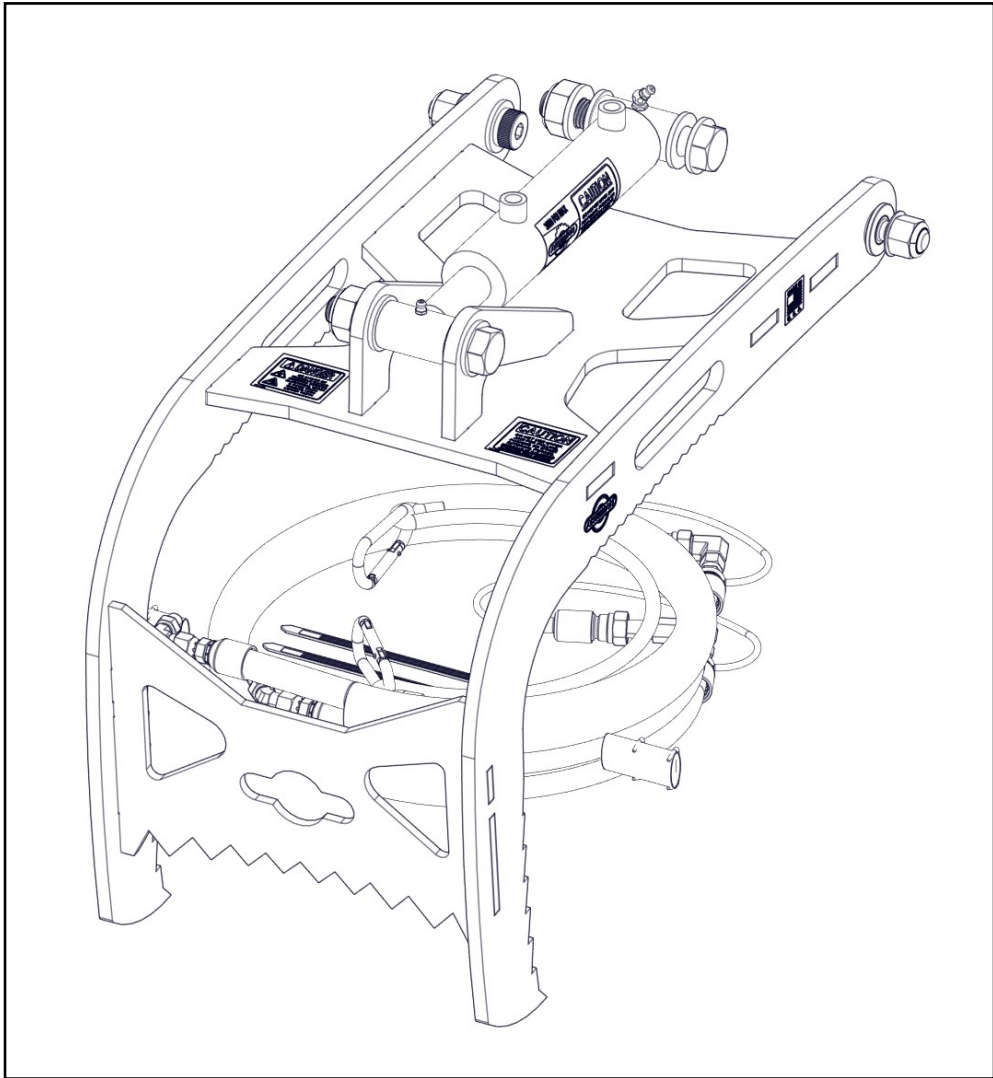




INSTALLATION & OWNER'S MANUAL

ARTILLIAN GRAPPLE UPPER ASSEMBLY
P/N: GRP-GP20-GRUS
PATENT #: 10,233,612



CAUTION

Never push or pull with the upper jaw assembly. Doing so may result in damage to the Grapple and will void the warranty.

Register your new product quickly online at Artillian.com/product-registration/



Artillian encourages all customers to register their Artillian products. However, failure to do so will not diminish right to warranty. Curtis Industries does not sell or share your information with anyone else.

Download a digital copy of your installation instructions online at Artillian.com/literature/



Artillian strives to continuously improve our products, technical documentation, etc. Therefore, the installation manual for this product may have been updated after your product was packaged. The latest revision of the installation manual can always be found at the website above.

