SMX91 Mower-Conditioner

Repair Manual

86630606

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COMPLETE CONTENTS

SECTION 00 - GENERAL INFORMATION

Chapter 1 - General Information

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Chapter 2 – Slip Clutch

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INTERNATIONAL SYMBOLS

As a guide to the operation of your tractor, various universal symbols have been utilized on the instruments, controls, switches, and fuse box. The symbols are shown below with an indication of their meaning.


Thermostart starting aid


Alternator charge


Fuel level


Automatic Fuel shut-off


Engine speed (rev/min x 100)


Hours recorded


Engine oil pressure


Engine coolant temperature


Coolant level


Tractor lights


Headlamp main beam


Headlamp dipped beam


Work lamps


Stop lamps

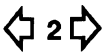

Horn


Radio

KAM Keep alive memory


Turn signals


Turn signals –one trailer


Turn signals –two trailers


Front wind-screen wash/wipe


Rear wind-screen wash/wipe


Heater temp-erature control


Heater fan


Air conditioner


Air filter blocked


Parking brake


Brake fluid level


Trailer brake


Roof beacon


Warning! Corrosive substance


P.T.O.

N Transmission in neutral


Creeper gears


Slow or low setting


Fast or high setting


Ground speed


Differential lock


Rear axle oil tem-perature


Transmission oil pressure


FWD engaged


FWD disengaged

Warning!

Hazard warning lights

Variable control

Pressurised! Open carefully

Position Control

Draft Control

Accessory socket

Implement socket

%age slip

Hitch raise (rear)

Hitch lower (rear)

Hitch height limit (rear)

Hitch height limit (front)

Hitch disabled

Hydraulic and transmission filters

Remote valve extend

Remote valve retract

Remote valve float

Malfunction! See Operator's Manual

Malfunction!(alternative symbol)

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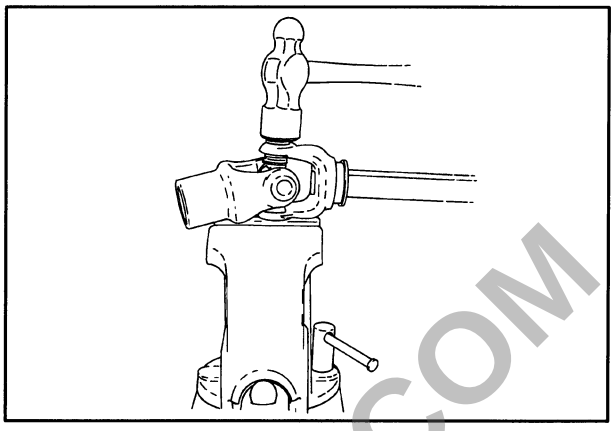
Position the cross in the vise as shown with the ears resting on the vise.

Position the second yoke so the cross is inside a bearing cap in the yoke.

Place a spacer against the bearing cap and drive or press the bearing cap into the yoke.

Turn the yokes over and install the remaining bearing cap.

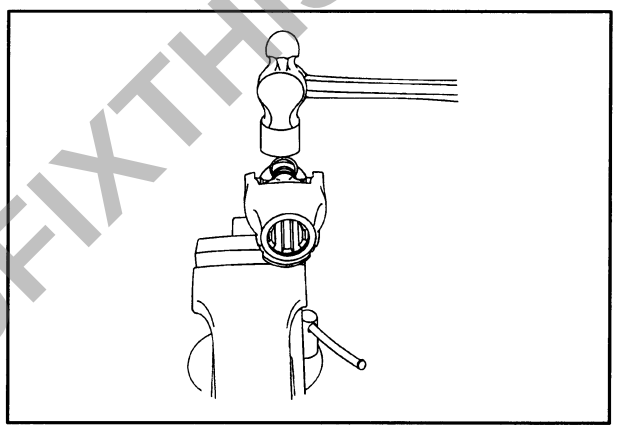
If a bearing cap cannot be installed completely, check to be sure a needle bearing roller has not fallen out of position in the cap. If a roller is out of position there will be extra space between the cap seal and cross.



