
SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 01 - 2021

BULLETIN NO: 21-001

TITLE: Transmission Support Strap Conversion Kit

RATING:

<input type="checkbox"/>	DIRECTIVE (Action Is Required)	<input type="checkbox"/>	ALERT (Potential Problem)
<input type="checkbox"/>	INFORMATION (Action Is Optional)	<input checked="" type="checkbox"/>	PRODUCT IMPROVEMENT (Enhance Product)

PRODUCT SERIES / MODEL: MARK IV Production / Switch Tampers with Durst or Cushman Drive Transmissions

SERIAL NO: N/A

SUMMARY: Harsco Rail is offering a Transmission Support Strap Conversion Kit for MARK IV Production / Switch Tampers with Durst or Cushman Drive Transmissions. When installed, the components in this kit will provide a safety feature to help support the transmission in the event the torque lug bolts work loose or fail. Follow the instructions in this Service Bulletin to install the Transmission Support Strap Conversion Kit #5113568.

OPERATIONAL IMPACT: None

ACTION: Order one Transmission Support Strap Conversion Kit #5113568 - this will supply all components necessary to rework both front and rear transmissions. Follow the instructions in this Service Bulletin and refer to the attached drawing #5113568 to install the Kit.

CONTACT: Harsco Rail Service Department
(803) 822-7546

Harsco Rail Parts Department
(800) 800-6410

SAFETY INFORMATION



- FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURES AND MACHINE ENERGY CONTROL PROCEDURE TO DISABLE ENERGY SOURCES WHEN PERFORMING MAINTENANCE, MAKING ADJUSTMENTS OR REPAIRS TO THE MACHINE. FAILURE TO HEED THIS WARNING COULD RESULT IN SEVERE BODILY INJURY.

WELDING PRECAUTIONS



- **REFER TO ENERGY CONTROL PROCEDURE TO REMOVE ALL ENERGY SOURCES FROM MACHINE BEFORE PERFORMING MAINTENANCE, OR MAKING ADJUSTMENTS OR REPAIRS TO MACHINE. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

Important: Always disconnect Electronic Control Module (ECM) connectors and engine control system to machine ground before welding on engine or machine. High currents or electro-static discharge in electronic components from welding may cause permanent damage.

Before Installing Transmission Support Strap Conversion Kit

1. Make sure all machine work components are in the stored position and locks are engaged.
2. Make sure the machine is shut down, parking brakes are applied and battery switch is turned off. Chock the machine wheels.
3. Order one Transmission Support Strap Conversion Kit #5113568 - this will supply all components necessary to rework both front and rear transmissions.

ITEM	PART NO	DESCRIPTION	QTY
	5113568	Transmission Support Strap Conversion Kit.	1
1	5110029	Transmission Hanger Weldment	2
2	A0061024	Washer, Lock, 3/4", Heavy, YZP.	8
3	F022173	HHCS .75-10 x 2.00	8
4	5113759	Bracket, Trans Cable Hanger.	1
5	150973-13	Washer, Flat, 1-1/4", Hardened	8
6	1444	Cotter Pin .156 X 2.00	8
7	5113839	Bracket, Trans Cable Hanger.	1
8	172582-1	O-Ring	2
9	5114122	Wire Rope Sling, .31 Dia X 9.62 L	4

Installing Transmission Support Strap Conversion Kit - Front Axle

1. Prior to removing components, place a leak-proof container beneath the gearbox to catch any lubricant that may run out.
2. Remove existing cover plate (see Section D-D in the attached drawing in this Service Bulletin) located on the opposite side of the transmission from the hydraulic drive motor.
3. Install Transmission Hanger Weldment plate (1) and new O-Ring (8) being careful not to damage the O-Ring. Secure with four new fasteners (2) and (3).
4. Position Transmission Cable Hanger Bracket (4) on the frame as shown and weld in place. Refer to dimensions and weld symbols on the drawing.
5. Position the two Wire Rope Slings (9) over the pins on Transmission Hanger Weldment (1) and Transmission Cable Hanger Bracket (4). Secure the slings to the pins using four Flat Washers (5) and Cotter Pins (6).
6. If necessary, replenish the gearbox to the proper level with clean 80W-90 gear lube. Properly dispose of the lubricant caught in the container.

