SERVICE MANUAL

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Boomer™ 41
Boomer™ 47
Tier 4B (final)
Compact Tractor

Part number 47941902
2nd edition English
March 2016
Replaces part number 47700457

NEW HOLLAND AGRICULTURE

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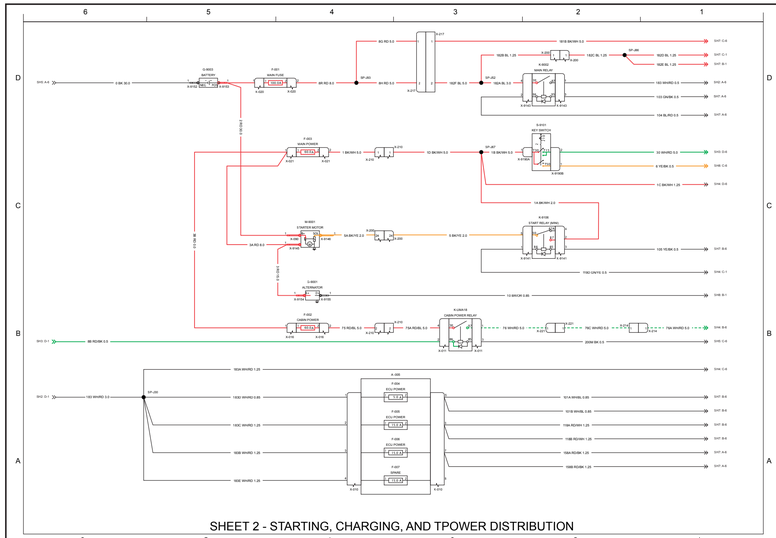
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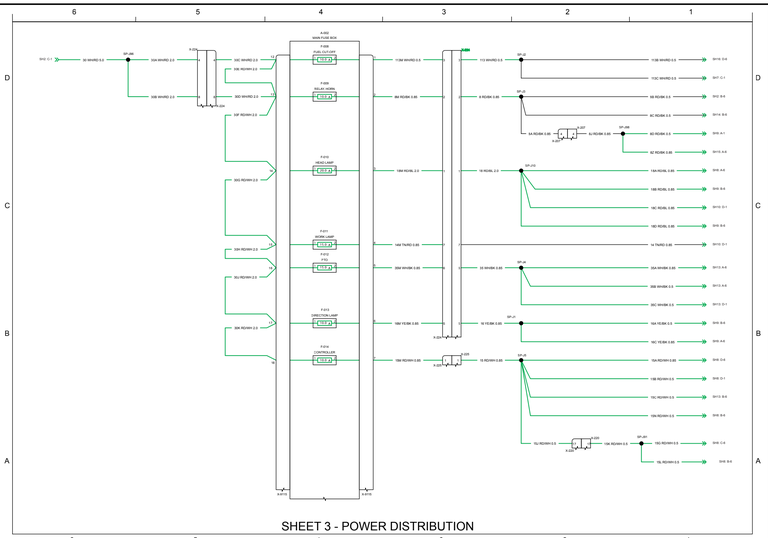
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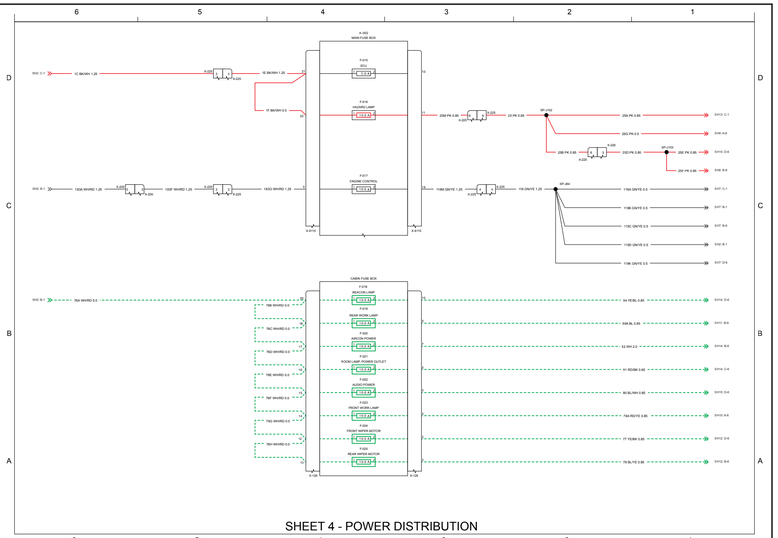
