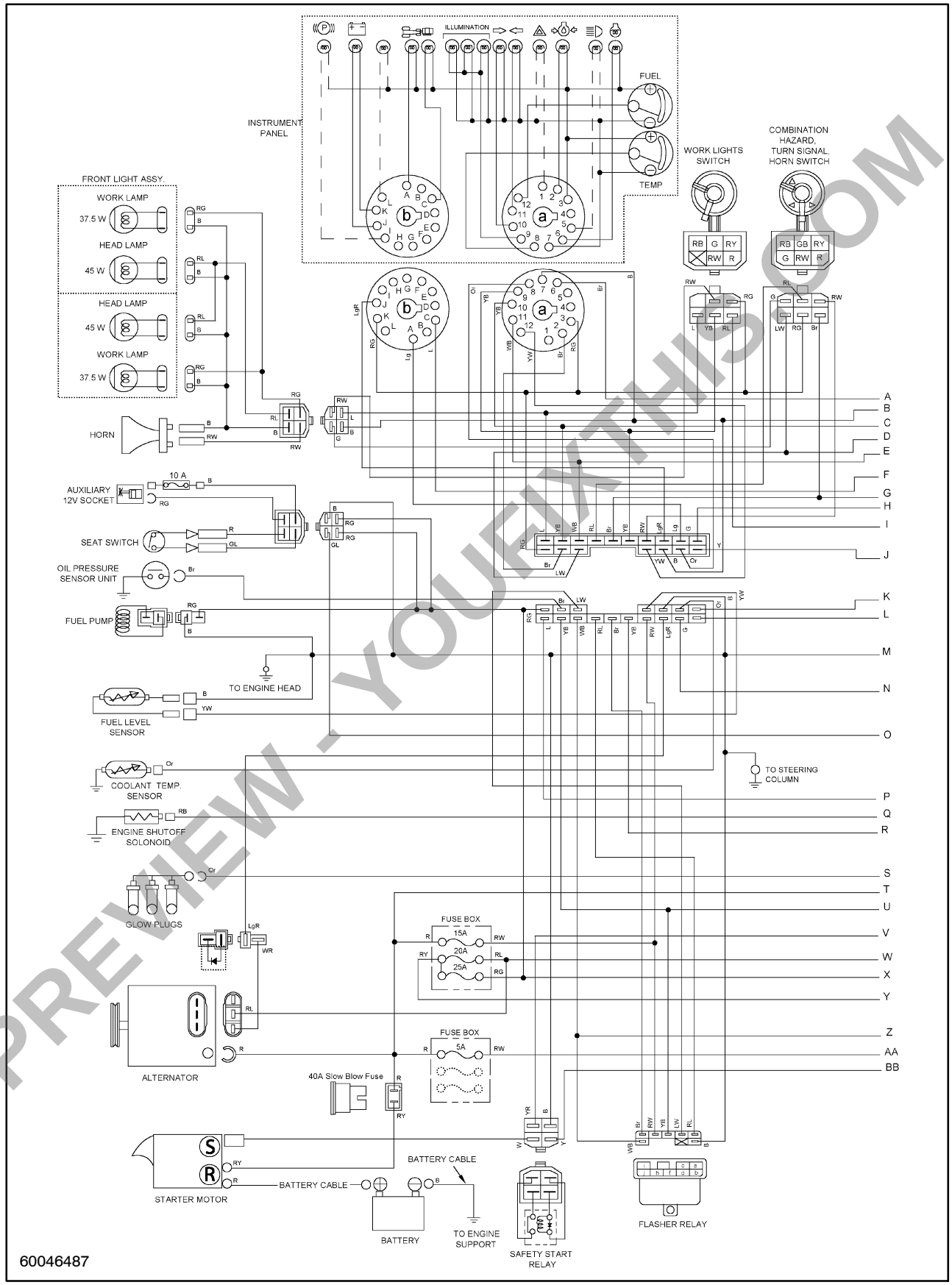
ELECTRICAL WIRING DIAGRAM



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SECTION 5
SPECIFICATIONS

	Model T1010 Hydrostatic	Model T1030 Hydrostatic
ENGINE		
Type	S753 Diesel	S773L Diesel
Engine Gross Horsepower	20.0	26.0
Cylinders	3	3
Bore	75 mm (2.95 in)	77 mm (3.03 in)
Stroke	72 mm (2.83 in)	81 mm (3.19 in)
Displacement	0.954 L (58.2 cu-in)	1.13 L (69.0 cu-in)
Compression Ratio	24:1	24:1
Firing Order	1 - 2 - 3	1 - 2 - 3
Low Idle Speed	1350 ± 50 RPM	1350 ± 50 RPM
Maximum Speed		
High Idle	3200 ± 25 RPM	3325 ± 25 RPM
Rated	3000 ± 50 RPM	3000 ± 50 RPM
Valve Clearance (Cold):		
Intake	0.20 mm (0.008 in)	0.20 mm (0.008 in)
Exhaust	0.20 mm (0.008 in)	0.20 mm (0.008 in)
CAPACITIES		
Fuel Tank	26.0 liters/7.1 U.S. gals	26.0 liters/7.1 U.S. gals
Cooling System	3.5 liters/3.7 U.S. qts	3.5 liters/3.7 U.S. qts
Engine Crankcase		
With Filter	3.3 liters/3.5 U.S. qts	3.3 liters/3.5 U.S. qts
Rear Axle & Transmission	13 liters/13.8 U.S. qts	13 liters13.8 U.S. qts
Power Steering	Using Transmission Oil (Common Use)	Using Transmission Oil (Common Use)
Front Axle Differential/ Final Reduction Gear Case	2.0 liters/2.12 U.S. qts	2.0 liters/2.12 U.S. qts

