



AMERICAN
ANCHOR BOLT INC.



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INTRODUCTION

THE OBJECTIVE OF THIS REPORT IS TO STUDY THE MECHANICAL AND PHYSICAL PROPERTIES OF THE CHINESE FABRICATED ANCHOR AND THE AMERICAN ANCHOR FABRICATED BY AMERICAN ANCHOR BOLT INC. TO REACH A CONCLUSION BASED ON THEIR COMPERATIVE ANALYSIS.

THE ANCHORS WERE SUBMITTED TO TWO TESTS:

- 1) ULTIMATE STRENGTH TESTING
- 2) CORROSION TESTING

THREE TYPES OF ANCHORS WILL BE PRESENTED:

- 1.- NATURALLY GRADED STEEL ANCHOR
- 2.- PROTEC-TORQUE (BLACK) ANCHOR
- 3.- GALVANIZED STEEL ANCHOR

FURTHERMORE, ATTACHED IS A PHOTOGRAPHIC REPORT DEMONSTRATING SEVERAL LOCATIONS WHERE OUR ANCHOR BOLTS, FABRICATED BY AMERICAN ANCHOR BOLT INC., HAVE BEEN INSTALLED, WHICH HAVE ALSO BEEN APPROVED AND WELL-ACCEPTED BY THE CONTRACTORS AND INSPECTORS OF THEIR RESPECTIVE CITY ORDINANCES.

INCLUDED IN THE REPORT BELOW ARE THE RESULTS OF THE TESTS CONDUCTED.

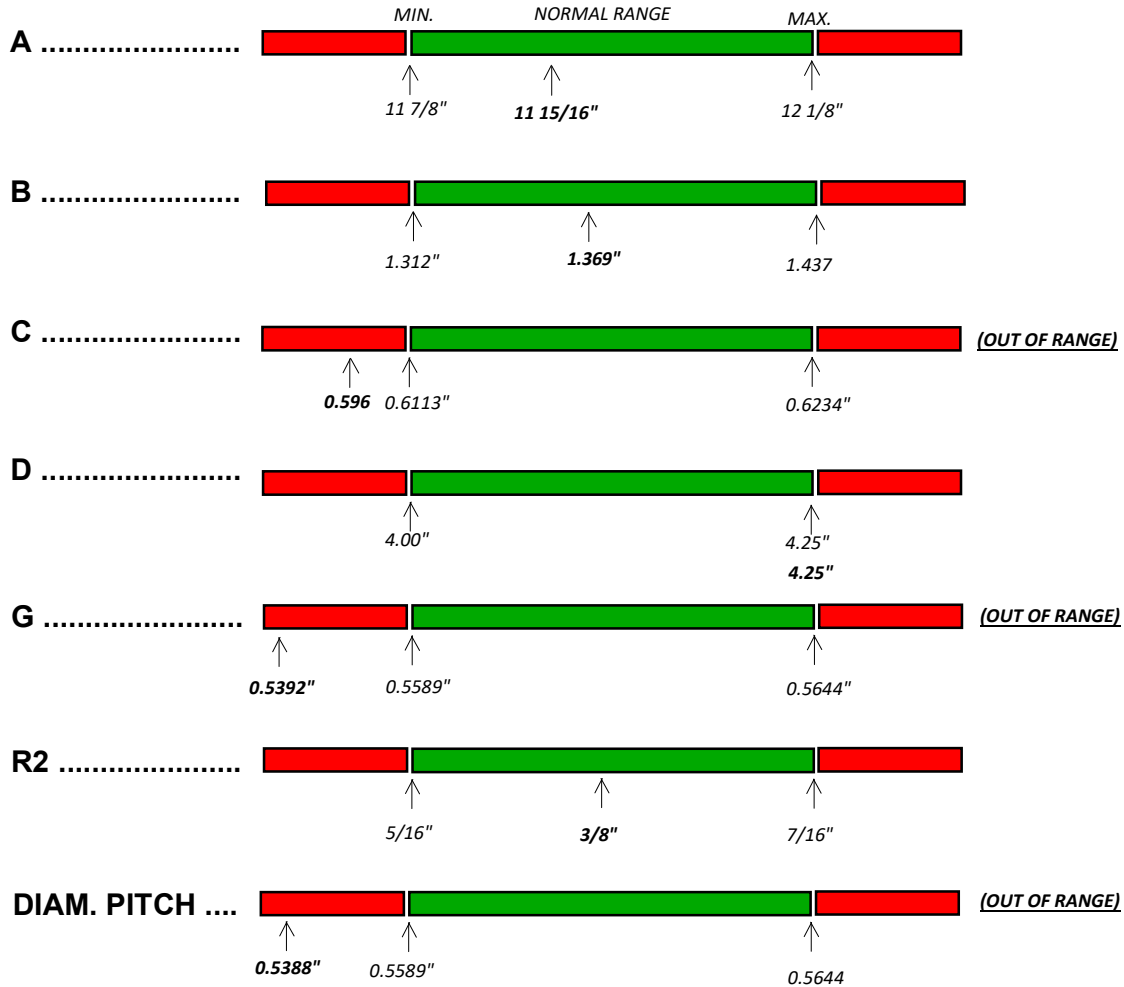
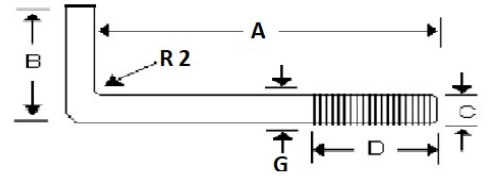
CHINESE ANCHOR BOLT QUALITY REPORT

