# AS-35199 (Correa dentada 650)

## Retire AS-35199 (correa dentada 650)

Tiempo estimado de retirada: 15 minutos

**Herramientas necesarias:**

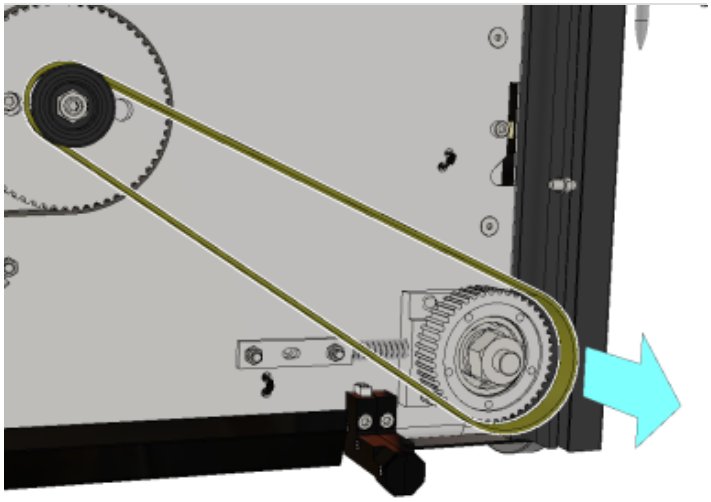
- Llave hexagonal - 4 mm
- Destornillador - Pozidrive PZ2
- Destornillador, ranura de 5 mm
- Llave inglesa - 8 mm

**Preparación:**

- Retire AS-35205 (SDG de la parte superior de la hoja) / AS-35646 (DDG de la parte superior de la hoja)[as-35205--sheet-top-sdg----as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Retire AS-35011 (Hoja trasera)[as-35011--r5----as-35942--r5----sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Retire AS-35012 (Hoja derecha)[as-35012--r5----as-35943--r5----sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e] → Cuando cinturón del lado derecho
- Retire AS-35013 (Hoja izquierda)[as-35013--r5----as-35944--r5----sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-9cf8dd0f-6f60-698e-6f1e-7a681d98068c] → Cuando cinturón del lado izquierdo
- Retire AS-35019 (Rueda y llanta)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] → Solo la rueda delantera. En este lado del Robot, donde se va a quitar el cinturón
- Aflojar AS-35199 (Correa dentada 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-eb7d6f90-8a9e-9f59-7e4d-38936133c2f7]

**Procedimiento:**

1. Retire la correa, comenzando desde el movimiento de la polea X (engranaje sin pestañas), luego desde el otro engranaje.



# Instalar AS-35199 (Correa de distribución 650)

Tiempo estimado de instalación: 15 minutos

**Herramientas necesarias:**

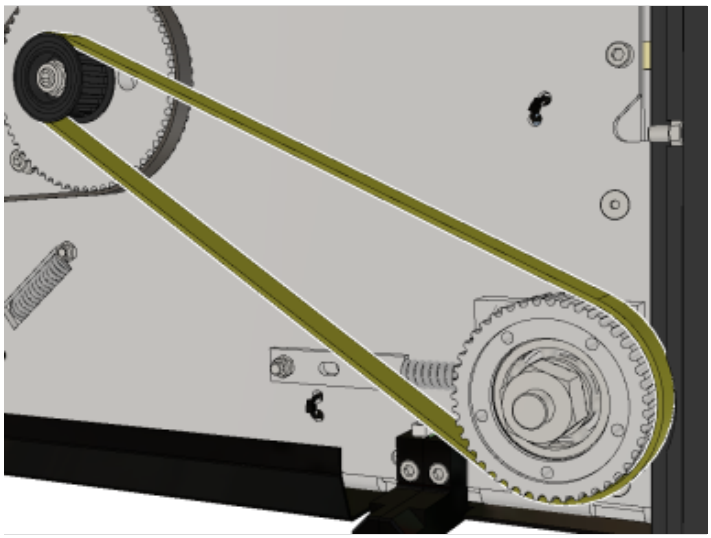
- Llave hexagonal - 4 mm
- Destornillador + pozidriv PZ2
- Llave inglesa - 8 mm

**Preparación:**

- Asegúrese de que el tensor AS-35199 (correa de distribución 650) esté en la posición de aflojamiento. De lo contrario, afloje AS-35199 (correa de distribución 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-eb7d6f90-8a9e-9f59-7e4d-38936133c2f7]

**Procedimiento:**

1. Coloque la correa en los engranajes como se muestra en la imagen.
2. Comience desde el engranaje en el conjunto del eje del engranaje (engranaje con bridas), luego en el segundo engranaje.



