DR® FIELD and BRUSH MOWER
SAFETY & OPERATING INSTRUCTIONS



Models:
XD26
XD30

Serial No. _____

Order No. _____

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Website: www.DRpower.com

⚠ WARNING

Read and understand this manual and all instructions before operating the DR FIELD and BRUSH MOWER.

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Conventions used in this manual

⚠ WARNING

This indicates a hazardous situation, which, if not avoided, ***could*** result in death or serious injury.

⚠ CAUTION

This indicates a hazardous situation, which, if not avoided, ***could*** result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine (***Figure 1***). An Order Number is used to check and maintain your order history and is located on your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

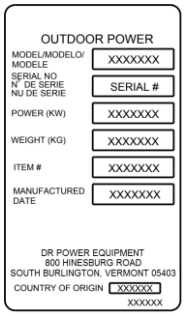


Figure 1

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

California Proposition 65

⚠ WARNING
CANCER AND REPRODUCTIVE HARM - www.P65Warnings.ca.gov.

⚠ WARNING

Read this safety & operating instructions manual before you use the DR FIELD and BRUSH MOWER. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

The DR FIELD and BRUSH MOWER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your mower as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



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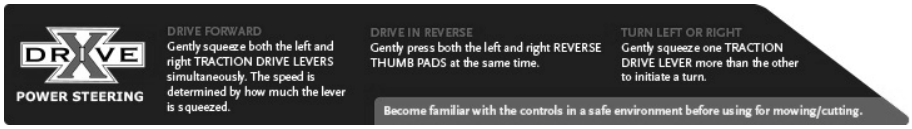


#137581

#A0001645278



#A0001645291
(XD26)



#A0001645284

Warnings, Cautions, and Notices

General Safety

⚠ WARNING

Safe operation of the DR FIELD and BRUSH MOWER is necessary to prevent death or serious injury. Always take the following precautions when operating this machine:

- The DR FIELD and BRUSH MOWER is designed to mow grass and brush. Do not use it for any other purpose.
- If the machine makes an unusual noise or vibration or if there are obstructions underneath the machine, shut off the DR FIELD and BRUSH MOWER engine. Wait five minutes for the engine to cool. Disconnect the spark plug wire(s) and then inspect the machine for clogs or loose parts. Clear any obstructions and repair and/or replace damaged parts.
- The mower blades are sharp. Wrap the blades or wear gloves and use extra caution when servicing.
- Always keep the machine in good, safe operating condition. Always make certain nuts and bolts are tight. Do not use substitute hardware.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.

General Safety (Continued)

⚠ WARNING

- Use the DR FIELD and BRUSH MOWER only in daylight or very well lit work areas.
- Be sure all blade and wheel controls are disengaged before attempting to start the engine.
- Always give undivided attention to the machine and your surroundings. Watch for traffic when mowing near roadways.
- Disengage the mower blades and exercise extreme caution when on or crossing drives, walks, or roads.
- In an emergency, to quickly stop the cutting blade and shut off the engine, remove your hand from the operator presence lever on the left handlebar.
- Always shut off the engine whenever you leave the machine.
- When operating over uneven and/or slippery terrain, use extreme caution to ensure solid and firm footing. Keep a firm hold on the handlebars and walk, never run.
- Do not operate the machine when under the influence of drugs, alcohol, or medication.

Protecting Yourself and Those around You

⚠ WARNING

This is a high-powered machine with moving parts operating at high speeds. Always take the following precautions when operating this machine:

- Always wear protective goggles or safety glasses with side shields.
- Wear sturdy shoes with non-slip treads.
- Wear long pants while operating the mower.
- Avoid wearing loose clothing or jewelry which can catch on moving parts
- Use ear protectors or ear plugs.
- We recommend wearing gloves while mowing. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Allow only responsible adults who are familiar with these safety rules and operating instructions to use your DR FIELD and BRUSH MOWER.
- Keep your hands and feet away from the blades, belt, pulley, and concealed areas while the engine is running.
- Keep people and pets away from your machine and out of the work area at all times. Disengage the blade and stop the engine if a person or pet is within 100 feet of the machine.
- Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.
- Never allow people to ride on the mower.
- Before mowing, clear the area of objects such as rocks, toys, wire, bones, sticks, etc.
- Never remove or alter standard parts or add anything to the DR FIELD and BRUSH MOWER especially all shields and guards.
- Before and while moving backwards, look behind, and down, for small children.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- Use caution when mowing close to fences, buildings, and trees so as not to hit the handle bar. You could injure your hand or lose control of the machine.

Slope Operation

⚠ WARNING

Slopes are a major factor related to slip and fall accidents. All slopes require caution. If you feel uneasy on a slope, do not mow it. Always take the following precautions when using this machine on slopes:

- Always mow across the face of slopes. Exercise extreme caution when changing direction on slopes.
- Never operate near drop-offs, ditches, or embankments, or on slopes greater than 20 degrees
- Never operate on wet or slippery slopes.

Safety with Gasoline - Powered Machines

⚠ WARNING

Gasoline is a highly flammable liquid that gives off flammable vapor that can be ignited and cause a fire or explosion. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust contains carbon monoxide, an odorless, tasteless, and poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose. Keep away from heat and open flame and out of the reach of children.
- Replace rubber fuel lines and grommets when worn or damaged or after 5 years of use, whichever comes first.
- Fill the gasoline tank outdoors with the engine off and after the engine has cooled completely. Do not handle gasoline if you or anyone nearby is smoking.
- If you spill gasoline do not start the engine. Move the machine away from the area until the gas vapors have dissipated.
- Before performing engine maintenance or repairs; shut down the engine, disconnect the spark plug wire(s), and wait 5 minutes for the engine to cool.
- Never change the engine governor settings or modify the engine speed.
- Never check for an ignition spark with the spark plug or spark plug wire(s) removed. Always use an approved spark tester.
- Never tamper with safety devices. Regularly check their proper operation.
- Allow the engine to cool completely before storing in any enclosed area.
- Keep combustible substances away from the engine when it is hot. Never cover the machine while the muffler is still hot.
- To reduce fire hazard, keep the engine and muffler free of debris build-up.
- Do not operate the engine with the air cleaner or the carburetor air intake cover removed.
- Do not use flammable solutions to clean the air filter.
- Never operate the engine without the muffler and deflector, if so equipped. Inspect the muffler and deflector periodically and replace if necessary.
- The muffler and engine become very hot and can cause a severe burn. Do not touch.

A Note to All Users

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. This also applies to operation on US Forest Lands. All DR® FIELD and BRUSH MOWERS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your appropriate local or state organization for specific information in your area.

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR FIELD and BRUSH MOWER in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Setting Up the DR FIELD and BRUSH MOWER

It may be helpful to familiarize yourself with the controls and features of your DR FIELD and BRUSH MOWER as shown in ***Figure 2a*** and ***2b*** before beginning these procedures. If you have any questions, contact us at www.DRpower.com.

DR FIELD and BRUSH MOWER Controls and Features (XD30 with Kawasaki Engine)

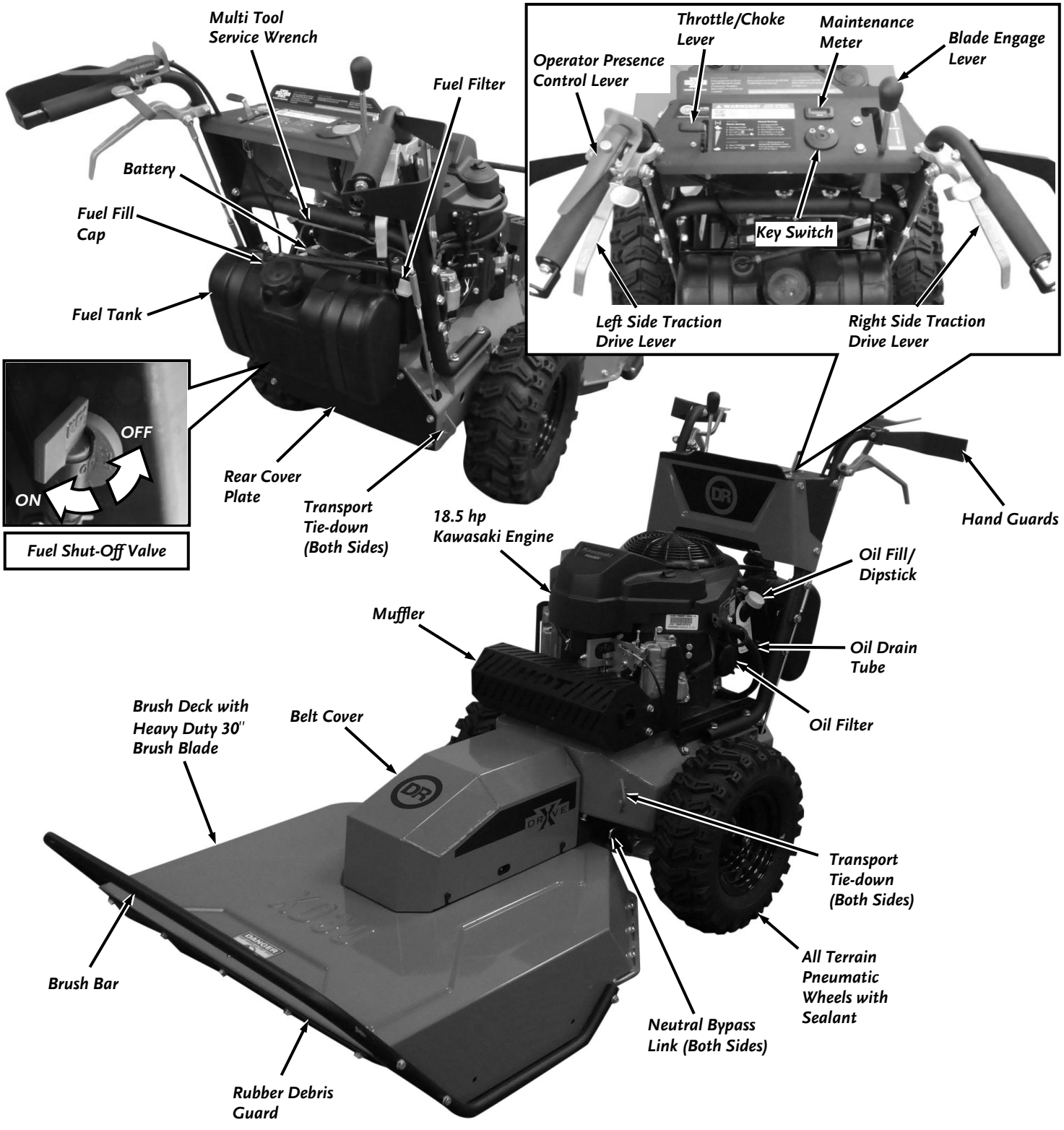


Figure 2a

DR FIELD and BRUSH MOWER Controls and Features (XD26 with Honda Engine)

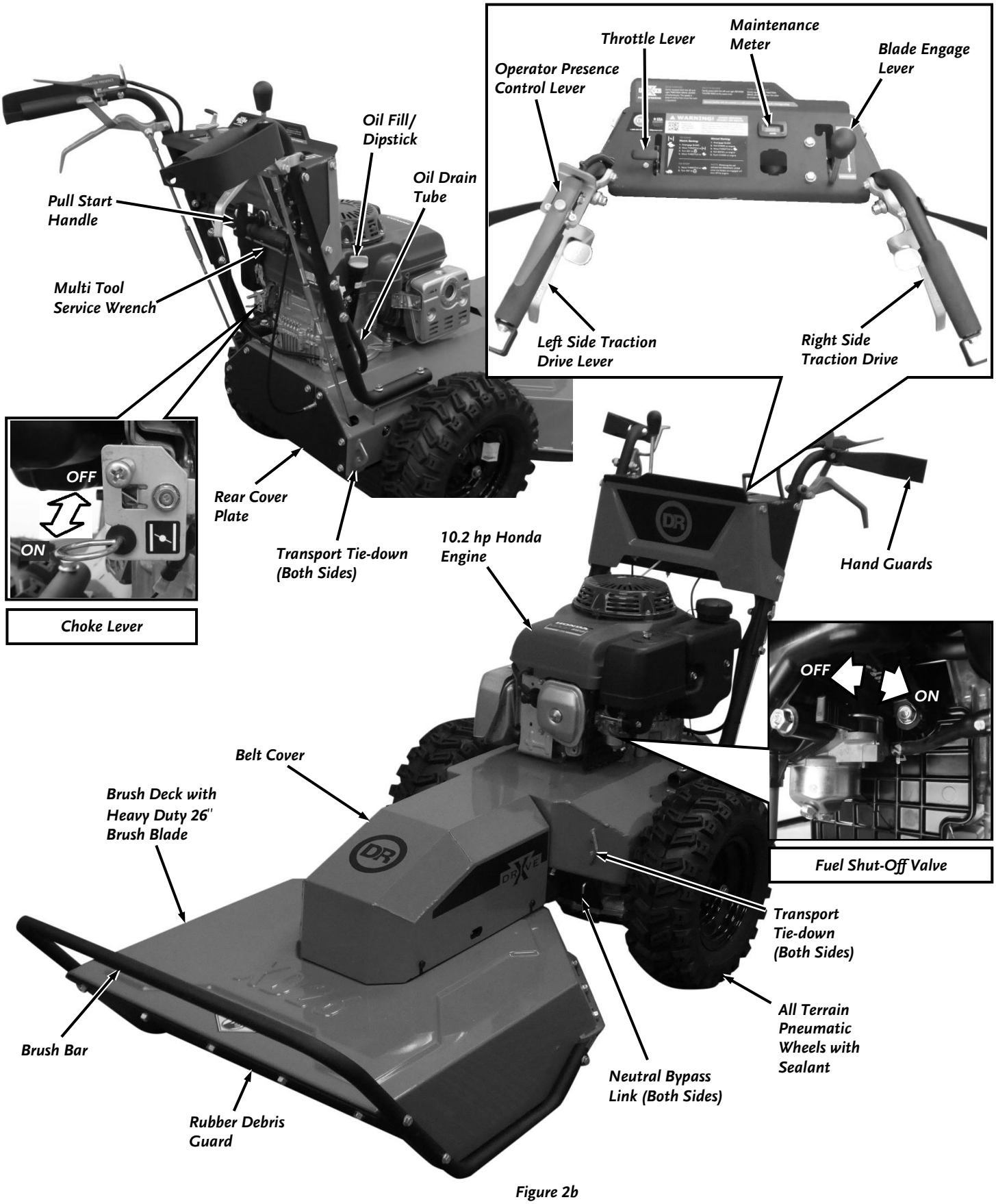


Figure 2b

Specifications

	XD26	XD30
Engine	Honda 10.2 HP	Kawasaki 18.5 HP
Fuel Capacity	2.2 Quarts	2 Gal. (7.57 L)
Oil Capacity	38.4 oz.	57.6 oz.
Cutting Capacity	4' Tall Grass 8' Tall Brush 2" Thick Saplings	6' Tall Grass 8' Tall Brush 3" Thick Saplings
Cutting Width	26"	30"
Cutting Height	4"	4"
Drive/Steering System	Dual Hydrostatic Transmissions	Dual Hydrostatic Transmissions
Speeds	Infinite Variable Speed 0-3.2MPH Forward 0-1.9MPH Reverse	Infinite Variable Speed 0-3.2MPH Forward 0-1.9MPH Reverse
Torque	Up to 100 lb-ft	Up to 100 lb-ft
Shaft	.75" Diameter, Keyed	.75" Diameter, Keyed
Maintenance	None	None
Weight	18 lbs per Transaxle	18 lbs per Transaxle
Steering	X-Drive Power Steering	X-Drive Power Steering
Tires	16X6.5, All Terrain Sealant Filled	16X6.5, All Terrain Sealant Filled
Machine Dimensions	74" L, 30" W, 42" H	76" L, 34" W, 42" H
Machine Weight	313 lbs.	379 lbs.

Installing the Spark Arrestor (XD30 Only)

Note: *The XD26 Honda model is shipped with the Spark Arrestor already installed.*

There is a Tube, Screen, and Clamp included in the Spark Arrestor Kit (***Figure 3***). The Kit is shipped in the Product Package. The Instructions included in the Kit are not used this application.

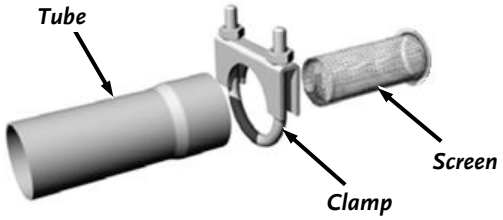


Figure 3

Tools and Needed:

- 3/8" Wrench
- 1/2" Wrench

1. Remove the Spark Arrestor Parts from the Product Package (***Figure 3***).
2. Remove the four Bolts (two on each side) securing the Muffler Guard using a 3/8" Wrench (***Figure 4***).

