

L-LINE AND A-LINE MAINTENANCE MANUAL

Models: L7500

L7501

L8500

L8511

L8513

L9500

L9501

L9511

L9513

L9522

A9500

A9522

Page Description

For an example of an L-Line and A-Line Maintenance Manual page, see Fig. 1.

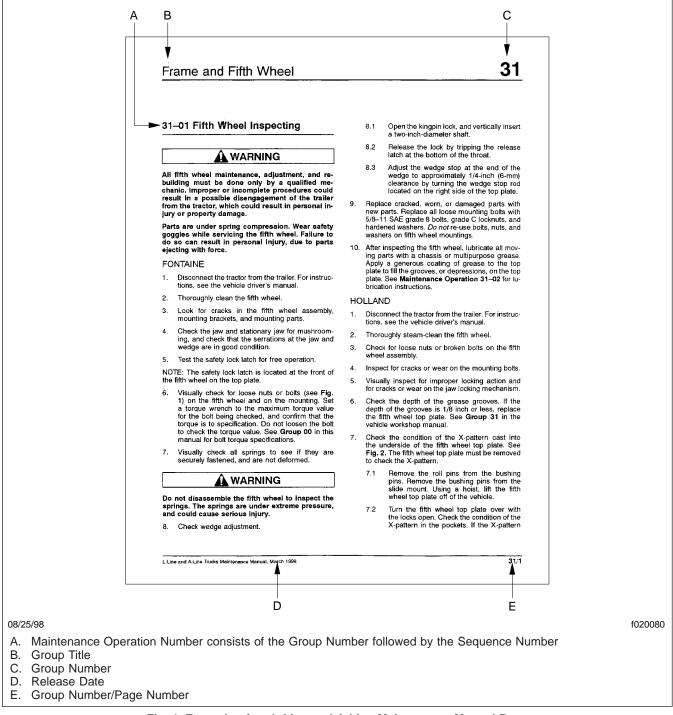


Fig. 1, Example of an L-Line and A-Line Maintenance Manual Page

Maintenance Manual Contents

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Determining Scheduled Maintenance Intervals: 00-01

Determining Scheduled Maintenance Intervals

Performing regular maintenance on your Sterling vehicle will help ensure that your Sterling vehicle delivers safe reliable service and optimum performance for years to come. Failure to follow a regular maintenance program can result in inefficient operation and unscheduled down time.

To determine the correct maintenance intervals for your vehicle you must first determine the type of service or conditions the vehicle will be operating in. Generally, most vehicles operate under conditions that fall within one of the three types of service described. Before placing your new vehicle in service, determine the type of service (Service Schedule I, II, or III) that applies to the intended use of the vehicle. After determining the vehicle's type of service, refer to the service schedule table or the vehicle maintenance schedule table, to determine how often maintenance should be performed.

When the vehicle reaches the distance given for a maintenance interval, see the "Maintenance Interval Operations Table" for a list of the maintenance operations to be performed at that maintenance interval. Use the maintenance operation reference numbers to find detailed instructions in the manual on each operation.

Types of Service

Service Schedule I (severe service) applies to vehicles that annually travel less than 6000 miles (10 000 kilometers) *or* that operate under severe conditions. Examples of Schedule I (severe service) usage include: operation on extremely poor roads or where there is heavy dust accumulation; constant exposure to extreme hot, cold, salt-air, or other extreme climates; frequent short-distance travel; construction-site operation; city operation (fire truck); or farm operation.

Service Schedule II (short-haul transport) applies to vehicles that annually travel less than 60,000 miles (100 000 kilometers) and operate under normal conditions. Examples of Schedule II (short-haul transport) usage are: operation primarily in cities and densely populated areas; local transport with infrequent freeway travel; or high percentage of stopand-go travel.

Service Schedule III (long-haul transport) is for vehicles that annually travel *more than* 60,000 miles (100 000 kilometers) with minimal city or stop-and-go operation. Examples of Schedule III (long-haul transport) usage are: regional delivery that is mostly freeway miles; interstate transport; or any road operation with high annual mileage.

NOTE: Maintenance instructions in this manual are based on average vehicle use and normal operating conditions. Unusual vehicle operating conditions may require service at more frequent intervals.