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MINIMUM HARDWARE TIGHTENING TORQUES

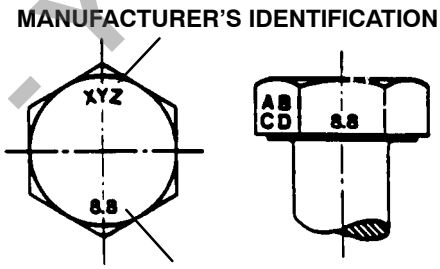
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

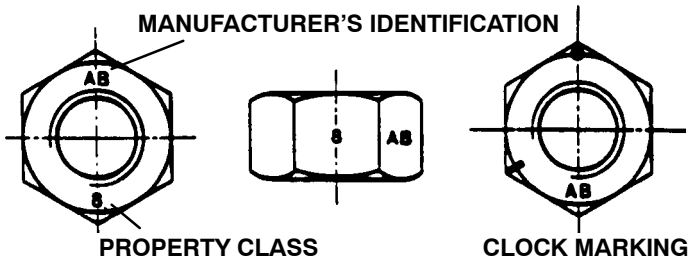
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*	18 (159)*	22 (195)*	28 (248)*	31 (274)*	40 (354)*	19 (169)*
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	38 (28)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	66 (49)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	164 (121)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	330 (243)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	572 (422)

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
HEX CAP SCREW AND CARRIAGE BOLTS
CLASSES 5.6 AND UP



HEX NUTS AND LOCKNUTS
CLASSES 05 AND UP



86529681 REV F 5.1

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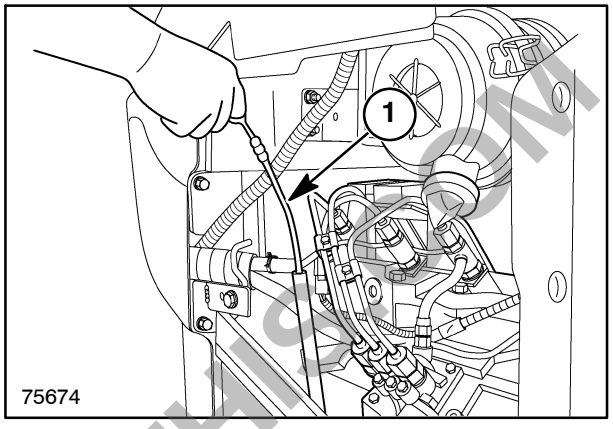
FUEL AND LUBRICANT SERVICE PROCEDURES

ENGINE

Checking the Engine Oil Level

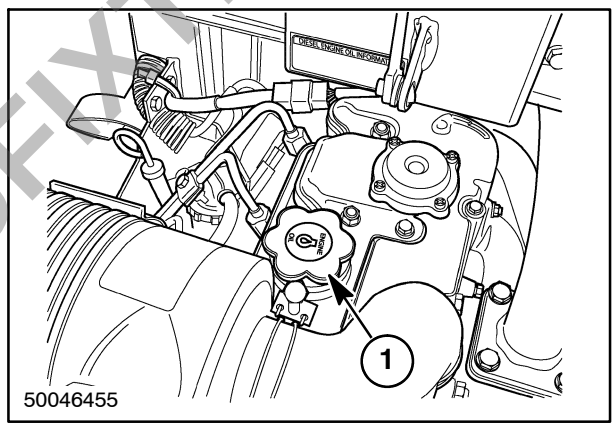
NOTE: *Check the engine oil level daily, or after every 10 hours of operation.*

1. After the engine has been stopped for a period of time, and with the tractor standing level, check the oil level using the dipstick, 1.



