# Hardware Database- HWDB App

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By: Aubri Parris

# **Logging In To CPAProduction**

1:35 PM Thu May 16	***	
DU	NET DEEP UNDERGROUN NEUTRINO EXPERIM	ID IENT
Username:		
Password:		
Accessing t	o the production or development vers Development	ion?
Gue	Login	n
	Register your FNAL certification	

- Login with a username and password or as a guest
- You can demo as a guest but to actually upload, you need a user and password

# **Getting There**

- On each page you'll press a button to get to the next one
- Their respective order is DUNE, Field Cage, Parts, and then Main I-Beam or Latch Beam
- Use name and email to become a recipient





🗢 @ 97% 🗰

🗢 @ 97% 🔳



# Visual Inspection

- Label code will be on each beam in the lab
- Check for structural damages, scratches along the surface, exposed fibers, bend profile, etc.

Selected Country/Institution	on: United States / University of	Texas at Arlington
Manufacturers:		
Date:		May 15, 2024 5:12F
Deute ID	DID	
	D	
Label Code		
Drawing Number	DFD-21-2101	
Drawing Humber		
Total # passed so far		
Total # passed so far		
Total # passed so far Visual Inspection Tap the available images below	to enlarge them.	
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage:	to enlarge them.	
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam	to enlarge them.	surface with exposed fiber.
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam 2. Bend Profile:	to enlarge them.	surface with exposed fiber.
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam 2. Bend Profile: Check if the profile is bend with	to enlarge them. is including but not limited to fracture, extreme rough to x y y y y y y y y y y y y y y y y y y y	surface with exposed fiber.
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam 2. Bend Profile: Check if the profile is bend with 3. Surface/Scratch check:	to enlarge them. x y y y is including but not limited to fracture, extreme rough s x y y y the tolerance of <3mm for entire beam. x y y	surface with exposed fiber.
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam 2. Bend Profile: Check if the profile is bend with 3. Surface/Scratch check: Fail if there is any scratch in the	to enlarge them. s including but not limited to fracture, extreme rough s x the tolerance of <3mm for entire beam. x to the tolerance of common the tolerance of to	surface with exposed fiber.
Total # passed so far Visual Inspection Tap the available images below 1. Structural Damage: Any structural damage in beam 2. Bend Profile: Check if the profile is bend with 3. Surface/Scratch check: Fail if there is any scratch in the 4. Screw holes:	to enlarge them. x is including but not limited to fracture, extreme rough s x the tolerance of <3mm for entire beam. x profile.	surface with exposed fiber.

#### Measurement

- Measure the length three times with a tolerance of 3mm
- Test jigs to see if they fit in the beam
- Properly glue and store reinforcement plate
- After, save and upload to HWDB

5-22 DM Wed May 15		@ 0	1:57DM T	hu Mau 16									<b>2</b> A 79M
5-23PM Wed May 10			1.07 PM 1	nu may 10									÷ € 76% 🔳
Measurements show more			Measur	ements	show le	SS							
Longth of L Boom (mm)													
Length of I-Beam (mm)			Laser Tes	t:	FAIL	PASS	ſ						
Meas. 1							)						
			Jigs Inform	nation an	d measure	ment:							
Meas. 2			Jigs ABCI	0 (Diame	er of ABCI	D and dist	tance bet	veen eac	h of them	).			
Meas 3			Jigs EFGI	1 (Diame) Diameter	of IGH an	H and dist	ance between	veen eac	n or tnem; them)	).			
			Jig ABCD		FAL	PASS	)	outinor					
Ave.					_		2						
	_		Jig EFGH:		FAIL	PASS	J						
S.D.			Jig IGH:		FAIL	PASS	١						
Expected 3425.19							)						
			Linite all										
Tolerance 3			Units – ali	measure	ments are	in <b>mm</b> .							
	_		Meas. 1	A Dia.	B Dia.	C Dia.	D Dia.	AB Dis.	A to Edge 1	B to Edge 1	C to Edge 1	D to Edge 1	
Diff.			Meas. 2										
			Meas. 3										
			Meas. 4										
After Measurements			Ave.			_							
Tap the available images below to emarge them.			S.D.										
E Bainforcement plate:			Expected	11.176	20	44,45	11.176	22.512	24.498	20.086	79.375		
	and a second sec		Tolerance	0.254	0.254	0.254	0.254	0.254	0.127	0.127	0.127		
Properly glued and cleaned, clamped, and stored for ~2h	rs for drying.		Diff.										
6 Einal Inspection				-A -C		eboes	~t						
(Entire Beam):	PASS		80081 J	1	EZ.	6		EDGE 2	<u>}</u>			. /	
			9	-4	ŁQ.	<	9	0-	y .	->>	0 0		$\sim$
				La Lo		-BOOK A	\_r						
Comment:				A to Edge *	P to Edge 4 4	to Edge 4 7	to Edge 4	N to Edge 1	O to Edge *	E Dia	E Dia	G Dia	H Dia
			Meas. 1	A to Edge 4	B to Edge 4 t	, to Edge 4 t	J to Edge 4	N to Edge 1	O to Edge 1	E Dia.	F Dia.	o bia.	H Dia.
		_	Meas. 2										
			Meas. 3										
When all leak OK, ten l	Uplead to HWDP!! below		Meas. 4						<u> </u>		<u> </u>		
when all look OK, tap	Obload to HMDR., below		Ave.										
			S.D.										
Sen	d via email		Expected	59.3344	16.8224	22.225	11.5824	17.435	17.435	11.1125	11.1125	11.1125	11.1125
230011			Tolerance	0.127	0.127	0.127	0.127	0.254	0.254	0.254	0.254	0.254	0.254
🖯 Uploa	d to HWDB		Diff.										

