

# TAMROCK USA, INC.

## MACHINE/ELECTRICAL CHECKLIST

### EJC G600U-31 GRADER

**Vehicle Approval No.**                    **31-124**  
**Safety System Certification**       **31D111**  
**Vehicle Serial Number**               \_\_\_\_\_

If an MSHA Part 36 approval plate is affixed to this vehicle it must meet the requirements of Part 36, Title 30, Code of Federal Regulations It is the responsibility of the user to see that this vehicle is maintained in a permissible condition and used in a permissible manner.

Listed below are the items and functions that must be maintained at all times in order to keep approval status of this vehicle. This check list should be posted for easy reference by the personnel that have been assigned this responsibility.

(WEEKLY) WHERE SHOWN ON THE FOLLOWING PAGES DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR. SECTION 75.1914

**ALL INSPECTIONS AND TESTS SHALL BE PERFORMED IN FRESH AIR**

PERMISSIBILITY:

1. For a complete permissibility evaluation this checklist must be used in conjunction with a power system checklist.
2. The design of the exhaust conditioner limits permissible operation to grades not exceeding 32%.
3. Due to braking capability limitations, this machine shall not be operated on grades greater than 15%.

Note: In no case can the machine be operated on grades greater than 15% due to service brake limitation.

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A. FUEL SYSTEM:

(WEEKLY) 1. ( ) There are no fuel leaks.

(WEEKLY) 2. ( ) The fuel filler cap [1]\* is vented and the vent is not plugged (see Figure 1).

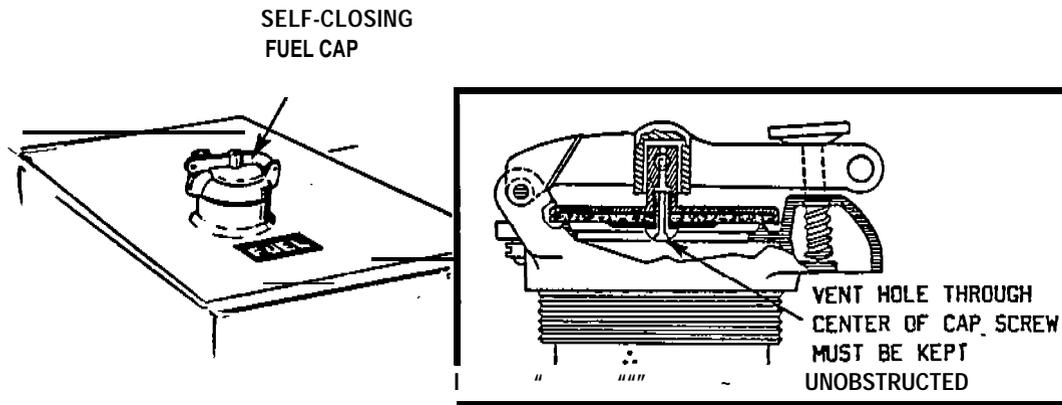


Figure 1

(WEEKLY) 3. ( ) The fuel filler cap is self-closing and is attached to the tank in a manner which will prevent loss during refueling.

(WEEKLY) 4. ( ) Auxiliary fuel tank capacity has not been added to the vehicle.

(WEEKLY) 5. ( ) Fuel filters [2]\* are properly installed and are not damaged.

(WEEKLY) 6. ( ) The fuel injection rate adjustment mechanism [3]\* and the engine governor setting are locked and sealed (See Figure 2).

NOTE: One wire seal only may be used through items 1 & 2 (in lieu of two as shown).

(WEEKLY) 7. ( ) The fuel shutoff valve [4]\* in the fuel supply line is operable.

(WEEKLY) 8. ( ) The drain plug [5]\* in the fuel tank is locked in position. (Pipe plugs are considered "locked in position" when tight).

\*Referenced items shown on Machine Layout Diagram.

