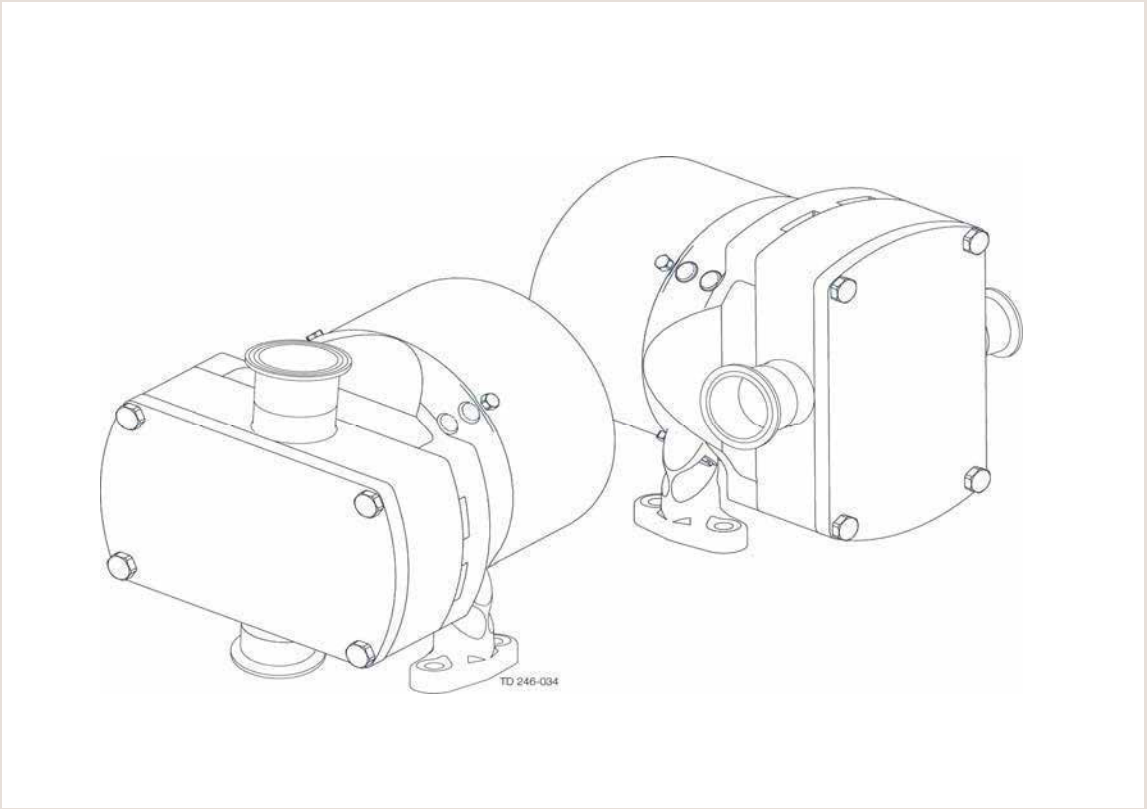
# Spare Parts

## OptiLobe Pump




June 2008

KOSS INDUSTRIAL, INC.

