

**⚠ WARNING****CALIFORNIA
Proposition 65 Warning**

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Loose Parts

Use the chart below to verify that all parts have been shipped. Part numbers not shown are available on the dealer extranet.

Dealer Pack			
Part No.	Description	Qty.	Use
323-4	Screw, HH 3/8-16 x 3/4 inch	8	Installing the front caster wheels.
3290-357	Nut, Whizlock 3/8-16 inch	8	
107-4543	Clamp, Tank	2	Installing the fuel tank.
322-10	Screw, HH 5/16-18 x 2	2	
3256-3	Washer, 5/16 Std	2	
104-8300	Nut, Nyloc 5/16-18 Flg	2	
323-6	Screw, HH 3/8-16 x 1 inch	4	Installing the handle assembly.
3296-39	Nut, Nyloc 3/8-16 inch	4	
1-806003	Hairpin, Cotter	2	Install the PTO engagement linkage.
1-808286	Pin, Clevis (Pistol Grip Only)	2	Installing and adjusting the wheel drive linkages.
1-806003	Hairpin, Cotter (Pistol Grip Only)	2	
322-9	Screw, HH 5/16-18 x 1 3/4 inch (ECS Only)	2	
3296-29	Nut, Nyloc 5/16-18 inch (ECS Only)	2	
1-303287	Tie, Cable	2	Connecting the wire harness.
103-2106	Key, Exmark Logo	1	Fill out the online warranty registration form and place keys into literature pack.
1-603511	Key, Standard	1	

Literature Pack

Manual, Operator's

Manual, Engine Owner's (Non-Exmark Engines)



Uncrating the Unit

1. Leaving the unit on the pallet, place the upper handle assembly, the fuel tank, and the shifter lever at the rear of the machine. Place the casters at the front of the unit.
2. Place a length of 4 inch x 4 inch (10 cm x 10 cm) block between the front of the mower deck and the pallet.
3. Remove the bolt bag from under the mower deck belt shield.
4. Refer to the parts manual to help you identify and locate the parts and their proper position.

Installing the Front Caster Wheels

Install the casters to the front of the deck using eight 3/8-16 x 3/4 inch bolts and eight 3/8 inch whizlock nuts. Tighten the lower four bolts first, then the top four.

Installing the Fuel Tank

1. Install the fuel tank on top of the fuel tank support. Secure each side of the tank with a clamp, 5/16-18 x 2 inch screw, washer, and 5/16 inch nyloc nut.
2. Attach the fuel supply hose to the bottom tank fitting and secure with the clamp provided.
3. Attach the purge hose from the tee on the engine (canister on CA units) to the top fitting of the fuel tank as shown in Figure 1. Press the hose into the slot on the tank to retain it.

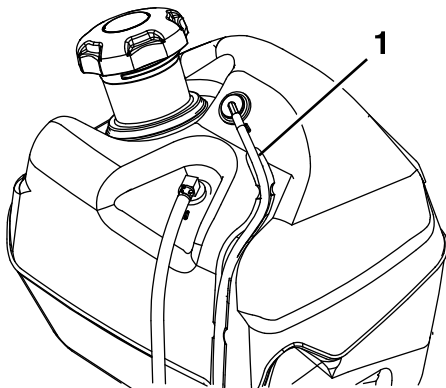


Figure 1

1. Attach purge hose to top fitting

Installing the Handle Assembly

Position the lower end of the handle assembly on the outside of the upper rear section of the fuel tank and handle support. Install one 3/8-16 x 1 inch bolt (from the outside in) in the upper hole on each side of the handle. Loosely secure each screw with a 3/8" nyloc

nut. The handle can now be pivoted to allow positioning in one of the three holes allowing various adjustments for operator comfort (Figure 2 and Figure 3). Once a proper position is found, install one 3/8 x 1 inch bolt in the bottom mounting holes on each side of the handle. Secure each bolt with a 3/8 inch nyloc nut. Tighten all hardware.