**Terminación:**

- Apriete AS-35199 (correa dentada 650)[as-35199--timing-belt-650-.html#UUID-501e7195-b73a-920a-9604-20525c612a66_UUID-364d5814-078a-f4da-29e3-2522b48a89cc]
- Instalar AS-35019 (Rueda y llanta)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-4b8e5716-7388-69a7-63a2-ed49da768e56]

- Instale AS-35013 (hoja izquierda)[as-35013--r5----as-35944--r5----sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-0fe7a960-8e1c-0cd9-efcc-6732da1ec22c] o Instale AS-35012 (hoja derecha)[as-35012--r5----as-35943--r5----sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-480c2c2e-1e84-e9cc-5cf3-285e92b3e32b]
- Instale AS-35011 (Hoja trasera)[as-35011--r5----as-35942--r5----sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-770524a6-795b-3ce1-c444-ef2d7880a405]
- Instale AS-35205 (SDG de parte superior de la hoja) / AS-35646 (DDG de la parte superior de la hoja)[as-35205--sheet-top-sdg----as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-67d6d688-0828-2123-11d3-b92cb6ca4d01]

# Aflojar AS-35199 (Correa dentada 650)

Tiempo estimado de retirada: 15 minutos

**Herramientas necesarias:**

- Hex key - 4 mm
- Screwdriver - Pozidriver PZ2
- Scredriver - slot, 5 mm
- Wrench - 8 mm

**Preparation:**

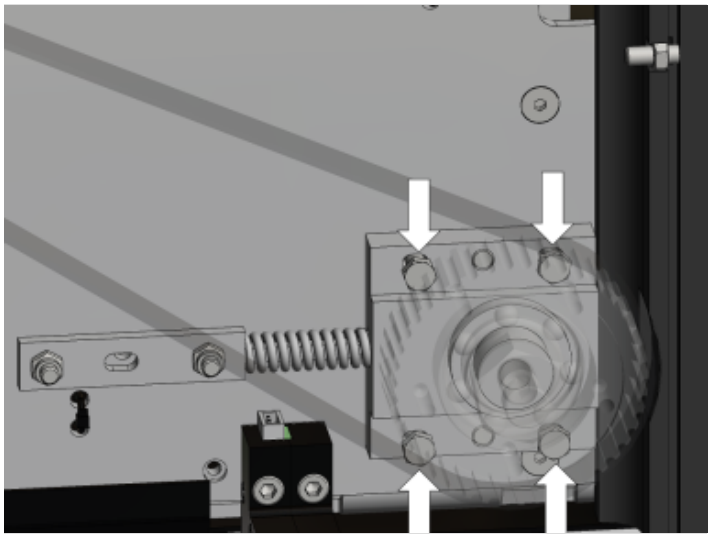
- Remove AS-35205 (Sheet top SDG) / AS-35646 (Sheet Top DDG)[as-35205--sheet-top-sdg----as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Remove AS-35011 (Sheet rear)[as-35011--r5----as-35942--r5----sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Remove AS-35012 (Sheet right)[as-35012--r5----as-35943--r5----sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e] → When right side belt
- Remove AS-35013 (Sheet left)[as-35013--r5----as-35944--r5----sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-9cf8dd0f-6f60-698e-6f1e-7a681d98068c] → When left side belt
- Remove AS-35019 (Wheel and rim)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] → Only the front wheel. On this side of the Robot, where you are going to loosen belt

