

Hopper Ullage Check

The Contracting Officer's Representative will periodically check the reported hopper ullage using a tape measure or other distance measuring device. The Contractor shall have on the dredge a clearly readable weighted tape, marked in tenths of a foot, capable of measuring throughout the full range of hopper depth. The weight for this tape shall be a 6-inch diameter disk weighing between 2 and 3 pounds. The Contracting Officer's Representative will review the hopper ullage data to insure that the system is operating within acceptable accuracy (0.1 foot), directing the contractor to re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test.

Purpose: To verify accuracy of hopper ullage sensors.

Material Required:

- 1) Hopper Ullage Check form.
- 2) Weighted tape, marked at intervals of a tenth of a foot.
- 3) Handheld radio to communicate with bridge

Procedure:

With hopper cleaned out as much as possible, measure the ullage (distance from top of hopper to surface of the residual material/water) as closely as possible to the fore and aft ullage sensors. If it is not possible to take an ullage at the sensor location then a reading shall be taken port and starboard of the sensor and then averaged. At each location, the weighted tape shall be lowered until the weight touches the fluid surface and the distance noted. Then read and record the SI system measured values indicated on the computer screen. Calculate the difference between the manually and system-measured ullage measurements.

Fill the hopper with slurry or water to a level high enough to provide a single, continuous, horizontal fluid plane. Repeat the measurement procedure.

During the check, the dredge should be in relatively calm waters to minimize wave induced measurement errors. Difference between manually and system-measured values should not exceed 0.1 foot.

	Time	Zone			Time	Zone
START					End	
Light (residual/almost empty) Hopper-Level Check						
	Manually Measured			SI Ullage		
	Port	Stbd	Center	Average (ft)	Instrument	Difference (ft)
Fwd				0		0
Aft				0		0
Loaded (Full) Hopper-Level Check						
	Manually Measured			SI Ullage		
	Port	Stbd	Center	Average (ft)	Instrument	Difference (ft)
Fwd				0		0
Aft				0		0
Check Results:			pass			fail
Remarks:	-					