

The following make/model transmissions are approved and warranted for towing when equipped with - **HARDWARE PACK # LP-HP002**

CHRYSLER
Town & Country (40/41TE [A-604])
Town & Country (41AE)
Town & Country (62TE)
Van (36RH/46RH [A-518])
DODGE
Omni (30TH [A-404])
Dakota (42RLE)
Dakota (5-45RFE/45RFE)
Ram Pickup (40RH/42RH/42RE/44RE[A-500])
Sprinter Van (W5A330[722.6])
Sprinter Van (W5A380[722.6])
Sprinter Van (W5A580[722.6])
JEEP
Cherokee (40RH/42RH/42RE/44RE[A-500])
Cherokee (30RH[A904])
Wrangler (31RH[A-998])
Wrangler (32RH[A-999])
MERCEDES BENZ
ML350 (722.6ML SERIES)
Sprinter Van (W5A380)
Sprinter Van (W5A580)

Towed Vehicle **Lube Pump and Plumbing** **Installation Instructions**



LP-HP002

INSTALLER: GIVE THESE INSTRUCTIONS TO THE END USER AFTER INSTALLATION FOR THEIR FUTURE REFERENCE

NO WARRANTY IS EXPRESSED OR IMPLIED FOR LUBE PUMP COMPONENTS OR VEHICLE'S TRANSMISSION UNLESS WARRANTY CARD IS FILLED OUT, DATED, AND MAILED TO REMCO
See Warranty Card in the General Information Manual Page 5

REMCO LUBE PUMP PACK

LP-HP002

TO COMPLETE THE PLUMBING OF YOUR TRANSMISSION WITH THE LUBE PUMP KIT YOU WILL NEED TO LOCATE THE FOLLOWING ITEMS FROM YOUR BASE KIT (LP-BK001) AND USE THEM IN CONJUNCTION WITH THE LP-HP002 HARDWARE PACK TO COMPLETE THE INSTALLATION.

USE FOLLOWING PARTS FROM BASE KIT (LP-BK01)		
Part #	Description	Quantity
11010046	PUMP ASSEMBLY	1
11010047	LP, PUMP MOUNT BRACKET ASSEMBLY	1
40010019	3/8" HOSE	16'
USE FOLLOWING PARTS FROM HARDWARE PACK (LP-HP002)		
Part #	Description	Quantity
11010007	LP, REG. SELECTOR VALVE ASSEMBLY (BRASS)	1
11010013	LP, REG. PAN FITTING	1
10010051	LP, BARBED SUPPLEMENTAL FITTING	1
41010035-S	AUX COOLER	1
40010027	SILICONE SEALANT, BLACK, 3 OZ.	1
40010152	ATTENTION SHEET-CHRYSLER/DODGE 62TE	1

**AFTER INSTALLING THIS LUBE PUMP AND PLUMBING,
FIND THE WIRING INSTRUCTIONS IN THE
GENERAL INFORMATION & MOTORCOACH WIRING
(LP-BK01) INSTRUCTION MANUAL**

Note: CHARGER/MAGNUM/300/GRAND CHEROKEE (NAG/W5A580): A special tool (part# 9336) is required in combination with a computer scanner to accurately check the transmission fluid level. The best way without the tool is to measure the amount of fluid lost during the LP installation and refill accordingly. Then take to the Chrysler/Dodge/Jeep dealer to have it checked.

SELECTOR VALVE INSTALLATION

The selector valve is installed into the existing transmission/cooler lubrication line, which carries the fluid **from the transmission to the radiator (cooler)**. A second line (hose) normally runs alongside this line to carry the fluid from the cooler back to the transmission.

NOTE 1: Refer to the **DIAGRAM 1, page 4.**

NOTE 2: Some orderly planning should be given to the location of the selector valve. Consider the following:

1. Using the supplied 3/8" hose and fittings, extend the transmission lines so that the selector valve will mount within the engine compartment.
2. The valve and hoses should be located where they will not be damaged by road hazards, other moving parts, sharp edges, or hot exhaust parts. The valve can be secured by using plastic ties included in the kit.
3. Hoses should not bend too sharply causing a restriction in the fluid flow.

NOTE 3: Make sure the hoses will not be damaged by road hazards, other moving parts, sharp edges, or hot exhaust parts. The valve can be secured by using plastic ties included in the kit. Also, hoses should not be bent too sharply causing a restriction in the fluid flow.

