SERVICE BULLETIN

Nr. RO - 053	DATE 04 March 2021	PAGE 1 of 3

PRIORITY LEVEL		
Urgent	**Important**	**INFORMATION**

Subject: **Ride-ons MP84 - 98 – Hydro-Gear transmission water oil contamination**

Involved models:

Art. Nr. 2T2120481/ST1 STIGA ESTATE 2084 H
Art. Nr. 2T2110281/ST1 STIGA ESTATE 3084 H
Art. Nr. 2T2620281/ST1 STIGA ESTATE 3098 H
Art. Nr. 2T2630481/ST1 STIGA ESTATE 2398 HW
Art. Nr. 2T2640281/ST1 STIGA ESTATE 3398 HW

Art. Nr. 2T2100204/A20 ALPINA AT4 84 H
Art. Nr. 2T2120404/A20 ALPINA AT4 84 HA
Art. Nr. 2T2620204/A20 ALPINA AT4 98 H
Art. Nr. 2T2630404/A20 ALPINA AT4 98 HWA

Art. Nr. 2T2120483/M20 MOUNTFIELD 1530H
Art. Nr. 2T2610683/M20 MOUNTFIELD 1638H
Art. Nr. 2T2110247/AT2 ATCO GT 30H
Art. Nr. 2T2620247/AT6 ATCO GT 38H
Art. Nr. 2T2610647/AT9 ATCO GT 38H Twin

Condition:

There have been a very limited number of reports that, after 10-20 min of usage, the hydrostatic transmission loses power and makes a high pitch noise. The related investigation concluded that the malfunction was due to *water oil contamination*.

Further tests have shown that even a very small quantity of water (10-15 ml) would be sufficient to negatively affect the hydrostatic transmission performances.

The presence of water mixed with oil can be often recognized by the typical “coffee-latte” (light green & brawn) color that the fluid takes on. Beside pictures clearly show the color of *water contaminated* oil.

Possible cause:

The hydrostatic transmissions are not waterproof, by design. Therefore, on rare occasions and in very unusually circumstances, water in the oil intrusion is possible. There are various possible situations for something like this to happen (ex: driving through high water standing area) but one of the most probable is washing the transmission with high pressure devices. This may be the result of more than just one recurrence.
Vehicles produced from February 2021 are equipped with a label placed on the Ride-on rear plate with the purpose to inform the consumer to never wash the transmission by using high pressure devices. Label meaning is duly explained in the Owner Manual.

How to handle hydrostatic transmission power loss cases:

1. Transmission power loss is not always due to oil water contamination. Before removing the transmission off the vehicle please make sure that the power loss is not due to other causes such as:
   - Control linkage bent or out of adjustment;
   - Drive belt slipping;
   - Brake partially engaged;
   - Bypass assembly sticking.

   NOTE: Please contact STIGA's Customer Service department or a Hydro-Gear Authorized Repair Center for more information on correct troubleshooting

2. If the recommended troubleshooting has been performed but the traction power loss is still present, it is possible that the cause of failure might be linked to oil water contamination. In this case **do not replace the transmission** but just change the transmission oil according to the step by step instructions attached to this Service Bulletin.

   IMPORTANT: Fill the transmission with 20W50 Motor Oil. **Do not use hydraulic oil**!

Warranty:

Although the water in the oil intrusion cannot be attributed to a construction defect, this type of problem can be managed within the 24 months warranty period by replacing the oil. Complete transmission replacement will not be covered by warranty.

When entering the warranty request on Stiga Connect please:

- Choose the operation “2WD Transmission oil change”. Labor time will then be automatically displayed.