Installing Transmission Support Strap Conversion Kit - Rear Axle

1. Prior to removing components, place a leak-proof container beneath the gearbox to catch any lubricant that may run out.
2. Remove existing cover plate (see Section G-G in the attached drawing in this Service Bulletin) located on the opposite side of the transmission from the hydraulic drive motor.
3. Install Transmission Hanger Weldment plate (1) and new O-Ring (8) being careful not to damage the O-Ring. Secure with four new fasteners (2) and (3).
4. Position Transmission Cable Hanger Bracket (7) on the frame as shown and weld in place. Refer to dimensions and weld symbols on the drawing.
5. Position the two Wire Rope Slings (9) over the pins on Transmission Hanger Weldment (1) and Transmission Cable Hanger Bracket (7). Secure the slings to the pins using four Flat Washers (5) and Cotter Pins (6).
6. If necessary, replenish the gearbox to the proper level with clean 80W-90 gear lube. Properly dispose of the lubricant caught in the container.

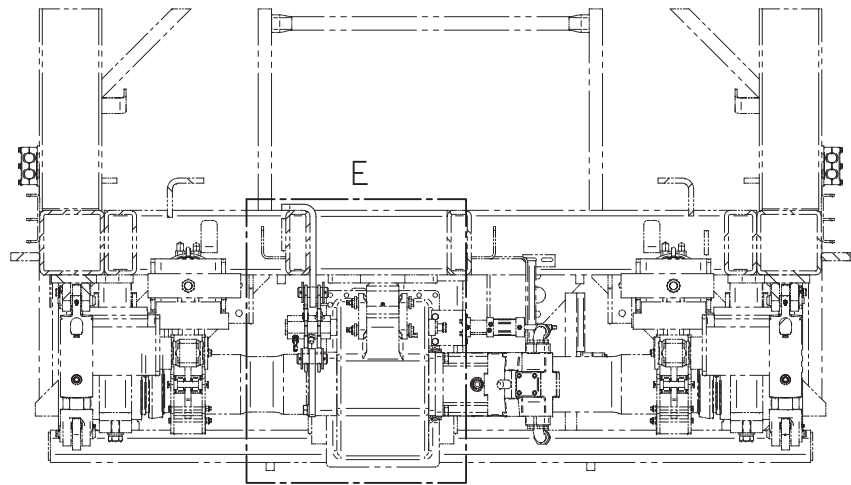
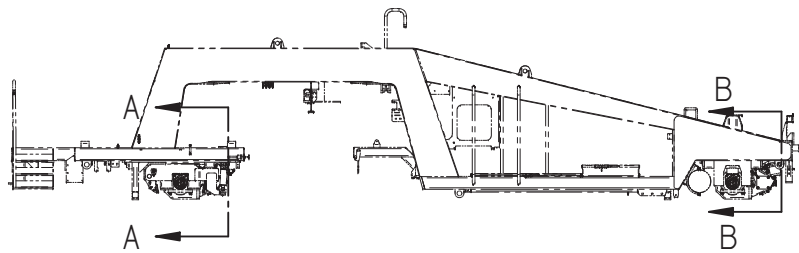
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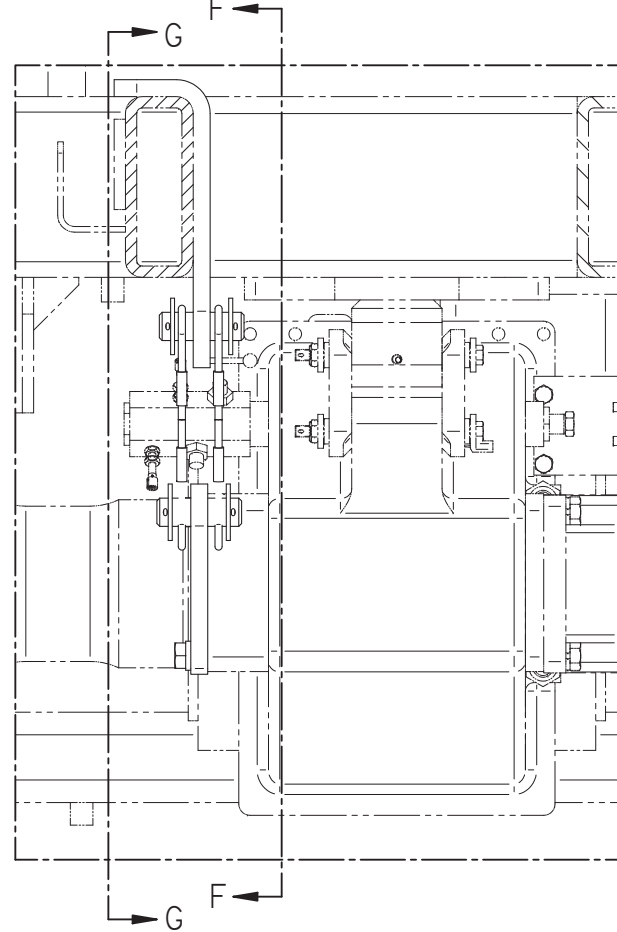
2401 Edmund Road, Box 20
Cayce-West Columbia, SC
29171-0020
Tel: (803) 822-7420
Parts: (800) 800-6410
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1200 Conrad Industrial Dr.
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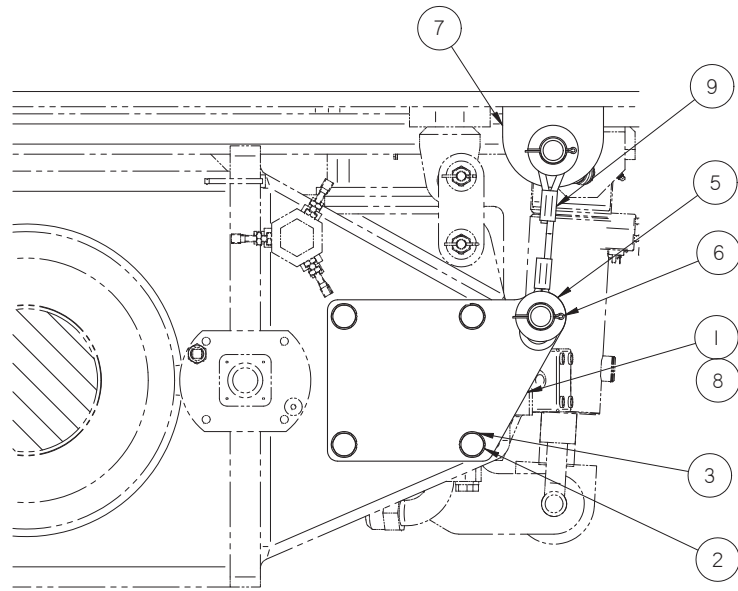
Printed In USA



