FORD 6R140W

TRANSMISSION COOLING UPGRADE

COMPLAINT: It is not unusual to have a truck equipped with the 6R140W transmission which is heavily loaded and operating in warm weather to have driven the transmission temperature up to a undesirable level.

CAUSE: The thermal element located inside the cooler bypass valve does not allow full time cooler flow until a transmission operating temperature of 195°F is reached.

CORRECTION: Remove the outer most valve retaining clip as seen in figure 1. Then remove the thermal element and the spring located immediately after the cooler bypass valve as shown in figure 2. Then install three (3) 10mm washers between the outer bore plug and the cooler bypass valve also shown in figure 2. This will allow full time cooler flow at all temperature ranges.

The lube safety bypass valve will allow cooler flow even if the cooler becomes restricted or a cooler line becomes kinked. This valve opens at 40 psi and typically regulates lube dump at 42 to 45 psi cooler to lube pressure differential.

Many thanks to Dean Mason for sharing his expertise with ATSG to make this bulletin possible.

A special thank you to Dan Tucker for bringing this problem to our attention.

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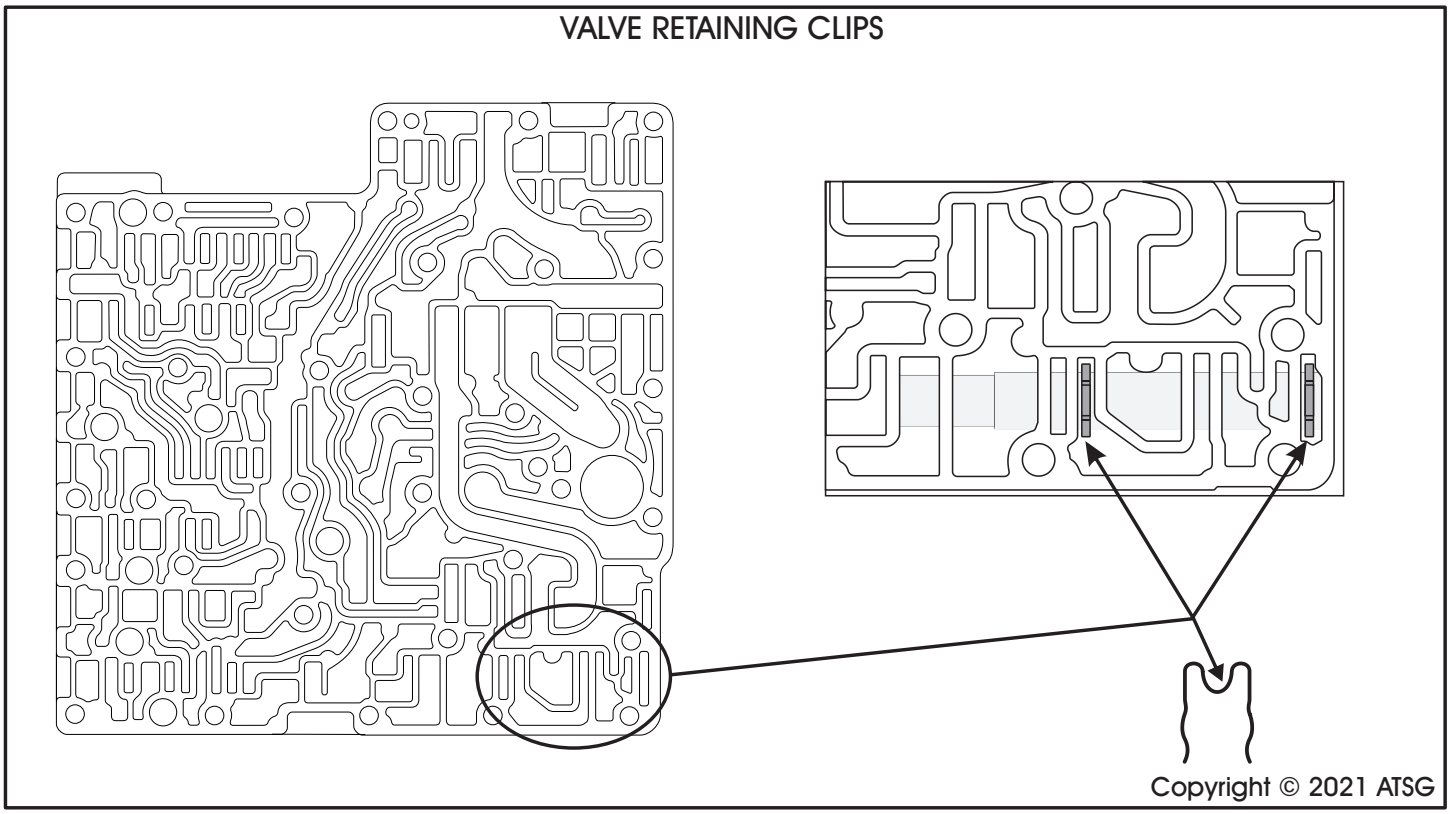