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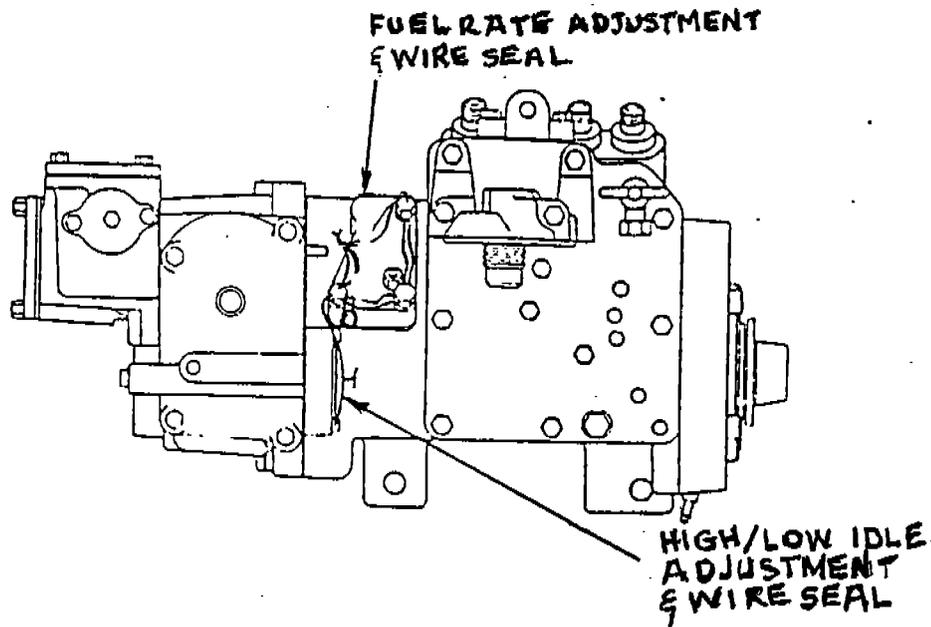


Figure 2- Sealed Engine Adjustments

- (WEEKLY) 9.      ( ) Fuel lines are not routed near or connected to hot exhaust components and are protected from external damage.
- (WEEKLY) 10.    ( ) Fuel lines are secured.

B,      BRAKING SYSTEM:

**WARNING:** Brake tests are to be conducted on a relatively level surface away from traffic areas where other machines or persons maybe moving about. Consider the possible consequences of testing a machine with potential braking inadequacies and select an area where the machine to be tested would not cause an accident due to brake inadequacies.

(WEEKLY) PARKING BRAKE TEST:

- ( ) a.      With the engine turning and the machine stationary, apply the Parking Brake [6]”.
- ( ) b.      Release all other brakes.
- ( ) c.      Place the Hydraulic Motor Control Lever in the “Grading” position and the “Forward-Neutral-Reverse” Lever in Forward or Reverse.

\*Referenced items shown on Machine Layout Diagram.

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- ( ) d. Move the Engine Hand Throttle to a full throttle position. If the Parking Brake is operating satisfactorily, the unit will not move when the above procedure is followed. If movement is detected, the Parking Brake must be adjusted or repaired.

(WEEKLY) SERVICE BRAKE TEST: Perform only if Parking Brake Test has passed satisfactorily.

- ( ) a. Apply the Park Brake. With the engine running, press the Service Brake Pedal and observe the Service Brake Pressure gauge [13]\*. If the gauge indicates at least 1450 psi, then proceed with step "b". If the Service Brake Pressure is less than 1450 psi, steps must be taken to bring it to the required 1450 psi minimum. Also make certain that, with brake pedal released, there is no residual pressure in the brake lines.

- ( ) b . Ensure that the Park Brake is applied. Shut off the engine and chock wheels. Remove covers from the Service Brakes [12]\* (at the back end of the rear wheel drive housings). Clean and inspect the brake calipers and support pins making sure that calipers slide freely on support pins.

Inspect for fluid leaks and uneven caliper pad wear and brake discs for excessive grooves and presence of oil or grease. If any of the above conditions are found, the brake system must be repaired.

Measure the brake pads at a point where they contact the discs. The thickness of each pad must be at least 3/16". Measure the brake disc thickness. This thickness must be at least 7/8".