3

2. If the oil level is low, remove the filler cap, 1, and add oil through the filler hole. Add enough oil so that the level registers between the two marks on the dipstick. Do not overfill.



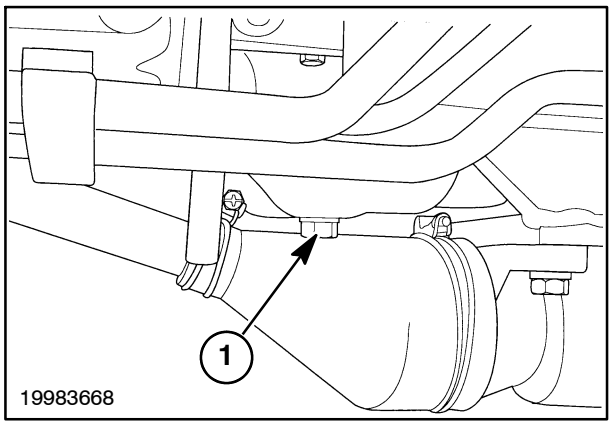
4

Changing the Engine Oil

NOTE: *Change the engine oil and filter after the first 50 hours of operation, then every 100 hours thereafter. If the tractor is operated for extended periods of time at maximum rated power and speed, or under other types of continuous, severe operating conditions, the engine oil and filter should be changed at 70-hour intervals following the initial oil change.*

To change the engine oil:

1. Place a suitable container beneath the drain opening to catch the used oil. With the tractor engine off but at normal operating temperature, remove the drain plug, 1. Reinstall the plug after all of the oil has been drained.



5

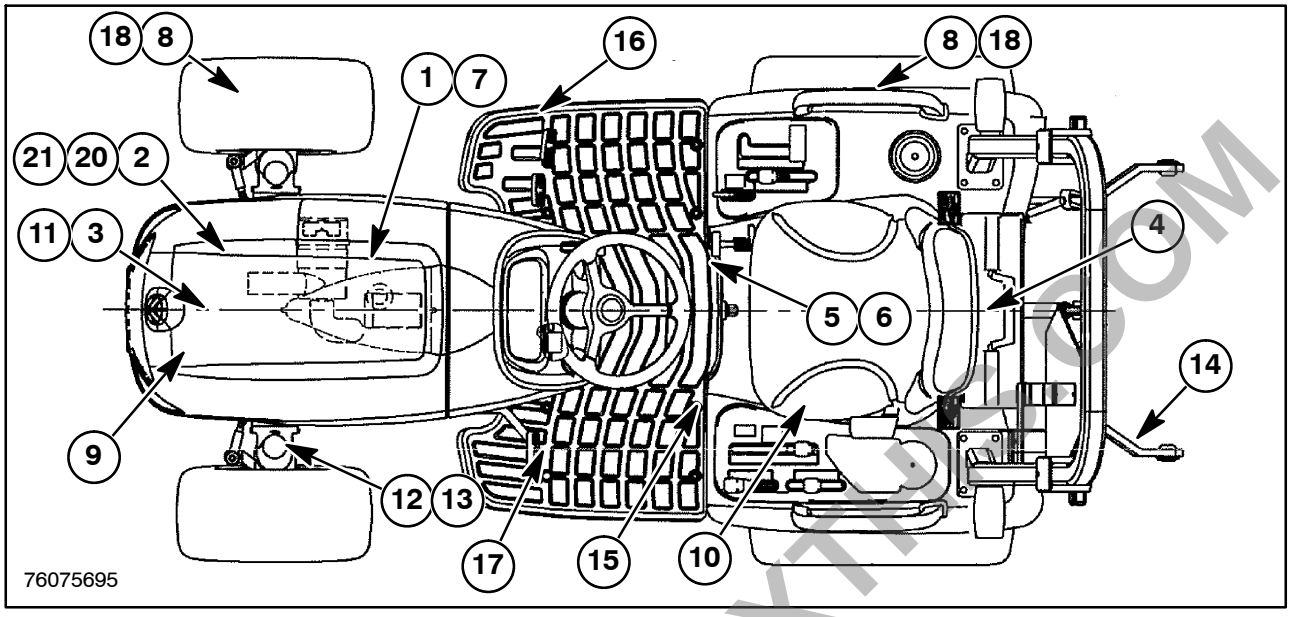
⚠ CAUTION ⚠

Engine oil could be hot, use caution during draining.

