

# SOIL SAMPLING TOOLS

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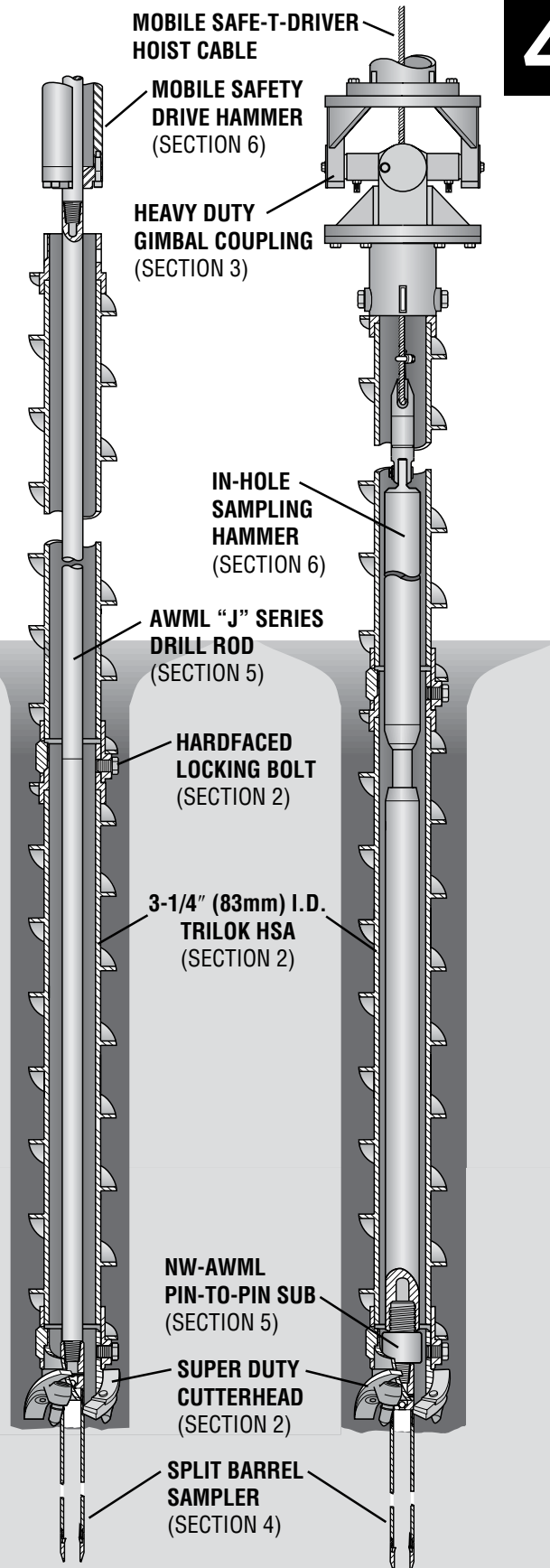
Mobile designs and manufactures the most widely used sampling tools and accessories on the market today. Used in conjunction with our complete line of hollow stem augers, they meet both the industry's geotechnical and environmental sampling demands.

Sampling tools to recover representative samples are available in two distinct types: those to recover disturbed samples and those to recover relatively undisturbed samples.

The first type recovers samples that contain all constituents in their proper portions but not necessarily in their natural or insitu form and are generally used for environmental applications. Examples are the ADO or LYNAC Standard Penetration Samplers. The second type, such as the thin wall or "Shelby" Tube Sampler, are generally used for geo-technical and environmental applications to recover high quality samples suitable for detailed laboratory analysis.

Environmental exploration requires sampler liners that are chemically compatible with the subject formation for custodial care of potentially dangerous samples. Conditions may also require frequent health examinations, possible use of protective clothing with respirators, extensive training and special permits.

