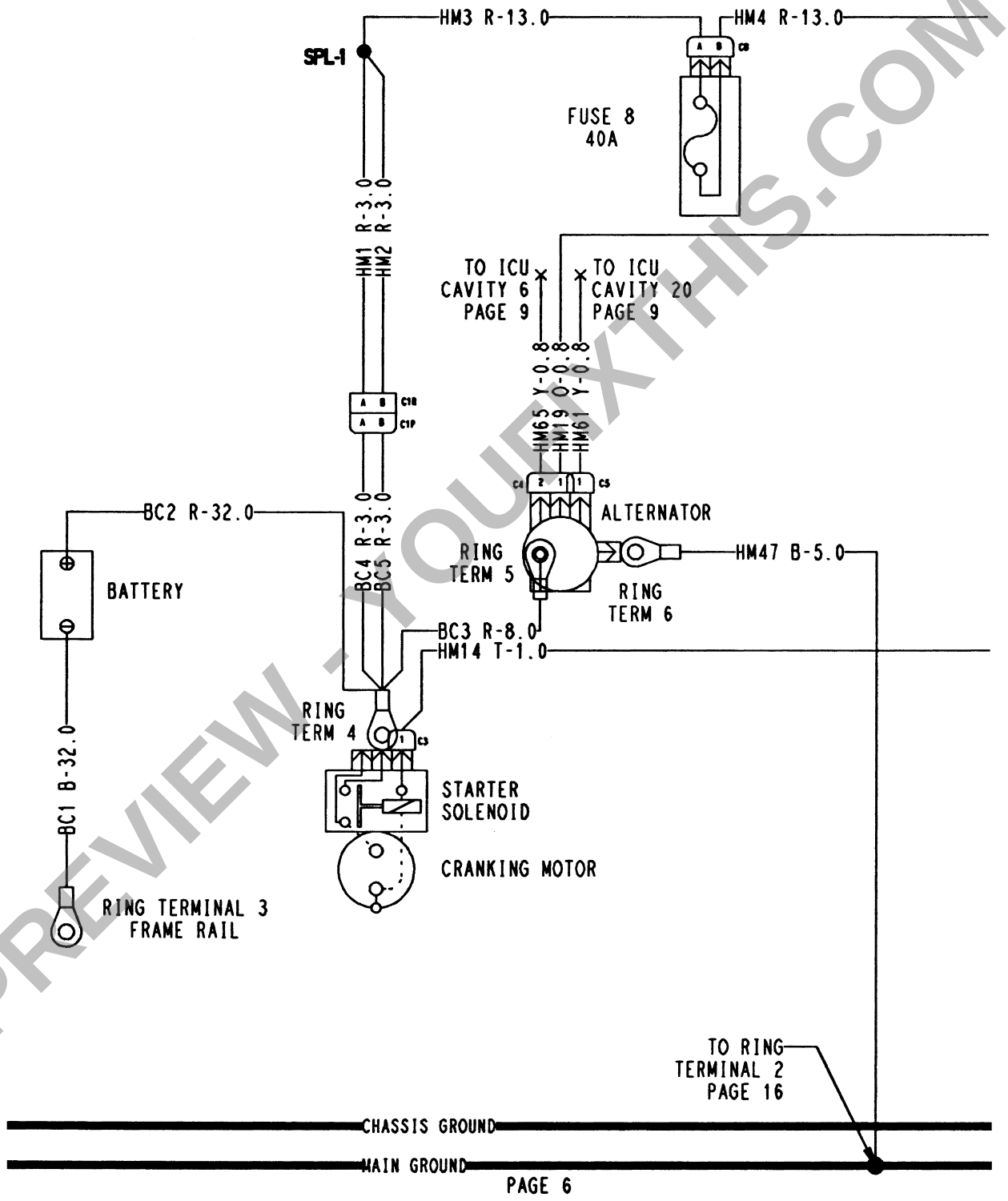
CHARGING SYSTEM



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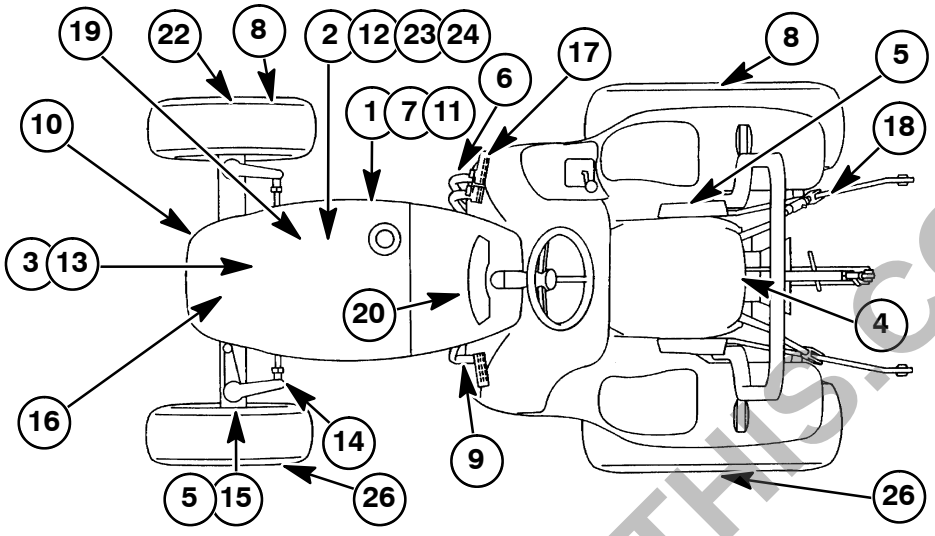
SECTION 4
SPECIFICATIONS

