



Lacing up Industry Nine Wheels

Important: *These instructions assume a fundamental knowledge of bicycle wheel construction. If you do not understand the terms or possess a passing familiarity with lacing and tensioning spoked bicycle wheels, please take them to a local bicycle shop and have them professionally built.*

Spoke Preparation

Industry Nine wheel kits are delivered with spokes in two lengths. Included will be 16 Drive Side Rear spokes, which are notably shorter than the 48 Non-Drive Rear/Front Wheel spokes. Our spokes are measured from the base of the hemispherical head (rim end) to the termination of the threads at the hub end. Our most common spoke lengths are as follows (in inches):

	Drive Side (rear)	Non-Drive (rear) & Front
All Mountain	10.000"	10.250"
UltraLite	10.050"	10.300"
Enduro	10.000"	10.175"
DH/FR	9.950"	10.125"
29'er	11.375"	11.575"

For ease of lacing and building, we recommend separating the spokes into groups for front and rear wheels. Make sure the 16 shorter spokes do not get mistakenly installed in any other position but the drive side of the rear wheel.

The threads of the spokes must be lubricated with one drop each of a light assembly lubricant. Factory lube is DuMonde Tech™ Liquid Grease. If this is unavailable, consider a heavy chain lube such as Finish Line Cross-Country™ or Pedro's SynLube™. We have found Phil's Tenacious™ to have too much adhesion for this application.

Lacing the Wheels

These instructions are written to lace the rear wheel first, which we feel reduces confusion by using the shorter spokes immediately. With familiarity, you may feel free to build the wheels in any order.

Rear Wheel

Orient a 32-hole rim so that the valve hole is at the 12 o'clock position with the plane of the rim perpendicular to your line of sight.

Drop two of the shorter length spokes (**10.00" All-Mtn and Enduro, 9.95" DH, 11.225" 29'er**) into the spoke holes immediately to the left, and second to the right, of the valve hole.

Hold the Industry Nine rear hub roughly in the center of the wheel, with the freehub body towards you. Thread the spokes into the threaded holes on the left and right sides, respectively, of the drive-side flange that line up with the two installed spokes. Once installed, these two spokes should be roughly parallel. Leave 4-5 threads exposed on each spoke.

Using these spokes as a guide, install the remaining drive-side spokes in alternating holes (every second hole) on the rim. Thread the spokes into the hub in a two-cross pattern. Note that the spokes will each only line up with one threaded hole on the hub. Leave 4-5 threads exposed on these spokes as well.

Once the drive side is complete, spokes should be installed in every other hole in the rim, with an empty hole between each pair of adjacent spokes. Flip the assembly over so that the disc side is towards you, and orient wheel so that the valve hole is again at 12 o'clock.

Using 16 of the 48 longer spokes (**10.25" All-Mtn, 10.175" Enduro, 10.125" DH, or 11.575" 29'er**), install the non-drive spokes in the same manner as the drive side. Begin with the holes immediately to the left and second to the right of the valve hole.

Ensure that the spokes adjacent to the valve hole are parallel, so that access to the valve will be unimpaired.

Install the remaining non-drive spokes, leaving 4-5 threads exposed on each spoke. Note that these spokes are also in a two-cross pattern, and will each only line up with a single threaded hole on the hub.

Continue by tensioning and truing the wheel, referring to the Build-Up sheet.



Front Wheel

Reminder: The threads of the spokes must be lubricated with one drop each of a light assembly lubricant. Factory lube is *DuMonde Tech™* Liquid Grease. If this is unavailable, consider a heavy chain lube such as Finish Line Cross-Country™ or Pedro's SynLube™. We have found Phil's Tenacious™ to have too much adhesion for this application.

Orient a 32-hole rim so that the valve hole is at the 12 o'clock position with the plane of the rim perpendicular to your line of sight.

Drop two of the 32 remaining longer spokes (*10.25" All-Mtn, 10.175" Enduro, 10.125" DH, 11.475" 29'er*) into the spoke holes immediately to the left, and second to the right, of the valve hole.

Hold the Industry Nine front hub roughly in the center of the wheel, with the disc flange away from you. Thread the spokes into the threaded holes on the left and right sides, respectively, of the non-disc side flange that line up with the two installed spokes. Once installed, these two spokes should be roughly parallel. Leave 4-5 threads exposed on each spoke.

Using these spokes as a guide, install the remaining non-disc side spokes in alternating holes (every second hole) on the rim. Thread the spokes into the hub in a two-cross pattern. Note that the spokes will each only line up with one threaded hole on the hub. Leave 4-5 threads exposed on these non-disc-side spokes as well.

Once the non-disc side is complete, spokes should be installed in every other hole in the rim, with an empty hole between each pair of adjacent spokes. Flip the assembly over so that the disc flange is towards you, and orient the wheel so that the valve hole is again at 12 o'clock.

Using the remaining 16 longer spokes, install the disc-side spokes in the same manner as the non-disc side. Begin with the holes immediately to the left and second to the right of the valve hole.

Ensure that the spokes adjacent to the valve hole are parallel, so that access to the valve will be unimpaired.

Install the remaining disc-side spokes, leaving 2-3 threads exposed on each spoke. Note that these spokes are also in a two-cross pattern, and will each only line up with a single threaded hole on the hub.

Continue by tensioning and truing the wheel, referring to the Build-Up sheet.