



Brake Service Kit
2001 Domestic T-Bar Gear-Drive Mid-Size Mowers
 Model No. 105-4654

Form No. 3350-770

Installation Instructions

Loose Parts

Note: Use the chart below to identify parts for assembly.

DESCRIPTION	QTY.	USE
Template No. 1, Lefthand Template No. 2, Righthand	1 1	Drilling Holes for Brakes
Brake Plate Link Brake Link Retaining Ring, 3/8 inch Retaining Ring, 5/16 inch	2 2 2 4	Installing the Brake Links
Brake Arm Brake Mounting Hub Flange Nut, 3/8 inch Flat Washer Screw, 3/8 x 1-3/4 inch Cotter Pin Decal	2 2 2 4 2 2 2	Installing the Brakes

Important This kit needs to be installed on both left and right brakes.

SERVICE NOTE:
For Brake Service
Refer to Brake Service
Assembly 105-4654.

105-4661

105-4661

Removing Existing Brakes

Warning

Mechanical or hydraulic jacks may fail to support machine and cause a serious injury.

- Use jack stand when supporting machine.
- Do not use hydraulic jacks.

Removing the Wheel Hub

1. Disengage the power take off (PTO), set the parking brake, and turn the ignition key to off. Remove the key.
2. Raise the rear of the machine onto jack stands high enough to raise the drive wheels off of the ground.
3. Remove the left and right drive tires (Fig. 2).
4. Disengage the parking brake.

5. Disconnect the left and right brake rods from the brake arms (Fig. 1).
6. Disconnect the left and right control rods and brake rods from the idler brackets (Fig. 1).

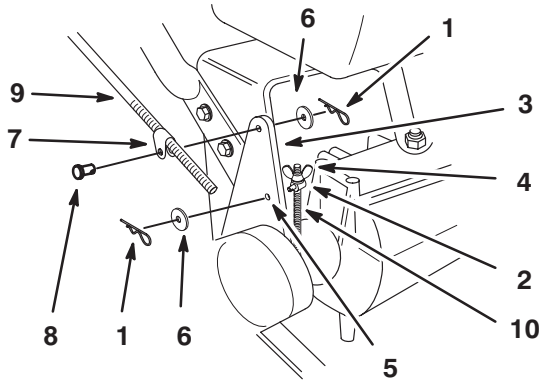
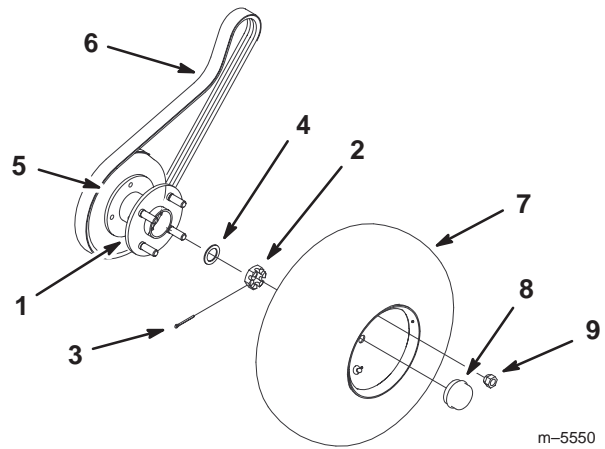


Figure 1

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|-------------------|----------------|
| 1. Hairpin cotter | 6. Washer |
| 2. Trunnion | 7. Rod fitting |
| 3. Idler bracket | 8. Clevis pin |
| 4. Wing nut | 9. Control rod |
| 5. Hole F | 10. Brake rod |

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m-5550

Figure 2

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|-----------------------|------------------|
| 1. Wheel hub assembly | 6. Traction belt |
| 2. Axle nut | 7. Tire |
| 3. Cotter pin | 8. Hub dust cap |
| 4. Spacer (if used) | 9. Nut |
| 5. Double pulley | |

7. Remove the traction belts from the double pulleys attached to the wheel hubs (Fig. 2). Move them to the rear over the traction drive pulley.

