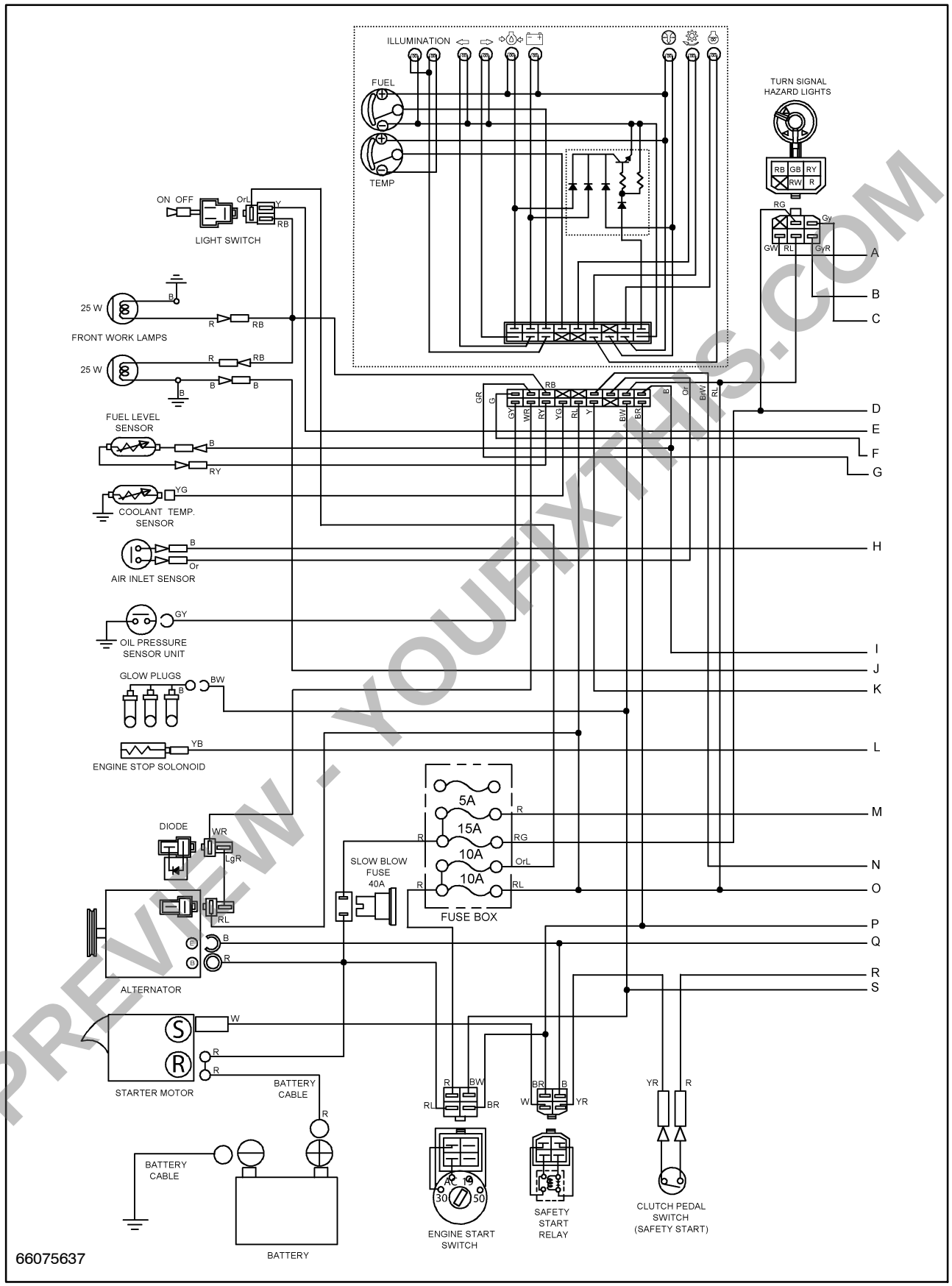


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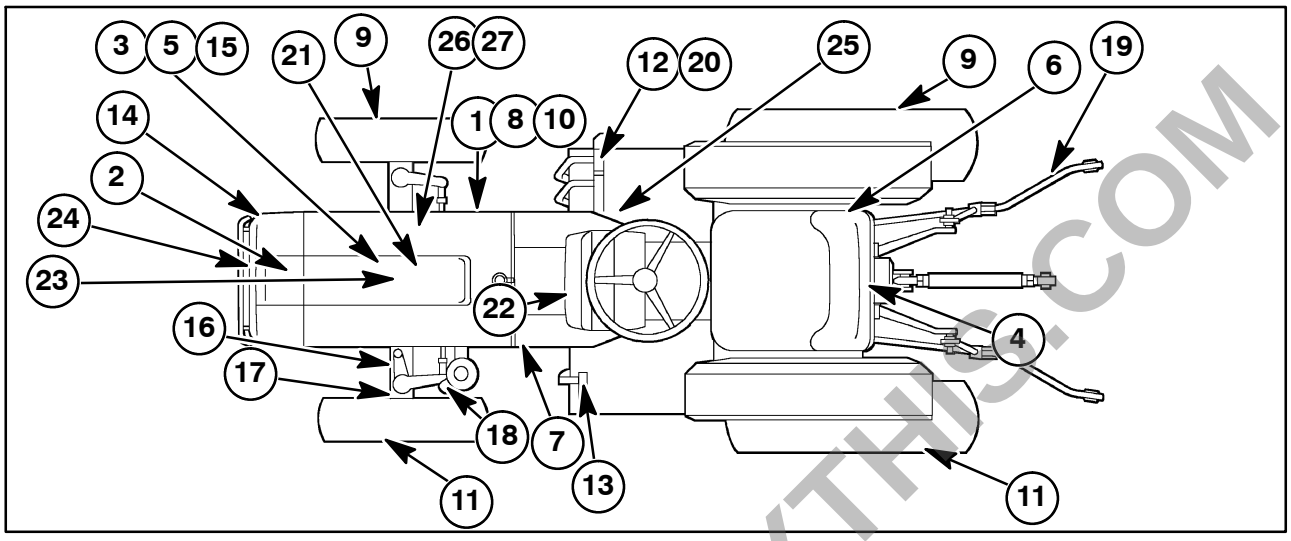
SECTION 4
SPECIFICATIONS

	Model T1520
ENGINE	
Type	Diesel
Engine Gross Horsepower	26.0 kw (35.0)
Cylinders	3
Bore	84 mm (3.31 in)
Stroke	100 mm (3.94 in)
Displacement	1.662 L (101.4 cu in)
Compression Ratio	22.4:1
Firing Order	1-2-3
Low Idle Speed	950/1050 RPM
Maximum Speed:	
High Idle	2840 RPM
Rated	2600 RPM
Valve Clearance (Cold):	
Intake	0.20 mm (0.008 in)
Exhaust	0.20 mm (0.008 in)
CAPACITIES	
Fuel Tank	27.0 liters/ 7.1 U.S. gals
Cooling System	4.0 liters/ 4.2 U.S. qts
Engine Crankcase:	
With Filter	4.0 liters/ 4.2 U.S. qts
Rear Axle & Transmission (Includes Hydraulics)	
9x3 (Gear)	32.5 liters/ 8.6 gals
HST	30.5 liters/ 8.1 gals
Front Axle Final Reduction	0.8 liters/ 0.85 U.S. qts
Differential Gear Case	1.4 liters/ 1.5 U.S. qts