REPORTE DE INGENIERIA
(ENGINEERING REPORT)

DEPARTAMENTO INGENIERIA DE CALIDAD QUALITY ENGINEERING DEPARTMENT					
					FOLIO:
			FECHA (DATE): 08/14/2024		
			NUMERO DE PARTE (PART NUMBER): N/P		
			DESCRIPCIÓN (DESCRIPTION): ANCLA 5/8" x 1 3/8" x 12"		
			PEDIDO (PURCHASE ORDER): N/P		
			CANTIDAD (QUANTITY): 1		
			CLIENTE (CUSTOMER): American Anchor Bolt inc.		
			<input type="checkbox"/> ACEPTADO / ACCEPTANCE <input checked="" type="checkbox"/> RECHAZADO / REJECTED		
N° (NUMBER)	ESPECIFICACIONES (STD. SPECIFICATIONS)	RESULTADO PATA 1 (MEASURED 1)	RESULTADO PATA 2 (MEASURED 2)		COMENTARIOS (COMMENTS)
A	11 7/8" - 12 1/8"	11 15/16"			
B	1.312" - 1.437"	1.369"			
C	0.6113" - 0.6234"	1 - 0.5962" 2 - 0.5967" 3 - 0.5965"			Diametro no cumple con especificaciones para 5/8" - 11 UNC
D	4.000" - 4.250"	4.025"			
E	.062" - .125" x 15° - 20°	N/P			No presenta chafal ni grados la pieza.
G	0.5589" - 0.5644"	0.5392"			Diametro no cumple con especificaciones para 5/8" - 11 UNC
R2	5/16" - 7/16"	3/8"			Radio de esquina presenta muesca y mal formacion.
DIAM. PITCH	0.5589" - 0.5644"	0.5388"			Diametro no cumple con especificaciones para 5/8" - 11 UNC
THREAD SIZE	5/8 - 11 2A	5/8 - 11 2A			
HARDNESS	80 - 100 HRB	86 - 87 HRB			
TENSILE	74,000 Minimo	81,473			
YIELD	54,000 Minimo	69,252			
RED. OF AREA	35%	64.75			
ELONGATION	18% Minimo	19.02			
COMENTARIOS / COMMENTS: * Pieza laminada en peines. Yellow box: out of specifications The mechanical properties comply with grade 2 according to SAE J429					
INGENIERIA DE CALIDAD (QUALITY ENGINEERING) NOMBRE NAME FIRMA SIGNATURE			CONTROL DE CALIDAD (QUALITY CONTROL) NOMBRE NAME: Edgar de la Rosa. FIRMA SIGNATURE		

