

SAFETY EQUIPMENT MATERIAL

KE 0022400

ETHYL GASOLINE CORPORATION

BOSTON DIVISION

STATLER OFFICE BUILDING

BOSTON, MASS.

INTER-OFFICE
CORRESPONDENCE

August 26, 1941

Mr. Henry Ball
Ethyl Gasoline Corp.
1105 Park Square Bldg.
Boston, Mass.

Dear Hank:

I am attaching the blue prints of the circulation system as developed by the Socony boys in Albany and ourselves. In the case of the blue print you will note a rough flow chart of the entire system whereas on the photostat you will notice the drawing of the sludge separator.

Referring to the blue print and starting at the suction ~~nozzle~~ you will note that I have inserted a check valve. This valve is necessary in priming the system previous to the circulation.

I have omitted the sizes of the pipe but as explained to you verbally, Frank Ferenczi and I found that as soon as we attempted to use pipe smaller than 2 inches we did not have too much success in picking up the heavy material (scale).

You will also note that I have shown hose connections between the end of the pipe and the entrance to the sludge separator. It is quite possible that this might be cut down to an inch and a half but to be perfectly frank we have always used two inch suction hose in that that was what was available.

You will also note the water storage tank and this is to be used mounted on a truck for priming the system in areas where water is not readily available and can also be used for reverse flushing the sludge separator. In priming the system the gate valve on the water tank can be opened while the suction line lays at some point below it.

CC To Mr. Taylor.

continued

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The sludge separator can be filled by merely turning the two-way valve around the sludge separator direct to the suction side of the pump and then through the second two-way valve to a gate-valve in the top of the sludge separator. Incidentally, on the top of the sludge separator there is a 1/4 inch plug which we use for air-venting the system.

The same hook-up can be used in reverse flushing the sludge separator in that there is a two inch valve at the bottom of the sludge separator.

After the system is once primed you can reverse all three two-way valves and hence the system will work by drawing the product through the sludge separator, on the suction side of the system and then discharging the water into the "Christmas Tree" at the man-head.

The photostat of the sludge separator does not show the two inch valve on either the top of the separator or the bottom of the separator but in our working unit they are there. See attached photograph.

Another point that we found necessary in removing the scale was the necessity of hitting the scale itself, with the ~~high~~^{hose} pressure. In cases where a body or volume of water was allowed to build up over the scale we were unable to move it due to the fact that the inertia was dissipated by the body of water rather than being used on the scale. In order to accomplish this we found that it was necessary to jack-up one end of the horizontal tank and place the suction line on the King-Valve end. In this way enough water is stored over the suction nozzle to continue the circulation, yet we could hit the other end of the tank and break the scale loose directly.

In regard to the history of the difficulty experienced by Socony I feel that you have more of this information than I do. The only point I have to add is that most of the development has been at the instigation of Frank Ferenczi due to the fact that Frank got stuck in a man-head and secured such a fright that he now refuses to enter the tank.

One of the problems yet unsolved is to find some filter material that we can place in the sludge separator which will not oxidize. The steel wool now used is good for approximately 4 or 5 jobs and then we have to pull the unit apart and replace the steel wool. If we attempted to use any fine material such as rock wool, etc., I am afraid it might build up too much resistance on the

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suction side of the system. One possibility that we have not yet investigated which might be used is spun glass wool.

I also feel that keeping the filter unit on the suction side of the system is a very definite advantage in that it keeps the heavy material out of the pump and in this way allows the pump to operate at its full efficiency.

Yours truly,

Phil

CF

P.S. Hank I had a slide made at Eastman's Shop in the States. Will you pick this up for me and let me know the cost so that I can send you a check.

Best of luck at Convention and let's know the date when you get back.

Phil