

<b>Safety Bulletin</b>			 <p>Tesco Corporation  5616 – 80th Avenue SE  Calgary, Alberta, Canada T2C 4N5  Tel: 1-877-TESCO-77 (North America)  Tel: 1 (713) 359-7195 (AMSS 24-hour support)  Tel: 1 (713) 359-7295 (International)  Email: <a href="mailto:bulletins@tescocorp.com">bulletins@tescocorp.com</a>  <a href="http://www.tescocorp.com">www.tescocorp.com</a>  <a href="http://www.tescoparts.com">www.tescoparts.com</a></p>
<b>No: SB054</b>	<b>Rev: 1</b>	<b>Date: 22 November 2011</b>	
<b>CDS Anti-Rotation Bracket (ARB)</b>			

**INTRODUCTION**

TESCO has identified several incidents in the field in which the arms of the TESCO Casing Drilling Systems (CDS) Anti-Rotation Bracket (TESCO part # 970340), have broken off at the welded point connecting the arms to the ARB base plate.

Operational failure to adhere to the manufacturing and maintenance guidelines set by TESCO Manufacturing has resulted in these dropped object incidents. Specifically, the brackets are being manufactured locally and modified contrary to the specifications recommended by TESCO Manufacturing. It was determined that one of the primary causes of these incidents was the operator’s failure to carry out adequate maintenance. Not all brackets are being subject to MPI testing every 60 operating days as per CDS Maintenance Guide – 883004 Rev 6. Also, there has been a failure to implement a secondary suspension attachment for the brackets. Secondary fail safes such as slings/chains are not always being attached as specified in the CDS Installation Guide – 883002 Rev 4 (see Figure 1).



**Figure 1: An ARB may fall onto the rig floor if it is not properly attached with a secondary fail safe such as a chain or sling**

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## **AFFECTED PRODUCTS**

<b>TESCO PART #</b>	<b>DESCRIPTION</b>
2593	Chain,Close-Link,3/8",2500-lbs SWL (Rate to 1 Ton)
16764	Shackle,Anchor,Bolt-Type,G-2130,3/8",1 Ton
970340	Bracket,Anti-Rotate,Actuator,CDS

## **ACTION REQUIRED**

TESCO has proposed the following global preventative measures to minimize any risk of dropped ARB incidents from occurring:

1. Apply a serial number to all ARB's to ensure that they are more easily traced.
2. Visually inspect ARB's for damage and complete the CDS Pre-Job Information Sheet (881008Rev1) along with the CDS Pre-Job Checklist (881015Rev2) before each job is allowed to commence.
3. Use an approved vendor to carry out an MPI of the ARB's every 60 operating days.
4. Use a 3/8" chain (TESCO part # 2593) or equivalent 1-ton sling in conjunction with a 3/8" bolt-type shackle (TESCO part # 16764) and lugs (TESCO part # 16764) to secure all parts that are considered a falling hazard.
5. Refer to the technical diagrams in Appendix A to ensure full compliance of ARB manufacturing specifications.

TESCO has developed a new CDS ARB Assembly Kit (TESCO part # 5009419) that is easier to install, more convenient to use, and based on a universal design that allows the ARB to be utilized for different applications (see Appendix B).

