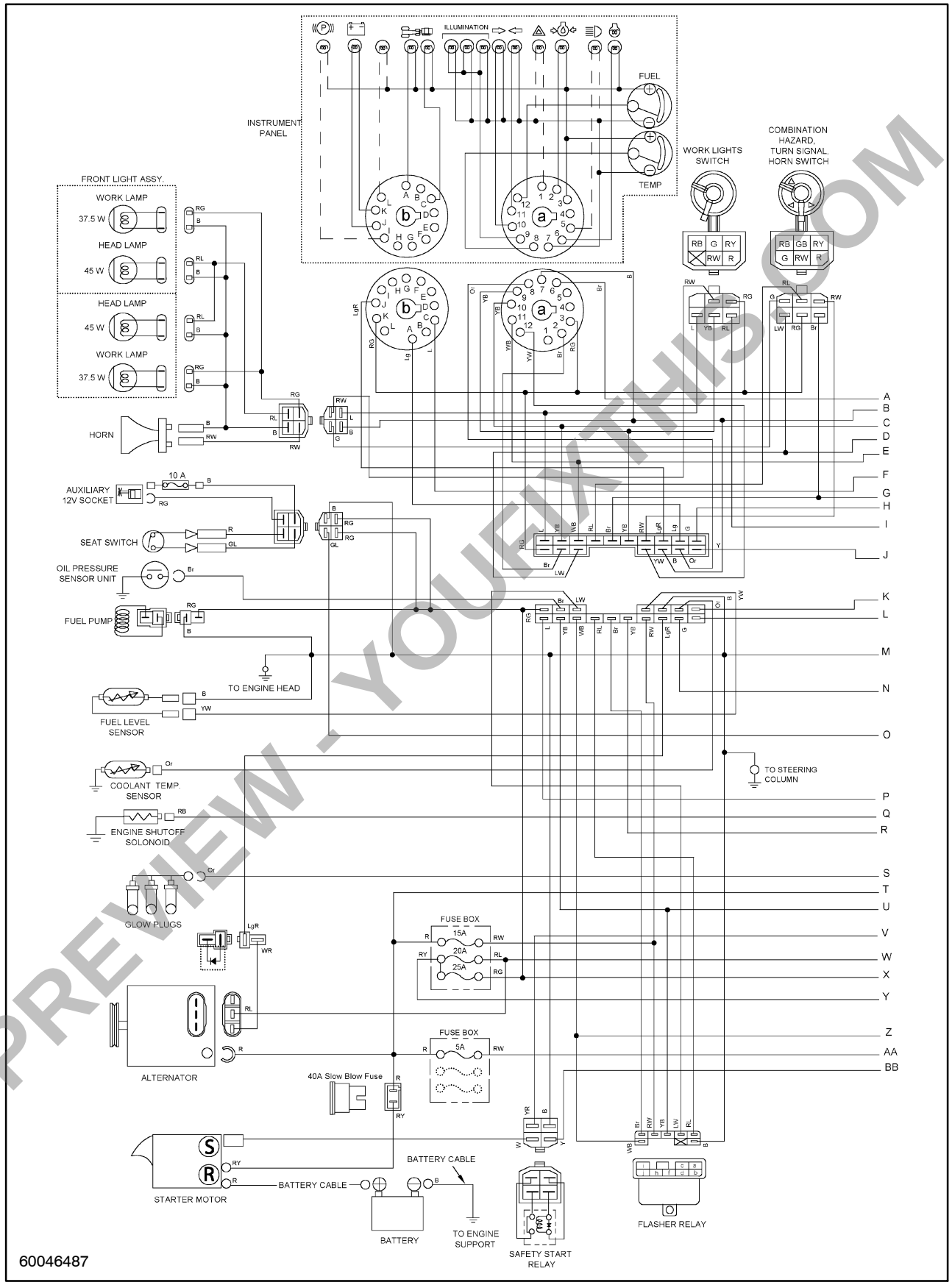
ELECTRICAL WIRING DIAGRAM



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MINIMUM HARDWARE TIGHTENING TORQUES

