



Technical Service Information

GM 4L80E OUTPUT CARRIER IDENTIFICATION UPDATE

COMPLAINT: At the start of the 1999 model year with 4L80-E transmissions, significant changes to the center gear case were made for durability reasons. Incorrect parts compatibility can lead to complaints of gear noise, hard part failure due to incorrect clearances in the center gear case area and premature TCC application. ATSG, in an attempt to clear up all this confusion, put together a seminar bulletin in 2005 showing all compatible combinations. However, we neglected to provide a quick and easy method to identify the actual differences between the various output carriers that appear the same at a glance but are not. This will be provided here.

CORRECTION: The area to look at for planetary identification is the inside diameter of the carrier where the pinion gears are. Shown in Figure 1 is a Turbo 400 output carrier, notice the thickness of the web between the pinion gears, that's the instant identification. A number of years ago, when 4L80E rear carriers were in short supply, the technician could use a 400 carrier as long as it was one with the long park lugs. In addition, if an output speed sensor was functional, the 400 carrier would have to be machined down to accept the speed sensor tone ring. Unless it was being used in a 1994 to 1998 Four Wheel Drive application which did not require a functional output speed sensor due to it's function being discontinued.

Shown in Figure 2 is the 1991 - 1998 4L80E rear carrier, once again notice the thickness of the web between the pinion gears. These carriers came with or without a speed sensor tone ring depending on whether it was Two or Four Wheel Drive. The thickness (or height) of the pinion gears on these carriers is 0.710".

Shown in Figure 3 is the 1999 and later rear carrier, this is the time period when the center gear case components changed to improve the durability of this area as explained in the 2005 seminar material.

Notice the thickness of the web between the pinion gears, it's thicker than the 1991 - 1998 carrier. In addition the thickness of the pinion gears was increased .075" to 0.785 in order to center the sun gear which was raised by .041".

SERVICE INFORMATION:

In order to make the 2005 Seminar material or ATSG Bulletin #04-33 complete, it is suggested that this bulletin be reproduced and placed in both locations.

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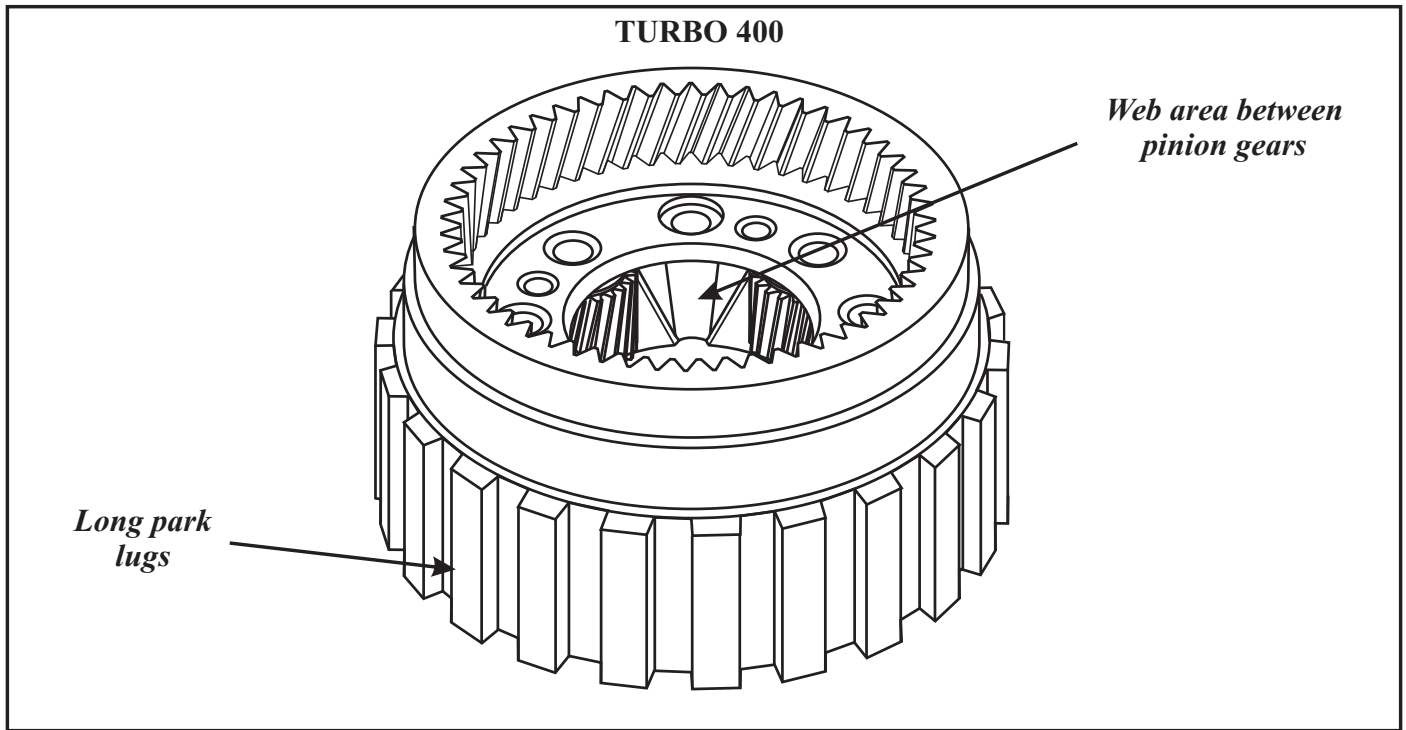