	Model TC35A	Model TC40A	Model TC45A
ENGINE			
Type/Model	Diesel/N843L	Diesel/N844	Diesel/N844L
Engine Gross Horsepower	26.1 kw (35.0)	29.8 kw (40.0)	33.6 kw (45)
Cylinders	3	4	4
Bore	84 mm (3.31″)	84 mm (3.31″)	84 mm (3.31″)
Stroke	100 mm (3.94″)	90 mm (3.54″)	100 mm (3.94″)
Displacement	1.65 L (101.1 cu. in.)	2.0 L (121.7 cu. in.)	2.2 L (135.2 cu. in.)
Compression Ratio	22.5:1	22.5:1	22.5:1
Firing Order	1-2-3	1-3-4-2	1-3-4-2
Low Idle Speed	1025 ±50 RPM	1025 ±50 RPM	1025 ±50 RPM
Maximum Speed:			
High Idle	2855 RPM	2855 RPM	2855 RPM
Rated	2600 RPM	2600 RPM	2600 RPM
CAPACITIES			
Fuel Tank	54.5 liters/ 13 U.S. gals.	54.5 liters/ 13 U.S. gals.	54.5 liters/ 13 U.S. gals.
Cooling System	7.4 liters/ 7.8 U.S. qts.	7.9 liters/ 8.3 U.S. qts.	8.0 liters/ 8.4 U.S. qts.
Engine Crankcase:			
With Filter	5.8 liters/ 6.1 U.S. qts.	6.0 liters/ 6.3 U.S. qts.	6.0 liters/ 6.3 U.S. qts.
Rear Axle & Transmission (Includes Hydraulics)	36 liters/ 9.2 U.S. gals.	36 liters/ 9.2 U.S. gals.	36 liters/ 9.2 U.S. gals.
Power Steering	1.4 liters/ 1.5 U.S. qts.	1.4 liters/ 1.5 U.S. qts.	1.4 liters/ 1.5 U.S. qts.
Front Axle Final Reduction /Differential Gear Case	5.3 liters/ 5.6 U.S. qts.	5.3 liters/ 5.6 U.S. qts.	5.3 liters/ 5.6 U.S. qts.

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LUBRICATION AND MAINTENANCE CHART
NEW HOLLAND TC35A, TC40A, TC45A — TWO-WHEEL DRIVE