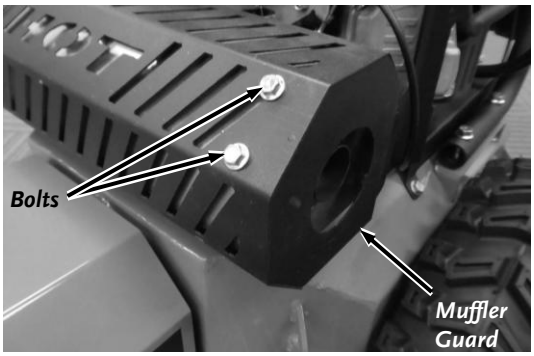


Figure 4

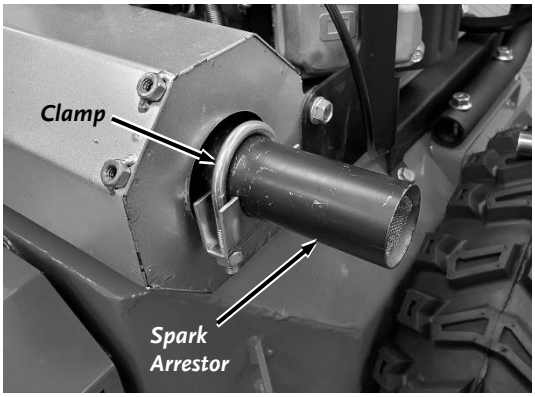


Figure 5

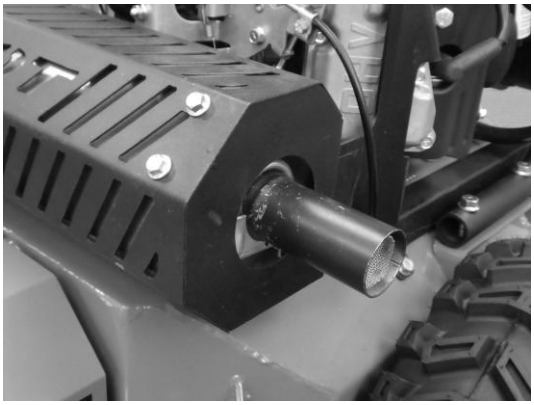


Figure 6

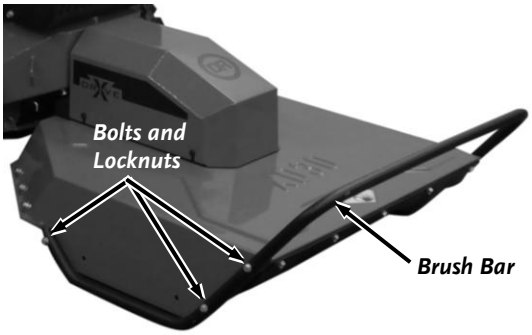


Figure 7

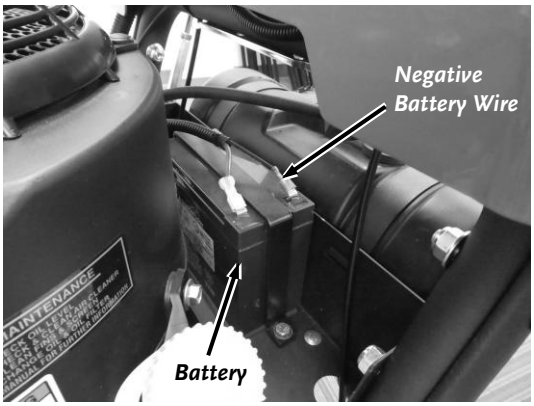


Figure 8

3. Insert the Screen into the Spark Arrestor Tube and position the larger end of the Tube fully onto the Muffler (***Figure 5***).
4. Install the Clamp around the Spark Arrestor Tube and against the Inner Muffler Guard. Secure using a 1/2" Wrench.
5. Reposition the Muffler Guard over the Spark Arrestor first and then down over the opposite end (***Figure 6***). ***Note:*** You may need to pull the end of the Guard out as you position the Guard on the opposite side to clear the Muffler.
6. Secure the Guard onto the Muffler with the four Bolts.

Installing the Brush Bar (XD30 Only)

Note: The XD26 model is shipped with the Brush Bar installed.

Tools and Supplies Needed:

- Gloves
- Wire Cutters
- Two 1/2" Wrenches

1. Cut the Cable Ties securing the Brush Bar to the Frame with Wire Cutters and rotate the Brush Bar forward to align with the mounting holes at the front of the Deck. (***Figure 7***).

Note: *the XD30 model is shipped with Brush Bar mounting Hardware included in the product package.*

2. Secure the Brush Bar to the Deck with the six 5/16-18 X 1-1/4" Bolts and 5/16-18 Locknuts. **Note:** Install all by hand first and then use two 1/2" Wrenches to tighten.

Connecting the Battery Wire (Electric Start Models)

We ship all Electric-Starting Mowers with the negative terminal Battery wire disconnected. This prevents the Battery from discharging during shipment. Before using your Mower, you must connect the Battery wire.

1. Connect the negative (black) wire to the negative terminal on the Battery by sliding the Connector onto the Terminal ***(Figure 8***).

Adding Oil and Gasoline

* SAE 30 is our recommendation for typical warmer season use.

** 10W30 is our recommendation for typical colder season use.

Note: *Refer to the Oil type Chart for selecting the proper Oil for ambient temperature range (**Figure 9**).*

ENGINE CAPACITIES

	Honda	Kawasaki
Oil	38.4 oz.	57.6 oz.
Fuel	2.2 Quarts	2 Gal

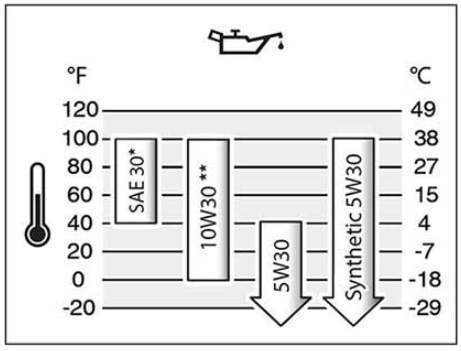


Figure 9

NOTICE

- **You must add Oil before starting the engine.** This machine is shipped without oil. Traces of oil may be in the reservoir from factory testing, but you must add oil before starting the engine. Fill the reservoir slowly, checking the level frequently to avoid overfilling.
- To get an accurate reading when checking the oil level:
  - The machine must be on a level surface.
  - The dipstick SHOULD NOT be screwed down.

1. Place the machine on a level surface and initially add 1/2 of oil recommended into the Oil Fill (***Figure 10a*** for XD26 Honda machines or ***Figure 10b*** for XD30 Kawasaki machines).
2. Wait one minute for the oil to settle and check the Dipstick (***Figure 11a*** for XD26 Honda machines or ***Figure 11b*** for XD30 Kawasaki machines). Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the full mark. Be careful not to overfill.

⚠ WARNING

Before filling the Fuel Tank at any point after this initial fill; turn the Engine OFF and let it cool at least five minutes before removing the Gas Fill Cap

3. Remove the Gas Fill Cap and add Gas to the Fuel Tank to not more than 1/4" from the bottom of the Fill Neck with fresh, unleaded gas (***Figure 10a*** for XD26 Honda machines or ***Figure 10b*** for XD30 Kawasaki machines).

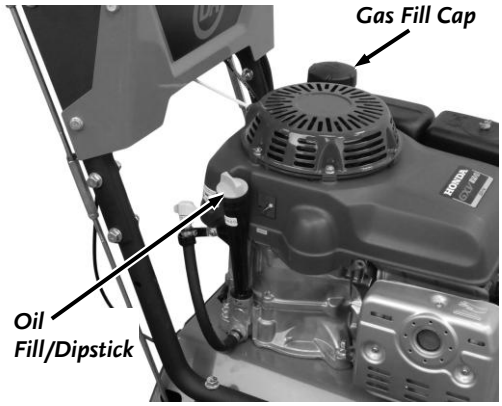


Figure 10a

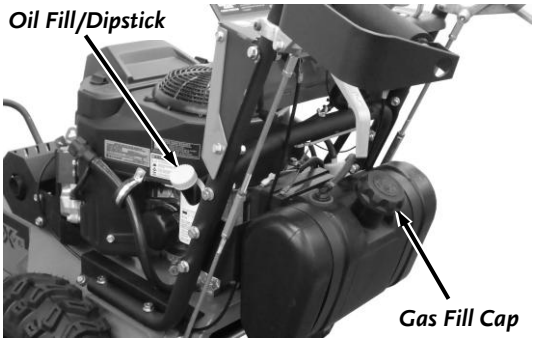


Figure 10b

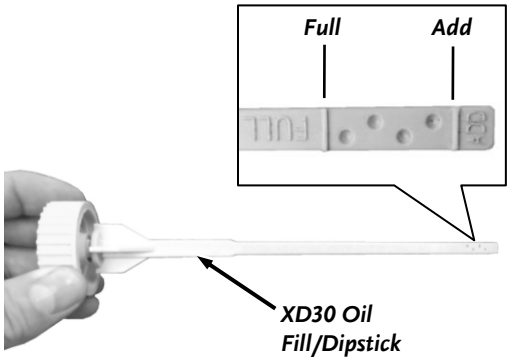


Figure 11b

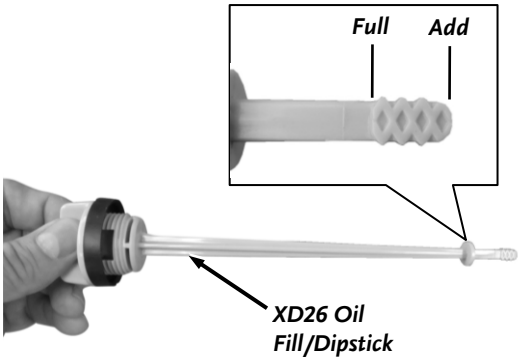


Figure 11a

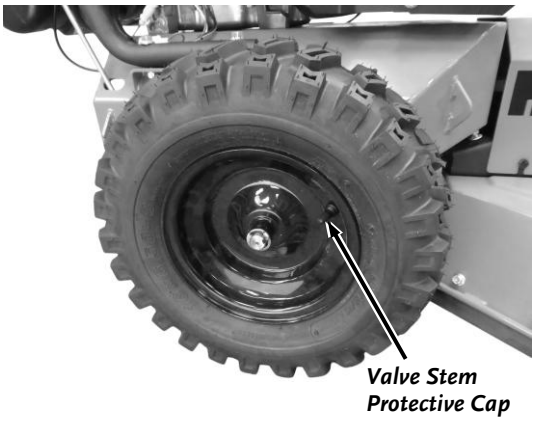


Figure 12

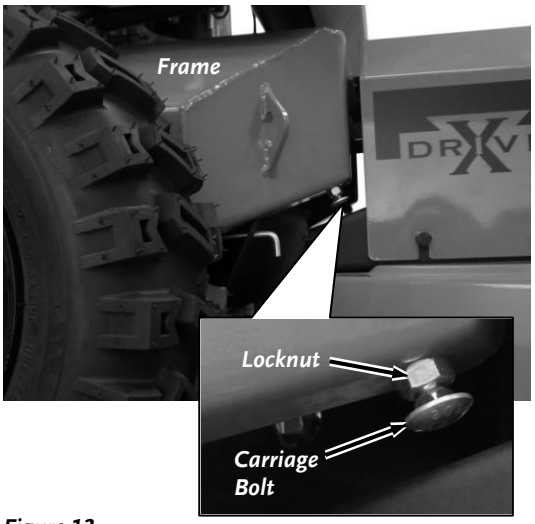


Figure 13

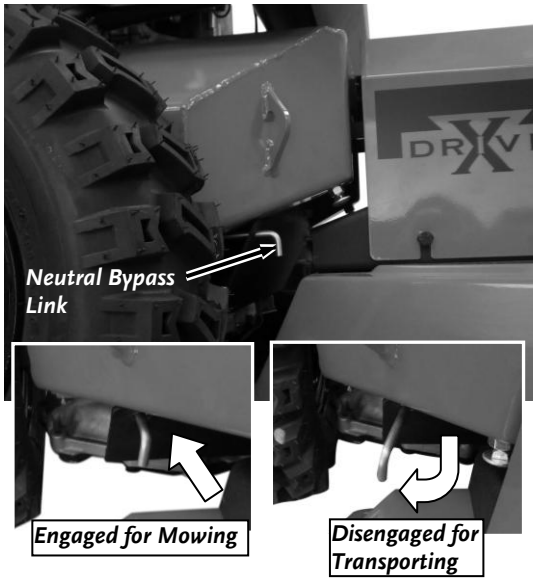


Figure 14

Check the Tire Pressure

Tools Needed:

- Tire Pressure Gauge
- Air Compressor

1. Remove the Valve Stem Protective Cap (***Figure 12***) and check the tire pressure with a Tire Pressure Gauge.
2. Compare the tire pressure reading from step 1 with the manufacturer's recommended tire pressure stamped on the side of the tire.

⚠ WARNING

Do not over inflate the tires. Inflate to the manufacturers recommended pressure found on the tires.

3. If the pressure is too low, add air through the Valve Stem with an air hose.
4. Replace the Valve Stem Protective Cap when finished.

Deck Pivot Bolt Check/Adjustment

There are two Deck Pivot Carriage Bolts on your DR Field and Brush Mower Frame. The machine should have been shipped with both Bolts in the highest position (screwed in fully) as shown (***Figure 13***). If they are not both in the highest position, and some of the Carriage Bolt threads are shown, perform the following procedures.

Tools Needed:

- 1/2" Wrench
- 5/16" Wrench

Note: *The Carriage Bolts should be adjusted all the way up for easy to moderate mowing. For aggressive mowing adjustment, see "Cutting Brush and Saplings" in Chapter 3.*

1. Loosen both Locknuts using a 1/2" Wrench as you hold the square portion of the Carriage Bolts using a 5/16" Wrench (***Figure 13***). Turn the Locknut down against the Bolt Head.
2. Turn the Carriage Bolts up into the Frame until the Nut is contacting the Frame.
3. Turn the Locknut against the Frame to lock the Carriage Bolt into position.

Engaging/Disengaging the Transmissions

The Hydrostatic Transmissions (one for each Wheel) must be engaged for the Drive Levers to function (machines are shipped in the Drive orientation). They also can be disengaged when moving the machine by hand. The following instructions explain this procedure.

Drive Position

1. Push each of the two Neutral Bypass Links in toward the Frame until they stop (***Figure 14***).

Free Wheel Position

1. Pull each of the two Neutral Bypass Links out toward the deck and at the same time toward the outside of the Frame (***Figure 14***).

Note: *The machine will not move easily even with the Transmissions disengaged. Pulling in reverse may be easier depending on conditions and slope.*

You may find it helpful to review the DR FIELD and BRUSH MOWER Controls and Features in ***Figure 2a*** (page 7) or ***Figure 2b*** (page 8) before reading this chapter.

Before Starting the Engine

- Check the Engine Oil level every time before you use the machine.
- Check the gas level.
- Ensure that the Fuel Shut-Off Valve located under the Fuel Tank is open (***Figure 15a*** XD30 Machines or ***Figure 15b*** XD26 machines).
- Ensure the Blade Engage Lever is disengaged.

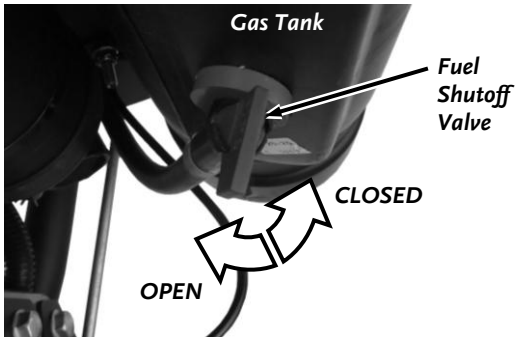


Figure 15a

Starting

XD 30 with Kawasaki Engine

1. Move the Throttle Lever to Choke (to Fast if the Engine is already warm) (***Figure 16***).
2. Rotate Key to the Start position until the Engine starts, then release.

   The Key will return to the Run position and the Engine will continue to run.
3. Move the Throttle Lever to the Fast position.

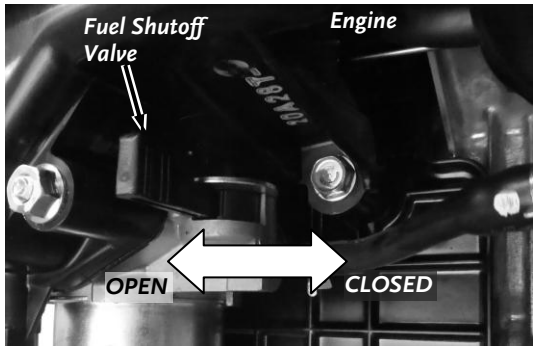


Figure 15b

XD 26 with Honda Engine

1. Pull out the Choke Lever located on the back of the Engine (leave Choke pushed in if the Engine is already warm) (***Figure 17***).
2. Move the Throttle to Fast Position (***Figure 16***).
3. Grasp the Recoil Starter Handle and slowly pull until you feel resistance. Let the Cord retract a little bit, and then pull the Cord rapidly to start the Engine.
4. When the Engine starts, push the Choke Lever all the way in. (***Figure 17***).

