

Engineering Report 164.3

Engineering Report

Date: 02/24/2016 at 7:30p.m.

Crew Engineer Name: Louis Maller

Diesel – 21%

Propane – 55%

Gasoline (5 Gallon containers for ATV) – 2 full containers

Water (trailer) measured in cm from the bottom– 42in / 42in i.e.
106.6cm/106.6cm from the bottom (full)

Water (static) measured in cm from the top – 15.5in / 42in i.e.
39.4cm/106.6cm from the top (est.)

Trailer to Static Pump used – 0in i.e. 0cm

Water (loft) – 11.82 gallons i.e. 45 liters

Static to Loft Pump used – 10.05 gallons i.e. 38 liters

Water Meter: 104 732.4

Atv # Oil Checked: all ATVs full

Atv # Fuel Used Gals: all ATVs not used

Atv # Tires Status: #3 tires slightly under-inflated; others seem OK

Atv # Hours Used Day: ATVs tested, use over a very short period of time

Atv # Notes and Comments: ATVs have been tested during the morning EVA.
ATV#1 was not tested as instructed since it has a bad axle
ATV#2 no light turns on, no noise, failed to start
ATV#3 failed to start, with the noise of an engine that tries to start
ATV#4 failed to start, noise identified as a battery spark
Red ATV has not been tested

There has been a second short EVA for resupply and more advanced ATV testing this afternoon.

ATV#1 was not tested as instructed

ATV#2 seems to actually be missing the left-hand side lever (throttle), and the light doesn't even turn on when the ignition key

is turned

ATV#3 was able to start, and seems to work really well, at least over a short period of time

ATV#4 doesn't work

Red ATV seemed functional at first. The appropriate action to set reverse gear wasn't found, and it may seem that too much trying to start might have killed the battery

Summary of Engineering activities: Loft tank filled from static tank.

I planned on unclogging the static tank. I started by cutting the pump and closing the valve. Then it was lunchtime so I turned the pump back on and opened the valve. After that the pressure seemed to have come back, and indeed two crewmembers took showers and said that they had satisfying pressure. So I decided to postpone the unclogging until and if pressure issues arise again.

The dirty air filter from the HVAC above the bathroom has been changed for a brand new one that was brought today by the resupply ship.

Questions and Concerns to Mission Support:

Water:

The water pressure issue was solved as mentioned here above.

Yesterday's rebooting for the hot water seemed to have worked. There was hot water for dishwashing and in the shower. So now in the station the water issues seem a lot better off.

The level in the static tank is an estimate based on our consumption, we will ascertain the level during tomorrow's EVA.

HAL:

Everyone is now logged on HAL