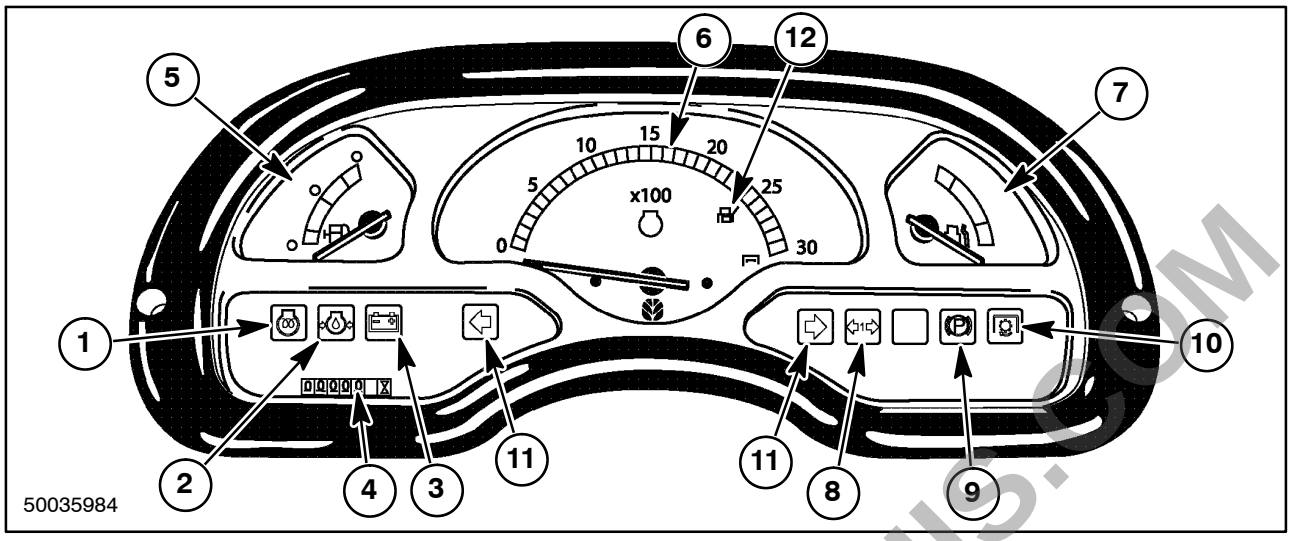
1

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
1, 7	Engine Oil & Filter				X		
8	Tire Pressure	X					
11	Fuel Filter				X		
26	Wheel Bolt Torque	X					
—	All Fluid Levels	X					
8	Tires	X					Every 50 Hours
9	Clutch Pedal	X		X		X	
10	Battery	X					
12	Power Steering Oil Level	X					
13	Fan Belt	X					
	Lubrication Fittings:						
14	Steering Linkage			X			
15	Front Wheel Spindles (2)			X			
16	Pivot Shaft			X			
17	Brake Pedal			X			
18	3-Point Linkage			X			
19	Power Steering Cylinder			X			
20	Pedal Shaft			X			

NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTERVALS
1, 7	Engine Oil & Filter				X		Every 100 Hours
2	Air Cleaner Element		X				
11	Fuel Filter		X				
6	Brake Pedal Free Play					X	Every 200 Hours
11	Fuel Filter Element				X		
13	Fan Belt					X	
26	Wheel Bolt Torque	X					
4	Transmission Oil				X		Every 300 Hours
5	Hydraulic Filter				X		
11	Power Steering Oil & Filter				X		Every 600 Hours *Refer to Repair Manual
22	Front Wheel Bearings			X			
23*	Fuel Injectors	X					
24*	Valve Clearance	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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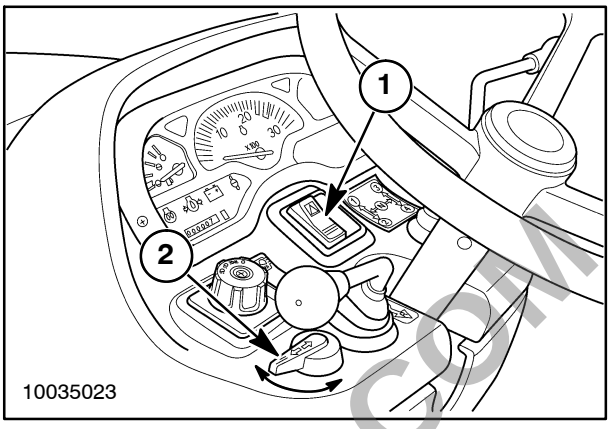
6

INSTRUMENT PANEL

1. **Cold Starting Indicator Light** – Illuminates when the key switch is turned to the "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.
2. **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.
3. **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.
4. **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.
5. **Fuel Gauge** – Indicates the amount of diesel fuel remaining in the tank. The gauge is activated when the key switch is in the "ACC/RUN" position. It will resister "empty" with the key switch in the "STOP" position.
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. **Temperature Gauge** – Indicates coolant temperature. It is activated when the key switch is turned to the "ACC/RUN" position. 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, indicating an overheated condition, stop the tractor engine IMMEDIATELY and investigate the cause.
8. **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.
9. **Parking Brake Light** – Illuminates if the parking brake is engaged when the key switch is turned from the "OFF" position.
10. **PTO "On" Indicator** – When either of the PTO positions is engaged, and the key switch is in the "ACC/RUN" or "START" position, this indicator will be illuminated amber.
11. **Flasher Turn Lights** – Operate when the turn signal switch is moved forward for right turns (the RH arrow will flash) or rearward for left turns (the LH arrow will flash.) The key switch must be in the "ACC/RUN" or "START" position for the turn signals to operate.
12. **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.

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Flasher Warning (Hazard) Lights
The flasher warning lights are activated by pressing the rocker switch, 1, with the key switch in ANY position. For your protection, use the flasher warning lights and the SMV (Slow Moving Vehicle) placard (8, Figure 10), when traveling on public roads, day or night.



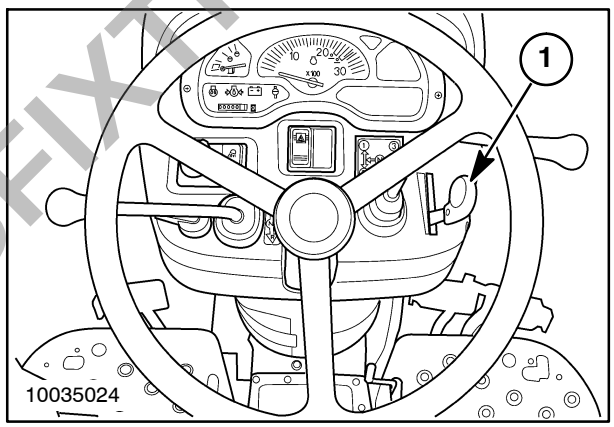
13

Flasher Turn Lights (Turn Signals)
The turn signal lights are activated by moving the selector switch, 2, forward for right turns or rearward for left turns. The key switch must be in the “ACC/RUN” position for the turn signals to operate.