Maintenance Service Table: 00-02

Maintenance Service Table						
Service Schedule	Maintenance Interval	Maintenance Intervals				
Service Schedule	Operation	Frequency	Miles	km	Hours	
	Initial Maintenance (IM)	first	1000	1600	100	
Schedule I* — (severe service) vehicles	Maintenance 1 (M1)	every	1000	1600	100	
that annually travel up to 6000 miles	Maintenance 2 (M2)	every	5000	8000	500	
(10 000 km)	Maintenance 3 (M3)	every	10,000	16 000	1000	
	Maintenance 4 (M4)	every	20,000	32 000	2000	
	Initial Maintenance (IM)	first	9500	15 000		
Schedule II [†] — (short-haul transport)	Maintenance 1 (M1)	every	9500	15 000		
vehicles that annually travel up to	Maintenance 2 (M2)	every	37,500	60 000	_	
60,000 miles (100 000 km)	Maintenance 3 (M3)	every	75,000	120 000		
	Maintenance 4 (M4)	every	150,000	240 000		
	Initial Maintenance (IM)	first	12,500	20 000		
Schedule III† — (long-haul transport)	Maintenance 1 (M1)	every	12,500	20 000		
vehicles that annually travel over	Maintenance 2 (M2)	every	50,000	80 000	_	
60,000 miles (100 000 km)	Maintenance 3 (M3)	every	100,000	160 000		
	Maintenance 4 (M4)	every	300,000	480 000		

^{*} For Schedule I (severe service) vehicles equipped with an hourmeter, use maintenance intervals based on hours of operation rather than distance traveled.

Table 1, Maintenance Service Table

[†] Use Schedule I (severe service) maintenance intervals for vehicles that operate under severe conditions, such as extremely poor roads, heavy dust accumulation, extreme climate, frequent short distance travel, construction-site operation, city operation (garbage truck), or farm operation.

	1st through 35th Vehicle	Maintenance Interv	/als for Service S		
Maint.	Required Maintenance Operation	Service Date		Service I	
Number	Interval	Corvido Bato	Miles	km	Hours
1st	Initial Maintenance (IM) and M1		1000	1600	100
2nd	M1		2000	3200	200
3rd	M1		3000	4800	300
4th	M1		4000	6400	400
5th	M1 and M2		5000	8000	500
6th	M1		6000	9600	600
7th	M1		7000	11 200	700
8th	M1		8000	12 800	800
9th	M1		9000	14 400	900
10th	M1, M2 and M3		10,000	16 000	1000
11th	M1		11,000	17 600	1100
12th	M1		12,000	19 200	1200
13th	M1		13,000	20 800	1300
14th	M1		14,000	22 400	1400
15th	M1 and M2		15,000	24 000	1500
16th	M1		16,000	25 600	1600
17th	M1		17,000	27 200	1700
18th	M1		18,000	28 800	1800
19th	M1		19,000	30 400	1900
20th	M1, M2, M3 and M4		20,000	32 000	2000
21st	M1		21,000	33 600	2000
22nd	M1		22,000	35 200	2200
23rd	M1		23,000	36 800	2300
24th	M1		24,000	38 400	2400
25th	M1 and M2		25,000	40 000	2500
26th	M1		26,000	41 600	2600
27th	M1		27,000	43 200	2700
28th	M1		28,000	44 800	2800
29th	M1		29,000	46 400	2900
30th	M1, M2 and M3		30,000	48 000	3000
31st	M1		31,000	49 600	3100
32nd	M1		32,000	51 200	3200
33rd	M1		33,000	52 800	3300
34th	M1		34,000	54 400	3400

	1st through 35th Vehicle Maintenance Intervals for Service Schedule I					
Maint.	Maint. Required Maintenance Operation Service Date					
Number	Interval	Service Date	Miles	km	Hours	
35th	35th M1 and M2 35,000 56 000 3500					