WARNING: THE SELECTOR VALVE MUST BE CONNECTED INTO THE HOSE, WHICH CARRIES THE TRANSMISSION FLUID FROM THE TRANSMISSION TO THE COOLER WHEN THE VEHICLE'S ENGINE IS RUNNING AND THE TRANSMISSION IS IN NEUTRAL (N).

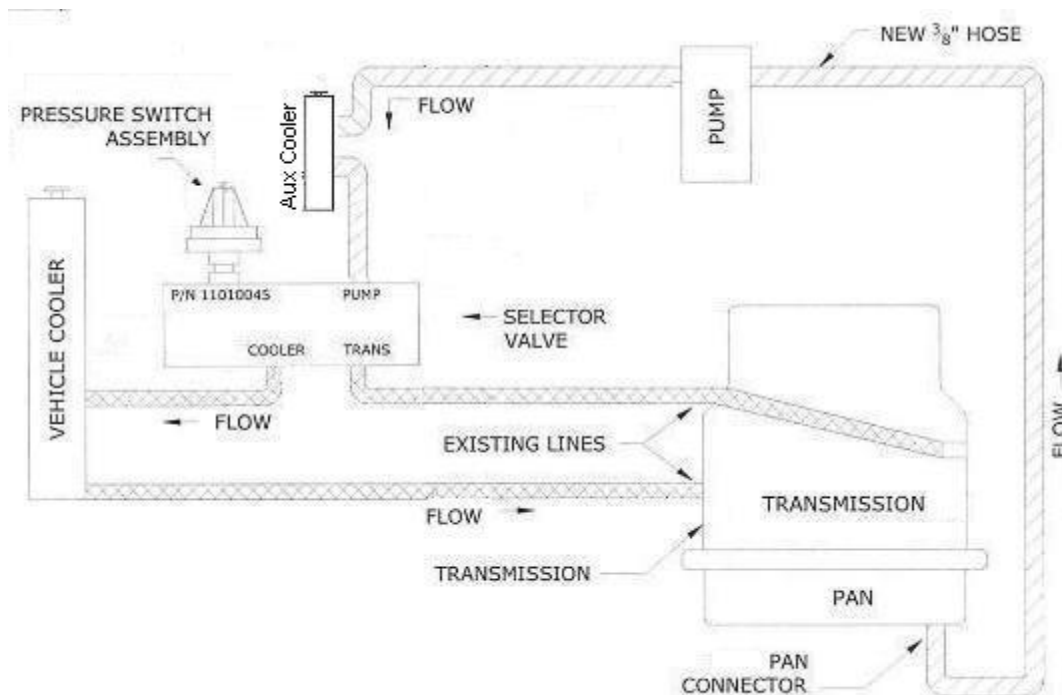
1. To determine which hose must be used, disconnect one of the hoses from the transmission. (Expect a small amount of fluid to drain from the line). *Please reference Page 10, when plumbing between Transmission and Cooler. A Supplemental Barbed Fitting and extra Hose Clamps are supplied with this kit to make plumbing easier.*

2. Attach the 3/8" hose provided in the kit to the transmission line and arrange the hoses in a container.
3. Have an assistant momentarily start the engine or crank the engine with the starter to cause fluid to flow from one or the other open ends of the hose.
4. If the fluid flows from the transmission hose, you have disconnected the proper line. If the fluid flows from the radiator hose, you have disconnected the wrong hose. Repeat Step 1.

CONNECTING THE PROPER HOSE TO THE SELECTOR-VALVE

1. Determine the appropriate length of hose for selector valve.
2. Using one of the hose clamps (provided), connect the rubber transmission hose coming from the transmission port to the “**Trans**” connection of the **LP, REG. SELECTOR VALVE ASSEMBLY (p/n 11010007)**.
3. Using one of the hose clamps, connect the rubber hose coming from the vehicle’s cooler to the “**cooler**” connection of the **LP, REG. SELECTOR VALVE ASSEMBLY**.

The “**PUMP**” connection of the selector valve will later be connected to the pump.



INSTALLATION OF THE PAN CONNECTOR:

It is necessary to remove the transmission pan to install the regular pan connector. You will need a large container to catch the fluid when the pan is removed.

NOTE 1: Transmission fluid becomes contaminated during usage, and therefore should not be re-used after it is drained from the pan. Similarly, the transmission's oil filter should be changed every 25,000 to 40,000 driven miles. Use manufacturer's recommendation.

NOTE 2: Dispose of used transmission fluid properly.

Step 1. Remove the pan and discard the gasket if one is present. If RTV sealant was used, it must be removed from both the transmission and transmission pan. (Some auto manufacturers use an RTV sealant instead of a gasket.)