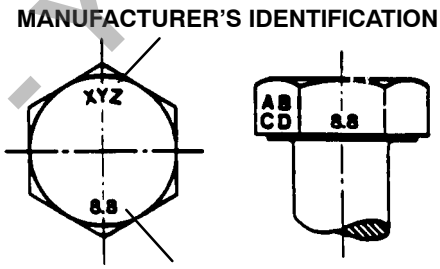
IN NEWTON-METERS (FOOT POUNDS) FOR NORMAL ASSEMBLY APPLICATIONS

METRIC NON-FLANGED HARDWARE AND LOCKNUTS

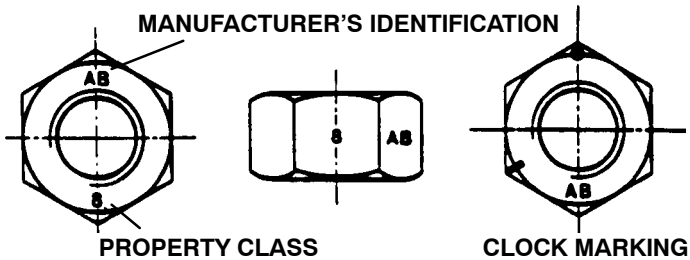
NOMINAL SIZE	CLASS 5.8		CLASS 8.8		CLASS 10.9		LOCKNUT CL.8 W/CL8.8 BOLT
	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	UNPLATED	PLATED W/ZnCr	
M4	1.7 (15)*	2.2 (19)*	2.6 (23)*	3.4 (30)*	3.7 (33)*	4.8 (42)*	2.3 (20)*
M6	5.8 (51)*	7.6 (67)*	8.9 (79)*	12 (102)*	13 (115)*	17 (150)*	7.8 (69)*
M8	14 (124)*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

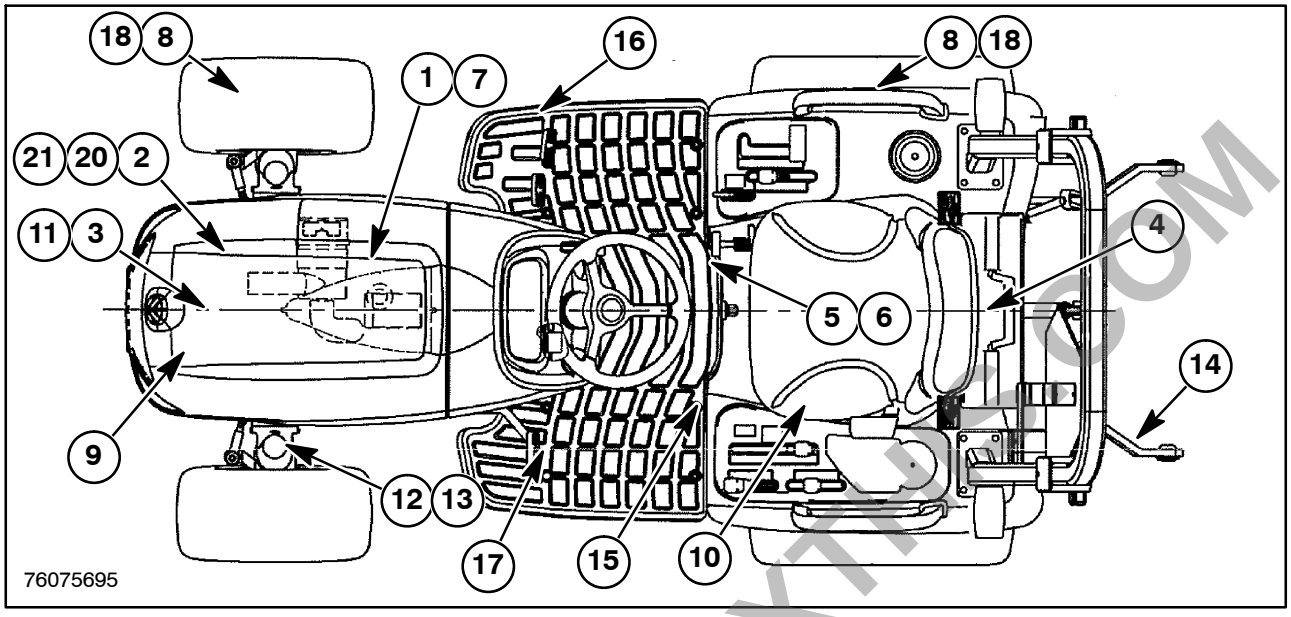


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LUBRICATION AND MAINTENANCE CHART
NEW HOLLAND BOOMER 1030 - FRONT-WHEEL DRIVE



