2144, 2166
2188, 2344
2366, 2388

2100/2300 Series Combines

SERVICE MANUAL

7-88436

CASE IH AGRICULTURE

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SPECIFICATIONS

Torque for spring return assembly mounting bolts	20 lb ft (27 Nm) with Loctite 222
Torque for brake housing mounting bolts	65 to 75 lb ft (89 to 100 Nm)
Free running clearance of brake discs	3.75 to 4.25 mm
Fluid Type	Case Hy-Tran®Plus

NOTE: Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

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SPECIAL TORQUES

Brake Valve Mounting Bolts	35 to 40 lb ft (47.5 to 54 Nm)
Valve Body Cap Mounting Bolts	8 to 12 lb ft (10.8 to 16.2 Nm)
Valve Spool Lock Nut	12 to 18 lb ft (16.2 to 24.4 Nm)
Valve Housing Plug	10 to 12 lb ft (13.5 to 16.2 Nm)

SPECIFICATIONS

Minimum Valve Spool Engagement into Yoke	0.50 inch (12.7 mm)

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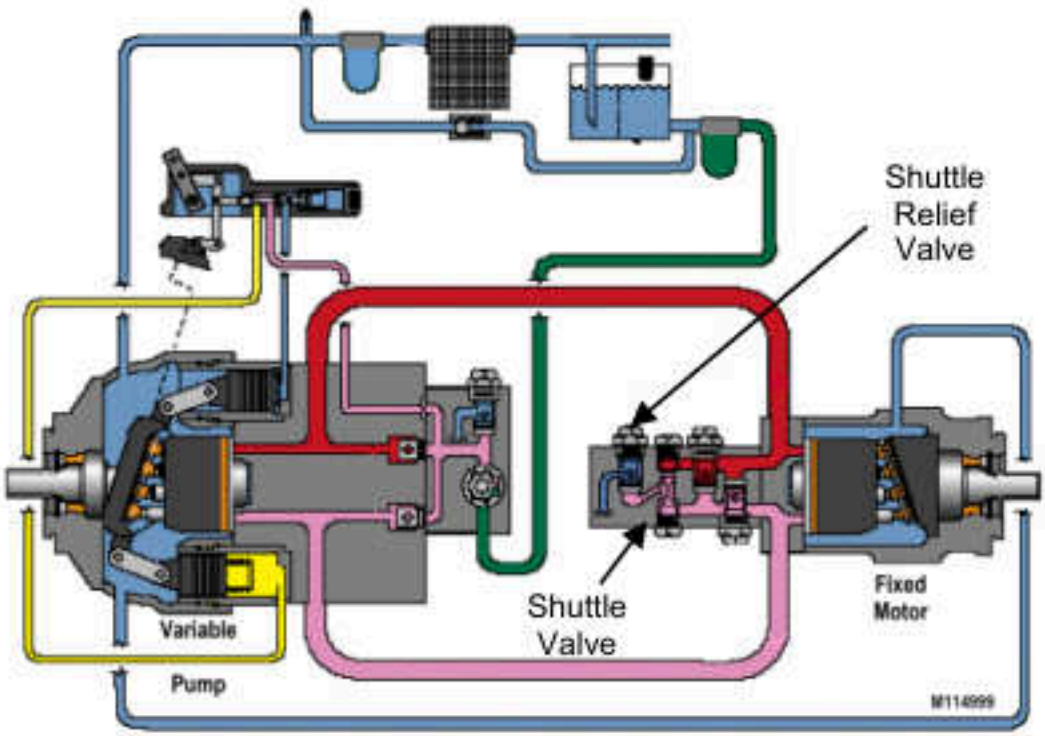
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What if the system does not operate correctly.
Lets look at a couple of "What If".

First we need to set a few specification that are only relevant to these "What Ifs", each machine will have it's own set of specification.

Charge Pressure	220 psi
Shuttle Pressure	160 psi
Foot-N-Inch Valve	6400 psi
Servo Pressure	Same as charge circuit

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Shuttle and Charge Pressure Relief Valve

The circuit now contains the shuffle valve and the additional charge pressure relief valve. These valves are located in the valve block along with the two previously installed high pressure relief valves.

Stroking the variable displacement pump creates system pressure on one side of the closed loop. This *system pressure shifts the shuttle valve*, *opening the low pressure side of the loop to the second charge pressure relief valve*. The charge pressure relief valve located in the charge pump will now close as it has a higher valve setting. This closed valve will now cause total charge pump flow to enter the low pressure side of the closed loop through the lower check valve, when the pump is stroked in the shown position. The charge pump flow first replenishes the lubrication fluid lost from the closed loop. The remaining charge pump flow will then displace an equivalent volume of hotter fluid in the low pressure side of the closed loop. This displaced fluid passes through the shuttle valve and second charge pressure relief valve directly into the motor case, pump case, heat exchanger and back into the reservoir. By continuously replacing the hotter loop fluid with the cool fluid, the closed loop temperature is stabilized.

