The Tilt Hose kit (MD #304915) is for FM100 Float Modules. This kit replaces the hose holder and adds spacers to give the tilt hoses room to slide back and forth. This prevents potential leakage at the center-link cylinder. A list of parts included in the kit is provided.

NOTE: Keep your MacDon publications up-to-date. The most current version of this instruction can be downloaded from our Dealer-only site (https://portal.macdon.com) (login required).

Installation Time
The approximate installation time for this kit is 1/2 hour.

Conventions
The following conventions are used in this document:

- Right and left are determined from the operator’s position. The front of the header is the side that faces the crop; the back of the header is the side that connects to the combine.

- Unless otherwise noted, use the standard torque values provided in the header operator’s manual and technical manual.
Parts List

This kit includes the following parts:

![Figure 1: Parts Included in Kit MD #304915](image)

<table>
<thead>
<tr>
<th>Ref</th>
<th>Part Number</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>135224</td>
<td>CLAMP – DOUBLE HOSE INSULATED</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>304914</td>
<td>SPACER – HOSE CLIP</td>
<td>4</td>
</tr>
</tbody>
</table>
Installation Instructions

⚠️ DANGER

To avoid bodily injury or death from unexpected start-up or fall of raised machine, always stop engine, remove key, and engage safety props before going under header for any reason.

To install the FM100 Tilt Hose kit, follow these steps:

1. Lower the header to the ground.

2. Shut down the combine, and remove the key from the ignition.

3. At the front of the float module, locate tilt hose holder (A) beside the center-link.

4. Remove the two bolts (B) that secure hose holder (A) in place. Retain bolts (B) and discard the hose holder.
5. Place a spacer (A) (MD #304914) over each weld nut (B) where the hose holder was removed.

6. Run tilt hoses (A) (MD #213307 and MD #213308) through two p-clips (B) (MD #135224). Keep electrical harness (C) over the p-clips.

7. Secure the p-clips and spacers to the weld nuts using retained M10 x 16 mm bolts (A). Ensure the tilt hoses are able to slide back and forth through the p-clips.
8. Locate the steel clamp (A) that tilt hoses (B) (MD #213307 and MD #213308) run behind. The two remaining spacers (MD #304914) in the kit get installed on the weld nuts behind the clamp.

9. Loosen bolts (B) and remove steel clamp (A) (with p-clip and harness) from the weld nuts.

10. Install spacers (A) (MD #304914) onto the weld nuts, and then reinstall steel plate (with p-clip and harness) using existing bolts (B).
Tilt Hose Service kit (MD #311750) is for FM100 Float Modules that need tilt hose (MD #213308) replaced. The kit includes tilt hose (MD #311491) (which supersedes tilt hose MD #213308) and Tilt Hose Loosener kit (MD #304915).

The Tilt Hose Loosener kit (MD #304915) replaces the hose holder with P-clips and spacers to give the tilt hoses room to slide back and forth. This prevents potential leakage at the center-link cylinder. Instruction MD #215188 is included in the kit.

A list of parts included in the kit is provided.

**NOTE:** Keep your MacDon publications up-to-date. The most current version of this instruction can be downloaded from our Dealer-only site ([https://portal.macdon.com](https://portal.macdon.com)) (login required).

**Installation Time**

The approximate installation time for this kit is 1/2 hour.

**Conventions**

The following conventions are used in this document:

- Right and left are determined from the operator’s position. The front of the header is the side that faces the crop; the back of the header is the side that connects to the combine.

- Unless otherwise noted, use the standard torque values provided in the header operator’s manual and technical manual.
Parts List

This kit includes the following parts:

<table>
<thead>
<tr>
<th>Ref</th>
<th>Part Number</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>311491</td>
<td>HOSE – HYD, TILT BACK</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>21763</td>
<td>FASTENER – CABLE TIE, BLACK</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>304915</td>
<td>KIT – TILT HOSE LOOSENTER</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>135224</td>
<td>CLAMP – DOUBLE HOSE INSULATED</td>
<td>2</td>
</tr>
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<td>5</td>
<td>304914</td>
<td>SPACER – HOSE CLIP</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Includes clamps (MD #135224) and spacers (MD #304914).
Installation Instructions

⚠️ DANGER

To avoid bodily injury or death from unexpected start-up or fall of raised machine, always stop engine, remove key, and engage safety props before going under header for any reason.

To install the Tilt Hose Service kit, follow these steps:

1. Remove the two bolts (B) that secure hose holder (A) in place. Retain bolts (B) and discard the hose holder.

![Figure 1: Tilt Hose Holder](image1.png)

2. Loosen the two bolts on clamp (A).

![Figure 2: Hose Clamp](image2.png)
3. Tilt hose (A) (MD #213308) connects to port TA on the selector valve (B), and to the front fitting on the tilt cylinder (C). Cut the cable ties (D) and replace hose (A) with hose (MD #311491).

![Figure 3: Tilt Hose Routing](image)

4. Install Tilt Hose Loosener kit (MD #304915). Refer to installation instructions MD #215188.

   **NOTE:** After the Tilt Hose Loosener kit is installed, secure the tilt hoses with the cable ties (A) supplied in the kit.

![Figure 4: Kit MD #304915 Installed](image)