



Electro-hydraulic steering pump

General instructions for replacing the electro-hydraulic steering pump JER113 on a Ford Focus.

The process described here may vary depending on the vehicle type.



For safety reasons, all maintenance and repair activities may only be carried out by trained professionals in accordance with the latest directives, guidelines and specifications issued by the vehicle manufacturer. Steering assist pumps are safety related parts and should only be installed by trained specialists.

Before starting repairs, check that all the parts of the steering system that you will not be replacing are in perfect working order. This includes the steering gearbox with track rods, transverse control arms, trailing arms and all joints and rubber bearings. In addition, the visual condition and the function of the shock absorbers should be checked regularly (TRW recommendation – every 30,000 km). Take this opportunity to inform your customer about any other damage that may already be on the vehicle or may arise in the near future. Your customer will be grateful for the increased safety.

Note: An additional adapter cable is used during the repair described in the following. Ensure that you have this cable available in case it is required. Please note our publication XZB2010.



⚠ Attention: Important information for programming the pump can be found under: “3. Final work”!

1. Removal

1.1 Wheel arch liner



Remove the wheel arch liner at the front right and all panels which could make it more difficult to access the steering pump and its cables.

1.2 Removing the pressure line

First aspirate the hydraulic fluid from the pump container.



Release the threaded fitting of the pressure line and remove it from the pump.

Note: Collect a little of the hydraulic fluid and check if it contains any metal swarf. If this is the case, the steering system has to be checked and flushed.

1.3 Removing the return line



Remove the clamp from the return line using suitable pliers. Pull the return line from the pump.

1.4 Removing the retaining screws



Release and remove the three screws on the pump bracket.

1.5 Disconnecting the plug connector



Pull the pump with the bracket from its installation position and disconnect the plug connections. The pump can now be removed from the vehicle.

Note: Ensure not to damage the connectors and sockets when removing the cables!

2. Installation

2.1 Removing the headlight



Remove the right headlight according to manufacturer's instructions to gain better access to the pump container.

2.2 Installing the adapter cable



Compare the connecting socket on the new pump with the connector on the vehicle cable harness. If they do not match, use a suitable adapter cable.

Note: Please note the TRW publication XZB2010 described on page 1 of these instructions.

- **Without adapter cable:** If no additional cable has to be used, connect the connector on the vehicle cable harness to the pump.
- **With adapter cable** (shown in the video): Connect the adapter cable to the pump and the vehicle cable harness. Connect the earthing cable to the earthing point on the vehicle.

Note: Ensure to create a good earthing connection. Clean the earthing connection (note the manufacturer's corrosion protection instructions!) and do not use any corroded screws.

2.3 Installing the pump



Move the pump with the bracket into the installation position and fix the retaining screws with the torque specified by the vehicle manufacturer.

2.3.1 Connecting the hydraulic lines



Connect the pressure and return lines to the pump.

2.4 Filling and bleeding



Fill the supply tank for the pump with the hydraulic fluid defined by the vehicle manufacturer to the MAX marking. Then bleed the steering system according to the manufacturer's instructions.

2.5 Completing the vehicle



Re-install the headlight, the wheel arch liner and all other removed panels.

2.6 Returning the pump



Seal the connections for the hydraulic lines and the connecting socket with the plugs from the supplied replacement pump.

Note: Before returning the pump, consult the TRW publication XZS116 “Return criteria for replacement pumps”.

3. Final work

After installing electrical steering assist pumps, different steps may be required for programming depending on the vehicle type and the installed pump. Please observe the vehicle manufacturer's instructions.

The following applies for the pump JER113 described in these instructions: **# load/select map**

After installing the column drive/steering pump, specific maps need to be loaded into the memory of the column drive/steering pump ECU, with an appropriate diagnostic system. After loading the maps into the memory, the corresponding map for the vehicle needs to be activated in the column drive/steering pump.

Finally check the correct setting of the headlights and take the vehicle for a test drive.

More information and the complete video for replacing the pump can be found at our technical portal “Tech Corner” at: www.trwaftermarket.com.