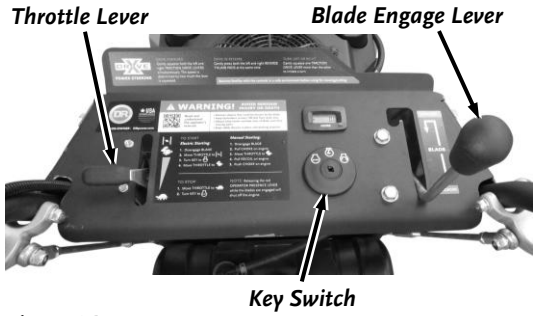


Figure 16

Stopping the Engine

XD 30 with Kawasaki Engine

1. Ensure the Blade Engage Lever is Disengaged (***Figure 16***).
2. Move the Throttle Control Lever to the IDLE position.
3. Turn the Key to the Stop position and remove it for safety.

Note: *Close the Fuel Shut-Off Valve when transporting or storing the Mower (**Figure 15a**).*

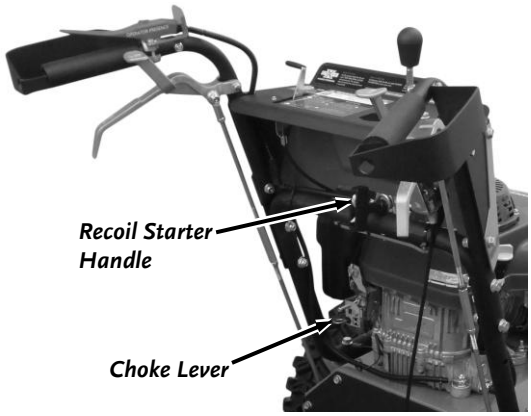


Figure 17

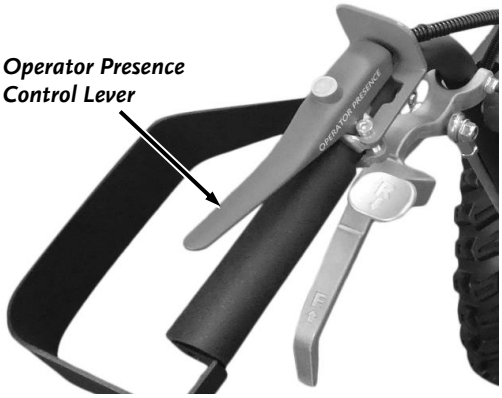


Figure 18

XD 26 with Honda Engine

1. Ensure the Blade Engage Lever is Disengaged (***Figure 16***).
2. Move the Throttle Control Lever fully to the IDLE position.

Note: *Close the Fuel Shut-Off Valve when transporting or storing the Mower (**Figure 15b**).*

Emergency Stopping When Mowing

Releasing the Operator Presence Control Lever with the Blade engaged with stop the Engine (***Figure 18***). If the Blade is not engaged, releasing the Operator Presence Control Lever will not stop the Engine.

Transmission Engagement

See "Engaging/Disengaging the Transmissions" on page 12

X-Drive Power Steering

The DR FIELD and BRUSH MOWER features the X-Drive Power Steering which gives you independent control of each wheel to provide enhanced maneuverability and traction. The System has two configurations; Cross-Drive and Inline Drive. All Machines are shipped from the factory in the Cross Drive Configuration. Some practice time is necessary to become comfortable with the controls.

Cross Drive (as shipped)

In the Cross Drive Configuration, the machine will turn in the direction of the lever that is squeezed (i.e. squeeze right Lever to turn right or squeeze left Lever to turn left) (***Figure 19***).

Inline Drive

In the Inline Drive Configuration, each wheel is controlled by the lever that is on the same side (i.e. squeeze right to operate the right wheel to turn left and squeeze left to operate the left wheel to turn right).

Note: *We recommend practicing and becoming comfortable with cross drive configuration at varying speeds and terrain before considering changing to inline drive. If after practicing with cross drive you find that you would prefer the inline configuration, see Chapter 4 "Changing Drive Configurations" for instructions on changing drive configurations.*



Figure 19

Operating the X-Drive Power Steering

- **Practice and become comfortable with the controls at slow speed in a safe environment before using faster speed or for mowing/cutting.**
- The X-drive power steering system is designed to minimize operator fatigue. Use the hand controls as much as possible to drive the machine in the desired direction rather than trying to muscle it around.
- Mowing Speed will impact cutting performance. Mowing at a slower speed will improve cut quality.
- For best operator control of the DR Field and Brush Mower, always drive at speed that matches the conditions. For example, use a slower speed when operating in wet, heavy growth, slippery, and/or steeply sloped areas.
- When improved traction is needed, apply a downward force on the handlebar to get more grip on the tires

Cross Drive Configuration

Driving Straight Forward

Gently squeeze both the left and the right Traction Drive Levers the same amount. The speed is determined by how much the levers are squeezed (***Figure 20***).



Figure 20

Driving Straight Reverse

Gently press both left and right Reverse Thumb Pads the same amount (***Figure 21***).

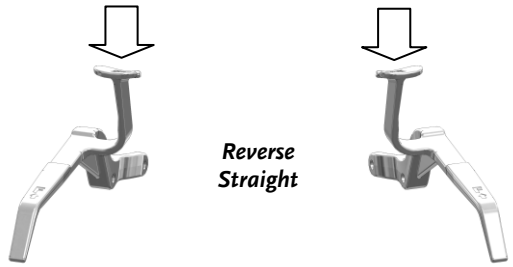


Figure 21

To Turn Left or Right Forward

Gently squeeze one Traction Drive Lever more than the other to initiate a turn (***Figure 22 thru Figure 25***). Apply more force to the lever on the right side to turn right or more force to the lever on the left side to turn left.

To Turn Left or Right Reverse

Uses the same concept as above but push down on the Thumb Pads instead.

Inline Drive Configuration

The Inline Drive procedures for engaging the wheel drive is the same when driving in a straight line. Inline Drive is the opposite of what is described for the Cross Drive Configuration for turning. Pull more on the right Lever to turn left etc.

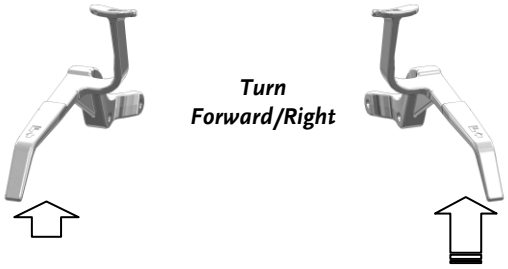


Figure 22

X-Drive Troubleshooting

The transmission speeds have been adjusted at the factory to be balanced left to right. However, due to variances within the transmissions and linkages, it is possible that there is a slight variance in wheel speeds when traveling at full speed. If the machine is tracking noticeably to the left or to the right at full speed forward or full speed reverse, refer to Chapter 4 “Adjusting the Forward Speed Limit” for adjusting the forward speed limits to match or “Reverse Drive Limit Adjustment” for adjusting the reverse speed limits to match.

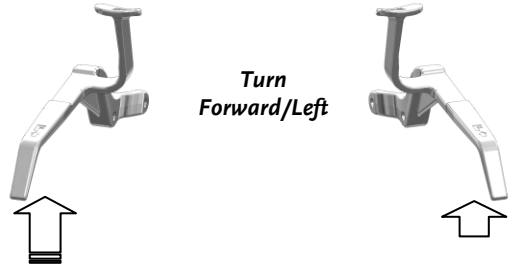


Figure 23

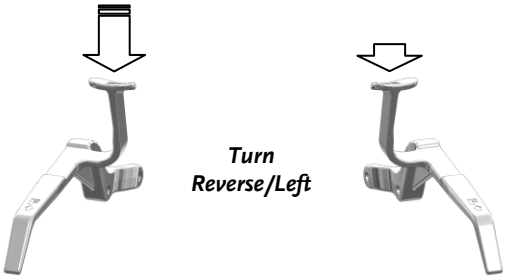


Figure 25

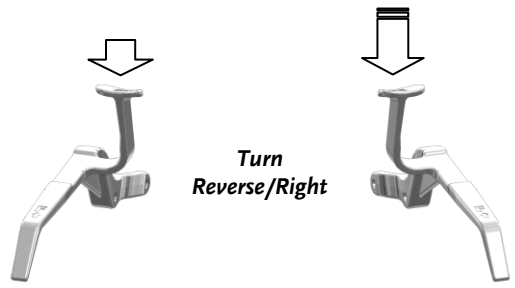


Figure 24

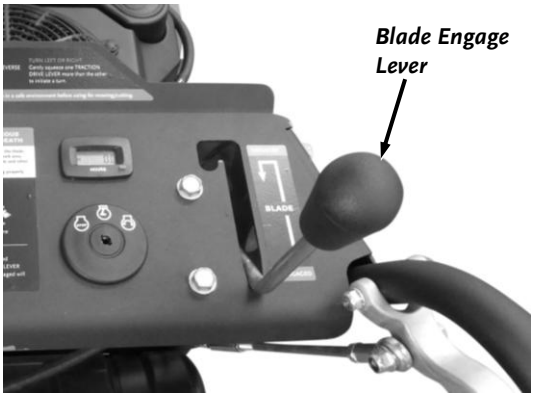


Figure 26

Engaging the Blade

1. With the Engine running, hold the Operator Presence Control Lever down to the Grip with your left hand without touching the Drive Levers. (***Figure 18***).
2. Push the Blade Control Lever forward, then to the left and down to the "Engaged" position (***Figure 26***).

Note: *If you engage the Blade Control Lever before holding down the Operator Presence Lever, the Engine will shut off.*

Stopping the Blade

1. Stop the Blade by pushing the Blade Control Knob up and to the right, then pulling back to the "Disengaged" position (***Figure 26***).

Note: *Releasing the Operator Presence Lever will stop the Blade and also cause the Engine to shut off. The Engine will not start again until the Blade Control Lever is moved to the "Disengaged" position.*

Cutting Brush and Saplings

⚠ WARNING

If you need to leave the operating position to clear debris from the deck, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

DECK PIVOT BOLT ADJUSTMENT (aggressive mowing conditions)

For aggressive mowing (Brush and Saplings) the Deck Carriage Bolts should be adjusted all the way down to stabilize the Deck.

Note: *The entire machine must be on a flat surface for the following procedures.*

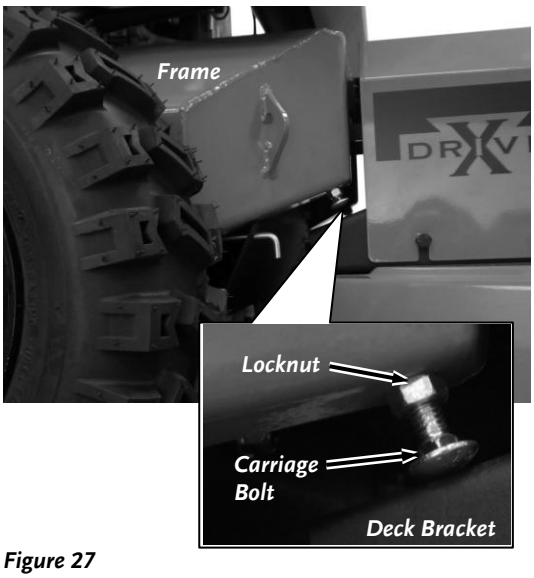


Figure 27

Tools Needed:

- 1/2" Wrench
- 5/16" Wrench

1. Hold the square portion of the Carriage Bolts using a 5/16" Wrench and loosen both Locknuts from against the Frame using a 1/2" Wrench (***Figure 27***).
2. Turn the Carriage Bolts down until they are contacting the Deck Bracket.
3. Hold the square portion of the Carriage Bolts as you turn the Locknut against the Frame to lock them into position.

Note: *The Carriage Bolts should be adjusted all the way up for easy to moderate mowing when aggressive mowing is finished.*

Mowing on Slopes

⚠ WARNING

Slopes are a major factor related to slip and fall accidents. All slopes require caution. If you feel uneasy on a slope, do not mow it. Always take the following precautions when using this machine on slopes:

- Always mow across the face of slopes. Do not mow up and down.
- Exercise extreme caution when changing direction on slopes.
- Never operate near drop-offs, ditches, or embankments.
- Never operate on wet or slippery slopes.
- When operating the DR FIELD and BRUSH MOWER over uneven terrain or slopes, use extreme caution not to tip the machine over.
- Use a much slower speed when mowing on slopes.
- Do not use the DR FIELD and BRUSH MOWER on slopes greater than 20 degrees. Doing so could result in serious injury or damage to your machine.
- Be very careful of your footing when operating the machine in reverse. Know what's behind you and take your time.
- Mow when moving Forward only, using Reverse for maneuvering.

Tip: Cross Drive operation - When mowing on side hills, press the uphill Drive Lever more than the downhill Lever so the machine steers slightly up the hill. This should keep the machine moving in a straighter line without additional operator effort. Operate the opposite Levers for Inline Drive setups.

Obstacle Tips

Dealing with obstacles in the terrain is easy with your new DR FIELD and BRUSH MOWER. The following section explains how to approach most common obstacles.

⚠ WARNING

The mower's blade can easily throw stones, sticks, and other debris at great velocity, which could cause personal injury or property damage. Do not run the machine over gravel driveways or over loose stones or mulch with the mower blade spinning.

- Always check your work area before mowing and remove any debris that might tangle or damage the machine.
- If you do run into debris and the mower becomes tangled, turn off the Engine, allow the engine to cool for 5 minutes and disconnect the Spark Plug wire(s) before attempting to untangle the machine.

If the machine gets hung up

1. Disengage the Blade. Do not try to free the machine from stumps or debris with the Blade engaged.
2. Push down on the Handlebars to lift the Mowing Deck over the obstacle.
3. Move the machine in reverse and try backing away from the obstacle.

Transporting

Ensure the Transmissions are engaged before transporting the machine in a truck (see Engaging/Disengaging the Transmissions on page 12). Also use Wood Chocks for the Wheels and Tie-down Straps so the machine does not shift during transport. There are four convenient and secure Tie Down points on the Frame.

Chapter 4: Maintaining the DR FIELD and BRUSH MOWER

Regular maintenance will ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures. Service intervals listed in the checklist below supersede those listed in the engine manufacturer's owner's manual.

⚠ WARNING

- Before performing any maintenance procedure or inspection, stop the engine, wait ten minutes to allow all parts to cool. Remove the Key and disconnect the spark plug wire(s), keeping it away from the spark plug(s)
- Always wear gloves when performing maintenance on the machine.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 25 HOURS	EVERY 100 HOURS
Check function of Operator Presence Switch	▲		
Check Engine Oil Level	▲		
Check General Equipment Condition	▲		
Check Blade for Sharpness	▲		
Clean Engine Exterior and Cooling Fins	▲		
Check Blade Belt Condition (replace if damaged)		▲	
Check Drive Belt Condition (replace if damaged)		▲	
Lubricate Grease Fittings		▲	
Check Tire Pressures		▲	
Change Engine Oil and Filter*	1st time 5 hours	▲	
Check the Battery charge (Electric Start Machines)		▲	
Replace Air Paper Filter and outer Foam Filter		▲	
Check Blade Engage Cable Tension		▲	
Replace Blade Belt			▲
Replace Drive Belt			▲
Replace Spark Plug(s)			▲
Replace Fuel Filter (Electric Start Machines)			▲

* The XD26 model does not have an Oil Filter.

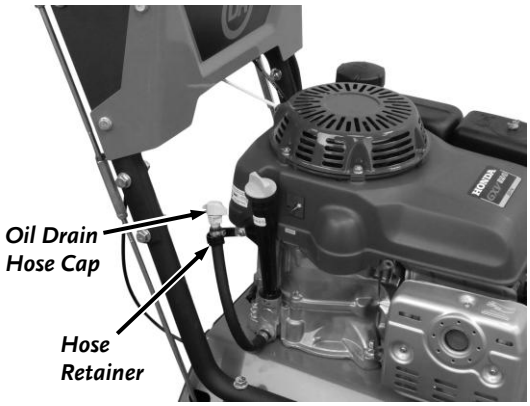


Figure 28

LUBRICATION

Replacing Engine Oil (XD26 with Honda Engine)

Note: *Drain the oil when the Engine is warm. Warm Oil drains more quickly and completely than cold Oil.*

Tools & Supplies Needed:

- Oil (Refer to "Adding Oil and Gasoline" in Chapter 2 for Oil type and quantity)
- Rags and an approved Oil Container

1. Position an approved oil container near the Oil Drain Hose.
2. Unscrew the Oil Drain Cap counterclockwise to open the end of the Drain Hose Assembly ***(Figure 28)***.
3. Remove the Oil Drain Hose Assembly from the Retainer and lower the drain end over the Oil Container to drain.
4. Replace the Hose onto the Retainer and close the Oil Drain Cap. Replace the Oil as described on page 11.

