

REQUEST FOR DEVIATION/WAIVER (RFD/RFW)				1. DATE (YYMMDD) 02/11/06		From Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington DC 20503.						D. PROCURING ACTIVITY NUMBER L04T7001	
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.						D. DODAAC	
4. ORIGINATOR a. TYPED NAME (First, Middle Initial, Last) Sandra S. Neiss			b. ADDRESS (Street no., City, State, Zip Code) York Industries, Inc. 706 Willow Springs Lane York, PA 17402			5. (X one) <input checked="" type="checkbox"/> DEVIATION <input type="checkbox"/> WAIVER	
						6. (X one) <input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR <input type="checkbox"/> CRITICAL	
7. DESIGNATION FOR DEVIATION/WAIVER a. MODEL/TYPE Hydraulic Accumulator				b. CAGE CODE 81616		c. SYS. DESIG.	
				d. DEV/WAIVER NO. 10286-001		8. BASELINE AFFECTED FUNCTIONAL <input type="checkbox"/> ALLOCATED <input type="checkbox"/> <input checked="" type="checkbox"/> PRODUCT	
9. OTHER SYSTEM/CONFIGURATION ITEMS AFFECTED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO							
10. TITLE OF DEVIATION/WAIVER Material Substitution for Externally Threaded Ring P/N 10905302							
11. CONTRACT NUMBER AND LINE ITEM W52H09-04-C-0035				12. PROCURING CONTRACTING OFFICER a. NAME (First, Middle Initial, Last) CONNIE TOPP			
				b. CODE		c. TELEPHONE NO (215)697-3374	
13. CONFIGURATION ITEM NOMENCLATURE HYDRAULIC ACCUMULATOR P/N 10905300				14. CLASSIFICATION OF DEFECT a. CD NO. b. DEFECT NO. c. DEFECT CLASSIFICATION <input checked="" type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> CRITICAL			
15. NAME OF LOWEST PART/ASSEMBLY AFFECTED RING, EXTERNALLY THREADED				16. PART NO. OR TYPE DESIGNATION 10905302			
17. EFFECTIVITY				18. RECURRING DEVIATION/WAIVER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
19. EFFECT ON COST/PRICE None				20. EFFECT ON DELIVERY SCHEDULE None, if waiver approved.			
21. EFFECT ON INTEGRATED LOGISTICS SUPPORT, INTERFACE OR SOFTWARE NONE							
22. DESCRIPTION OF DEVIATION/WAIVER Due to material availability. York Industries requests the following. Drawing 10905302 for the externally threaded ring calls for the material to be Seamless Steel Tubing alloy 4130 condition Annealed or Normalized (as well as other options). This material has typical mechanical properties of 90 Ksi Ultimate Strength, 60 KSi Yield Strength. York Industries would like to use the same 4130 Seamless Steel Tubing in a heat treated condition of approx. 131.1 Ksi Ultimate Strength, 109.5 Ksi Yield Strength. (see attached material Cert.)							
23. NEED FOR DEVIATION/WAIVER Material Availability due to the size of the ring (6.75 inch O.D.). Steel suppliers do not stock Annealed or Normalized Steel in these sizes. They do stock Heat Treated steel. Since the heat treated material is BETTER than the Annealed or Normalize material, this request will not effect Fit, Form, or Function, of the item.							
24. CORRECTIVE ACTION TAKEN None Needed							
25. SUBMITTING ACTIVITY							
a. TYPED NAME (First, Middle Initial, Last) Sandra S. Neiss			b. TITLE Quality Assurance Manager			c. SIGNATURE <i>Sandra S. Neiss</i>	
26. APPROVAL/DISAPPROVAL				a. RECOMMEND <input type="checkbox"/> APPROVAL <input type="checkbox"/> DISAPPROVAL		DISAPPROVAL	
b. APPROVAL <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED				c. GOVERNMENT ACTIVITY			
d. TYPED NAME (First, Middle Initial, Last)				e. SIGNATURE			f. DATE SIGNED (YYMMDD)
g. APPROVAL <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED				h. GOVERNMENT ACTIVITY AMSRD-AAR-AIC-F			
i. TYPED NAME (First, Middle Initial, Last) RONALD E. ELBE Director, Configuration Management and Lifecycle Integration Competency Directorate				j. SIGNATURE <i>Timothy J. Kardos</i>			k. DATE SIGNED (YYMMDD) 26 February 2004