Table 2, 1st through 35th Vehicle Maintenance Intervals for Service Schedule I

Maint	Described Maintenance Oncortica			Service I	
Maint. Number	Required Maintenance Operation Interval	Service Date	Miles	km	Hours
36th	M1		36,000	57 600	3600
37th	M1		37,000	59 200	3700
38th	M1		38,000	60 800	3800
39th	M1		39,000	62 400	3900
40th	M1, M2, M3 and M4		40,000	64 000	4000
41st	M1		41,000	65 600	4100
42nd	M1		42,000	67 200	4200
43rd	M1		43,000	68 800	4300
44th	M1		44,000	70 400	4400
45th	M1 and M2		45,000	72 000	4500
46th	M1		46,000	73 600	4600
47th	M1		47,000	75 200	4700
48th	M1		48,000	76 800	4800
49th	M1		49,000	78 400	4900
50th	M1, M2 and M3		50,000	80 000	5000
51st	M1		51,000	82 000	5100
52nd	M1		52,000	83 700	5200
53rd	M1		53,000	85 300	5300
54th	M1		54,000	86 900	5400
55th	M1 and M2		55,000	88 500	5500
56th	M1		56,000	90 100	5600
57th	M1		57,000	91 700	5700
58th	M1		58,000	93 300	5800
59th	M1		59,000	94 900	5900
60th	M1, M2, M3 and M4		60,000	96 500	6000
61st	M1		61,000	98 200	6100
62nd	M1		62,000	99 800	6200
63rd	M1		63,000	101 400	6300
64th	M1		64,000	103 000	6400

	36th through 70th Vehicle Maintenance Intervals for Service Schedule I						
Maint.	Required Maintenance Operation	Service Date	Service I				
Number	Interval	Service Date	Miles	km	Hours		
65th	M1 and M2		65,000	104 600	6500		
66th	M1		66,000	106 200	6600		
67th	M1		67,000	107 800	6700		
68th	M1		68,000	109 400	6800		
69th	M1		69,000	111 000	6900		
70th	M1, M2 and M3		70,000	112 700	7000		

Table 3, 36th through 70th Vehicle Maintenance Intervals for Service Schedule I

	71st through 100th Vehicle	e Maintenance Inter	vals for Service	Schedule I	
Maint.	Required Maintenance Operation	Service Date		Service I	
Number	Interval	Service Date	Miles	km	Hours
71st	M1		71,000	114 300	7100
72nd	M1		72,000	115 900	7200
73rd	M1		73,000	117 500	7300
74th	M1		74,000	119 100	7400
75th	M1 and M2		75,000	120 700	7500
76th	M1		76,000	122 300	7600
77th	M1		77,000	123 900	7700
78th	M1		78,000	125 500	7800
79th	M1		79,000	127 100	7900
80th	M1, M2, M3 and M4		80,000	128 700	8000
81st	M1		81,000	130 400	8100
82nd	M1		82,000	132 000	8200
83rd	M1		83,000	134 000	8300
84th	M1		84,000	135 200	8400
85th	M1 and M2		85,000	137 000	8500
86th	M1		86,000	138 400	8600
87th	M1		87,000	140 000	8700
88th	M1		88,000	141 600	8800
89th	M1		89,000	143 200	8900
90th	M1, M2 and M3		90,000	144 800	9000
91st	M1		91,000	146 500	9100
92nd	M1		92,000	148 100	9200
93rd	M1		93,000	150 000	9300
94th	M1		94,000	151 300	9400

	71st through 100th Vehicle Maintenance Intervals for Service Schedule I						
Maint.	Required Maintenance Operation	Service Date		Service I			
Number	Interval		Miles	km	Hours		
95th	M1 and M2		95,000	153 000	9500		
96th	M1		96,000	155 000	9600		
97th	M1		97,000	156 100	9700		
98th	M1		98,000	157 700	9800		
99th	M1		99,000	159 300	9900		
100th	M1, M2, M3 and M4		100,000	160 900	10 000		

Table 4, 71st through 100th Vehicle Maintenance Intervals for Service Schedule I

Vehicle Maintenance Intervals for Service Schedule II						
Maint. Number	Required Maintenance Operation Interval	Service Date	Miles	km		
1st	Initial Maintenance (IM) and M1		10,000	16 000		
2nd	M1		19,000	30 000		
3rd	M1		28,000	45 000		
4th	M1 and M2		38,000	60 000		
5th	M1		47,000	75 000		
6th	M1		56,000	90 000		
7th	M1		66,000	105 000		
8th	M1, M2 and M3		75,000	120 000		
9th	M1		84,000	135 000		
10th	M1		94,000	150 000		
11th	M1		103,000	165 000		
12th	M1 and M2		112,000	180 000		
13th	M1		122,000	195 000		
14th	M1		131,000	210 000		
15th	M1		141,000	225 000		
16th	M1, M2, M3 and M4		150,000	240 000		