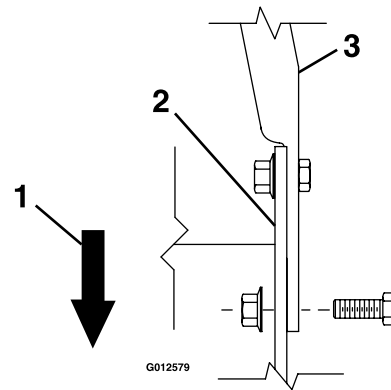


Figure 2

1. Front of the unit
2. Upper handle mounting tab
3. Upper handle

Note: If the mower has been completely assembled and the handle position is changed, it will be necessary to readjust the drive and brake linkage.

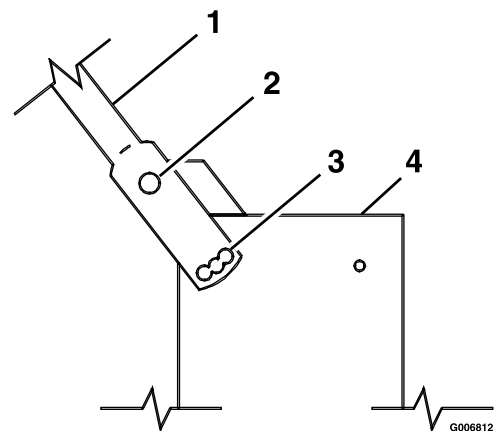


Figure 3

Adjustment Holes are actually in the side of the fuel tank support.

1. Upper handle
2. Upper hole
3. Adjustment holes
4. Fuel tank support

Attaching the Throttle Cable

Route the throttle cable along the left side of the upper handle, through the clip, under the fuel tank support, and position the cable on the front of the engine.

Attach throttle cable to engine:

1. Position the throttle control lever (located on the console) in the full throttle position. You will feel a detent when the throttle lever is pushed towards the upper end of the slot.
2. Attach the inner wire of the throttle cable to the top hole in the throttle control lever as shown in Figure 4.
3. Loosen the clamp, install the throttle cable on the bottom side of the clamp, and pull on the cable to move the throttle linkage to the full throttle position. Tighten the cable clamp screw.

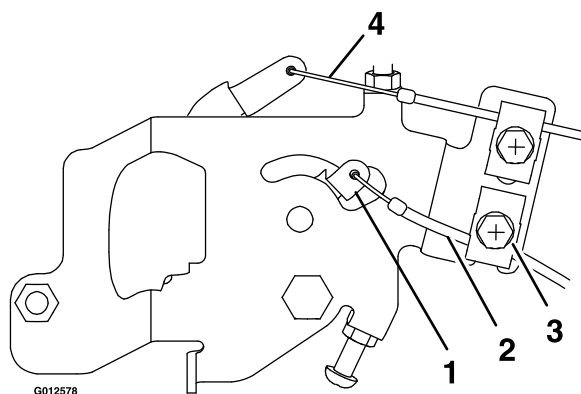


Figure 4

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|--|----------------|
| 1. Throttle control lever | 3. Clamp |
| 2. Throttle cable — Located on bottom side of clamp. | 4. Choke cable |

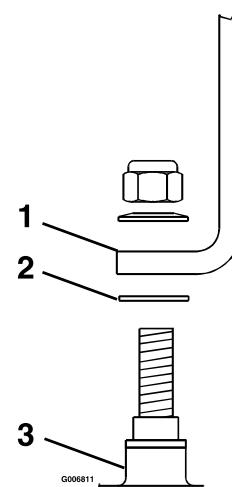


Figure 5

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|-----------------------|-----------------|
| 1. Shifter lever | 3. Transmission |
| 2. Square hole washer | |

2. Shift the lever to second gear and check the alignment of the lever in the slot of the shifter plate. Clearance between the top of the lever and the top of the slot should be about equal to the clearance between bottom of the lever and the bottom of the slot (Figure 6). If it is not, remove the lever and bend it slightly to adjust. **DO NOT** bend the lever while it is attached to the transmission. Reinstall the lever and tighten the hardware.

