

Important information

- Expert knowledge in Model making necessary!
- This Model-Kit is not a toy and not suitable for children under the age of 14. Young modelers must be supervised by a senior model-maker!
- Please consider seriously whether the Model-Kit is suitable for you! The item can only be returned in the original box, unopened, with the original packaging.
- You can download the latest manual at: www.xion.de. Please read the instructions carefully before starting to built the PUMA

Please note:

- Sharp edges must be removed from the metal parts carefully.
- **Motor:**
Motor requirement type 540 T55 or above! (<8000 rpm).
Too high motor speed destroys the gearwheels.
- **Gears and Gearbox**
Manually testing of all the moving components in each mechanism is recommended to ensure a proper functioning.
After the installation of the engine transmission unit, all gear wheels should be smooth-running. The gear wheels have a 0.6mm range of motion on the axes.
With the installation of the motor a small gap between the motor-gear and the upper-gear is to be considered. Do not exert any pressure on the gearbox!
Do not yet install the gearbox into the vehicle.
Lubricate the gearwheels with oil (e.g. WD-40), then let it warm up at half-power without load for a minimum of 30 minutes. (A run-in phase of 30-45 minutes without load is important for the gearbox, to become smooth-running.)
Subsequently, cleaning of all gears and checking for damages. Then assembling a new, lubricating with oil again and testing for smooth-running. Afterwards: installation into the PUMA chassis and performing test run.
- **Steering:**
The maximum steering angle should be 15° in both directions!
To avoid losing the driveshaft it is highly recommended to limit the steering angle by Servo and Fusion PUMA (ESC).
- **Servos**
Steering Servo, standard size and torque of 15kg or above.
For Cannon up/down a Miniservo is sufficient to save space.
- **Service**
Please frequently check and clean all moving parts and gears.
After cleaning, all moving parts should be lubricated with a light coat of oil.

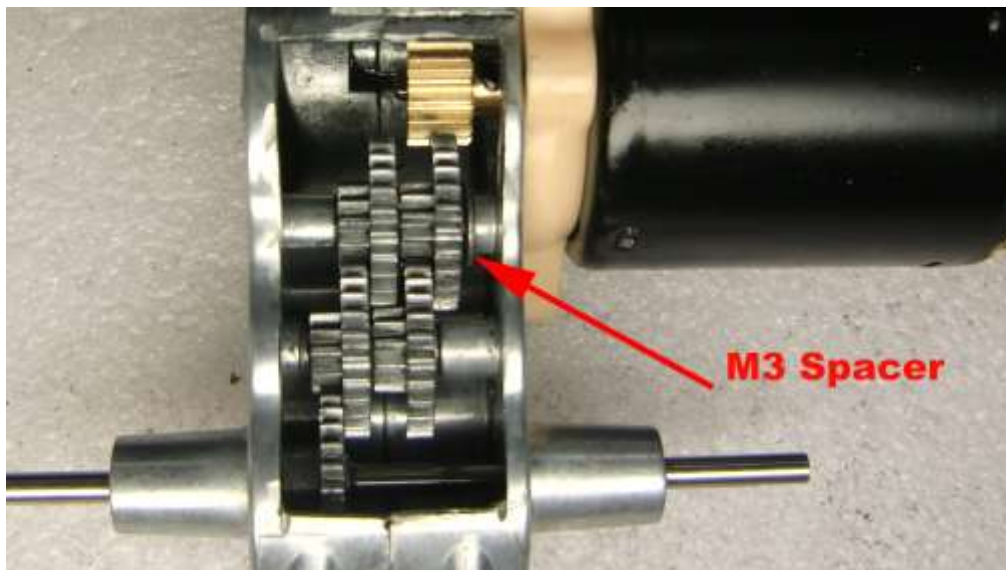
XION MILITARY SCALE MODELS

Hochwertige Militär Modell-Bausätze ☼☼☼

XION – PC Quadrat GmbH
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GERMANY
www.xion.de



After a run-in time of 30 minutes, each part was cleaned and checked.
In the picture above you can see the gearbox after a test phase of approximately 5 hours!
No defective gears. The gearbox was driven with a 540 50T motor.



