

# Illustrated Parts & Packing List

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### 628833HD

## **Ground Drive w/Traction Tire**

For 10 & 21.9/30 Cu. Ft. Orbit-Air® Models

## w/32-Tooth Sprocket on Wheel Shaft for Higher Metering Rates

(Use Rate Chart for 32-Tooth Sprocket)

(All Hardware in Hardware Bag Unless Otherwise Specified)

1628833-AHD	Parts Carton Containing the Following:
1G01-0018-010	
20906240	
424069122-9	Stud Bolt (5/8 x 8-1/2 Long)
126080133-5	Pressure Rod
13808253-23	Comp Spring
15608328-20	Cable (3/16 x 19 Ft Long)
26108534-20	Angle Clamp
36108534-7	U-Bolt (1/2)
1628728-1	Sprocket 32-Tooth #41 (1-inch Bore, 1-1/16 Long Hub)
1628833-1	Sprocket 16-Tooth #41 (1-inch Bore, 1-1/2 Long Hub)
1628833-2	Sprocket Double 18/32-Tooth #41 (1-inch Bore, 2-5/16 Long Hub)
1628833-3	Wheel Hub, 4-Bolt (w/ Four C01-0500-080 Hub Nut 1/2-20 UNC)
1628833-6	Pivot Tube (w/ Grease Fitting D05-5010-050 in Place)
1628833-8	Pivot Arm, HD
1628833-9	Axle Housing, HD
1628833-10	Mounting Angle, Left HD (w/ Grease Fitting D01-5010-050 in Place)
1628833-11	Mounting Angle, Right HD (w/ Grease Fitting D01-5010-050 in Place)
1628833-12	<b>O</b> , ,
1628833-13	Shaft (11-1/2 x 1-inch Dia)
1628833-H	Hardware Bag (See Page #2 for Contents)
1638611-4	
1638720-1	Shaft, Ground Wheel (1 x 14-1/2 Long)
1Bag Containing Roller C	Chains (Contents Below)

#### **Roller Chain Bag Containing The Following Two Chains:**

5.33 Ft	F02-0041-000	Roller Chain #41	(128-Rollers Long)
5.33 Ft	F02-0041-000	Roller Chain #41	(128-Rollers Long)

## Hardware Bag 628833-H Containing The Following:

1C01-0375-010	Hex Bolt (3/8)
2 C01-0500-040	Lock Nut, Center Point (1/2)
8 C01-0625-010	Hex Nut (5/8)
1C02-0375-010	Lock Washer (3/8)
2C02-0375-030	Wrought Washer (3/8)
6C02-0500-010	Lock Washer (1/2)
4	SAE Washer (1/2)
8 C02-0625-010	Lock Washer (5/8)
8 C02-0625-030	Wrought Washer (5/8)
4	
1C04-0375-130	Carriage Bolt (3/8 x 3-1/4)
3C05-0375-030	Sq Head Set Screw (3/8 x 5/8)
1	Cotter Pin (3/32 x 3/4)
1	
1 C20-0187-030	Cotter Pin (3/16 x 1-1/4)
2C20-0187-040	Cotter Pin (3/16 x 1-1/2)
1C22-0250-140	Clevis Pin (1/4 x 2)
1C22-0500-030	
2 F02-0041-001	Connector Link #41
2 F02-0041-002	Offset Link #41
2F09-0000-000	Quick Link (1/4 x 2-1/4)
2 G03-0075-010	
2 M11-0187-010	Steel Thimble (3/16)
4 M11-0187-020	Wire Cable Clamp (3/16)
1 2606846-6	<b>C</b> .
1 2607098-11	
1 5508336-6	Key (1/4 x 1-3/8)

