	CON ROD ASSEMBLY	GRADE J
1	4115C343		6	CON ROD ASSEMBLY	GRADE L

**Footnotes**

(A) DO NOT RE-USE ONCE REMOVED

↳ U023764U

ACHP0010



**Connecting Rods**

**Plate A**

↳ U023764U

ACHP0010

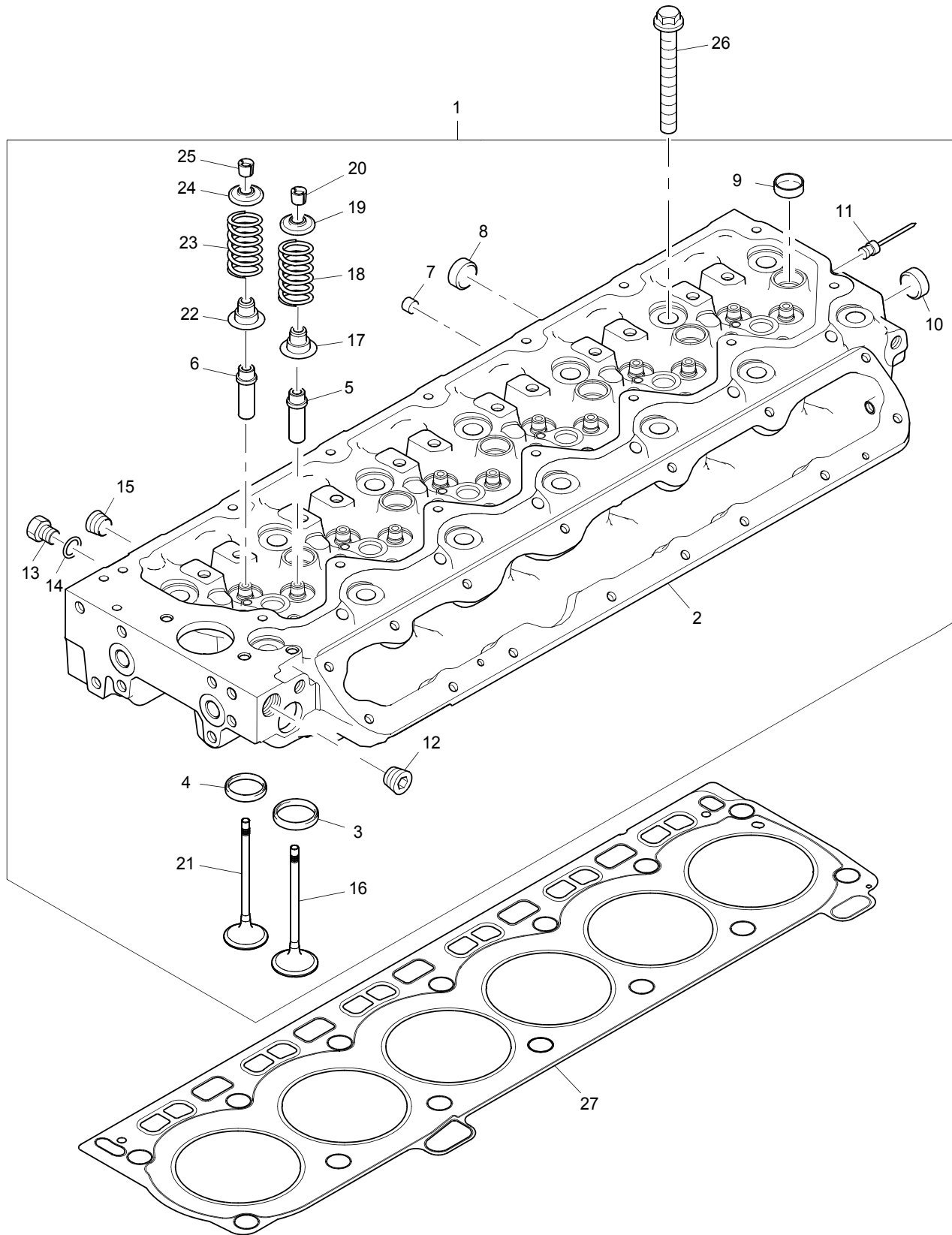
Item	Part No.	References	Qty.	Description	Notes
1		Ⓢ	6	CON ROD ASSEMBLY	
2		⇒ SERVICE OPTION	1	CON ROD	
3	3112E031		1	SMALL END BUSH	
4	T400001		2	CON ROD BOLT	(A)
<b>Service Options</b>					
1	T406141		6	CON ROD ASSEMBLY	(B) GRADE: B -
1	T406140		6	CON ROD ASSEMBLY	(C) GRADE: R -
1	T405440		6	CON ROD ASSEMBLY	(D) GRADE: G -

**Footnotes**

(A)	DO NOT RE-USE ONCE REMOVED
(B)	GRADE:B - BLUE
(C)	GRADE:R - RED
(D)	GRADE:G - GREEN

→ U001906P

ACHP0010



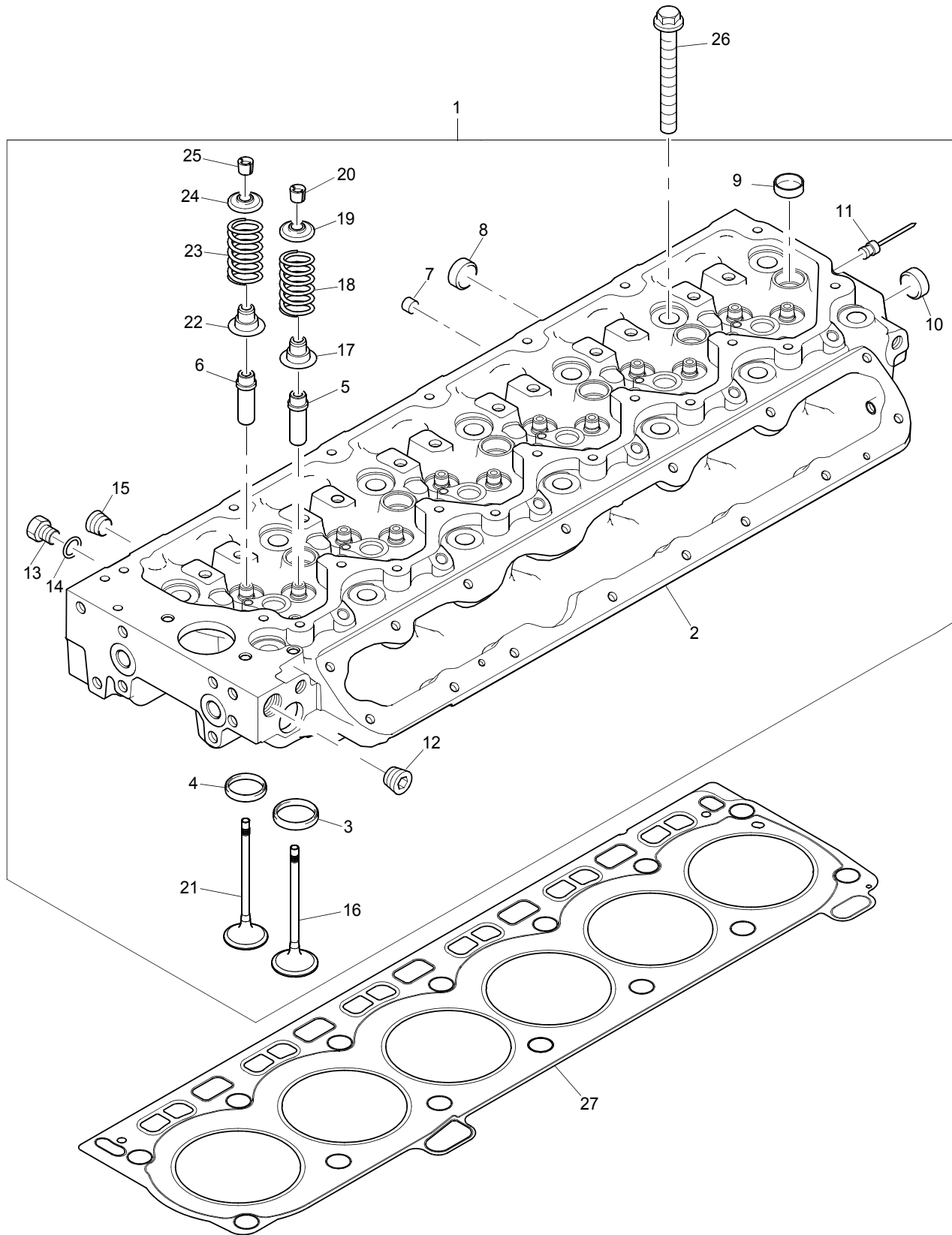
→ U001906P

ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	4181V022		1	CYLINDER HEAD ASSEMBLY	
2	—	⇒ 4181V022	1	CYLINDER HEAD	
3	— 3314A251		12	INLET VALVE INSERT	
4	— 3314A261		12	EXHAUST VALVE INSERT	
5	— 3313A035		12	VALVE GUIDE	(A,B)
6	— 3313A035		12	VALVE GUIDE	(A,B)
7	— 3241A201		6	PLUG	
8	— 2485A517		6	PLUG	
9	— 2485A517		6	PLUG	
10	— 2485A517		1	PLUG	
11	— 2485A307		1	PLUG	
12	— 2431154		1	PLUG	
13	— 3278A006		1	PLUG	
14	— 2415H003		1	SEAL - O RING	
15	— 2431154		1	PLUG	
16	— 3142H091		12	INTAKE VALVE	(C)
17	— 2418M522		12	SEAL - VALVE STEM	
18	— 3174A025		12	VALVE SPRING	(D)
19	— 3311A025		12	CAP	
20	— 3142W005		24	VALVE COLLET	
21	— 3142A181		12	EXHAUST VALVE	
22	— 2418M522		12	SEAL - VALVE STEM	
23	— 3174A025		12	VALVE SPRING	(D)
24	— 3311A025		12	CAP	
25	— 3142W005		24	VALVE COLLET	
26	3218A017		14	CYLINDER HEAD BOLT	(E)
27	3681E052	Ⓢ	1	GASKET - CYLINDER HEAD	
<b>Service Options</b>					
27	3681E053	Ⓢ (+)0.25MM	1	GASKET - CYLINDER HEAD	
<b>Footnotes</b>					
(A)	USED ONLY WITH HEADS MACHINED TO ACCOMMODATE VALVE GUIDES				
(B)	SERVICE PART ONLY				
(C)	WAS 3142H081 USE 3142H091 IN ENGINE SETS ONLY				
(D)	SERVICED IN PAIRS				
(E)	REFER TO WORKSHOP MANUAL				

↳ U001907P

ACHP0010



↳ U001907P

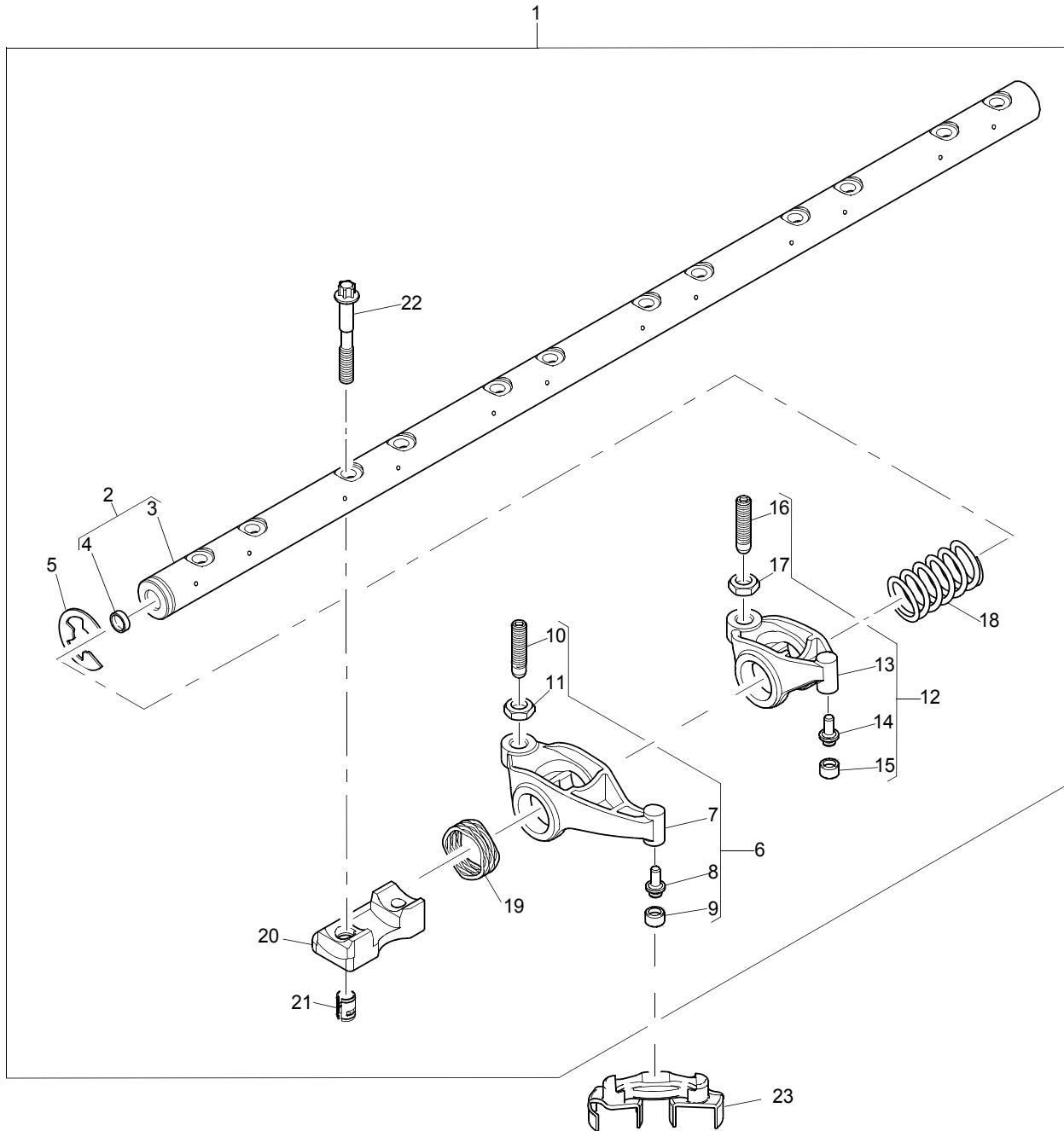
ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	4181V058		1	CYLINDER HEAD ASSEMBLY	
2	—	⇒ 4181V058	1	CYLINDER HEAD	
3	—3314A251		12	INLET VALVE INSERT	
4	—3314A261		12	EXHAUST VALVE INSERT	
5	—3313A035		12	VALVE GUIDE	(A,B)
6	—3313A035		12	VALVE GUIDE	(A,B)
7	—3241A201		6	PLUG	
8	—2485A517		6	PLUG	
9	—2485A517		6	PLUG	
10	—2485A517		1	PLUG	
11	—2485A307		1	PLUG	
12	—2431154		1	PLUG	
13	—3278A006		1	PLUG	
14	—2415H003		1	SEAL - O RING	
15	—2431154		1	PLUG	
16	—3142H091		12	INTAKE VALVE	
17	—2418M522		12	SEAL - VALVE STEM	
18	—3174A025		12	VALVE SPRING	(C)
19	—3311A025		12	CAP	
20	—3142W005		24	VALVE COLLET	
21	—3142A181		12	EXHAUST VALVE	
22	—2418M522		12	SEAL - VALVE STEM	
23	—3174A025		12	VALVE SPRING	(C)
24	—3311A025		12	CAP	
25	—3142W005		24	VALVE COLLET	
26	3218A017		14	CYLINDER HEAD BOLT	(D)
27	3681E052	Ⓢ	1	GASKET - CYLINDER HEAD	
<b>Service Options</b>					
27	3681E053	Ⓢ (+)0.25MM	1	GASKET - CYLINDER HEAD	

**Footnotes**

(A)	USED ONLY WITH HEADS MACHINED TO ACCOMMODATE VALVE GUIDES
(B)	SERVICE PART ONLY
(C)	SERVICED IN PAIRS
(D)	REFER TO WORKSHOP MANUAL

ACHP0010

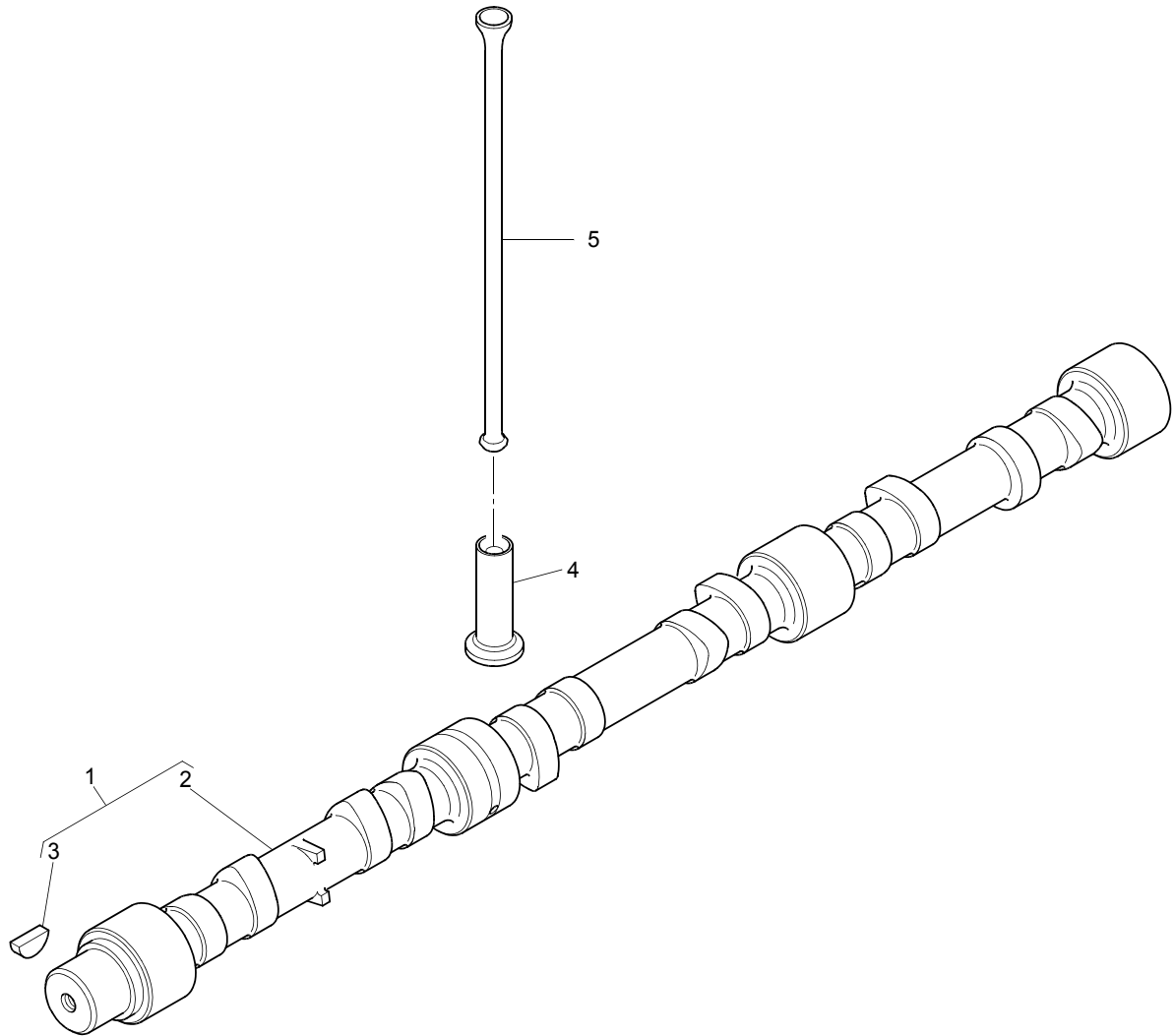




ACHP0010

Item	Part No.	References	Qty.	Description	Notes
1	4115R821		1	ROCKER SHAFT ASSEMBLY	
2	—4115R817		1	ROCKER SHAFT ASSY - MINOR	
3	—	⇒ 4115R817	1	ROCKER ARM SHAFT	
4	—2485A105		2	PLUG	
5	—2727A015		1	CIRCLIP	
6	—4115R317		6	ROCKER ARM ASSEMBLY	
7	—	⇒ 4115R317	1	ROCKER ARM	
8	—	⇒ 4115R317	1	INSERT	
9	—	⇒ 4115R317	1	PIVOT	
10	—3211C004		1	SCREW	
11	—3331A004		1	NUT	
12	—4115R316		6	ROCKER ARM ASSEMBLY	
13	—	⇒ 4115R316	1	ROCKER ARM	
14	—	⇒ 4115R316	1	INSERT	
15	—	⇒ 4115R316	1	PIVOT	
16	—3211C004		1	SCREW	
17	—3331A004		1	NUT	
18	—3174A023		5	ROCKER SHAFT SPRING	
19	—3174A024		1	ROCKER SHAFT SPRING	
20	—3818X161		6	PEDESTAL	
21	—3241A024		6	RETAINER	
22	—3218A201		12	SCREW	
23	T406248		12	BRIDGE PIECE	

ACHP0010



ACHP0010

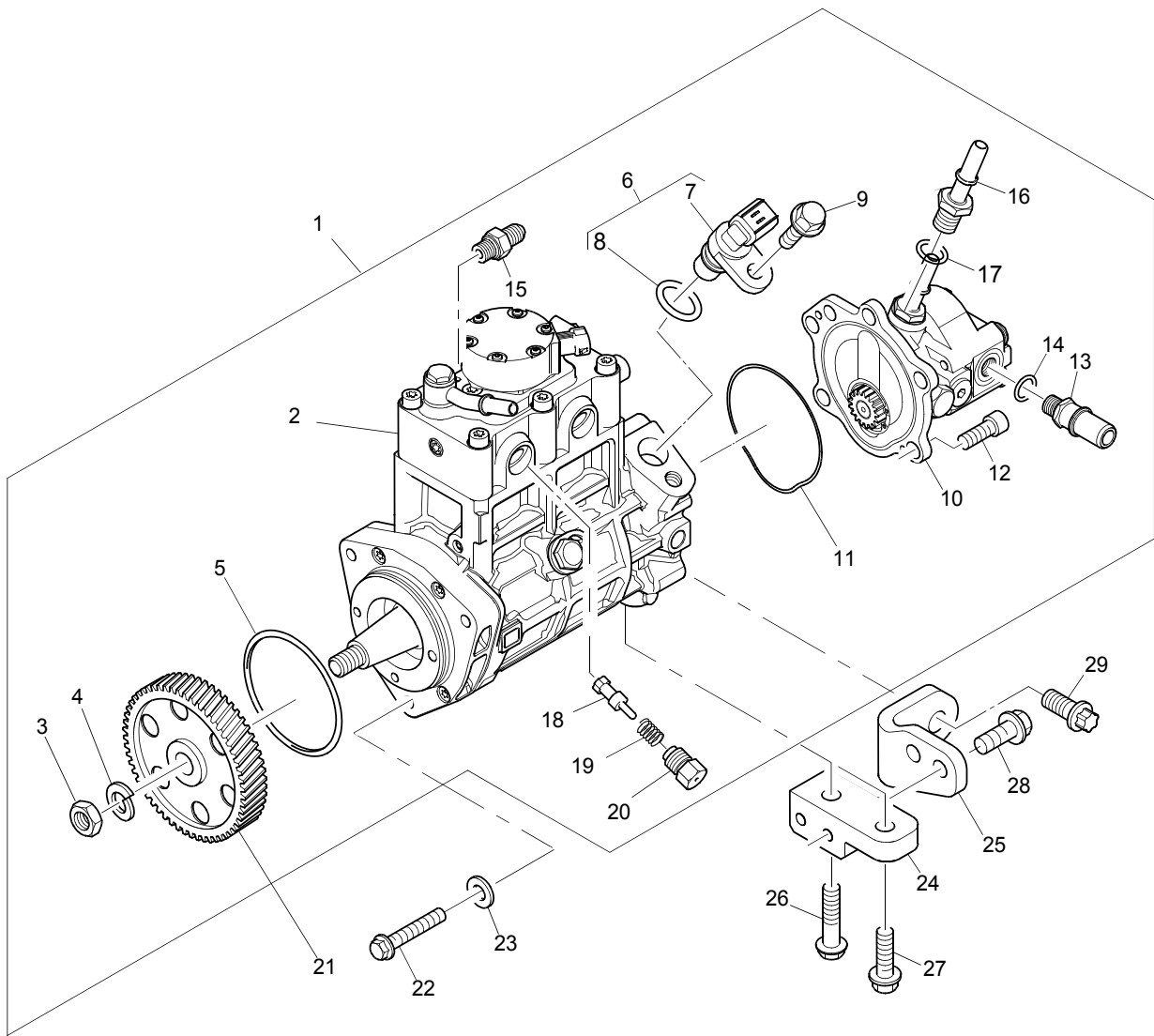
Item	Part No.	References	Qty.	Description	Notes
1	4112K066		1	CAMSHAFT	
2		⇒ 4112K066	1	CAMSHAFT	
3	_0500012		1	WOODRUFF KEY	
4	3142U051		12	TAPPET	
5	T405746	Ⓚ a.	12	PUSHROD	

**History**

**a.**

5	3142V011		12	PUSHROD	
---	----------	--	----	---------	--

AFH04639



30  
ANTI CONTAMINATION KIT  
KIT DE PROTECCION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

AFH04639

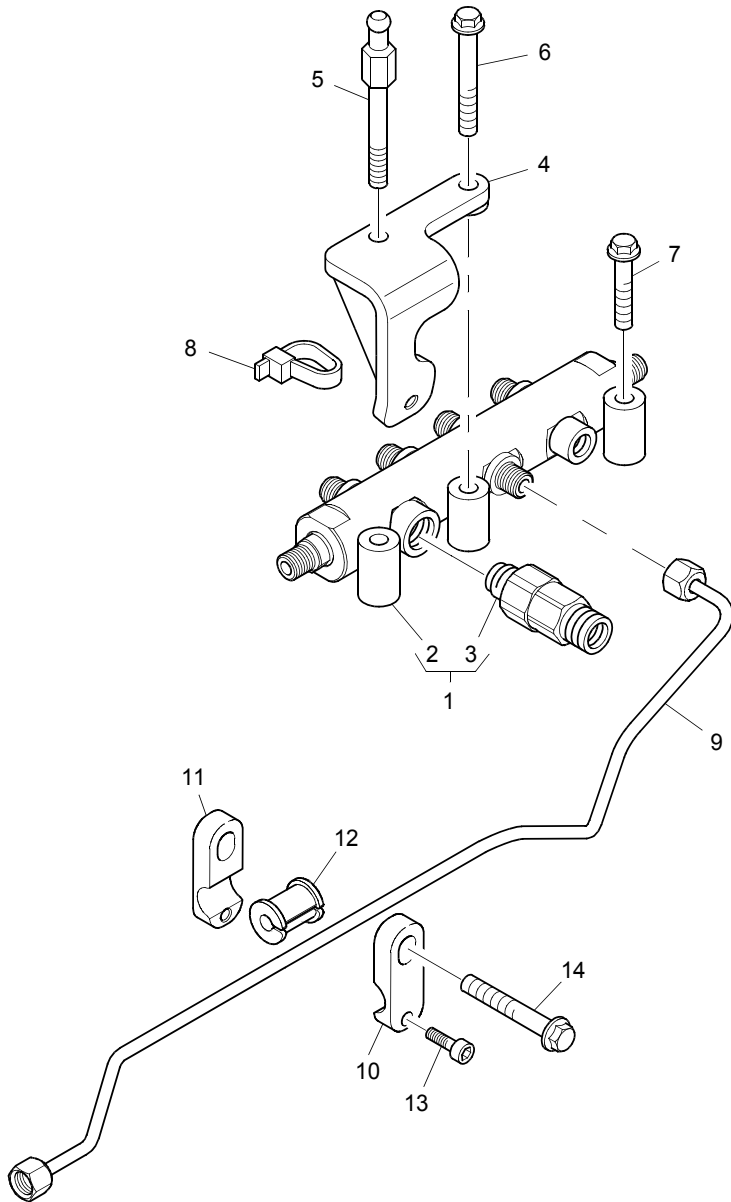
Item	Part No.	References	Qty.	Description	Notes
1	2641A312	↻	1	HIGH PRESSURE FUEL PUMP	
2	—	⇒ 2641A312	1	HIGH PRESSURE FUEL PUMP	
3	—2318A108		1	NUT	
4	—K134AF01		1	WASHER	
5	—2415H531		1	O RING	
6	—U5MK1086		1	HP PUMP SPEED SENSOR	
7	—	⇒ U5MK1086	1	SPEED SENSOR	
8	—2415H524		1	SEAL - SENSOR	(A)
9	—2314H002		1	SCREW	
10	—2641A307	↻	1	LIFT PUMP	
11	—2415H528		1	SEAL - O RING	
12	—2311D060		5	SCREW	
13	—3355A028		1	CONNECTION	
14	—2415H221		1	SEAL - O RING	
15	—2441A601		1	CONNECTION	
16	—3355A038		1	CONNECTION	
17	—2415H221		1	SEAL - O RING	
18	—2116A401		2	PIN	
19	—3174A032		2	SPRING	
20	—3346A013		2	PLUG	
21	3117L261		1	FUEL INJECTION PUMP GEAR	
22	2314H004		3	SCREW	
23	2411D008		3	WASHER	(A)
24	3753V045		1	BRACKET	
25	3753V035		1	SUPPORT BRACKET	
26	2314H006		1	SCREW	
27	2314H004		1	SCREW	
28	2314H003		2	SCREW	
29	2316A215		2	SCREW	
30	U5MK1124		1	PROTECTION KIT	(B)
<b>Service Options</b>					
1	2641A312R		1	HP FUEL PUMP - EXCHANGE	
10	2641A307R		1	LIFT PUMP - EXCHANGE	

**Footnotes**

(A)	DO NOT RE-USE ONCE REMOVED
(B)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

→ U022142T

AFH04639



15  
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

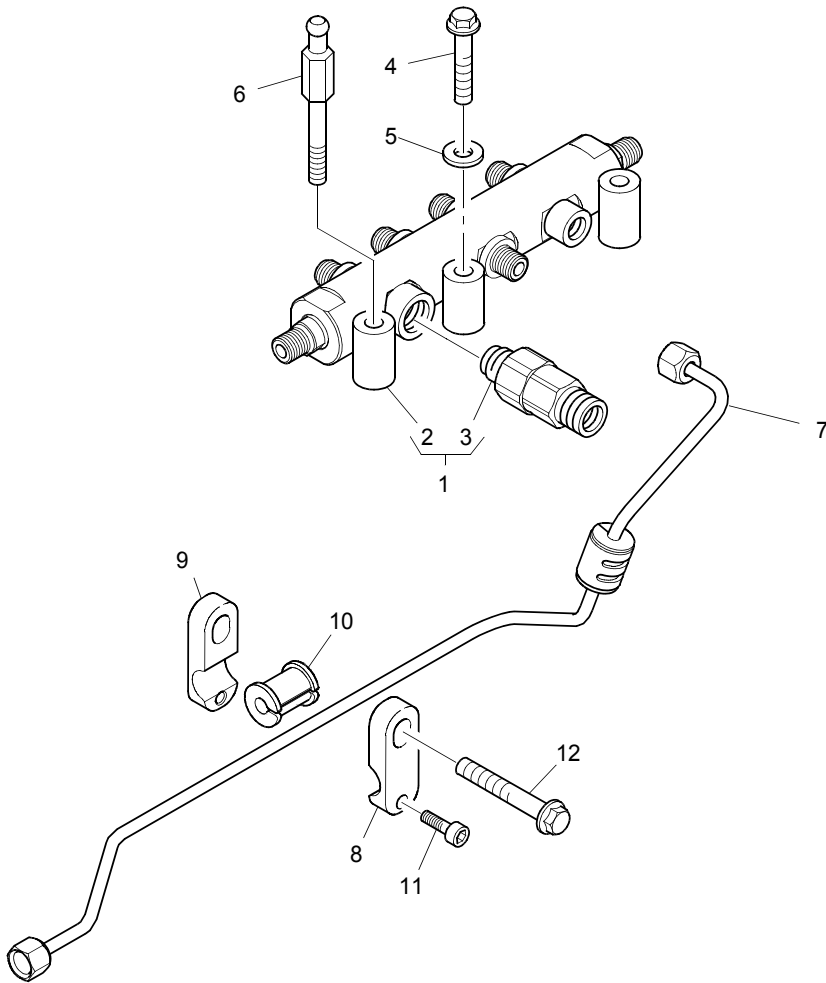
<b>Fuel Rail</b>	<b>Plate A</b>
→ U022142T	AFH04639

Item	Part No.	References	Qty.	Description	Notes
1	3774A416		1	FUEL RAIL	
2	└	⇒ 3774A416	1	FUEL RAIL	
3	└2658A301		1	RELIEF VALVE	(A)
4	3658A006		1	BRACKET	(B)
5	3214A016		1	STUD	
6	2314K161		1	SCREW	
7	2314K159		1	SCREW	
8	2817152		1	CABLE TIE	
9	3525A207		1	PIPE - HP PUMP TO RAIL	(C)
10	3748A061	↳ U009064S	4	CLAMP	
11	3748A062	↳ U009064S	4	CLAMP	
12	3384A008		4	ISOLATOR	(D)
13	2311D027		4	SCREW	
14	2314H005		4	SCREW	
15	U5MK1124		1	PROTECTION KIT	(E)

Footnotes	
(A)	REFER TO SERVICE BULLETIN NO.72 (1100 SERIES)
(B)	REFER TO SERVICE BULLETIN NO.48 (1100 SERIES)
(C)	Do not re-use once removed/bent or damaged
(D)	WAS 3881A009 USE 3384A008 IN ENGINE SETS ONLY
(E)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

↳ U022143T

AFH04639



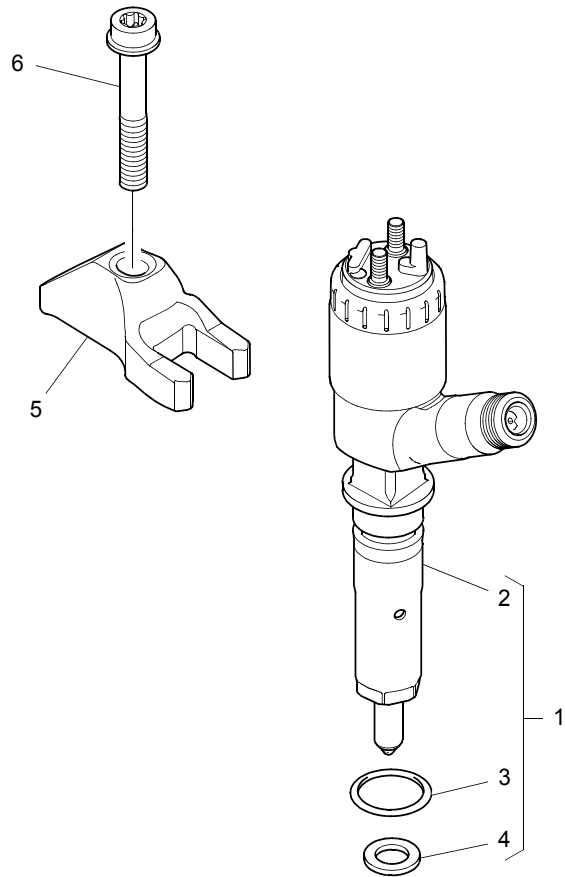


<b>Fuel Rail</b>	<b>Plate A</b>
↳ U022143T	AFH04639

Item	Part No.	References	Qty.	Description	Notes
1	3774A416		1	FUEL RAIL	
2	└	⇒ 3774A416	1	FUEL RAIL	
3	└2658A301		1	RELIEF VALVE	(A)
4	2314K159		2	SCREW	
5	33114411		1	SPACER	
6	3214A013		1	STUD	
7	3525A221		1	PIPE - HP PUMP TO RAIL	
8	3748A061		3	CLAMP	
9	3748A062		3	CLAMP	
10	3384A008		3	ISOLATOR	(B)
11	2311D027		3	SCREW	
12	2314H005		3	SCREW	

Footnotes	
(A)	REFER TO SERVICE BULLETIN NO.72 (1100 SERIES)
(B)	WAS 3881A009 USE 3384A008 IN ENGINE SETS ONLY

AFH04639



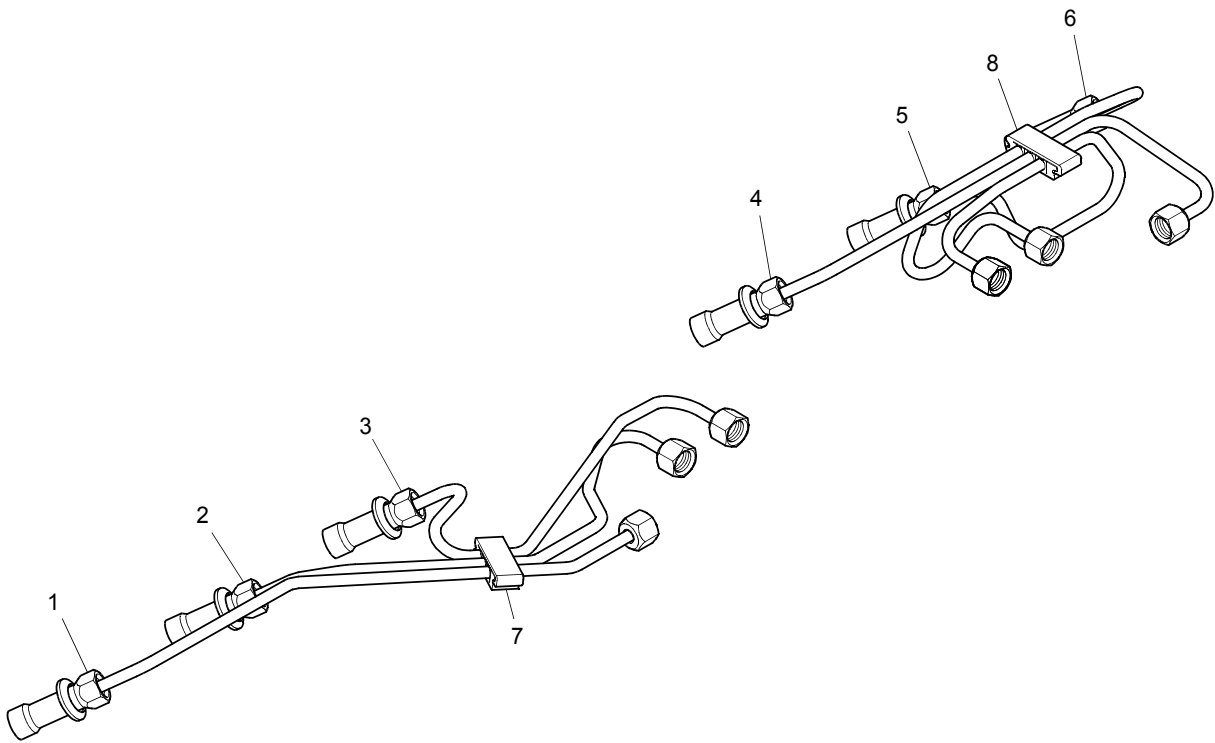
7  
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

<b>Atomisers</b>	<b>Plate A</b>
<b>AFH04639</b>	

Item	Part No.	References	Qty.	Description	Notes
1	2645A749	↳ U022144T	1	INJECTOR	(A,B)
2		⇒ 2645A749	1	INJECTOR	
3	2415H014		1	SEAL - O RING	(C)
4	2415D154		1	INJECTOR WASHER	(C)
5	3751A331		6	INJECTOR CLAMP	
6	3218A016		6	SCREW	
7	U5MK1124		1	PROTECTION KIT	(D)

<b>Footnotes</b>	
(A)	REFER TO PTMI SITE (WITHIN SECURE AREA OF WWW.PERKINS.COM) FOR FLASHFILE INFORMATION
(B)	Injectors supplied with Trim Code Programme CD
(C)	DO NOT RE-USE ONCE REMOVED
(D)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

AFH04639



9

ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

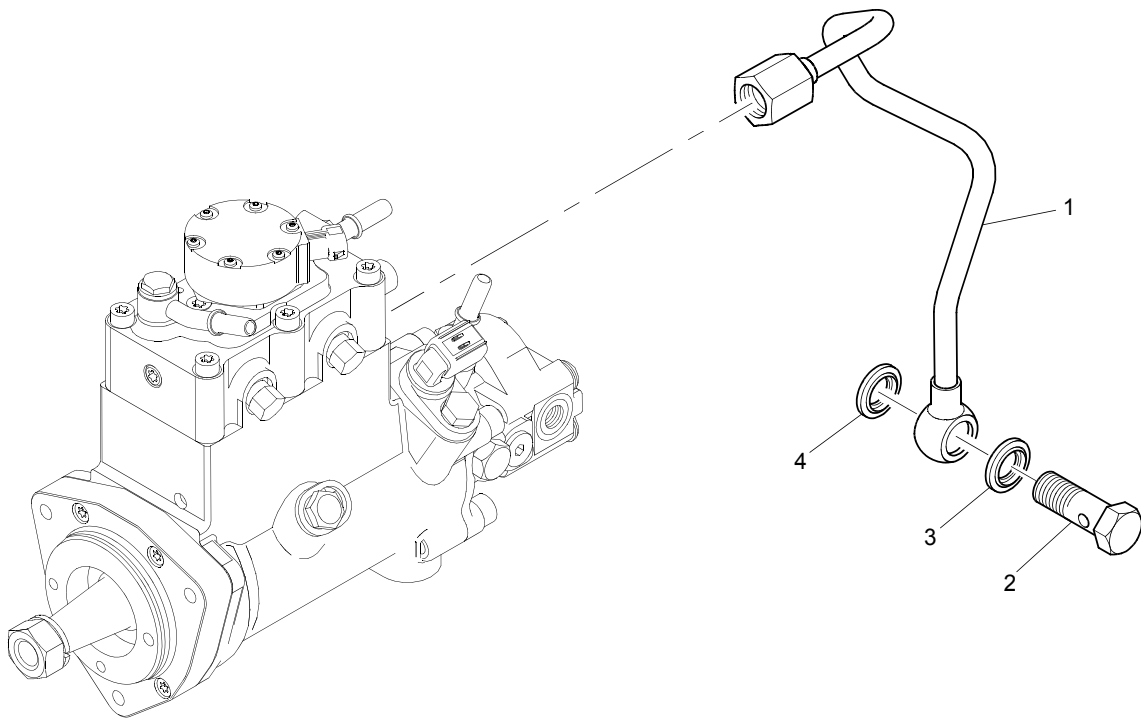
**AFH04639**

Item	Part No.	References	Qty.	Description	Notes
1	3525A201		1	PIPE - FUEL INJ NO 1 CYL	(A)
2	3525A202		1	PIPE - FUEL INJ NO 2 CYL	(A)
3	3525A203		1	PIPE - FUEL INJ NO 3 CYL	(A)
4	3525A204		1	PIPE - FUEL INJ NO 4 CYL	(A)
5	3525A205		1	PIPE - FUEL INJ NO 5 CYL	(A)
6	3525A206		1	PIPE - FUEL INJ NO 6 CYL	(A)
7	2646E203		1	CLIP	
8	2646E203		1	CLIP	
9	U5MK1124		1	PROTECTION KIT	(B)