Replacing Engine Oil and Filter (XD30 with Kawasaki Engine)

Note: *Drain the oil when the Engine is warm. Warm oil drains quickly and completely.*

Tools & Supplies Needed:

- Oil Filter Wrench
- Oil (Refer To Engine Operator Manual for Oil type and Capacity)
- Rags and an approved oil container

1. Position an approved oil container near the Oil Drain Hose.
2. Unscrew the Oil Drain Cap counterclockwise to open the end of the Drain Hose Assembly ***(Figure 29***).
3. Remove the Oil Drain Hose Assembly from its stowed position and lower the drain end over the Oil Container to drain.
4. Position Rags under the Oil Filter to catch oil drips.
5. Remove the old Oil Filter with an Oil Filter Wrench. Ensure that the rubber Seal comes off with the Oil Filter.
6. Apply a thin layer of fresh Oil over the face of the new Filter rubber Seal.
7. Install the Oil Filter by hand until the rubber Seal is touching the mounting surface, then turn the Oil Filter 3/4 turn to create a snug fit.
8. Replace the Oil Drain Hose Assembly onto the Storage Hook and close the Oil Drain Cap. Replace the Oil as described on page 11.

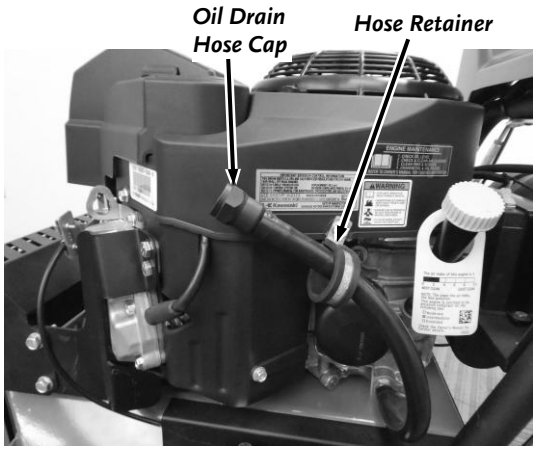


Figure 29

Greasing the Belt Idler

Tools needed:

- Grease Gun with General purpose Grease
- Clean Rags

1. Clean the Grease Fitting with a clean Rag (***Figure 30***).
2. Add a few pumps of Grease to the Zerk Fitting.

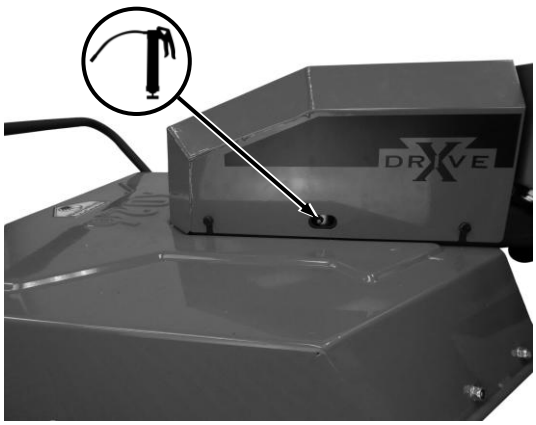


Figure 30

Greasing the Transmission Linkage

Tools needed:

- Grease Gun with General purpose Grease
- Clean Rags

1. Clean the Grease Fitting with a clean Rag (***Figure 31***).
2. Add a few pumps of Grease to each Grease Fitting.

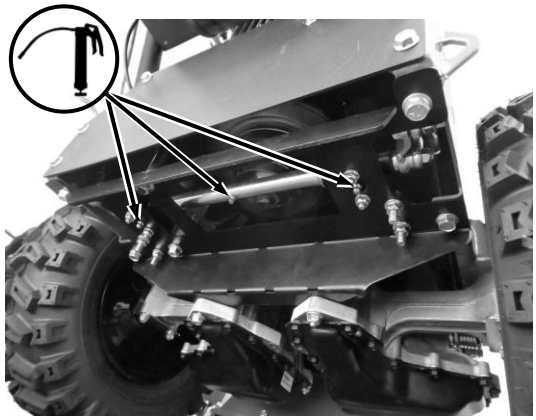


Figure 31

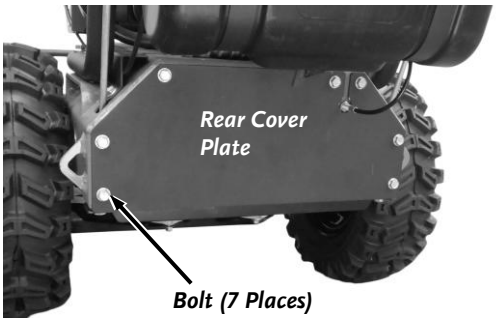


Figure 32

Greasing the Transmission Idler

Tools needed:

- Grease Gun with General purpose Grease
- Clean Rags

1. Remove the seven Bolts that secure the rear Cover Plate to the Frame using a 9/16" Wrench and remove the Cover Plate (***Figure 32***).
2. Clean the Grease Fitting with a clean Rag (***Figure 33***).
3. Add a few pumps of Grease to the Grease Fitting.
4. Replace the Cover when finished.

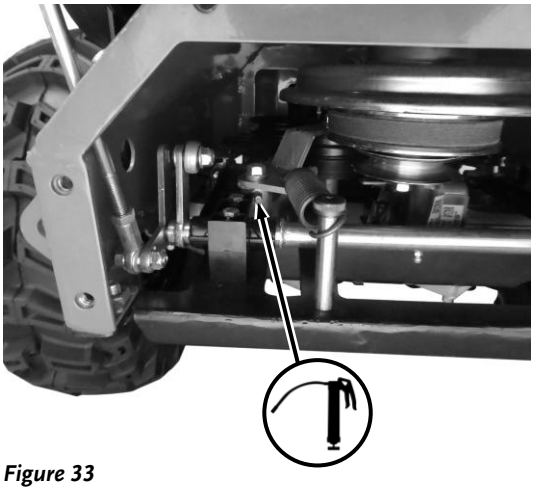


Figure 33

Removing/Replacing the Blade Belt

Tools and Supplies needed:

- 1/2" Wrench
- 1/2" Drive Ratchet
- Gloves

⚠ CAUTION

Your hands could get pinched when removing or installing the Belt onto the Belt Pulley. Wear Gloves to prevent injury.

1. Remove the Drive Belt. See "Removing and Replacing the Drive Belt" on the next page.
2. Loosen, but do not remove, the four Bolts that secure the Belt Cover using a 1/2" Wrench. Remove the Belt Cover (***Figure 34***).
3. Insert the 1/2" Ratchet into the square in the Idler Arm (***Figure 35***). Turn the Ratchet clockwise to move the Pulley away from the Belt.

Note: *If you use your hand to remove the Belt, wear Gloves. A Rope looped around the Belt also works well to pull it off the Pulley.*

4. As you hold the Idler out of the way with the Ratchet using your right hand, rotate and lift the Belt up and out of the Pulley groove using your left hand.
5. Push the belt in toward the Power Unit and the belt will fall off the Clutch Pulley (***Figure 36***).
6. Pull the Belt toward the Deck to remove the Belt completely.
7. To install a new Belt, insert the Belt over the Tensioner Spring and through the inside of the Deck Pivot Bracket (***Figure 37***).
8. Wrap the Belt around the Clutch Pulley under the Power Unit (***Figure 36***).
9. Start the Belt into the groove of the Blade Pulley and turn the Pulley as you guide the Belt around and into the Pulley groove (***Figure 35***).
10. Install The Drive Belt, Spring, Rear Cover, and Multi Tool. See "Removing and Replacing the Drive Belt".
11. Install the Belt Cover and tighten the four Bolts (***Figure 34***).

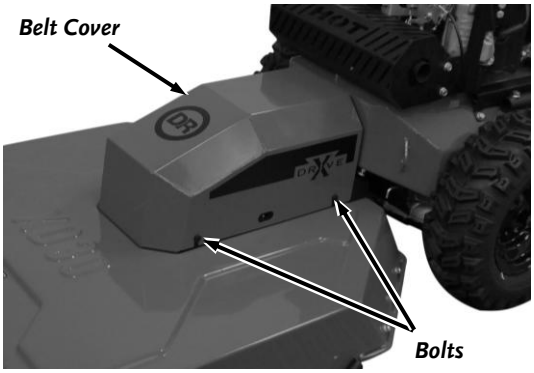


Figure 34

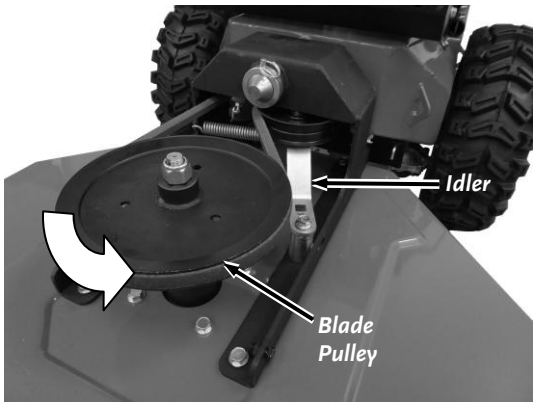


Figure 35

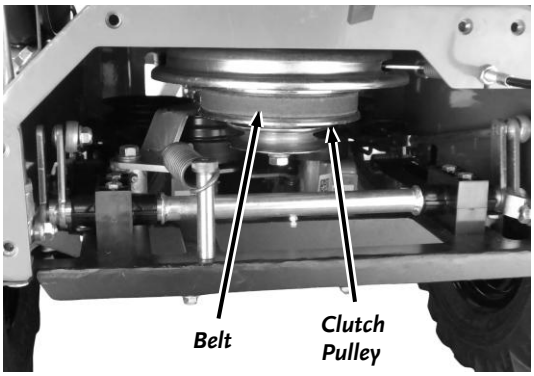


Figure 36

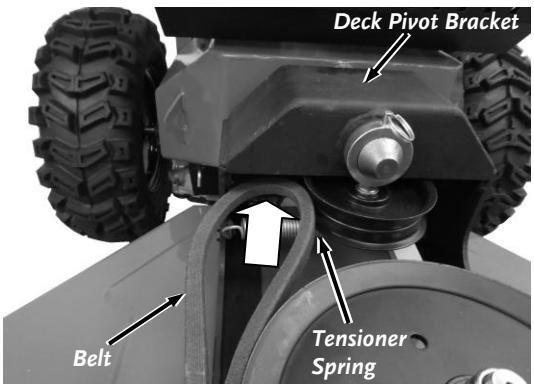


Figure 37

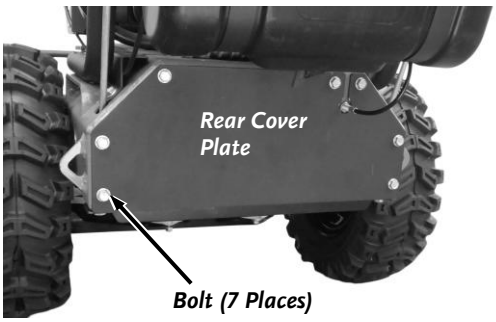


Figure 38

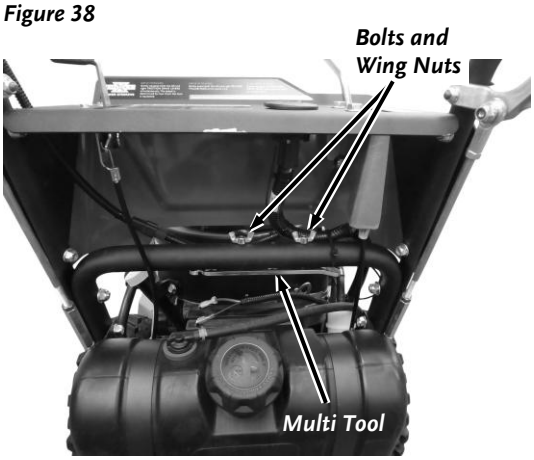


Figure 39

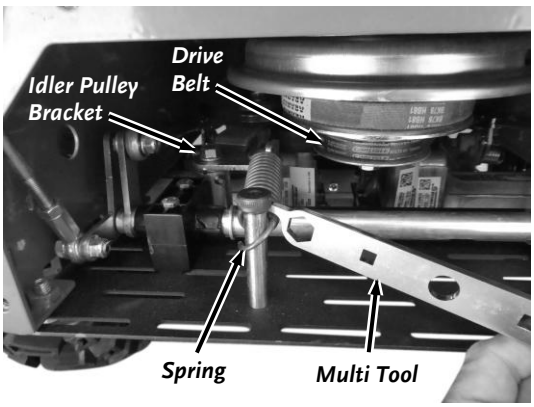


Figure 40

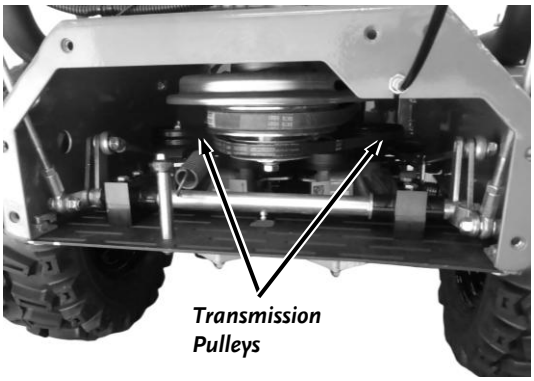


Figure 41

Removing and Replacing the Drive Belt

Tools and Supplies needed:

- 1/2" Wrench
- Gloves

Note: *Wear Gloves to protect your hands.*

1. Remove the Seven Bolts that secure the Rear Cover Plate using a 1/2" Wrench and Remove the Cover (***Figure 38***).
2. Remove the Two Bolts and Wing Nuts that secure the Multi-tool to the Lower Handlebar (***Figure 39***).
3. Use the Multi Tool to pull the Tensioner Spring off the Shoulder Bolt (***Figure 40***).

Tip: If you insert the hook end of the Multi tool from the right side of the Spring loop, you can grab the end of the Spring to pull it from the Shoulder Bolt.

4. Wrap a rope around one side of the Drive Belt and pull down and to the side to remove the belt from the Drive Pulley.
5. Reach inside the Frame to lift the Belt off the Transmission Pulleys (***Figure 41***).
6. Remove the Belt.
7. Reverse steps for installing a new Belt.

Removing and Replacing the Blade

⚠ WARNING

Replace the Blade when worn or damaged to prevent serious injury to the operator or possible machine damage.

Tools and Supplies needed:

- 15/16" Wrench
- Torque Wrench
- Gloves
- Wood Block to brace the Blade*

*The Wood Block must be strong enough to safely secure the Blade and long enough to rest against the Deck as shown.

1. Insert a Wood Block between the Blade and the Deck to stop rotation (***Figure 42***).
2. Remove the Lock Nut (standard, right-hand thread) and Washer using a 15/16" Wrench.
3. Remove the Blade and the Anti-Wrap Guard.

Note: *The Blade has two cutting edges on each end. It can be turned over to use the other side. There is also the option to sharpen the dull cutting edge.*

4. Mount the Anti-Wrap Guard, new Blade, Washer, and Lock Nut and tighten securely (Torque to 100 ft-lbs.). If the Locknut is removed and installed more than once, it should be replaced with a new one.

Note: *Be sure to seat the Blade completely over the small ridge in the Spindle Hub before tightening the Lock Nut.*

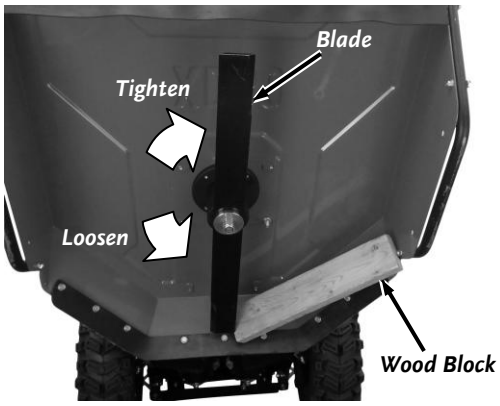


Figure 42

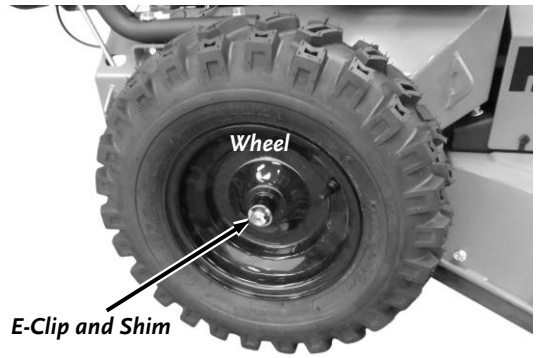


Figure 43

Removing the Wheels

Tools and Supplies needed:

- Floor Jack
- E-Clip Removal Tool (Large Flat Head Screwdriver or Needle Nose Pliers will work also)
- Eye Protection
- Rag

1. Jack up the machine so the Wheel is off the ground.
2. Wear eye protection as you remove the E-Clip and Shim from the Axle (***Figure 43***). Slide the Wheel off the Axle ensuring that the Square Key stays in the Axle Key slot.
3. Align the Key slot in the Wheel Hub to the Key in the Axle and install the new/repaired Wheel with the "V" tread pointing forward (***Figure 44***). Secure with the Washer and E-Clip.
4. Lower the machine to the ground.