NOTE: *If the turn signals are activated while the Flasher Warning (Hazard) lights are operating, the light opposite the turn direction will stop blinking until the turn signal is turned off.*

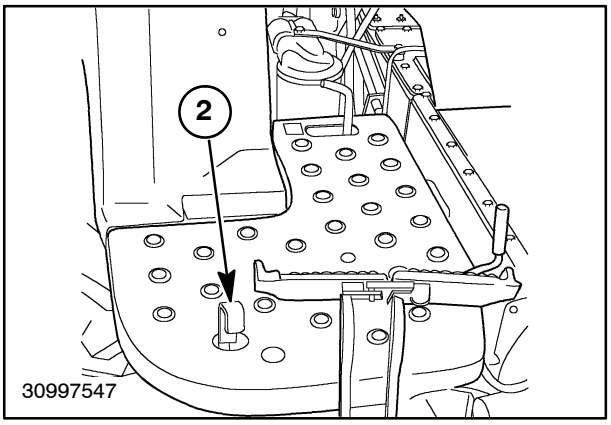
THROTTLE CONTROLS

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



14

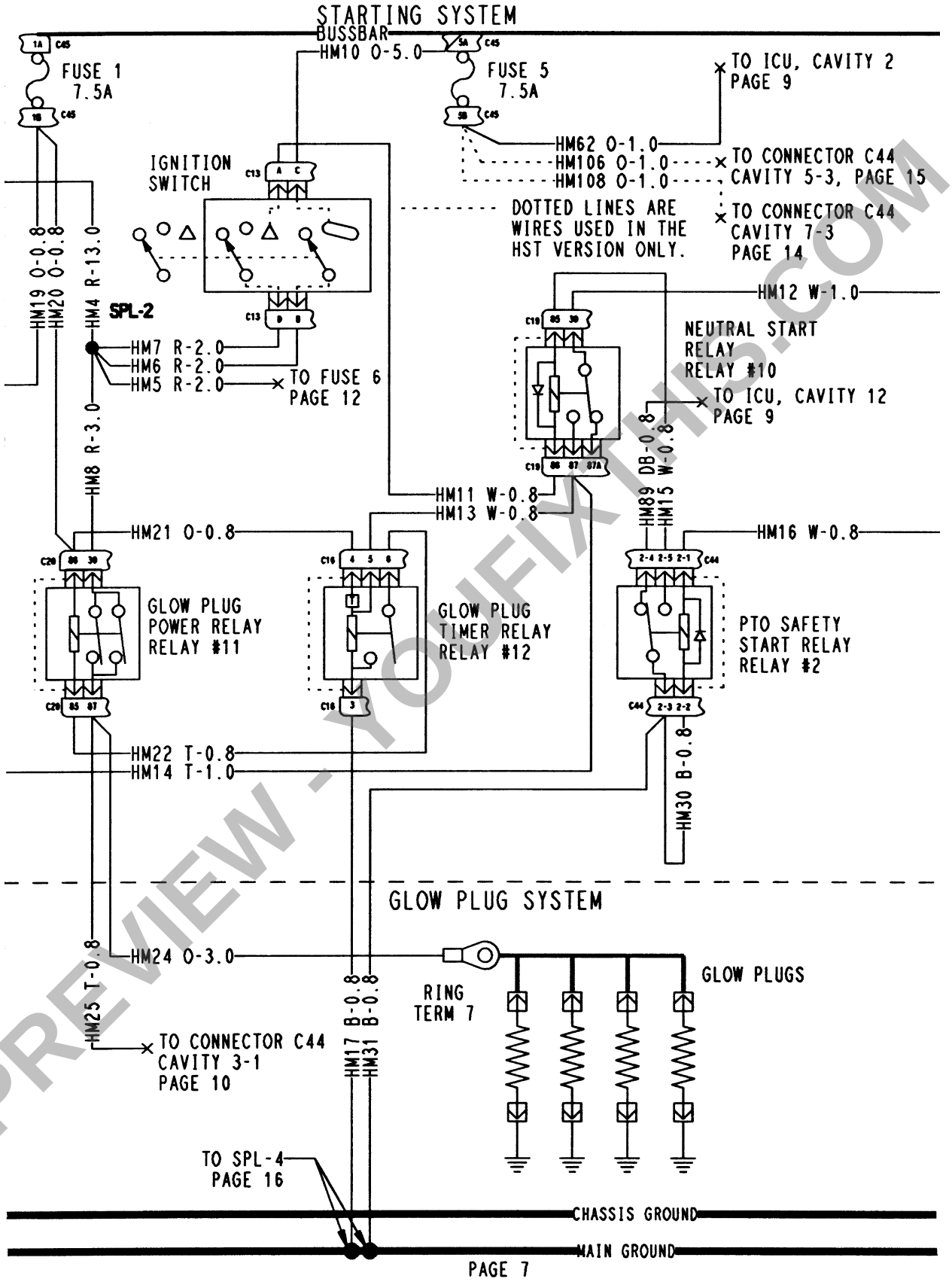
The foot throttle, 2, (gear models only) is located on the RH foot platform. Depress the pedal to increase engine RPM. Release the pedal to decrease engine RPM. Because the pedal is spring loaded, it will return to idle when no pressure is applied.