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LUBRICATION AND MAINTENANCE CHART
FRONT-WHEEL DRIVE



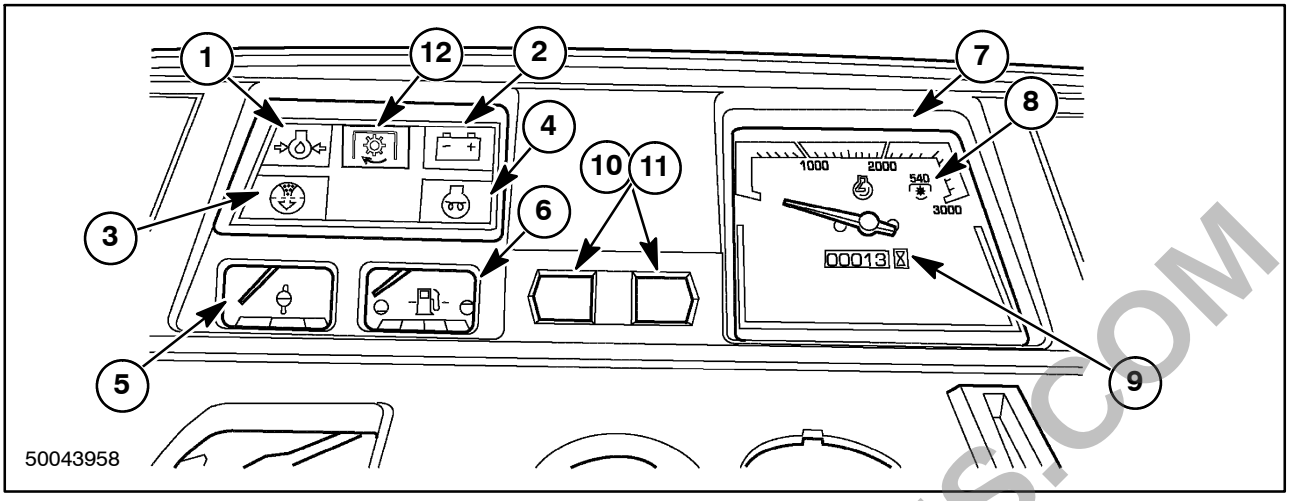
1

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	Radiator Prescreen		X				
6	Hydraulic Filter				X		First 50 Hours
1, 8	Engine Oil & Filter				X		
9	Tire Pressure	X					
10	Fuel Filter				X		
11	Wheel Bolt Torque	X					
12	Brake Pedal Free Play	X					
—	All Fluid Levels	X					
9	Tires	X					Every 50 Hours
12	Brake Pedal Free Play	X					
13	Clutch Pedal Free Play	X					
14	Battery	X					
15	Fan Belt	X					
16	Front Axle Oil Level	X					
17	Final Reduction Gear Cases Oil Level						
	Lubrication Fittings:						
18	Steering Linkage			X			
19	3-Point Linkage			X			
20	Brake Pedal			X			
21	Power Steering Cylinder			X			
22	Pedal Shaft			X			
23	Drive Cover Shaft			X			
24	Axle Pivot Shaft			X			
25	H.S.T. Pedal Pivot			X			

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
1, 8	Engine Oil & Filter				X		Every 100 Hours
2	Air Cleaner Element		X				
10	Fuel Filter		X				
12	Brake Pedal Free Play					X	Every 200 Hours
10	Fuel Filter Element				X		
15	Fan Belt					X	
11	Wheel Bolt Torque	X					
4	Transmission Oil				X		Every 300 Hours
6	Hydraulic Filter				X		
7	H.S. T. Filter				X		
16	Front Axle Oil				X		
17	Final Reduction Gear Cases Oil				X		
26*	Fuel Injector	X				X	Every 600 Hours *Refer to Repair Manual
27*	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. **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 illuminates during operation of tractor, stop the tractor engine immediately and investigate the cause.
2. **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 illuminated during tractor operation, it indicates that the charging system is not working properly. As the battery can become fully discharged under these conditions, the problem should be investigated immediately.
3. **Air Cleaner Restriction Warning Light** – Illuminates when the engine air filter needs to be cleaned or replaced. The engine has to be running and the key switch is in the “ON” position for the light to illuminate. The warning light monitors the engine intake air flow and when approximately 20 inches of vacuum is obtained, the indicator light will illuminate.
4. **Cold Starting Indicator Light** – Illuminates when the key switch is turned to the “HEAT” position. It remains lit for approximately six seconds, when the key is held in the “HEAT” position , during which time the glow plugs are heating the precombustion chambers of the engine cylinder head.
5. **Temperature Gauge** – Indicates engine coolant temperature. It is activated when the key switch to the “ON” or “HEAT” positions. The gauge will register cold with the key switch in the “OFF” position. If the need registers in the white 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.
6. **Fuel Gauge** - Indicates the amount of diesel fuel remaining in the tractor fuel 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 “OFF” position.
7. **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
8. **PTO Speed Indicator** – Determined by the position of the needle on the tachometer. The tachometer is marked to indicate 540 PTO RPM. If the needle registers above the 540 RPM mark, this indicates a dangerous over speed condition, and the engine RPM should be reduced immediately.
9. **Proof Meter** – Records the hours and portions of hours that your tractor has been operated. Use the proof meter as a guide to determine hourly service and maintenance intervals. NOTE: Registration of hours and portions of hours your tractor has operated, will be based on an average engine speed of 1867 RPM. Engine speeds below 1867 RPM, accumulate hours at a slower rate than clock hours. Engine speeds above 1867 RPM, accumulate hours at a faster rate than clock hours.
10. **Hazard 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.
11. **Flasher Turn Lights** – Operate when the turn signal switch is activated. Rotate the switch counterclockwise for right turns, the right arrow will flash. Rotate the switch clockwise for left turns, the left arrow will flash. The key switch has to be in the “RUN” position.
12. **PTO “ON” Indicator Light** - The PTO indicator light will illuminate amber when either the rear or mid PTO is engaged and the key switch is in the “ACC/RUN” position.

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SECTION 2
OPERATION

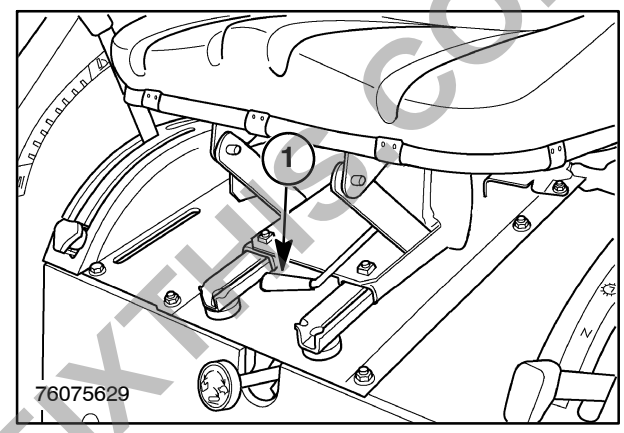
CONTROLS AND INSTRUMENTS

SEAT, SEAT BELT, AND ROLLOVER PROTECTIVE STRUCTURE (ROPS)

Adjusting the Tractor Seat

Your New Holland tractor is equipped with an adjustable suspension seat. The seat can be placed in one of several positions.