**Footnotes**

(A)	Do not re-use once removed/bent or damaged
(B)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

AFH04639

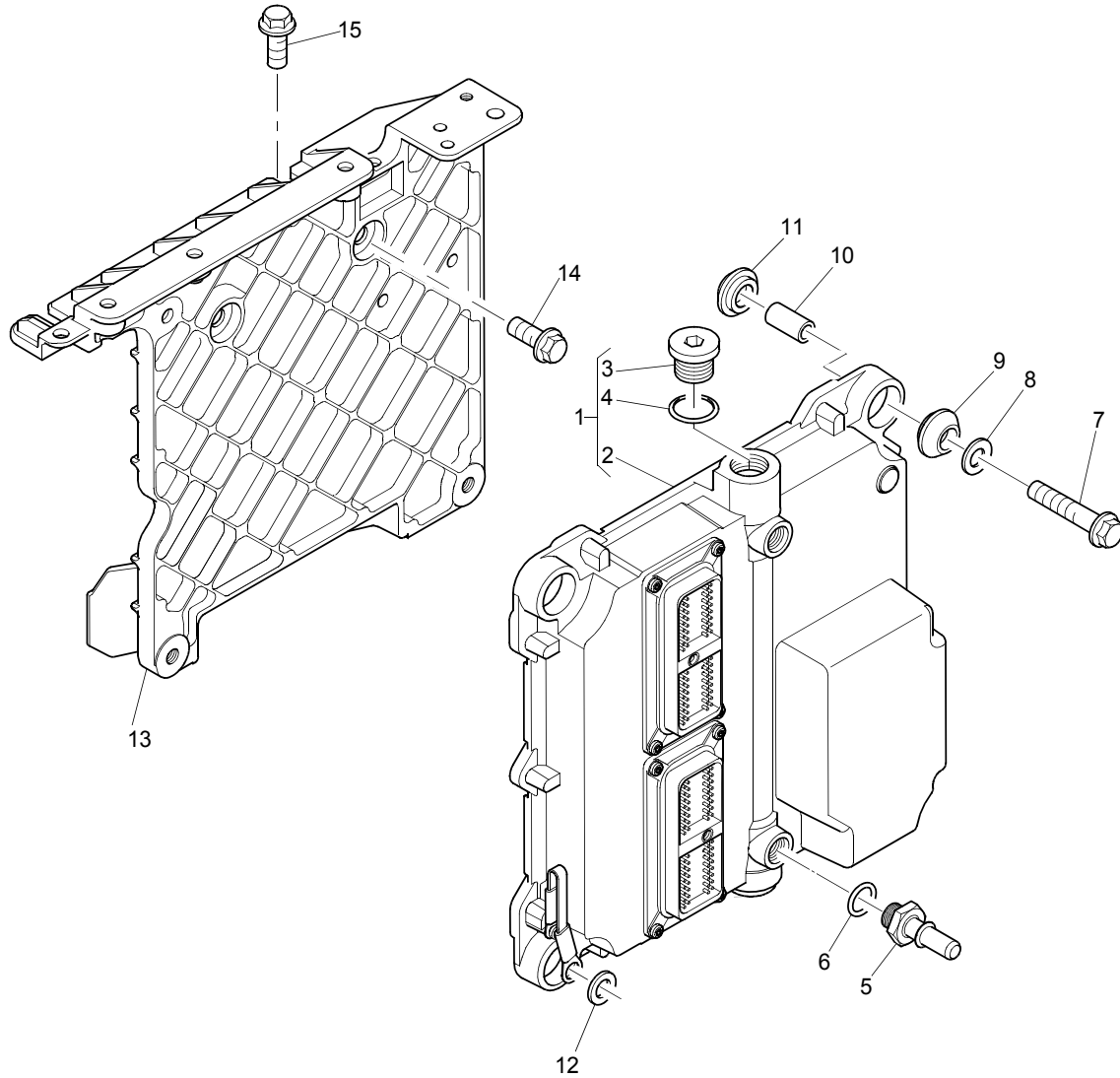


<b>Pipework</b>	<b>Plate A</b>
	<b>AFH04639</b>

Item	Part No.	References	Qty.	Description	Notes
1	3552A062		1	PIPE - OIL	
2	3218R036		1	BANJO BOLT	
3	2415D002		1	WASHER	
4	2415D002		1	WASHER	

→ U021093T

AFH04639



16  
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION



→ U021093T

AFH04639

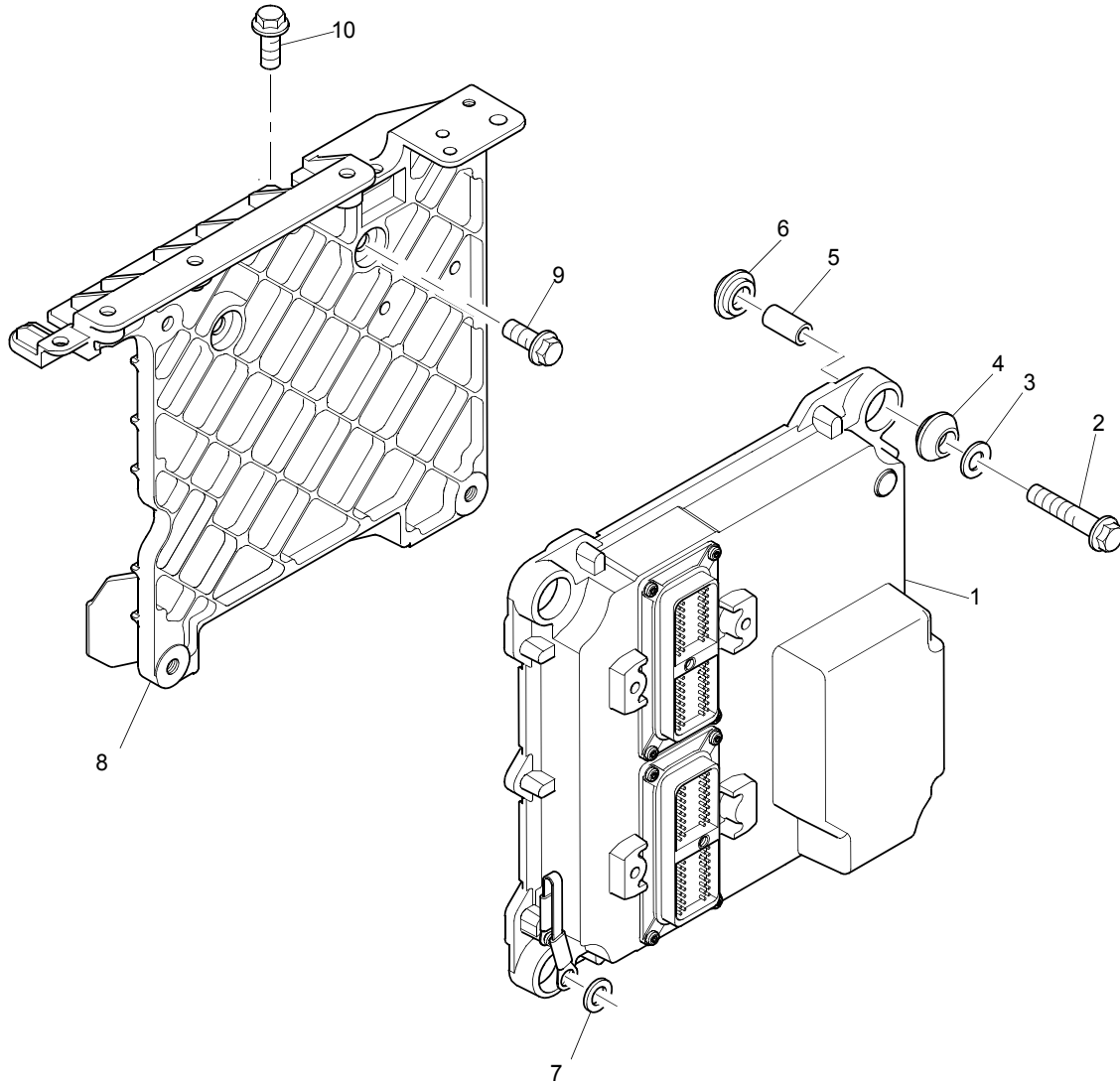
Item	Part No.	References	Qty.	Description	Notes
1	28170119		1	ENGINE CONTROL MODULE	(A,B)
2		⇒ 28170119	1	ENGINE CONTROL MODULE	
3		⇒ 28170119	2	PLUG	
4	2415H015		2	SEAL - O RING	
5	3355A021		2	CONNECTION	
6	2415H011		2	SEAL - O RING	(C)
7	2314H008		4	SCREW	
8	3311A015		4	WASHER	
9	3881A005		4	MOUNTING	
10	3313A027		4	SPACER	
11	3881A005		4	MOUNTING	
12	2131A008		1	WASHER	
13	3824A171		1	MOUNTING BRACKET	
14	2314H003		2	SCREW	
15	2314H003		2	SCREW	
16	U5MK1124		1	PROTECTION KIT	(D)

**Footnotes**

(A)	REFER TO PTMI SITE (WITHIN SECURE AREA OF WWW.PERKINS.COM) FOR FLASHFILE INFORMATION
(B)	USE 28170121 FOR OLYMPIAN GENERATORS.
(C)	DO NOT RE-USE ONCE REMOVED
(D)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

↳ U021094T

AFH04639



↳ U021094T

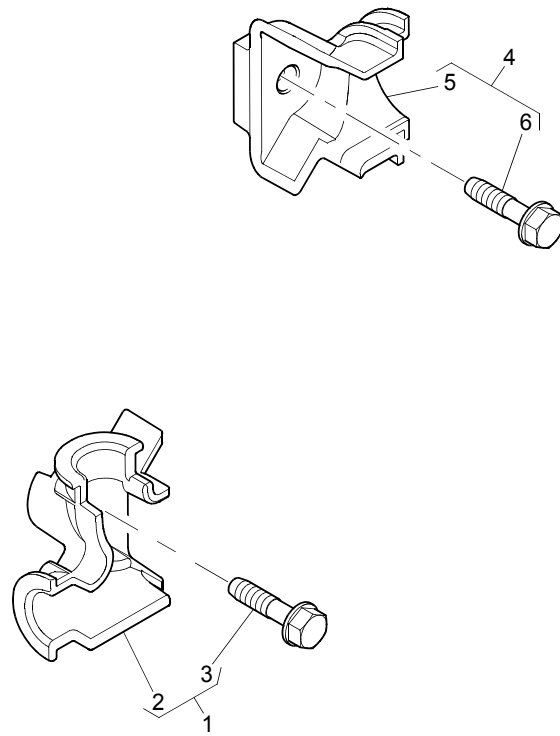
AFH04639

Item	Part No.	References	Qty.	Description	Notes
1	28170120		1	ENGINE CONTROL MODULE	(A,B)
2	2314H008		4	SCREW	
3	3311A015		4	WASHER	
4	3881A005		4	MOUNTING	
5	3313A027		4	SPACER	
6	3881A005		4	MOUNTING	
7	2131A008		1	WASHER	
8	3824A171		1	MOUNTING BRACKET	
9	2314H003		2	SCREW	
10	2314H003		2	SCREW	

**Footnotes**

(A)	REFER TO PTMI SITE (WITHIN SECURE AREA OF WWW.PERKINS.COM) FOR FLASHFILE INFORMATION
(B)	USE 28170122 FOR OLYMPIAN GENERATORS.

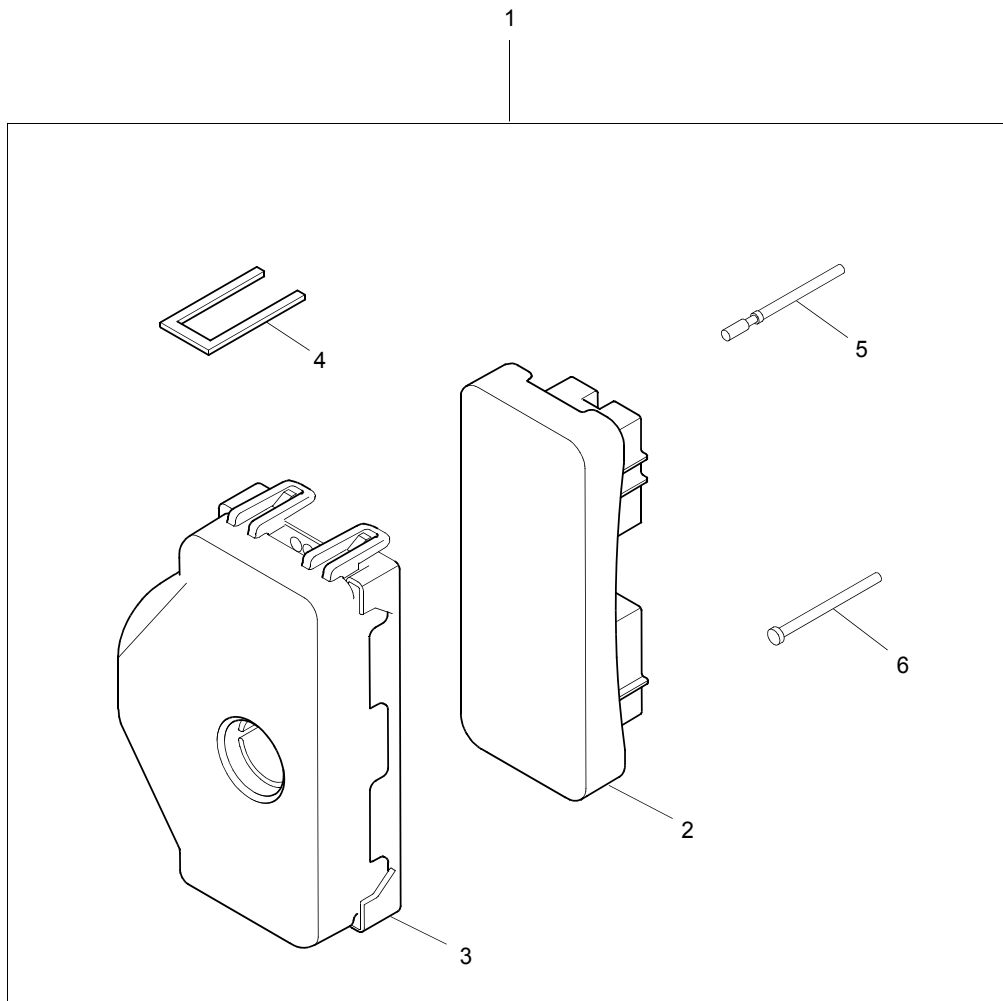
AFH04639




AFH04639

Item	Part No.	References	Qty.	Description	Notes
1	T410342		1	BRACKET	
2		⇒ T410342	1	BRACKET	
3	2314E949		1	SCREW	
4	T410340		1	BRACKET	
5		⇒ T410340	1	BRACKET	
6	2314E949		1	SCREW	

AFH04639



AFH04639

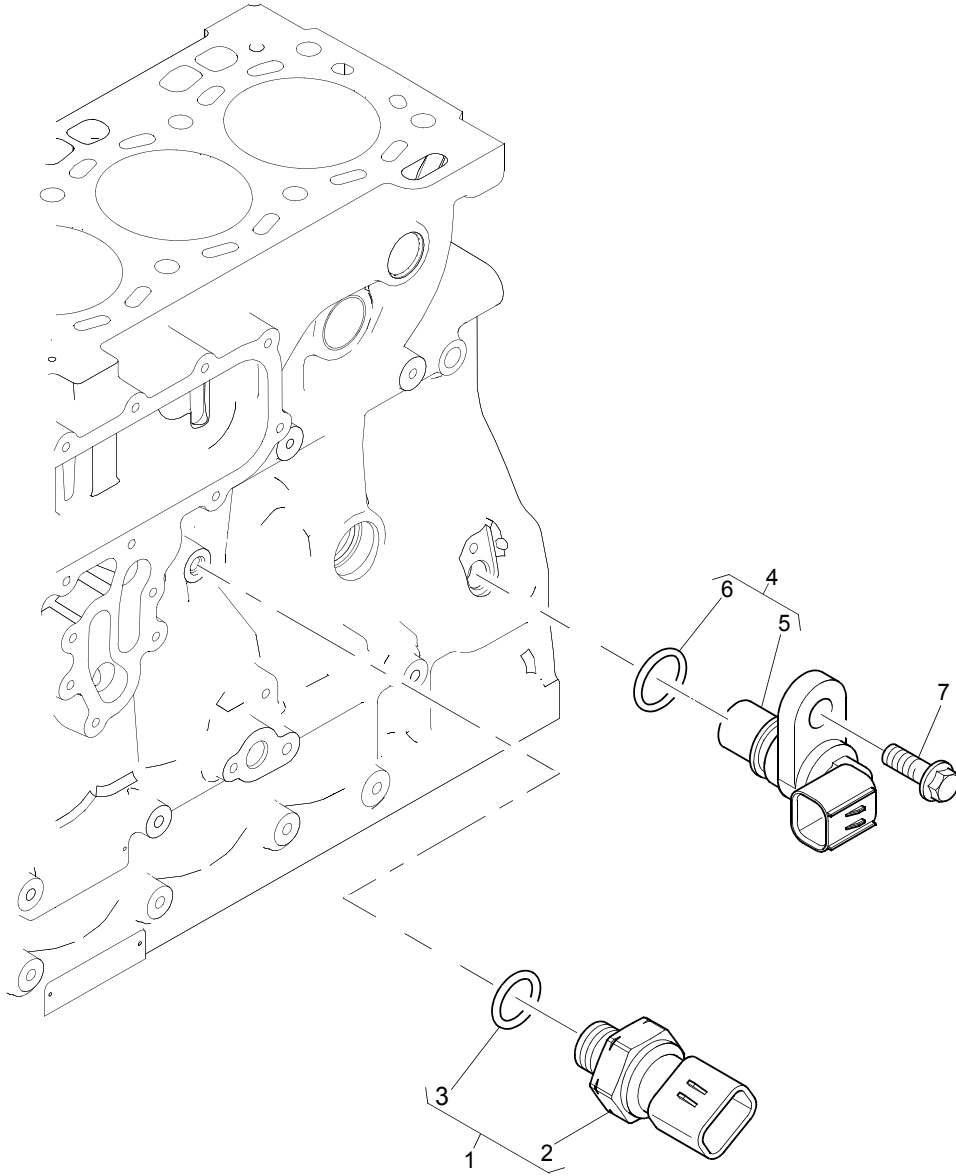
Item	Part No.	References	Qty.	Description	Notes
1	U5MK1229	 a.	1	CONNECTION KIT	
2	└ 28170033		1	ELECTRICAL CONNECTOR	
3	└ 28170035		1	COVER	
4	└ 28170034		2	LOCK	
5	└ 28170085		30	PIN	
6	└ 28170036		34	PLUG	

**History**

**a.**

1	U5MK1229		1	CONNECTION KIT	
	└ 28170036		40	PLUG	

AFH04639



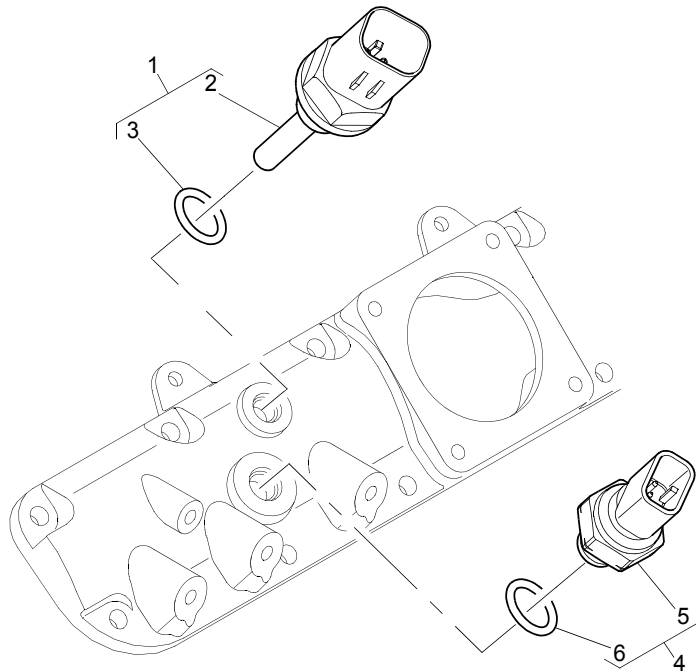


<b>Sensors</b>	<b>Plate A</b>
<b>AFH04639</b>	

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	U5MK1088		1	OIL PRESSURE SENSOR KIT	
2		⇒ U5MK1088	1	OIL PRESSURE SENSOR	
3	2415H002		1	SEAL - O RING	(A)
4	U5MK1234		1	CRANKSHAFT SPEED SENSOR	
5		⇒ U5MK1234	1	SPEED SENSOR	
6	2415H014		1	SEAL - O RING	(A)
7	2314H002		1	SCREW	

<b>Footnotes</b>	
(A)	DO NOT RE-USE ONCE REMOVED

AFH04639

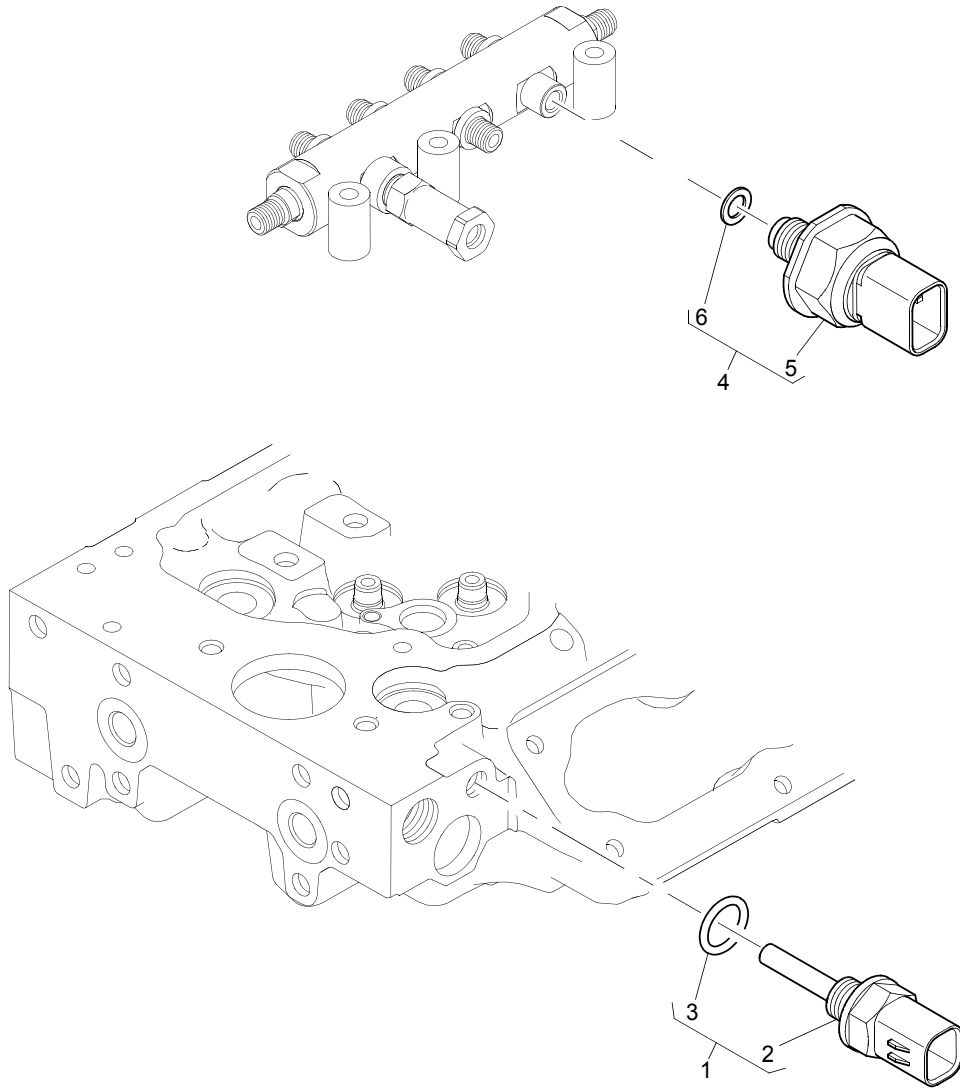


<b>Sensors</b>	<b>Plate B</b>
<b>AFH04639</b>	

Item	Part No.	References	Qty.	Description	Notes
1	U5MK1089		1	AIR TEMPERATURE SENSOR KIT	
2		⇒ U5MK1089	1	TEMPERATURE SENSOR	
3	2415H523		1	SEAL - SENSOR	(A)
4	U5MK1090		1	AIR PRESSURE SENSOR KIT	
5		⇒ U5MK1090	1	AIR PRESSURE SENSOR	
6	2415H001		1	SEAL - O RING	(A)

<b>Footnotes</b>	
(A)	DO NOT RE-USE ONCE REMOVED

AFH04639



<b>Sensors</b>	<b>Plate C</b>
<b>AFH04639</b>	

Item	Part No.	References	Qty.	Description	Notes
1	U5MK1091		1	WATER TEMPERATURE SENSOR	
2		⇒ U5MK1091	1	TEMPERATURE SENSOR	
3	2415H002		1	SEAL - O RING	(A)
4	U5MK1236		1	FUEL PRESSURE SENSOR KIT	
5		⇒ U5MK1236	1	SENSOR	
6	3311A053		1	WASHER	(A)

<b>Footnotes</b>	
(A)	DO NOT RE-USE ONCE REMOVED

AAG00500

1

Refer to PTMI site (within secure area of [www.perkins.com](http://www.perkins.com))  
for flashfile information

Consulter le site PTMI (via le site sécurisé [www.perkins.com](http://www.perkins.com))  
pour les informations de flashfile

Gehen sie auf die seite PTMI (eine gesicherte seite von [www.perkins.com](http://www.perkins.com))  
für flash file informationen

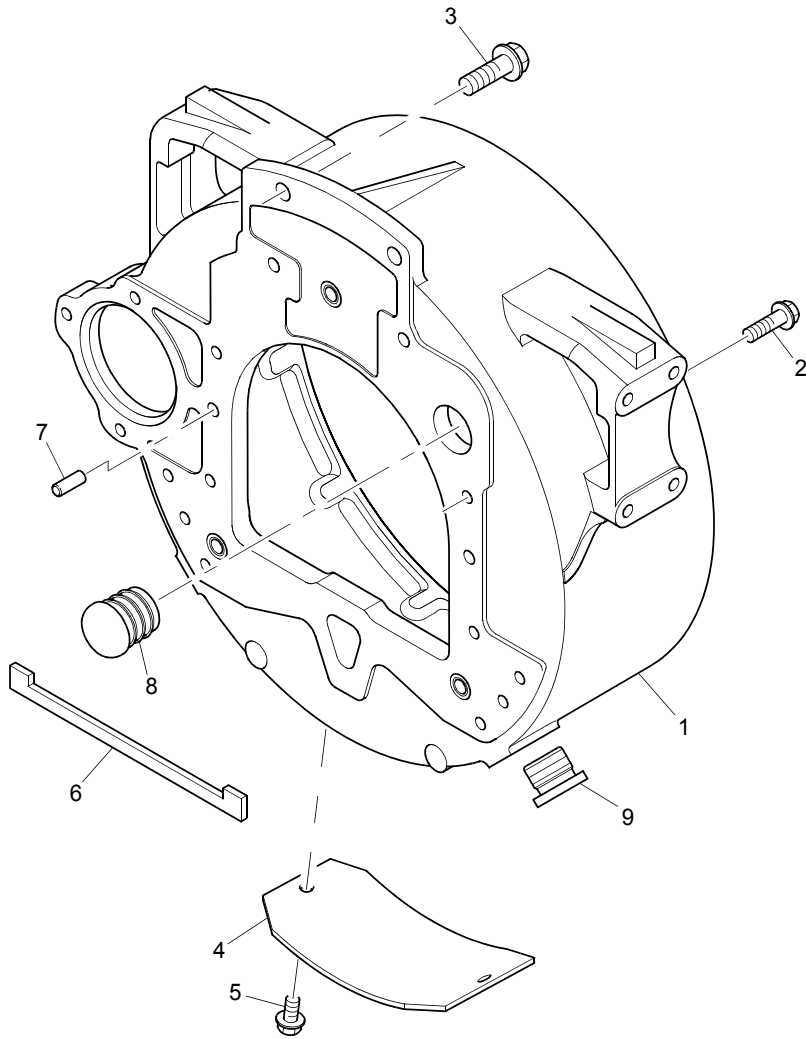
Fare riferimento al PTMI (nel sito [www.perkins.com](http://www.perkins.com))  
por le informazioni sul flashfile

Consulta la zona PTMI (de la página [www.perkins.com](http://www.perkins.com))  
para obtener información de los flashfile

<b>Flashfile Software</b>	<b>Plate A</b>
	<b>AAG00500</b>


Item	Part No.	References	Qty.	Description	Notes
1			1	FLASHFILE SOFTWARE	

CDH01077

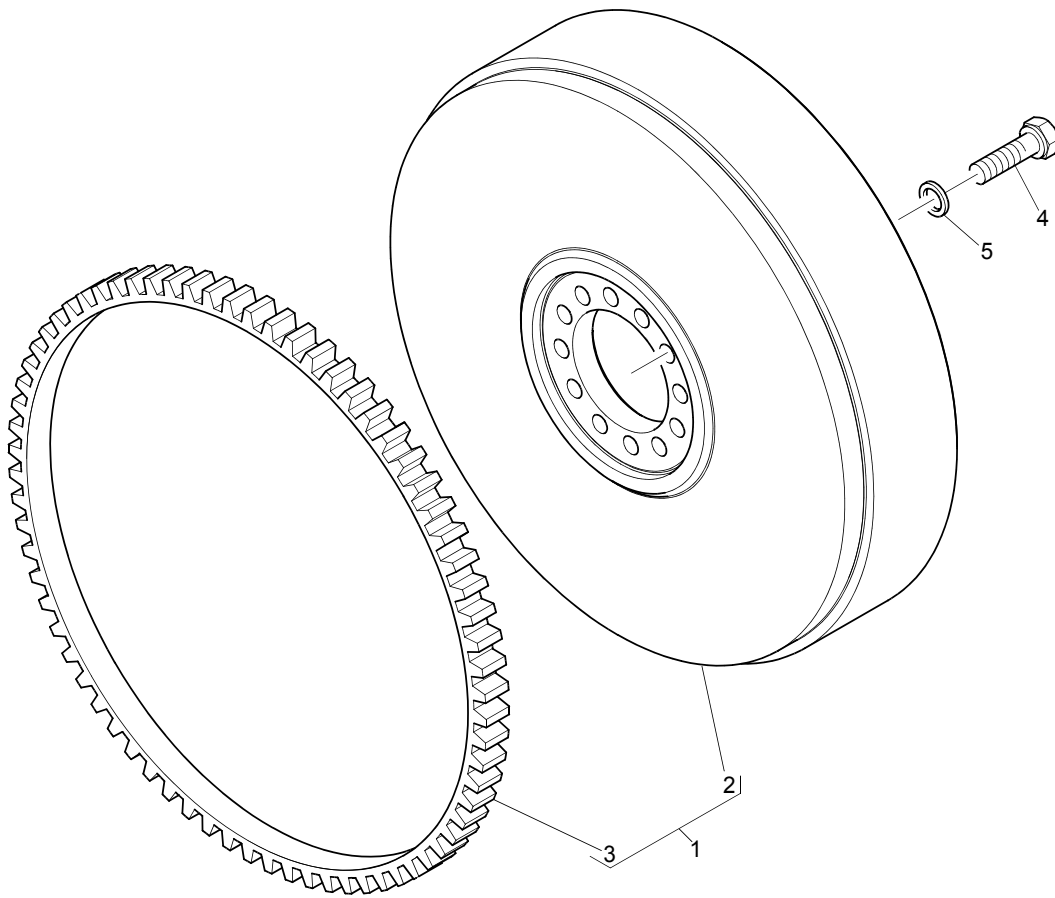




CDH01077

Item	Part No.	References	Qty.	Description	Notes
1	3713A071		1	FLYWHEEL HOUSING	
2	2314J204		6	SCREW	
3	2314J603		2	SCREW	
4	36212132		1	PLATE	
5	2314H102		2	SCREW	
6	3685A041		1	SEAL	
7	3245A011		2	DOWEL	
8	2487A452		1	PLUG	
9	T410815	 a.	2	PLUG	
<b>History</b>					
<b>a.</b>					
9	2487Y005		2	PLUG	

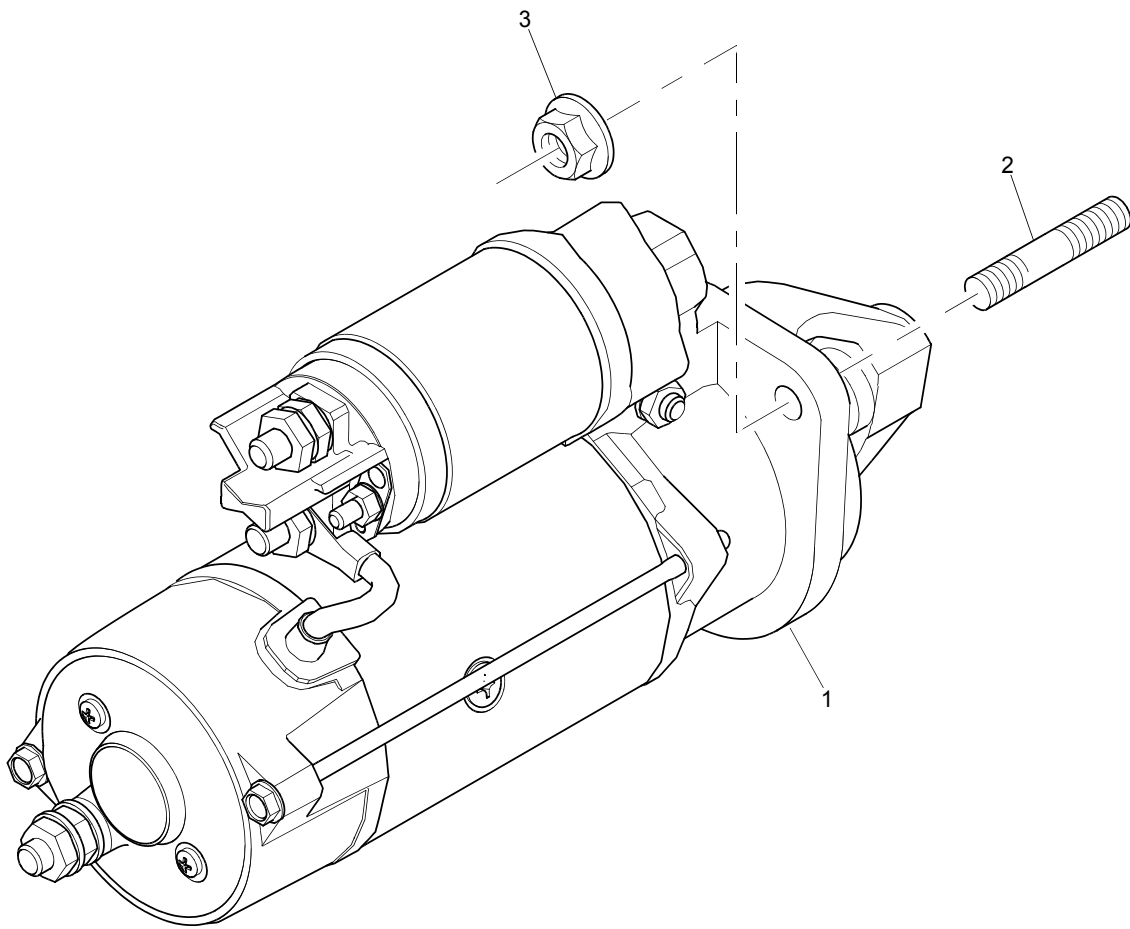
DDH02053



DDH02053

Item	Part No.	References	Qty.	Description	Notes
1	4111D128		1	FLYWHEEL ASSEMBLY	
2		⇒ 4111D128	1	FLYWHEEL	
3	31162121		1	STARTER RING GEAR	
4	0096803		12	SCREW	
5	33117127		12	WASHER	

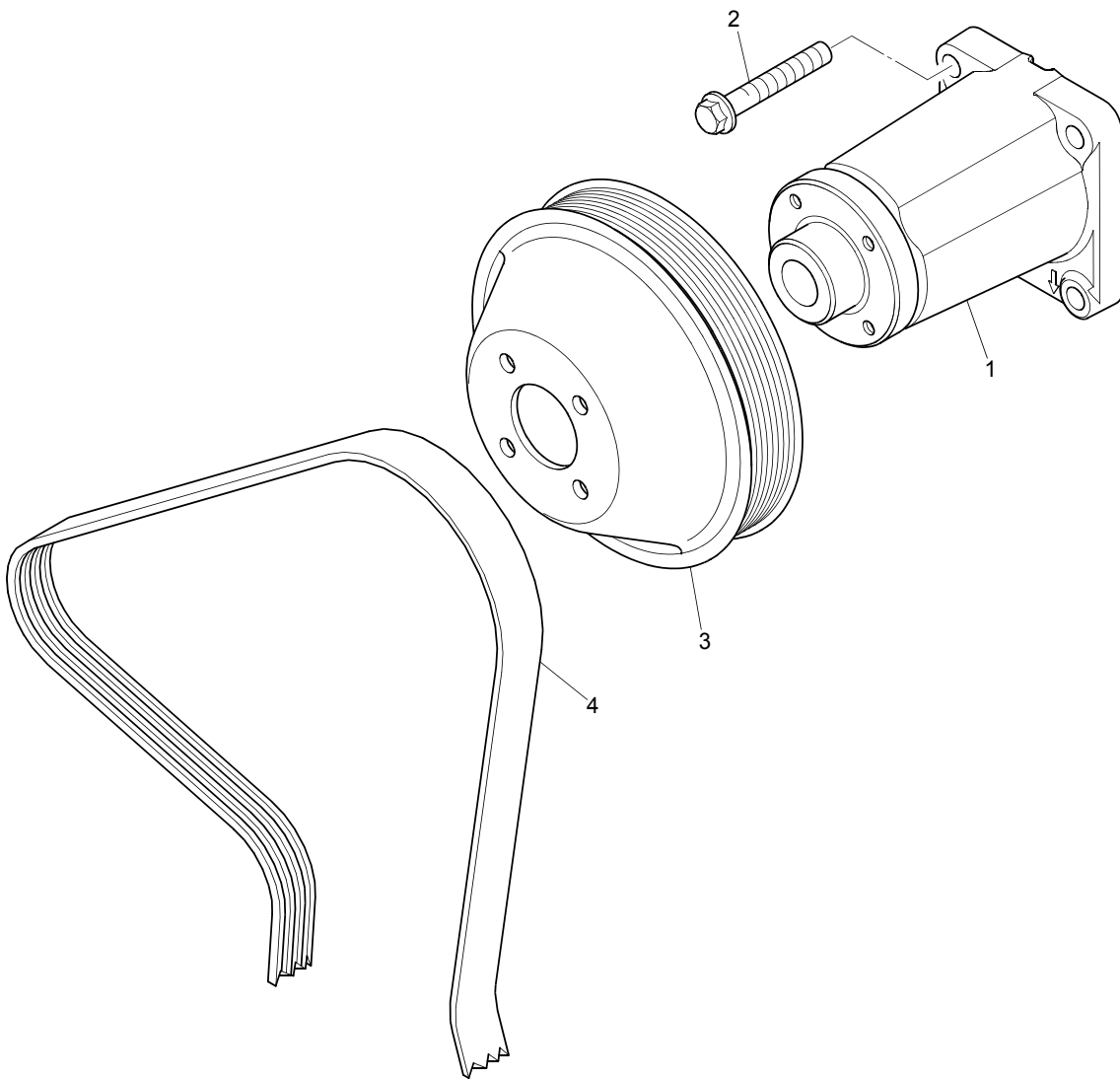
EDH00939



<b>Starter Motor</b>	<b>Plate A</b>
	<b>EDH00939</b>

Item	Part No.	References	Qty.	Description	Notes
1	2873K631		1	STARTER MOTOR	
2	2313C078		3	STUD	
3	2318A604		3	NUT	