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LUBRICATION AND MAINTENANCE CHART
NEW HOLLAND T1010/T1030 — FRONT-WHEEL DRIVE



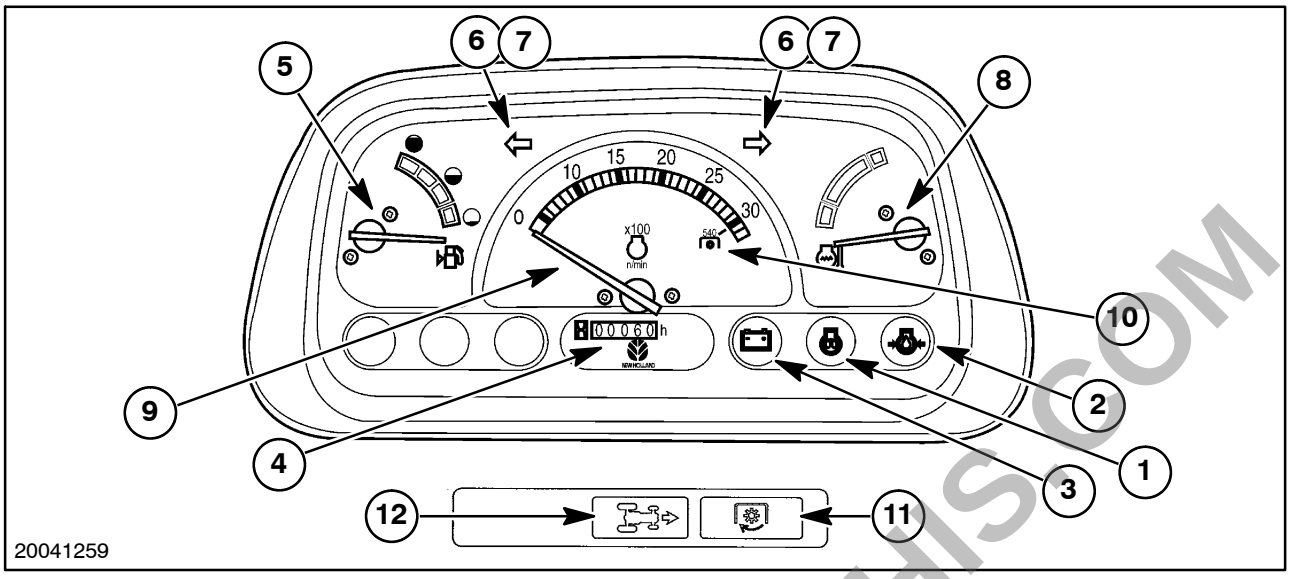
1

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
1	Engine Oil Level	X					Every 10 Hours or Daily
2	Air Cleaner	X					
3	Radiator Coolant	X					
4	Transmission Oil Level	X					
5	Hydraulic Filter				X		First 50 Hours
6	H.S.T. Filter				X		
1, 7	Engine Oil & Filter				X		
8	Tire Pressure	X					
10	Fuel Filter				X		
18	Wheel Bolt Torque	X					
—	All Fluid Levels	X					
17	Brake Pedal Free Play	X					
8	Tires	X					Every 50 Hours
9	Battery	X					
11	Fan Belt	X					
12	Front Axle Oil Level	X					
13	Final Reduction Gear Cases Oil Level	X					
17	Brake Pedal Free Play	X					
	Lubrication Fittings:						
14	3-Point Linkage			X			
15	Differential Lock Pedal			X			
16	H.S.T. Pedal Pivot			X			
1, 7	Engine Oil & Filter				X		Every 100 Hours
2	Air Cleaner Element		X				

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
17	Brake Pedal Free Play					X	Every 200 Hours
10	Fuel Filter				X		
11	Fan Belt					X	
18	Wheel Bolt Torque	X					
	Steering Free Play	X				X	
4	Transmission Oil				X		Every 300 Hours
5	Hydraulic Filter				X		
6	H.S.T. Filter				X		
12	Front Axle Oil				X		
13	Final Reduction Gear Cases Oil				X		
20	Fuel Injector	X				X	Every 600 Hours
21	Valve Clearance	X				X	
2	Air Cleaner Element				X		Seasonal
3	Radiator Coolant				X		
2	Safety Air Filter Element				X		Every 3rd Primary Element Change or Every **1000** Hours, Whichever Comes First