Master Distributor

Pump SuperCenter

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### Notes

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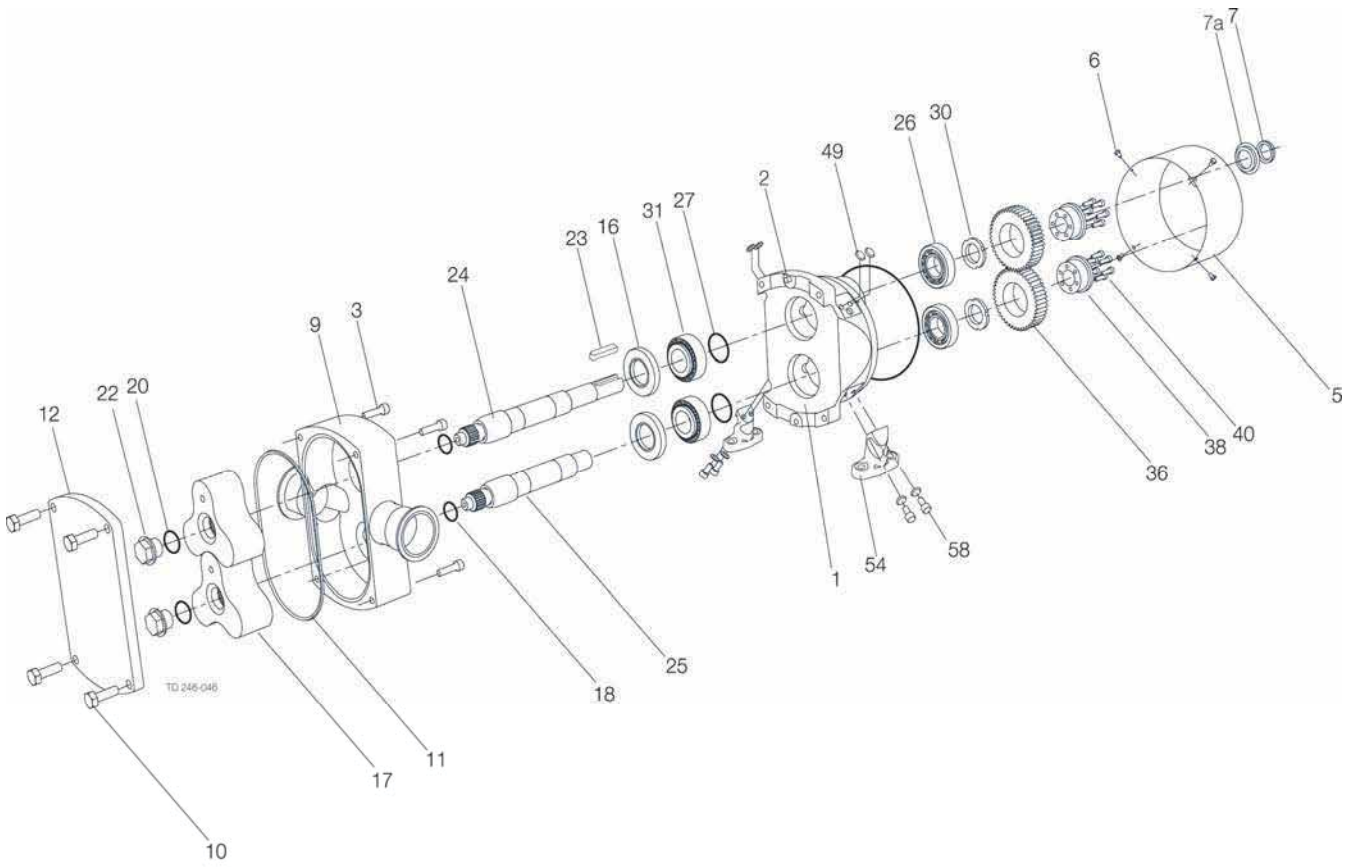
When identifying the spare parts required it is important to check the pump specification by referring to the pump serial number.