SECTION A-A



DETAIL E



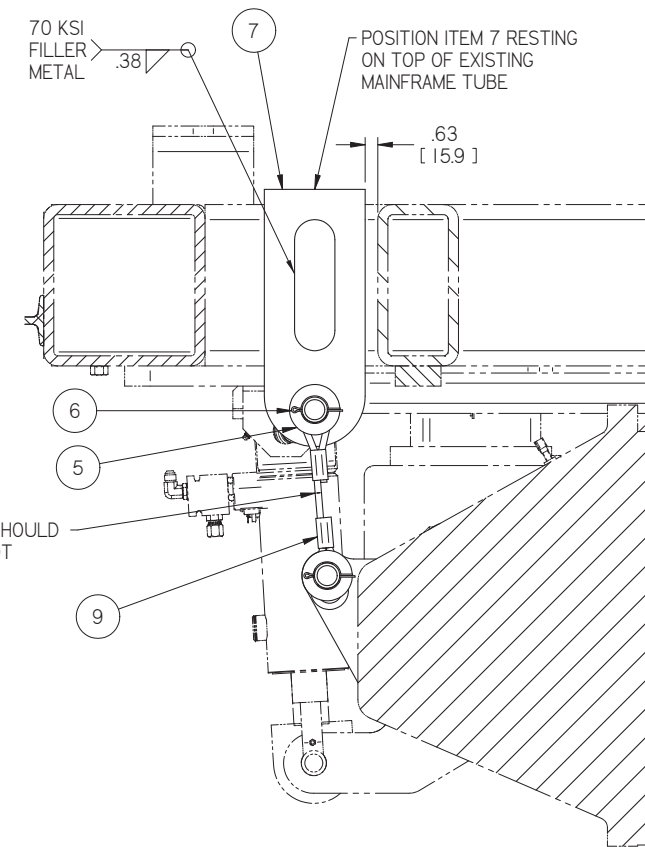
SECTION G-G

REMOVE EXISTING COVER (THIS END ONLY), AND USE ITEM 1 AS A REPLACEMENT.