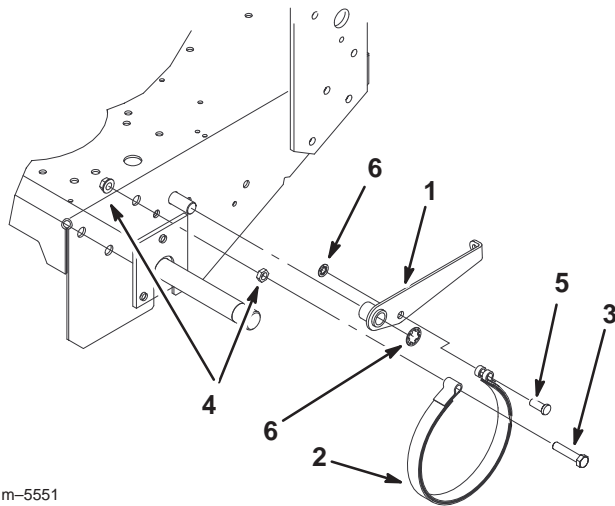
Note: Do not remove the belts completely from the machine.

8. Remove the hub dust caps (Fig. 2).
9. Remove the cotter pins from axle nuts, axle nuts, spacer washers (if used) and wheel hub assemblies (Fig. 2).

Note: Do not get grease on brake band and brake drum. Cover the wheel hubs to avoid getting dirt into them.

Removing the Brake Bands

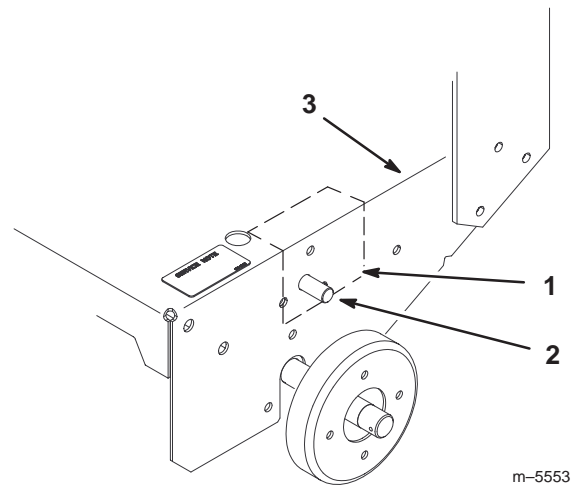
1. Remove the retaining rings holding brake arms to frame. Discard retaining rings (Fig. 3).
2. Remove the brake band bolts from the frame by removing the nuts on the inside of the frame (Fig. 3).
3. Remove the brake band and brake arm assemblies from the machine (Fig. 3).
4. Remove the bolts and nuts from the brake bands. These nuts and bolts can be discarded (Fig. 3).
5. Remove the clevis pins and retaining rings holding the brake bands to brake arms. The clevis pins, retaining rings and brake arms can be discarded.



m-5551

Figure 3

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|--------------------------------|-------------------|
| 1. Brake arm (Left hand shown) | 4. Nuts |
| 2. Brake band | 5. Clevis pin |
| 3. Bolt | 6. Retaining ring |



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Figure 4

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| 1. Template No. 1, Left side (Use template No. 2 for right side.) | 2. Brake pivot pin |
| | 3. Corner of frame |

Drilling Holes for Brakes

1. Locate and cut out templates number 1 (lefthand) and number 2 (righthand) as indicated on the templates. Fold the templates on the indicated fold line.

Note: Make sure the circle is cut out on both templates.

2. Slide template number 1 (lefthand) onto the brake pivot pin and place the fold onto frame. The fold must match up with the corner of the frame. Tape the template in this position (Fig. 4).

