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| **Information about use** |
| **KDI 3404 TCR-SCR Owner Manual (REV. 03.4)** |



Sommario

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# Information about use

## Pre-start check

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| Pericolo.png**Important*** Read carefully the following pages and carry out the operations described below in accordance with the instructions specified.
* Non compliance with the operations described in the following pages involves the risk of damages to the engine and vehicle on which it is installed as well as personal and/or property damage.
* Increase the frequency of maintenance operations in heavy working conditions (engine starts but stops, very dusty and hot environments, etc...).
* Check that the minimum required AdBlue®/DEF quantity is present inside the AdBlue®/DEF tank. Refer also to the car documentation to check the AdBlue®/DEF level required for engine correct operation.
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## Running-in period

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| **NOTE: For the first 50 hours of engine operation, it is advisable not to exceed 75% of the maximum power supplied.** |

## Starting and turning off

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| **4.3.1 Starting**1. Check the level of the engine oil, fuel and coolant and fill if necessary ( [**Par. 4.5**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2532&parent=1972) e [**Par. 4.6**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2533&parent=1972) ).
2. Put the ignition key in the ignition switch (if supplied).
3. Tun the key to **ON** position.
4. Turn the key beyond the **ON** position and release it when the engine starts (the key will return into ON position automatically).

Importante.png**Important*** Do not actuate the starter for more than 15 seconds at a time. If the engine does not start, wait for one minute before repeating attempt.
* If engine does not start after two attempts see [**Tab. 7.1 and Tab. 7.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2547&parent=1972) to found the cause.
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| **4.3.2** **After starting**Avvertenza.png**Warning*** Make sure that all the warning lights on the control panel are off when the engine is running.
* Run at minimum speed for a few minutes according to table (except constant speed engine).

**NOTE:** To avoid damaging the engine do not use it mostly at idle for a long time ( **MAX 30min.** ).

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| **AMBIENT TEMPERATURE** | **TIME** |
| ≤ -20°C | **2 minutes** |
| from -20°C a -10°C | **1 minutes** |
| from -10°C a -5°C | **30 seconds** |
| from -5°C a 5°C | **20 seconds** |
| ≥ 5°C | **15 seconds** |

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| **4.3.3** **Turning off**1. Do not turn off the engine when it is running at the maximum rotation speed (except constant speed engine).
2. Before turning it off, keep it idle at minimum speed for about 1 minute.
3. Turn the key to **OFF** position.
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## Refuelling

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| Importante.png**Important*** Before proceeding with operation, read  [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2527&parent=1972) .

Pericolo.png**Danger*** Fill the engine off.
* The only approved fuels are those listed in [**Tab. 2.3**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2523&parent=1972) .
* In those countries where fuel has a high sulphur content, its is advisable to lubricate the engine with a high alkaline oil or alternatively to replace the lubricating oil recommended by **KOHLER** more frequently.
* To avoid explosions or fire outbreaks, do not smoke or use open flames during the operations.
* Fuel vapours are highly toxic. Only carry out the operations outdoors or in a well ventilated place.
* Keep your face well away from the fuel fill to prevent harmful vapours from being inhaled.
* Dispose of fuel in the correct way and do not litter as it is highly polluting.
* When refuelling, it is advisable to use a funnel to prevent fuel from spilling out.The fuel should also be filtered to prevent dust or dirt from entering the tank.
* Do not overfill the fuel tank. Leave room for the fuel to expand.
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| **NOTE: At the first fuelling or if the tank was empty filling the fuel system** [**(Par. 6.3 point 8)**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2546&parent=1972) **.** |

## Oil filling

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| Importante.png**Important*** For safety precautions see [**Par. 2.4**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2522&parent=1972) .
* Before proceeding with operation, read [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2527&parent=1972) .
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| 1. Loosen the oil filler cap A.
2. Add the type oil recommended ( [**Tab. 2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2522&parent=1972) ).
 | 4.1.jpg**4.1** |
| * + 1. Before checking oil engine needs to be level.
		2. Remove the oil dipstick B and check that the level is up to but does not exceed the MAX.
		3. If level is not at the MAX. level, add additional oil.
		4. Re-tighten the cap A.

Importante.png**Important*** Do not use the engine with the oil level below the minimum.
 | 4.2_5.1.jpg**4.2** |
| **NOTE** : Click on the right to play the procedure. | <https://www.youtube.com/embed/HWCzK41Br1U?rel=0> |

## Coolant filling

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| Importante.png**Important*** Before proceeding with operation, read [**Par. 3.2.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=2527&parent=1972) .

**NOTE: Refer to the technical documentation of the vehicle.** | Avvertenza.png**Warning*** An anti-freeze protection liquid (ANTIFREEZE) - mixed with decalcified water - must be used.
* The freezing point of the refrigerant mixture depends on the amount concentration in water.
* As well as lowering the freezing point, the antifreeze also raises the boiling point.
* A 50% mixture is recommended to ensure a general level at protection prevents the formation of rust, galvanic currents and calcium deposits ( [**Par. 2.7**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=57&parent=1972) ).
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## AdBlue®/DEF filling

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| **NOTE: Refer to the technical documentation of the vehicle.** |