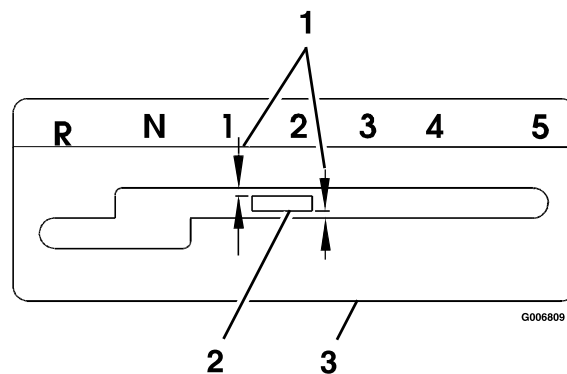


Figure 6

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|-------------------|------------------|
| 1. Equal distance | 3. Shifter plate |
| 2. Shifter lever | |

Install the PTO Engagement Linkage

1. Install the blade engagement linkage to the bell crank on the **Left Hand** side of the transmission below the LH transmission drive shaft.
2. Insert rod through the hole from the outside and fasten with cotter hairpin.

Installing and Adjusting the Shifter Lever

1. Remove the 3/8 inch nyloc nut and the spring disc washer from the stud on top of the transmission. Install the shifter lever through the slot in the shifter lever plate and onto the stud on top of the transmission. Be sure the square-hole washer remains between the lever and the transmission. Replace the spring disc washer and the nyloc nut (Figure 5). Torque the 3/8 inch nut to 35 ft-lb (47 N-m).
3. Shift the lever to the neutral position. The lever should not contact the left edge of the upper slot. Push the lever down. The lever should not contact the right edge of the bottom slot (Figure 7). The shifter plate can be adjusted side to side to adjust the position of the lever relative to the slot in plate. Loosen the two bolts securing the shifter plate to the shifter lever legs. Adjust shifter plate and retighten bolts.

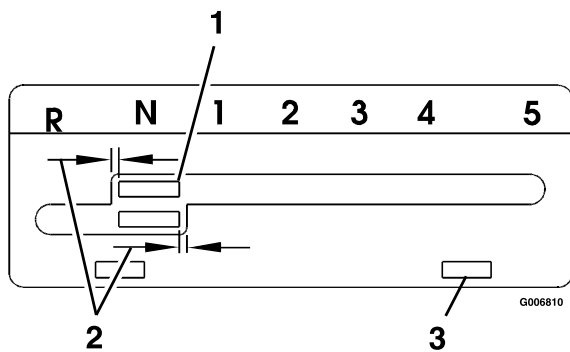


Figure 7

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|-------------------|---------------------|
| 1. Shifter lever | 3. Adjustment slots |
| 2. Equal distance | |

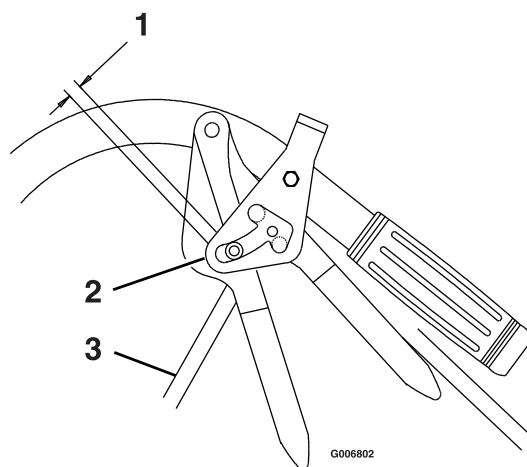


Figure 9

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|---|
| 1. 3/16 inch to 1/4 inch (4.7mm to 6.4mm) |
| 2. Neutral lock/park brake latch |
| 3. Drive linkage |

Installing and Adjusting the Wheel Drive Linkages

For Pistol Grip Handles:

1. Screw the threaded end of the drive linkages into the swivels in the wheel drive idler arms.
2. Insert the clevis pin from the bolt bag through the drive linkage, the lever and the slot in the neutral lock/park brake latches (Figure 8). Make the proper adjustments before adding the hairpins.

