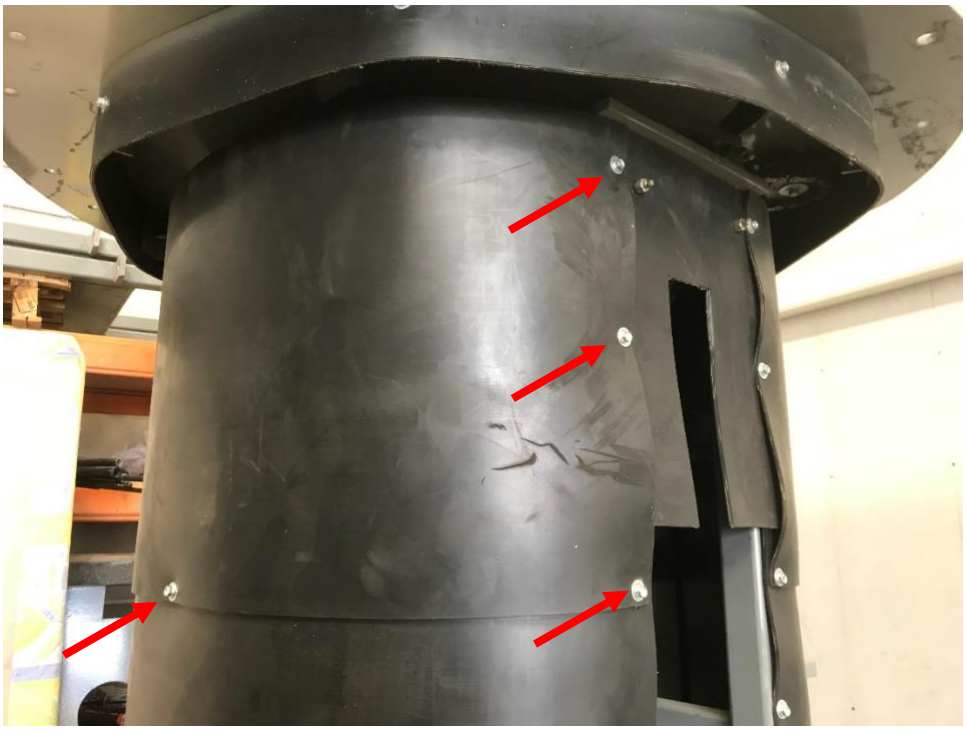
Replacing the shuttle wheels on the Turret Gate

Tooling

- 3/8 Tech bit
- Impact driver/Drill
- 7/16” or 11mm spanner
- 9/16” or 14mm spanner
- 2 x pry bars
- Container

Step 1 – Remove covers



Look through the rubber to make sure that you have the side that covers the motors.

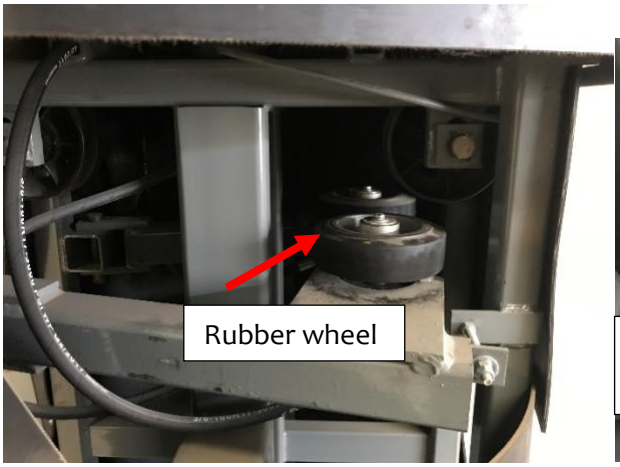
Using the 3/8” tech bit in the drill/driver remove the 4 tech screws holding the rubber cover on over the motors.