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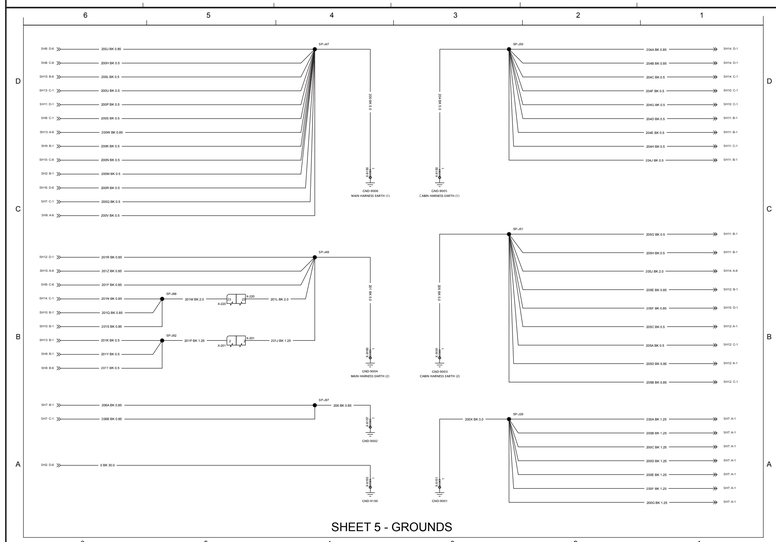
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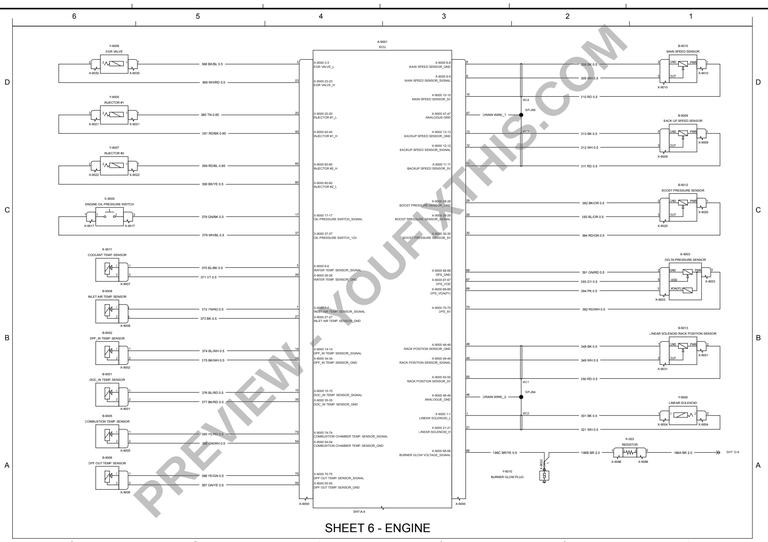
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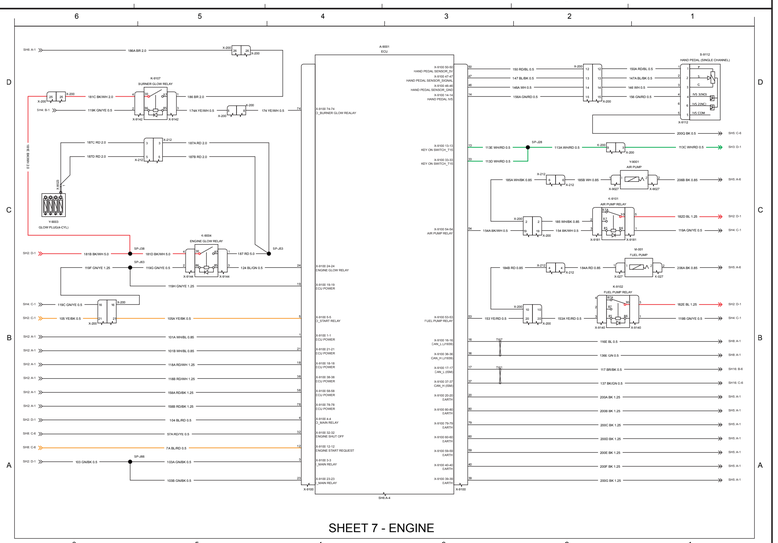
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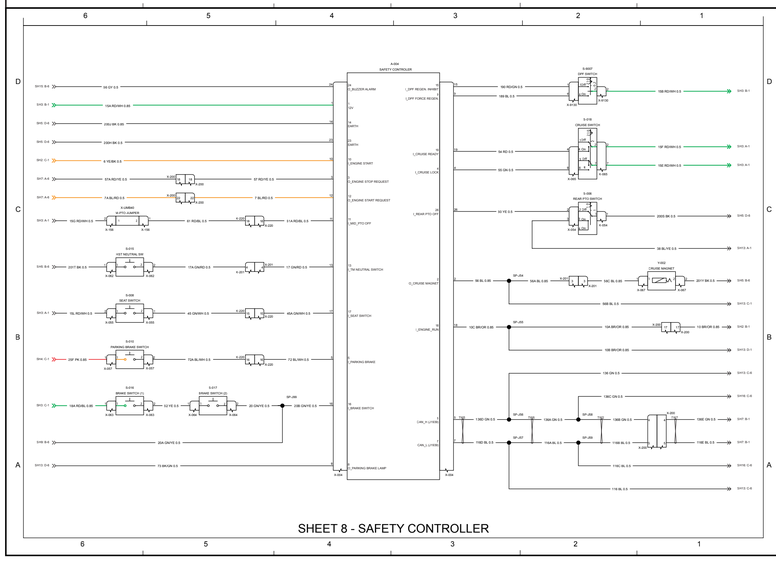
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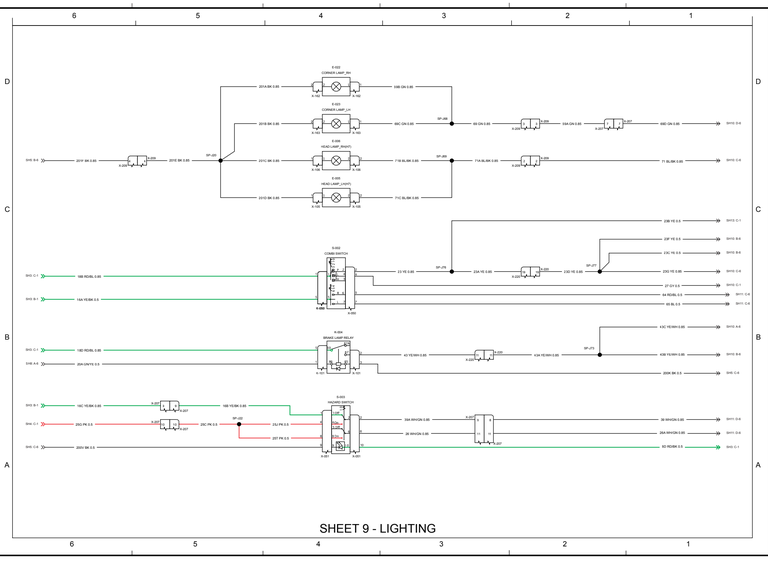
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COMPACT TRACTOR
47950038

