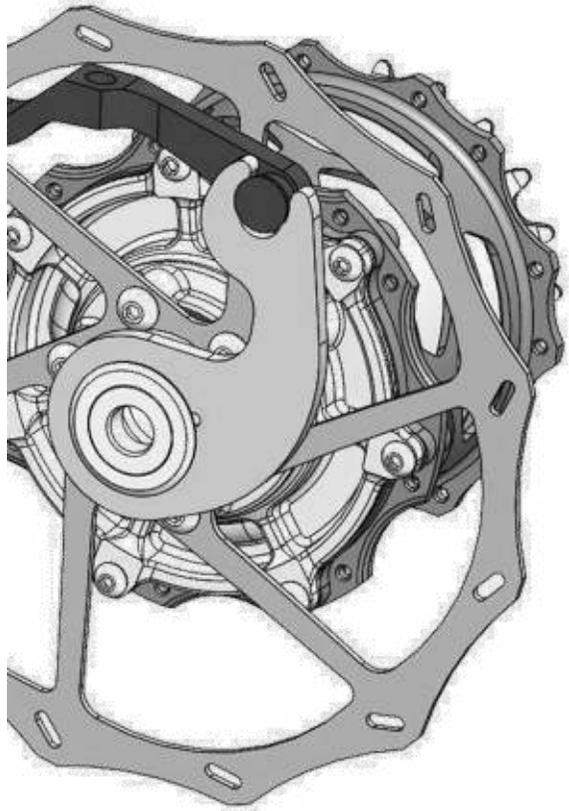


KINDERNAY



# KINDERNAY OIL CHANGE GUIDELINES

Ver 1.1.1

# MAINTENANCE AND SERVICE INTERVALS

Your Kindernay gear hub requires minimal maintenance and service. We specify the following oil change intervals:

- Initial oil change, after first 500 km. Initial oil change included with your hub.
- Periodic oil change: after 5.000 km or annually, whichever comes first. Oil shifts available at Kindernay.com or at your authorized Kindernay retailer.

This oil change procedure is valid for all Kindernay gear hubs

- VII hubs use 20mL Velvet Gear Oil
- XIV hubs use 30mL Velvet Gear Oil
- **IMPORTANT: DO NOT FILL YOUR GEAR HUB WITH MORE THAN STATED AMOUNT OF VELVET GEAR OIL.**
  - Overfilling your hub may lead to oil leakage and can cause damage to brakes leading to serious injury or death.

Note ! Failure to follow the Kindernay gear hub service procedures will void the Kindernay warranty.

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# OIL CHANGE TOOLS NEEDED

This is a list of tools that we recommend to change the oil on your Kindernay hub:

- Bicycle stand
- T25 Torx Screwdriver
- T20 Torx Bit
- T25 Torx Bit
- Torque Wrench (4Nm and 30Nm)
- Kindernay Velvet Gear Oil
- Suitable container for used oil
- Chain Whip
- 44mm GPC Tool
- Gloves



# REMOVING HUB FROM WHEEL

## NOTE !

For easy operation it is recommended to remove the wheel from the bike and the hub from the wheel. Oil change can be done without removal if drive cog allows access to oil drain port.



**1.1:** Remove Wheel from Bicycle in Stand



**1.2:** Remove drive cog from Hub using chain whip and 44mm GPC tool



**1.3:** Remove brake rotor mounting bolts and rotor from hub



**1.4:** Remove gear hub mounting bolts



**1.4:** Remove the gear hub from the SWAP cage.

# DRAIN OIL AND FILL GEAR HUB

## STEPS:

1. Drain gear hub
2. Fill with half of oil change bottle
3. Drain gear hub again
4. Fill with final oil amount

## NOTE !

- VII hubs use 20mL Velvet Gear Oil
- XIV hubs use 30mL Velvet Gear Oil



**1.1:** Remove oil plug from gear hub using T25 Torx Screwdriver



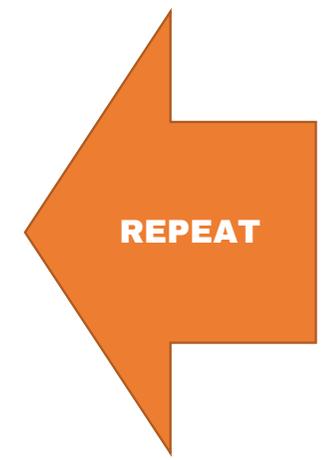
**1.2:** Position gear hub about suitable container with oil port down



**1.3:** Allow gear hub to drain fully, approx. 5 minutes



**1.4:** Fill gear hub with appropriate amount of oil



**1.5:** Repeat 1.1-1.4 for final oil fill

# SWAP REINSTALLATION

## CAUTION !

Failure to install the bolts according to the described procedure below can cause the bolts loosening, leading to serious malfunction and injury.