3. Center punch the hole that is needed to be drilled and remove the template (Fig. 4).

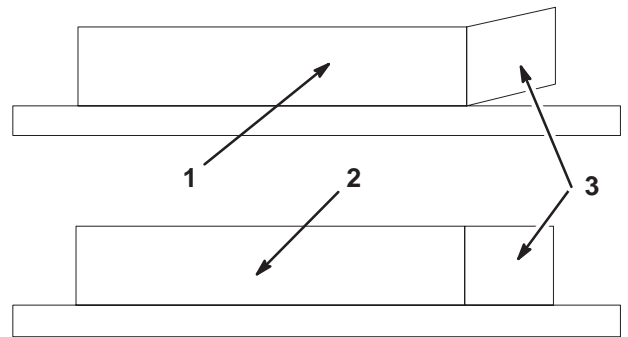
Note: The hole location is very important.

4. Cut off the left brake pivot pin and grind flush with frame. Do not damage side of frame.
5. Drill a 1/8 inch pilot hole into the frame at the punch mark. Then drill a 25/64 inch into the 1/8 inch hole.
6. Apply paint to the side of the frame where the pivot pin was removed.
7. Repeat these steps on the right side of the frame using template number 2.

Installing the Brake Links

Note: Brake band may need to be straightened.

1. Check to make sure brake band is straight. Lay band onto table to see if it is bent (Fig. 5).
2. If needed, bend band so it is straight.



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Figure 5

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| 1. Bent brake band, bend it straight | 3. Loop in band |
| 2. Straight brake band, correct position | |

3. Place a brake link assembly so the pins are pointing up (Fig. 6).
4. Install the brake band onto the brake link assembly. Install the band loops over the two 5/16 inch pins.
5. Install the new brake arm onto the 3/8 inch pin of the brake link assembly.
6. Place the brake link plate onto the assembly (Fig. 6).

7. Install 2 retaining rings (5/16 inch) on each of the 5/16 inch pins. This will hold the ends of the brake band on each assembly (Fig. 6).
8. Install a retaining ring (3/8 inch) on the 3/8 inch pin. This will connect the brake arm to the link (Fig. 6).
9. Repeat these steps for the opposite side.

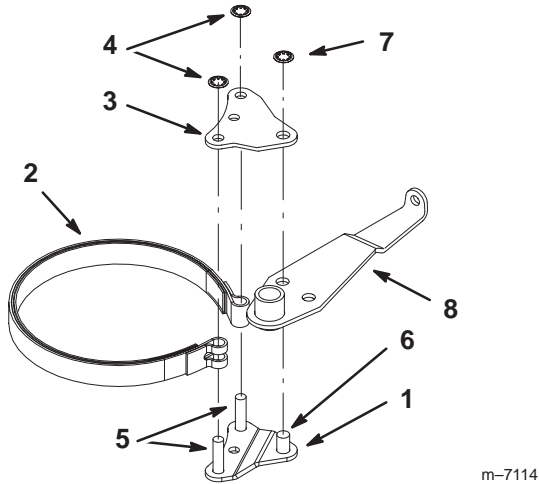


Figure 6

Left Side Brake Link Assembly

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| 1. Brake link assembly | 6. 3/8 inch pin |
| 2. Brake band | 7. Retaining ring, 3/8 inch |
| 3. Brake link plate | 8. Brake arm (Left hand shown) |
| 4. Retaining rings, 5/16 inch | |
| 5. 5/16 inch pins | |

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7. Install cotter pin into axle nut (Fig. 2).
- Note:** If notch in axle nut does not line up with hole in end of axle, loosen nut slightly and install cotter pin.
8. Refill wheel hub with grease and install grease cap (Fig. 2).
 9. Install decal onto machine in the position shown in figure 7.
 10. Repeat these steps for the opposite side.