Step 2. Carefully examine the underside of the exposed transmission and the manner in which the pan fits around valve body and filter before deciding on a suitable location for the pan connector.

NOTE 3: **Precautions to consider when determining the best location for the pan connector.**

- a. **It is NOT advisable to locate the connector on the bottom or the front surfaces of the pan because of the strong possibility of damage from road hazards.**
- b. The connector should be located away from any exposed gears, which tend to cause fluid to foam when in motion.
- c. It is desirable to have the connector located as far as possible below the transmission fluid level, taking into consideration the changes in fluid level, which will occur.
- d. Generally, the connector can best be located in the right or left sidewalls or the rear portion of the pan, keeping in mind the above situations.
- e. Make certain the location of the connector will not interfere with reinstalling the pan bolts and that it allows for an easy bend of the 3/8" hose, which will extend from this connector up to the lube pump.
- f. Finally, be sure the connector location provides sufficient flat surface area to permit tightening the hex nut on the inside of the pan.

(See picture on page 7. Use this picture as a reference only. Determine the best location for your car)

- Step 3. When you have determined the best location for the pan connector, locate the hole vertically by holding the hex connector nut on a vertical surface of the pan and marking its location. Drill a 17/32" diameter hole in the side of the pan.
- Step 4. Clean off the drilled area with a lacquer thinner or other suitable cleaner/degreaser. Apply a small amount of the silicone sealant (provided in the kit) to the back (grooved) side of the hex nut (which is already mounted on the connector) and to the threads on the connector, and also to the back (grooved) side of the separate hex nut. Then insert the connector into the 17/32" hole and secure on the inside of the pan with the separate hex nut.
- Step 5. Before re-installing the transmission fluid pan, make sure the mating surfaces on both the pan and transmission housing are absolutely clean of all gasket material, oil or dirt. If the transmission was originally equipped with a gasket, replace with a new gasket. If silicone was originally used then carefully apply a 1/8" bead of silicone sealant (provided) around the bottom perimeter of the transmission housing using plastic nozzle provided. Make sure to encircle each bolt hole as shown (Refer to **DIAGRAM 2, below**). Allow the sealant to set up for about 1 hour. Assemble the pan to the transmission, installing the bolts finger tight only. Allow to set 45 more minutes. This allows the sealant to conform to two surfaces without squeezing it out. Tighten the bolts to the required torque specification. **Do not over tighten.** Refer to the vehicle service manual for torque specifications.

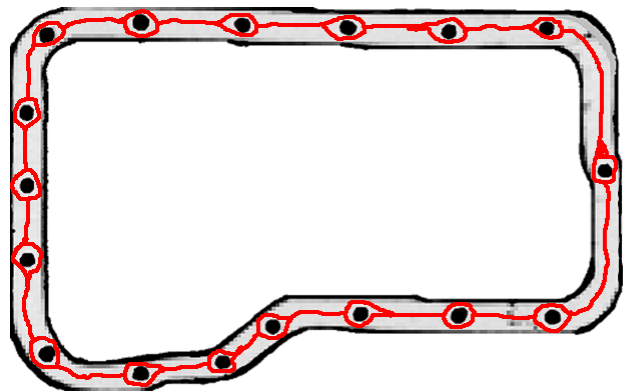
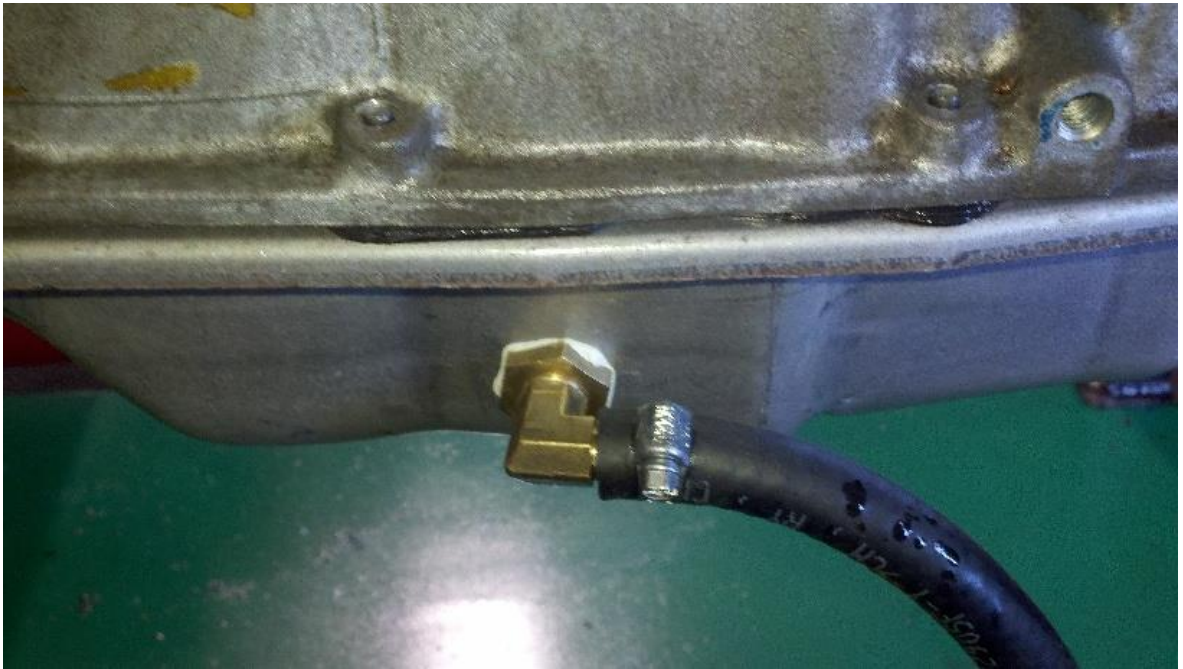


