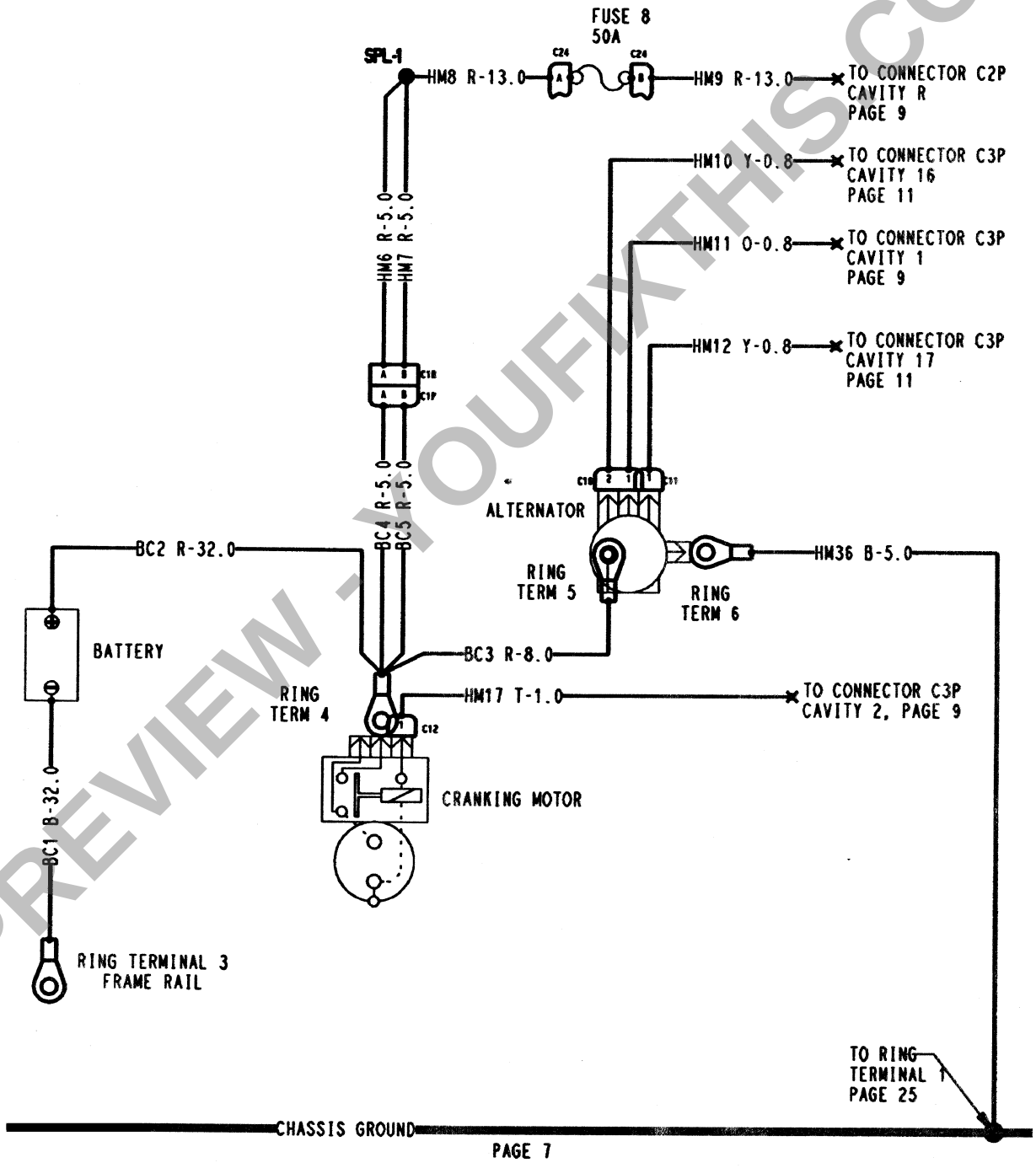
CHARGING SYSTEM



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