1

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTER-VALS
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			
2	Air Cleaner Element		X				Every 100 Hours
10	Fuel Filter		X				

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTER-VALS
1, 7	Engine Oil & Filter				X		Every 200 Hours
17	Brake Pedal Free Play					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		
10	Fuel 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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SECTION 5
SPECIFICATIONS

Model Boomer 1030
Hydrostatic

ENGINE

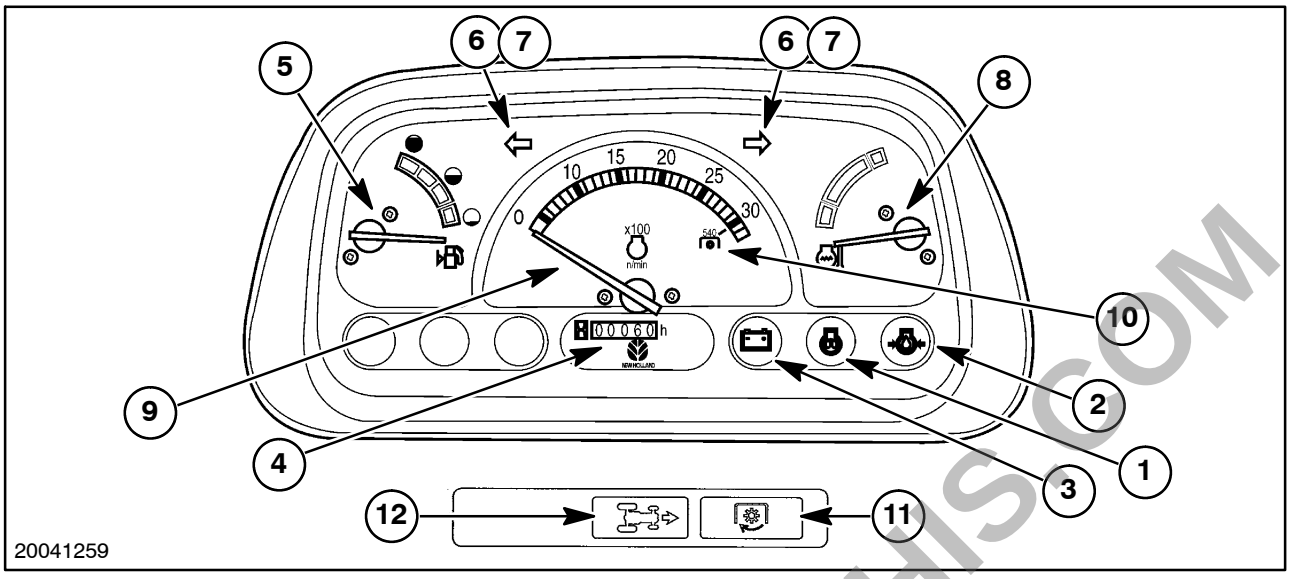
Type	S773L Diesel
Engine Gross Horsepower	28.0
Cylinders	3
Bore	77 mm (3.03 in)
Stroke	81 mm (3.19 in)
Displacement	1.13 L (69.0 cu-in)
Compression Ratio	24:1
Firing Order	1 - 2 - 3
Low Idle Speed	1350 ± 50 RPM
Maximum Speed	
High Idle	3325 ± 25 RPM
Rated	3100 ± 50 RPM
Valve Clearance (Cold):	
Intake	0.20 mm (0.008 in)
Exhaust	0.20 mm (0.008 in)

CAPACITIES

Fuel Tank	26.0 liters/7.1 U.S. gals
Cooling System	3.5 liters/3.7 U.S. qts
Engine Crankcase	
With Filter	3.3 liters/3.5 U.S. qts
Rear Axle & Transmission	13 liters/13.8 U.S. qts
Power Steering	Using Transmission Oil (Common Use)
Front Axle Differential/ Final Reduction Gear Case	2.0 liters/2.12 U.S. qts

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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.

