

Emergency Vehicles, Class 7 & 8 Heavy Trucks, Heavy Equipment, & Agriculture

Mattawa, ON POH IVO

191 Seventh St. P.O. Box 633

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Dan O'Grady, 310T, EVT 1 191 Seventh St. P.O. Box 633 Mattawa, ON P0H 1V0

August 10th, 2023

Municipality of Calvin Township – Roads Department 1355 Peddlers Dr. R.R.#2 Mattawa, ON P0H 1V0

Dear Brandon Mayhew,

My company was recently hired to conduct pre-annual inspections on both of the municipality's dump trucks. During these inspections one of the two units presented with a significant number of safety infractions. Both completed inspection reports will be provided upon request or completion of necessary repairs. Additionally, I will be providing a list of possible future failures with the unit listed under preventative maintenance listed after the required repairs.

Upon completion of my company's pre-annual inspection on the Municipality of Calvin's 2004 International 7600 6x4 VIN#1HTWXAHTX5J005947, it is my professional recommendation as a licensed and certified Emergency Vehicle and Red Seal 310T Truck and Coach Technician, that this unit be placed out of service immediately and be retired from service. Listed below are both the major and minor safety infractions that are currently on the vehicle. Without repair of ALL of the listed items, this truck is unfit and unsafe for the road. Not only for other road users, but also for employees of the Municipality of Calvin.

Out of Service Items - Engine and Cooling Systems

- Class 3 oil leaks on engine, primarily front crankshaft seal (likely due to high internal crankcase pressures - blow-by)
- Operators noted during inspection that they add a gallon of oil every time the truck plows (1gal/6hrs or 333gal/avg yr.)
- Low coolant & active coolant leak hole in coolant reservoir tank

Repair Items - Engine & Cooling Systems

- A/C Belt frayed
- A/C system inoperable
- Charge Air Cooler (CAC) mount loose missing nut on bolt
- Low engine oil
- Air hoses blown off coolant manifold unknown purpose
- Power steering hose steel core coming through rubber liner
- Coolant expansion tank cap missing
- Rubber seal damaged on air filter housing
- Possibly more issues, however due to the amount of oil coating the engine bay it is nearly impossible to determine any other additional leaks



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Out of Service Items - Chassis & Components

- Kingpin LFS very badly worn possible axle damage
- Frame cracked longitudinally and laterally across frame flange on rear section of frame at intersection of P/S tow plate - approx. 6 inches longitudinally and 2 inches laterally

Repair Items - Chassis & Components

- . Kingpin LRS - worn
- 0 Transmission U-joint - radial & axial play (worn)
- Both PTO U-joints radial & axial play (badly worn) .
- Muffler leaks due to rusted holes in unit .
- Front diff Class 2 leak due to 6 inch crack along top weld flange on rear housing 0
- Plow hitch cracked approx. 1 inch long D/S lower 0
- Torque arm on rear diff bushing and stub shaft badly worn (shaft not in arm) 0
- 5 inch flex pipe at box has multiple exhaust leaks due to hole in flex pipe 0

Out of Service Items - Air System & Brakes

- Dash valves pop out @ 15psi 0
- Air leaks 25psi brakes applied, 7 psi brakes released 0
- Compressor extremely weak (buildup from 80-100 @ 1000rpm = 120 sec) ø
- RFS ABS brake valve leaks heavily under application 0
- RFD Spring chamber broken maxi spring 0

Repair Items - Air Systems & Brakes

- Air leak around air compressor location (possibly governor signal lines) 0
- Rear drive axle QR valve leaks when brakes released (emergency side) 0
- Rear drive axle QR valve leaks when brakes applied (service side) 0
- RRD slack adjuster needs readjusting (17/8") ø
- RRD slack adjuster clevis pin seized 0
- RRD adjuster pin seized 0
- RFD adjuster pin seized

Out of Service Items - Wheels & Tires

None

Repair Items – Wheels and Tires

- LFS tire irregular tire wear
- Adjust tire pressures -- low (LFS, LFDI, LFDO, LRDI, LRDO, RFDI, RRDI)
- Adjust tire pressures high (RRDO) 0