15

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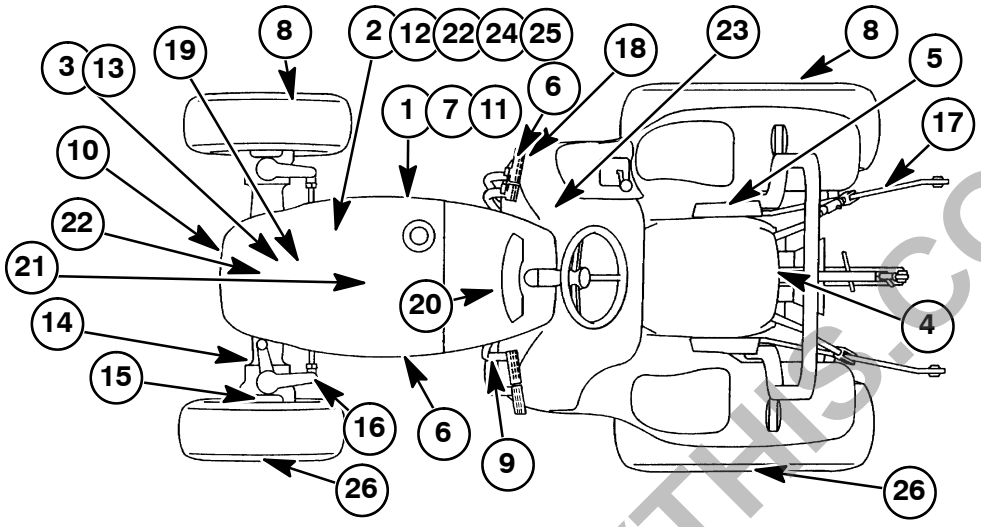
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	Model TC35A	Model TC40A	Model TC45A
COOLING SYSTEM			
Type	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass
Water Pump:			
Type	Centrifugal	Centrifugal	Centrifugal
Drive	V-Belt	V-Belt	V-Belt
Belt Deflection	10 mm-15 mm (7/16″-9/16″) when 9-11 kg (20-25 lbs.) thumb pressure is applied midway between belt pulleys	10 mm-15 mm (7/16″-9/16″) when 9-11 kg (20-25 lbs.) thumb pressure is applied midway between belt pulleys	10 mm-15 mm (7/16″-9/16″) when 9-11 kg (20-25 lbs.) thumb pressure is applied midway between belt pulleys
Fan Diameter	410 mm (16.1″)	410 mm (16.1″)	410 mm (16.1″)
Number of Fan Blades	6	6	6
Thermostat:			
Start to Open	71°C (160°F)	71°C (160°F)	71°C (160°F)
Fully Open	85°C (185°F)	85°C (185°F)	85°C (185°F)
Radiator Cap	0.9 bar (13 PSI)	0.9 bar (13 PSI)	0.9 bar (13 PSI)
ELECTRICAL SYSTEM			
Main System Protection	40 amp Maxifuse	40 amp Maxifuse	40 amp Maxifuse
Number Fuses for Circuit Protection	7	7	7
Alternator	12-volt, Heavy Duty, 40 amps	12-volt, Heavy Duty, 40 amps	12-volt, Heavy Duty, 40 amps
Battery Type	12-volt, w/ negative ground, 600 cca	12-volt, w/ negative ground, 600 cca	12-volt, w/ negative ground, 600 cca
Starter HP (KW) Rating	2.7 (2.0)	2.7 (2.0)	2.7 (2.0)
Battery Rating Amp Hrs.	64-69	64-69	64-69
Starting Motor	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction
FUEL SYSTEM			
Fuel Type	Diesel	Diesel	Diesel
Type of Fuel to Use if Above 40°F	No. 2-Diesel, Cetane Rating: Minimum 40	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	No. 1-Diesel, Cetane Rating: Minimum 40
Injection Pump:			
Type	In-Line	In-Line	In-Line
Timing	18° BTDC	20° BTDC	18° BTDC

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LUBRICATION AND MAINTENANCE CHART
NEW HOLLAND TC35A, TC40A, TC45A — FRONT-WHEEL DRIVE



