

50/60/70 Combine Settings

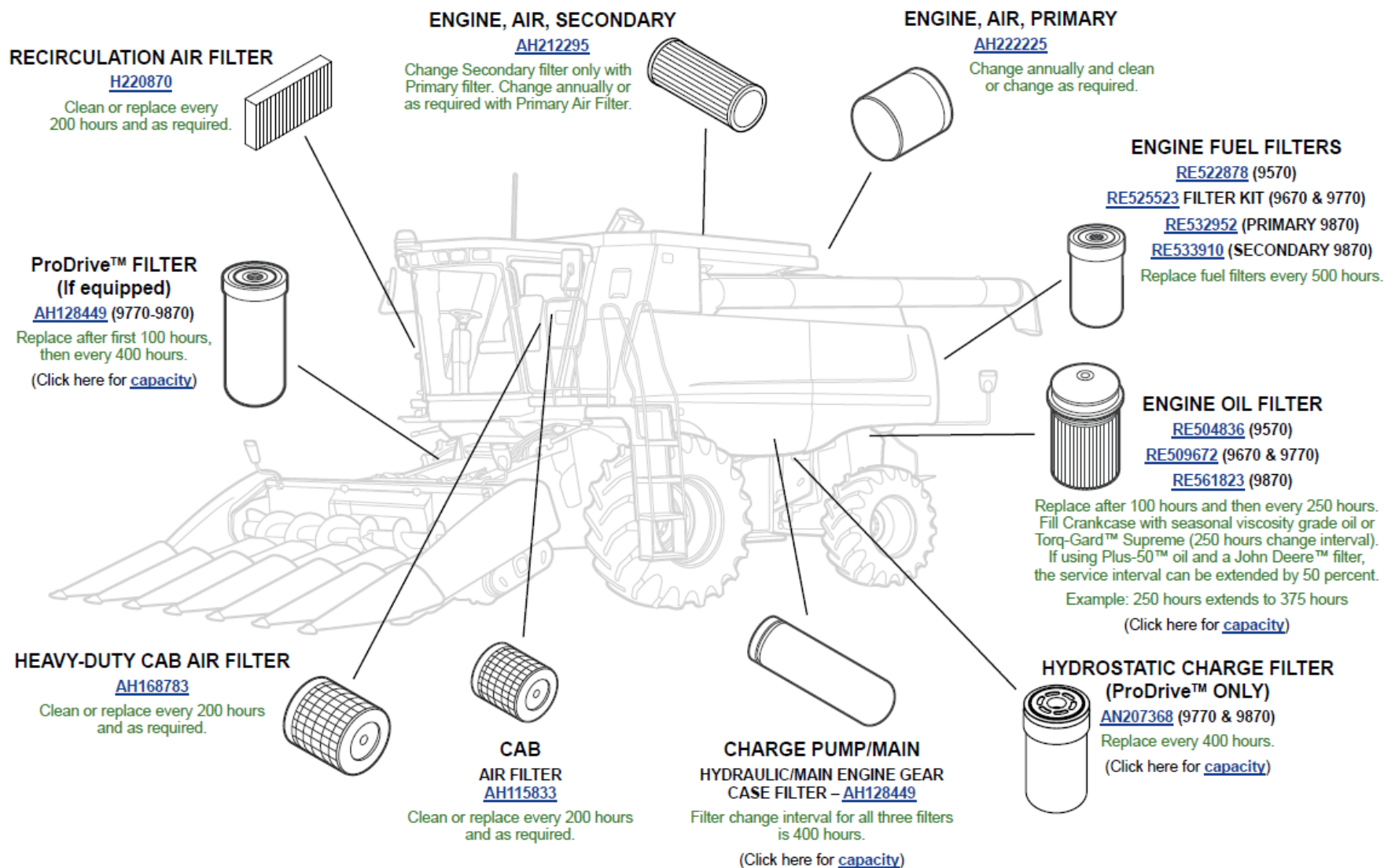
	CORN DRY	CORN WET	SOYBEAN
FEEDERHOUSE			
FEEDERHOUSE DRUM	UP	UP	DOWN 26 HIGH
FEEDERHOUSE CONVEYOR CHAIN TOOTH	22 INSIDE LOW	22 INSIDE LOW	OUTSIDE
FEED ACCELLERATOR SPEED	OUTSIDE	OUTSIDE	HIGH INSIDE
If Feeding Problems Beans Speed Up Conveyor Chain & Feed Accellerator			
THRESHING			
SPEED (INCREASE FOR MORE AGGRESSIVE)	250-450	350-500	450-650
CLEARANCE (DECREASE FOR MORE AGGRESSIVE)	20-35	20-35	15-30
SEPARATING			
FAN SPEED (INCREASE TO CLEAN SAMPLE/REDUCE TO REDUCE LOSS)	900-1150	900-1150	800-950
CHAFER (DECREASE TO CLEAN SAMPLE/INCREASE TO REDUCE LOSS)	15-18	15-18	14-18
SIEVE (DECREASE TO CLEAN SAMPLE/INCREASE TO REDUCE LOSS)	10-13	10-13	6-9
CHOPPER			
CHOPPER DEFLECTOR DOOR	DOWN	DOWN	UP
SPEED	LOW OUT	LOW OUT	HIGH IN
KNIFE BANK	OUT	OUT	IN