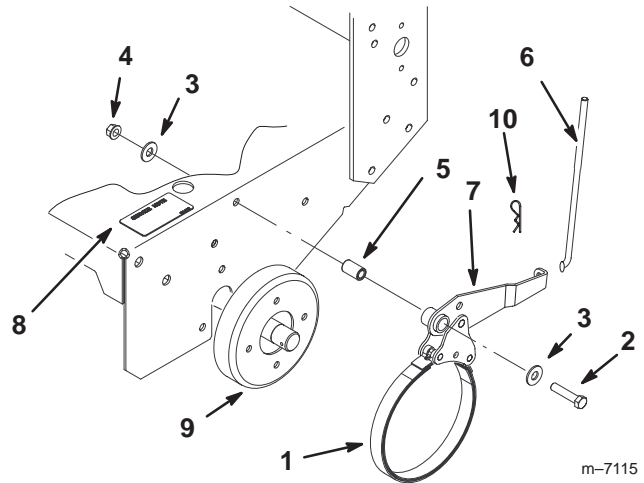


Figure 7

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| 1. Brake assembly | 6. Brake rod |
| 2. Mounting bolt (3/8 x 1-3/4 inch) | 7. Brake arm |
| 3. Washer | 8. Decal |
| 4. Flange nut, 3/8 inch | 9. Brake drum |
| 5. Brake mounting hub | 10. Hair pin cotter |

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Installing the Brake

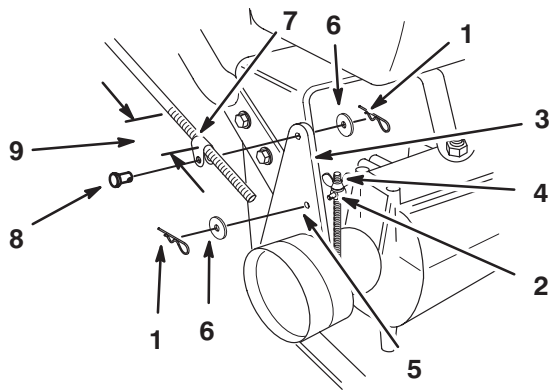
1. Place washer onto mounting bolt (3/8 x 1-3/4 inch) (Fig. 7).
2. Lubricate the outside of brake mounting hub with never-seize (Fig. 7).

Important Check to make sure the brake arm moves freely on the brake mounting hub. If required remove any excess paint from the brake arm.

3. Install the brake assembly to the machine using mounting bolt, washers, brake mounting hub and flange nut (3/8 inch) (Fig. 7). Tighten the bolt and nut to 30 ft-lbs (41 N·m).
4. Wipe any dirt or debris from the axle ends.
5. Place wheel hub assemblies onto axle while holding brake bands in place (Fig. 2).
6. Reinstall spacer washers (when needed) and axle nuts (Fig. 2). Tighten axle nut to 15 to 20 in-lbs. at the maximum.

Installing the Control Rods and Brake Rods

1. Install traction belts onto pulleys.
2. Install brake rods to brake arms with hairpin cotters and washers previously removed (Fig. 7).
3. Install brake rod trunions into idler bracket hole **F** with washers and hairpin cotters previously removed (Fig. 8).
4. Thread rod fittings equal distance onto each control rod. For a starting point, thread fittings on approximately 1-3/4 inch (44 mm) from the start of the threads (Fig. 8).
5. Slide clevis pins through rod fittings and mounting holes in idler brackets (from outside) (Fig. 8). Secure with washers and hairpin cotters (Fig. 8).



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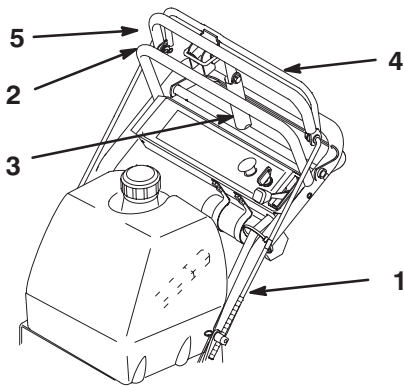
Figure 8

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|-------------------|----------------------|
| 1. Hairpin cotter | 6. Washer |
| 2. Trunnion | 7. Rod fitting |
| 3. Idler bracket | 8. Clevis pin |
| 4. Wing nut | 9. 1-3/4inch (44 mm) |
| 5. Hole F | |

6. Check the gap between upper control bar and fixed bar with wheel drive fully engaged. Gap should be approximately 1 to 1-1/4 inch (25-32 mm) (Fig. 9).

