

EQ 200 gearbox

Repair manual

Original repair manual

Using this repair manual

This repair manual will help ensure the tractor is always in full working order. Regular maintenance and upkeep, carried out by the after-sales technical department will preserve the high value of this CLAAS tractor.

All of the expertise our after-sales technicians and the manufacturer can offer is summarised in this repair manual.

The sequence of illustrations show the breakdown of a repair process. The text gives the instructions required for setting, for using the special tools and much more.

The repair manual, as a reference document, is kept up to date with supplements and changes to meet any technical developments made to the tractor.

To ensure the highest level of safety, it is essential to compare the setting values and filling volumes with those on the current manual for the corresponding tractor.

Text and illustrations

References can be easily distinguished from each other by the symbols. The different symbols are as follows:

Symbol	Meaning	Description
	Consult the index.	This symbol  indicates that additional information on this subject is available in another part of this manual.
	Consult the index of the corresponding user manual.	This symbol  indicates that additional information on this subject is available in the tractor's user manual.
	Consult the technical system index.	This symbol  indicates that additional information on this subject is available in the tractor's technical system manual.

Section classification

The different parts of this repair manual are classed by chapter and section, whenever the content allows this. The document's structure is identical in each chapter and section.

CLAAS tries to retain this chapter structure in each document.

Search and find

The chapter structure, the table of contents and the document title make the subjects easier to find.

The index is also a useful tool for finding the required subjects. The index appears at the end of each document.

Direction indications

Indications in the text such as front, rear, right apply as taken in the direction of travel. In the illustrations, the direction of travel may be indicated by a direction arrow.

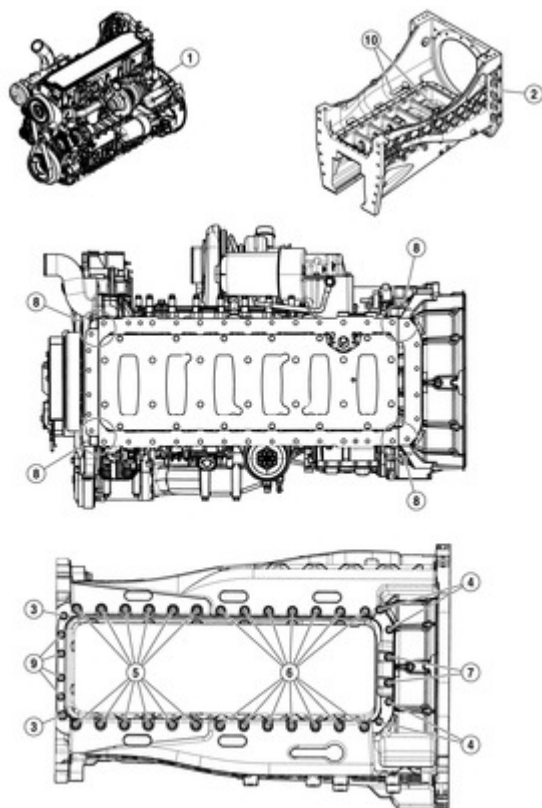
Your CLAAS After-Sales Service

Validity of this repair manual

This repair manual applies to the tractor:

Description	Type	Tractor serial number	
		from	to
AXION 900	A23	A2300050	—

Sump



10001276

Number	Value	CCN	Note – Description
1	—	—	The engine weighs 800 kg.
2	—	—	The chassis weight is 600 kg.
3	41.5 ± 3.5 N·m	—	M10 x 180 bolt
4		—	M10 x 170 bolt
5	63 ± 7 N·m	—	M12 x 70 bolt
6		—	M12 x 45 bolt
7	41.5 ± 3.5 N·m	—	M10 x 45 bolt
8	—	—	Apply Loctite (5910) on the joint face on the engine side, at the connections with the sump.
9	41.5 ± 3.5 N·m	—	M10 x 100 bolt
10	—	—	Cover the seals with "CLAAS Agrigrease EP2" grease.
For unspecified tightening torques, refer to the section entitled "Tightening torques".			

Preparation for work

Consumables to be used

- Lubricant:
CLAAS AGRIGREASE EP2 – 00 0147 437 0.

