



## **Section 3**

# **UNDERFRAME COMPONENTS**

File Name: SECT 3 UNDERFRAME COMPONENTS RW-EDIT 092023v1 Revision Date: 9/20/2023



# The Hill Railroad Car Parts Co.



A DIVISION OF THE HILL TEAM, INC

## Section 3

### Under Frame Components

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7A - 7B	9	Body Side Bearing Shim Plates
7A - 7B	10	Draft Gear Carriers
8A - 8B	11	Miscellaneous

# SECTION 3

## UNDERFRAME COMPONENTS

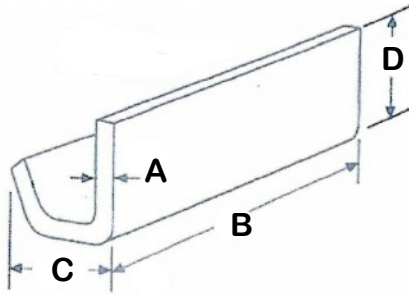
### ITEM 1

Page 1A

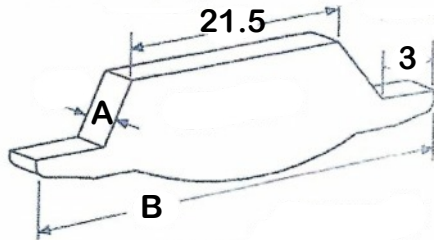
Diagrams on Page 1B

*All drawings and pictures are just suggestions parts will be made to customers specifications.*

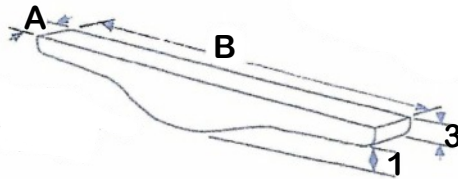
ITEM 1		Strikers			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Type	DESCRIPTIONS	A	B	C	D	
1	R-SFP-03062200	3.1.1	A572	Striker Face Plate	3/8	22	3 1/8	3 1/8	
2	R-SB--033634.5	3.1.2	A572	Striker Bar	2 1/4	34 1/2			
3	R-SB--034837.0	3.1.3	A572	Striker Bar	3	37			
4	R-SB--034841.5	3.1.4	A572	Striker Bar	3	41 1/2			
5	R-SB--032415.875	3.1.5	A572	Striker Bar	1 1/2	15 7/8		4	
6	R-SB--032421.0	3.1.6	A572	Striker Bar	1 1/2	21		3	
7	R-SB--035233.5	3.1.7	A572	Striker Bar	3 1/4	33 1/2		3 1/4	
8	R-SBA-03321600	3.1.8	A572	Striker Bar Addition	2	16	3		
9	R-SBA-03281600	3.1.9	A572	Striker Bar Addition	1 3/4	16	2 3/4		



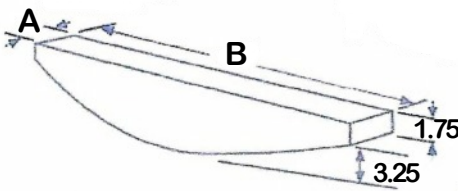
Items 1 - Part 1



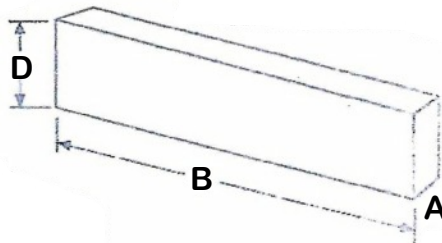
Item 1 - Part 2



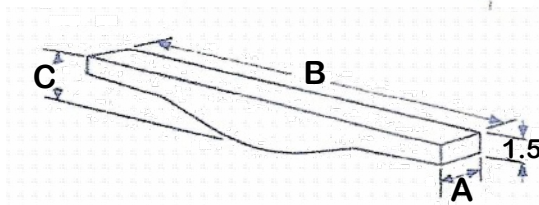
Item 1 - Part 3



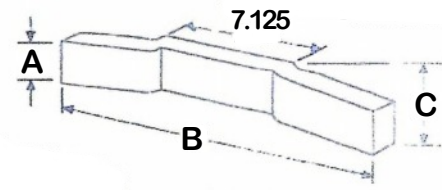
Item 1 - Part 4



Item 1 - Parts 5-6



Item 1 - Part 7



Item 1 - Parts 8-9

# SECTION 3

## UNDERFRAME COMPONENTS

### ITEMS 2 - 3

Page 2A

Diagrams on Page 2B

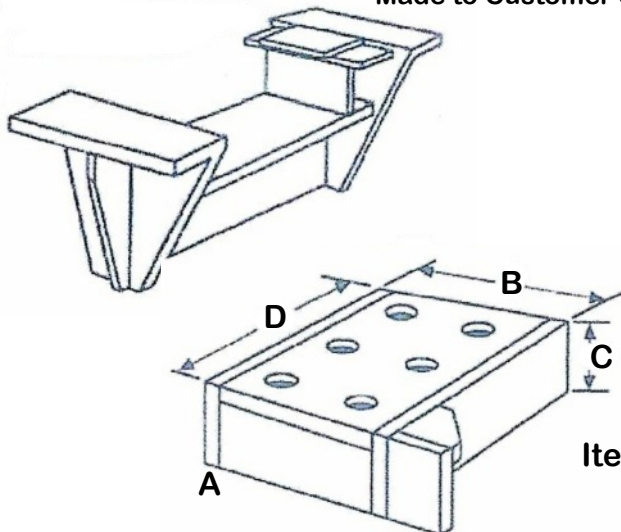
All drawings and pictures are just suggestions parts will be made to customers specifications.

