



67006

<b>J. C. Ahn</b>	WE HEREBY CERTIFY THAT THE MATERIAL HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ABOVE ORDER
General Manager of Q.A Team	2013030 A4(210X297)

<b>Contract No.</b> <b>Customer</b> GERDAU CORSA SAPI DE CV <b>L/C No.</b> DPCMXH50702 <b>P/O No.</b> 32201503C211 <b>Commodity</b> HOT ROLLED WIDE FLANGE BEAMS <b>Specification</b> ASTM A572 G99/A992 CSA 350W	<b>MILL TEST CERTIFICATE</b>  <b>EN 10204(2004) TYPE 3.1</b>	 <b>HYUNDAI STEEL</b>	<b>Head Office</b> 63, Jungbong-daero, Dong-gu, Incheon 401-712, S. Korea <b>Certificate No.</b> IH20150305389-34 <b>Class Cert. No.</b> <b>Date of Issue</b> 2015-03-30																																																																																																																																																																																																																																																																																																																						
<table border="1"> <thead> <tr> <th rowspan="2">Dimensions &amp; Length</th> <th rowspan="2">Heat No.</th> <th rowspan="2">Pieces</th> <th rowspan="2">Weights (kg)</th> <th colspan="11">Chemical Composition (%)</th> <th colspan="2">Tensile Test</th> <th colspan="3">Impact Test (V-notch)</th> <th rowspan="2">Remarks (Impact Specimen Size)</th> </tr> <tr> <th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cu</th><th>Mg</th><th>Al</th><th>Nb</th><th>Sn</th><th>CE<sup>(1)</sup></th> <th>Yield strength</th><th>Elongation<sup>(2)</sup></th> <th>Yield Ratio</th><th>AVG</th><th>1</th><th>2</th><th>3</th> </tr> <tr> <th colspan="4"></th> <th>x100</th><th>x1000</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>x100</th><th>N/mm<sup>2</sup></th><th>%</th><th>%</th><th>( )</th><th>°C</th><th></th> </tr> </thead> <tbody> <tr> <td>24X12-3/4X146 40.00 FT</td> <td>N 027493</td> <td>8</td> <td>21,192</td> <td>17</td><td>18</td><td>118</td><td>20</td><td>12</td><td>21</td><td>3</td><td>5</td><td>10</td><td>11</td><td>4</td><td>17</td><td>42</td><td>547</td><td>396</td><td>24.1</td><td>0.73</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X146 40.00 FT</td> <td>N 027484</td> <td>10</td> <td>26,492</td> <td>17</td><td>17</td><td>118</td><td>23</td><td>8</td><td>33</td><td>2</td><td>8</td><td>5</td><td>13</td><td>44</td><td></td><td>538</td><td>390</td><td>28.4</td><td>0.73</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X162 40.00 FT</td> <td>N 025878</td> <td>1</td> <td>2,039</td> <td>18</td><td>18</td><td>102</td><td>18</td><td>10</td><td>18</td><td>2</td><td>3</td><td>10</td><td>10</td><td>40</td><td></td><td>583</td><td>447</td><td>25.0</td><td>0.77</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X162 40.00 FT</td> <td>N 027469</td> <td>3</td> <td>8,817</td> <td>17</td><td>18</td><td>117</td><td>18</td><td>7</td><td>23</td><td>2</td><td>9</td><td>4</td><td>12</td><td>41</td><td></td><td>530</td><td>378</td><td>26.0</td><td>0.71</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X162 40.00 FT</td> <td>N 027470</td> <td>21</td> <td>81,719</td> <td>17</td><td>18</td><td>114</td><td>19</td><td>7</td><td>22</td><td>2</td><td>8</td><td>4</td><td>14</td><td>41</td><td></td><td>528</td><td>374</td><td>28.0</td><td>0.71</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X162 40.00 FT</td> <td>N 027471</td> <td>30</td> <td>85,170</td> <td>17</td><td>17</td><td>115</td><td>18</td><td>7</td><td>18</td><td>2</td><td>8</td><td>5</td><td>8</td><td>41</td><td></td><td>517</td><td>373</td><td>26.0</td><td>0.72</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>24X12-3/4X162 40.00 FT</td> <td>N 027472</td> <td>28</td> <td>82,292</td> 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<td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>				Dimensions & Length	Heat No.	Pieces	Weights (kg)	Chemical Composition (%)											Tensile Test		Impact Test (V-notch)			Remarks (Impact Specimen Size)	C	Si	Mn	P	S	Cu	Mg	Al	Nb	Sn	CE <sup>(1)</sup>	Yield strength	Elongation <sup>(2)</sup>	Yield Ratio	AVG	1	2	3					x100	x1000	x100	x100	x100	x100	x100	x100	x100	x100	x100	N/mm <sup>2</sup>	%	%	( )	°C		24X12-3/4X146 40.00 FT	N 027493	8	21,192	17	18	118	20	12	21	3	5	10	11	4	17	42	547	396	24.1	0.73					24X12-3/4X146 40.00 FT	N 027484	10	26,492	17	17	118	23	8	33	2	8	5	13	44		538	390	28.4	0.73						24X12-3/4X162 40.00 FT	N 025878	1	2,039	18	18	102	18	10	18	2	3	10	10	40		583	447	25.0	0.77						24X12-3/4X162 40.00 FT	N 027469	3	8,817	17	18	117	18	7	23	2	9	4	12	41		530	378	26.0	0.71						24X12-3/4X162 40.00 FT	N 027470	21	81,719	17	18	114	19	7	22	2	8	4	14	41		528	374	28.0	0.71						24X12-3/4X162 40.00 FT	N 027471	30	85,170	17	17	115	18	7	18	2	8	5	8	41		517	373	26.0	0.72						24X12-3/4X162 40.00 FT	N 027472	28	82,292	17	18	118	21	8	28	2	3	8	10	41		523	378	25.9	0.71						24X12-3/4X162 40.00 FT	N 027473	28	85,231	18	18	115	20	8	19	2	3	8	13	42		518	373	27.1	0.72						24X12-3/4X162 40.00 FT	N 027482	7	20,573	17	19	114	18	8	28	2	3	8	12	41		525	374	26.0	0.72						SUB TOTAL		137	317,423																					
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<p>(Note) (1) Ceq: (C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length: 200 mm (3) Yield Ratio = YP/TS</p>																																																																																																																																																																																																																																																																																																																									