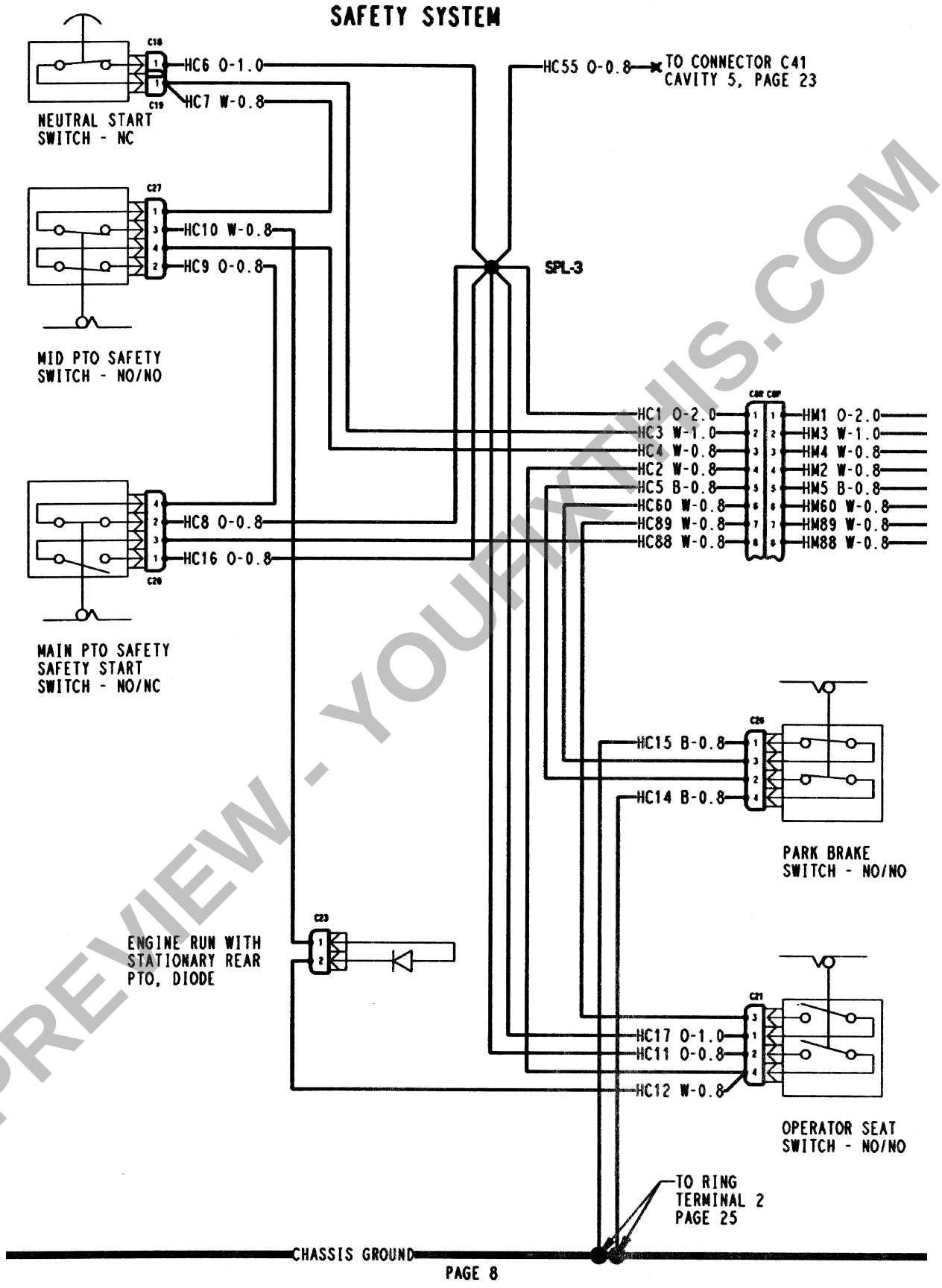
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SECTION 4
SPECIFICATIONS