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6

INSTRUMENT PANEL

1. **Cold Starting Indicator Light** - Illuminates when the key switch is turned to the “HEAT” position. It remains lit for approximately 5 seconds when the key is held in position, during which time the glow plugs are heating the precombustion chambers.
2. **Engine Oil Pressure Warning Light** - Illuminates with the key switch in the “ON” or “HEAT” positions 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 becomes lit during operation, stop the tractor engine immediately and investigate the cause.
3. **Battery Charge Warning Light -** Illuminates when the key switch is in the “ON” or “HEAT” positions and goes out when the engine is started. If this bulb becomes lit 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.
4. **Proof Meter** - Records the hours and portions of hours that your tractor has been operated based on an average engine speed of 3000 RPM. Engine speeds below 3000 RPM accumulate engine hours at a slower rate than clock hours. Engine speeds above 3000 RPM accumulate engine hours faster than clock hours. Use the proof meter as a guide to determine hourly service and maintenance intervals.
5. **Fuel Gauge** - Indicates the amount of diesel fuel remaining in the tank. The gauge is activated when the key switch is in the “ON” or “HEAT” positions. It will register empty with the key switch in the “STOP” position.
6. **Flasher Warning Lights** - Operate when the flasher switch is turned on, regardless of the key switch position. Use the flasher warning lights and the SMV emblem when traveling on public roads, day or night.
7. **Flasher Turn Lights** - Operate when the turn signal switch is activated. Rotate the switch to the right for right turns, the right arrow will flash. Rotate the switch to the left for left turns, the left arrow will flash. The key switch has to be in the “RUN” position.
8. **Temperature Gauge** - Indicates coolant temperature. It is activated when the key switch is turned to the “ON” or “HEAT” positions. The gauge will register cold with the key switch in the “STOP” position. If the needle registers in the green range of the gauge, this indicates a normal operating temperature. If the needle moves to the red portion of the gauge, this indicates an overheated condition. Stop the tractor engine immediately and investigate the cause.
9. **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.
10. **Rear PTO Speed** - Determined by the position of the needle on the tachometer. The tachometer is marked to indicate 540 PTO RPM. Engine RPM should remain close to this mark while using the rear PTO; running the engine faster than this results in a dangerous overspeed condition.
11. **PTO Indicator Light** - Illuminates with the key switch in the “ON” position and the PTO clutch lever engaged. This light indicates that the PTO clutch is engaged.
12. **HST Cruise Control Indicator Light** - Illuminates with the key switch in the “ON” position and the cruise control engaged. This light indicates that the HST cruise control is engaged.

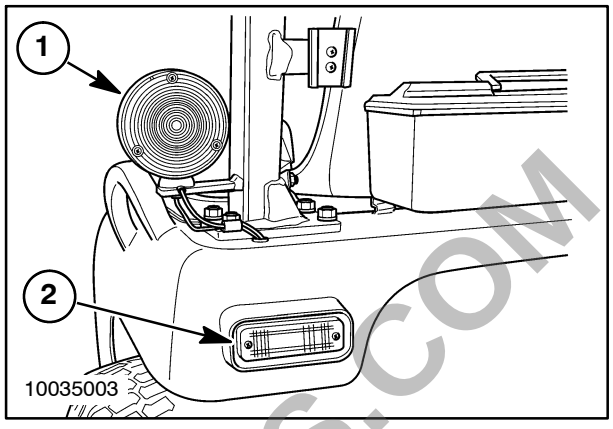
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LIGHTING

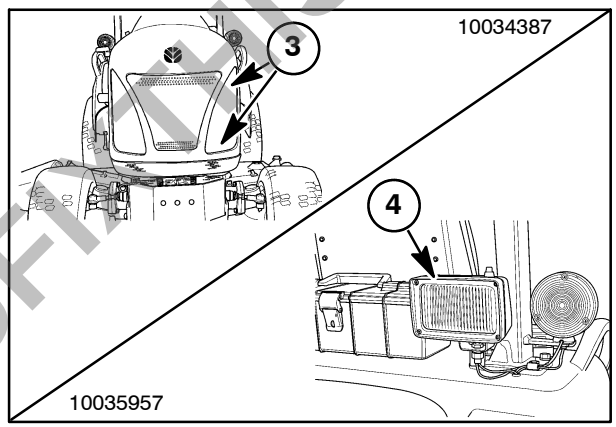
Your tractor is equipped with:

- Flasher warning lights, 1, Figure 11.
- Taillights, 2, Figure 11.
- Headlights, 3, Figure 12.
- Rear work light (optional), 4, Figure 12.



11

NOTE: *Lower headlights and upper work lights can be operated separately or together.*



12

Headlights and Taillights

The four halogen headlights, 3, and the taillights, 2, are controlled by the rotary selector, 5, switch located between the steering column and the manual throttle lever, on the RH side of the dash board. The lower switch controls the lower pair of headlights and the taillights; its three positions are:

A Left - All lights OFF.