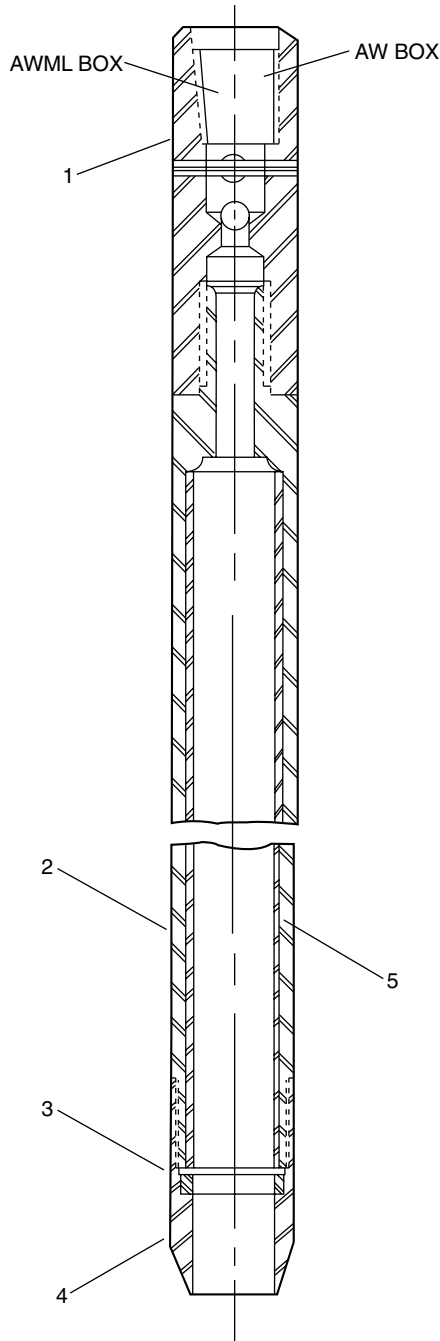
To help meet this challenge, a series of new techniques and tools have been developed by MOBILE DRILL® such as the MOSS (Mobile Open Spindle Sampling System), which includes both a basic and an overshot series for 3-1/4" (83mm) through 6-5/8" (168mm) I.D. hollow stem augers. This new equipment provides at least a two-fold increase in productivity without a reduction in quality. This equipment also facilitates the rapid and accurate completion of the environmental inventories mandated by federal, state and local regulations.



Key: \* Designates weights less than 1 lb (.5kg)

†Consult Factory

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## MOBILE'S LYNAC® SPLIT BARREL SAMPLER (FAST THREAD VERSION)

Mobile's LYNAC® Sampler is an improved version of the industry standard split barrel sampler. It includes a shoe, barrel and head with "fast threads" to speed assembly and disassembly. Optional **MOBILOK™**, tapered threads (AWML) expedite attaching the sampler to driving tools. Normally driven by a 140 lb. Safety Hammer, an In-Hole Sampling Hammer or **Mobile's SPT Automatic Hammer**. The sampler barrel has a stepped-joint design to facilitate reassembly of the barrel and a heat-treated shoe to better withstand severe driving conditions. In addition, a ball check valve prevents wash-out during removal from the hole and the shoe design accommodates a Flap Valve or Spring Retainer. Recommended for all Standard Penetration Test procedures. Furnished with a spacer, order sample retainers separately. **Sizes are identified by sampler O.D.**

### SAMPLER ASSEMBLY: TERZAGHI (BLUNT) SHOE

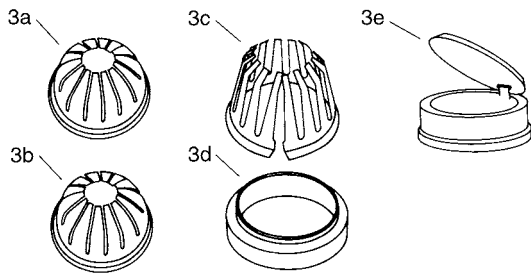
Description	Lb/Kg	Part No.
1'6" (457mm), AW	14 (6.4)	67039-12
2'0" (610mm), AW	17 (7.7)	67039-17
1'6" (457mm), AWML	14 (6.4)	67039-02
2'0" (610mm), AWML	17 (7.7)	67039-07