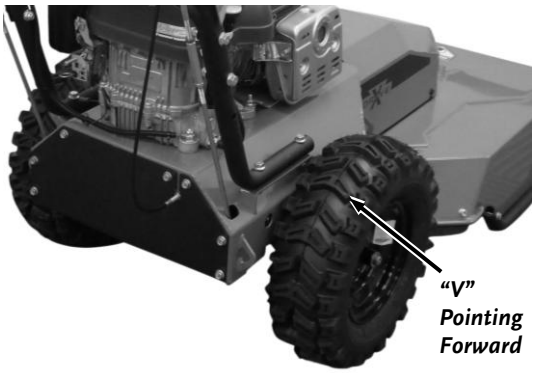


Figure 44

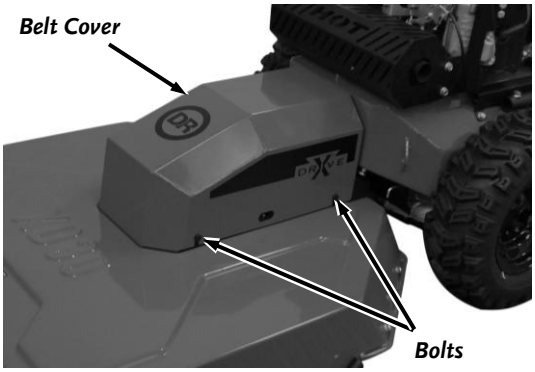


Figure 45

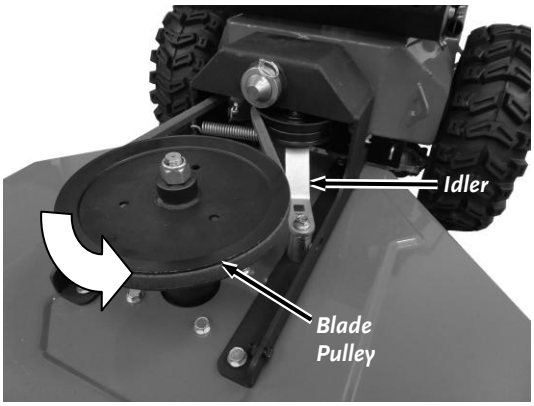


Figure 46

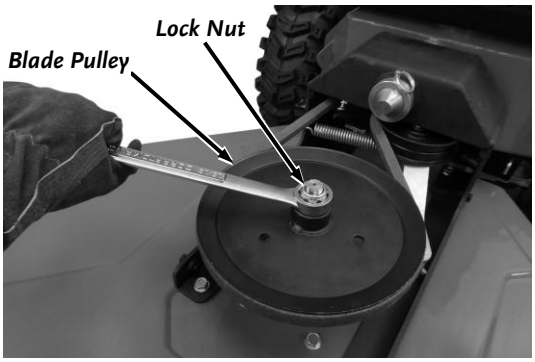


Figure 47

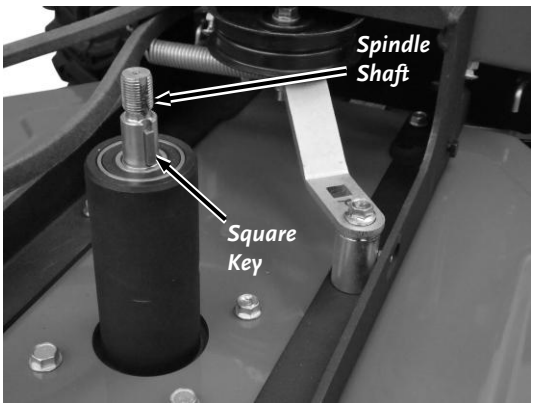


Figure 48

Replacing the Blade Pulley

The Blade Pulley is designed to protect the drive system of the machine. If the machine is overloaded the hub and pulley may fail. Please follow these instructions to replace

Tools and Supplies Needed:

- Gloves
- 1/2" Wrench
- 1/2" Drive Ratchet
- 15/16" Wrench
- Torque Wrench with 15/16" Socket

1. Loosen the four Bolts using a 1/2" Wrench and lift up to remove the Belt Cover (***Figure 45***).
2. Insert the 1/2" Ratchet into the square in the Idler Arm. Turn the Ratchet clockwise to move the Pulley away from the Belt.

Note: *If you use your hand to remove the Belt, wear Gloves. A Rope looped around the Belt also works well to pull it off the Pulley.*

3. As you hold the Idler out of the way with the Ratchet using your right hand, rotate and lift the Belt up and out of the Pulley groove using your left hand (***Figure 46***).
4. Block the blade with a block of wood (***Figure 42***) as you remove the Pulley Locknut using a 15/16" Wrench (***Figure 47***).
5. Remove the damaged Pulley and replace with a new Pulley.

Note: *Ensure that the square Key is in the Shaft (**Figure 48**) and that the Hub of the new Pulley is facing up.*

6. Secure the Pulley with the Locknut and torque to 50lb-fts (68N-m).
7. Start the Belt into the groove of the Blade Pulley and turn the Pulley as you guide the Belt around and into the Pulley groove (***Figure 46***).
8. Install the Belt Guard onto the Deck and tighten the four Bolts to secure it (***Figure 45***).

Adjusting the Forward Speed Limit

If you notice your machine is tracking to the left or right when traveling forward at full speed (both Levers fully against the Handlebar Grips) you may need to adjust your traction Drive levers.

The following instructions are for the Cross Drive configuration. For the Inline configuration, adjust in the opposite direction for step 5.

Tools Needed:

- Two 1/2"Wrenches

Note: *"Clockwise" and "counterclockwise" reference turning direction when looking down at the top of the Adjuster.*

1. Both Right and Left side Adjusters - Hold the center hex section in place using a 1/2" Wrench as you turn both Jam Nuts clockwise to move them away from the center section a couple of turns using a 1/2" Wrench (***Figure 49***).

Note: *In the next step, turning the center section clockwise will move the Lever away from the Handlebar Grip and counterclockwise will move the Lever closer to the Grip.*

2. Both Right and Left side Adjusters - Turn the center Hex Sections in the necessary direction to set the distance between the lowest points of the Levers to the Handlebar Grips at 4" (***Figure 50 and 51***).

⚠ WARNING

Never go beyond 4" when setting the baseline distance from the lowest point on the Traction Drive Levers to Handlebar Grip. A setting more than 4" may cause the machine to lose control, causing damage to the machine and personal injury to the operator.

3. Right side Adjuster only - Tighten the Jam Nuts against the center section (***Figure 49***) counterclockwise to lock the Adjuster at the 4" setting. Right side adjustment is finished.
4. Drive the machine forward at full speed with both Levers fully against the Handlebar Grips. If the machine travels in a straight line tighten the Jam Nuts counterclockwise on the left side and adjustment is complete. If the machine does not travel in a straight line, continue to the next step.
5. If the machine is turning more to the right, adjust the center section on the left hand side 1/8 turn clockwise. If the machine is turning more to the left, adjust the center section on the left hand side 1/8 turn counterclockwise.
6. Continue driving and adjusting the left side handlebar until the machine travels in a straight line at full speed.
7. Tighten the left handlebar Jam nuts counterclockwise against the center section. Adjustment is complete.

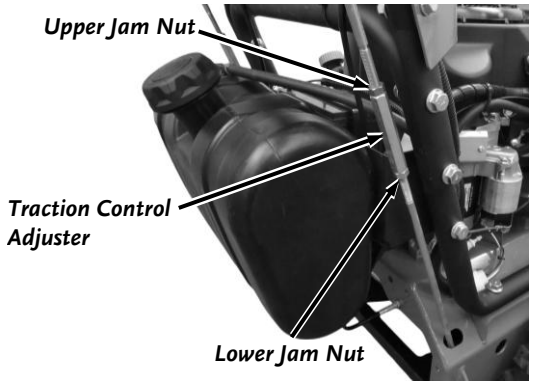


Figure 49

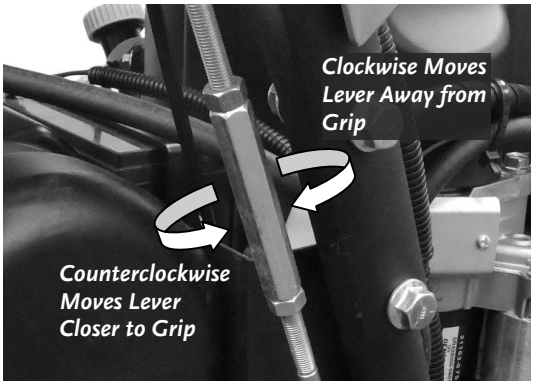


Figure 50

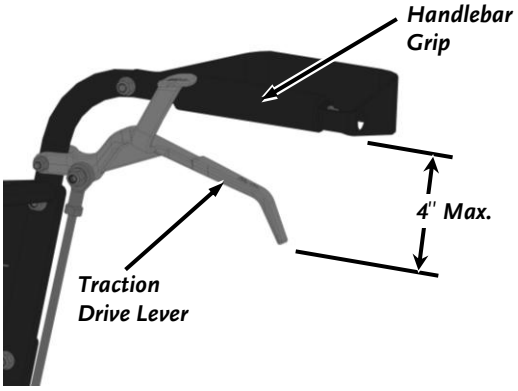


Figure 51

Reverse Drive Limit Adjustment

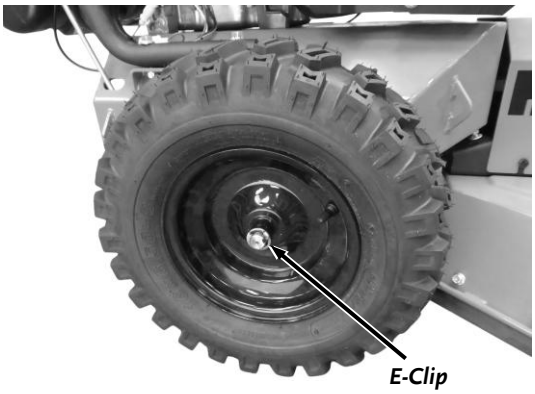


Figure 52

The reverse Drive limit adjustment set at the adjustable limit bolts on the inside of the frame on each side. If your machine is tracking straight when traveling in full speed reverse (both Thumb Pads pressed fully), do not make any adjustments. If your machine is tracking to the left or right when traveling in full speed reverse (both levers pressed equally), you may need to adjust the reverse drive limit as follows.

Tools Needed:

- 1/2" Wrench
- Gap Gauge (A narrow piece of 7 or 8 gage sheet metal, or other suitable material that is between 0.15 to 0.18 thick)

⚠ WARNING

A gap of 0.15″-0.18″ results in a reverse speed limit of approximately 2MPH. Setting the gap larger than recommended result in a reverse speed limit that is faster than 2MPH and is considered unsafe and could cause injury.

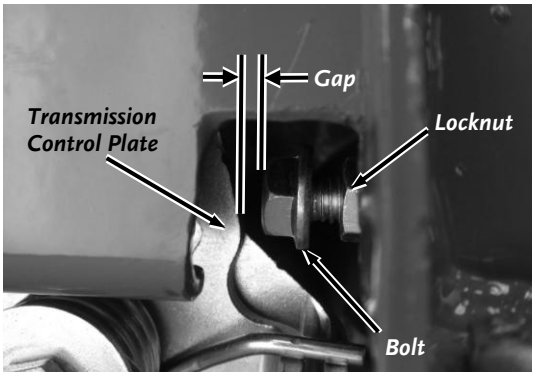


Figure 53

1. Jack up the rear of the machine and remove the e-clips securing the wheels to axle. Remove the Wheels (***Figure 52***).
2. Use a narrow piece of 7 or 8 gage sheet metal, or other suitable material that is between 0.15 to 0.18 thick to check the gap between the Reverse Limit Bolt and the Transmission Control Plate on both Transmissions (***Figure 53***).
3. If the gaps appear to be set the same as they come from the factory, no adjustment is necessary. If the gaps are different, follow the next steps for proper adjustment.
4. Use a 1/2" Wrench to loosen the Jam Nut on the Adjustment Bolt as you hold the Bolt with another 1/2″ Wrench.
5. Rotate the Adjustment Bolt until it contacts the Gauge that is between the Bolt and the Transmission Control Plate.
6. Hold the Bolt Head with a Wrench as you tighten the Jam Nut against the Bracket with another Wrench to secure the Adjustment Bolt in place.
7. Ensure the gaps on both sides of the machine are set the same using the Gauge.

Note: *For the machine to track straight in reverse, it is important that the gap between the adjustment bolt and the transmission control plate is the same for both the left and right transmissions. The proper gap should be between 0.15″ and 0.18″.*

8. Reinstall the Wheels and check that the Machine Travels in a straight line in reverse. If the machine is still tracking in one direction, repeat the process above.

Changing the Drive Configuration (from Cross Drive to Inline Drive)

The Cross Drive configuration uses the Control Arms on the right as shown in the upper illustration (***Figure 54***). We found this to be to be the preferred configuration for the majority of users so Machines are shipped from the factory as Cross Drive. We recommend extensive practice by anyone that may be using this machine before switching drive configurations.

The Inline Drive configuration uses the Control Arms on the left as shown in the lower illustration (***Figure 54***). Converting to this configuration is explained in the following steps.

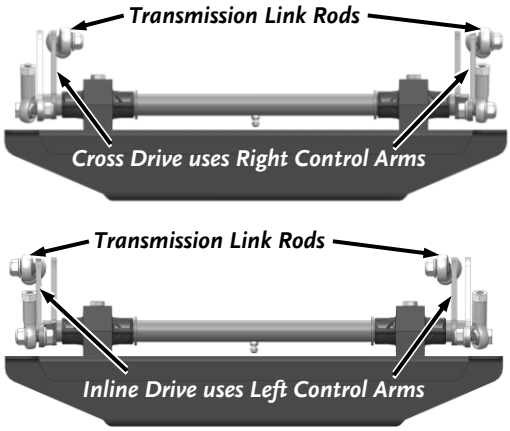


Figure 54

Tools Needed:

- 1/2" Socket with Extension

1. Remove the Rear Cover Plate using a 1/2" Wrench (***Figure 55***).

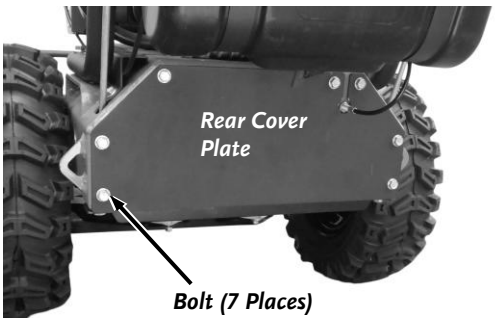


Figure 55

Adjustment at left side of the Frame

Note: *Move the Linkage as needed to allow removal and installation of the Carriage Bolts. The head of the Carriage Bolts are always positioned between the Control Arms.*

2. Use a 1/2" Socket to remove the Locknut and Carriage Bolt securing the Transmission Link to the right Control Arm (***Figure 56***).
3. Move the Transmission Link to the left Control Arm and secure with the Carriage Bolt and Locknut using the 1/2 Socket and Extension (***Figure 57***).

Note: *Use a socket with extension when accessing the locknut through the cut-out in the Frame.*

Adjustment at Right Side of the Frame

4. Use a 1/2" Socket and Extension to remove the Locknut and Carriage Bolt securing the Transmission Link to the right Control Arm (***Figure 58***).