2

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
1, 7	Engine Oil & Filter				X		
8	Tire Pressure	X					
11	Fuel Filter				X		
26	Wheel Bolt Torque	X					
—	All Fluid Levels	X					
8	Tires	X					Every 50 Hours
9	Clutch Pedal	X		X		X	
10	Battery	X					
12	Power Steering Oil Level	X					
13	Fan Belt	X					
14	Front Axle Oil Level	X					
15	Final Reduction Gear Cases Oil Level	X					
	Lubrication Fittings:						
16	Steering Linkage			X			
17	3-Point Linkage			X			
18	Brake Pedal			X			
19	Power Steering Cylinder			X			
20	Pedal Shaft			X			
21	Drive Cover Shaft			X			
22	Pivot Shaft			X			

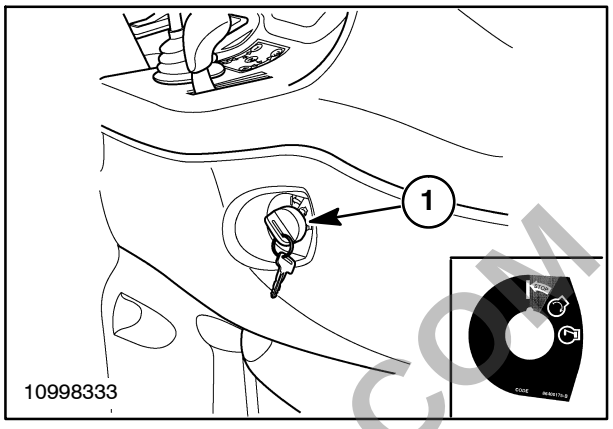
NO.	LUBRICATION & MAINTENANCE ITEMS	CHECK	CLEAN	LUBE	CHANGE	ADJUST	SERVICE INTER-VALS
1, 7	Engine Oil & Filter				X		Every 100 Hours
2	Air Cleaner Element		X				
11	Fuel Filter		X				
6	Brake Pedal Free Play					X	Every 200 Hours
11	Fuel Filter Element				X		
13	Fan Belt					X	
26	Wheel Bolt Torque	X					
4	Transmission Oil				X		Every 300 Hours
5	Hydraulic Filter				X		
14	Front Axle Oil				X		
15	Final Reduction Gear Cases Oil				X		
12	Power Steering Oil				X		Every 600 Hours *Refer to Repair Manual
24*	Fuel Injector	X				X	
25*	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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KEY SWITCH

The key switch, 1, is located on the right-hand side of the console just below the hand throttle. Turning the key right to the “ACC/RUN” position activates the warning lights, instruments, and pre-heat system. The engine starts when the key turned to the extreme right. The key spring returns to the “ACC/RUN” position when released.



7

PRE-HEATING THE SYSTEM

Your tractor has a diesel engine. Before starting a cold engine, the precombustion chambers must be heated.

NOTE: *The tractor will start without being pre-heated.*

To pre-heat the engine, turn the key switch to the “ACC/RUN” position. The cold start indicator light goes out after approximately 10 seconds. The glow plugs heat the precombustion chambers during this time, and the engine will start.

⚠ WARNING ⚠

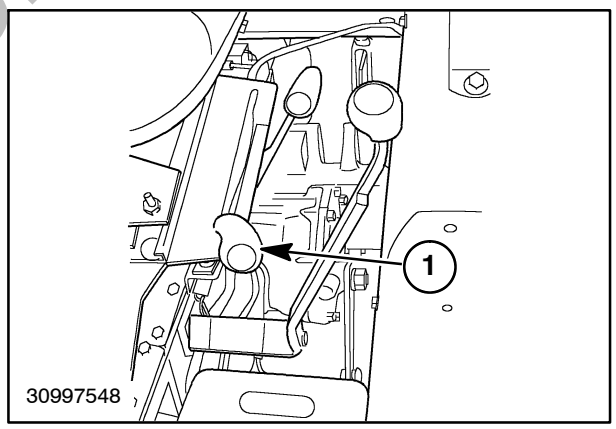
Do not use ether with the glow plug starting aid.

STARTING THE ENGINE

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

1. The PTO modulation lever, 1, is in the “OFF” position.
2. The forward/reverse shuttle lever, 2, is in the “NEUTRAL” position.
3. The operator is sitting in the seat OR the parking brake is engaged.

NOTE: *Without an operator in the seat, or with the parking brake disengaged, the starter motor can be activated, but the engine will not start, because the fuel solenoid is not energized, blocking fuel flow to the injection pump.*



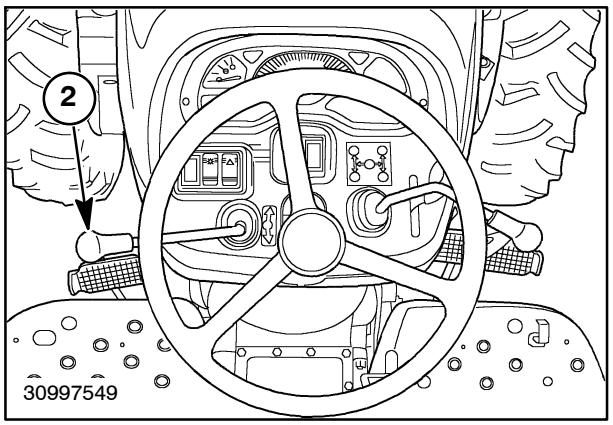
8

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

⚠ WARNING ⚠

Always sit in the operator’s seat when starting the tractor. Never attempt to start the engine while standing beside the tractor.

