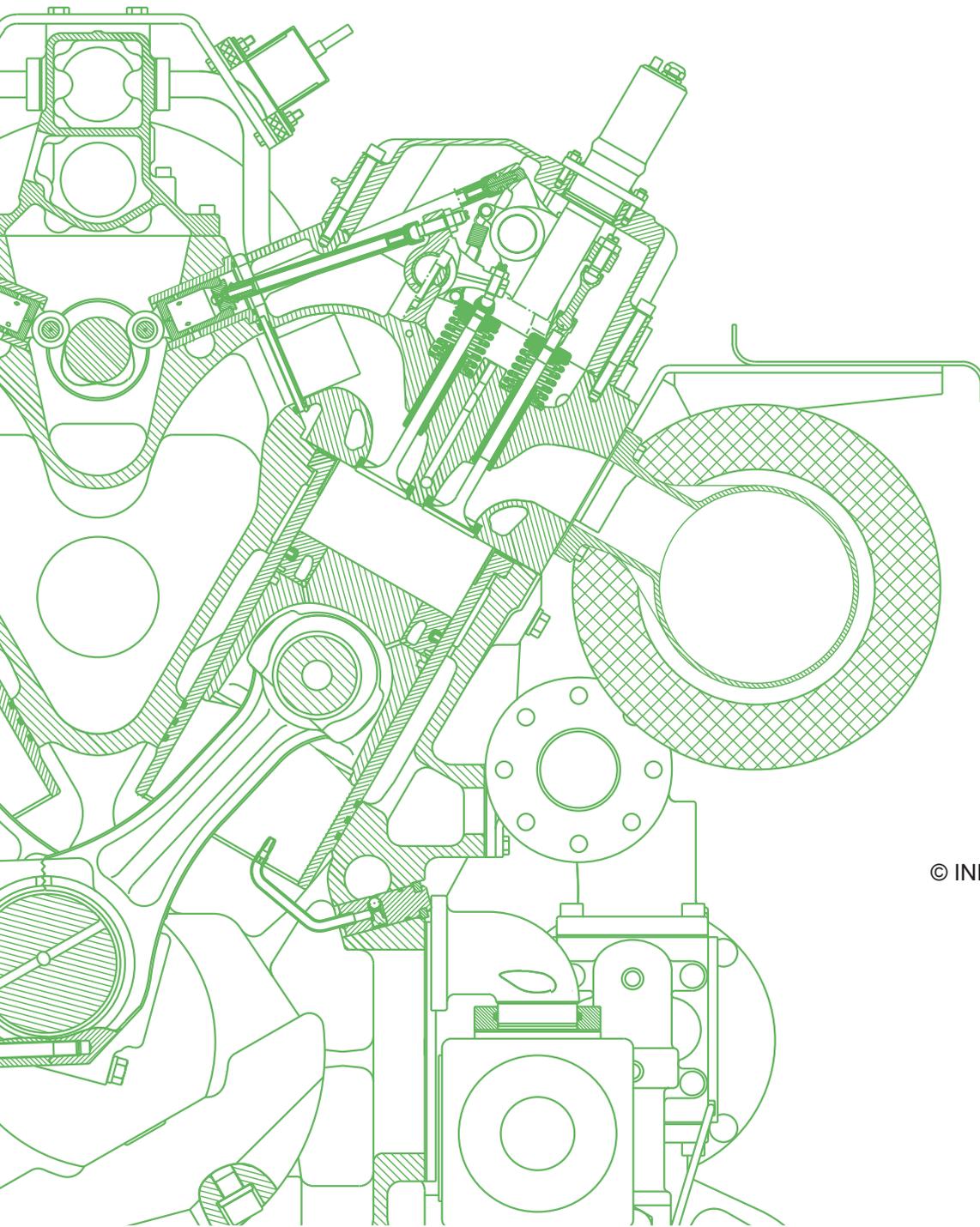




TA 1300-0010

Technical Instruction

Mounting aid for J624 mixture coolers



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1 Scope

This Technical Instruction [TA] applies to the following product:

- Mounting aid for J624 mixture coolers, part no. 7005291

2 Purpose

This Technical Instruction [TA] describes the design and application of the "Mounting aid for J624 mixture coolers".

3 Safety information

⚠ ATTENTION	
	<p>Danger of crushing! Danger of hand injuries!</p> <p>➤ Proceed carefully and with caution when performing the next steps.</p>

⚠ WARNING



Danger from unauthorised restarting

Serious injuries such as cutting, crushing, severing or shearing of body parts due to unintentional contact with rotating or moving machine parts.

- Shut down the engine as described in TA 1100-0105.
- Secure the engine against unauthorised restarting in accordance with TA 2300-0010.



NOTE



Visually inspect the tool.

Despite continuous quality controls and careful handling, faults or damage may occur.

Before using the tool, check every time for:

- **Completeness**
- **Visible damage** on the surfaces or welds that can adversely affect operation
- **Trouble-free operation**
- **Correct assembly** and correct installation

4 Required tools, equipment and materials

All the standard tools are included in **TA 1310-0011** – Standard tool catalogue.

Please inform us if you use tools and equipment different to those on the list.

Tools and aids required for the following work are listed below.