ELECTRICAL SCHEMATIC
CAB - HYDROSTATIC TRANSMISSION
1ST EDITION

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12V UNSWITCHED POWER
IGNITION KEY ON
IGNITION KEY ON - AFTER CAB POWER RELAY
CRANKING

SYMBOL LEGEND

ACTUATORS

HAND | FOOT | TEMPERATURE | LIQUID LEVEL FLOAT | LEVER | PRESSURE

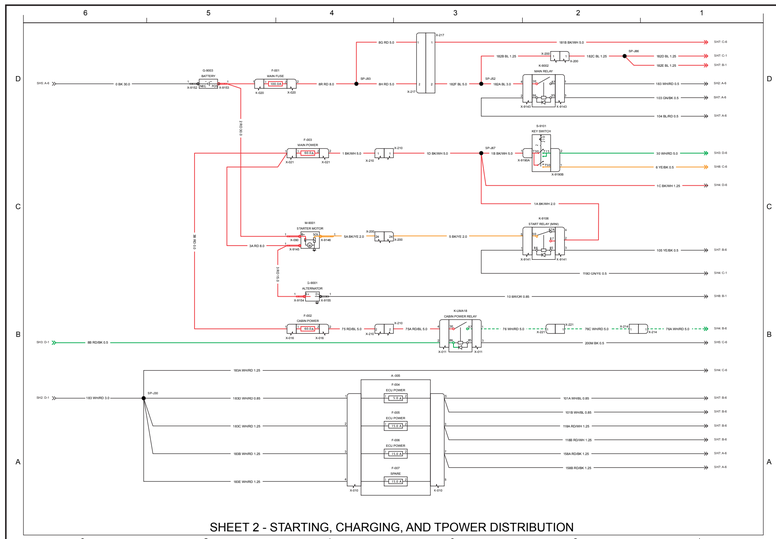
SCHEMATIC SYMBOLS

DIODE | FUSE | LAMP | MOTOR | COIL | RESISTOR | VARIABLE RESISTOR | CHASSIS GROUND (EARTH) | TWISTED WIRES | SHIELD & DRAIN | TO CHASSIS GROUNDS PAGE | SPEED PICKUP | REED POSITION SENSOR | HALL EFFECT SENSOR | CONTACTS: = MAINTAINED, ⏏ MOMENTARY

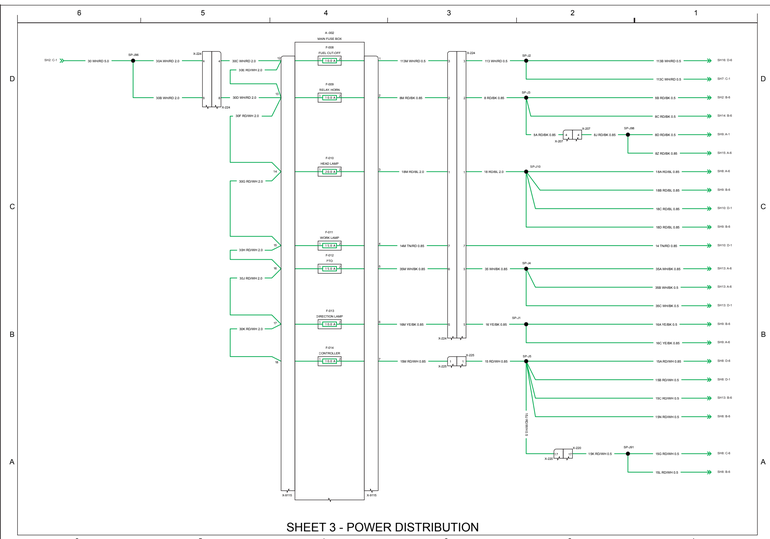
COMPONENT LEGEND

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A	Electronics	K	Relays
B	Sensors	M	Motors
D	Diodes	Q	Circuit Breakers
E	Lights	R	Resistive
F	Fuses	S	Switches
G	Generators	W	Splice Blocks
H	Audio	Y	Solenoids
J	Outlets		