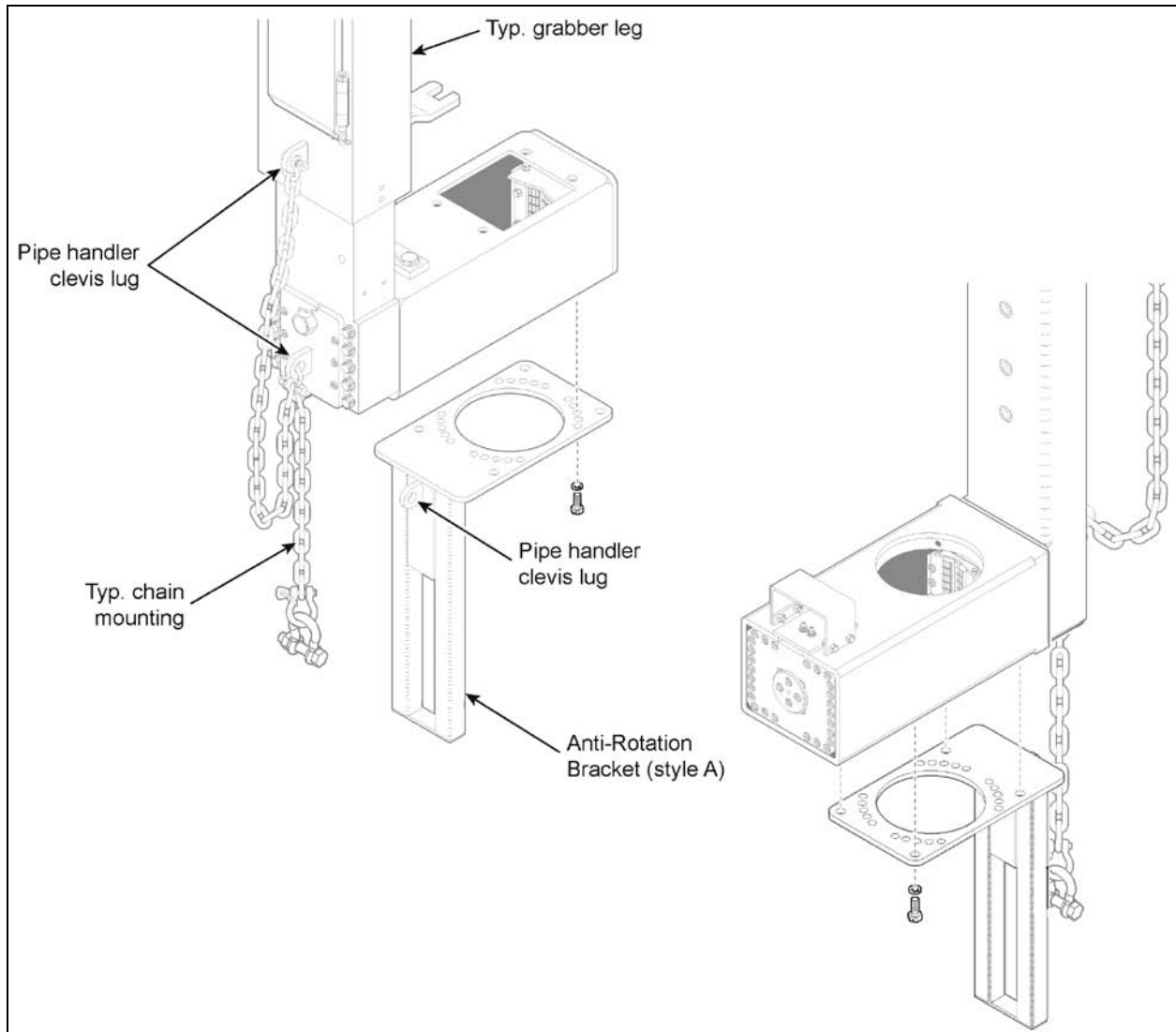
All TESCO Business Units are responsible for ensuring they comply with the CDS Installation and Maintenance Guides to effectively and safely operate the CDS equipment. Business Units may remind customers that the new ARB is available as an option to replace the old style ARB.

Contact your local TESCO Parts and Service Center for further information regarding this bulletin and or supply of affected components noted above.

<b>Version</b>	<b>Date (D/M/Y)</b>	<b>ECN</b>	<b>Description of Bulletin Changes</b>
Rev 0	18/02/2011		Initial release of document
Rev 1	04/11/2011	195-0001	Include new CDS Anti-Rotation Bracket