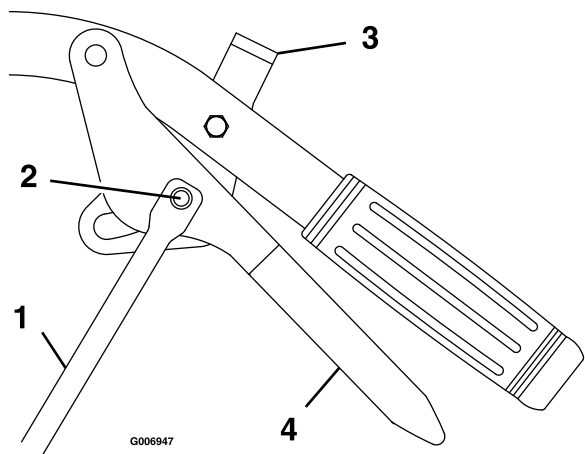


Figure 8

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|------------------|----------------------------------|
| 1. Drive linkage | 3. Neutral lock/park brake latch |
| 2. Clevis pin | 4. Drive lever |

3. Adjust the drive linkage length by threading it into or out of the swivel until there is a 3/16 inch to 1/4 inch (4.7mm to 6.4mm) clearance between the linkage assembly and the bottom of the slot in the neutral lock/park brake latch (Figure 9).

Note: The neutral lock/park brake latch clearance should be checked where there is a slight upward force placed on the drive levers to remove any “slack” in the linkage.

4. After the clevis pin has been inserted, install the hairpin into the hole on the clevis pin between the neutral lock/park brake latch and the drive lever (Figure 10).

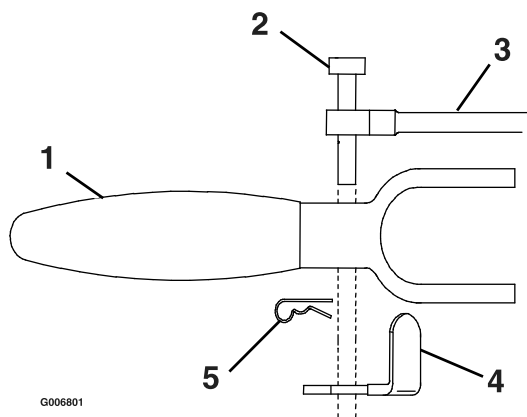


Figure 10

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|------------------|----------------------------------|
| 1. Drive lever | 4. Neutral lock/park brake latch |
| 2. Clevis pin | 5. Hairpin |
| 3. Drive linkage | |

5. Repeat the procedure on opposite side of unit.

For ECS Handles:

1. Locate the drive lever linkages which have the balljoint and the jam nuts installed on one end.

Locate two 5/16-18 x 1 3/4 inch hex capscrews and two 5/16-18 inch nyloc nuts in the bolt bag.

2. Thread the drive lever linkage into the swivel located on the wheel drive idler arm. Thread the drive lever linkage in until the flat edge of the drive lever aligns with the bottom of the roller notch in the neutral lock/park brake latch when the 5/16-18 x 1 3/4 inch hex capscrew is inserted through the hole in the drive lever and the hole in the ball joint.
3. Secure with the 5/16-18 inch nyloc nut. Tighten the nut.
4. Repeat the procedure for the other side. See Figure 11 and Figure 12.