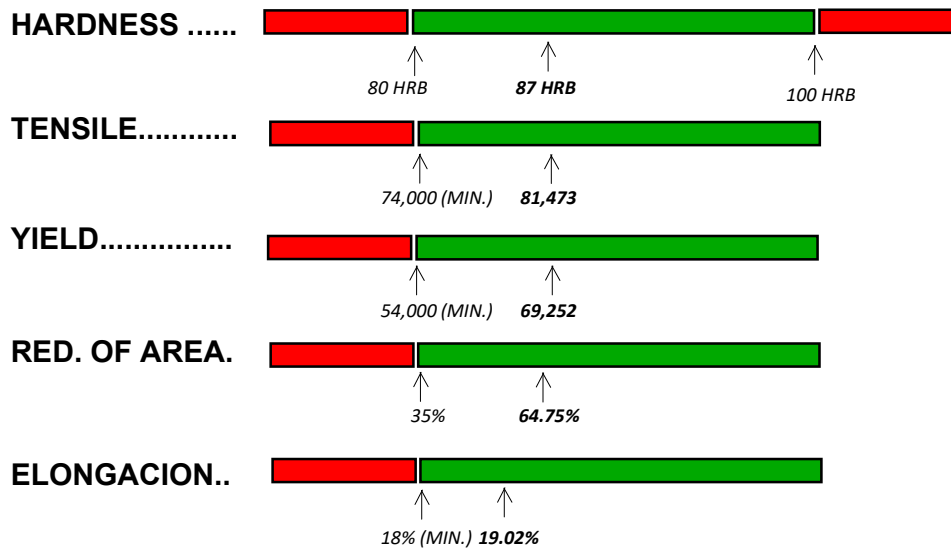
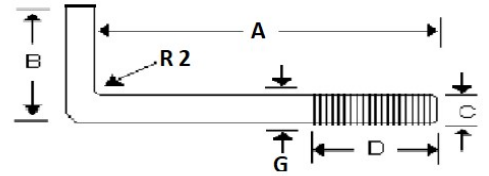


CHINESE ANCHOR BOLT QUALITY REPORT 1





CHINESE ANCHOR BOLT QUALITY REPORT 1



CHINESE ANCHOR BOLT PICTURE





**AMERICAN ANCHOR BOLT INC
 QUALITY REPORT**

**QUALITY REPORT
 MECHANICAL PROPERTIES**

Date Tested 30-ago-24

Extensometer KSMD 1105

Page 1 of 1

Gage Length 2.0"

Test No. 024-0003718

Customer :

Time: 12:13 P.M.

Part Number:

Description of Product : 0.554" CONSOLID 1541 COLD DRAWN BARS

Test Sample Number	SPEC	1	2	3	4	5
Test Diameter		0.554	0.553	0.554		
Area, Square Inch		0.2411	0.2402	0.2411		
Yield Load Lbs		23,658	23,485	23,976		
Yield PSI	100.000 Min.	98,145	97,780	99,464		
Yield Mpa	690 Min.	677	674	686		
Tensile Load LBS		26,620	26,650	26,640		
Tensile PSI	120.000 Min.	110,433	110,958	110,516		
Tensile Mpa	828 Min.	762	765	762		
Elongation %	12% Min:	19.10	20.48	20.15		
Reduction of Area %	35% Min:	62.78	65.25	62.11		
Reduced Diameter		0.338	0.326	0.341		
Hardness	24-30	25	26	26		
Hardness SCALE/TYPE	C	C	C	C		
Heat Number	2314985	2314985	2314985	2314985		
Vendor/Mill						
Diameter Purchased						
Type of material						
Facility	Pratsa	Pratsa	Pratsa	Pratsa		
Spec	Clase					

Material Testing Technician : ERNESTO PINTO FIGUEROA

Comments:

REFERENCE
 SAE J429

AMERICAN ANCHOR BOLT INC NATURAL STEEL PICTURE



PROTEC TORQUE QUALITY REPORT



CMPPRATSA, S.A. DE C.V. “Dip-Drain” U-bolt Coating Process & Protec-Torque™

CMPPRATSA, S.A. DE C.V. has installed a coating line that addresses the unique needs of U-Bolts and other large parts that include threaded sections. This “Dip-Drain”, coating process applies a coating which is more uniform than a “Dip-Spin” system and virtually eliminates all of the part-to-part contact that may cause poor coverage, part distortion and thread damage.