Part number	Designation	Note	Illustration
<ul style="list-style-type: none"> • Only use conventional tested workshop tools. 			
1237369	Standard tools for service technicians (EMER)	Case with mechanical hand tools and foam inserts For details see TA 1310-0011	 Illustration for information only
7005291	Mounting aid for J624 mixture coolers	Device for removing and installing the high-pressure and low-pressure mixture cooler	

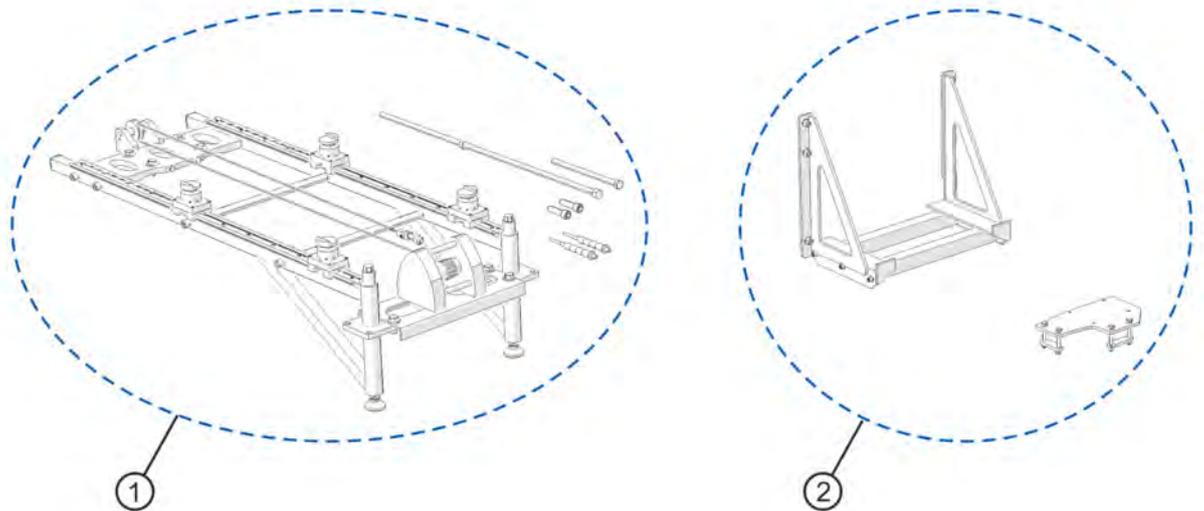
Part number	Designation	Note	Illustration
----	Lubricating grease	e.g.: Avialith 2 EP	 Illustration for information only

5 Additional information



The "Mounting aid for J624 mixture coolers" is a special tool for removing and installing the mixture cooler in J624 engines.

The mounting aid consists of a unit for the high-pressure (HP) mixture cooler and a unit for the low-pressure (LP) mixture cooler.



General view of the mounting aid for the high-pressure mixture cooler and the low-pressure mixture cooler.

①	Mounting aid for the high-pressure (HP) mixture cooler unit
②	Mounting aid for low-pressure (LP) mixture cooler unit



Required lifting equipment

Using the mounting aid for replacing the mixture cooler requires a crane with the following minimum specifications:

- Gantry crane with a minimum load capacity of 1 tonne, minimum suspension height 2.5 metres



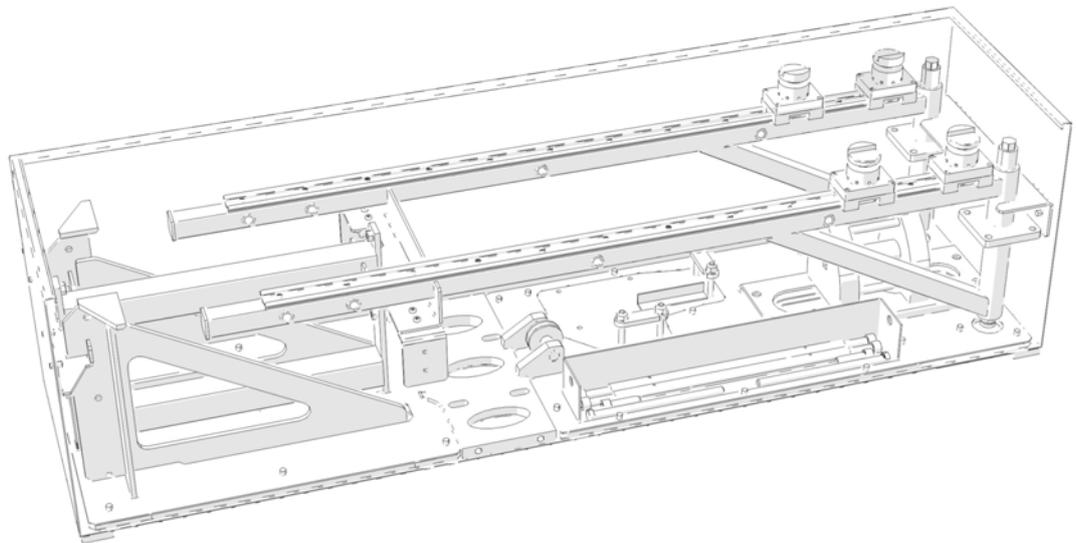
Work cannot be done by one person

The nature of the activity or the weight or nature of the parts requires at least 2 persons.

Shipping crate



The "Mounting aid for J624 mixture coolers" is delivered in a shipping crate. The shipping crate is used for safe transport and proper storage of the mounting aid.



General view of the shipping crate with correctly inserted mounting aid components