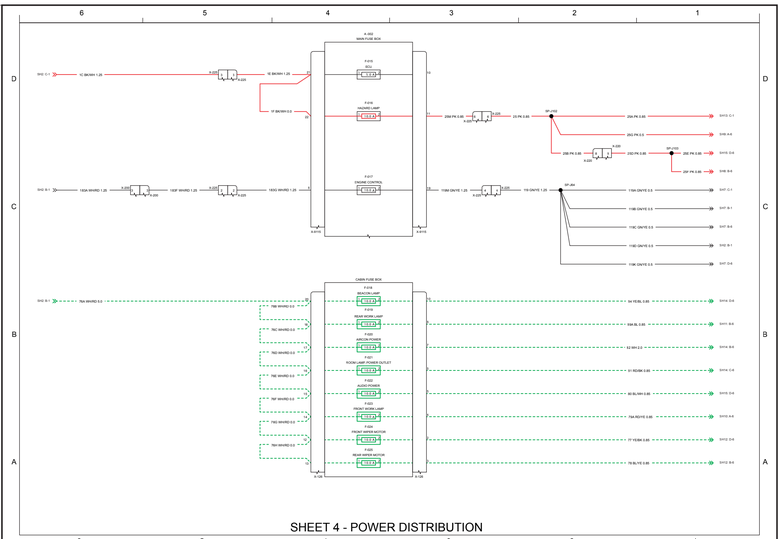
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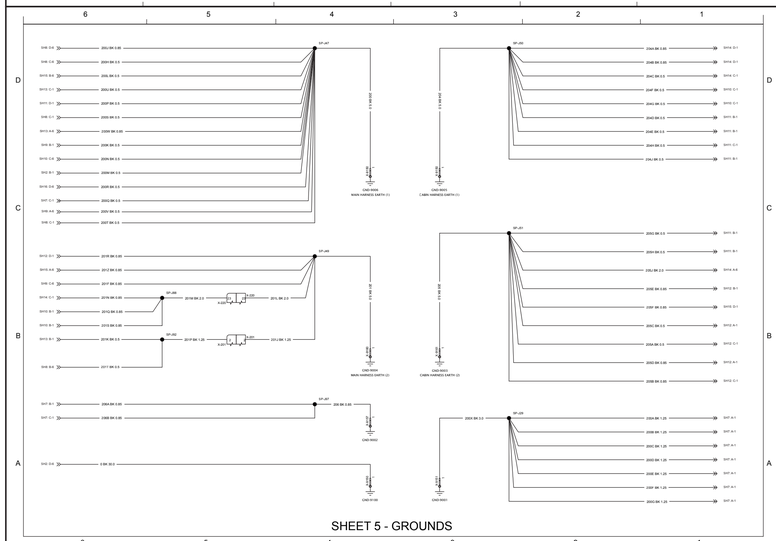
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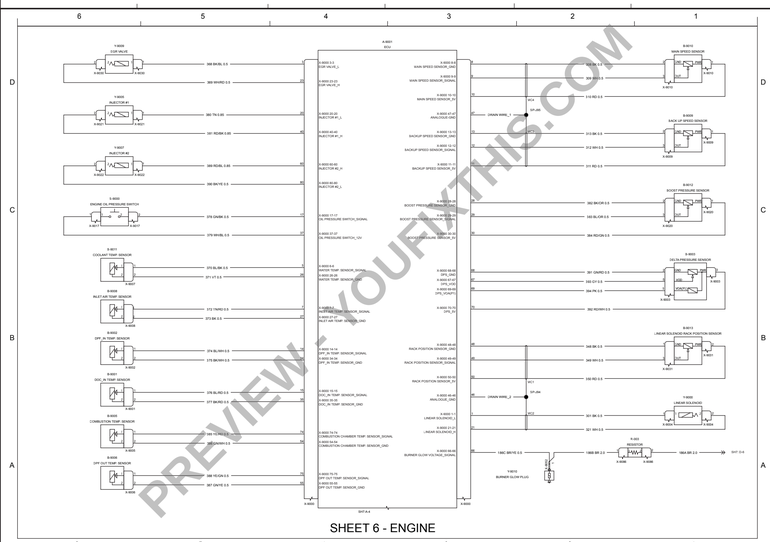
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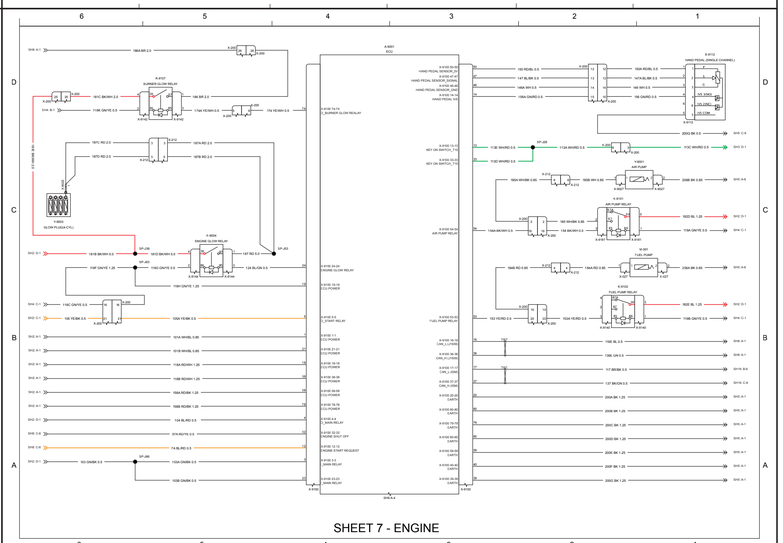
