

# A Simple Mirror System to look for Bubbles in the LAPD Tank

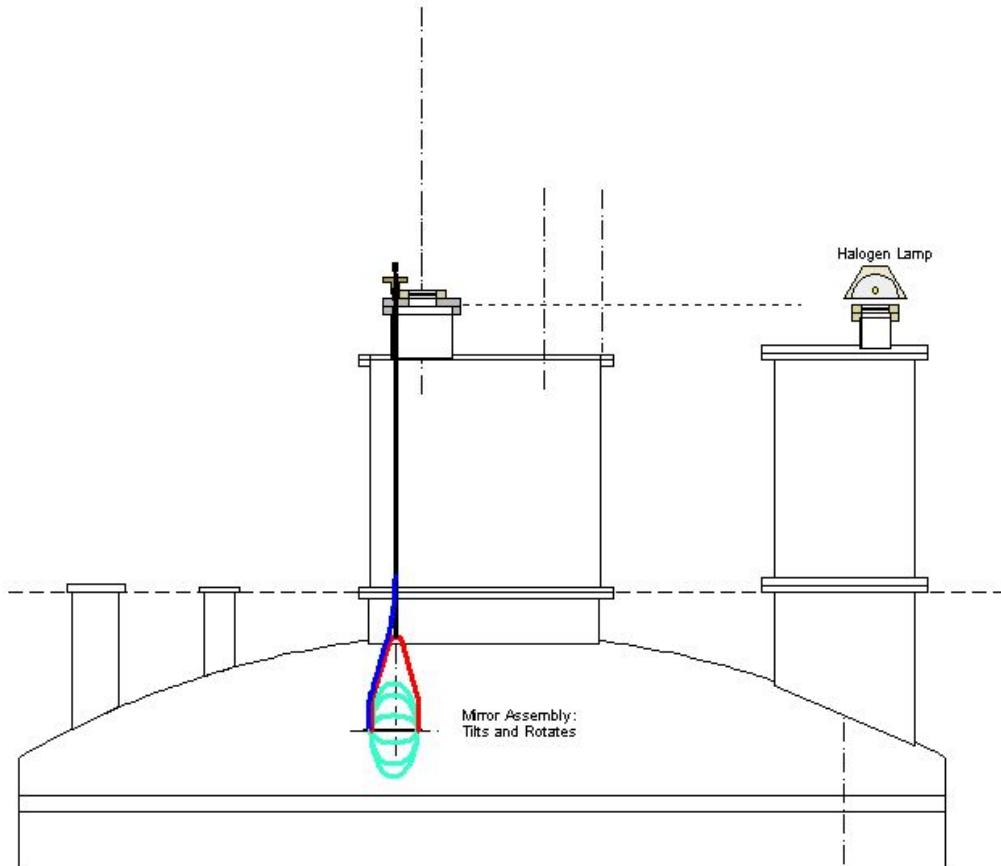
Hans Jostlein

November 11, 2010

## *Summary*

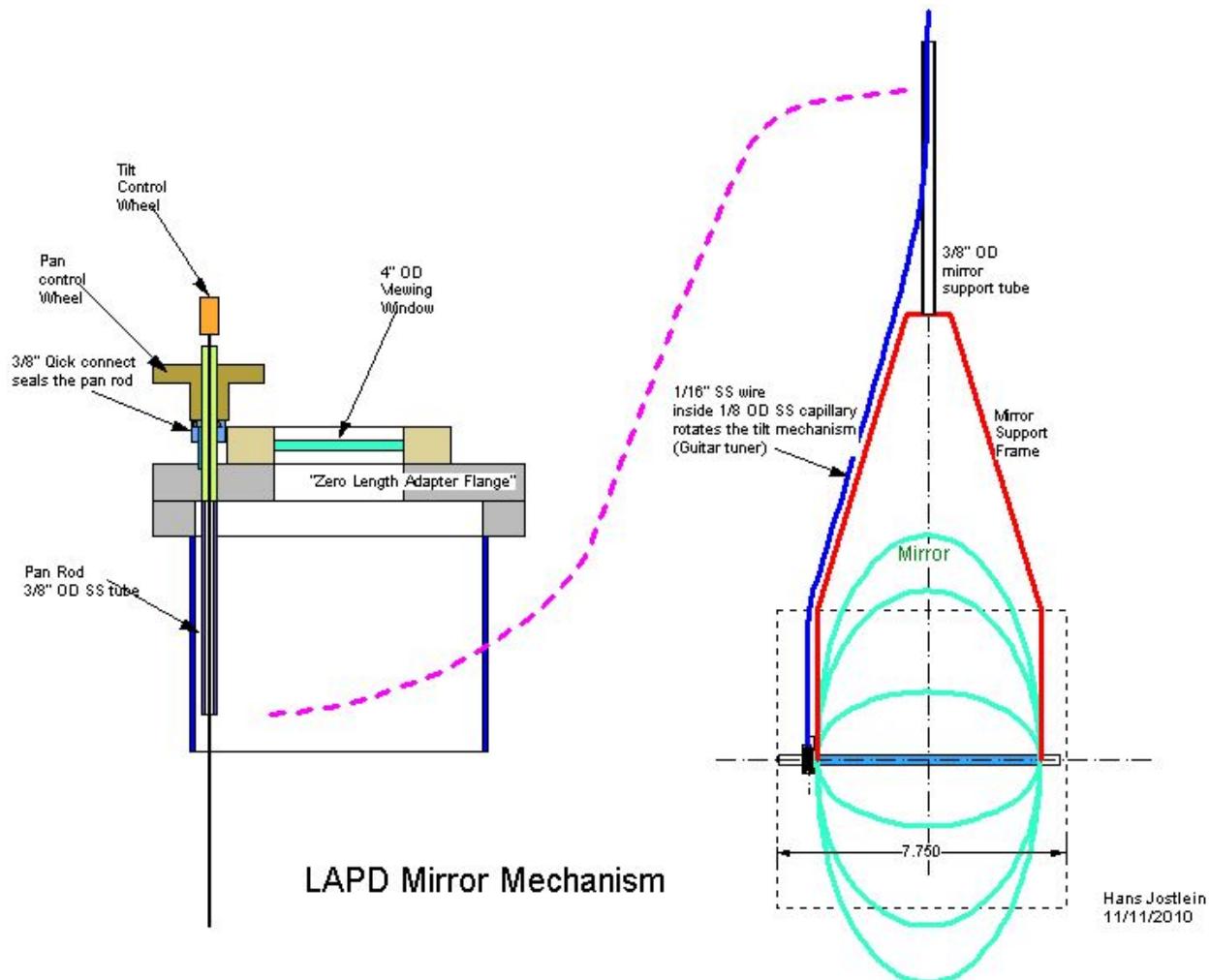
It may be useful to look into the LAPD tank, e.g. to look for bubbles.

We propose a simple arrangement that uses a viewport and a mirror that can be tilted and panned manually from the outside. A separate window is used for illumination with an outside halogen lamp.



Mirror Layout Detail in the LAPD Tank

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### Costs

The parts costs are \$ 548.34 (see below).

There will be almost no machining and welding costs.

			# requ'd	Cost	subtotal
McMaster	SS 303 rod 1/16" OD, 6 ft long	88915K37	2	\$10.56	\$21.12
	SS tube, 1/8" OD, 0.069" ID, 6 ft , hard	8457K516	2	\$20.86	\$41.72
	SS 316 L tube, soft, 1/8 OD x 0.069 ID x 6 ft	89785K13	2	\$48.00	\$96.00
Kurt Lesker	Viewport Kodial, 6"OD,.78" thick	VPZL-600	1	at hand	
	Quickconnect for 1/2" tube		1	at hand	
	Flange Blind, 10" OD CF		1	at hand	
	<b>Zero length reducer flane 10" OD to 6" OD</b>	RF1000x600	1	\$305.00	\$305.00
Edmunds Optical	First surface flat mirros, 4-6 lambda/inch, size 254 x 313 x 3 mm	NT46-654	1	\$84.50	\$84.50
ebay	Guitar Tuner		1	at hand	
			<b>Total</b>		<b>\$548.34</b>