1 628833-10	Mounting Angle Left
1 020033 10	Use: 1 Grease Fitting (D01-5010-050) (in Place)
1 628833-11	
1 020033 11	Use: 1 Grease Fitting (D01-5010-050) (in Place)
2 6108534-20	Angle Clamn
424069122-9	
424007122-7	Use: 8 Hex Nut (5/8) (C01-0625-010)
	8 Wrought Washer (5/8) (C02-0625-030)
	8 Lock Washer (5/8) (C02-0625-010)
1G01-0018-010	
1	Use: 1 Carriage Bolt (3/8 x 3-1/4) (C04-0375-130)
	2 Wrought Washer (3/8) (C02-0375-030)
	1 Lock Washer (3/8) (C02-0375-010)
	1 Lock Washer (3/8) (C02-03/3-010) 1 Hex Nut (3/8) (C01-0375-010)
	1 Hex Nut (3/8) (C01-03/3-010) 1 Bushing (3/4 O.D. x 1-9/16 Long) (2606846-6)
1 628833-8	1 Bushing (1/2 O.D. x 3/4 Long) (2607098-11)
1 028833-8	
1 (20022-12	Use: 2 Bearing 1-inch bore (D05-1000-080) (in Place)
1	Shart Drive (1 x 19-1/2 Long)Sprocket Double 18-32 Tooth (1-inch Bore, 2-5/16 Long Hub)
1 028833-2	1
1 628833-9	1 Cotter Pin (3/16 x 1-1/2) (C20-0187-040)
1 028833-9	
	Use: 2 Bearing 1-inch Bore (D05-1000-080) (in Place)
	2 U-Bolt 1/2-inch (For 3 x 2 Tube) (6108534-7)
	4 Hex Nut (1/2) (C01-0500-010)
1 629720 1	4 Lock Washer (1/2) (C02-0500-010)
	Shaft, Ground Wheel (1 x 14-1/4 Long)
	Sprocket 32-Tooth (1-inch Bore, 1-1/6 Long Hub)
	Use: 1 Cotter Pin (3/16 x 1-1/2) (C20-0187-040)
1 628833-3	
	Use: 4 Hub Stud (1/2-20 UNC x 1-5/8) (C14-0500-060) (in Place)
	4 Hub Nut (1/2-20) (C01-0500-080) (in Place)
	1 Clevis Pin (1/4 x 2) (C22-0250-140)
5 22 54 502 0041 000	1 Cotter Pin (3/32 x 3/4) (C22-0093-020)
5.33 Ft F02-0041-000	
	Use: 1 Connector Link #41 (F02-0041-001) 1 Offset Link #41 (F02-0041-002)
1 620611 4	1 011500 21111 11 (1 02 00 11 002)
1 638611-4	
	2 Hex Nut (1/2) (C01-0500-010)
1 628833-6	2 Lock Washer (1/2) (C02-0500-010)
1 028835-0	
	2 Lock Nut, Center Point (1/2) (C01-0500-040)
1 26090122.5	2 SAE Washer (1/2) (C02-0500-020)
126080133-5	, &
	Use: 1 Clevis Pin (1/2 x 1-27/64) (C22-0500-030)
	1 Cotter Pin (5/32 x 1) (C20-0156-020)
2 000/240	1 Cotter Pin (3/16 x 1-1/4) (C20-0187-030)
2 0906240	
	Use: 2 Sq. Head Set Screw (3/8 x 5/8) (C05-0375-030)

1	Compres	sion Spring	
1			
U	Jse: 2	Pulley, Solid Eye (1-1/2) (G03-0075-010)	
	2	Quick Link (7/32 x 1-1/4) (F09-0000-000)	
	2	Wire Cable Clamp (3/16) (M11-0187-020)	
	2	Steel Thimble (3/16) (M11-0187-010)	
1S <sub>I</sub>	procket	, 16-Tooth (1-inch Bore)	
U	Jse: 2	Socket Set Screw (1/4 x 1/4) (C06-0250-020) (in Place)	
	1	Key (1/4 x 1-3/8) (5508336-6)	
5.33 Ft F02-0041-000	toller Cl	nain #41 (128-Links)	
U	Jse: 1	Connector Link #41 (F02-0041-001)	
	1	Offset Link #41 (F02-0041-002)	

#### **Installation Instructions**

(This package is used for implement-mounted Orbit-Air models: 62 Series 10, 21.9, 30 Cu Ft Hoppers)