**Procedure:**

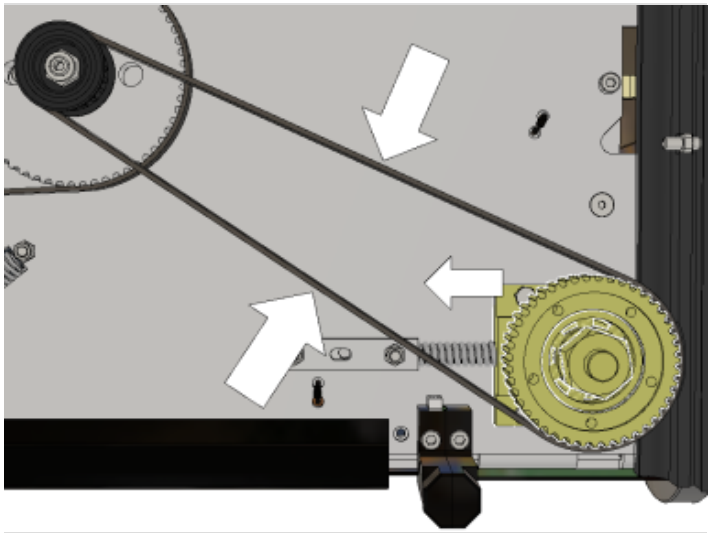
1. Loosen two M5x16mm and two M5x20mm hex screws (8mm wrench) on the WheelHub.

> **Note**
>
> Do not remove them or WheelBearingHouse.

> **Note**
>
> Screws should be loosened only a enough to allow the WheelHub to be able to move/slide (because of spring force).

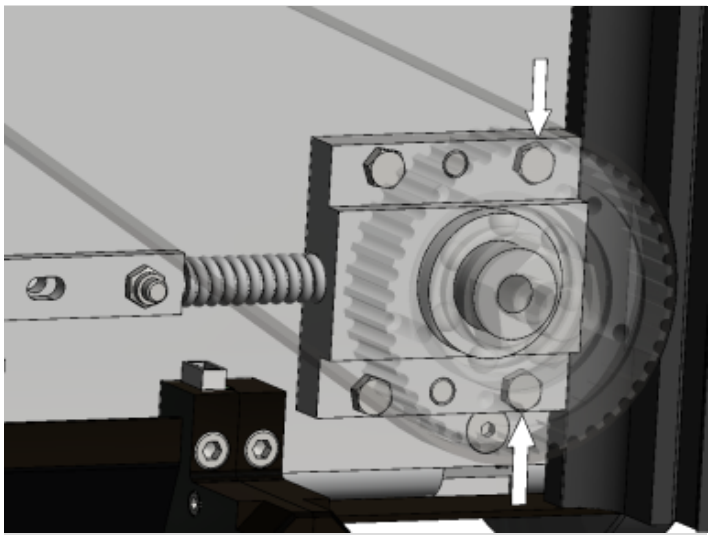


2. Push belt from both sides to compress a spring in the tensioner.
3. he WheelHub should slide back in position.
4. If it's impossible to use belt to compress the spring go here.



1. Still holding the WheelHub in position from previous step, tighten two M5x20mm hex screws (8mm wrench).

   Only tighten enough to keep the WheelHub in position.