### SAMPLER ASSEMBLY: ASTM (SHARP) SHOE

Description	Lb/Kg	Part No.
1'6" (457mm), AW	14 (6.4)	67039-11
2'0" (610mm), AW	17 (7.7)	67039-16
1'6" (457mm), AWML	14 (6.4)	67039-01
2'0" (610mm), AWML	17 (7.7)	67039-06

### COMPONENT PARTS

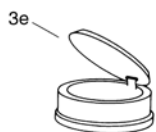
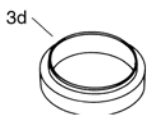
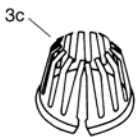
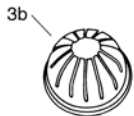
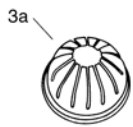
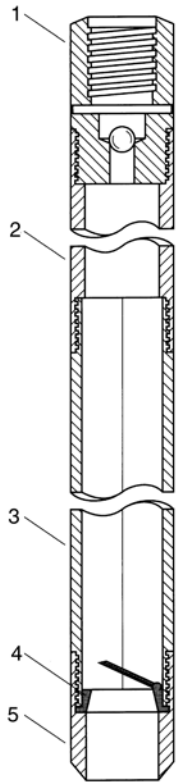
Ref	Description	Lb/Kg	Part No.
1	Head Assembly, AW Box	4 (1.8)	67024-06
1	Head Assembly, AWML Box	4 (1.8)	67024-05
2	Split Barrel: 1'6" (457mm), Set of 2	9 (4.1)	67025-16
2	Split Barrel: 2'0" (610mm), Set of 2	10 (4.5)	67025-17
3	Spacer (for use w/o retainer or flap valve)	*	190006-01
3a	Basket Retainer, Heavy Duty, Steel	*	002417
3b	Basket Retainer, Light Duty, Plastic	*	190176
3c	Spring Retainer, Light Duty, Steel (006746 Req'd)	*	005420
3d	Adapter Ring (for use with 005420)	*	006746
3e	Flap Valve, Heavy Duty, Steel	*	002421
4	Blunt Shoe	1 (.5)	190071-05
4	Sharp Shoe	1 (.5)	190071-06
5	Plastic Liner, 1'6" (457mm)	*	190138-04
5	Plastic Liner, 2'0" (610mm)	*	190138-05



SAMPLE RETAINERS

## SPLIT BARREL SAMPLERS

All-purpose sampler used for visual classification, contamination content and moisture determination. The split barrel permits removal of sample as it is taken from the ground. Generally driven by a 140 lb (63.5kg) safety hammer, an in-hole sampling hammer or **Mobile's SPT Automatic Hammer**, falling 2'6" (762mm). The number of blows required to penetrate each half foot is often recorded as the relative density of material. In non-cohesive soils, the sampler is used with a flap valve, light duty or heavy duty basket trap. 2' (51mm) samplers are available with both standard and **MOBILOK™** (AWML) thread design. **Sizes are identified by sampler O.D.** Furnished with spacer, order sample retainers separately. Other sizes than shown are available. Please consult factory.