600 PLATFORM

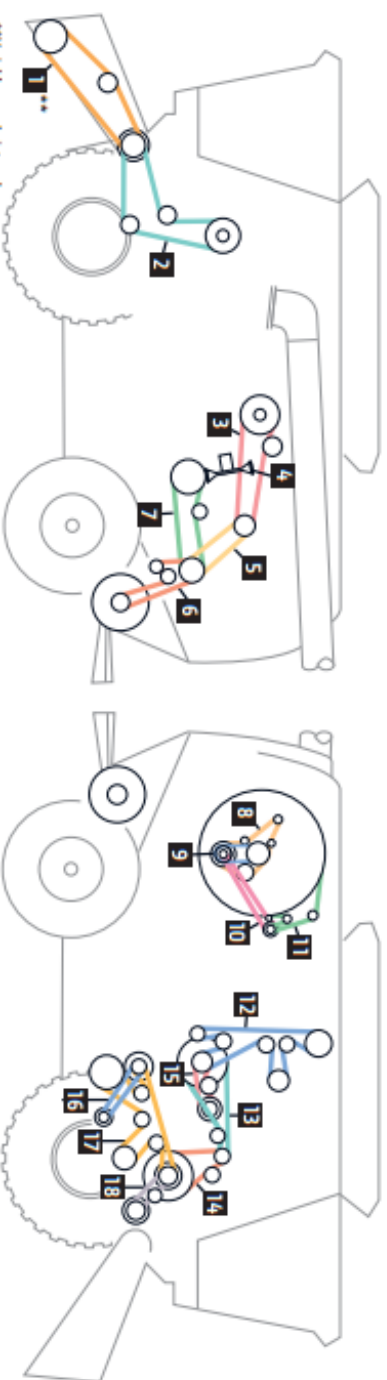
1000 PSI FOR FIRM GROUND CONDITIONS
1300 PSI FOR NORMAL GROUND CONDITIONS
1700 PSI FOR SOFT GROUND CONDITIONS