B Center - Instrument panel and taillights ON.

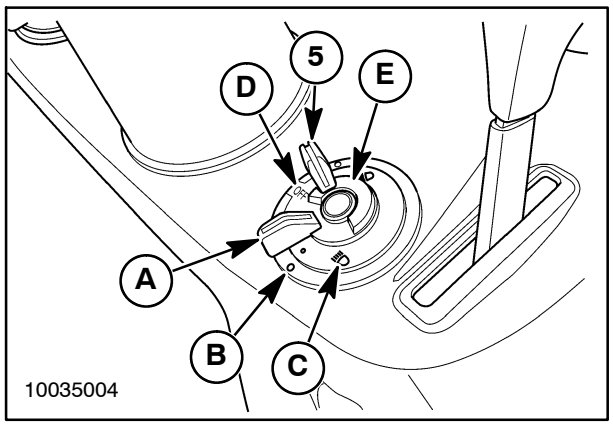
C Right - Instruments, taillights, and headlights (low-beam) ON.

The upper switch lever controls the upper pair of headlights (high-beams) ONLY; its two positions are:

D Lower - Work lights OFF.

E Upper - Work lights ON.

NOTE: *The ignition key must be in the "ON" position for the lights to operate.*



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TROUBLESHOOTING

The following troubleshooting guide is for the mower and its drive. This assumes the tractor engine is running to prescribed specifications and the tractor hydraulics are working properly. Consult the applicable Tractor Repair Manual for all tractor system checks.

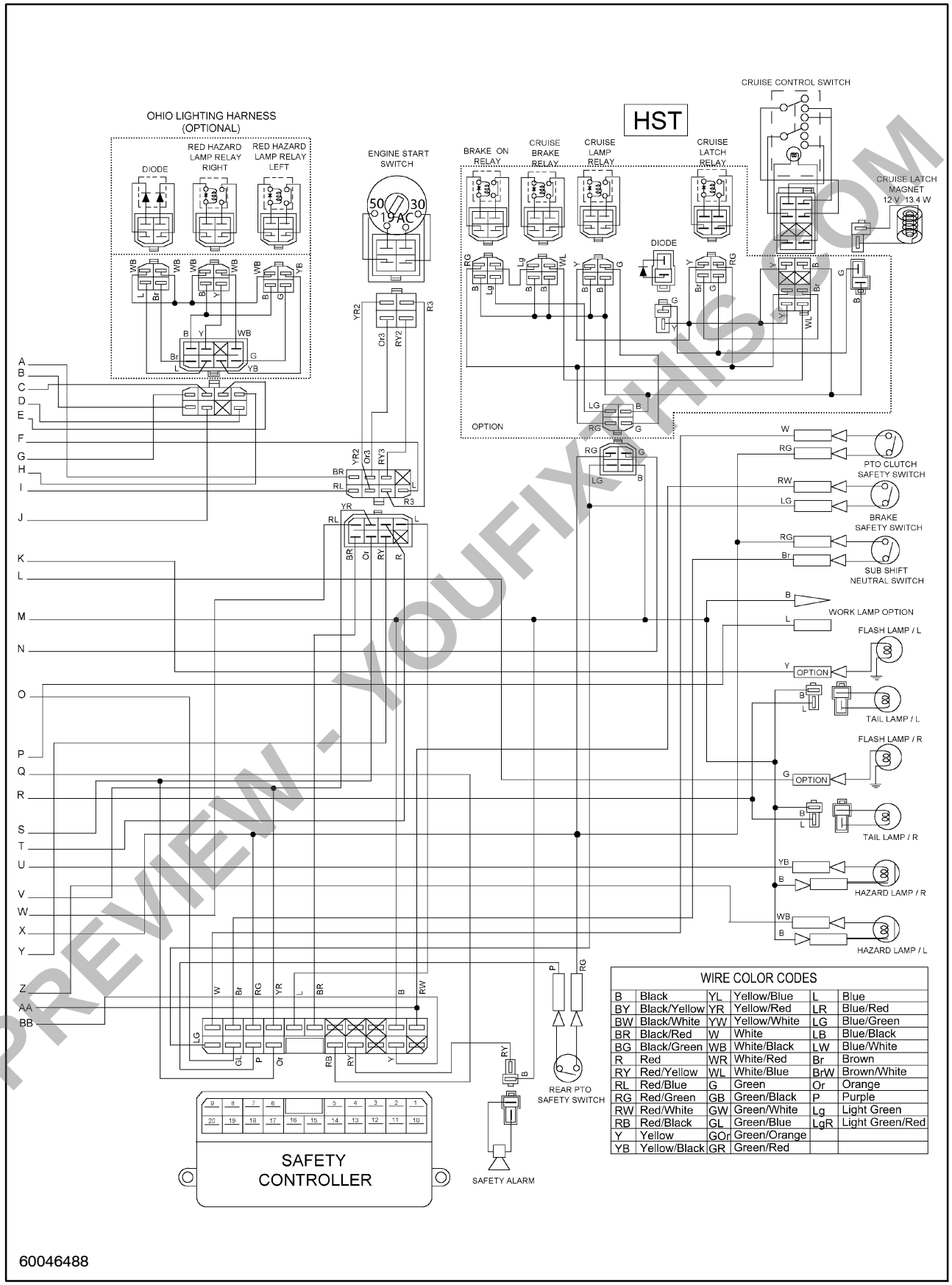
Before attempting any repair or test, observe the general condition of the tractor and mower. Make certain the tractor is operating properly and the mower is setup correctly. The following charts may give you some hints in solving a problem with the mower. If the problem cannot be easily solved, contact your New Holland Service Repair Dealer.

