

SERVICE



BULLETIN

SB #: F101

BRANDS:



DATE: JUNE 2009

TO: ALL AUTHORIZED FERRIS DEALERS

SUBJECT: WHEEL MOTOR AXLE SHAFT INSPECTION AND NUT REPLACEMENT OF HYDRO-GEAR HGM-“E” SERIES MOTORS PRODUCED BETWEEN SERIAL NUMBER RANGE OF 8076LXXXX AND 9107LXXXX.

MODELS: SEE LIST BELOW

Brand	Model Number	Serial Number Range	Description
Ferris	5900751, 5900761, 5900822	2013075397 - 2013788697	IS1500ZX w/ 28 HP B&S Engine & 61” Deck Series Zero-Turn Riding Mowers
Ferris	5900624, 5900754, 5900808, 5900629, 5900670, 5900715, 5900811, 5900750, 5900807	2013075397 - 2013788697	IS2000Z Series Zero-Turn Riding Mowers
Ferris	5900627, 5901191, 5901192, 5900628	2013075397 - 2013788697	IS2000Z Yanmar Series Zero-Turn Riding Mowers “Export Only”

INSPECTION

Some units were reworked prior to being shipped. If you have an affected unit please perform the inspection procedure detailed below before moving on to the corrective procedure.

1. Park the machine on a flat, level surface. Disengage the PTO, engage the parking brake and turn off the engine.
2. Inspect the wheel motor axle shaft and nut. If the end of the wheel motor axle shaft and nut has a paint pen mark on it, no further action is required. **If the wheel motor axle shaft and nut does not have a paint pen mark on it, continue with Step # 3.**

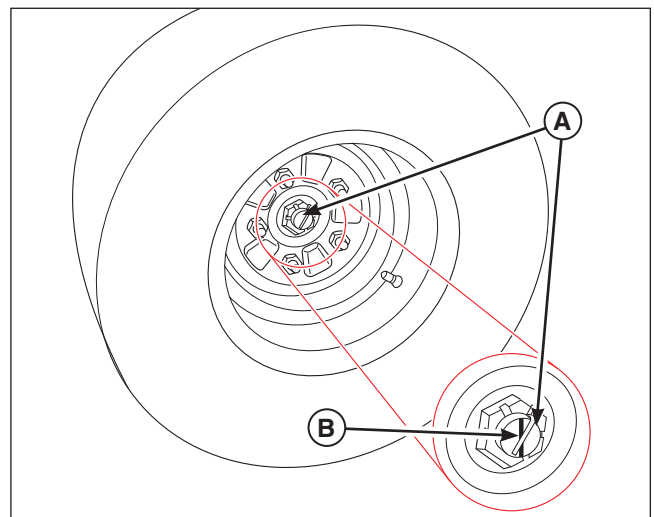


Figure 1. Inspecting the Castle Nut

A. Wheel Motor Axle Shaft

B. Paint Pen Mark

3. Refer to Figure 2. Inspect the serial number of the wheel motor. **If the serial number falls in the range of 8076LXXXX - 9017LXXXX, continue with CORRECTIVE PROCEDURES.** If the serial number does not fall in the range of 8076LXXXX - 9017LXXXX no further action is required.
4. Repeat this process for the other side of the unit.

CORRECTIVE PROCEDURES

1. Order and install kit part number 5600346.
2. Repeat this process on the other side of the unit, if the wheel motor falls within Hydro-Gear wheel motor serial number range of 8076LXXXX - 9017LXXXX.
3. Record the serial number of each wheel motor updated. See **Warranty Information**.