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Install a snap ring in each bearing cap bore in the yoke.

If the snap ring cannot be installed, check to be sure a needle bearing roller has not fallen out of position in the cap. If the caps are seated correctly, the ears of the yoke may be sprung so they are too close together. Place an ear of the tight yoke in a vise and tap the yoke to spread the ears.



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TAPERED SPLINE CONNECTIONS - HAMMER SEATING

NOTE: *All tapered spline connections must be properly seated to prevent loosening.*

To hammer seat a tapered spline:

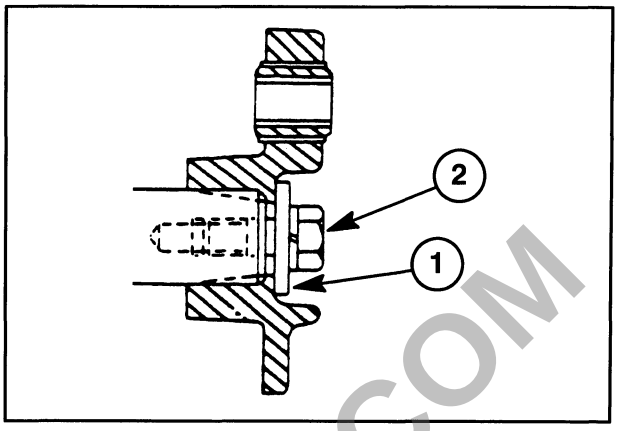
Install the part on the shaft.

Install the special washer, 1; lock washer; and cap screw, 2.

Strike the hub with a punch or driver and heavy hammer.

Retighten the center bolt to torque specifications.

Continue to strike the hub and retighten the cap screw until the torque does not decrease after striking.



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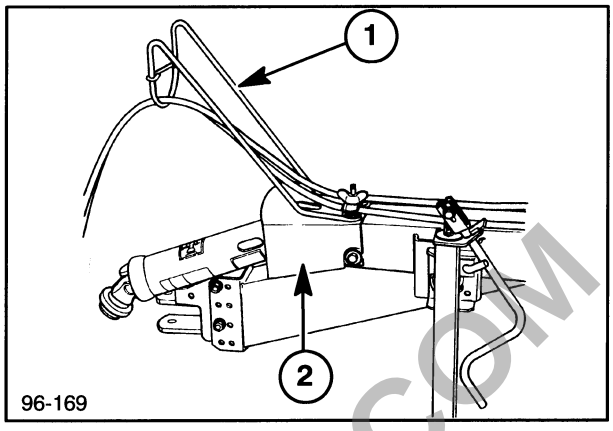
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SECONDARY PTO DRIVE SHAFT

Removing
Remove the hose support, 1, and shield, 2.



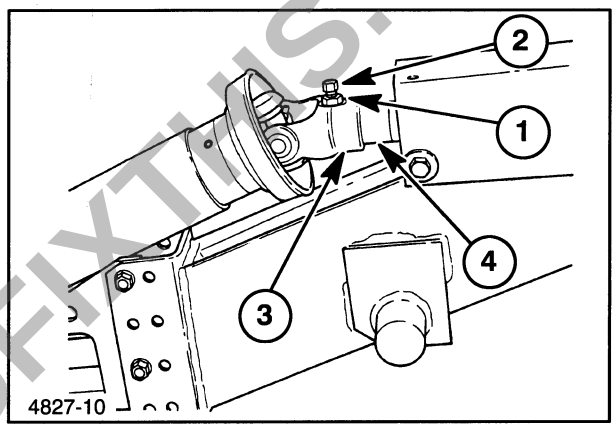
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Loosen the jam nut, 1, and remove the setscrew, 2. Slide the rear yoke, 3, and spacer, 4, off the splined shaft.

Remove the cap screws attaching the front bearing to the tongue.

Pull the shaft and bearing out of the tongue.

Remove the bearing from the shaft.



