



MMC INTERNATIONAL CORP

OPERATING AND MAINTENANCE INSTRUCTIONS

FLEXI-DIP SAMPLING TAPE (RESTRICTED GAUGING)

MODEL D-2562-1FS

FILE NO A2562-1FSIM JAN.2007

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SECTION I

1.0 INTRODUCTION

THE MMC Gauging Sampling system is a part of a growing family of MMC products designed to make the gauging and sampling of bulk petroleum and chemical products, more accurate and safer.

The easy use and safety in utilization of MMC Product equipment, is always foremost in the minds of our designers

The use of MMC Restricted Gauging and Sapling Equipment, in conjunction with MMC Vapor Control Valves, is well known and established worldwide.

SECTION II

2.0 BASIC OPERATING PROCEDURE (PLEASE REFER TO FIGURE 1, AND DRAWING D-2562-IFS AND D-2519-1)

This operation requires the use of MMC'S sampler tape shown on drawing D-2562-IFS and a suitable sampler container, such as shown on drawing D-2519-1.

Attach the sampler container to the snap hook the sampler tape and fully rewind.

As for as cargo gauging, the sampler tape barrel is inserted into the station, and the securing collar tightened. The station valve can now be opened and the sample container lowered into product.

A product sample is being taken into the sample cylinder as it is lowered to the desired sample level. Upon obtaining the desired sample level, the cylinder is raised with a continuous motion up into the station pipe chamber, the station valve is closed.

The sampler tape can now be removed from station. Carefully lower the sample container from barrel and disconnected the sampler hook, The contents of the sample container may now be poured into suitable transfer container.

Note: For "S" type valve used in conjunction with larger sample containers, it is necessary to open the top cover of the valve to connect the sampler tape to sample container.

SECTION III

3.0 SYSTEM GROUNDING AND OTHER GAUGING AND/OR SAMPLING PRE-CAUTIONS

As previously mentioned, the sampler assembly is provided with a grounding cable.

It is recommended that the sampler assembly grounding cable be properly connected to a known good hull vessel ground, at all times during usage.

However, Please also refer to the specific equipment grounding directives of your company or other regulatory bodies, which should be strictly adhered as the primary operator responsibility.

- 3.1 The sampling of products known to be static accumulators should only be carried out with prior approval of the local site authorities.

While such judgements are a matter of experience and established recommendations, if in doubt, do not proceed with a sampling operation until such is resolve, with the proper authorities.

- 3.2 In the process of sample collection, excess product may remain within the sampling valve interior, due to the sample bottle capacity. This may be case when double dipping using a 1/3 liter sampler, with a 1/2 liter sampler bottle.
- 3.3 In the case of sampling static accumulative type products, the above procedures is not recommended without an inert gas blanket over the product.

In the later case the excess product should be collected in another sampler bottle, and either returned to tank by approved means, or otherwise safely disposed of.

- 3.4 The sampling of certain products may require the use of other special protective devices. The sole use of this equipment does not eliminate the need for such additional protective measures, unless so authorize by responsible parties.

SECTION IV

4.0 EQUIPMENT CARE AND MAINTENANCE

The care and maintenance of this equipment is the responsibility of the end user.

Depending on the types of different products, which are to be sampled, the necessity for cleaning of the reel housing becomes self-evident.

The sampler valve barrel and associated equipment are easily cleaned with any standard cleaning solution or solvent.

- 4.1 The gauging tape, which serves to raise and lower the provided sampler tube, is also used to provide a ground path between the sampler tube and main reel housing.

The continuity of the gauging tape ground path should be verified at frequent intervals. A simple ohmmeter check is all that is required.

- 4.2 The lack of ground continuity through the gauging tape to the main tape reel housing and then to the grounding cable, is a cause for concern.

A first check would be grounding cable to housing, and then gauging tape from its reel hub ground points, to the tape snap hook end

- 4.3 A gauging tape with broken or fractured steel core should be replaced.

