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| **Information on adjustments** |
| **KDI 3404 TCR-SCR Workshop Manual (Rev. 10.4)** |



**Registration of modifications to the document**

Any modifications to this document must be registered by the drafting body, by completing the following table.

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|  | manoff |  |  |  |  |  |

**Translated from the original manual in Italian language**

Data reported in this issue can be modified at any time by KOHLER.

Sommario

[1. TITOLO 1 2](#_Toc495648770)

[1.1. Asdfsdfsdf 2](#_Toc495648771)

[1.2. Asdfsdfsdfggg 2](#_Toc495648772)

# Information on adjustments

## 'Waste Gate' opening valve regulation

Z_importante.jpg **Important**

* Before proceeding with operation, read [**Par. 3.3.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=642&parent=1273&txts=3.3.2) .
* Regulation must not be carried out with the engine running.
* During the procedure in **point 5** , pay special attention not to bend rod **H** .

1. Disconnect the hose **A** from the turbocharger.
2. Connect a pressure reducer **C** to the network of compressed air.
3. Position dial gauge **D** in such a way that feeler **F** rests onthe Waste Gate rod control valve extremity **H** (point **E** ).
4. By using gradually the reduction gear **C** send the air to the Waste Gate actuator control **L** in order to move rod H forward by 1 mm (value M to check on dial gauge D). Pressure read on gauge B must be: 2500 mbar.
5. If pressure is less or more than the indicated value, proceed as follows:  
   - Remove the retainer cotter pin (point **E** ) and disconnect rod **H** from the Waste Gate control lever.  
   - Tighten (to increase) / or loosen (to decrease) pressure of the ring nut of rod **H** until reaching the corrected calibration.  
   - Redo lock nut **G** .  
   - Reconnect rod **H** and assemble the cotter pin point **E** .

 **Fig 12.1**

## Air filter check

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| **NOTE** : Component not supplied by **KOHLER** .  Refer to the technical documentation of the vehicle. |

## Oil steam separator check

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| Z_importante.jpg  **Important**       * Before proceeding with operation, read [**Par. 3.3.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=642&parent=1273&txts=3.3.2) . | |
| 1. Loosen clamp **B** and remove hose **C** . 2. Remove rapid fitting **D** from separator **A** . 3. Start the engine at idle speed or without a load and check if air comes out from unions **A1** and **A2** .   **NOTE:** If what is described in **Point 3** does not occur, proceed with cleaning or replacing oil separator **A** and accurately clean all connecting hoses, and repeat the operation from **Point 3.** | Cap_12_I_REG_3404_blow-by_01.png  Cap_12_I_REG_3404_blow-by_02.png |

## Rubber hoses and manifolds check

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| Z_importante.jpg  **Important**       * Before proceeding with operation, read [**Par. 3.3.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=642&parent=1273&txts=3.3.2) . | |
| The check is carried out by applying slight deflection or bending along the tube/hose and next to the hose clamps.   Components must be replaced if they have clear signs of cracks, tears, cuts, leaks, or do not retain a certain degree of elasticity.   1. Check the condition of all rubber hoses **A** . 2. Check whether there are any leakages of air, refrigerant, oil or fuel next to their connections.   **NOTE** : Refer to the technical documentation of the machine for components that are not shown in the figure. | 12.3.jpg **Fig 12.3** |

## Oil leak check

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| Z_importante.jpg  **Important**       * Before proceeding with operation, read [**Par. 3.3.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=642&parent=1273&txts=3.3.2) . | |
| Check that there are no leakages next to area **A** .   1. Start the engine at idle speed or without a load and check whether there are any leakages next to area  **A.** 2. It is anyhow necessary to also check the seals of all main components and their surface contact, such as: - crankcase and gasket (side 1 a PTO) - oil sump and exhaust caps     - cylinder head and its assembled components    - rocker arm cover    - Timing system carter and gasket (side 2 a PTO) - oil dipstick housing or rod support tube.      **NOTE:** Perform the checks described in **Points 1 and 2** periodically and during maintenance procedures. It is also necessary to check for leakages on the components that are not listed.  If necessary, disassemble the components that have a leakage and investigate the possible cause.    The components must be replaced otherwise they do notguarantee their sealing. | 12.4.jpg **Fig 12.7**12.5.jpg **Fig 12.8** |

## Oil pressure check

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| Z_importante.jpg  **Important**       * Before proceeding with operation, read [**Par. 3.3.2**](https://iservice.lombardini.it/jsp/Template2/manuale.jsp?id=642&parent=1273&txts=3.3.2) . | |
| 1. Replace the oil dipstick **A** with a thermocouple **B** **(Fig. 12.6).**      1. Unscrew and remove the oil pressure switch **C** and screw on a 10 bar pressure gauge in its seat **(Fig. 12.8)** .      1. Start the engine at idle speed and without a load, check the oil pressure value according to the oil temperature **(Fig. 12.7** ).   **NOTE** : The graph in **Fig. 12.7** illustrates the pressure line with speed of 1000 Rpm.   1. If the pressure values are below the values indicated in **Fig. 12.7** , check to identify the cause of the problem.   12.7.jpg  **Fig. 12.7** | 12.6.jpg  **Fig. 12.6**  12.8.jpg  **Fig. 12.8** |

## DEF Check

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| **1 -** The inspection is carried out with refractometer **A** . Follow the instructions on the device; the correct value must comply with the values of 1% ± 32.5%.  **Warning**  Use of the engine with DEF that does not comply with the quality specifications described in point 1 will trigger an error code and result in an inducement strategy (Para. 2.12.3). | 12.9.jpg  **Fig 12.4** |

## DEF tank filter check and cleaning

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| **Warning**   * Do not use pressurised air or water. * Only use hot water for cleaning and lubrication of the gaskets - replace gasket D if damaged. * The tank and its components cannot be repaired - do not damage the components during cleaning operations. | |
| **1 -** Turn head A anticlockwise to release tank B.  **2 -** Remove head A from tank B. | 12.10.jpg  **Fig. 12.5** |
| **3 -** Visually check filter B and proceed to point 4 if there are traces of crystallisation or impurities.    **4 -** Wash filter C in a basin with hot water **.**    **NOTE:** the hot water will dissolve the crystal residues caused by the DEF liquid. It is permitted to use a brush to remove any impurities completely **.**    **5** - Assemble head A by following the instructions in reverse in point 2 and 1.    **NOTE:** only use water to lubricate gasket D. | 12.11.jpg  **Fig. 12.6** |