	Model Boomer 3040 Hydrostatic	Model Boomer 3045 Hydrostatic
ENGINE		
Type/Model	Diesel/N844	Diesel/N844L
Engine Gross Horsepower	29.8 kw (40.0)	33.6 kw (45)
Cylinders	4	4
Bore	84 mm (3.31 in)	84 mm (3.31 in)
Stroke	90 mm (3.54 in)	100 mm (3.94 in)
Displacement	2.0 L (121.7 cu-in)	2.2 L (135.2 cu-in)
Compression Ratio	22.5:1	22.5:1
Firing Order	1-3-4-2	1-3-4-2
Low Idle Speed	1025 RPM	1025 RPM
Maximum Speed:		
High Idle	2855 RPM	2855 RPM
Rated	2600 RPM	2600 RPM
CAPACITIES		
Fuel Tank	49.2 liters/ 13 U.S. gals	49.2 liters/ 13 U.S. gals
Cooling System	7.9 liters/ 8.3 U.S. qts	8.0 liters/ 8.4 U.S. qts
Engine Crankcase:		
With Filter	6.0 liters/ 6.3 U.S. qts	6.0 liters/ 6.3 U.S. qts
Rear Axle & Transmission (Includes Hydraulics)	36 liters/ 9.6 U.S. gals	36 liters/ 9.6 U.S. gals
Front Axle Differential/ Final Reduction Gear Case	5.3 liters/ 5.6 U.S. qts	5.3 liters/ 5.6 U.S. qts
AIR CONDITIONING SYSTEM		
Compressor make/model	SANDEN/SD5H11	SANDEN/SD5H11
Bore	35 mm	35 mm
Stroke	22.6 mm	22.6 mm
Number of Cylinders	5	5
Refrigerant	R-134a	R-134a
Capacity	1.1 kg (2.4 lbs)	1.1 kg (2.4 lbs)
Oil	SP-20 (or equivalent)	SP-20 (or equivalent)
Capacity	135 ml (4.56 fl-oz)	135 ml (4.56 fl-oz)
Rotation	Clockwise	Clockwise
Blower Motor	3 Speed-Electric Switch	3 Speed-Electric Switch
Number of Interior Vents	8	8