Figure 1

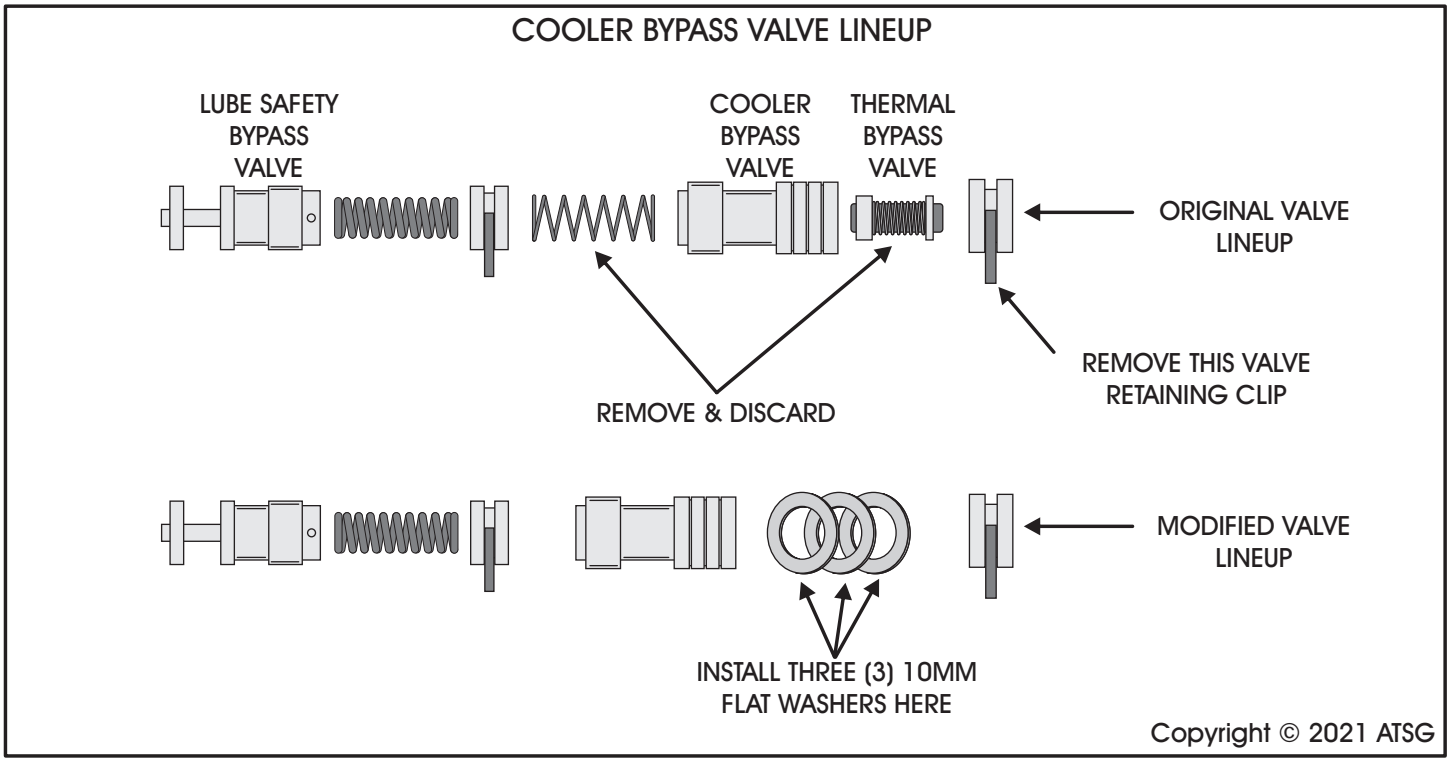

Figure 2