SU Needles

Last updated 15-Dec-2016

Updated November 2013: I downloaded the following needles a long time ago, extracted from a needle selection program that no longer seems to be available. Note the dimensional errors in SM and SN from a number of sources, I give both, corrected versions at SM* and SN*.

There is an online glossy selection/comparison program here. There is also a downloadable Windows program here, but this is less easy to use than the online. Whilst you can view .09" and .1" needles, the comparison program doesn't discriminate between them. So if you are looking for an alternative .09" (for example) in the Comparison section, and find a possibility, you then have to search for it in the .09" section, as it could equally be a .1" or a .125". Also not all needles are the same length, some are shorter, but the program indicates these needles continue at the same diameter as the last station. Use one of these and you could go massively rich at the top end. Just to add to the confusion there are a number of needles where the last two or three stations **are** the same diameter. There is also a lot of dross asking for details of your engine, gearbox, back axle etc., just go to the 'Technical' section.

The top box of each pair contains the needles listed in needle-name order and the second box contains the same needles in size order. The first one or two columns of numbers represent the idle position, and the last one or two are at the full throttle end.

Select your existing needle's name in the top box, read off its dimensions, then use the second box to find a needle with the variation you need. Remember that bigger numbers mean a weaker mixture and smaller numbers a richer mixture.

Bear in mind that if you want a needle that is richer at the top end as well as by selecting one which has the same idle dimensions but is thinner (richer) at the top end, you can select a needle with thicker (weaker) idle dimensions and the same top end dimensions. However in order to get the correct idle mixture with the second method you will have to move the jet down further than normal, which as well as giving you your richer top end will also have the side effect of moving the maximum throttle point further down the needle.

Please note that this resource is to help you choose an *alternative* needle to standard if you have a non-standard system e.g. different air filters, exhaust etc and the standard needle is giving flat-spots or other problems. For a list of *standard* needles, springs etc through the years have a look at Paul Teglers info.

0.090 Needles:

A5_	890	850	826	800	782	765	746	730	711	694	676	660	__0	__0	__0	__0
AA_	890	850	800	767	735	710	689	661	638	614	591	566	540	__0	__0	__0
AB_	890	850	800	785	768	750	732	718	702	688	671	657	640	__0	__0	__0
AC_	890	850	820	800	783	765	746	730	710	694	676	660	640	__0	__0	__0
AC2	890	850	820	800	783	765	746	730	710	694	676	660	640	__0	__0	__0
ADR	860	852	843	826	806	786	766	740	711	681	652	625	598	572	546	521
G2_	875	835	810	785	765	745	725	705	690	674	660	642	__0	__0	__0	__0
W3_	880	830	805	780	763	745	730	710	694	677	660	650	__0	__0	__0	__0
E4_	880	840	800	780	760	739	718	695	673	631	630	610	590	__0	__0	__0
CM_	880	840	805	775	740	718	700	685	668	652	635	620	600	__0	__0	__0

0.100 Needles:

Note: SM and SN reputedly have incorrect dimensions in most published sources. Claimed correct dimensions are at SM* and SN* respectively.

A9__	980	946	913	880	850	834	818	802	787	770	755	740	722	706	__0	__0
AKN_	990	962	933	905	870	820	782	747	718	690	660	630	600	570	540	510
BAA_	990	950	925	895	870	850	823	792	760	729	697	665	633	600	567	534
BAB_	990	950	924	897	876	858	840	822	803	784	759	734	710	690	670	650
BAC_	990	950	932	907	875	852	823	763	703	642	580	520	460	400	400	400
TH__	960	920	908	893	878	863	848	825	740	650	550	490	440	400	__0	__0
BDK_	964	950	930	899	858	825	784	739	674	623	577	533	502	472	442	412
BFC_	966	952	932	897	855	815	773	732	685	640	596	534	503	472	472	472
BAL_	972	957	926	898	870	826	787	752	727	703	678	653	629	605	580	555
KI__	980	940	900	865	830	800	777	760	740	722	705	685	667	650	__0	__0

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