To move the seat fore and aft, raise the release lever, 1, while sitting in the seat. Because the seat is on an inclined base, more effort is required to move the seat rearward than forward.



1

NOTE: *Care of vinyl, plastic, and rubber parts to MAXIMIZE life:*

For cleaning of vinyl, plastic, and rubber parts, use "ONLY" a mild car washing soap and water, as described below:

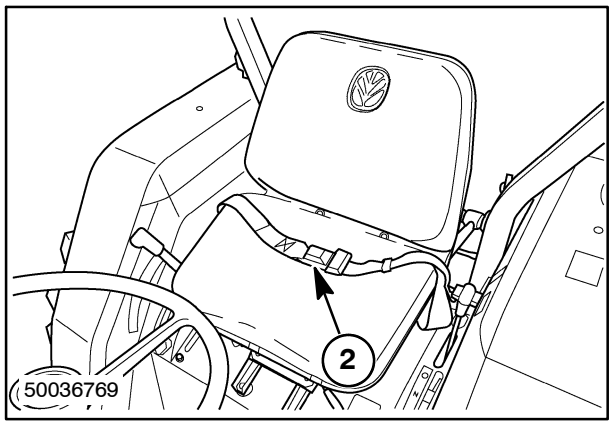
"First remove any loose dirt by rinsing with clean water. Mix a warm, mild liquid CAR WASHING soap solution (1 part soap and 99 parts water). Then using a sponge or soft cloth, apply the soap solution to the part. Allow the solution to soak for a few minutes to loosen the dirt. Finally, rinse the part with clean water to remove the dirt, and any solution residue. If all the dirt does not come off, repeat the procedure."

Adjusting the Seat Belt

To lengthen the seat belt, 2, tip the buckle end down and pull on the buckle until the ends can be joined. To shorten the belt, buckle it, then pull on the loose end until the belt is snug.

Use soap and water to clean the seat belt if necessary. Do not use carbon tetrachloride, naphtha, etc., as these substances will weaken the webbing. Additionally, do not bleach or re-dye the webbing, as these products will also weaken the webbing.

Replace the seat belt if it becomes damaged or worn.



2

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MINIMUM HARDWARE TIGHTENING TORQUES

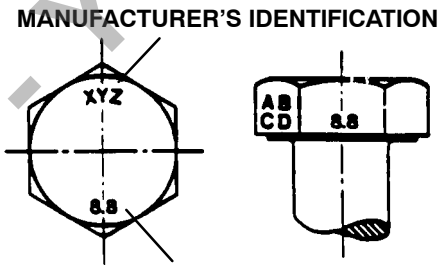
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

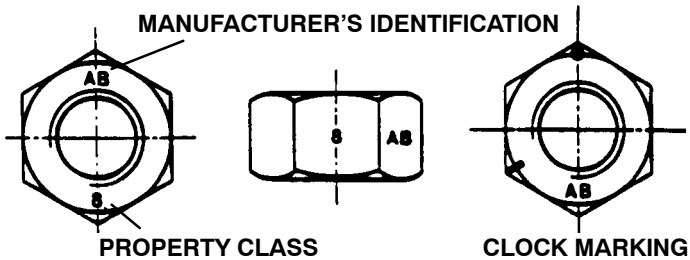
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*	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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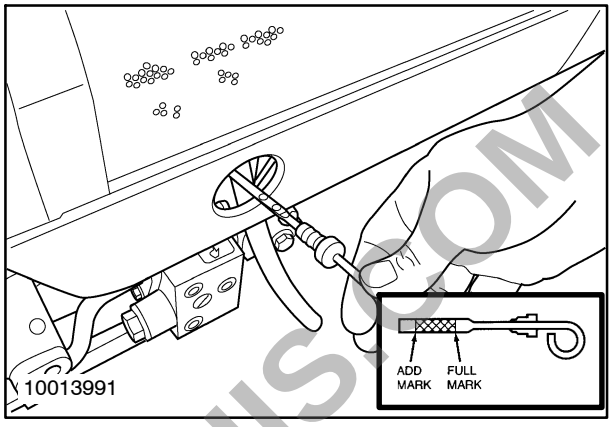
FUEL AND LUBRICANT SERVICE PROCEDURES