| | OptiLobe 22 / 23 Pump | | | | | |
|---|---|---|---|---|---|---|
| **Drg No.** | **Description** | | | **Qty** | **Part No.** | **Article No.** |
| 1 | Bearing housing | | | 1 | 9630634101 | 9630634101 |
| 2 | Dowel | | | 2 | 5170.025 | 9630030093 |
| 3 | Screw, rotorcase retention | | | 4 | 31499.5201.1 | 9630037029 |
| 5 | Canister | | | 1 | 9630637101 | 9630637101 |
| 6 | Screw, canister retention | | | 4 | 5950.091 | 9630863216 |
| | Washer, canister screw | | | 4 | 31499.5962.2 | 9630038040 |
| 7 | Lip seal, drive end | | NBR | 1 | 9630644507 | 9630644507 |
| 7A | Carrier, lip seal | | | 1 | 9630633201 | 9630633201 |
| 9 | Rotorcase | IDF | 22 (40 mm) | 1 | 9630623201 | 9630623201 |
| | | Tri-Clamp | | | 9630623202 | 9630623202 |
| | | SMS | | | 9630623203 | 9630623203 |
| | | DIN 11851 | | | 9630623204 | 9630623204 |
| | | RJT | | | 9630623205 | 9630623205 |
| | | IDF | 23 (40 mm) | | 9630623301 | 9630623301 |
| | | Tri-Clamp | | | 9630623302 | 9630623302 |
| | | SMS | | | 9630623303 | 9630623303 |
| | | DIN 11851 | | | 9630623304 | 9630623304 |
| | | RJT | | | 9630623305 | 9630623305 |
| 10 | Screw, rotorcase cover | | | 4 | 5950.027 | 9630024554 |
| 11 | 'O' ring - cover | | FPM | 1 | 1551.255 | 9630044927 |
| | | | EPDM | | 1555.255 | 9630044928 |
| 12 | Cover, rotorcase | | | 1 | 9630639601 | 9630639601 |
| 16 | Lip seal, gland end | | NBR | 2 | 9630644502 | 9630644502 |
| 17 | Rotor, Trilobe Stainless Steel | 8 bar 130°C | 22 | 2 | 9630630201 | 9630630201 |
| | | 8 bar 130°C | 23 | | 9630630301 | 9630630301 |
| 18 | 'O' Ring, rotor sealing shaft end | | FPM | 2 | 1551.115 | 9630023407 |
| | | | EPDM | | 1555.115 | 9630863409 |
| 20 | 'O' Ring, rotor sealing nut end | | FPM | 2 | 1551.218 | 9630019388 |
| | | | EPDM | | 5380.804 | 9630861548 |
| 21 | 'O' Ring, canister | | NBR | 1 | 1550.255 | 9630039204 |
| 22 | Nut, rotor retention | | 22 | 2 | 9630641401 | 9630641401 |
| | | | 23 | | 9630641501 | 9630641501 |
| 23 | Key | | | 1 | 5270.007 | 9630023916 |
| 24 | Shaft, drive | | | 1 | 9630638601 | 9630638601 |
| 25 | Shaft, auxiliary | | | 1 | 9630639101 | 9630639101 |
| 26 | Bearing, rear | | | 2 | 5080.027 | 9630861678 |
| 27 | Shim, shaft abutment | | 0.050 | 2 | 9630642525 | 9630642525 |
| | | | 0.075 | | 9630642527 | 9630642527 |
| | | | 0.100 | | 9630642530 | 9630642530 |
| 30 | Nut, bearing | | | 2 | 5340.055 | 9630056683 |
| 31 | Bearing, front | | | 2 | 5080.028 | 9630861679 |
| 36 | Timing gear | | | 2 | 9630640101 | 9630640101 |
| 38 | Torque locking assembly | | | 2 | 9630640601 | 9630640601 |
| 45 | Drain plug | | | 2 | 1660.002 | 9630023544 |
| 49 | Blanking plug | | | 2 | 5470.027 | 9630861224 |
| 50 | Gland guard | | 22 | 2 | 9630642101 | 9630642101 |
| | | | 23 | | 9630642102 | 9630642102 |
| 51 | Screw, gland guard | | | 4 | 5950.093 | 9630865138 |
| 53 | Washer, gland guard | | | 4 | 6400.127 | 9630864986 |
| | | | | 4 | 31499.5962.2 | 9630038040 |
| 54 | Foot | | | 2 | 9630638101 | 9630638101 |
| 58 | Screw, Foot | | | 4 | 5990.066 | 9630028936 |
| | Blanking plug | | | 4 | 5470.022 | 9630089950 |
| | Blanking plug | | | 4 | 5470.028 | 9630861225 |