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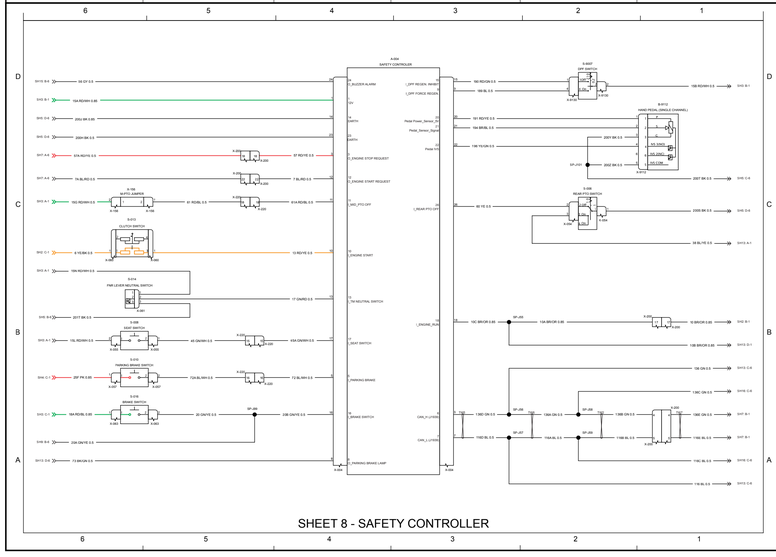
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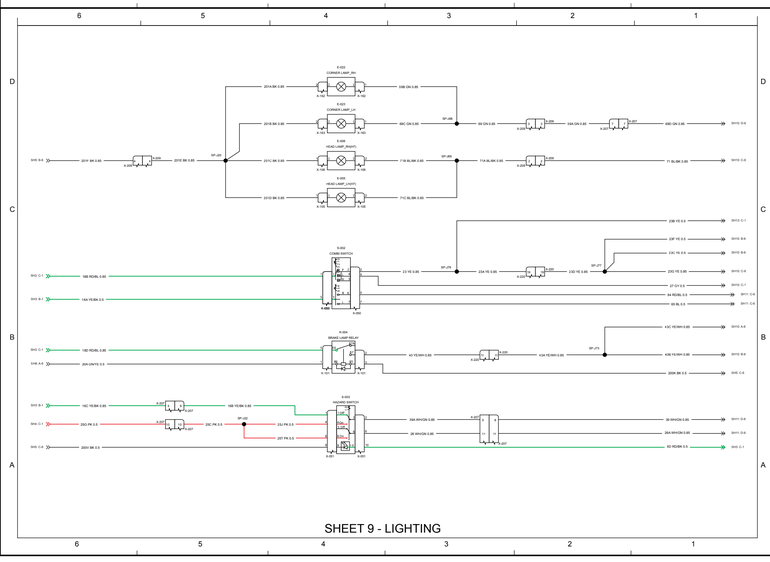
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SHEET 7 - ENGINE



