FORD

Service Manual

Tractor Series
2000, 3000, 4000, 5000, 7000
3400, 3500, 3550, 4400, 4500,
5500, and 5550

1965 – 1975

40340070

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Part 3

ELECTRICAL SYSTEM

Chapter 7

ALTERNATOR AND REGULATOR – FORD 7000

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1. INTRODUCTION

ALTERNATOR

The alternator system consists of an alternator and solid state voltage regulator, Figure 1. Figure 2 shows the terminal arrangement at the rear of the alternator. Figure 3 shows the side view.

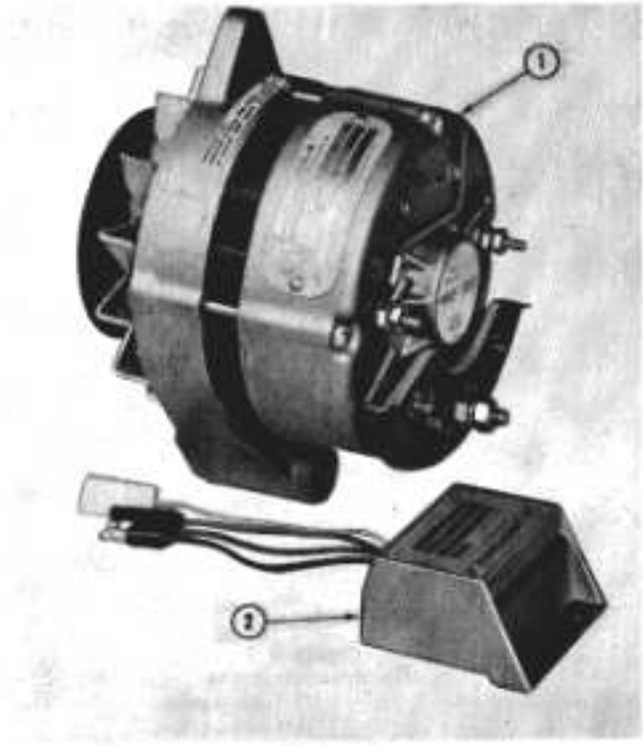


Figure 1
Alternator and Regulator

1. Alternator
2. Voltage Regulator

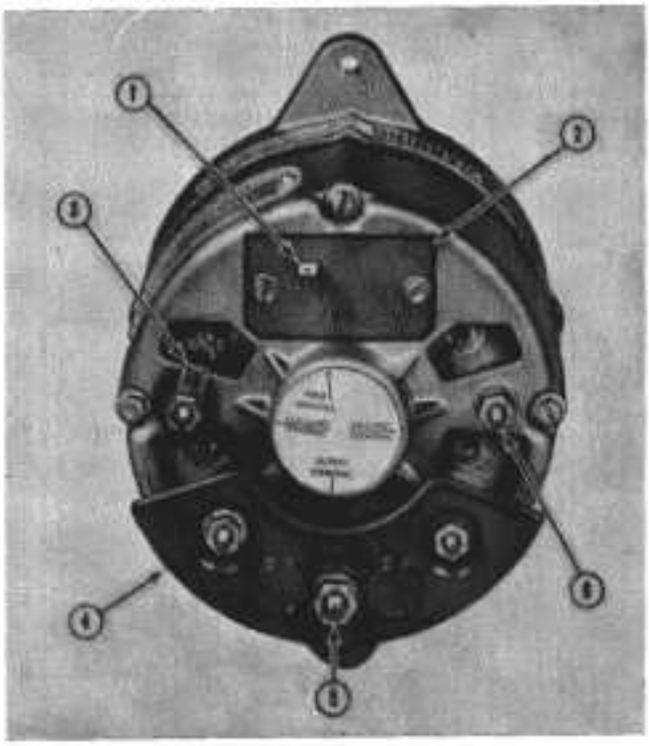
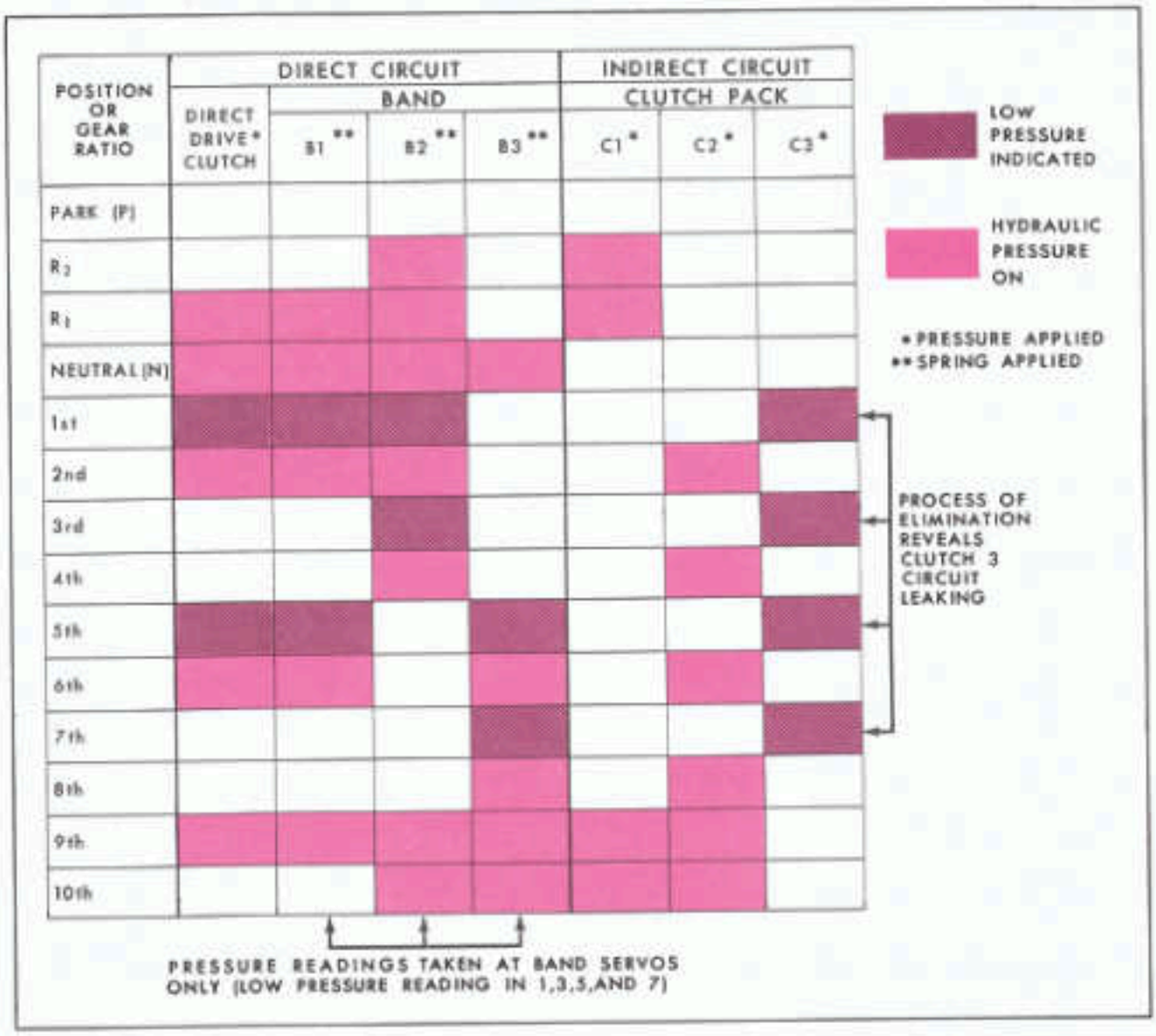


Figure 2
Alternator Terminal Identification

1. Brush (Field) Terminal
2. Dust Shield
3. Auxiliary Terminal
4. Isolation Diode Assembly
5. Output Terminal (Positive)
6. Ground Terminal (Negative)

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When the trouble shooting chart is used in conjunction with the pressure checks, the band or clutch columns must be approached solely from a hydraulic pressure application standpoint whether the element itself is applied or released. The pressure application on the charts are indicated by the red shaded areas. Thus, for 3rd gear ratio, hydraulic pressure is applied to band 2 servo, and clutch 3.

Since the pressure checks are made only at the band servos, it is necessary to compare the low pressure readings obtained in the various gear ratios with the shaded areas on the chart in order to form a pattern. This, of course, is done following the procedure covered in Hydraulic Condition 4 in the Diagnostic Procedure. For example, low pressure readings are noted in 1st, 3rd, 5th, and 7th.

The inching pedal is depressed in each of these ratios as covered in 2a, Hydraulic Condition 4. The pressures at B-1, B-2, and B-3, increase to specification. The leak is in the indirect circuit. Since only gear ratios 1, 3, 5, and 7 are affected, and since only the indirect circuit is involved, it is readily indicated by shaded areas on the chart that clutch 3 is the only indirect circuit clutch used in these gear ratios. Thus, it is readily determined that a pressure leak is occurring in the transmission clutch 3 circuit.