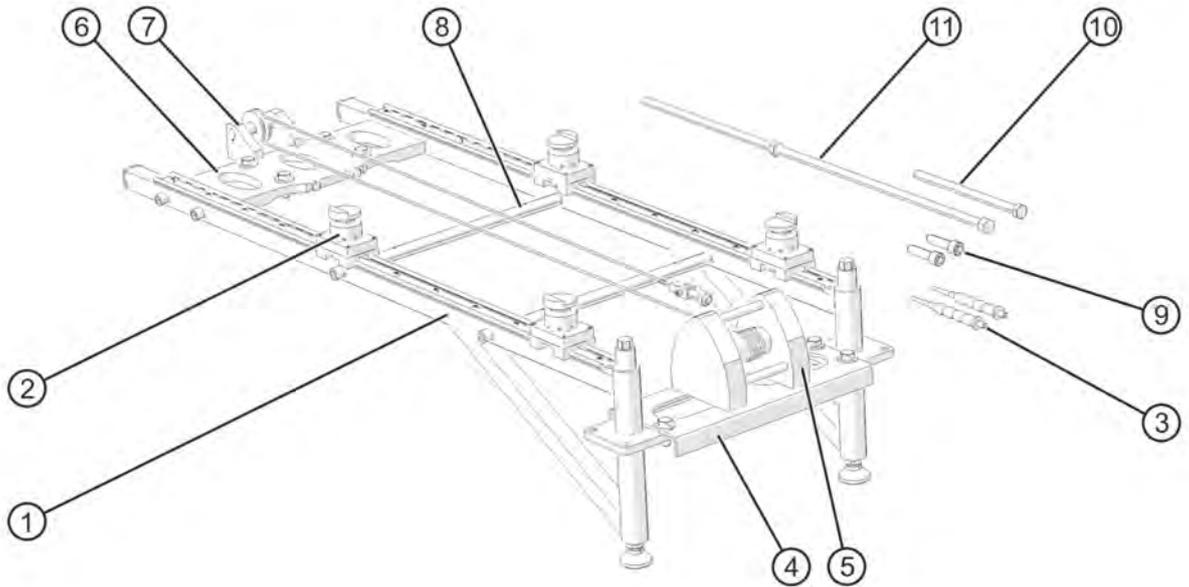
Relevant documents:



- TA 1100-0105 — Engine shut-down
- TA 1310-0010 — Special tools catalogue
- TA 1310-0011 — Standard tool catalogue
- TA 2300-0010 — Guidelines for using the LOTO kit
- FSM 624.04.010 —

6 General view

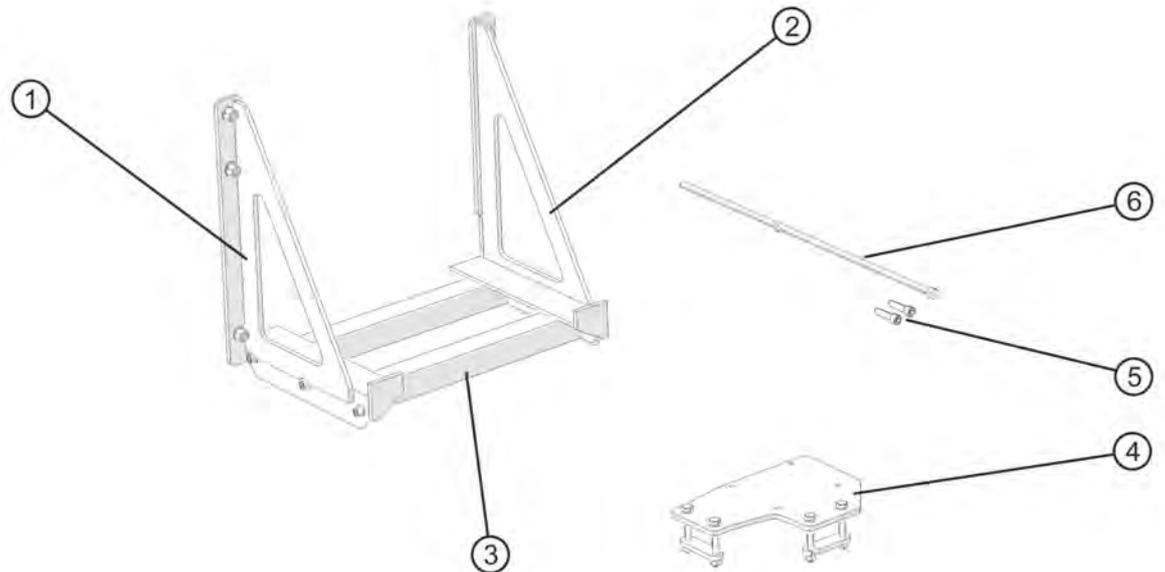
Mounting aid for the high-pressure (HP) mixture cooler unit



General view of mounting aid for HP mixture cooler

①	Support post (2x)
②	Support bracket, adjustable (4x)
③	Pin (2x) for height adjustment of the support brackets
④	Adapter plate for cable winch
⑤	Cable winch
⑥	Adapter plate for deflector pulley
⑦	Deflector pulley
⑧	Crossbar (2x)
⑨	Jacking bolt (2x) – ball pressure screw M16x60
⑩	Stop screw – Allen screw M16x260
⑪	Mounting aid – threaded rod M16 incl. nut

Mounting aid for low-pressure (LP) mixture cooler unit



General view of mounting aid for LP mixture cooler

①	Bracket left
②	Bracket right
③	Support
④	Adapter plate – optional for use with cable winch
⑤	Jacking bolt (2x) – ball pressure screw M16x60
⑥	Mounting aid – threaded rod M16 incl. nut

7 Mounting aid for high-pressure mixture cooler

7.1 Assembling and disassembling the mounting aid

Assembling the mounting aid:

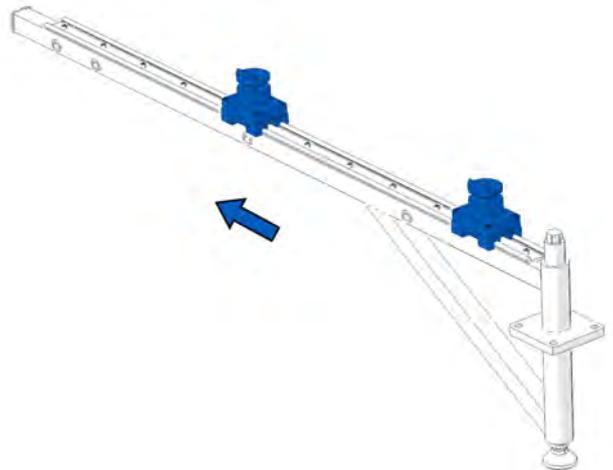
- Remove the support brackets from both support posts. using 4 screws



When **disassembling the mixture cooler**, the support brackets are re-attached to the support posts only during disassembly.

