



# Technical Service Information

## **FORD AODE/4R70W GEAR TRAIN DIFFERENCES AND IDENTIFICATION**

The Ford AOD-E which was introduced in 1992, and the Ford 4R70W which was introduced in 1993, look identical from the external appearances of the transmission, but have different gear ratios as shown in the chart below. This means that the gear train components have different tooth counts and look very similar when compared, but *will not interchange*. Use this bulletin to identify the gear train components to ensure proper build content.

**AOD-E**  
**1ST - 2.40**  
**2ND - 1.47**  
**3DR - 1.00**  
**4TH - 0.67**  
**REV - 2.00**

**4R70W**  
**1 ST = 2.84**  
**2ND = 1.55**  
**3RD = 1.00**  
**4TH = 0.70**  
**REV = 2.32**

### **OUTPUT SHAFT RING GEAR SUPPORT**

There is a different profile on the supports and each support requires a different style rear case bearing, as shown in Figure 1.

The AOD-E transmission requires a two piece open (needles exposed) rear case bearing that is approximately .113" thick (See Figure 1).

The 4R70W transmission requires a three piece closed (needles not exposed) rear case bearing that is approximately .144" thick (See Figure 1).

### **OUTPUT SHAFT RING GEAR**

The AOD-E has 72 teeth on the Output Shaft Ring Gear, and the direct drum will not pass through the front side of the ring gear (See Figure 2).

The 4R70W has 88 teeth on the Output Shaft Ring Gear, and the direct drum will pass through the front side of the ring gear (See Figure 2).

### **PLANETARY CARRIER ASSEMBLY**

The AOD-E has 18 teeth on both the long, and the short pinions, and the thrust plate retaining pins are flush with the retaining plate (See Figure 3).

The 4R70W has 25 teeth on the long pinions, 24 teeth on the short pinions, and the thrust plate retaining pins are recessed (See Figure 3).

### **REVERSE SUN GEAR AND SUN GEAR SHELL**

The AOD-E has 36 teeth on the Reverse Sun Gear Shell and the outside diameter of the gear is approximately 2.600" (See Figure 4).

The 4R70W has 38 teeth on the Reverse Sun Gear Shell and the outside diameter of the gear is approximately 2.438" (See Figure 4).



# Technical Service Information

## FORWARD CLUTCH SUN GEAR

The AOD-E has 30 teeth on the sun gear and the outside diameter of the gear is approximately 2.225”, as shown in Figure 4.

The 4R70W has 31 teeth on the sun gear and the outside diameter of the gear is approximately 2.062”, as shown in Figure 4.

## OUTPUT SHAFT

The output shaft on the AOD-E transmission is approximately one inch longer than the 4R70W output shaft.

## PART NUMBER INFORMATION

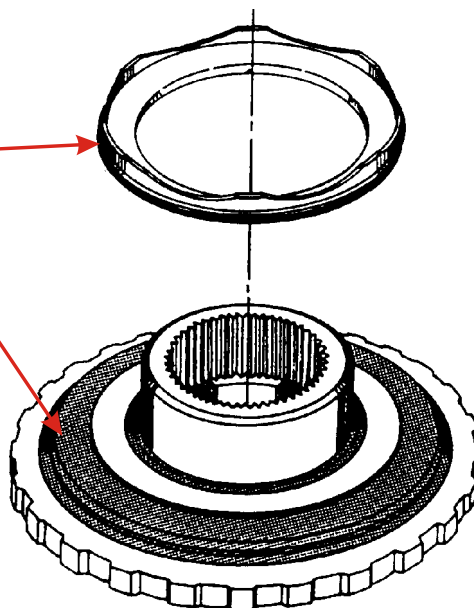
	AOD-E	4R70W
Output Shaft Hub (Support) . . . . .	F4AZ-7D164-A	F3LY-7D164-B
Rear Case Bearing (Number 9) . . . . .	E0AZ-2F242-A	F3LY-7F242-A
Output Shaft Ring Gear . . . . .	F4AZ-7A153-A	F3LY-7A233-A
Planetary Carrier Assembly . . . . .	F2AZ-7A398-A	F3LY-7A398-A
Forward Clutch Sun Gear . . . . .	E0AZ-7A399-A	F3LY-7A399-A
Reverse Sun Gear and Shell Assembly . . . . .	F4AZ-7A019-A	F4SZ-7A019-A