FILTER OVERVIEW WITH SERVICE INTERVALS AND CAPACITIES

9070 Series STS Combines 9570 STS, 9670 STS, 9770 STS, 9870 STS



9070 and 9060 Series STS Belt Reference*



Part Number	Key	Belt Description	Model	Part Number	Key	Belt Description	Model
H174885	1	Fixed speed feederhouse (extra heavy-duty)	9870, 9860	R135609	8	Alternator, 185 amp	9760, 9660
H229019	1	Fixed speed feederhouse (multi-speed feederhouse drive)	9870, 9770	HXE32806	8	Alternator, 200 amp	9770, 9670, 9760, 9660
H203474	1	Fixed speed feederhouse	9770, 9670, 9860, 9760, 9660	R503312	9	Engine fan	9870, 9860
H218726	1	Variable speed feederhouse drive	9770, 9670, 9860, 9760, 9660	H213353	10	Rotary screen drive, engine side	9870, 9770, 9670, 9860 (715601-), 9760 (715501-), 9660 (715401-)
H220911	1	Variable speed feederhouse drive (high speed)	9770, 9670, 9860, 9760, 9660	H206807	10	Rotary screen drive, engine side	9860 (-715600), 9760 (-715500), 9660 (-715400)
H201334	1	Variable drive feederhouse (standard capacity)	9660	H221273	11	Rotary screen drive, screen side	9870, 9770, 9670
H156541	2	Header and reel pump (variable speed)	9870, 9770, 9670, 9860, 9760, 9660	H175628	11	Rotary screen drive, screen side	9860 (-715600), 9760 (-715500), 9660 (-715400)
H229018	2	Header and reel pump multi-speed feederhouse drive	9870, 9770	H214241	11	Rotary screen drive, screen side	9860 (715601-), 9760 (715501-), 9660 (715401-)
H156796	2	Header and reel pump (fixed speed)	9770, 9670, 9860, 9760, 9660	H223230	12	Clean grain elevator	9870, 9770
AH160080	3	Unloading auger system	9870, 9770, 9670, 9860, 9760, 9660	H218645	12	Clean grain elevator	9670, 9860, 9760, 9660
H208431	4	Variable rotor drive	9870, 9770, 9860 (705798-)	H154723	13	RH jackshaft, rear	9870, 9770, 9670, 9860, 9760, 9660
H221498	4	Variable rotor drive	9670, 9760, 9660	AH150678	14	RH jackshaft, front	9870, 9770, 9670, 9860, 9760, 9660
H207851	4	Variable rotor drive	9860 (-705797)	H154731	15	Tailings auger and elevator	9870, 9770, 9670, 9860, 9760, 9660
HXE10501	5	Countershaft, discharge beater, and chopper, heavy-duty	9870, 9770	H230909	16	Cleaning fan	9870, 9770, 9670
H201596	5	Countershaft, discharge beater, and chopper, heavy-duty	9860	H206048	16	Cleaning fan	9860, 9760, 9660
HXE10556	5	Countershaft, discharge beater, and chopper, standard-duty	9870, 9770, 9670	H215389	16	Cleaning fan, slow speed	9870, 9770, 9670
HXE15671	5	Countershaft, discharge beater, and chopper	9860, 9760, 9660	H211601	16	Cleaning fan, slow speed	9860, 9760, 9660
H223212	6	Straw chopper	9870, 9770	H175587	17	Shoe fan and conveyor augers	9870, 9770, 9670, 9860, 9760, 9660
H232997	6	Straw chopper	9670	H230230	18	Feed accelerator, high speed	9870 (730101-), 9770 (730101-), 9670 (730101-)
H235564	6	Straw chopper	9760, 9660	H221733	18	Feed accelerator, high speed	9870 (-730100), 9770 (-730100), 9670 (-730100), 9860,
H220747	6	Straw chopper	9860	H221732	18	Feed accelerator, slow speed	9760, 9660
H217352	6	Straw chopper, premium grain	9860	H236472	18	Feed accelerator, standard speed	9870, 9770, 9670, 9760, 9660
H168301	7	Discharge beater	9860, 9760, 9660	H221731	18	Feed accelerator, standard speed	9860 (715601-), 9760 (715501-), 9660 (715401-)
H219182	7	Discharge beater	9870, 9770, 9670				
R503505	8	Alternator	9870, 9860				
R135606	8	Alternator, 95 amp	9760, 9660				

*Class VI, VII, and VIII combines only

John Deere S-Series Combines

Cleaning Guide

IMPORTANT: Regular and thorough cleaning of machine combined with other routine maintenance procedures listed in the Operator's Manual greatly reduce the risk of fire, chance of costly downtime, and improve machine performance.

Crop material and other debris can accumulate in various areas. Direction of wind, type of crop, and crop moisture content can all impact where and how much crop material and debris can accumulate. Be aware of harvest conditions and adjust your cleaning schedule to ensure proper machine function and to reduce the risk of fire. These areas may require more frequent cleaning, even multiple times per day,

depending on harvest conditions. Inspect and clean these areas as needed throughout the harvest day.

Other areas not covered in this section may also collect crop debris and **MUST** be cleaned periodically for machine function and appearance.

