

 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	Revision # :
		RMS 1400 – 000 - 001	3
		Title :	Issue Date :
		Steel Scrap General Requirements	02 / 16 / 2007
			Page # : 1 of 3


Material :	Steel Scrap	Grade :	All	SDI Part #	na																				
Industry Id :	ISRI #'s: na	A.K.A. :	na																						
Scope : <p>These general specifications apply to all scrap grades purchased by Steel Dynamics, Inc. for the purposes of melting at the Columbia City, Indiana mill.</p> <p>Specifications for the various "types" and "grades" of scrap consumed by Steel Dynamics, Inc., Structural and Rail Mill are found in the RMA 1400-XXX-001 series of documents.</p>																									
Special Definitions : <table border="0"> <tr> <td style="vertical-align: top;"><u>"downgrade"</u></td> <td>When a particular grade of scrap is found to not conform to its represented grade, it may, by agreement by SDI-CCI and supplier, be downgraded and accepted as an inferior grade of scrap.</td> </tr> <tr> <td style="vertical-align: top;"><u>"free of"</u></td> <td>When specified to be "free of", the grade shall not contain any amount of prohibited material in any amount greater than that which is unavoidable in the customary preparation and handling of that particular grade.</td> </tr> <tr> <td style="vertical-align: top;"><u>"free of alloys"</u></td> <td> <p>Scrap is "free of alloys" if the residual content of the elements listed below, contained within the steel, do not occur at levels consistent with the purposeful creation of an Alloy Steel. Residual level of elements contained within the Scrap shall not exceed:</p> <table border="0"> <tr> <td>Chromium (Cr)</td> <td>0.20%</td> </tr> <tr> <td>Nickel (Ni)</td> <td>0.45%</td> </tr> <tr> <td>Manganese (Mn)</td> <td>1.65%</td> </tr> <tr> <td>Molybdenum (Mo)</td> <td>0.10%</td> </tr> </table> <p>The combined residual level, exclusive of manganese, shall not exceed 0.60%</p> </td> </tr> <tr> <td style="vertical-align: top;"><u>"Grade", "type"</u></td> <td>A classification of scrap type based upon Institute of Scrap Recycling Industries (ISRI) ferrous scrap classification, or; SDI-CCI / vendor description.</td> </tr> <tr> <td style="vertical-align: top;"><u>"Off-Grade"</u></td> <td> <p>A load of scrap shall be considered off grade if it fails to meet:</p> <ol style="list-style-type: none"> 1. Applicable size limitations 2. Applicable requirements of material "kind" 3. Applicable requirements of material quality <p>as specified in the material's (grade's) Raw Material Specification (RMS).</p> </td> </tr> <tr> <td style="vertical-align: top;"><u>"NORM"</u></td> <td>Naturally Occurring Radioactive Material (radioactive material emitting at less than 2X background radiation level)</td> </tr> </table>						<u>"downgrade"</u>	When a particular grade of scrap is found to not conform to its represented grade, it may, by agreement by SDI-CCI and supplier, be downgraded and accepted as an inferior grade of scrap.	<u>"free of"</u>	When specified to be "free of", the grade shall not contain any amount of prohibited material in any amount greater than that which is unavoidable in the customary preparation and handling of that particular grade.	<u>"free of alloys"</u>	<p>Scrap is "free of alloys" if the residual content of the elements listed below, contained within the steel, do not occur at levels consistent with the purposeful creation of an Alloy Steel. Residual level of elements contained within the Scrap shall not exceed:</p> <table border="0"> <tr> <td>Chromium (Cr)</td> <td>0.20%</td> </tr> <tr> <td>Nickel (Ni)</td> <td>0.45%</td> </tr> <tr> <td>Manganese (Mn)</td> <td>1.65%</td> </tr> <tr> <td>Molybdenum (Mo)</td> <td>0.10%</td> </tr> </table> <p>The combined residual level, exclusive of manganese, shall not exceed 0.60%</p>	Chromium (Cr)	0.20%	Nickel (Ni)	0.45%	Manganese (Mn)	1.65%	Molybdenum (Mo)	0.10%	<u>"Grade", "type"</u>	A classification of scrap type based upon Institute of Scrap Recycling Industries (ISRI) ferrous scrap classification, or; SDI-CCI / vendor description.	