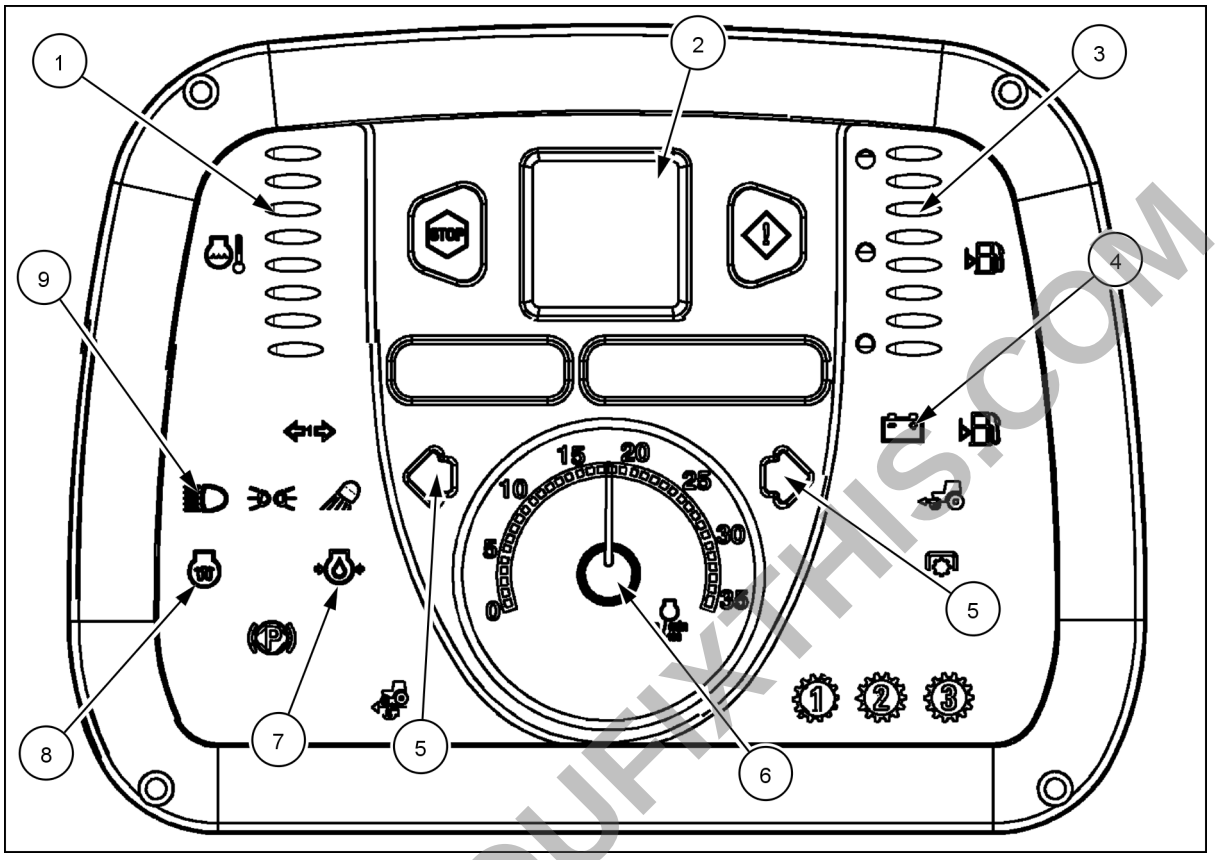
Instrument panel



36083739 1

1. TEMPERATURE GAUGE - (Light Bar) - Indicates coolant temperature. It is activated when the key switch is turned to the "ACC/RUN" position. The gauge will register "cold", blue lights, for low operating temperatures. If the gauge registers in the green lights range of the gauge, this indicates a normal operating temperature. If the needle moves to the red light portion of the gauge, indicating an overheated condition, stop the tractor engine IMMEDIATELY and investigate the cause.
2. PROOF METER - Records the hours and portions of hours that your tractor has been operated, regardless of engine RPM. Use the proof meter as a guide to determine hourly service and maintenance intervals.
3. FUEL GAUGE - (Light Bar) Indicates the amount of diesel fuel remaining in the tank. The gauge is activated when the key switch is in the "ACC/RUN" position. The increasing amount of green lights indicate a higher fuel level. Yellow lights indicate a low fuel level.
4. BATTERY CHARGE WARNING LIGHT - Illuminates when the key switch is in the "ACC/RUN" position and goes out when the engine is started. If this bulb lights during operation, it indicates that the charging system is not operating normally. As the battery can become fully discharged under these conditions, the problem should be investigated as soon as possible.
5. FLASHER WARNING HAZARD LIGHTS - Operate when the flasher switch is turned on, regardless of the key switch position. Use the flasher warning lights and the SMV placard when traveling on public roads, day or night.
6. TACHOMETER - Registers engine RPM (Revolutions Per Minute) The gauge is marked in increments of 100 and will return to zero when the engine is not running.
7. ENGINE OIL PRESSURE WARNING LIGHT - Illuminates with the key switch in the "ACC/RUN" position and remains lit for a short period of time after the engine is started. The light indicates oil pressure only, and goes out when sufficient oil pressure is present at the oil sender. If the bulb lights during operation, stop the tractor engine immediately and investigate the cause.