ITEM 2		Center Sill Carrier			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-CSC-03MTCS00	3.2.1	A572	Center Sill Carrier	Made to Customers Specifications				
2	R-CSC-03MTCS01	3.2.2	A572	Center Sill Carrier	Made to Customers Specifications				

ITEM 3		Draft Stops			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-RDS-0308BRAL	3.3.1	A572	Rear Draft Gear Stop Bolted (BR-AL)	1/2	8	3	10	
2	R-RDS-0308BLAR	3.3.2	A572	Rear Draft Gear Stop Bolted (BL-AR)	1/2	8	3	10	
3	R-RDS-0316BRAL	3.3.3	A572	Rear Draft Gear Stop Bolted (BR-AL)	1	15 1/2	3	12	
4	R-RDS-0316BLAR	3.3.4	A572	Rear Draft Gear Stop Bolted (BL-AR)	1	15 1/2	3	12	
5	R-FDLF0308BRAL	3.3.5	A572	Front Draft Lug Assembly Welded (F Typ Assy)	1/2	10 1/2	2	11 1/2	
6	R-FDLF0308BLAR	3.3.6	A572	Front Draft Lug Assembly Welded (F Typ Assy)	1/2	10 1/2	2	11 1/2	
7	R-FDLE0308BRAL	3.3.7	A572	Front Draft Lug Assembly Welded (E Typ Assy)	1/2	16	2	11 1/2	
8	R-FDLE0308BLAR	3.3.8	A572	Front Draft Lug Assembly Welded (E Typ Assy)	1/2	16	2	11 1/2	
9	R-RDL-0308BRAL	3.3.9	A572	Rear Draft Lug Assembly Welded (Universal)	1/2	15 1/8	3	12 3/8	
10	R-RDL-0308BLAR	3.3.10	A572	Rear Draft Lug Assembly Welded (Universal)	1/2	15 1/8	3	12 3/8	
11	RBFDLF0308BRAL	3.3.11	A572	Front Draft Lug Assembly Welded (F Typ Assy)	1/2	10 1/2	2	11 1/2	No Plug Weld Slots
12	RBFDLF0308BLAR	3.3.12	A572	Front Draft Lug Assembly Welded (F Typ Assy)	1/2	10 1/2	2	11 1/2	No Plug Weld Slots
13	RBFLE0308BRAL	3.3.13	A572	Front Draft Lug Assembly Welded (E Typ Assy)	1/2	16	2	11 1/2	No Plug Weld Slots
14	RBFLE0308BLAR	3.3.14	A572	Front Draft Lug Assembly Welded (E Typ Assy)	1/2	16	2	11 1/2	No Plug Weld Slots
15	RBRDL-0308BRAL	3.3.15	A572	Rear Draft Lug Assembly Welded (Universal)	1/2	15 1/8	3	12 3/8	No Plug Weld Slots
16	RBRDL-0308BLAR	3.3.16	A572	Rear Draft Lug Assembly Welded (Universal)	1/2	15 1/8	3	12 3/8	No Plug Weld Slots

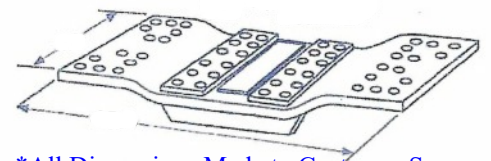
#### Item 2 - Part 1

Made to Customer Specifications



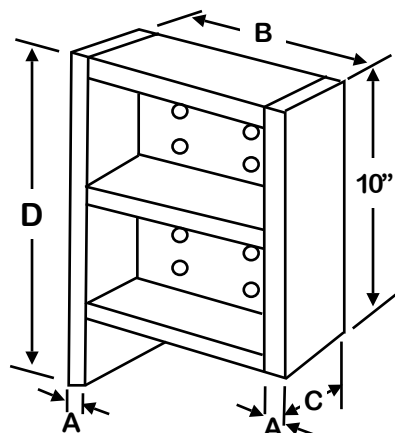
#### Item 2 - Part 2

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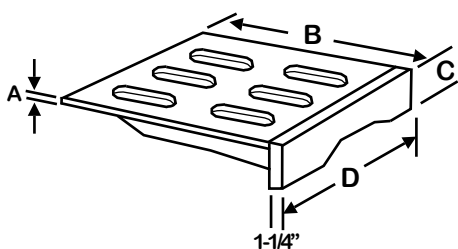