- Measure hopper and desired location on implement to determine approximate placement.
   Check for any obstructions and determine if additional support is necessary for convenient and level installation. Note: Some installations may require that an extra square tube cross member (not provided in mounting package) be welded to implement frame to support hopper base, allowing extra length for mounting the ground drive to the outside. Positioning of hopper should be toward rear of hitch to provide room for ground drive and clearance for tractor tires. A tube extension bolted to hopper base or implement frame might be used if desired length of tubing not available.
- 2. At four corners, loosely clamp hopper to implement frame with bar clamps, stud bolts, lock washers and nuts provided.
- 3. Lay out components of ground drive and check packing list to see that all parts have been properly shipped. Place axle housing plate on lower end of ground drive pivot arm using two "U" clamps, lock washers and hex nuts. Leave loose. Slip shaft through axle shaft housing so single drilled end is on side opposite where wheel to be mounted. On this end, place 32T sprocket. Pin sprocket with cotter pin. Assemble pressure rod mounting tab forward of the axle housing using "U" bolt, and two lock washers and nuts. Leave loose.
- 4. Over double drilled end of axle shaft, slide on wheel hub and secure with clevis pin fastened by cotter pin. Tighten set screw on locking collars located on ends of wheel axle housing.
- 5. Attach ground wheel to hub with lug nuts provided. Tighten lug nuts securely.
- 6. Place pivot shaft with drilled hole through pivot arm housing, placing hole end on side opposite the wheel. The slide on one pivot arm mounting bracket and in an upper bole in the bracket, assembly the pressure rod pivot tube by placing two 1/2" SAE washers on either side of the mounting bracket.

  NOTE: There are two positions available for the pivot arm, the proper position depending on the most desirable angle of the ground drive to give best down pressure. Secure in place with a lock nut, leaving loose to allow
- 7. Slide 18-32T double sprocket on side opposite wheel, and using cotter pin, secure with smaller 18T sprocket toward inside.
- 8. Place a 1/2" SAE washer over the inner end of the pressure rod pivot tube. Simultaneously slide the other pivot arm mounting bracket over the pivot arm and the pressure rod pivot tube. Secure pivot tube in place with 1/2" SAE washer and lock nut. Lock bearings of pivot arm to pivot shaft by tightening set screws on bearing collar.
- 9. Adjust placement of hopper if necessary after checking positioning of ground drive. Position ground drive below hopper frame, attach pivot arm to frame members with two angle clamps, four stud bolts, two wrought washers over the two slotted openings, 8 lock washers and 8 hex nuts. Leave loose.

  NOTE: Trailing position of wheel is preferred, but some installations may require wheel in forward placement. Also relationship of angle clamps and pivot arms can be reversed.
- 10. Place small 16T sprocket on hopper drive shaft and align with outer sprocket of double sprocket on pivot arm shaft. When aligned, secure sprocket in shaft keyway with two set screws.
- 11. Place locking collar followed by pressure spring over pressure rod. Slide rod upwards through round tubing on pivot arm. Attach clevis of pressure rod to tab on pivot arm using clevis pin and cotter pin. Place locking collar over upper end of pressure rod and secure just above the pivot arm. Place cotter pin in upper end of pressure rod. Adjust tension of pressure spring by securing upper and lower locking collars as desired. Tighten hex nuts securing pressure rod mounting tab to pivot arm.
- 12. Attach 18T idler sprocket to lower slot of the inner angle clamp which secures ground drive pivot arm. Use 3/8 x 1/2 bushing insert, SAE washer, and secure assembly in place with lock washer and hex nut.

- 13. Place roller chain around ground wheel sprocket and inner 18T sprocket of double sprocket on pivot arm shaft. Be sure sprockets are aligned. Tighten chain by sliding drive shaft housing plate to rear and securing with lock washers and nuts.
- 14. Place roller chain around 32T sprocket of double sprocket, under 18T idler sprocket and around 16T sprocket on hopper drive shaft. Tighten chain by sliding idler sprocket toward rear of slot and secure in position.
- 15. Check and tighten all bolts used in installation.

Note: Steps 16 & 17 may be eliminated if sufficient ground clearance is provided when parent implement is raised to transport position.

- 16. Place cable thimble through hole in ground drive pivot housing plate, route cable around thimble and fold cable together, securing with two cable clips. With a repair link provided, attach cable pulley to upper slot in ground drive angle clamp or other location if pulley needs to be offset (a mounting point may need to be fabricated in some installations). Route cable through pulley. NOTE: A second pulley is provided to route cable around obstructions to reach lift point. Point of attachment for second pulley may be an available hole in a frame plate, or a hole may need to be drilled in frame member, or a bracket may need to be fabricated, depending on the configuration of the parent implement.
- 17. Attach other end of cable to parent implement at hydraulic cylinder, rock shaft or other location so that when implement is raised from field position, the cable lifts the ground drive wheel above the field surface. Determine length of cable required. CAUTION: Slack must be allowed for distance wheel is raised for transport, or damage may result. Secure cable end to itself with cable clips provided, cutting cable to length determined.