# Tighten AS-35199 (Timing Belt 650)

Estimated installation time: 15 minutes

**Tools needed:**

- Hex key - 4 mm
- Screwdriver - Pozidrive PZ2
- Wrench - 8 mm
- Hz meter

**Preparations:**

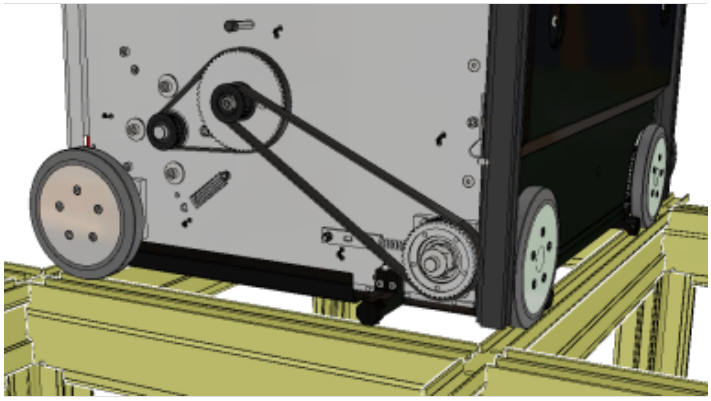
- Remove AS-35205 (Sheet top SDG) / AS-35646 (Sheet Top DDG)[as-35205--sheet-top-sdg----as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-9a96252c-e093-b3f9-9d3b-4de2dade2faf]
- Remove AS-35011 (Sheet rear)[as-35011--r5----as-35942--r5----sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-56eb0901-be2b-17b1-005e-ab3076196808]
- Remove AS-35012 (Sheet right)[as-35012--r5----as-35943--r5----sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-26b3d846-4d07-4a61-998c-ccafd5b19d1e] → When right side belt
- Remove AS-35013 (Sheet left)[as-35013--r5----as-35944--r5----sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-9cf8dd0f-6f60-698e-6f1e-7a681d98068c] → When left side belt

- Remove AS-35019 (Wheel and rim)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-d9642700-dc5e-64e3-0090-478497c3e47d] → Only the front wheel. On this side of the Robot, where you are going to tighten belt

**Procedure:**

**Caution**

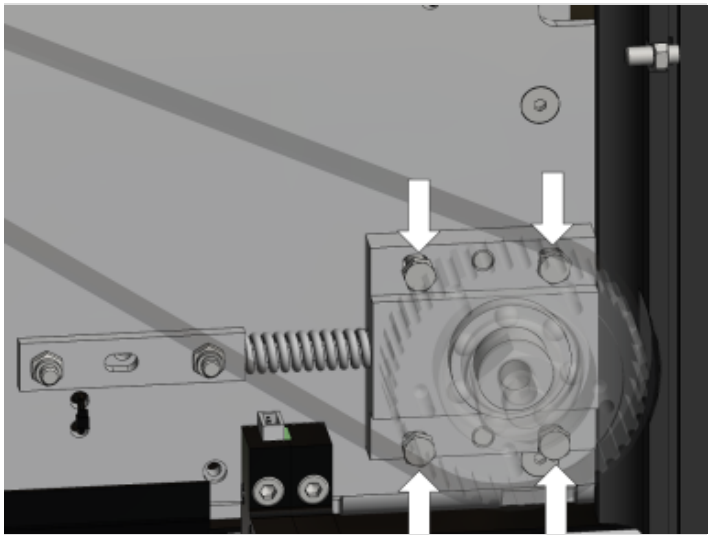
Make sure Robot wheels are in Y-drive position (Y wheels in maximum lower trackshift position - X wheels above the track) → X-drive transmission mechanism have to be free to move/revolve.



**Note**

This procedure shows how to tighten the belt after install. If You just need to measure belt tension,no need to remove any Robot wheel (as in picture).

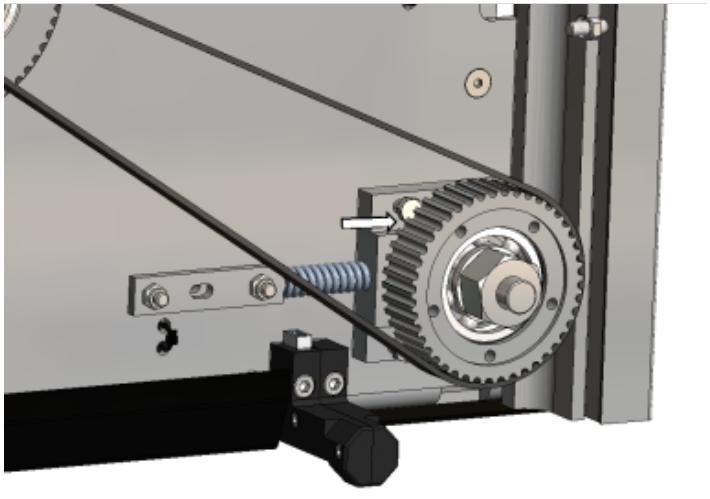
1. For wheel shift see here



2. Loosen two M5x16mm and two M5x20mm hex screws (8mm wrench) on the WheelHub, but do not remove them (no need to remove the WheelBearingHouse as well).

