Calibration Date: 5/14/2020
Test Equipment: Humboldt HM-2800 Multi-Speed Load Frame
Software: Humboldt HM-2800 Load Frame VI (HM-VI)
Load Cell:

- Model: 363-B10-10K-20P1
- Class IIIL, 10S/ III, 3S
- Vmin: 0.429/ 1.286 lbs.
- 87-063 J686760L
- Output: 3.3mV/V at 10,000 lbf

Digital Panel Mount Meter:

- Model: DPM-3
- Excitation Voltage measured: 9.76132 V
- -> 0.0033 V X 9.76132 V = 32.212 mV at Max Force
- Meter scaling method: Coordinates of 2 points method
- -> "Lo In" = 00.000
- -> "Lo rd" = 00000
- -> "Hi In" = 34.390 (refer to "Note:" below)
- -> "Hi rd" = 44482
- -> at zero load press reset
- Analog output board (P4): unipolar
- -> "An Lo" = 00000
- -> "An Hi" = 44482

Standard: 22 Kip MTS machine located TE 110

Unit conversion:
1 lbs. = 4.4482 Newtons
Note:
The higher the "Hi In" value the lower the display reading.
Example:

"Hi In" Setting	MTS Reading	DPM-3 Reading	High or Low
20.000	22241	38144	too high
34.390	22241	22185	little low
40.000	22241	19071	too low

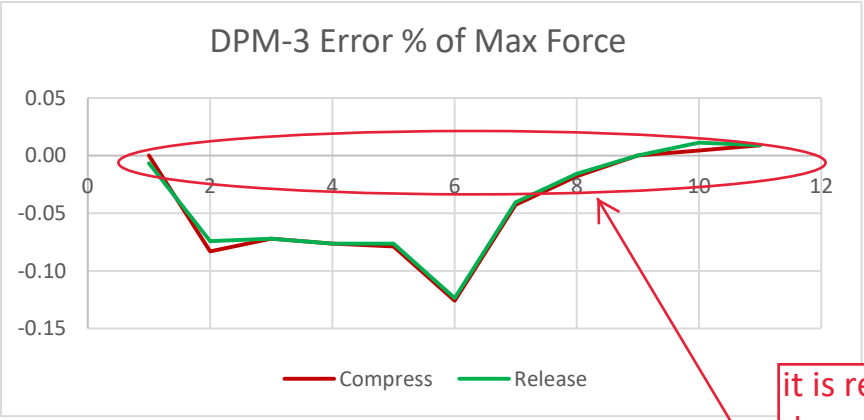
Calculated Numbers:

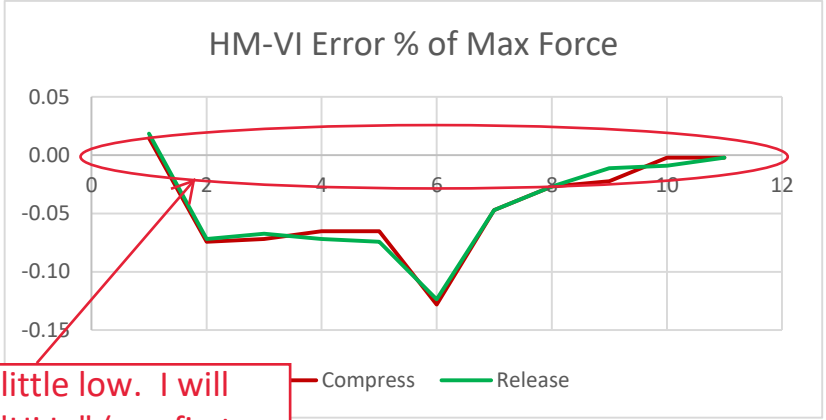
#	Load (lbf)	Load Increment (lbf)	Load (Newtons)	Load Increment (Newtons)	Analog (Volts)
1	0		0.00		0.00
2	50	50.00	222.41	222.41	0.05
3	250	200.00	1,112.05	889.64	0.25
4	500	250.00	2,224.10	1,112.05	0.50
5	1,000	500.00	4,448.20	2,224.10	1.00
6	5,000	4,000.00	22,241.00	17,792.80	5.00
7	9,000	4,000.00	40,033.80	17,792.80	9.00
8	9,500	500.00	42,257.90	2,224.10	9.50
9	9,750	250.00	43,369.95	1,112.05	9.75
10	9,950	200.00	44,259.59	889.64	9.95
11	10,000	50.00	44,482.00	222.41	10.00

I added this section and will fill this in on the next calibration.

Measured Numbers:

#	MTS 22 Kip Standard Load (Newtons) Standard	DPM-3 Reading Compress measure	Load Cell Signal Voltage Compress measure	Analog output Voltage Reading Compress measure	DPM-3 Reading Release measure	Load Cell Signal Voltage Release measure	Analog output Voltage Reading Release measure	DPM-3 Error % of Max Force Compress calculate	DPM-3 Error % of Max Force Release calculate	HM-VI Reading Compress measure	HM-VI Reading Release measure	HM-VI Error % of Max Force Compress calculate	HM-VI Error % of Max Force Release calculate
1	0	0		0.001	-3		0.002	0.00	-0.01	6.5	8	0.01	0.02
2	222	185		0.044	189		0.043	-0.08	-0.07	189	190	-0.07	-0.07
3	1,112	1,080		0.243	1,080		0.244	-0.07	-0.07	1080	1,082	-0.07	-0.07
4	2,224	2,190		0.493	2,190		0.493	-0.08	-0.08	2195	2,192	-0.07	-0.07
5	4,448	4,413		0.994	4,414		0.993	-0.08	-0.08	4419	4,415	-0.07	-0.07
6	22,241	22,185		4.989	22,186		4.988	-0.13	-0.12	22184	22,186	-0.13	-0.12
7	40,034	40,015		8.998	40,016		8.998	-0.04	-0.04	40013	40,013	-0.05	-0.05
8	42,258	42,250		9.500	42,251		9.500	-0.02	-0.02	42246	42,246	-0.03	-0.03
9	43,370	43,370		9.751	43,370		9.751	0.00	0.00	43360	43,365	-0.02	-0.01
10	44,260	44,262		9.953	44,265		9.953	0.00	0.01	44259	44,256	0.00	-0.01
11	44,482	44,486		10.002	44,486		10.002	0.01	0.01	44481	44,481	0.00	0.00





it is reading a little low. I will decrease the "Hi In" (see first page) and this should reduce the error.