



哈尔滨电机厂有限责任公司

HARBIN ELECTRIC MACHINERY COMPANY LIMITED

电机公司文件号 HEC No.	0EA.640.0702			电机公司版次 HEC Rev.	A
项目（业主）文件号 Project No.	N/A			项目（业主）版次 Project Rev.	N/A
文件类型 Document Categories	N/A	文件状态 Status of Document	N/A	重大产品标识 Important Product Identifier	N/A

热轧碳钢薄板

SHEET, CARBON STEEL, HOT-ROLLED COMMERCIAL QUALITY

B8A506- S1

编制/日期 Prepared by/Date	陶韬 2018.11.05	校核/日期 Checked by/Date	王清宇 2018.11.05	审查/日期 Reviewed by/Date	李景 2018.11.05
会签/日期 Counter sign/Date	张亮 2018.11.05	会签/日期 Counter sign/Date	N/A	质保/日期 QA/Date	N/A
标准化/日期 Standardization/Date	卢从义 2018.11.05	审定/日期 Authorized by/Date	文道维 2018.11.05	批准/日期 Approved by/Date	吴英 2018.11.05

Form No.: 标 00

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修订记录

Revision record

版次 Rev.	改版单号 Mod. Advice note No.	页 码 Page & Item	改 版 内 容 Modification content abstract	改版人/校核人 Prepared by & Reviewed by	日期 Date
A			首次发布	陶韬 Tao tao 王清宇 Wang qingyu	2018.11.05 2018.11.05

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1 适用范围 SCOPE

B8A506 材料热轧碳钢薄板，其商业质量类似于 ANSI/ASTM A569，如表 1 所示
 GE Material B8A506 identifies hot-rolled carbon steel sheet, commercial quality similar to ANSI/ASTM A569, as follows.

表 1 Table 1

化学清理 Chemicallycleaned		机械清理 Mechanicallycleaned		轧制状态 As-rolled		轧制后热处理 Annealedafter rolling	
边 Edge							
打磨 Mill	切边 Slit	打磨 Mill	切边 Slit	打磨 Mill	切边 Slit	打磨 Mill	切边 Slit
表面涂油 GE designation - surface oiled							
B8A506A1 B8A506A2	B8A506A11 B8A506A21	B8A506A12 B8A506A22	B8A506A13 B8A506A23	B8A506A14 B8A506A24	B8A506A15 B8A506A25	B8A506A16 B8A506A26	B8A506A17 B8A506A27
表面未涂油 GE designation - surface not oiled							
B8A506B1 B8A506B2	B8A506B11 B8A506B21	B8A506B12 B8A506B22	B8A506B13 B8A506B23	B8A506B14 B8A506B24	B8A506B15 B8A506B25	B8A506B16 B8A506B26	B8A506B17 B8A506B27

2 化学成分 CHEMICAL COMPOSITION

化学成分要求见表 2。

The requirements of chemical composition follow the table 2.

表 2 Table 2 %

牌号 GE designation	Fe	C	Mn	S	P	Cu
B8A506A1, A11, A12, A13, A14, A15, A16, A17	余量 Remainder	≤0.15	≤0.60	≤0.040	≤0.035	-
B8A506A2, A21, A22, A23, A24, A25, A26, A27	余量 Remainder	≤0.15	≤0.60	≤0.040	≤0.035	≥0.20
B8A506B1, B11, B12, B13, B14, B15, B16, B17	余量 Remainder	≤0.15	≤0.60	≤0.040	≤0.035	-
BSA506B2, B21, B22, B23, B24, B25, B26, B27	余量 Remainder	≤0.15	≤0.60	≤0.040	≤0.035	≥0.20

3 附加要求 ADDITIONAL REQUIREMENTS

该材料应能够在室温下任意方向通过 180 度的平面弯曲,而不会在弯曲部分的外部开裂。

The material shall be capable of being bent at room temperature in any direction through 180 degrees flat on itself without cracking on the outside of the bent portion.