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BAND	APPLIED	UNIT AFFECTED
1	MECH.	SUN GEAR "A"
2	MECH.	RING GEAR "B" & SUN GEAR "C"
3	MECH.	CARRIER "C"

CLUTCH PACK	APPLIED	UNIT AFFECTED
DIRECT DRIVE	HYD.	LOCKS SUN GEAR "A" TO CARRIER "A"
1	HYD.	LOCKS RING GEAR "B" TO CARRIER "B"
2	HYD.	LOCKS CARRIER "C" TO CARRIER "B"
3	HYD.	LOCKS CARRIER "B" TO SUN GEAR "D",* OR OUTPUT SHAFT**

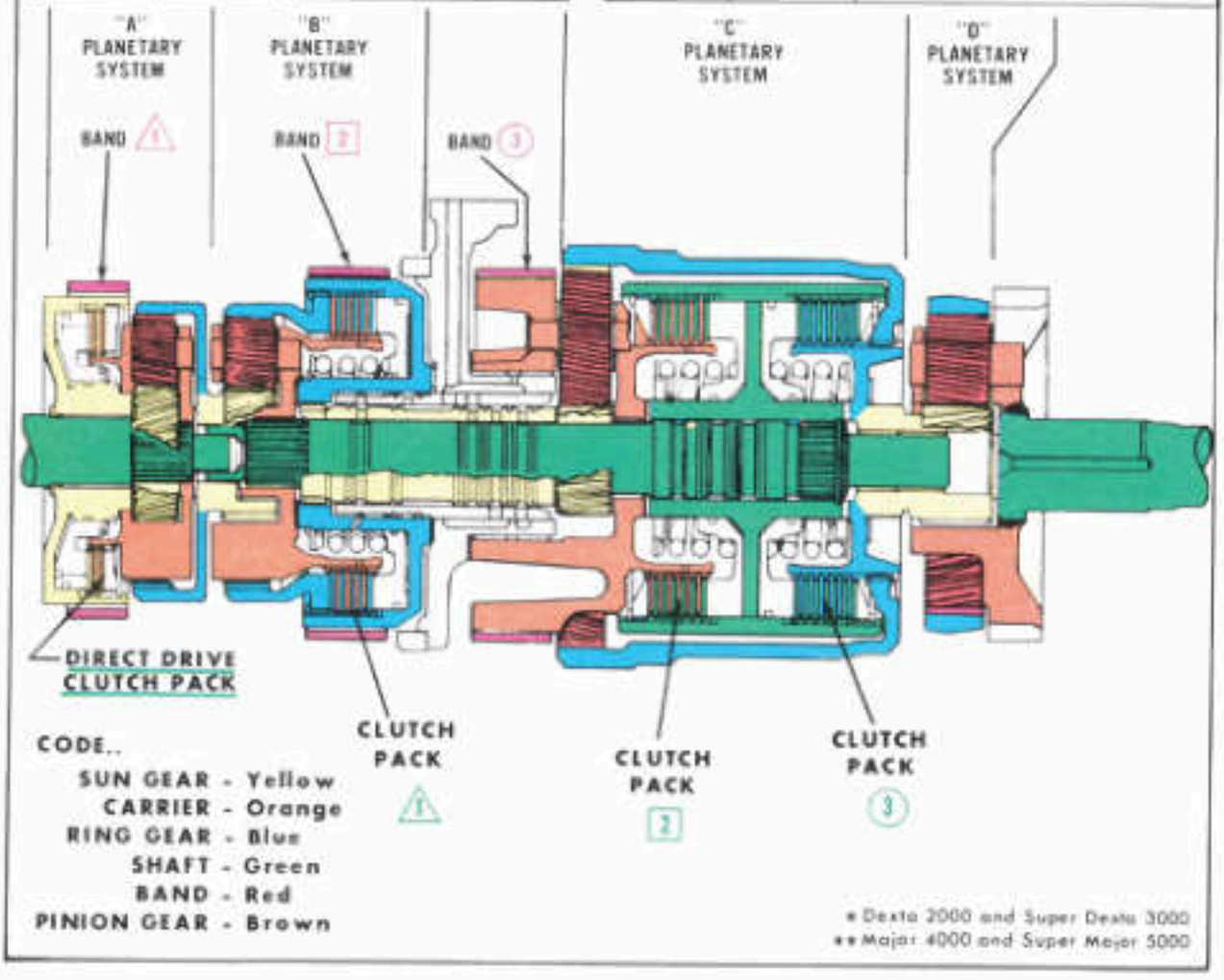


Figure 4
Units Affected by Application of Bands and Clutch Assemblies

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