As stated before, the charge pump will perform four complete separate functions, we have just added the forth function. Remember the first function was to replenish the fluid lost from the closed loop that was used for lubrication. The second was to create a positive back pressure on the low side of the loop. The third was to supply control pressure to the control. And now the forth and final function is to provide cool clean fluid to the closed loop to stabilize the loop temperature.

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ELECTRICAL SCHEMATIC
2300 NAO SERIES COMBINE
RAC. 6-12620

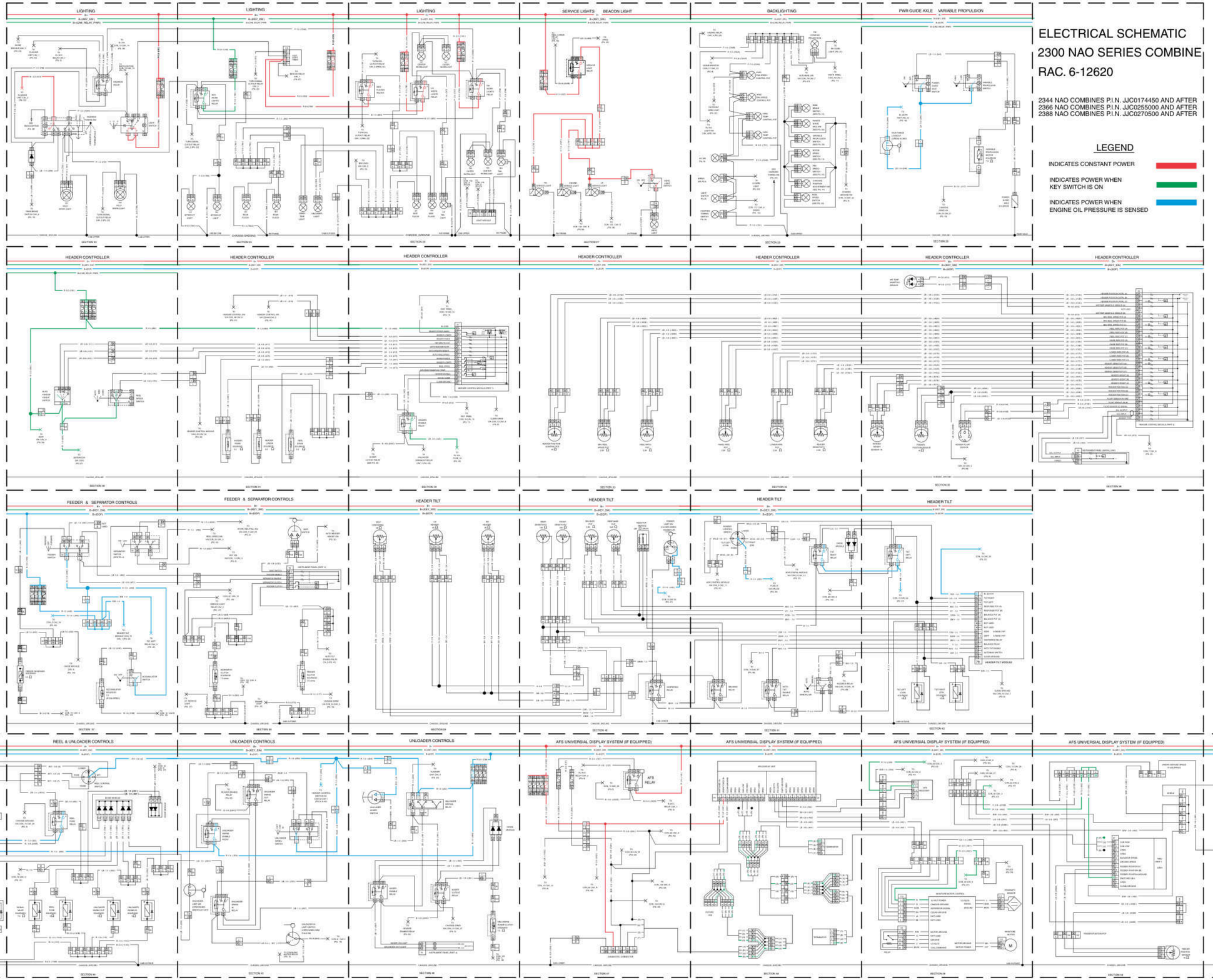
2344 NAO COMBINES P.I.N. JJC0174450 AND AFTER
2366 NAO COMBINES P.I.N. JJC0255000 AND AFTER
2388 NAO COMBINES P.I.N. JJC0270500 AND AFTER

LEGEND

INDICATES CONSTANT POWER

INDICATES POWER WHEN KEY SWITCH IS ON

INDICATES POWER WHEN ENGINE OIL PRESSURE IS SENSED



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