

800 GAS/LP
Hydraulics

Pumps:

		Normal Throttle	
Propelling	Char-Lynn	23.2 GPM (88 L / min)	4500 PSI Relief (31027 kPa)
Accessory(Brush)	Char-Lynn	6.2 GPM (23 L / min)	2200 PSI Relief (15170 kPa)
Accessory (Steer)	Char-Lynn	4.7 GPM (18 L / min)	1300 PSI Relief (8963 kPa)
Accessory (Vac)	Char-Lynn	6.2 GPM (23 L / min)	2000 PSI Relief (13790 kPa)

Motors:

Main Brush	Char-Lynn	400 RPM (NORMAL) , 500 RPM (2 SPD)
Side Brush	Char-Lynn	80 RPM
Vacuum Fan	Barnes	8500 RPM
Propelling	Char-Lynn	150 RPM
Engine Fan	Barnes	2000 RPM

Electrical

Battery: Group Size – 31 Cold Cranking Amps – 730

Motors:

Shaker	Normal Amp Draw – 4.5
Starter	Normal Amp Draw Hot – 155 @ 11.5 Normal Amp Draw Cold – 185 @ 10 Volts

Std. Alternator: Output – 50 Amps at 5000–5300 RPM
Volts – 14.5

Vacuum System: CFM– 585 (16565 L / min)

Engine up to machine serial number 1699, solid state, has distributor

Type – Ford	Model – LSG–423	HP – 54 (40.2 kw) @ 2400 RPM
Spark Plug Gap:	Gas – 0.050 LP – 0.050	
Valve Clearance(Cold):	Collapsed tappet gap .035 – .055	
Timing:	10 BTDC Factory Set – Non Adjustable	
Idle Speed:	1100 $\pm$ 25 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Gas – 12.0 Gal. (45 L) LP – 40#	Gas Per Hour – 1.2 Gal. (4.5 L) LP Per Hour – 6.6 #
Oil Pressure:	40 PSI min at operating speeds 10 PSI min at Idle	

Engine for machines above serial number 1700 DIS engine, no distributor

Type – Ford	Model – LRG–423	HP – 54 (40.2 kw) @ 2400 RPM
Spark Plug Gap:	Gas – 0.042"– 0.046" (1.0 – 1.2 mm) LP – 0.042"– 0.046" (1.0 – 1.2 mm)	
Valve Clearance(Cold):	Hydraulic lifters non adjustable	
Timing:	9 BTDC @750 RPM Factory Set – Non Adjustable	
Idle Speed:	2000 $\pm$ 25 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Gas – 12.0 Gal. (45 L) LP – 40#	Gas Per Hour – 1.2 Gal. (4.5 L) LP Per Hour – 6.6 #

SPECIFICATIONS

Oil Pressure: 40–60 PSI min at operating speeds
10 PSI min at Idle

Chassis

Rear Tire Pressure: 90–100 PSI Hub Nut Torque: 200–250 ft. lb.
Lug Nut Torque: 90–105 ft. lb. (1/2" nuts)
120–130 ft.lb. (9/16" nuts)

Front Tires: 90–100 PSI Lug Nut Torque: 90–105 ft. lb. (1/2" nuts)
120–130 ft.lb. (9/16" nuts)

Vac Fan: Impeller Nut – 10 ft. lb.

800 DIESEL

Hydraulics

Pumps: Normal

		Throttle	
Propelling	Char–Lynn	23.2 GPM (88 L / min)	4500 PSI Relief (31027 kPa)
Accessory (Brush)	Char–Lynn	6.2 GPM (23 L / min)	2200PSI Relief (15170 kPa)
Accessory (Steer)	Char–Lynn	4.7 GPM (18 L / min)	1300 PSI Relief (8963 kPa)
Accessory (Vac)	Char–Lynn	6.2 GPM (23 L / min)	2000 PSI Relief (13790 kPa)

Motors:

Main Brush	Char–Lynn	400 RPM (NORMAL) , 500 RPM (2 SPD)
Side Brush	Char–Lynn	80 RPM
Vacuum Fan	Barnes	8500 RPM
Propelling	Char–Lynn	150 RPM
Engine Fan	Barnes	2000 RPM

Electrical

Battery: Group Size – 24 Cold Cranking Amps – 475

Motors:

Shaker Normal Amp Draw – 4.5

Starter Normal Amp Draw Hot – 355 @ 11.5
Normal Amp Draw Cold – 380 @ 10 Volts

Std. Alternator: Output – 50 Amps at 5000–5300 RPM
Volts – 14.5

Vacuum System: CFM– 585 (16565 L / min)

Engine USED IN MACHINES BELOW SERIAL NUMBER 3999

Type – Perkins	Model : 204–25, 200 Series	HP – 45 (33.6 kw) @ 2400 RPM
Valve Clearance (Cold):	Intake – 0.0057" (0.14mm)	Exhaust – 0.0072" (0.18mm)
Timing: Injection Pump	15 – 17 degrees	
Idle Speed:	1200 ± 50 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Diesel – 9.4 Gal. (36 L)	Diesel Per Hour – 1.4 Gal. (5 L)
Oil Pressure:	29 PSI min at operating speeds 7 PSI min at Idle	

Engine USED IN MACHINES SERIAL NUMBER 4000 AND ABOVE. 98800–001

SPECIFICATIONS

Type – Perkins	Model : 700 Series UA 3.0L	HP – 68 (? kw) @ 2400 RPM
Valve Clearance (Cold):	Intake – 0.014” (0.35mm)	Exhaust – 0.014” (0.35mm)
Timing: Injection Pump	16 BTDC	
Start Speed:	1400 $\pm$ 50 RPM	idle 2,000 RPM
Governed Speed:	2400 RPM	
Fuel Consumption:	Diesel – Gal. (? L)	Diesel Per Hour – Gal. (?L)
Oil Pressure:	41 PSI min at operating speeds	
	7 PSI min at Idle?	