| | OptiLobe 32 / 33 Pump | | | | | |
|---|---|---|---|---|---|---|
| **Drg No.** | **Description** | | | **Qty** | **Part No.** | **Article No.** |
| 1 | Bearing housing | | | 1 | 9630634201 | 9630634201 |
| 2 | Dowel | | | 2 | 5170.025 | 9630030093 |
| 3 | Screw, rotorcase retention | | | 4 | 31499.5201.1 | 9630037029 |
| 5 | Canister | | | 1 | 9630637201 | 9630637201 |
| 6 | Screw, canister retention | | | 4 | 5950.091 | 9630863216 |
| | Washer, canister screw | | | 4 | 31499.5962.2 | 9630038040 |
| 7 | Lip seal, drive end | | NBR | 1 | 5310.037 | 9630030622 |
| 7A | Carrier, lip seal | | | 1 | 9630633201 | 9630633201 |
| 9 | Rotorcase | IDF | 32 (50 mm) | 1 | 9630623401 | 9630623401 |
| | | Tri-Clamp | | | 9630623402 | 9630623402 |
| | | SMS | | | 9630623403 | 9630623403 |
| | | DIN 11851 | | | 9630623404 | 9630623404 |
| | | RJT | | | 9630623405 | 9630623405 |
| | | IDF | 33 (50 mm) | | 9630623501 | 9630623501 |
| | | Tri-Clamp | | | 9630623502 | 9630623502 |
| | | SMS | | | 9630623503 | 9630623503 |
| | | DIN 11851 | | | 9630623504 | 9630623504 |
| | | RJT | | | 9630623505 | 9630623505 |
| 10 | Screw, rotorcase cover | | | 4 | 5950.027 | 9630024554 |
| 11 | 'O' ring - cover | | FPM | 1 | 1551.262 | 9630865829 |
| | | | EPDM | | 1555.262 | 9630065133 |
| 12 | Cover, rotorcase | | | 1 | 9630639701 | 9630639701 |
| 16 | Lip seal, gland end | | NBR | 2 | 9630644503 | 9630644503 |
| 17 | Rotor, Trilobe Stainless Steel | 8 bar 130°C | 32 | 2 | 9630630401 | 9630630401 |
| | | 8 bar 130°C | 33 | | 9630630501 | 9630630501 |
| 18 | 'O' Ring, rotor sealing shaft end | | FPM | 2 | 1551.117 | 9630038157 |
| | | | EPDM | | 5380.805 | 9630861549 |
| 20 | 'O' Ring, rotor sealing nut end | | FPM | 2 | 1551.218 | 9630019388 |
| | | | EPDM | | 5380.804 | 9630861548 |
| 21 | 'O' Ring, canister | | NBR | 1 | 1550.261 | 9630880191 |
| 22 | Nut, rotor retention | | 32 | 2 | 9630641401 | 9630641401 |
| | | | 33 | | 9630641501 | 9630641501 |
| 23 | Key | | | 1 | 5270.031 | 9630031499 |
| 24 | Shaft, drive | | | 1 | 9630638701 | 9630638701 |
| 25 | Shaft, auxiliary | | | 1 | 9630639201 | 9630639201 |
| 26 | Bearing, rear | | | 2 | 5080.029 | 9630862428 |
| 27 | Shim, shaft abutment | | 0.050 | 2 | 9630642535 | 9630642535 |
| | | | 0.075 | | 9630642537 | 9630642537 |
| | | | 0.100 | | 9630642540 | 9630642540 |
| 30 | Nut, bearing | | | 2 | 5340.041 | 9630029136 |
| 31 | Bearing, front | | | 2 | 5080.030 | 9630862429 |
| 36 | Timing gear | | | 2 | 9630640201 | 9630640201 |
| 38 | Torque locking assembly | | | 2 | 9630640701 | 9630640701 |
| 45 | Drain plug | | | 2 | 1660.002 | 9630023544 |
| 49 | Blanking plug | | | 2 | 5470.027 | 9630861224 |
| 50 | Gland guard | | 32 | 2 | 9630642201 | 9630642201 |
| | | | 33 | | 9630642202 | 9630642202 |
| 51 | Screw, gland guard | | | 4 | 5950.093 | 9630865138 |
| 53 | Washer, gland guard | | | 4 | 6400.127 | 9630864986 |
| | | | | 4 | 31499.5962.2 | 9630038040 |
| 54 | Foot | | | 2 | 9630638201 | 9630638201 |
| 58 | Screw, Foot | | | 4 | 5990.066 | 9630028936 |
| | Blanking plug | | | 4 | 5470.022 | 9630089950 |
| | Blanking plug | | | 4 | 5470.028 | 9630861225 |