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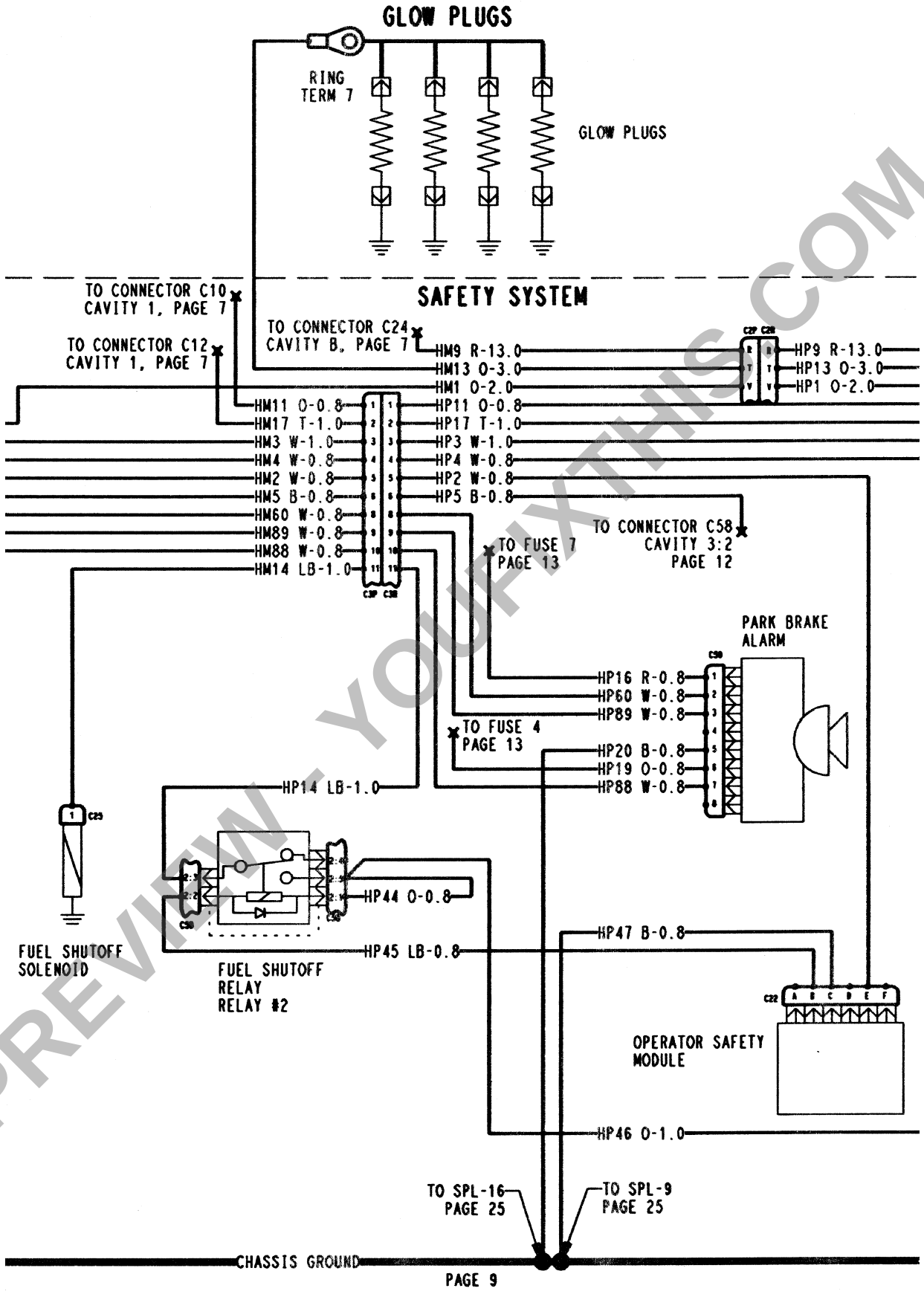
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	Model Boomer 3040 Hydrostatic	Model Boomer 3045 Hydrostatic
COOLING SYSTEM		
Type	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass
Water Pump:		
Type	Centrifugal	Centrifugal
Drive	V-Belt	V-Belt
Belt Deflection	10 - 15 mm (7/16 - 9/16 in) when 9 - 11 kg (20 - 25 lb) pressure is applied midway between belt pulleys	10 - 15 mm (7/16 - 9/16 in) when 9 - 11 kg (20 - 25 lb) pressure is applied midway between belt pulleys
Fan Diameter	410 mm (16.1 in)	410 mm (16.1 in)
Number of Fan Blades	6	6
Thermostat:		
Start to Open	71°C (160°F)	71°C (160°F)
Fully Open	85°C (185°F)	85°C (185°F)
Radiator Cap	0.9 bar (13 PSI)	0.9 bar (13 PSI)
Antifreeze	Ethylene Glycol	Ethylene Glycol
ELECTRICAL SYSTEM		
Main System Protection	50 amp Maxifuse	50 amp Maxifuse
Number Fuses for Circuit Protection	14	14
Alternator	12-volt, Heavy Duty, 55 amps	12-volt, Heavy Duty, 55 amps
Battery Type	12-volt, w/ negative ground, 600 cca, BCI Group 47	12-volt, w/ negative ground, 600 cca, BCI Group 47
Starter HP (KW) Rating	2.7 (2.0)	2.7 (2.0)
Battery Rating Amp Hrs.	64 - 69	64 - 69
Starting Motor	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction
FUEL SYSTEM		
Fuel Type	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
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	20° BTDC	18° BTDC