Chassis

Rear Tire Pressure:	90–100 PSI	Hub Nut Torque: 200–250 ft.lb Lug Nut Torque: 90–105 ft.lb. (1/2” nuts) 120–130 ft.lb. (9/16” nuts)
Front Tire:	90–100 PSI	Lug Nut Torque: 90–105 ft. lb. (1/2” nuts) 120–130 ft. lb. (9/16” nuts)
Vac Fan:		Impeller Nut – 10 ft. lb.

SPECIFICATIONS

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Pumps:

		Normal <u>Throttle</u>	
Propelling	Char-Lynn	23.2 GPM (88 L / min)	4500 PSI Relief (31027 kPa)
Accessory(Brush)	Char-Lynn	6.2 GPM (23 L / min)	2200 PSI Relief (15170 kPa)
Accessory (Steer)	Char-Lynn	4.7GPM (18 L / min)	1300 PSI Relief (8963 kPa)
Accessory (Vac)	Char-Lynn	6.2GPM (23 L / min)	2000 PSI Relief (13790 kPa)

Motors:

Main Br. & P. Throw	Char—Lynn	400	RPM
Side Brush	Char—Lynn	80	RPM
Vacuum Fan	Barnes	8500	RPM
Propelling	Char—Lynn	150	RPM
Engine Fan	Barnes	2000	RPM

Electrical

Battery: Group Size – 31 Cold Cranking Amps – 730

Motors:

Shaker	Normal Amp Draw – 4.5
Starter	Normal Amp Draw Hot – 155 @ 11.5
	Normal Amp Draw Cold – 185 @ 10 Volts

Std. Alternator: Output – 50 Amps at 5000–5300 RPM
 Volts – 14.5

Vacuum System: CFM- 585 (16565 L / min)

Engine up to machine serial number 2299, solid state, has distributor

Type – Ford	Model – LSG–423	HP – 54 (40.2 kw) @ 2400 RPM
Spark Plug Gap:	Gas – 0.050 LP – 0.050	
Valve Clearance(Cold):	Collapsed tappet gap .035 – .055	
Timing:	10 BTDC Factory Set – Non Adjustable	
Idle Speed:	1100 $\pm$ 25 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Gas – 12.0 Gal. (45 L) LP – 40#	Gas Per Hour – 1.2 Gal. (4.5 L) LP Per Hour – 6.6 #
Oil Pressure:	40 PSI min at operating speeds 10 PSI min at Idle	

Chassis

Rear Tire Pressure:	90–100 PSI	Hub Nut Torque: 200–250 ft. lb. Lug Nut Torque: 90–105 ft. lb. (1/2" nuts) 120–130 ft.lb. (9/16" nuts)
Front Tires:	90–100 PSI	Lug Nut Torque: 90–105 ft. lb. (1/2" nuts) 120–130 ft.lb. (9/16" nuts)
Vac Fan:		Impeller Nut – 10 ft. lb.

Engine for machines above serial number 2300 DIS engine, no distributor

Type – Ford
98800-001

Model – LRG-423

HP – 54 (40.2 kw) @ 2400 RPM

SPECIFICATIONS

Spark Plug Gap:	Gas – 0.042" – 0.046" (1.0 – 1.2 mm) LP – 0.042" – 0.046" (1.0 – 1.2 mm)	
Valve Clearance(Cold):	Hydraulic lifters non adjustable	
Timing:	9 BTDC @750 RPM Factory Set – Non Adjustable	
Idle Speed:	2000 $\pm$ 25 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Gas – 12.0 Gal. (45 L) LP – 40#	Gas Per Hour – 1.2 Gal. (4.5 L) LP Per Hour – 6.6 #
Oil Pressure:	40–60 PSI min at operating speeds 10 PSI min at Idle	

810 DIESEL

Hydraulics

Pumps:	Normal		
	<u>Throttle</u>		
Propelling	Char–Lynn	23.2 GPM (88 L / min)	4500 PSI Relief (31027 kPa)
Accessory(Brush)	Char–Lynn	6.2 GPM (23 L / min)	2200 PSI Relief (15170 kPa)
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Accessory (Vac)	Char–Lynn	6.2 GPM (23 L / min)	2000 PSI Relief (13790 kPa)
Motors:			
Main Br & P. Throw	Char–Lynn	400 RPM	
Side Brush	Char–Lynn	80 RPM	
Vacuum Fan	Barnes	8500 RPM	
Propelling	Char–Lynn	150 RPM	
Engine Fan	Barnes	2000 RPM	

Electrical

Battery:	Group Size – 24	Cold Cranking Amps – 475
Motors:		
Shaker	Normal Amp Draw – 4.5	
Starter	Normal Amp Draw Hot – 355 @ 11.5 Normal Amp Draw Cold – 380 @ 10 Volts	
Std. Alternator:	Output – 50 Amps at 5000–5300 RPM Volts – 14.5	
Vacuum System:	CFM– 585 (16565 L / min)	