Table 5, Vehicle Maintenance Intervals for Service Schedule II

Vehicle Maintenance Intervals for Service Schedule III						
Maint. Number	Required Maintenance Operation Interval	Service Date	Miles	km		
1st	Initial Maintenance (IM) and M1		12,500	20 000		
2nd	M1		25,000	40 000		
3rd	M1		37,000	60 000		
4th	M1 and M2		50,000	80 000		

	Vehicle Maintenance Intervals for Service Schedule III						
Maint. Number	Required Maintenance Operation Interval	Service Date	Miles	km			
5th	M1		62,000	100 000			
6th	M1		75,000	120 000			
7th	M1		87,000	140 000			
8th	M1, M2 and M3		100,000	160 000			
9th	M1		112,000	180 000			
10th	M1		125,000	200 000			
11th	M1		137,000	220 000			
12th	M1 and M2		150,000	240 000			
13th	M1		162,000	260 000			
14th	M1		175,000	280 000			
15th	M1		187,000	300 000			
16th	M1, M2 and M3		200,000	320 000			
17th	M1		212,000	340 000			
18th	M1		225,000	360 000			
19th	M1		237,000	380 000			
20th	M1 and M2		250,000	400 000			
21st	M1		262,000	420 000			
22nd	M1		275,000	440 000			
23rd	M1		287,000	460 000			
24th	M1, M2, M3 and M4		300,000	480 000			

Table 6, Vehicle Maintenance Intervals for Service Schedule III

Lubrication and Fluid Level Check: 00-04

Table 7 summarizes all operations that must be performed to complete lubrication and fluid level checks in the M1 maintenance interval for all service schedules.

Maintenance operation numbers given in the table are reference numbers used to help you find detailed instructions in the manual on the lubrication or fluid check.

M1 Maintenance Operation 00-04, Lubrication and Fluid Level Check for Service Schedules I, II, and III				
Maintenance Operation Number	Operation Description	Check		
25–01	Clutch Release Bearing Lubricating			
26–04	Transmission Breather and Oil Level Checking			
31–02	Fifth Wheel Lubricating			
31–05	Trailer Electrical Connector Lubricating			
32–02	Suspension Lubricating			
33–01	Knuckle Pin Lubricating			
33–02	Tie-Rod End Inspecting and Lubricating			
35–01	Axle Breather and Lubricant Level Checking			
41–02	Driveline Lubricating			
42–02	Automatic Slack Adjuster Lubricating and Checking			
46–01	Steering Driveline Lubricating			
46-02	Drag Link and Power Steering Cylinder Lubricating			
46-03	Power Steering Reservoir Fluid Level Checking			
46-05	TRW Power Steering Gear Lubricating, TAS Series			
72–01	Door Latch and Door Hinge Lubricating			
88-01	Hood Hinge Bushing Lubricating			

Table 7, M1 Maintenance Operation 00-04, Lubrication and Fluid Level Check for Service Schedules I, II, and III

Maintenance Operation Sets Table: 00-05

IMPORTANT: At each maintenance operation set, in addition to the maintenance operations listed in this table, perform all daily, weekly, and monthly maintenance operations listed in **Chapter 11**, "**Pretrip and Post-Trip Inspections and Maintenance**" of the *L-Line and A-Line Driver's Manual*.

The "Maintenance Operation Number" is a reference number matching the text in this manual which pro-

vides detailed instructions on the maintenance operations to be performed.

NOTE: Maintenance operations appearing in italics in this table are for noise emission control components.

