

# RAILBUG ESCORT VEHICLE IS A CONVERTED MURRAY MOWER

## SAFE OPERATION INFORMATION

### TRAINING

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
2. Never allow children or people unfamiliar with these instructions to use the escort vehicle.
3. Do not carry passengers; the escort vehicle has one seat, so only one operator on board.
4. All drivers should seek practical one on one instruction. Such instruction should emphasize:
  - A. The need for care and concentration when working with ride-on escort vehicles.
  - B. The main reason for loss of control are;
    - Insufficient wheel grip
    - Being driven too fast
    - Inadequate braking
    - Lack of awareness of the effect of rail track conditions

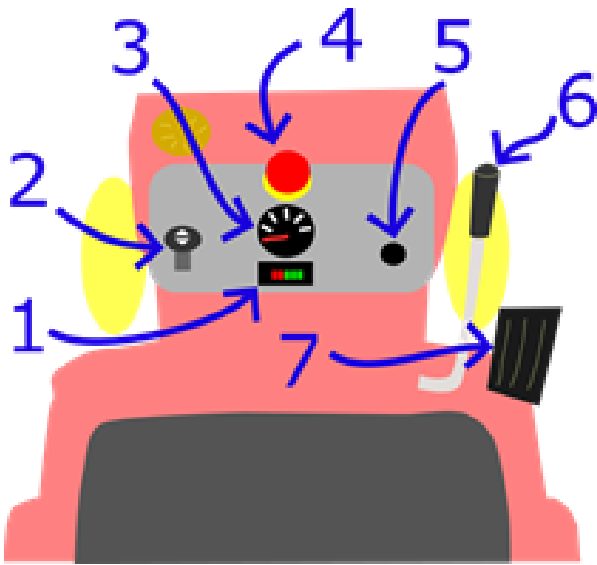
### PREPARATION

1. While riding the escort vehicle always wear substantial footwear. Do not operate the escort vehicle when barefoot or wearing open sandals.
2. **WARNING – High-voltage electrical systems present a serious safety hazard..**
  - a) Charging equipment and electrical components must be approved for the vehicle and in good condition.
  - b) Only charge the vehicle using the designated charging cable and connector. Do not use damaged, modified, or improvised charging equipment.
  - c) Charging is to be carried out in a well-ventilated, dry area, clear of combustible materials. Do not charge the vehicle in standing water or wet conditions.
  - d) If electrical damage, smoke, heat, or warning indicators are observed, do not operate or charge the vehicle.
  - e) Ensure charger is disconnected and hood is lowered after charging.

### OPERATION

1. Use care when pushing rail bugs.
  - a) Limit loads to those you can safely control.
  - b) Use care when reversing
2. Watch out for traffic when crossing roads at level crossings
3. Before leaving the operators seat;
  - a) Set the park brake;
  - b) Turn off the vehicle using the emergency stop button.
4. Before and when reversing, look **behind and down** for small children.

## LOCATION of CONTROLS



### **Battery level (1)**

This gauge shows roughly how charged the vehicle is. Pay attention to this to know when to charge and when charging is complete.

### **Forward/reverse lever (2)**

This gear selector only allows forward and reverse. Speed control is electronic and can only be changed with the accelerator.

### **Speedometer (3)**

Indicates how many km/h the vehicle is traveling. This relies on GPS signal.

### **Emergency stop (4)**

This functions as both an emergency stop and the vehicle's on/off button. To turn the vehicle on, turn the knob in the directions as indicated with

arrows. To turn the vehicle off, push the button inward.

### **Horn (5)**

This activates a loud air-powered horn. Use this when approaching people, other vehicles, or driveways, to alert others to your presence.

### **Brake lever (6)**

This is both physical and electronic brake control. Pulling the lever actuates the front disk brake, and it tells the motor controller to activate regenerative braking.

### **Accelerator pedal (7)**

Just like a car's pedal, this controls speed. A signal is sent to the motor controller, representing how far the pedal is pressed, and the motor controller applies some logic to figure out how fast to accelerate.

## HOW TO START THE ENGINE

**WARNING:** The electrical system has an operator presence system that includes a sensor switch for the seat and a Safety interlock switch that must be pushed in and held to start and operate the escort vehicle. This system will stop the engine when the operator leaves the seat or if the operator lets go of the Safety interlock button.

**FOR EVERYONE'S PROTECTION, MAKE SURE THIS SYSTEM OPERATES CORRECTLY.**

1. Move the forward/reverse lever completely forward.
2. Twist the emergency stop so that it pops up and the vehicle's lights activate. The vehicle is now ready for motion.
3. Very slowly step on the accelerator to move the vehicle.

## HOW TO USE THE ACCELERATOR (7) Fig A

Push down on the pedal to accelerate the vehicle. Release the pedal to slow down.

## HOW TO USE THE FORWARD/REVERSE LEVER (2) Fig A

To use the forward speed or the direction of the escort vehicle, follow the steps on the next page.

**CAUTION:** You must bring the vehicle to a complete stop when changing the vehicle direction. The motor controller will prevent damage by only changing direction once the vehicle is brought to a stop.

1. To go forward, push the **forward/reverse lever (2)** to the forward setting. To go backward, pull the **forward/reverse lever (2)** towards the operator.
2. Very slowly step on the **accelerator pedal (7)**.

## HOW TO STOP THE ESCORT VEHICLE.

1. Release the **accelerator pedal (7)** to slow down.
2. Completely push the **brake lever (6)** to stop the vehicle.
3. To turn off the vehicle, push down the **emergency stop (3)** button.

**WARNING:** Before you leave the operator's position, always push in the emergency stop button

## SECURITY OF THE ESCORT VEHICLE.

The escort vehicle wheel will be chained and locked to either the rail line (preferable) or the front pivot arm of the escort vehicle.

This action prevents it being stolen and its unauthorized use, on any other rail line.

After its daily use the escort vehicle is housed within the locked and secure Turners Marsh Station.

## **TEST FACTS**

### **ESCORT VEHICLE SPEEDS**

#### **At Maximum Throttle:**

- Uphill incline: 15km/h (motor controller RPM limited)
- Downhill incline: 15km/h (motor controller RPM limited)
- Reverse: 12km/h (motor controller RPM limited)

The speed test was carried out on 24/01/2026 by Brian McKenna and Greg Stewart. The vehicle's GPS speedometer was read after hitting a sustained maximum speed.

### **BRAKING DISTANCE**

#### **At Maximum (FAST) Throttle:**

- Uphill incline at 15km/h: = 4 metres
- Flat at 15km/h: 4 metres
- Downhill incline at 15km/h: 6 metres

The braking test was carried out in clear weather on 24/01/2026 by Brian McKenna and Greg Stewart. A marker was left next to the rail and brakes were quickly engaged at that point, but care was taken to not lock up the wheels, because that quickly flat spots the somewhat delicate polyurethane material. A measuring tape was used to observe the approximate distance between the vehicle and the marker.