When **assembling the mixture cooler**, the support brackets must be positioned at the mounting aid before assembly.

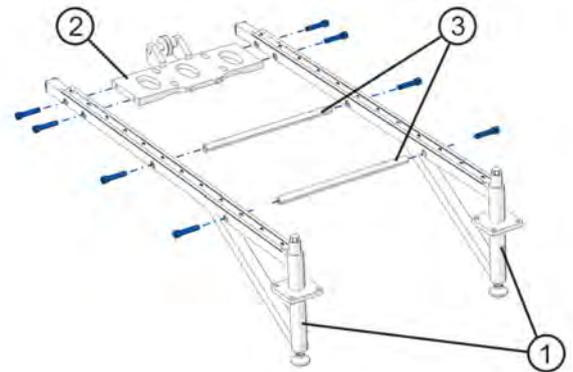
See also Section ⇒ Positioning the support brackets.



- Join the two support posts ① and adapter plate deflector pulley ② with the two crossbars ③ using 8 screws



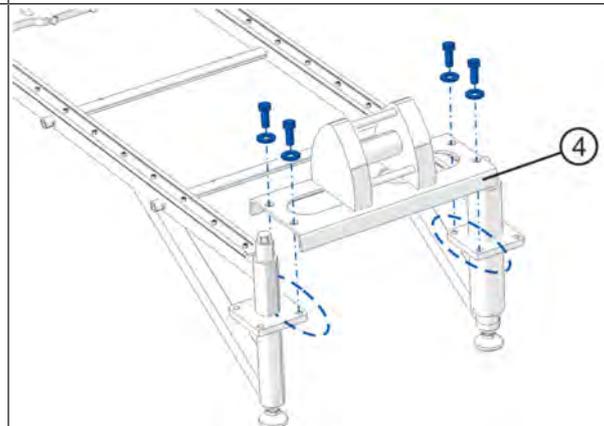
Screw connection:
hexagon socket head cap screws M16x70



- Screw the adapter plate for the cable winch ④ to the support posts using 4 screws



Screw connection:
spring washer and hexagon head screw M16x40



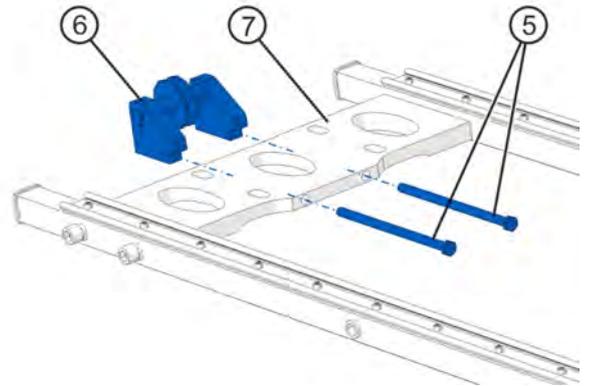


To disassemble the high-pressure mixture cooler, the deflector pulley must be removed from the adapter plate.

- Loosen the screw connection ⑤ between the deflector pulley ⑥ and the adapter plate ⑦ and remove the pulley.

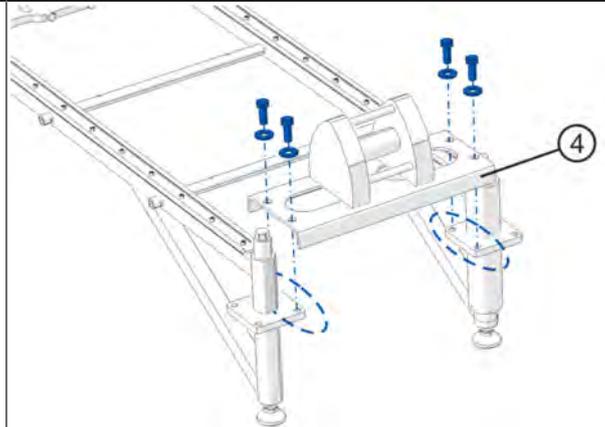


Screw connection:
hexagon screw M12x220

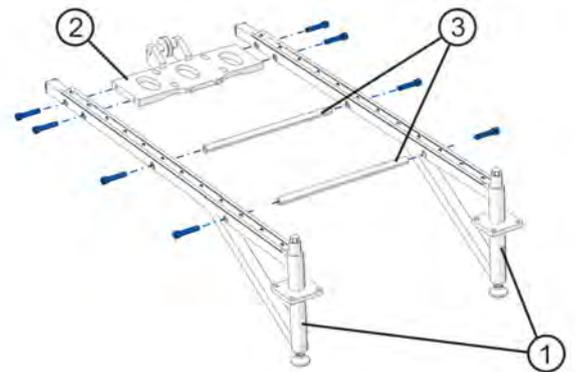


Dismantling the mounting aid:

- Remove the four screws connecting the adapter plate for the cable winch ④ and the support posts. using 4 screws



- Remove the eight screws connecting the two support posts ①, the adapter plate for the deflector pulley ② and the two crossbars ③. using 8 screws



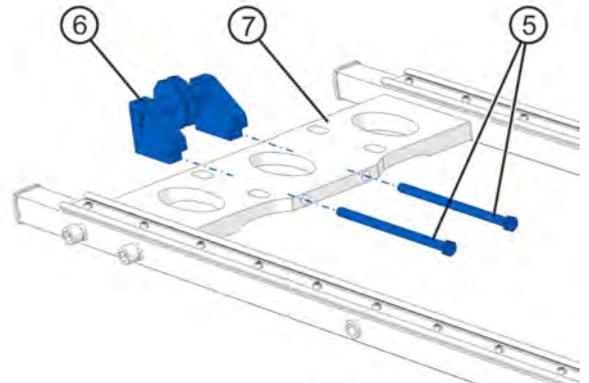


To store the adapter plate properly in the shipping crate, the deflector pulley must be mounted on the adapter plate.