Note: *Use a socket with extension when accessing the locknut through the cut-out in the Frame.*

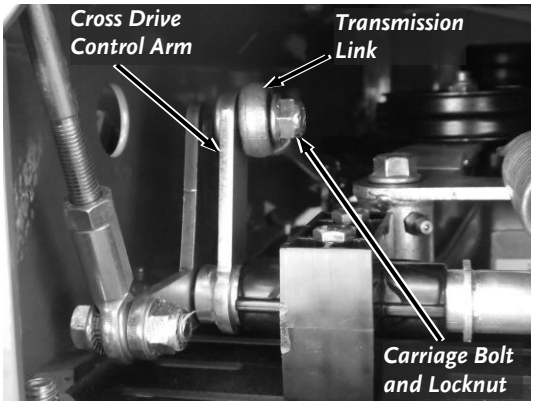


Figure 56

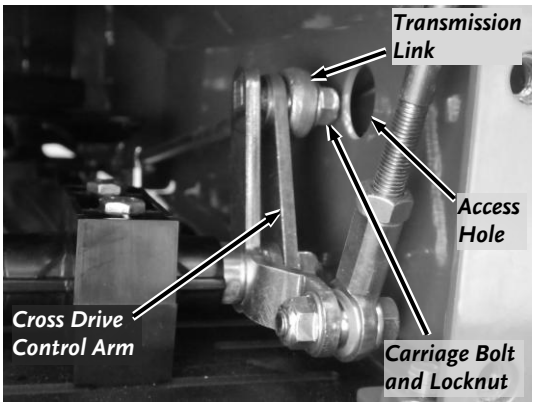


Figure 58

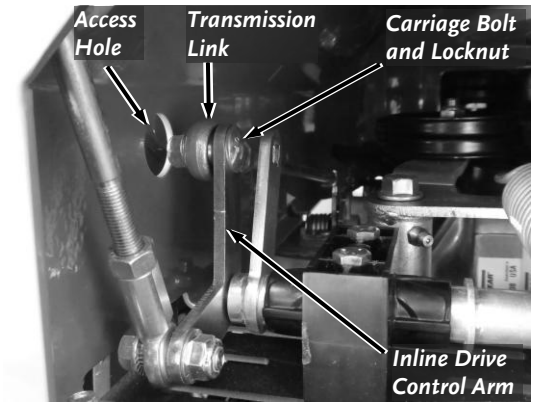


Figure 57

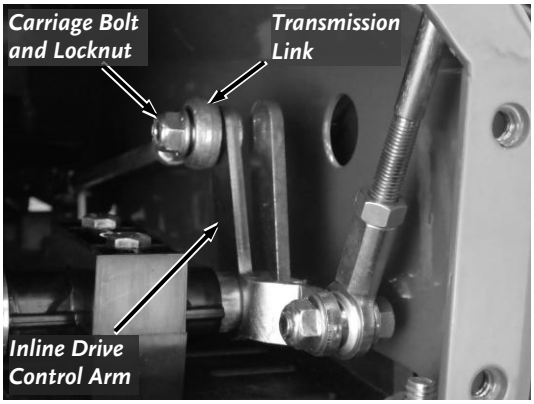


Figure 59

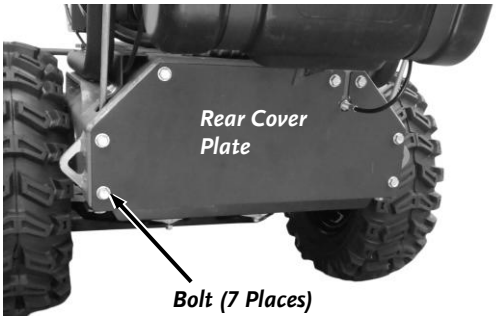


Figure 60

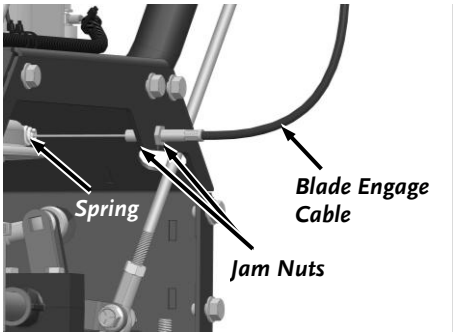


Figure 61

5. Move the Transmission Link to the left Control Arm and secure with the Carriage Bolt and Locknut using a 1/2" Socket (***Figure 59***).
6. Reinstall the Rear Cover Plate.
7. Check the Forward Drive speed and re-adjust the control levers as needed. See section "Adjusting the Forward Speed".

Blade Engage Cable Adjustment

1. Ensure the Blade Engage Lever is in the disengaged position.
2. Remove the Rear Cover Plate using a 1/2" Wrench (***Figure 60***).
3. Adjust the Jan Nuts as needed to remove and slack in the cable without putting any tension on the Spring (***Figure 61***).

Battery Care (Electric Start Machines)

Proper care can extend the life of a Battery. Follow these recommendations to ensure your Battery's best performance and long life:

- Do not allow the Battery charge to get too low. If the machine is not used, charge the Battery every 4 – 6 weeks. Operate the Engine for at least 45 minutes to maintain proper Battery charge.
- Store an unused Battery in a dry area that does not freeze.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery with a trickle Charger; however, when a Battery is fully charged and the Charger is still on, it generates heat that could be harmful to the Battery. A fully charged Battery will read 12V-13.2V with a Voltmeter.
- Do not continue to crank the Engine when the Battery charge is low.
- If the machine will not be used for an extended period of time, we recommend disconnecting the negative battery terminal to help preserve the battery charge.

Charging the Battery

Operate the Mower Engine for at least 45 minutes to maintain proper Battery charge. If the Battery loses its charge, you'll need to use a trickle Charger (like the DR Battery Charger) to recharge it. The Charger should have an output of 12 volts at no more than 2 amps.

Note: *The charging system of a running engine is designed to maintain a battery's present charge. Starting a machine that has a significantly discharged or dead Battery using the Recoil Starter or Jumper Cables will not recharge the Battery.*

To connect a Battery Charger to your DR FIELD and BRUSH MOWER, follow the steps listed below.

1. Detach the two Battery wires going to the Battery on your DR FIELD and BRUSH MOWER.
2. Attach the black (-) Battery Charger wire to the Battery negative (-) terminal, and attach the red (+) Battery Charger wire to the Battery positive (+) terminal.
3. Plug the Battery Charger into an outlet.
4. Charge until Battery Charger indicates that it is charged or Battery measures to 12-14V.
   - At 1 amp, you may have to charge the Battery for as long as 24 hours.
   - At 2 amps, you may have to charge the Battery for as long as 12 hours.
5. Once Charged, disconnect Charger from outlet.
6. Disconnect Battery from the Charger.

Disposing of the Battery Responsibly

The Battery is a sealed lead-acid Battery. Recycle or dispose of it in an environmentally sound way.

- Do not dispose of a lead-acid Battery in a fire; the Battery may explode or leak.
- Do not dispose of a lead-acid Battery in your regular, household trash. Laws in most areas prohibit incinerating, disposing in a landfill, or mixing a sealed lead-acid Battery with household trash.

NOTICE

Please dispose of used batteries responsibly, according to your local hazardous materials regulations. Never throw away used batteries in your household trash.

Recycling a Used Battery

Please dispose of your used Batteries responsibly by recycling them. Call your local Solid Waste Management District or your local waste handler to locate the collection site nearest you. Some collection sites recycle Batteries year-round; others collect them periodically. You can also visit the Web site of Earth 911 for more information [www.earth911.org]. Once there, click "Where to recycle", and type **Lead Acid Batteries** under the "search for" box and enter your zip code in the "ZIP CODE" area, then select "search". The site lists recycling centers located near you.

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE; SOLUTION
Engine Starter Won't Crank on Electric Start machines	⇒ Blade Engage Lever is in "ENGAGED" position; Disengage Blade Engage Lever. ⇒ Operator Presence Wires are disconnected; Reconnect Operator Presence Connector ⇒ Check the fuse located on the Starter Wire; Replace fuse if blown ⇒ Battery power is low; Check the battery is more than 12V- Refer to Battery Care Section ⇒ Wires are disconnected or corroded; Check all wire connections. Disconnect the green Battery ground wire first to avoid sparks. Check to be sure that all of the connections are clean and tight. Reconnect the Battery ground wire.
Engine turns but won't start	⇒ Check that the gas tank is at least half full and that the fuel shut off Valve is in the ON position ⇒ Try starting with the throttle in the CHOKE position; if this doesn't work try the RUN position.
The Engine lacks power or is not running smoothly. *(Please refer to the Engine Owner's Manual for engine-specific procedures.)*	⇒ Check the Throttle Lever travel and adjustment. Make sure the Throttle Lever is in the Run position. ⇒ Check that the Air Filter is clean. If it is dirty, change it following the procedure in the Engine Owner's Manual. ⇒ The Spark Plug(s) may be dirty or cracked, change it. If it's oily, leave it out, hold a rag over the Plug Hole(s) and crank the Engine several times to blow out any oil in the Cylinder(s), then wipe off the Plug(s) and reinsert it. ⇒ The gas may be old, change it. Use a fuel stabilizer if you keep gas longer than one month. ⇒ Check the Fuel Filter, it may be clogged. Replace if necessary. ⇒ Check to make sure that your Engine has the right amount of clean oil. If it is dirty, change it following the procedure in the Engine Owner's Manual.
Engine smokes.	⇒ Check the oil level and adjust as needed. ⇒ You may be operating the machine on too great an incline. See "Mowing on Slopes" on page 17. ⇒ Check the Air Filter and clean or replace if needed. ⇒ You may be using the wrong oil—too light for the temperature. Refer to your Engine Owner's Manual for detailed information. ⇒ Clean the Cooling Fins if they are dirty. ⇒ If the Engine still smokes, visit our web site at www.DRpower.com for assistance.
Traction Drive does not Engage	⇒ The Drive Belt is off the Pulleys; Reinstall the Belt onto the Pulleys ⇒ The Drive Belt is damaged; Replace the Drive Belt. ⇒ Drive Idler Spring is broken or not attached, Reattach or replace. ⇒ The Neutral Bypass Links are in the transport position; Push Neutral Bypass Links in so they are in the drive position.

Troubleshooting Table (Cont.)

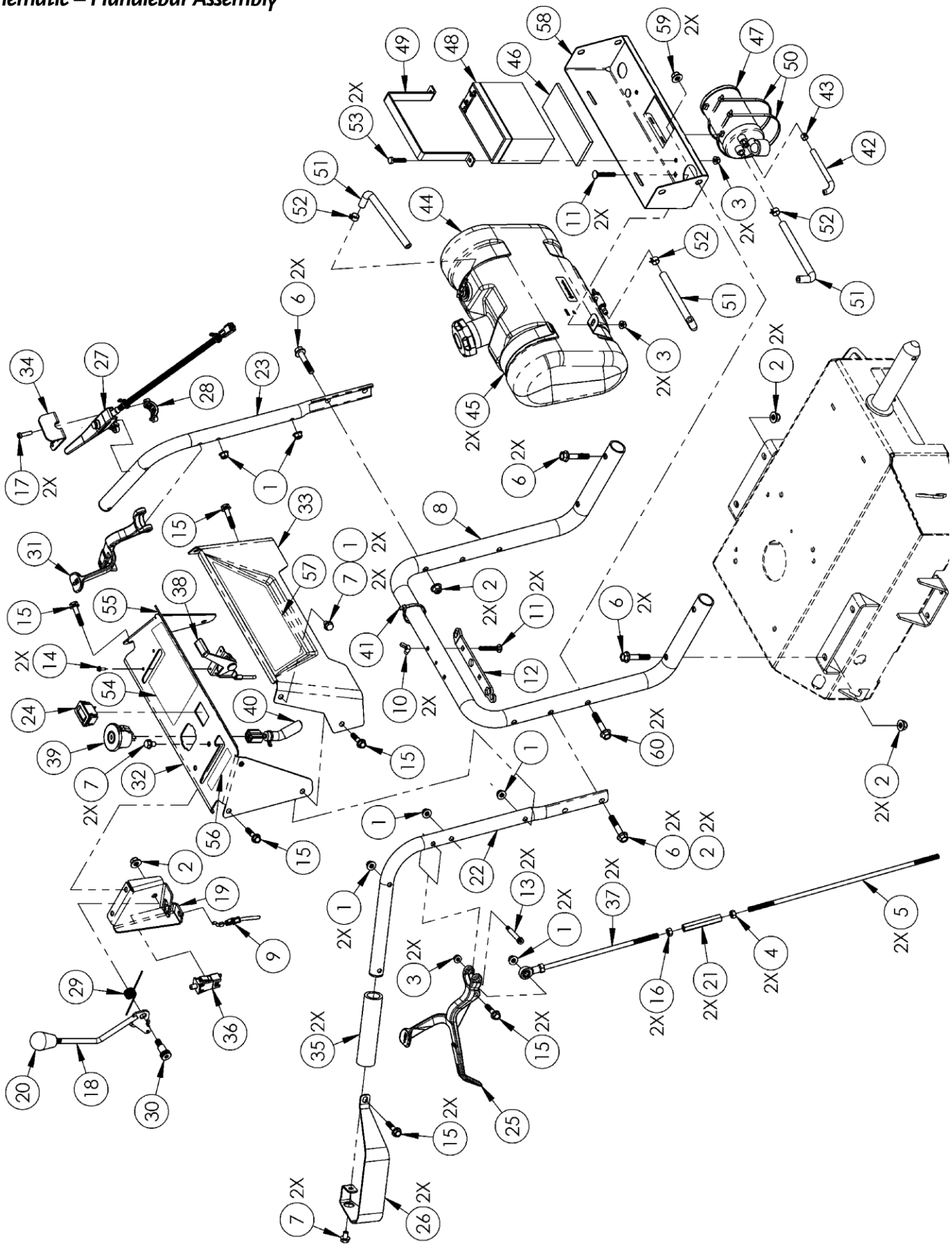
SYMPTOM	POSSIBLE CAUSE; SOLUTION
Machine tracks left or right when traveling at full speed with both Levers against the Handlebar Grips.	⇒ Control Levers may need to be adjusted; See "Adjustment the forward speed limit" on page 25. ⇒ Check the Wheel Tire pressures against the manufacturer's recommendation listed on the side of the Tires.
Machine turns fully left or right when engaging both Levers the same.	⇒ Check that both Neutral Bypass Links are pushed into the engaged/drive position ⇒ Check that axle/wheel key is installed locking both wheels to the axle.
A Belt frays or rolls over the Pulley.	⇒ A Pulley groove may be rusty or have a nick in it. Clean the pulley with steel wool or file off any nicks. ⇒ Check the Belt for wear and hard spots. ⇒ The Belt may be stretched, replace it.
Excessive vibration when engaging the Blade.	⇒ Check the Blade for nicks and wear. Replace or sharpen and balance the Blade if they become dull, or have them professionally sharpened if needed. Never try to straighten a bent Blade. Be sure to replace the Blade in the proper orientation. See page 23. ⇒ May have debris wrapped around Blade (wire, etc.), Remove debris from Blade. ⇒ The Blade may not be seated properly on the Hub. Loosen the Blade Nut, reseat the Blade, and tighten the Nut. Be sure to turn OFF the Engine and remove the Spark Plug wire(s) before performing this operation. ⇒ Check and retighten all of the fasteners as required.
The Blade is not cutting or is loose.	⇒ The Blade may not be seated properly on the Hub. Loosen the Blade Nut, reseat the Blade, and tighten the Nut. Be sure to turn OFF the Engine and remove the Spark Plug wire(s) before performing this operation. ⇒ Sharpen the Blade; it may be dull or nicked. Be sure to replace the Blade in the proper orientation. See page 23.
The Blade will not Engage and/or Disengage.	⇒ Be sure you are holding down on the Operator Presence Lever. ⇒ Be sure that the Cable is connected at both ends and not damaged. ⇒ Engagement Arm on clutch is stuck; Ensure that the clutch arm is returning to its resting position. ⇒ Do not continue to use the machine if the blade will not disengage; visit our web site at www.DRpower.com for assistance.
Blade is not cutting or squealing noise is heard when cutting.	⇒ Check the Belt for wear or stretching; Replace Belt as needed (see page 21). ⇒ Check the Blade Engage Cable for proper adjustment; Adjust Cable (see page 28).