\*All Dimensions Made to Customer Specs

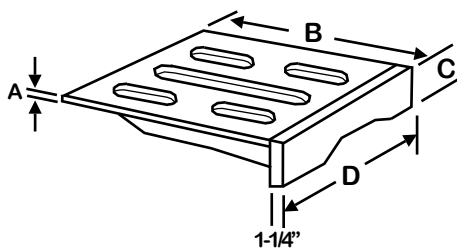
#### Item 3 - Parts 1 - 2



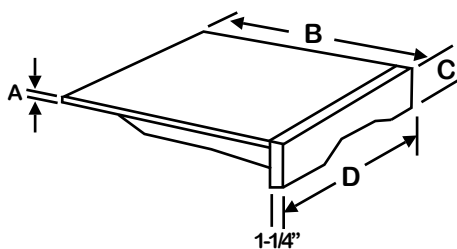
Item 3 - Parts 3 - 4



Item 3 - Parts 5 - 6 & 9 - 10

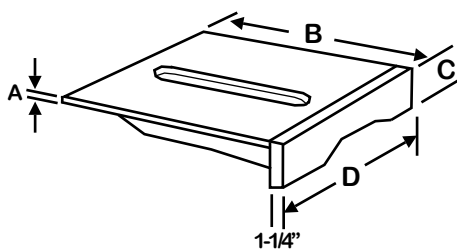


Item 3 - Parts 7 - 8



Item 3 - Parts 11 - 12

*\*For applications when plug weld slots are in draft sill.*



Item 3 - Parts 13 - 14

*\*For applications when plug weld slots are in draft sill.*

# SECTION 3

## UNDERFRAME COMPONENTS

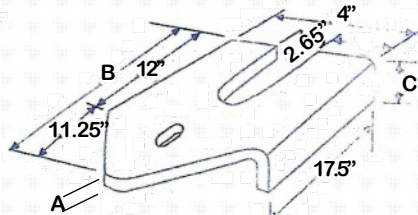
### ITEMS 4

Page 3A

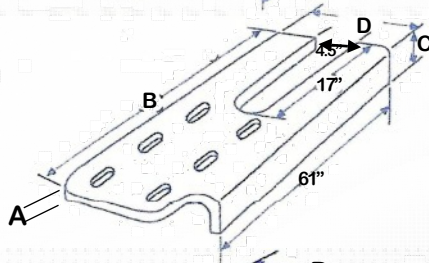
Diagrams on Page 3B

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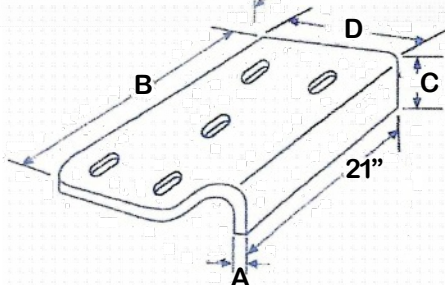
ITEM 4		Reinforcement Plates			Thickness	Length	Width	Height	
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-CKSR030823SW	3.4.1	A572	Cross Key Slot Reinf. Plate Welded (as shown)	1/2	23 1/4	2 1/2	11 1/4	
2	R-CKSR030823RW	3.4.2	A572	Cross Key Slot Reinf. Plate Welded (reverse)	1/2	23 1/4	2 1/2	11 1/4	
3	R-CKSR030824SW	3.4.3	A572	Cross Key Slot Reinf. Plate Welded (as shown)	1/2	24	3	11 1/2	
4	R-CKSR030824RW	3.4.4	A572	Cross Key Slot Reinf. Plate Welded (reverse)	1/2	24	3	11 1/2	
5	R-CKSR030864SW	3.4.5	A572	Cross Key Slot Reinf. Plate Welded (as shown)	1/2	64	3	11 3/4	
6	R-CKSR030864RW	3.4.6	A572	Cross Key Slot Reinf. Plate Welded (reverse)	1/2	64	3	11 3/4	
7	R-CSWR030624SW	3.4.7	A572	Center Sill Web Reinf. Plate Welded (as shown)	3/8	24	3 3/4	11 3/4	
8	R-CSWR030624RW	3.4.8	A572	Center Sill Web Reinf Plate Welded (reverse)	3/8	24	3 3/4	11 3/4	
9	R-CSWR030621SW	3.4.9	A572	Center Sill Web Reinf Plate Welded (as shown)	3/8	21	3 3/4	11 3/4	
10	R-CSWR030621RW	3.4.10	A572	Center Sill Web Reinf Welded (reverse)	3/8	21	3 3/4	11 3/4	
11	R-CSWR030638-W	3.4.11	A572	Center Sill Web Reinf Plate Welded	3/8	38		13	
12	R-CSSP030624-W	3.4.12	A572	Center Sill Web Splice Plate with Flange Welded	3/8	24	2 1/2	9 3/4	
13	R-CSWS030624-W	3.4.13	A572	Center Sill Web Splice Plate ( for Z Sills) Welded	3/8	24		9	
14	R-CSTS030620ZW	3.4.14	A572	Center Sill Top Splice Plate ( for Z Sills) Welded	3/8	20	10		
15	R-CSSP030621BW	3.4.15	A572	Center Sill Splice Plate Bolted & Welded	3/8	21 5/8		8 1/2	Customer Specs
16	R-CSSP030627BW	3.4.16	A572	Center Sill Splice Plate Bolted & Welded	3/8	27 3/16		8 1/2	Customer Specs
17	R-SSSP03TB16-W	3.4.17	A572	Side Sill Web Reinf Plate Welded (Custom Made)	TBD	16		TBD	
18	R-SSBB0304TB-W	3.4.18	A572	Side Sill Web Back Up Bar (Custom Made)	1/4	TBD	1	TBD	