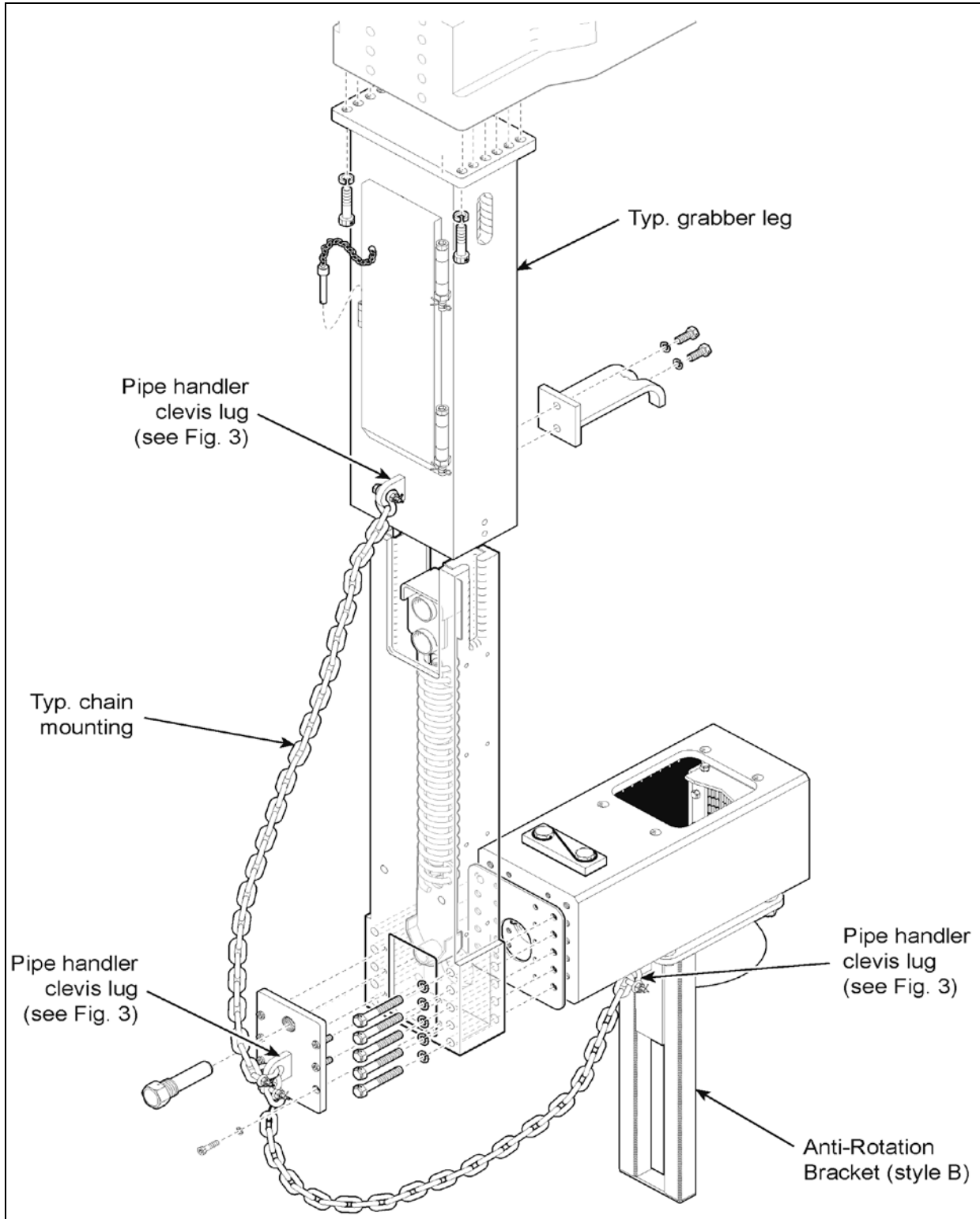
## APPENDIX A

### Anti-Rotation Bracket Secondary Fail Safe (Concept A)



**Figure 2: ARB showing a properly attached secondary fail safe apparatus (chain) – concept A. The chain can be cut to length as required**

## Anti-Rotation Bracket Secondary Fail Safe (Concept B)



**Figure 3: ARB showing a properly attached secondary fail safe apparatus (chain) – concept B. The chain can be cut to length as required**

