

A HISTORY OF THE 'DERBY 100' LARGE- -ENVELOPE' 100 W STREET-LIGHT BULB.

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FOR AROUND 50 YEARS, ALL OF DERBY'S TUNGSTEN STREET LIGHTS EMPLOYED A SPECIAL 100 WATT GLS BULB WHICH WAS PECULIAR AND UNIQUE TO DERBY. WHILE MANY REGARDED THIS AS ONLY AN "ORDINARY" LIGHT BULB, AS OPPOSED TO DISCHARGE & FLUORESCENT LAMPS, IT WAS IN FACT A CUSTOM OR BESPOKE LAMP, MADE SPECIALLY FOR DERBY AND, TO MY KNOWLEDGE, NEVER USED ANYWHERE ELSE.

MOST AUTHORITIES USED 150 W LAMPS IN TUNGSTEN STREET LIGHTS AND DERBY WAS UNUSUAL FROM THE OUTSET IN THAT IT ALWAYS SPECIFIED 100 W LAMPS.

THE 'DERBY 100', AS THESE BULBS BECAME KNOWN, WERE ESSENTIALLY A NORMAL 100W CLEAR GAS FILLED SINGLE-COIL GLS BULB, BUT THEY DIFFERED FROM THE AVERAGE 100W BULB IN HAVING THE LARGE 80mm DIAMETER BY 160 mm LONG GLASS ENVELOPE, NORMALLY EMPLOYED ON SINGLE-COIL 150W AND 200W LAMPS. 'NORMAL' 100W LAMPS HAD A STANDARD 60mm DIAMETER ENVELOPE.

THIS STRANGE SIZE LAMP CAME ABOUT SHORTLY AFTER THE WAR, AROUND 1952, WHEN BULB MANUFACTURERS BEGAN TO STANDARDISE ON THE FAMILIAR 60mm DIAMETER ENVELOPE FOR ALL BULB SIZES UP TO 100 WATTS.

UNTIL THIS TIME, EVERY LAMP WATTAGE EMPLOYED A DIFFERENT SIZE ENVELOPE, 40 W LAMPS WERE THE ONLY SIZE USING THE 60mm ENVELOPE, 60 W WERE AROUND 68mm AND 100 W AROUND 70/75mm, THE SIZES VARYING FROM MANUFACTURER TO MANUFACTURER.

AS THE "NEW" 60mm SIZE 100W LAMPS BEGAN TO BE USED BY DERBY'S STREET LIGHTING DEPARTMENT SEVERAL PROBLEMS BECAME APPARENT WITH THE NEW "SMALL" BULBS.

FIRSTLY, THE NEW BULBS RAN CONSIDERABLY HOTTER THAN THE OLD LARGER TYPE AND IT WAS FOUND THAT, AS MOST OF THE STREET LIGHT FITTINGS WERE OPEN-TYPE 'LANTERNS', SUCH AS ESLA'S, THE BULBS WOULD BURST IN THE RAIN. SECONDLY IT WAS FOUND THAT THE MUCH SHORTER NECK AND LIGHT-CENTRE-LENGTH (LCL) OF THE "NEW" BULBS CAUSED PROBLEMS WITH THE FOCUSING AND LIGHT DISTRIBUTION OF MANY TYPES OF LANTERN, ESPECIALLY MULTI-RAY TYPE LANTERNS SUCH AS ESLAS. THE RESULT WAS OFTEN DARK AREAS IN STREETS WHICH ONLY HAD 2 OR 3 STREET LIGHTS AND WHICH HAD, PREVIOUSLY, BEEN ADEQUATELY LIT. THE PROBLEM WAS OFTEN QUITE SEVERE ESPECIALLY AT ISLANDS AND LARGE ROAD JUNCTIONS.

IN ORDER TO ELIMINATE THIS PROBLEM, DERBY ENGINEERS APPROACHED KINGSTON LAMPS OF HULL, WHO AT THE TIME SUPPLIED ALL OF DERBY'S BULBS INCLUDING TRAFFIC SIGNAL BULBS, ROUGH SERVICE BULBS, PYGMYS, BULBS FOR SCHOOLS AND PUBLIC BUILDINGS AND ALL THE COLOURED BULBS FOR THE CHRISTMAS DECORATIONS.

