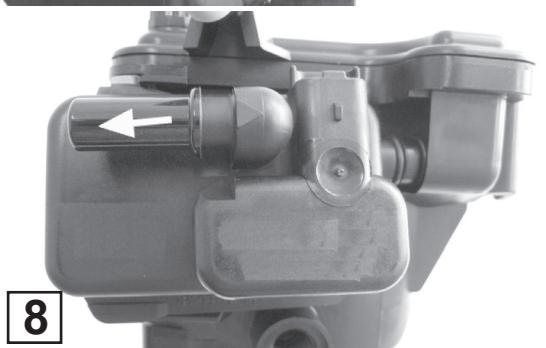
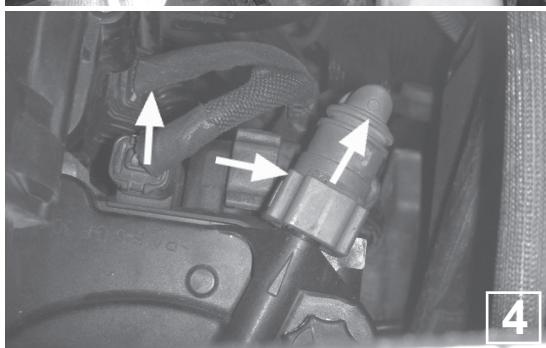
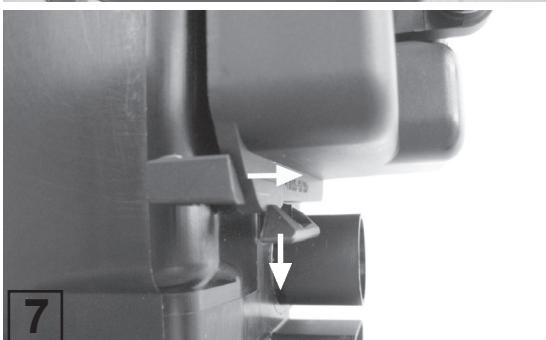
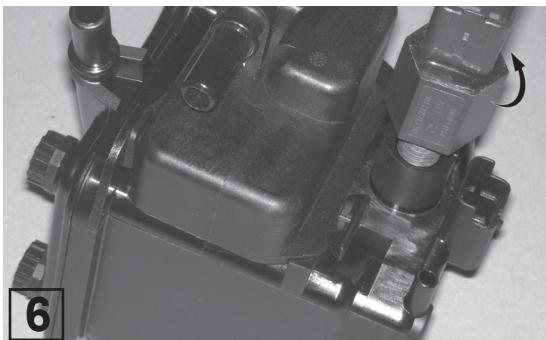
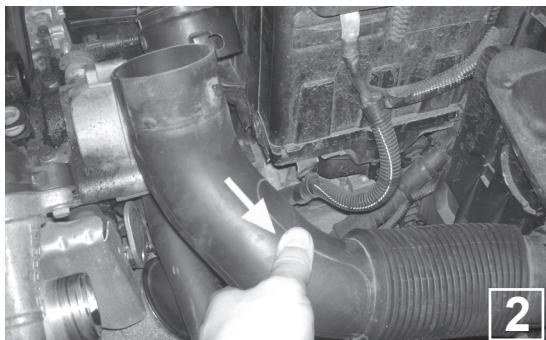
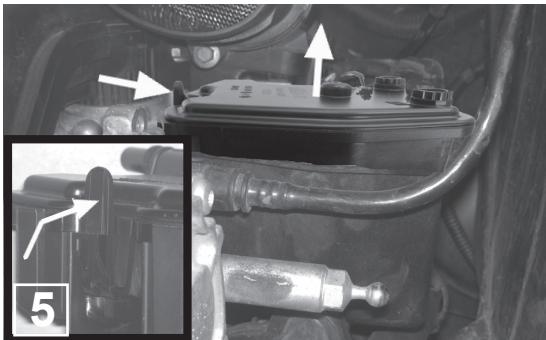
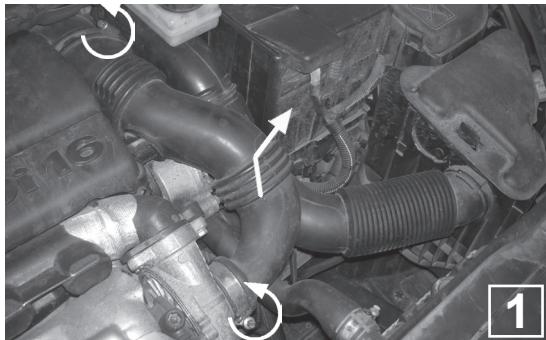
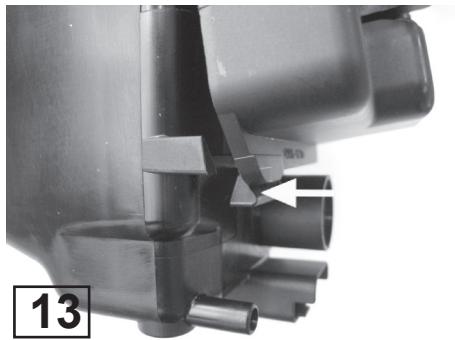
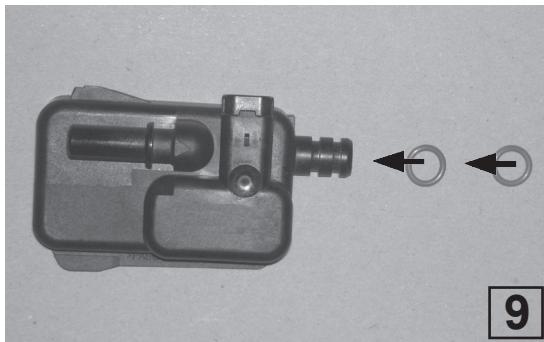