## FORD AOD-E OUTPUT SHAFT RING GEAR SUPPORT AND REAR CASE BEARING IDENTIFICATION

**TWO PIECE (OPEN)  
REAR CASE BEARING  
.113" THICK  
PART # E0AZ-7F242-A**

**DIFFERENT PROFILE ON SUPPORT  
AND WILL NOT INTERCHANGE**

**RING GEAR SUPPORT  
PART # F4AZ-7D164-A**

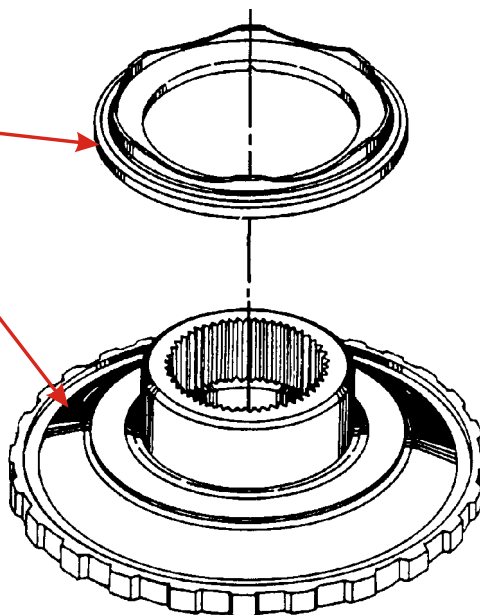


## FORD 4R70W OUTPUT SHAFT RING GEAR SUPPORT AND REAR CASE BEARING IDENTIFICATION

**THREE PIECE (CLOSED)  
REAR CASE BEARING  
.114" THICK  
PART # F3LY-7F242A**

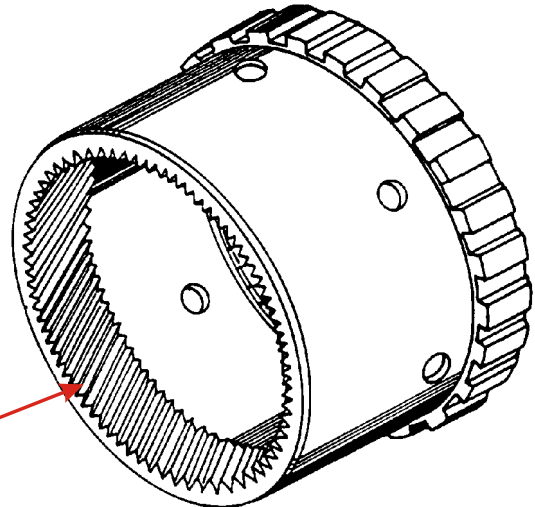
**DIFFERENT PROFILE ON SUPPORT  
AND WILL NOT INTERCHANGE**

**RING GEAR SUPPORT  
PART # F3LY-7D164-B**



**FORD AOD-E  
OUTPUT SHAFT RING GEAR  
PART # F4AZ-7A153-A**

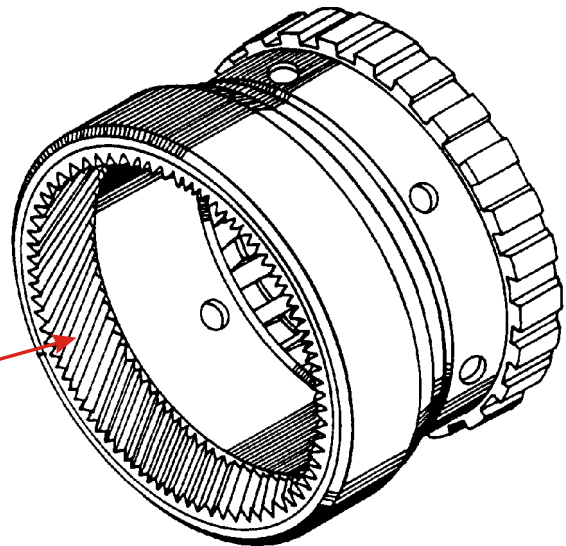
**72 TEETH, AND THE RING GEAR  
IS SMALLER IN DIAMETER THAN  
THE 4R70W RING GEAR**