4 仲裁方法 REFEREE METHODS

化学分析

ANSI / ASTM E30

Chemical analysis

ANSI/ASTM E30

5 公差 TOLERANCES

5.1 厚度 Thickness

5.1.1 成卷和定尺长度 (包括酸洗状态), 标称。

5.1.1 Coils and cut lengths, including pickled, nominal

表 3 Table 3

公称宽度, mm Specified width, mm		公称厚度T, mm Specified nominal thickness, mm				
> Over	≤ Through	T≤2.0 Through2.0	2.0<T≤2.5 Over 2.0 to 2.5.incl	2.5<T≤4.0 Over 2.5 to 4.0,incl	4.0<T≤5.5 Over 4.0 to 5.5i,ncl	5.5<T≤6.0 Over 5.5 to 6.0,incl
		厚度公差, ±, mm Thickness tolerance, over and under, mm				
300	600	0.15	0.15	0.18	0.20	0.28
600	1200	0.15	0.18	0.20	0.22	0.30
1200	1500	0.18	0.18	0.20	0.25	0.30
1500	1800	0.18	0.20	0.20	0.28	0.32
1800	-	0.18	0.20	0.20	0.30	0.38
(1) 厚度应在距离切边不少于 10.0 毫米和距离磨边不少于 20 毫米的任何宽度处测量。此表不适用于磨边钢板卷未裁切的端部。 (1) Thickness shall be measured at any point across the width not less than 10.0 mm from a cut edge and not less than 20 mm from a mill edge. This table shall not apply to the uncropped ends of mill edge coils.						

5.1.2 成卷和定尺长度 (包括酸洗状态), 短尺

5.1.2 Coils and cut lengths. Including pickled, minimum

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表 4 Table 4

公称宽度, mm Specified width, mm		公称最小厚度, mm Specified minimum thickness, mm				
> Over	≤ Through	≤2.0 Through 2.0	>2.0 ≤2.5 Over 2.0 to 2.5. incl	>2.5 ≤4.0 Over 2.5 to 4.0, incl	>4 ≤5.5 Over 4.0 to 5.5, incl	>5.5 ≤6.0 Over 5.5 to 6.0, incl
		厚度公差 ≤ mm Thickness tolerance, over only, mm				
300	600	0.30	0.30	0.35	0.40	0.55
600	1200	0.30	0.35	0.40	0.45	0.60
1200	1500	0.35	0.35	0.40	0.50	0.60
1500	1800	0.35	0.40	0.40	0.55	0.65
1800	-	0.35	0.40	0.40	0.60	0.75

(2) 厚度应在距离切边不少于10.0毫米和距离磨边不少于20毫米的任何宽度处进行测量。此表不适用于磨边钢板卷未裁切的端部。

(2) Thickness shall be measured at any point across the width not less than 10.0 mm from a cut edge and not less than 20 mm from a mill edge. This table shall not apply to the uncropped ends of mill edge coils.

5.1.3 磨边钢板卷和定尺长度（包括酸洗状态）

5.1.3 Coils and cut lengths, including pickled (mill edge)

表 5 Table 5

公称宽度, mm Specified width, mm		宽度公差 ≤ Width tolerance, over only, mm
> Over	≤ Through	
300	600	16
600	1200	26
1200	1500	32
1500	1800	35
1800	-	48

(3) 以上公差不适用于磨边钢板卷未裁切的端部。

(3) The above tolerances shall not apply to the uncropped ends of mill edge Coils.

