High Strength and Easy Installation for Ledger Fastening Applications

Simpson Strong-Tie has expanded the Strong-Drive® structural wood screw product line with fasteners designed to provide an easy-to-install, high-strength alternative to lag screws and through-bolts. The Simpson Strong-Tie® Strong-Drive SDWS Timber and SDWH Timber-Hex screws are ideal for securely attaching ledgers to structural wood members, are easier to drive than comparable fasteners and are coated for many exterior, preservative-treated wood and engineered wood applications. Code listed per IAPMO UES ER-192 and State of Florida FL 13975.

**Strong-Drive® Structural Screws**

- SawTooth™ point, serrated thread, and knurled shank reduce installation torque
- Double-barrier coating provides corrosion resistance equivalent to hot-dip galvanization, making it suitable for many exterior and preservative-treated wood applications
- Identification on all screw heads
- Installs best with a low-speed ½" drill motor with a T-40 bit (SDWS) or ⅜" hex drive (SDWH) (bit included in each package)

**SDWS TIMBER Screw**

- Low-profile washer head provides excellent bearing area and a clean look
- Deep, 6-lobe recess reduces cam-out, making driving easier

**SDWH TIMBER-HEX Screw**

- Large hex-washer head provides excellent bearing area for a secure connection
- Hex drive reduces cam-outs for easier driving

© 2018 Simpson Strong-Tie Company Inc.  S-F-SDWLGRTP18
### Strong-Drive® SDWS TIMBER and SDWH TIMBER-HEX Screws

#### Ledger-to-Rim-Board Assembly

- Exterior cladding and flashing not shown for clarity.
- Wood structural panel sheathing 1/8" max. thickness fastened per code.
- Rim board per table.
- SDWS screws staggered vertically spaced in accordance with table.

#### SDWS/SDWH Screw Spacing Detail

- 1/16" to 2" from top of ledger and rim board.
- 3" minimum row spacing, 6" maximum.

#### 2015 and 2012 IRC-Compliant Strong-Drive® SDWS Timber Screw Spacing for a Sawn Lumber Deck to Rim Board

<table>
<thead>
<tr>
<th>Loading Condition</th>
<th>Nominal Ledger Size</th>
<th>Screw Model No.</th>
<th>Rim Board Material and Minimum Size</th>
<th>Maximum Deck Joist Span</th>
<th>Maximum On-Center Spacing of Fasteners (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22400DB</td>
<td>1&quot; OSB</td>
<td>Up to 6 ft.</td>
<td>Up to 6 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22400DB</td>
<td>1&quot; OSB</td>
<td>Up to 10 ft.</td>
<td>Up to 8 ft.</td>
</tr>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22500DB</td>
<td>1&quot; OSB</td>
<td>Up to 12 ft.</td>
<td>Up to 12 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22500DB</td>
<td>1&quot; OSB</td>
<td>Up to 14 ft.</td>
<td>Up to 14 ft.</td>
</tr>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22500DB</td>
<td>1&quot; OSB</td>
<td>Up to 16 ft.</td>
<td>Up to 16 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWS22500DB</td>
<td>1&quot; OSB</td>
<td>Up to 18 ft.</td>
<td>Up to 18 ft.</td>
</tr>
</tbody>
</table>

1. SDWS screw spacing values are equivalent to the load requirements of 2015/2012 IRC Table R507.2 and 2009 IRC Table R502.2.2.1. The table provides SDWS screw spacing for a wide range of materials commonly used for band joists, and an alternate loading condition as required by some jurisdictions.


3. Fastener spacings are based on the lesser of single-fastener ICC-ES AC233 testing of the Strong-Drive SDWS screw with a safety factor of 5.0 or ledger assembly testing with a factor of safety of 5.0. Spacing includes NDS wet-service factor adjustment.

4. Multiple ledger piers shall be fastened together per code independent of the SDWS screws.

5. Rows of screws shall be vertically offset and evenly staggered. Screws shall be placed 1 1/2" to 2" from the top and bottom of the ledger or the band joist with 3" to 6" between rows and spaced per the table.

6. End screws shall be located 6" from the end and at 1 1/2" to 2" from the bottom of the ledger. For screws located at least 2" but less than 6" from the end, use 50% of the load per screw and 50% of the table spacing between the end screw and the adjacent screw, and for screws located between 2" and 4" from the end, predrill using a 1/8" drill bit.

7. Structural sheathing between the ledger and band joist shall be a maximum of 1/16" thick and fastened per code.

---

#### 2015 and 2012 IRC-Compliant Strong-Drive SDWH Timber-Hex Screw Spacing for a Sawn Lumber Deck to Rim Board

<table>
<thead>
<tr>
<th>Loading Condition</th>
<th>Nominal Ledger Size</th>
<th>Screw Model No.</th>
<th>Rim Board Material and Minimum Size</th>
<th>Maximum Deck Joist Span</th>
<th>Maximum On-Center Spacing of Fasteners (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 6 ft.</td>
<td>Up to 6 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 10 ft.</td>
<td>Up to 8 ft.</td>
</tr>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 12 ft.</td>
<td>Up to 12 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 14 ft.</td>
<td>Up to 14 ft.</td>
</tr>
<tr>
<td>40 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 16 ft.</td>
<td>Up to 16 ft.</td>
</tr>
<tr>
<td>60 psf Live</td>
<td>10 psf Dead</td>
<td>SDWH19400DB</td>
<td>1&quot; OSB</td>
<td>Up to 18 ft.</td>
<td>Up to 18 ft.</td>
</tr>
</tbody>
</table>

1. SDWH screw spacing values are equivalent to the load requirements of 2015/2012 IRC Table R507.2 and 2009 IRC Table R502.2.2.1. The table provides SDWH screw spacing for a wide range of materials commonly used for band joists, and an alternate loading condition as required by some jurisdictions.


3. Fastener spacings are based on the lesser of single-fastener ICC-ES AC233 testing of the Strong-Drive SDWH screw with a safety factor of 5.0 or ledger assembly testing with a factor of safety of 5.0. Spacing includes NDS wet-service factor adjustment.

4. Rows of screws shall be vertically offset and evenly staggered. Screws shall be placed 1 1/2" to 2" from the top and bottom of the ledger or the band joist with 3" to 6" between rows and spaced per the table.

5. End screws shall be located 6" from the end and at 1 1/2" to 2" from the bottom of the ledger. For screws located at least 2" but less than 6" from the end, use 50% of the load per screw and 50% of the table spacing between the end screw and the adjacent screw, and for screws located between 2" and 4" from the end, predrill using a 1/8" drill bit.

6. Structural sheathing between the ledger and band joist shall be a maximum of 1/16" thick and fastened per code.