<u>"Off-Grade"</u>	<p>A load of scrap shall be considered off grade if it fails to meet:</p> <ol style="list-style-type: none"> 1. Applicable size limitations 2. Applicable requirements of material "kind" 3. Applicable requirements of material quality <p>as specified in the material's (grade's) Raw Material Specification (RMS).</p>	<u>"NORM"</u>	Naturally Occurring Radioactive Material (radioactive material emitting at less than 2X background radiation level)
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General Specifications : <table border="0"> <tr> <td style="vertical-align: top;">Cast Iron</td> <td>Unless specifically purchased as a Cast Iron or Pig Iron grade, all scrap grades shall contain less than 1% (by weight) of cast irons. This includes but is not limited to Cast Iron, Pig Iron, composite brake shoes, engine blocks, railway wheels, castings, etc.</td> </tr> <tr> <td style="vertical-align: top;">Cleanliness</td> <td>All grades shall be free of excessive rust, corrosion, dirt, oil, or grease.</td> </tr> <tr> <td style="vertical-align: top;">Hazardous Materials</td> <td>All grades shall be free of hazardous materials, such as, but not limited to; oil filled devices (e.g. Transformers – even if drained may contain PCB residues), explosives, radioactive materials, etc.</td> </tr> <tr> <td style="vertical-align: top;">Inspection:</td> <td>All material is to be suitable and acceptable to Steel Dynamics, Inc.</td> </tr> <tr> <td style="vertical-align: top;">Lead:</td> <td>All grades are to be free of Lead and lead containing materials. Lead containing materials include, but are not limited to: batteries, lead-based paints, gasoline tanks, metal guttering and other terne material, mufflers and tail pipes, wheel balancing weights, babbit, solder, radiators, leaded joints in soil pipe, forklift and equipment counter-weights, etc.</td> </tr> <tr> <td style="vertical-align: top;">Loading:</td> <td>All grades must be capable of being loaded and unloaded by electromagnet.</td> </tr> </table>						Cast Iron	Unless specifically purchased as a Cast Iron or Pig Iron grade, all scrap grades shall contain less than 1% (by weight) of cast irons. This includes but is not limited to Cast Iron, Pig Iron, composite brake shoes, engine blocks, railway wheels, castings, etc.	Cleanliness	All grades shall be free of excessive rust, corrosion, dirt, oil, or grease.	Hazardous Materials	All grades shall be free of hazardous materials, such as, but not limited to; oil filled devices (e.g. Transformers – even if drained may contain PCB residues), explosives, radioactive materials, etc.	Inspection:	All material is to be suitable and acceptable to Steel Dynamics, Inc.	Lead:	All grades are to be free of Lead and lead containing materials. Lead containing materials include, but are not limited to: batteries, lead-based paints, gasoline tanks, metal guttering and other terne material, mufflers and tail pipes, wheel balancing weights, babbit, solder, radiators, leaded joints in soil pipe, forklift and equipment counter-weights, etc.	Loading:	All grades must be capable of being loaded and unloaded by electromagnet.								
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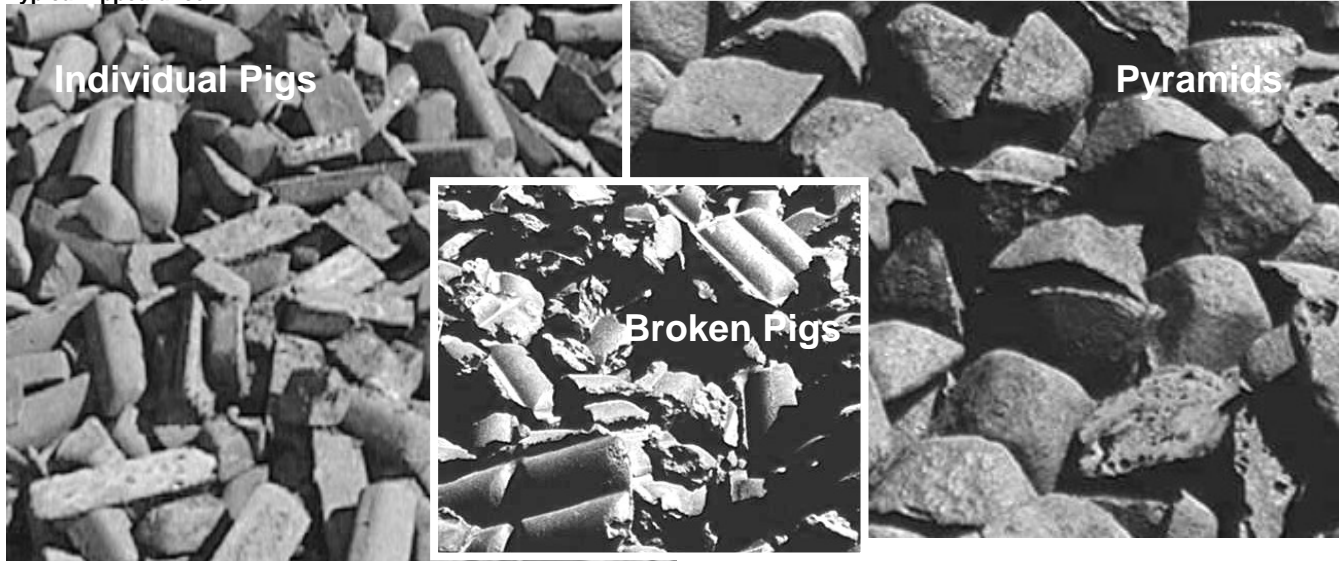
 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 010 - 001	Revision # :	3
		Title :	Steel Scrap Plate and Structural Steel	Issue Date :	08 / 01 / 2007
				Page # :	1 of 1