| | OptiLobe 42 / 43 Pump | | | | | |
|---|---|---|---|---|---|---|
| **Drg No.** | **Description** | | | **Qty** | **Part No.** | **Article No.** |
| 1 | Bearing housing | | | 1 | 9630634301 | 9630634301 |
| 2 | Dowel | | | 2 | 5170.025 | 9630030093 |
| 3 | Screw, rotorcase retention | | | 4 | 5990.038 | 9630027137 |
| 5 | Canister | | | 1 | 9630637301 | 9630637301 |
| 6 | Screw, canister retention | | | 4 | 5950.091 | 9630863216 |
| | Washer, canister screw | | | 4 | 31499.5962.2 | 9630038040 |
| 7 | Lip seal, drive end | | NBR | 1 | 9630644509 | 9630644509 |
| 7A | Carrier, lip seal | | | 1 | 9630633301 | 9630633301 |
| 9 | Rotorcase | IDF | 42 (65 mm) | 1 | 9630623601 | 9630623601 |
| | | Tri-Clamp | | | 9630623602 | 9630623602 |
| | | SMS | | | 9630623603 | 9630623603 |
| | | DIN 11851 | | | 9630623604 | 9630623604 |
| | | RJT | | | 9630623605 | 9630623605 |
| | | IDF | 43 (80 mm) | | 9630623701 | 9630623701 |
| | | Tri-Clamp | | | 9630623702 | 9630623702 |
| | | SMS | | | 9630623703 | 9630623703 |
| | | DIN 11851 | | | 9630623704 | 9630623704 |
| | | RJT | | | 9630623705 | 9630623705 |
| 10 | Screw, rotorcase cover | | | 4 | 5950.027 | 9630024554 |
| 11 | 'O' ring - cover | | FPM | 1 | 5380.643 | 9630063109 |
| | | | EPDM | | 1555.267 | 9630019861 |
| 12 | Cover, rotorcase | | | 1 | 9630639801 | 9630639801 |
| 16 | Lip seal, gland end | | NBR | 2 | 9630644504 | 9630644504 |
| 17 | Rotor, Trilobe Stainless Steel | 8 bar 130°C | 42 | 2 | 9630630601 | 9630630601 |
| | | 8 bar 130°C | 43 | | 9630630701 | 9630630701 |
| 18 | 'O' Ring, rotor sealing shaft end | | FPM | 2 | 1551.123 | 9630037140 |
| | | | EPDM | | 1555.123 | 9630037138 |
| 20 | 'O' Ring, rotor sealing nut end | | FPM | 2 | 5380.232 | 9630028357 |
| | | | EPDM | | 5380.234 | 9630028321 |
| 21 | 'O' Ring, canister | | NBR | 1 | 5380.844 | 9630880214 |
| 22 | Nut, rotor retention | | 42 | 2 | 9630641601 | 9630641601 |
| | | | 43 | | 9630641701 | 9630641701 |
| 23 | Key | | | 1 | 5270.031 | 9630031499 |
| 24 | Shaft, drive | | | 1 | 9630638801 | 9630638801 |
| 25 | Shaft, auxiliary | | | 1 | 9630639301 | 9630639301 |
| 26 | Bearing, rear | | | 2 | 5080.032 | 9630862089 |
| 27 | Shim, shaft abutment | | 0.050 | 2 | 9630642545 | 9630642545 |
| | | | 0.075 | | 9630642547 | 9630642547 |
| | | | 0.100 | | 9630642550 | 9630642550 |
| 30 | Nut, bearing | | | 2 | 5340.056 | 9630056684 |
| 31 | Bearing, front | | | 2 | 5080.031 | 9630862088 |
| 36 | Timing gear | | | 2 | 9630640301 | 9630640301 |
| 38 | Torque locking assembly | | | 2 | 9630640801 | 9630640801 |
| 45 | Drain plug | | | 2 | 1660.002 | 9630023544 |
| 49 | Blanking plug | | | 4 | 5470.029 | 9630861226 |
| 50 | Gland guard | | 42 | 2 | 9630642301 | 9630642301 |
| | | | 43 | | 9630642302 | 9630642302 |
| 51 | Screw, gland guard | | | 4 | 5950.093 | 9630865138 |
| 53 | Washer, gland guard | | | 4 | 6400.127 | 9630864986 |
| | | | | 4 | 31499.5962.2 | 9630038040 |
| 54 | Foot | | | 2 | 9630638301 | 9630638301 |
| 58 | Screw, Foot | | | 4 | 5990.034 | 9630024635 |
| | Blanking plug | | | 4 | 5470.022 | 9630089950 |
| | Blanking plug | | | 2 | 5470.027 | 9630861224 |