ENGINE

Checking the Engine Oil Level

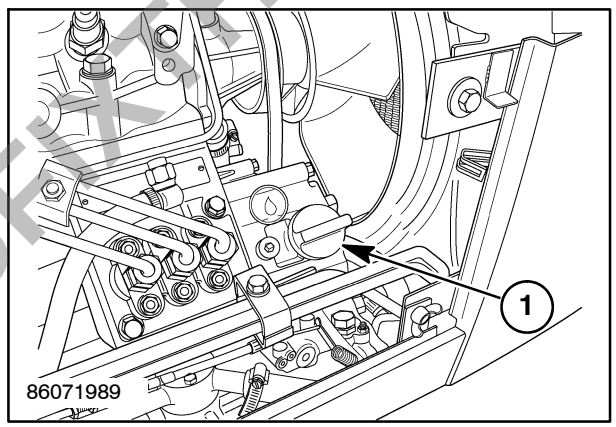
NOTE: *Check the engine oil level daily or after every 10 hours of operation.*

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.



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.



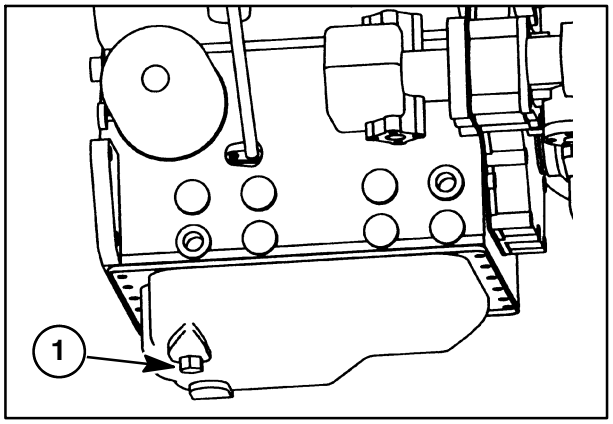
4

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:

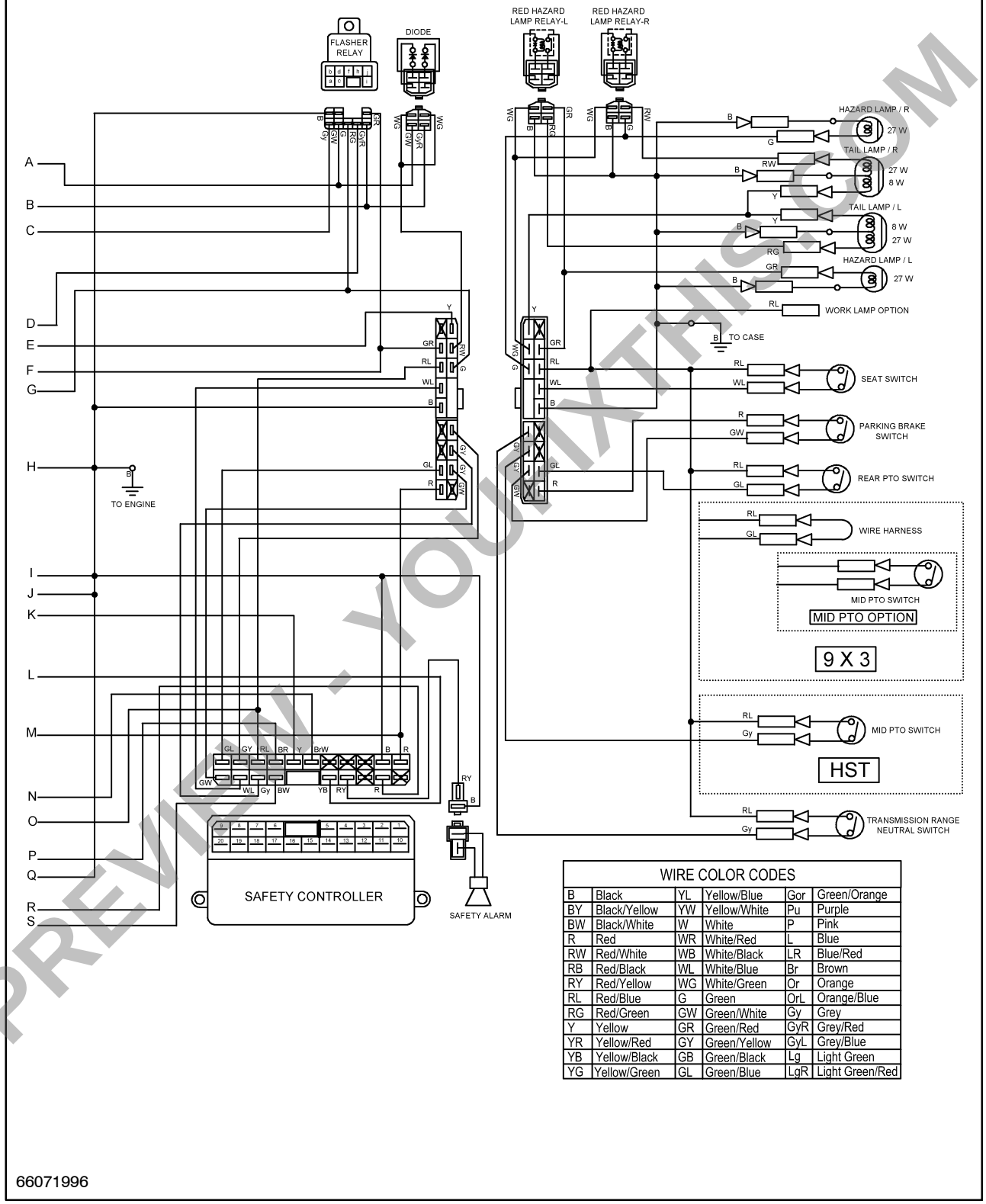
1. Place a suitable container beneath the drain opening to catch the used oil. With the tractor engine off but at normal operating temperature, remove the drain plug, 1. Reinstall the plug after all of the oil has been drained.