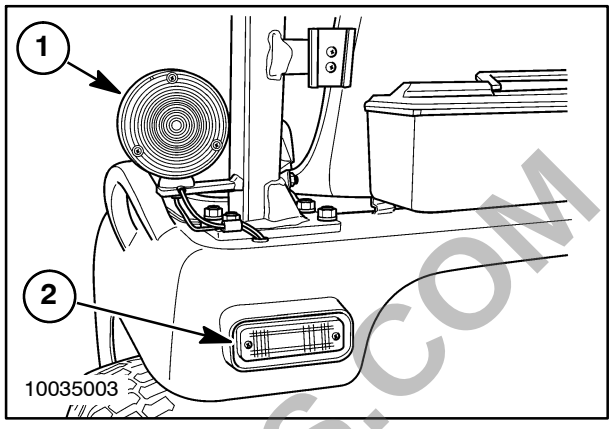
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LIGHTING

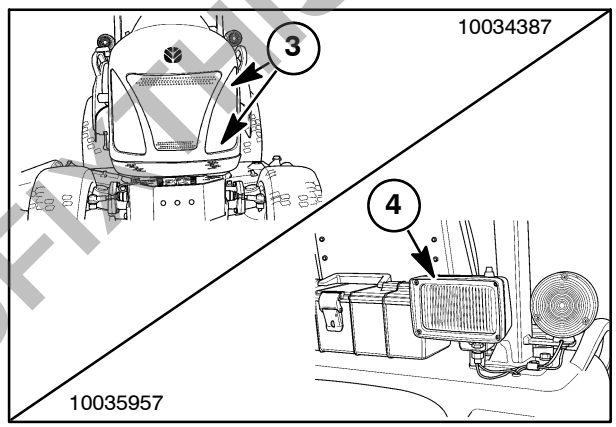
Your tractor is equipped with:

- 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.

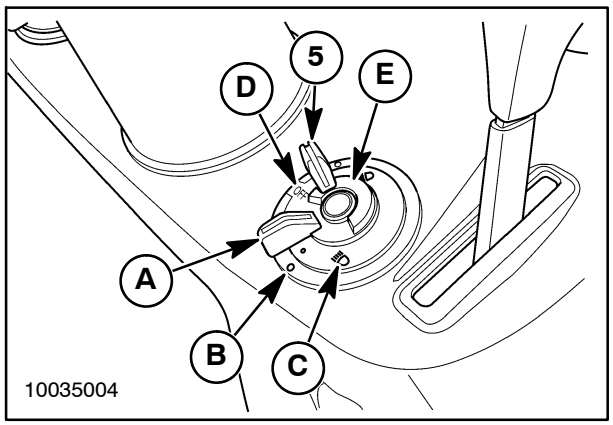
C Right - Instruments, taillights, and headlights (low-beam) ON.

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.*

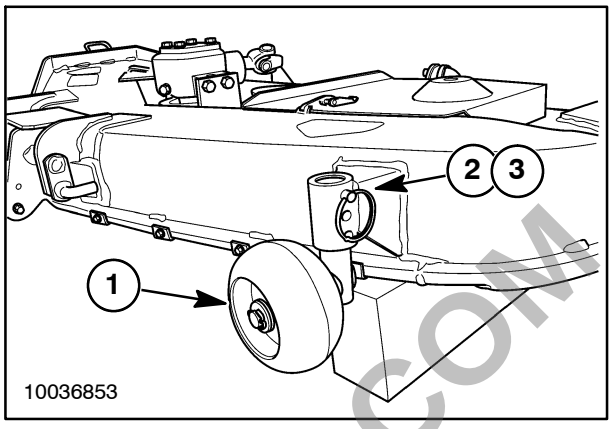


13

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2. Remove and re-install the four gauge wheels, 1, in the sideways position.
3. Secure the wheel spindles with the clevis pins, 2, and clips, 3.