Engine USED IN MACHINES BELOW SERIAL NUMBER 2999

Type – Perkins	Model : 204–25, 200 Series HP – 45 (33.6 kw) @ 2400 RPM	
Valve Clearance (Cold):	Intake – 0.0057" (0.14mm)	Exhaust – 0.0072" (0.18mm)
Timing: Injection Pump	15 – 17 degrees	
Idle Speed:	1200 $\pm$ 50 RPM	
Governed Speed:	2400 RPM	
Fuel Consumption:	Diesel – 9.4 Gal. (36 L)	Diesel Per Hour – 1.4 Gal. (5 L)
Oil Pressure:	29 PSI min at operating speeds 7 PSI min at Idle	

Chassis

Rear Tire Pressure:	90–100 PSI	Hub Nut Torque: 200–250 ft.lb Lug Nut Torque: 90–105 ft.lb. (1/2" nuts)
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98800–001

SPECIFICATIONS

120–130 ft.lb. (9/16" nuts)

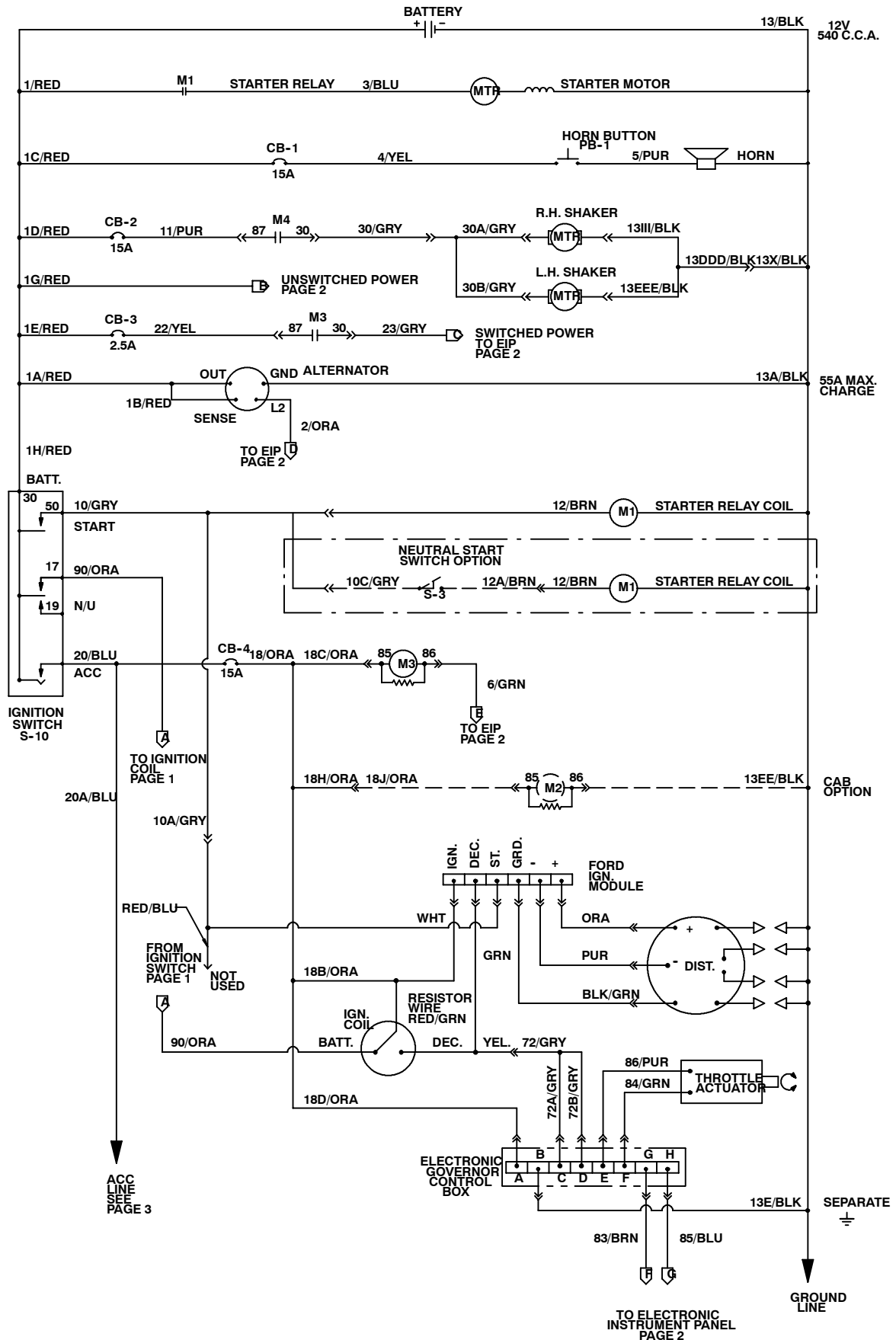
Front Tire: 90–100 PSI Lug Nut Torque: 90–105 ft. lb. (1/2" nuts)
120–130 ft.lb. (9/16" nuts)

Vac Fan: Impeller Nut – 10 ft. lb.