CAREFULLY HANDLE TO AVOID DAMAGING NEW O'RING SEAL.

FOR SERVICE USE #172582-1 O'RING.

ITEM	PART NO	QTY	DESCRIPTION
1	5110029	2	TRANSMISSION HANGER WELDMENT
2	A0061024	8	WASHER, LOCK, 3/4", HEAVY, YZP
3	F022173	8	3/4-10UNC-2A X 2 HHCS
4	5113759	1	BRACKET, TRANS CABLE HANGER
5	150973-13	8	WASHER, FLAT, 1-1/4", HARDENED
6	1444	8	COTTER PIN .156 X 2.00
7	5113839	1	BRACKET, TRANS CABLE HANGER
8	172582-1	2	O-RING
9	5114122	4	WIRE ROPE SLING, .31 DIA X 9.00LG

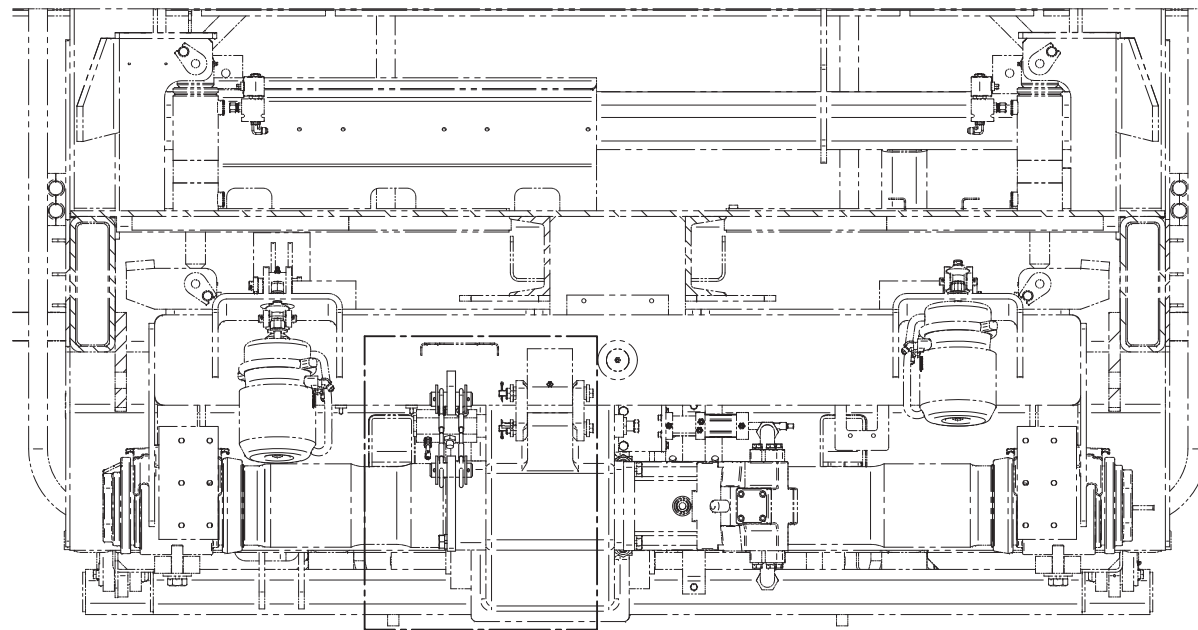


SECTION F-F

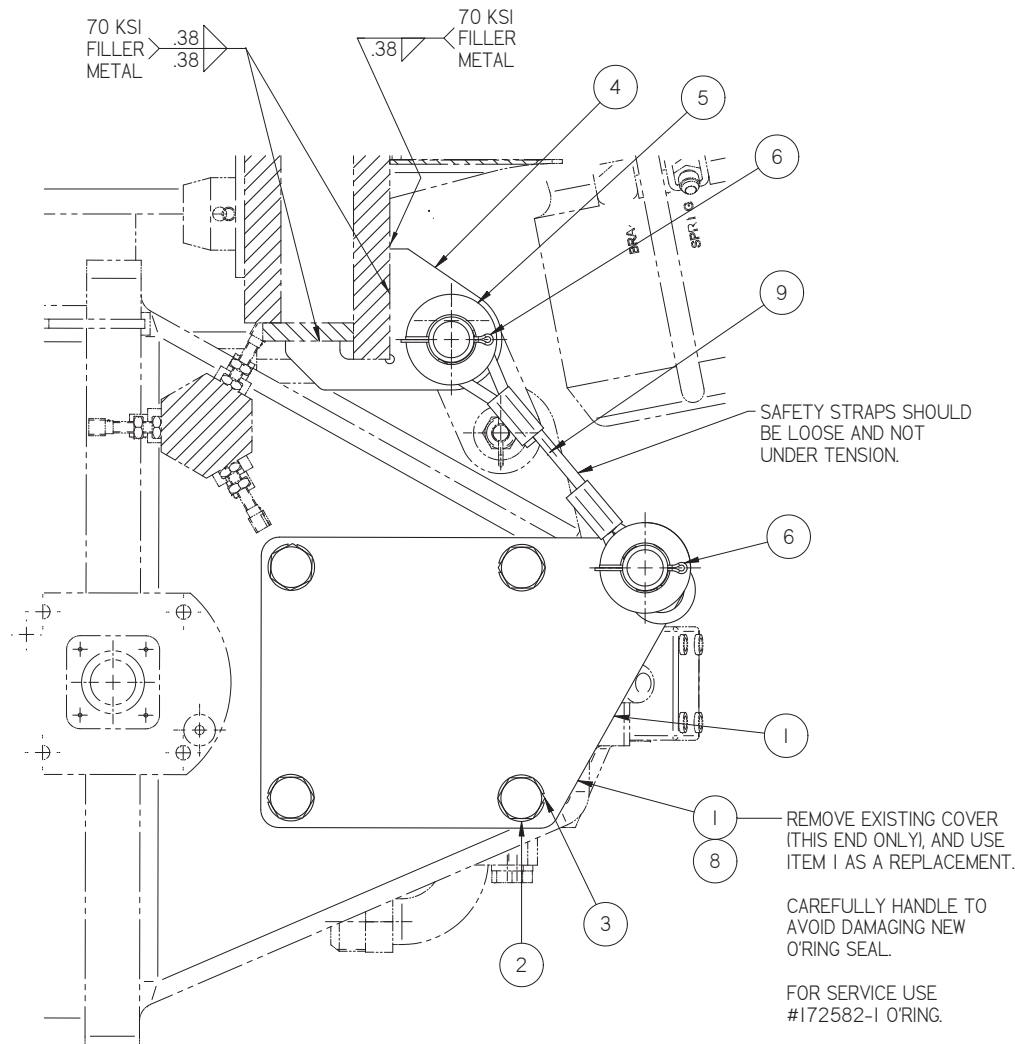
SIMILAR TO 5110030

FEATURES INCLUDE IN THIS KEY CHARACTERISTIC				UNLESS OTHERWISE SPECIFIED:				CHANGE		REVISION		DR		DATE		DESCRIPTION		HARSCO RAIL	
NO.	DATE	BY	DESCRIPTION	1.	2.	3.	4.	EC612818	A	NEW RELEASE	BKP	05/06/20	OPTION, TRANS SAFETY STRAP	MARK IV	1	D			
1			REMOVE BURRS AND BREAK SHARP EDGES																
2			ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES																
3			ALL SURFACE FINISHES OF 125 UNLESS OTHERWISE SPECIFIED																