- 4.4 If a gauging tape requires replacement, please be careful to notice the order of parts removal, to insure a correct re-assembly. Always re-check ground continuity upon completion of gauging tape replacement

WARRANTY

MMC SONIC ULLAGE, INTERFACE, TEMPERATURE & TRIPLE FUNCTION TAPE SAMPLING TAPES:

The seller, MMC or its licensed agents, fully warrants equipment of its manufacture against defects in materials or workmanship for a period of one year from the date of shipment. No other warranty period, in excess of one year, may be expressed or implied by sub-agents or others, unless authorized in writing by MMC. The liability of the seller under this warranty is limited, at seller's option, solely to repair or replace with equivalent equipment.

The seller, upon the expiration of the warranty period, has the option to apply a limited credit, not to exceed the original equipment sales price, toward the purchase of a new piece of equipment, if returned equipment is beyond reasonable repair. In any event, non-warranty repair charges will be quoted to buyer, for authorization, before repair work commences.

In the Event of Returns for Warranty Repairs:

This warranty does not include mechanical parts failure due to wear or corrosion from normal usage, nor does it cover limited life electrical components, or elastomer seals.

- A. The buyer is to notify the seller in writing upon discovery of the defects.
- B. Upon receipt of written authorization from the seller, the equipment is to be returned as directed, transportation prepaid by the buyer.
- C. Buyer is to disclose the use of this product within hazardous chemical substances. It is the responsibility of the buyer to clean or decontaminate this product before returning for repairs. Buyer's refusal will void repair warranty at seller's option.
- D. If seller's examination of such equipment disclosed to his satisfaction that defects were not caused by negligence, misuse, improper installation, accident or unauthorized repair or alteration by the buyer, repairs will be immediately affected.
- E. Buyer is to provide shipping instructions for the return, including mode of transportation.

This warranty is in lieu of all other warranties, expressed or implied, including that implied of fitness for a particular purpose to the original purchaser or to any other person. Seller shall not be liable for consequential damages of any kind.

IMPORTANT:

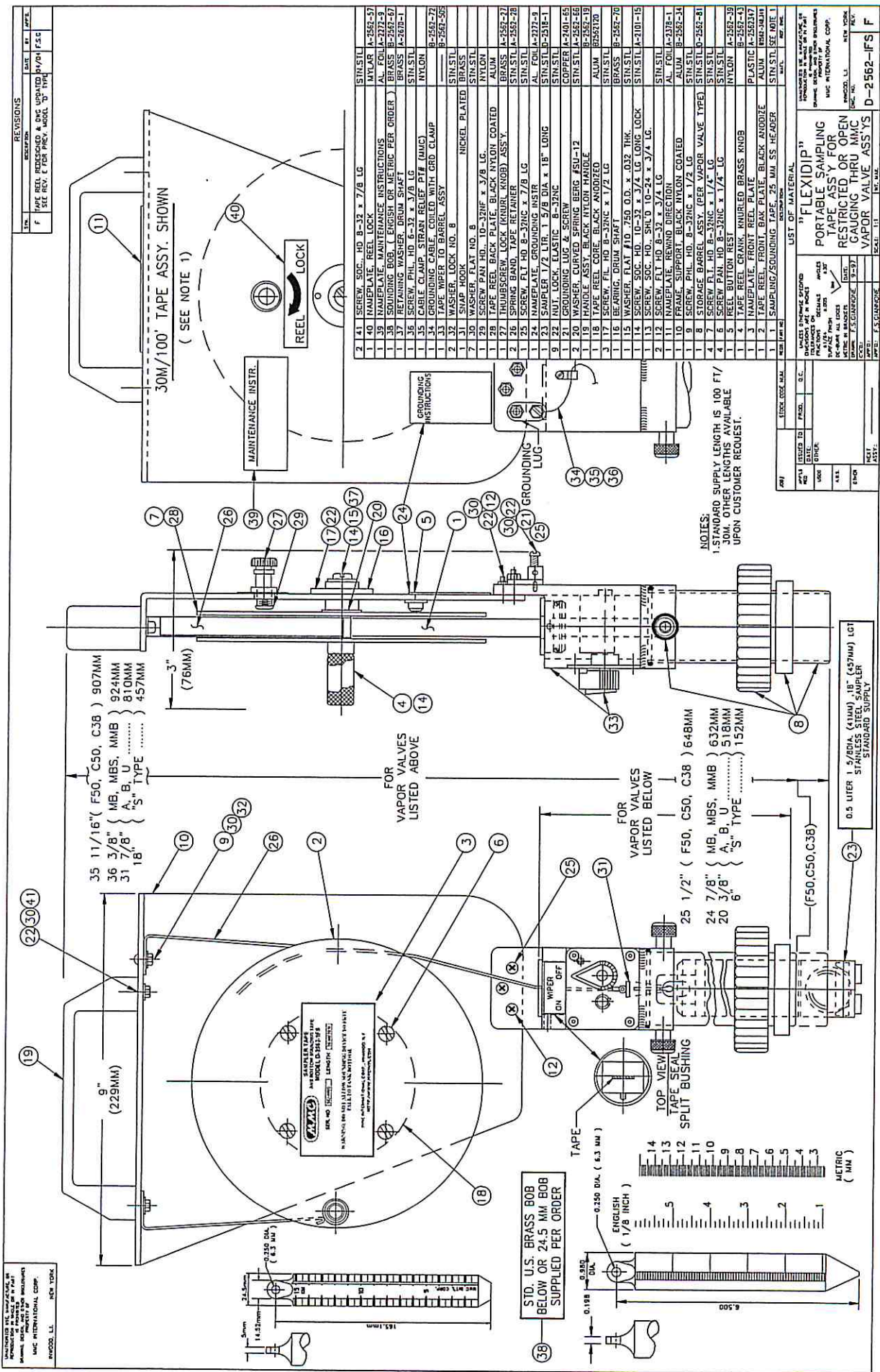
The equipment has been certified as intrinsically safe instrument for only those classes or categories of hazardous areas so stated on the equipment label, bearing the mark of the applicable approval agency. No other usage is implied or otherwise authorized.

Unauthorized repair or component replacement by the user, will void this warranty, and may affect the intrinsic safety of the equipment.

SECTION VII

LIST OF DRAWINGS

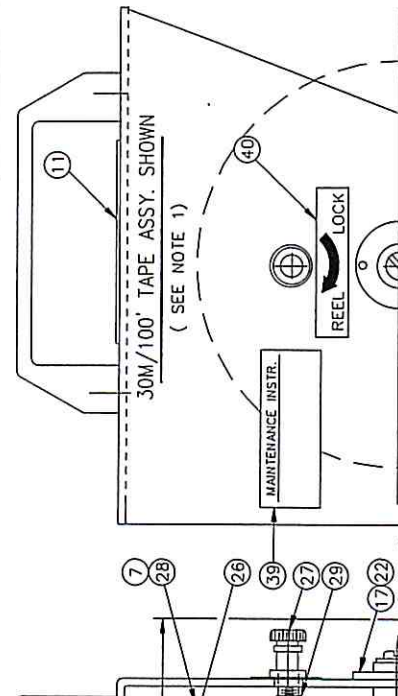
<u>DRAWING NO.</u>	<u>REVISION</u>	<u>DESCRIPTION</u>
D-2562-IFS	F	"FLEX-DIP" SAMPLING TAPE RESTRICTED GAUGING.
D-2519-1	C	SAMPLERS FOR TANK GAUGING AND SAMPLING STATIONS