- Screw the deflector pulley ⑥ to the adapter plate using two screws.



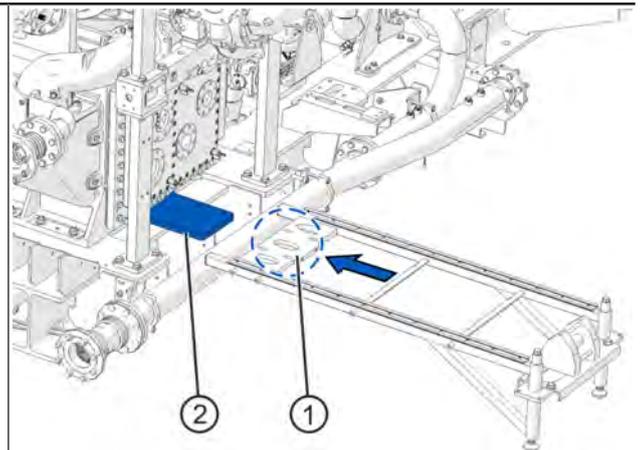
Bolted joint
hexagon screw M12x220



7.2 Attaching the mounting aid on the engine unit / removing the mounting aid

Attaching the mounting aid:

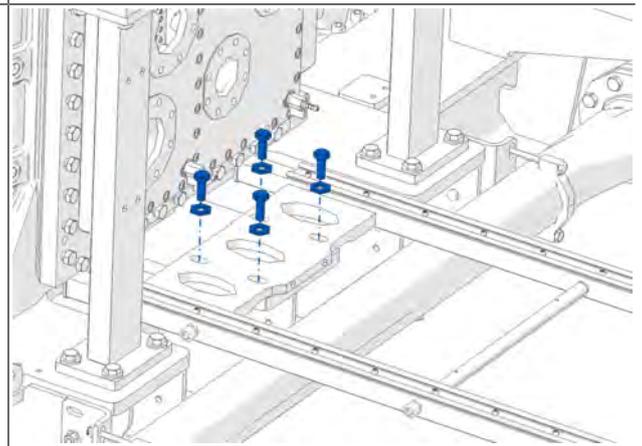
- Position the mounting aid with the hole pattern for the deflector pulley adapter plate ① on the bracket for the turbocharger console ②.



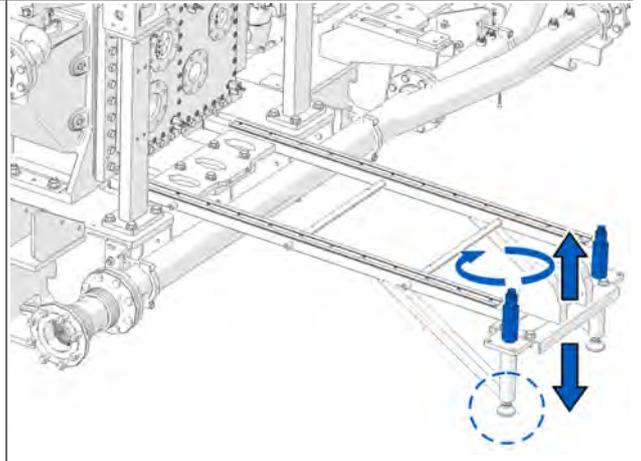
- Fasten the mounting aid using 4 screws



Screw connection:
spring washer with hexagon head screw M16x40

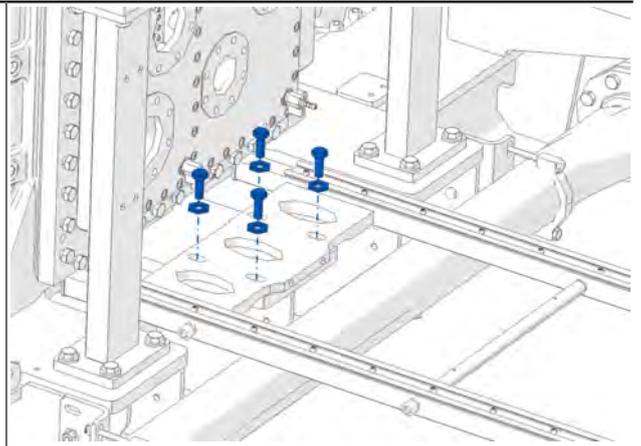


- Once attached, align the mounting aid with the height-adjustable support posts using a spirit level.

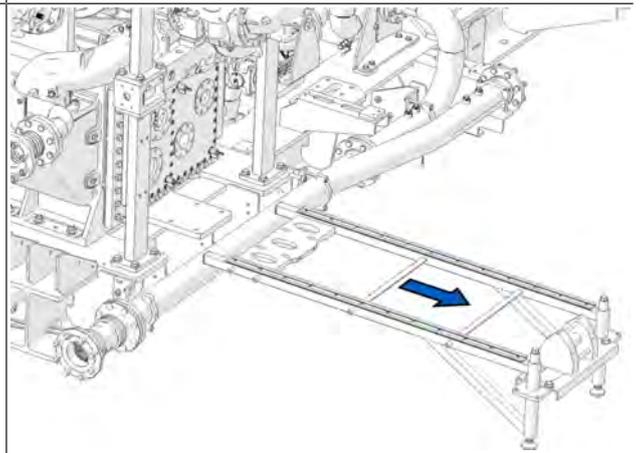


Removing the mounting aid:

- Remove the four screws holding the mounting on the bracket. using 4 screws



- Remove the mounting aid from the engine unit.