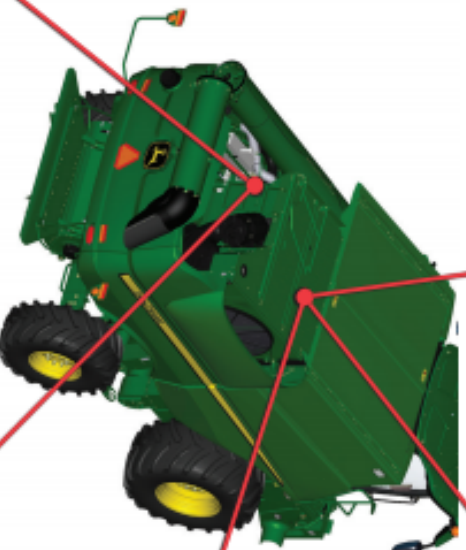
Thoroughly inspect the entire machine on a regular basis throughout the harvest season. Refer to the Machine Cleanup Section of your Operator's Manual for further information.



NOTE: Some shields were removed for photo clarity.

Engine Compartment

- Top Area of Engine and Turbocharger(s) (1)
- Exhaust Manifold and Manifold Shield, Turbo Interstage Tube, Exhaust Gas Recirculation (EGR) Cooler Tube (2)
- Around Engine (3)
- Underneath Engine (4)



READ SAFETY INFORMATION IN OPERATOR'S MANUAL

Always follow all safety procedures posted on the machine and in the Operator's Manual. Before carrying out any inspection or cleaning, always shut OFF engine, set parking brake and remove key.

Thoroughly clean machine from top to bottom with compressed air. First clean all

areas accessible from engine deck. Start with engine compartment and work outwards and counterclockwise to other areas around engine compartment, floor underneath engine, top rear of rotor and rear deck, including areas around Exhaust Aftertreatment Enclosure (if equipped). Once top areas of machine are clean, proceed to cleaning areas accessible from ground level.

From ground level, clean rear underside of fuel tank area and top of the rear tailboard of the residue disposal system. Exhaust Aftertreatment Enclosure area (if equipped) will also need to be cleaned from ground level. Once the cleaning from ground level is finished, recheck engine compartment for any crop debris that could have blown in from ground level cleaning.



Engine Compartment (cont)

- Top rear of rotor and areas around rotor drive (5)
- Main Engine Gearcase (6)
- Areas around and under Exhaust Aftertreatment Enclosure (7)
- On Top of Fuel Tank (8)



- #### Ground Accessible
- Rear Tailboard and underneath Fuel Tank (9)
 - Left Side Walk Area (10)
 - Left Side Sidesheet Areas (11)



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FD60613 (05/2013)



JOHN DEERE

Harvesting high moisture corn is challenging because:

- Kernels do not detach from the cob easily, compared to normal, dry corn
- Due to moisture, kernels are soft and highly susceptible to scuffing (damage from the corn head auger), and broken kernel damage
- Adjustments need to be more exact (fine-tuned because the range where acceptable results occur, is tighter) than typical settings for dry corn. (Refer to the S650, S660, S670, S680 and S690 Combines OM for proper adjustment settings.)

NOTE:

- Conduct the following INITIAL checks:
- Start harvesting with recommended ACA crop settings.

- Check that the concave is level (refer to Concave Leveling procedure in the OM) and properly proportioned to the rotor at zero concave clearance

NOTE: Checking concaves and conducting the leveling procedure correctly assures even threshing throughout the entire element, and allows ears of corn to roll easily through the combine. Ensuring concaves are level and zeroed means actual measurements should match the setting shown on the display in the cab.

- Use round bar concaves; this is a must and is assumed already in place.

NOTE: Round bar concaves are recommended for corn per the OM. Other types of concaves are not recommended because they plug with crop material.

Conduct the following checks DURING harvest based on grain sample and MOG (material other than grain) conditions:

- Check that concaves are set slightly more than cob diameter (as shown in picture), open as possible.

NOTE: Refer to the OM for Threshing Clearance Adjustment settings to increase or decrease concave clearance. If kernels are left on cob (operator will visually inspect, tighten the clearance in increments of 2 mm, but tightening may result in cracked or broken cobs and damage to kernels (fines).