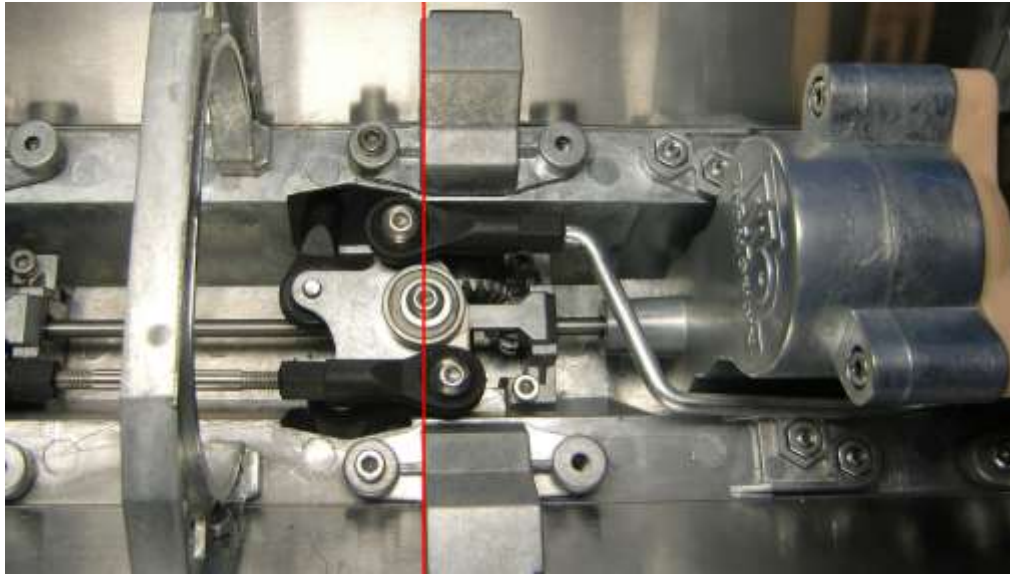
Install M3 spacer, if the gap between gears is more than 0.5mm.
The gap should be ~0.2mm!

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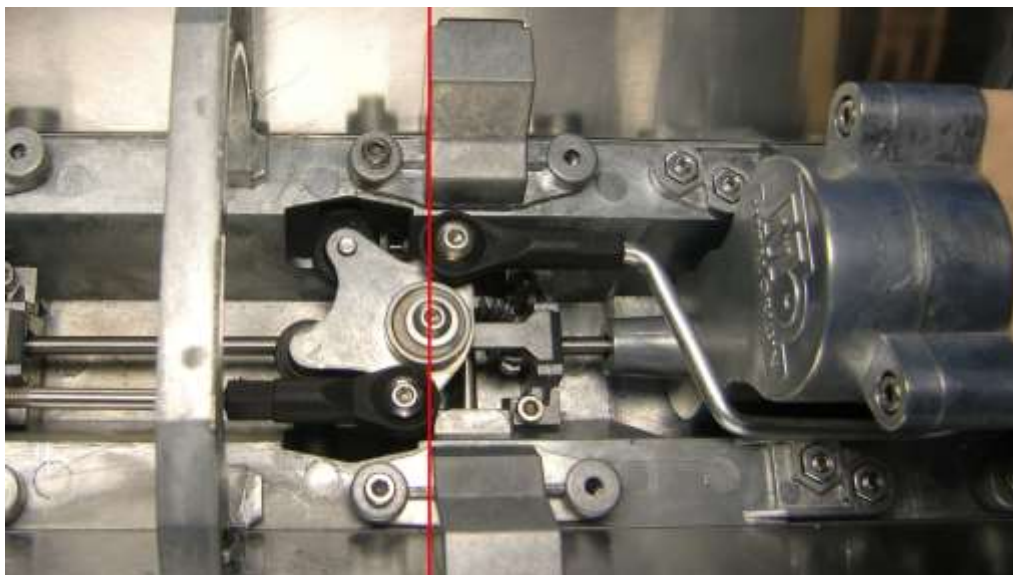
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Guidance - Steering adjustment



Left steering



Right steering

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Alternate assembly of steering linkage



Miniservo assembly



For comments and improvement suggestions please use our contact form at: www.xion.de