4			ALL WELDS SHALL BE TO THE MOST ADVANCED WELDING STANDARDS																
5			TORQUE ALL FITTINGS PER STD-5689																
6			TORQUE ALL FITTINGS PER STD-5689																
7			THIRD ANGLE PROJECTION																
8			DRAFTED PER HARSCO RAIL STANDARD STD-1651D																
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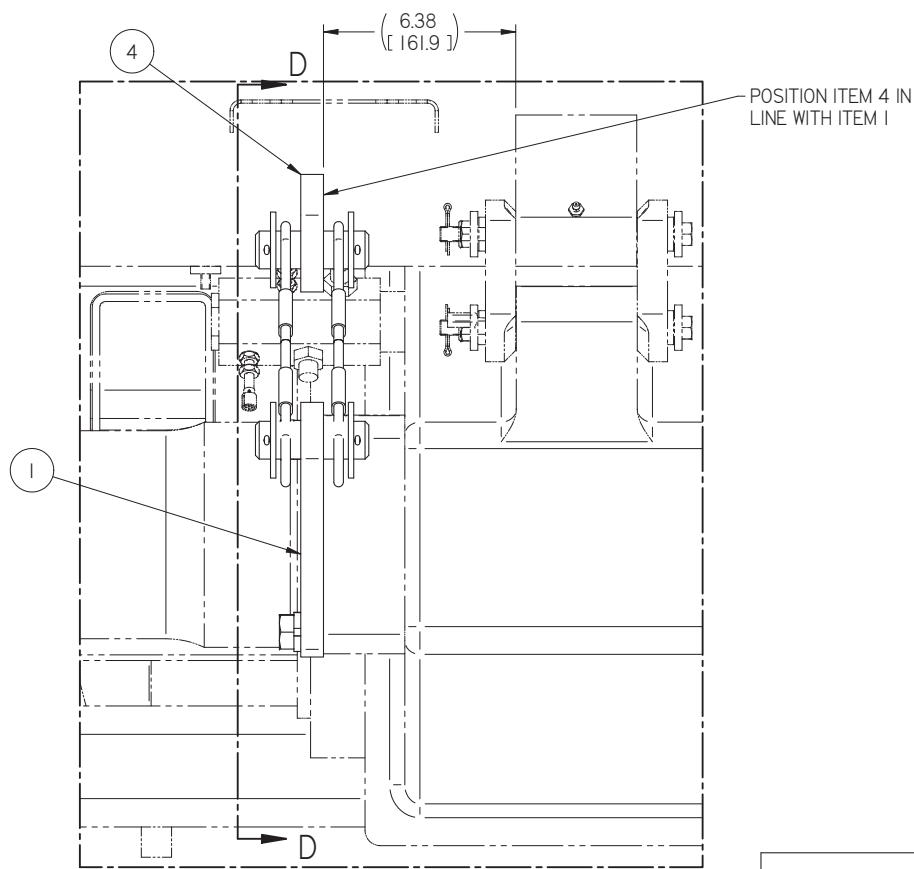
Inch [mm]



SECTION B-B



SECTION D-D



DETAIL C

FRONT AXLE DETAILS

FEATURES INCLUDED IN KEY CHARACTERISTICS				UNLESS OTHERWISE SPECIFIED				CHANGE		REVISION		DR		DATE		Description		Machine		Part Number		Size			
NUMBER	DESCRIPTION	UNITS	TOLERANCE	UNITS	TOLERANCE	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY		
1	REMOVE BURRS AND BREAK SHARP EDGES																								
2	ALL SURFACES UNLESS OTHERWISE SPECIFIED SHALL BE FINISHED TO AN ANGLE TOLERANCE OF 1/16"																								
3	ALL SURFACES UNLESS OTHERWISE SPECIFIED SHALL BE FINISHED TO AN ANGLE TOLERANCE OF 1/16"																								
4	TORQUE ALL FITTINGS PER STD 5480																								
5	TORQUE ALL FITTINGS PER STD 5480																								