Parts List - Handlebar Assembly

Note: *Part numbers listed are available through DR Power Equipment.*

Ref#	Part#	Description
1	333321	Nut, Nylon Lock, Flanged, 5/16-18
2	333331	Nut, Nylon Lock, Flanged, 3/8-16
3	333311	Nut, Nylon Lock, Flanged, 1/4-20
4	A0001293097	Nut, Finish, 5/16-24, ZP
5	A0000646660	Link, Traction Control, Lower
6	333501	Bolt, Hex, Flange, 3/8-16 X 2"
7	111731	Screw, 5/16-18 X 1/2", Tri
8	A0000646531	Handlebar, Lower
9	A0000648496	Cable, Blade Engage
10	G037561	Nut, Wing, 1/4-20, W/Ny Ins St Zn
11	A0001699594	Bolt, Carriage, 1/4-20 X 1.75", GR5, ZP
12	A0001446686	Wrench
13	A0001293143	Bolt, Shoulder, 1/4-20, 5/16" X 1.75"
14	150491	Screw-8-32 X 1/2
15	333521	Bolt, Hex, Flange, 5/16-18 X 1.5"
16	A0001293103	Nut, Finish,-5/16-24, Left Hand, ZP
17	179231	Screw, SH, M6 25mm
18	A0000646612	Lever, Blade Engage
19	A0000646610	Bracket, Blade Engage
20	150361	Knob, PTO Clutch Cable
21	A0000646661	Adjuster, Traction Drive
22	A0000646546	Handlebar, Upper-Right
23	A0000646547	Handlebar, Upper-Left
24	217201	Maintenance Meter, W/66" Wire
25	A0000648498	Lever, Traction Drive, Right
26	A0000648497	Guard, Hand
27	180691	Lever, Operator Presence, W/Wire
28	370511	Collar, Lever, 1", Threaded
29	A0001293201	Spring, Torsion, Blade Engage Return
30	A0001293144	Bolt, Shoulder, 3/8-16, 1/2" X 3/4"
31	A0000648499	Lever, Traction Drive, Left
32	A0002045838	Control Panel, Top Plate, w/labels
33	A0000967082	Control Panel, Front
34	164971	Guard, Switch
35	A0001231337	Grip, Vynafoam, 1"ID X 5.5"L
36	A0001231346	Switch, Plunger, NO/NC, Snap In
37	A0000646659	Link, Traction Control, Upper
38	139051	Cable, Throttle, 50" (XD30)
	A0000702424	Cable, Throttle, Honda (XD26)
39	222231	Switch, Snap-In, ES (XD30)
40	A0000702431	Wire Harness, ES (XD30)
	A0002224499	Wire Harness, GXV390 (XD26)
41	112141	Cable Tie, 7-1/2", L
42	10000040536	Hose, Vapor, 3/16", ID (XD30)
43	265811	Clamp, Vapor Hose (XD30)
44	352831	Gas Tank Assembly, EPA/CARB (XD30)
45	344431	Strap, Tank (XD30)
46	286971	Pad, Battery, 2.5" X 6.125" (XD30)
47	385301	Carbon Canister, 300cc, 1/4" Tank 3/16" Purge (XD30)
48	134471	Battery, 9 AH, 12V (XD30)
49	242301	Strap, Battery (XD30)
50	127971	Cable Tie, 17", 50 GA (XD30)
51	A0000522190	Hose, Fuel, EPA/CARB Certified (XD30)
52	A0000313387	Clamp, Fuel Line (XD30)
53	114681	Bolt, HCS, 1/4-20 X 1-1/4", GR5, ZP (XD30)
54	A0001645278	Label, Info, Control Panel
55	A0001645284	Label, Info, X-Drive
56	A0001645279	Label, Blade Engage
57	A0001645286	Label, Control Panel, Front
58	A0000627935	Bracket, Fuel Tank (XD30)
59	333331	Nut, Nylon Lock, Flanged, 3/8-16 (XD30)
60	333501	Bolt, Hex, Flange, 3/8-16 X 2" (XD30)

Schematic – Handlebar Assembly

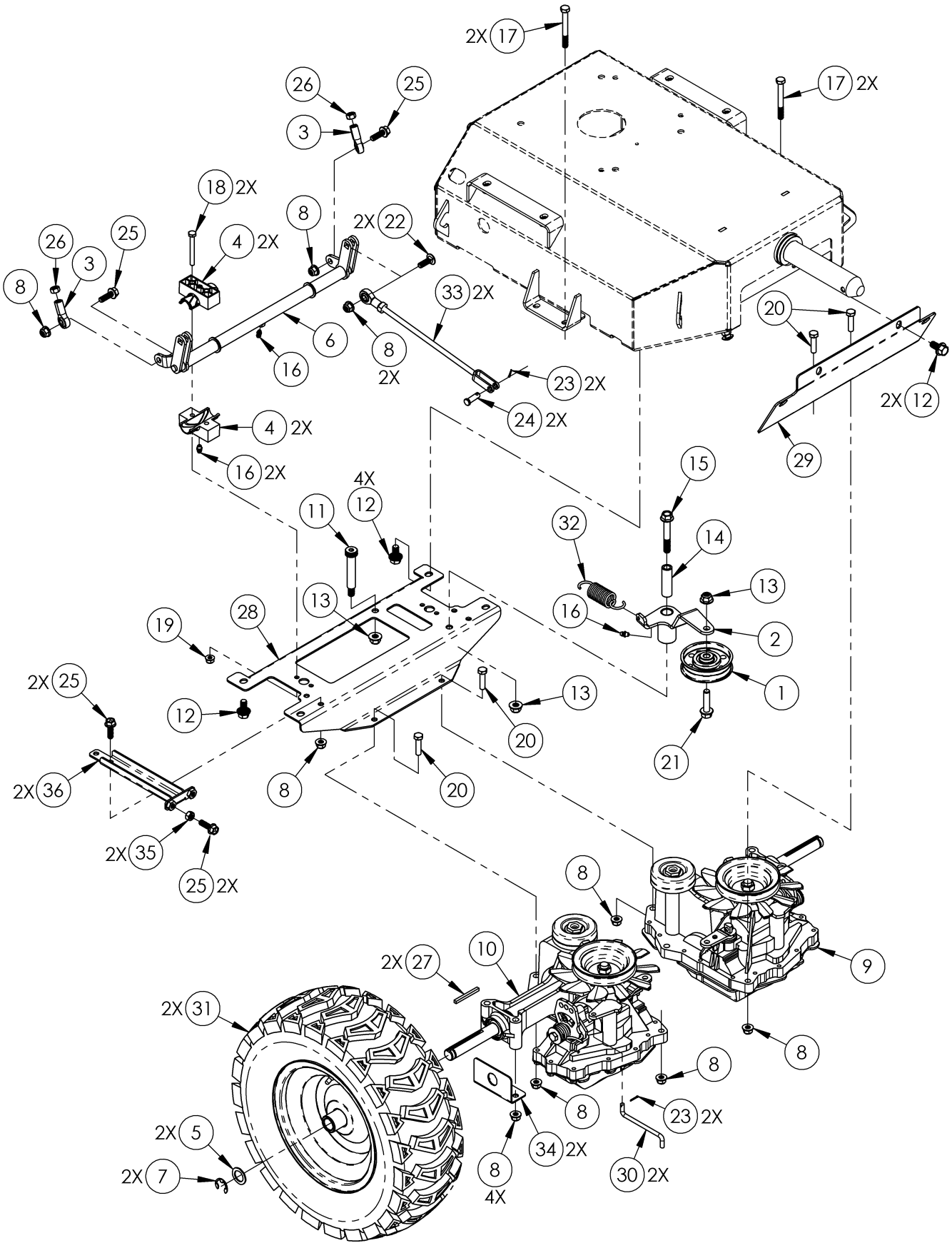


Parts List – Transmission Assembly

Note: *Part numbers listed are available through DR Power Equipment.*

Ref#	Part#	Description
1	108501	Pulley, Flat Idler, 3″
2	A0000646666	Idler, Transmission
3	A0000647001	Rod End, Ball Joint, 5/16-24, Female Thread
4	A0000647009	Bushing, Pivot Assembly
5	389451	Washer,-Flat .75″ X 1.125″ X .012″
6	A0001776491	Pivot Assembly
7	A0000313388	Ring, Retaining, 3/4″, E
8	333321	Nut, Nylon Lock, Flanged, 5/16-18
9	A0000214942	Transmission, Hydrostatic, LH
10	A0000206829	Transmission, Hydrostatic, RH
11	A0000648484	Bolt, Shoulder, 0.5″ X 2.5″ X 3/8-16
12	352811	Bolt, Hex, Flange, TL, 3/8-16 X 3/4″
13	333331	Nut, Nylon Lock, Flanged, 3/8-16
14	351431	Bushing, Idler
15	333481	Bolt, Hex, Flange, 3/8-16 X 2.5″
16	A0000332299	Grease Zerk, Straight, 1/4-28
17	111411	Bolt, HCS, 5/16-24 X 3″, GR, ZP
18	313061	Bolt, HCS, 1/4-20 X 2-1/4″, GR5, ZP
19	333311	Nut, Nylon Lock, Flanged, 1/4-20
20	123361	Bolt, HCS, 5/16-18 X 1-1/4″, GR5, ZP
21	344071	Bolt, Hex, Flange, 3/8-16 X 1.5″ GR5, ZP
22	187621	Bolt, Carriage, 5/16-18 X1″, GR5, ZP
23	276761	Cotter Pin, 3/32″ X 1/2″, ZP
24	A0001292325	Pin, Clevis, 5/16″ Dia X 3/4″ L
25	393541	Bolt, Hex, Flange, 5/16-18 X 1.00″, GR5, ZP
26	A0001293097	Nut, Finish, 5/16-24, ZP
27	101191	Key, Square, 3/16″ X 2″
28	A0000646663	Bracket, Transmission, Rear
29	A0000646664	Bracket, Transmission, Front
30	A0000646665	Link, Wire Form, Neutral Bypass
31	A0000682736	Wheel, X Trac, 16x6.5, Pnuematic, W/Sealant
32	A0000648475	Spring, Extension, Traction Drive
33	A0000683747	Link Weldment, Transmission
34	A0001458984	Guard, Seal, Hydro Trans
35	110691	Nut, Finish, 5/16-18, ZP
36	A0001445206	Bracket, Adjustment, Reverse Limit

Schematic – Transmission Assembly



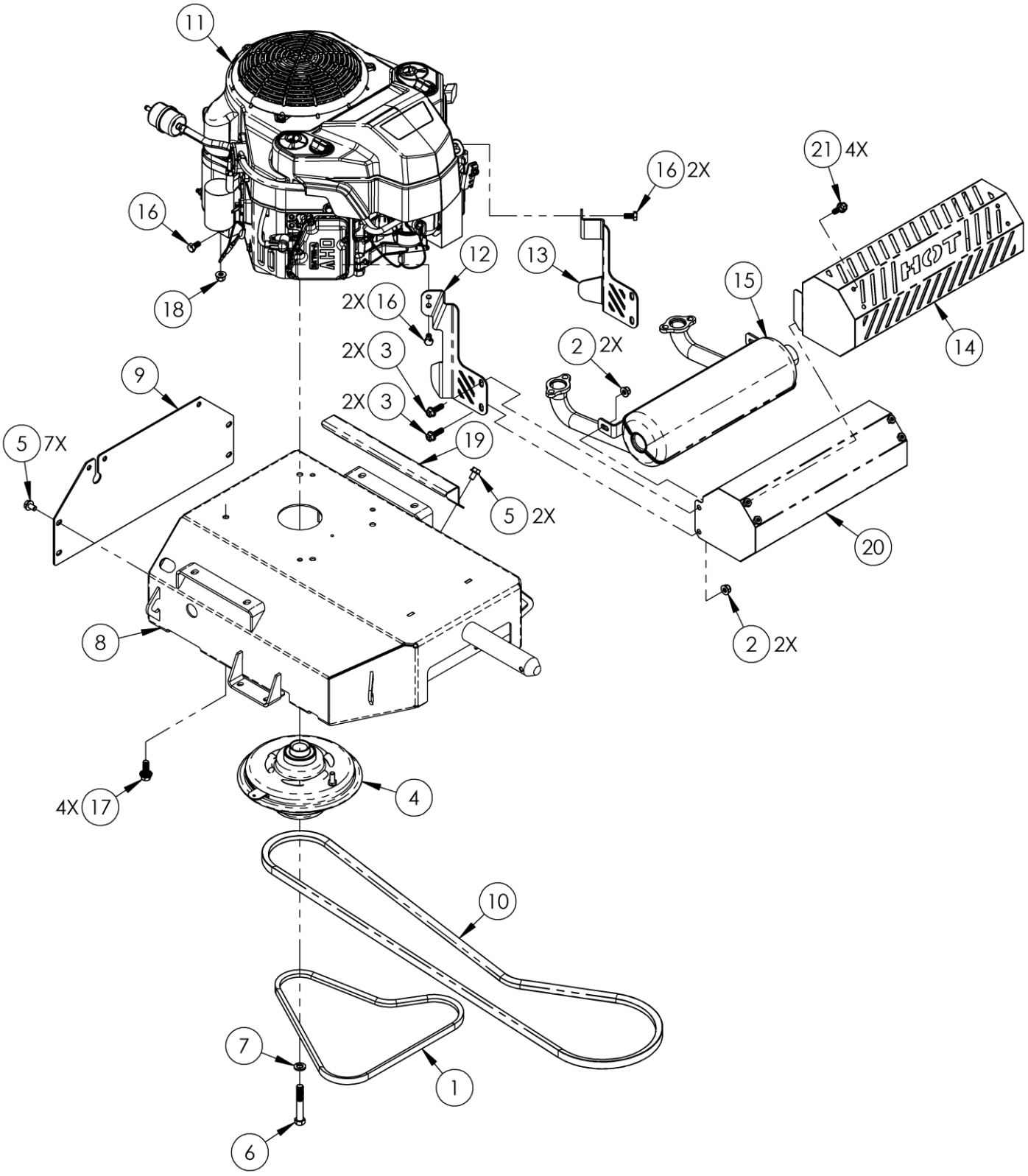
Parts List – Drive Assembly (Kawasaki)

Note: *Part numbers listed are available through DR Power Equipment.*

Note: *Items 1 and 4 thru 10 are on all models.*

Ref#	Part#	Description
1	A0000646671	Belt, A38, 1/2" X 40"
2	333321	Nut, Nylon Lock, Flanged, 5/16-18
3	393541	Bolt, Hex, Flange, 5/16-18 X 1.00", GR5, ZP
4	A0000560848	Clutch, Mechanical
5	111731	Screw, 5/16-18 X 1/2", TRI
6	223241	Bolt, HCS, 7/16-20 x 2.75", GR8, ZP
7	A0000367010	Washer, Split, 7/16" GR8
8	A0000646517	Frame
9	A0000646621	Cover Plate, Rear
10	A0000646670	Belt, Bk78, 5/8" X 80"
11	A0000974583	Engine, Kawasaki, FS600V, 18.5hp, ES
12	A0000702439	Muffler Support, Right
13	A0000702440	Muffler Support, Left
14	A0001903710	Guard, Muffler, Outer
15	A0001104312	Exhaust, Muffler
16	220981	Bolt, Hex Head, M8 X 16
17	289901	Screw, Unsltd Trilobe, 3/8-16 X 1"
18	333421	Nut, Nylon Lock, Flanged, M8-1.25, CL8, ZP
19	A0000930250	Conduit, Hose and Cable
20	A0001903708	Guard, Muffler
21	365211	Bolt, Hex, Flange, 1/4-20 X 5/8", ZP

Schematic – Drive Assembly (Kawasaki)



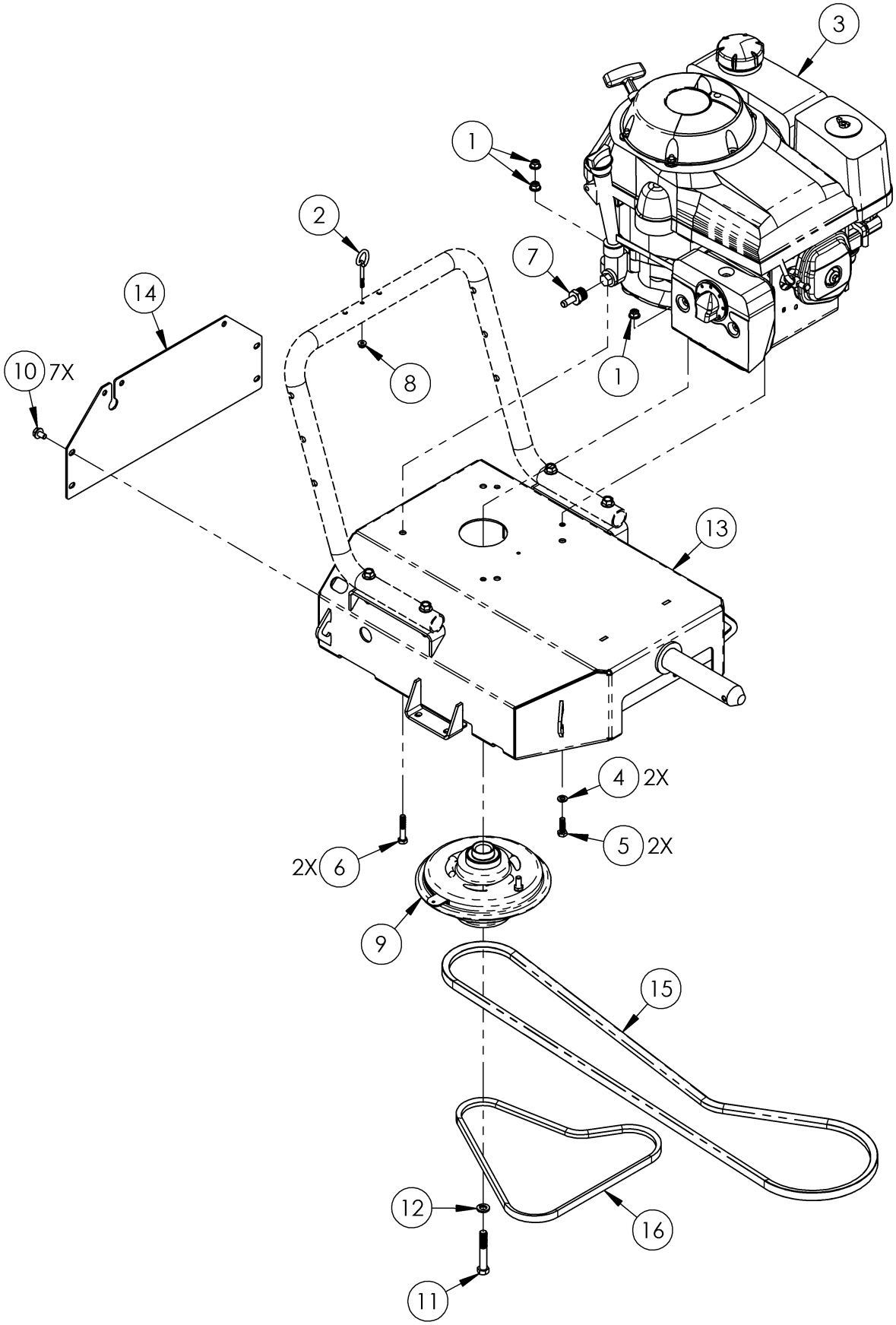
Parts List – Drive Assembly (Honda)