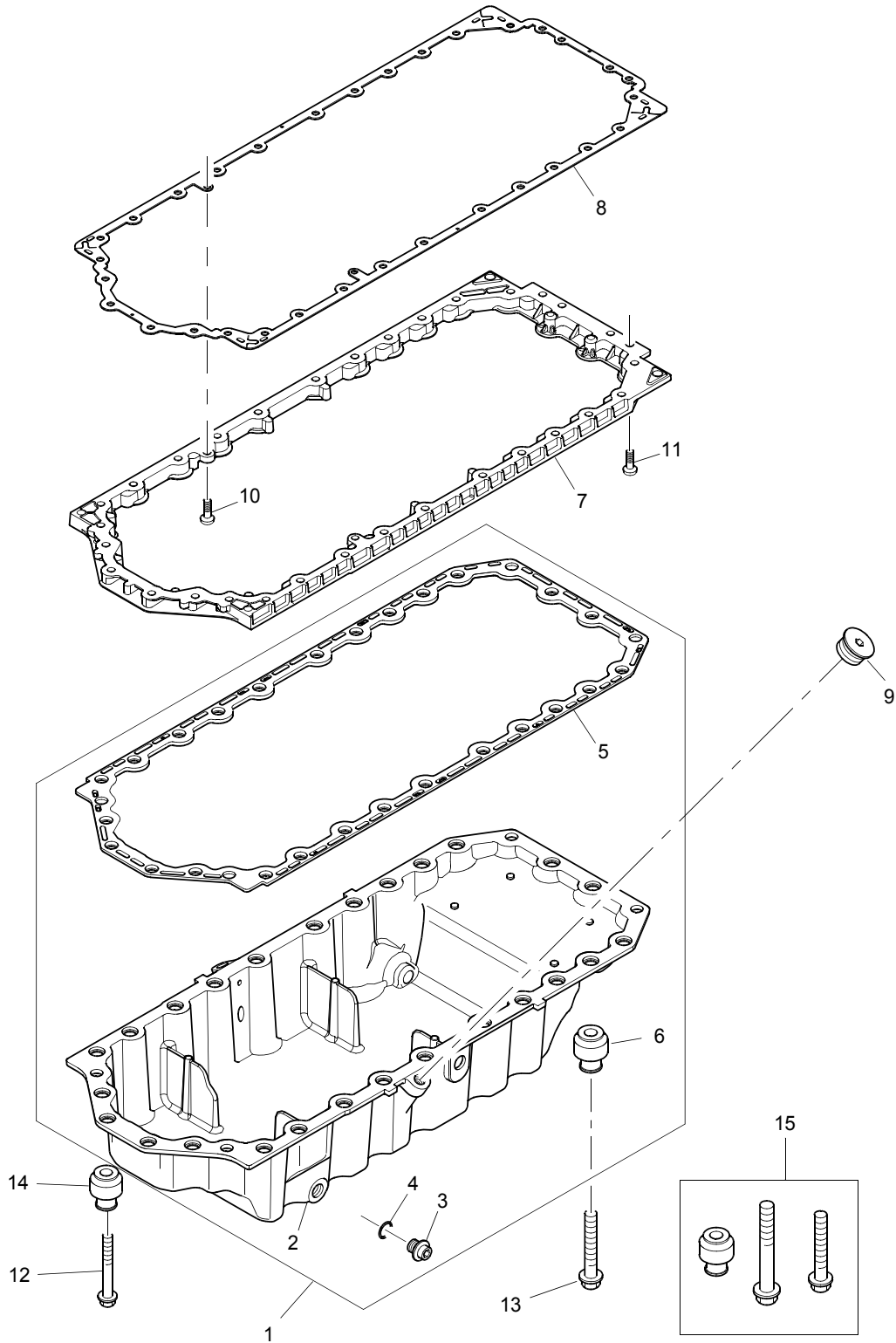
FBH01079



<b>Fan Drive</b>	<b>Plate A</b>
	<b>FBH01079</b>

Item	Part No.	References	Qty.	Description	Notes
1	4113K011		1	FAN DRIVE HOUSING	
2	2314J005		4	SCREW	
3	3115Y011		1	FAN DRIVE PULLEY	
4	2614E018		1	BELT	

GBH02855



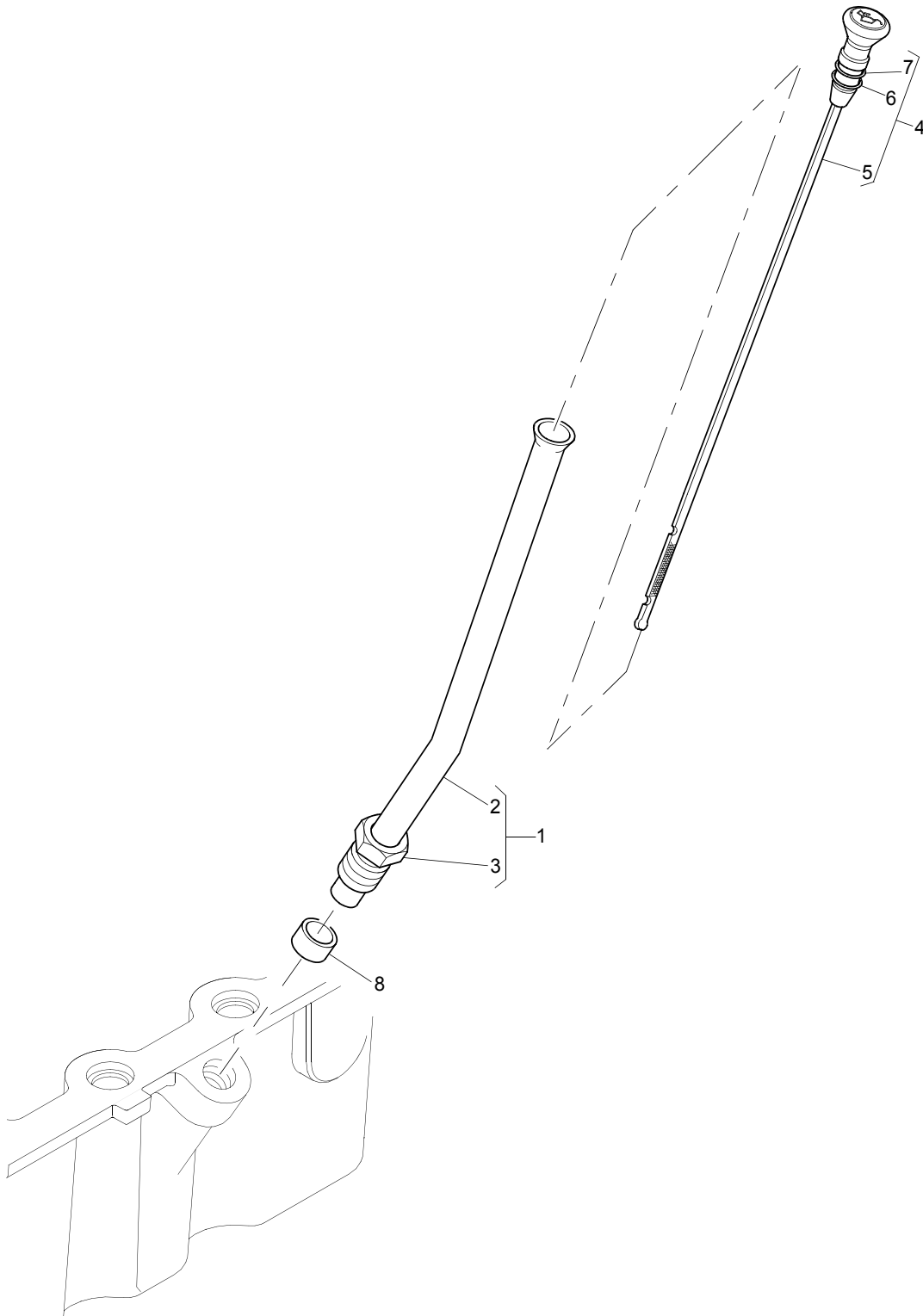


<b>Sump</b>	<b>Plate A</b>
<b>GBH02855</b>	

Item	Part No.	References	Qty.	Description	Notes
1	T408398		1	SUMP	
2	└	⇒ T408398	1	SUMP	
3	└ 32186405		2	PLUG	
4	└ T407088		2	SEAL - O RING	
5	└ 3681K041		1	GASKET - SUMP	
6	└ T407498		26	LIMITER	(A,B)
7	T406564		1	SUMP ADAPTOR	
8	3681K044		1	GASKET - SUMP	
9	T406330		1	PLUG	
10	2316T052		2	SCREW	
11	2316T052		4	SCREW	
12	2314K161		28	SCREW	
13	2314H007		2	SCREW	
14	T407498		4	LIMITER	(A,B)
15	U5MK0845		1	FIXING KIT	(C)
16	└ T407498		30	LIMITER	(A,B)
17	└ 2314K161		28	SCREW	
18	└ 2314H007		2	SCREW	

<b>Footnotes</b>	
(A)	DO NOT REPLACE SINGLE ITEMS - SERVICE BY COMPLETE SET ONLY
(B)	DO NOT RE-USE ONCE REMOVED
(C)	REFER TO SERVICE BULLETIN NO.97 (1100 SERIES)

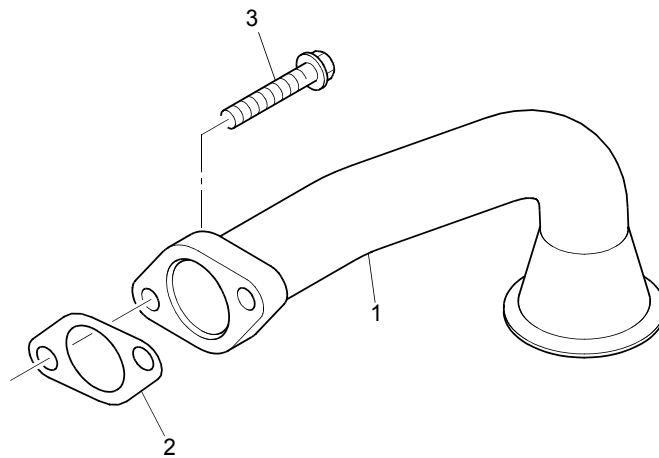
GBH02855



GBH02855

Item	Part No.	References	Qty.	Description	Notes
1	3577A157		1	TUBE ASSEMBLY	
2		⇒ 3577A157	1	TUBE	
3		⇒ 3577A157	1	NUT	
4	3178C203		1	DIPSTICK	
5		⇒ 3178C203	1	DIPSTICK	
6	—2413681		1	SEAL - O RING	
7	—2413681		1	SEAL - O RING	
8	33812116		1	OLIVE	

GBH02855

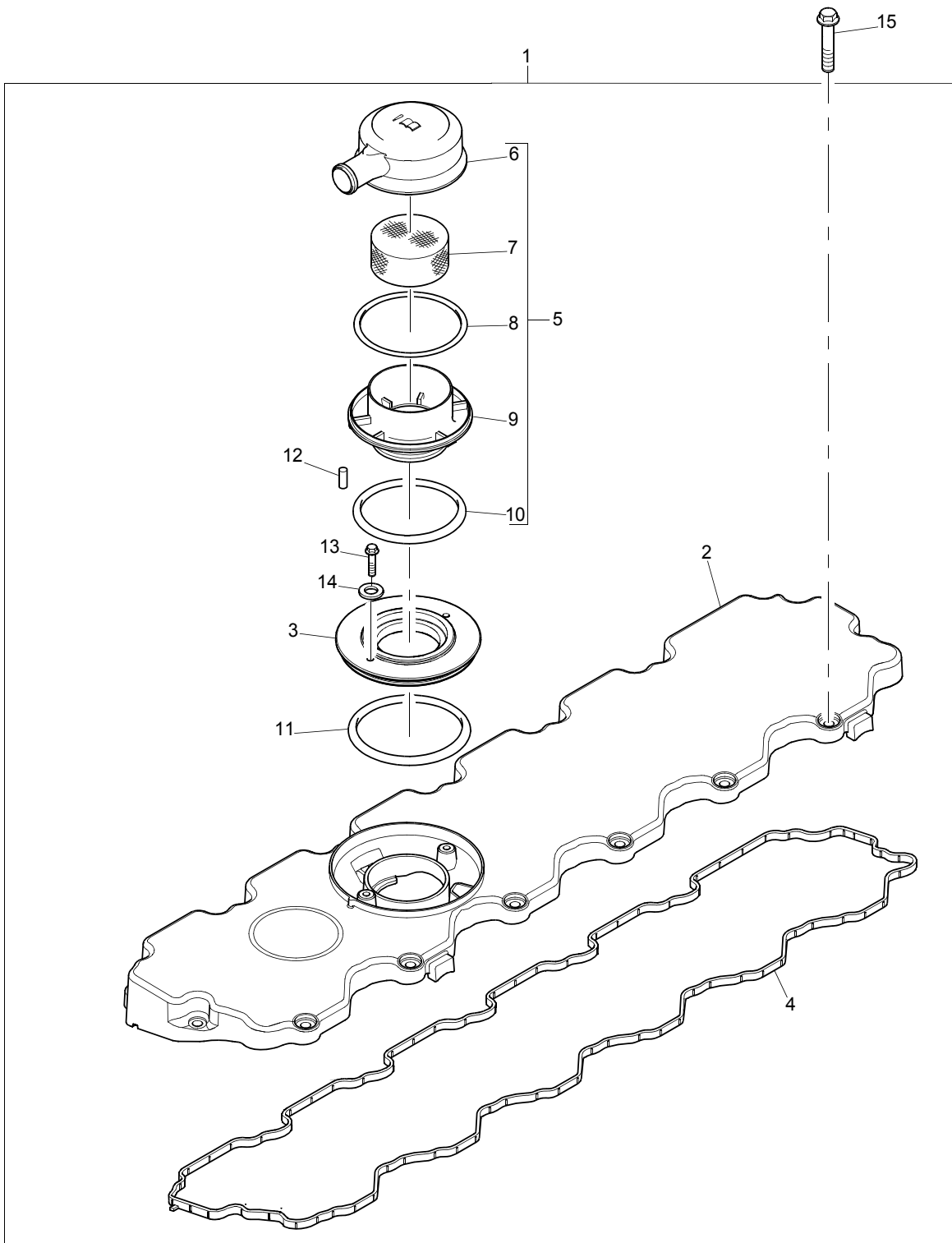


<b>Oil Strainer</b>	<b>Plate A</b>
	<b>GBH02855</b>

Item	Part No.	References	Qty.	Description	Notes
1	3575A074		1	PIPE - OIL SUCTION	
2	3683H005		1	GASKET	
3	2314H004		2	SCREW	

→ U000880N

HBH03158



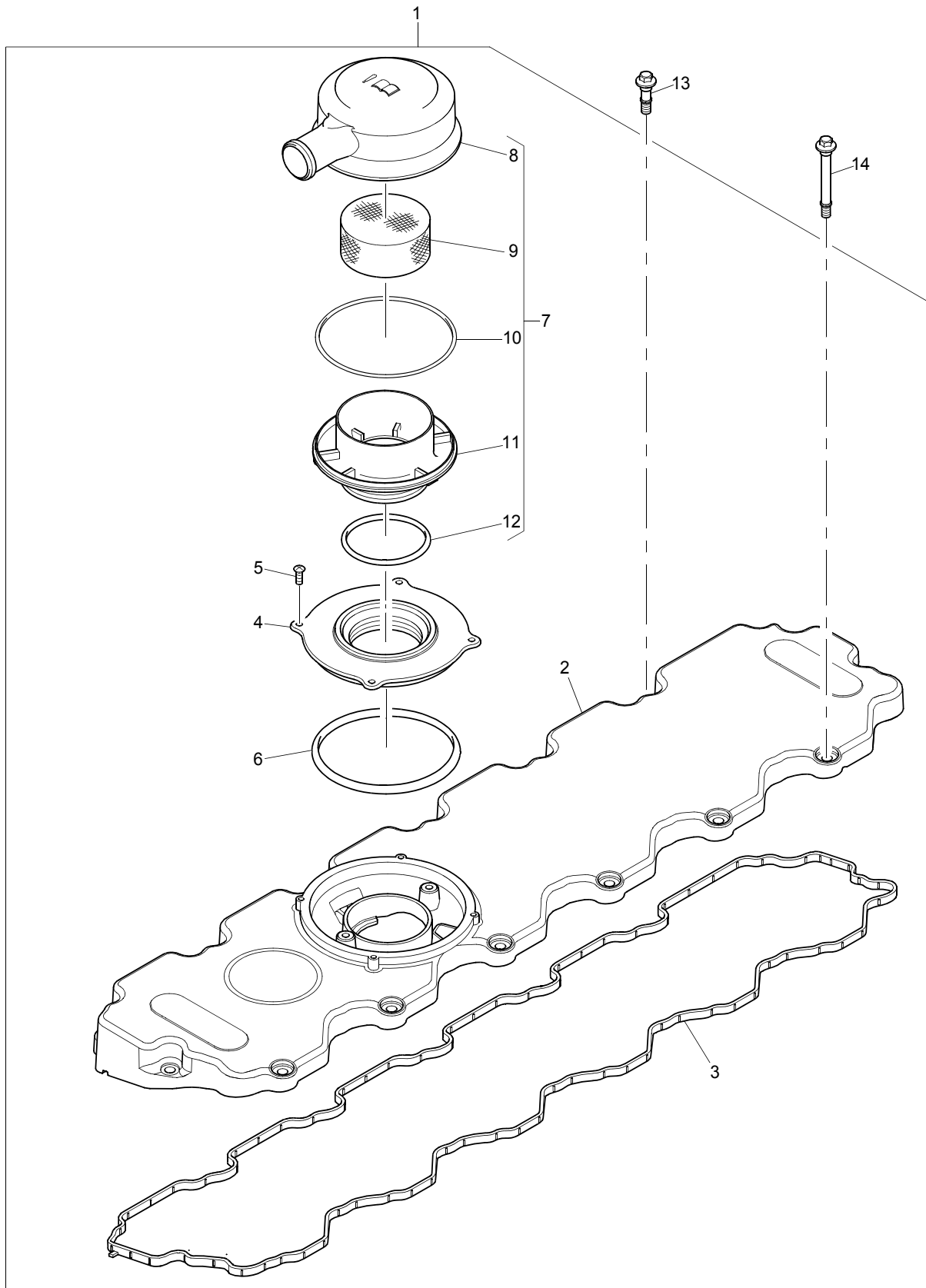
→ U000880N

HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	4142X351		1	CYL HEAD COVER ASSY	
2	—	⇒ 4142X351	1	CYLINDER HEAD COVER	
3	—3347A071		1	ADAPTOR	
4	—3681A068		1	GASKET - CYL. HEAD COVER	
5	—4133J009		1	BREATHER	
6	—	⇒ 4133J009	1	BREATHER	
7	—3771K005		1	OIL SEPARATOR	
8	—2415H493		1	SEAL - O RING	
9	—	⇒ 4133J009	1	BREATHER	
10	—2415A131		1	SEAL - O RING	
11	—2415H546		1	SEAL - O RING	
12	—2116A655		2	DOWEL	
13	—2152A051		2	SCREW	
14	—2415D152		2	WASHER	
15	2314F006		15	SCREW	

↳ U000881N ↳ U003602P

HBH03158





Cylinder Head Cover

Plate C

↳ U000881N ↳ U003602P

HBH03158

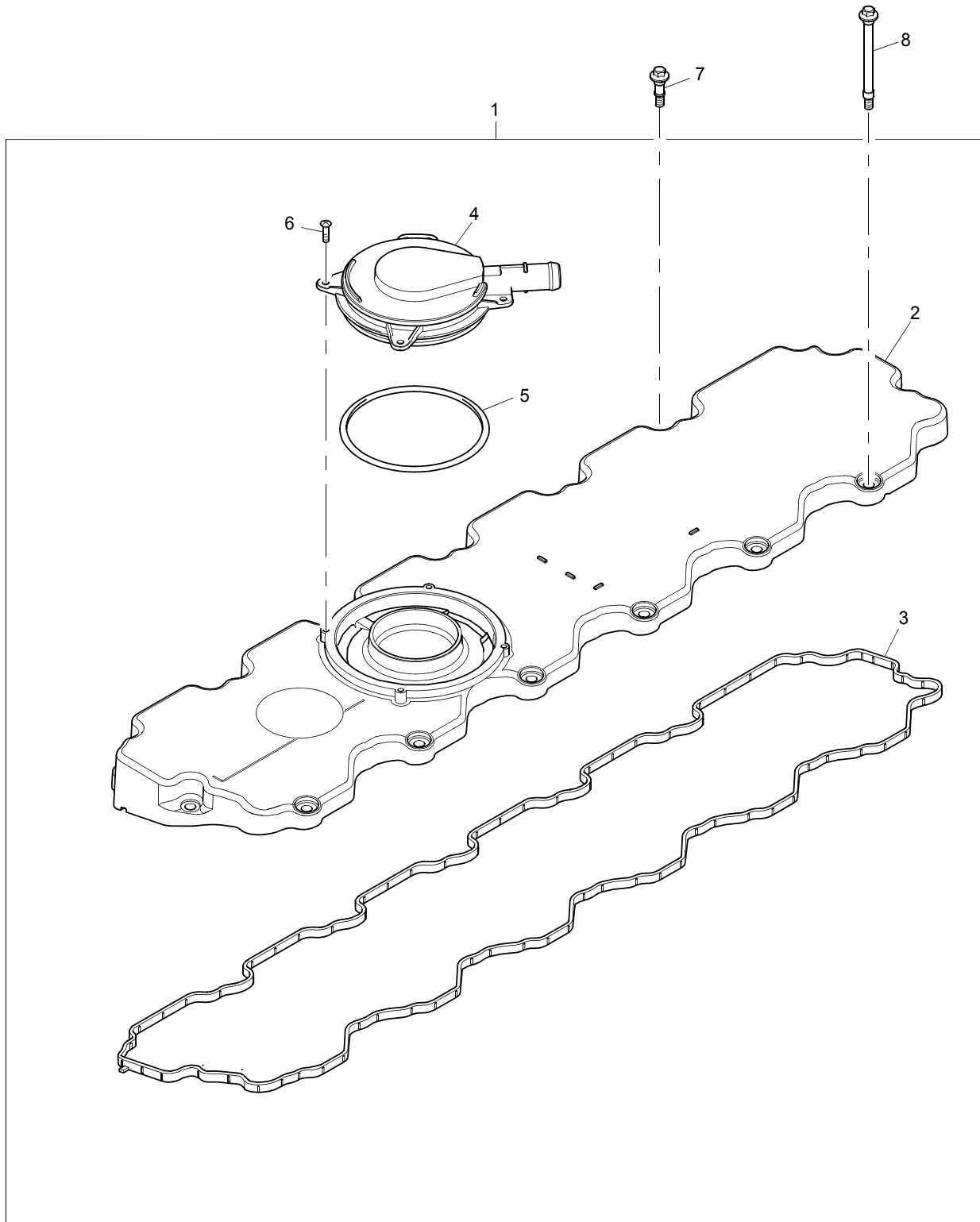
Item	Part No.	References	Qty.	Description	Notes
1	4142X341		1	CYL HEAD COVER ASSY	
2		⇒ 4142X341	1	CYLINDER HEAD COVER	
3	3681A068		1	GASKET - CYL. HEAD COVER	
4		⇒ 4142X341	1	ADAPTOR	(A)
5		⇒ 4142X341	4	SCREW	(A)
6		⇒ 4142X341	1	SEAL - O RING	(A)
7	4133J009		1	BREATHER	
8		⇒ 4133J009	1	BREATHER	
9	3771K005		1	OIL SEPARATOR	
10	2415H493		1	SEAL - O RING	
11		⇒ 4133J009	1	BREATHER	
12	2415A131		1	SEAL - O RING	
13	3218A014	↳ U001907P	9	SCREW	
14	3218A025	↳ U001907P	6	SCREW	

Footnotes

(A) NON SERVICEABLE ITEM

↳ U003603P

HBH03158



**Cylinder Head Cover**

**Plate F**

↳ U003603P

**HBH03158**

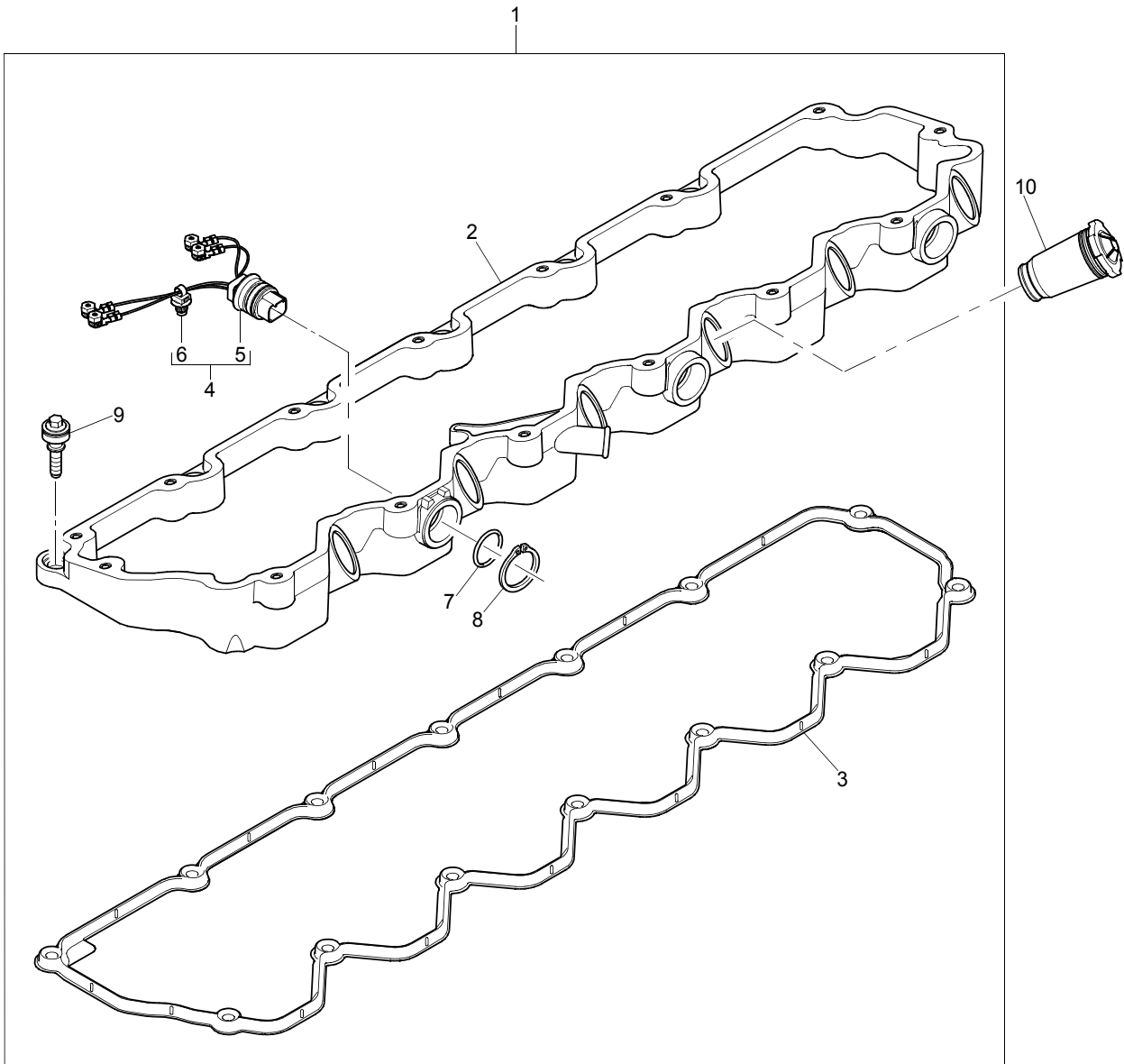
Item	Part No.	References	Qty.	Description	Notes
1	4142X401		1	CYL HEAD COVER ASSY	
2		⇒ 4142X401	1	CYLINDER HEAD COVER	
3	3681A068		1	GASKET - CYL. HEAD COVER	
4		⇒ 4142X401	1	BREATHER VALVE	(A)
5		⇒ 4142X401	1	SEAL - O RING	(A)
6		⇒ 4142X401	4	SCREW	(A)
7	3218A014		9	SCREW	
8	3218A025		6	SCREW	

**Footnotes**

(A) NON SERVICEABLE ITEM

→ U000880N

HBH03158



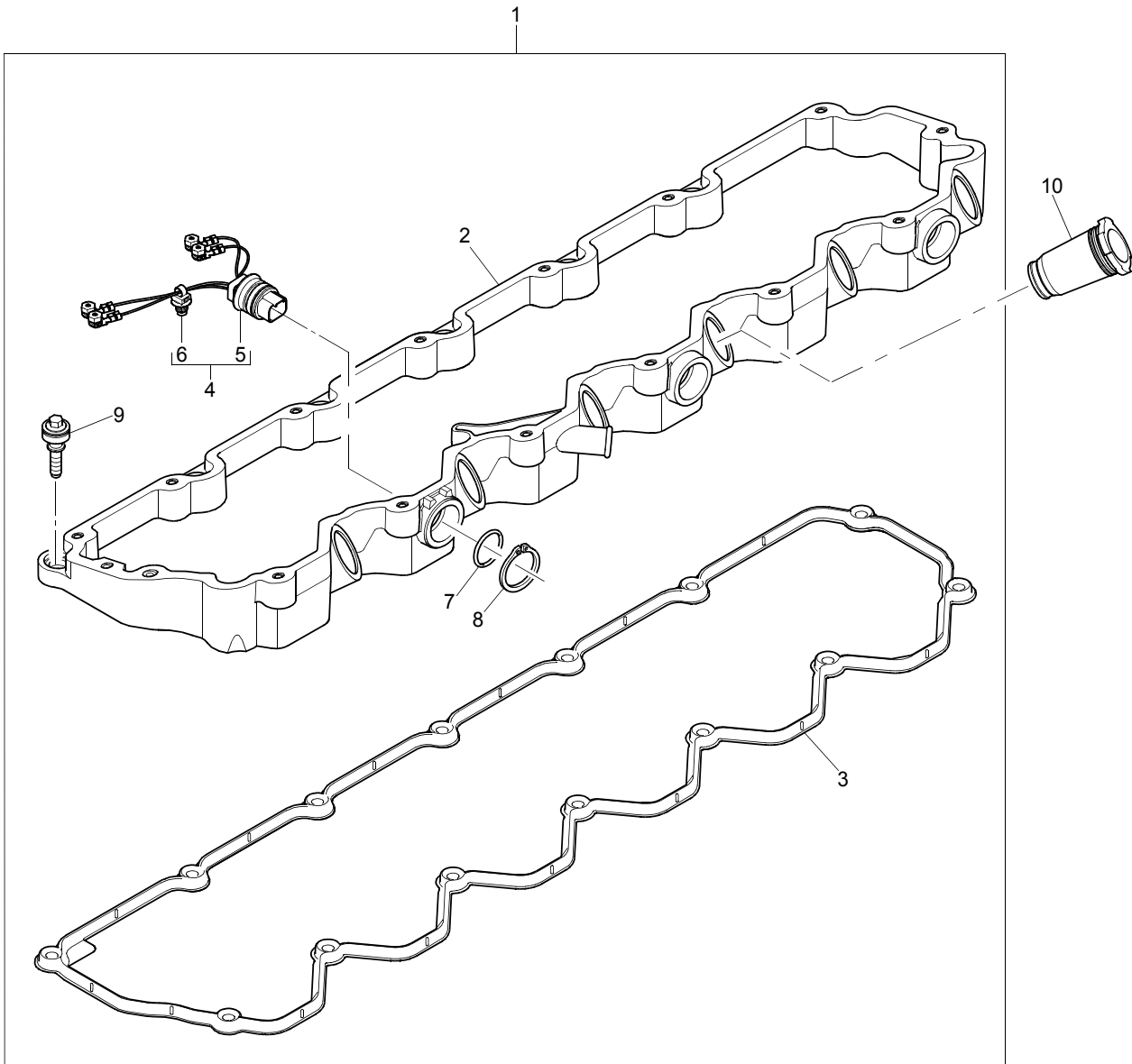
→ U000880N

HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	4142X347		1	HOUSING	
2	—	⇒ 4142X347	1	HOUSING	
3	—3681A059		1	SEAL - ROCKER BOX	
4	—3161C067		3	WIRING HARNESS	
5	—	⇒ 3161C067	1	WIRING HARNESS	
6	—2817A002		1	WIRING CLIP	
7	—2415H012		3	SEAL - O RING	
8	—2724227		3	CIRCLIP	
9	—3278A013		14	SCREW	
10	3271A013		6	SLEEVE	

↳ U000881N → U001906P

HBH03158



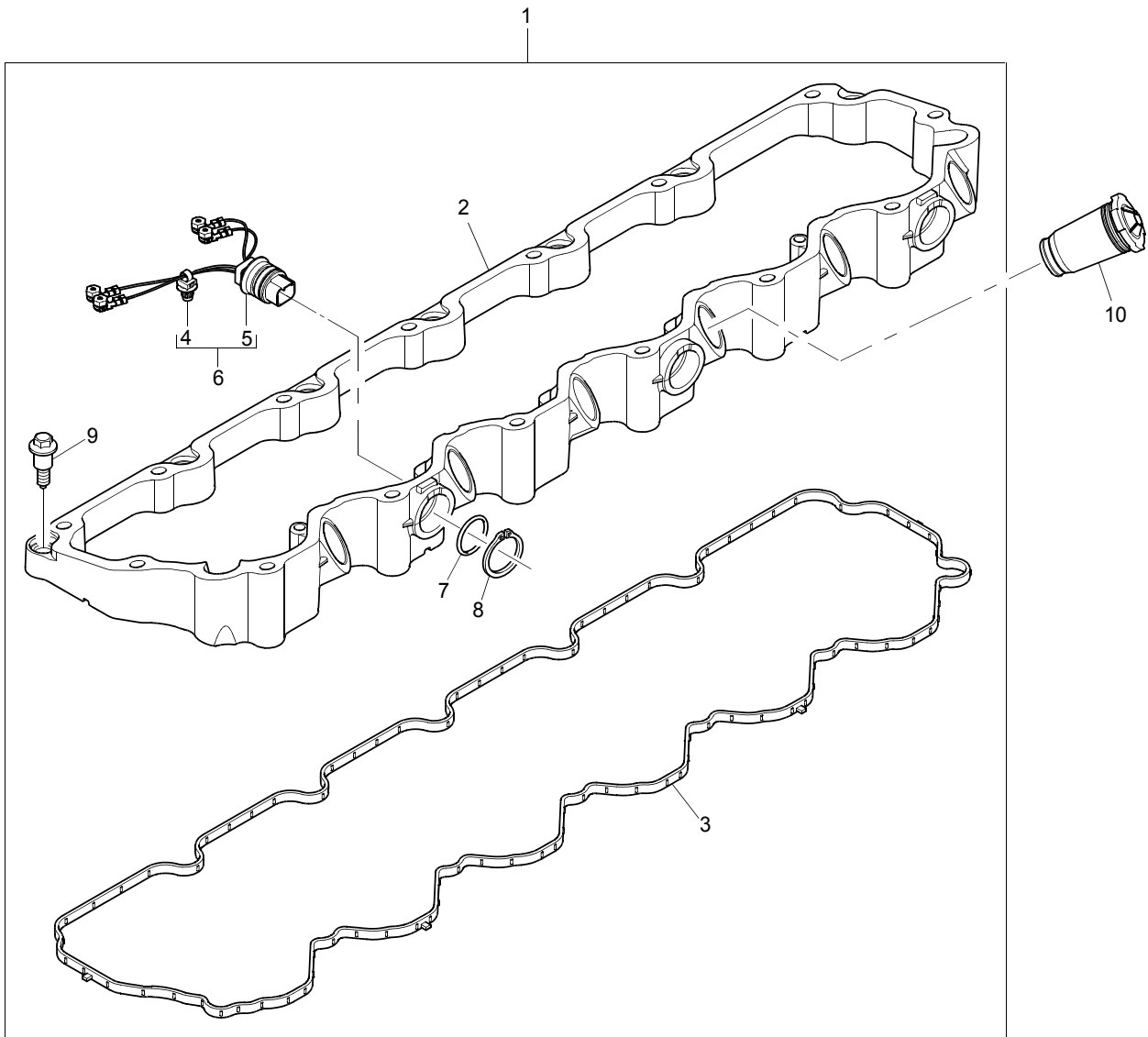
↳ U000881N ↳ U001906P

HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	4142X346		1	HOUSING	
2	—	⇒ 4142X346	1	HOUSING	
3	—3681A059		1	SEAL - ROCKER BOX	
4	—3161C067		3	WIRING HARNESS	
5	—	⇒ 3161C067	1	WIRING HARNESS	
6	—2817A002		1	WIRING CLIP	
7	—2415H012		3	SEAL - O RING	
8	—2724227		3	CIRCLIP	
9	—3278A013		14	SCREW	
10	3271A013		6	SLEEVE	

↳ U001907P

HBH03158





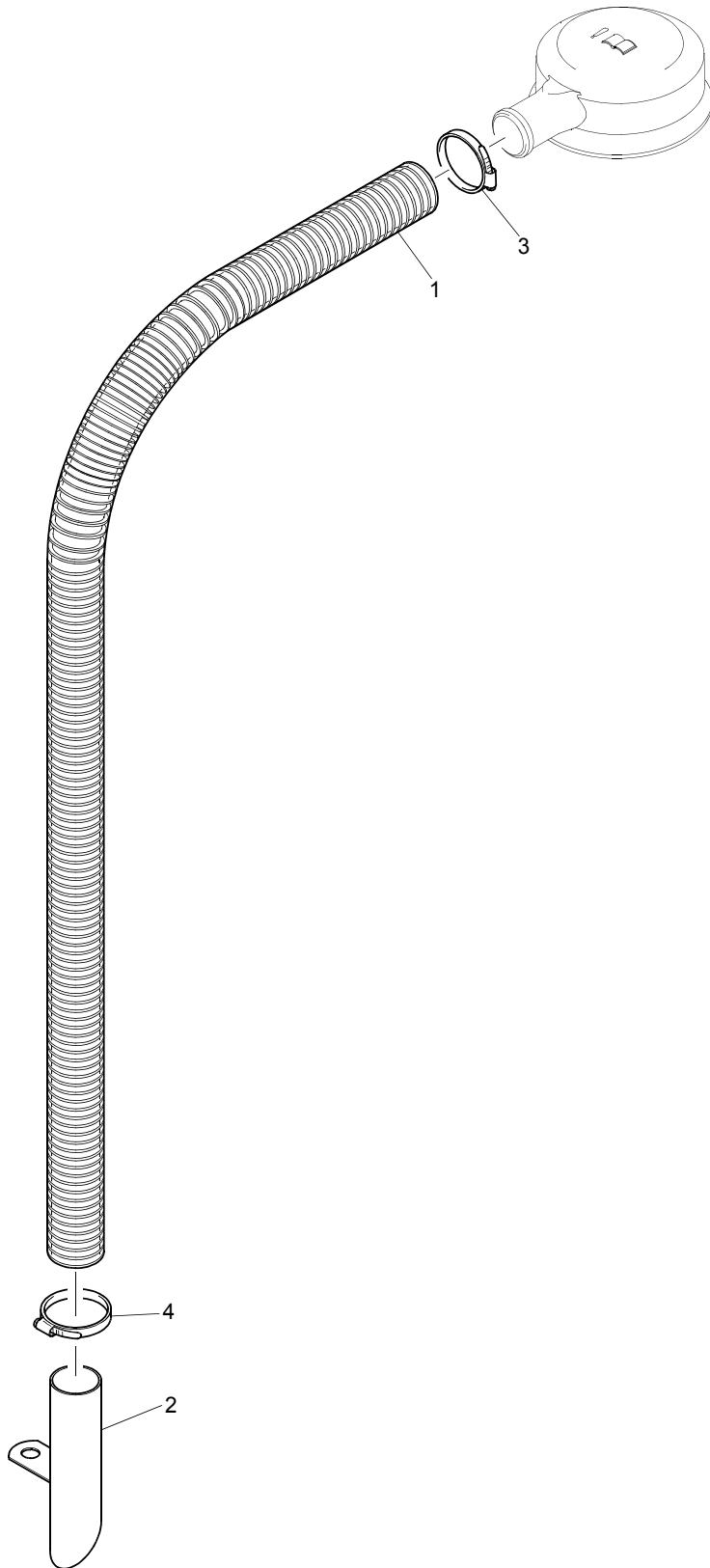
↳ U001907P

HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	4142X398		1	HOUSING	
2	├──	⇒ 4142X398	1	HOUSING	
3	├── 3681A065		1	SEAL - ROCKER BOX	
4	├── 3161C067		3	WIRING HARNESS	
5	├── └──	⇒ 3161C067	1	WIRING HARNESS	
6	├── └── 2817A002		1	WIRING CLIP	
7	├── 2415H012		3	SEAL - O RING	
8	├── 2724227		3	CIRCLIP	
9	└──	⇒ 4142X398	14	SCREW	
10	3271A013		6	SLEEVE	

→ U003602P

HBH03158

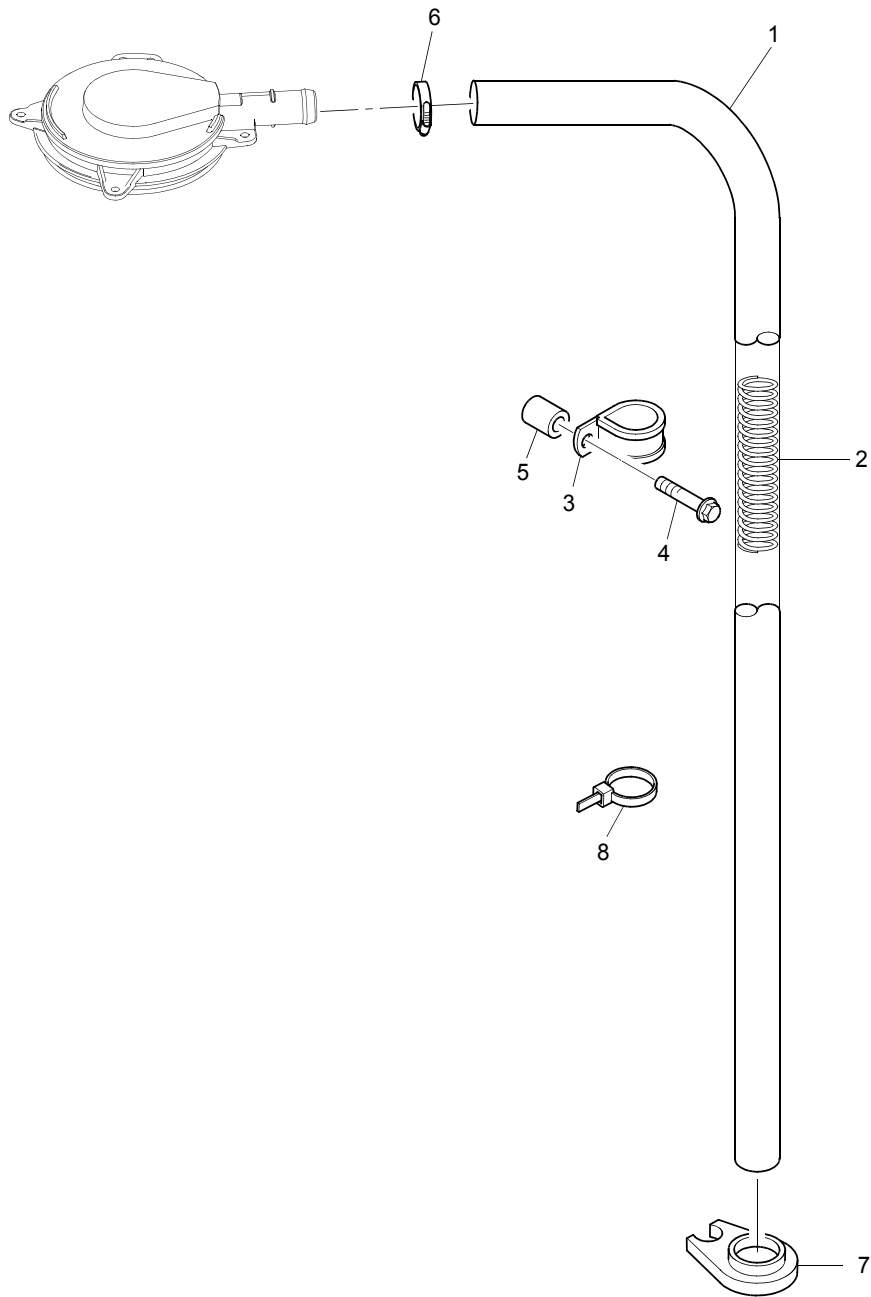


<b>Breather</b>	<b>Plate A</b>
→ U003602P	HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	33881125		1	HOSE	
2	3573A023		1	PIPE - BREATHER	
3	21825196		1	CLIP	
4	21825196		1	CLIP	