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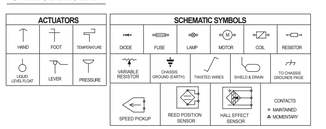
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47951356

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1ST EDITION

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H	Audio	Y	Solenoids
J	Outlets		

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Wire Color Codes			
B	Black	LgB	Light Green/Black
BL	Black/Blue	O	Orange
BW	Black/White	P	Pink
BY	Black/Yellow	R	Red
Br	Brown	RB	Red/Black
BrL	Brown/Blue	RG	Red/Green
BrR	Brown/Red	RL	Red/Blue
BrW	Brown/White	RW	Red/White
G	Green	RY	Red/Yellow
GL	Green/Blue	W	White
Gy	Gray	WB	White/Black
GyY	Gray/Yellow	WL	White/Blue
L	Blue	WR	White/Red
LB	Blue/Black	Y	Yellow
LR	Blue/Red	YB	Yellow/Black
LW	Blue/White	YG	Yellow/Green
LY	Blue/Yellow	YL	Yellow/Blue
Lg	Light Green	YR	Yellow/Red

BOOMER 41
BOOMER 47

MECHANICAL GEAR TRANSMISSION
47708291

ELECTRICAL SCHEMATIC
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Bevel gear set and differential carrier - Install

Boomer™ 41	NA
Boomer™ 47	NA

⚠ WARNING

Heavy objects!
Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.
Failure to comply could result in death or serious injury.