Material :	Steel Scrap	Grade :	Plate and Structural Steel	SDI Part #	1400-010-01						
Industry Id :	ISRI #'s: 231, 232	A.K.A. :	P&S								
Description :	<ul style="list-style-type: none"> Clean cut structural and plate scrap. Clean cut structural shape crop ends, shearings, or broken steel tires 										
Typical Appearance			Typical Constituents <ul style="list-style-type: none"> Structural Items Plates Large diameter pipe Heavy walled pipe 								
Sizing	Thickness (minimum) Maximum		$\geq 1/4$ " 60" x 24"		Typical Density 60 - 70 (lbs / ft ³)						
Chemistry	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	
Maximum (wt%)			.04	.04		.12	.15	.15	.03	.015	
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following: <ul style="list-style-type: none"> Reinforcing bar must not be present Hatfield Steel – high Manganese Steel and Castings – railway frogs 										
Allowances	<ul style="list-style-type: none"> Heavy Walled Pipe must not exceed 20% by weight This grade may be mixed with #1 Railway Scrap, provided that car sides do not exceed 20% by weight With prior approval; delivered loads of this grade may contain (in part or whole) <u>clean truck</u> rims. 										
Additional Notes	<ul style="list-style-type: none"> Pipe over 8" diameter must be split 										
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.										