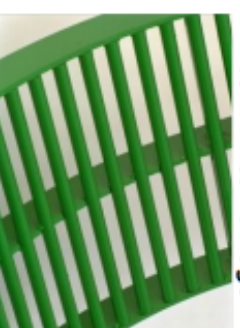
- Reduce kernel damage, slow the rotor speed (refer to the Threshing Speed settings in the OM). Splitting cobs will not allow them to be completely threshed (operator will visually inspect residue). Cobs are to remain around 95 - 99% whole and/broken cobs with around 1%



Cracked/Broken Corn



Corn Fines Damage



Round Bar



Rotor Speed

to 5% splits (operator will visually inspect cobs). If there are 0% splits, decrease concave clearance (refer to Threshing Clearance Adjustment and ACA settings, as indicated in the OM) until there are 1 to 5% splits.

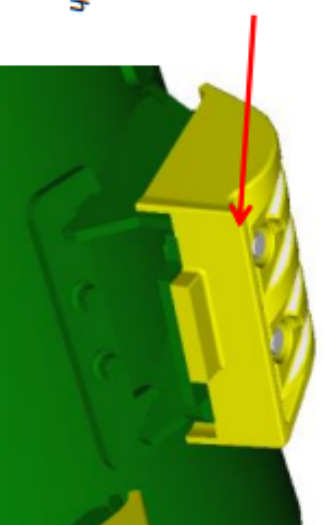
NOTE: It is important for the operator to check cobs because it is a good indication of machine health.



- Install 20mm grate spacers (refer to Separator Grate Spacers in the OM) on between separator grate and top rail, to reduce chipped cobs.

- Check the TriStream™ (recommended per the OM) rotor's 15 threshing elements for wear/damage.

NOTE: Worn elements will not thresh as well as sharp edges (the leading edge of the element typically wears; a new part is sharper). Replace the elements in sets of three. Starting with row 1 and then 2 on the rotor, an operator may change to smooth elements, as needed.



- Check that rotor speed is slow as possible to minimize separator loss (refer to Power Shutdown Procedure in OM) and minimize kernel damage.

NOTE: Run rotor only fast enough to complete threshing (operator should notice there are no kernels left on cobs), as higher rotor speeds tend to increase losses. If the amount of unthreshed kernels is too high, gradually increase rotor speed (in 10 rpm increments) until acceptable amount of unthreshed grain is achieved. (Refer to the OM for recommended settings.) If grain quality (no damage, broken kernels or scuffing) is a primary concern, reduce rotor speed until a few unthreshed kernels can be seen (.2%-5%); this will achieve the minimum amount of broken kernels and fines. Installing the Rice Dense Pack (refer to Parts Catalog pages for part information) may aid with rotor loss, but grain damage will increase. (Refer to the Series Field Adjustment IDT.)

- Keep the combine full (refer to Power Shutdown Procedure in OM) to help minimize separator loss and minimize kernel damage. (Refer to the OM for recommended settings.) Using the power meter, keep engine running right at the green/yellow line; otherwise the operator may start to see cleaning shoe loss. Losses are shown on the loss monitor in the combine cab.

- Confirm shoe settings on deep tooth sieve and chaffer elements' actual measurements match the setting shown on the display in the cab. (Refer to settings in the OM.)

NOTE: Deep tooth sieve and chaffer elements enable more sensitive adjustments than general purpose elements. A tight sieve causes unnecessary kernel reprocessing through the tailings, which results in damaged kernels; open sieve as far as possible (15 mm). The cob load-to-sieve may be reduced by slightly tightening the chaffer. This may help with high tailings.



**Deep Tooth
Chaffer and Sieve**

- Increase cleaning fan speed to recommended settings found in the OM, to reduce green leafage from the sieve.
- Check for chipped cobs in the grain tank. To resolve, first slightly close the chaffer, then if needed, slightly close the sieve.



NOTE: On machines with DZA, review DTAC solution 95460 for settings. For a starting point, set rear to 5mm (10mm on hilly conditions). In general, run the chaffer and sieve more open in moist corn, than dry corn.

- Perform Power Shutdown(s) to determine the adjustments required for even distribution of material, and to reduce high grain loss. (Refer to Power Shutdown Procedure in the OM.)



- Adjust the conveying auger bed dividers (raise or lower the dividers) or install concave covers (install on #2 concave to move distribution to center of cleaning system, which provides better kernel processing through chaffer/sieve front portions) to optimize the distribution.