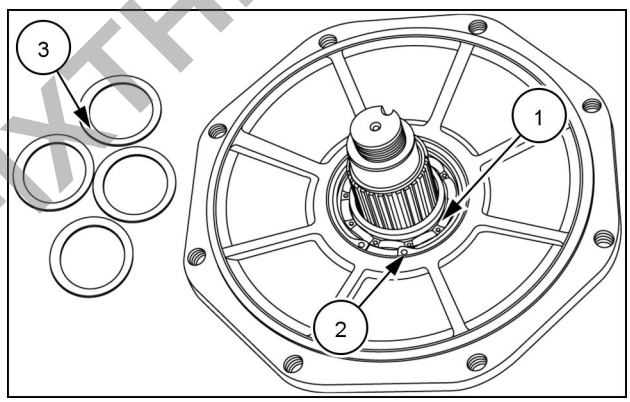
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⚠ WARNING

Avoid injury!
Handle all parts carefully. Do not place your hands or fingers between parts. Use Personal Protective Equipment (PPE) as indicated in this manual, including protective goggles, gloves, and safety footwear.
Failure to comply could result in death or serious injury.

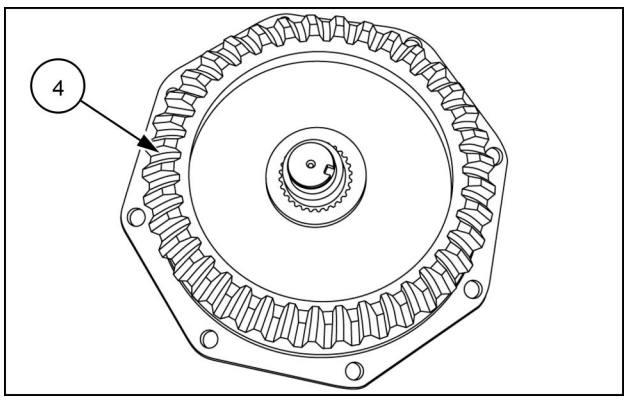
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1. Install the bearing **(1)** and secure with the snap ring **(2)**.
2. Install four shims **(3)**, **0.05 mm** (**0.020 in**) in thickness.



93112132 1

3. Install the bevel gear **(4)**.



93112133 2

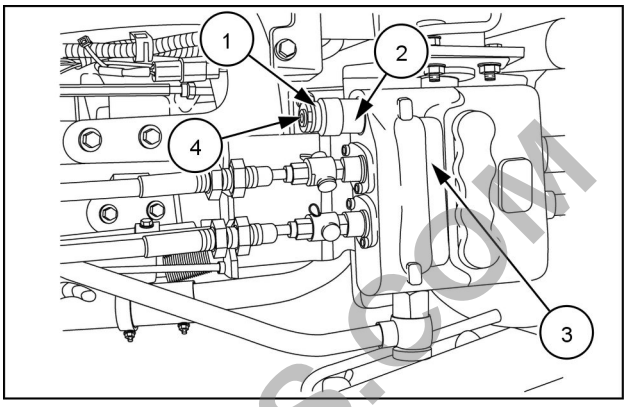
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Main relief valve - Static description

Boomer™ 41	NA
Boomer™ 47	NA

The hydraulic system relief valve **(2)** is located on the rear side of the mid mount two spool valve **(3)**. The mid mount valve is located underneath the right side of the operator's platform. The relief valve pressure setting is **16671 kPa** (**2418 psi**). The relief valve is adjustable, by loosening the jam nut **(1)** and turning the valve stem **(4)** clockwise to increase relief pressure or counterclockwise to decrease pressure.



NHIL14CT00356AA 1

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- Mid PTO in the "ON" position, mid PTO switch in the open position.
- Tractor in motion, forward / reverse shuttle witch in open position.
- Operator is in the seat, seat switch in closed position.