ProtecTorque™.....

- Is a chrome and heavy metal free coating developed by Consolidated Metal Products, Inc. for use on threaded fasteners.**
- Combines excellent corrosion resistance and uniform torque-tension performance in a coating that is dry-to-touch.**

Advantages

CMP’s Dip-Drain Process

- Uniform coverage. Surfaces are in full contact with the coating.**
- No part-to-part contact. Elimination of the thread damage and poor coverage caused in a Dip-Spin process.**
- Enhanced performance vs. Dip-Spin.**
 - Low cure temperature.**

ProtecTorque™

- Excellent corrosion resistance. Salt spray up to 800 hours or more.**
- Uniform torque-tension properties.**
 - Dry-to-Touch coating.**
- Low cure temperature eliminates**

**PROTEC TORQUE
QUALITY REPORT**



- part distortion.**
- Free of chrome and heavy metals.**

Technical Properties

- Zinc Phosphate substrate with a minimum coverage of 2,600 mg/ft².**
 - Alkaline clean prior to phosphate**
 - Organic, water reducible, oil bearing, corrosion inhibiting, and lubrication enhancing coating with an estimated film thickness of 0.1 to 1.2 mils (0.0001 to 0.0012 in.) or 3 to 30 microns.**
 - Uniform black in color, no chrome or heavy metals.**
 - No hydrogen related problems.**
 - Environmentally friendly product.**
-

**PROTEC TORQUE
PICTURE**



GALVANIZED QUALITY REPORT



CORROSION TEST REPORT

TEST METHOD: SALINE CHAMBER
ASTM B117 STANDARD

CUSTOMER: AMERICAN ANCHOR BOLT INC.

ATTENTION; *SALVADOR JIMENEZ*

DATE: SEPTEMBER 10, 2024

TEST DURATION: 4 CYCLES (96 HRS.)

GALVANIZED ACID

<u>PZ</u> <u>GALVANIZED</u>	<u>1ST . CYCLE</u> <u>(24 HRS.)</u>	<u>2 ND CYCLE</u> <u>(48 HRS.)</u>	<u>3 RD CYCLE</u> <u>(72 HRS.)</u>	<u>4 TH CYCLE</u> <u>(96 HRS.)</u>
ANCHOR BOLT	10 % WHITE CORROSION OF THE TOTAL AREA OF THE PIECE	20 % WHITE CORROSION OF THE TOTAL AREA OF THE PIECE	30 % WHITE CORROSION OF THE TOTAL AREA OF THE PIECE	40 % WHITE CORROSION OF THE TOTAL AREA OF THE PIECE