8. COLD STARTING INDICATOR LIGHT- Illuminates when the key switch is turned to the "ACC/RUN" position. It remains lit for approximately four seconds when the key is in position, during which time the glow plugs are heating the precombustion chambers of the cylinder head.
9. HIGH BEAM ROAD LIGHT INDICATOR - The light symbol will illuminate "Blue" when the light switch is placed in the (High Beam) position.

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4 - OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

CVT transmission controls - Settings and adjustments

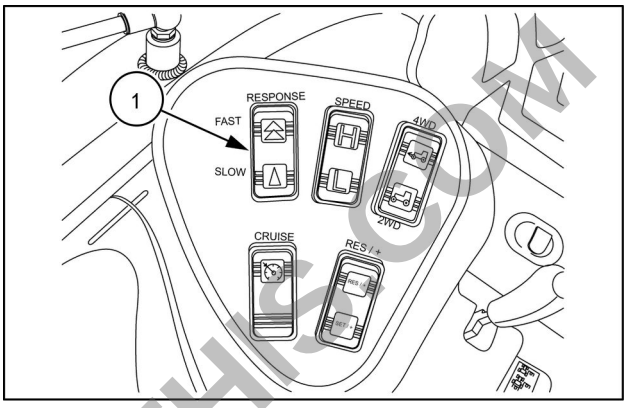
(Basic user interface option only)

Response switch

Theory of operation:

This feature controls the acceleration and deceleration rate of the tractor, with pre-programmed settings.

The response switch **(1)** selects between the fast and slow response ranges. Fast response is activated by pressing the portion of the switch with the double arrows forward. Slow response is activated by pressing the portion of the switch with the single arrow rearward. When the switch is in the fast or slow response positions, a light will illuminate inside the switch. The fast response range corresponds to faster acceleration and deceleration of the tractor than the slow response range.

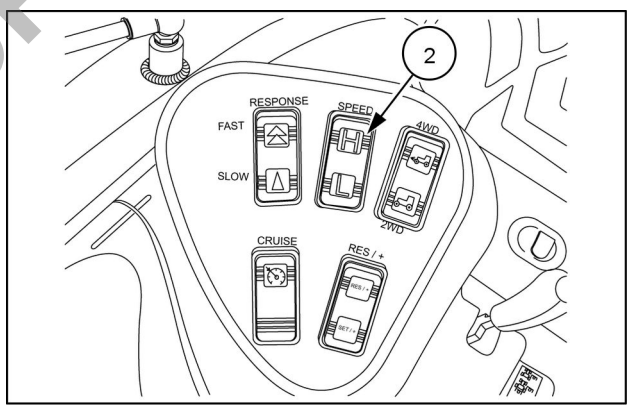


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Speed range switch

Theory of Operation:

The tractor is equipped with a Speed Range switch, **(2)**, that has two settings - LOW and HIGH. The operator can change the speed setting by pressing the switch forward or backwards to the desired speed setting, based on driving conditions. By rocking the switch forward, the High range is selected, and the letter “H” is illuminated in the switch. By rocking the switch rearward, the Low range is selected, and the letter “I” is illuminated in the switch.