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services


Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05
	2	Clean Truck Rim Allowance - with prior approval added	08 / 17 / 06
	3	Prohibition – added hatfield Steel	08 / 01 / 07


 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 009 - 001	Revision # :	1
		Title :	Steel Scrap Substitute Pig Iron	Issue Date :	03 / 23 / 2005
				Page # :	1 of 1

Material :	Steel Scrap Substitute	Grade :	Pig Iron	SDI Part #	1400-009-01						
Industry Id :	A.K.A. : Basic Pig Iron										
Description :	<ul style="list-style-type: none"> Cast Iron or Blast Furnace Iron, cast into Individual “Pigs”, grouped “pigs” (broken into smaller pieces), or pyramids. Pigs’ weighing-30 – 100 pounds each. 										
Typical Appearance											
Sizing	Thickness (minimum)		≤ 8 “		Typical Density	180 - 200 (lbs / ft ³)					
	Maximum		28” x 12”								
Chemistry	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	
Minimum (wt%)	3.00										
Maximum (wt%)	5.00	1.20	.15	.05	1.20						
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following: <ul style="list-style-type: none"> Beach Iron Kish Home Scrap Broken Castings (other than broken Pigs) Cast Iron Castings 										
Allowances											
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.										

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services


Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05


 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 011 - 001	Revision # :	0
		Title :	Steel Scrap Compressed/Briquetted Steel Blocks	Issue Date :	08 / 17 / 2006
				Page # :	1 of 1

Material :	Steel Scrap	Grade :	Briquetted Steel	SDI Part #	1400-010-01						
Industry Id :	ISRI #'s: 231, 232	A.K.A. :	Bricks, Pucks, Candy Bars, Blocks								
Description :	<ul style="list-style-type: none"> Clean cut structural and plate scrap chips. Clean cut structural shape crop ends, shearings, or broken steel scrap 										
Typical Appearance			Typical Constituents <ul style="list-style-type: none"> Structural Items Plates Rod Bar Naturally Occurring Organic Binder 								
Sizing	Thickness (minimum) Maximum		≥ 2 " 60" x 24"		Typical Density 90 - 120 (lbs / ft ³)						
Chemistry	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	
Maximum (wt%)			.04	.08		.40	.15	.15	.03	.015	
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following: <ul style="list-style-type: none"> No more than 10% fines (material less than 2 " in thickness) Metallization must greater than 90% 										
Allowances	<ul style="list-style-type: none"> Binder other than naturally occurring organics must be disclosed and approved by SDI 										
Additional Notes	<ul style="list-style-type: none"> 										
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.										

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services


Revisions	#	Nature of Change	Effective
	0	Original Issue	8 / 17 / 06

 Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725	<h1>Raw Material Specification</h1>	Document # :	Revision # :
		RMS 1400 – 004 - 001	1
		Title :	Issue Date : 03 / 23 / 2005
		Steel Scrap Bushelling	Page # : 1 of 1



Material :	Steel Scrap	Grade :	Bushelling	SDI Part #	1400-004-01							
Industry Id :	ISIS #'s: 207, 207A, 212, 234	A.K.A. :	#1 Bushelling, Black Bushellig, Clippings, Punching									
Description :	<ul style="list-style-type: none"> Clean steel – factory scrap: bushelling, clippings, or punchings. 											
Typical Appearance												
Sizing	Thickness (minimum) Maximum		na 60" x 24"		Typical Density 70 - 80 (lbs / ft ³)							
Chemistry	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn		
Maximum (wt%)		1.50	.05	.05	.50	.10	.10	.10	.03	.01		
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-01), may not contain the following: <ul style="list-style-type: none"> Auto body stock Auto fender stock De-tinned materials Electrical steel over 0.5 silicon Metal coated, limed, or vitreous enameled steels 											
Allowances	<ul style="list-style-type: none"> Black Steel clippings Zinc or galvanized coated materials 											
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.											