5.1.4 普通精度，宽度 钢板卷和定尺长度（包括酸洗状态）切边

5.1.4 Width Not resquared, coils and cut lengths, including pickled (cut edge)



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表 6 Table 6

公称宽度, mm Specified width,mm		宽度公差 ≤ Width tolerance, over only, mm
> Over	≤ Through	
300	600	3
600	1200	5
1200	1500	6
1500	1800	8
1800	-	10

5.2 长度Length

普通精度, 定尺长度, 包括酸洗状态

Cut lengths not resquared, including pickled

表 7 Table 7

规定宽度, mm Specified width,mm		长度公差 ≤ Length tolerance, over only, mm
> Over	≤ Through	
300	600	6
600	900	8
900	1500	12
1500	3000	20
3000	4000	25
4000	5000	35
5000	6000	40
6000	-	45

5.3 直径 Diameter::

宽度大于300mm的钢板卷 (包括酸洗状态)

Including pickled, circles (over 300 mm in width)

表 8 Table 8

规定厚度 mm Specified- thickness.mm		直径D ,mm Diameters, mm		
> Over	≤ Through	≤600 Through 600	600<D≤1200 Over600 to 1200,incl	> 1200 Over 1200
		正公差 ≥ Tolerance over specified diameter, mm (no tolerance under)		
-	1.5	1.5	3.0	5.0
1.5	2.5	2.5	4.0	5.5
2.5	-	3.0	5.0	6.5

5.4 镰刀弯 Camber

5.4.1 宽度大于300mm的，包括酸洗状态

5.4.1 Including pickled (over 300 mm in width)

5.4.2 边沿与直线的最大偏差，用平尺在凹面进行测量。

5.4.2 Shall be the greatest deviation of a side edge from a straight line, the measurement being taken on the concave side with a straightedge.

5.4.3 普通精度，定尺长度的钢板镰刀弯公差见下表。

5.4.3 Camber tolerances for cut lengths, not resquared, shall be as shown in the following table.

表 9 Table 9

定尺长度 mm	Cut length, mm	镰刀弯公差 mm
> Over	≤ Through	Camber tolerances, mm (4)
-	1200	4
1200	1800	5
1800	2400	6
2400	3000	8
3000	3700	10
3700	4300	13
4300	4900	16
4900	5500	19
5500	6000	22
6000	9000	32
9000	12200	38

(4) 钢板卷的镰刀弯公差在任意 6000 毫米内为 25.0 毫米。

(4) The camber tolerances for coils shall be 25.0 mm in any 6000 mm.

5.5 脱方度 Out-of-square

5.5.1 普通精度，定尺长度，包括酸洗，切边[宽度大于300mm]

5.5.1 Cut lengths not resquared, including pickled, cue edge (over 300 mm in width)

5.5.2 脱方度为侧边与底边形成角度与直角的最大差值。应该通过测量对角线之间的差来获得。脱方度偏差应是该差值的一半。对于所有厚度和所有尺寸的公差应为1.0毫米/100毫米的宽度或宽度的一部分。

5.5.2 Out-of-square shall be the greatest deviation of an end edge from a straight line at right angle to a side and touching one corner. It shall be obtained by measuring the difference between the diagonals of the cut length. The out-of-square deviation shall be one half of that difference. The tolerance for all thicknesses and all aizes shall be 1,0 mm/100 mm of width or fraction thereof.

5.5.3 高精度：定尺长度，包括酸洗，[宽度大于300mm]

当定尺长度要求高时，宽度和长度不能小于规定的尺寸。对于最宽1200毫米，最长3000

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毫米的钢板镰刀弯或脱方度单项公差不得超过1.6毫；对于更宽或更长的适用公差为3.2毫米。

5.5.3 Resquared. Cut lengths, including pickled (over 300 mm in width)

When cut lengths shall be specified resquared, the width and the length shall not be less than the dimensions specified. The individual tolerance for over-width, over-length, camber, or out-of-square shall not exceed 1.6 mm up to and including 1200 mm in width and up to and including 3000 mm in length. For cut lengths wider or longer, the applicable tolerance shall be 3.2 mm.