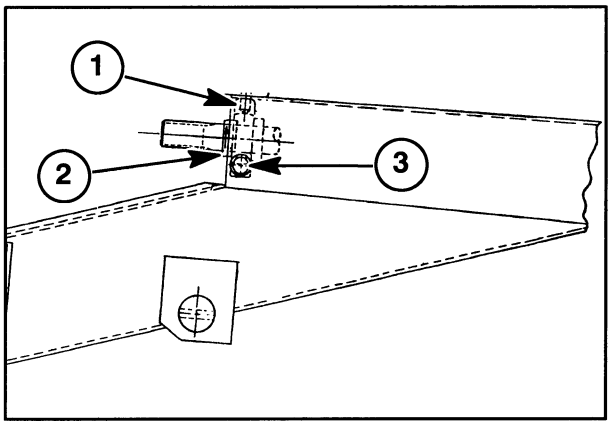
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Installing
Install the front bearing and housing, 1, on the shaft with the locking flange facing forward. Seat the bearing against the collar on the shaft.

Install the bearing locking collar, 2.

Place the shaft through the tongue and guide it into the splines in the slip clutch yoke.

Loosely install a cap screw at 3 to hold the bearing housing in position.



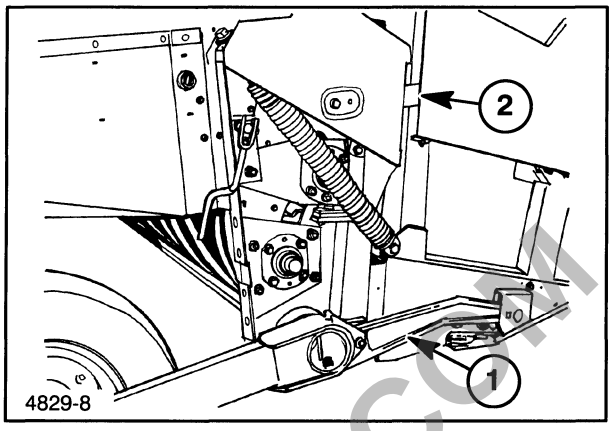
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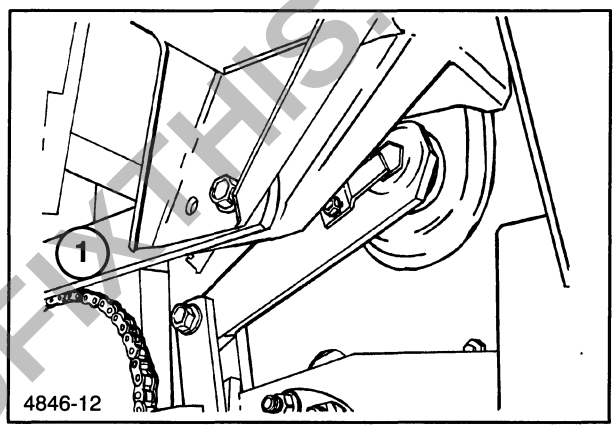
Attach the right lower lift link, 1, to the front hole in the header frame using a Grade 5, 3/4″ x 2-1/2″ short square neck carriage bolt and locknut. Tighten the nut so there is no end play of the bolt.

Attach the upper header link, 2, to the rear hole in the roll frame using spacers, 1/2″ x 2-1/2″ cap screws, lock washers, and nuts.



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Attach the left upper header link, 1, to the rear hole in the roll frame using spacers, 1/2″ x 2-1/2″ cap screws, lock washers, and nuts.

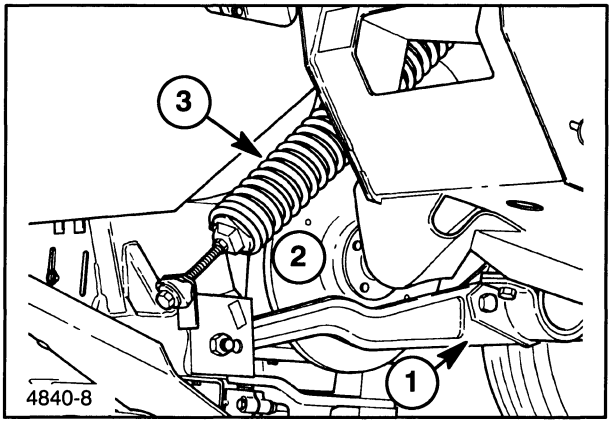


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Attach the left lower lift link, 1, to the front hole in the header frame using a Grade 5, 3/4″ x 3″ short square neck carriage bolt and locknut. Tighten the nut so there is no end play of the bolt.