#### Latch Beam

- All the steps are the same as the main I-beam
- After visual inspection, measuring, save and upload to HWDB

1:26 PM Thu May 16		🕈 @ 82% 🔳	2:10 PM Thu May 16				•			🕈 🛛 77% 🔳	1:26 PM Thu May 16		•	🗢 🛛 82% 🔳
Close	Latch Beam	Print	Measurements	show less	5						4. Screw holes: Fail if hole is not smooth or e	xposed fiber, and could not be	smoothen using sandpaper.	
Selected Country/Institution:	United States / University of Texas at Arl	ington	Laser Test: Jigs A: (Diameter of Jigs BCDEF (BCDE	FAIL f A and the d EF Flange ga	pass distance of A f aps).	rom the edge	e).				Measurements show	more		
1			Jig 3: Units – all measure	ments are in	mm.						- New A	Length of Latch Beam (mm)		
Manufacturers:			A Dia. Meas. 1	G Dia. H	H Dia. I Dia	J Dis.	K Dia.	L Dia.		_	Meas. 1			
			Meas. 3 Meas. 4								Meas. 3			
Date:	May 16, 20	24 1:26PM	Meas. 5 Ave. S.D.							_	Ave.			
Label Code			Expected 43.834 Tolerance 0.254 Diff.	0.254	0.254 0.254	0.254	0.254	0.254		_	Expected	560.07		
Drawing Number DFD	21-2111		- 50304-	/-topr2			8008.5				Tolerance	0.784		
Total # passed so far			الجرئيت		<i>7.7</i> ,7	- mail 1	-itors	t.	<u>↓</u>		Diff.			
Visual Inspection Tap the available images below to enlarge	them.	_	A to Edge 4 Meas. 1 Meas. 2 Meas. 3	F to Edge 4 E to	o Edge 4 FE Dis	DC Dis.	CB Dis.	A to Edge 3			After Measurements Tap the available images bel 6. Final Inspection (Entire Ream):	FAIL MAYON PAS		
1. Structural Damage: X Any structural damage, including fracture,	extreme rough surface with exposed fiber.		Meas. 5 Ave. S.D.								Commonti			
2. Bend/Twisted:			Expected 67.437 Tolerance 0.127 Diff.	10.5816 : 0.127	70.816 12 0.127 0.127	12	12	41.783		_	comment.			
Surface/Scratch check:  Failed for any scratch in the beams.					, , , , , , , , , , , , , , , , , , ,	-april	-BOES BOES	t.	1. 1. 1. 1.		w	hen all look OK, tap "נ Send	Jpload to HWDB" below	
<u> </u>												Misend		

# Saving and Uploading

- Saving can be done on or offline
- All data must be entered in order to upload

10:22 PM Thu May 16	Length of I-Beam (mm)	***	<b>奈 @ 66% ■</b>
Meas. 1			
Meas. 2			
Meas. 3		]	
Ave.		]	
S.D.			
Expected	3425.19		
Tolerance	3		
Diff.			
5. Reinforcement plate: Properly glued and cleaned, 6. Final Inspection (Entire Beam): Comment:	Clamped, and stored for ~2hr	s for drying.	
W	/hen all look OK, tap "	Upload to HWDB" below	
	Send	l via email	
		d to HWDB	
	∲ <b>Save</b>	E Load	

#### **Box Beams**

- They will be QC'ed and stored in a separate FD2 app
- A proper process hasn't been made yet