Steel Certificate of Test1835 DUEBER AVE. S.W.
CANTON, OHIO 44706

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TIMKEN

WORLDWIDE LEADER IN BEARINGS AND STEEL

10/30/2002

ID #0037352-1

S Carbon & Alloy Steel Corporation
O T 24045 S CENTRAL AVENUE - PO BOX 129
L O
D MONEE IL 60449 USAS Carbon & Alloy Steel Corporation
H T 24045 S CENTRAL AVENUE - PO BOX 129
I O
P MONEE IL 60449 USACustomer Order: 101502-DB-02 TRANSFER Customer Part Number: STEEL SERVICE CENTER
Timken Order: 55866-A (1120563) Heat Number(s): W2187**Description of Material**OD: 7.209 in (183.109 mm) WALL: 1.447 in (36.754 mm) ID: 4.315 in (109.601 mm)
Shape: RD
Sales Type: 4130
Int Quality: VACUUM DEGAS
Condition: HOT ROLL - QUENCH - TEMPER - STRESS FREE - SCALE FREE**Specification**

- ASTM A 519 Rev. 96

Chemistry Information

	%C	%Mn	%P	%S	%Si	%Cr	%Ni	%Mo	%Cu	%Al	%Pb	%Sn
SPEC Ladle Min:	.28	.40		.015	.15	.80		.15				
SPEC Ladle Max:	.33	.60	.030	.040	.35	1.10	.30	.25	.35		.0200	.030
W2187 Ladle:	.31	.57	.005	.020	.29	1.06	.06	.15	.09	.042	.0009	.005

Yield 109.5

Tensile 131.1

Elong 21.5

Reduction of area 67.5

269 BHN

When shipping document is attached it becomes part of this certification.

We certify the above materials have been inspected and tested in accordance with the methods prescribed in the governing specifications and consistent with our Standard Commercial Terms and Conditions for Sale, Manufacture, and Shipping, which are incorporated into and made part of this certification. The results of such inspections and tests conform with the applicable requirements. This certificate or report shall not be reproduced except in full, without the written approval of the Timken Corporation.