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	Model Boomer 3040 Hydrostatic	Model Boomer 3045 Hydrostatic
BRAKES		
Type	Wet Disc	Wet Disc
3 Disc Diameter	175 mm x 143 mm (6.9 in x 5.6 in)	175 mm x 143 mm (6.9 in x 5.6 in)
STEERING		
Type	Power	Power
Pump Flow @ Rated RPM	19.4Lpm (5.13 gpm)	19.4Lpm (5.13 gpm)
Turns Lock-to-Lock:		
FWD	3.1/3.8	3.1/3.8
SuperSteer™	NA	NA
Front Wheel Toe-In	0 - 5 mm (0 - 13/64 in)	0 - 5 mm (0 - 13/64 in)
Turning Radius w/o Brakes:		
FWD	3238.5 mm (127.5 in)	3238.5 mm (127.5 in)
SuperSteer™	2870.2 (113 in)	2870.2 (113 in)
Max. Turn Angle:		
4WD	54°	54°
4WDSS	75°	75°
Front to rear axle ratio	1.660 to 1	1.660 to 1
POWER TAKE-OFF		
Type	Independent	Independent
Shaft:		
Rear PTO	35 mm (1-3/8 in)	35 mm (1-3/8 in)
Mid PTO	25.4 mm (1 in)	25.4 mm (1 in)
Engine Speed for 540 RPM Rear PTO Operation	2400 RPM	2400 RPM
Horsepower PTO Observed	24.3 kw (32.6 HP)	27.4 kw (36.7 HP)
Engine Speed for 2000 RPM Mid PTO Operation	2420 RPM	2420 RPM
Direction of Rotation (As viewed from rear of tractor)		
Rear PTO	Clockwise	Clockwise
Mid PTO	Counter-clockwise	Counter-clockwise
HYDRAULIC LIFT SYSTEM		
Type	Open Center	Open Center
Pump Type	Gear	Gear
Pump Capacity	37.1 lpm (9.8 U.S. gpm)	37.1 lpm (9.8 U.S. gpm)
System Relief Valve Setting	170 bar (2500 PSI)	170 bar (2500 PSI)
Number of Rear Remotes Available	3 (optional)	3 (optional)
Number of Mid Remotes Available	2 (optional)	2 (optional)

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CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT

(North America Only)

(California Only)

Your Warranty Rights and Obligations

The California Air Resources Board and CNH UK LTD are pleased to explain the emission control system warranty on your engine. In California, new 2004 and later heavy-duty off-road engines from 50 to 750 HP must be designed, built and equipped to meet the State's stringent anti-smog standards. CNH UK LTD must warrant the emission control system on your engine for the periods of time listed below, provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system includes parts such as the fuel injection system and the air induction system.

Where a warrantable condition exists, CNH UK LTD will repair your heavy-duty off-road engine at no cost to you including diagnosis, parts and labor.

Manufacturer's Warranty Coverage:

The 2004 and later heavy-duty off-road engines are warranted from the original date of delivery for five years or 3000 hours of operation, whichever occurs first. If any emission-related part on your engine is defective, the part will be repaired or replaced by CNH UK LTD.

Owner's Warranty Responsibilities:

- As the heavy-duty off-road engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. CNH UK LTD recommends that you retain all receipts covering maintenance on your heavy-duty off-road engine, but CNH UK LTD cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- As the heavy-duty off-road engine owner, you should, however, be aware that CNH UK LTD may deny you warranty coverage if your heavy-duty off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- Your engine is designed to operate on commercially available diesel fuel only. Use of any other fuel may result in your engine no longer operating in compliance with California's emissions requirements.
- You are responsible for initiating the warranty process. The ARB suggests that you present your heavy-duty off-road engine to a CNH dealer as soon as a problem exists. The warranty repairs should be completed by the dealer as expeditiously as possible.
- If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest CNH Office at the address and telephone number listed on the Owner Assistance page of your equipment's operator manual.
- Prior to the expiration of the warranty, you must give notice of any failure of an emission control warranted part. Such notice must be given to CNH UK LTD or an authorized CNH dealer, and you must deliver the engine to the repair location.
- You, the owner, are responsible for incidental costs incurred by yourself or your employees as a result of an unwarrantable failure. Examples of such costs are communication expenses, meals and lodging.
- The owner is responsible for any business costs or losses, any "downtime" expenses and any "cargo" damage which result from the failure of a warranted part. CNH UK LTD is not responsible for other incidental or consequential damages, including, but not limited to fines, theft, vandalism or collisions.