THEY ENQUIRED IF IT WOULD BE POSSIBLE TO CONTINUE TO SUPPLY THE 100W SINGLE COIL CLEAR BULBS FOR STREET LAMPS IN THE "OLD" LARGER SIZE, OWING TO THESE PROBLEMS EXPERIENCED WITH THE "NEW" SMALL BULBS?

KINGSTON LAMPS CAME BACK WITH THE REPLY THAT THEY COULD NO LONGER SUPPLY THE 'OLD' LARGE SIZE BULBS AS THEY

HAD STANDARDISED ON THE ONE SIZE, NAMELY THE 80MM ENVELOPE, FOR ALL LAMP WATTAGES UP TO 100 WATTS.

HOWEVER, THEY OFFERED A POSSIBLE SOLUTION. THIS WAS TO PRODUCE 100W BULBS IN THE 80MM SIZE ENVELOPE, WHICH WAS THE STANDARD SIZE FOR SINGLE-COIL 150W AND 200W LAMPS. THESE WERE SLIGHTLY LARGER THAN THE ORIGINAL "OLD" SIZE OF 100W, OF AROUND 70mm, BUT THIS WAS THE ONLY SOLUTION AVAILABLE DUE TO THE STANDARDISING OF PRODUCTION LINES AND MACHINERY, ETC.

ONE HUNDRED SAMPLE LAMPS WERE MADE IN JANUARY OF 1952 (OF WHICH I HAVE 3) AND "TESTED" IN SERVICE.

THE LAMPS PROVED A GREAT SUCCESS, EVEN BETTER THAN THE ORIGINALS AND THUS THE 100W LARGE-ENVELOPE "DERBY 100" 100W BULB WAS BORN.

THESE LARGE 100W BULBS REMAINED THE STANDARD "BREAD-AND-BUTTER" BULB OF DERBY'S STREET LIGHTING DEPARTMENT FOR THE NEXT 50 YEARS.

KINGSTON LAMPS CONTINUED TO SUPPLY BULBS OF ALL TYPES TO DERBY UNTIL THE MID-TO-LATE 1970'S, INCLUDING THE DERBY 100'S. THE KINGSTON BRAND LAMPS WERE ACTUALLY STAMPED "DERBY CORPORATION", "DERBY BOROUGH" AND EVENTUALLY JUST "DERBY". VARIOUS OTHER MANUFACTURERS PRODUCED THE "DERBY 100" BULBS AS WELL AS KINGSTON LAMPS, ALTHOUGH ONLY THE KINGSTON LAMPS CARRIED DERBY'S OWN "CUSTOM" STAMP. AMONG OTHER MANUFACTURERS PRODUCING THE LAMPS WERE LUXRAM, CASTLE, CRYSELCO, ENDURA, MAXIM, WINFIELD, CROMPTON (VERY RARE) AND, LATER THORN AND OMEGA.

IN THE EARLY 1980'S, DERBY STARTED USING THE EXCELLENT QUALITY OMEGA "PLUSLIFE" BRAND OF BULBS FOR VARIOUS APPLICATIONS REQUIRING G.L.S. LAMPS, INCLUDING PUBLIC BUILDINGS, TOILETS, PHONE BOXES, ETC, AND IT WAS ONLY A MATTER OF TIME BEFORE OMEGA (PART OF THORN) WERE ASKED IF THEY COULD PRODUCE THE LARGE-ENVELOPE 100W "DERBY 100" BULB IN THE PLUSLIFE BRAND. AS THE STREET LIGHTING DEPARTMENT ORDERED THE LAMPS IN LARGE QUANTITIES, A THOUSAND OR MORE AT A TIME, THIS WAS NO PROBLEM AND FROM THEN ON, "DERBY 100" BULBS WERE MADE EXCLUSIVELY IN THE OMEGA "PLUSLIFE" BRAND UNTIL OMEGA WERE ABSORBED BY G.E. IN 1990/1991. A VERY FEW LAMPS (ONLY 100 OR SO WERE MADE) WERE MADE IN THE "THORN" BRAND, COMPLETE WITH THORN PACKAGING, ETC, BUT THESE WERE ACTUALLY IDENTICAL IN CONSTRUCTION TO THE OMEGA PLUSLIFE'S, THE ONLY DIFFERENCE BEING THE "THORN" STAMP ON THE BULB.