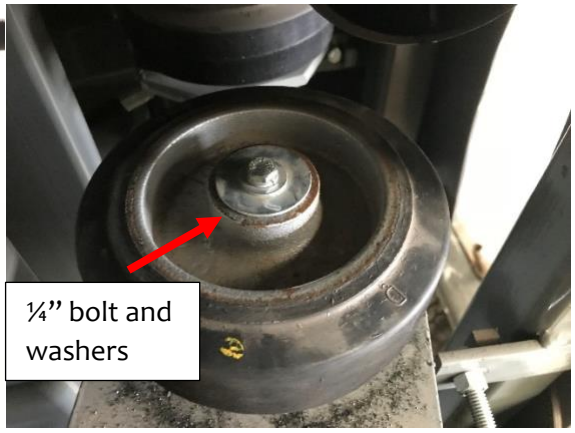
Place tech screw into the container to make sure that they are not lost.

Repeat process for the motor cover opposite

If not replacing the rubber wheel proceed to step 5

Step 2 – Remove bolt and washers



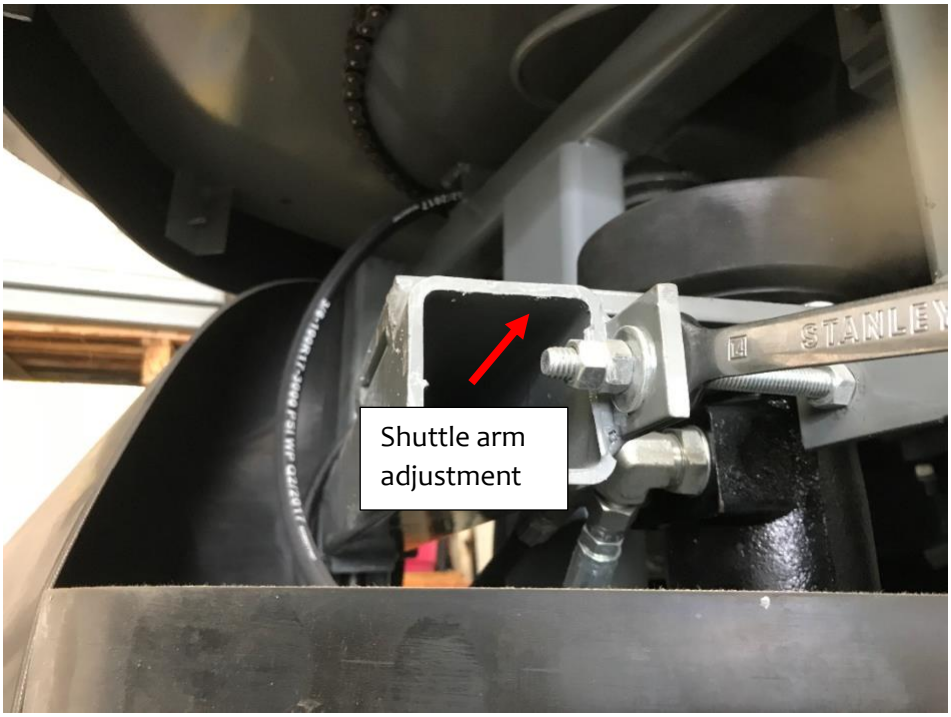


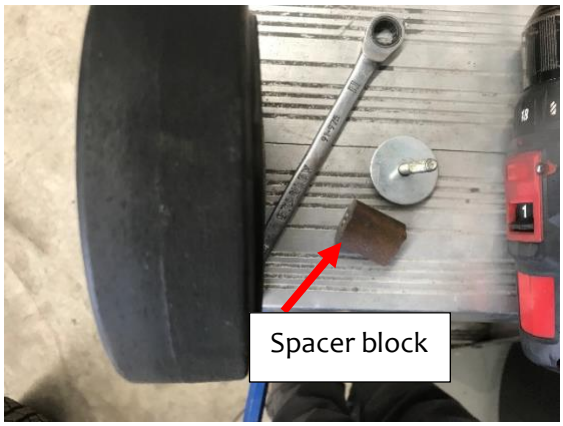
Using the 7/16” spanner remove the bolt and washers holding the rubber wheels in place.

Take note of the washer placement order on the bolt.