**DIRECT CLUTCH HOUSING CANNOT  
BE REMOVED THROUGH THE FRONT**

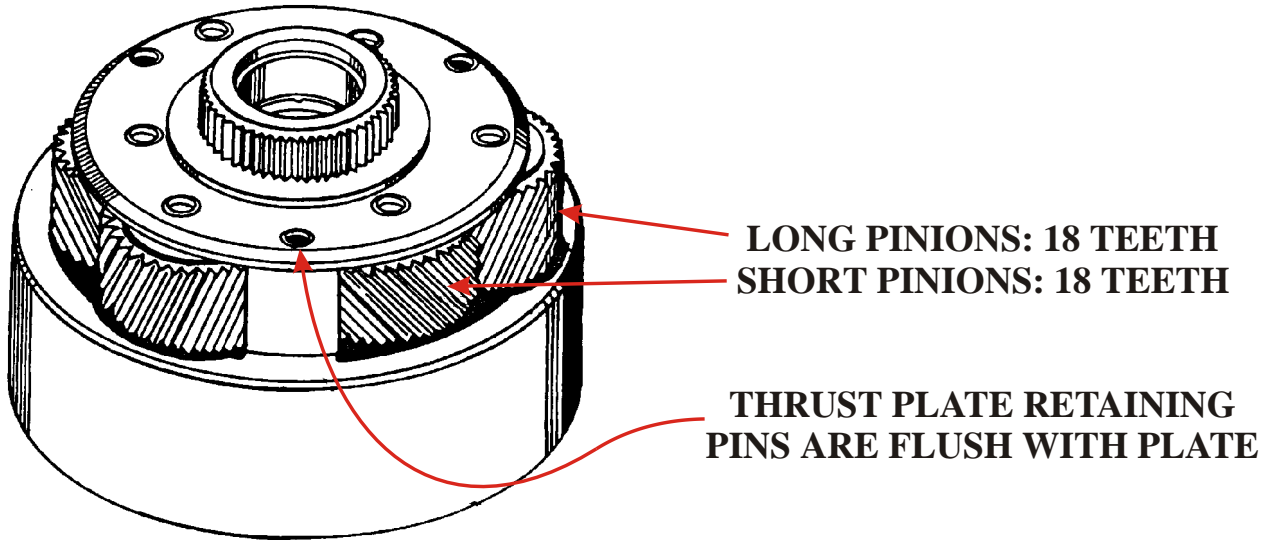
**FORD AOD-E  
OUTPUT SHAFT RING GEAR  
PART # F3LY-7A233-A**

**88 TEETH, AND THE RING GEAR  
IS LARGER IN DIAMETER THAN  
THE AOD-E RING GEAR**

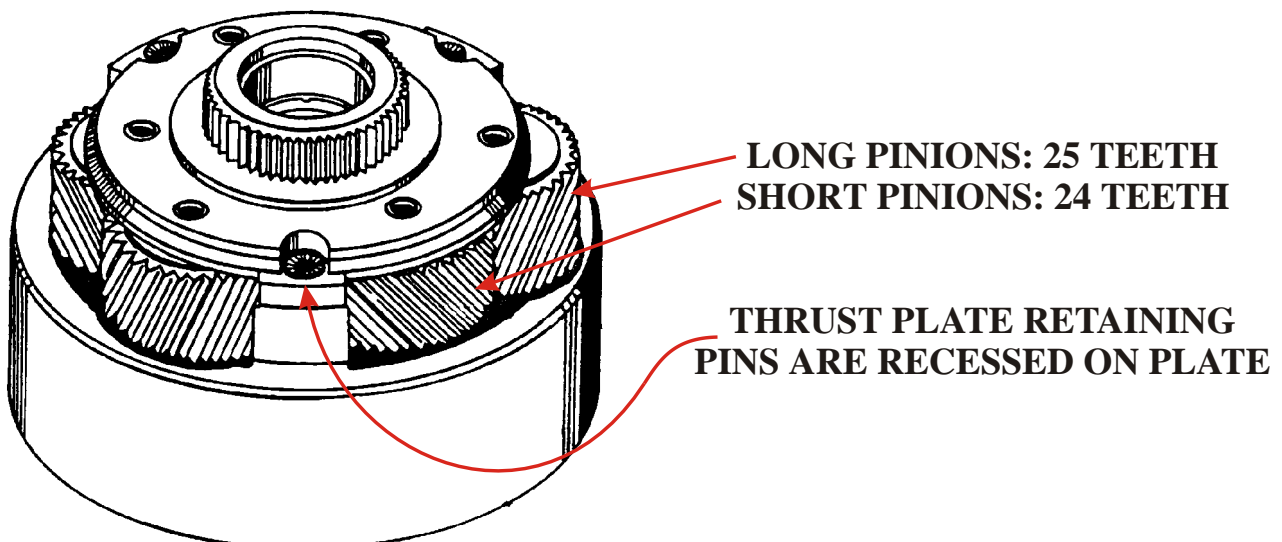


**DIRECT CLUTCH HOUSING CANNOT  
BE REMOVED THROUGH THE FRONT**

**FORD AOD-E  
PLANETARY CARRIER ASSEMBLY  
PART # F2AZ-7A398-A**



**FORD 4R70W  
PLANETARY CARRIER ASSEMBLY  
PART # F2LY-7A398-A**

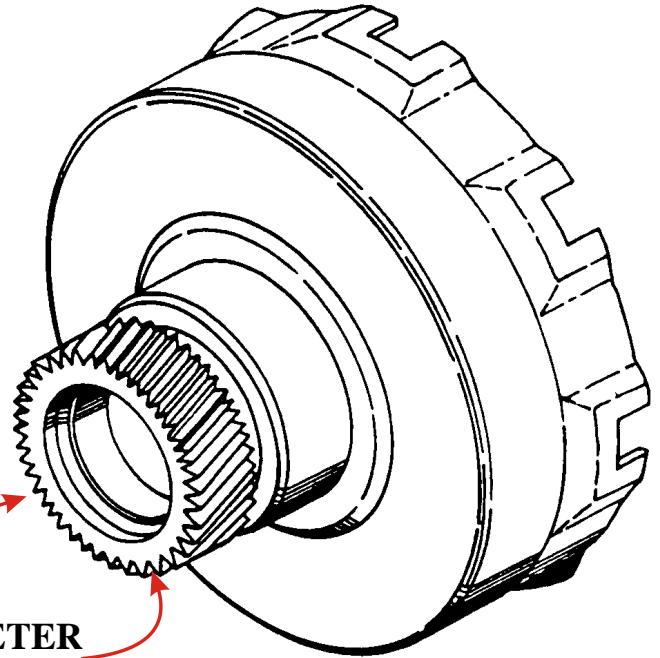


**REVERSE SUN GEAR AND  
SUN GEAR SHELL IDENTIFICATION**

**AOD-E: = 36 TEETH ON SUN GEAR**  
**4R70W: = 38 TEETH ON SUN GEAR B**

**AOD-E: = 2.600" OUTSIDE GEAR DIAMETER**  
**4R70W: = 2.438" OUTSIDE GEAR DIAMETER**

**AOD-E: = PART NO. F4AZ-7A019-A**  
**4R70W: = PART NO. F4SZ7A019-A**

**FORWARD CLUTCH SUN GEAR IDENTIFICATION**

**AOD-E: = 30 TEETH ON SUN GEAR**  
**4R70W: = 31 TEETH ON SUN GEAR**

**AOD-E: = 2.225" OUTSIDE GEAR DIAMETER**  
**4R70W: = 2.062" OUTSIDE GEAR DIAMETER**

**AOD-E: = PART NO. EOAZ-7A399-A**  
**4R70W: = PART NO. F3LY-7A399-A**