- Sealing and glue product:
Loctite (5910) - 00 1132 145 0.
Loctite (5910) - 60 0570 399 0.

Special tool



77 0138 809 7



Special tool – Reference no.		Quantity
1	77 0138 805 8 Slide hammer	1

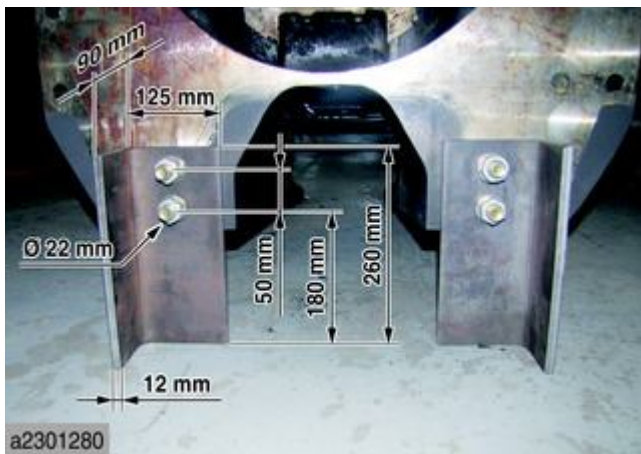
Removal

- Removing the tractor engine.

In order to carry out the removal, the engine should be perfectly horizontal.

- Fit the rear part of the engine with the auxiliary tool.
- Place the engine on a flat, horizontal surface.

Auxiliary tool



a2301280



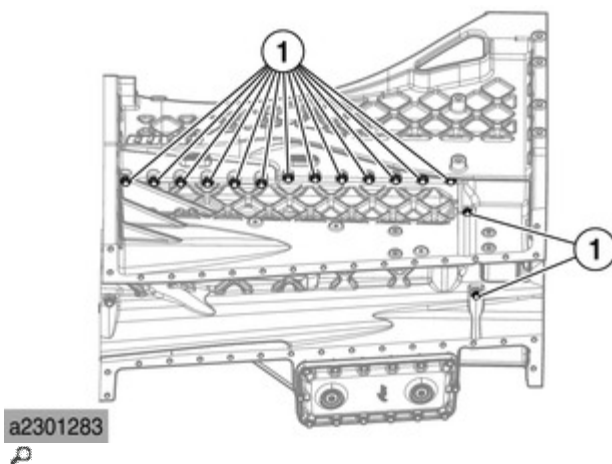
Auxiliary tool
Support bracket (to be supplied locally)
M20 x 100 bolt
M20 nut

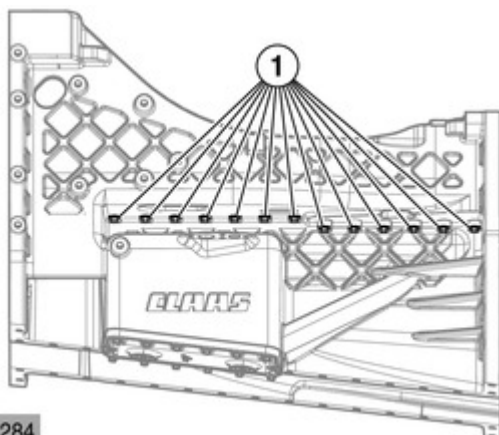


- Weld a nut onto the guide pin.
- Remove the guide pin with a slide hammer.

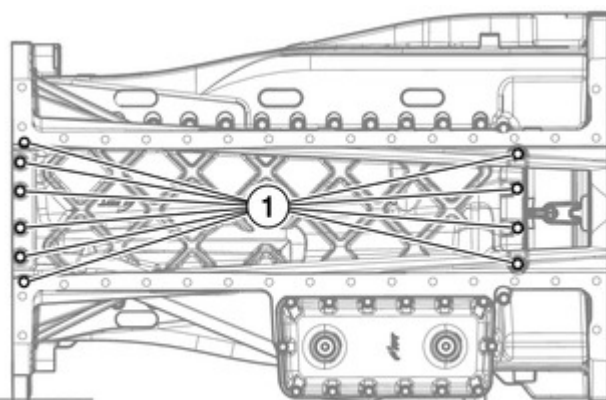


- Unplug the engine oil level gauge.