## Pipe Handler Clevis Lug

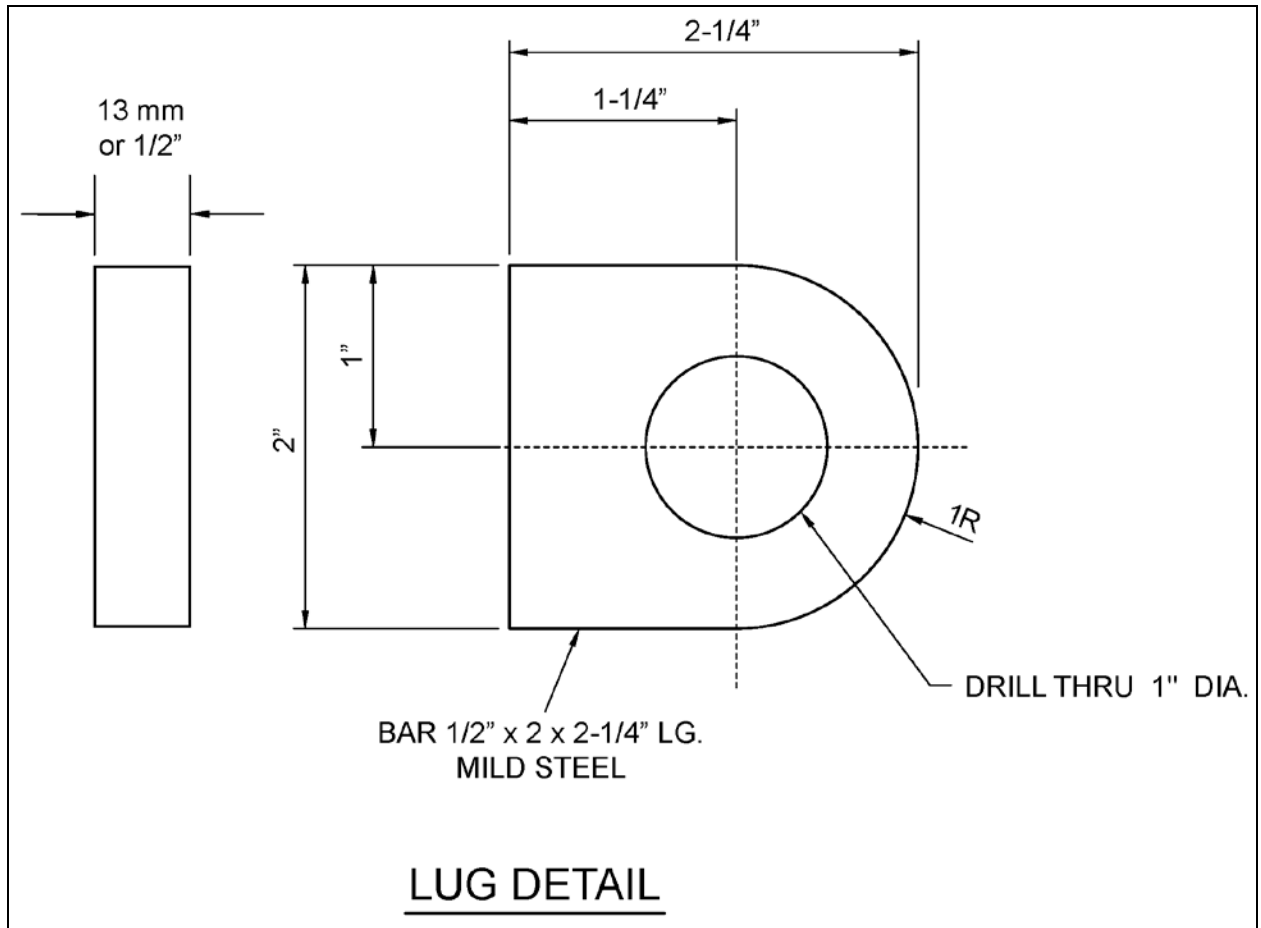