↳ U003603P

HBH03158

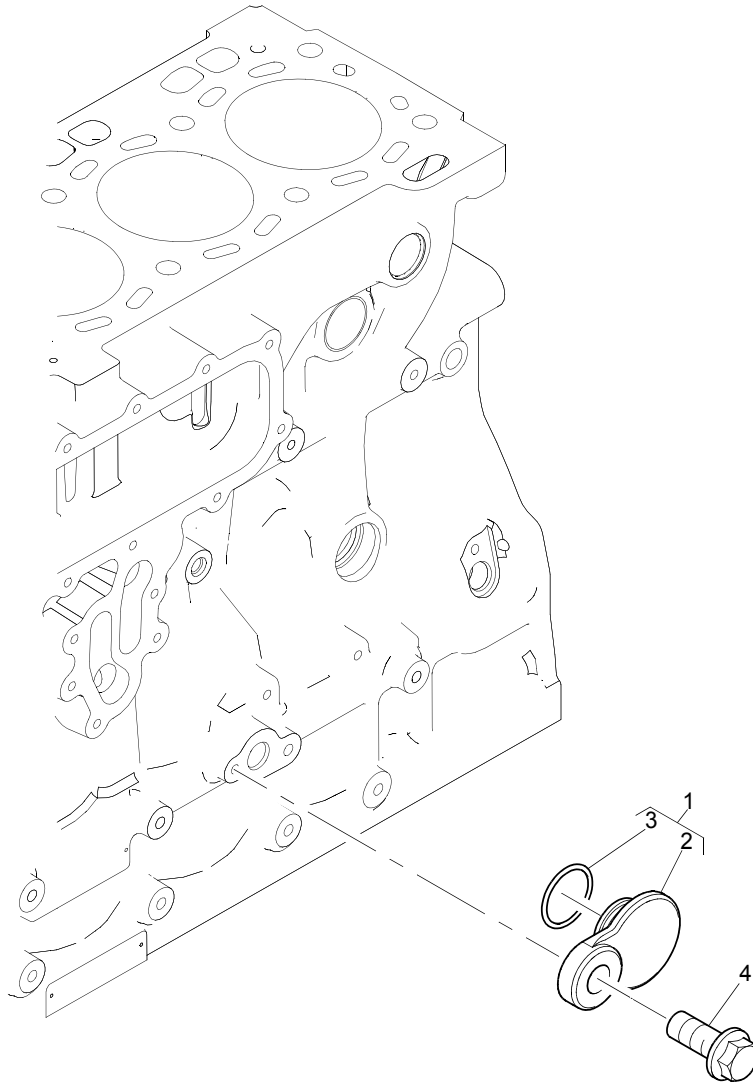


<b>Breather</b>	<b>Plate B</b>
↳ U003603P	HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	33872632		1	HOSE	
2	3175P003		1	SPRING	
3	2481D156		1	CLIP	
4	2314H007		1	SCREW	
5	3312A306		1	SPACER	
6	2481863		1	CLIP	
7	36241123		1	SUPPORT BRACKET	
8	2817152		1	CABLE TIE	

→ U0089634

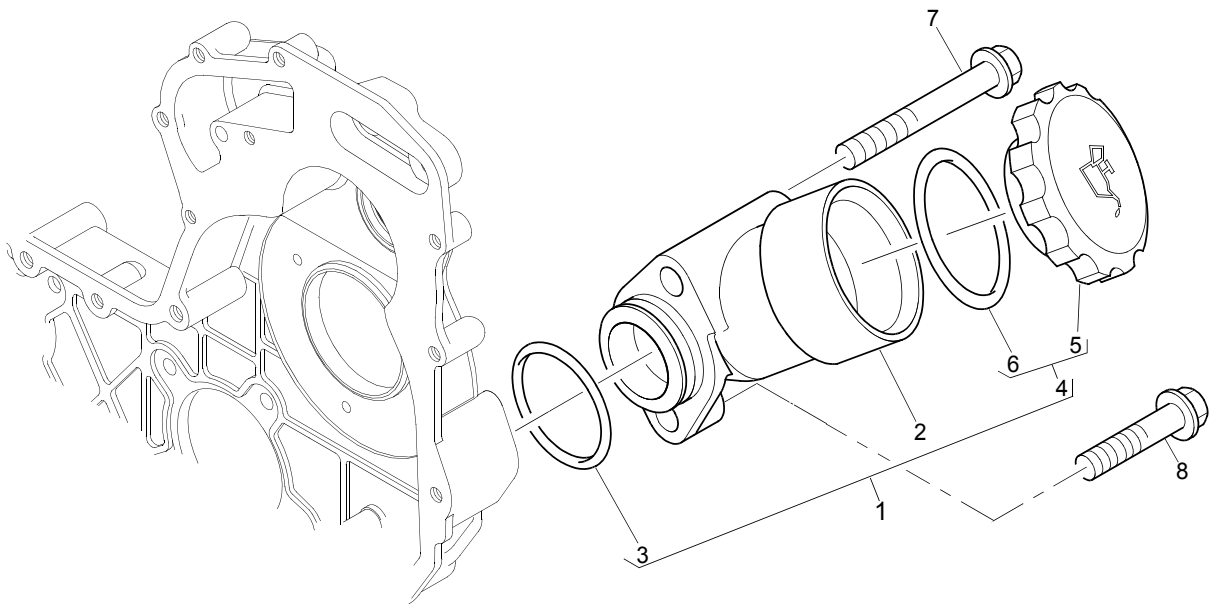
HBH03158



<b>Blanking Plates</b>	<b>Plate A</b>
→ U0089634	HBH03158

Item	Part No.	References	Qty.	Description	Notes
1	4148K018		1	BLANKING PLATE	
2	└	⇒ 4148K018	1	BLANKING PLATE	
3	└2415H551		1	SEAL - O RING	
4	2314H003		1	SCREW	

HDH00002

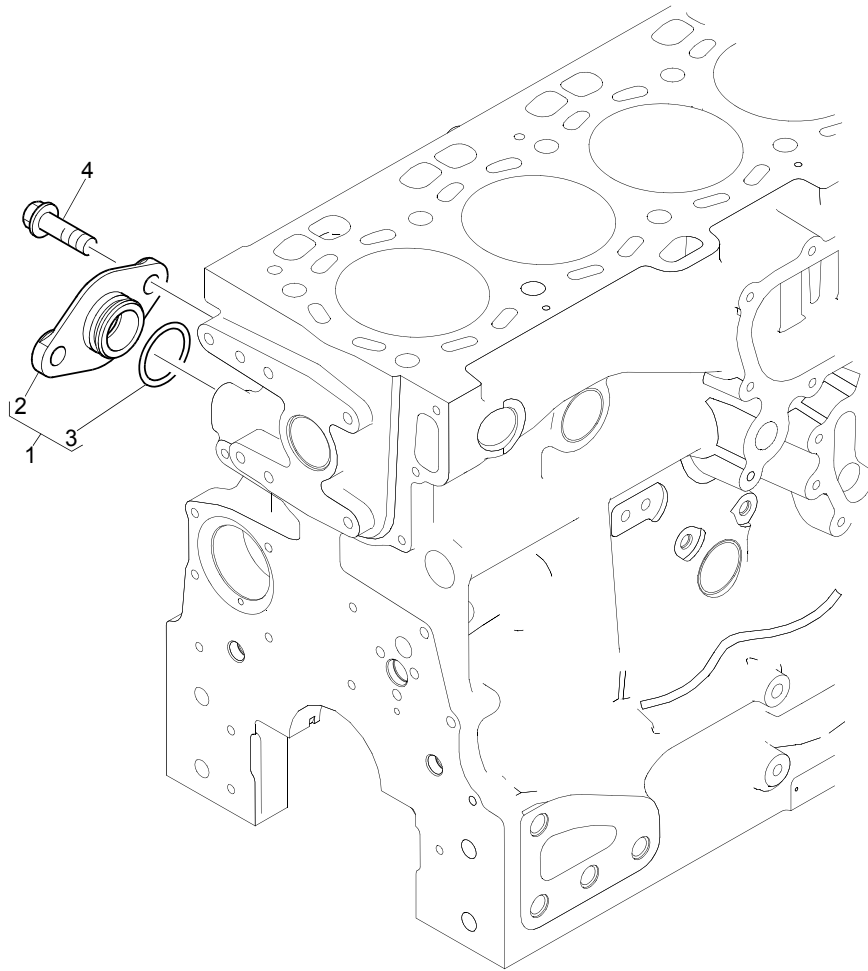




<b>Filler</b>	<b>Plate A</b>
<b>HDH00002</b>	

Item	Part No.	References	Qty.	Description	Notes
1	4134C072		1	OIL FILLER	
2		⇒ 4134C072	1	OIL FILLER	
3	—2415H540		1	SEAL - O RING	
4	—4142X098		1	OIL FILLER CAP	
5		⇒ 4142X098	1	OIL FILLER CAP	
6	—2415633		1	SEALING RING	
7	2314K161		1	SCREW	
8	2314H005		1	SCREW	

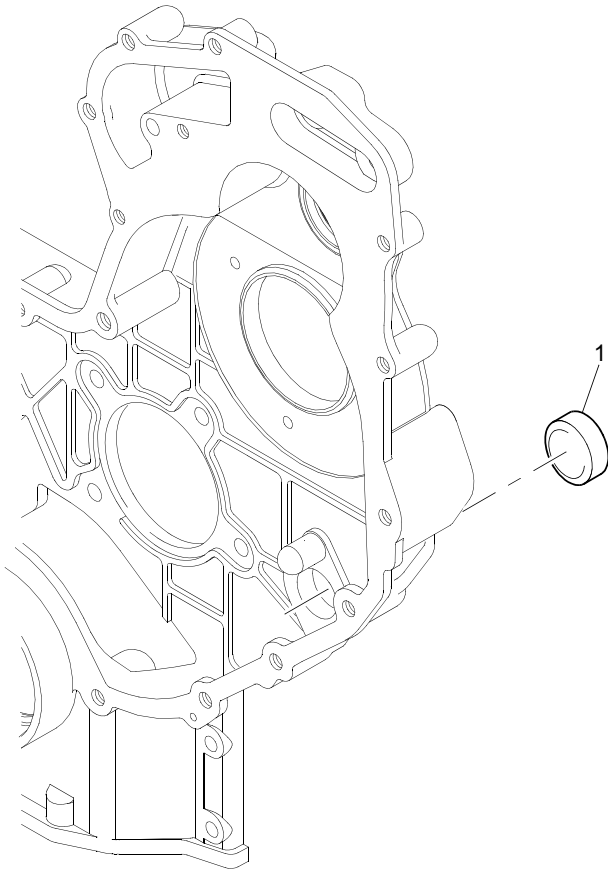
HDH00002



<b>Blanking Plates</b>	<b>Plate A</b>
	<b>HDH00002</b>

Item	Part No.	References	Qty.	Description	Notes
1	3788N008		1	BLANKING PLATE	
2	└	⇒ 3788N008	1	BLANKING PLATE	
3	└2415H517		1	SEAL - O RING	
4	2314H003		2	SCREW	

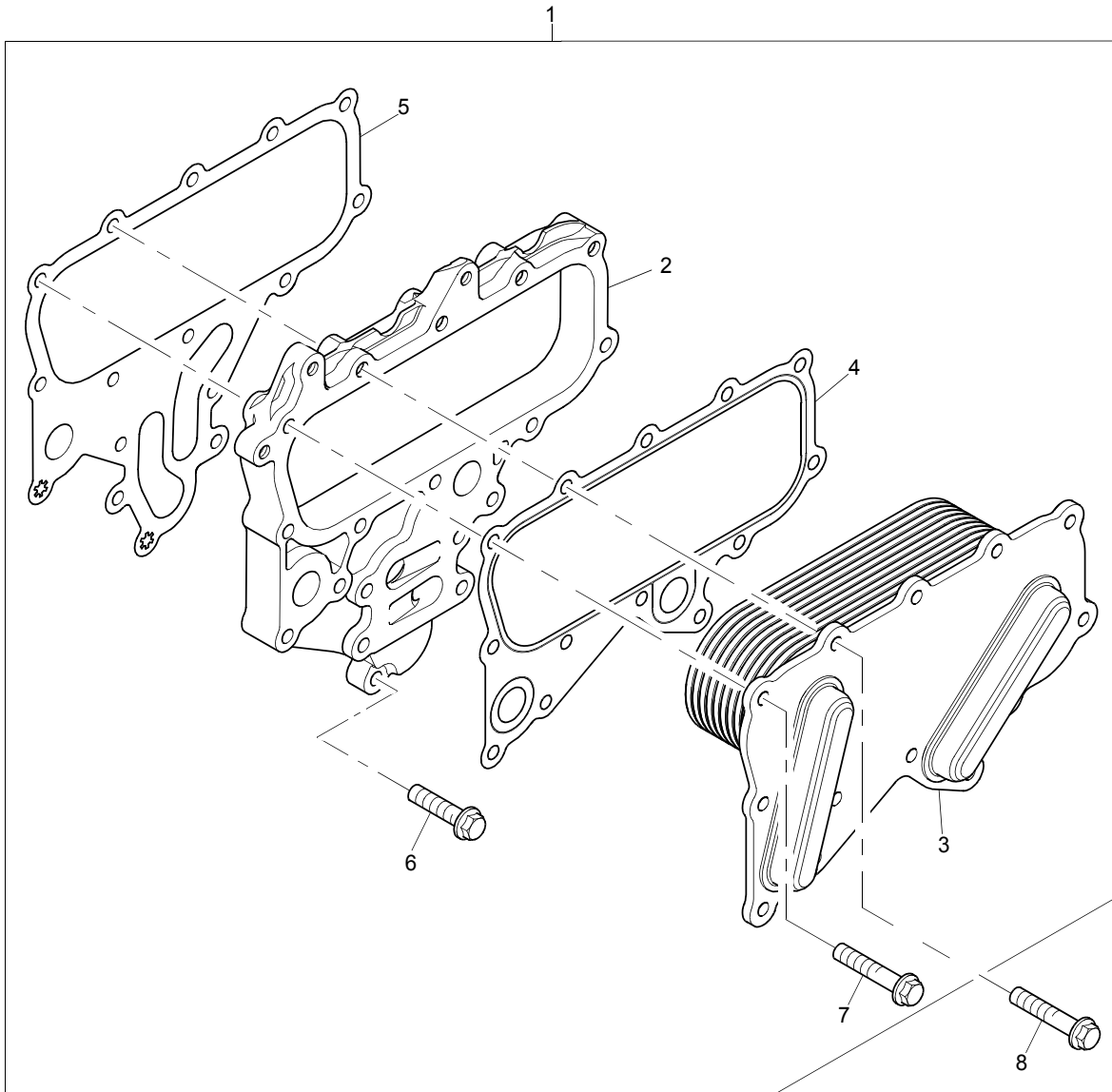
HDH00002



<b>Blanking Plates</b>		<b>Plate B</b>
		<b>HDH00002</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	2485A118		1	PLUG	

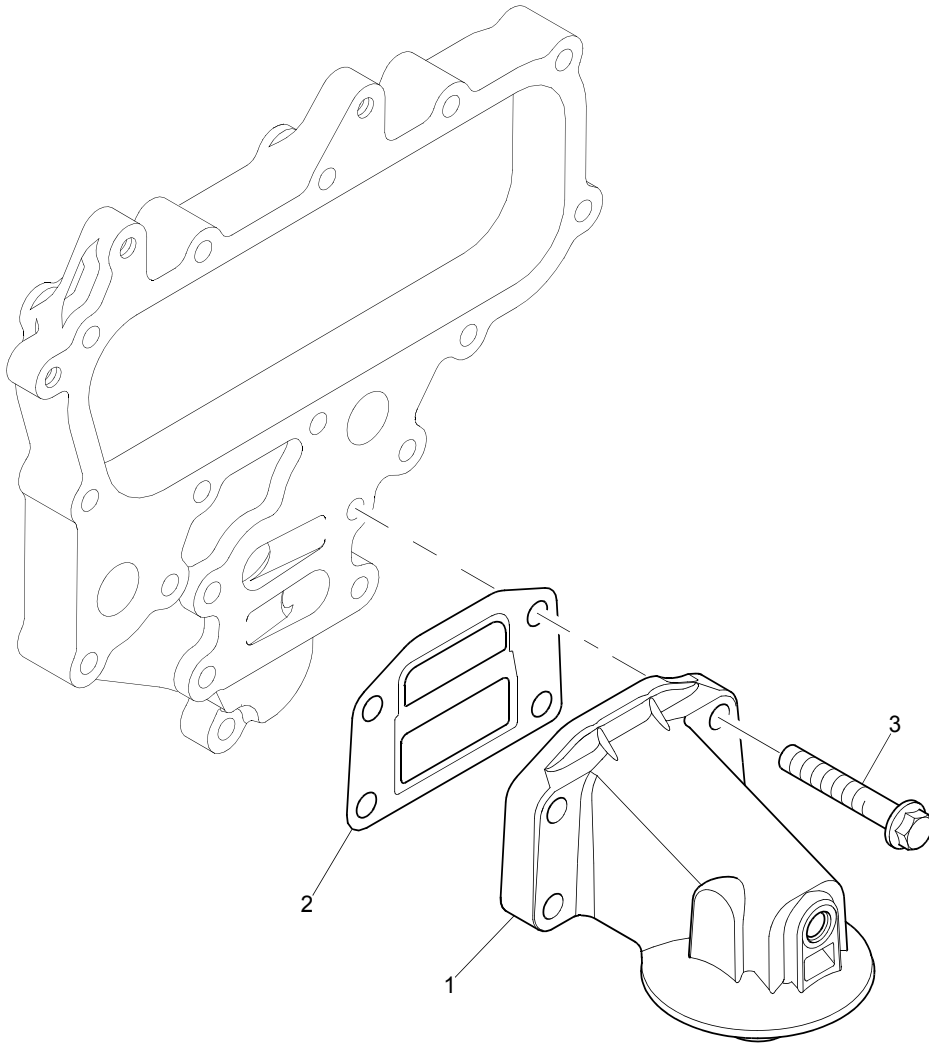
JBH02569



<b>Oil Cooler</b>	<b>Plate A</b>
<b>JBH02569</b>	

Item	Part No.	References	Qty.	Description	Notes
1	4133Y042		1	OIL COOLER	
2	—	⇒ 4133Y042	1	HOUSING	
3	—2486A002		1	OIL COOLER	
4	—3687M038		1	GASKET - OIL COOLER	
5	—3687M039		1	GASKET - OIL COOLER	
6	—2314H004		1	SCREW	
7	—2314K159		6	SCREW	
8	2314K159		7	SCREW	

JBH02569

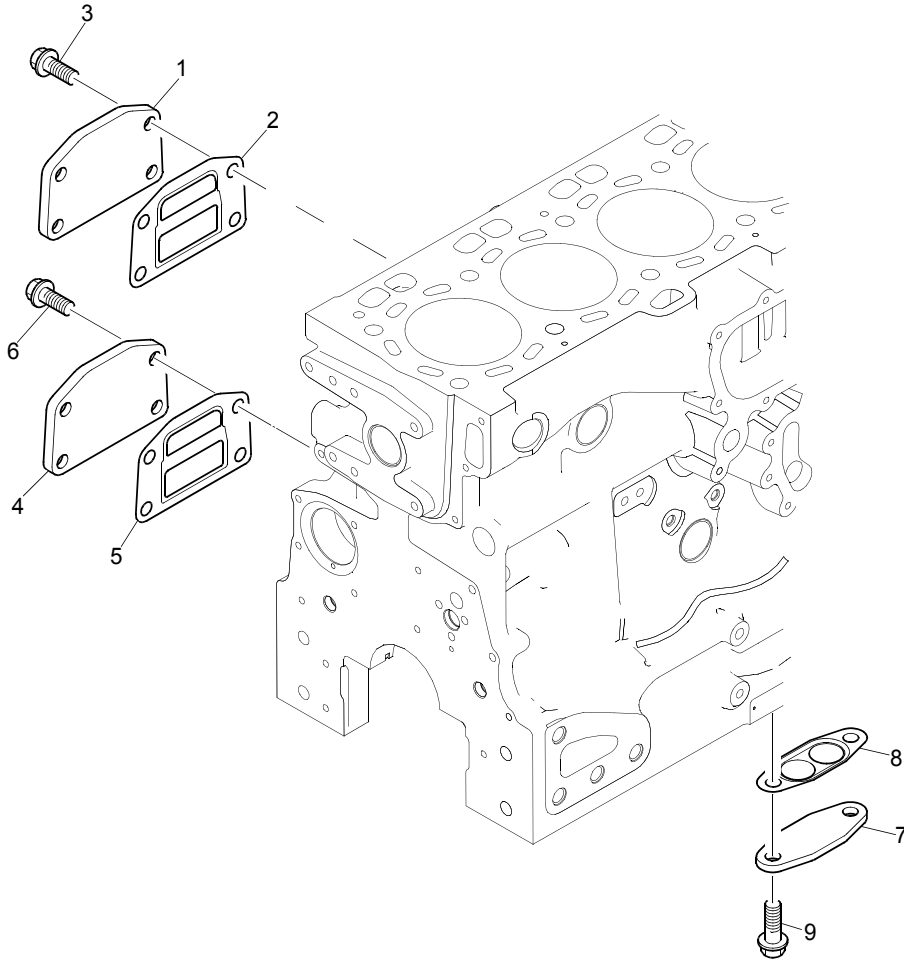




<b>Oil Filter</b>	<b>Plate A</b>
	<b>JBH02569</b>

Item	Part No.	References	Qty.	Description	Notes
1	3773A191		1	OIL FILTER HEAD	
2	3688A039		1	GASKET - OIL FILTER HEAD	
3	2314H010		4	SCREW	

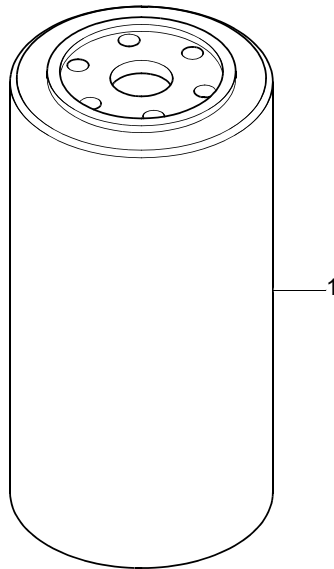
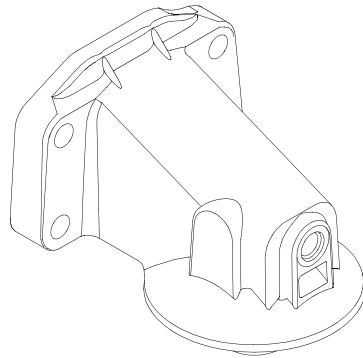
JBH02569



JBH02569

Item	Part No.	References	Qty.	Description	Notes
1	3623A009		1	BLANKING PLATE	
2	3688A039		1	GASKET - OIL FILTER HEAD	
3	2314H003		4	SCREW	
4	3623A009		1	BLANKING PLATE	
5	3688A039		1	GASKET - OIL FILTER HEAD	
6	2314H003		4	SCREW	
7	3615A021		1	BLANKING PLATE	
8	3683A021		1	GASKET	
9	2314H003		2	SCREW	

JDH00038

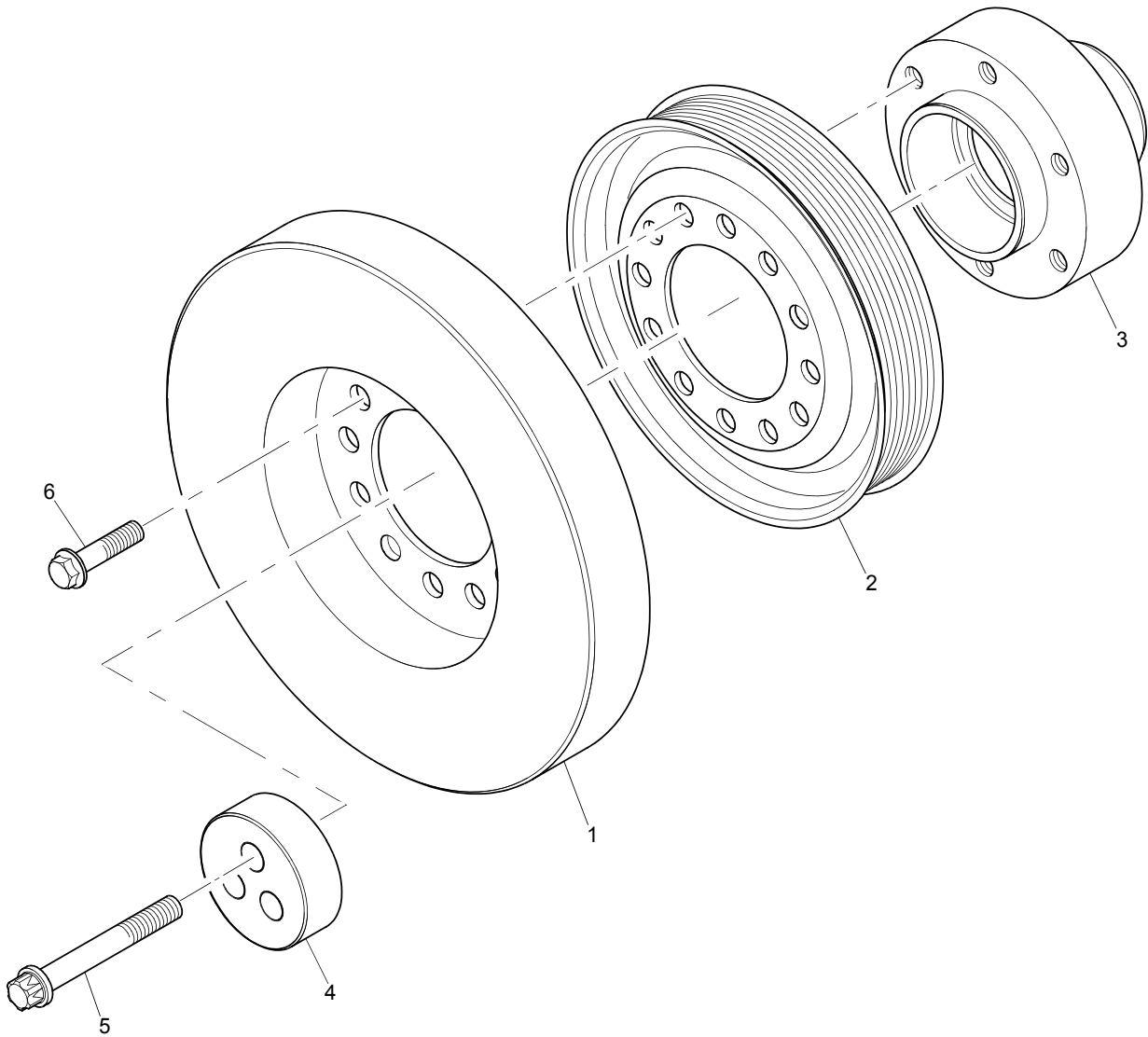


<b>Oil Filter</b>	<b>Plate A</b>
	<b>JDH00038</b>

Item	Part No.	References	Qty.	Description	Notes
1	2654A111		1	OIL FILTER	

→ U030232V

KBH00709



**Front End Drive Input****Plate A**

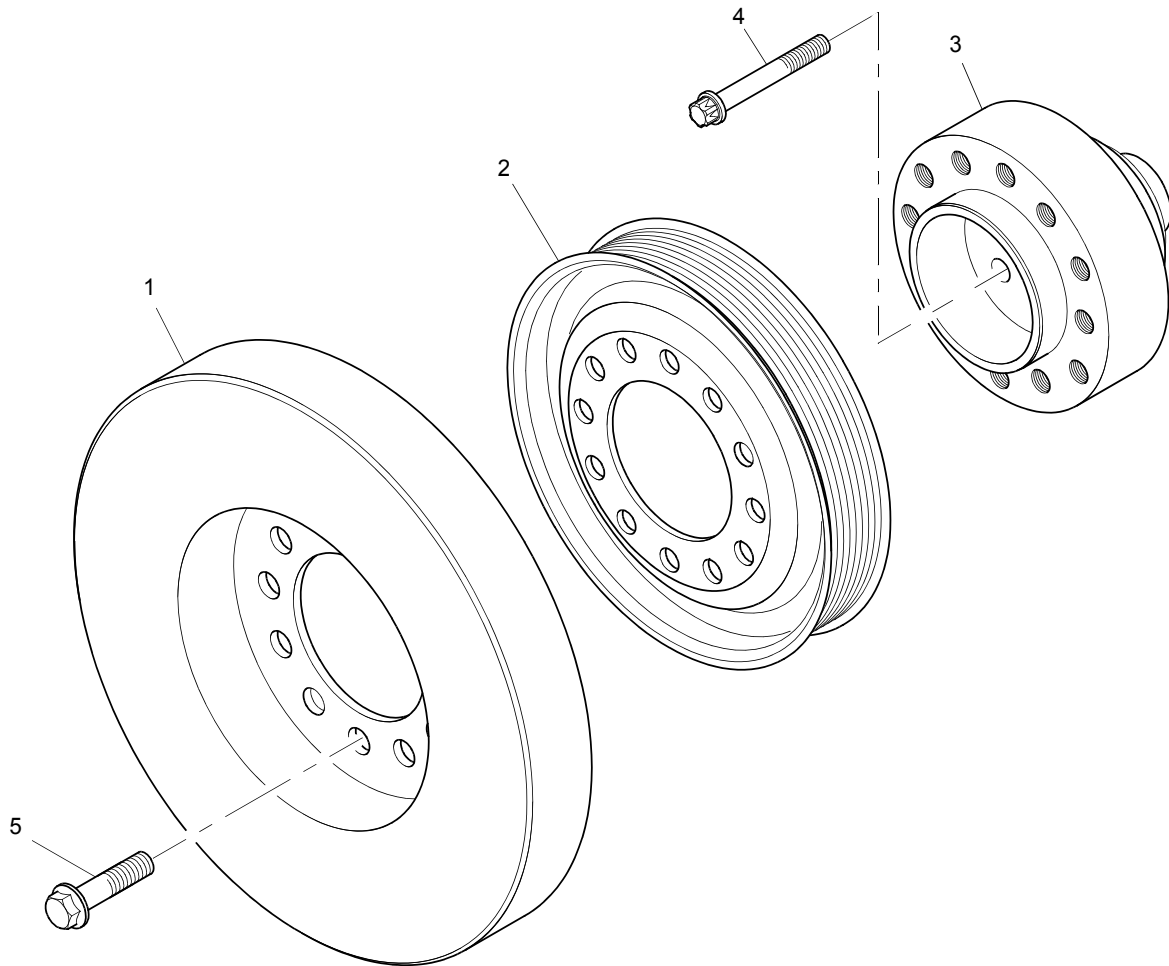
→ U030232V

**KBH00709**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3347A042		1	DAMPER	
2	3115X031		1	CRANKSHAFT PULLEY	
3	3741A002		1	HUB	
4	3241N002		1	THRUST BLOCK	
5	3218A512		3	SCREW	
6	2314J704		6	SCREW	

↳ U030233V

KBH00709





**Front End Drive Input****Plate B**

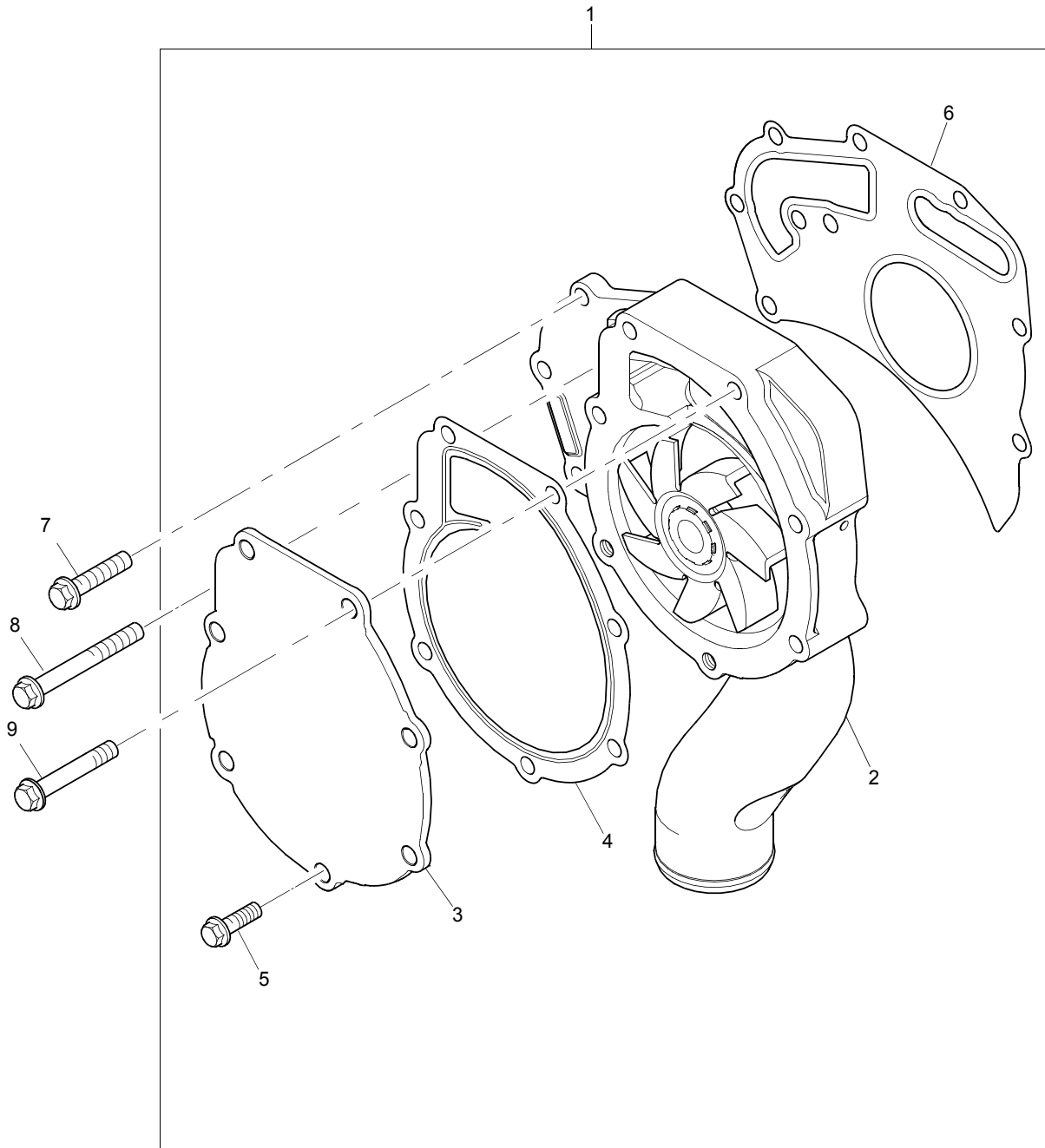
↳ U030233V

**KBH00709**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3347A042		1	DAMPER	
2	3115X031		1	CRANKSHAFT PULLEY	
3	T406279		1	HUB	
4	T405640		3	SCREW	
5	2314J704		6	SCREW	

→ U023762U

LBH02281



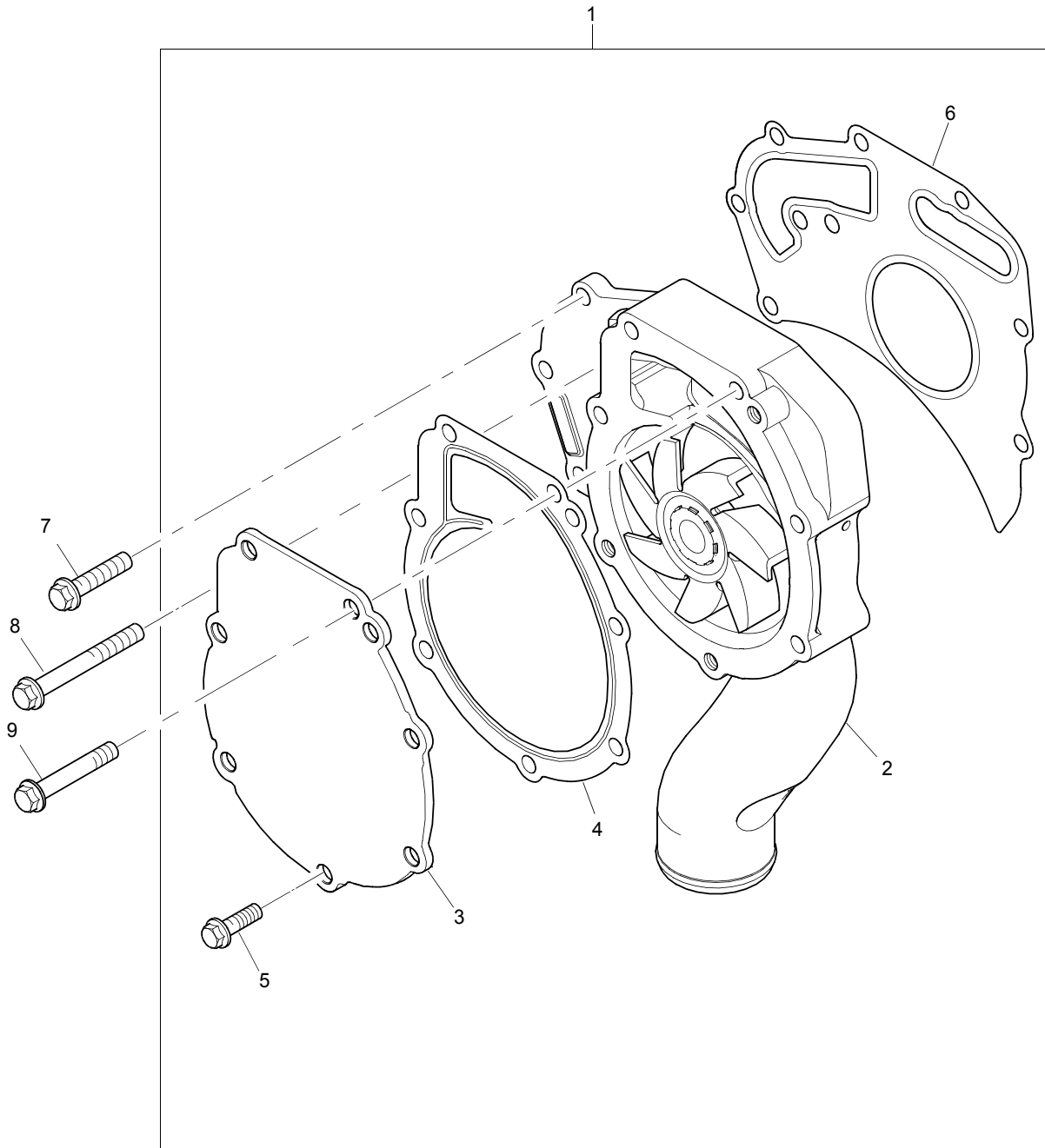
→ U023762U

LBH02281

Item	Part No.	References	Qty.	Description	Notes
1	U5MW0202		1	WATER PUMP KIT	
2		⇒ U5MW0202	1	WATER PUMP	
3		⇒ U5MW0202	1	COVER	
4	—3689A502		1	GASKET	
5	—2314H743		2	SCREW	
6	—3682A011		1	GASKET - WATER PUMP	
7	2314H005		2	SCREW	
8	2314K164		2	SCREW	
9	2314H013		5	SCREW	

↳ U023763U

LBH02281



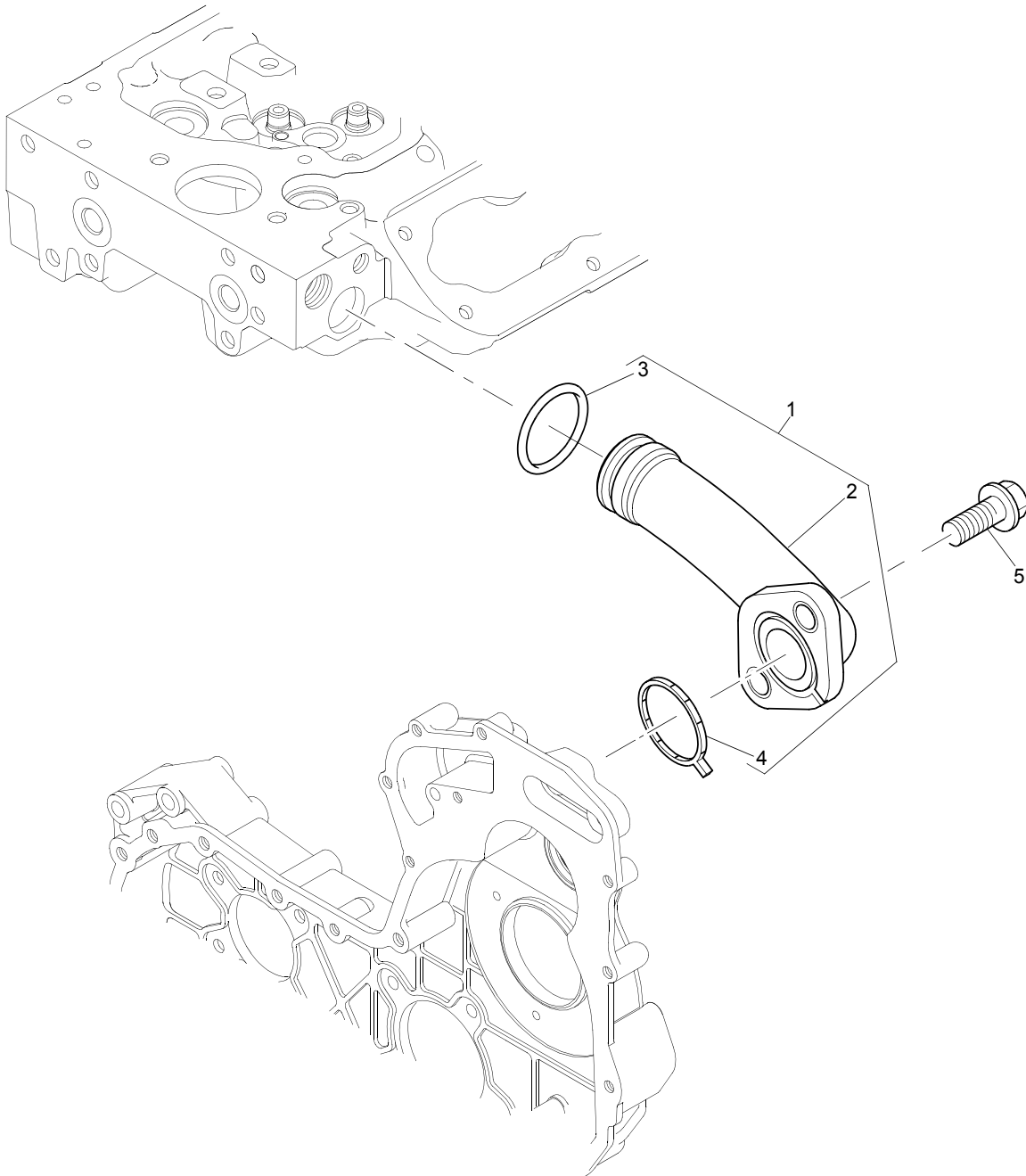
**Water Pump****Plate B**

↳ U023763U

**LBH02281**

Item	Part No.	References	Qty.	Description	Notes
1	U5MW0204		1	WATER PUMP KIT	
2		⇒ U5MW0204	1	WATER PUMP	
3		⇒ U5MW0204	1	COVER	
4	—24880239		1	GASKET	
5	—2314H743		3	SCREW	
6	—3682A011		1	GASKET - WATER PUMP	
7	2314H005		2	SCREW	
8	2314K164		2	SCREW	
9	2314H013		5	SCREW	