Item 4 - Parts 1 - 4

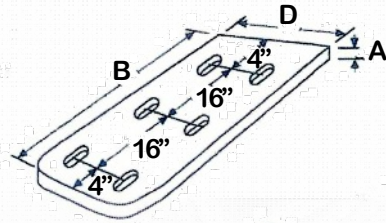


Item 4 - Parts 5 - 6

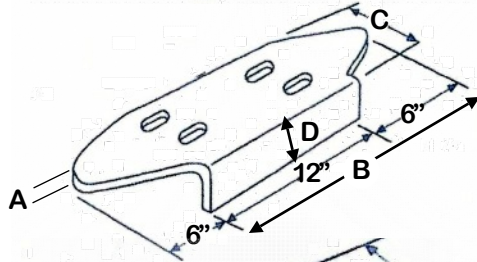


Item 4 - Parts 7 - 10

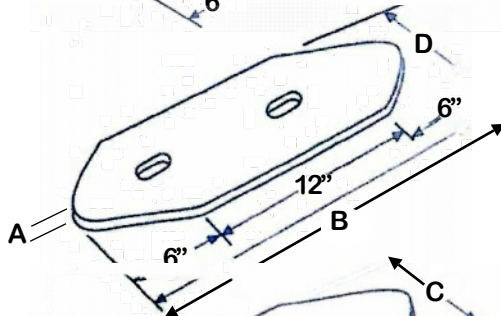




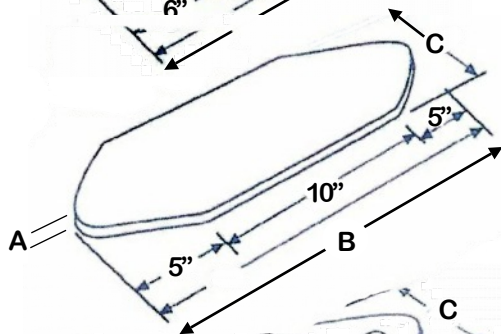
Item 4 - Part 11



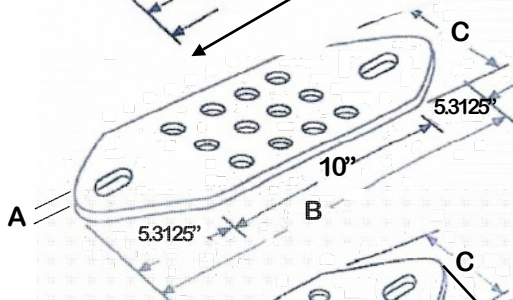
Item 4 - Part 12



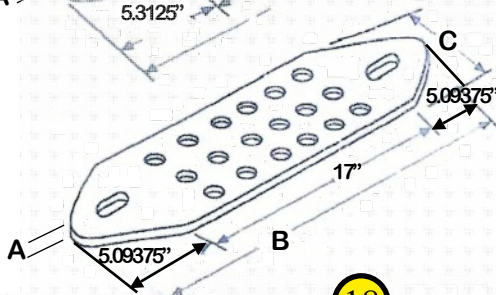
Item 4 - Part 13



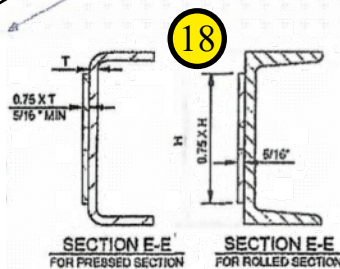
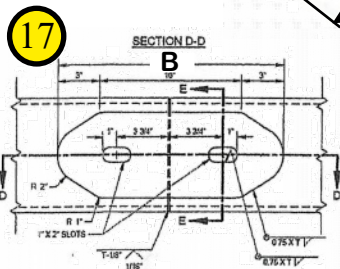
Item 4 - Part 14



Item 4 - Part 15



Item 4 - Part 16



Item 4 - Parts 17 - 18  
Refer to AAR Field Manual

# SECTION 3

## UNDERFRAME COMPONENTS

### ITEMS 5 - 5A

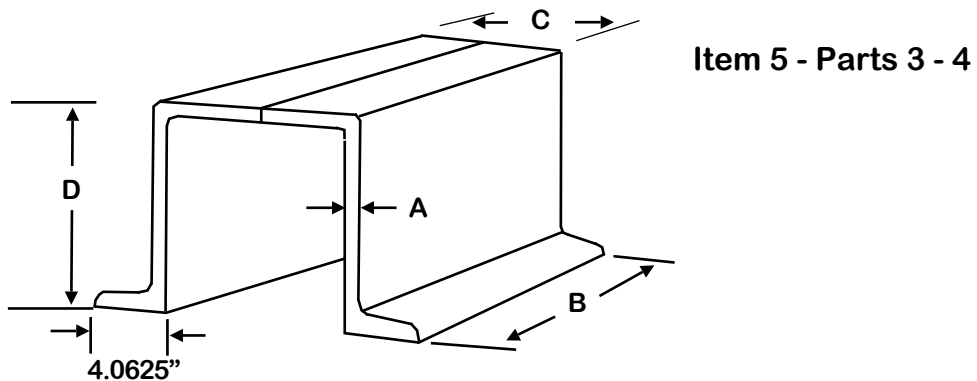
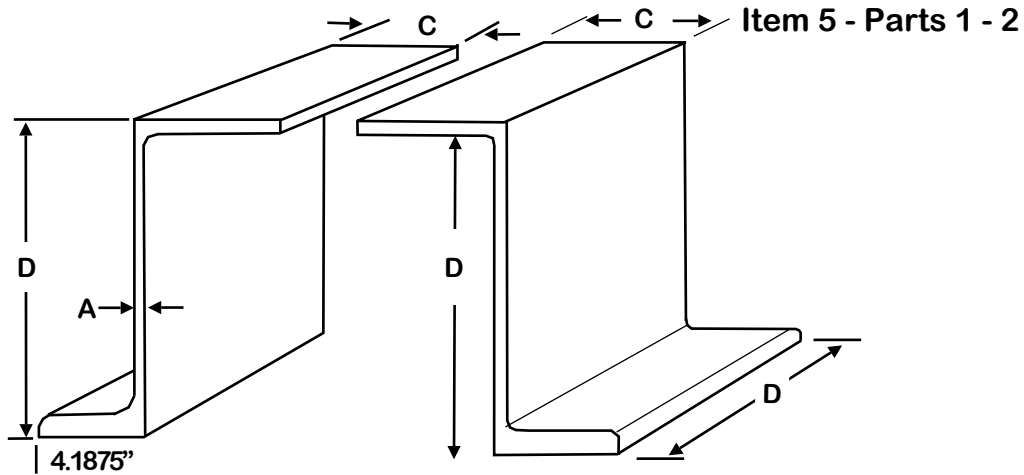
Page 4A

