Subject: Kolpin High Rise Power Angle Motor Mounting Hardware

Purpose:

Kolpin has determined 246 initial production High Rise Power Angle assemblies in the channel were not assembled with appropriate torque values for the mounting hardware that secures the electric motor to the motor mounting plate. If hardware is not sufficiently securing the electric motor to the motor mounting plate, the motor can become disengaged from the worm gear preventing the power angle from articulating the blade left and/or right.

Affected Product: 246 fielded 33-0100 Kolpin High Rise Power Angle with the product date of September 2015. Additional September 2015 dated product is being proactively reworked by Kolpin so all future shipments will not require field rework.

This Service Bulletin is located on the Kolpin Dealer Portal at:
Corrective Action to avoid potential interruptions to service:

1) See the next page for a reference exploded view of the Power Angle and the component item numbers. The 33-0100 owners manual can also be used.

2) Remove the Plastic Cap (Item 25) from the Power Angle Assembly.

3) Disconnect the Electric Motor leads (Item 21) from the Electric Motor (Item 29) to assist with motor removal and to prevent accidental motor activation.

4) Remove Set Screw (Item 5) from the Worm Gear (Item 24) using a 3mm hex allen wrench to allow for removal of the Electric Motor. If set screw is not accessible from on top of the Power Angle:
   - Stand the Power Angle Assembly on its side and determine if the Set Screw is accessible from underneath
   - If Set Screw is inaccessible from underneath, connect the Electric Motor Leads (Item 21) to the Electric Motor (Item 29). Power the motor to turn the worm gear until the Set Screw is accessible. Disconnect the Electric Motor leads (Item 21) from the Electric Motor (Item 29) before attempting to remove the Set Screw.

5) Unthread Qty (2) M6-1.0 Shoulder Screw (Item 12) using a 4.0 mm hex allen or socket, taking care not to loose any components as they will be reused.

6) Unthread Qty (4) Flat Socket Head Cap Screw (Item 4) from the Electric Motor (Item 29) using a 2.5 mm hex allen wrench or socket.

7) Apply non-permanent thread locker (Loctite Blue 243 or equiv.) to Qty (4) Flat Socket Head Cap Screws (Item 4) and re-assemble through Motor Mounting Plate (Item 28) into the Electric Motor (Item 29).

8) Torque Qty (4) Flat Socket Head Cap Screws (Item 4) to 3.8 ± 0.5 N-m.

9) Apply non-permanent thread locker (Loctite Blue 243 or equiv.) to the Set Screw (Item 5) and thread the Set Screw into the Worm Gear (Item 24). Do not tighten at this time and ensure the set screw does not prevent the Electric Motor shaft from being inserted into the Worm Gear (next step).

10) Align the keyway on the electric motor shaft (Item 29) with the set screw hole (Item 5) as the electric motor is slid into position with the worm gear (Item 24).
11) Re-Assemble Qty (2) Shoulder Bolts (Item 12) with Qty (2) Springs (Item 27) through the Motor Mounting Plate (Item 28) into the Welded Frame Assembly (Item 20) with a torque of $16.0 \pm 2.0$ N-m. Ensure the Shoulder bolts bottom out on the Welded Frame Assembly (Item 20) and not the Motor Mounting Plate (Item 28). See images below.

12) Reinstall Item 25 (Plastic Cap)
One Year Limited Warranty

For the period of one (1) year from the purchase date, Kolpin will replace for the original purchaser, free of charge, any part or parts found upon examination by Kolpin to be defective in material, workmanship, or both.

All transportation costs incurred submitting product to Kolpin for warranty consideration must be borne by the purchaser. If Kolpin determines that the product must be returned to the factory for credit, please call 1-877-956-5746 for a Return Merchandise Authorization (RMA) number and shipping instructions.

This warranty does not apply to parts that have been damaged by accident, alteration, abuse, improper maintenance, normal wear, or other causes beyond the manufacturer’s control. In order to protect you and your ATV, certain parts of the plow system and/or hardware are designed to fail when the equipment is over-stressed. Parts that are lost due to loosening and improper maintenance are not covered under warranty. This warranty does not cover removal or reinstallation labor fees of the plow system and related components.

Peripheral products such as engines, electric motors, and actuators may carry an original manufacturer’s warranty. Most hardware is general in nature and is easily obtained locally. Be sure to replace with minimum metric class 8.8 specification.