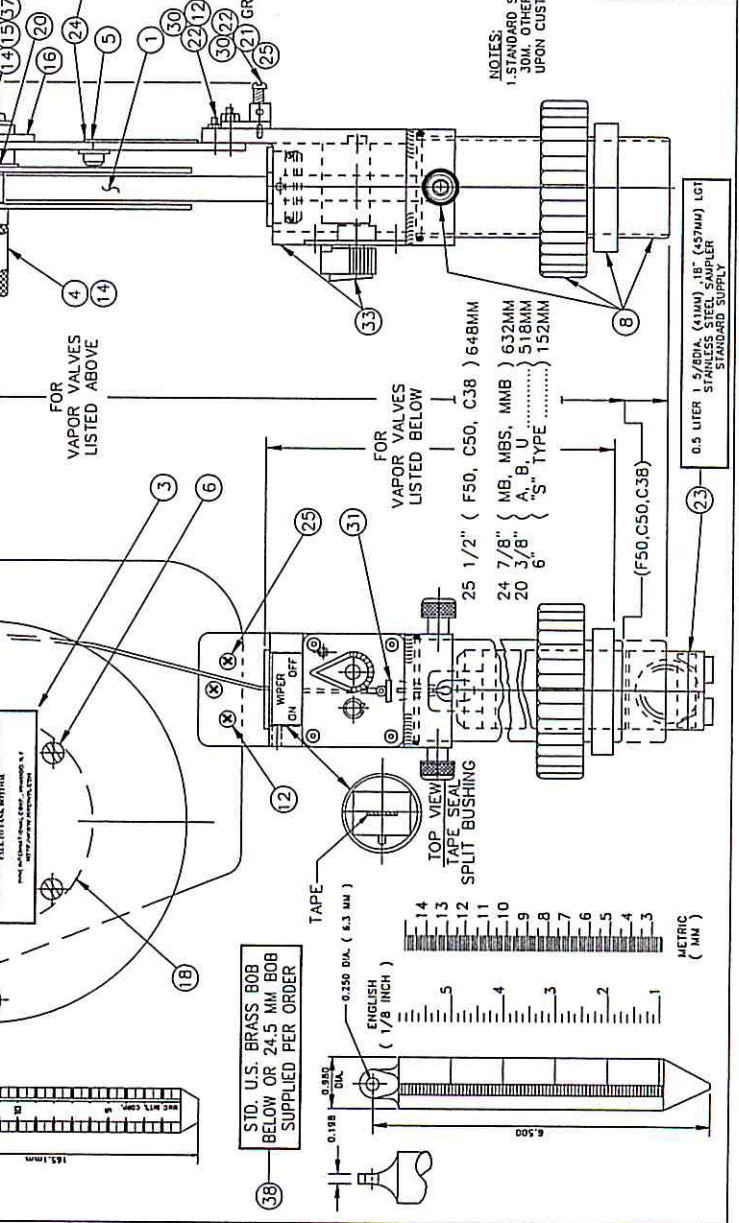
REV.	DATE	BY	APP.
F			

REV.	DATE	DESCRIPTION
F		REV. REEL REDESIGNED & DWG UPDATED BY/WH/FSC
		REV. REV. C. FOR PART. MODEL B. THIS

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QTY	DESCRIPTION	UNIT	REF. NO.
2	41 SCREW, SOC., HD. B-32 x 7/8 LG.	STN/STL	
1	40 NAMEPLATE, REEL LOCK	NYLAR	A-2562-57
1	39 NAMEPLATE, MAINTENANCE INSTRUCTIONS	AL. FOLIA	A-2372-9
1	38 SOUNDING BOB, (ENGLISH OR METRIC PER ORDER)	BRASS	B-2562-57
1	37 WIPER, TAPERED, 1/2" DIA. X 1/2" LG.	ALUM.	B-2562-57
1	36 SCREW, PHIL. HD. B-32NC x 1/2 LG.	STN/STL	A-2610-1
1	35 CABLE CLAMP, STRAIN RELIEF P.T.# (MUC)	NYLON	B-2562-72
1	34 GROUNDING CABLE, COILED WITH GRID CLAMP	NYLON	B-2562-72
2	33 TAPE WIPER TO BARREL ASSY	STN/STL	B-2562-56
1	32 WASHER, LOCK NO. 8	BRASS	
1	31 SHAP HOOK	NICKEL PLATED	
7	30 WASHER, FLAT NO. 8	STN/STL	
1	29 SCREW, PHIL. HD. 10-32NF x 3/8 LG.	NYLON	
1	28 TAPE REEL BACK PLATE, BLACK NYLON COATED	ALUM.	
1	27 TAPE REEL CORE, BLACK ANODIZED	ALUM.	A-2562-27
2	26 SPRING BAND, TAPE RETAINER	STN/STL	A-2562-26
1	25 SCREW, FLT. HD. B-32NC x 7/8 LG.	STN/STL	A-2372-9
1	24 NAMEPLATE, GROUNDING INSTR.	AL. FOLIA	A-2372-9
1	23 SAMPLER 1/2 LTR. 1 5/8 DIA. X 18" LONG	STN/STL	D-2518-1