Diagram 2
PAN WITH SEALANT APPLIED



Use this picture as a reference only.

• LUBE PUMP INSTALLATION

WARNING: **Failure to follow the procedures listed below will void the warranty on your pump.**

LOCATION: It is important to determine a desirable place on the vehicle to locate the lube pump. The best location may vary from vehicle to vehicle.

NOTE 1: **Locate the pump in the upper part of the engine compartment, under the hood. This is important to keep the pump from being exposed to the weather and other harsh elements.**

NOTE 2: **Mount the pump either vertically (motor up or down) or horizontally. Do Not mount pump in the fender well or behind the bumper. This will void the warranty.**

Included in this kit is a pump mounting bracket assembly (p/n 11010047). This allows the pump to be installed on the strut tower, the firewall or the radiator support as examples.

INSTALLATION: (Refer to **DIAGRAM**, page 4)

NOTE 3: **When routing the 3/8" hose to the pump, selector valve and pan connector, be sure to route them where road hazards, other moving parts, sharp edges, or hot exhaust parts will not damage them.**

Step 1. Mount the pump in the engine compartment. (see notes above).

AUX COOLER INSTALLATION

Note: **Place the Aux Cooler in a location that allows for plenty of air to pass through. Somewhere in front of the radiator would be preferred.**

Step 2. Using a suitable length of 3/8" hose and one of the hose clamps, connect one end of the hose to the **output port** of the pump. Route the other end of the 3/8" hose from the **Pump** to either port of the Aux Cooler. (refer to **diagram, page 4**). Using 1 hose clamp, connect the hose to the Aux Cooler.

Step 3. Using a suitable length of 3/8" hose and one of the hose clamps, connect one end of the hose to the other side of the Aux Cooler. Route the other end of the 3/8"

hose from the **Aux Cooler** to the **Selector Valve**. (Refer to **diagram, page 4**). Using 1 hose clamp, connect the hose to the “**pump**” port on the selector valve.

WARNING: THE LINE FROM THE AUX COOLER MUST BE CONNECTED TO THE “PUMP” CONNECTION ON THE VALVE.

Step 4. Using one of the hose clamps (provided), connect one end of the 8-ft. length of the 3/8” hose to the **input side** of the lube pump. Carefully, route 3/8” hose to the **LP, REG. PAN FITTING** in the transmission pan. Cut the hose to a suitable length. (Reference picture is on page 7.)

Step 5. Using one of the hose clamps connect the 3/8” hose to the sump connector. Make sure hose clamps are securely tightened on all connections.

Step 6. When all connections are complete and all hose clamps securely tightened, refill the transmission with new transmission fluid through the filler tube. Consult the vehicle Owner’s Manual for the proper type fluid to use and for the recommended procedures to make sure the proper fluid level is restored. Proper fluid level is essential for trouble-free operation of the transmission as well as the lube pump. **THE TRANSMISSION FLUID LEVEL MUST BE RE-CHECKED, AFTER INSTALLATION. WHEN VEHICLE IS SAFE TO RUN.**

(If this transmission has been used – properly flush the transmission and torque converter and install a new filter before refilling with new fluid!)