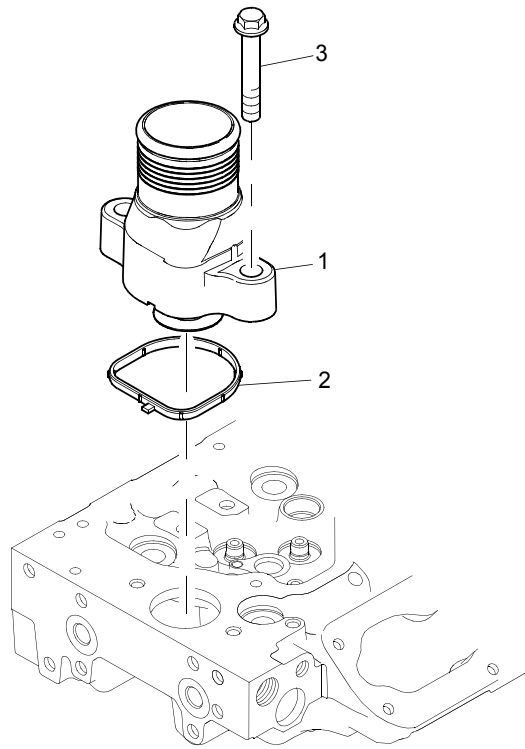
LBH02281



<b>Pipes</b>	<b>Plate A</b>
	<b>LBH02281</b>

Item	Part No.	References	Qty.	Description	Notes
1	4133L055		1	CONNECTION	
2		⇒ 4133L055	1	CONNECTION	
3	2418F002		1	SEAL - O RING	
4	3789A005		1	GASKET	
5	2314H003		2	SCREW	

LDH00712

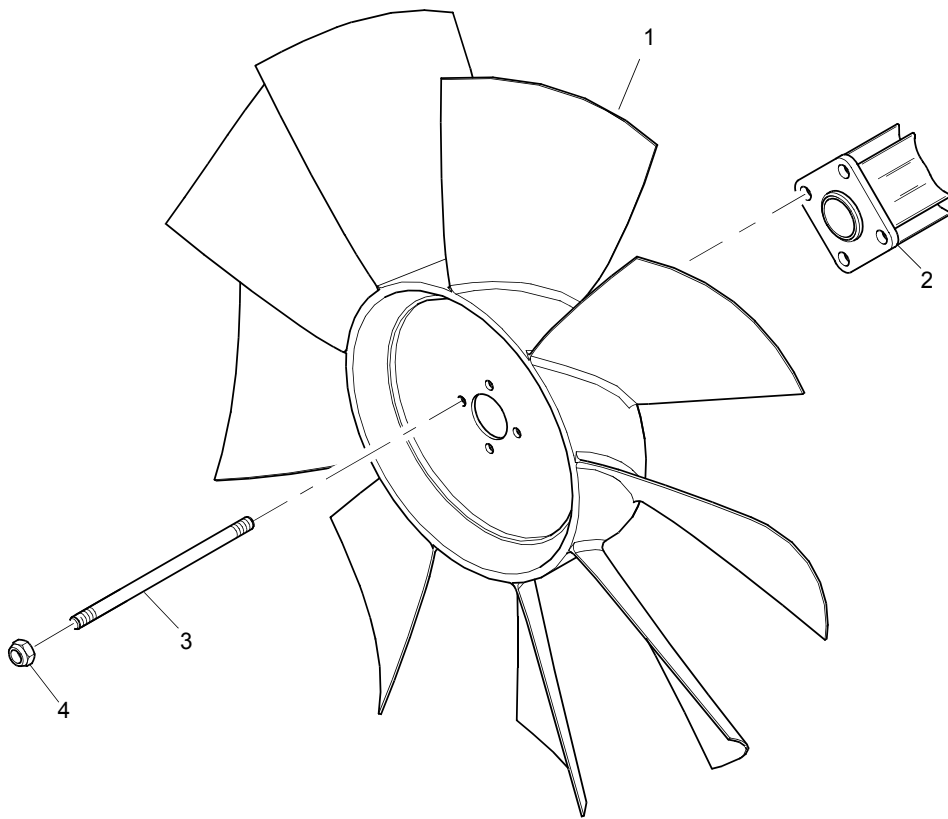




**LDH00712**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	4133L064		1	THERMOSTAT ASSEMBLY	
2	3682A022		1	SEAL - WATER OUTLET	
3	2314J006		2	SCREW	

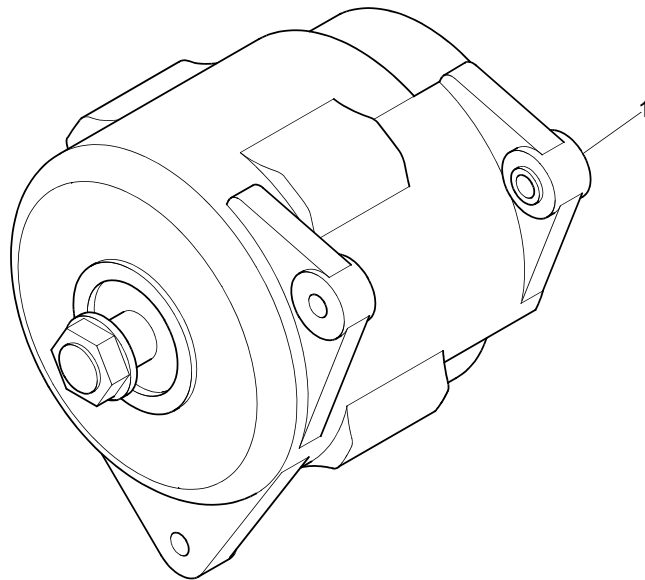
MDH01457



<b>Fan</b>	<b>Plate A</b>
	<b>MDH01457</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	2485C558		1	FAN	
2	3748W243		1	EXTENSION	
3	2313H238		4	STUD	
4	2318D208		4	NUT	

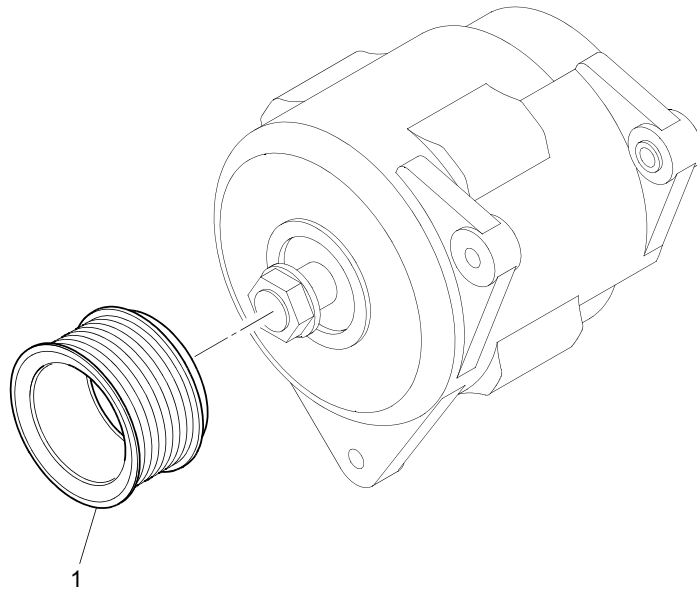
NDH02830



<b>Alternator</b>	<b>Plate A</b>
	<b>NDH02830</b>

Item	Part No.	References	Qty.	Description	Notes
1	2871A309		1	ALTERNATOR	

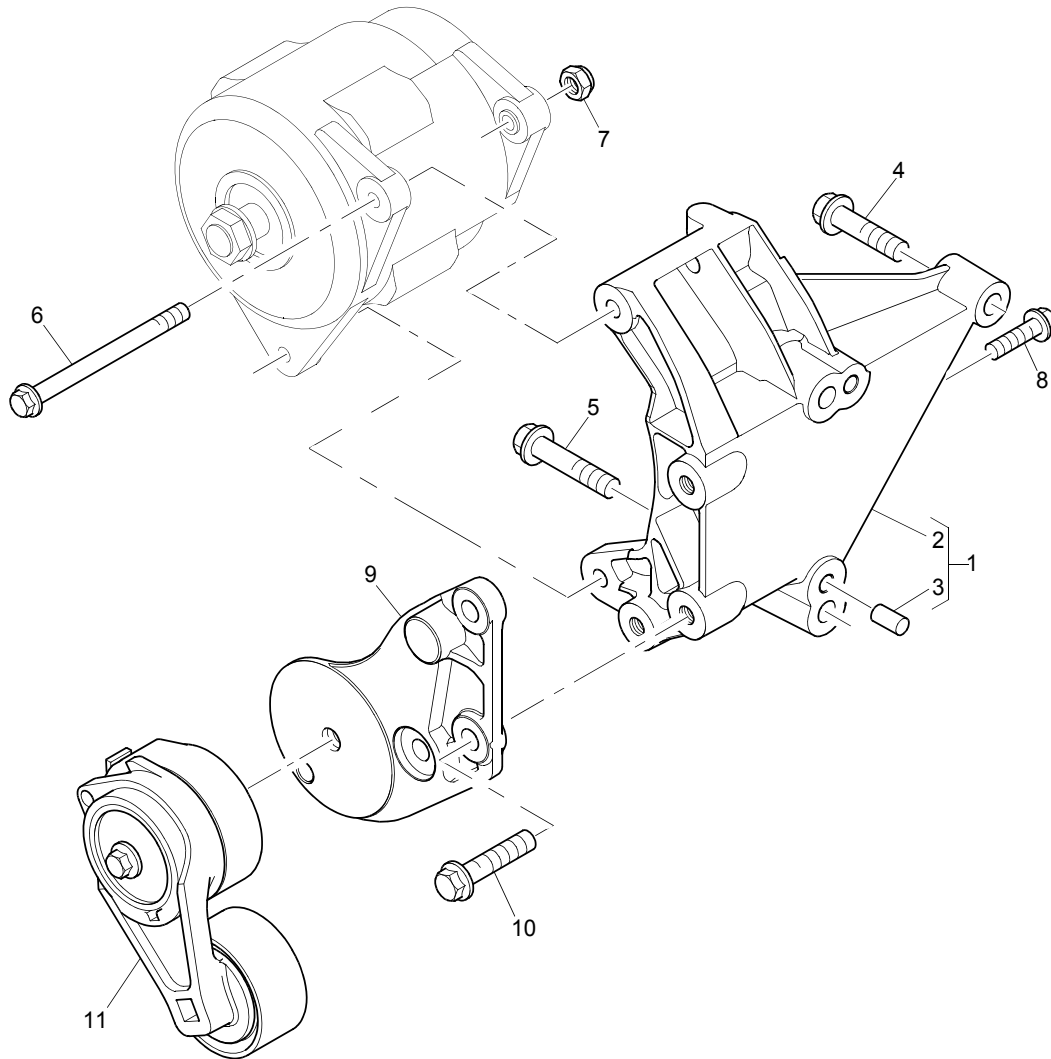
NDH02830



<b>Pulleys</b>	<b>Plate A</b>
	<b>NDH02830</b>


Item	Part No.	References	Qty.	Description	Notes
1	3115V011		1	ALTERNATOR PULLEY	

NDH02830





NDH02830

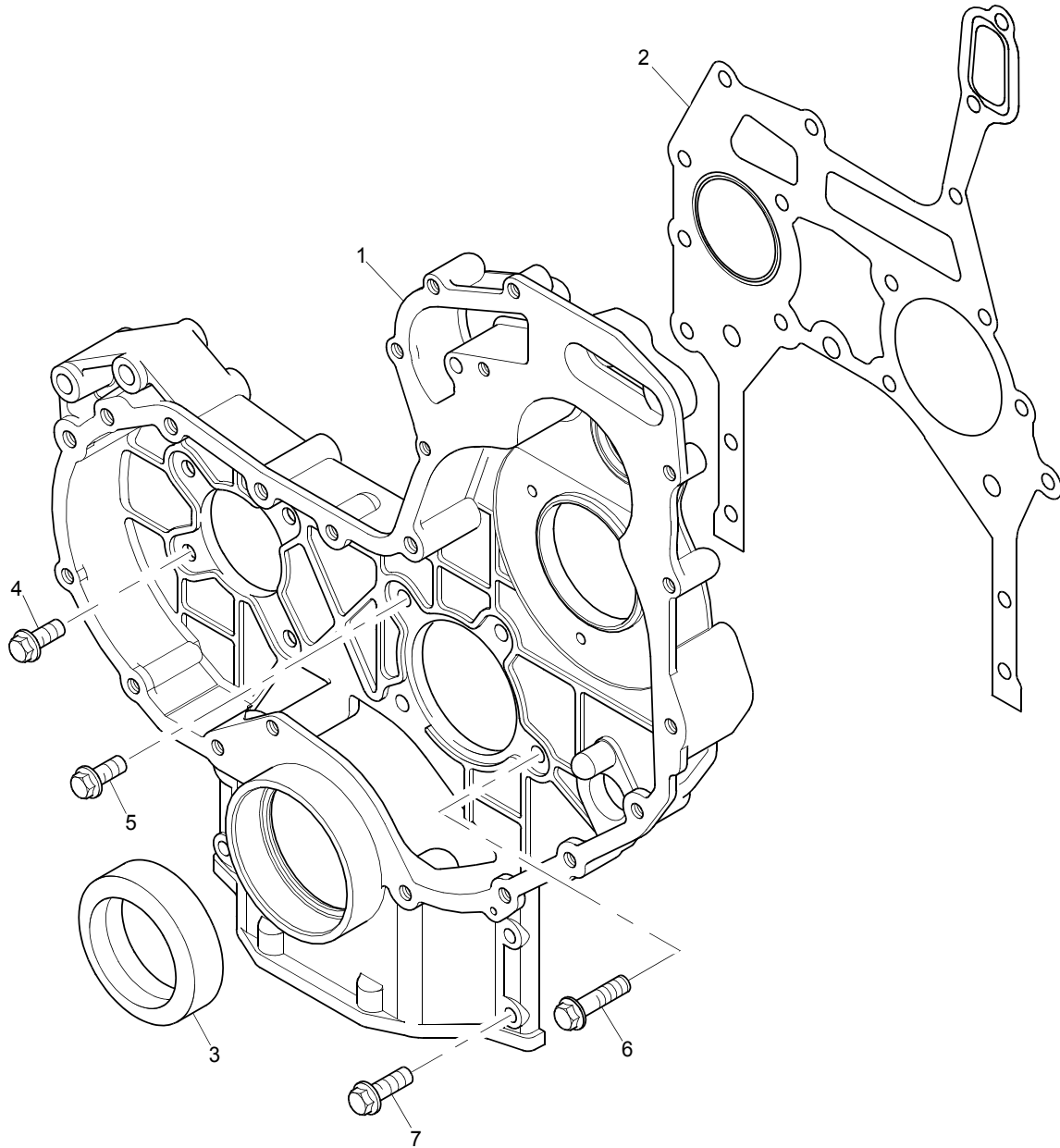
Item	Part No.	References	Qty.	Description	Notes
1	4141A117		2	ALTERNATOR BRACKET	
2	└		1	ALTERNATOR BRACKET	
3	└2114A046		2	DOWEL	
4	2314J007		2	SCREW	
5	2314J011		1	SCREW	
6	2314H022		1	SCREW	
7	2318D208		1	NUT	
8	2314H004		1	SCREW	
9	3812A261		1	PLATE	
10	2314J004		3	SCREW	
11	T411130	 a.	1	TENSIONER	

**History**

a.

11	2637A001		1	TENSIONER ARM	
----	----------	--	---	---------------	--

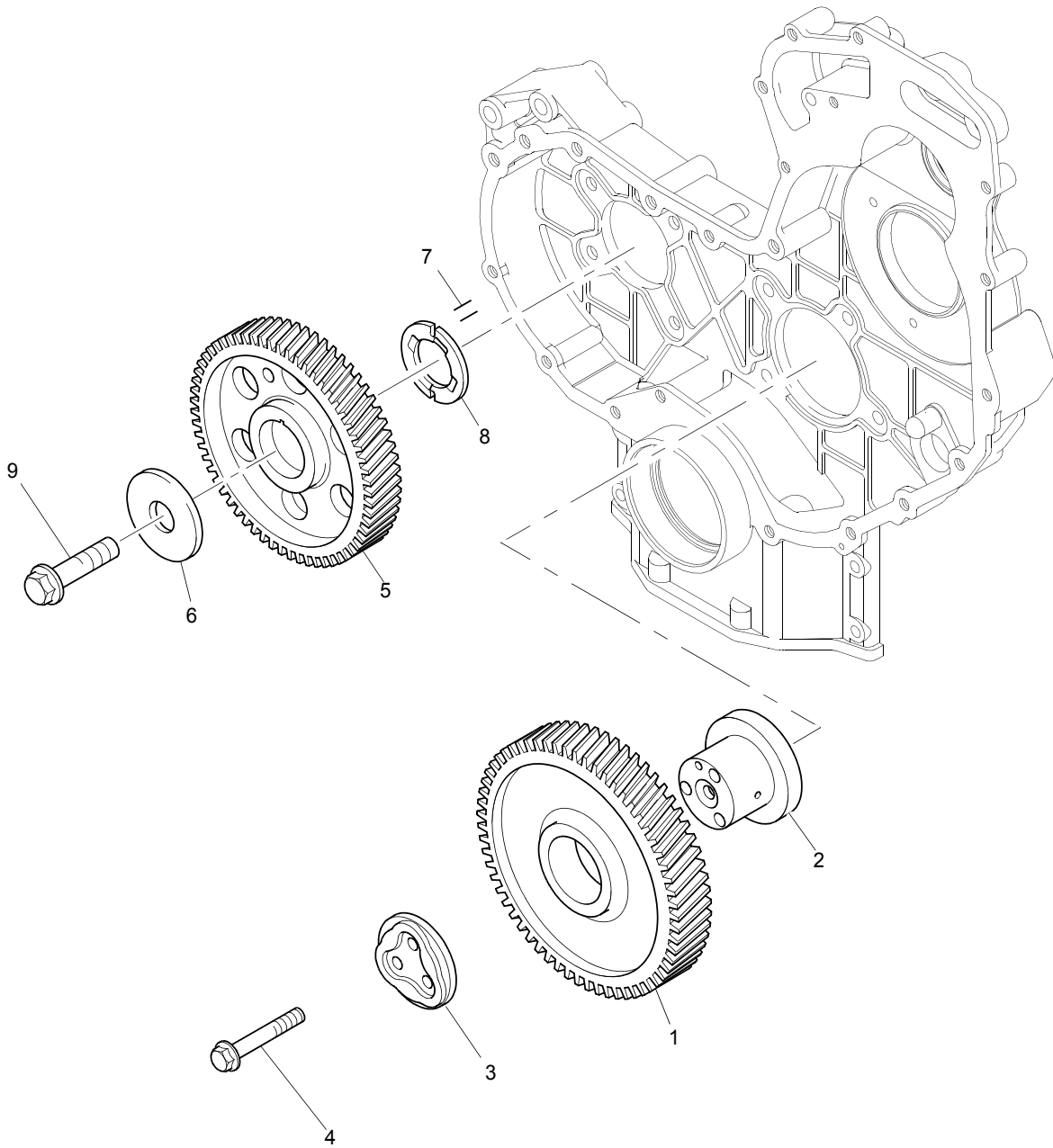
QCH00049



QCH00049

Item	Part No.	References	Qty.	Description	Notes
1	3716C562		1	TIMING CASE	
2	3681P053		1	GASKET - TIMING CASE	
3	2418F554		1	SEAL - FRONT END OIL	
4	2314H003		4	SCREW	
5	2314H003		2	SCREW	
6	2314H006		2	SCREW	
7	2314H034		4	SCREW	

QCH00049



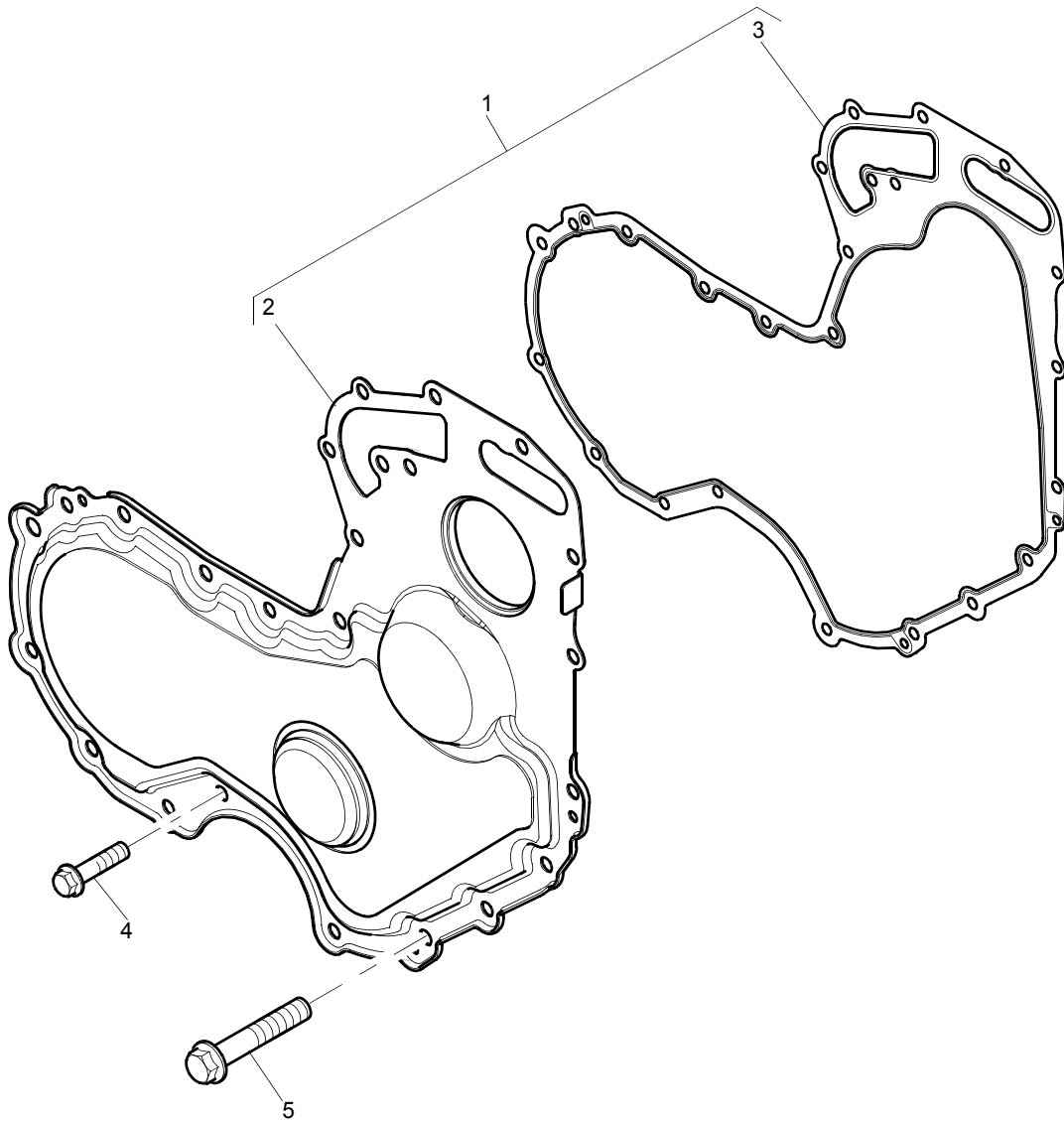
QCH00049

Item	Part No.	References	Qty.	Description	Notes
1	3117N061	↳ U018531S	1	IDLER GEAR	(A)
2	3311A054		1	HUB	
3	3272A033	↳ U018531S	1	PLATE	(B)
4	2314J011		3	SCREW	
5	3117N001		1	CAMSHAFT GEAR	
6	3321A003		1	WASHER	
7	2116053		1	DOWEL	
8	3112X011		1	THRUST WASHER	
9	2314J606		1	SCREW	

**Footnotes**

(A)	USED ONLY WITH 3272A033 3311A054
(B)	USED ONLY WITH 3117N061

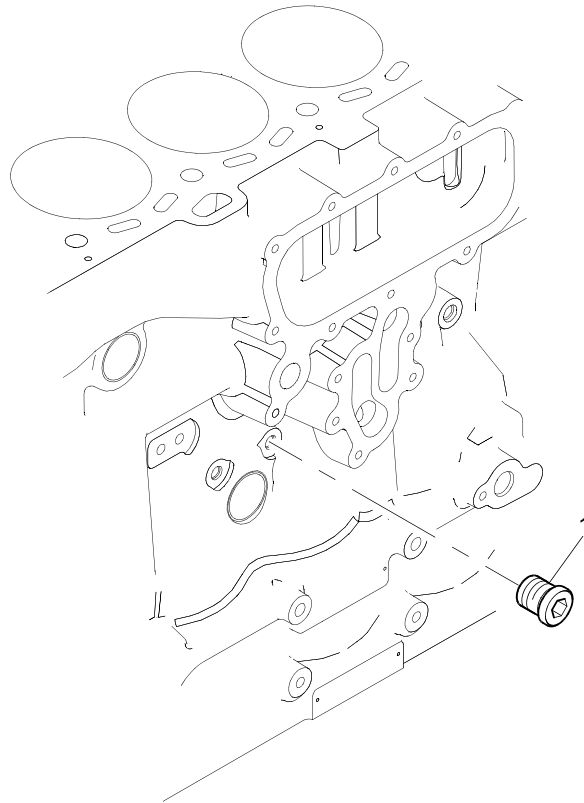
QCH00049



QCH00049

Item	Part No.	References	Qty.	Description	Notes
1	4142A503		1	FRONT COVER KIT	
2		⇒ 4142A503	1	TIMINGGEAR COVER	
3	3681P046		1	GASKET - TIMING CASE COVER	
4	2314H002		10	SCREW	
5	2314H012		5	SCREW	

QDH01415

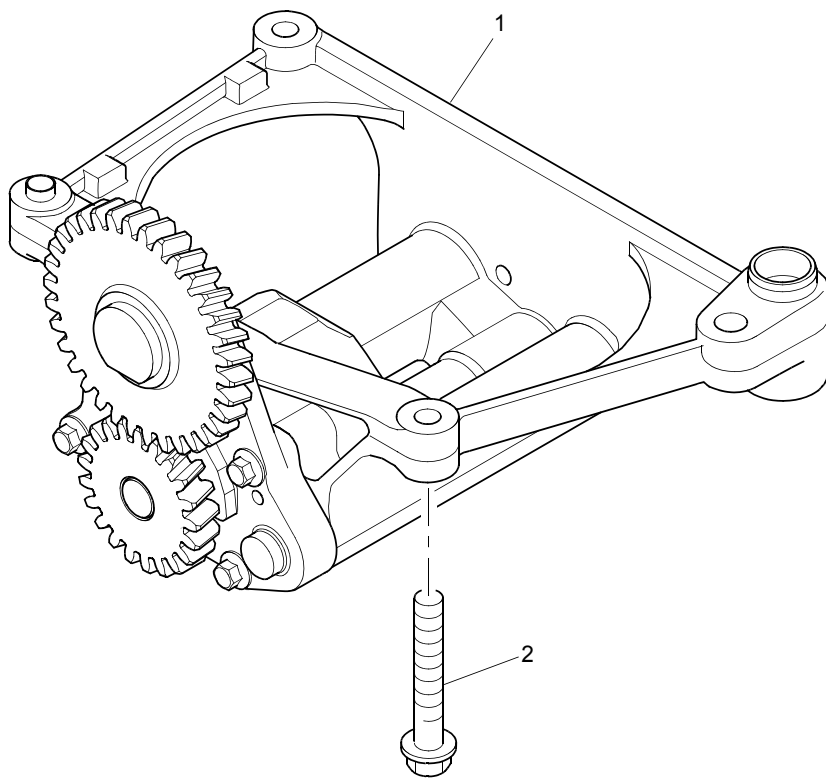





<b>Blanking Plugs</b>		<b>Plate A</b>
		<b>QDH01415</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	2487A208		1	PLUG	

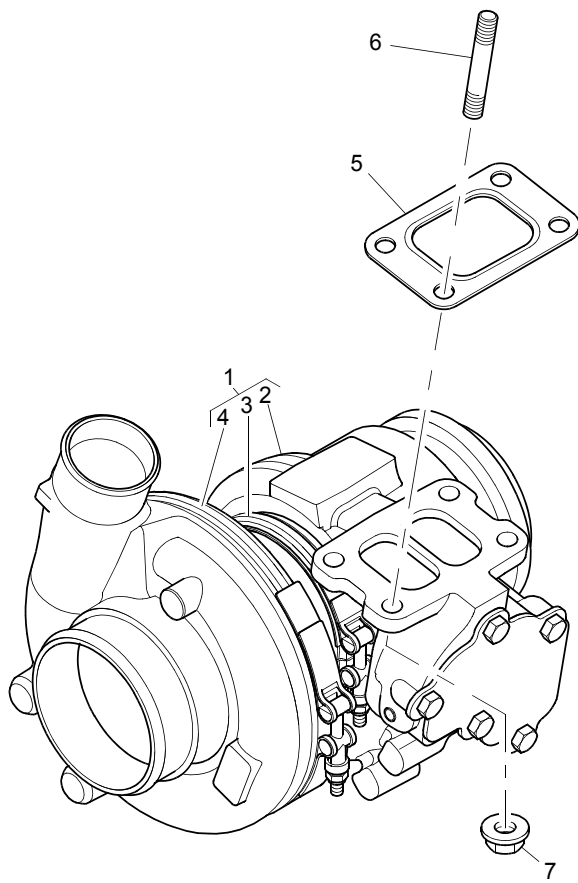
RBH00032



RBH00032

Item	Part No.	References	Qty.	Description	Notes
1	T410626	 a.	1	OIL PUMP	
2	2314H007		4	SCREW	
<b>History</b>					
a.					
1	4132F081		1	OIL PUMP	

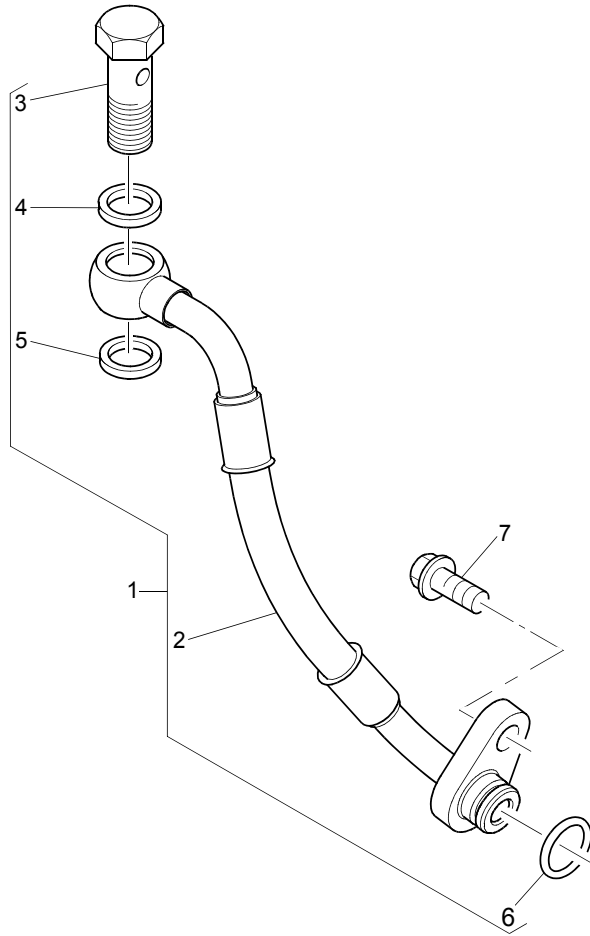
SBH01678



<b>Turbocharger</b>	<b>Plate A</b>
	<b>SBH01678</b>

Item	Part No.	References	Qty.	Description	Notes
1	2674A271	↻	1	TURBOCHARGER	
2		⇒ 2674A271	1	TURBOCHARGER	
3	—2481D003		1	CLAMP	
4	—2481D004		1	CLAMP	
5	3682P004		1	GASKET - TURBOCHARGER	
6	3241A028		4	STUD	
7	2318A634		4	NUT	
<b>Service Options</b>					
1	2674A271R		1	TURBOCHARGER - EXCHANGE	

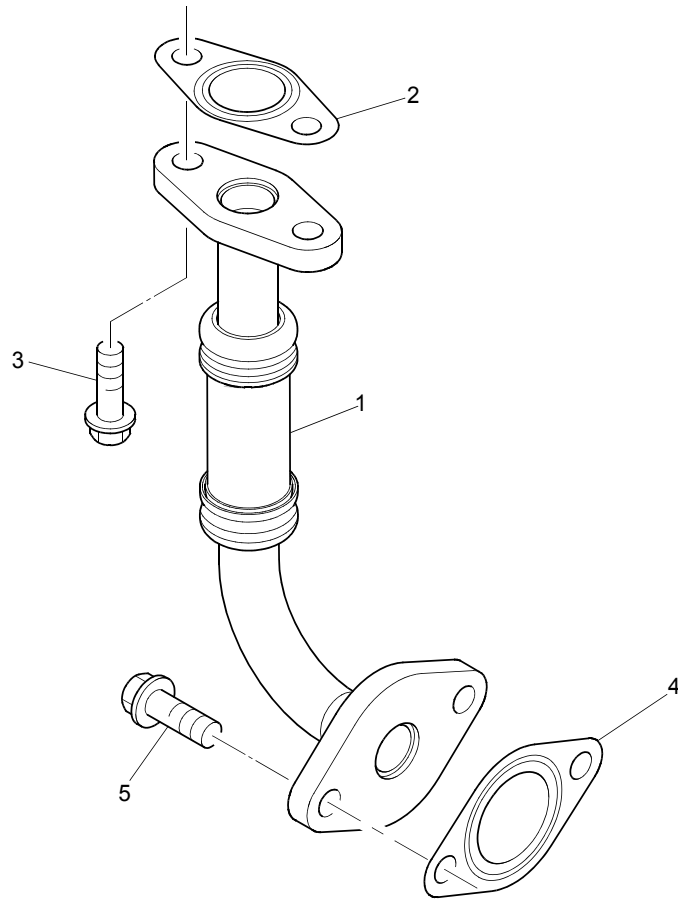
SBH01678



**Feed Pipes****Plate A****SBH01678**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	4127A179		1	PIPE - TURBO OIL FEED	
2		⇒ 4127A179	1	TURBO FEED PIPE	
3	—2447A201		1	BANJO BOLT	
4	—2131A515		1	WASHER	
5	—2131A515		1	WASHER	
6	—2415H514		1	SEAL - O RING	
7	2314H003		1	SCREW	

SBH01678

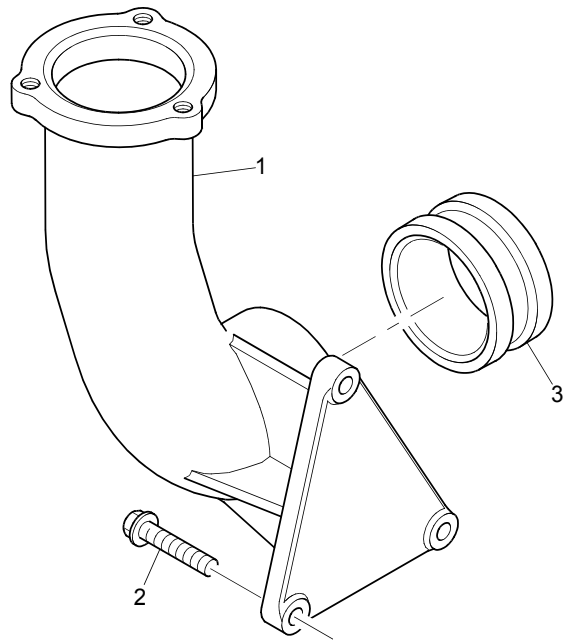




SBH01678

Item	Part No.	References	Qty.	Description	Notes
1	4127A108		1	PIPE - TURBO OIL DRAIN	
2	3683A023		1	GASKET	
3	2314H003		2	SCREW	
4	3683A022		1	GASKET	
5	2314H003		2	SCREW	

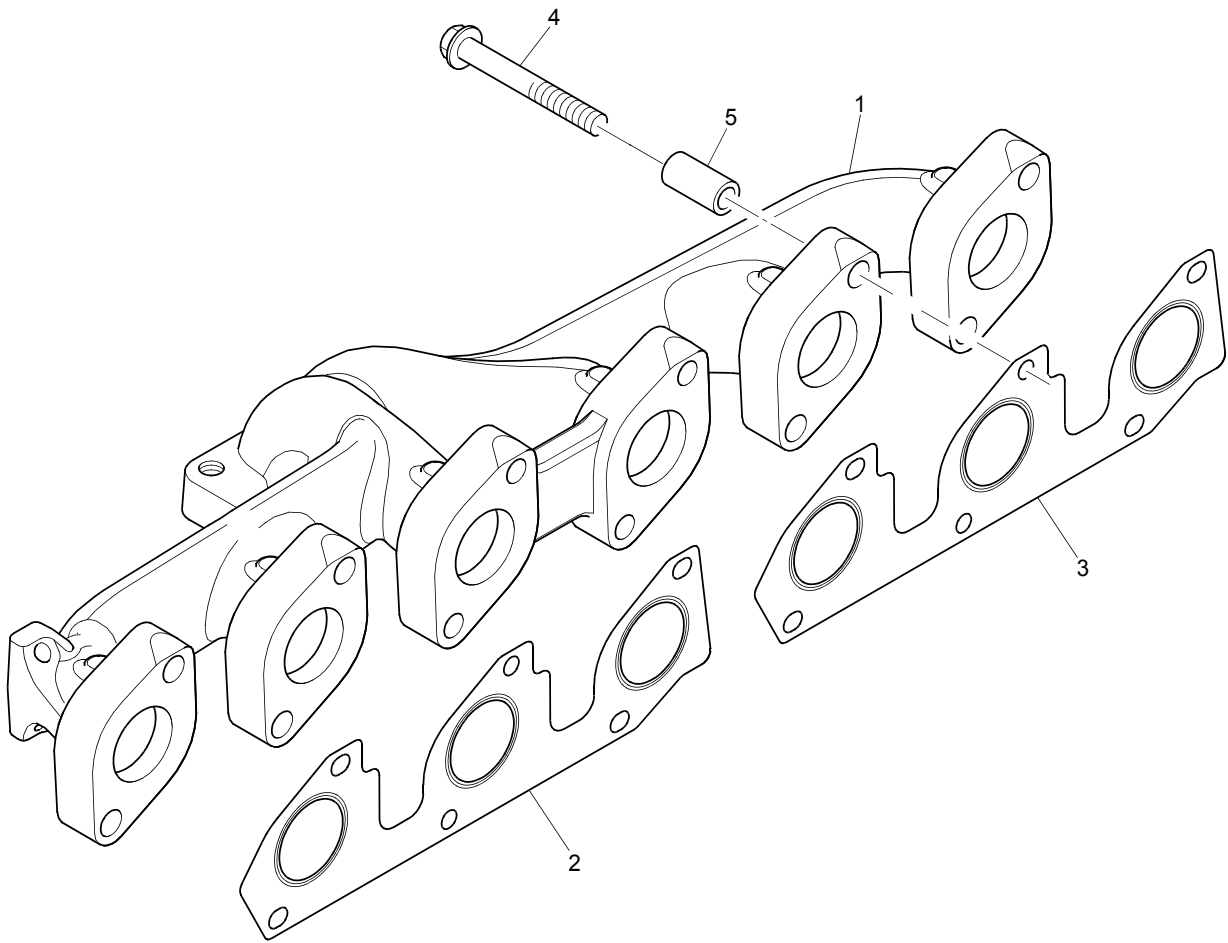
SBH01678



SBH01678

Item	Part No.	References	Qty.	Description	Notes
1	3767A071		1	EXHAUST OUTLET ELBOW	
2	2314J035		3	SCREW METRIC	
3	3344M411		1	ADAPTOR	