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WIRE COLOR CODES					
B	Black	YL	Yellow/Blue	Gor	Green/Orange
BY	Black/Yellow	YW	Yellow/White	Pu	Purple
BW	Black/White	W	White	P	Pink
R	Red	WR	White/Red	L	Blue
RW	Red/White	WB	White/Black	LR	Blue/Red
RB	Red/Black	WL	White/Blue	Br	Brown
RY	Red/Yellow	WG	White/Green	Or	Orange
RL	Red/Blue	G	Green	OrL	Orange/Blue
RG	Red/Green	GW	Green/White	Gy	Grey
Y	Yellow	GR	Green/Red	GyR	Grey/Red
YR	Yellow/Red	GY	Green/Yellow	GyL	Grey/Blue
YB	Yellow/Black	GB	Green/Black	Lg	Light Green
YG	Yellow/Green	GL	Green/Blue	LgR	Light Green/Red

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	Model T1520
COOLING SYSTEM	
Type	Pressurized Liquid with Recirculating Bypass
Water Pump:	
Type	Centrifugal
Drive	V-Belt
Belt Deflection	5-10 mm (0.20-0.40 in) when 5 kg (11 lb) thumb pressure is applied midway between belt pulleys
Fan Diameter	340 mm (13.4 in
Thermostat:	
Start to Open	82°C (180°F)
Fully Open	95°C (203°F)
Radiator Cap	0.9 bar (13 PSI)
ELECTRICAL SYSTEM	
Alternator	12-volt, Heavy Duty, 40 amps
Battery	12-volt, w/negative ground, 420 cca BCI Group 24
Starting Motor	Solenoid Pre-Engaged Reduction
FUEL SYSTEM	
Fuel Type	Diesel
Type of Fuel to Use if Above 40°F	No. 2-Diesel, Cetane Rating: Minimum 40
Type of Fuel to Use if Below 40°F	No. 1-Diesel, Cetane Rating: Minimum 40
Injection Pump:	
Type	In-Line
Timing	21° BTDC

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RECOMMENDED LUBRICANTS AND COOLANTS