The contents of this envelope are the property of the owner. Leave with the owner when installation is complete.

ASSEMBLY TIPS & MAINTENANCE

CAUTION

DO NOT USE THE UPPER GRAPPLE JAW FOR DIGGING OR PUSHING / PULLING FOREIGN OBJECTS OUTSIDE OF THE GRAPPLE BED. Damage to the hydraulic cylinder, hinges, hoses, fittings, etc. may occur. For example, simply holding a log in the grapple jaws and backing that log into a tree can result in extreme system back pressure of 6,000 PSI or greater. Obviously, that scenario could do serious damage to a system rated for 3,000 PSI max.

Assembly Tools Required

- Open-end wrenches, 3/4", 15/16", 1-1/8", 1-1/4"
- Allen wrenches 5/16", 3/8"
(3/8" drive hex bits recommended)
- Torque wrench (160 Ft.-lb. +)
- Grease gun
- Socket Set, 3/8" or 1/2" drive

Important Notes

1. Once installation is complete, start your tractor and carefully actuate the **Grapple** and the loader through all ranges of movement. Check for leaks and tighten any loose connections. Be sure the hoses from the hydraulic cylinder do not bind, kink, or become stretched at any point throughout the ranges of motion. If this situation appears, adjust the hose routing, as required, or contact Artillian.
2. Hydraulic performance (clamping speed and power) depends on the output of the tractor. A tractor with higher flow rates and system pressure will yield higher grapple performance than a tractor with lower flow rates and system pressure.
3. Maximum hydraulic pressure is 3,000 PSI.
4. When disconnecting the grapple / pallet fork frame from your loader, **REMEMBER TO DISCONNECT THE HYDRAULIC LINES!**

Using the Grapple with "True" 3rd Function Kits

Artillian Hydraulic Diverter Kits divert fluid from the loader's dump/curl circuit to the grapple open/close circuit. Therefore, the operator is able to meter the hydraulic fluid flow to the grapple by restricting the movement of the loader joystick.

However, with most "True" 3rd function kits, the electrical switch acts as an On/Off switch to the fluid flow in either direction. Therefore, the grapple cylinder will immediately see full fluid flow and pressure from the tractor when the switch is depressed. On larger tractors with high pressure and flow, this results in rapid opening and closing of the jaws.

When using 3rd function hydraulic kits not supplied by Artillian, we recommend incorporating a hydraulic flow control needle valve into the circuit. This flow control valve should be placed between the tractor 3rd function hydraulics and the grapple splitter manifold. It should have female 1/4" NPT fittings and flow control in both directions. The flow should then be metered until controlled opening and closing of the grapple jaws is possible.

Maintenance

Hydraulic Hoses

After a short amount of use of the **Grapple Module**, check all hydraulic fittings for leaks. If necessary, tighten slightly further. Check hoses occasionally for signs of abrasion, binding, or other damage. Most fittings in the kit do not need to be extremely tight to obtain a seal. Use care not to overtighten, as damage to the fittings can result.

Hinge Hardware

The primary hinge hardware requires no maintenance aside from being maintained at 160 Ft.-lb. of torque, which is set at the factory. Check occasionally to ensure that the fasteners have not loosened. If excessive play is observed in the upper clamping assembly, the hinge bushings may need to be replaced.

Cylinder Mounting Hardware

The cylinder mounting hardware requires regular greasing of the fore and aft mounting points using a grease gun. These points are greased at the factory with long life synthetic grease. We recommend keeping these joints lubricated at approximately every four hours of use, depending on harshness of the environment.

Only tighten the cylinder mounting hardware until it remains securely in place. It should not bear upon the cylinder cross tube mounts. The cylinder mounting hardware should not need to be changed unless it becomes necessary to change the hydraulic cylinder.



ARTILLIAN GRAPPLE UPPER ASSEMBLY (GRP-GP20-GRUS)

When installing your Grapple Upper Assembly to your Lower Assembly, please make sure to install hardware as shown in the detail below. (Cylinder attaches using same combination of hardware as it is attached to the upper assembly). It is important not to overtighten the bolt connecting the cylinder to the lower assembly. Assemble hydraulic hoses as instructed in Grapple instruction manual.