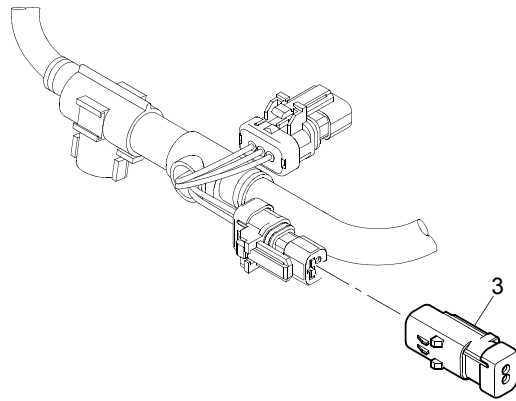
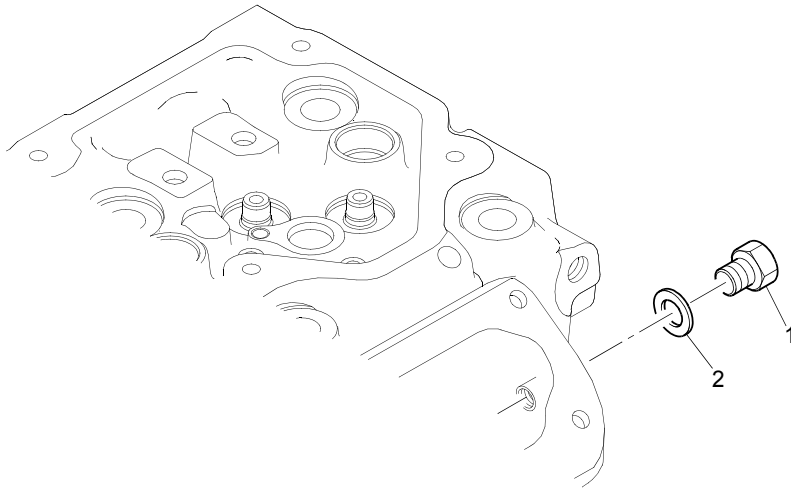
SBH01678



<b>Exhaust Manifold</b>	<b>Plate A</b>
	<b>SBH01678</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3778M291		1	EXHAUST MANIFOLD	
2	3681V015		1	GASKET - EXHAUST MANIFOLD	
3	3681V015		1	GASKET - EXHAUST MANIFOLD	
4	3218J025		12	SCREW	
5	3313A029		12	SPACER	

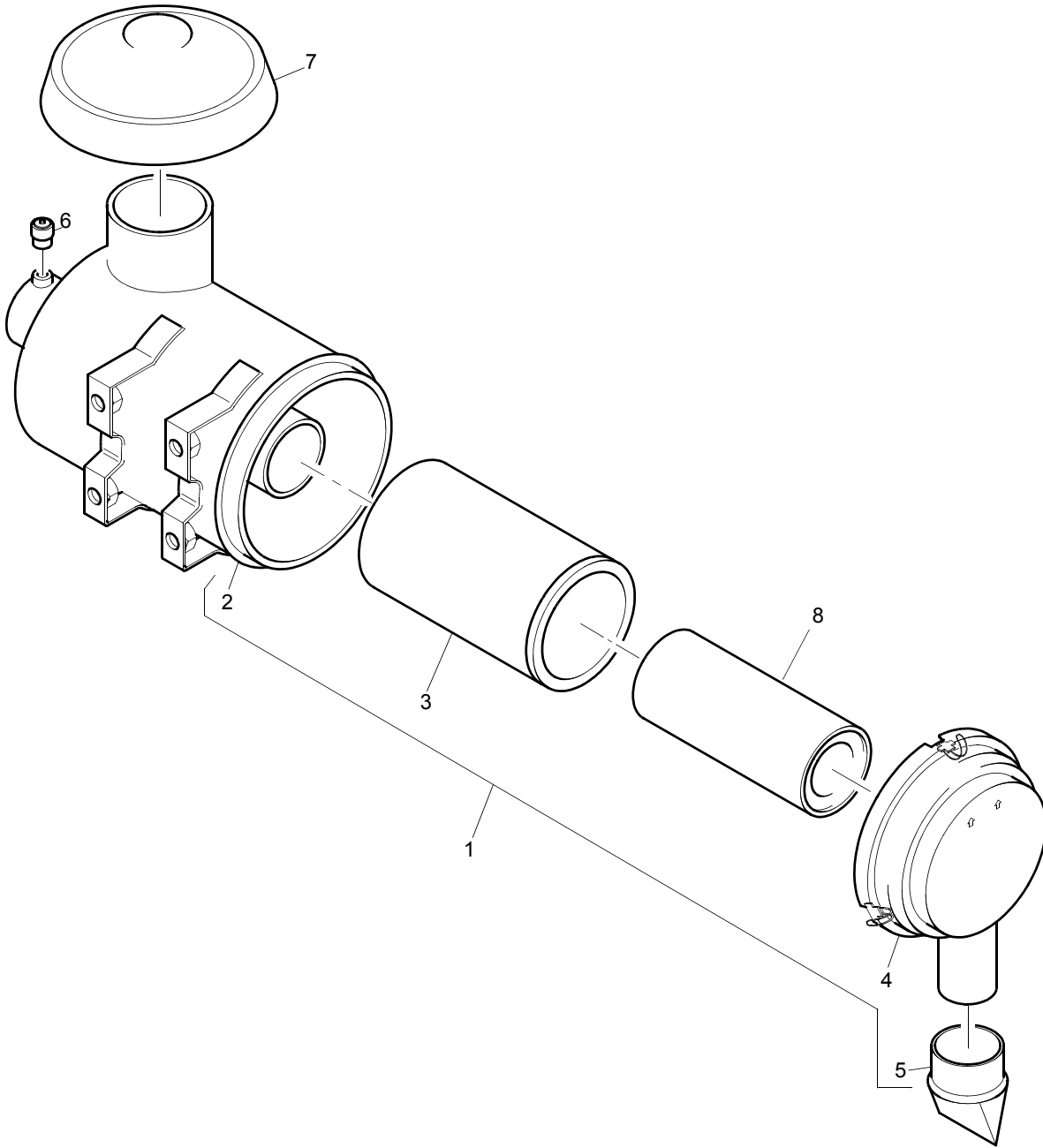
SBH01678



<b>Wastegate Sensor</b>	<b>Plate A</b>
	<b>SBH01678</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3278A004		1	PLUG	
2	2411154		1	WASHER	
3	2800A033		1	PLUG	

SBH01678



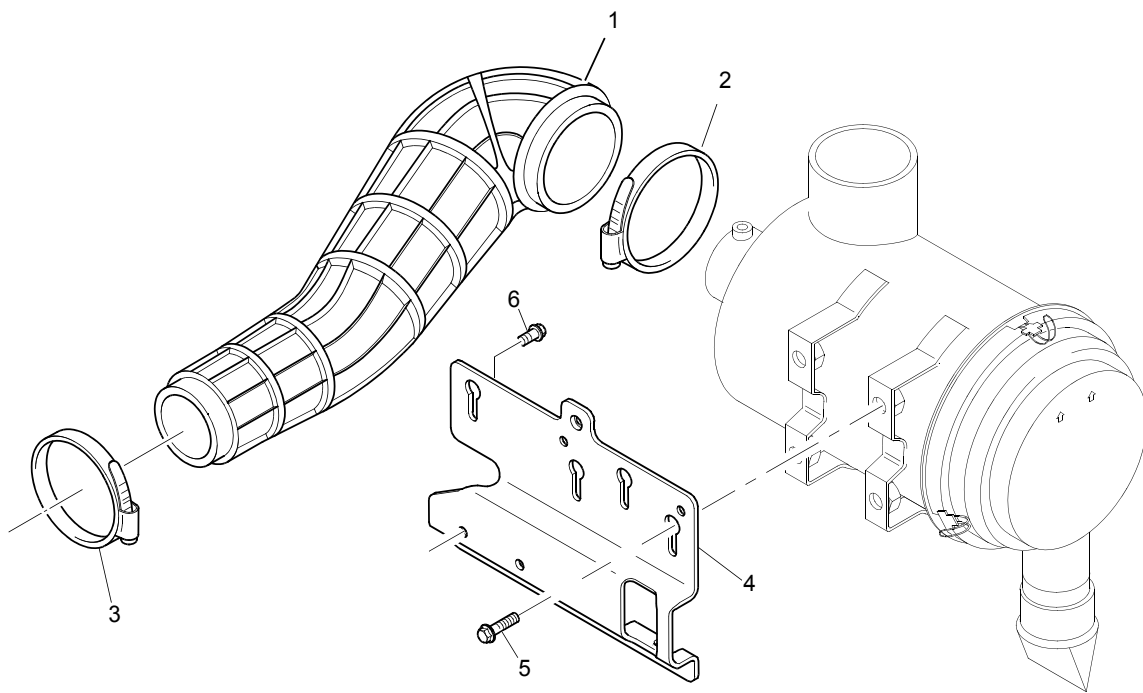


<b>Air Filters</b>	<b>Plate A</b>
	<b>SBH01678</b>

Item	Part No.	References	Qty.	Description	Notes
1	2652C149		1	AIR FILTER ASSEMBLY	
2		⇒ 2652C149	1	BODY	
3	—26510353		1	MAIN AIR FILTER	
4	—26510355		1	COVER	
5	—26510350		1	VALVE	
6	2652C806		1	INDICATOR	
7	2652C810		1	CAP	
8	26510354		1	SAFETY AIR FILTER	(A)

<b>Footnotes</b>	
(A)	SERVICE PART ONLY

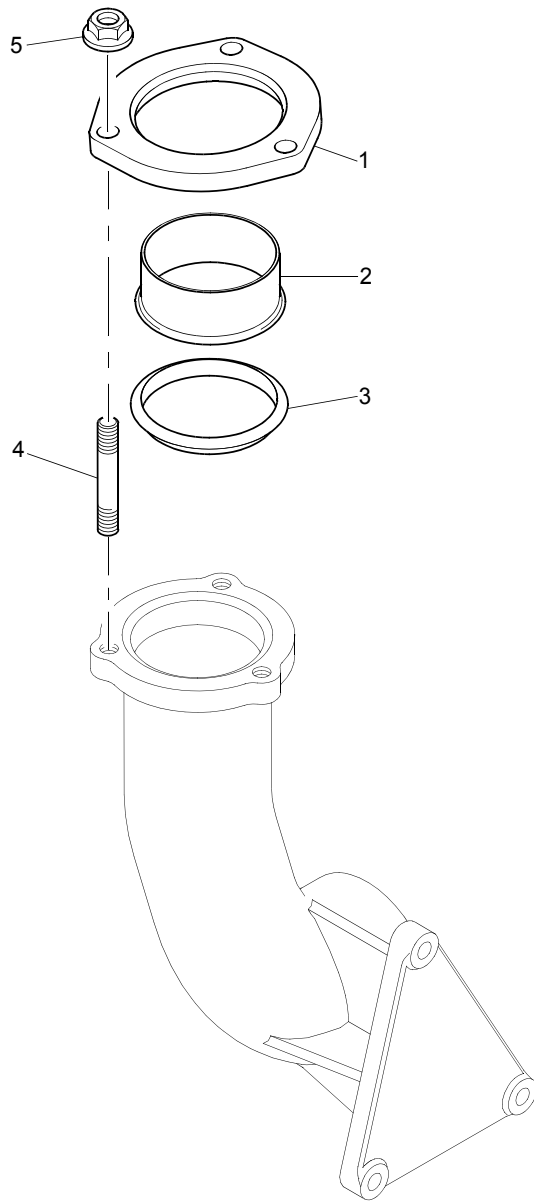
SBH01678



<b>Air Filters</b>	<b>Plate B</b>
	<b>SBH01678</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3783R047		1	HOSE - AIR	
2	0180074		1	CLIP	
3	2481873		1	HOSE CLIP	
4	3661A062	↳ U000711N	1	MOUNTING BRACKET	
5	2314J003		4	SCREW	
6	2314J002		2	SCREW	

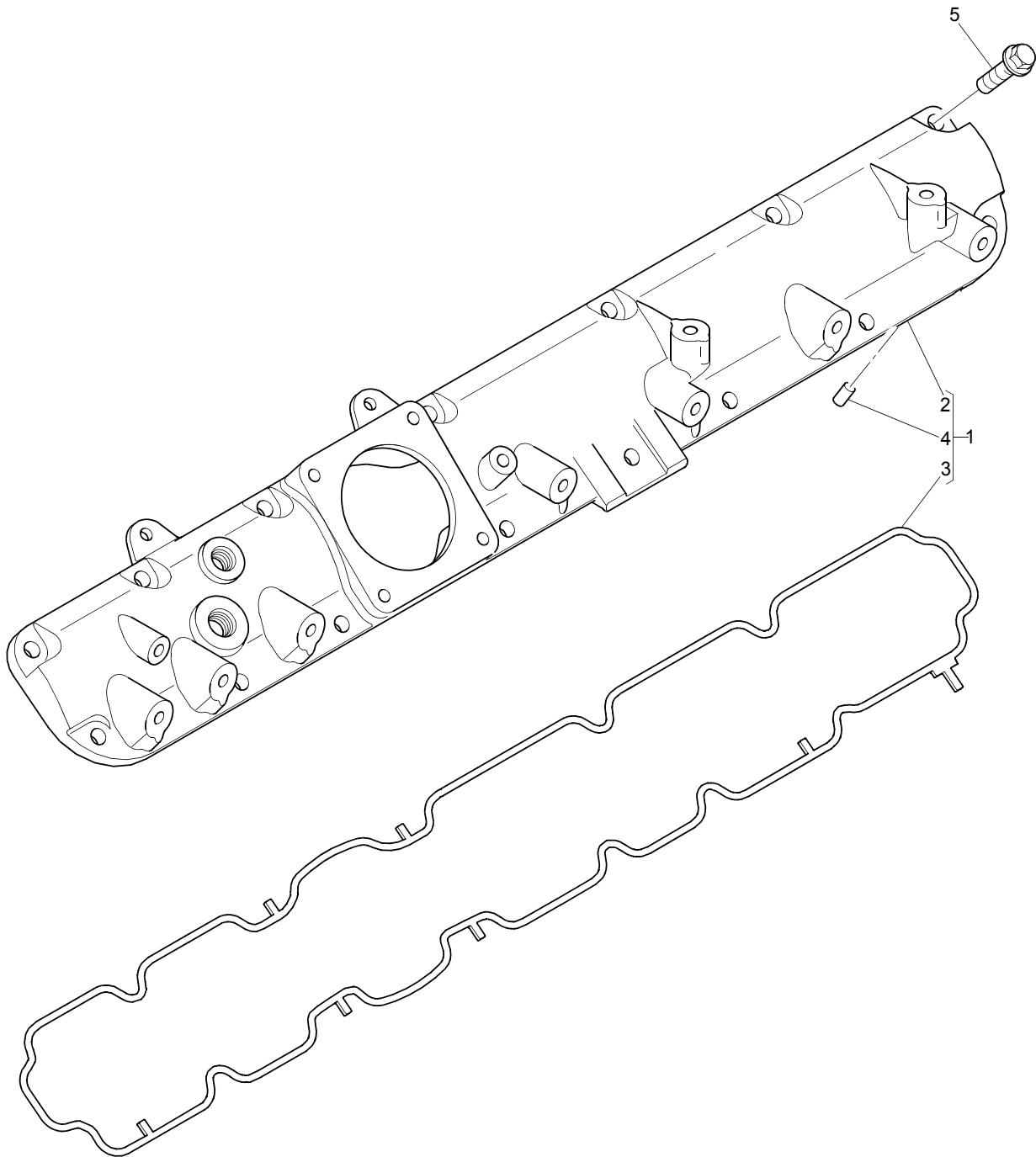
SDH00420



<b>Exhaust Outlet</b>	<b>Plate A</b>
	<b>SDH00420</b>

Item	Part No.	References	Qty.	Description	Notes
1	3743C001		1	FLANGE	
2	33427431		1	ADAPTOR	
3	33415356		1	RING	
4	2313F079		3	STUD	
5	2318A634		3	NUT	

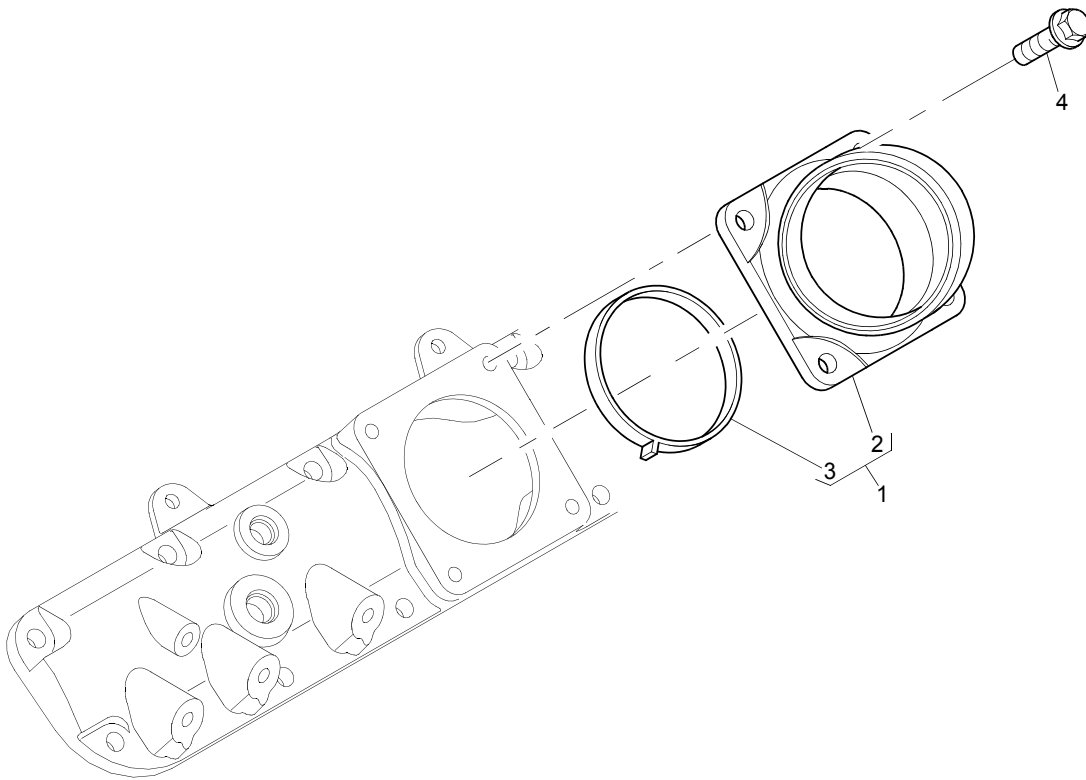
TBH00939



TBH00939

Item	Part No.	References	Qty.	Description	Notes
1	4147V007		1	COVER	
2		⇒ 4147V007	1	COVER	
3	3681V016		1	GASKET - MANIFOLD COVER	
4	2116A301		2	DOWEL	
5	2314H034		15	SCREW	

TBH00939

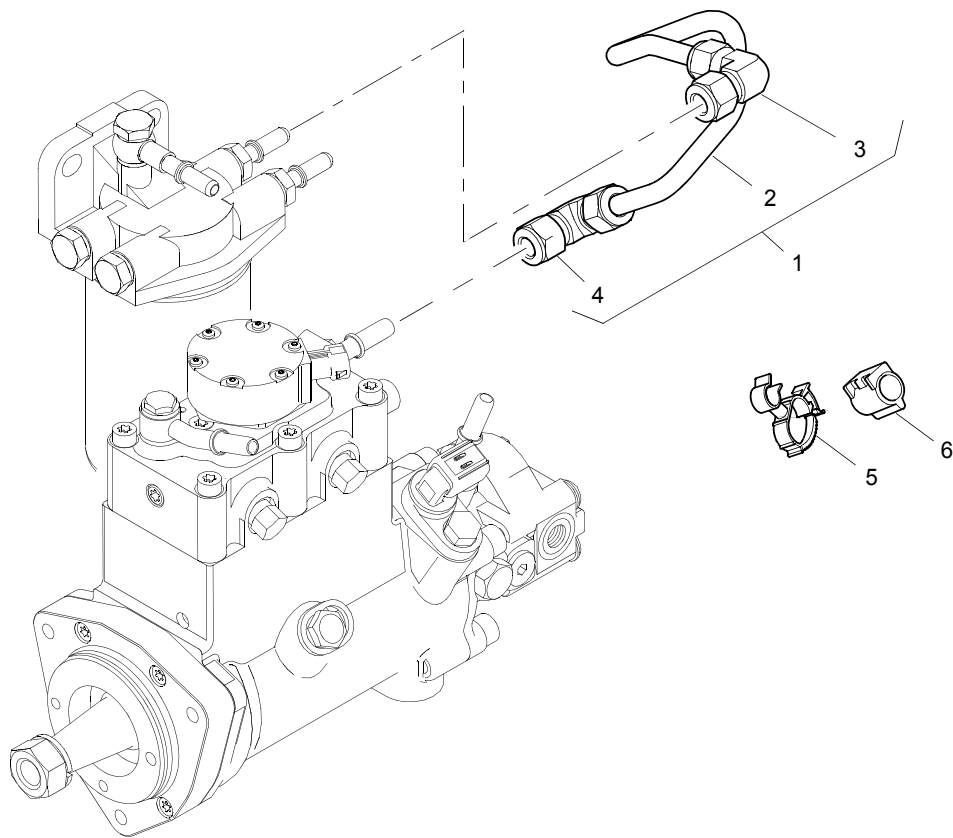




TBH00939

Item	Part No.	References	Qty.	Description	Notes
1	4148K014		1	INLET ELBOW	
2	└	⇒ 4148K014	1	CONNECTION	
3	└ 3682A013		1	GASKET - IND MANIFOLD	
4	2314H034		4	SCREW	

VBH02553



7  
ANTI CONTAMINATION KIT  
KIT DE PROTECCION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

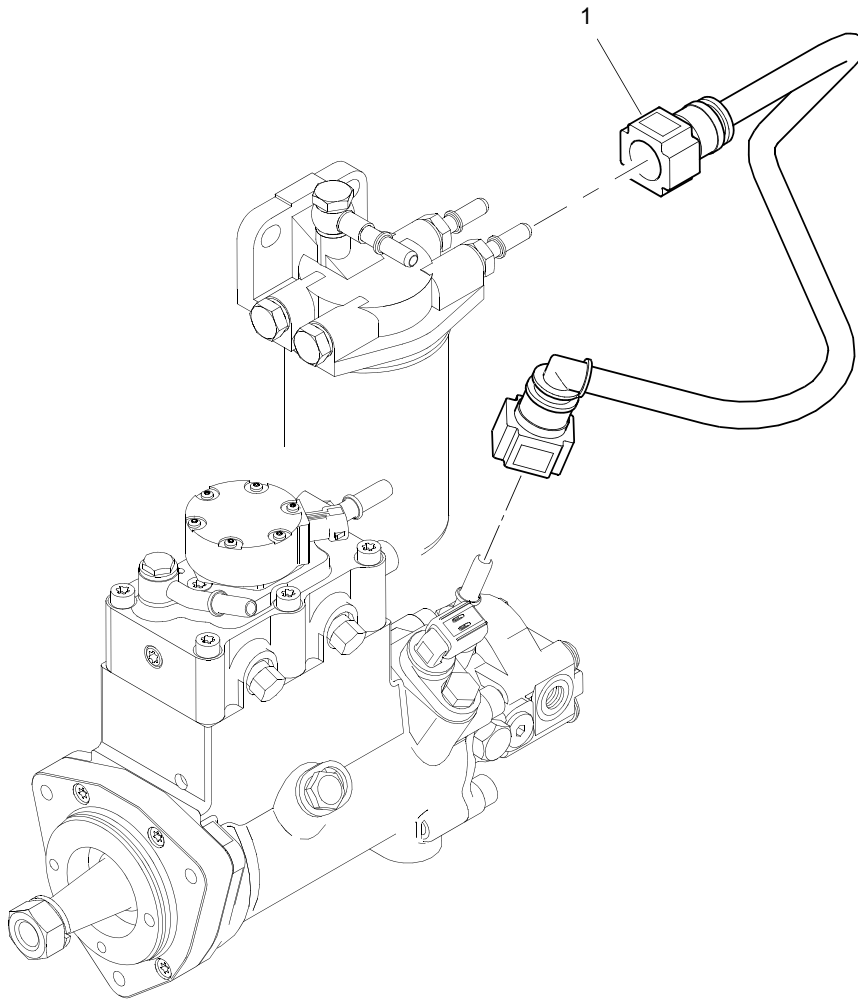
VBH02553

Item	Part No.	References	Qty.	Description	Notes
1	4122A061		1	PIPE - FILTER TO HP PUMP	
2	├──	⇒ 4122A061	1	PIPE - FILTER TO HP PUMP	
3		⇒ 4122A061	1	ELBOW	
4		⇒ 4122A061	1	ELBOW	
5	2481D318		1	PIPE CLIP	
6	T410248		1	WIRING CLIP	
7	U5MK1124		1	PROTECTION KIT	(A)

**Footnotes**

(A) PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

VBH02553



2

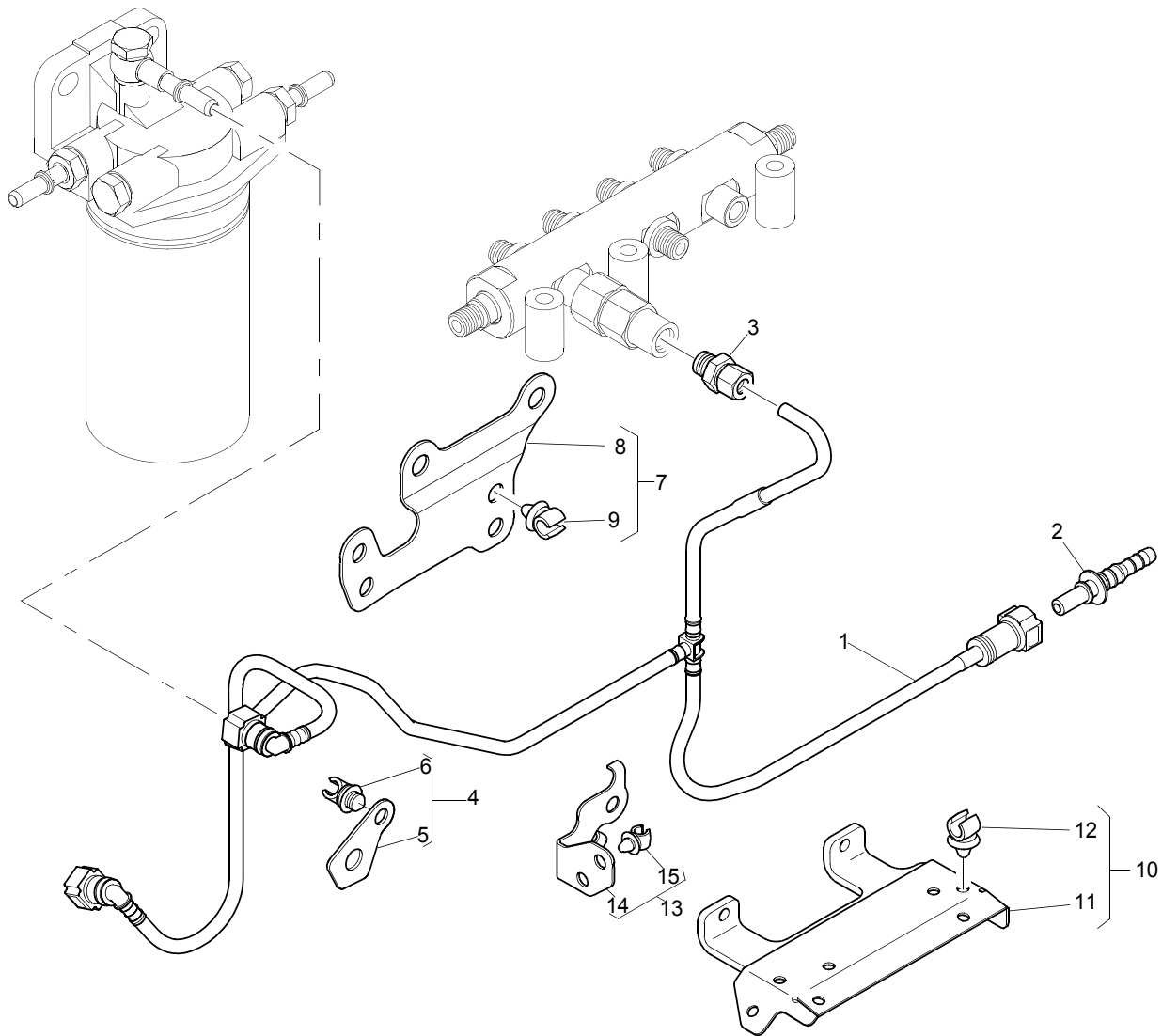
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

<b>Low Pressure Fuel Pipes</b>	<b>Plate B</b>
	<b>VBH02553</b>

Item	Part No.	References	Qty.	Description	Notes
1	3584A122		1	PIPE - FILTER TO PUMP	
2	U5MK1124		1	PROTECTION KIT	(A)

<b>Footnotes</b>					
(A)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED				

VBH02553



16  
 ANTI CONTAMINATION KIT  
 KIT DE PROTECCION  
 SCHUTZSATZ  
 KIT PROTEZIONE  
 EQUIPO DE PROTECCION

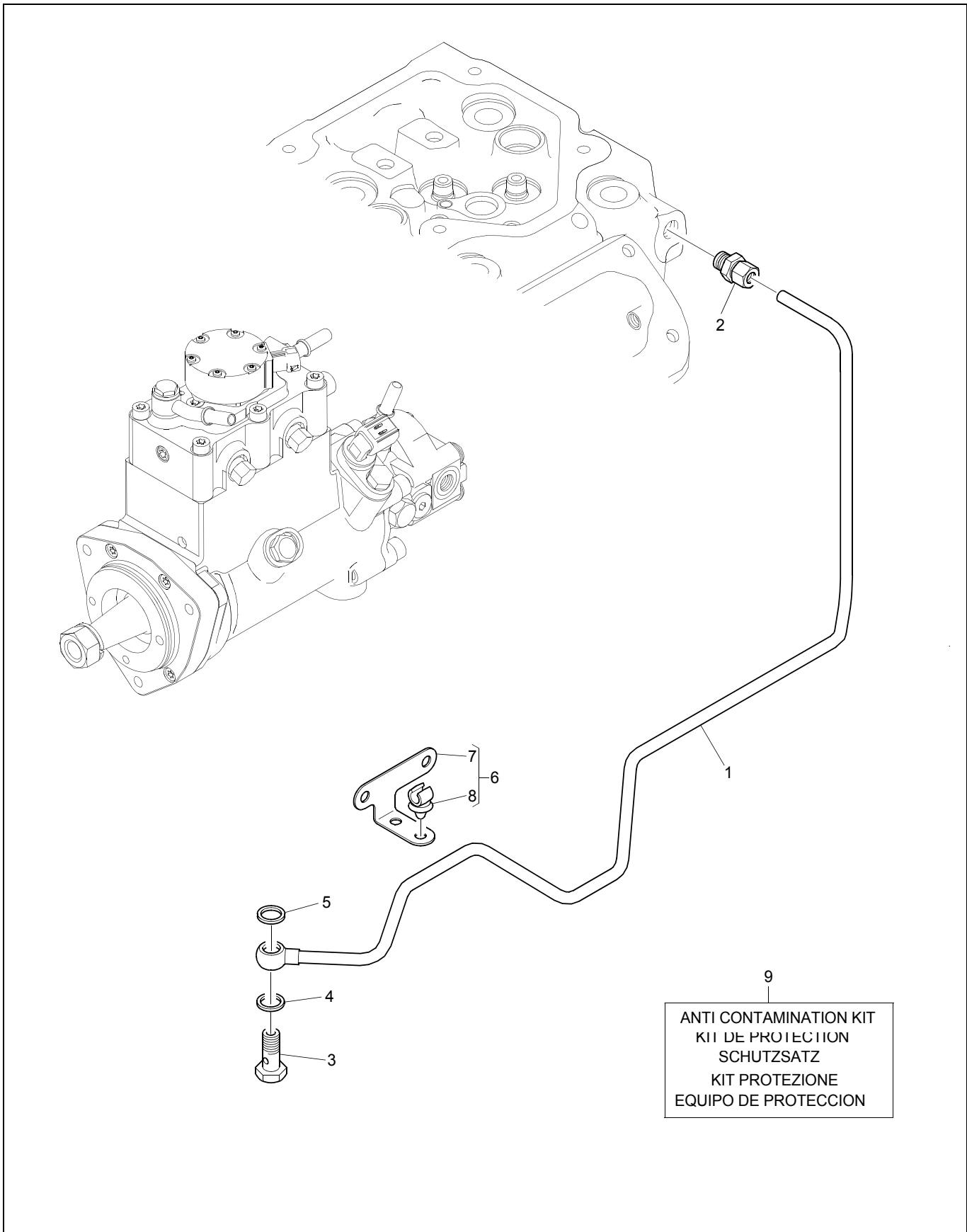
VBH02553

Item	Part No.	References	Qty.	Description	Notes
1	3583A046		1	PIPE - LEAK OFF ASSEMBLY	
2	3763A045		1	CONNECTION	
3	2461A203		1	CONNECTION	
4	4141A227		1	BRACKET	
5	└	⇒ 4141A227	1	BRACKET	
6	└2481D558		1	PIPE CLIP	
7	4141A167		1	BRACKET	
8	└	⇒ 4141A167	1	BRACKET	
9	└2481D558		4	PIPE CLIP	
10	4141A215		1	BRACKET	
11	└	⇒ 4141A215	1	BRACKET	
12	└2481D558		7	PIPE CLIP	
13	4141A166		1	BRACKET	
14	└	⇒ 4141A166	1	BRACKET	
15	└2481D558		2	PIPE CLIP	
16	U5MK1124		1	PROTECTION KIT	(A)

**Footnotes**



(A) PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

VBH02553





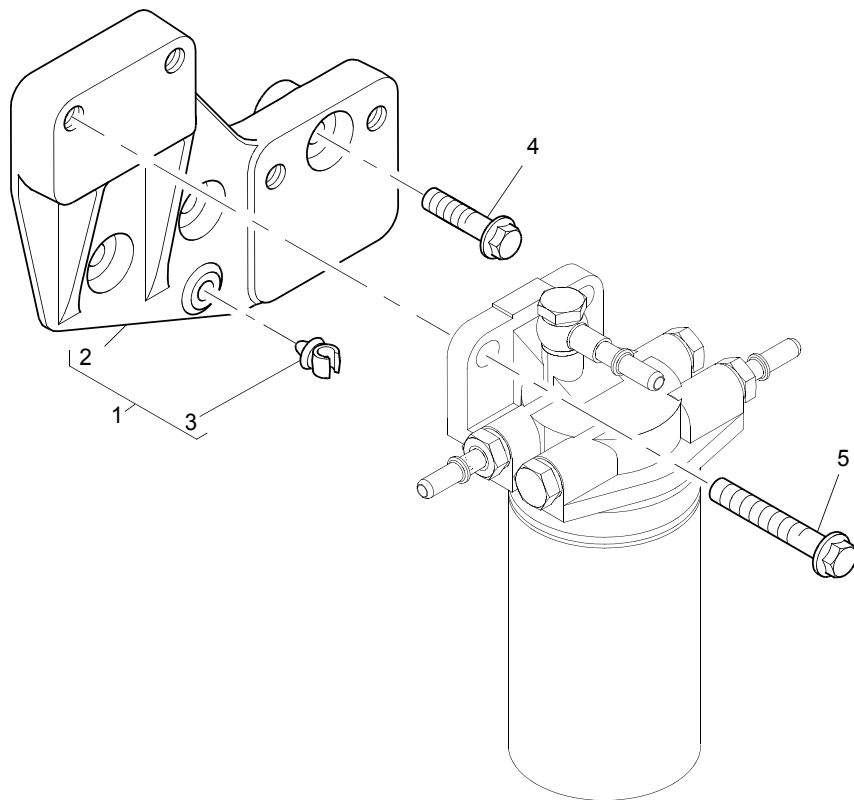
VBH02553

Item	Part No.	References	Qty.	Description	Notes
1	3552A054		1	PIPE - FUEL INJ LEAK OFF	
2	2461A203		1	CONNECTION	
3	3218R046		1	BANJO BOLT	
4	2411D012		1	WASHER	
5	2411D012		1	WASHER	
6	4141A047		1	BRACKET ASSEMBLY	
7		⇒ 4141A047	1	BRACKET	
8	 2481D558		2	PIPE CLIP	
9	U5MK1124		1	PROTECTION KIT	(A)

**Footnotes**

(A) PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

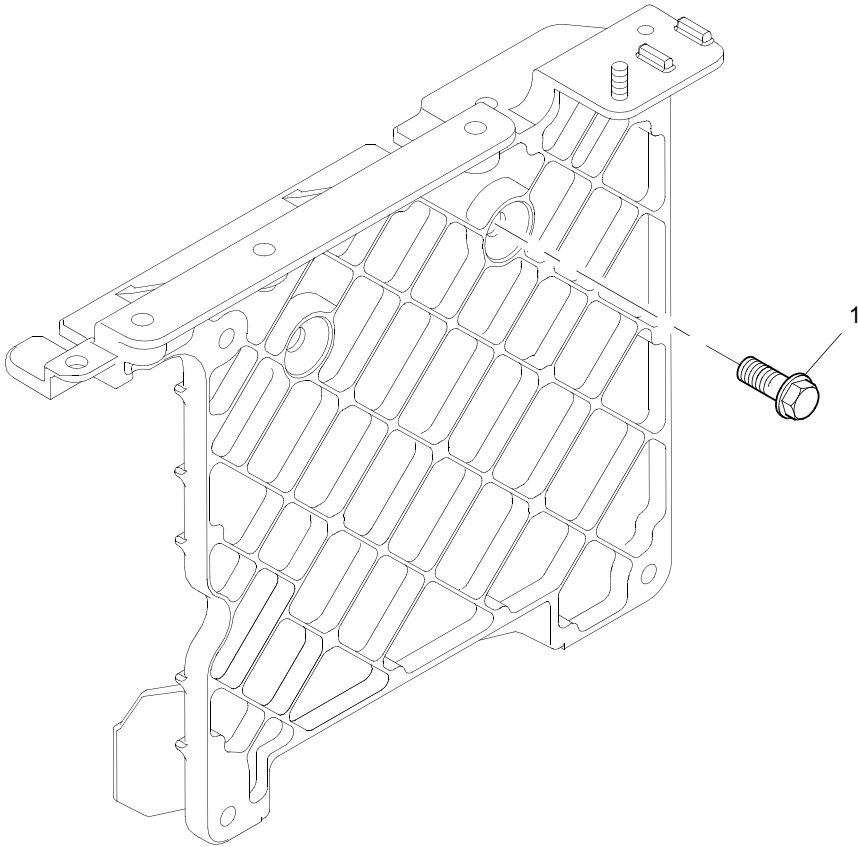
VBH02553



<b>Fuel Filter</b>	<b>Plate A</b>
<b>VBH02553</b>	

Item	Part No.	References	Qty.	Description	Notes
1	4141A198		1	BRACKET	
2	└	⇒ 4141A198	1	BRACKET	
3	└2481D558		1	PIPE CLIP	
4	2314H006		3	SCREW	
5	2314J004		2	SCREW	

VBH02553



<b>Miscellaneous</b>	<b>Plate A</b>
	<b>VBH02553</b>

Item	Part No.	References	Qty.	Description	Notes
1	2314H004		2	SCREW	

→ U004628P

VDH00015

### Fuel Filter Conversion Kit

The fuel filter fitted in production up to serial number U004628P is No Longer Available. Please refer to "Fuel Filter Conversion Kit" section "A" within the low pressure fuel system pack prefix "VBH".

Refer to 1100 Series Service Bulletin number 57 "New Secondary Fuel Filter" for further details.

### Kit de conversion de filtre à carburant

Le filtre à carburant monté de série jusqu'au numéro de série U004628P n'est plus disponible. Veuillez vous référer la section "A" de "Kit de conversion de filtre à carburant" sous kit circuit de carburant basse pression préfixe "VBH".

Pour plus de détails, consulter le Bulletin service Série 1100, numéro 57 "Nouveau Filtre à carburant secondaire".

### Kraftstofffilter-Umrüstsatz

Der bis Seriennummer U004628P werksseitig eingebaute Kraftstofffilter ist nicht mehr lieferbar. Siehe "Kraftstofffilter-Umrüstsatz", Abschnitt "A", im Niederdruck-Kraftstoffsystempaket mit dem Präfix "VBH".

Weitere Informationen sind der Servicemitteilung Nr. 57, "Neuer Kraftstoffsicherheitsfilter", für die Motoren der Serie 1100 zu entnehmen.

### Kit di conversione del filtro del carburante

Il filtro del carburante montato in produzione fino al numero di serie U004628P non è più disponibile.

Per quanto riguarda l'impianto di alimentazione a bassa pressione prefisso "VBH", vedere "Kit di conversione del filtro del carburante", sezione "A".

Per ulteriori dettagli, vedere la lettera di servizio numero 57 relativa ai motori serie 1100 "Nuovo filtro secondario del carburante".

### Kit de conversión del filtro de combustible

El filtro de combustible con el que estaban equipados de fábrica los motores, hasta el número de serie U004628P, ya no está disponible. Por favor, consulte la Sección "A", "Kit de conversión del filtro de combustible", dentro del conjunto del sistema de alimentación a baja presión, prefijo "VBH".

Si desea una información más detallada, consulte el Boletín de Servicio de la Serie 1100 número 57 "Nuevo filtro de combustible secundario".