For Installation Testing, Towing Checklist, and Troubleshooting see the back section of the LP-BK01 General Information Manual.

RETURN THE THE GENERAL INFORMATION MANUAL PG. 8 TO INSTALL THE WIRING HARNESS ON THIS TOWED VEHICLE.

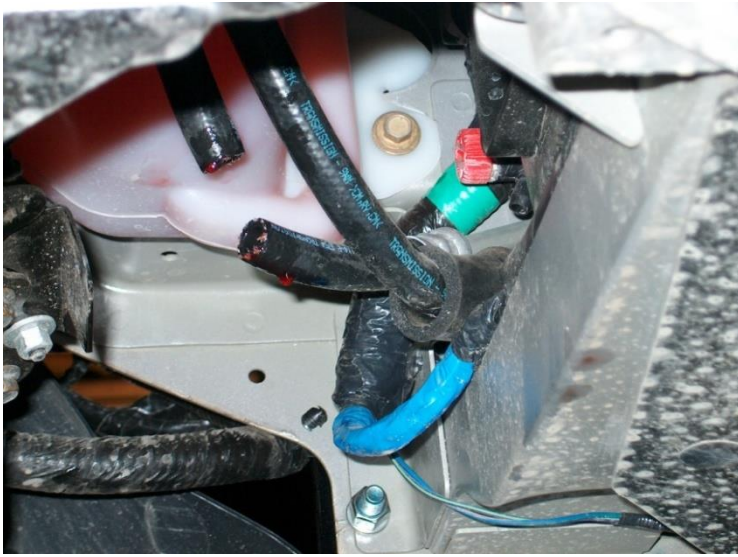


Figure A



Figure B

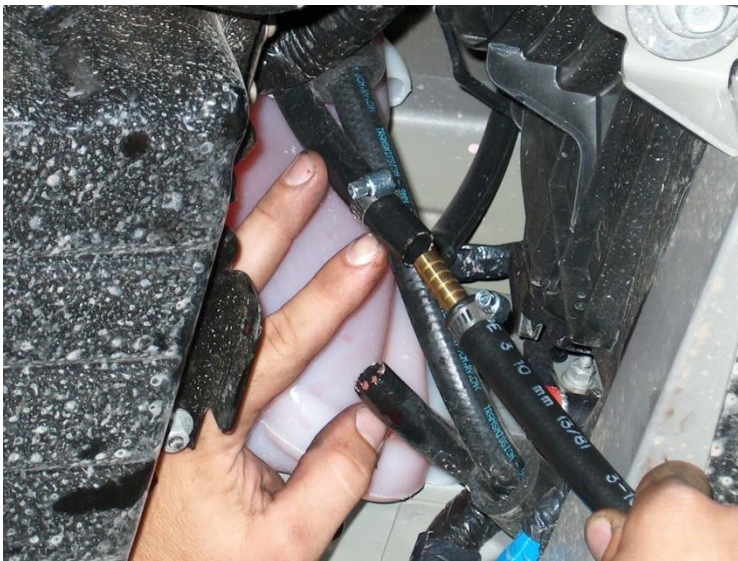


Figure C



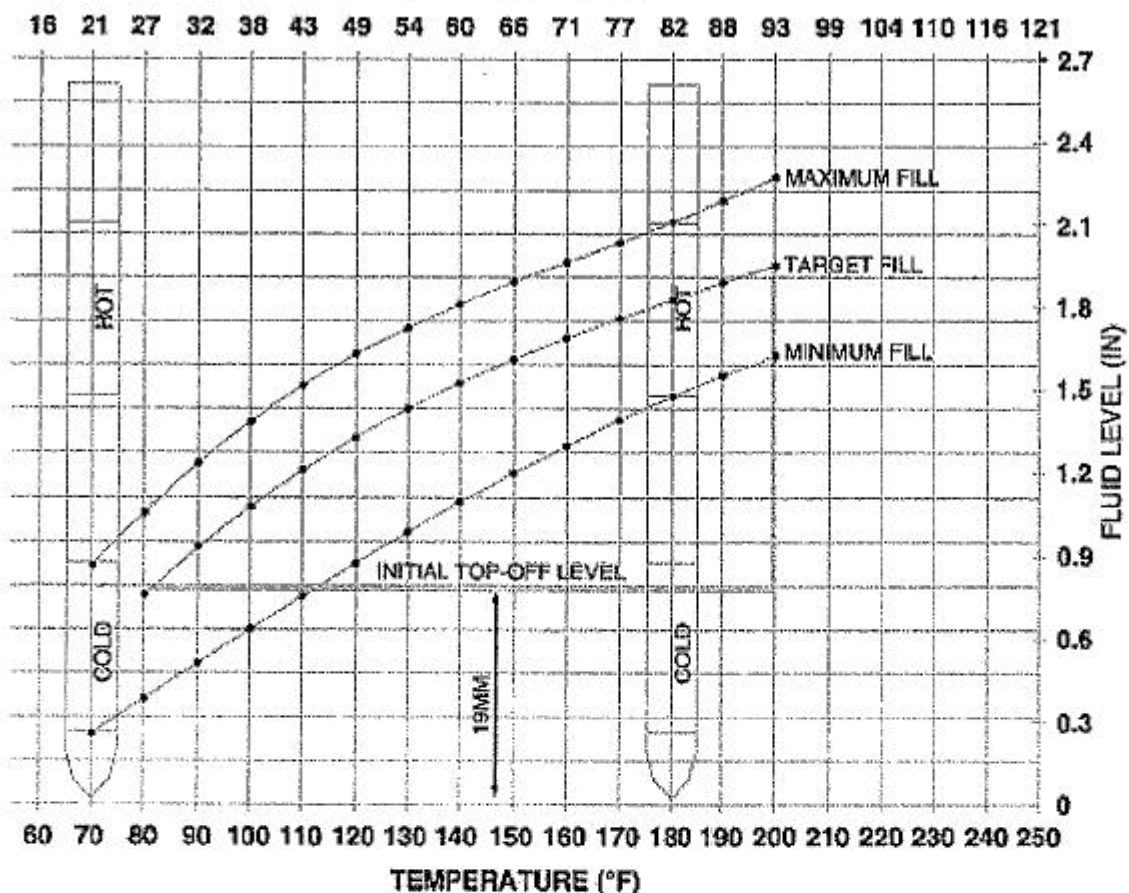
Figure D

1. Locate the proper transmission line, to do this follow the detailed instructions included with your kit. It will be a steel line into the cooler and a steel line into the transmission (Fig. D) connected by a piece of rubber hose. It will be accessible from the underside of the vehicle.