Diagrams on Page 4B

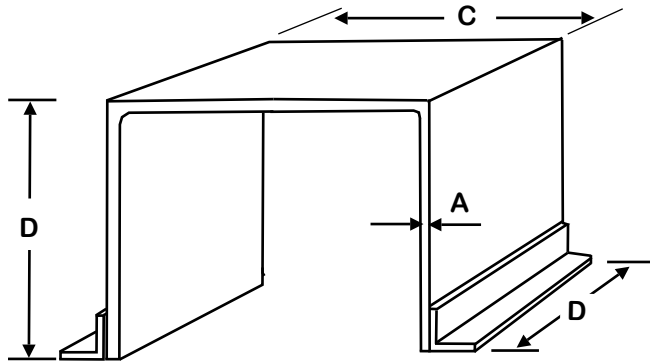
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ITEM 5		Center Sills			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-CSZ1351.2TBD	3.5.1		Center Sill Zee Section CZ13 X 51.2	19/32	CS	7 1/32	13 1/16	
2	R-CSZ1341.2TBD	3.5.2		Center Sill Zee Section CZ13 X 41.2	15/32	CS	6 29/32	12 15/16	
3	R-CSZ13102.4WA	3.5.3		CZ13 X 102.4 Center Sill	19/32	CS	14 1/16	13 1/16	Welded Assembly
4	R-CSZ1382.4-WA	3.5.4		CZ13 X 82.4 Center Sill	15/32	CS	13 13/16	12 15/16	Welded Assembly
5	R-CSZ13X51.2FA	3.5.5		Center Sill Zee Section CZ13 X 107.68 (Fab)	5/8	CS	14 1/16	13 1/16	Fabricated Assembly
6	R-CSZ13X41.2FA	3.5.6		Center Sill Zee Section CZ13 X 84.12 (Fab)	1/2	CS	13 13/16	12 15/16	Fabricated Assembly
7	R-CSC13X51.2CS	3.5.		Center Sill CSC13 X 51.2	19/32	CS	7 1/32	13 1/16	
8	R-CSC13X41.2CS	3.5.7		Center Sill CSC13 X 41.2	15/32	CS	6 29/32	12 15/16	
9	R-CSC13X51.2WA	3.5.		CSC13X51.2 Center Sill	19/32	CS	14 1/16	13 1/16	Welded Assembly
10	R-CSC13X41.2WA	3.5.8		CSC13X41.2 Center Sill	15/32	CS	13 13/16	12 15/16	Welded Assembly
11	R-SQT13X14XFAS	3.5.9		Center Sill SQ Tube 14" X 14" X 1/2" (Fabricated)	1/2	CS	14	13 1/16	Fabricated Assembly

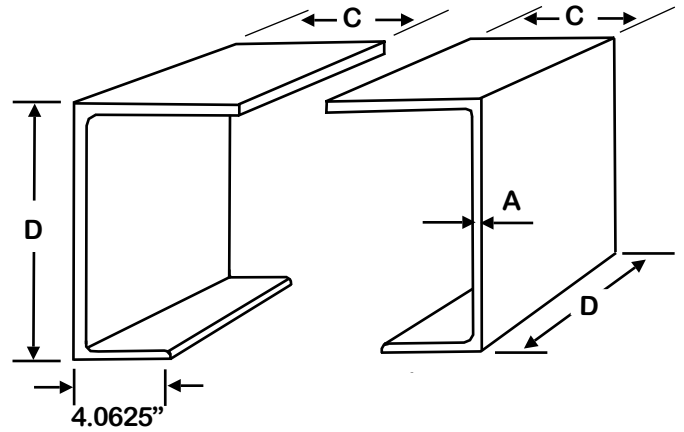
ITEM 5A		Draft Sills			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-DS	3.5A.1		Draft Sills made to customers specifications	1/2	CS	14	13	Made to Cust Specs