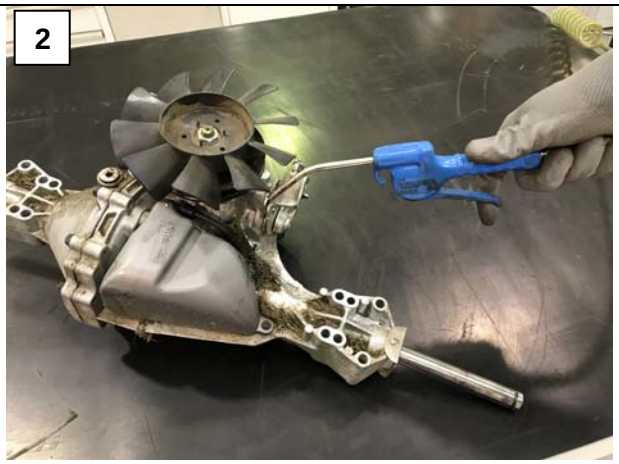
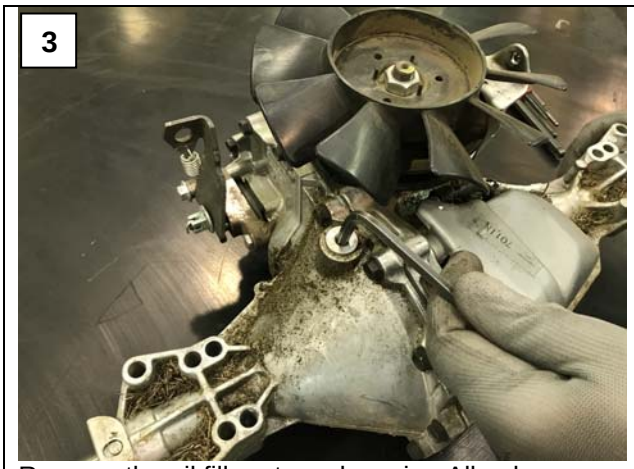
- Compile the claim by adding the transmission serial number to the proper field and attach to the claim a picture of the transmission manufacturer label.

Best Regards
Stiga Customer Service

Attachment to Service Bulletin RO-053
Hydro-Gear T2 – Oil change procedure

Transmission Fluid: Motor Oil 20W50 mineral or synthetic.

Transmission Fluid Volume
1.915 – 2.015 ml

1  Remove the transmission from the vehicle – refer to the workshop manual (chapter 5.6a) for step-by-step instructions.	2  Clean the expansion tank and oil fill port areas of any debris by mean of a flow of compressed air or by using a brush.
3  Remove the oil fill port cap by using Allen key.	4  Position the transmission so that the oil will drain completely out of the housing.

STIGA

Attachment to Service Bulletin RO-053
Hydro-Gear T2 – Oil change procedure

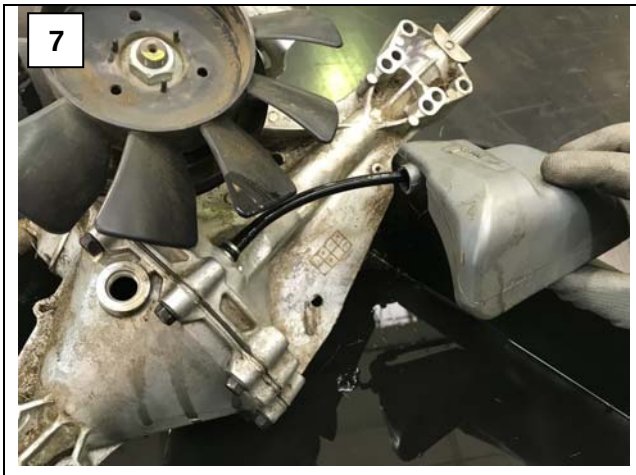
5

After the oil is drained from the transmission remove the expansion tank by removing the self-tapping bolt (Torx T25 key needed)

6

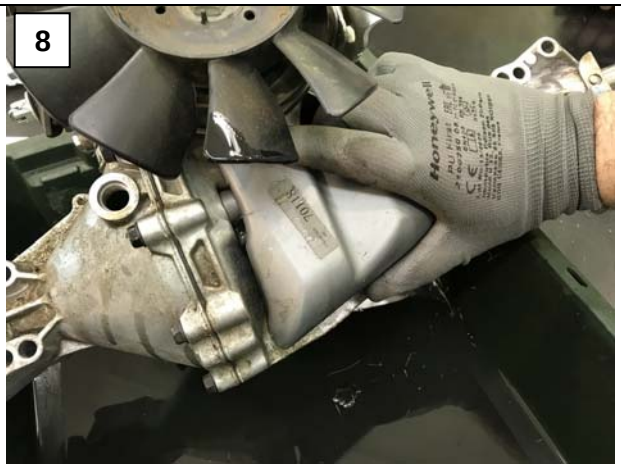
Remove the tank and drain out the oil from the tank. Do not remove the vent cap from the tank. Do not remove the tank hose or O-ring unless replacement is needed.

7



Install the tank by first inserting the hose into the opening in the expansion tank.