2. Cut the rubber hose (Fig. A)
3. Place one of the hose clamps over the end of the hose provided with the kit and slide one of the hose barbs into the end of the hose (Fig. B). Tighten the hose clamp up around the inserted hose barb.
4. Slide another hose clamp over the ends of each of the cut transmission line.
5. Take the hose that now has the barb inserted and affixed and slide the exposed end of the barb into one of the ends of the hose on the vehicle that was previously cut (Fig. C).
6. Repeat steps 3 through 5 for the other half of the cut transmission line.

42RLE

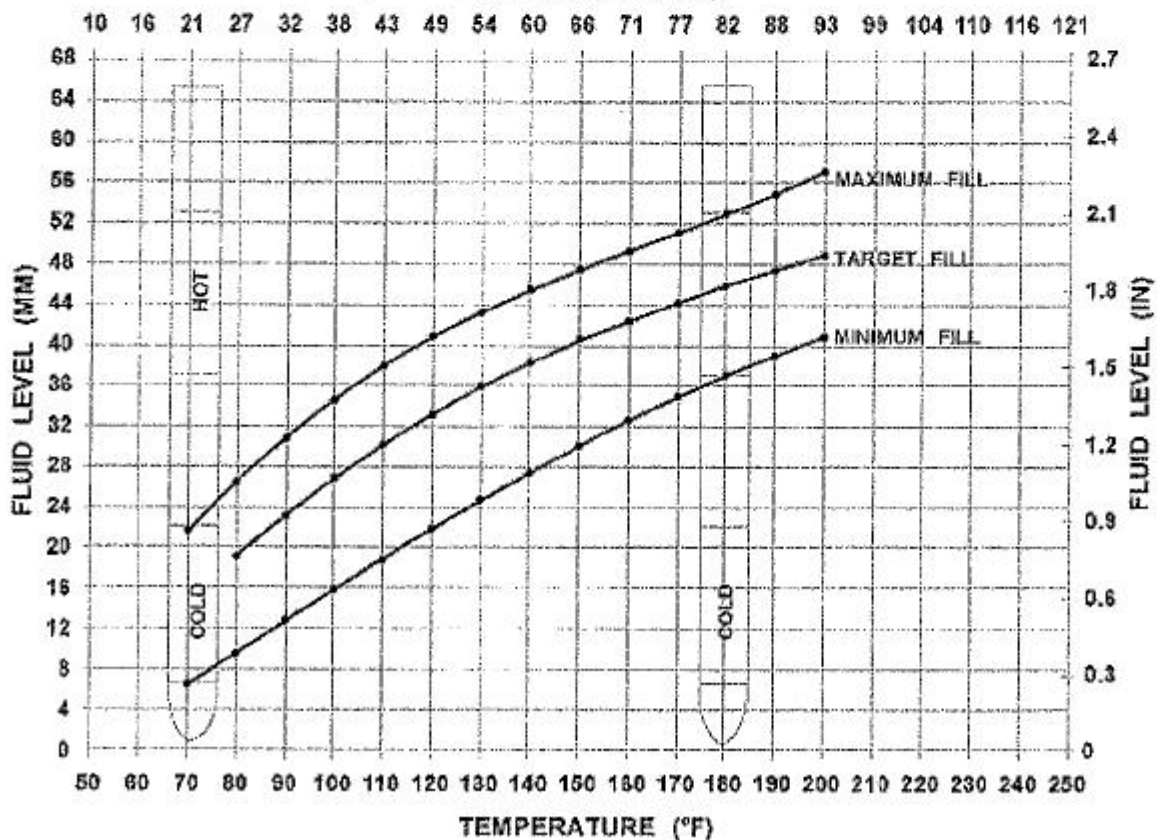
42RLE Fluid Fill (All Except LE/LX)