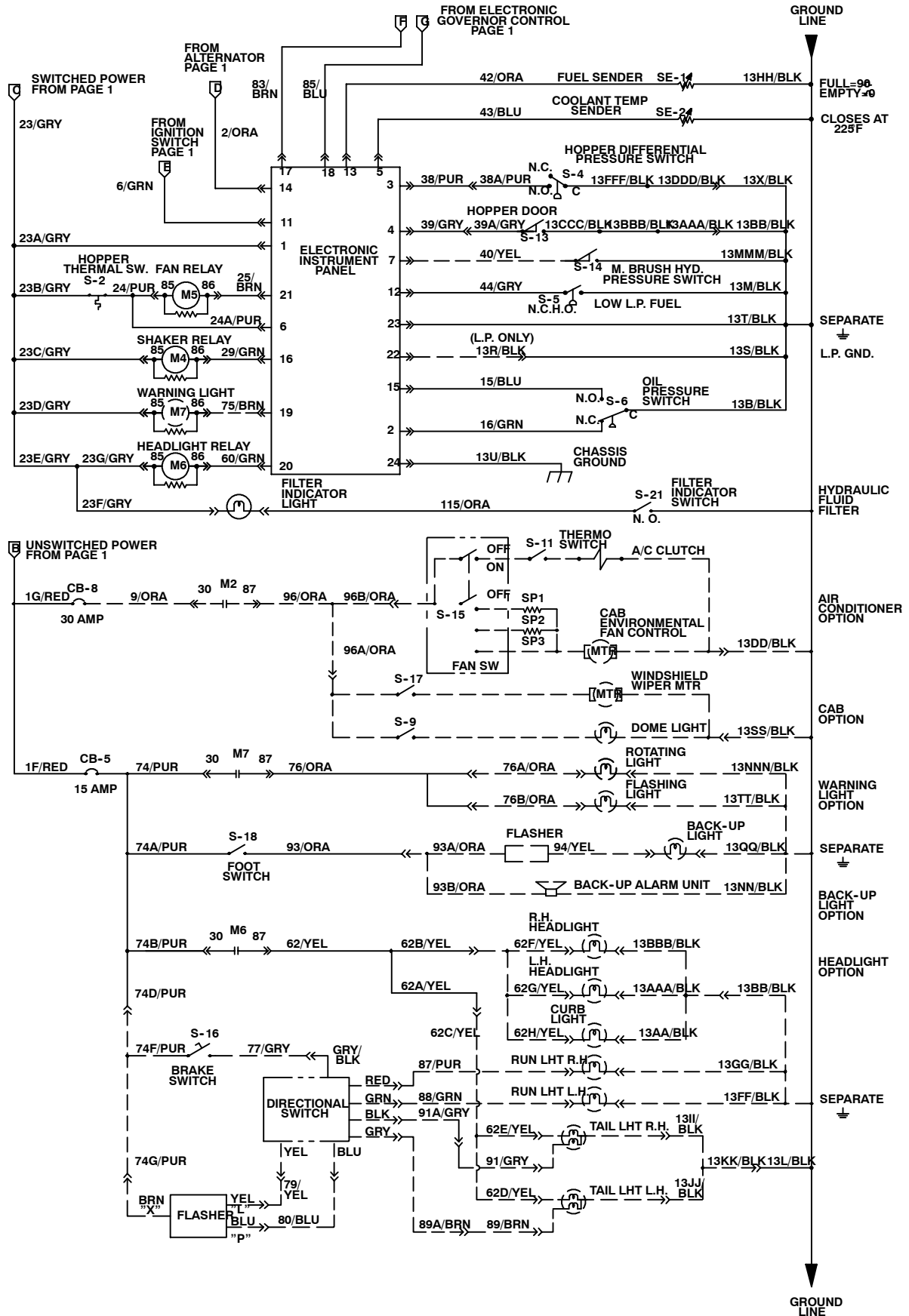
Engine USED IN MACHINES SERIAL NUMBER 3000 AND ABOVE.

Type – Perkins	Model : 700 Series UA 3.0L	HP – 68 (? kw) @ 2400 RPM
Valve Clearance (Cold):	Intake – 0.014" (0.35mm)	Exhaust – 0.014" (0.35mm)
Timing: Injection Pump	16 BTDC	
Start Speed:	1400 $\pm$ 50 RPM	idle 2,000 RPM
Governed Speed:	2400 RPM	
Fuel Consumption:	Diesel – Gal. (? L)	Diesel Per Hour – Gal. (?L)
Oil Pressure:	41 PSI min at operating speeds	
	7 PSI min at Idle?	

