# Franklin
### AIRCRAFT ENGINES

# SERVICE NEWS

## AIRCOOLED MOTORS INC.
### SYRACUSE 8, NEW YORK

**SUBJECT:**  <u>CRANKSHAFT AND CAMSHAFT GEAR TIMING MARKS</u> ON FRANKLIN ENGINES

It has been called to our attention that during major overhaul of post-war built Franklin Engines difficulty has been experienced in a few cases in locating the timing marks on the crankshaft and camshaft gears.

In the event you cannot identify the marking on the camshaft or crankshaft gear folowing information will assist you.

<u>MODEL 6A4-150-B3; 6A4-165-B3; 6V4-178-B5, B32 & B33 Engines</u>

    <u>Crankshaft Gear</u>

       The crankshaft gear has two Zero marks as shown in Figure 1. The crankshaft gear must be assembled to the crankshaft with the keyway, which is marked with a zero, closest to #1 crankpin of the crankshaft.

       With the crankshaft gear installed in this manner the zero timing mark at the 86½ degree location will be located to the left of the keyway which is marked with a zero.

    <u>Camshaft Gear</u>

       When looking at the face of the camshaft gear on which the timig marks are located the timing marks should be 135 degrees to the right of a center line drawn through the center of the keyway to the outer edge of the gear as shown in figure 1.

<u>MODEL 6A8-215-B8F AND B9F ENGINES</u>

    <u>Crankshaft Gear</u>

       The crankshaft gear is installed on the crankshaft with the flanged side of the gear away from the shaft. With the gear installed in this manner, the zero timing mark at the 82° – 15' location will be located to the left of the keyway which aligns with #1 crankpin as shown in Figure 2.

Camshaft Gear

        When looking at the face of the camshaft gear on which
the timing marks are located the timing marks should be 134° – 45'
to 135° – 15' to the right of the centerline drawn through the
center of the keyway to the outer edge of the gear as shown in
Figure 2.