Parts covered:

This emission control system warranty applies to the following emission control parts:

Electronic Control Unit	Intake Manifold
Fuel Injection Pump	Charge Air Cooler
Fuel Injectors	Exhaust Manifold
Turbocharger	Boost Pressure Tubing (connection to Aneroid Device on F.I.P.)

Any replacement part, equivalent in performance and durability, may be used in the performance of any maintenance or repairs and must be provided without charge to the owner. The use of these parts does not reduce the warranty obligations of CNH UK LTD. However, CNH UK LTD recommends the use of new, genuine CNH service parts or CNH approved rebuilt parts and assemblies. CNH UK LTD also recommends that the engine be serviced by a CNH authorized dealer.

CNH UK LTD Responsibilities:

Warranty work will be provided at no charge to the owner at any authorized dealer, using genuine CNH service parts or CNH approved rebuilt parts or assemblies.

The owner will not be charged for diagnostic labor which leads to the determination that a warranted part is defective, if the diagnostic work was performed at a warranty station.

CNH UK LTD is liable for damages to other engine components caused by the failure under warranty of any warranted part.

Warranty Limitations

CNH UK LTD is not responsible for failures resulting from abuse or neglect by owner or operator.

CNH UK LTD warrants to the ultimate purchaser and each subsequent purchaser that the engine is designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board, and that it is free from defects in materials and workmanship which cause the failure of a warranted part.

Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" is warranted for the warranty period.

Any warranted part which is scheduled for replacement as required maintenance is warranted for the period of time prior to the first scheduled replacement point of that part.

CNH UK LTD is not liable to warrant failures caused by the use of add-on or modified parts.

CNH UK LTD is concerned to ensure proper maintenance of the engine to maximise emissions performance. Information on care and replacement of engine air cleaner, and all other aspects of engine maintenance is provided in a manual supplied to the owner. A maintenance schedule chart is provided in the manual.

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PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements ("**DANGER**", "**WARNING**", and "**CAUTION**") followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.

⚠ DANGER ⚠

This word "DANGER" indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.

⚠ WARNING ⚠

This word "WARNING" indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.

⚠ CAUTION ⚠

This word "CAUTION" indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

FAILURE TO FOLLOW THE "DANGER", "WARNING", AND "CAUTION" INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS BODILY INJURY.

MACHINE SAFETY

The precautionary statement ("**IMPORTANT**") is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: *The word "IMPORTANT" is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.*

INFORMATION

NOTE: *Instructions used to identify and present supplementary information.*

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FEDERAL EMISSIONS WARRANTY

(North America Only)

(California owner's emissions warranty is covered elsewhere)

CNH UK Ltd warrants that your new 1996 and later heavy-duty off-road diesel engine was designed, built, and equipped to conform to applicable U.S. Environmental Protection Agency regulations for a period of use of five years or 3,000 hours of operation, whichever occurs first.

The new model year, class of diesel engine, and emission application determination for your engine are identified on the emission control information label affixed to the engine. The warranty period begins on the date the new equipment is sold to the first retail purchaser.

Any emission control system parts which are proven defective during normal use will be repaired or replaced during the warranty period. The warranty repairs and service will be performed by any authorized CNH dealer at the dealer's place of business, with no charge for parts or labor (including diagnosis).

As the engine owner, you are responsible to perform all the required maintenance listed in your owner's manual. CNH UK Ltd will not deny an emission warranty claim solely because you have no record of maintenance; however, a claim may be denied if your failure to perform maintenance resulted in the failure of a warranted part. Receipts covering regular maintenance should be retained in the event of questions and these receipts should be passed on to each subsequent owner of the engine.

It is recommended replacement parts used for maintenance or repairs be CNH Service Parts to maintain the quality originally designed into your emission certified engine. The use of non-CNH parts does not invalidate the warranty on other components unless the use of such parts causes damage to warranted parts.