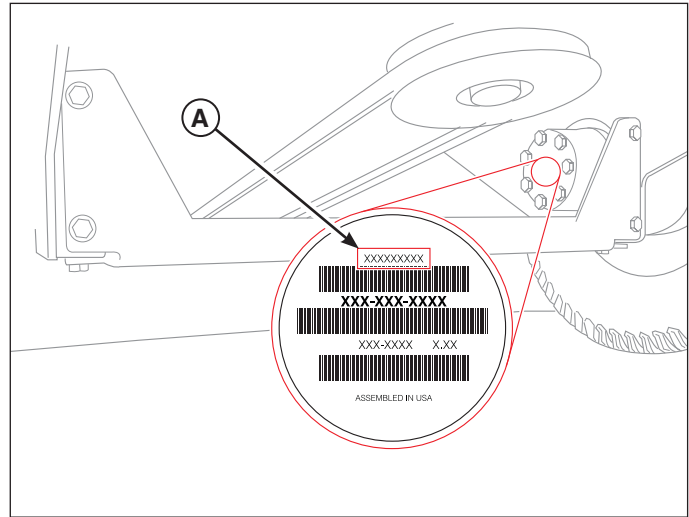


Figure 2. Locating the Wheel Motor Serial Number
A. Wheel Motor Serial Number

WARRANTY:

File for warranty reimbursement using e-Claim at www.ThePowerPortal.com. Use the values listed below when filling out the claim. The information in the “Brand” block indicates which tab the claim should be filed under. *Note: File only one unit per claim form.*

IMPORTANT NOTE:

In addition to the information below, **you must also include the serial number of the wheel motors that you update when filing your warranty claim.** See Figure 2 for the location of the serial number on your wheel motor. Include the wheel motor serial numbers in the “Component Serial Number / Date Code” box under the “Equipment Section” of your warranty claim.

Brand	Ferris		
Failure Location Category	Hydraulic	Cause of Failure	F101
Failure Location Code	H65	Work Performed	F101
Defect Code/Failure Mode	PM	Repair Parts Used	5600346
Control/Evaluation Number	F101		
Pick-Up & Delivery	N/A		
Total Hours (Tenths)	0.2 (Inspection Only) 0.5 (Inspection & Repair)		

Service Bulletin

SB-0005
Rev. P3

PRODUCTS AFFECTED: HGM-XXE-XXXX
Wheel Motors

SUBJECT: Axle shaft inspection and Castellated axle nut replacement.

DESCRIPTION: HGM-"E" series motors produced between the serial number range of 8076LXXXX and 9107LXXXX will require castellated axle nut (P/N 51821) and cotter pin (P/N 51822) to be replaced.

Note: The castellated axle nut and cotter pin as a kit are number 71867.

Suggested Tools:

- Jack or jack stands
- Dikes and / or needle nose pliers
- Small ball peen hammer
- 36 mm socket
- Optional impact gun(for removal)
- Torque wrench
- Breaker bar and extension

Important: This service action ensures that the motor shaft tip is intact. Because the wheel could dislodge from the shaft if tip is broken, vehicles should be serviced prior to driving or as soon as possible if in use.

Removal and reinstallation procedures:

1. With the vehicle on the ground, chock the vehicle to prevent vehicle movement. Properly position a hydraulic jack or suitable jack stand under the vehicle frame on each side of the vehicle, do not raise the vehicle.