Lubricant	Type and Description	Part Number	Container Size
Engine Oil	AMBRA SUPER GOLD SSL ENGINE OIL SAE 10W-40	86994335	2.5G / 9.46L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 10W	86641050	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 10W-30	9613313	1QT / .946L
		86641052	1G / 3.785L
		9613314	2.5G / 9.46L
		9673508DS	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 30	9613286	1QT / .946L
		86641043	1G / 3.785L
		9613289	2.5G / 9.46L
		86641044	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 40	9624812DS	55G / 208.2L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 15W-40	86641081	1QT / .946L
		86641082	1G / 3.785L
		86641084	2.5G / 9.46L
		86641083	5G / 18.93L
	AMBRA SUPER GOLD HSP ENGINE OIL SAE 20W-50	86994337	5G / 18.93L
	AMBRA AUTO SUPREME SAE 5W-30	9673589DS	1QT / .946L
	AMBRA AUTO SUPREME SAE 10W-30	86641101	1QT / .946L
Transmission Oil	AMBRA MULTI TRAN	86639558	1G / 3.785L
		86639559	2.5G / 9.46L
		86639560	5G / 18.93L
	F200 Cold Weather Use	86523625DS	1G / 3.785L
		86523626DS	5G / 18.93L
	AMBRA MULTI TRAN SSL	86994339	2.5G / 9.46L
	AMBRA MULTI BIO S	86994341	2.5G / 9.46L
Hydraulic Oil	AMBRA MULTI G 134	9624655DS	1QT / .946L
		9624656DS	1G / 3.785L
		9624450	2.5G / 9.46L
		9624451	5G / 18.93L
	F200 Cold Weather Use	86523625DS	1G / 3.785L
		86523626DS	5G / 18.93L
	AMBRA HYDROSYSTEM 46 HYD FLUID	86109085	5G / 18.93L
	AMBRA HYDROSYSTEM 68 HYD FLUID	86994331	5G / 18.93L
	AMBRA HYDROSYSTEM 100 HYD FLUID	86994343	5G / 18.93L
ATF Oil	AMBRA HYDRODEX 3 ATF	9613304	1QT / .946L
		9613312	2.5G / 9.46L
Gear Oil	AMBRA HYPOIDE 90 GEAR LUBE	9613295	1QT / .946L
		9613294	2.5G / 9.46L
		86994348	16G / 60.6L
	AMBRA HYPOIDE 140 GEAR LUBE	87027134*	1QT / .946L
		87027135	2.5G / 9.46L
		86994351	16G / 60.6L
	AMBRA TRANSAXLE FLUID	86994352	5G / 18.93L
	AMBRA HYPOIDE SSL GEAR LUBE	86994354	1QT / .946L
Grease	AMBRA GR-9 MULTI-PURPOSE GREASE	9613310	TUBE - 14 OZ.
	AMBRA HI-TEMP GREASE	9861804DS	TUBE - 14 OZ.
	AMBRA CORN HEAD GREASE	94107DS	TUBE - 14 OZ.
	AMBRA GR 75 MD GREASE	87400001	TUBE - 14 OZ.
	AMBRA GR 1000 SYNTHETIC GREASE	86994355	TUBE - 14 OZ.
	LIMITED SLIP ADDITIVE	B96606	
Brake Fluid	BRAKE LHM FLUID (Mineral Based Oil)	86541699DS	1QT / .946L
Coolant	ESE-M97B18-D, Ethylene Glycol Coolant Concentrate	FGCC2701DS	1G / 3.785L
	Propylene Glycol Concentrate	FGCC2711DS	1G / 3.785L

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STARTING THE ENGINE

The key switch allows activation of the starter motor and fuel delivery only when:

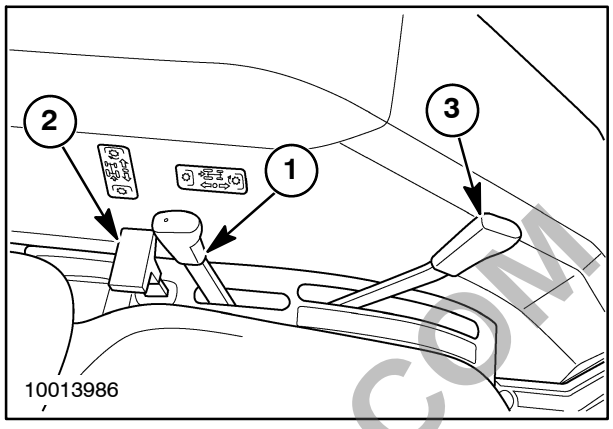
1. The rear, 1, and mid PTO, 2, (if equipped) lever(s) are in the “OFF” position.
2. The range lever, 3, is in the “NEUTRAL” position.
3. Depress clutch pedal, 4.

NOTE: *The tractor can be started with the operator out of the seat and the park brake NOT applied. However, an alarm will sound indicating that the operator needs to either apply the park brake or sit in the seat.*

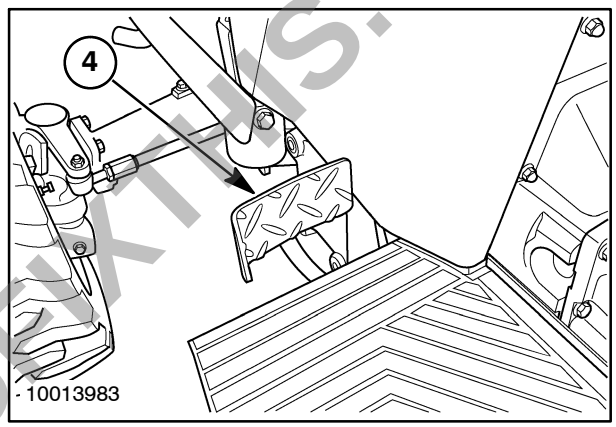
Always use safe practices when starting your tractor. Turn the key to the extreme right. Position the hand throttle forward so that it is one-fourth to one-third open.

⚠ WARNING ⚠

Always sit in the operator’s seat when starting the tractor. Never attempt to start the engine while standing beside the tractor. Failure to comply could result in death or serious injury.