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



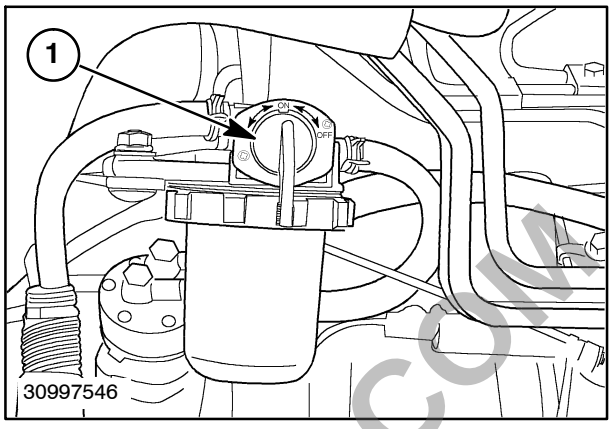
9

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FUEL SHUTOFF VALVE

The fuel shutoff valve, 1, is located in the fuel line, on top of the fuel filter. The fuel filter is accessed from the RH side of the tractor.

To open the fuel shutoff valve, rotate the handle until it points straight up and down. To close the valve, rotate the handle clockwise to the horizontal position. Always close the fuel shutoff valve when servicing any part of the fuel system.



16

BRAKE CONTROLS

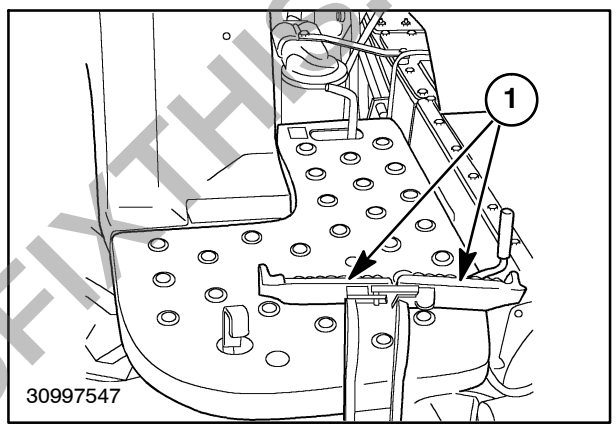
Brake Pedals

The right brake pedal controls the braking action of the right rear wheel. The left brake pedal controls the left rear wheel brake.

Depress both pedals, 1, simultaneously to stop the tractor. To assist in making sharp turns at slow speed, depress the right or left brake pedal as required.

⚠ WARNING ⚠

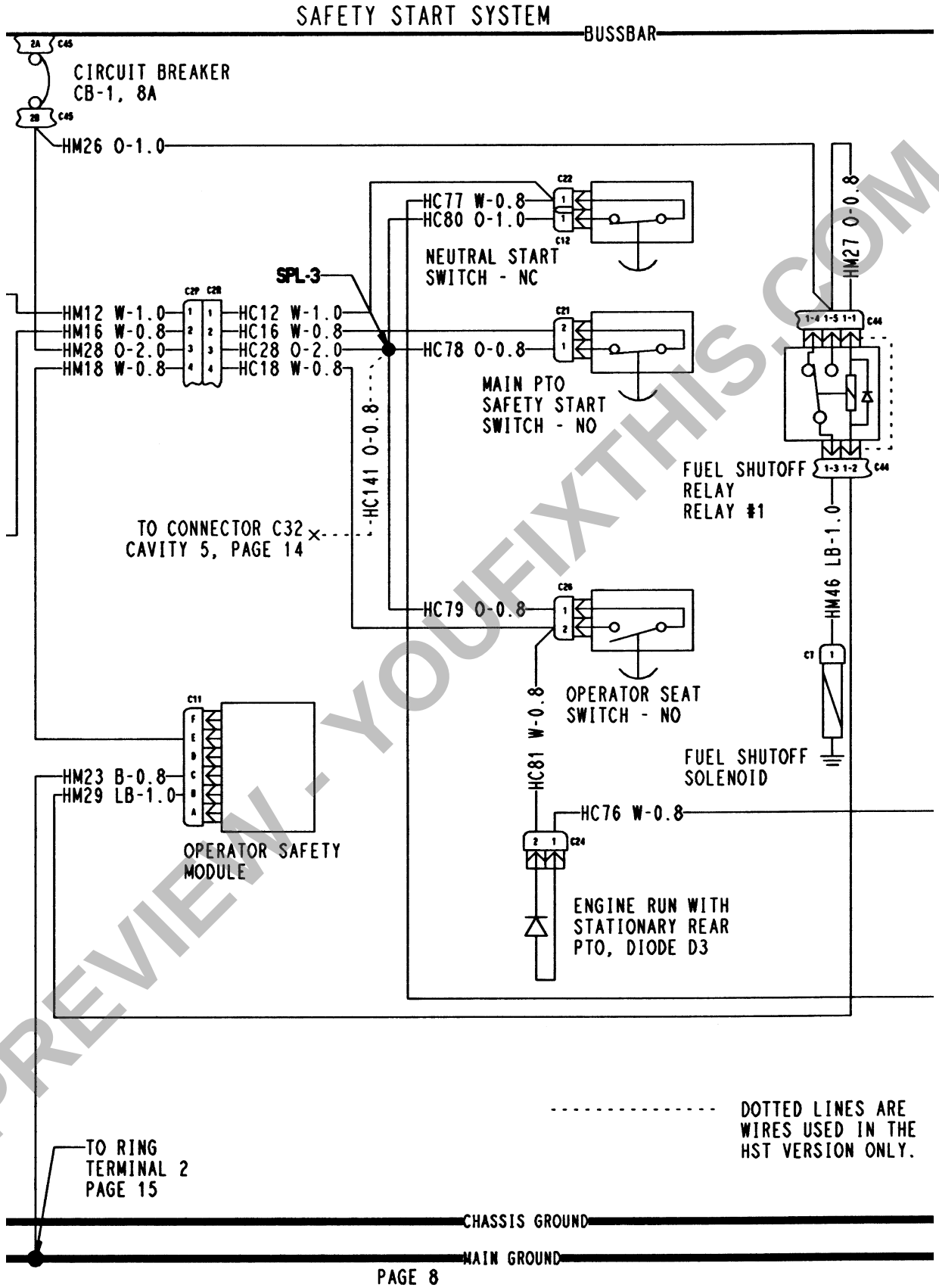
When operating the tractor at high speeds, never attempt to make sharp turns by using the brakes.