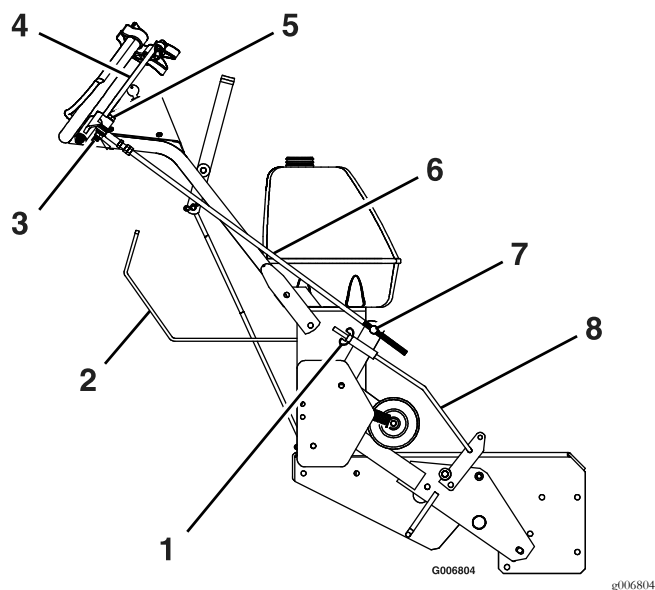


Figure 11

Right Side of Unit Shown

- | | |
|----------------------------------|--------------------------------------|
| 1. Wingnut | 5. 5/16-18 x 1 3/4 inch hex capscrew |
| 2. Transmission lever in neutral | 6. Drive lever linkage |
| 3. 5/16-18 inch nyloc nut | 7. Swivel |
| 4. Drive levers in neutral | 8. Brake rod |

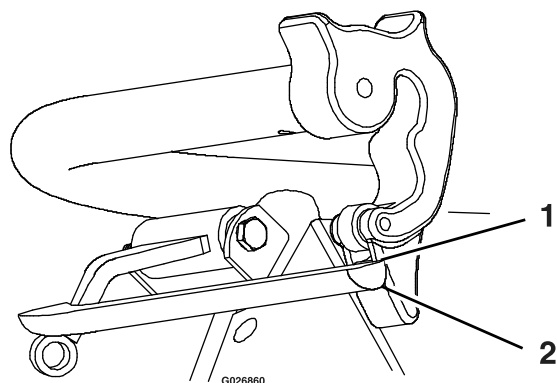


Figure 12

1. Notch in neutral lock/park brake latch
2. Drive lever

Adjusting the Brakes

1. Adjust the park brake by rotating the wingnut on the upper end of each brake rod. Tighten the wingnut until the brakes engage when the drive levers are squeezed enough to allow the neutral lock/park brake latches to be placed into the “park brake” position. See Figure 13 for Pistol Grip Handles and Figure 14 for ECS Handles.

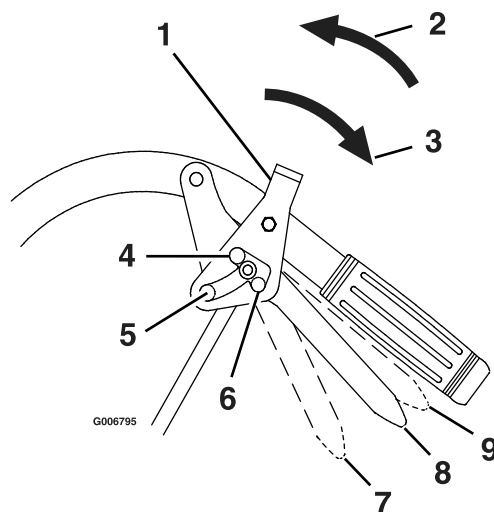


Figure 13

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|---|------------------------------------|
| 1. Latch is in the drive position | 6. Neutral lock |
| 2. Rotate forward for park brake position | 7. Forward – release drive lever |
| 3. Rotate back for neutral lock position | 8. Neutral – hold in this position |
| 4. Park brake | 9. Reverse – squeeze drive lever |
| 5. Full speed forward | |

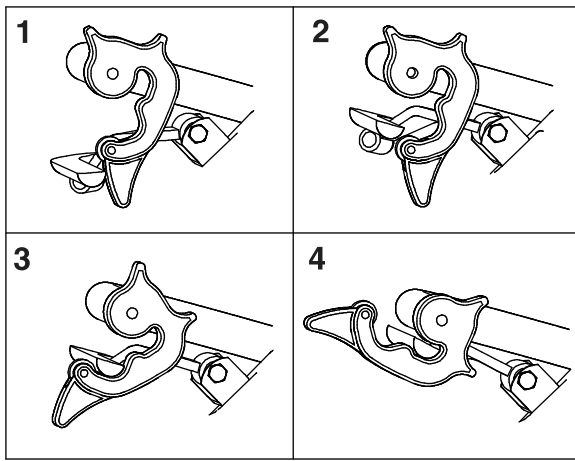


Figure 14

1. Drive lever in drive position
2. Drive lever in neutral position
3. Drive lever locked in neutral position
4. Drive lever locked in park position

2. Check the brake for correct adjustment:
 - A. Place the drive levers in the **“park brake”** position. The mower **should not** move forward or backward. If it does, tighten the wingnuts.
 - B. Place the drive levers in the **“neutral lock”** position. The mower **should** move forward and backward freely. If it does not, loosen the wingnuts.