- Adjust header deck plates out and run head high enough to keep debris intake to a minimum.

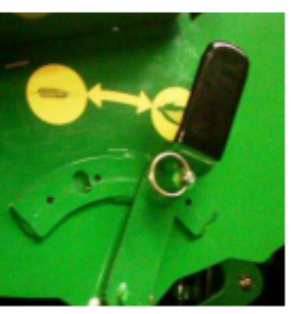
NOTE: If deck plates are open too far, the cob progresses too deeply into plate and will result in breakage.

- Operate the following systems as slow as possible:
 - FAST
 - Feederhouse
 - Rotor
 - Head

NOTE: This reduces damaged cob and broken plants, reducing the load on the sieve and into tailings. The operator should use speed as needed for processing and no more. In 35% to 40% moisture field corn, STS combines may have up to 1 and 1/2 bushel/acre losses. The mat of crop material is too tough and holds together, not allowing grain separation. Position the feederhouse drum up and slow conveyor speed, running on the small sprocket - 450 rpm (optional 320 drive). If necessary the FAST can be equipped with smooth wear strips, which give extra high corn quality, and reduce grain damage.

- Set the active tailings system to open (corn) position.

NOTE: Excessive clean grain in the tailings indicates the sieve setting or fan speed setting needs adjusted for the crop conditions. Excessive trash in the tailings indicates insufficient fan speed, the chaffer is too open, or over-threshing is occurring because the concave is too tight or rotor speed is too fast. In some cases, the rasp bars may be removed (from active tailings door) to facilitate crop flow. (Refer to the OM for removing and installing rasp bars.



Finally, for a brief synopsis of SYMPTOM / PROBLEM / SOLUTION, refer to Troubleshooting, Section 165, within the S Series Operator's Manual.

GoHarvest™ By John Deere

There's an app for that...

GoHarvest is a mobile app that gives combine operators the ability to optimize their machine as they enter the harvest season. Operators choose the model of combine and type of crop. GoHarvest also features a notes section and photo functionality to give combine operators a premium experience when setting their machine. GoHarvest is also a great guide to use in field for settings changes as conditions differ, and to document changes made to settings during harvest. The 1.1 release of GoHarvest includes a small change to the canola setting and a direct link to JDParts for parts and service information.



DEF Product Pricing

Part Number	Description	Pkg. qty.	Order qty.	Price
SWDEF025	John Deere Diesel Exhaust Fluid, 9.46 L (2.5 gal.) (Price per each at pallet qty. increments.)	1	72	\$12.33
SWDEF055	John Deere Diesel Exhaust Fluid, 208 L (55 gal.)	1	4	\$211.36
SWDEF275	John Deere Diesel Exhaust Fluid, 1041 L (275 gal.)	1	1	\$976.25
SWDEF330	John Deere Diesel Exhaust Fluid, 1249 L (330 gal.)	1	1	\$1,142.63

The 110V and 12V pump kits dispense DEF from 55-gallon drums of John Deere Diesel Exhaust Fluid (SWDEF055) and 275- and 330-gallon totes of John Deere Diesel Exhaust Fluid (SWDEF275 and SWDEF330). The kits ship fully assembled and include everything needed to dispense DEF from drums and totes. They include a 4-ft. suction hose with closed system dry-break coupler, 20-ft. discharge hose with stainless steel automatic shut-off nozzle, closed system valve, valve install tool, and dip tube. **Lead-time: Up to 1 week.**

The 60-gallon and 20-gallon Portable Dispensing Units (PDU's) include the 12V pump kit (removable), with a 20-ft. dispensing hose with stainless steel auto shut-off nozzle with swivel. **Lead-time: Up to 6 weeks.**

Part Number	Description	Pkg. qty.	Order qty.	Price
SWDEF110VKIT	110V Pump Kit	1	1	\$858.57
SWDEF12VKIT	12V Pump Kit	1	1	\$852.86
SWDEFPDU60T	Portable Dispensing Unit, 60 gal. (227.12 L)	1	1	\$1,864.00
SWDEFPDU20T	Portable Dispensing Unit, 20 gal. (75.71 L)	1	1	\$1,680.00