8

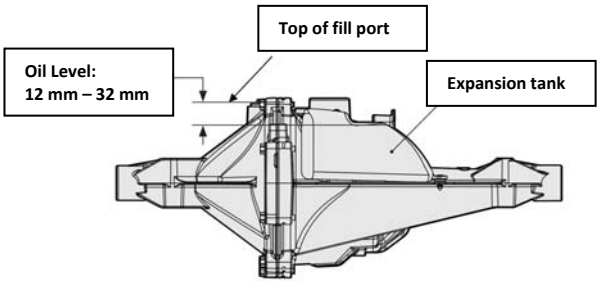


Push the tank opening over the O-ring to ensure a proper seal and put the vent hose in his position.

9

Secure the expansion tank by tightening the self-tapping bolt.

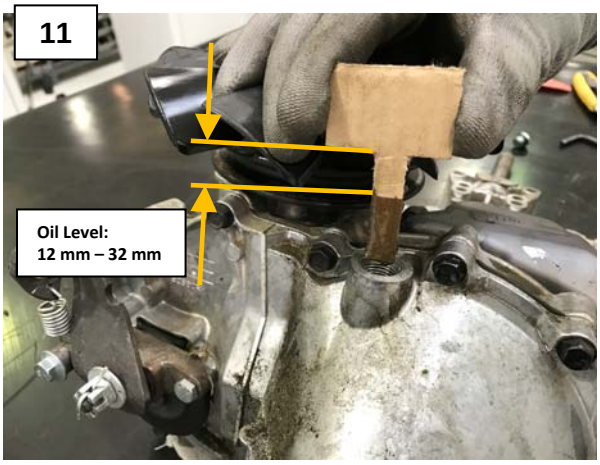
10



Fill the transmission with oil up to the correct level, according to the picture.

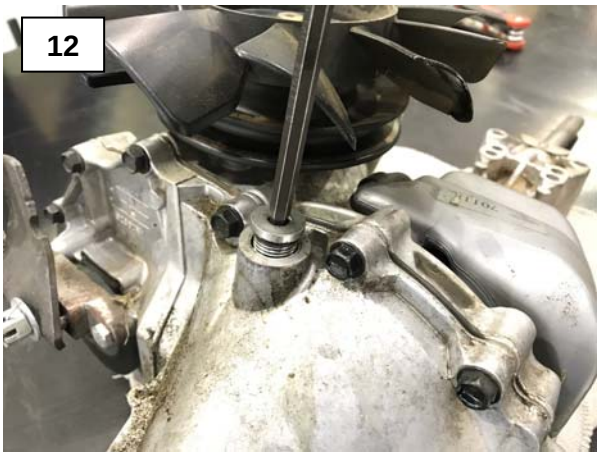
ALPINA Mountfield ATCO CASTELGARDEN

11



Tip: can use a “T SHAPE” piece of carton to measure the oil level.

12



Install the oil fill port cap making sure the O-ring is correctly inserted in the cap thread and assemble the transmission to the vehicle.

PURGING PROCEDURE

Due to the effects air has on efficiency in hydrostatic drive application, it is crucial air is purged from the system. The following procedure should be performed with the vehicle drive wheels off the ground, then repeated under normal operating conditions.

1

Open the by-pass valve by setting the lever on the open position.

2

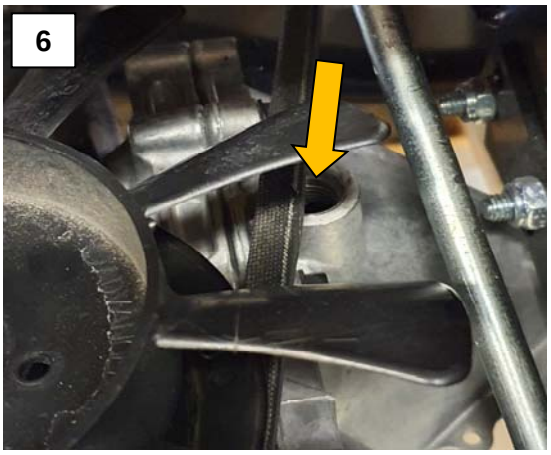
With engine at full throttle, slowly push the speed pedal in both forward and reverse directions 5 to 6 times. As air is purged from the transmission, the oil level might drop.

Attachment to Service Bulletin RO-053
Hydro-Gear T2 – Oil change procedure

Close the by-pass valve by setting the lever on the closed position

With engine running, slowly push the speed pedal in both forward and reverse directions 5 to 6 times.

Stop the engine, remove the discharge chute to have access to the transmission area



Check the oil level by removing the oil fill port cap and add oil as required.

NOTE: it might be necessary to repeat purging procedure until all the air is completely purged from the transmission. An improper purging would result in:

- Noisy operation;
- Lack of power and / or jerky operation