## OptiLobe - Exploded View Drawing



| Cover / Spline Sealing Kits - All Pump Models | | |
|---|---|---|
| Each kit for one pump comprises of:<br>1 off Rotorcase Cover 'O' Ring (11)<br>2 off Rotor 'O' Rings, shaft end (18)<br>2 off Rotor 'O' Rings, nut end (20) | | |
| **'O' Rings** | **22 / 23** | |
| | **Part No.** | **Article No.** |
| EPDM | KL2CU | 9630864748 |
| FPM | KL2DU | 9630864749 |
| **'O' Rings** | **32 / 33** | |
| | **Part No.** | **Article No.** |
| EPDM | KL3CU | 9630864750 |
| FPM | KL3DU | 9630864751 |
| **'O' Rings** | **42 / 43** | |
| | **Part No.** | **Article No.** |
| EPDM | KL4CU | 9630864752 |
| FPM | KL4DU | 9630864753 |

## Service Kits - OptiLobe 22 / 23 Pump

Each kit for one pump comprises of:
1 off Cover/Spline Sealing Kit
2 off Wave Springs (101)
2 off Rotary Seal 'O' Rings (102)
2 off 'L' Cup Seals (103)
2 off Rotary Seal Drive Rings (104)
2 off Rotary Seal Rings (105)
2 off Stationary Seal Drive Rings (106)
2 off Stationary Seal Rings (107)

| Rotary Seal / Stationary Seal Ring | 'O' Rings | 22 / 23 Part No. | 22 / 23 Article No. |
|---|---|---|---|
| Carbon / Stainless Steel | EPDM | KL2CU-Q06 | 9630864754 |
| | FPM | KL2DU-Q02 | 9630864755 |
| Carbon / Silicon Carbide | EPDM | KL2CU-Q26 | 9630864758 |
| | FPM | KL2DU-Q22 | 9630864759 |
| Silicon Carbide / Silicon Carbide | EPDM | KL2CU-Q16 | 9630864756 |
| | FPM | KL2DU-Q12 | 9630864757 |

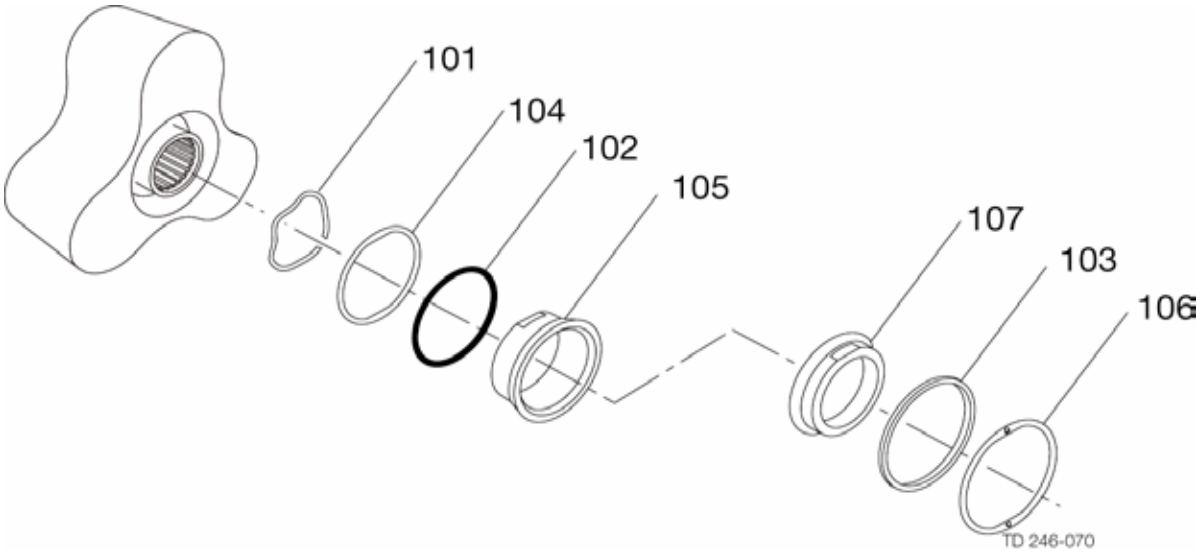
**Additional parts to convert pump fitted with EasyFit single seals to EasyFit single flushed seals**

| Description | Drg Item No. | Qty | 22 / 23 Part No. | 22 / 23 Article No. |
|---|---|---|---|---|
| Conversion kit - | - | 1 | 4010.378A | 9630863511 |
| Conversion kit - | - | | 4010.378B | TBA |
| **Conversion kits comprising of:-** | | | | |
| Lip Seal (FPM) | 111 | 2 | 9630644710 | 9630644710 |
| Housing 'O' Ring | 112 | 2 | 1551.033 | 9630075998 |
| Housing, BSPT | 108 | 2 | 9630644101 | 9630644101 |
| Housing, NPT | | | TBA | TBA |
| Stud | 109 | 4 | 6350.152 | 9630863464 |
| Washer | - | 4 | 6400.053 | 9630042149 |
| Nut, Stud | 110 | 4 | 5330.007 | 9630024061 |