ATT.: ING DOLORES DÍAZ
TECHNICAL SERVICE AND
LABORATORY QUALITY
CONTROL

GALVANIZED ANCHOR BOLT PICTURE



PHOTOGRAPHIC REPORT

LOS ANGELES



HUNTINGTON BEACH



LONG BEACH



PALMDALE

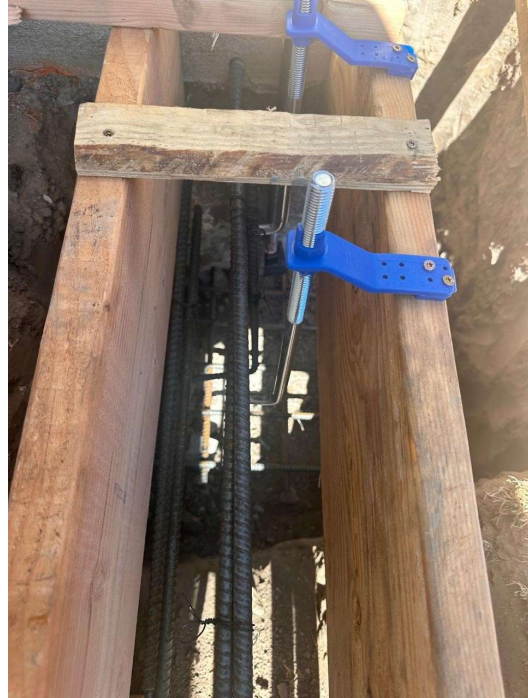


PHOTOGRAPHIC REPORT

INGLEWOOD



ALTADENA



CARSON

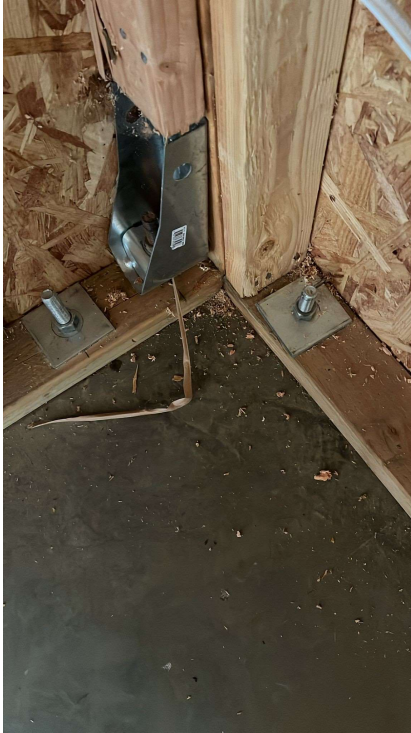


TORRANCE



PHOTOGRAPHIC REPORT

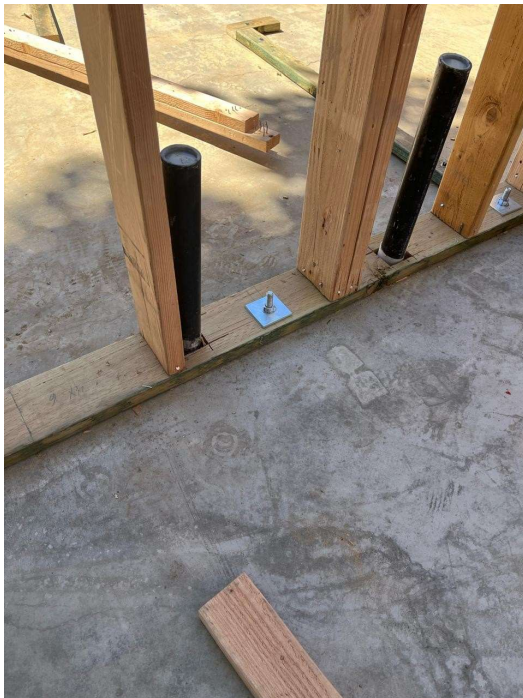
ANAHEIM



BURBANK



ONTARIO



PHOTOGRAPHIC REPORT



WITHOUT PROTECTION



COMPARATIVE





CONCLUSION

CONCLUSIVE RESULTS, ACCORDING TO THE TESTS PREVIOUSLY MENTIONED, THAT WHICH THE CHINESE FABRICATED ANCHORS AND AMERICAN ANCHOR BOLT INC. FABRICATED ANCHORS WERE SUBMITTED TO TESTING ARE SHOWN BELOW.

CHINESE ANCHOR BOLT

ARRIVED AT THE CONCLUSION THAT THE CHINESE FABRICATED ANCHOR DOES NOT MEET SOME OF THE STD SPECIFICATIONS.

THE MECHANICAL PROPERTIES COINCIDE WITH GRADE 2, ACCORDING TO THE STANDARD SAE J429.

IN ADDITION, NOT CONSISTING OF ADEQUATE ANTI-CORROSIVE PROTECTION, WITHIN LESS THAN 24 HOURS SUBMERGED IN A SALINE CHAMBER; THE ANCHOR WAS PRESENTED WITH CONSIDERABLE DAMAGE ALONG ITS SURFACE.

LOW QUALITY PRODUCT

AMERICAN ANCHOR BOLT INC.

THE MECHANICAL PROPERTIES COINCIDE WITH GRADE 5, ACCORDING TO THE STANDARD SAE J429.

100% STEEL INDUSTRY

LASTLY, THE AMERICAN ANCHOR PRESENTED CONSIDERABLE DAMAGE AT 96 HOURS SUBMERGED IN A SALINE CHAMBER.

COMPARATIVE:

GALVANIZED ANCHOR BOLT

TEST	CHINA	AAB
GRADE	2	5
CORROSION	24 HRS.	96 HRS.