9	22 NUT, LOCK, ELASTIC B-32NC	STN/STL	
2	21 GROUNDING LUG & SCREW	COPPER	A-2401-65
2	20 WASHER, CURVED SPRING BERG FSU-12	STN/STL	A-2562-66
1	19 HANDLE ASSY, BLACK NYLON COATED	ALUM.	B-2562-19
3	18 TAPE REEL CORE, BLACK ANODIZED	ALUM.	B-2562-27
1	17 BEARING, BRONZE, 1/2 LG.	BRASS	B-2562-20
1	16 WASHER, FLAT NO. 8, 0.12 THK	STN/STL	A-2562-20
1	15 SCREW, SOC. HD. 10-32 x 3/4 LG. LONG LOCK	STN/STL	A-101-15
2	14 SCREW, FLT. HD. B-32 x 3/4 LG.	STN/STL	
2	13 SCREW, FLT. HD. B-32 x 3/4 LG.	STN/STL	
1	12 SCREW, PHIL. HD. B-32NC x 1/2 LG.	ALUM.	B-2562-14
1	11 NAMEPLATE, REWIND DIRECTION	ALUM.	B-2562-11
1	10 FRAME, SUPPORT, BLACK NYLON COATED	STN/STL	D-2562-81
1	9 SCREW, PHIL. HD. B-32NC x 1/2 LG.	STN/STL	
1	8 STORAGE BARREL ASSY. (PER VAPOR VALVE TYPE)	STN/STL	D-2562-81
4	7 SCREW, FLT. HD. B-32NC x 1/4 LG.	STN/STL	
1	6 TAPE REEL CORE, BLACK ANODIZED	ALUM.	B-2562-27
1	5 REEL BUTTON, BRASS, 1/4 LG.	NYLON	A-2562-19
1	4 TAPE REEL CRANK, MURLED BRASS KNOB	PLASTIC	A-2562-17
1	3 NAMEPLATE, FRONT, BAK PLATE, BLACK ANODIZE	ALUM.	B-2562-17
1	2 TAPE REEL, FRONT, BAK PLATE, BLACK ANODIZE	STN/STL	SEE NOTE 1
1	1 SAMPLING/SOUNDING TAPE, 25 MM SS HEADER	NYL.	REF. NO.