7.3 Positioning the support brackets

Before attaching the high-pressure mixture cooler to the mounting aid, the support brackets must be positioned within the yellow marking strips on the support post, or alternatively according to the dimensions. See the diagram below:

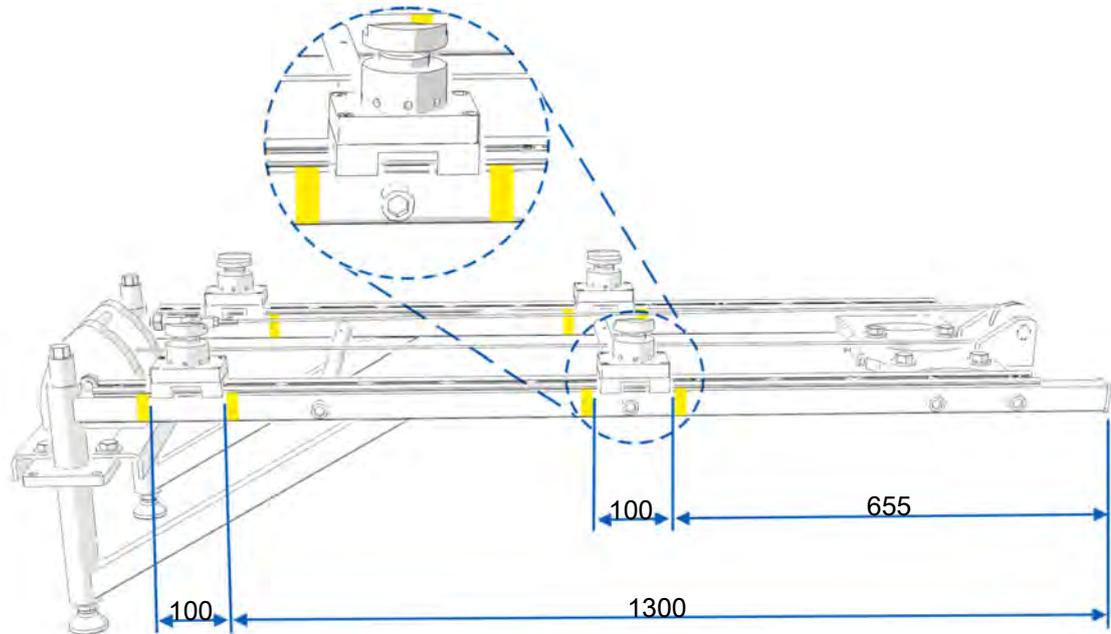


Lubricate the guide rail with grease before attaching the support brackets.

For grease specification see Section ⇒ Required tools, equipment and materials.



The support brackets have to be positioned correctly in order to be able to mount the mixture cooler properly.



Marking strips and dimensions for positioning the support brackets. All dimensions in mm.

The height of the support brackets can be adjusted with the aid of the special pins included in the scope of delivery.

8 Mounting aid for low-pressure mixture cooler

8.1 Attaching the cable winch to the unit / removing the cable winch

Attaching the cable winch

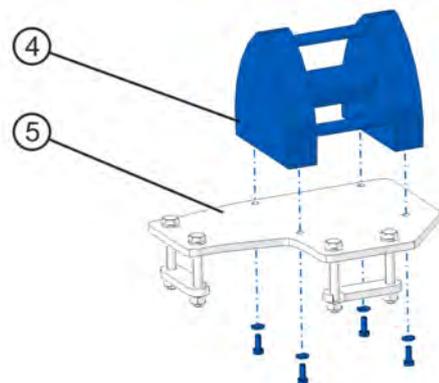


If required, the cable winch can be used for dismantling the low-pressure mixture cooler.

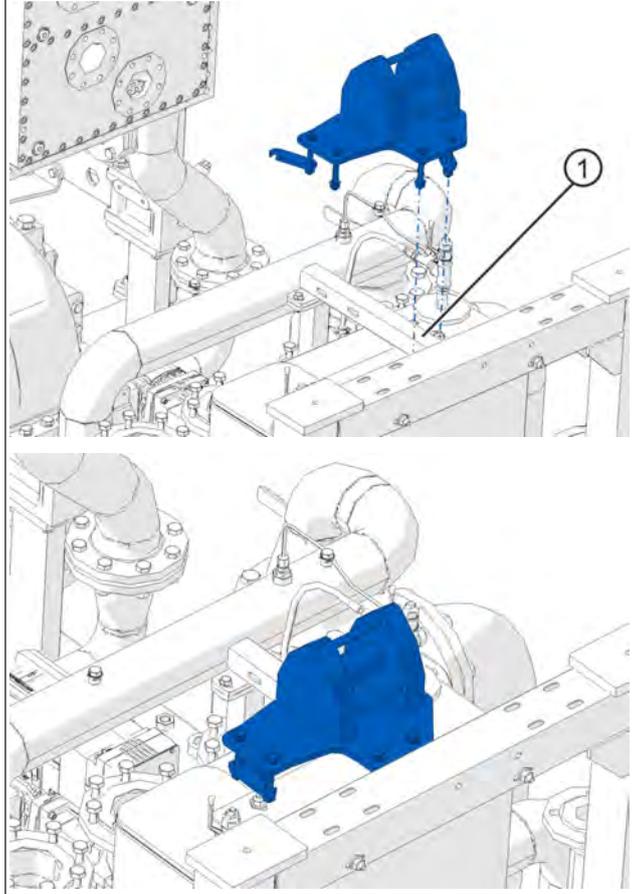
- Fasten the cable winch ④ to the adapter plate using 4 screws



Screw connection:
spring washer and hexagon head screw M8x20

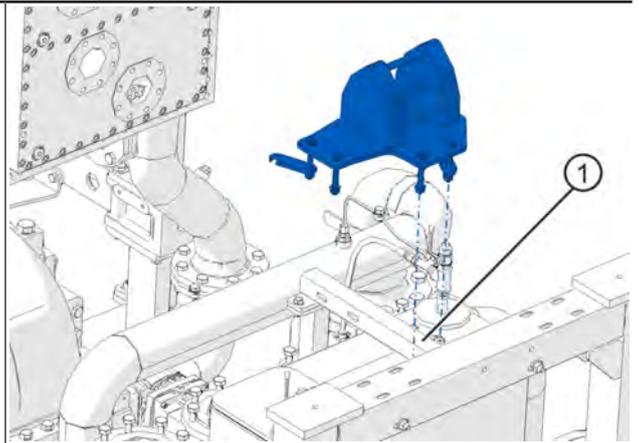


- Attach the complete cable winch to the frame of the heat exchanger assembly ①.