Approved: _____

NOTARY PUBLIC

by

Diane Chavers

Diane Chavers, CERTIFICATION PROCESSOR

THE TIMKEN CORPORATION

DESIGN INPUT

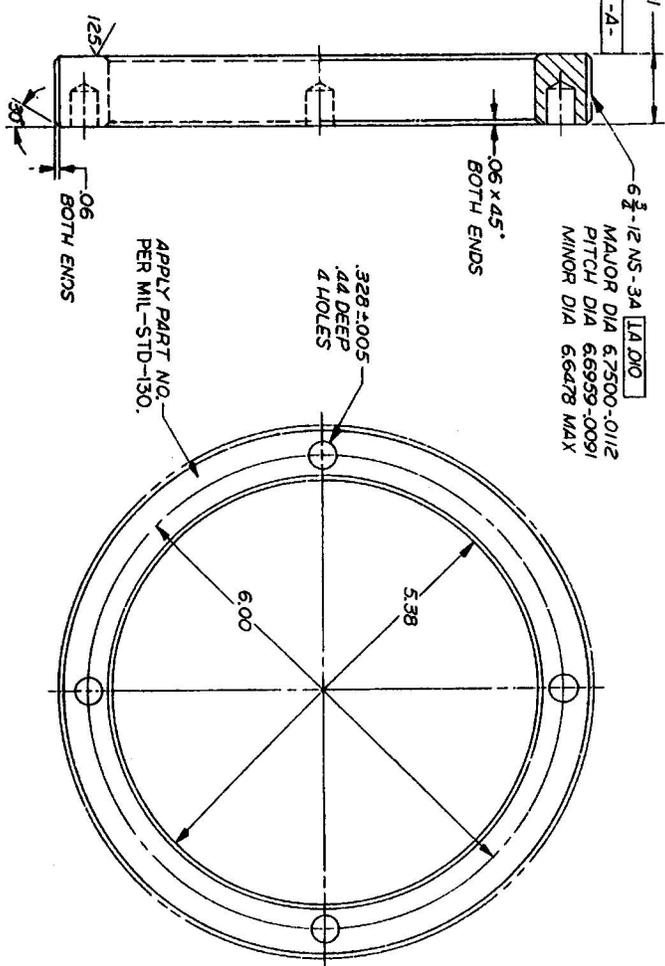
Per Email 17 February 2004

“Subject: Request for Deviation L04T7001

Block 22 of from 1694 requests a substitution be allowed for the material used to fabricate Ring, Externally Threaded 10905302 which is used on the M60 series of tanks. The ring is found on Accumulator Assembly 10905300. The request is based on the lack of non-hardened material availability. Currently drawing 10905302 calls for the use as a optional material tube or steel per ASTM-A519 which is normalized (this material would be supplied as having a 90ksi tensile and a 60ksi yield strength. The vendor is requesting to use the same material specification ASTM-A519 with a supplied hardness of 131ksi tensile and 109.5ksi yield strength. The second optional material notation on Ring drawing 10905302 states that the 60psi yield strength be minimum (nothing stated about maximum strength). Increasing the strength of the material used to fabricate the ring would not increase susceptibility to failure. The additional hardness would not affect form fit or function of the ring and is therefore acceptable.

Questions or Comments:

*Clyde Bascue
Benet Laboratories
AMSRD-AAR-AEW-D
518-266-4838”*



REV. NO.	DESCRIPTION	DATE	APPROVAL
A	"NO CRACKS PERMISSIBLE" ADDED	03-11-02	W.E. WOOD
B	NOTE ADDED	05-06-02	W.E. WOOD
C3	(1) NOTE REVISED (2) NOTE REMOVED (3) NOTE ADDED	01-14-03	W.E. WOOD
D2	(1) NOTE REVISED (2) NOTE REVISED (3) NOTE ADDED	01-14-03	W.E. WOOD
E	(1) NOTE ADDED (2) NOTE REVISED	01-14-03	W.E. WOOD
F	(1-3) NOTE REVISED	01-14-03	W.E. WOOD
G	(1) NOTE REVISED	01-14-03	W.E. WOOD
H	(1) NOTE REVISED	01-14-03	W.E. WOOD

MATERIAL:
 STEEL, ALLOY 4130 (D1) (C1)
 OR 8630, CONDITION ANNEALED OR NORMALIZED, (E1)
 ASTM-A332, ASTM-A333, OR DD-S-628
 OPTIONAL MATERIAL TUBE, ST EEL, SEAMLESS, 4130 OR 8630, CONDITION ANNEALED OR NORMALIZED, ASTM-A519

OPTIONAL CONSTRUCTION
 MAY BE FLASH WELDED IN ACCORDANCE WITH SPEC MIL-W-6875. TO BE STRESS RELIEVED AFTER WELDING TO PROVIDE 60000 PSI YIELD STRENGTH, MIN.

MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH MIL-STD-1949
 NO CRACKS PERMISSIBLE (A)

OPTIONAL STEEL FORGING ALLOY 4130 OR 8630 CONDITION ANNEALED OR NORMALIZED (E1)
 SPEC MIL-S-46172

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY DDD-STD-100.

FINISH 1,1,2,3 OF MIL-STD-171. DIMENSIONS APPLY AFTER PLATING.

QUALITY ASSURANCE REQUIREMENTS (QAR'S) APPLY TO THIS DRAWING (QAR NO. SAME AS PART NO.)

M729	MATERIAL	PROPERTY	UNLESS OTHERWISE SPECIFIED	ORIGINAL DATA
M729	ALLOY	PROPERTY	UNLESS OTHERWISE SPECIFIED	ORIGINAL DATA
M729	ALLOY	PROPERTY	UNLESS OTHERWISE SPECIFIED	ORIGINAL DATA
M729	ALLOY	PROPERTY	UNLESS OTHERWISE SPECIFIED	ORIGINAL DATA

U.S. ARMY AMMUNITION DESIGN AND DEVELOPMENT CENTER
 DETROIT, NEW JERSEY 07801

PART NO. 10905302

ORDNANCE CORPS
 DEPT OF THE ARMY
 DETROIT ARSENAL

10905302

SCALE 1/1

CHRISTLER CORPORATION - DEFENSE ENGINEERING