



SERVICE SHEETS  
[www.lamaneta.com](http://www.lamaneta.com)

# BSA SERVICE SHEET No. 707

April 1950.  
Reprinted July 1957.

## Gold Star and Competition Models

### USEFUL DATA

|                                            |                    |     |     |                                                     |                              |                    |       |        |
|--------------------------------------------|--------------------|-----|-----|-----------------------------------------------------|------------------------------|--------------------|-------|--------|
| Engine Stroke                              | ...                | ... | ... | 88mm.                                               |                              |                    |       |        |
| Engine Bore                                | ...                | ... | ... | B32                                                 | 71mm.                        | B34 85mm.          |       |        |
| Engine Capacity                            | ...                | ... | ... | B32                                                 | 348c.c.                      | B34 499c.c.        |       |        |
| Oil Tank Capacity                          | ...                | ... | ... | 5 pints.                                            |                              |                    |       |        |
| Gearbox Capacity                           | ...                | ... | ... | 1 pint.                                             |                              |                    |       |        |
| Front Fork Capacity (each leg)             | ...                | ... | ... | $\frac{3}{8}$ pint (212c.c.)                        |                              |                    |       |        |
| Tapet Clearances (cold engine):            |                    |     |     |                                                     |                              |                    |       |        |
| Cam.                                       | 65-2420            | ... | ... | .003in.                                             | Inlet and Exhaust.           |                    |       |        |
| Cams.                                      | 65-2434 to 65-2440 | ... | ... | .001in.                                             | Inlet and Exhaust.           |                    |       |        |
| Cams.                                      | 65-2442 to 65-2452 | ... | ... | .008in.                                             | Inlet. .010in. Exhaust.      |                    |       |        |
| 1954 Clubmans Models                       | ...                | ... | ... | .006in.                                             | Inlet and Exhaust.           |                    |       |        |
| Piston Ring Gap                            | ...                | ... | ... | Top .012in.                                         | 2nd and Scraper .010in.      |                    |       |        |
| Piston Ring Side Clearance                 | ...                | ... | ... | .0015in.                                            |                              |                    |       |        |
| Piston Clearance (bottom of skirt)         | ...                | ... | ... | .0025in. -                                          | .0045in.                     |                    |       |        |
| Contact Breaker Gap                        | ...                | ... | ... | .012in.                                             |                              |                    |       |        |
| Ignition Setting B.T.D.C. (fully advanced) |                    |     |     |                                                     |                              |                    |       |        |
|                                            |                    |     |     | 350c.c. Touring, Trials and Scrambles,              | $\frac{7}{16}$ in.           |                    |       |        |
|                                            |                    |     |     | 500c.c. Touring and Trials,                         | $\frac{1}{2}$ in. Scrambles, | $\frac{7}{16}$ in. |       |        |
| Racing (Clubmans)                          | ...                | ... | ... | $\frac{15}{16}$ in.                                 |                              |                    |       |        |
| Racing (Alcohol)                           | ...                | ... | ... | 350c.c., $\frac{3}{8}$ in.                          | 500c.c., $\frac{7}{16}$ in.  |                    |       |        |
| Racing (Petrol Benzol)                     | ...                | ... | ... | 350c.c., $\frac{3}{8}$ in.                          | 500c.c., $\frac{3}{8}$ in.   |                    |       |        |
| Sparkling Plug                             |                    |     |     |                                                     |                              |                    |       |        |
| Touring and Trials                         | ...                | ... | ... | Champion NAS.                                       |                              |                    |       |        |
| Scrambles                                  | ...                | ... | ... | Champion NA10 or NA12.                              |                              |                    |       |        |
| Racing                                     | ...                | ... | ... | Champion NA14.                                      |                              |                    |       |        |
| Carburetter                                |                    |     |     |                                                     |                              |                    |       |        |
| Trials - Standard                          | ...                | ... | ... | Touring - Standard or T.T.10.                       |                              |                    |       |        |
| Scrambles - T.T.10                         | ...                | ... | ... | Racing - T.T.10; T.T.10 R.N. or G.P.                |                              |                    |       |        |
| Engine Sprockets available                 |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | 16, 17, 18, 19, 20 Teeth.                           |                              |                    |       |        |
| Gearbox Sprockets available                |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | 16, 19 Teeth.                                       |                              |                    |       |        |
| Clutch Sprocket                            |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | 43 Teeth (44 Teeth to Special Order).               |                              |                    |       |        |
| Chainwheel Sprocket                        |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | 42 Teeth.                                           |                              |                    |       |        |
| Internal Gear Ratios:                      |                    |     |     |                                                     |                              |                    |       |        |
|                                            |                    |     |     | Marked.                                             | Top.                         | 3rd.               | 2nd.  | Bottom |
| Plunger Frame Models, Extra Close...       | ...                | ... | ... | (Ex. Close)                                         | 1.0                          | 1.1                | 1.31  | 1.78   |
| Close                                      | ...                | ... | ... | (Close)                                             | 1.0                          | 1.32               | 1.72  | 2.48   |
| Standard                                   | ...                | ... | ... |                                                     | 1.0                          | 1.32               | 2.05  | 2.98   |
| Swinging Arm Frame Extra Close...          | ...                | ... | ... | (R.R.)                                              | 1.0                          | 1.099              | 1.326 | 1.929  |
| Close                                      | ...                | ... | ... | (Day)                                               | 1.0                          | 1.101              | 1.460 | 2.124  |
| Scrambles                                  | ...                | ... | ... | (Sc)                                                | 1.0                          | 1.325              | 1.754 | 2.343  |
| Standard                                   | ...                | ... | ... | (Std)                                               | 1.0                          | 1.210              | 1.758 | 2.580  |
| Wide Ratio...                              | ...                | ... | ... | (Tri)                                               | 1.0                          | 1.549              | 2.339 | 3.167  |
| Chain Sizes (Front)                        |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | $\frac{1}{2}$ in. x .305in.                         |                              |                    |       |        |
| (Rear)                                     | ...                | ... | ... | $\frac{3}{8}$ in. x .250in.                         |                              |                    |       |        |
| Tyre Sizes (Front)                         |                    |     |     |                                                     |                              |                    |       |        |
|                                            | ...                | ... | ... | Touring and Scrambles, 3.00 x 21; Trials, 2.75 x 21 |                              |                    |       |        |
|                                            |                    |     |     | Racing, 3.00 x 19 or 21                             |                              |                    |       |        |
| (Rear)                                     | ...                | ... | ... | Touring and Racing, 3.25 x 19 (350c.c.); 3.50 x 19  |                              |                    |       |        |
|                                            |                    |     |     | (500c.c.)                                           |                              |                    |       |        |
|                                            |                    |     |     | Trials and Scrambles, 4.00 x 19.                    |                              |                    |       |        |

B.S.A. MOTOR CYCLES LTD.  
Service Dept., Birmingham, 11  
Printed in England.