Reinstall the header drive PTO on the wobble gearbox, 2, using four 3/8″ x 1-1/4″ cap screws and lock washers.

Install the header flotation springs, 3. Adjust the springs so a maximum of 310 N (70 lbs.) will just start to lift the header.



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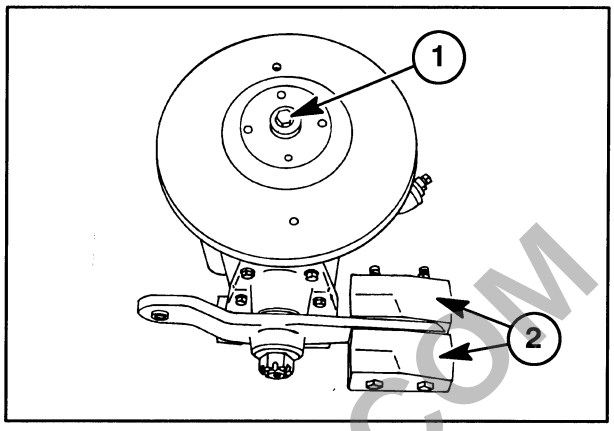
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Removing the Flywheel and Knife Arm Weights
Remove the cap screw, lock washer, and special washer at 1.

Tap the flywheel with a hammer to remove the flywheel from the tapered splines on the shaft.

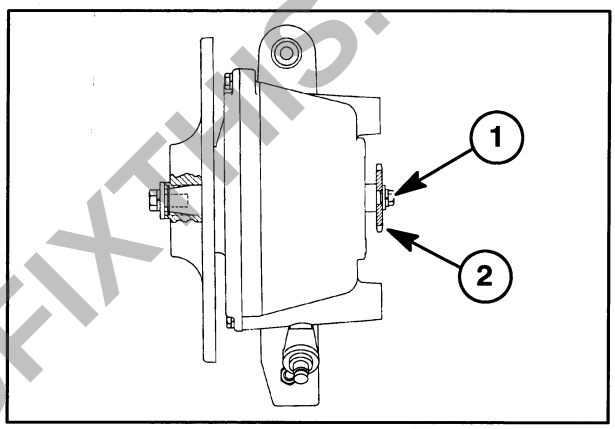
Remove the weights, 2, from the knife arm.



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Removing the Reel Drive Sprocket
Remove the cap screw, lock washer, and special washer at 1.

Remove the sprocket, 2, from the shaft.



10

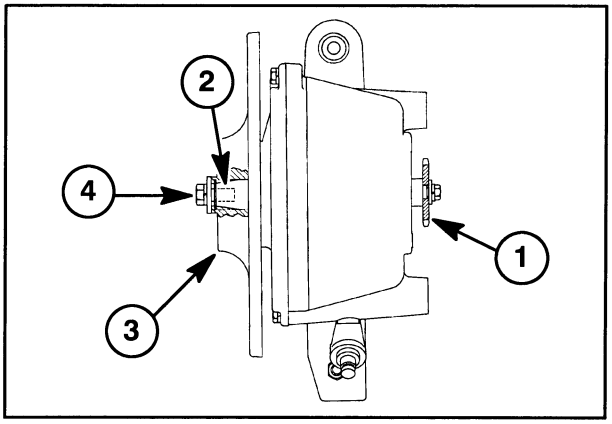
Installing the Wobble Gearbox
Install the reel drive sprocket, 1, on the gearbox output shaft using a 3/8″ x 1″ cap screw, lock washer, and special washer.

Thoroughly clean the splines of both the gearbox input shaft, 2, and the flywheel, 3.