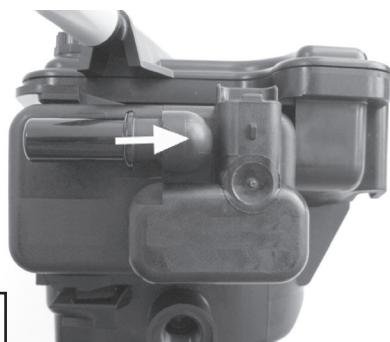
# KL 431 D



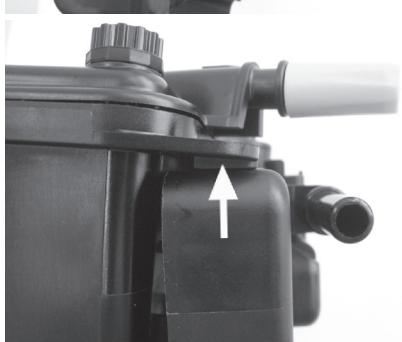
# KL 431 D



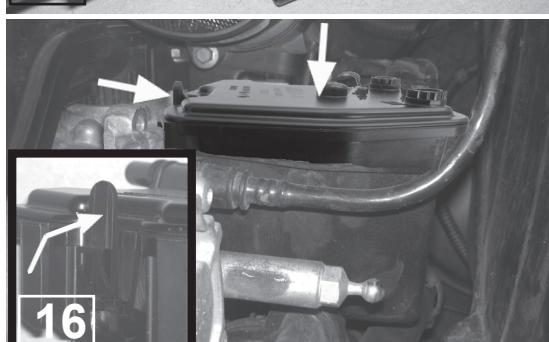
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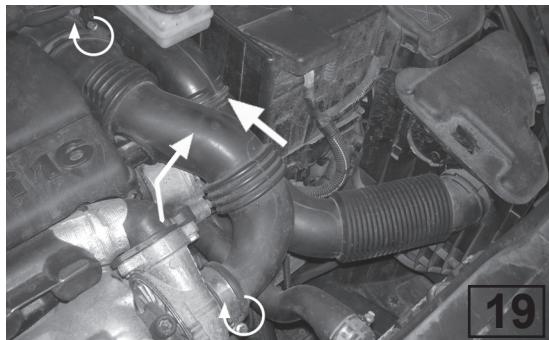
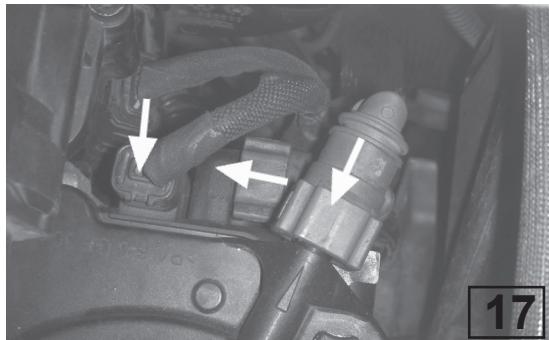
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# KL 431 D



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## Issue No. 5/2013: Modification information: KL431 becomes KL431D

### 1. NEW: HEATER UNIT O-RINGS INCLUDED

Two replacement O-rings are now included with KL431D for use on the heater unit.



### 2. NEW: CLIP-IN GEOMETRY FOR THE HEATER UNIT INSTALLATION

The heater mounting points for the KL431D feature a redesigned clip-in geometry for improved ease of mounting.