Note: 1-inch SAE Washers are not used in this assembly.

#### **Maintenance**

Check all bolts for tightness after first two hours of use; check periodically thereafter.

#### Grease all fittings regularly.

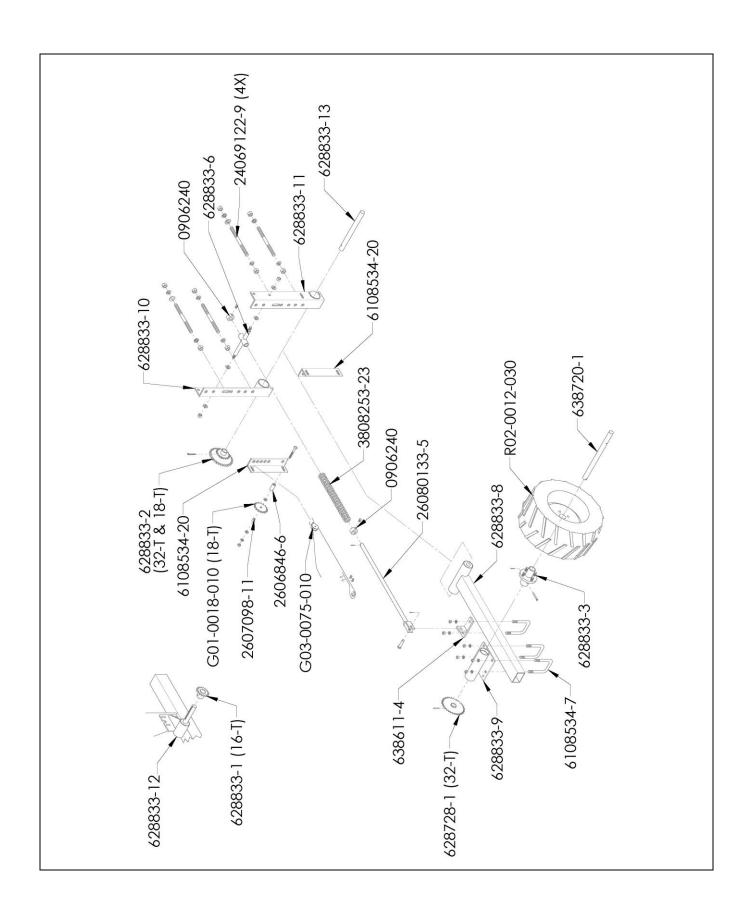
There are <u>THREE</u> grease fittings on ground drive. These <u>must</u> be greased before use and periodically during use. Locations:

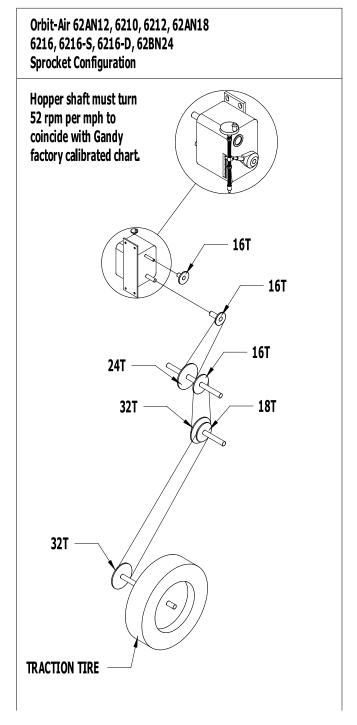
One grease fitting on Mounting Angle Left (628833-10).

One grease fitting on Mounting Angle Right (628833-11).

One grease fitting on Pivot Tube (628833-6).

Lubricate chains as needed.





<sup>\*</sup> If using your own drive, you must match these input RPM's per mile per hour or create your own rate control chart which can be done by following the field calibration procedure on the cover of this booklet.

Drawing: 628833HD, SPC-B October 4, 2013 Revised From (7/7/20)

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