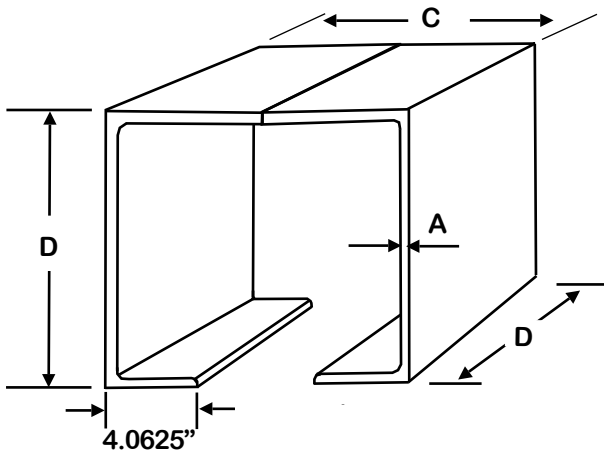
Item 5 - Parts 5 - 6



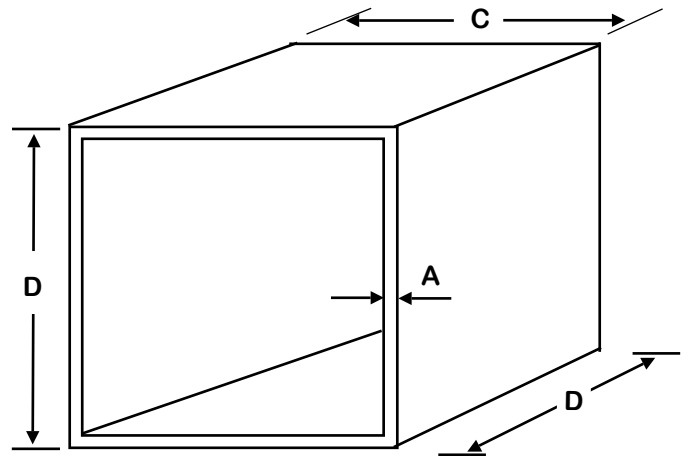
Item 5 - Parts 7 - 8



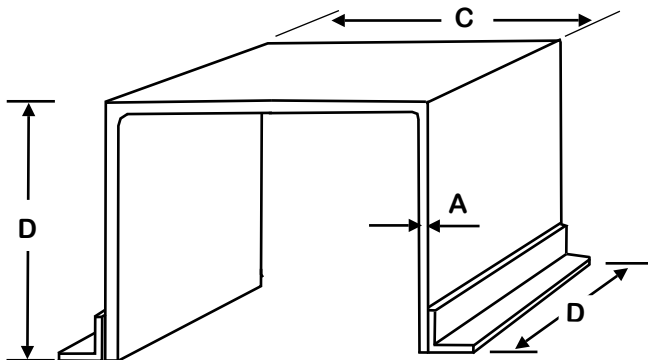
Item 5 - Parts 9 - 10



Item 5 - Part 11



Item 5A - Part 1



# SECTION 3

## UNDERFRAME COMPONENTS

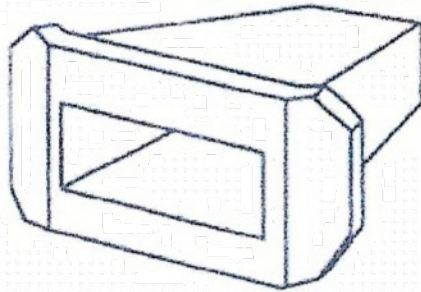
### ITEMS 6

Page 5A

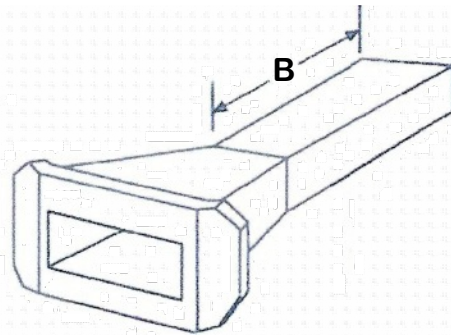
Diagrams on Page 5B

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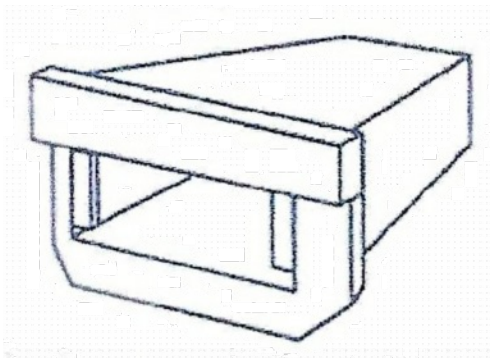
ITEM 6		Bellmouth (Made to Customer Specifications)		Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	A	B	C	D	
1	R-BAWOS03CS-000	3.6.1	A572	Bellmouth Assembly				Made to Cust Specs
2	R-BAWS03CS-024	3.6.2	A572	Bellmouth Assembly with Sill (24")				Made to Cust Specs
3	R-BAWS03CS-066	3.6.3	A572	Bellmouth Assembly with Sill (5'6")				Made to Cust Specs
4	R-BAWS03CS-084	3.6.4	A572	Bellmouth Assembly with Sill (7')				Made to Cust Specs
5	R-BAWS03CS-180	3.6.5	A572	Bellmouth Assembly with Sill (15')				Made to Cust Specs
6	R-BAWOS03CS-000	3.6.6	A572	Bellmouth Assembly for 60' Sliding Sill				Made to Cust Specs
7	R-SAWOS03CS-000	3.6.7	A572	Striker Assembly				Made to Cust Specs
8	R-SSSA03CS00AS	3.6.8	A572	Striker Side Sub Assembly (as shown)				Made to Cust Specs
9	R-SSSA03CS000R	3.6.9	A572	Striker Side Sub Assembly (reverse)				Made to Cust Specs
10	R-SAWS03CS-024	3.6.10	A572	Striker Assembly with Sill (24")				Made to Cust Specs
11	R-SAWS03CS-066	3.6.11	A572	Striker Assembly with Sill (5'6")				Made to Cust Specs
12	R-SAWS03CS-180	3.6.12	A572	Striker Assembly with Sill (15')				Made to Cust Specs
13	R-SSPB0306-012	3.6.13	A572	3/8	12"		10	Made to Cust Specs



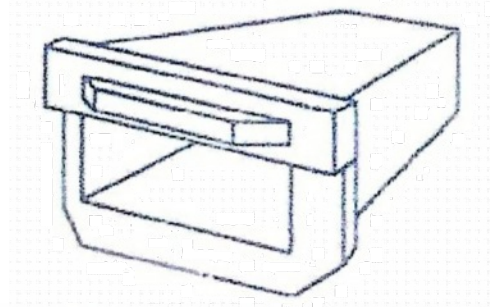
Item 6 - Part 1



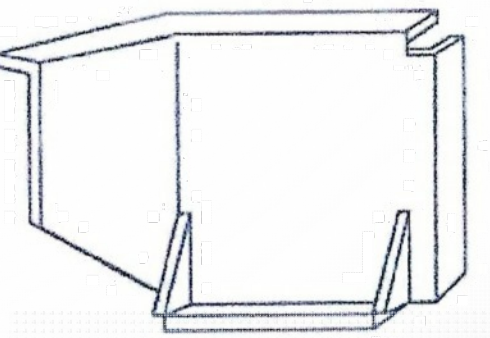
Item 6 - Parts 2 - 5



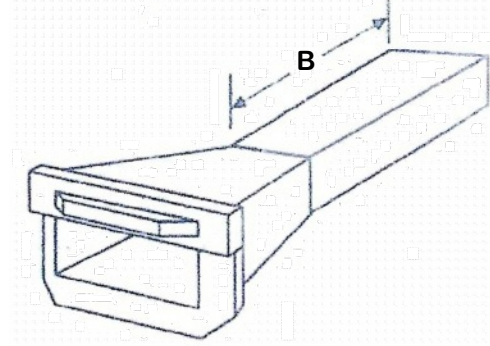
**Item 6 - Part 6**  
**Made To Customer Specs**



