

# GRAPPLE RAKE MINIMUM SPECIFICATIONS

3 June 2026

## BACKGROUND / STATEMENT OF NEED

Hardwood Range personnel are required to conduct routine and corrective range maintenance in accordance with AFMAN 13-212, including clearing firebreaks, removing downed trees, processing mulched debris, and maintaining target areas to ensure safe and effective training operations. The existing grapple rake currently in use was originally purchased for a smaller wheel loader and does not provide the capacity, strength, or proper fit needed to support the larger equipment now assigned to the range. To meet mission requirements, range personnel require a properly sized, higher-capacity grapple rake specifically compatible with the Volvo L110F wheel loader. Procuring a grapple rake designed for this machine will significantly increase productivity in clearing firebreaks, handling downed timber, managing debris, and conducting target-area cleanup. This capability is essential for maintaining safe training conditions, improving operational efficiency, and ensuring compliance with established range maintenance standards.

## DESCRIPTION OF REQUIREMENT:

The grapple rake MUST be an extreme-duty wheel loader attachment correctly sized and fully compatible with the Volvo L110F wheel loader (Serial No. VCEL110FP00061840) equipped with the VABSTD Volvo standard quick-attach coupler. The rake shall include replaceable teeth on all tines and shall maintain tine spacing not exceeding 14.5 inches. The unit shall be equipped with stow legs to facilitate safe and efficient uncoupling from the loader. The grapple may utilize either a double-clamp or full-width top clamp design and shall be delivered with all appropriate hydraulic couplers required for full operational compatibility.

## MINIMUM SPECIFICATIONS: WHEEL LOADER GRAPPLE RAKE

The grapple rake shall be designed for handling brush, logs, debris, and bulky materials in support of land clearing, forestry, storm cleanup, waste handling, and general debris management operations. The attachment shall provide the capability to rake, clamp, carry, and sort materials through the use of hydraulically operated grapple arms, and shall incorporate either dual independent grapples or a full width top clamp to accommodate multiple acceptable configurations. The grapple rake shall utilize spaced tines that allow for selective removal and sifting of debris while preserving soil when required. The equipment shall be constructed to withstand heavy duty, continuous use environments, ensuring reliable performance during demanding operational conditions.

## MINIMUM DIMENSIONAL REQUIREMENTS

- Overall Width: Minimum 96 inches
- Maximum Width: Not to exceed 150 inches
- Tine Spacing: Shall not exceed 14.5 inches
- Number of Tines: Minimum 8 tines
- Clamp Type: Must support dual independent grapples *or* a full-width top clamp
- Clamp Opening Height: Minimum 90 inches

## MINIMUM WEIGHT & CAPACITY REQUIREMENTS

- Minimum Operating Weight: 5,500 lbs.
- Minimum Material Capacity: 5 cubic yards

## CONSTRUCTION REQUIREMENTS

The grapple rake shall:

- Be constructed of high-strength, abrasion-resistant steel
- Include replaceable or weld-on tine tips/teeth
- Include reinforced tines with gussets or cross-members
- Include heavy-duty hydraulic cylinders suitable for continuous clamping
- Include protected hydraulic lines or routing that minimizes exposure
- Include stow/stand legs or equivalent for safe uncoupling

- Be designed for high-volume brush and debris handling

#### **COMPATIBILITY REQUIREMENTS**

The grapple rake shall:

- Be compatible with the Government-specified wheel loader equipped with the VABSTD Volvo standard quick-attach coupler.
- Include all required hydraulic couplers, hoses, and fittings for full operational functionality.
- Include stow/stand legs or equivalent features to support safe and efficient uncoupling.
- Be delivered ready for installation and operation

#### **DOCUMENTATION & SUPPORT**

The contractor shall provide:

- Installation and operation instructions.
- Manufacturer warranty consistent with commercial standards.