SAE International

SURFACE VEHICLE RECOMMENDED PRACTICE

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Cutting Edge - Optional Cross-Sections and Dimensions Loader Straight

RATIONALE

The technical report covers technology, products, or processes which are mature and not likely to change in the foreseeable future.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE MTC1, Loaders, Crawlers, Scrapers and Mounted Attachments Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. ***Scope***—The purpose of this SAE Recommended Practice is to specify dimensions for loader straight cutting edge cross sections without holes and with bolt holes for mounting bolt-on teeth and tooth adaptors on loader buckets described by SAE J731. This recommended practice is intended to supplement SAE J1303 and SAE J1304 with cross sections for heavier duty applications, by identifying larger blunts, greater bevel angles, larger bolt holes, and greater bolt spacing.

1.1 **Cutting Edges without Holes**—The dimensions, for cutting edges used on buckets for loaders defined in SAE J1057, are appropriate to rolled, cast, forged, flame cut, and machined sections. This recommended practice applies only to straight cutting edges, which are those whose leading edge and rear edge are parallel and, thus, are of constant cross section. Cutting edge cross-section thicknesses below 20 mm and above 35 mm are not changed from SAE J1303 and are not included. See Figure 1 and Table 1.

1.2 **Cutting Edges with Bolt Holes**—The dimensions, for cutting edges used on buckets for loaders defined in SAE J1057, are appropriate to rolled and machined sections only. This recommended practice applies only to straight cutting edges, which are those whose leading edge and rear edge are parallel and, thus, are of constant cross section. Cutting edge cross-section thicknesses below 20 mm are not changed from SAE J1304 and are not included. Maximum thickness has been increased to 45 mm. Selected cross-section widths are a minimum required to accommodate bolt-on tooth adaptors. Welded-on teeth are used on thicker bucket cutting edges. See Figure 2 and Table 2.

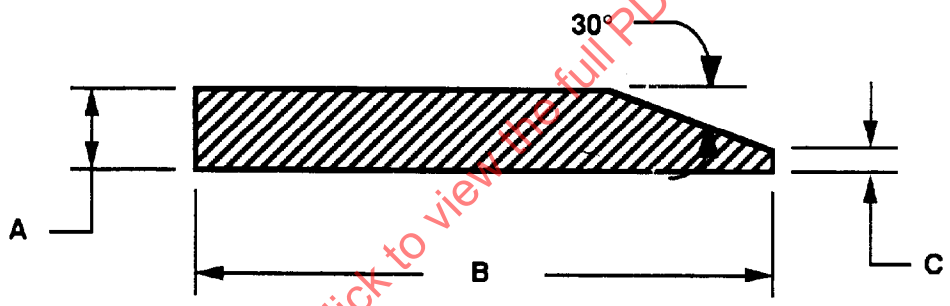

FIGURE 1—DIMENSIONS ASSOCIATED WITH LOADER STRAIGHT CUTTING EDGE CROSS SECTIONS WITH AND WITHOUT HOLES

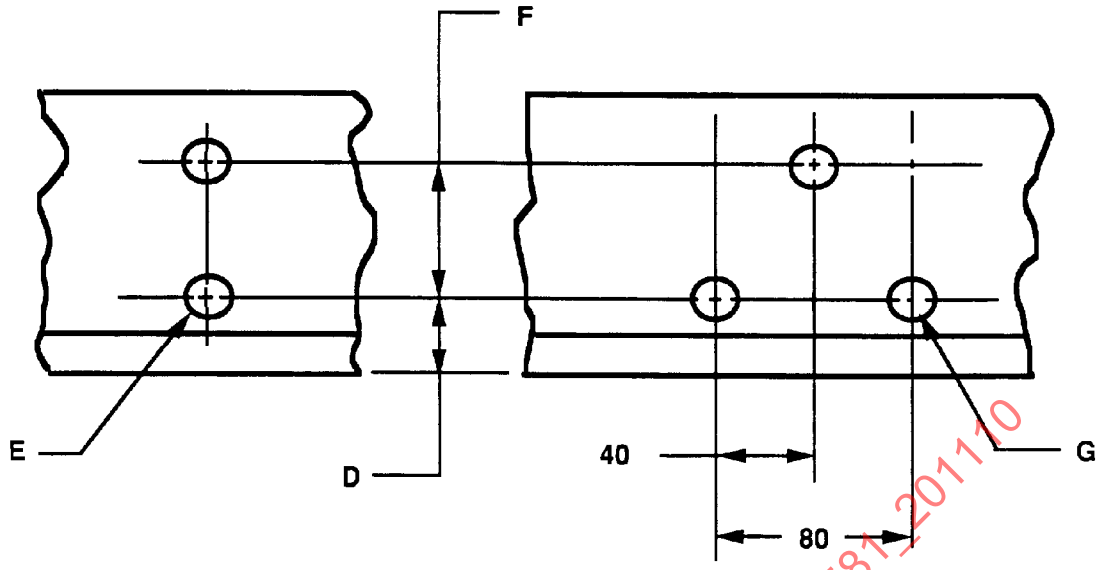

FIGURE 2—DIMENSIONS ASSOCIATED WITH LOADER STRAIGHT CUTTING EDGE WITH BOLT HOLES TO ACCOMODATE TWO-HOLE AND THREE-HOLE BOLT-ON TEETH

TABLE 1—CUTTING EDGES WITHOUT HOLES

A Thickness mm	A Thickness in	B Section Width mm	B Section Width in	C Blunt mm	C Blunt in
20	0.79	100	3.94	6	0.24
20	0.79	150	5.91	6	0.24
20	0.79	200	7.87	6	0.24
22	0.87	100	3.94	6.5	0.26
22	0.87	150	5.91	6.5	0.26
22	0.87	200	7.87	6.5	0.26
25	0.98	200	7.87	7.5	0.30
25	0.98	250	9.84	7.5	0.30
30	1.18	200	7.87	9	0.35
30	1.18	250	9.84	9	0.35
35	1.38	250	9.84	10.5	0.41
35	1.38	300	11.81	10.5	0.41