17

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	Model TC35A	Model TC40A	Model TC45A
CLUTCH			
Type	240 mm (9.45″) Dry Disc, Organic Face	240 mm (9.45″) Dry Disc, Organic Face	260 mm (10.24″) Dry Disc, Organic Face
Pedal Free-Travel	19 mm-30 mm (3/4″-1-3/16″)	19 mm-30 mm (3/4″-1-3/16″)	19 mm-30 mm (3/4″-1-3/16″)
BRAKES			
Type	Wet Disc	Wet Disc	Wet Disc
Disc (3 per side)	Out x In 175 mm x 143 mm Dia. (6.9″ x 5.6″)	Out x In 175 mm x 143 mm Dia. (6.9″ x 5.6″)	Out x In 175 mm x 143 mm Dia. (6.9″ x 5.6″)
STEERING			
Type	Power	Power	Power
Pump Flow @ Rated RPM	19.4Lpm (5.13 gpm)	19.4Lpm (5.13 gpm)	19.4Lpm (5.13 gpm)
Pump Pressure Bar (PSI)	97.9 (1419)	97.9 (1419)	97.9 (1419)
Turns Lock-to-Lock:			
2WD	3.1/3.8	3.1/3.8	3.1/3.8
FWD	3.1/3.8	3.1/3.8	3.1/3.8
Front Wheel Toe-In	0 mm-5 mm (0″-13/64″)	0 mm-5 mm (0″-13/64″)	0 mm-5 mm (0″-13/64″)
Turning Radius w/o Brakes:			
2WD	2819 mm (111″)	2819 mm (111″)	2819 mm (111″)
FWD	3099 mm (122″)	3099 mm (122″)	3099 mm (122″)
Max. Turn Angle:			
2WD	59°	59°	59°
4WD	54°	54°	54°
Front to rear axle ratio	1.660 to 1	1.660 to 1	1.660 to 1
POWER TAKE-OFF			
Type	Independent	Independent	Independent
Type Actuation	Manual lever to hydraulic valve	Manual lever to hydraulic valve	Manual lever to hydraulic valve
Shaft:			
Rear PTO	35 mm (1-3/8″)	35 mm (1-3/8″)	35 mm (1-3/8″)
Engine Speed for 540 RPM Rear PTO Operation	2400 RPM	2400 RPM	2400 RPM
Horsepower PTO Observed	22.0 kw (29.6 HP)	26.1 kw (35.0 HP)	29.5 kw (39.6 HP)
HYDRAULIC LIFT SYSTEM			
Type	Open Center	Open Center	Open Center
Pump Type	Gear	Gear	Gear
Pump Capacity	9.8. lpm (37.1 U.S. gpm)	9.8 lpm (37.1 U.S. gpm)	9.8 lpm (37.1 U.S. gpm)
System Relief Valve Setting	160 bar (2275 PSI)	170 bar (2500 PSI)	170 bar (2500 PSI)
Number of Rear Remotes	2 (optional)	2 (optional)	2 (optional)
Number of Front Remotes	2 (optional)	2 (optional)	2 (optional)

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