Install the flywheel on the gearbox input shaft as follows:

- Place the flywheel on the input shaft.
- Install the special washer, lock washer, and 1/2″ x 1-1/2″ cap screw at 4.
- Torque the cap screw to 108 N·m (80 ft. lbs.).
- Strike the hub with a heavy hammer.
- Retorque the cap screw.
- Continue to strike the hub and retorque the cap screw until the torque does not decrease.

NOTE: *The washer should clear the shaft by 1.5 mm (1/16″). If the washer contacts the shaft, the cap screw will loosen.*



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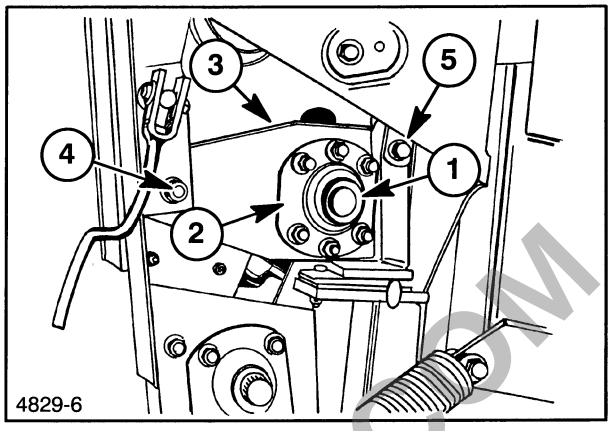
Remove the lock collar, 1, from the right upper roll bearing.

Use emery cloth to polish the roll shaft to ease bearing removal.

Remove the upper roll bearing flangettes, 2, and bearing.

NOTE: *A bearing puller or pry bar may be required to remove the bearing.*

Remove the right roll pivot arm, 3, by removing the spacer and pivot bolt at 4 and the spacer and cap screw at 5.

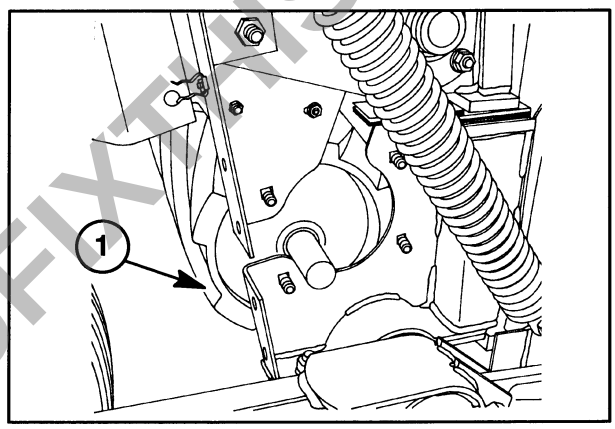


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⚠ CAUTION ⚠

The roll weighs approximately 54 kg (120 lbs.) and is awkward to handle. Have an assistant help with removing the rolls.

Lower the right end of the roll, 1, through the slot in the frame while working the roll to the right until the left shaft clears the frame.

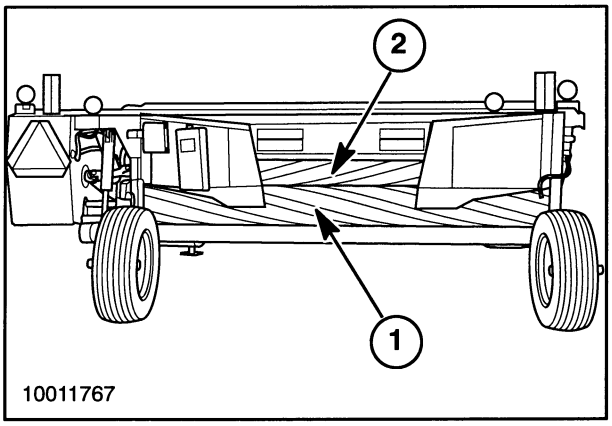


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INSTALLING THE ROLLS

Be sure the rolls are timed correctly and matched properly. The lugs must be positioned as shown.

NOTE: *The upper roll, 2, must be installed before the lower roll, 1.*



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