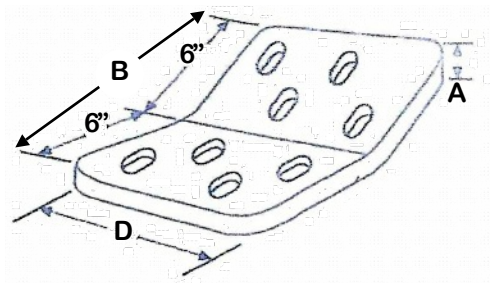
**Item 6 - Part 7**  
**Made To Customer Specs**



**Item 6 - Parts 8 - 9**  
**Made To Customer Specs**



**Item 6 - Parts 10 - 12**  
**Made To Customer Specs**



**Item 6 - Part 13**  
**Plug Well Slots Made**  
**To Customer Specifications**

# SECTION 3

## UNDERFRAME COMPONENTS

### ITEMS 7 - 8

Page 6A

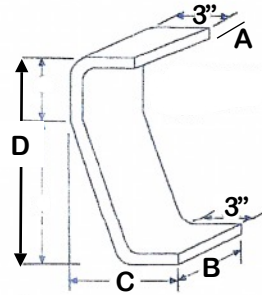
Diagrams on Page 6B

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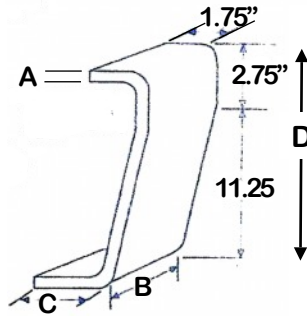
<b>ITEM 7</b>		<b>Side Sills</b>			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-ESSS03CSCS-A	3.7.1	A572	Exterior Side Sill Section	CS	CS	6 1/4	14	
2	R-ESSS03CSCS-B	3.7.2	A572	Exterior Side Sill Section	CS	CS	3	14	

<b>ITEM 8</b>		<b>Coupler Carrier and Wear Plates</b>			Thickness	Length	Width	Height	Notes
Part #	REX Catalog #	Reference #	Material	DESCRIPTIONS	A	B	C	D	
1	R-CC--03CS14.5	3.8.1	A572	Coupler Carrier	CS	14 1/2	5	3	
2	R-CP--030828.5	3.8.2	A572	Carrier Plate	1/2	28 1/2	5 1/4	1 9/16	
3	R-CWP-010422.1	3.8.3	AR 400	Carrier Wear Plate	1/4	22 1/8	CS	CS	
4	R-CWP-010622.1	3.8.4	AR 400	Carrier Wear Plate	3/8	22 1/8	CS	CS	
5	R-CWWP01CS28.5	3.8.5	A572	Carrier with Wear Plate	CS	28 1/2	CS	1 9/16	