Figure 1

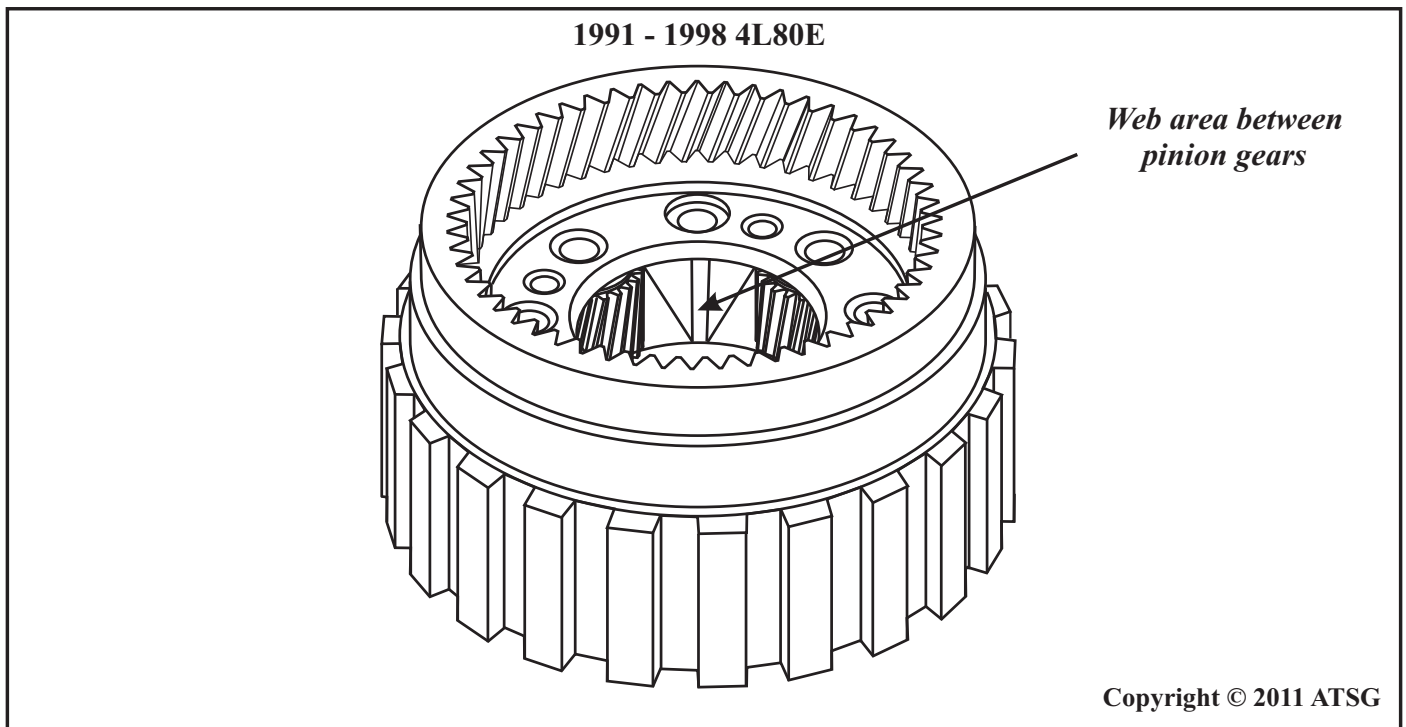


Figure 2