Out of Service Items - Cab

Windshield – Large crack across windshield within driver's viewing area

Repair Items - Cab

- Hood cable broken P/S
- Clutch adjustment no free play on pedal 0
- Mirror P/S duct taped to truck 0



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Out of Service Items - Body

Box tailgate maxi pot P/S – rotted base at mounting

Repair Items - Body

- Box tailgate maxi pot D/S base rotting
- Conveyor chains and sprockets worn very badly
- Tilt cylinder for plow harness Class 3 leak (very bad pools under truck when used)

Out of Service Items - Cab & Body Electrical

- HVAC Controls panel inoperable
- HVAC Fan Fan inoperable

Repair Items - Cab & Body Electrical

- RR upper box tail, signal, and brake light out possible ground issue
- LF box marker light out

Out of Service Items - Road Test

- Active coolant leak
- Air leaks & compressor buildup
- Check engine light illuminated
- ABS light illuminated

Repair Items - Road Test

- Transmission hard to shift likely to out of adjustment clutch
- Clutch out of adjustment
- Steering wheel off center needs alignment

Preventative Maintenance Items

- Scheduled engine rebuild
- Clutch replacement if nearing end of adjustment life

As part of this letter, it is important for me to highlight some of the associated costs and timelines for these repairs. All price estimates and parts availability are subject to change and may not offer a realistic final price or timeline. Listed below are some of the costs with approximate labour rates. Costs listed will be on the lower end of the scale.

Engine rebuild – \$30,000.00 - \$45,000.00 approx. 1 month depending on if it requires machining or not Clutch – \$1,500.00-\$2,000.00 (would advise to get transmission input kit at the same time – \$300.00) Coolant reservoir – \$400.00 A/C System – \$500.00 Additional engine/cooling system parts & labour – \$600.00 Kingpins – \$1,500.00-\$5,000.00 (if axle is needed) Welding (licensed shop) – \$500.00 U-Joint – \$200.00 PTO shaft – \$350.00 Muffler – \$1,000.00 Torque arm – \$300.00 Flex pipe – \$200.00 Dash Valve – \$400.00 Compressor – \$1,500.00 ABS valve – \$450.00

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Spring chamber – \$200.00 Valves – \$100.00 Misc. Brake repairs – \$150.00 Tires & Misc. – \$600.00 Windshield – \$700.00 Mirror – \$450.00 Hood cable – \$50.00 Box pots – \$400.00 Chains and Sprockets – \$1,300.00 Tilt cylinder – \$300.00 HVAC Panel – \$300.00 Lights – \$100.00 MIL/PID/ABS Lights – \$200.00-\$400.00 (if can be cleared quickly, may require additional repairs) Alignment (outside shop) – \$500.00

\$13,250.00 low end (not including clutch or engine work) absolute minimum approx. 2-3 weeks

\$16,950.00 if additional parts req. (not including clutch or engine work) approx. 3-4 weeks

\$48,550.00 Low end (if engine and clutch work done) approx. 6-8 weeks

\$63,950.00 if additional parts req, (if engine and clutch work done) approx. 8-10 weeks

In conclusion, if the truck only has a limited lifespan remaining, I would look at the possibility of renting or leasing another unit until its replacement can be found. The cost of repair and timeline of the unit being placed out of service, upwards of 4-10 weeks, would warrant a strong look at an alternative. Furthermore, if the engine isn't rebuilt, the possibility of en engine failure during the winter is high and would put the safety of the residents in jeopardy with the vehicle being out of service for upwards of 4-6 weeks additionally. As for the welding on the frame, a licensed shop may choose to decline welding the cracks due to their location and severity on the frame rail, that would be up to the individual shop however, as they would have to certify the repair, it is for these reasons that I professionally believe that the choice to retire the unit be taken.

Thank you for your business, we look forward to working with you in the future.

Dan O'Grady

Dan O'Grady, 310T, EVT, Lead Tech. - DieselDan6NZ MHTR