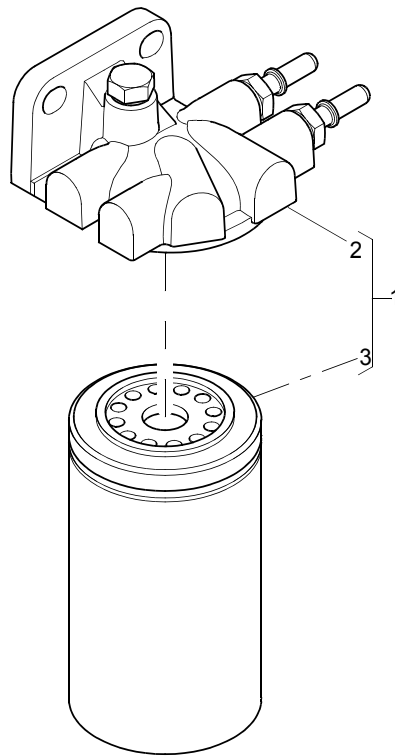
<b>Fuel Filter</b>	<b>Plate A</b>
→ U004628P	VDH00015

Item	Part No.	References	Qty.	Description	Notes
1	2656F103		1	FUEL FILTER ASSEMBLY	(A)
2	└	⇒ 2656F103	1	FUEL FILTER HEAD	
3	└ 2656F541		1	FUEL FILTER	
4	U5MK1124		1	PROTECTION KIT	(B)

<b>Footnotes</b>	
(A)	REFER TO SERVICE BULLETIN NO.57 (1100 SERIES)
(B)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

↳ U004629P

VDH00015



4

ANTI CONTAMINATION KIT KIT DE PROTECTION SCHUTZSATZ KIT PROTEZIONE EQUIPO DE PROTECCION
---

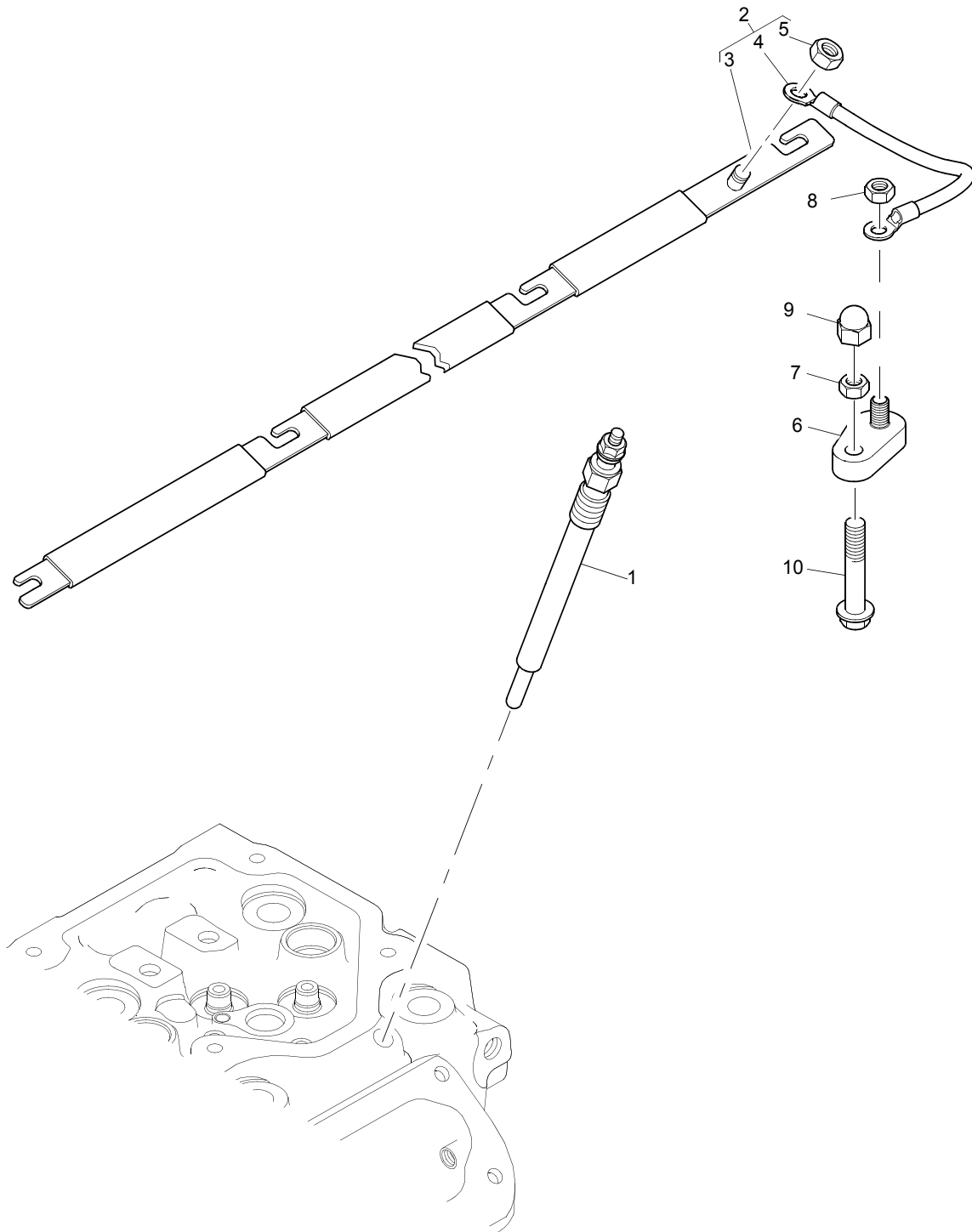


<b>Fuel Filter</b>	<b>Plate A</b>
↳ U004629P	<b>VDH00015</b>

Item	Part No.	References	Qty.	Description	Notes
1	2656F229		1	FUEL FILTER ASSEMBLY	
2		⇒ 2656F229	1	FUEL FILTER HEAD	
3	2656F843		1	FUEL FILTER	
4	U5MK1124		1	PROTECTION KIT	(A)

<b>Footnotes</b>	
(A)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

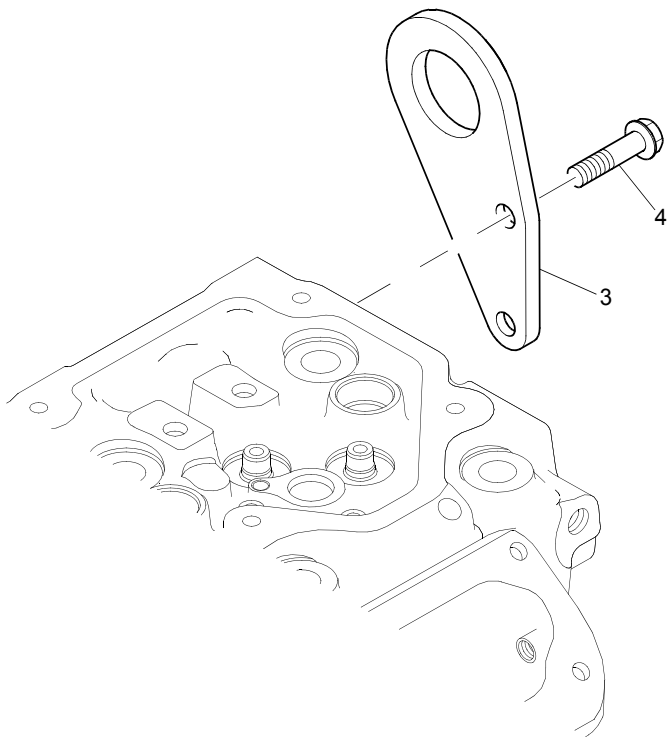
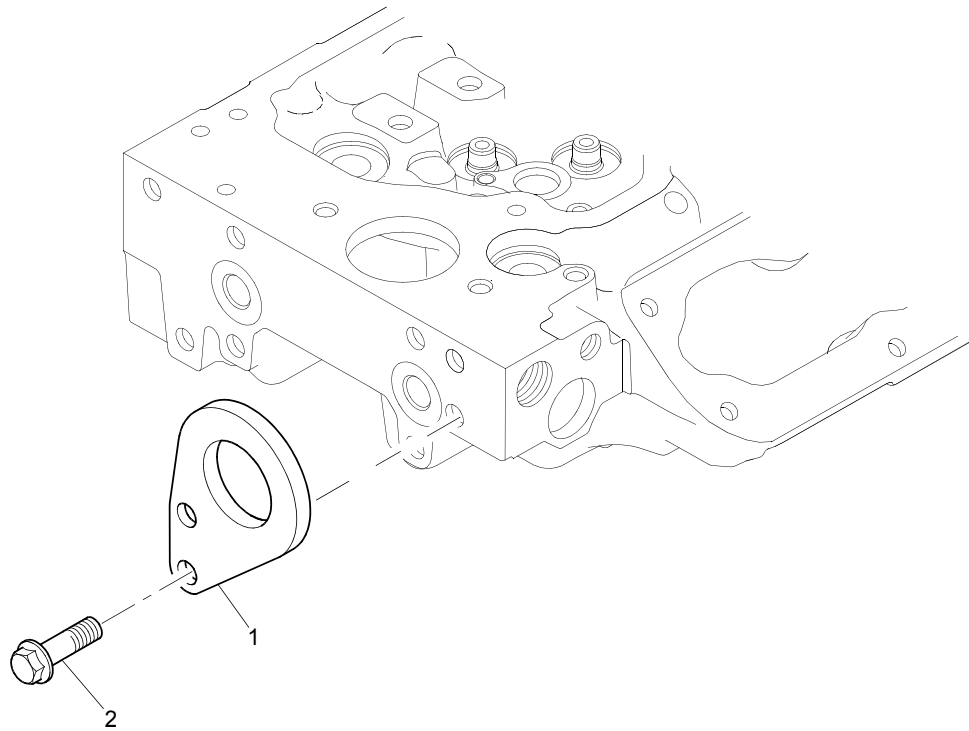
WDH00372



WDH00372

Item	Part No.	References	Qty.	Description	Notes
1	T409125	↳ 08/02/2006	6	GLOWPLUG	
2	T409534		1	BUSBAR	
3		⇒ T409534	1	BUSBAR	
4	└─ 3161C058		1	LEAD	
5	└─ 2318A207		1	NUT	
6	3881A006		1	INSULATOR	
7	2318A207		1	NUT	
8	2318A207		1	NUT	
9	2487F201		1	CAP	
10	2314F005		1	SCREW	

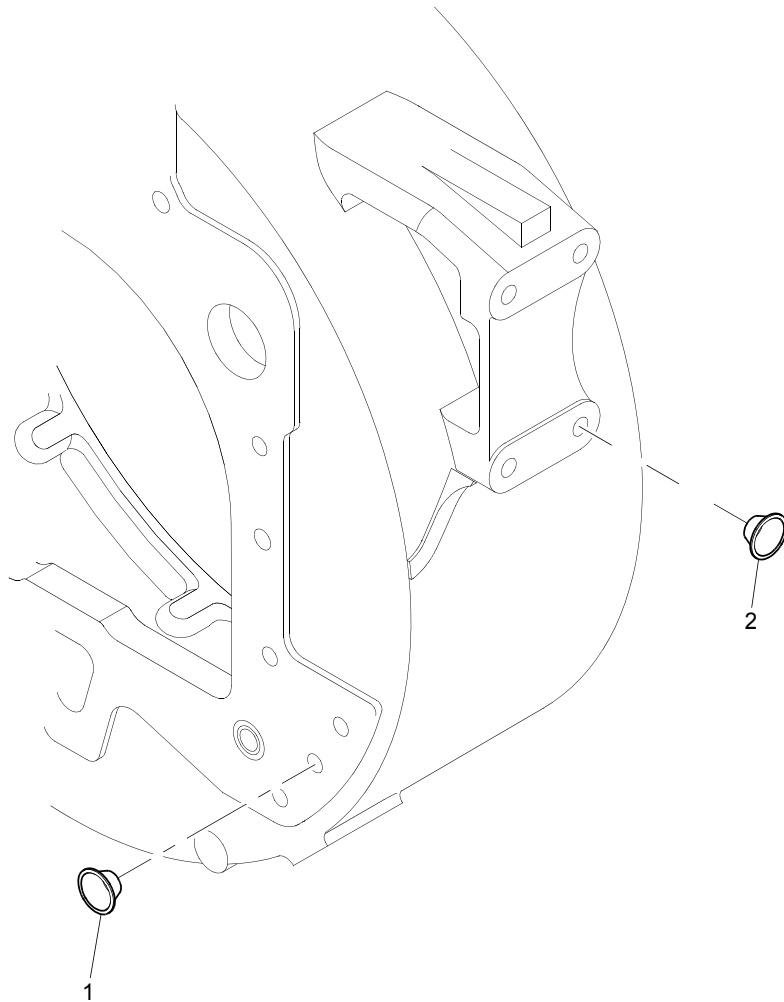
XBH00469



XBH00469

Item	Part No.	References	Qty.	Description	Notes
1	3617A024		1	LIFTING BRACKET	
2	2314J003		2	SCREW	
3	3617A025		1	LIFTING BRACKET	
4	2314J003		2	SCREW	

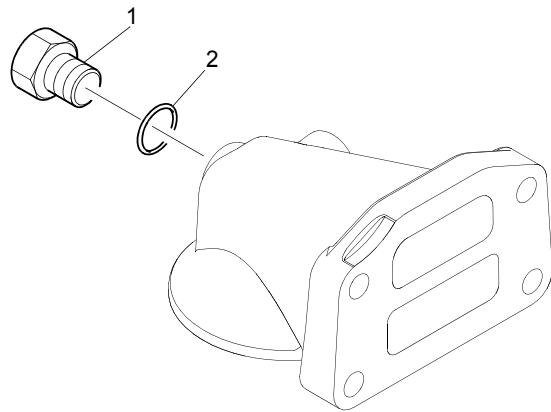
ZCH01201



<b>Engine Mounts</b>	<b>Plate A</b>
	<b>ZCH01201</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	2487207		6	PLUG	
2	2487207		4	PLUG	

ZJH00544

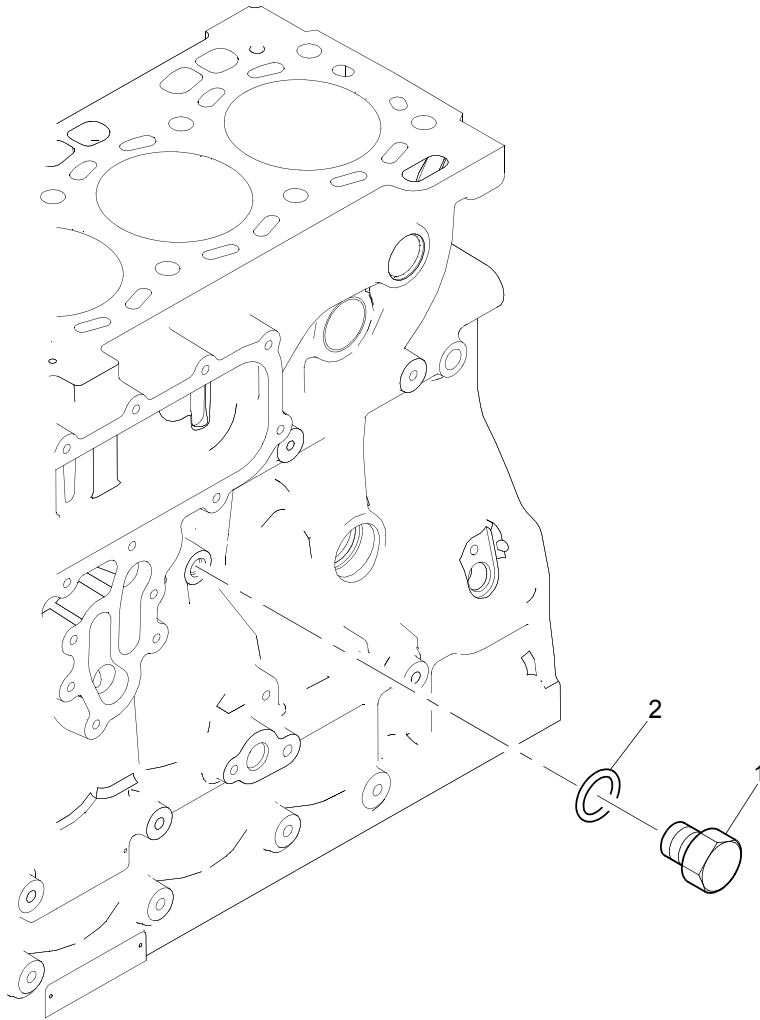




**Lubricating Oil Pressure Switch/Gauge****Plate A****ZJH00544**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3278A007		1	PLUG	
2	2415H009		1	SEAL - O RING	

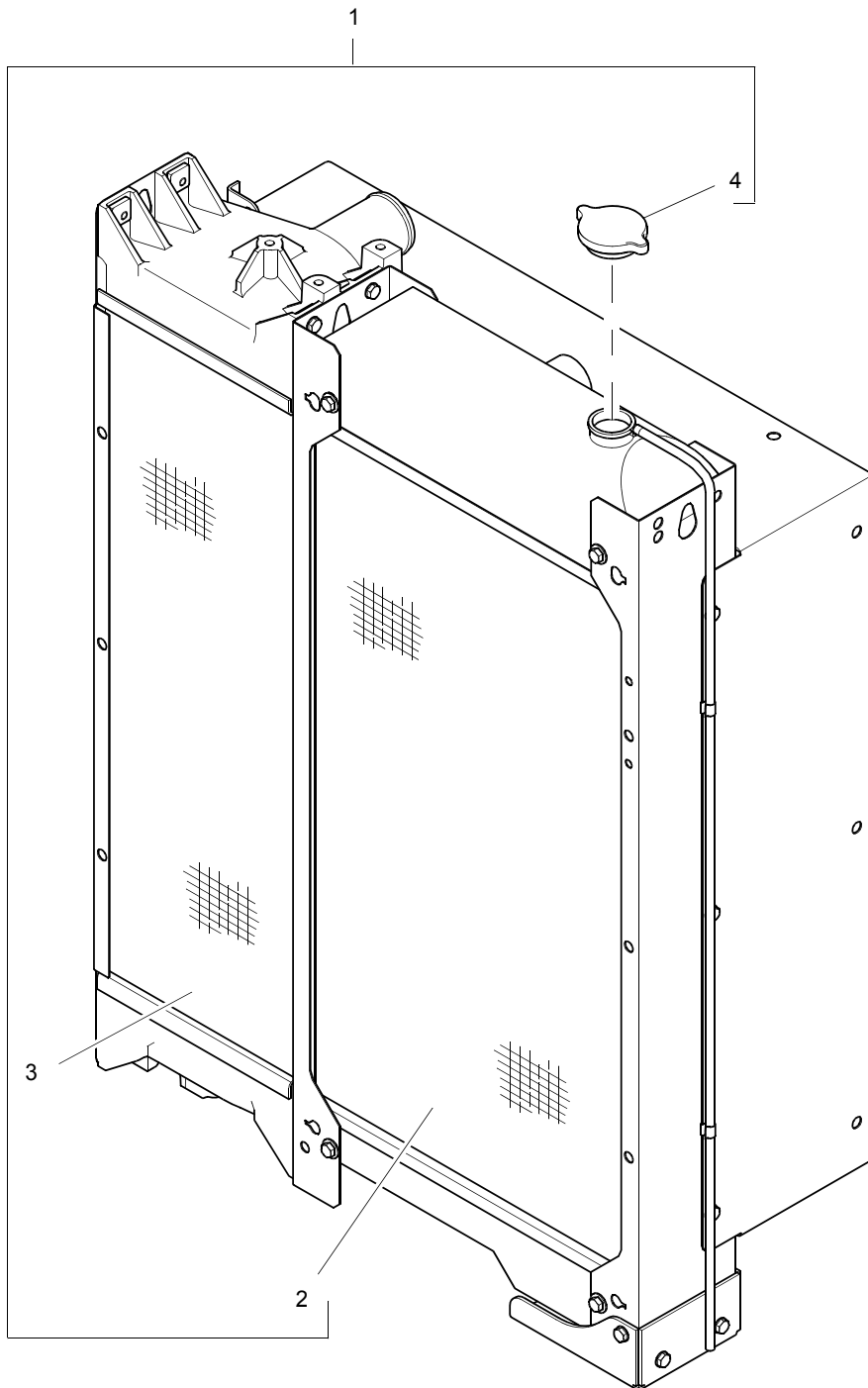
ZJH00544



**Lubricating Oil Pressure Switch/Gauge****Plate B****ZJH00544**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3278A004		1	PLUG	
2	2415H002		1	SEAL - O RING	

ZMH01391



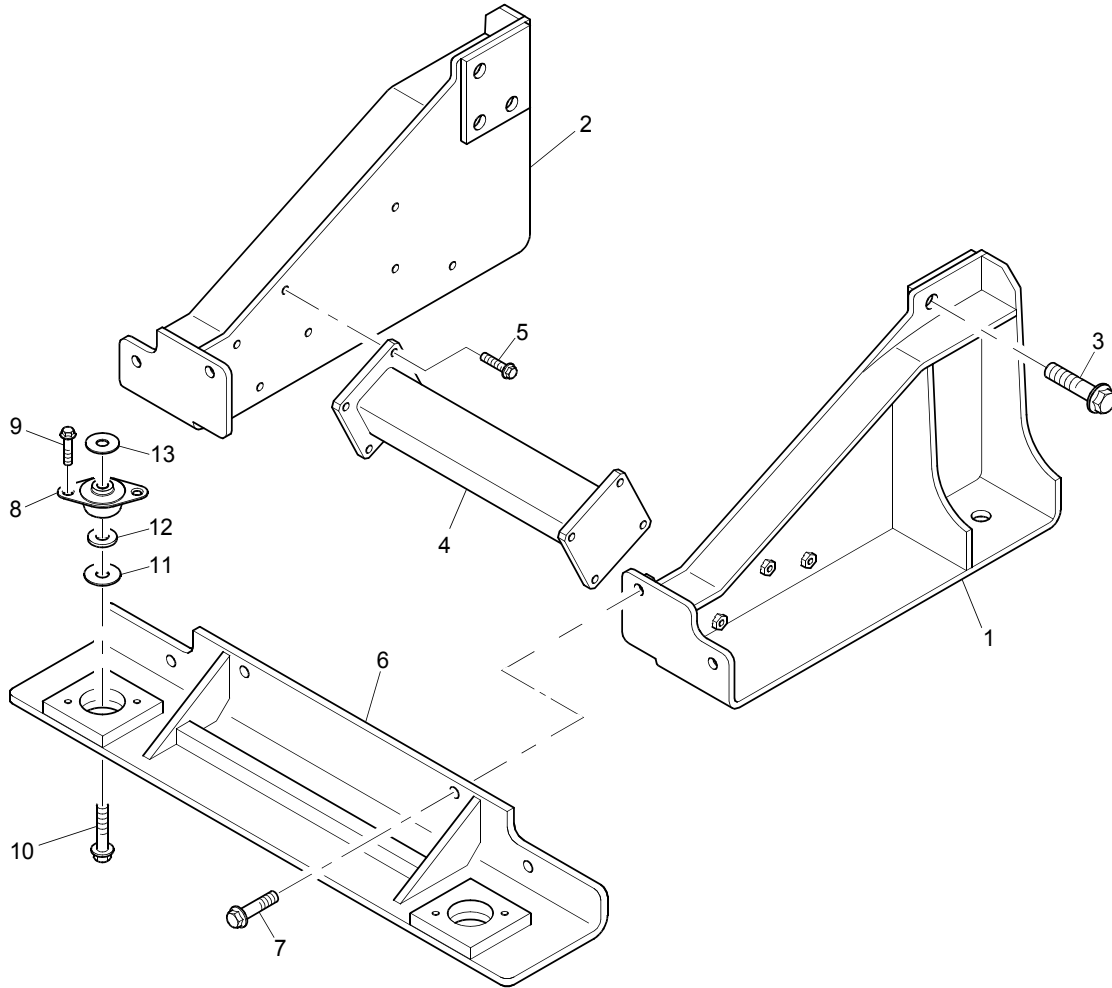
<b>Radiator &amp; Cowling</b>	<b>Plate A</b>
<b>ZMH01391</b>	

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	2485B299		1	RADIATOR	
2	└ 24850087		1	RADIATOR	(A)
3	└ 24850088		1	CHARGE COOLER	
4	└ 24850073		1	RADIATOR CAP	

<b>Footnotes</b>	
(A)	Radiator Core

→ U004996P

ZMH01391



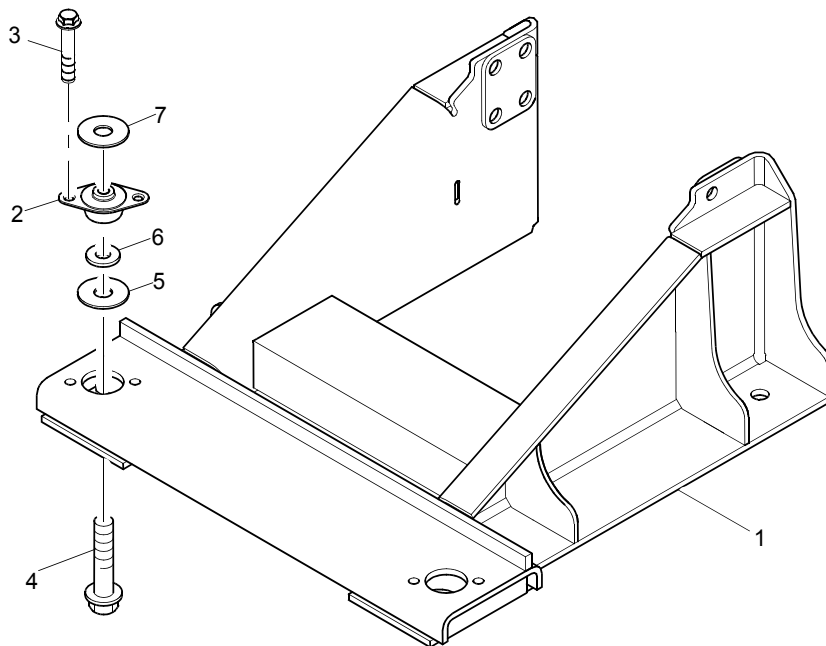
→ U004996P

ZMH01391

Item	Part No.	References	Qty.	Description	Notes
1	3861A051		1	MOUNTING BRACKET	
2	3861A049		1	MOUNTING BRACKET	
3	2314K203		6	SCREW	
4	3612A011		1	SUPPORT BRACKET	
5	2314H004		8	SCREW	
6	3837A071		1	MOUNTING BRACKET	
7	2314J605		4	SCREW	
8	2634C306		2	MOUNTING	
9	2311F055		4	SCREW	
10	2314J008		2	SCREW	
11	0920471		2	WASHER	
12	33115117		2	SPACER	
13	33124118		2	WASHER	

↳ U004997P

ZMH01391





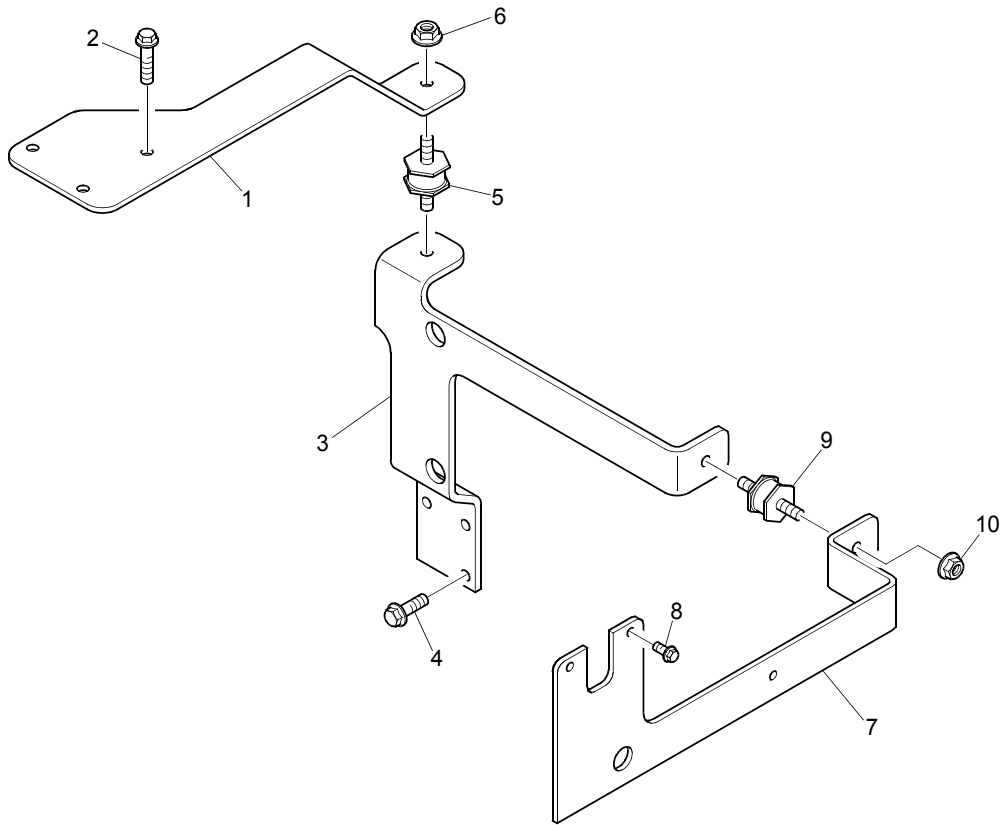
**Radiator Bracket & Fixings****Plate A**

↳ U004997P

**ZMH01391**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3861A075		1	BRACKET	
2	2634C306		2	MOUNTING	
3	2311F055		4	SCREW	
4	2314J008		2	SCREW	
5	0920471		2	WASHER	
6	33115117		2	SPACER	
7	33124118		2	WASHER	

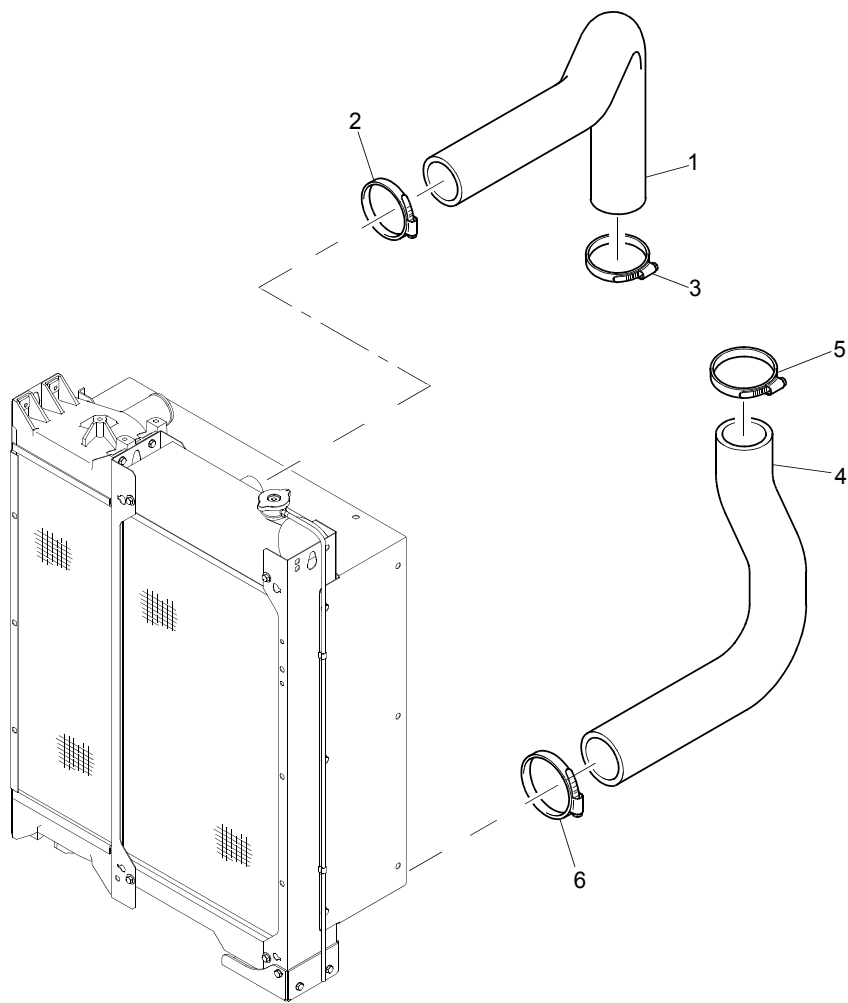
ZMH01391



**Radiator Bracket & Fixings****Plate B****ZMH01391**

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3651A037		1	SUPPORT BRACKET	
2	2314J004		3	SCREW	
3	3661A053		1	SUPPORT BRACKET	
4	2314J003		3	SCREW	
5	2634A115		1	MOUNTING	
6	2318A604		2	NUT	
7	3653A056		1	SUPPORT BRACKET	
8	2314H002		3	SCREW	
9	2634A115		1	MOUNTING	
10	2318A604		2	NUT	

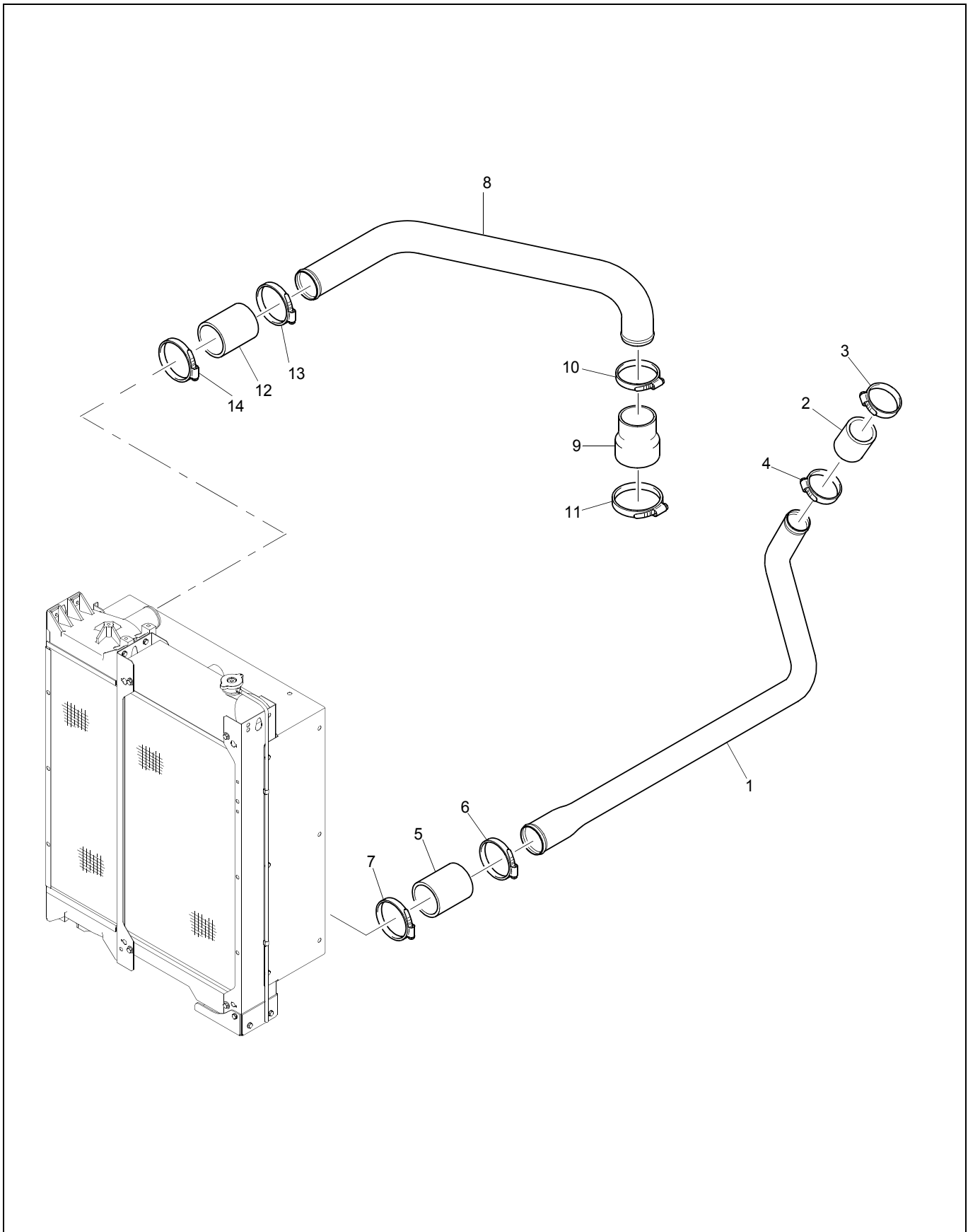
ZMH01391



ZMH01391

Item	Part No.	References	Qty.	Description	Notes
1	3476A002		1	HOSE - COOLANT	
2	2481D074		1	HOSE CLIP	
3	2481D074		1	HOSE CLIP	
4	3476A005		1	HOSE - COOLANT	
5	2481D074		1	HOSE CLIP	
6	2481D074		1	HOSE CLIP	

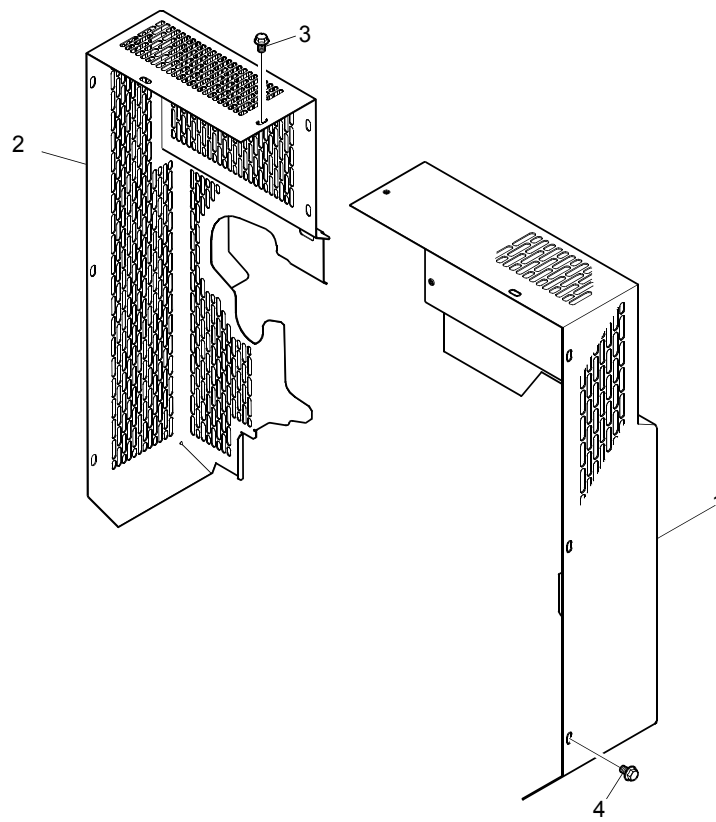
ZMH01391



ZMH01391

Item	Part No.	References	Qty.	Description	Notes
1	3571C089		1	AIR PIPE	
2	3383E014		1	HOSE	
3	21825199		1	CLIP	
4	21825199		1	CLIP	
5	3383A055		1	HOSE	
6	2481D075		1	HOSE CLIP	
7	2481D075		1	HOSE CLIP	
8	3571C092		1	AIR PIPE	
9	3383A056		1	HOSE	
10	2481D075		1	HOSE CLIP	
11	2481D076		1	HOSE CLIP	
12	3383A055		1	HOSE	
13	2481D075		1	HOSE CLIP	
14	2481D075		1	HOSE CLIP	

ZMH01391

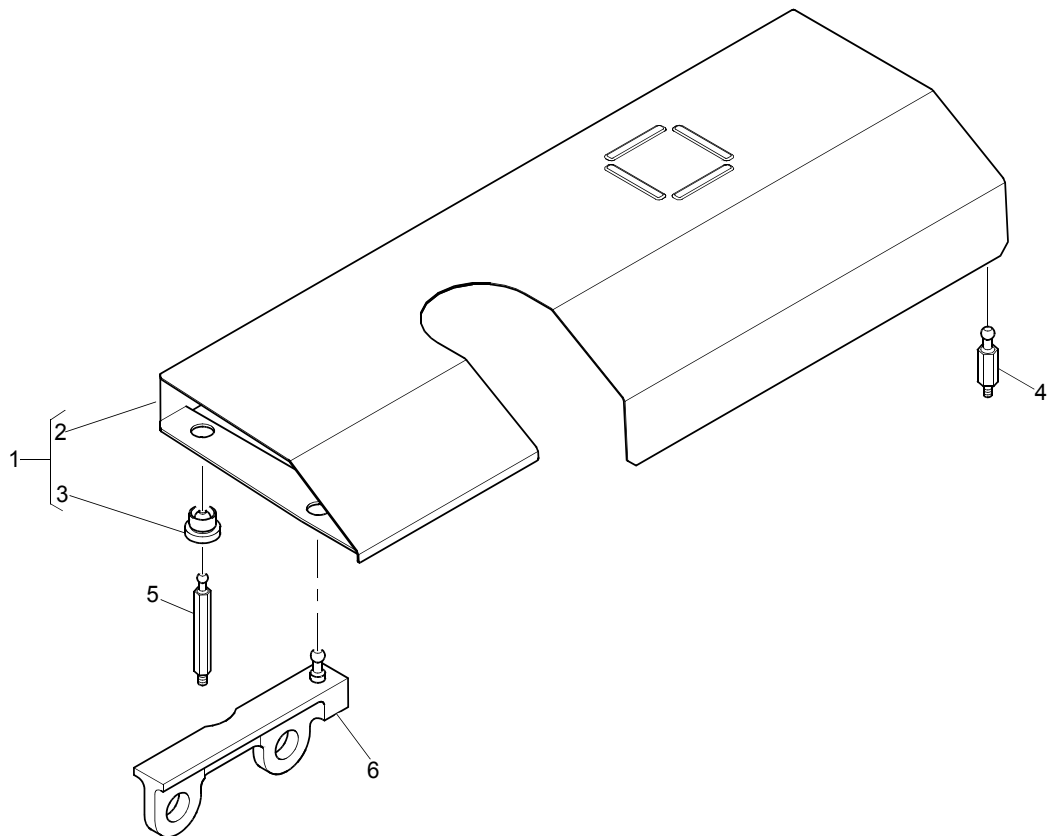




<b>Guards</b>	<b>Plate A</b>
	<b>ZMH01391</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3756V113		1	FAN GUARD	
2	3756V121		1	FAN GUARD	
3	2314H001		3	SCREW	
4	2314H102		7	SCREW	