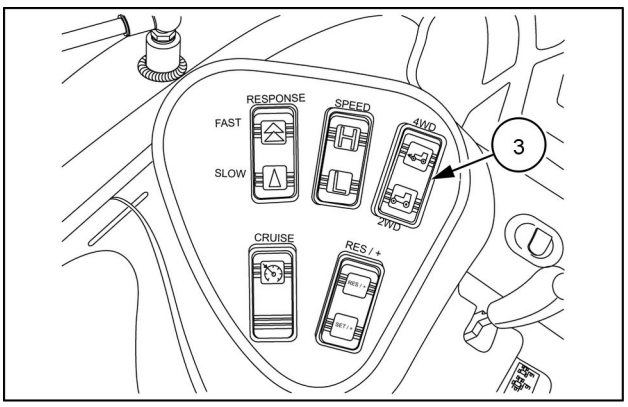


NHIL12CT00087AA 2

4WD engagement switch

Theory of Operation:

The tractor is equipped with a 4WD engagement switch **(3)** that can be changed between 4WD and 2WD modes by pressing the switch forward for 4WD or backwards for 2WD, depending on driving conditions.



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MAINTENANCE CHART

Maintenance Chart

Maintenance action	Check	Filling	Change fluid	Replace	Lubricate	Grease	Bleed	Cleaning	Drain fluid	Adjust	Tighten	Page no.
Seasonally												
Check the air-conditioning system	■											**7-13**
Every 10 hours or daily												
Check engine oil level	■											**7-14**
Check air cleaner	■											**7-15**
Windshield wiper reservoir		■										**7-16**
Check engine coolant level	■											**7-17**
Every 10 hours												
Check engine coolant level	■											**7-17**
After first 50 hours												
Change engine oil				■								**7-18**
Replace hydraulic oil filter				■								**7-20**
Replace the engine fuel filter				■								**7-21**
Every 50 hours												
50 hours grease zerks					■							**7-22**
50 hours grease zerks					■							**7-23**
50 hours grease zerks						■						**7-24**
Fan belt	■											**7-26**
Check the battery	■											**7-28**
Tires	■											**7-29**
Wheel bolts							■					**7-31**
Check the transmission fluid level	■											**7-32**
Differential oil	■											**7-33**
Differential oil	■											**7-34**
Air conditioning compressor drive belt								■				**7-36**
Every 100 hours												
Fuel filter - drain									■			**7-37**
Air cleaner primary element - cleaning										■		**7-38**
Cab air filter	■											**7-39**
Every 200 hours												
Change engine oil			■									**7-18**
Fan belt	■											**7-42**
Air conditioning compressor drive belt								■				**7-36**
Every 300 hours												
Fuel filter - replace				■								**7-45**
Change the transmission fluid			■									**7-46**
Replace the transmission fluid filter				■								**7-47**
Transmission pressure filter replace				■								**7-48**