#1 Crankpin
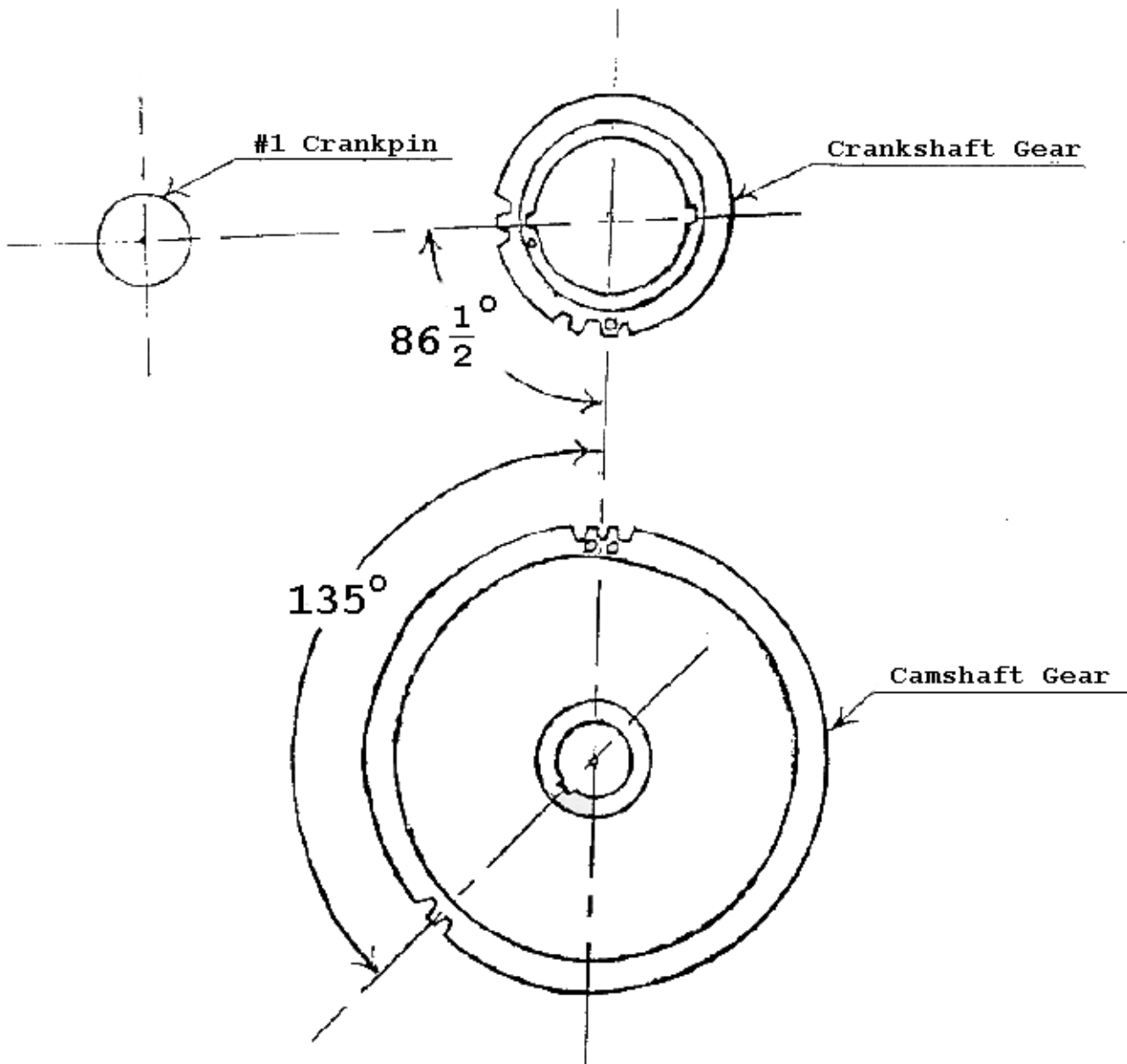
Crankshaft Gear

$86\frac{1}{2}°$

$135°$

Camshaft Gear

Figure 1.
Timing marks diagram for Franklin Models 6A4–150–B3; 6A4–165–B3;
6V4–178–B3, B32 and B33 Engines

**Crankshaft Gear**

**#1 Crankpin**

$$\frac{82°\text{-}45'}{83°\text{-}45'}$$

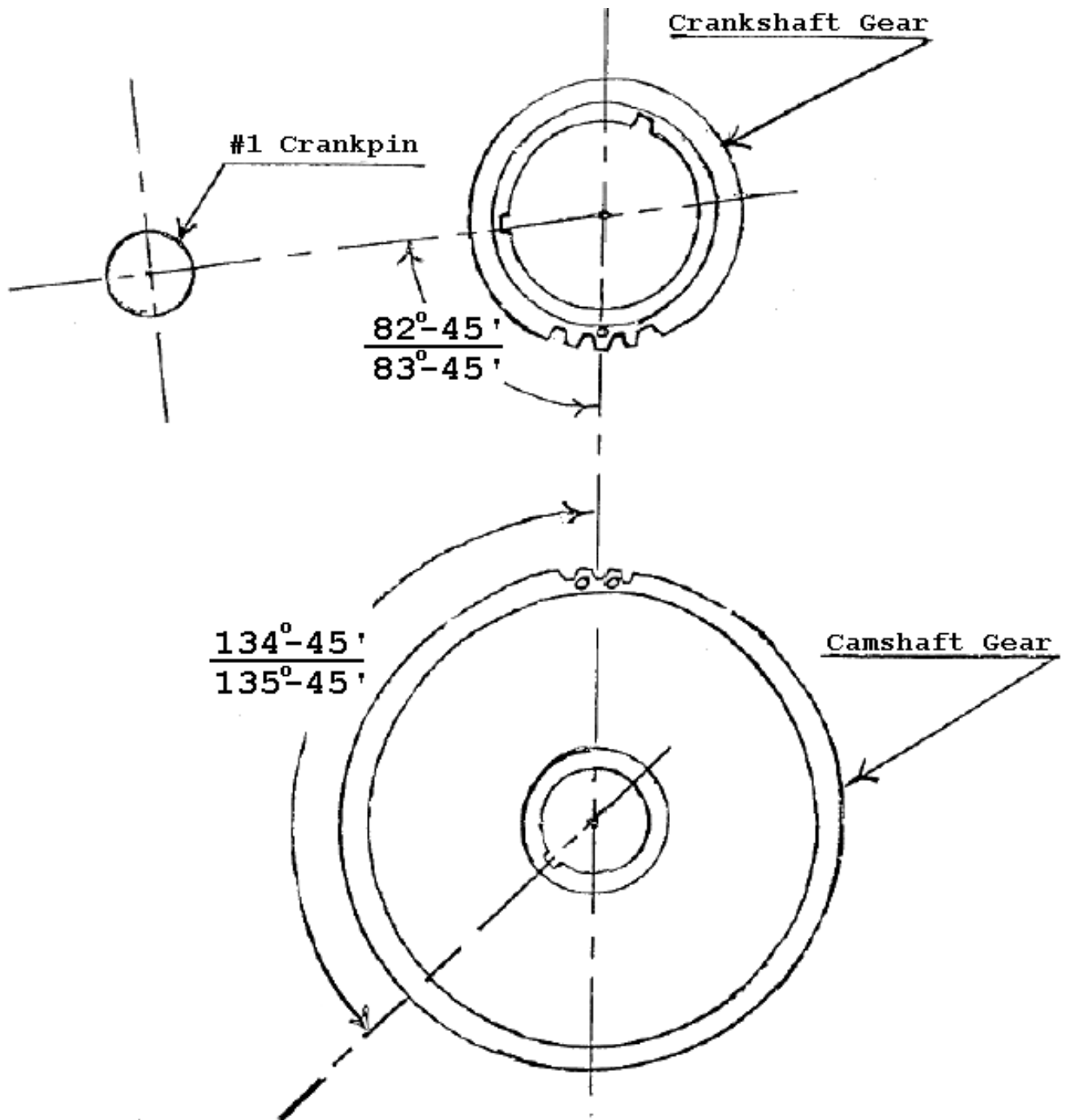$$\frac{134°\text{-}45'}{135°\text{-}45'}$$

**Camshaft Gear**

FIGURE 2.

Timing mark diagram for Franklin Model 6A8-215-B8F and B9F Engines