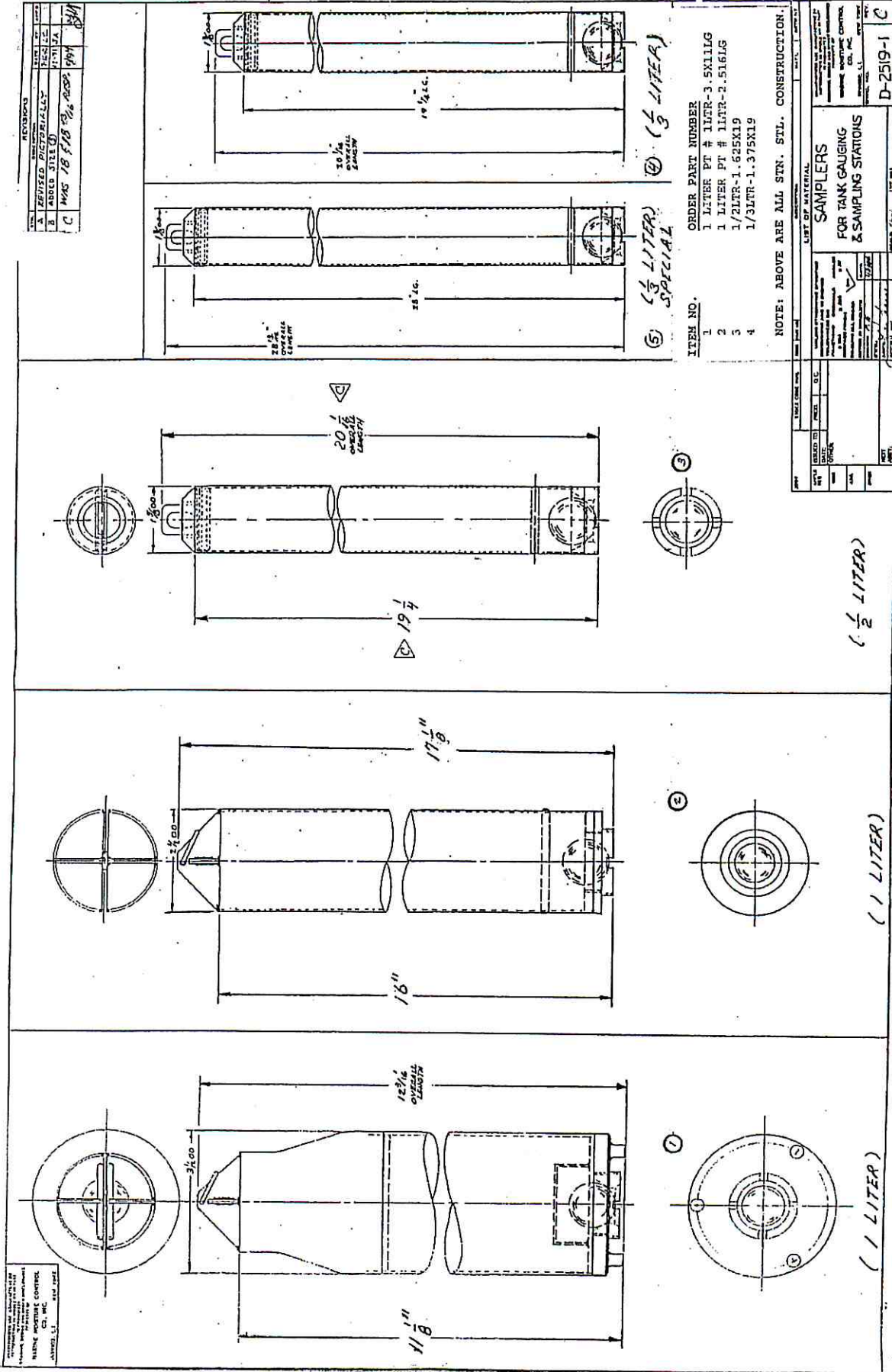
QTY	DESCRIPTION	UNIT	REF. NO.
1	38 STD. U.S. BRASS BOB BELOW OR 24.5 MM BOB SUPPLIED PER ORDER		

NOTES:
 1. STANDARD SUPPLY LENGTH IS 100 FT/30M. OTHER LENGTHS AVAILABLE UPON CUSTOMER REQUEST.

REV.	DATE	DESCRIPTION
F		REV. REEL REDESIGNED & DWG UPDATED BY/WH/FSC

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REVISIONS	
NO.	DESCRIPTION
A	REVISED DIMENSIONALLY
B	ADDED SIZE (C)
C	MAS 18 FEB 1968 ADD 194

MATERIAL	
ITEM NO.	DESCRIPTION
1	STAINLESS STEEL
2	BRASS
3	ALUMINUM
4	COPPER

NATIONAL INSTRUMENT CONTROL
 CH. INC. 1940 19TH ST.
 ANN ARBOR, MI 48106