

CASSETTE FREE HUB
Single Circlip Standard
Maintenance & Strip Instructions

Weekly

Apply a few drops of light oil to the ratchet seal behind the sprockets, between cassette rotor and hub.

Three-month intervals

Remove wheel and unscrew lock-ring holding sprockets in position, withdraw sprockets. Use a broad blade screw-driver to prise out the spacer (item 13) from inside the rotor (item 9). Remove rotor body (item 9), turning anti-clockwise at the same time so as to prevent pawls being dislodged. Remove pawls and springs and clean with meths or white spirit to remove old grease. Wipe out old grease from inside ratchet. Do not immerse hub in degreaser, as this will remove grease from bearings.

Assembly Procedure:

Smear a thin layer of grease around pawl locations in rotor body and ratchet in hub. Insert springs into body, carefully re-place pawls into seatings. (The grease will help to retain them). Make sure springs are located properly in pawl and body. Slide rotor body assembly onto spindle. Using a small screw-driver, ease pawls into ratchet whilst applying a gentle pressure to end of rotor body. When fully engaged rotor should spin freely in an anti-clockwise direction with the pawls clicking lightly and evenly. The rotor should lock up immediately when turned clockwise. Replace spacer (item 13) with 'O' ring installed. Apply a light film of grease to rotor splines and clean sprockets and refit. Replace sprocket retainer ring and tighten to required torque 40 Nm (30 ft.lb.).

NOTE: If all steel sprockets are used slight marking of the rotor body may occur but this will not impair the function of the product It is not recommended for HOPE hubs to be built radially.

Overhaul Procedure

Bearing Change - Rotor Body

Strip: Remove rotor body and pawls as described previously in Maintenance Instructions. Place rotor body on a flat firm surface pawl carrier end up. Use a small screw-driver to push spacer (item 11) to one side. Using an aluminium drift, tap inside of bearing (item 3) working all round the bearing keeping it square so as not to jam it in the rotor (see fig 1). When the bearing is flush with the end of the rotor, place rotor on a washer or ring with a 30mm hole in it and drive out the bearing. Remove spacer (item 11). This gives access to the circlip (item 10). Remove using long nose circlip pliers. Inner bearing (item 3) can then be removed using a 15mm diameter drift. Make sure it doesn't jam on the second bearing location. Discard both bearings due to possible damage to the raceways. Thoroughly clean rotor body prior to fitting new bearings.

Assembly: Use special tool HTT168 or HTT169 to press or drive in the bearings. It is essential to drive in on the outer raceway, driving on the inner raceway only, will damage the tracks. After fitting inner bearing (item 3) replace circlip (item 10) spacer (item 11) then outer bearing (item 3).

Bearing Change - Hub

Strip: Remove rotor body as described previously in Maintenance Instructions. Sit non-drive side spoke flange on tool HTT 167 or a pair of parallels. See fig.2. Using a soft hammer (nylon or hide) tap end of spindle and remove the spindle with non-drive bearing attached. Turn hub or wheel over, sit on drive side spoke flange, use soft drift and tap out drive side bearing. Inspect lip seal for damage, prise out with screw-driver if replacement is required.

Assembly Procedure: Sit hub on non-drive side flange. Press or drive in bearing (item 3). Use tool no. HTT169. Carefully fit new seal. Use a bush, which covers the full diameter of the seal to press it home. Slide spindle long end through hub and bearing (item 3). Sit hub assembly drive side down on tool HTT168 (see fig 3). Press or drive in bearing (item 3) using tool HTT169. Assemble rotor body to hub as described in Maintenance Instructions.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	HUB108	XC Rear Hub Body (6 Bolt)- inc. ratchet
2	1	HUB207	XC/Mono Rear Axle - 135mm
3	3	6001	Bearing - 6001 2RS
4	1	HUB406	XC/Mono/Bulb Non-drive Spacer 135 (colour)
5	1	HUB409	XC/Mono Internal Spacer 16mm
6	3	HUB503	Pawl (set of three)
7	3	HUB504	Pawl Spring (set of three)
8	1	HUB505	XC/Mono Steel Rotor Body - Shimano 8/9sp
9	1	HUB512	Rotor Body Circlip
10	1	HUB410	XC/Mono Internal Spacer 14mm
11	1	HUB501	Ti-Glide Lip Seal
12	1	HUB407	Drive-Side Spacer