SYMPTOM	PROBLEM	CORRECTION
Excessive Vibration	Loose gearbox bolts.	Re-torque or replace as necessary.
	Loose spindle/blade fasteners.	Re-torque or replace as necessary.
	Damaged gearbox.	Rebuild gearbox as necessary.
	Worn or damaged driveline U-joints.	Rebuild driveline as necessary.
	Blade interference with grass buildup.	Clean the underside of the deck.
	Blades unbalanced.	Balance blades.
	Blade broken.	Replace mowing blades in sets.
Gearbox Overheating	Low on lubricant.	Fill to oil level plug.
	Debris buildup on top of deck around gearbox.	Clean deck top and remove debris.
Gearbox Noisy	Worn or rough bearings.	Replace bearings.
	Worn or rough gears.	Run-in gears, or rebuild gearbox.
Gearbox Leaking	Damaged oil seal.	Replace oil seal.
	Damaged shaft in seal area.	Replace shaft and oil seal.
	Oil seal installed wrong, or upside down.	Replace oil seal.
	Oil level too high in housing.	Drain oil to correct level.
	Cracked or broken housings.	Replace housings or gearbox assembly.
	Gasket damaged.	Replace liquid gasket.
	Bolts loose.	Re-torque bolts.
Blades Wear Too Fast	Cutting in sandy conditions.	Increase deck cutting height.
	Cutting in rocky conditions.	Increase deck cutting height.
	Heat treat removed by sharpening with grinder.	Replace blades in sets.
Not Cutting Clean	Blades dull.	Sharpen or replace blades.
	Blades installed upside down.	Install blades correctly.
	Blade RPM too low.	Use full throttle position.
	Mower not level.	See cutting height adjustments, Tires under inflated.
	Tractor tires mashing grass.	Too wet or lush to cut. Reverse direction of cut and re-mow the area.
	Ground speed too fast.	Reduce ground speed.
	Excessive grass buildup under mower deck.	Clean underside of deck.

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ELECTRICAL WIRING DIAGRAM



WIRE COLOR CODES					
B	Black	YL	Yellow/Blue	L	Blue
BY	Black/Yellow	YR	Yellow/Red	LR	Blue/Red
BW	Black/White	YW	Yellow/White	LG	Blue/Green
BR	Black/Red	W	White	LB	Blue/Black
BG	Black/Green	WB	White/Black	LW	Blue/White
R	Red	WR	White/Red	Br	Brown
RY	Red/Yellow	WL	White/Blue	BrW	Brown/White
RL	Red/Blue	G	Green	Or	Orange
RG	Red/Green	GB	Green/Black	P	Purple
RW	Red/White	GW	Green/White	Lg	Light Green
RB	Red/Black	GL	Green/Blue	LgR	Light Green/Red
Y	Yellow	GOr	Green/Orange		
YB	Yellow/Black	GR	Green/Red		