a2301284



a2301285

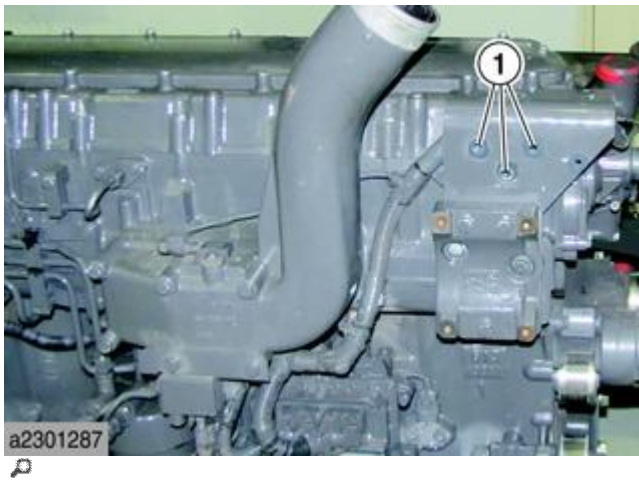


- Unscrew the mounting bolts from the (1) sump.

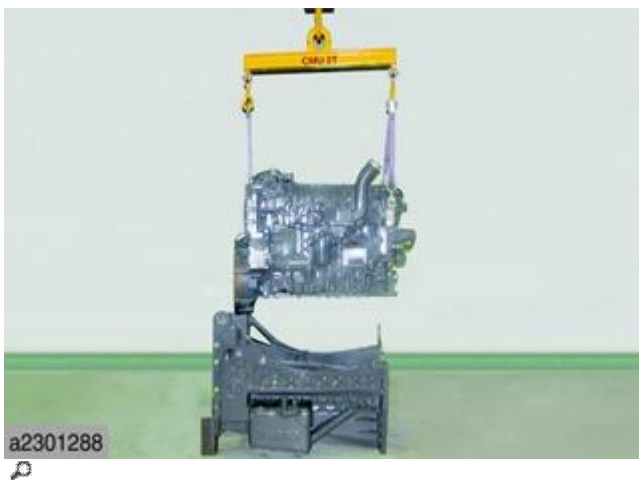


a2301286



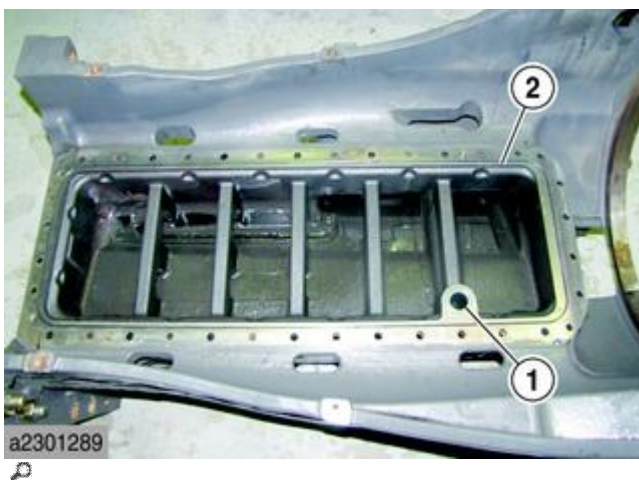


- Fit the mounting legs where marked (1).



- Lift the engine using suitable lifting equipment.
- Place the engine onto a flat, stable surface.

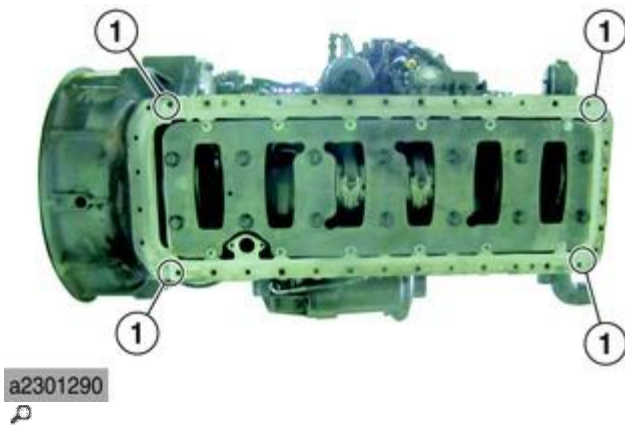
The engine weighs 800 kg.