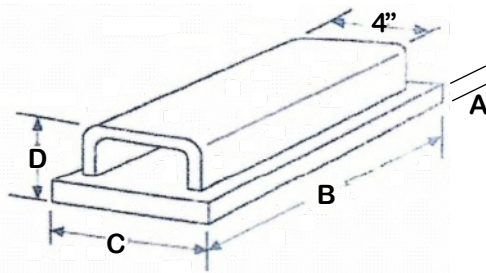




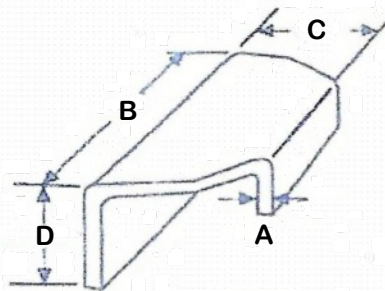
Item 7 - Part 1



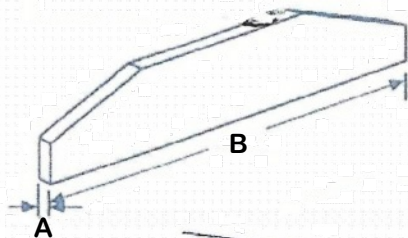
Item 7 - Part 2



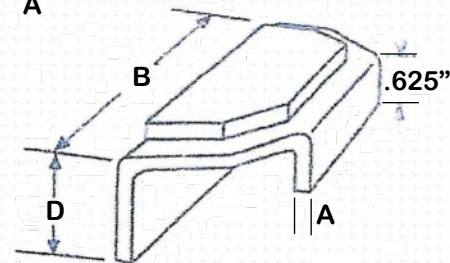
Item 8 - Part 1



Item 8 - Part 2



Item 8 - Part 3 - 4



Item 8 - Part 5

# SECTION 3

## UNDERFRAME COMPONENTS

### ITEMS 9 - 10

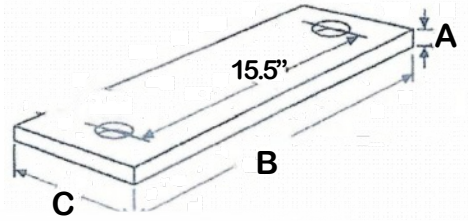
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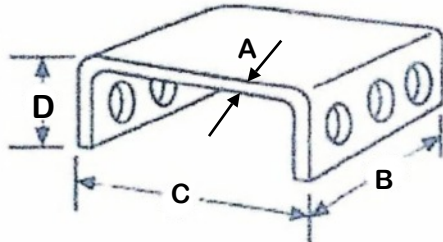
<b>ITEM 9</b>		<b>Body Side Bearing Shim Plate</b>			Thickness	Length	Width	Height	Notes
<b>Part #</b>	<b>REX Catalog #</b>	<b>Reference #</b>	<b>Material</b>	<b>DESCRIPTIONS</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	
1	R-BSBSP040118	3.9.1	A36	Body Side Bearing Shim Plate (.0625")	1/16	18	4		Holes .9375"
2	R-BSBSP040218	3.9.2	A36	Body Side Bearing Shim Plate (.125")	1/8	18	4		Holes .9375"
3	R-BSBSP030318	3.9.3	A572	Body Side Bearing Shim Plate (.1875")	3/16	18	4		Holes .9375"
4	R-BSBSP030418	3.9.4	A572	Body Side Bearing Shim Plate (.25")	1/4	18	4		Holes .9375"
5	R-BSBSP030518	3.9.5	A572	Body Side Bearing Shim Plate (.3125")	5/16	18	4		Holes .9375"
6	R-BSBSP030818	3.9.6	A36	Body Side Bearing Shim Plate (.5")	1/2	18	4		Holes .9375"
7	R-BSBSP031018	3.9.7	A36	Body Side Bearing Shim Plate (.625")	5/8	18	4		Holes .9375"

<b>ITEM 10</b>		<b>Draft Gear Carriers</b>			Thickness	Length	Width	Height	Notes
<b>Part #</b>	<b>REX Catalog #</b>	<b>Reference #</b>	<b>Material</b>	<b>DESCRIPTIONS</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	
1	R-DGC-03CS008A	3.10.1	A572	Draft Gear Carrier (15/16 Holes) (13.875" X 3.75")	CS	8	13 7/8	3 3/4	Holes .9375"
2	R-DGC-03CS008B	3.10.2	A572	Draft Gear Carrier (15/16 Holes) (14" X 3.625")	CS	8	14	3 5/8	Holes .9375"
3	R-DGC-03CS008C	3.10.3	A572	Draft Gear Carrier (15/16 Holes) (14" X 4.375")	CS	8	14	4 3/8	Holes .9375"
4	R-DGC-0310008A	3.10.4	A572	Draft Gear Carrier (15/16 Holes) (.625" X 8")	5/8	8	9	1	Holes .9375"
5	R-DGC-0310008B	3.10.5	A572	Draft Gear Carrier (15/16 Holes) (14" X 4.375")	5/8	8	7	1	Holes .9375"
6	R-DGC-0310008C	3.10.6	A572	Draft Gear Carrier (15/16 Holes) (14" X 4.375")	5/8	8	7	1	Holes .9375"
7	R-DGC-0310008D	3.10.7	A572	Draft Gear Carrier (15/16 Holes) (14" X 4.375")	5/8	8	20 3/8	1 7/16	Holes .9375"

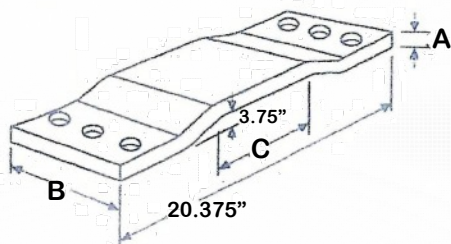




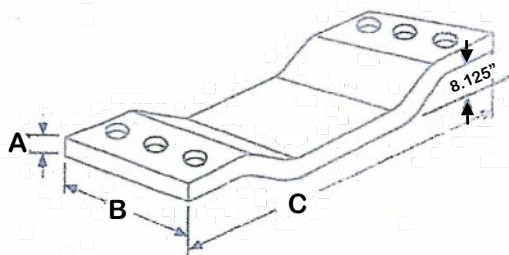
Item 9 - Part 1 - 9



Item 10 - Parts 1 - 3



Item 10 - Parts 4 - 5



Item 10 - Part 6

# SECTION 3

## UNDERFRAME COMPONENTS

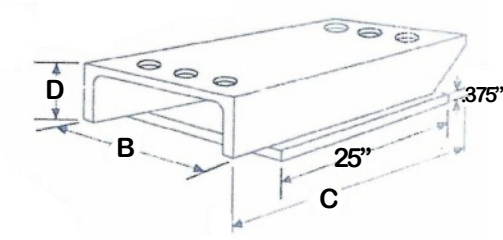
### ITEMS 11

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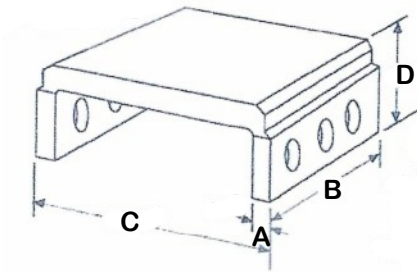
Diagrams on Page 8B

ITEM 11		Miscellaneous		Thickness	Length	Width	Height	Notes	
Part #	REX Catalog #	Reference #	Material	A	B	C	D		
1	R-CSTS03060031	3.11.1	A572	Center Sill Tie Strap Assembly	3/8	12	31	3	Holes 1"
2	R-YPR-03100080	3.11.2	A572	Yoke Pin Retainer	5/8	8	13 7/8	3 1/4	Holes .9375"

# UNDERFRAME COMPONENTS - Items 11



Item 11 - Part 1



Item 11 - Part 2