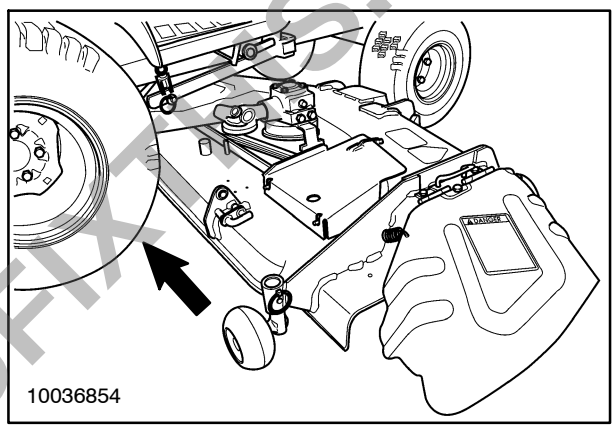


9

⚠ CAUTION ⚠

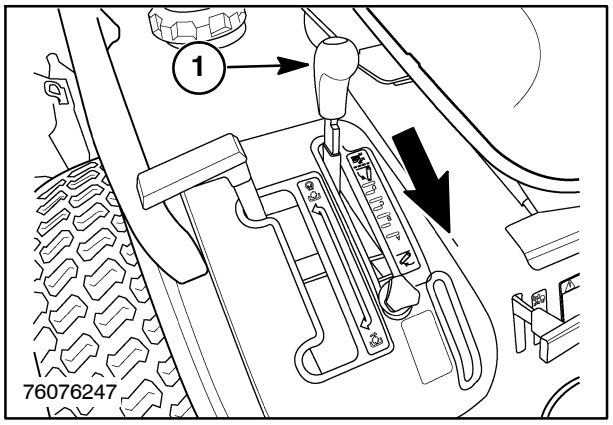
When rolling the mower deck under the tractor, be very careful not to strike the hydraulic filter with the mower deck.

4. Roll the mower deck under the tractor and position for connection to the lift linkage.



10

5. Start the engine on the tractor.
6. Shift the 3 PT lever, 1, forward, to the “lower” position.
7. Turn the engine off.



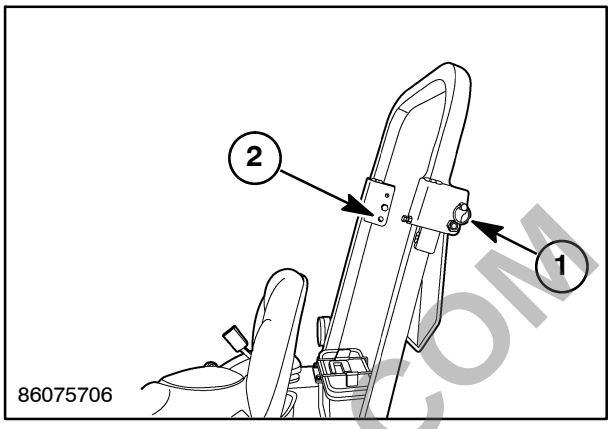
11

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ROPS Folding Procedure

To fold the ROPS into the “DOWN” position, pull spring loaded pin, 1, out of the latching bracket and rotate pin 90°, on both sides of the ROPS. Rotate top part of the ROPS fully downward until brackets contact ROPS uprights. Release pin, 1, into lower retaining hole, 2.



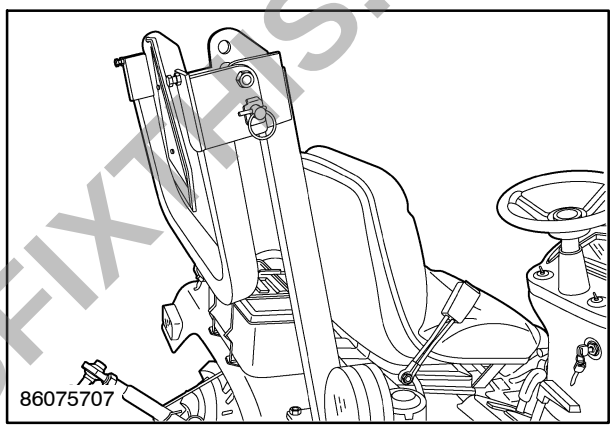
4

⚠ WARNING ⚠

Do not operate the tractor with the rollover protective structure folded, as a standard operating mode. A folded ROPS does not provide rollover protection. Raise ROPS immediately after low clearance use or transport.