## NOTE !

The Kindernay XIV SWAP bolts are incompatible and must not be used with the VII, or vice versa.



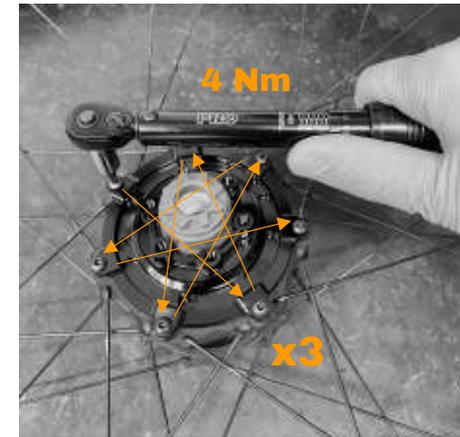
**1.1:** Clean the SWAP-shell and gear hub housing.



**1.2:** Apply Loctite 243 to the supplied M4 12 mm bolts



**1.3:** Install the gear hub in the SWAP, align the bolt holes and install the bolts.



**1.4:** Tighten the bolts to 4 Nm in a star pattern. Repeat 3 times.

# BRAKE ROTOR REINSTALLATION

## CAUTION !

A 6-bolt brake rotor with a minimum thickness of 1.8 mm and internal diameter of 34 mm must be used. Rotors with smaller ID may cause cosmetic damage to the hub.

## CAUTION !

Always use the included brake rotor bolts when installing the brake rotor. Using other rotor bolts can cause damage to the hub.

## NOTE !

On PM180 and PM200/203 frames, low profile rotor magnets such as the Bosch 1270015728 can be used. On PM160 frames, a rotor with a built in magnet must be used, otherwise the PM-adaptor will collide.

### VII 135 / 142 mm



**2.1a:** Install the brake rotor according to manufacturer specifications.



**2.2a:** Tighten the bolts to 6 Nm in a star pattern.

### VII 148 mm



**2.1b:** Align the 3 mm boost adapter.



**2.2b:** Install the rotor bolts with the supplied bolts as shown.



**2.3b:** Tighten the bolts to 6 Nm in a star pattern.

# CHAIN SPROCKET INSTALLATION

## NOTE !

The VII is compatible with 9, 10 or 11 speed chains. Wider chains may contact the HYSEQ actuator and cause damage.

## NOTE !

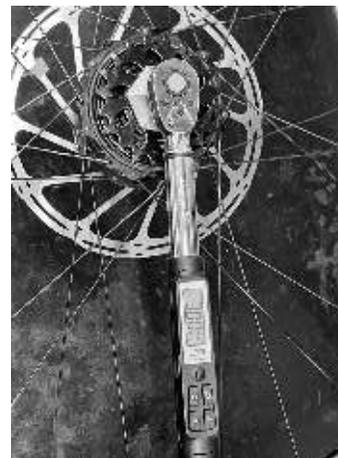
The maximum thickness of the hub sprocket is 2.3 mm.



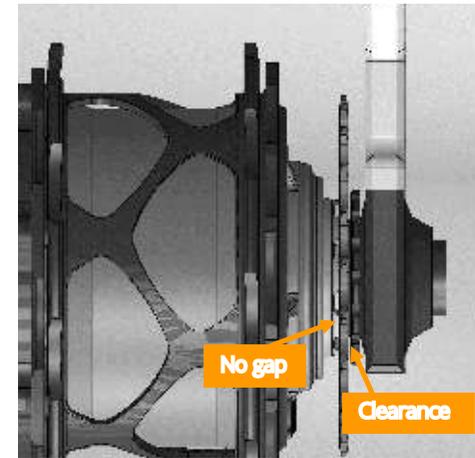
**4.1:** Install sprocket.



**4.2:** Install the hub sprocket locking by rotating clockwise.



**4.3:** Torque the locking to 30 Nm.



**4.4:** Verify that the HYSEQ actuator has clearance to the locking and that there is not gap to the input shaft. The sprocket should rotate freely when the actuator is installed.

# HUB / WHEEL INSTALLATION



**9.1:** Install the chain/belt on the gearhub sprocket.



**9.2:** Install the actuator by pressing it on the drive side of the hub.



**9.3:** Align the torque arm and insert the wheel into frame.



**9.4:** Install, but do not tighten the thru-axle. Position the actuator in the desired position.



**9.5:** Tighten the thru-axle according to frame manufacturer specifications.

Caution! Failure to align the torque arm and tighten the axle will cause malfunction and damage to the bike frame and components.