TEMPERATURE (°C)



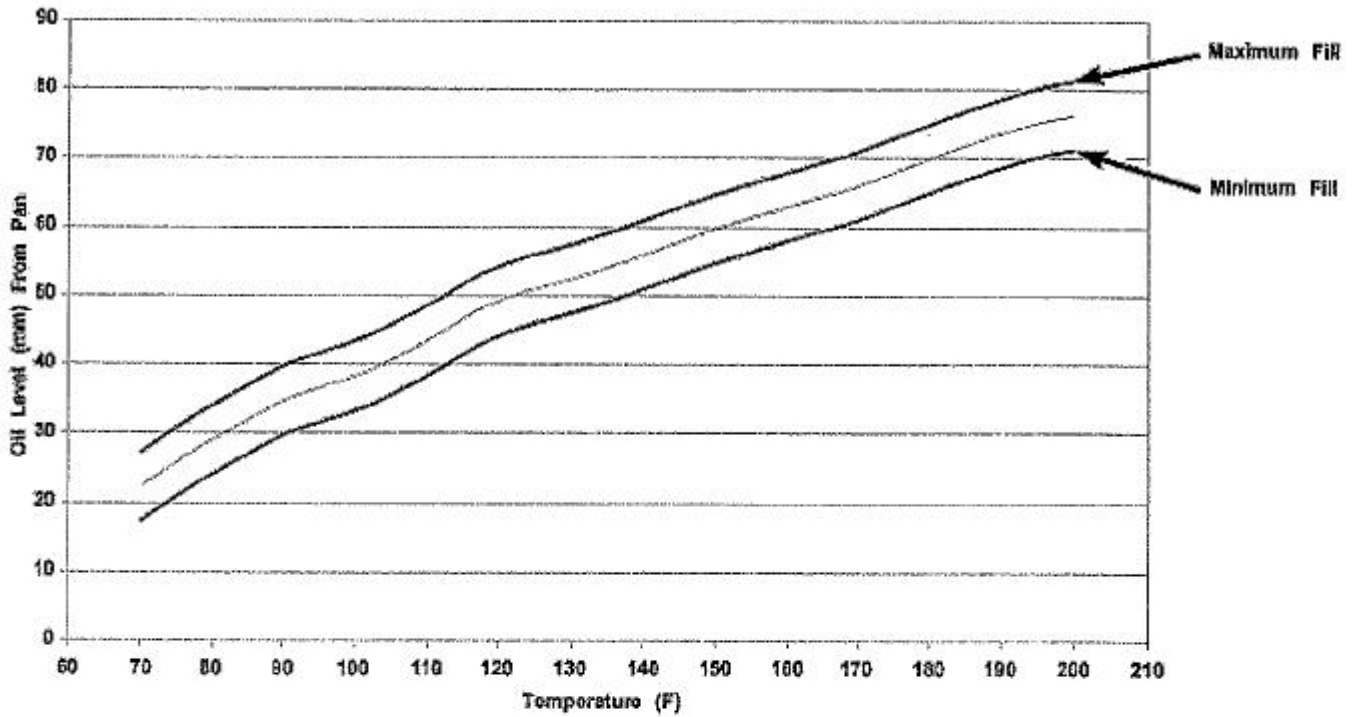
42RLE Fluid Fill (ALL EXCEPT LE/LX)