Removing the cable winch

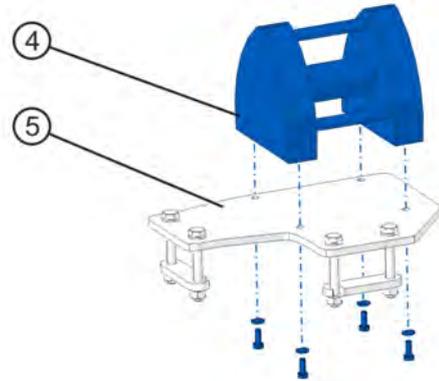
- Remove the complete cable winch from the frame of the heat exchanger assembly ①.





To store the adapter plate properly in the shipping crate, the cable winch must be dismantled.

- Remove the cable winch ④ from adapter plate ⑤ using 4 screws



8.2 Attaching the mounting aid on the engine unit / removing the mounting aid

Attaching the mounting aid:

The mounting aid for the low-pressure mixture cooler is attached during the disassembly of the mixture cooler.

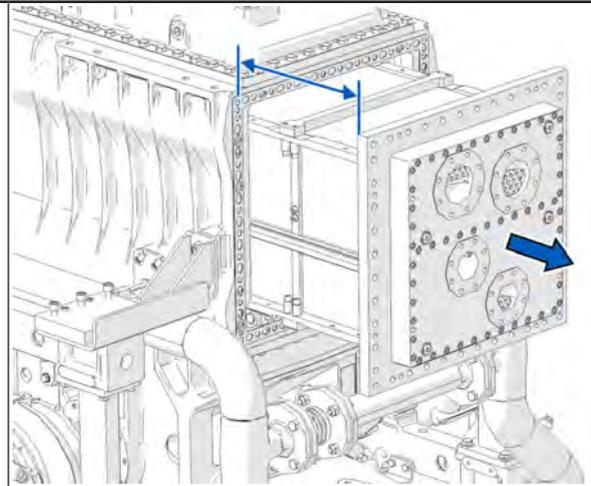
In order to attach the mounting aid, the mixture cooler must be extended by 420 mm.



For extending the low-pressure mixture cooler see **FSM 624.04.010** .



- Extend the low-pressure mixture cooler according to **FSM 624.04.010** by **420 mm** from the housing.



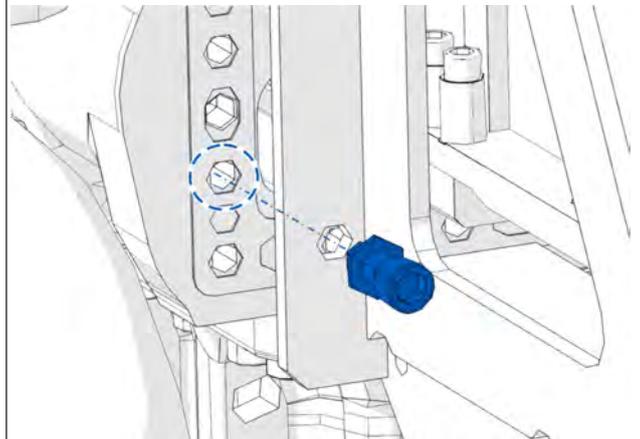
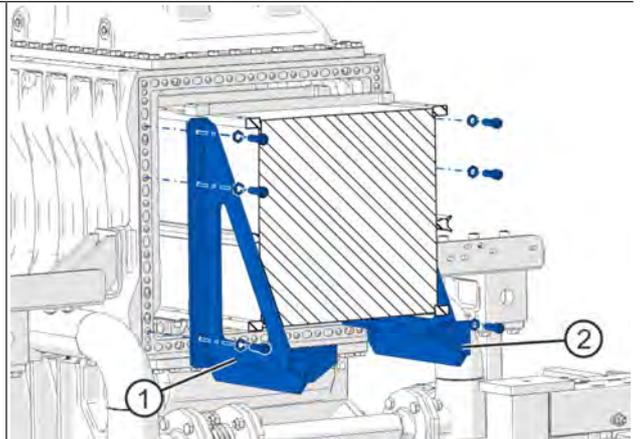


The lowest screw of the holder must engage in the third threaded hole from below so that the mixture cooler can be pushed continuously from the housing onto the mounting aid.

- Attach the holder on the left ① and right ② to the mixture cooler housing using three screws for each holder.



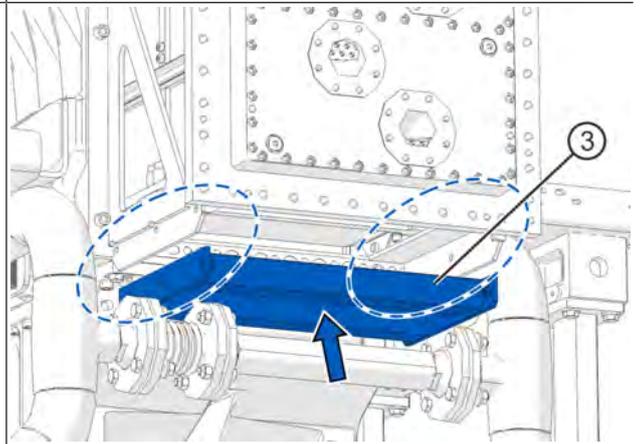
Screw connection:
washer and cylinder head screw with hexagon socket M16x40

