



## CUB CADET VOLUNTEER™ DEFINITIONS

### **Air Cooling (Fan Assist)**

The process of removing excess heat from the engine by forcing air flow through the engine.

### **Carbureted**

A carburetor mixes fuel with intake air and distributes it into the combustion chamber of the engine.

### **Cold Cranking Amps (CCA)**

The amount of current a battery can provide at 0 degrees Fahrenheit.

### **Continuously Variable Transmission (CVT)**

A belt-driven transmission that can change through an infinite number of ratios between a specified minimum RPM and maximum RPM.

### **Displacement**

Total volume that is displaced in one revolution of the crankshaft; usually measured in cubic centimeters (cc's)

### **Electronic Fuel Injected (EFI)**

A system that electronically forces fuel into the combustion chamber of the engine under high pressure.

### **Horsepower**

A unit of power exerted equal to 550 ft.-lbs. of work per second.

### **Liquid Cooling**

The process of removing excess heat from the engine by forcing liquid through a radiator or heat exchanger.

### **Rack and Pinion**

A pair of gears at the end of the steering shaft that convert rotational motion into linear motion making it easier to turn the wheels.

### **Revolutions Per Minute (RPM)**

The number of rotations completed in one minute by the engine crankshaft.

### **Suspension Travel**

The distance from the bottom of the suspension stroke to the top of the suspension stroke; the most upward a wheel can travel minus the most downward a wheel can travel.

### **Torque**

The power output of an engine measured in ft.-lbs. at a specified revolution per minute (RPM).

## DRIVE SYSTEM

### **2WD**

Power is transferred *between* the rear wheels

- 4x4 Switch: Not engaged
- Diff Lock: Not engaged

### **2WD w/Diff Lock**

Equal power is transferred to *both* rear wheels at the same rate.

- 4x4 Switch: Not engaged
- Diff Lock: Not engaged

### **4WD**

Power is transferred *between* the rear wheels and to *both* front wheels at different rates.

- 4x4 Switch: Engaged
- Diff Lock: Not engaged

### **4WD w/Diff Lock**

Power is transferred to *both* rear wheels at the same rate and to *both* front wheels at different rates.

- 4x4 Switch: Engaged
- Diff Lock: Engaged

## POWERTRAIN SYSTEM

The Cub Cadet Volunteer™ operates on a belt-driven continuously variable transmission or CVT. The CVT system operates with pulleys and a belt rather than mechanical gears. This system allows the utility vehicle to operate under an infinite number of ratios between a minimum and maximum RPM.

### **The CVT has three basic components:**

- A high-power belt
- A variable-input “drive” pulley
- An output “driven” pulley

The drive pulley is rotated by the speed of the engine crankshaft. The faster the crankshaft rotates (or the greater the RPM), the greater the centrifugal force and the greater the drive pulley pulls together. As a result, the belt on the drive pulley opens and the ratio is increased (high gear). The lower the RPM, the lower the ratio (low gear).

The driven pulley is connected to the driveshaft which ultimately transfers the power to the differentials and rotates the wheels.

## SUSPENSION SYSTEM

The fully independent suspension system on the Cub Cadet Volunteer™ is structured to ride smooth and run strong.

Every wheel is independent of each other (no fixed axles). This allows the maximum number of wheels to be on the ground in every situation for the greater amount of traction.

Steel dual A-arms are attached directly to the frame and to the wheels which allow each wheel to travel up and down on its own. The A-arms are robust enough to take on any obstacles.

8” adjustable coil-over shocks are also attached to each wheel. The springs and shocks directly absorb the impact from the terrain, which allows a smooth ride on all surfaces. The shocks can be adjusted up or down to better meet the user’s needs.

The suspension travel of the Cub Cadet Volunteer™ is 8”. It is the difference between the most upward a wheel can travel and most downward a wheel can travel.