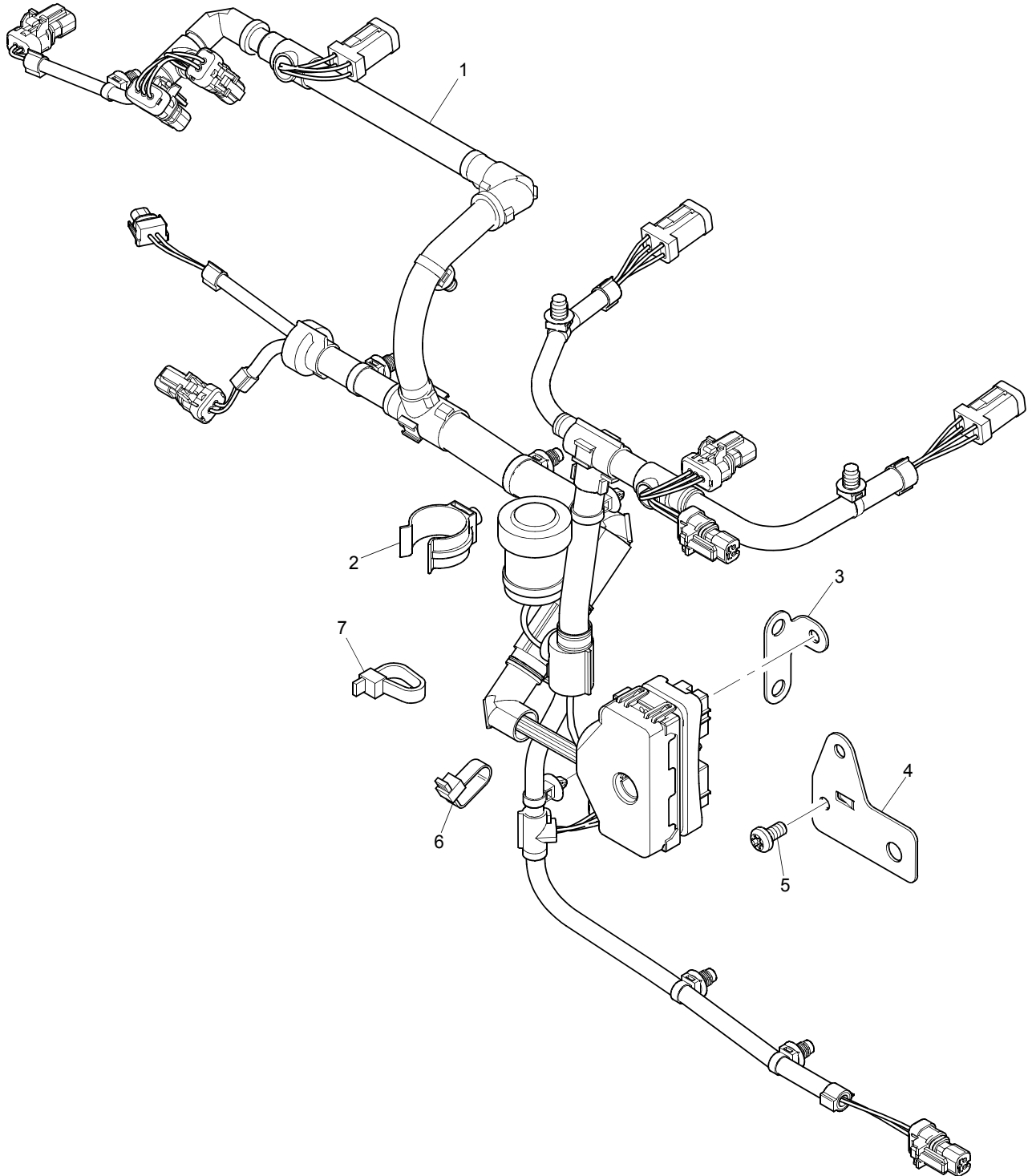
ZMH01391



<b>Guards</b>	<b>Plate B</b>
	<b>ZMH01391</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	4142Y104		1	COVER	
2	└	⇒ 4142Y104	1	COVER	
3	└2487F102		5	CAP	
4	3214A018		2	STUD	
5	3214A017		1	STUD	
6	3612A019		1	BRACKET	

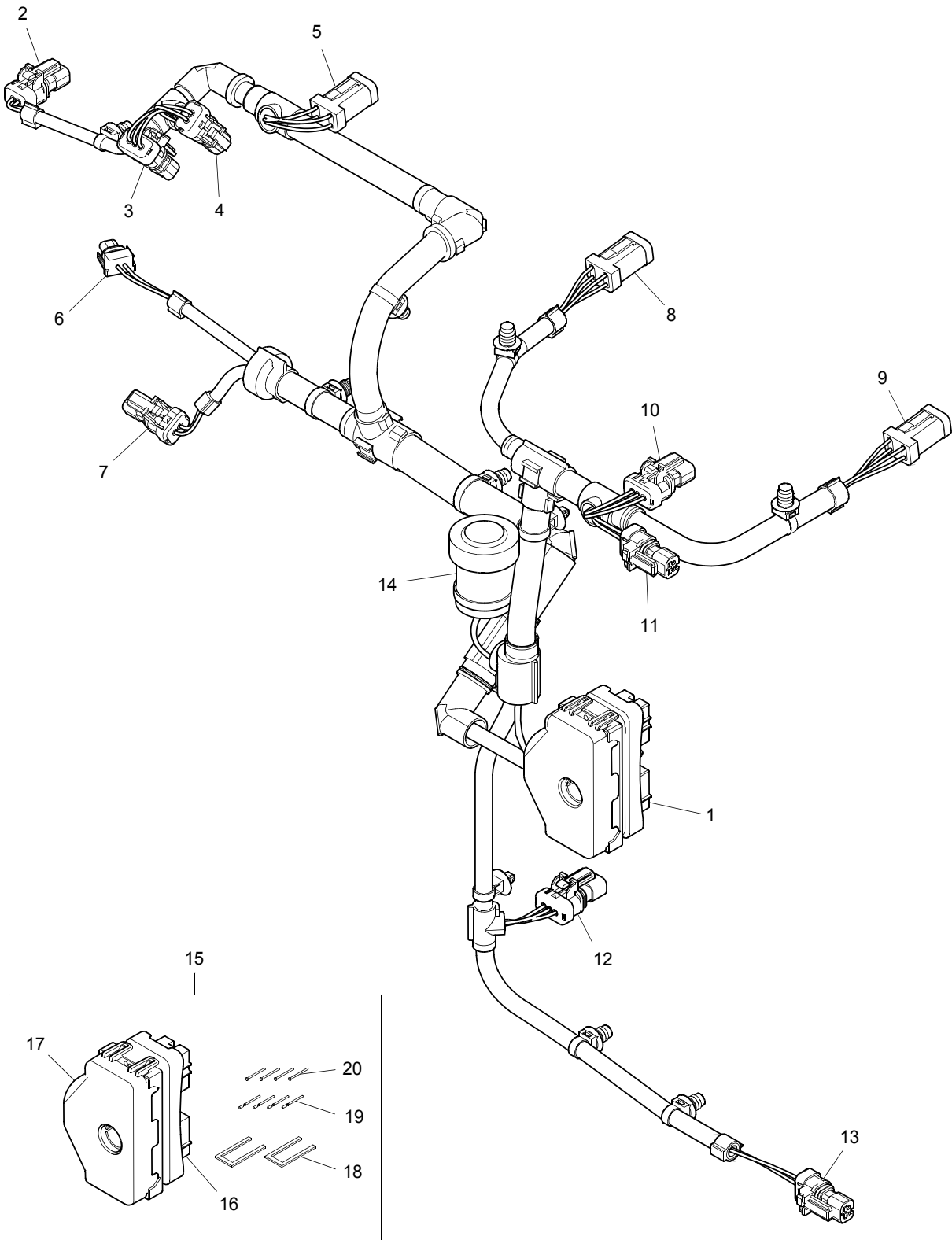
ZNH00267



ZNH00267

Item	Part No.	References	Qty.	Description	Notes
1	3161C061		1	WIRING HARNESS	
2	2481D501		1	CLIP	
3	3641A023		1	BRACKET	
4	3648A014		1	BRACKET	
5	2152B056		1	SCREW	
6	2817152		2	CABLE TIE	
7	2817152		1	CABLE TIE	

ZNH00267

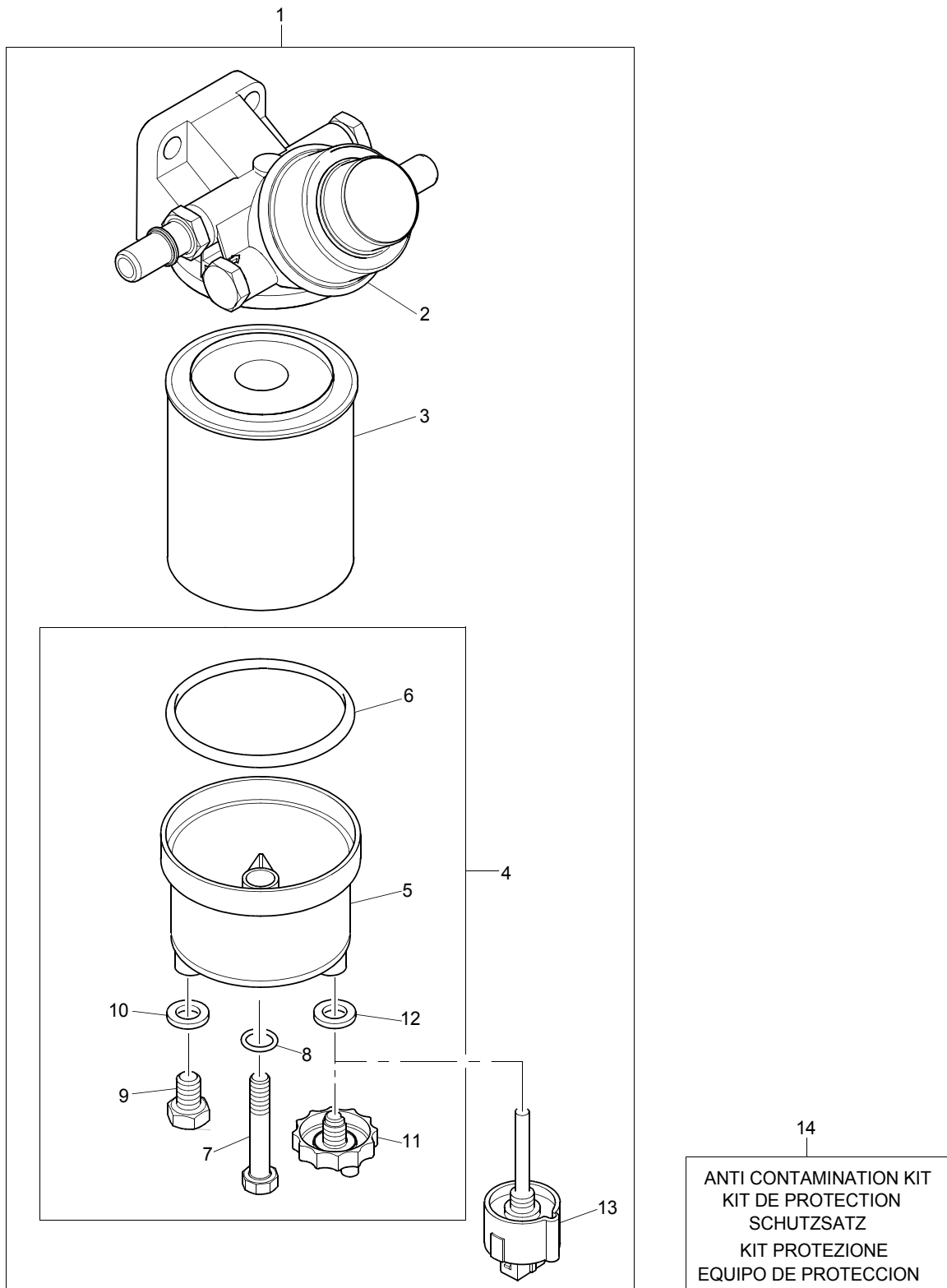


ZNH00267

Item	Part No.	References	Qty.	Description	Notes
1		⇒ LOOM	1	ELECTRICAL CONNECTOR	
2	28170044		1	ELECTRICAL CONNECTOR	
3	28170045		1	ELECTRICAL CONNECTOR	
4	28170044		1	ELECTRICAL CONNECTOR	
5	28170042		1	ELECTRICAL CONNECTOR	
6	3161C065		1	ELECTRICAL CONNECTOR	
7	28170047		1	ELECTRICAL CONNECTOR	
8	28170042		1	ELECTRICAL CONNECTOR	
9	28170042		1	ELECTRICAL CONNECTOR	
10	28170019		1	ELECTRICAL CONNECTOR	
11	28170046		1	ELECTRICAL CONNECTOR	
12	28170019		1	ELECTRICAL CONNECTOR	
13	28170047		1	ELECTRICAL CONNECTOR	
14	28170049		1	ELECTRICAL CONNECTOR	
15	U5MK1229	☐ a.	1	CONNECTION KIT	
16	└ 28170033		1	ELECTRICAL CONNECTOR	
17	└ 28170035		1	COVER	
18	└ 28170034		2	LOCK	
19	└ 28170085		30	PIN	
20	└ 28170036		34	PLUG	
<b>History</b>					
<b>a.</b>					
15	U5MK1229		1	CONNECTION KIT	
	└ 28170036		40	PLUG	

→ U010829S

ZVH01037





→ U010829S

ZVH01037

Item	Part No.	References	Qty.	Description	Notes
1	2656F833		1	PRE-FUEL FILTER ASSY	(A)
2	—	⇒ 2656F833	1	FUEL FILTER HEAD	
3	—2656F501		1	PRE-FUEL FILTER	
4	—2656F581		1	FUEL FILTER BOWL	
5	—	⇒ 2656F581	1	FUEL FILTER BOWL	
6	—2415H526		1	SEAL - O RING	
7	—	⇒ 2656F581	1	BOLT	
8	—2415H221		1	SEAL - O RING	
9	—	⇒ 2656F581	1	PLUG	
10	—2411D501		1	WASHER	
11	—	⇒ 2656F581	1	DRAIN PLUG	
12	—2411D501		1	WASHER	
13	—2874A014		1	WATER SEPARATOR SENSOR	
14	U5MK1124		1	PROTECTION KIT	(B)

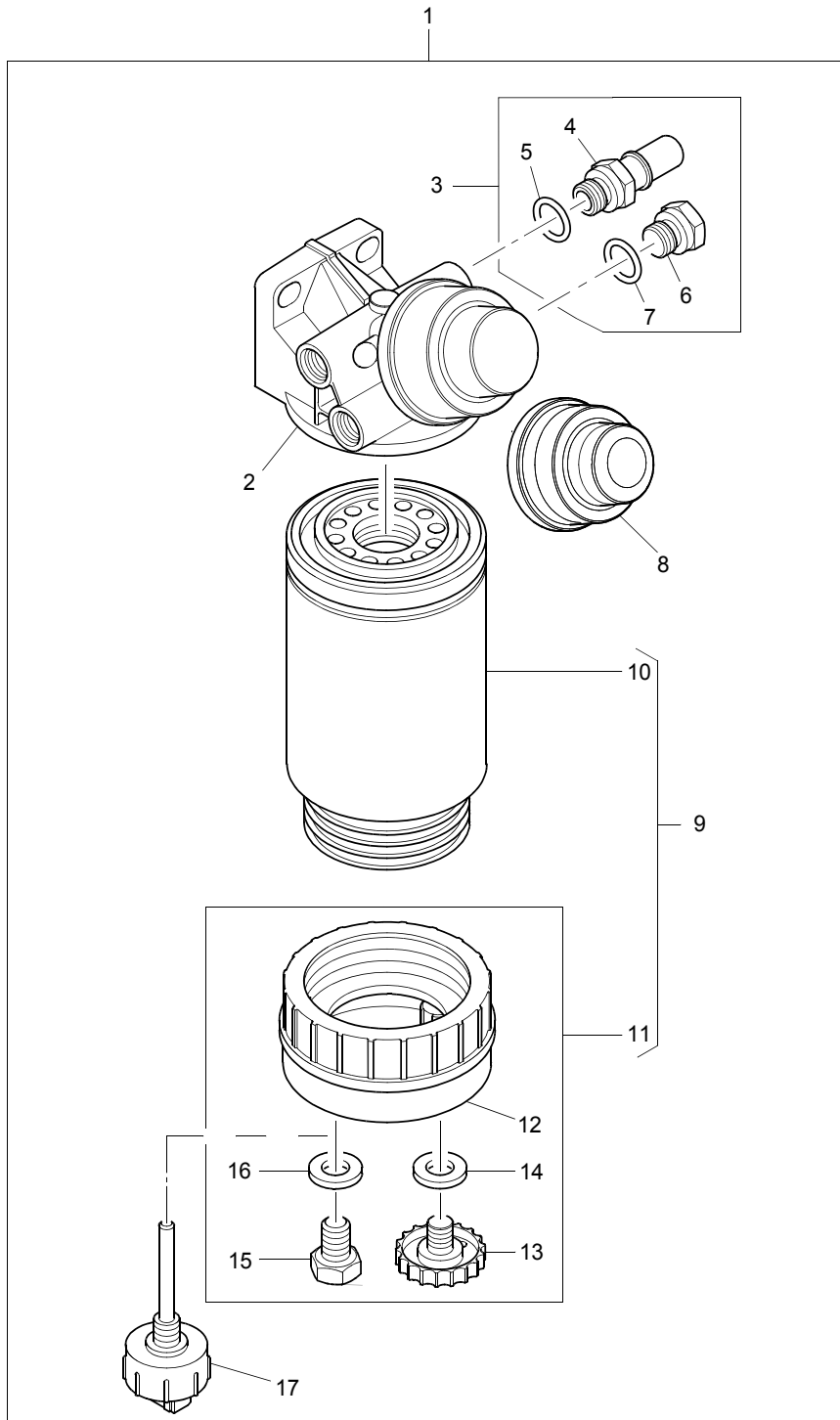
**Footnotes**

(A) INCLUDES WATER SENSOR

(B) PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

↳ U010830S

ZVH01037



18  
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

↳ U010830S

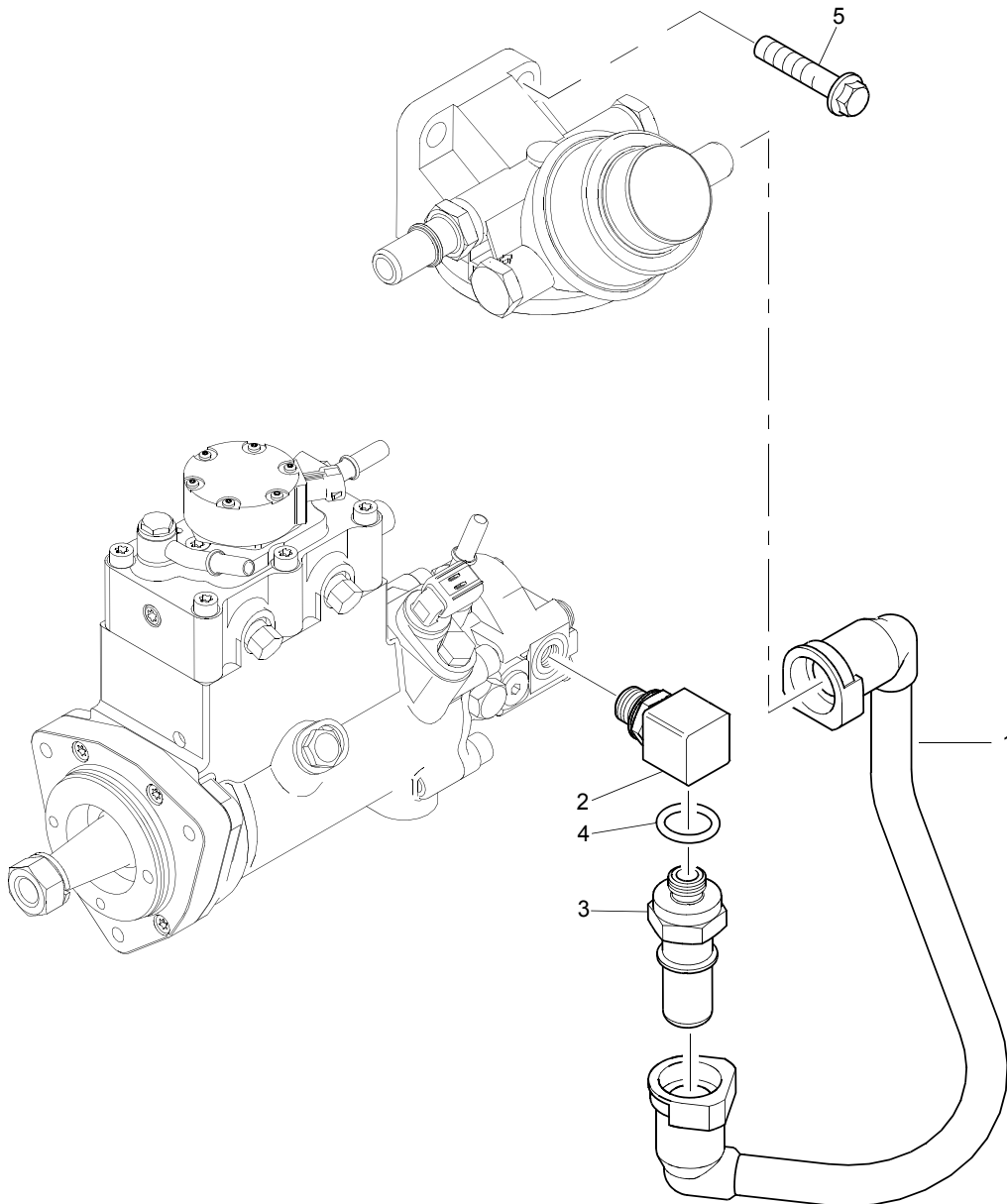
ZVH01037

Item	Part No.	References	Qty.	Description	Notes
1	2656F087		1	PRE-FUEL FILTER ASSY	(A)
2	├──	⇒ 2656F087	1	FUEL FILTER HEAD	
3	├── 2656F862		1	CONNECTION KIT	
4	│   ├──	⇒ 2656F862	2	CONNECTION	
5	│   ├──	⇒ 2656F862	2	SEAL - O RING	
6	│   ├──	⇒ 2656F862	2	PLUG	
7	│   └──	⇒ 2656F862	2	SEAL - O RING	
8	├── 2656F861		1	RUBBER BOOT	
9	├── 2656F855		1	PRE-FUEL FILTER KIT	
10	│   ├── 2656F853		1	PRE-FUEL FILTER	
11	│   └──	⇒ 2656F855	1	FUEL FILTER BOWL	
12	│       ├──	⇒ 2656F855	1	BOWL	
13	│       ├──	⇒ 2656F855	1	DRAIN PLUG	
14	│       ├──	⇒ 2656F855	1	WASHER	
15	│       ├──	⇒ 2656F855	1	PLUG	
16	│       └──	⇒ 2656F855	1	WASHER	
17	└── 2874A014		1	WATER SEPARATOR SENSOR	
18	U5MK1124		1	PROTECTION KIT	(B)

**Footnotes**

(A)	INCLUDES WATER SENSOR
(B)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

ZVH01037



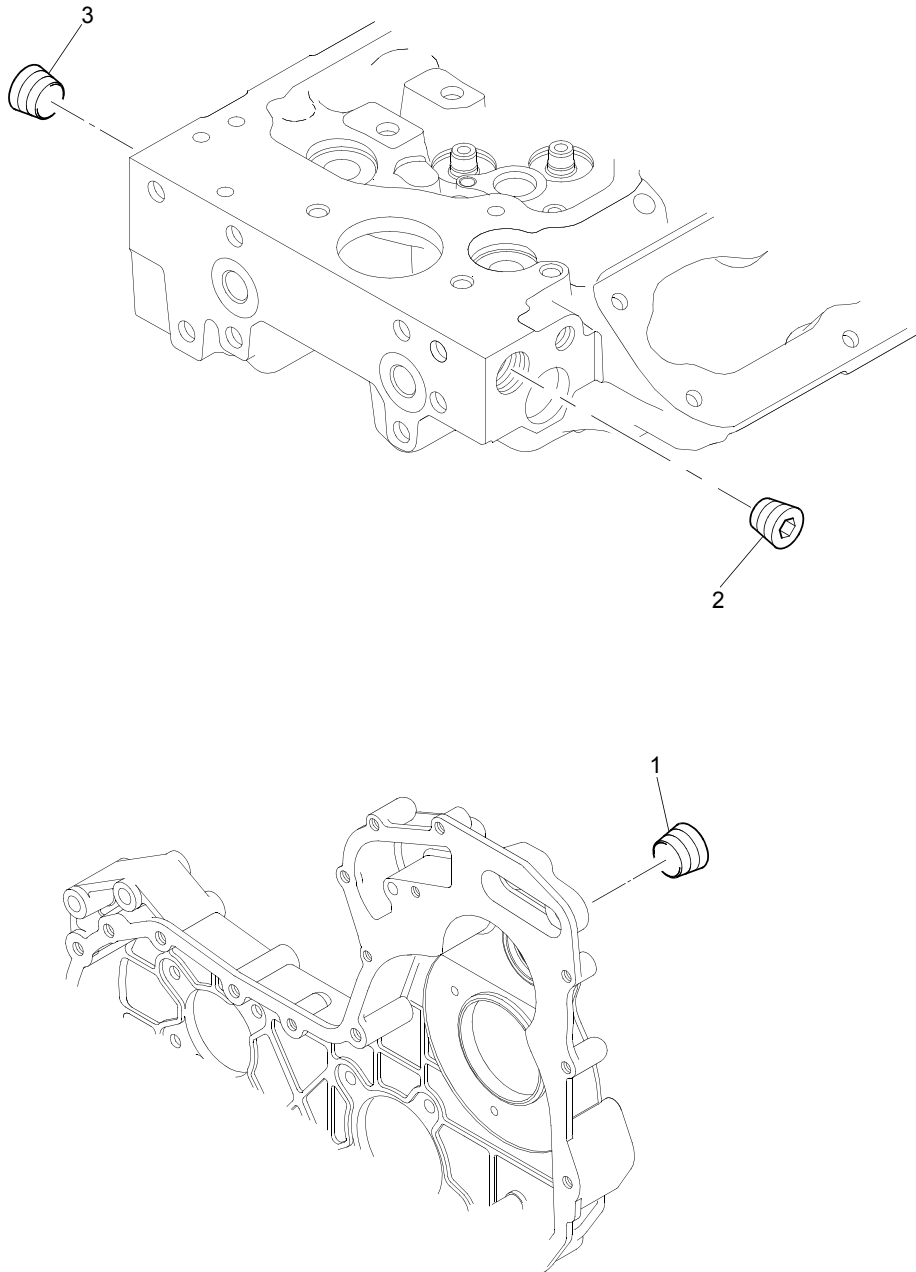
6  
ANTI CONTAMINATION KIT  
KIT DE PROTECTION  
SCHUTZSATZ  
KIT PROTEZIONE  
EQUIPO DE PROTECCION

<b>Fuel Pre-Lift Pump</b>	<b>Plate B</b>
	<b>ZVH01037</b>

<b>Item</b>	<b>Part No.</b>	<b>References</b>	<b>Qty.</b>	<b>Description</b>	<b>Notes</b>
1	3531A103		1	PIPE - FILTER TO PUMP	
2	3353A015		1	ELBOW	
3	3355A023		1	CONNECTION	
4	2415H221		1	SEAL - O RING	
5	2314J004		2	SCREW	
6	U5MK1124		1	PROTECTION KIT	(A)

<b>Footnotes</b>	
(A)	PROTECTION CAPS MUST BE FITTED WHEN PIPES ARE REMOVED

ZZH01054



ZZH01054

Item	Part No.	References	Qty.	Description	Notes
1	2431154		1	PLUG	
2	2431154		1	PLUG	
3	2431154		1	PLUG	





Description	Part No.	Page
ADAPTOR	33427431	165
	3344M411	155
	3347A071	87
AIR FILTER ASSEMBLY	2652C149	161
AIR PIPE	3571C089	207
	3571C092	207
AIR PRESSURE SENSOR KIT	U5MK1090	67
AIR TEMPERATURE SENSOR KIT	U5MK1089	67
ALTERNATOR	2871A309	133
ALTERNATOR BRACKET	4141A117	137
ALTERNATOR PULLEY	3115V011	135
BANJO BOLT	2447A201	151
	3218R036	55
	3218R046	177
	3218R048	19
BELT	2614E018	79
BIG END BEARING KIT	U5ME0022	25, 27
BLANKING PLATE	3615A021	115
	3623A009	19, 115, 115
	3788N008	107
	4148K018	103
BRACKET	3612A019	211
	3641A023	213

Description	Part No.	Page
	3648A014	213
	3658A006	47
	3753V045	45
	3861A075	201
	4141A166	175
	4141A167	175
	4141A198	179
	4141A215	175
	4141A227	175
	T410340	61
T410342	61	
BRACKET ASSEMBLY	4141A047	177
BREATHER	4133J009	87, 89
BRIDGE PIECE	T406248	41
BUSBAR	T409534	187
CABLE TIE	2817152	47, 101, 213, 213
CAMSHAFT	4112K066	43
CAMSHAFT BUSH	3112D091	21
CAMSHAFT GEAR	3117N001	141
CAP	2487F102	211
	2487F201	187
	2652C810	161
	3311A025	37, 37, 39, 39
CHARGE COOLER	24850088	197
CIRCLIP	2721332	31
	2724227	93, 95, 97

## Parts Index

Description	Part No.	Page
	2727A015	41
CLAMP	2481D003	149
	2481D004	149
	3748A061	47, 49
	3748A062	47, 49
CLIP	0180074	163
	21825196	99, 99
	21825199	207, 207
	2481863	101
	2481D156	101
	2481D501	213
	2646E203	53, 53
CON ROD ASSEMBLY	4115C341	19, 33
	4115C342	19, 33
	4115C343	19, 33
	T405440	35
	T406140	35
	T406141	35
CON ROD BOLT	3212V003	33
	T400001	35
CONNECTION	2441A601	45
	2461A203	175, 177
	3355A021	57
	3355A023	221
	3355A028	45
	3355A038	45
	3763A045	175

Description	Part No.	Page
	4133L055	127
CONNECTION KIT	2656F862	219
	U5MK1229	63, 63, 215, 215
COVER	26510355	161
	28170035	63, 215
	4142Y104	211
	4147V007	167
CRANKSHAFT GEAR	3117C341	25, 27
CRANKSHAFT KIT	4181V019	25
	ZZ90242	19, 27
CRANKSHAFT PULLEY	3115X031	119, 121
CRANKSHAFT SPEED SENSOR	U5MK1234	65
CYL HEAD COVER ASSY	4142X341	89
	4142X351	87
	4142X401	91
CYLINDER BLOCK ASSEMBLY	4181V021	19, 21
CYLINDER HEAD ASSEMBLY	4181V022	37
	4181V058	39
CYLINDER HEAD BOLT	3218A017	37, 39
DAMPER	3347A042	119, 121
DIPSTICK	3178C203	83
DISC	T407599	19, 29
DOWEL	0350010	21

Description	Part No.	Page
	2114A046	137
	2116053	141
	2116A301	167
	2116A655	87
	3244A009	21
	3245A011	73
	3313A036	25, 27
ELBOW	3353A015	221
ELECTRICAL CONNECTOR	28170019	215, 215
	28170033	63, 215
	28170042	215, 215, 215
	28170044	215, 215
	28170045	215
	28170046	215
	28170047	215, 215
	28170049	215
3161C065	215	
ENGINE CONTROL MODULE	28170119	57
	28170120	59
EXHAUST MANIFOLD	3778M291	157
EXHAUST OUTLET ELBOW	3767A071	155
EXHAUST VALVE	3142A181	37, 39
EXHAUST VALVE INSERT	3314A261	37, 39
EXTENSION	3748W243	131

Description	Part No.	Page
FAN	2485C558	131
FAN DRIVE HOUSING	4113K011	79
FAN DRIVE PULLEY	3115Y011	79
FAN GUARD	3756V113	209
	3756V121	209
FIXING KIT	U5MK0845	81
FLANGE	3743C001	165
FLYWHEEL ASSEMBLY	4111D128	75
FLYWHEEL HOUSING	3713A071	73
FRONT COVER KIT	4142A503	143
FUEL FILTER	2656F541	183
	2656F843	185
FUEL FILTER ASSEMBLY	2656F103	183
	2656F229	185
FUEL FILTER BOWL	2656F581	217
FUEL INJECTION PUMP GEAR	3117L261	45
FUEL PRESSURE SENSOR KIT	U5MK1236	69
FUEL RAIL	3774A416	47, 49
GASKET	24880239	125
	3683A021	115
	3683A022	153
	3683A023	153
	3683H005	85

## Parts Index

Description	Part No.	Page
	3689A502	123
	3789A005	127
GASKET - CYL. HEAD COVER	3681A068	87, 89, 91
GASKET - CYLINDER HEAD	3681E052	37, 39
	3681E053	37, 39
GASKET - EXHAUST MANIFOLD	3681V015	157, 157
GASKET - IND MANIFOLD	3682A013	169
GASKET - MANIFOLD COVER	3681V016	167
GASKET - OIL COOLER	3687M038	111
	3687M039	111
GASKET - OIL FILTER HEAD	3688A039	19, 113, 115, 115
GASKET - SUMP	3681K041	81
	3681K044	81
GASKET - TIMING CASE	3681P053	139
GASKET - TIMING CASE COVER	3681P046	143
GASKET - TURBOCHARGER	3682P004	149
GASKET - WATER PUMP	3682A011	123, 125
GLOWPLUG	T409125	187
HIGH PRESSURE FUEL PUMP	2641A312	45
HOSE	3383A055	207, 207

Description	Part No.	Page
	3383A056	207
	3383E014	207
	33872632	101
	33881125	99
HOSE - AIR	3783R047	163
HOSE - COOLANT	3476A002	205
	3476A005	205
HOSE CLIP	2481873	163
	2481D074	205, 205, 205, 205
	2481D075	207, 207, 207, 207, 207
	2481D076	207
HOUSING	4142X346	95
	4142X347	93
	4142X398	97
HP FUEL PUMP - EXCHANGE	2641A312R	45
HP PUMP SPEED SENSOR	U5MK1086	45
HUB	3311A054	141
	3741A002	119
	T406279	121
IDLER GEAR	3117N061	141
INDICATOR	2652C806	161
INJECTOR	2645A749	51
INJECTOR CLAMP	3751A331	51
INJECTOR WASHER	2415D154	51
INLET ELBOW	4148K014	169

Description	Part No.	Page
INLET VALVE INSERT	3314A251	37, 39
INSULATOR	3881A006	187
INTAKE VALVE	3142H091	37, 39
ISOLATOR	3384A008	47, 49
LEAD	3161C058	187
LIFT PUMP	2641A307	45
LIFT PUMP - EXCHANGE	2641A307R	45
LIFTING BRACKET	3617A024	189
	3617A025	189
LIMITER	T407498	81, 81, 81
LOCK	28170034	63, 215
MAIN AIR FILTER	26510353	161
MAIN BEARING KIT	U5MB0020	25, 27
METRIC BOLT	3211C002	19, 23
MOUNTING	2634A115	203, 203
	2634C306	199, 201
	3881A005	57, 57, 59, 59
MOUNTING BRACKET	3661A062	163
	3824A171	57, 59
	3837A071	199
	3861A049	199
	3861A051	199
NUT	2318A108	45
	2318A207	187, 187, 187

Description	Part No.	Page
	2318A604	77, 203, 203
	2318A634	149, 165
	2318D208	131, 137
	3331A004	41, 41
O RING	2415H531	45
OIL COOLER	2486A002	111
	4133Y042	111
OIL FILLER	4134C072	105
OIL FILLER CAP	4142X098	105
OIL FILTER	2654A111	117
OIL FILTER HEAD	3773A191	113
OIL PRESSURE SENSOR KIT	U5MK1088	65
OIL PUMP	4132F081	147
	T410626	147
OIL SEPARATOR	3771K005	87, 89
OLIVE	33812116	83
PEDESTAL	3818X161	41
PIN	2116A401	45
	28170085	63, 215
PIPE - BREATHER	3573A023	99
PIPE - FILTER TO HP PUMP	4122A061	171
PIPE - FILTER TO PUMP	3531A103	221
	3584A122	173
PIPE - FUEL INJ LEAK OFF	3552A054	177

**Parts Index**

Description	Part No.	Page
PIPE - FUEL INJ NO 1 CYL	3525A201	53
PIPE - FUEL INJ NO 2 CYL	3525A202	53
PIPE - FUEL INJ NO 3 CYL	3525A203	53
PIPE - FUEL INJ NO 4 CYL	3525A204	53
PIPE - FUEL INJ NO 5 CYL	3525A205	53
PIPE - FUEL INJ NO 6 CYL	3525A206	53
PIPE - HP PUMP TO RAIL	3525A207	47
	3525A221	49
PIPE - LEAK OFF ASSEMBLY	3583A046	175
PIPE - OIL	3552A062	55
PIPE - OIL SUCTION	3575A074	85
PIPE - TURBO OIL DRAIN	4127A108	153
PIPE - TURBO OIL FEED	4127A179	151
PIPE CLIP	2481D318	171
	2481D558	175, 175, 175, 175, 177, 179
PISTON AND RING KIT	U5PR0058	19
	U5PR0059	31
PISTON AND RING KIT - O/S	U5PR0058B	19
	U5PR0059B	31

Description	Part No.	Page
PISTON COOLING JET	2113A003	21
PISTON RING KIT	UPRK0005	31
PISTON RING KIT - OVERSIZE	UPRK0005B	31
PLATE	3272A033	141
	36212132	73
	3812A261	137
PLUG	0650710	21, 21
	2431154	21, 37, 37, 39, 39, 223, 223, 223
	2485A105	41
	2485A118	109
	2485A307	37, 39
	2485A517	37, 37, 37, 39, 39, 39
	2485A526	21, 21, 21
	2487207	191, 191
	2487A208	145
	2487A452	73
	2487Y005	73
	2800A033	159
	28170036	63, 63, 215, 215
	3212P008	21, 21
	32141316	21
	32186405	81
3241A011	21	

Description	Part No.	Page
	3241A012	21
	3241A201	37, 39
	3278A004	19, 159, 195
	3278A006	21, 37, 39
	3278A007	193
	3346A013	45
	T406330	81
	T410815	73
PRE-FUEL FILTER	2656F501	217
	2656F853	219
PRE-FUEL FILTER ASSY	2656F087	219
	2656F833	217
PRE-FUEL FILTER KIT	2656F855	219
PROTECTION KIT	U5MK1124	45, 47, 51, 53, 57, 171, 173, 175, 177, 183, 185, 217, 219, 221
PUSHROD	3142V011	43
	T405746	43
RADIATOR	24850087	197
	2485B299	197
RADIATOR CAP	24850073	197
REAR OIL SEAL HOUSING	2418F705	19
RELIEF VALVE	2658A301	47, 49
RETAINER	3241A024	41

Description	Part No.	Page
RING	33415356	165
ROCKER ARM ASSEMBLY	4115R316	41
	4115R317	41
ROCKER SHAFT ASSEMBLY	4115R821	41
ROCKER SHAFT ASSY - MINOR	4115R817	41
ROCKER SHAFT SPRING	3174A023	41
	3174A024	41
RUBBER BOOT	2656F861	219
SAFETY AIR FILTER	26510354	161
SCREW	0096803	75
	2152A051	87
	2152B056	213
	2311D027	47, 49
	2311D060	45
	2311F055	199, 201
	2314E949	61, 61
	2314F001	21
	2314F005	187
	2314F006	87
2314H001	209	
2314H002	45, 65, 143, 203	

**Parts Index**

Description	Part No.	Page
	2314H003	19, 45, 57, 57, 59, 59, 103, 107, 115, 115, 115, 127, 139, 139, 151, 153, 153
	2314H004	45, 45, 85, 111, 137, 181, 199
	2314H005	47, 49, 105, 123, 125
	2314H006	45, 139, 179
	2314H007	81, 81, 101, 147
	2314H008	57, 59
	2314H010	113
	2314H012	143
	2314H013	123, 125
	2314H022	137
	2314H034	139, 167, 169
	2314H102	73, 209
	2314H743	123, 125
	2314J002	163
	2314J003	163, 189, 189, 203
	2314J004	137, 179, 203, 221
	2314J005	79

Description	Part No.	Page
	2314J006	129
	2314J007	137
	2314J008	199, 201
	2314J011	137, 141
	2314J204	73
	2314J603	73
	2314J605	199
	2314J606	141
	2314J704	119, 121
	2314K159	47, 49, 111, 111
	2314K161	47, 81, 81, 105
	2314K164	123, 125
	2314K203	199
	2316A215	45
	2316T052	81, 81
	2316T244	19, 29
	3211C004	41, 41
	3218A014	89, 91
	3218A016	51
	3218A025	89, 91
	3218A201	41
	3218A511	21
	3218A512	119
	3218J025	157
	3278A013	93, 95
	T405640	121



Description	Part No.	Page
SCREW METRIC	2314J035	155
SEAL	3685A041	73
SEAL - FRONT END OIL	2418F554	139
SEAL - O RING	2413681	83, 83
	2415A131	87, 89
	2415H001	67
	2415H002	19, 65, 69, 195
	2415H003	37, 39
	2415H009	193
	2415H011	57
	2415H012	93, 95, 97
	2415H014	51, 65
	2415H015	57
	2415H221	45, 45, 217, 221
	2415H493	87, 89
	2415H514	151
	2415H517	107
	2415H519	21
	2415H526	217
	2415H528	45
	2415H540	105
	2415H546	87
	2415H551	103
2418F002	127	
T407088	81	

Description	Part No.	Page
SEAL - REOS HOUSING	2418F706	23
SEAL - ROCKER BOX	3681A059	93, 95
	3681A065	97
SEAL - SENSOR	2415H523	67
	2415H524	45
SEAL - VALVE STEM	2418M522	37, 37, 39, 39
SEAL - WATER OUTLET	3682A022	129
SEALING RING	2415633	105
SHIM	T405526	27
	T405527	27
SHORT ENGINE - ASSEMBLY	PJ39876	19
SLEEVE	3271A013	93, 95, 97
SMALL END BUSH	3112E031	33, 35
SPACER	33114411	49
	33115117	199, 201
	3312A306	101
	3313A027	57, 59
	3313A029	157
SPRING	3174A032	45
	3175P003	101
STARTER MOTOR	2873K631	77
STARTER RING GEAR	31162121	75
STUD	2313C078	77
	2313F079	165

## Parts Index

Description	Part No.	Page
	2313H238	131
	3214A013	49
	3214A016	47
	3214A017	211
	3214A018	211
	3241A028	149
SUMP	T408398	81
SUMP ADAPTOR	T406564	81
SUPPORT BRACKET	3612A011	199
	36241123	101
	3651A037	203
	3653A056	203
	3661A053	203
	3753V035	45
TAPPET	3142U051	43
TENSIONER	T411130	137
TENSIONER ARM	2637A001	137
THERMOSTAT ASSEMBLY	4133L064	129
THRUST BLOCK	3241N002	119
THRUST WASHER	3112T011	25, 25, 27, 27
	3112X011	141
TIMING CASE	3716C562	139
TUBE ASSEMBLY	3577A157	83
TURBOCHARGER	2674A271	149
TURBOCHARGER - EXCHANGE	2674A271R	149
VALVE	26510350	161

Description	Part No.	Page
VALVE COLLET	3142W005	37, 37, 39, 39
VALVE GUIDE	3313A035	37, 37, 39, 39
VALVE SPRING	3174A025	37, 37, 39, 39
WASHER	0920471	199, 201
	2131A008	57, 59
	2131A515	151, 151
	2411154	159
	2411D008	45
	2411D012	177, 177
	2411D501	217, 217
	2415D002	55, 55
	2415D152	87
	2415D253	19
	33117127	75
	3311A015	57, 59
	3311A053	69
	33124118	199, 201
	3321A003	141
	K134AF01	45
WATER PUMP KIT	U5MW0202	123

Description	Part No.	Page
	U5MW0204	125
WATER SEPARATOR SENSOR	2874A014	217, 219
WATER TEMPERATURE SENSOR	U5MK1091	69
WIRING CLIP	2817A002	93, 95, 97
	T410248	171
WIRING HARNESS	3161C061	213
	3161C067	93, 95, 97
WOODRUFF KEY	0500012	25, 27, 43