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<td>20</td><td>19</td><td>100</td><td>23</td><td>11</td><td>31</td><td>2</td><td>5</td><td>5</td><td>12</td><td>42</td><td></td><td>576</td><td>424</td><td>23.8</td><td>0.74</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>27X10XB4 40.00 FT</td> <td>N 027088</td> <td>6</td> <td>10,236</td> <td>18</td><td>16</td><td>86</td><td>22</td><td>10</td><td>29</td><td>2</td><td>8</td><td>8</td><td>14</td><td>41</td><td></td><td>588</td><td>432</td><td>24.9</td><td>0.74</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>27X10XB4 40.00 FT</td> <td>N 027098</td> <td>6</td> <td>10,236</td> <td>19</td><td>15</td><td>88</td><td>20</td><td>10</td><td>27</td><td>2</td><td>8</td><td>7</td><td>20</td><td>42</td><td></td><td>578</td><td>424</td><td>25.0</td><td>0.73</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>SUB TOTAL</td> <td></td> <td>205</td> <td>314,804</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>				Dimensions & Length	Heat No.	Pieces	Weights (kg)	Chemical Composition (%)											Tensile Test		Impact Test (V-notch)			Remarks (Impact Specimen Size)	C	Si	Mn	P	S	Cu	Mg	Al	Nb	Sn	CE <sup>(1)</sup>	Yield strength	Elongation <sup>(2)</sup>	Yield Ratio	AVG	1	2	3					x100	x1000	x100	x100	x100	x100	x100	x100	x100	x100	N/mm <sup>2</sup>	%	%	( )	°C		27X10XB4 40.00 FT	N 027348	8	7,000	17	18	88	28	7	23	2	9	4	19	40		550	423	23.0	0.76						27X10XB4 40.00 FT	N 027360	19	28,858	18	14	87	26	8	21	2	4	4	14	39		552	418	24.0	0.74						27X10XB4 40.00 FT	N 027351	27	41,148	20	13	100	28	10	24	1	4	4	11	42		573	470	24.0	0.72						27X10XB4 40.00 FT	N 027352	27	41,148	19	15	88	30	12	28	1	5	3	11	41		574	402	26.0	0.71						27X10XB4 40.00 FT	N 027353	11	82,484	18	15	97	28	12	23	2	4	4	12	45		576	422	25.0	0.73						27X10XB4 40.00 FT	N 027354	39	58,438	19	15	88	24	11	24	3	4	4	11	42		579	430	24.0	0.74						27X10XB4 40.00 FT	N 027355	38	53,240	20	19	100	23	11	31	2	5	5	12	42		576	424	23.8	0.74						27X10XB4 40.00 FT	N 027088	6	10,236	18	16	86	22	10	29	2	8	8	14	41		588	432	24.9	0.74						27X10XB4 40.00 FT	N 027098	6	10,236	19	15	88	20	10	27	2	8	7	20	42		578	424	25.0	0.73						SUB TOTAL		205	314,804																					
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27X10XB4 40.00 FT	N 027360	19	28,858	18	14	87	26	8	21	2	4	4	14	39		552	418	24.0	0.74																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027351	27	41,148	20	13	100	28	10	24	1	4	4	11	42		573	470	24.0	0.72																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027352	27	41,148	19	15	88	30	12	28	1	5	3	11	41		574	402	26.0	0.71																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027353	11	82,484	18	15	97	28	12	23	2	4	4	12	45		576	422	25.0	0.73																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027354	39	58,438	19	15	88	24	11	24	3	4	4	11	42		579	430	24.0	0.74																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027355	38	53,240	20	19	100	23	11	31	2	5	5	12	42		576	424	23.8	0.74																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027088	6	10,236	18	16	86	22	10	29	2	8	8	14	41		588	432	24.9	0.74																																																																																																																																																																																																																																																																																																					
27X10XB4 40.00 FT	N 027098	6	10,236	19	15	88	20	10	27	2	8	7	20	42		578	424	25.0	0.73																																																																																																																																																																																																																																																																																																					
SUB TOTAL		205	314,804																																																																																																																																																																																																																																																																																																																					
<p>(Note) (1) Ceq: (C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length: 200 mm (3) Yield Ratio = YP/TS</p>																																																																																																																																																																																																																																																																																																																								

<b>J. C. Ahn</b>	WE HEREBY CERTIFY THAT THE MATERIAL HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ABOVE ORDER
General Manager of Q.A Team	2013030 A4(210X297)

<b>Contract No.</b> <b>Customer</b> GERDAU CORSA SAPI DE CV <b>L/C No.</b> DPCMXH90702	<b>MILL TEST CERTIFICATE</b>	 <b>HYUNDAI STEEL</b>	<b>Head Office</b> 63, Jungbong-daero, Dong-gu, Incheon 401-712, S. Korea
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