- Remove the seal (1) from the lubrication pump.

- Remove the seal (2) from the sump.

Fitting



Respect the technical specifications from the overview.

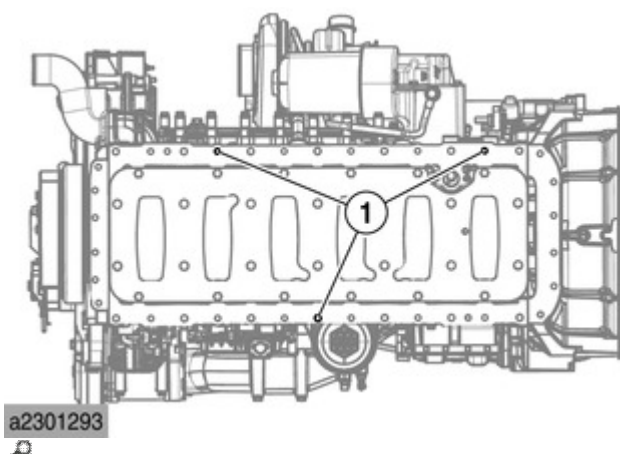
- Clean the surfaces of the front and rear housing seals.
- Apply a strip of Loctite to the housing connections (1).



- Fit and grease the seal of the flywheel housing on the oil sump.

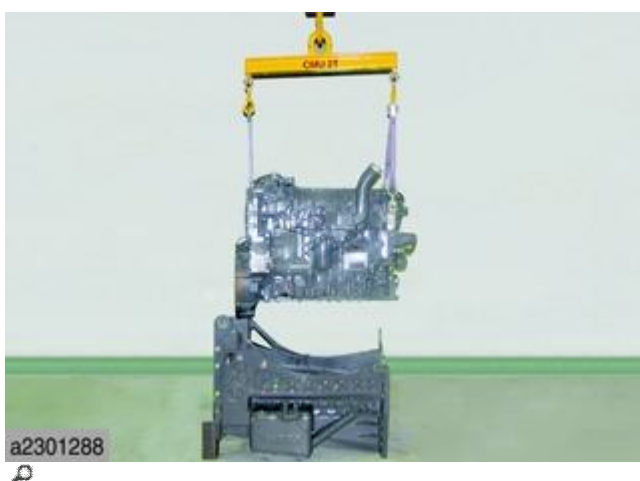


- Clean the surfaces.
- Fit and grease the sump seals.



- Clean the screw threads.
- Apply Loctite.
- Fit the auxiliary tools in the holes (1).

Auxiliary tool
Centring tool (to be supplied locally).
Threaded spindle M12 x 120



- Fit the engine block.

Important: Do not damage the flywheel housing-oil sump seal.



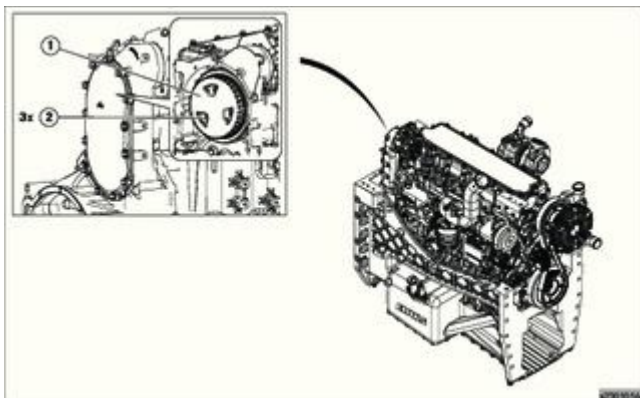
Respect the technical specifications from the overview.

- Fit and tighten the crankcase mounting screws.



- Connect the engine oil level gauge.
- Fit the guide pin.
- Remove the mounting legs.
- Position the engine in the tractor.

