

DATE : 23<sup>rd</sup> March 2021

Dulevo 5000 Veloce Road Sweeper YN5689K Engine  
Damage

Customer Name : Ramky Cleantech Services Pte. Ltd.  
Machine Serial No : 5020V00183  
Date of Purchase : 5 Aug 2014  
Engine Running Hours : 16,244 as on 7<sup>th</sup> Jan 2021 (Now  
can't read hour meter due to wire harness burn)

Dulevo 5000 Road Sweeper YN5689K was towed to Klenco workshop on 23rd March 2021, arranged by Ramky.

Sweeper was found with engine damage due to insufficient engine oil. Details as follows (please refer to photos in next pages)

1. Two cylinders jammed caused connection rods to break and one of these connection rods hit camshaft causing it to break too.
2. High temperature from damaged engine caused wire hardness to catch fire.

After investigating, we found that engine oil hose connecting oil pump output and oil filter was loose, which caused engine oil to leak. As a result, engine was running with insufficient oil.

The Dulevo sweepers are installed with low engine oil level protection and low engine oil pressure protection to protect engine from running out of oil.

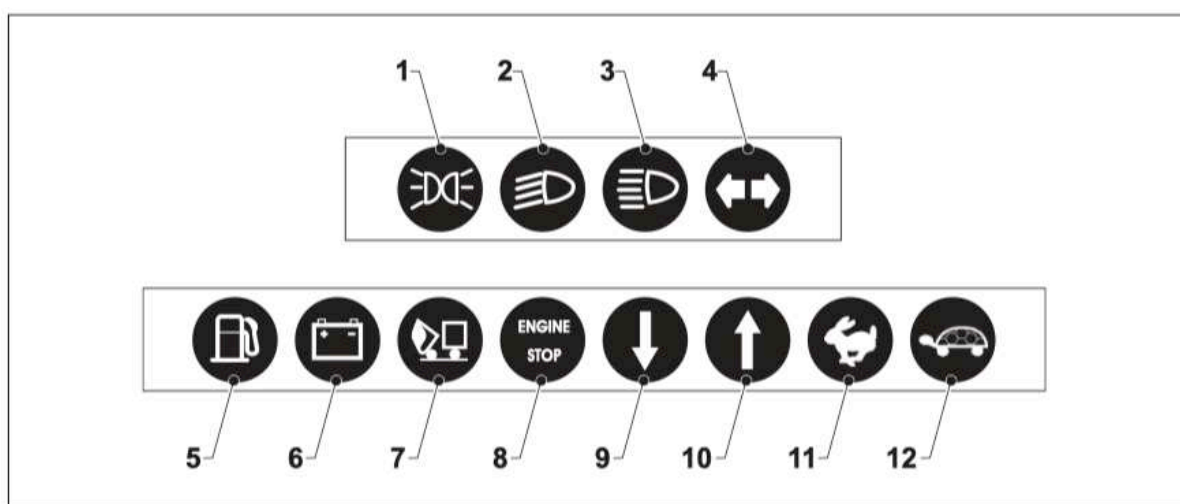
In the event of low engine oil level or low oil pressure, the sensors will trigger buzzer in driver cabin to warn operator and low engine oil pressure sensor will activate ENGINE STOP warning light as well.

In any instance that buzzer and ENGINE STOP indicator are activated, driver must drive sweeper to nearest parking area to switch off the engine. This action would not cause damage to the engine and no fire would occur as well. This machine will be towed to workshop and visual inspection would have discover the loose hose. Repair is minimum by just tightening or replacing hose, instead of such heavy damage.

Recommendation :

Operators to be reminded of the seriousness of the various warning indicators on the control panel in the cabin.

**“ENGINE STOP”** signal light turns on when there is an “oil pressure” or “cooling system” anomaly and the buzzer also goes on (information from manual)









Reported By: Huang Bing