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| **Department:** | **Eng. & Public Works** | **Area:** | **Wastewater** |  |
| **Subject:** | **#5009 Portable Flusher / Hydro Vac** | | |

**#5009 – PORTABLE FLUSHER/HYDRO VAC**

**PURPOSE:**

Unit #5009 is a Portable Flusher/Hydro Vac used primarily for small jobs. The Flusher is used for routine maintenance on sewer services or small diameter pipe. The vacuum unit is designed for liquids and material smaller then 3 inches in diameter.

**HAZARDS:**

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| * Moving parts | * Working around traffic and mobile equipment. |
| * High pressure water contamination from biohazards flying debris | |

**PPE:**

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| * Eye protection | * Hearing protection |
| * Gloves and safety boots | * High -visibility vest |

**Pre-Setup**

* Hook up trailer to vehicle
* Make sure hitch is secure and locked on ball.
* Secure safety chains and brake cable
* Connect plug
* Check trailer lights

**Setup**

* Setup safe work zone
* Use traffic control when required
* Park trailer to allow safe and easy operation of portable unit #5009
* Make sure water pump is in “Off” position
* Pull choke, move throttle to half and start engine
* Move throttle to idle and let warm up for 5 minutes.

**Procedure**

Flushing:

*This procedure requires two fully trained operators (one to control hose and one to control water pump and throttle)*

* Engage hose reel lever- one to control hose and one to control water pump and throttle
* Manually pull enough hose slack to feed nozzle into pipe opening.
* With one operator in control of flushing hose, the other operator shall turn on water pump and adjust throttle to full.
* Using both hands manually advance hose up pipe to destination then slowly retrieve back to start. Repeat if necessary.
* When flushing is completed, return throttle to idle and shut-off water pump

Hydro Excavating:

* Repeat steps in 2.o set-up.
* This procedure requires two fully trained operators (one to control digging wand and one to control vacuum hose)
* Be sure hopper door is closed
* Unravel vacuum hose, digging tube and digging wand
* Engage Hydro-excavate lever
* Make sure area is clear of bystanders
* Adjust throttle to full
* Position digging tube over area to be excavated
* Aim wand directly under digging tube and depress trigger
* Lower digging tube as it sucks up material loosened by digging wand to achieve desired size of excavation

**Post Set Up**

* Return throttle to idle and let engine cool down for 5 minutes –turn off ignition
* Depress trigger on digging wand to relieve pressure
* Replace all hoses, tubes and tools accordingly
* Standing clear of door – dump material when job is finished at designated dump site.
* Clean hopper, tools, filters thoroughly
* Fill-up water tank and re-fuel
* Park in casting shed and plug in
* Leave hopper door in open position

**Summary**

* It is important to remember that high water pressure and high levels of vacuum are present at all times while operating. **DO NOT** attempt to unclog digging tube by hand unless engine is turned off
* Never point digging wand at anyone
* Keep hands, loose clothing etc, clear of digging tube at all times
* Turn engine off in case of emergency

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| Date written: 2010-Mar-30  Revision Date | Written by: Riley St. Luke  Manager’s Approval: John Elliot |