⚠ WARNING ⚠

Always wear the seat belt when the tractor is equipped with an ROPS. However, if the ROPS has been removed from the tractor, or if the ROPS is in the folded position, the seat belt should not be used.



5

⚠ WARNING ⚠

Always pull from the tractor drawbar. Do not attach chains or ropes to the ROPS for pulling purposes, as the tractor can tip backwards.

⚠ WARNING ⚠

When driving through door openings or under low overhead objects, make sure there is sufficient clearance for the ROPS.

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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.

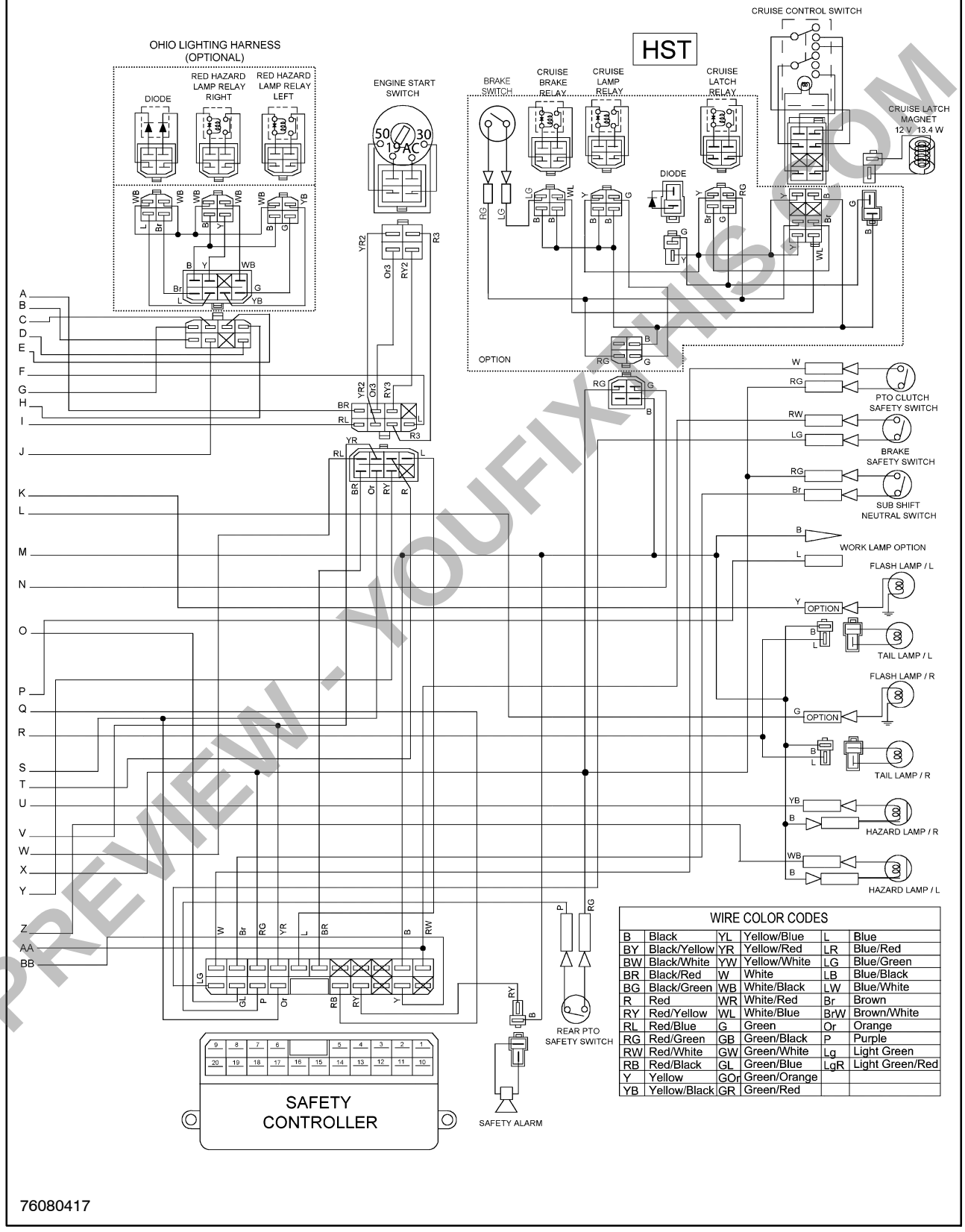
Before attempting any repair or test, observe the general condition of the tractor and mower. Make certain the tractor is operating properly and the mower is setup correctly. The following charts may give you some hints in solving a problem with the mower. If the problem cannot be easily solved, contact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