Centrifuge oil vapour filter



Number	Value	CCN	Note – Description
1	—	—	Centrifuge oil vapour filter.
2	$10 \pm 2 \text{ N}\cdot\text{m}$	—	Centrifuge oil vapour filter mounting bolts. Coat the bolts with Loctite (243)
For unspecified tightening torques, refer to the section entitled: "Tightening torques".			

Preparation for work

Consumables to be used

- Sealing and glue product:
Loctite (243) – 60 057 153 1.



CAUTION

Replacing the centrifuge oil vapour filter.

Risk of burns.

- Let the engine cool before starting work.
- Wear protective gloves.

NOTICE

Replacing the centrifuge oil vapour filter.

Objects falling into the engine block.

- Proceed with care to prevent any screws or tools falling into the engine block.

Environment!

Pollution.

Environmental pollution.

- Dispose of the used filter according to currently enforced regulations.
-

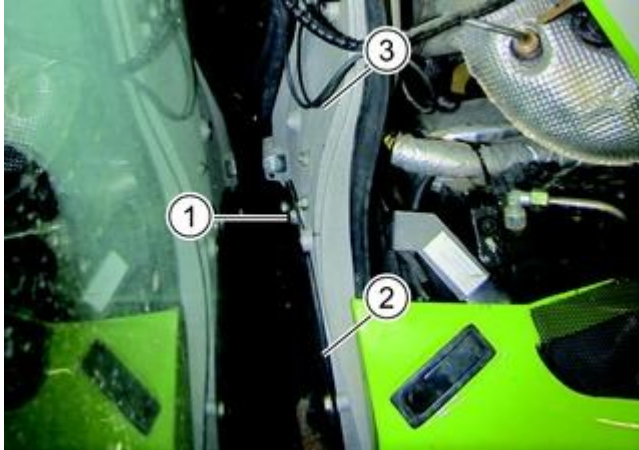
Information

Hydraulic hoses.

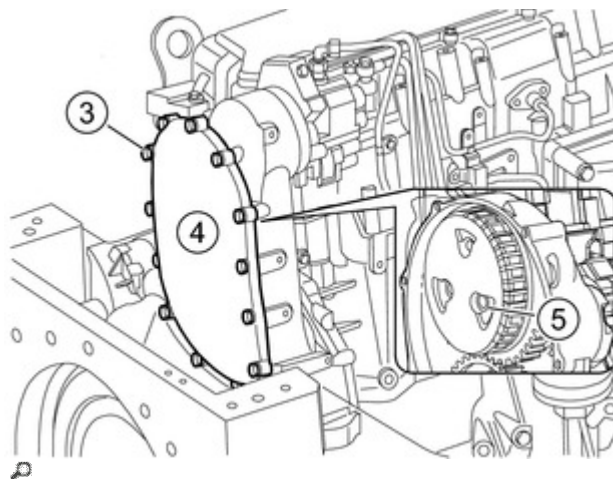
Poor accessibility.

- ▶ Arrange the hydraulic hoses so as to ensure easy access to the mounting bolts for the access flap and the centrifuge oil vapour filter cover.

Removal



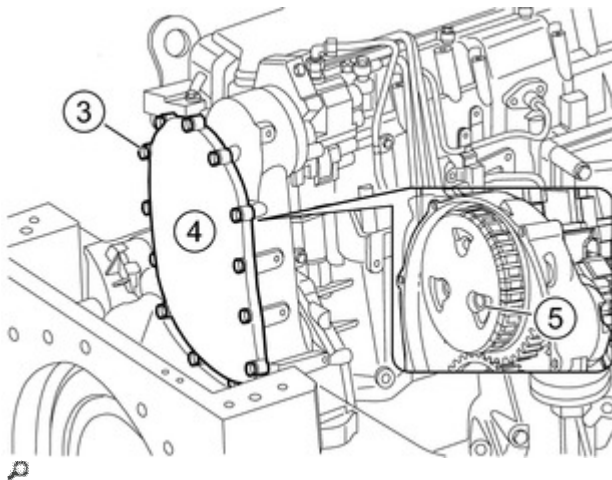
- ▶ Let the engine cool.
- ▶ Lift the engine bonnet.
- ▶ Move aside the hydraulic hoses located between the access flap (2) and the windscreen without disconnecting them, to access the bolts (1).
- ▶ Undo the 5 bolts (1) on the access flap (2) located on the engine bonnet support (3).
- ▶ Remove the access flap (2).