Current starts at the battery and flows through the positive (+) battery cable to:

- The engine starter motor.
- Through the 100 amp fuse to the terminal “182A” of the main relay(input to switch side of relay)

Key switch

1. From the starter motor, current flows through the 60-amp main fuse and to the main harness connector. From the connector the current flows to the "BATTERY" terminal of the key

"ON" terminal of key switch

1. When the key switch is placed in the "ON" position, current is transferred from the "BATTERY" to the "ON" terminal of the key switch.

Current flows from the "ON" terminal of the key switch to the fuse panel bussbar, from the bussbar current travels through:

- # 2, 10 amp fuse
- # 5, 15 amp fuse
- # 7, 10 amp fuse

Fuse functions

The # 2, 10 amp fuse sends current to:

- Terminal “35A” of the PTO relay (coil side of relay)

The # 5, 15 amp fuse sends current to:

- Terminal “35” of the PTO valve

The # 7, 10 amp fuse sends current to:

- Terminal “15” of the safety controller
- Terminal “15A” of the mid PTO switch
- Terminal “15” of the seat switch

Safety switches functions

1. When the PTO switch is in the ON" position, the PTO switch disconnects the ground path for terminal "60" of the safety controller. The PTO switch completes the ground path for the PTO relay (coil side of relay).
2. When the forward / reverse shuttle is not in the “NEUTRAL” the switch is in the "OPEN " position, the shuttle switch disconnects the ground path for terminal "17" of the safety controller.
3. When the mid PTO is in the "ON" position, the mid PTO switch is open, not providing current to terminal "61" of the safety controller.
4. When the operator is present in the seat. the set switch closes, providing current to terminal "45" of the safety controller.

Safety controller functions

1. With current supplied to terminal "15" and ground source provided to terminal "200A" the safety controller is energized.
2. With ground source not supplied to terminal "17" by the shuttle switch and terminal "60" not supplied ground source by the PTO switch. Current is not supplied to terminal "61" by the mid PTO switch. Current is supplied to terminal

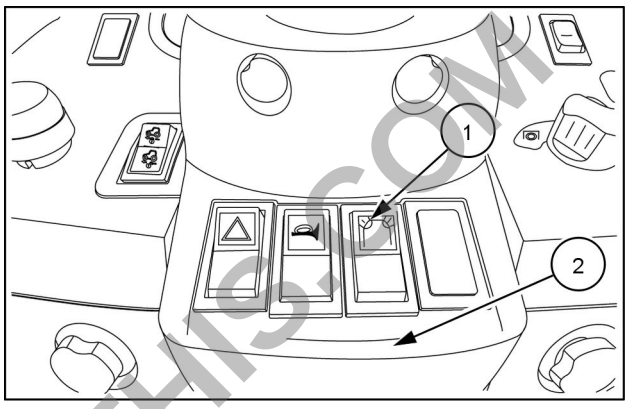
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Work light switch - Install

Boomer™ 41	NA
Boomer™ 47	NA

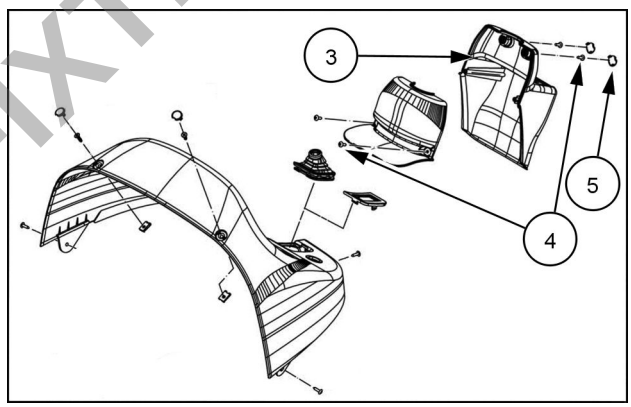
Prior operation:
Work light switch - Test (55.405)

1. Push work light switch **(1)** into console panel **(2)** from the front side.
2. Connect wiring harness connector to switch.



NHIL13CT01004AA 1

3. Install console panel **(3)** using four screws **(4)** and two plastic caps **(5)**.



NHIL14CT00140AA 2

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