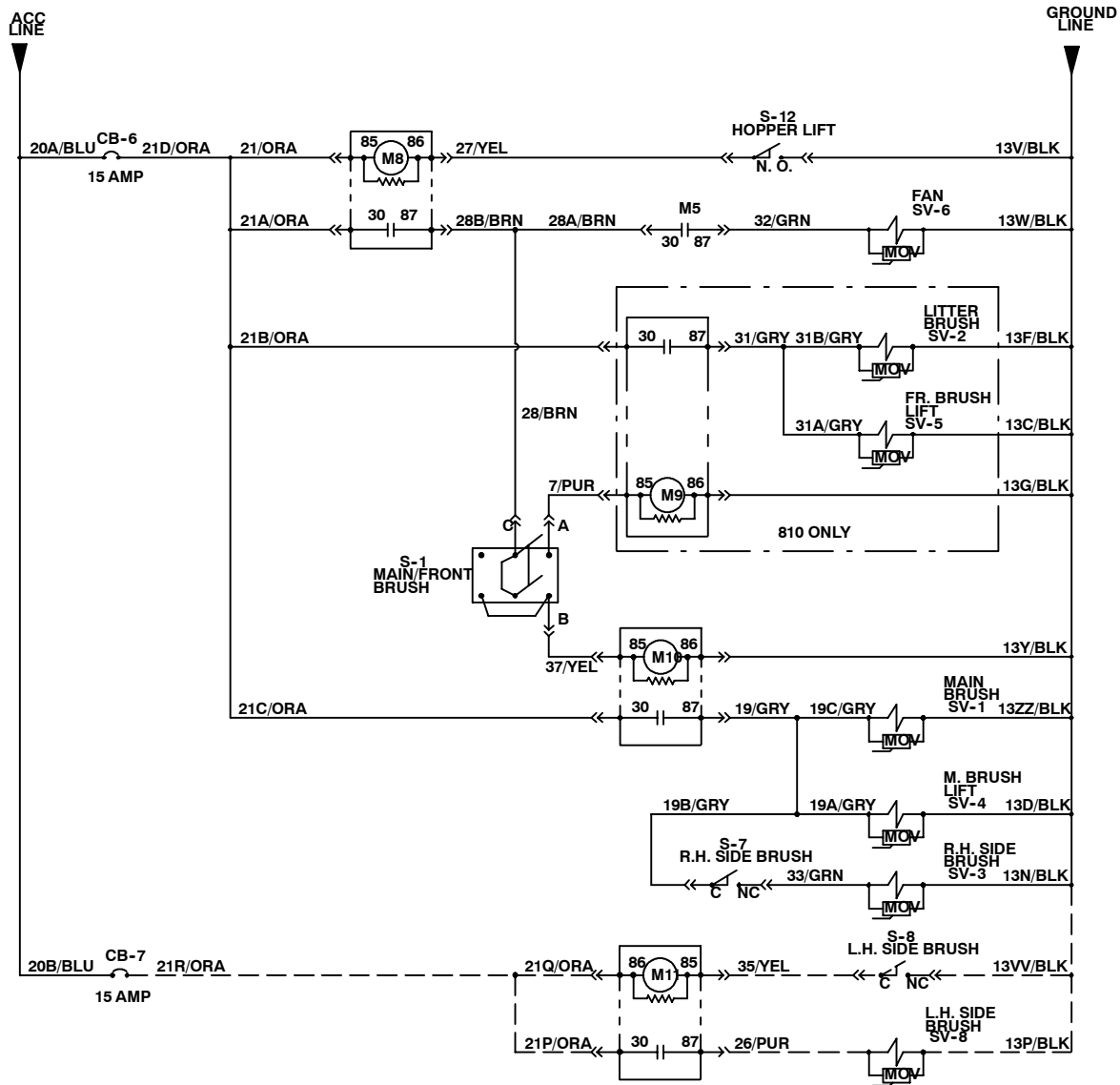
800/810 G & LP



SPECIFICATIONS



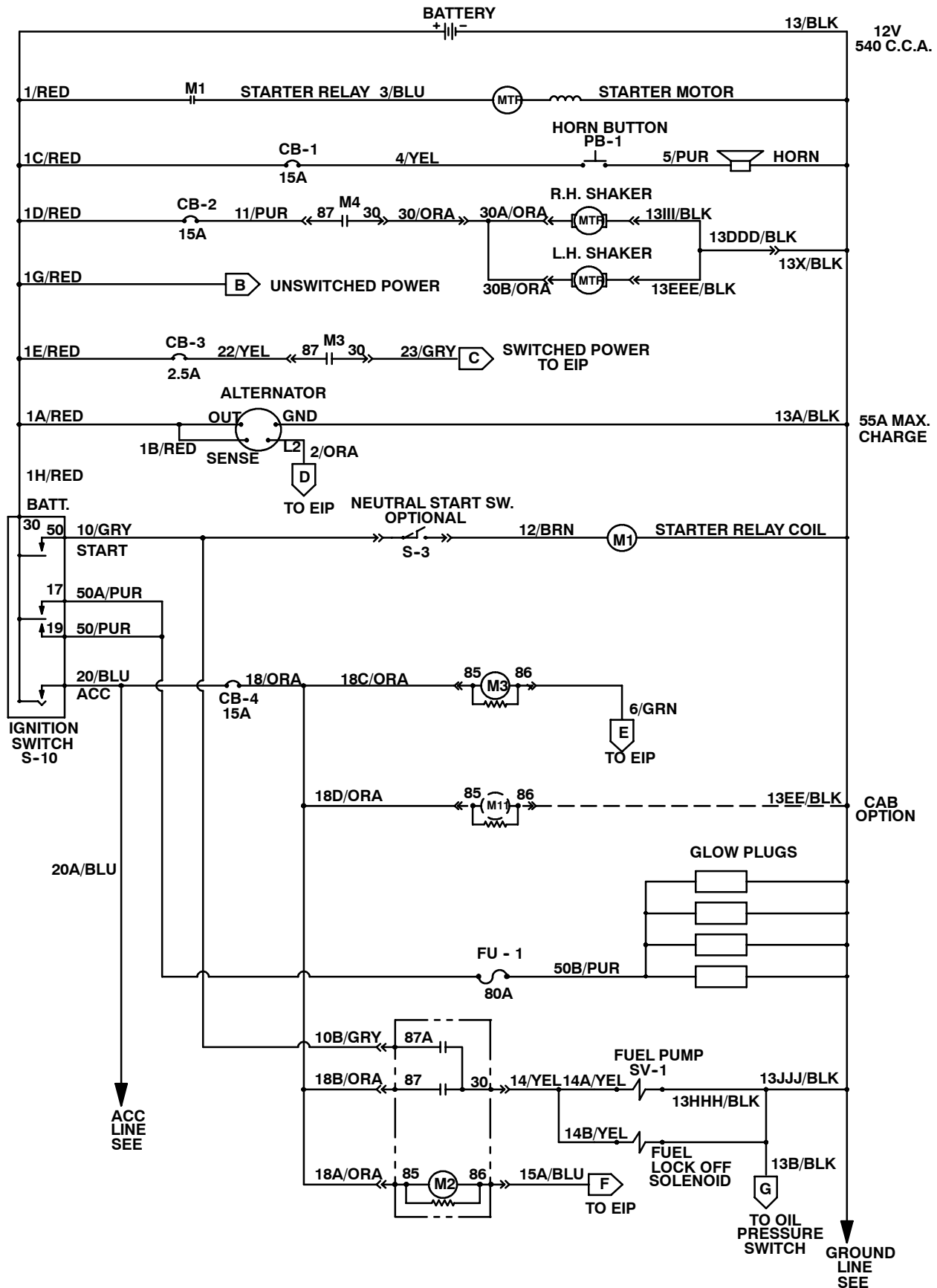
SPECIFICATIONS



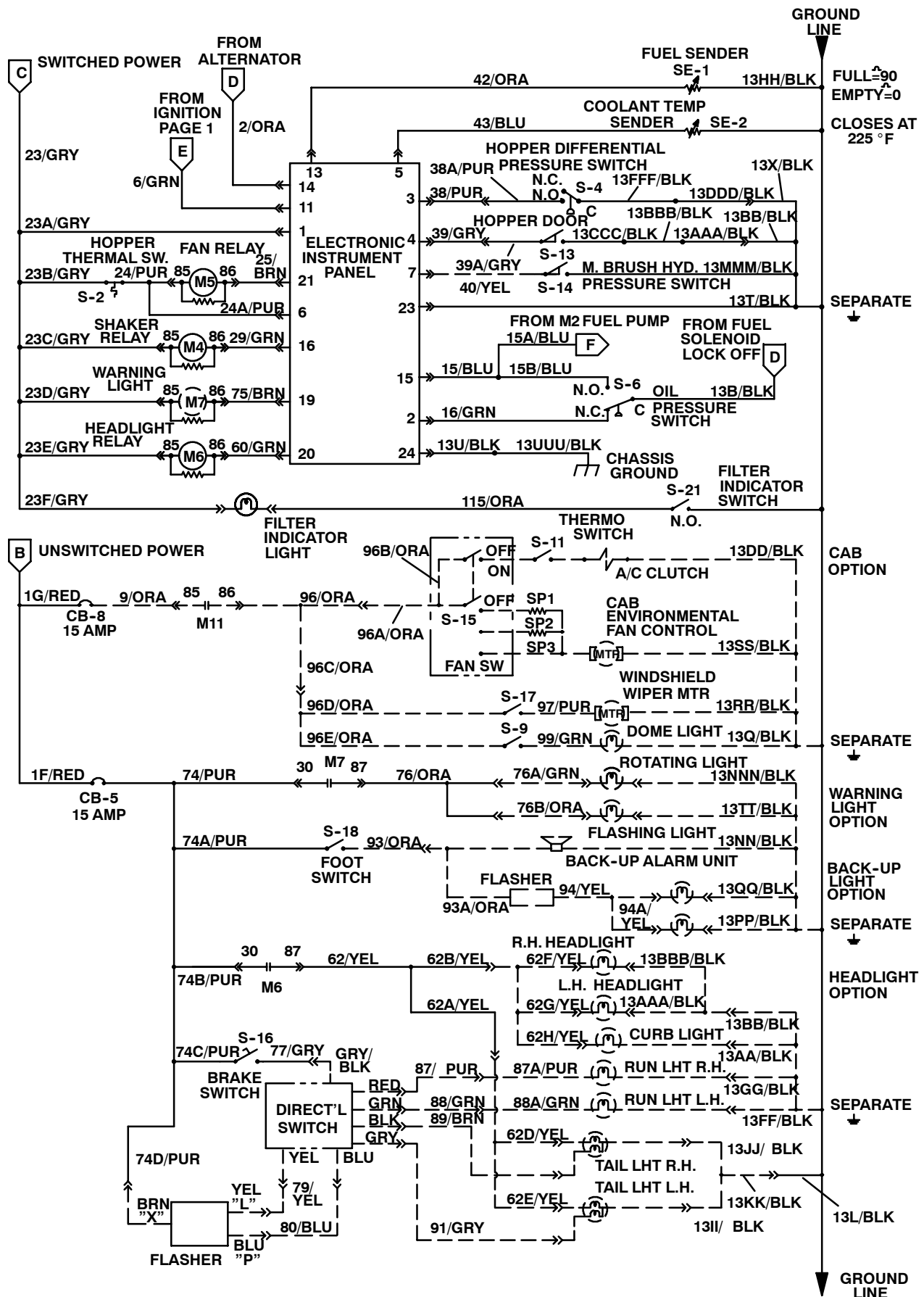
LEGEND			
M	POWER RELAY	HM	HOURLMETER
MTR	MOTOR	SV	SOLENOID VALVE
CB	CIRCUIT BREAKER	S	SWITCH
PM	PERMANENT MAGNET	ACC	ACCESSORY
J	JACK-FEM. SOCKET	GND	GROUND CHASSIS
P	PLUG-MALE PIN	C	COMMON
PB	PUSHBUTTON	N.O.	NORMALLY OPEN
VM	VOLTMETER	N.C.	NORMALLY CLOSED
FU	FUSE	NOV	METAL OXIDE VARISTOR