Figure 4: Pipe handler clevis lug

# Anti-Rotation Bracket (Style A)

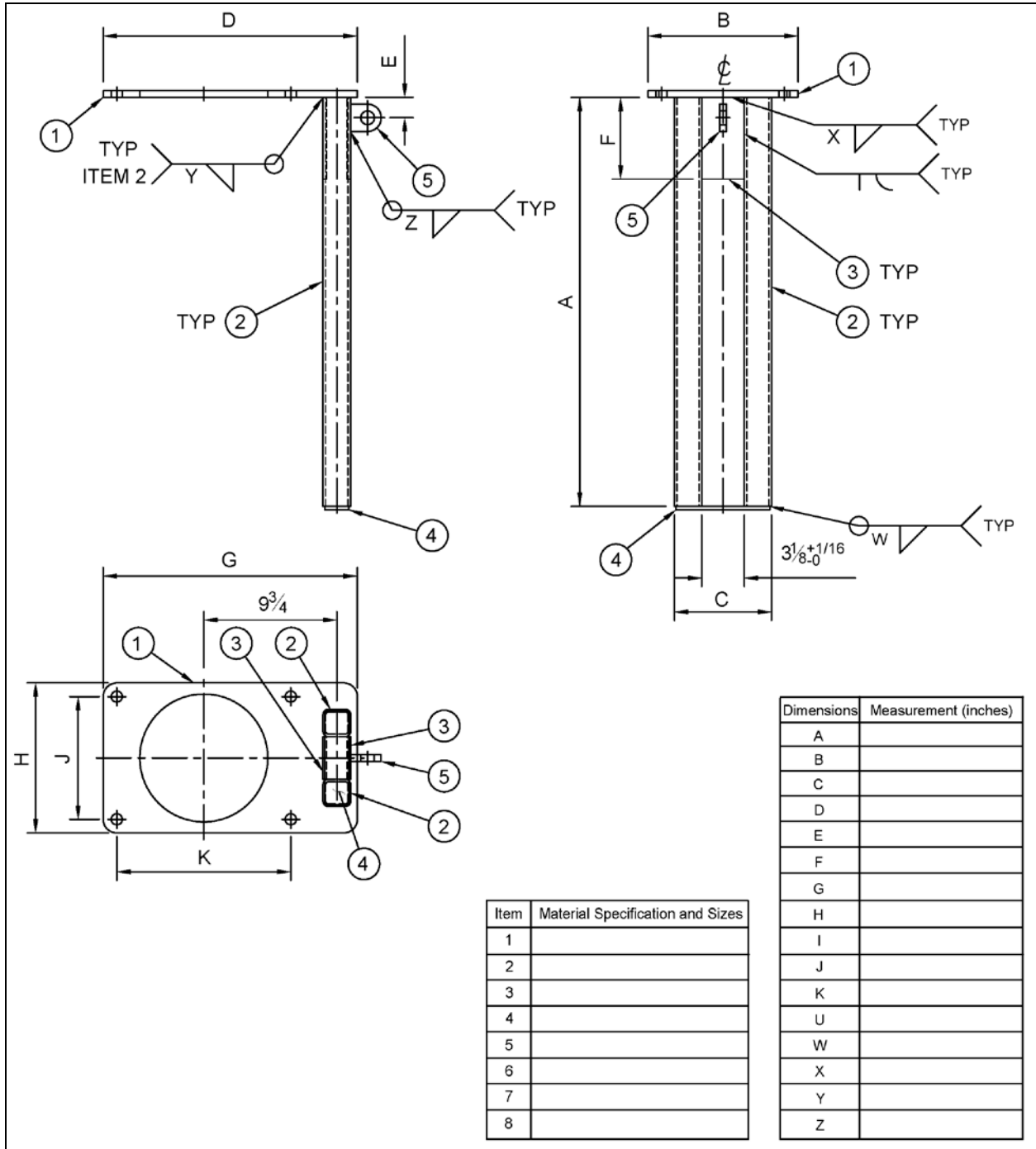
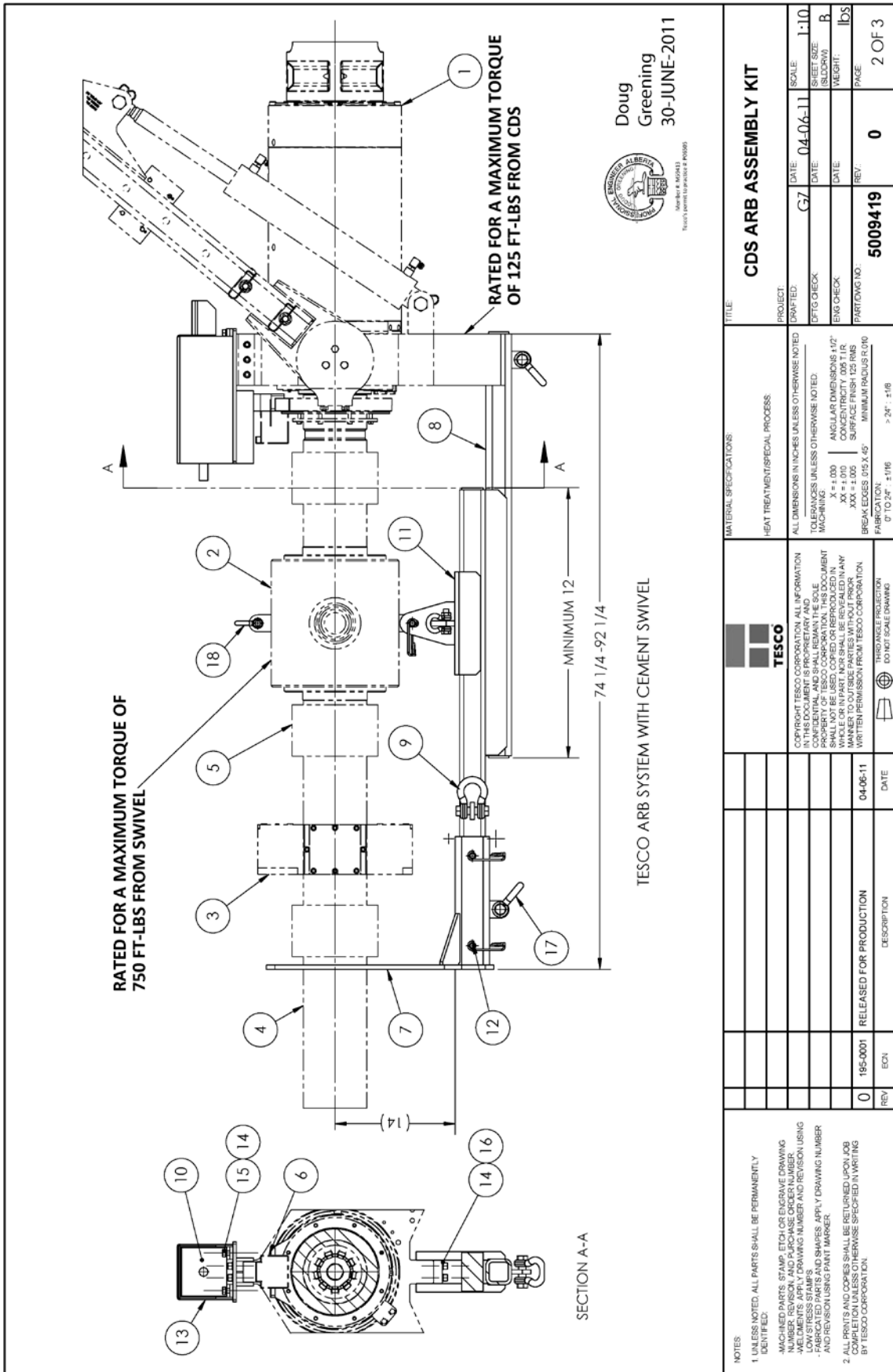