Maintenance		Mai	nten	ance	Inte	rval
Operation Number	Operation Description	IM	M1	M2	М3	M4
01–01	Engine Rear-Support Assembly Checking				•	•
01-02	Engine Noise Panel Inspecting				•	•
01-03	Jacobs Engine Brake Wiring Inspecting			•	•	•
01-04	Engine Drive Belt Inspecting				•	•
09–01	Air Cleaner Element Inspecting and Replacing				•	•
13–01	Bendix Air Compressor Inspecting		•	•	•	•
15–01	Alternator, Battery, and Starter Checking	•			•	•
20–01	Radiator Cap Checking			•	•	•
20-02	Radiator Pressure Flushing and Coolant Changing					•
20-03	Fan Drive and Clutch Checking			•	•	•
25–01	Clutch Release Bearing Lubricating		•	•	•	•
26–01	Allison Transmission Fluid and Filter Changing					•
26-02	Manual Transmission Magnetic Plug Cleaning and Oil Changing	•		•	•	•
26-03	Transmission Air Filter/Regulator Checking, and Cleaning or Replacing			•	•	•
26–04	Transmission Breather and Oil Level Checking		•	•	•	•
31–01	Fifth Wheel Inspecting		•	•	•	•
31–02	Fifth Wheel Lubricating		•	•	•	•
31–03	Frame Fastener Torque Checking	•				
31–04	Holland Fifth Wheel Sliding Mechanism Inspecting			•	•	•
31–05	Trailer Electrical Connector Lubricating	•	•	•	•	•
32–01	Suspension Inspecting	•	•	•	•	•
32–02	Suspension Lubricating	•	•	•	•	•
32-03	Suspension U-Bolt Torque Checking	•			•	•
33–01	Knuckle Pin Lubricating		•	•	•	•
33–02	Tie-Rod End Inspecting and Lubricating		•	•	•	•
33-03	All-Axle Alignment Checking	•				
35–01	Axle Breather and Lubricant Level Checking		•	•	•	•
35–02	Axle Lubricant Changing, Oil Filter Replacing, and Magnetic Strainer Cleaning	•			•	•

Maintenance Operation Sets Table: 00-05

	Maintenance Operation Sets					
Maintenance Operation	Operation Description	Ma	inten	ance	Inte	rval
Number	·	IM	M1	M2	М3	M4
40–01	Wheel Nut and Rim Nut Checking			•	•	•
41–01	Driveline Inspecting	•	•	•	•	•
41–02	Driveline Lubricating	•	•	•	•	•
42-01	Camshaft Bracket Bushing Lubricating			•	•	•
42-02	Automatic Slack Adjuster Lubricating and Checking		•	•	•	•
42-03	Bendix Air Dryer Checking (AD-IP or AD-9)				•	•
42-04	Bendix Air Dryer Desiccant Replacing (AD-9)					•
42–05	Bendix Air Brake Valve Operation Checking (BP-R1 and E-12)				•	•
42–06	Bendix Air Brake Valve Disassembly, Cleaning, and Inspecting (Double Check Valve, E-12, MV-3, PP-7, QR-1, SR-1, ST-3, TC-6, TP-5, TR-3)				•	•
42–07	Bendix Air Brake Valve Disassembly, Cleaning, Inspecting, and Lubricating (DV-2 and Single Check Valve)			•	•	•
42–08	Bendix Air Brake Valve Inspecting and Testing (MV-3 and TC-6)				•	•
42-09	Bendix Foot Brake Valve Actuator Lubricating and Leak-Testing (E-12)				•	•
42–10	Brake Inspection	•	•	•	•	•
46–01	Steering Driveline Lubricating		•	•	•	•
46–02	Drag Link and Power Steering Cylinder Lubricating		•	•	•	•
46-03	Power Steering Reservoir Fluid Level Checking		•	•	•	•
46-04	Power Steering Reservoir Fluid and Filter Changing			•	•	•
46-05	TRW Power Steering Gear Lubricating, TAS Series		•	•	•	•
47–01	Fuel Tank Vent Checking			•	•	•
47–02	Fuel Tank Band Nut Tightening	•	•	•	•	•
47–03	Fuel Separator Sight Bowl Cleaning and Element Replacing			•	•	•
49–01	Exhaust System Inspecting	•	•	•	•	•
54-01	Electrical System Checking	•			•	•
72–01	Door Latch and Door Hinge Lubricating		•	•	•	•
83–01	Air Conditioner Inspecting			•	•	•
83–02	Air Filter Replacing*					
88–01	Hood Hinge Bushings Lubricating		•	•	•	•

 $^{^{\}ast}$ Replace the HVAC filter every 6 months regardless of mileage.

Table 8, Maintenance Operation Sets

Initial Maintenance (IM) Operations: 00-06

IMPORTANT: After performing all operations listed in this table, perform all daily, weekly, and monthly maintenance operations listed in **Chapter 11**, "**Pretrip and Post-Trip Inspections and Maintenance**" of the *L-Line and A-Line Driver's Manual*.

The "Maintenance Operation Number" is a reference number matching the text in this manual which provides detailed instructions on the maintenance operations to be performed.