SPECIFICATIONS

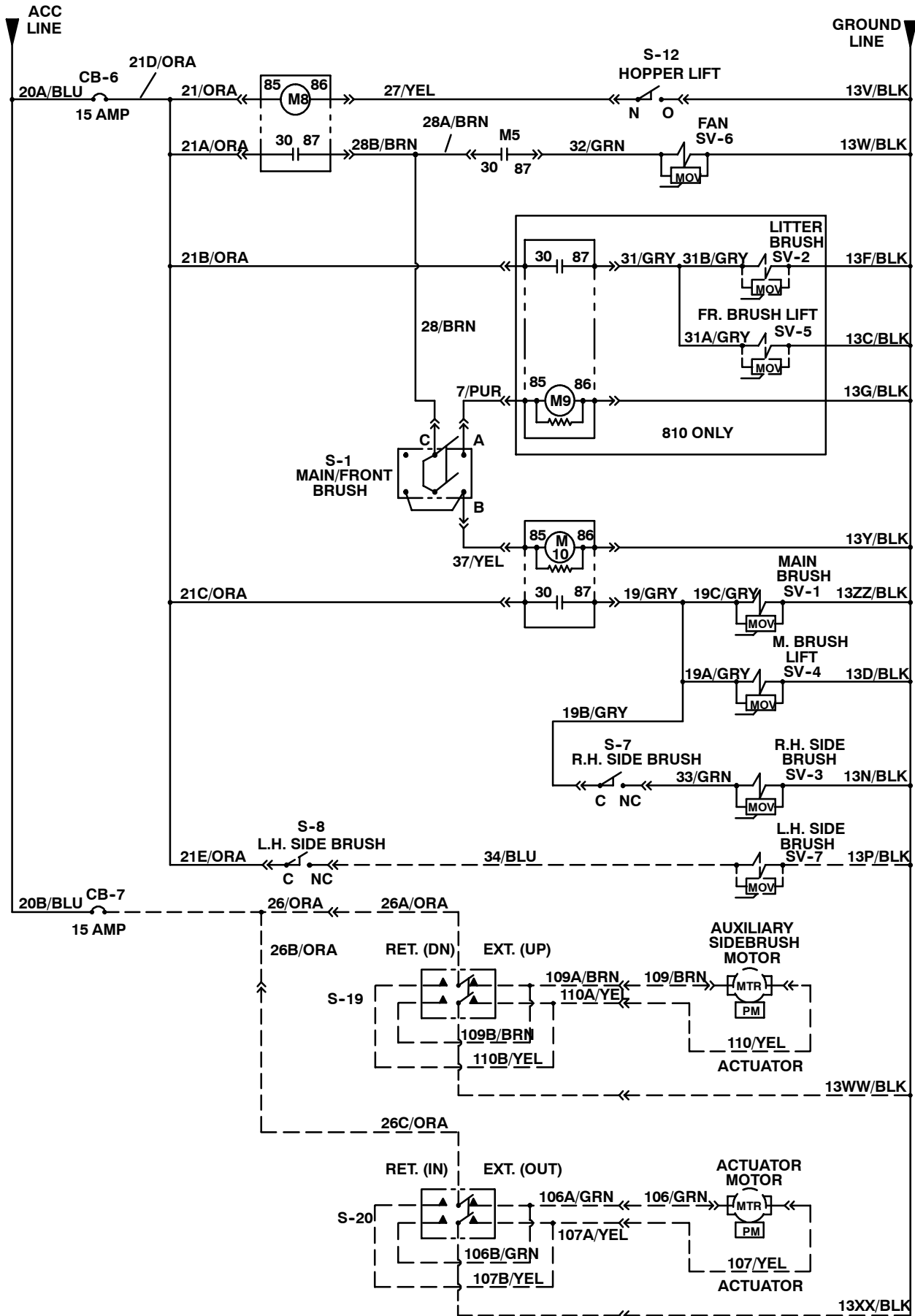
800/810 DIESEL



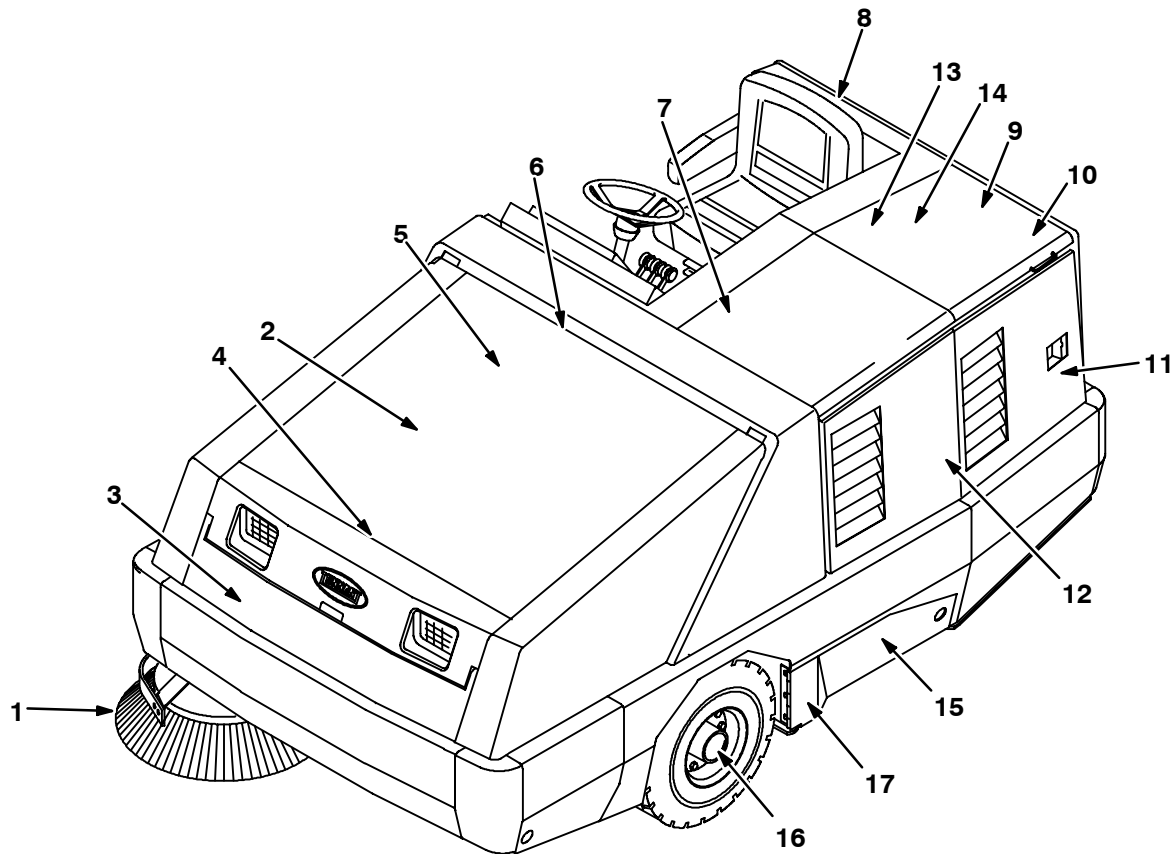
SPECIFICATIONS



SPECIFICATIONS



MAINTENANCE



07623

MAINTENANCE CHART

Interval	Key	Description	Procedure	Lubricant/ Fluid	No. of Service Points
Daily	12	Engine air filter	Check indicator	-	1
	12		Empty dust cap	-	1
	9	Engine crankcase	Check oil level	EO	1
	15	Radiator	Check coolant level	WG	1
			Clean screen	-	1
	15	Brush compartment skirts	Check for damage, wear and adjustment	-	6
	17	Hopper lip skirts	Check for damage, wear and adjustment	-	3
	15	Main brush	Check for damage, wear, and adjustment	-	1
			Check brush pattern	-	1
	1	Side brush	Check for damage, wear, and adjustment	-	1
			Check brush pattern	-	1
	2	Hopper dust filter	Shake	-	2

SPECIFICATIONS

Interval	Key	Description	Procedure	Lubricant/ Fluid	No. of Service Points
50 Hours	15	Main brush	Rotate end-for-end	-	1
	12	Engine fan belt	Check tension	-	1
	2	Hopper dust filter	Check or clean	-	2
100 Hours	8	Hydraulic fluid reservoir	Check fluid level	HYDO	1
	10	Hydraulic fluid cooler	Clean cooler fins	-	1
	9	Radiator	Clean core exterior	-	1