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services

Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05

 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 003 - 001	Revision # :	1
		Title :	Steel Scrap # 2 Shredded Steel	Issue Date :	03 / 23 / 05
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This page printed: 5/13/2008


Material :	Steel Scrap	Grade :	# 2 Shredded Steel	SDI Part #	1400-003-01
Industry Id :	ISRI #'s: 210, 211	A.K.A. :	Auto Shredded, Fragmentized Scrap, Shredded		
Description :	<ul style="list-style-type: none"> Homogeneous shredded steel scrap magnetically separated, originating from automobiles, unprepared # 1 Heavy Melting Steel and # 2 Heavy Melting Steel, and miscellaneous sheet steel. 				
Typical Appearance <div style="display: flex; justify-content: space-around;">   </div>					
Sizing	Thickness (minimum) Maximum		N/a 10" x 10" x 10 "		Typical Density 55 - 70 (lbs / ft ³)
Chemistry	C	Mn	P	S	Si
Maximum (wt%)			.04	.015	
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-01), may not contain the following: <ul style="list-style-type: none"> Municipal Scrap Incinerator Scrap Lead Coated Steel Vitreous enameled materials Tin cans Excessive fluff Copper clad or plated steel 				
Allowances	<ul style="list-style-type: none"> Cast iron content not to exceed 5% by weight. Cast iron pieces may exceed 10", but must not exceed 16" 				
Additional Notes	<ul style="list-style-type: none"> Due to the nature of processing, this grade of scrap steel will contain small quantities of copper wiring and motor windings. Total copper content must not exceed 0.20% 				
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.				


Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services



Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05

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 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 002 - 001	Revision # :	1
		Title :	Steel Scrap # 2 Heavy Melting Steel	Issue Date :	03 / 23 / 2005
				Page # :	1 of 1

Material :	Steel Scrap	Grade :	# 2 Heavy Melting Steel	SDI Part #	1400-002-01
Industry Id :	ISRI #'s: 203, 204, 205, 206	A.K.A. :	#2, HMS #2, #2 Steel		
Description :	<ul style="list-style-type: none"> Steel Scrap, black or galvanized 1/8" thickness and over. May include automotive scrap if properly prepared (rear ends, torque converters, and transmissions must be cut and drained). Free of sheet iron and thin gage material 				
Typical Appearance			Typical Constituents <ul style="list-style-type: none"> Small Diameter Pipe Automotive Wheel rims Reinforcing bar Prepared automotive parts Post-consumer steel goods Light-weight structural items Small machinery parts 		
Sizing	Thickness (minimum) Maximum		$\geq 1/8$ " 36" x 24"		Typical Density 40 - 55 (lbs / ft ³)
Chemistry	C	Mn	P	S	Si
Maximum (wt%)			.03	.070	
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following: <ul style="list-style-type: none"> Municipal scrap Turnings Electrical steels w/ > .5% Silicon Powder metallurgy parts Stainless steels Tin Coated steel Lead Coated Steel Vitreous enameled materials White Goods 				
Allowances	<ul style="list-style-type: none"> Alloy steel content must not exceed 25% by weight. Cast Iron content not to exceed 1%. May contain undersized <i>#1 Heavy Melting Steel</i> if prepared for compact charging. Reinforcing bar must not exceed 25% by weight 				
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.				
Approvals	Name		Title / Position		
	D. Rees-Evans		Manager – Technical Services		
Revisions	#	Nature of Change			Effective
	0	Original Issue			02 / 12 / 02
	1	Addition of Acceptance Criteria section			03 / 23 / 05

 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	Revision # :
		RMS 1400 – 006 - 001	2
		Title :	Issue Date : 03 / 23 / 2005
		Steel Scrap # 2 Bundles	Page # : 1 of 1

Material :	Steel Scrap	Grade :	# 2 Bundles	SDI Part #	1400-006-01							
Industry Id :	ISRI #'s: 209, 218	A.K.A. :	Bales, Bundles									
Description :	<ul style="list-style-type: none"> Obsolete Black and galvanized sheet steel. Light gauge angles and shapes, hydraulically compressed into rectangular cubes. Unprepared #2 Heavy Melting Scrap hydraulically compressed into rectangular cubes for the purposes of increasing density 											
Typical Appearance			Typical Constituents <ul style="list-style-type: none"> "Post Consumer" goods Stripped appliance shells (without wiring, motors, compressors, circuit boards, plastic, or insulation) Used sheet goods (siding, un-tinned canning stock, etc.) Low density # 2 Heavy Melting Steel (compressed to increase density) 									
Sizing	Thickness (minimum) Maximum		N/a 60" x 48" x 36"		Typical Density 60 - 70 (lbs / ft ³)							
Chemistry	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn		
Maximum (wt%)	Maximum Chemistries are difficult to determine as content varies widely from bundle to bundle											
Prohibitions	In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following: <ul style="list-style-type: none"> Municipal Scrap Incinerator Scrap Lead Coated Steel Excessive fluff 											
Allowances	<ul style="list-style-type: none"> Vitreous enameled materials up to 15% by weight, provided the "white goods" do not contain copper wire, harnesses, motors, compressors, capacitors, circuit boards, plastic or insulation. Any individual bundle may contain up to 15% reinforcing bar. 											
Acceptance Criteria:	Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.											