2. Remove the cotter pin, and the castellated nut. Discard both parts as they will not be re-used.

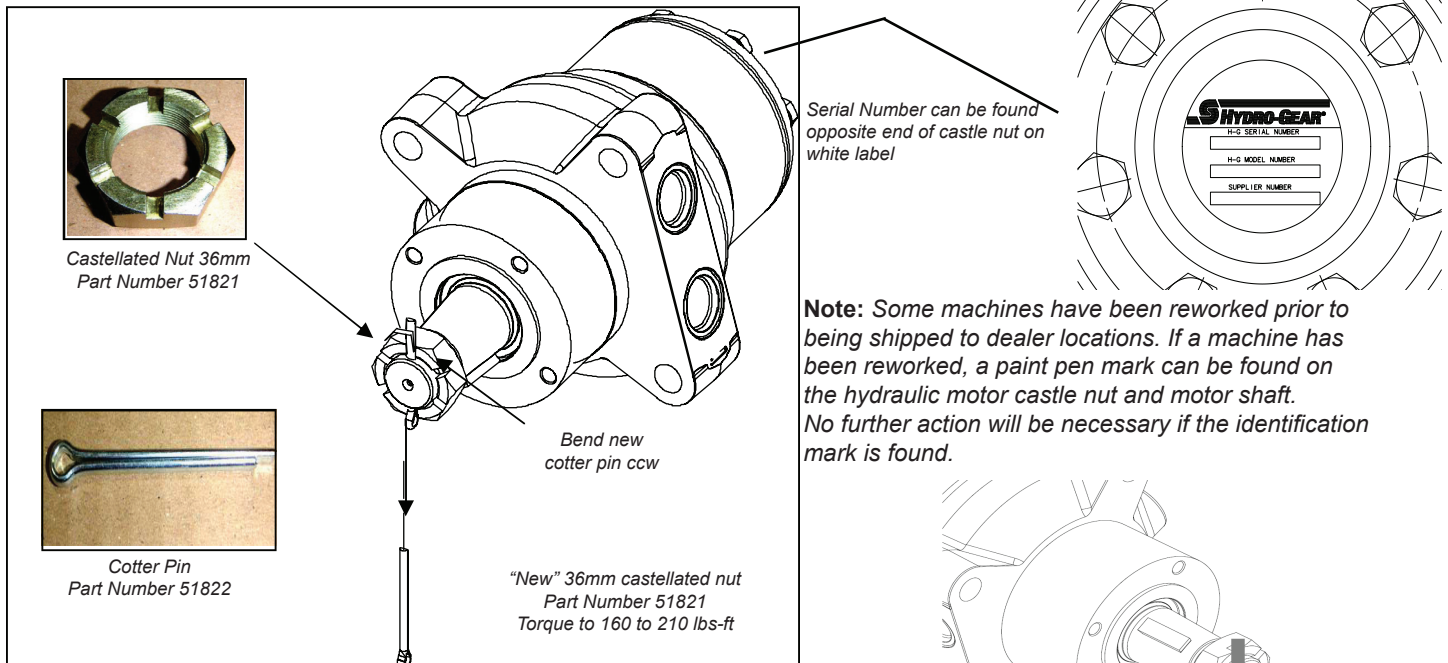
Caution: Service only one side of the vehicle at a time.

3. Install the new castellated nut manually with ratchet and socket and torque to 160 lbs-ft. (Increase torque until pin can align with hole in axle.)