Figure 5: Schematic view of Anti-Rotation Bracket (Style A, see Figure 2)



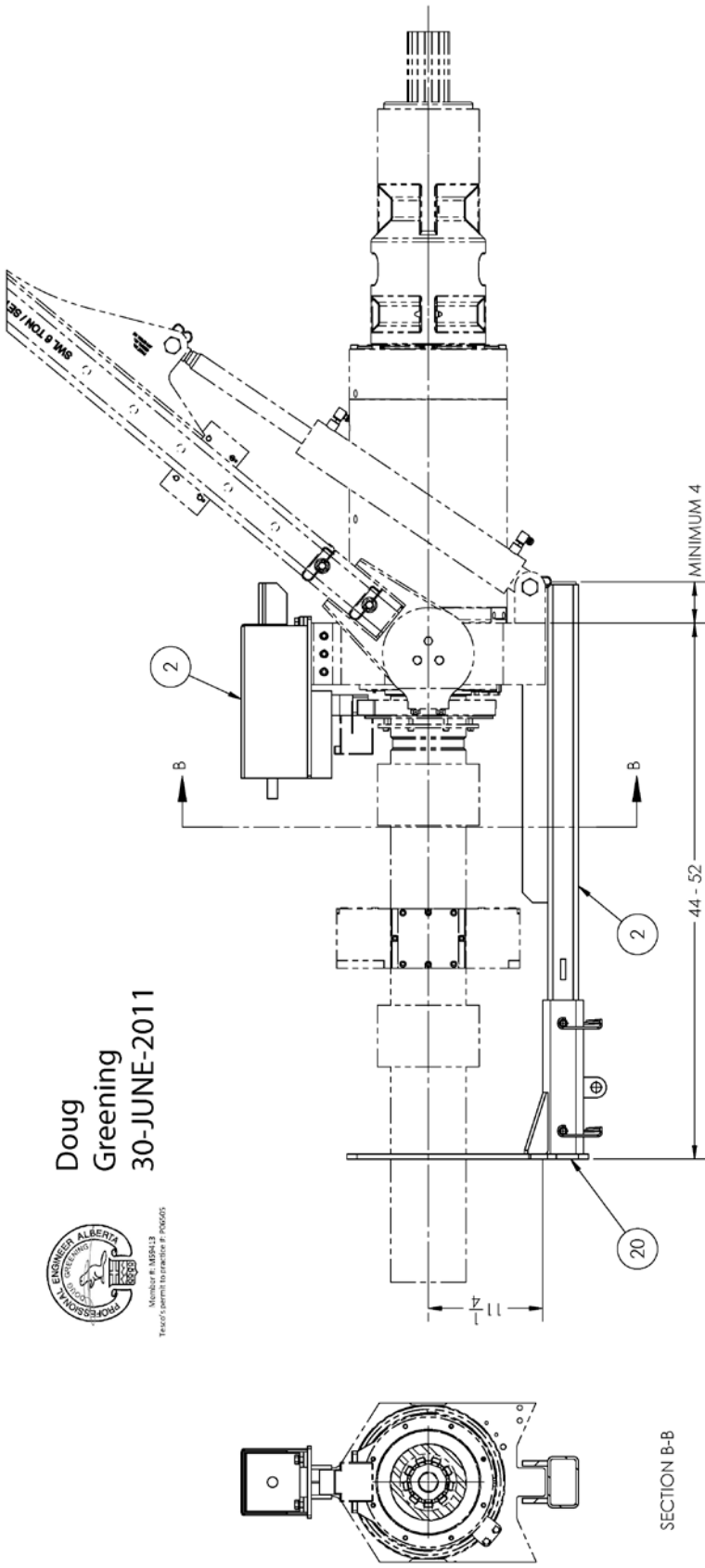



  
 Doug Greening
   
 30-JUNE-2011

NOTES		REV		ECL		DESCRIPTION		DATE	
1 UNLESS NOTED, ALL PARTS SHALL BE PERMANENTLY IDENTIFIED.		0	195-0001			RELEASED FOR PRODUCTION		04-06-11	
2 ALL PRINTS AND COPIES SHALL BE RETURNED UPON JOB COMPLETION UNLESS OTHERWISE SPECIFIED IN WRITING BY TESCO CORPORATION.									
MACHINED PARTS, STAMP, ETCH OR ENGRAVE DRAWING NUMBER, REVISION, AND PURCHASE ORDER NUMBER.									
WELDMENTS APPLY DRAWING NUMBER AND REVISION USING									
FABRICATED PARTS AND SHARES APPLY DRAWING NUMBER AND REVISION USING PAINT MARKER.									
MATERIAL SPECIFICATIONS		HEAT TREATMENT/SPECIAL PROCESS		ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.		TOLERANCES UNLESS OTHERWISE NOTED:		MACHINING UNLESS OTHERWISE NOTED:	
TESCO		CORPORATE TESCO CORPORATION. ALL INFORMATION IN THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND SHALL REMAIN THE SOLE PROPERTY OF TESCO CORPORATION. NO PART SHALL BE USED, COPIED OR REPRODUCED IN ANY MANNER TO OUTSIDE PARTIES WITHOUT PRIOR WRITTEN PERMISSION FROM TESCO CORPORATION.		X ± 0.00		ANGULAR DIMENSIONS 1/2°		CONCENTRICITY 0.05 TIR	
CDS ARB ASSEMBLY KIT		PROJECT: GZ		DATE: 04-06-11		DATE: 04-06-11		SCALE: 1:10	
DRAFTED: GZ		DFTG CHECK		DATE: 04-06-11		DATE: 04-06-11		SHEET SIZE: B	
ENGINEER: GZ		ENG CHECK		DATE: 04-06-11		DATE: 04-06-11		WEIGHT: lbs	
PARTS NO: 5009419		REV: 0		PAGE: 2 OF 3		DATE: 04-06-11		SCALE: 1:10	