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services

Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05
	2	Change of Description and Allowances	04 / 18 / 08



Steel Dynamics, Inc.
Structural & Rail Division
2601 County Road 700 E
Columbia City, IN. 46725

Raw Material Specification

Document # :

RMS 1400 – 001 - 001

Revision # :

3

Title :

Steel Scrap
1 Heavy Melting Steel


Issue Date :

08 / 01 / 2007

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Material : Steel Scrap				Grade : # 1 Heavy Melting Scrap				SDI Part # 1400-001-01					
Industry Id : ISRI #'s: 200, 201, 202				A.K.A. : #1, #1 Steel, Heavy Melt, HMS, HMS #1									
Description : <ul style="list-style-type: none">Clean steel scrap ¼” thickness and over.													
Typical Appearance 						Typical Constituents <ul style="list-style-type: none">Structural ItemsPlatesTruck PartsLarge Machinery parts							
Sizing		Thickness (minimum)		≥ 1/4 “		Typical Density				45 - 60 (lbs / ft ³)			
		Maximum		60” x 24”									
Chemistry		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn		
Maximum (wt%)				.05	.05		.35	.25	.25	.06	.025		
Prohibitions In addition to commonly prohibited materials (RMA 1400-000-01), may not contain the following: <ul style="list-style-type: none">Transmission partsTorque convertersGearsChainsCablesForklift and Equipment Counter-WeightsSpringsStainless SteelGalvanized scrapAutomotive partsReinforcing barHatfield Steel													
Allowances		<ul style="list-style-type: none">Alloy steel content must not exceed 15% by weightDies by SDI pre-approval											
Acceptance Criteria:		Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i> , apply.											

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	D. Rees-Evans	Manager – Technical Services

Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Prohibition on Forklift and Equipment Counter-weights	10 / 27 / 04
	2	Addition of Acceptance Criteria section	03 / 23 / 05
	3	Prohibitions: Added "Hatfield Steel"	08 / 01 / 07


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 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	RMS 1400 – 005 - 001	Revision # :	1
		Title :	Steel Scrap # 1 Bundles	Issue Date :	03 / 23 / 2005
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Material :	Steel Scrap	Grade :	# 1 Bundles	SDI Part #	1400-005-01
Industry Id :	ISIS #'s: 208	A.K.A. :	Dealer Bundles		
Description : <ul style="list-style-type: none"> Clean Steel scrap, bushelling, clippings, sheet, or skeleton scrap compressed into a bundle 					
Typical Appearance			Typical Constituents		
			<p>Hydraulically compressed bundles consisting of:</p> <ul style="list-style-type: none"> Bushelling Clippings Punchings Sheet steel 		
Sizing	Thickness (minimum) Maximum		na 48" x 36" x 36"		Typical Density
					75 - 90 (lbs / ft ³)
Chemistry	C	Mn	P	S	Si
Maximum (wt%)		1.50	.05	.05	.50
Prohibitions	<p>In addition to commonly prohibited materials (RMA 1400-000-001), may not contain the following:</p> <ul style="list-style-type: none"> Auto body stock Auto fender stock De-tinned materials Electrical steel over 0.5 silicon Metal coated, limed, or vitreous enameled steels 				
Allowances	<ul style="list-style-type: none"> Zinc or galvanized coated materials 				
Acceptance Criteria:	<p>Material is subject to visual inspection and visual classification, inspection for prohibited items and over/under sized material, mechanical weighing on certified scales, and radiation detection. All conditions detailed in RMS 1400-000-001 <i>Steel Scrap: General Requirements</i>, apply.</p>				