G.E. CONTINUED TO PRODUCE PLUSLIFE LAMPS FOR A SHORT WHILE AFTER 1991, BUT WITH A G.E. STAMP ON THE BULB. THE QUALITY, HOWEVER, DIMINISHED AND, LIKE THE LAST OF THE KINGSTON BRAND BULBS, THE G.E. BADGED ONES WERE INFERIOR AND HAD ALUMINIUM BASES INSTEAD OF BRASS.

ALUMINIUM-BASED G.E. BRAND "DERBY 100" BULBS NOW ARE EXTREMELY RARE AS, AGAIN, RELATIVELY FEW WERE MADE.

AFTER APPROXIMATELY 1992 NO MORE LARGE-ENVELOPE "DERBY 100" 100W BULBS WERE MANUFACTURED AT ALL, BUT THEY WERE STILL IN USE, AND CONTINUED TO BE FOR THE NEXT 8-10 YEARS AS THE STREET LIGHTING DEPARTMENT HAD A VAST QUANTITY IN STOCK AND RELATIVELY FEW TUNGSTEN STREET LIGHTS WERE LEFT IN SERVICE TO USE THEM UP.

IN 1991 I BOUGHT UP WHAT STOCK WAS LEFT (AROUND 500 OR SO LAMPS) OF THE "DERBY 100" 100W BULBS FROM THE STREET LIGHTING DEPARTMENT AS I, AND A FEW OTHER COLLECTORS AND LANTERN ENTHUSIASTS, STILL USE THESE IN OUR ESLA LANTERNS.

THESE BULBS WILL NEVER BE MADE AGAIN AND THEY ARE A SMALL PART OF DERBY HISTORY.

ALTHOUGH THEY WERE INTENDED PRIMARILY FOR STREET LIGHTS, THE LARGE ENVELOPE "DERBY 100" 100W BULBS FOUND THEIR WAY INTO NUMEROUS OTHER APPLICATIONS INCLUDING PUBLIC TOILETS, SUBSTATIONS AND SWITCHROOMS, THE "STRAND" SHOPPING ARCADE IN DERBY AND DERBY'S MARKET HALL AND EAGLE CENTRE (IN ITS EARLY DAYS).

IN ESLA LANTERNS IN PARTICULAR, I PERSONALLY FEEL THE LARGER BULBS ARE MUCH MORE IN PROPORTION TO THE LANTERN AND HAVE A MUCH BETTER APPEARANCE, LIT OR UNLIT.

TO THIS DAY, MANY OF THESE BULBS ARE STILL TO BE FOUND IN ALL SORTS OF PLACES INCLUDING COUNCIL STORES; CARETAKERS AND CLEANERS ROOMS AND GARDENERS STORESHEDS IN PARKS AND CEMETARIES; IN CELLARS AND ATTICS IN COUNCIL PREMISES AND TOILETS AND YARDS, ETC, ALL OVER DERBY.

PLEASE NOTE THAT OMEGA "PLUSLIFE" BRAND BULBS (AND VARIOUS BRANDS OF LONG-LIFE AND ROUGH-SERVICE 100 WATT BULBS) ARE AVAILABLE IN A 68 mm SIZE BULB. THIS SHOULD NOT BE CONFUSED WITH THE MUCH LARGER (80 mm) "DERBY 100" 100 W BULB.

(PLEASE SHOW A PICTURE OF A LARGE ENVELOPE DERBY 100 W BULB NEXT TO A "NORMAL" SMALL 60W BULB FOR COMPARISON)