Place bolt and washers into the container

Step 3 – Remove rubber wheel



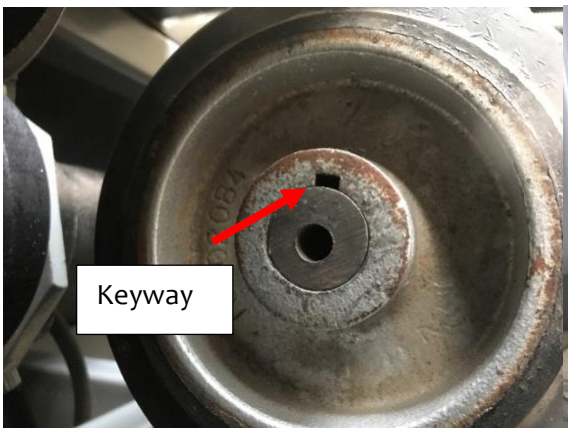


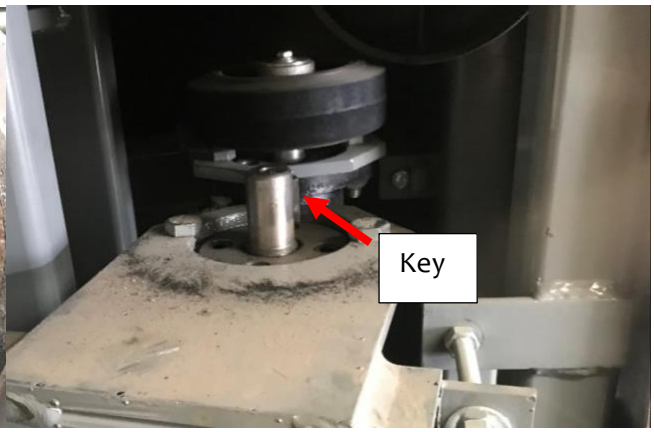
Using the 9/16" spanner, wind the 3 shuttle arm adjustment nuts to the outside of the thread. Work from the outside to the inside nuts.

Place the 2 pry bars under either side of the rubber wheel. Using even pressure on **both** bars gently lift the wheel up. Try to lift both at the same time to stop the wheel catching on the shaft.

Once the wheel is removed take the spacer block out of the wheel.

Step 4 – Replacing the rubber wheel





Clean up the motor shaft making sure that the shaft is smooth and even.

Making sure the key is in place before replacing the wheel, find the keyway on the replacement wheel and line up with the key on the motor shaft. Slowly push the replacement wheel onto the shaft, making sure not to force the wheel in case it is not correctly aligned.

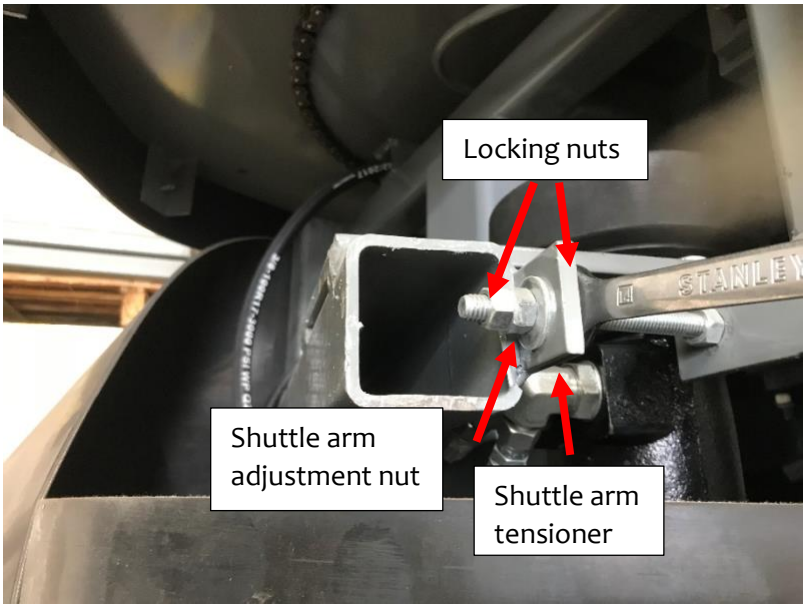
When the wheel is fully home replace the spacer block.

