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| **Information about replacements** |
| **KDI 1903TCR - TCRE5 - TC Owner manual (Rev\_20)** |



Sommario

[1. TITOLO 1 2](#_Toc495648770)

[1.1. Asdfsdfsdf 2](#_Toc495648771)

[1.2. Asdfsdfsdfggg 2](#_Toc495648772)

# Information about replacements

## Engine oil replacement

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| Z_Pericolo.jpg **Danger**  * Disconnect the negative wire (-) from the battery to avroid accidental engine stating.

  Z_importante.jpg  **Important**  * Before proceeding with operation, read  [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=60&parent=962)
* Place engine on level sur face to ensure accurate measurement of oil level.
* Before proceeding, perform the operation described in  [**Par. 6.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=84&parent=962)  - Point 1.

**NOTE** : Perform this operation with warm engine, to get a better fluidity of the oil and get a full discharge of oil and impurities contained in it.1. Loosen the oil filler cap **A (Fig. 6.1)** .
2. Remove the oil dipstick **B** .
3. Remove the oil drain plug **D** and the gasket **E** (the oil drain plug is on both sides of the oil sump).
4. Drain oil in an appropriate container.(For the exhausted oil disposal, refer to [**Par. 6.6 DISPOSAL and SCRAPPING**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=88&parent=962) ).
5. Replace gasket **E** .
6. Tighten the drain oil plug **D** (tightening torque at **35 Nm** ).
7. Perform the operation described in  [**Par. 6.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=84&parent=962) - point 2 to 5.
8. Add the type of oil recommended ( [**Tab. 2.1**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=53&parent=962) and [**Tab. 2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=55&parent=962) ).
9. If the plug **A** is not accessible, use the oil filler cap **C** .

 Z_importante.jpg  **Important**  * Do not exceed the **MAX** level on the dipstick.
1. Fit and remove the oil dipstick **B** to check the level.Pour in fluid until reaching the **MAX** level mark.
2. Upon completion, reinstall the oil dipstick **B** completely.
3. Tighten the cap **A** or **C** .
 | Fig._6.1.jpg**Fig. 6.1**Fig._6.2.jpg**Fig. 6.2**Fig._6.3.jpg**Fig. 6.3**Fig._4.2.jpg**Fig. 6.4** |
| **NOTE** : Click on the right to play the procedure. | <https://www.youtube.com/embed/IBL-IEYm16U?rel=0> |

## Oil filter cartridge replacement

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| Z_importante.jpg **Important**  * Before proceeding with operation, read  [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=60&parent=962)

 Z_Avvertenza.jpg   **Warning**  * Electric/pneumatic screwdrivers are forbidden.
* In case of low use replace il 12 months.
* For disposal of oil filter cartridge and fuel filter refer to [**Par. 6.6 DISPOSAL and SCRAPPING**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=88&parent=962) .

 1. Unscrew cartridge holder cover  **A** by performing three complete turns and wait 1 minute..

**NOTE** : this operation allows to oil contained in the support **F** to flow into the oil sump in the correct way.1. Unscrew cartridge holder cover **A** and check that the oil in the lub. oil filter support **F** has flowed towards the oil sump.
2. Remove the cap **A** as well as the oil cartridge **B** from the oil filter support.
 | Fig_5_5.jpg**Fig 6.5** |
| 1. Remove and replace the oil cartridge **B** with a new one.Remove and replace the gaskets **C, D and E** with new ones.
 | Fig_5_6.jpg**Fig 6.6** |
| 1. Fit and tighten the cover **A** on the oil filter support **F** , tightening it with a torque wrench **G** (tightening torque of **25 Nm** ).
 | Fig_5_7.jpg**Fig 6.7** |
| **NOTE** : Click on the right to play the procedure. | <https://www.youtube.com/embed/jr0sXe8Cdro?rel=0> |

## Remote oil filter cartridge replacement (optional)

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| Z_importante.jpg  **Important**  * Before proceeding with operation, read  [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=60&parent=962) **.**
1. Unscrew and remove the cartridge **A** using the appropriate wrench.
2. Lubricate the gasket and screw on the new cartridge **A** using the appropriate wrench.
 | Fig_5_8.jpg**Fig 6.8** |

## Filter cartridge and fuel pre-filter replacement

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| Z_importante.jpg **Important**  * Before proceeding with operation, read  [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=60&parent=962)

 Z_Avvertenza.jpg    **Warning**  * In case of low use replace il 12 months.
* For disposal of oil filter cartridge and fuel filter refer to  [**Par. 6.6 DISPOSAL and SCRAPPING**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=88&parent=962)
1. Disconnect the cable **A** of the water presence sensor **C** .
2. Remove the water presence sensor **C** from its cartridge **B** .
3. Loosen the cartridge **B** using the appropriate wrench **F (Fig. 6.10)** .
4. Lubricate the gasket **D** of the new cartridge B.

 Z_importante.jpg **Important**
• Do not fill the new cartridge **B** with fuel.
 1. Tighten the new cartridge **B (Fig. 6.10)** on the diesel fuel filter support **E** using the special wrench **F** (tightening torque of **17 Nm** ).
2. Tighten the water presence sensor **C** on the new cartridge **B** (tightening torque of **5 Nm** ).
3. Reconnect the cable **A** of the water presence sensor **C** .
4. Push repeatedly the button **G** in order to fill the circuit.
 | Fig_5_9.jpg**Fig 6.9**Fig_5_10.jpg**Fig 6.10** |
| **NOTE** : Click on the right to play the procedure. | <https://www.youtube.com/embed/MXs9IUimUi4?rel=0> |

## Air filter cartridge replacement

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| Z_importante.jpg **Important**  * Before proceeding with operation, read  [**Par. 3.2.2.**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=60&parent=962)

**NOTE** : Component not necessarily supplied by **KOHLER** . 1. Release the two fastenings **F** of the cover **A** .
2. Remove the cartridges **B and G.**
3. Reinstall:- the new cartridges **B and G** .-the cover **A** checking the right tightness of fastenings **F** .
 | 6.11.png  **Fig. 6.11** |

## Disposal and scrapping

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| * In case of scrapping, the engine shall be disposed of in appropriate locations, in conformity with the law in force.
* Before scrapping, it is necessary to separate the rubber or plastic parts from the rest of the components.
* The parts only composed of plastic material, aluminium and steel can be recycled if collected by the appropriate centers.
* Waste oil must properly be recycled and disposed of in the correct way to safeguard the environment. According to the laws in force, it is classified as hazardous waste, therefore it must be collected by the appropriate centers.
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