TEMPERATURE (°C)



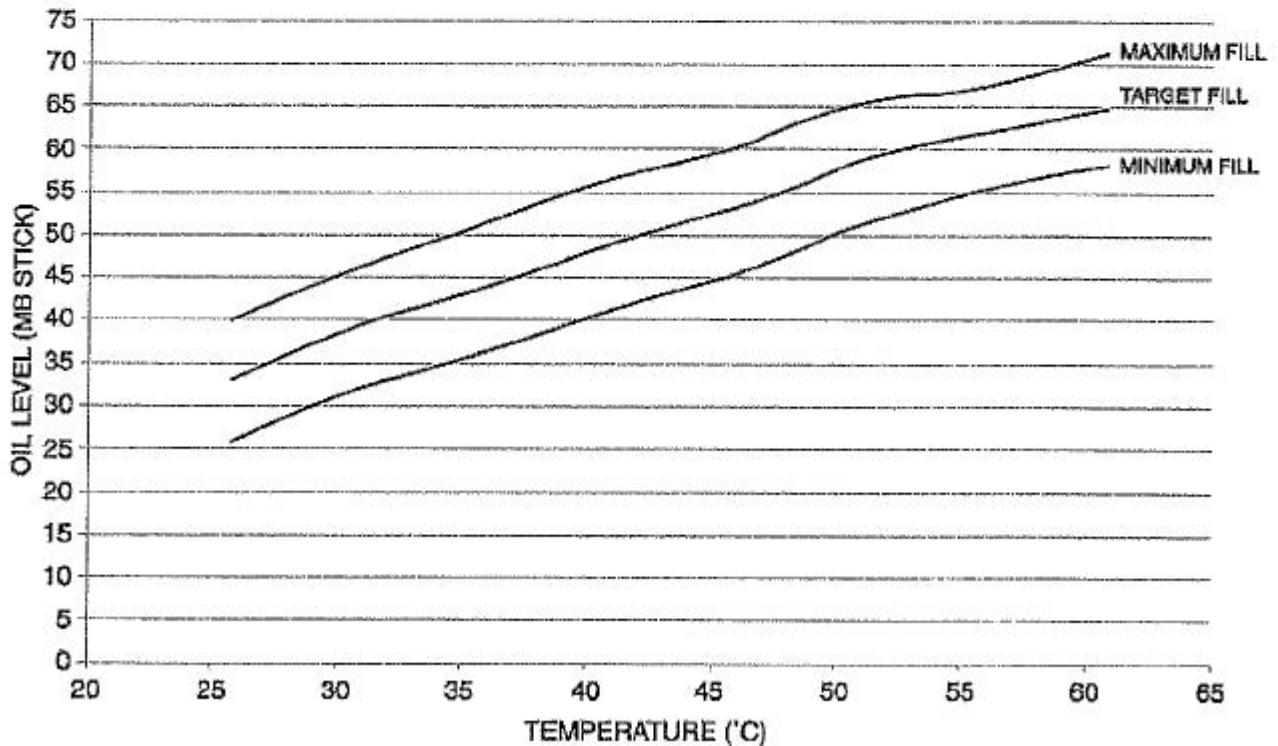
NAG1 GASOLINE TRANSMISSION FILL GRAPH

W5A580 Fluid Fill (LX/LC/LD/L2 Only)



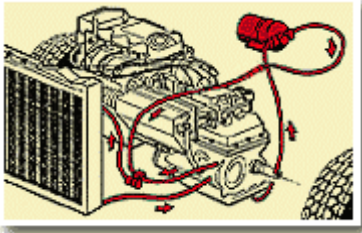
NAG1 DIESEL FILL GRAPH

3.0L LE W5A580 Transmission Fluid Fill Curve



Notes:

REMCO OFFERS THESE PRODUCTS FOR YOUR TOWING CONVENIENCE



REMCO'S Lube-Pump lubricates and cools transmissions on select Front-Wheel Drive, Rear-Wheel Drive, Four-Wheel Drive, and All-Wheel Drive vehicles while towing.



REMCO'S Tail Light Wiring Kit is for easy hook up of your tail lights and turn signals for towing.



REMCO'S 12-Volt (DC) RV Water System Pumps

REMCO
The Towing Experts

4605 County Road 82 SE
Alexandria, MN 56308
1-800-228-2481
763-253-4740
Fax: 763-253-4741