Replace the ¼" bolt making sure all of the washers are in place. Tighten bolt firmly.

Step 5 – Testing

With the tension off and make sure the motors/wheels are rotating and working correctly when they are not touching the gate. While the wheels are loose push the gate panel back and forth by hand to make sure it is rolling smoothly. Also check that the 4 rollers are greased, and the bearings are in good condition.

Step 6 – Adjusting the wheel



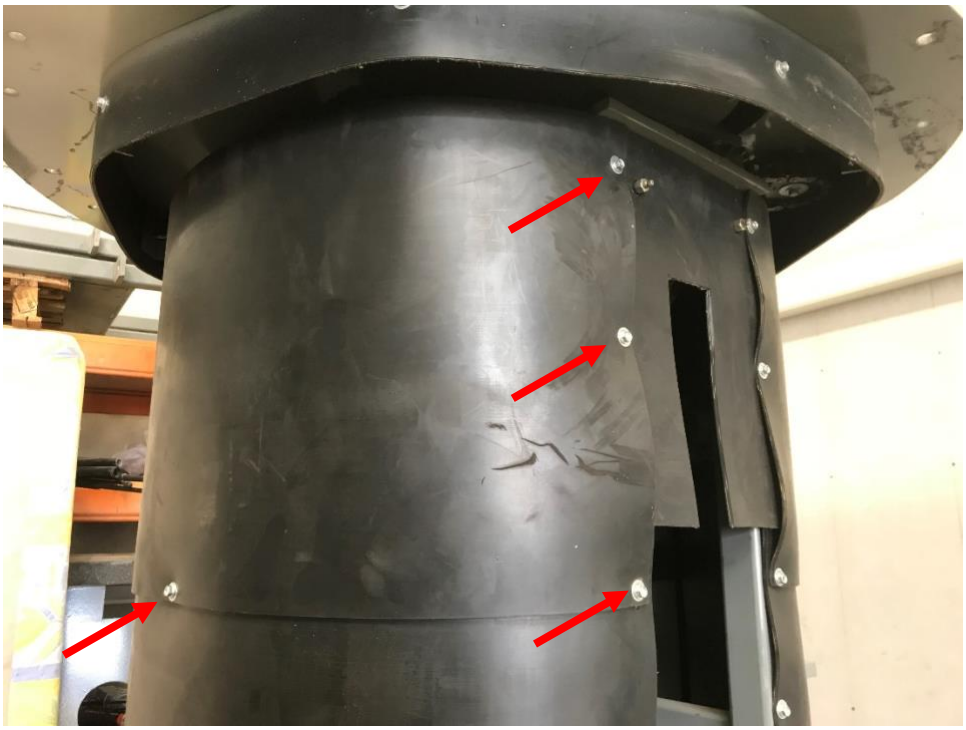
With the covers off (see step 1) find the shuttle arm tensioner. If not already loose, wind the tensioner back until the wheel is not touching the gate.

Start tightening the adjustment nuts – trying to keep the gate centered on the V-Groove rollers (don't get too far to one side). As they are adjusting the tension tighter stop occasionally to run the gate back and forth. If the tension is way too loose the wheels will spin on the steel and not shuttle the gate. If the tension is a little too loose the wheels will spin as the gate begins to move, and the gate may continue to slide for a bit after the lever is released. From that point keep tightening until the gate functions correctly – the wheels don't slip very much when starting the gate, and the gate stops when the hydraulic lever is released. If the adjustment nuts are overtightened too far the motors will stall against each other and the gate will not shuttle. If this occurs - back off the tension and it should be set.

Lock off the tensioner to stop any movement by winding the locking nuts into the tensioner.

Test operation before replacing the rubber cover.

Step 7 – Replace cover



Once satisfied that the gate is operating as required, use the 3/8” tech bit in the drill/driver replace the 4 tech screws holding the rubber cover in position. Use the original holes and do not overtighten.