- ▶ Undo the 13 bolts (3) on the cover (4).

- Remove the cover (4) and the metal seal.
- Undo the 3 bolts (5) and remove the centrifuge oil vapour filter.

Fitting



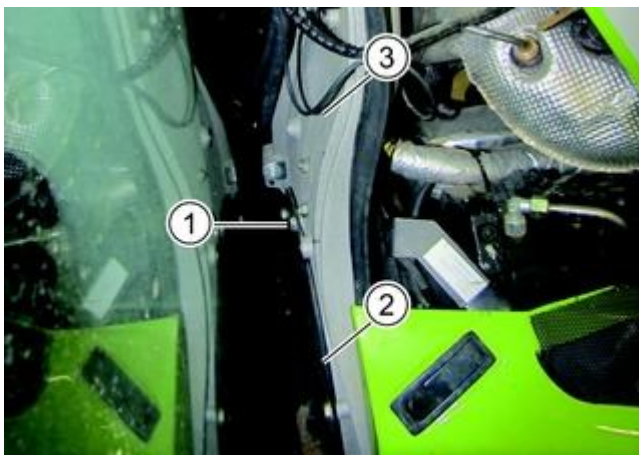
Respect the technical specifications from the overview.

- Fit the centrifuge oil vapour filter (5):
- Replace the metal seal and refit the cover (4).

Respect the technical specifications from the overview.

Setting the timing

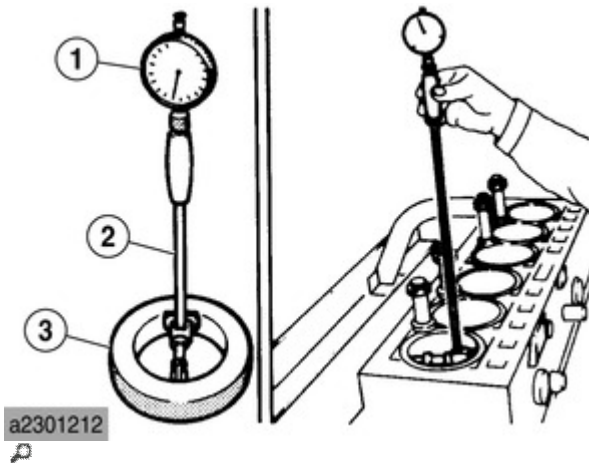
- fit and tighten the 13 bolts (3).



- Refit the access flap (2).
- Fit and tighten the bolts (1).
- Release the hydraulic hoses located between the access flap (2) and the windscreen.

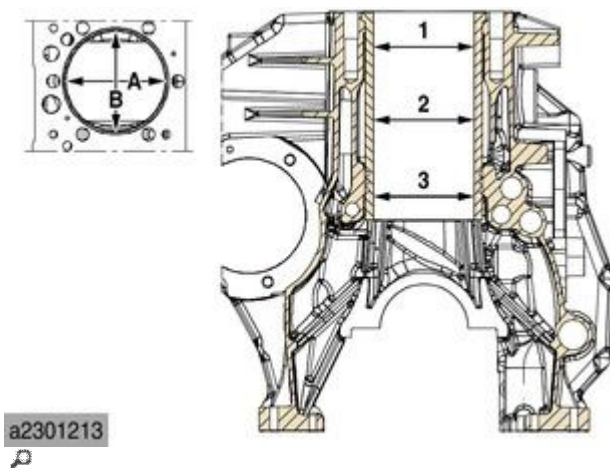
Repairing the cylinder block

Checks and measurements of the liners



- Check the internal diameter of the cylinders for runout, tapering and wear, using a gauge (2) with a dial gauge (1), set to zero on the ring gauge (3) with a diameter of 117 mm.

NB: If you do not have a ring gauge with a diameter of 117 mm available, use a micrometer.



1 = 1st measurement.

2 = 2nd measurement.

3 = 3rd measurement.

Measurements must be taken for each cylinder at three heights along the liner and on two perpendicular levels "A" and "B".

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com