**C. ELECTRICAL LIGHTING SYSTEM:**

**ALL ELECTRICAL ENCLOSURES MUST MEET THE FOLLOWING.**

- (WEEKLY) 1. ( ) All electrical enclosures (i.e., alternator [7]\*, headlight switch [8]", headlight [9]\* have an MSHA plate attached that is clearly stamped with an MSHA certification number.
- (WEEKLY) 2. ( ) All electrical enclosures are securely mounted and all vulnerable electrical components are protected from physical damage

\*Referenced items shown on Machine Layout Diagram.

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- (WEEKLY) 3. ( ) All electrical enclosures are intact (not cracked or broken); the headlight lenses are not loose. All shaft and/or pushbutton controls are operable
- (WEEKLY) 4. ( ) All threaded covers are secured from loosening by a locking screw, wire, or other means.
- (WEEKLY) 5. ( ) Lockwashers or equivalent devices are provided for all bolts, screws, or studs that secure parts of the explosion-proof enclosures. All bolts, screws, and studs are in place and tightened.
- (WEEKLY) 6. ( ) None of the fastenings used for joints on the explosion-proof enclosures are used for attaching non-essential parts or for making electrical connections.
7. ( ) All joints forming the flame arresting paths (flanges and covers) are smooth and free from rust, corrosion and pitting.
- (WEEKLY) 8. ( ) Use feeler gauges of the appropriate size to insure the clearances in all accessible flame path joints, between the enclosure and corresponding covers, are not exceeded.
- (WEEKLY) 9. ( ) Headlight(s) is/are installed at each end of the machine and operable.
- (WEEKLY) 10. ( ) Headlight switch must not control or operate any electrical circuits other than headlights.
- (WEEKLY) 11. ( ) All lead entrances (packing glands) are assembled so that the cable jacket penetrates into the enclosure and when tightened, 1/8" minimum clearance remains between the packing nut and stuffing boxes. All packing nuts and stuffing boxers are secured from loosening by a locking screw, wire, or other means.
- (WEEKLY) 12. ( ) All unused lead entrances are closed with metal plugs which are secured in place by spot welding, brazing, or equivalent.

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CABLES CONNECTING ELECTRICAL COMPONENTS MUST CONTINUE TO BE:

- (Weekly) 13. ( ) Clamped in place to prevent undue movement.
- (WEEKLY) 14. ( ) Protected from mechanical damage by position, flame resistant hose conduit, metal tubing, or troughs.
- NOTE: Flexible or threaded rigid metal conduit is not acceptable.
- (WEEKLY) 15. ( ) Not subject to abrasion from sharp comers or edges.
- (WEEKLY,) 16. ( ) Isolated from hydraulic lines and hydraulic components.
- (WEEKLY) 17. ( ) Isolated from fuel lines.
- (WEEKLY) 18. ( ) Flame resistant if not enclosed in hose conduit. This is indicated by "MSHA" markings on the cables.
- (WEEKLY) 19. ( ) If hose conduit is used, it must be securely clamped at both ends and MSHA marking appear as "Flame-Resistant, US MSHA US MESA or USBM 2G-XXX".

NOTE: The following check may be performed when an electrical enclosure has been disassembled for whatever reason or if there is cause to believe a problem exists within the enclosure.

20. ( ) Provided with short circuit protection for each power conductor.
21. ( ) Electrical connections inside the electrical encloses are secure (not loose) and are insulated where space is limited. The ground conductors are not broken and are securely attached.

E. MISCELLANEOUS :

- (WEEKLY) 1. ( ) The machine is equipped with at least one 5 lb. Dry chemical fire extinguisher [1 l]\*. All fire extinguishers are fully charged.

