

DATE: March 22, 2001

SUBJECT: Estimate for Wreck Repairs OVR OmniTRAX MR20b Locomotives

Briefly the condition of the wrecked locomotive is as follows:

3558 took the brunt of the collision resulting in more damage to it than the other loco, 3557, which was number two in the consist

Wreck estimate is in bold italics

- Frame is bent above the #3 axle with the result that the walkway is buckled and the carbody has split in this area

Frame straightening 800 manhours & \$1000 material

- The power train was moved toward the rear of the locomotive and then came forward but did not regain its original position, all power train components need to be removed, torn down for inspection and repaired as necessary, engine mounting bolts are sheared and mounting blocks are torn loose

Remove power train components (blower, exciter, auxiliary generator, generator, engine, air compressor and eddy current clutch/fan drive), tear down and inspect, repair as necessary, repair mounts, reinstall and align 580 manhours & 80,000 material

- The front draftgear pocket, coupler/drawbar and draftgear have been destroyed

Restore pocket dimensions, install new coupler/drawbar and draftgear 128 manhours & 15,000 material

- The front grab irons, stanchions, brakepipe angle cock, pilot and plow have been destroyed

Restore at 240 manhours & \$8,000 material

- The number one truck needs to be torn down and rebuilt with a good chance that the bowl has been destroyed, it appears to be out of tram as it has been pushed back from its original position

Tear down truck, rebuild and reinstall 300 manhours and \$8,009 material

- The #1 traction motor has had the rear of the coupler pocket pushed into it
- the case damaged, the gearbox has been destroyed and the pinion & bullgear are locked up

Replace the motor, replace gearbox and gears 80 manhours & \$12,500 material.

- The center casting above the number one truck is destroyed

Restore casting 160 manhours & \$3,000 material

- Water piping throughout the engine area has been moved and/or disconnected due to the collision

Repair; replace water piping as necessary 80 manhours & \$1,000 material

- The eddy current clutch has seized up, catches when hand turned

Repairs covered under power train repair

- The high voltage cabinet has power contactors with arc shields knocked off, recommend all contactors, relays, resistors be removed and bench tested

Remove, inspect, bench test and repair as necessary 120 manhours & \$1,000 material

- The carbody has structurally moved resulting in numerous cracks, bends and distortions especially above the #3 axle and at the rear of the carbody

Repair carbody 240 manhours and \$3,000 material

- The rear coupler is angled down due to the frame being bent, it is low approximately 3", coupler/drawbar and draftgear need to be removed and qualified, draftgear is most likely damaged beyond repair

Remove and qualify draftgear, coupler/drawbar and reinstall 48 manhours & \$5,000 material

- Two sliding glass windows were knocked from their slides, engineer's side was destroyed

Replace 12 manhours & \$500 material

Loadbox and final testing 80 manhours \$1,000 material

Total repair manhours and material excluding hidden repairs 2868 manhours & 139,000 material. Repair price at \$60 per manhour and material at cost plus 15% equals for locomotive #3558 \$331,930