CNH UK Ltd wishes to assure the emission control systems warranty is being properly administered. If you believe you have not received the service entitled to under this warranty, you should contact the nearest CNH Office for assistance. The address and phone number of each Office is in your equipment owner's manual. If additional assistance or information is needed, contact:

Service Department
CNH America, LLC
500 Diller Avenue
New Holland, PA 17557
(717) 355-1121

Please note that the Emission Warranty does not cover:

1. Systems and parts that were not first installed on the new equipment or engine as original equipment by CNH UK Ltd.
2. Part malfunctions caused by abuse, misuse, improper adjustment, modification, alteration, tampering, disconnection, improper or inadequate maintenance, or use of non-recommended fuels and lubricating oils.
3. Accident caused damage, acts of nature, or other events beyond CNH UK Ltd's control.
4. Replacement of expendable items made in connection with scheduled maintenance.
5. Parts requiring replacement, inspection or adjustment maintenance intervals for reasons other than being defective.
6. Parts which are not CNH Service Parts.
7. Loss of time, inconvenience, loss of use of equipment/engine or commercial loss.
8. Equipment with altered or disconnected hourmeter where the hours cannot be determined.
9. Equipment normally operated outside the United States.
10. Non-defective parts replaced by other than CNH dealers.

Coverage

This emission control system warranty applies only to the following emission control parts.

Electronic Control Unit
Fuel Injection Pump
Fuel Injectors
Turbocharger
Intake Manifold
Exhaust Manifold
Boost Pressure Tubing-connection to Aneroid Device ON F.I.P.

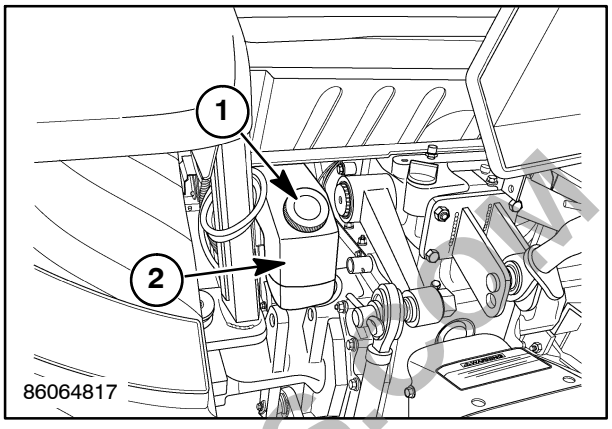
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WINDOW WASHER RESERVOIR

The washer reservoir bottle is located at the rear of the tractor under the cab. Remove the filler cap, 1, and fill bottle, 2, with suitable washer fluid.

IMPORTANT: *In the winter months, use an anti-freeze washer fluid.*

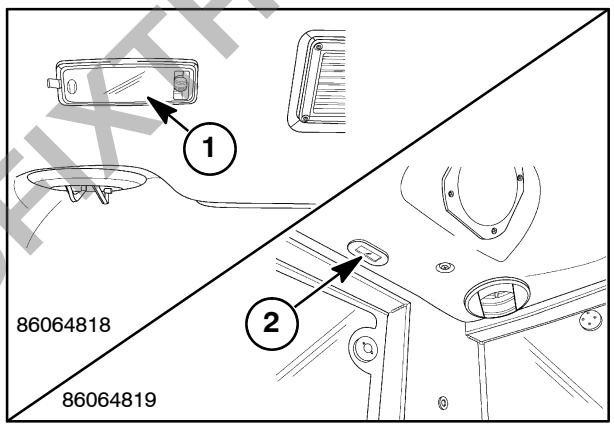


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CAB INTERNAL LIGHTING

The lighting system includes a courtesy light, 1, and an opera light, 2,

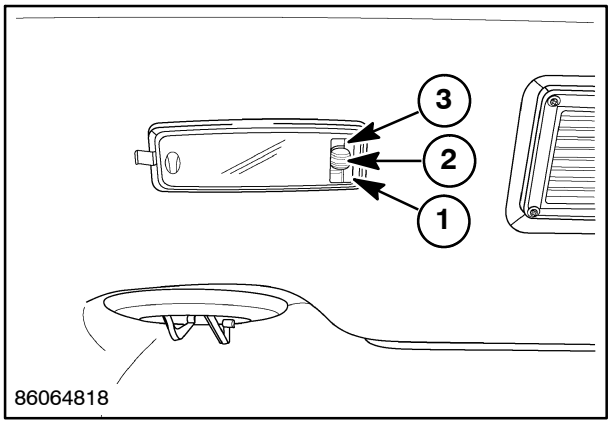
The opera light, 2, illuminates when either the parking or head lights are turned on, and stay on until the lights are turned off.