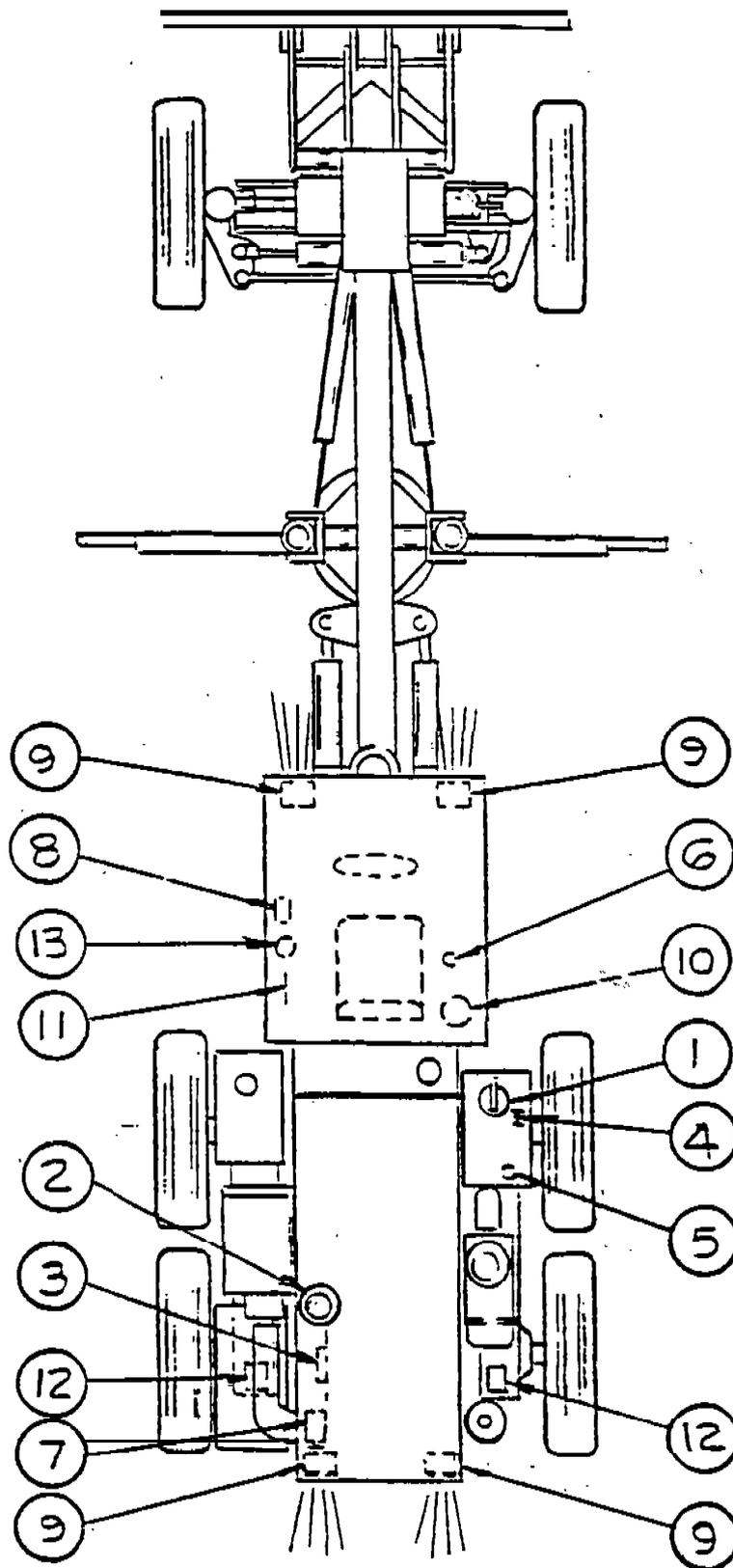
\*Referenced items shown on Machine Layout Diagram

- (WEEKLY) 2. ( ) For machines equipped with an air system, the main air pressure

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- (WEEKLY) 3.      ( ) The machine has an MSHA Part 36 approval plate [12]\* attached to it in the operator's compartment.
- (WEEKLY) 4.      ( ) The engine will not turn over unless the directional control selector is in the neutral position.
- (WEEKLY) 5.      ( ) The exhaust diffuser at the scrubber outlet is installed.

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1. Fuel Filler Cap
2. Engine Fuel Filter
3. Fuel Injection Rate Mechanism & Engine Governor Setting
4. Fuel Shutoff Valve
5. Fuel Drain Plug
6. Park Brake Control
7. Alternator
8. Head Light Switch
9. Head Light
10. Fire Extinguisher
11. MSHA Approval Plate
12. Service Brake
13. Service Brake Gauge

MACHINE LAYOUT DIAGRAM

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