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8 - SPECIFICATIONS

Consumables

Lubricant	Type and Description	Part Number	Container Size
Engine Oil	**NEW HOLLAND AMBRA SUPER GOLD SSL ENGINE OIL 10W-40**	**86994335**	**9.46 l** (**2.5 US gal**) .
	NEW HOLLAND AMBRA AUTO SUPREME 10W-30	**86641050**	**18.93 l** (**5 US gal**).
	NEW HOLLAND AMBRA SUPER GOLD 10W-30	**9613313**	**0.946 l** (**1 US qt**) .
		86641052	**3.785 l** (**1 US gal**).
		9613314	**9.46 l** (**2.5 US gal**).
		9673508DS	**18.93 l** (**5 US gal**).
	NEW HOLLAND AMBRA SUPER GOLD HSP ENGINE OIL 30	**9613286**	**0.946 l** (**1 US qt**).
		86641043	**3.785 l** (**1 US gal**).
		9613289	**9.46 l** (**2.5 US gal**).
		86641044	**18.93 l** (**5 US gal**).
	NEW HOLLAND AMBRA SUPER GOLD HSP ENGINE OIL 40	**9624812DS**	**208.2 l** (**55 US gal**).
	NEW HOLLAND AMBRA SUPER GOLD 15W-40	**86641081**	**0.946 l** (**1 US qt**).
		86641082	**3.785 l** (**1 US gal**).
		86641084	**9.46 l** (**2.5 US gal**).
		86641083	**18.93 l** (**5 US gal**).
	NEW HOLLAND AMBRA SUPER GOLD 20W-50	**86994337**	**18.93 l** (**5 US gal**).
	NEW HOLLAND AMBRA AUTO SUPREME 5W-30	**9673589DS**	**0.946 l** (**1 US qt**).
	NEW HOLLAND AMBRA AUTO SUPREME 10W-30	**86641101**	**0.946 l** (**1 US qt**).
Transmission/ Hydraulic Oil	**NEW HOLLAND AMBRA MULTI G 134™ HYDRAULIC TRANSMISSION OIL**	**9624655DS**	**0.946 l** (**1 US qt**).
		9624656DS	**3.785 l** (**1 US gal**) .
		9624450	**9.46 l** (**2.5 US gal**).
		9624451	**18.93 l** (**5 US gal**) .
	NEW HOLLAND AMBRA MULTI BIO S	**86994341**	**9.46 l** (**2.5 US gal**)
		86994342	**113.6 l** (**30 US gal**)
	NEW HOLLAND AMBRA F200A HYDRAULIC FLUID	**86523625DS**	**3.785 l** (**1 US gal**).
		86523626DS	**18.93 l** (**5 US gal**).
		86523627DS	**208.2 l** (**55 US gal**).
Grease	**NEW HOLLAND AMBRA GR-9 MULTI-PURPOSE GREASE**	**9613310**	TUBE - **400 g** (**14 oz**).
Coolant	ESE-M97B18-D, Ethylene Glycol Coolant Concentrate	**FGCC2701DS**	**3.785 l** (**1 US gal**).

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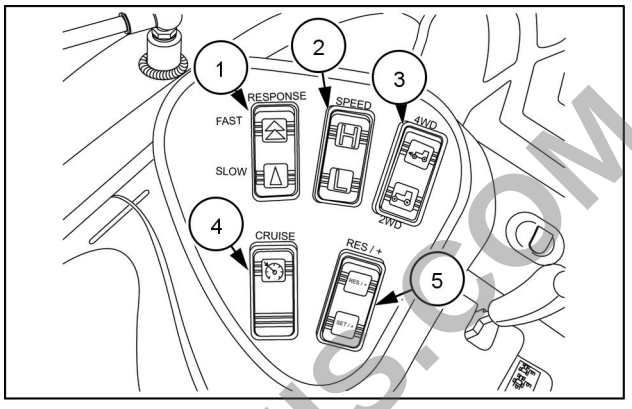
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Continuously Variable Transmission (CVT) controls

Left hand side control pod switches (Basic user interface option)

The basic user interface option, (standard transmission configuration) has five control switches located on the left hand side control pod.

1. Response switch
2. Speed range switch
3. 4WD engagement switch
4. Cruise activation switch
5. Cruise set / resume switch



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Response switch

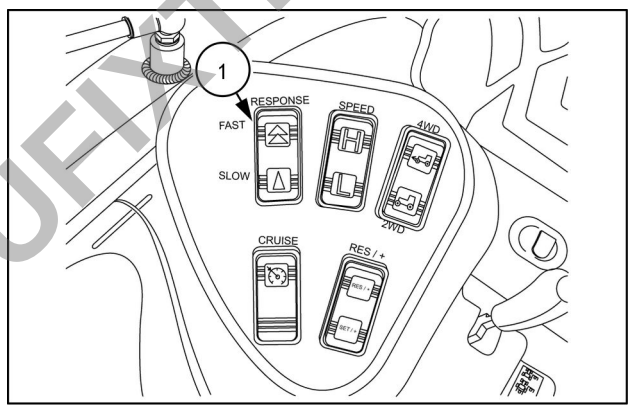
The response switch **(1)** has pre-programmed settings that control the acceleration and deceleration of the tractor, and the switch allows the selection between the fast or slow range of response settings.