Note: The upper control bar and fixed bar must be parallel when in engaged, drive, relaxed and brake positions.

7. Check operation. If adjustment is required, remove hairpin cotter securing rod to upper control bar. Thread rod in or out of fitting for proper position and install into upper control bar with hairpin cotter.



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Figure 9

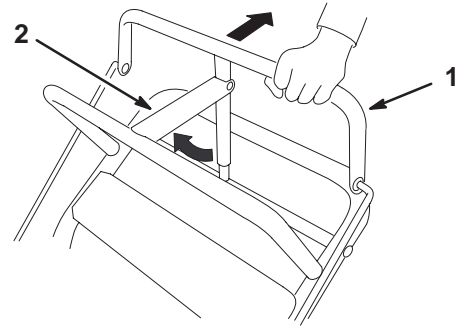
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|------------------------|------------------------|
| 1. Control rod | 4. Upper control bar |
| 2. Fixed control bar | 5. 1 to 1-1/4 inch gap |
| 3. Parking brake lever | |

8. Install rear wheels (Fig. 2).
9. Remove machine from jack stands.
10. Check brake operation and proceed to Servicing the Brake.

Servicing the Brake

Checking the Brake

1. Park the machine on a level surface, disengage the power take off (PTO) and turn the ignition key to off. Remove the key.
2. Set the parking brake (Fig. 10).



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Figure 10

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| 1. Upper control bar | 2. Parking brake lever (set position) |
|----------------------|---------------------------------------|
3. Rear wheels must lock when you try to push the machine forward. Adjustment is required if the wheels turn and do not lock; refer to Adjusting the Brake.
 4. Release the brake and press upper control bar very lightly, approximately 1/2 inch (13 mm), wheels should rotate freely.
 5. If both conditions are met no adjustment is required.

Adjusting the Brake

The parking brake lever is on the upper control bar (Fig. 10). If the parking brake does not hold securely, an adjustment is required.

1. Check the brake before you adjust it; refer to Checking the Brake, page 5.
2. Release the parking brake.
3. To adjust the brake remove the hairpin cotter and washer from the trunnion. Remove trunnion from the idler bracket (Fig. 11).
4. Rotate the wingnut clockwise to increase the brake force or counter clockwise to reduce the brake force (Fig. 11).
5. Secure trunnion to idler bracket with washer and cotter pin (Fig. 11).
6. Check the brake operation again; refer to Checking the Brake.

Important With the parking brake released, the rear wheels must rotate freely when you push the mower. If brake action and free wheel rotation cannot be achieved contact your service dealer immediately.