Note: The neutral lock/park brake latches must be able to be moved into the park brake position, if not, the brake linkages must be adjusted again.

Connecting the Wire Harness

1. Route the long, unattached wiring harness lead up the left hand side of the handle and connect the flag terminals, in any order, to the operator presence control switch terminals on the inside of the control console.
2. Connect the connector on the end of the other lead to the key switch.
3. Fasten the lead to the handle with two small wire ties, from bolt bag, one at the upper end of the handle next to the console and one at the very lower end of the handle where it attaches to the fuel tank support.

On ECS units: Fasten leads to the small hole in the channel under the console.

Checking Tire Pressure

1. Check the tire pressure in the drive tires. Proper inflation for drive tires is 12-16 psi (83-110 kPa).
2. Adjust the tire pressure within 12-16 psi (83-110 kPa) range to make the tire circumferences match as closely as possible.

Greasing the Unit

Note: The unit is not greased at the factory.

Lubricate fittings with NLGI grade #2 multi-purpose gun grease. Refer to the following chart and Figure 15 for fitting locations and initial pumps.

Lubrication Chart					
Fitting Locations	Initial Pumps	Number of Places			Service Interval
		32 inch Deck	36 inch Deck	48 inch Deck	
1. Front Caster Wheel Bearings	12	2	2	2	Daily
2. Front Caster Pivots	2	2	2	2	Daily
3. Drive Wheels	18	2	2	2	Daily
4. Drive Wheel Idler Arm	2	2	2	2	Daily
5. Brake Arm	2	2	2	2	40 hours
6. Transmission Output Shaft Coupler	2	2	2	2	40 hours
7. Mower Deck Idler Pivots	2	1	1	1	40 hours

Number 4 and 7 (Idler Arm Pivots) Disassemble and grease once a month under a “No Load” condition.

Number 6 (Transmission Coupler) Located below fuel tank support.

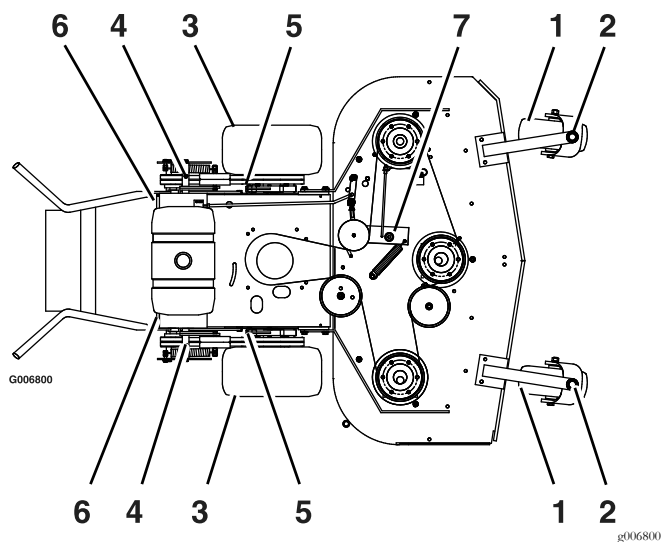


Figure 15

48 inch Deck Shown for Reference Only

Servicing the Engine

The engine is shipped with oil; check oil level and if necessary fill to the appropriate level. Exmark 4-Cycle Premium Engine Oil is recommended; refer to the Engine Owner's manual for an appropriate API rating and viscosity.

Filling Out the Product Registration

Fill out the online warranty registration form and place keys into literature pack.