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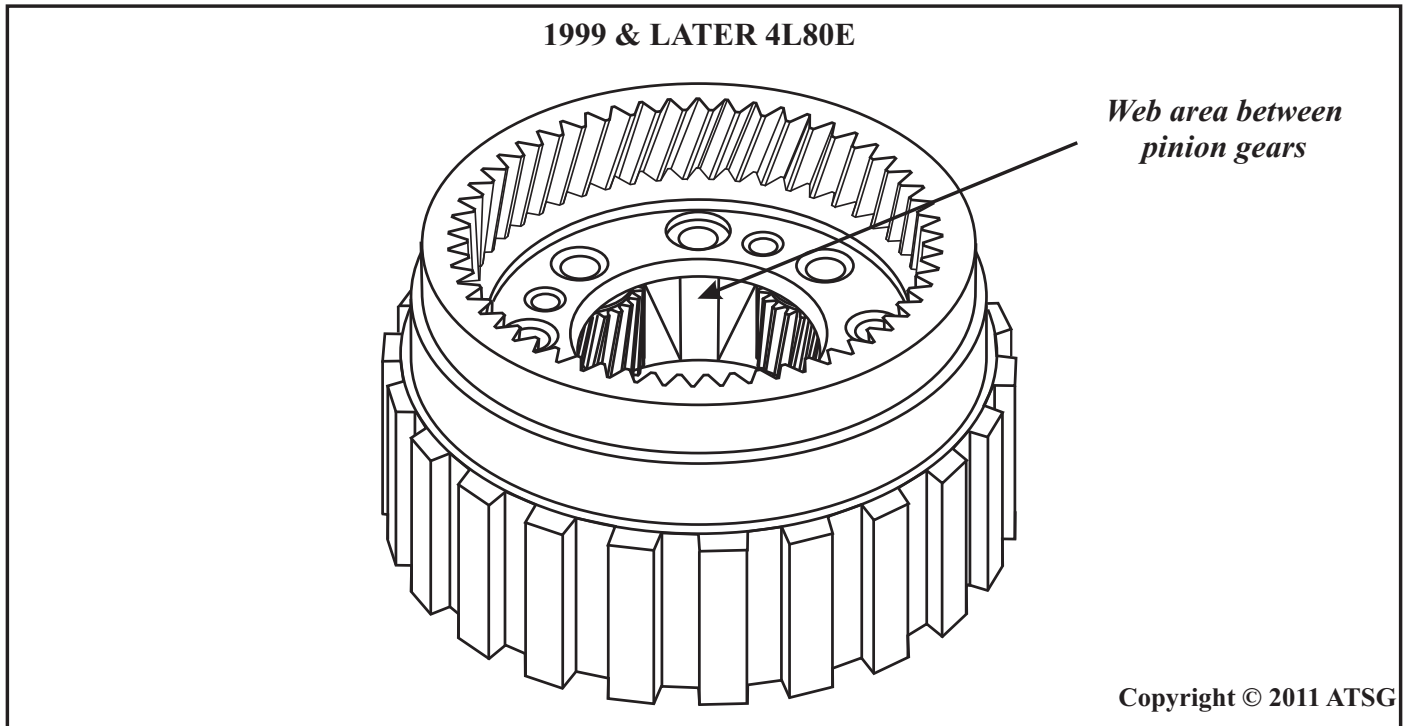


Figure 3