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The courtesy light is controlled by a three position switch that operates in the following manner:

- Position 1 - courtesy light **ON**.
- Position 2 - **OFF**.
- Position 3 - courtesy light **ON** when either of the cab doors open.



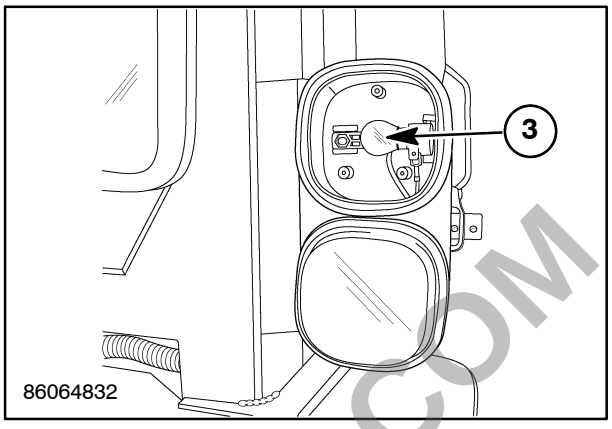
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2. Remove the defective bulb, 3, by turning it counter-clockwise and pulling it out of the socket.
3. Install the new bulb by pushing it into the socket and rotating it clockwise until it locks into place.

NOTE: *Replace the defective bulb with a new #1157 bulb.*



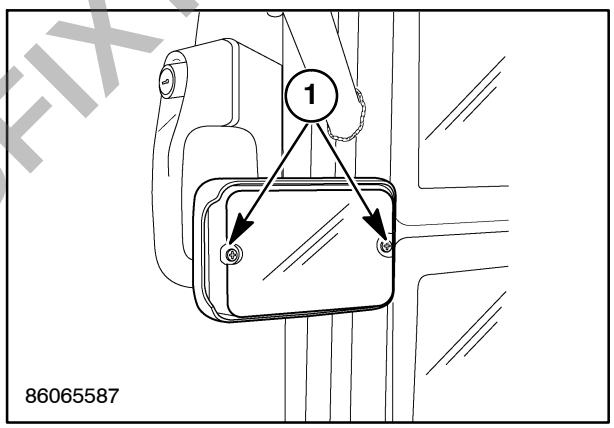
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FRONT FLASHER WARNING LIGHT/TURN SIGNALS

NOTE: *The same procedure is used on both sides.*

To replace a flasher bulb:

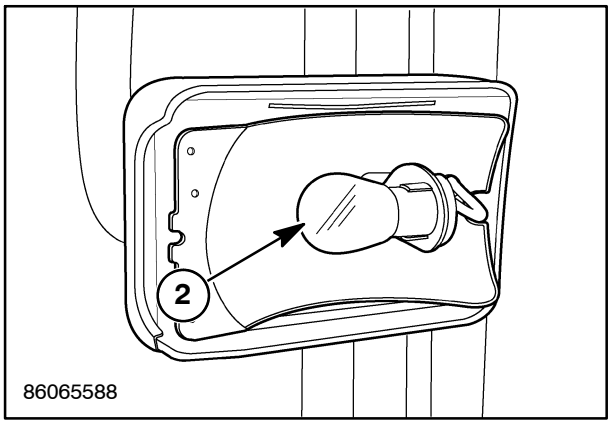
1. Remove the two screws, 1, retaining the turn signal lens and remove the lens.



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2. Remove the defective bulb, 2, by turning it counter-clockwise and pulling it out of the socket.
3. Install the new bulb by pushing it in to the socket and rotating it clockwise until it locks into place.

NOTE: *Replace the defective bulb with a new #7506 bulb.*



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