8

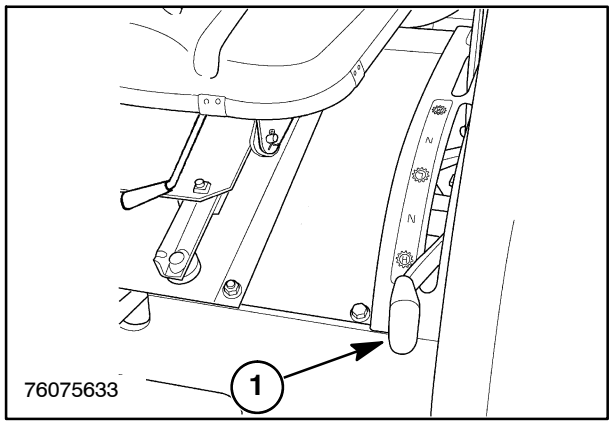


9

IMPORTANT: *Do not engage the starting motor continuously for more than 30 seconds. Doing so may cause starting motor failure.*

The engine will shut off in approximately two seconds if the operator leaves the seat without the range lever in the neutral position.

NOTE: *The range lever, 1, must be in the “NEUTRAL” position to allow the operator to leave the seat, when the tractor engine is in operation. If the “REAR PTO” is in the “ON” position, the engine will remain operating. If the “MID PTO” is in the “ON” position, the engine will shut off in approximately two seconds.*



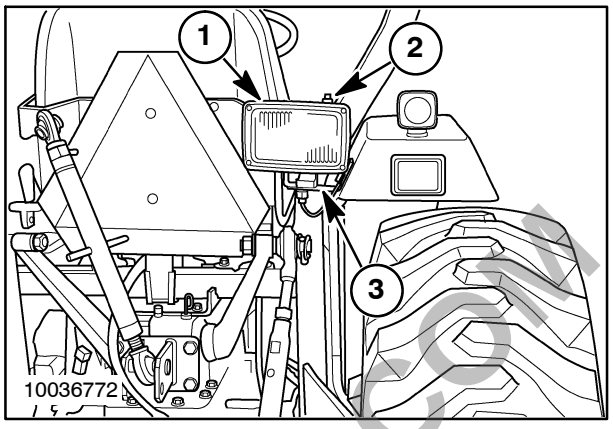
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Rear Work Light (Optional)

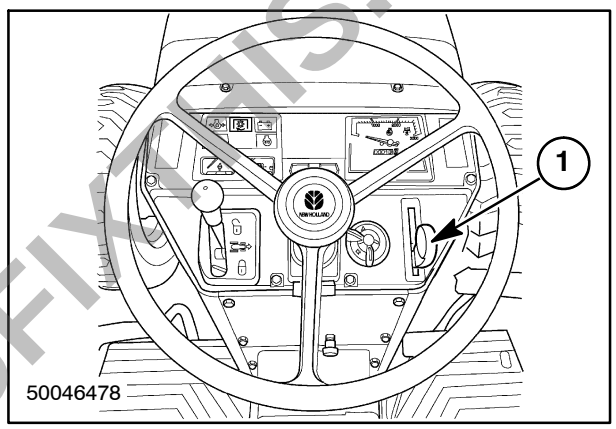
The optional rear halogen work light, 1, is mounted to the light fender and is operated by a pushbutton switch, 2, located on the light. To mount optional rear work light mounting bracket, 3, #86402715 is required.



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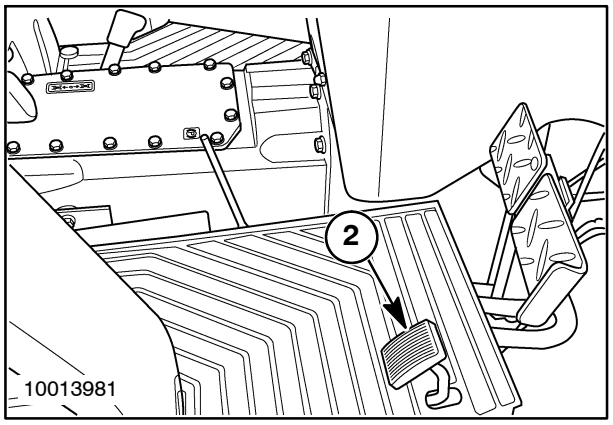
THROTTLE CONTROLS

The hand throttle, 1, is located on the right-hand side of the console. Push the throttle forward to increase engine RPM. Pull the throttle rearward to decrease engine RPM.



18

The foot throttle, 2, (gear model only) is located on the right-hand foot platform. Push the pedal to increase engine RPM. Decrease the pressure applied to the pedal to decrease engine RPM. Because the pedal is spring loaded, it will return to the hand throttle position when no pressure is applied.



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