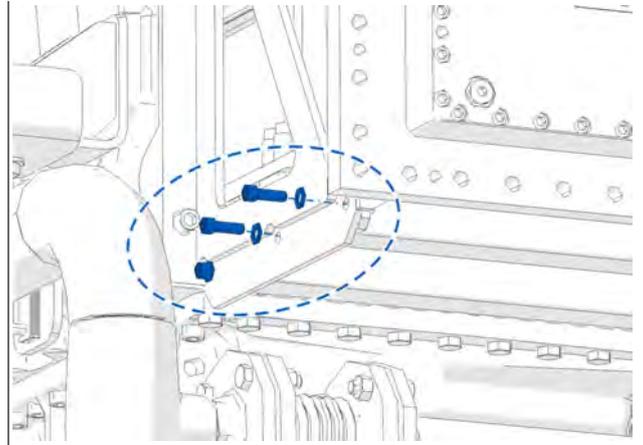


- Place the support ③ from below between the two holders and fasten it to the holders using three screws for each holder.



Screw connection:
washer and cylinder head screw with hexagon socket M12x35





Dismantling the mounting aid:

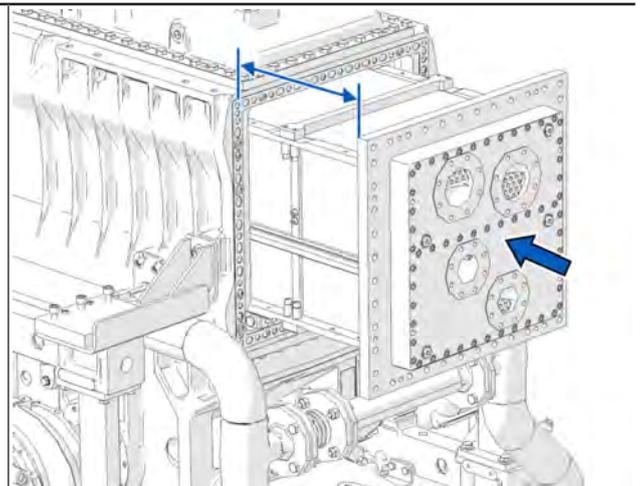
The mounting aid for the low-pressure mixture cooler is removed when the mixture cooler is mounted. Remove the mounting aid once the mixture cooler has been pushed 420 mm into the housing.



For installation of the low-pressure mixture cooler see **FSM 624.04.010**.



- Push the low-pressure mixture cooler **420 mm** into the housing according to **FSM 624.04.010**.



⚠ ATTENTION



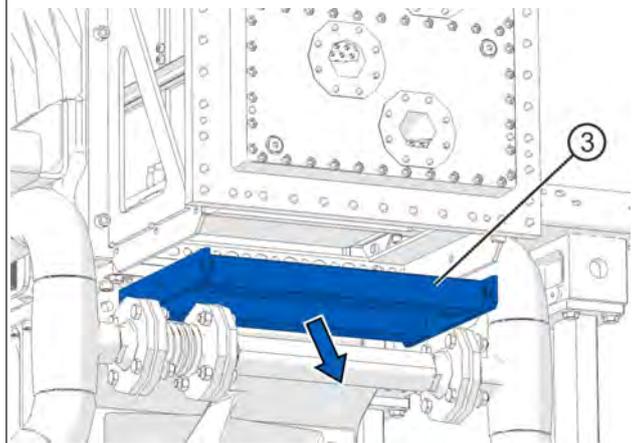
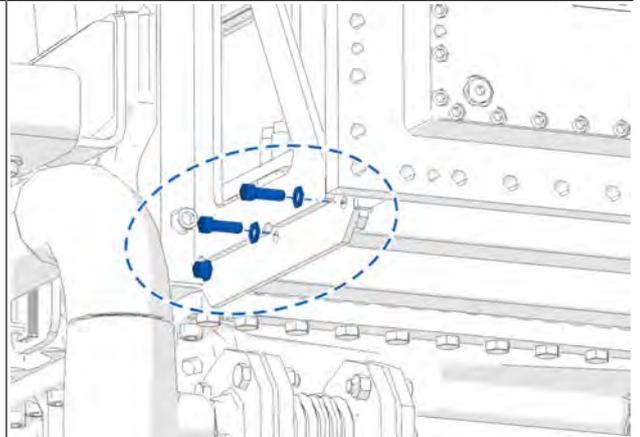
Loose components of the mounting aid may drop off!

The support may drop down, once the last screw connection of the support has been removed!

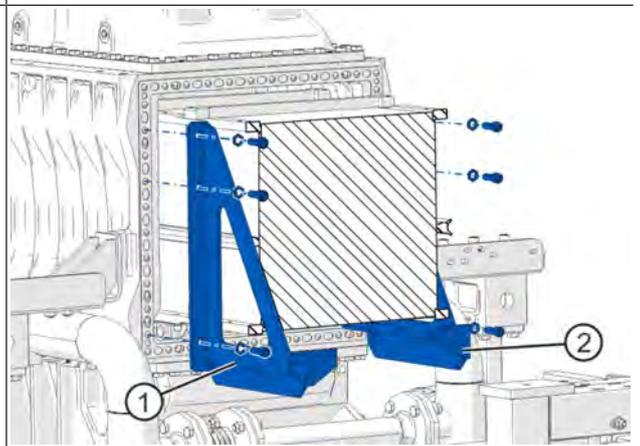
- Perform the following steps with two persons.
- Take care during the procedure.



- Remove the screw connection of the support ③ and carefully remove the support downwards.



- Loosen the screw connection of the holder on the left ① and the right ② and remove the holders from the mixture cooler housing.



9 Revision code

Revision history

Index	Date	Description / Revision summary	Expert Auditor
1	28.05.2019	Erstausgabe / First issue	Dengg J. / Rott M. Winterle H.