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LUBRICATION FITTINGS

NOTE: *After every 50 hours of normal operation, apply a good quality grease to the lubrication points listed below (refer to the Recommended Lubricants chart). When operating under extremely dirty conditions, lubricate more frequently than every 50 hours.*

- Steering Linkage
- Front Axle Pivot
- Power Steering Cylinder
- Pedal Shaft—Clutch & Brake Pedals
- 3-Point Linkage

To lubricate these points:

1. Wipe away all old grease and dirt from the lubrication fittings to prevent dirt or foreign material from entering as new grease is applied.
2. Use a high pressure grease gun to force in the new grease. Apply pressure until clean grease oozes from each lubrication point.
3. Wipe away any excess grease.

DIESEL FUEL

- Use clean, quality No. 1-D or No. 2-D fuel (ASTM D975).
- Use No. 1-D fuel if the ambient temperature is expected to be lower than 4°C (40°F) or if the tractor is to be used at an altitude exceeding 1524 m (5000 ft).
- Use No. 1-D diesel fuel with a pour point of at least -12°C (10°F) below the expected ambient temperature to prevent fuel flow problems in cold weather.
- Keep dirt from entering the fuel tank.
- Sulfur content of the fuel should be no more than 0.5%.
- Sediment and water content should not exceed 0.05%.
- Minimum cetane number is 40. Low temperature or high altitude operation may require use of fuel with a higher cetane number.
- Use properly mixed winter fuel when temperatures are extremely cold. In most areas, diesel fuel is properly blended for summer and winter grades as ambient temperatures change. In winter, use winter grade diesel fuel only. Otherwise, the fuel may jell and block the fuel system.

Fuel Usage Safety

- UNDER NO CIRCUMSTANCES should gasoline, alcohol, or gasohol be added to diesel fuel. These combinations can create an increased fire or explosive hazard.
- Never remove the fuel cap or refuel the tractor while the engine is running.
- Never smoke while refueling or anywhere near fuel.
- When filling the tank, maintain control of the nozzle.
- Do not fill the fuel tank to capacity. Allow room for expansion.
- Wipe up spills immediately.
- Always tighten the fuel cap securely.
- If the original fuel tank cap is lost, always replace it with a New Holland approved cap. A “will-fit” cap may not be safe.
- Keep equipment properly maintained.
- Do not drive equipment near open fires.
- Never use gasoline for cleaning parts.

Biodiesel Fuel

The use of biodiesel blends meeting Specification Standards ASTM 6751 or EN14214 are approved for your engine up to B5 (5% blend ratio). It is highly recommended to use biodiesel fuel from accredited suppliers to maintain quality and consistency of the fuel.

Biodiesel does not have a long term stability and should not be left in engines or stored for more than four months. If your machine is stored for long term, engine should be flushed, prior to storage, by running for a minimum of 30 minutes with conventional diesel fuel.

Biodiesel fuel has a higher cloud point than conventional diesel fuels and is not recommended in winter months. Consult your fuel dealer for winter fuel requirements for your area.

Biodiesel fuel attracts moisture and may contain a higher content of water. It may be necessary to drain the fuel filter water trap more frequently.

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