5.6 平面度 (5) Flatness

5.6.1 定尺长度，裁切后未进行平直处理，含酸洗状态

5.6.1 Including pickled cut lengths not specified to stretcher-leveled standard of flatness

表 10 Table 10

公称厚度 mm Specified thickness. mm		公称宽度 mm Specified width, mm	平面度公差 mm(6) Flatness tolerance, mm, (6)
>Over	≤ Through		
1.2	1.5	>900英寸 To 900,incl	15
		>900英寸 ≤1500英寸 Over 900 to 1500,incl	20
		>1500英寸 Over 1500	25
1.5	4.5	>1500英寸 To 1500,incl	15
		>1500 英寸 ≤1800英寸 Over 1500 to 1800,incl	20
		>1800英寸 Over 1800	25
4.5	6.0	>1200英寸 To 1200,incl	15
(5) 在进行适当的矫直操作时，上述公差也应适用于从钢板卷上剪下的薄板。 (5) The above tolerances shall also apply to lengths cut from coils by the consumer when adequate flattening operations shall be performed. (6) 钢板凸点到基准面的最大值 (6) Maximum deviation from a horizontal flat surface.”			

5.6.2 定尺长度，裁切后进行平直处理，含酸洗状态

5.6.2 Maximum deviation from a horizontal flat surface.

Flatness Including pickled cut lengths specified to stretcher-leveled standard of flatness

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表 11 Table 11

公称厚度 mm Specified thickness, mm		公称宽度 mm Specified width, mm	公称长度 mm Specified length, mm	平面度公差 mm(7) Flatness tolerance, mm (7)
>Over	≤Through			
1.2	4.5	≤1200 Through 1200	≤2400 Through 2400	3
		更宽或更长 Wider or longer		6
4.5	6.0	≤1200 Through 1200	≤2400 Through 2400	3
		更长 Longer		6

(7)与水平面的最大偏差
 (7) Maximum deviation from a horizontal flat surface.

5.7 宽度和长度 Width and length

表 12 Table 12

公称长度 mm Specified length, mm		公称宽度 mm Specified width, mm	长度 Length, mm	
>Over	≤Through		带端头 Specified "grip or entry marks outside specified length"	不带端头 Specified "grip or entry marks inside specified length"
			正偏差 Allowances over specified dimensions	
-	3000	20	100	75
3000	4000	25	100	75
4000	-	30	125	100

(8) 当普通级定尺长度进行平直处理时, 适用上表所列宽度和长度超过规定尺寸的余量。镰刀弯公差不适用。
 (8) When cut lengths shall be specified to stretcher-leveled standard of flatness and not resquared, the allowances over specified dimensions in width and length given in the table above apply. The camber tolerances do not apply.

(9) 当在指定长度内定尺长度没有信息标记时, 买方应指定“在规定长度以外做信息标记”。
 当在指定长度内定尺长度有信息标记时, 买方应指定“在规定长度以内做信息标记”。
 (9) When cut lengths are not to have grip or entry marks within the specified length, the purchaser should specify "grip entry marks outside specified length". When cut lengths may have grip or entry marks within the specified length, the purchaser should specify "grip or entry marks inside specified length."

6 合格证书 CERTIFICATE OF TEST

应买方要求, 供应商应在交货时立即向买方提交一式三份的检验证书, 以显示本规格所要求的化学分析试验结果。本证书应送达采购订单上指定的部门、单位或人员, 并应包含牌号、采购订单号和已装运数量, 以便该证书可与货物一起发出。

When requested, the supplier shall submit promptly to the purchaser at the point of delivery a certificate of test in triplicate showing the results of tests for chemical analysis required by this specification. This certificate shall be addressed to the section, unit or person specified on the purchase order, and shall contain the GE designation, the purchase order number, and the quantity shipped so that the certificate may be identified with the shipment.

7 包装和标志 PACKING AND MARKING

在装运时, 材料应按大小适当分开, 并应以适当的方式包装, 以免在装运时受到伤害或损失。

每箱、板条箱、捆等应清楚地标明采购订单号、制造商名称、重量、尺寸和名称。

Material shall be properly separated by size for shipment and shall be packed in such a manner as to be suitably protected from Injury or loss during shipment.

Each box, crate, bundle, etc, shall be legibly marked with the purchase order number, the manufacturer's name, weight, size and the GE designation.