Doug  
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30-JUNE-2011



TESCO ARB SYSTEM WITHOUT CEMENT SWIVEL

<p>NOTES:</p> <p>1. UNLESS NOTED, ALL PARTS SHALL BE PERMANENTLY IDENTIFIED.</p> <p>-MACHINED PARTS, STAMP, ETCH OR ENGRAVE DRAWING NUMBER, REVISION AND PURCHASE ORDER NUMBER.</p> <p>-WELDMENTS APPLY DRAWING NUMBER AND REVISION USING FABRICATED PARTS AND SHAPES APPLY DRAWING NUMBER AND REVISION USING PAINT MARKER.</p> <p>2. ALL PRINTS AND COPIES SHALL BE RETURNED UPON JOB COMPLETION UNLESS OTHERWISE SPECIFIED IN WRITING BY TESCO CORPORATION.</p>		<p>REV#</p> <p>0 195-0001</p> <p>RELEASED FOR PRODUCTION</p> <p>DATE</p> <p>04-06-11</p>		<p>DESCRIPTION</p>		<p>DATE</p>			
<p>TESCO CORPORATION, ALL INFORMATION IN THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND SHALL REMAIN THE PROPERTY OF TESCO CORPORATION. THE WHOLE OR IN PART, NOR SHALL BE REVEALED IN ANY MANNER TO OUTSIDE PARTIES WITHOUT PRIOR WRITTEN PERMISSION FROM TESCO CORPORATION.</p> <p>THIRD ANGLE PROJECTION DO NOT SCALE DRAWING</p>		<p>MATERIAL SPECIFICATIONS</p> <p>HEAT TREATMENT/SPECIAL PROCESS</p> <p>ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.</p> <p>TOLERANCES UNLESS OTHERWISE NOTED:</p> <p>MACHINING: .000</p> <p>XX ± .010</p> <p>XXX ± .005</p> <p>BREAK EDGES .015 X .45°</p> <p>FABRICATION: .07 TO .20" ±.116</p>		<p>HEAT TREATMENT/SPECIAL PROCESS</p> <p>ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.</p> <p>TOLERANCES UNLESS OTHERWISE NOTED:</p> <p>MACHINING: .000</p> <p>XX ± .010</p> <p>XXX ± .005</p> <p>BREAK EDGES .015 X .45°</p> <p>FABRICATION: .07 TO .20" ±.116</p>		<p>TITLE</p> <p><b>CDS ARB ASSEMBLY KIT</b></p>		<p>SCALE</p> <p>1:10</p>	
<p>PROJECT</p> <p>C7</p>		<p>DATE</p> <p>04-06-11</p>		<p>DATE</p> <p>04-06-11</p>		<p>DATE</p> <p>04-06-11</p>			
<p>DRAFTING CHECK</p>		<p>DATE</p>		<p>DATE</p>		<p>DATE</p>			
<p>ENGINEERING CHECK</p>		<p>DATE</p>		<p>DATE</p>		<p>DATE</p>			
<p>PART/DWG NO</p> <p>5009419</p>		<p>REV#</p> <p>0</p>		<p>REV#</p> <p>0</p>		<p>REV#</p> <p>0</p>			
<p>FABRICATION</p>		<p>DATE</p>		<p>DATE</p>		<p>DATE</p>			
<p>3 OF 3</p>		<p>3 OF 3</p>		<p>3 OF 3</p>		<p>3 OF 3</p>			

## APPENDIX C

### Business Unit Remedial Action Plan

Date	Action Required	Action Taken	Responsibility	Target Date	Close Date
1 <sup>st</sup> Feb 2011	Ensure all ARB's are identified with a serial number (physically on the ARB and for tracking)		BU Casing Ops Manager and Casing Technicians	15 <sup>th</sup> March 2011	
1 <sup>st</sup> Feb 2011	All ARB's to be tracked and inspected (MPI) every 60 operating days as per maintenance guide, by approved vendor. All certifications, dimensions and findings are to be reported and recorded locally All Inspection and testing records are required to be sent to TMF		BU Casing Ops Manager and QHSE and TMF	28 <sup>th</sup> Feb 2011	
1 <sup>st</sup> Feb 2011	Log all ARB's on provided register, with full details of improvements communicated to TMF for addition to manufacturing records		BU Casing Ops Manager and QHSE and TMF	15 <sup>th</sup> March 2011	
1 <sup>st</sup> Feb 2011	On next job load out and installation ensure sling/chain is provided and teams are briefed with mandatory use for ARB secondary attachments		BU Casing Ops Manager and Casing Technicians	Before Next Job	
1 <sup>st</sup> Feb 2011	Operations to complete the pre-job checklist and CDS minimum requirements, recording both documents in the job file and keep on record		Global Casing Manager	Before Next Job	
1 <sup>st</sup> Feb 2011	Completion on actions to be discussed at the next Global QHSES call and BU KPI call – any issues to be communicated to Global Quality Manager beforehand		BU VP's and BU QHSES	TBC	
1 <sup>st</sup> Feb 2011	TMF to communicate long term plans for all ARB's and improvements to reduce the potential for dropping ARB – design to include pin eyes for sling or, chain and robust weld points		TMF	TBC	