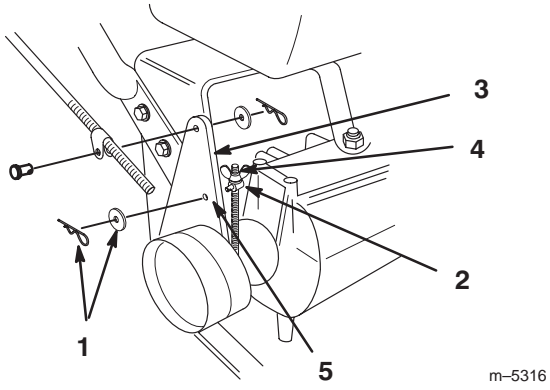
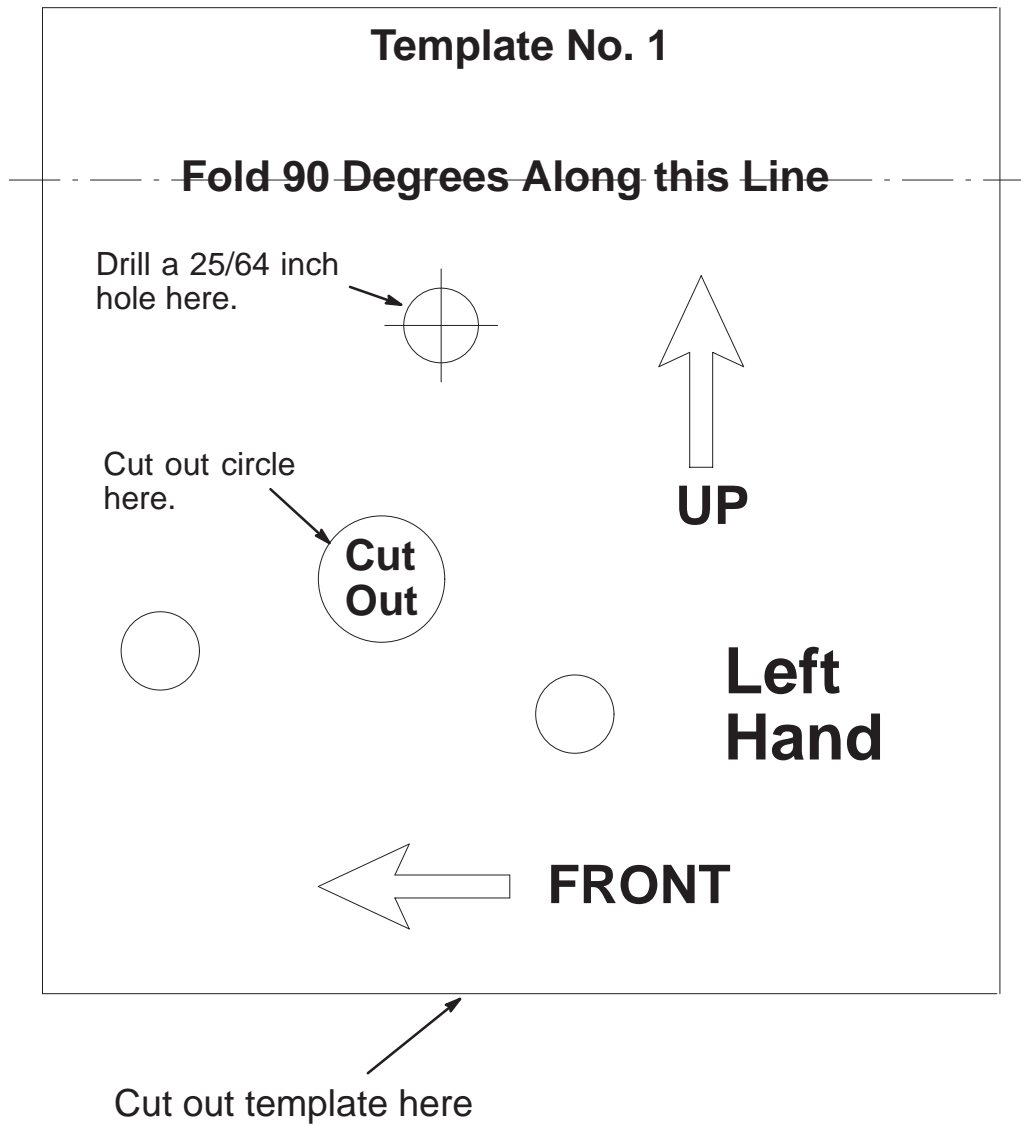


Figure 11

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|------------------------------|-------------|
| 1. Hairpin cotter and washer | 4. Wing nut |
| 2. Trunnion | 5. Hole F |
| 3. Idler bracket | |

Template No. 1



Template No. 2