4. Install new cotter pin, bend long cotter pin leg counter clockwise to mate with the castellated nut flat.

5. Repeat this step for each wheel motor on the vehicle.

6. Record model and serial number for each wheel motor serviced.



Installation Instructions

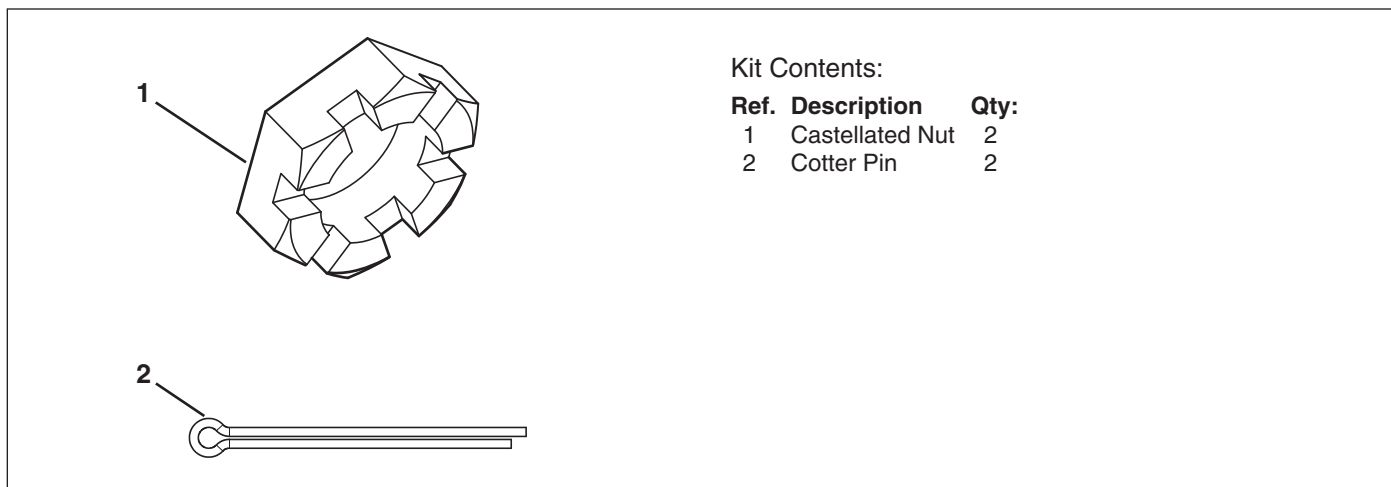
Castle Nut & Cotter Pin Replacement Kit

Part No. 5600346

For Ferris IS1500ZXBV2861 & IS2000Z Series

For Snapper Pro S200X & S800X Series

For Simplicity Citation & Cobalt Series



Kit Contents:

Ref.	Description	Qty:
1	Castellated Nut	2
2	Cotter Pin	2

Figure 1. Contents

WARNING

Before beginning any service work turn off the PTO, set the parking brake, turn off the ignition, and disconnect the spark plug wire(s).

INSTALLATION

1. Park the unit on a smooth, level surface such as a concrete floor. Disengage the PTO, engage the parking brake, turn off the engine, and remove the ignition key.
2. Chock the wheels of the unit to prevent movement.
3. Position jack stands under both side of the rear of the machine. **Do not raise the unit.**
4. Remove the cotter pin (B, Figure 1) and the castellated nut (A). Discard both parts, they will not be reused.
5. **If there are any signs of obvious damage to the tip of the wheel motor shaft, contact our Service Department at 1-800-933-6175 ext. 709.** If there is no evidence of damage continue with step # 6.
6. Install the new castellated nut on the wheel motor. Torque the castellated nut to 140 ft. lbs (190 Nm). Increase the torque until the cotter pin can align with the hole in the wheel motor axle shaft.

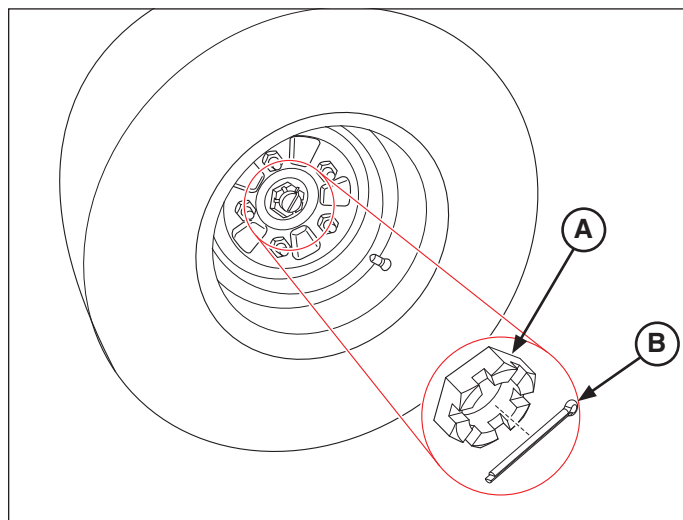


Figure 2. Installing the New Cotter Pin and Castellated Nut

A. Castellated Nut
B. Cotter Pin

6. Install the new cotter pin. Bend the long cotter pin leg COUNTER-CLOCKWISE to mate with the castellated nut flat.
7. Repeat process for other side of unit.