| Service Kits - OptiLobe 32 / 33 Pump | | | | |
|---|---|---|---|---|
| Each kit for one pump comprises of:<br>1 off Cover/Spline Sealing Kit<br>2 off Wave Springs (101)<br>2 off Rotary Seal 'O' Rings (102)<br>2 off 'L' Cup Seals (103)<br>2 off Rotary Seal Drive Rings (104)<br>2 off Rotary Seal Rings (105)<br>2 off Stationary Seal Drive Rings (106)<br>2 off Stationary Seal Rings (107) | | | | |
| **Rotary Seal / Stationary Seal Ring** | **'O' Rings** | | **32 / 33** | |
| | | | **Part No.** | **Article No.** |
| Carbon / Stainless Steel | EPDM | | KL3CU-Q06 | 9630864760 |
| | FPM | | KL3DU-Q02 | 9630864761 |
| Carbon / Silicon Carbide | EPDM | | KL3CU-Q26 | 9630864764 |
| | FPM | | KL3DU-Q22 | 9630864765 |
| Silicon Carbide / Silicon Carbide | EPDM | | KL3CU-Q16 | 9630864762 |
| | FPM | | KL3DU-Q12 | 9630864763 |
| **Additional parts to convert pump fitted with EasyFit single seals to EasyFit single flushed seals** | | | | |
| **Description** | **Drg Item No.** | **Qty** | **32 / 33** | |
| | | | **Part No.** | **Article No.** |
| Conversion kit - | - | 1 | 4010.379A | 9630863512 |
| Conversion kit - | - | | 4010.379B | TBA |
| **Conversion kits comprising of:-** | | | | |
| Lip Seal (FPM) | 111 | 2 | 9630644810 | 9630644810 |
| Housing 'O' Ring | 112 | 2 | 1551.034 | 9630063230 |
| Housing, BSPT | 108 | 2 | 9630644201 | 9630644201 |
| Housing, NPT | | | TBA | TBA |
| Stud | 109 | 4 | 6350.152 | 9630863464 |
| Washer | - | 4 | 6400.053 | 9630042149 |
| Nut, Stud | 110 | 4 | 5330.007 | 9630024061 |