Initial Maintenance (IM) Operations for Service Schedules I, II, and III				
Maintenance Operation Number	Operation Description	Check		
15–01	Alternator, Battery, and Starter Checking			
26-02	Manual Transmission Magnetic Plug Cleaning and Oil Changing			
31–03	Frame Fastener Torque Checking			
32–01	Suspension Inspecting			
32–02	Suspension Lubricating			
32–03	Suspension U-Bolt Torque Checking			
33–03	All-Axle Alignment Checking			
35–02	Axle Lubricant Changing, Oil Filter Replacing, and Magnetic Strainer Cleaning			
41–01	Driveline Inspecting			
41–02	Driveline Lubricating			
47–02	Fuel Tank Band Nut Tightening			
54-01	Electrical System Checking			

Table 9, Initial Maintenance (IM) Operations for Service Schedules I, II, and III

M1 Maintenance Interval Operations Table: 00-07

The "M1 Maintenance Interval Operations" table lists all maintenance operations that are to be performed at the M1 maintenance interval. The "Maintenance Operation Number" is a reference number matching the text in this manual that provides detailed instructions on the maintenance operations to be performed.

IMPORTANT: After performing all operations listed in this table, perform all daily, weekly, and monthly maintenance operations listed in **Chapter 11**, "**Pretrip and Post-Trip Inspections and Maintenance**" of the *L-Line and A-Line Driver's Manual*.

M1 Maintenance Interval Operations for Service Schedules I, II, and III		
Maintenance Operation Number	Operation Description	Check
00-04	Lubrication and Fluid Level Check (includes the following):	
	Clutch Release Bearing Lubricating	
	Transmission Breather and Oil Level Checking	
	Fifth Wheel Lubricating	
	Trailer Electrical Connector Lubricating	
	Suspension Lubricating (Front and Rear)	
	Knuckle Pin Lubricating	
	Tie-Rod End Inspecting and Lubricating	
	Axle Breather and Lubricant Level Checking	
	Driveline Lubricating	
	Automatic Slack Adjuster Lubricating and Checking	
	Steering Driveline Lubricating	
	Drag Link and Power Steering Cylinder Lubricating	
	Power Steering Reservoir Fluid Level Checking	
	TRW Power Steering Gear Lubricating, TAS Series	
	Door Latch and Door Hinge Lubricating	
	Hood Hinge Bushings Lubricating	
13–01	Bendix Air Compressor Inspecting	
31–01	Fifth Wheel Inspecting	
32–01	Suspension Inspecting	
41–01	Driveline Inspecting	
42–10	Brake Inspecting	
47–02	Fuel Tank Band Nut Tightening	
49–01	Exhaust System Inspecting	

Table 10, M1 Maintenance Interval Operations for Service Schedules I, II, and III

M2 Maintenance Interval Operations Table: 00-08

The "M2 Maintenance Interval Operations" table lists all maintenance operations that are to be performed at the M2 maintenance interval. The "Maintenance Operation Number" is a reference number matching the text in this manual which provides detailed instructions on the maintenance operations to be per-

formed. All M1 maintenance interval operations must be completed before performing M2 maintenance interval operations.

NOTE: Maintenance operations appearing in italics in this table are for noise emission control components.

M2 Maintenance Interval Operations for Service Schedules I, II, and III		
Maintenance Operation Number	Operation Description	Check
00-07	Perform all M1 Operations	
01–03	Jacobs Engine Brake Wiring Inspecting	
20-01	Radiator Cap Checking	
20-03	Fan Drive and Clutch Checking	
26-02	Manual Transmission Magnetic Plug Cleaning and Oil Changing	
26-03	Transmission Air Filter/Regulator Checking, and Cleaning or Replacing	
31-04	Holland Fifth Wheel Sliding Mechanism Inspecting	
40-01	Wheel Nut and Rim Nut Checking	
42-01	Camshaft Bracket Bushing Lubricating	
42–07	Bendix Air Brake Valve Disassembly, Cleaning, Inspecting, and Lubricating (DV-2 and Single Check Valve)	
46-04	Power Steering Reservoir Fluid and Filter Changing	
47–01	Fuel Tank Vent Checking	
47-03	Fuel Separator Sight Bowl Cleaning and Element Replacing	
83-01	Air Conditioner Inspecting	
83-02	Air Filter Replacing*	

^{*} Replace the HVAC filter every 6 months regardless of mileage.

Table 11, M2 Maintenance Interval Operations for Service Schedules I, II, and III

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