	7	Parking brake	Check adjustment	-	1
	15	Main brush and hopper seals	Check for damage or wear	-	12
	12	Engine crankcase	Change oil and filter element	EO	1
200 Hours	12	Engine	Steam clean exterior	-	1
	9	Radiator hoses and clamps	Check for tightness and wear	-	2
	14	Rear wheel support bearings	Lubricate	SPL	1
	3	Side brush pivot pins	Lubricate	DL	1
400 Hours	12	Fuel filter	Replace	-	1
	8	Hydraulic fluid reservoir	Change hydraulic fluid	HYDO	1
	11	Hydraulic fluid filter	Change filter element	-	1
	5	Brake master cylinder	Check fluid level	BF	1
800 Hours	9	Cooling system	Flush	WG	1
	8	Hydraulic reservoir	Replace filler cap	-	1
			Replace suction strainer	-	1
			Check for wear and damage	-	4549
	13	Battery	Clean and tighten battery cable connections	-	1
1600 Hours	16	Front wheel bearings	Check, lubricate, and adjust	SPL	2

LUBRICANT/FLUID

BF Brake fluid

DL Dry lubricant

EO Engine oil, SAE-CC/CD rated

HYDO Tennant Company or approved hydraulic fluid

SPL Special lubricant, Lubriplate EMB grease (TENNANT part no. 01433-1)

WG Water and permanent-type ethylene glycol anti-freeze, -34° C (-30° F)