Note: *Part numbers listed are available through DR Power Equipment.*

Note: *Items 9 thru 16 are on all models.*

Ref#	Part#	Description
1	333321	Nut, Nylon Lock, Flanged, 5/16-18
2	A0000655096	Recoil Holder, Wire Form
3	A0000560846	Engine, Honda GXV390, 10.2HP, MS
4	112431	Washer, Lock, 5/16
5	A0001346725	Bolt, HCS, 5/16-24 X 1", GR5 ZP
6	150451	Bolt, HCS, 5/16-18 X 1-3/4", GR5 ZP
7	A0000952591	Barb Fitting, 3/8" Hose ID, M20 Thread
8	350381	Nut, Nylon lock, Flange, 10-24, ZP
9	A0000560848	Clutch, Mechanical
10	111731	Screw, 5/16-18 X 1/2", TRI
11	223241	Bolt, HCS, 7/16-20 x 2.75", GR8, ZP
12	A0000367010	Washer, Split, 7/16" GR8
13	A0000646517	Frame
14	A0000646621	Cover Plate, Rea
15	A0000646670	Belt, Bk78, 5/8" X 80"
16	A0000646671	Belt, A38, 1/2" X 40"
Not Shown		
	A0001645291	Label, Choke Symbol

Schematic – Drive Assembly (Honda)

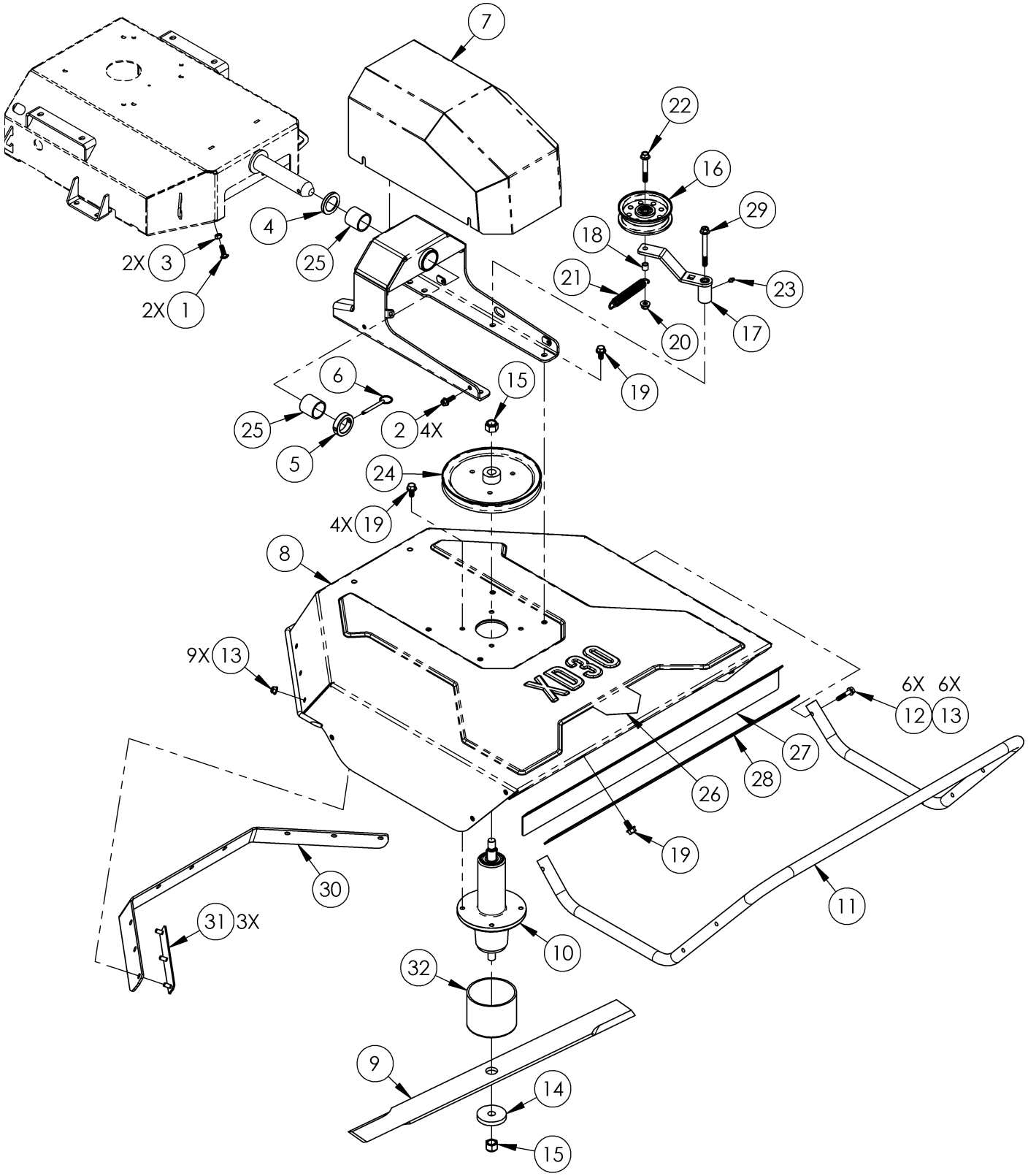


Parts List – Brush Deck Assembly

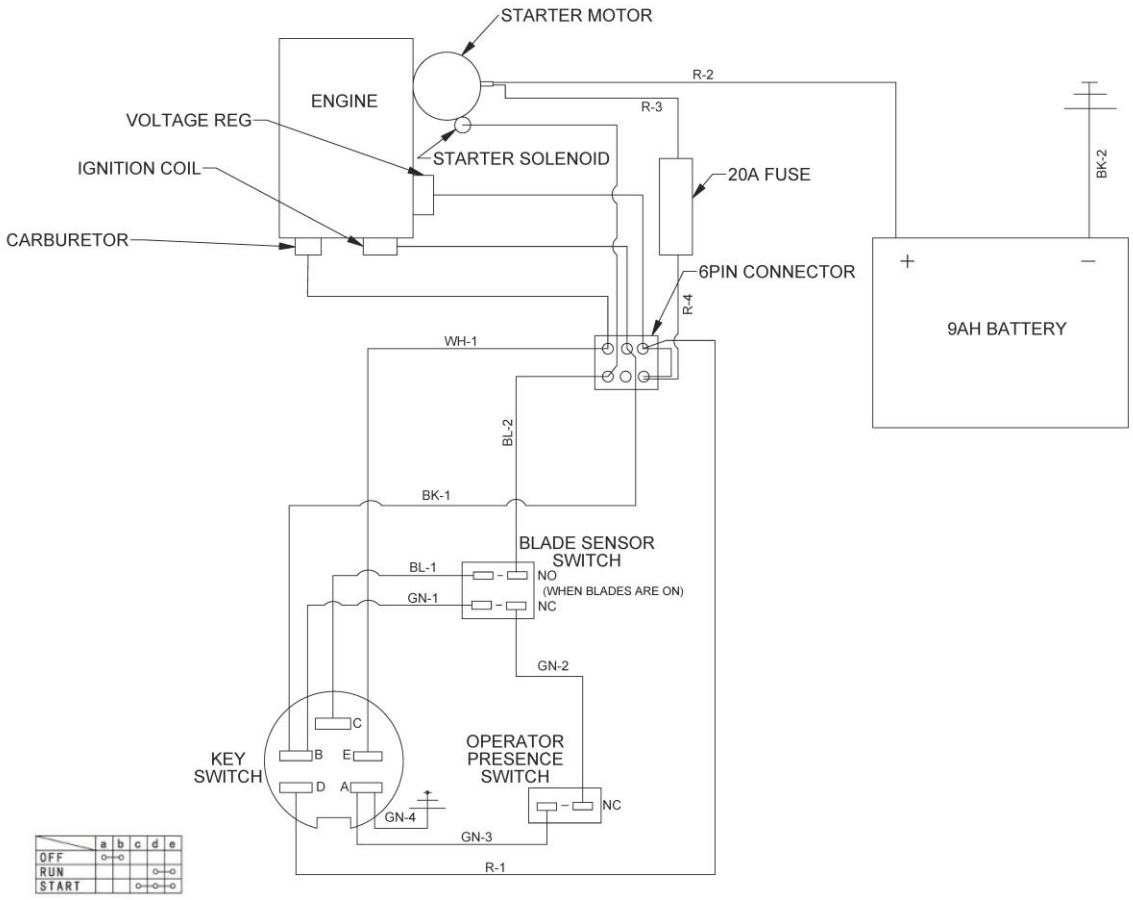
Note: *Part numbers listed are available through DR Power Equipment.*

Ref#	Part#	Description
1	187621	Bolt, Carriage, 5/16-18 X 1", GR5, ZP
2	393541	Bolt, Hex, Flange, 5/16-18 X 1.00", GR5, ZP
3	110691	Nut, Finish, 5/16-18, ZP
4	151381	Washer, 1.375" ID, 2.0" OD
5	A0000253469	Washer, 1.38" ID, 2.0" OD .5L
6	150461	Pin, Detent, 1/4" X 2"
7	A0000647158	Cover, Belt
8	A0002045835	Brush Deck, 26", w/Labels (XD26)
	A0002045827	Brush Deck, 30", w/Labels (XD30)
9	100491	Blade, Brush, Heavy Duty, 26" (XD26)
	166311	Blade, Brush, Heavy Duty, 30" (XD30)
10	A0000647273	Spindle Assembly
11	A0000648419	Brush Bar, 26" (XD26)
	A0000966706	Brush Bar, Solid, 30" (XD30)
12	333521	Bolt, Hex, Flange, 5/16-18 X 1.5"
13	333321	Nut, Nylon Lock, Flanged, 5/16-18
14	101771	Washer, .640" ID X 2-1/2" OD
15	160071	Nut, Nylon Lock, 5/8-18, GR2, ZP
16	151271	Pulley, Flat Idler, 4"
17	A0000648427	Idler, Brush Deck
18	350511	Spacer, Idler
19	352811	Bolt, Hex, Flange, TL, 3/8-16 X 3/4"
20	333331	Nut, Nylon Lock, Flanged, 3/8-16
21	150941	Spring, E, .750"OD .112Wire 5.0L
22	333481	Bolt, Hex, Flange, 3/8-16 X 2.5"
23	A0000332299	Grease Zerk, Straight, 1/4-28
24	164451	Pulley, V-Belt, 8-1/2", 7G
25	150721	Bushing, 1.38" ID, 1.63"OD, 1.5L
26	136491	Label, Danger
27	10000031856	Skirt, Front, Rubber, 26" (XD26)
	10000031814	Skirt, Front, Rubber, 30" (XD30)
28	366161	Strap, Skirt Mounting, 26" (XD26)
	366151	Strap, Skirt Mounting, 30" (XD30)
29	345171	Bolt, Hex, Flange, 3/8-16 X 3.5"
30	A0000648432	Guard, Rear, 26" Deck (XD26)
	A0000648433	Guard, Rear, 30" Deck (XD30)
31	A0000253559	Plate, Stud Guard
32	A0000910019	Guard, Anti Wrap

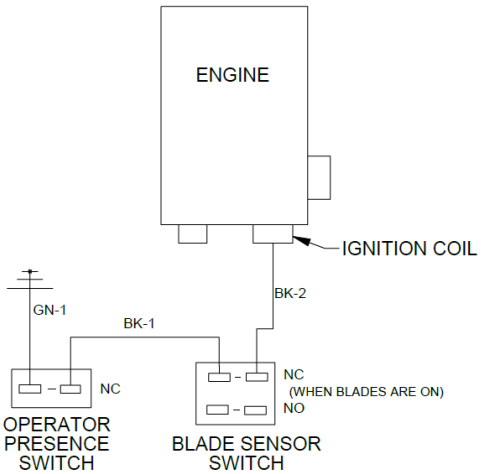
Schematic – Brush Deck Assembly



Wiring Diagram –Kawasaki Engine (Electric Start)



Wiring Diagram –Honda Engine (Manual Start)



DR® FIELD and BRUSH MOWER

2-Year Limited Warranty

Terms and Conditions

The **DR®** FIELD and BRUSH MOWER is warranted for two (2) years against defects in materials or workmanship when put to ordinary and normal consumer use as well as commercial use.

For the purposes of all the above warranties, “ordinary and normal use” and “commercial use” does not include misuse, accidents or damage due to inadequate maintenance.

DR Power Equipment certifies that the **DR®** FIELD and BRUSH MOWER is fit for ordinary purposes for which a product of this type is used. DR Power Equipment however, limits the implied warranties of merchantability and fitness in duration to a period of two (2) years in consumer use as well as commercial use. DR Power Equipment limits the implied warranties of merchantability and fitness in duration to a period of two (2) years for all emissions related components. The Engine manufacturer warrants the Engine separately.

The 2-Year Limited Warranty on the **DR®** FIELD and BRUSH MOWER starts on the date the machine ships from our factory. The 2-Year Limited Warranty is applicable only to the original owner.

The warranty holder is responsible for the performance of the required maintenance as defined by the manufacturer's owner's manuals. The warranty holder is responsible for replacement of normally wearing parts such as the Drive Belts, Blade, Filters, Spark Plug(s), Brake Components and Battery. Accessories to the machine are not covered by this warranty.

During the warranty period, the warranty holder is responsible for the machine transportation charges, if required. During the warranty period, warranty parts will be shipped by standard method at no charge to the warranty holder. Expedited shipping of warranty parts is the responsibility of the warranty holder.

SOME STATES DO NOT ALLOW LIMITATIONS ON THE LENGTH OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

DR Power Equipment shall not be liable under any circumstances for any **incidental or consequential damages or expenses** of any kind, including, but not limited to, cost of equipment rentals, loss of profit, or cost of hiring services to perform tasks normally performed by the **DR®** FIELD and BRUSH MOWER.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Daily Checklist for the DR FIELD and BRUSH MOWER

To help maintain your DR FIELD and BRUSH MOWER for optimum performance, we recommend you follow this checklist each time you use your machine.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

[ ] Check the engine oil level.
[ ] Check the gas Level
[ ] Check the general condition of the Mower, e.g.; nuts, bolts, welds, etc.
[ ] Check Tire Pressure
[ ] Check belts for wear, proper alignment and tension.
[ ] Check the blade for tightness, nicks and wear. Remove any wrapped weeds and grass from the Blade Bearing Housing to prevent buildup.
[ ] Check that the engine air cooling system is clean of debris.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to coo and disconnect spark plug

End of Season and Storage

Note: *Please refer to the Engine Owner's Manual for engine-specific procedures.*

- Change the oil (and oil filter, if applicable). For winter use, use SAE 5W – 30 HD.
- Remove the Spark Plug(s) and pour about 1 ounce of motor oil into the Cylinder hole. Replace the Plug(s) and crank the Engine a couple of times. This will coat the piston(s) and seat the valves to prevent moisture buildup.
- Clean/replace the Air Filters.
- Clean dirt and debris from the Cylinder Head Cooling Fins, Blower Housing, Debris Screen, and Muffler area of the Engine.
- If your Engine has a Fuel Filter, replace it.
- If your DR FIELD and BRUSH MOWER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the Carburetor. If there is dirt or moisture in the gas or Tank, remove it by draining the Tank. Completely fill the Tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the Engine for a short time to allow the additive to circulate. Close the Fuel Shut-Off Valve, if your machine is equipped with one, to prevent Carburetor overflow and leakage.
- Store the Battery in a dry area that will not freeze. If you will not use the machine over a long period, charge the Battery every four to six weeks.
- Remove any wrapped weeds from the Blade Bearing Housing. Clean grass and debris from the top and underneath the Mower Deck with a stiff brush.
- Check the Blade for nicks and wear. Remove the Blade and sharpen, or have it professionally sharpened if needed.
- Perform the lubrication as outlined starting on page 18.

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