6	TORQUE ALL FITTINGS PER STD 5480																								
7	TORQUE ALL FITTINGS PER STD 5480																								
8	TORQUE ALL FITTINGS PER STD 5480																								
9	TORQUE ALL FITTINGS PER STD 5480																								
10	TORQUE ALL FITTINGS PER STD 5480																								
11	TORQUE ALL FITTINGS PER STD 5480																								
12	TORQUE ALL FITTINGS PER STD 5480																								
<p>THIRD ANGLE PROJECTION</p> <p>DRAFTED PER HARSOCO STANDARD STD 1651D</p>																		<p>Material</p> <p>Weight 61.3 lbm</p>		<p>Machine Type MARK IV</p>		<p>Part Number 5113568</p>		<p>Size D</p>	
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<p>SOLID EDGE DRAWING</p>																		<p>Weight 61.3 lbm</p>		<p>Machine Type MARK IV</p>		<p>Part Number 5113568</p>		<p>Size D</p>	
<p>DO NOT SCALE</p>																		<p>Weight 61.3 lbm</p>		<p>Machine Type MARK IV</p>		<p>Part Number 5113568</p>		<p>Size D</p>	

Inch [mm]

HARSOCO RAIL

Machine Type MARK IV

Part Number 5113568

Size D

Sheet 2 of 2