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services

Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Addition of Acceptance Criteria section	03 / 23 / 05

 <p>Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725</p>	<h1>Raw Material Specification</h1>	Document # :	Revision # :
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- Mercury:** All grades are to be free of Mercury and mercury containing materials. Mercury containing materials include, but are not limited to: Mercury wetted or containing Relays, switch gear, rectifiers, gages, manometer, barometers, fluorescent lighting fixtures, etc.
- Non-Ferrous** **Non-Ferrous:** All grades are to be free of Non-Ferrous materials. Non-Ferrous materials include (but are not limited to): copper (electric motors, piping, compressors, wires, brass/bronze castings), aluminum, chromium (plated articles), lead, etc.
- Non-Metallics** All grades are to be free of Non-Metallic Materials. Non-Metallic Materials include, but are not limited to: wood, paper, fiber, plastics, rubbers, foam, fluff, slag, concrete, dirt, grease and oils, etc.
- Off-Grade** The grade shall be free of Off-Grade materials except where the vendor can demonstrate that inclusion of negligible amounts of Off-Grade materials are unavoidable in the customary preparation and handling of the grade involved.
- Radioactivity** All grades shall **not** contain radioactive materials. Scrap loads found containing radioactive sources are to be immediately rejected and managed in accordance with SOP 6400-006-017 (*Exploranium Alarm Procedure*). Under no circumstances shall any radioactive scrap be subject to acceptance through downgrade.
Potential radioactive items that might be found in the scrap stream are:

Material	Typical Radioisotope(s) found in scrap stream							
	⁶⁰ Co	⁹⁰ Sr	¹³⁷ Cs	¹⁹² Ir	²²⁶ Ra	²³² Th	²⁴¹ Am	norm
Industrial gaging devices	X		X		X		X	
Industrial radiography sources	X			X			X	
Medical therapy devices	X		X					
Beta emitting devices		X						
Static eliminators					X		X	
Pipe / casing scale								X
Contaminated metal	X					X		
Welded pieces						X		

- Sealed Containers** All grades shall **not** contain Closed, Enclosed or Sealed Containers. Such containers may be accepted providing they have been processed such that; one end has been removed, a minimum of two large holes broach the "sealed" portion of the container, or the container has been cut in half. Closed, Enclosed, or Sealed Containers include (but are not limited to):
- Hydraulic or gas cylinders
 - Air, freon, acetylene, oxygen, propane tanks
 - Automotive rear ends
 - Gear cases
 - shock absorbers
 - closed ball valves
 - sealed units (e.g. refrigeration compressors)
 - any vessel which contains and retains gases, oils, or fluids

Stainless Steel All grades shall be free of Stainless Steel


Tin Plate All grades shall be free of tin plated materials.

Referenced Documents RMA 1400-XXX-001 – Scrap type Specifications (various)
SOP 6400-006-017 (*Exploranium Alarm Procedure*)

Approvals	Name	Title / Position
	D. Rees-Evans	Manager – Technical Services

Revisions	#	Nature of Change	Effective
	0	Original Issue	02 / 12 / 02
	1	Additional prohibition on forklift and equipment counter-weights (Lead bearing)	10 / 27 / 04
	2	Updated NORM definition & Radioactivity response SOP reference	03 / 23 / 05

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 Steel Dynamics, Inc. Structural & Rail Division 2601 County Road 700 E Columbia City, IN. 46725	Raw Material Specification	Document # : RMS 1400 – 000 - 001	Revision # : 3
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3	Corrected document ref number to Exploranium Alarm Procedure	02 / 16 / 07
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