

SERVICE BULLETIN

FOR

**Royal Enfield**

**MOTORCYCLES**

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1635 WEST HUNTING PARK AVENUE  
PHILADELPHIA 40, PENNSYLVANIA

ROYAL ENFIELD 500cc, 700cc and 750cc TWIN-CYLINDER ENGINE  
CONNECTING-ROD and CRANKSHAFT JOURNAL IDENTIFICATION CHART:

I. 700cc Twins: (70mm bore, 90mm stroke)

A. 1955-1956 (Indian "Trailblazer"):

1. No inserts used. Con-rods direct on crankshaft. Con-rods available STD, .010" and .020" u/s.
2. Crankpin diameter: 1.8750/1.8745"
3. Con-rod B.E. internal diameter: 1.8760/1.8755"
4. Con-rod part no: (Width at B.E: 1") 38646\*
5. Stamping no. on con-rod: W34054/5  
\*Suffix /10 or /20 for undersize con-rod assemblies.

B. 1957-1959 (Indian "Trailblazer," "Apache" and "Chief");  
1960-1962 (Royal Enfield "Constellation," "Super Meteor,"  
"Interceptor" and "Galaxy"):

1. Con-rod inserts used. Inserts available STD, .010" and .020" u/s.
2. Crankpin diameter: 1.8750/1.8745"
3. Con-rod B.E. internal diameter: 2.0190/2.0185"
4. Con-rod insert internal diameter: 1.8760/1.8755"
5. Con-rod part no: (Width at B.E: 1") 41719, 41719A or 41719B
6. Stamping no. on con-rod: W41720/A
7. Con-rod insert part no: (Width: 13/16") 41722\*  
\*Suffix /10 or /20 for undersize con-rod inserts.

II. 750cc Twins: (71mm bore, 93mm stroke)

1963 (Royal Enfield "Interceptor" and "Constellation.")

1. Same crankpin sizes and con-rod data as 1957 & later 700cc engines listed immediately above.
2. Standard con-rod is part no. 41719B.

III. 500cc Twins:

A. 1955-1957 (Indian "Tomahawk," 64mm bore, 77mm stroke):

1. Con-rod inserts used. Inserts available STD, .010" and .020" u/s.
2. Crankpin diameter: 1.7500/1.7495"
3. Con-rod B.E. internal diameter: 1.8540/1.8535"
4. Con-rod insert internal diameter: 1.7515/1.7505"
5. Con-rod part no: (Width at B.E: 7/8") 38018
6. Stamping no. on con-rod: W34054/5
7. Con-rod insert part no: (Width: 5/8") 38016\*  
\*Suffix /10 or /20 for undersize con-rod inserts.

B. 1958-1959 (Indian "Tomahawk," 70mm bore, 64.5mm stroke):

1. Con-rod inserts used. Inserts available STD, .010" and .020" u/s.
2. Crankpin diameter: 1.7715/1.7710"
3. Con-rod B.E. internal diameter: 1.8760/1.8755"
4. Con-rod insert internal diameter: 1.7730/1.7720"
5. Con-rod part no: (Width at B.E: 1") 42597
6. Stamping no. on con-rod: W34054/5
7. Con-rod insert part no: (Width: 3/4") 42596\*  
\*Suffix /10 or /20 for undersize con-rod inserts.

C. 1963 (Royal Enfield "500 Sports Twin): Same con-rods, crankpin sizes as 1957 & later 700cc and 750cc engines.

ROYAL ENFIELD TWIN-CYLINDER ENGINE CRANKSHAFT DATA, 500cc,  
700cc and 750cc models, 1949 to 1963.....

500cc CRANKSHAFTS:

- #34323 First 500cc crankshaft, frame #T101-#T150. Direct-on-shaft con-rods (no inserts) #34151, with #34056 rod bolts, #14691 washers, #35130 "castle" nuts and #30779 cotter keys. Replace with #38665-MODIFIED.
- #35734 Fitted from frame #T151-#T2150. Breather in mainshaft, direct-on-shaft con-rods as above. Replace with #38665-MODIFIED.
- #37779 Fitted from frame #T2151-#T4650. No breather in mainshaft & using insert-type con-rods. Original con-rod #36150, later changed to #38018 con-rod. Bearing insert part no. 38016, insert width 5/8", crank journal diameter 1.7500". Used in 1955 Indian "Tomahawk" model with Lucas magdyno ignition & D.C. generator. Replace with #38665.
- #38665 Fitted to all remaining 64mm bore, 77mm stroke 500cc twin engines (as 1956-57 Indian "Tomahawk"). Similar to crankshaft #37779, but with slot in mainshaft for alternator adaptor sleeve. Con-rod #38018 used, etc.
- #42519 First "short-strokes" crankshaft for 500cc twin (70mm bore, 64.5mm stroke), as 1958-59 "Meteor Minor" and Indian "Tomahawk" models. Insert-type con-rods used, con-rod part no. 42597, bearing insert part no. 42596, insert width 3/4". Crank journal diameter 1.7715", con-rod width at B.E: 1".
- #43379 1960 & later short-strokes (70mm bore, 64.5mm stroke) 500cc crankshaft. Crank journal diameter 1.8750", insert-type con-rods used. Con-rod part no. 41719 (earlier) and 41719A (later), as '57 & later 700cc and 750cc twin con-rods. Breather bolt #45403 used, as 1959 & later 700cc "Super Meteor," 1960 & later 700cc & 750cc "Constellation," "Interceptor", etc., engines.

700cc CRANKSHAFTS:

- #36499 First 700cc (70mm bore, 90mm stroke) crankshaft, 1953-55 "Meteor" engines. Crankpin diameter 1.7500", insert-type con-rods used, con-rod #38018, con-rod insert #38016. Con-rod width at B.E: 7/8" and insert width 5/8". All "Meteor" models were fitted with either Lucas generator & distributor units, or a "magdyno" unit. Earlier engines incorporated an oil release valve with housing, spring and 1/4" ball in R/H crank throw. Later engines did not use this oil release valve assembly.

700cc CRANKSHAFTS: (Cont'd)

- #38631 First "Super Meteor" crankshaft, also fitted to 1955-1956 Indian "Trailblazer." Crank journal diameter-1.8750", with con-rods running direct on crankshaft. Con-rod part number 38646, width at B.E: 1". Lucas alternator system used, with rotor adaptor slot in mainshaft. This crankshaft fitted up to engine number SM2693, then changed to #43350 which uses con-rods #42597, with crank journal diameter 1.7715".
- #42392 Modified oilways, but otherwise identical to #38631 crankshaft. Fitted to 1957-58 "Super Meteor," and 1957-58 Indian "Trailblazer." Con-rods #38646 used to engine #SM2790, then changed to rod assembly #41719 with inserts, from engine #SM2791.
- #42501 Nodular crankshaft, fitted to 1957-59 Indian "Apache" and 1958-59 Enfield "Constellation" models. Crankpin diameter 1.8750", con-rod #41719 with inserts. Insert part #41722, con-rod width at B.E: 1" and insert width 13/16". Lucas RM14 alternator used, etc.
- #43350 Replacement crankshaft for #38631 and #42392 crankshafts using "direct-on-shaft" con-rods. Crank journal diameter 1.7715", con-rods #42597 (as 1958/59 500cc twins) used, with inserts #42596. Thus larger-throw improved crankshaft can be fitted to 1955/56 Indian "Trailblazer" models that used smaller crankcases than later 700cc engines. Alloy crank throw end plugs #44510 fitted, plus RM14 Lucas alternator system, etc.
- #43350A Also available is "triangular" shaped nodular crankshaft, similiar in all respects to #43415 crankshaft, but with 1.7715" crank journal diameter, using #45403 breather bolt assembly, and later Lucas RM15 alternator unit can be used. Other details as #43350 above.
- #43403 Interchangeable with #42501.
- #45374 Interchangeable with #42501. Use con-rods 41719, 41719A or 41719B.
- #43415 or #43415A Fitted to 1959 & later "Super Meteor," and 1960 & later "Constellation" and "Interceptor" engines. Crank journal diameter 1.8750", con-rods used, 41719 (earlier) and 41719A (later). Con-rod inserts #41722, insert width 13/16" and con-rod width at B.E: 1". Nodular crankshaft, using #45403 breather bolt, Lucas RM15 alternator system, #44510 crank throw alloy end plugs fitted, etc. "Triangular" shaped crankshaft.

750cc CRANKSHAFT:

- #46153 Interchangeable with no other; 71mm bore, 93mm stroke. Identical in all respects except stroke, to #43415 above. Standard con-rod assembly is #41719B.