NOTE: *The response settings are set by the software of the tractor and cannot be changed by the operator.*

The fast response range, which corresponds to faster acceleration and deceleration of the tractor, is activated by pressing the front portion of the switch forward, which will illuminate the double triangle symbol on the switch.

The slow response range, which corresponds to slower acceleration and deceleration of the tractor, is activated by pressing the rear portion of the switch , which will illuminate the single triangle symbol on the switch.

NOTE: *The tractor will take a greater distance and time to reach full speed in the low response range, and will also need a greater distance and time to slow to a stop once the speed control pedal is released.*

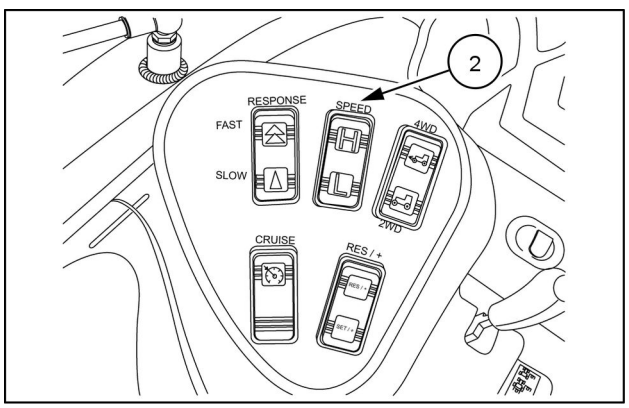


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Speed range switch

The speed switch **(2)** is a two position switch. The switch has the range speeds identified with “H” for high range and “L” for low range. To select a speed range, depress the appropriate end of the switch. When a speed selection is chosen, the switch panel will illuminate to designate the range speed selected. With the basic user interface option, there are no corresponding speed indicator lights in the ADIC display.

NOTICE: *The tractor must be stopped completely to change the speed range switch into another range.*



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Suggested operating mode settings - Basic user interface

Operating condition	Speed setting	Re-sponse setting	Engine RPM	FWD	Cruise control	Performance expectations
Default software settings	1 (LO) 0 to **50 %** (HI) 0 to **100 %**	Slow and Fast	NA	OFF	OFF	NA
Default from plant	Low	Fast	NA	OFF	OFF	Tractor reacts extremely quickly, both in acceleration and deceleration. First **50 %** of pedal travel is for inching movement. Top speed is limited to **50 %**.
Loader work (Tight quarters)	Low	Fast	**1800 RPM** or greater	ON	OFF	Tractor reacts extremely quickly, both in acceleration and deceleration. First **50 %** of pedal travel is for inching movement. Top speed is limited to **50 %**.
Loader work (Open quarters)	High	Fast	**1800 RPM** or greater	ON	Optional	Tractor reacts extremely quickly, both in acceleration and deceleration. Cruise control can be used for shuttling maneuvers and covering open terrain. Top speed limited to **60 %**.
Mowing (Pro-fessional)	High	Slow	Rated	OFF	Optional	Tractor reacts and shuttles slowly and smoothly to protect turf. Top speed can be limited. Cruise preset can be used to define a groud speed target for speed sensitive operations.
Mowing (Home owner)	Low	Fast	Rated	Op-tional	Optional	Tractor reacts and shuttles relatively quickly so that the operator does not have to think too far ahead of the tractor, some minor turf or ground damage may occur depending on ground speed. Cruise control is perfect for maintaining speed for mower deck. First **30 %** of pedal travel is perfect for operating in tight spaces.
Aeration	Low	Slow	**1800 RPM** or greater	Op-tional	Optional	Tractor reacts slowly and smoothly. Reactivity should be increased for tight quarters or around hazards.
Backing up to implement or trailer	Low	Fast	Idle or operator choice	OFF	OFF	Tractor reacts quickly to operator input and can inch up to the implement or the trailer slowly.
Rototiller	Low	Fast	Rated	ON	Optional	Tractor reacts quickly to operator input. Cruise control can be used in open quarters. The speed setting allows you a greater foot control across the lower speed application as you typically will not go to **30 %** of max speed.