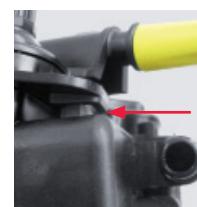
KL431



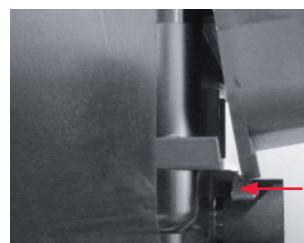
KL431D

As a result, the installation and removal process for the heater on the KL431D is as follows:

Insert the heater unit with the connecting pin into the mounting hole, while holding the heater unit with the upper locking pin diagonally to the filter. When the heater is inserted far enough into the mounting hole, the upper catch will lock into the clip.



Then, press the lower edge of the heater against the filter so that it can lock into the lower clip. Check that the part is correctly fitted by attempting to push it forwards in the direction of the mounting hole.

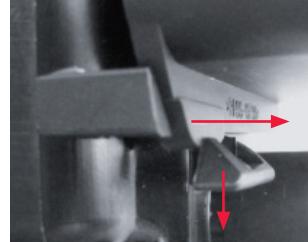




# Technical Messenger

**MAHLE**

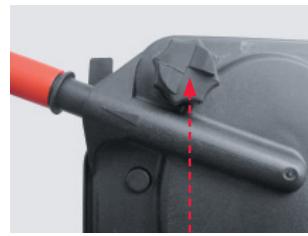
Removal: press the left-hand side of the lower clip downwards and push the lower edge of the heater forwards. Then pull the heater away from the filter and out of the mounting hole—in the opposite direction of installation.



## 3. NEW: TWO SCREWS FOR DRAINING WATER AND BLEEDING

The dual-purpose screw for draining water and bleeding has been replaced by two separate screws. Unscrew the water drain screw slightly to allow water to drain. The bleed screw should also be opened to prevent a vacuum forming in the filter due to the outflow of water, and to allow the complete volume of water to drain without obstruction. The bleed screw should be closed as soon as fuel flows, followed by the water drain screw.

A newly fitted filter is bled conventionally: fill the filter with fuel using a suction device, and leave the bleed screw open when the engine is first started until fuel flows out. Once fuel flows the bleed screw can be closed.



KL431

Water drain and  
venting/bleeding



KL431D

Water drain

Venting/  
bleeding



# Technical Messenger

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## Publication N° 1/2013: Montage de la sonde de niveau d'eau dans les filtres à gasoil KL418, KL431, KL581

Certains filtres à carburant à boîtier plastique sont équipés d'une interface servant à fixer une sonde de niveau d'eau. Cette sonde n'est pas montée sur tous les véhicules. Lorsque le filtre est neuf, le trou de montage fileté porte à son extrémité une mince paroi séparatrice visible et il semble être fermé.



Figure 1

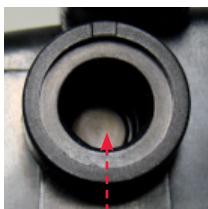


Figure 2

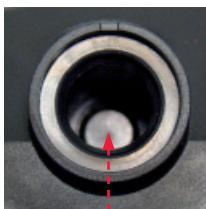


Figure 3

Lors du vissage de la sonde dans son emplacement, une forte résistance se fait ressentir, et la tête de la sonde vient traverser la paroi séparatrice à un point de rupture défini. On entend alors un bruit de craquement.

### CE CRAQUEMENT NE DOIT PAS VOUS ALARMER

Ce bruit et la résistance ne sont pas des signes de défaut : ni la sonde ni le filtre ne sont endommagés au cours du montage. La paroi séparatrice rompue ne passe pas à travers l'élément filtrant : elle reste sur le côté sale du filtre. Ceci garantit que tous les composants conservent leur entière fonctionnalité.

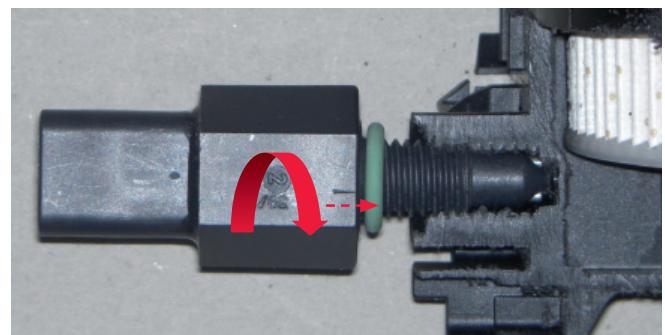


Figure 4: Lorsqu'elle est vissée dans le filtre à carburant en ligne, la sonde de niveau d'eau traverse la paroi séparatrice du filtre, ce qui produit un bruit de craquement.

Des enquêtes menées auprès de techniciens MAHLE Aftermarket spécialisés ont montré que le montage de ces filtres et, en particulier, le montage des sondes de niveau d'eau sont toujours la source d'incertitudes et des questions.