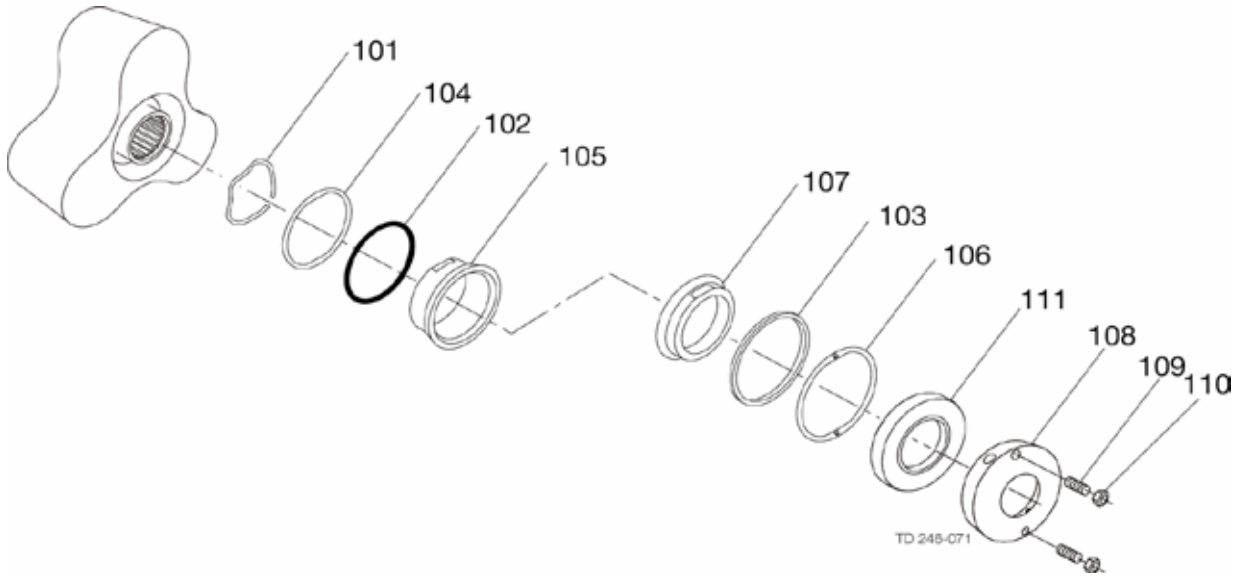
| Service Kits - OptiLobe 42 / 43 Pump | | | | |
|---|---|---|---|---|
| Each kit for one pump comprises of:<br>1 off Cover/Spline Sealing Kit<br>2 off Wave Springs (101)<br>2 off Rotary Seal 'O' Rings (102)<br>2 off 'L' Cup Seals (103)<br>2 off Rotary Seal Drive Rings (104)<br>2 off Rotary Seal Rings (105)<br>2 off Stationary Seal Drive Rings (106)<br>2 off Stationary Seal Rings (107) | | | | |
| **Rotary Seal / Stationary Seal Ring** | **'O' Rings** | **42 / 43** | | |
| | | **Part No.** | **Article No.** | |
| Carbon / Stainless Steel | EPDM<br>FPM | KL4CU-Q06<br>KL4DU-Q02 | 9630864766<br>9630864767 | |
| Carbon / Silicon Carbide | EPDM<br>FPM | KL4CU-Q26<br>KL4DU-Q22 | 9630864770<br>9630864771 | |
| Silicon Carbide / Silicon Carbide | EPDM<br>FPM | KL4CU-Q16<br>KL4DU-Q12 | 9630864768<br>9630864769 | |
| **Additional parts to convert pump fitted with EasyFit single seals to EasyFit single flushed seals** | | | | |
| **Description** | **Drg Item No.** | **Qty** | **42 / 43** | |
| | | | **Part No.** | **Article No.** |
| Conversion kit - | - | 1 | 4010.380A | 9630863513 |
| Conversion kit - | - | | 4010.380B | TBA |
| **Conversion kits comprising of:-** | | | | |
| Lip Seal (FPM) | 111 | 2 | 9630644910 | 9630644910 |
| Housing 'O' Ring | 112 | 2 | 1551.039 | 9630863514 |
| Housing, BSPT | 108 | 2 | 9630644202 | 9630644202 |
| Housing, NPT | | | TBA | TBA |
| Stud | 109 | 4 | 6350.152 | 9630863464 |
| Washer | - | 4 | 6400.053 | 9630042149 |
| Nut, Stud | 110 | 4 | 5330.007 | 9630024061 |

## EasyFit Single Mechanical Seal - Exploded View Drawing




| Drg Item No. | Description |
|---|---|
| 101 | Wave Spring |
| 102 | Rotary Seal 'O' Ring |
| 103 | 'L' Cup Seal |
| 104 | Rotary Seal Drive Ring |
| 105 | Rotary Seal Ring |
| 106 | Stationary Seal Drive Ring |
| 107 | Stationary Seal Ring |

## EasyFit Single Flushed Mechanical Seal - Exploded View Drawing




| Drg Item No. | Description |
|---|---|
| 101 | Wave Spring |
| 102 | Rotary Seal 'O' Ring |
| 103 | 'L' Cup Seal |
| 104 | Rotary Seal Drive Ring |
| 105 | Rotary Seal Ring |
| 106 | Stationary Seal Drive Ring |
| 107 | Stationary Seal Ring |
| 108 | Housing |
| 109 | Stud |
| 110 | Nut |
| 111 | Lip Seal |
| 112 | Housing 'O' Ring |

| Revision History | | | |
|---|---|---|---|
| **Issue** | **Ref** | **Date** | **Description** |
| **001** | **-** | Nov - 07 | 1st Issue |
| **002** | **-** | Dec - 07 | Launch Issue |
| **003** | **-** | Jun - 08 | Mechanical seal drawings and single flushed mechanical seal conversion kits added. Canister 'o' ring part/item numbers changed (was 1550.256 / 9630863410, 1550.262 / 9630863367 and 1550.268 / 9630059967). |