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After first 50 hours

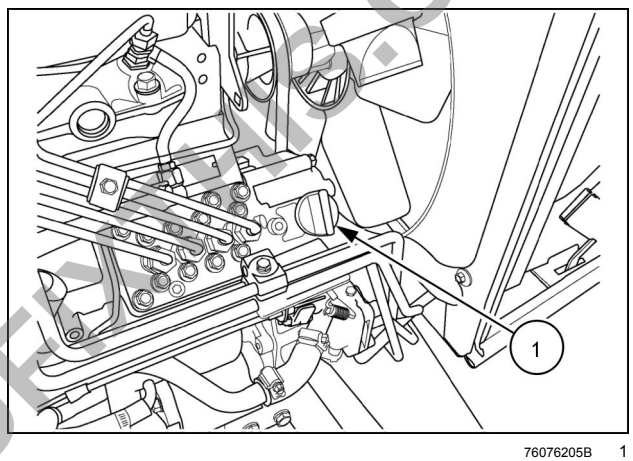
Change engine oil

Changing the engine oil

NOTE: *Change the engine oil and filter after the first 50 hours of operation, then every 200 hours thereafter. If the tractor is operated for extended periods of time at maximum rated power and speeds, or under other types of continuous, sever operating conditions, the engine oil and filter should be changed at 100 hour intervals following the initial oil change.*

To change the engine oil:

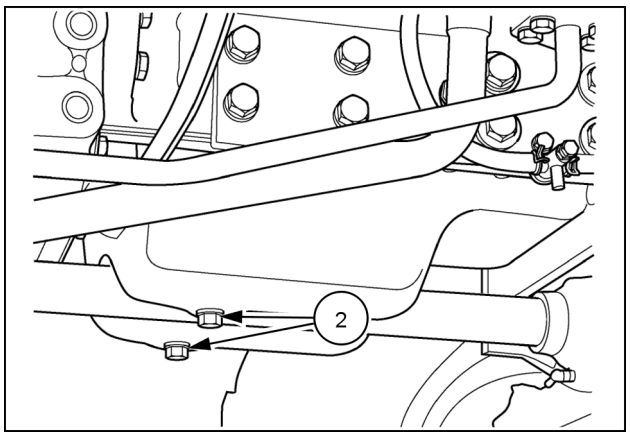
1. Remove the filler cap **(1)**.



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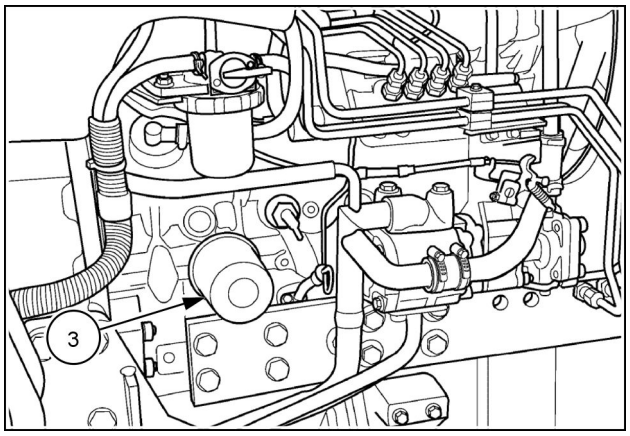
2. Place a suitable container beneath the drain openings to catch the used oil. With the tractor engine off, but at normal operating temperature, remove the drain plugs **(2)**. Reinstall the plugs after all of the oil has been drained.