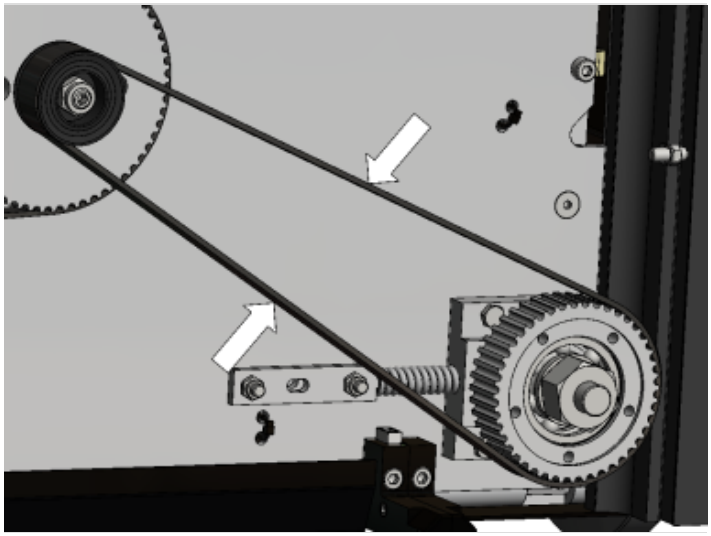
**Note**

Screws should be loosened only enough to allow the WheelHub to be able to move/slide (because of spring force).



3. If belt is slack - the WheelHub will slide back in position.

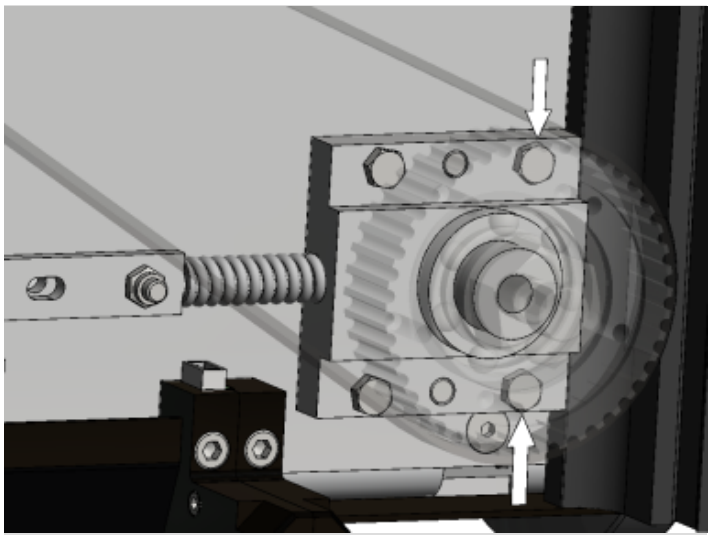
1. If the WheelHub won't slide back in position - try to push on belt by hand and then release.
2. The WheelHub should slide (smoothly) between two limit positions.



3. Tighten two M5x20mm hex screws (8mm wrench) on the WheelHub.

   Only tighten enough to keep the WheelHub in position (no need to remove the WheelBearingHouse).
4. Go to Measurement belt tension, find proper tension value for AS-10743 belt in the table.
5. Measure the belt.

> **Note**
>
> Make sure to use the correct measuring spot on belt.



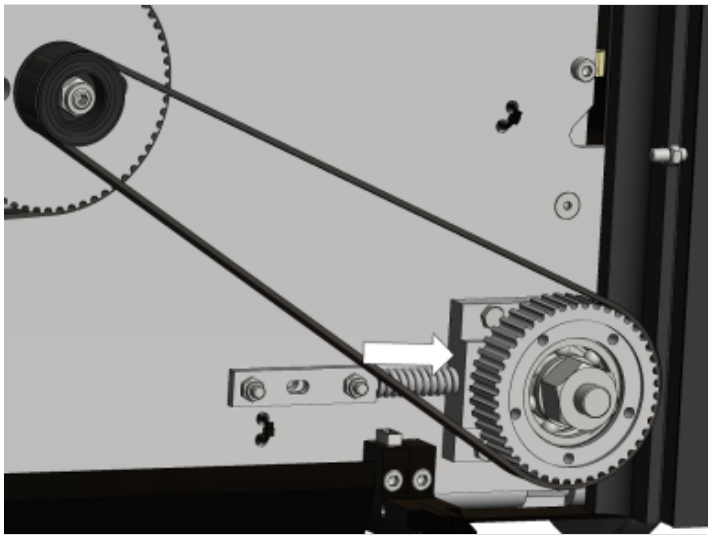
If tension is too low:

1. You have to adjust the position of the WheelHub manually and measure the belt tension again.
2. Use longitudinal piece of wood or hard plastic (hammer handle for example) and hammer.
3. Gently punch in point as arrow shows (picture) to move the WheelHub in position (punching direction the same as arrow shows).

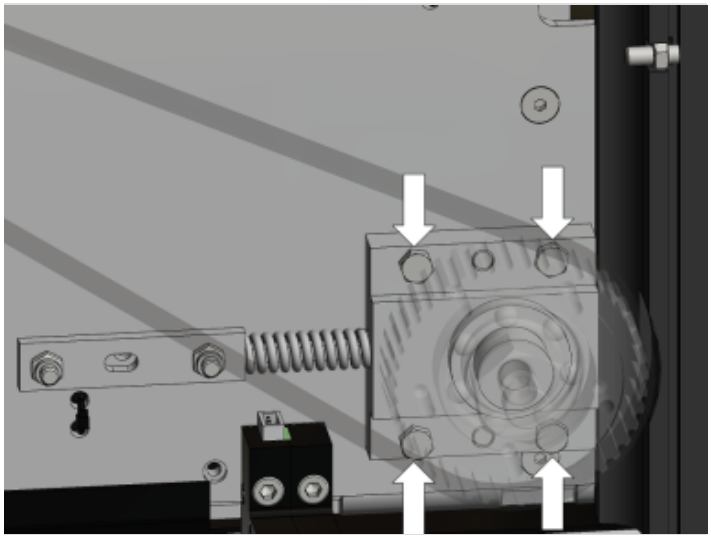
If tension is too high:

1. Do the same thing as above, but punch in the point from opposite side of the WheelHub (punching direction also opposite than arrow shows).

> **Note**
>
> Make sure two screws (mentioned in previous step) are not tightened too much. If the screws are too tight adjustment may be not possible.



1. When belt tension is proper → Tighten two M5x16mm and two M5x20mm hex screws (8 mm wrench).
2. When belt tension is proper → Tighten two M5x16mm and two M5x20mm hex screws (8 mm wrench).
3. Measure belt tension again.



> **Note**
>
> Belt tension value may increase after tightening the screws.

> **Caution**
>
> Make sure belt tension does not exceeded maximum value.

**Completion:**

- Install AS-35019 (Wheel and rim)[as-35019--wheel-and-rim-assembly-.html#UUID-a57833bb-bb28-b866-5f4a-0632c426f81b_UUID-4b8e5716-7388-69a7-63a2-ed49da768e56]
- Install AS-35013 (Sheet left)[as-35013--r5----as-35944--r5----sheet-left-.html#UUID-d0ebc0b5-9fb8-9680-1c2d-4772ebf7bf2d_UUID-0fe7a960-8e1c-0cd9-efcc-6732da1ec22c] or Install AS-35012 (Sheet right)[as-35012--r5----as-35943--r5----sheet-right-.html#UUID-4a74965f-f8e8-94be-875d-def38189c946_UUID-480c2c2e-1e84-e9cc-5cf3-285e92b3e32b]
- Install AS-35011 (Sheet rear)[as-35011--r5----as-35942--r5----sheet-rear-.html#UUID-3cfa3d6f-2d13-f6a1-bd8c-29067174afcf_UUID-770524a6-795b-3ce1-c444-ef2d7880a405]
- Install AS-35205 (Sheet top SDG) / AS-35646 (Sheet Top DDG)[as-35205--sheet-top-sdg----as-35646--sheet-top-ddg-.html#UUID-2653ba5f-4e21-b730-9d1e-f6dd04791b3a_UUID-67d6d688-0828-2123-11d3-b92cb6ca4d01]

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