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	Model T1010 Hydrostatic	Model T1030 Hydrostatic
COOLING SYSTEM		
Type	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass
Water Pump:		
Type	Centrifugal	Centrifugal
Drive	V–Belt	V–Belt
Belt Deflection	10 - 15 mm (0.39 - 0.59 in) when 9-11 kg (20-25 lb) thumb pressure is applied midway between pulleys	10 - 15 mm (0.39 - 0.59 in) when 9-11 kg (20-25 lb) thumb pressure is applied midway between pulleys
Fan Diameter	330 mm (13.0 in)	330 mm (13.0 in)
Number of Fan Blades	7	7
Thermostat:		
Start to Open	82°C	82°C
Fully Open	95°C	95°C
Radiator Cap	0.9 bar (13.1 PSI)	0.9 bar (13.1 PSI)
ELECTRICAL SYSTEM		
Main System Protection	40A Slow-Blow Fuse	40A Slow-Blow Fuse
Number of Fuses for Circuit Protection	3	3
Alternator	12V/40A	12V/40A
Battery Type	51BCI/450 CCA	51BCI/450 CCA
Start HP (Kw) Rating	1.6 (1.2)	1.6 (1.2)
Starting Motor	Pre-Engaged Reduction	Pre-Engaged Reduction
FUEL SYSTEM		
Fuel Type		
Type of Fuel to Use if Above 40°F	No. 2-Diesel, Cetane Rating: Minimum 40	No. 2-Diesel, Cetane Rating: Minimum 40
Type of Fuel to Use if Below 40°F	No. 1-Diesel, Cetane Rating: Minimum 40	No. 1-Diesel, Cetane Rating: Minimum 40
Injection Pump		
Type	In-Line	In-Line
Timing	24° BTDC	24° BTDC

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MINIMUM HARDWARE TIGHTENING TORQUES

IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

INCH NON-FLANGED HARDWARE AND LOCKNUTS

NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	6.2 (55)*	8.1 (72)*	9.7 (86)*	13 (112)*	14 (121)*	18 (157)*	8.5 (75)*	12.2 (109)*	1/4
5/16	13 (115)*	17 (149)*	20 (178)*	26 (229)*	28 (250)*	37 (324)*	17.5 (155)*	25 (220)*	5/16
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	31 (23)	44 (33)	3/8
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	50 (37)	71 (53)	7/16
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	76 (56)	108 (80)	1/2
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	111 (82)	156 (115)	9/16
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	153 (113)	215 (159)	5/8
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	271 (200)	383 (282)	3/4
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	437 (323)	617 (455)	7/8
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	654 (483)	924 (681)	1

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION
CAP SCREWS AND CARRIAGE BOLTS



SAE GRADE 2 | SAE GRADE 5 | SAE GRADE 8

REGULAR NUTS | SAE GRADE 5 HEX NUTS | SAE GRADE 8 HEX NUTS

LOCKNUTS



GRADE IDENTIFICATION
GRADE A NO NOTCHES
GRADE B ONE CIRCUMFERENTIAL NOTCH
GRADE C TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION
GRADE A NO MARKS
GRADE B THREE MARKS
GRADE C SIX MARKS
MARKS NEED NOT BE LOCATED AT CORNERS



GRADE A NO MARK
GRADE B LETTER B
GRADE C LETTER C

GRADE IDENTIFICATION

86529681 REV F 5.2

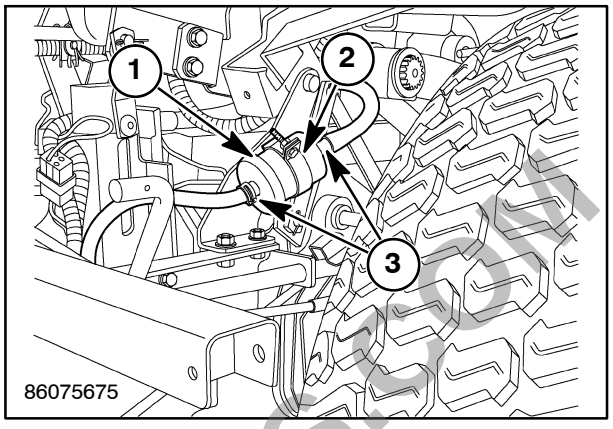
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FUEL FILTER

NOTE: *Fuel filter should be replaced every 200 hours of operation.*

The fuel filter, 1, is installed in the fuel line between the fuel tank and the electric fuel pump. Location left rear of tractor, (left rear tire removed for clarity).



7

To replace filter:

1. Remove left rear tire assembly and support axle with jack stand.
2. Drain the fuel tank or pinch the fuel hose to prevent fuel leakage.
3. Remove filter mounting clamp, 2, from filter.
4. Loosen clamps, 3, from fuel line and remove fuel filter from fuel hose.
5. Install new fuel filter, **pay attention to directional arrow on filter**, arrow points in direction of fuel flow, from tank to engine.
6. Install line clamps, 3, and mounting clamp, 2, to filter.
7. Check for any leakage, place key switch in the “ON” position for a several seconds to bleed any air out of fuel system.

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