

# HINTS AND TIPS ON SERVICE

For **BSA** and **ARIEL** Dealers

Service Bulletin #143

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## NEW IMPROVED GEARS FOR THE A-65 AND A-50 MODELS

New gears are available that have been developed by our Factory to increase their strength and prolong gear life.

Steel of a higher tensile strength is being used in the manufacture of these new gears and heavier driving dogs have been designed into the mainshaft and layshaft sliding gears.

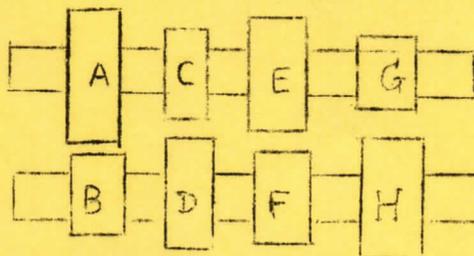
The Part Numbers for all the gears in the latest A-65 and A-50 Model gearbox assemblies are as follows:

<u>LOCATION</u>	<u>PART NO.</u>	<u>TEETH</u>	<u>DESCRIPTION</u>
A - NEW GEAR (1)	68-3115	23T	Mainshaft Gear - Top Speed
B - NEW GEAR (2)	68-3117	17T	Layshaft Gear - Top Speed
C - NEW GEAR (3)	68-3120	22T	Mainshaft Gear - 2nd Speed
D - NO CHANGE	68-3015	26T	Layshaft Gear - 2nd Speed
E - NO CHANGE	68-3015	26T	Mainshaft Gear - 3rd Speed
F - NEW GEAR (4)	68-3120	22T	Layshaft Gear - 3rd Speed
G - NO CHANGE	68-3013	17T	Mainshaft Gear - Low Speed
H - NEW GEAR (5)	68-3017	31T	Layshaft Gear - Low Speed

When it becomes necessary to replace any one of the original gears that have been changed you must replace the complete set of five new gears.

### GEAR LOCATION CHART

This is the primary drive side of the gearbox.



Part No. 68-3101  
Mainshaft Only

Part No. 68-3102  
Layshaft Only

The "Gear Location Chart" shows where the gears are in the gearbox according to the letters shown in the list above.

Walter Brown  
Service Manager

A-65 MODEL GEARS

To strengthen the gear cluster, new gears are being supplied in replace of the original ones as listed below:

- |   |         |   |
|---|---------|---|
| 2 | 68-3103 | Mainshaft 2nd and Layshaft 3rd gears are being replaced with a new gear part number 68-3120. You will notice that the driving dogs are much heavier than those on the original gears. |
| 1 | 68-3029 | Mainshaft top gear is being replaced with a new gear part number 68-3115.   |
| 1 | 68-3016 | Layshaft top gear is being replaced with a new gear part number 68-3117.  |
| 1 | 68-3017 | Layshaft bottom gear, the material specs has been changed but the part number remains the same as the original gear.  |

When any one of the original gears fail or wear, it will be necessary to assemble a complete set of five new gears as listed below:

- |   |         |  |
|---|---------|--|
| 2 | 68-3120 | Mainshaft 2nd and Layshaft 3rd sliding gears |
| 1 | 68-3115 | Mainshaft top gear                           |
| 1 | 68-3117 | Layshaft top gear                            |
| 1 | 68-3017 | Layshaft bottom gear                         |

All Five Original Gears May Be Returned For Credit With A Claim Tag.

from BSA Incorporated, 639 Passaic Avenue, Nutley, New Jersey