NOTE: *The combined capacity of the engine crankcase and oil filter is* ***6.0 l*** *(****6.3 US qt****) (All Models).*



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3. Next, place a container below the oil filter **(3)** to catch the used oil and unscrew the oil filter. Properly dispose of the used oil and filter.
4. Coat the gasket on the new filter with a thin film of clean oil. Screw the filter into place until the gasket contacts its mating surface, then turn the filter approximately three-quarters of a turn by hand. Do not overtighten.
5. Add the proper type and level of new oil (see chart below), then replace the filler cap.
6. Start the engine and check the filter for leaks.



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Engine - General specification

	Model Boomer 3040	Model Boomer 3045	Model Boomer 3050
Engine			
Type	Diesel	Diesel	Diesel
Model	N844	N844L	N844L
Engine gross horsepower	**29.8 kW (40 Hp)**	**33.6 kW (45 Hp)**	**37.3 kW (50 Hp)**
Cylinders	4	4	4
Bore	**84 mm (3.31 in)**	**84 mm (3.31 in)**	**84 mm (3.31 in)**
Stroke	**90 mm (3.54 in)**	**100 mm (3.94 in)**	**100 mm (3.94 in)**
Displacement	**2.0 l (121.7 in³)**	**2.2 l (135.2 in³)**	**2.2 l (135.2 in³)**
Compression ratio	22.5:1	22.5:1	22.5:1
Firing order	1-3-4-2	1-3-4-2	1-3-4-2
Low idle speed	**1025 RPM**	**1025 RPM**	**1050 RPM**
Maximum speed:			
High idle	**2850 RPM**	**2850 RPM**	**3050 RPM**
Rated	**2600 RPM**	**2600 RPM**	**2800 RPM**
Capacities			
Fuel tank	**49.2 l (13 US gal)**	**49.2 l (13 US gal)**	**49.2 l (137 US gal)**
Cooling system	**9.0 l (9.6 US qt)**	**9.0 l (9.6 US qt)**	**9.0 l (9.6 US qt)**
Engine crankcase:			
With filter	**6.0 l (6.3 US qt)**	**6.0 l (6.3 US qt)**	**6.0 l (6.3 US qt)**
Rear axle & transmission (Includes Hydraulics)	**35.2 l (9.3 US gal)**	**35.2 l (9.3 US gal)**	**35.2 l (9.3 US gal)**
Front axle differential/final reduction gear case (Early tractor production)	**5.3 l (5.6 US qt)**	**5.3 l (5.6 US qt)**	**5.3 l (5.6 US qt)**
Front axle differential/final reduction gear case (Later tractor production)	**8 L (2 US gal)**	**8 L (2 US gal)**	**8 L (2 US gal)**
Air conditioning system			
Compressor make/model	SANDEN/SD5H11	SANDEN/SD5H11	SANDEN/SD5H11
Bore	**35 mm (1.4 in)**	**35 mm (1.4 in)**	**35 mm (1.4 in)**
Stroke	**22.6 mm (0.9 in)**	**22.6 mm (0.9 in)**	**22.6 mm (0.9 in)**
Number of cylinders	5	5	5
Refrigerant	R-134a	R-134a	R-134a
Capacity	**1.1 kg (2.4 lb)**	**1.1 kg (2.4 lb)**	**1.1 kg (2.4 lb)**
Oil	SP-20 (or equivalent)	SP-20 (or equivalent)	SP-20 (or equivalent)
Capacity	**135 ml (4.56 US fl oz)**	**135 ml (4.56 US fl oz)**	**135 ml (4.56 US fl oz)**
Rotation	Clockwise	Clockwise	Clockwise
Blower motor	3 Speed-Electric	3 Speed-Electric	3 Speed-Electric
Number of interior vents	8	8	8

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2 - SAFETY INFORMATION

Safety alert symbol and signal word definition

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

⚠ DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠ WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: *Notice indicates a situation that, if not avoided, could result in machine or property damage.*

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: *Note indicates additional information that clarifies steps, procedures, or other information in this manual.*

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

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