### 4 THREADS PER INCH SPLIT BARREL SAMPLER

SAMPLER OD	SAMPLER ID	SHOE ID	LENGTH BARREL	ROD CONN.	SHOE TYPE		WEIGHT	
					TERZAGHI (BLUNT)	ASTM (SHARP)	lb	kg
2" (50.8mm)	1.5" (38.1mm)	1.375" (34.9mm)	18" (457.2mm)	AW	67006-13	67006-14	13.6	6.2
				AWML	67006-15	67006-16	13.6	6.2
			24" (609.6mm)	AW	67006-17	67006-18	16.0	7.3
				AWML	67006-19	67006-20	16.0	7.3
2.5" (63.5mm)	2" (50.8mm)	1.875" (47.6mm)	18" (457.2mm)	AW	67007-01	67007-02	18.9	8.6
				AWML	67007-05	67007-06	18.9	8.6
			24" (609.6mm)	AW	67007-03	67007-04	22.4	10.2
				AWML	67007-07	67007-08	22.4	10.2
3" (76.2mm)	2.5" (63.5mm)	2.375" (60.3mm)	18" (457.2mm)	NW	67008-13	67008-14	26.3	11.9
				NW	67008-15	67008-16	28.0	12.7
			24" (609.6mm)	NWML	67008-17	67008-18	26.3	11.9
				NWML	67008-19	67008-20	28.0	12.7

### 8 THREADS PER INCH SPLIT BARREL SAMPLER

SAMPLER OD	SAMPLER ID	SHOE ID	LENGTH BARREL	ROD CONN.	SHOE TYPE		WEIGHT	
					TERZAGHI (BLUNT)	ASTM (SHARP)	lb	kg
2" (50.8mm)	1.5" (38.1mm)	1.375" (34.9mm)	18" (457.2mm)	AW	67006-10	67006-09	13.6	6.2
				AWML	67006-04	67006-03	13.6	6.2
			24" (609.6mm)	AW	67006-12	67006-11	16.0	7.3
				AWML	67006-06	67006-05	16.0	7.3
2.5" (63.5mm)	2" (50.8mm)	1.875" (47.6mm)	18" (457.2mm)	AW	007104	006434	18.9	8.6
				AWML	67007-09	67007-10	18.9	8.6
			24" (609.6mm)	AW	007105	007100	22.4	10.2
				AWML	67007-11	67007-12	22.4	10.2
3" (76.2mm)	2.5" (63.5mm)	2.375" (60.3mm)	18" (457.2mm)	NW	007109	006437	26.3	11.9
				NW	007111	007110	28.0	12.7
			24" (609.6mm)	NWML	67008-04	67008-03	26.3	11.9
				NWML	67008-06	67008-05	28.0	12.7

Continued on next page

Key: \* Designates weights less than 1 lb (.5kg)

† Consult Factory

# SOIL SAMPLING TOOLS

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## 4 THREADS PER INCH SPLIT BARREL SAMPLER - COMPONENT PARTS

REF. NO.	DESCRIPTION	2" OD (50.8MM)			2.5" OD (63.5MM)			3.0" OD (76.2MM)		
		PART NO.	WEIGHT lbs	WEIGHT kg	PART NO.	WEIGHT lbs	WEIGHT kg	PART NO.	WEIGHT lbs	WEIGHT kg
1	Head Assy, w/ AW Box Connection	67021-14	2.3	1.0	67021-15	4.0	1.8	67021-22	†	†
1	Head Assy, w/ AWML Box Connection	67021-16	2.3	1.0	67021-21	†	†	67021-23	†	†
1	Head Assy, w/ NW Box Connection	N/A	—	—	N/A	—	—	67021-17	—	—
1	Head Assy, w/ NWML Box Connection	N/A	—	—	N/A	—	—	67021-19	—	—
2	Waste Barrel	006069	†	†	006070	†	†	006071	†	†
3	18" (457.2mm) Split Barrel	67022-17	6.6	3.0	67022-18	8.3	3.8	67022-19	11.0	5.0
3	24" (609.6mm) Split Barrel	67022-21	8.8	4.0	67022-22	11.0	5.0	67022-23	13.0	5.9
4	Spacer	190006-01	*	*	190006-02	*	*	190006-03	*	*
5	Shoe, Terzaghi (blunt)	190071-40	1.0	.5	190071-41	1.6	.7	190071-42	2.0	.9
5	Shoe, ASTM (sharp)	190071-44	1.0	.5	190071-45	1.6	.7	190071-46	2.0	.9
	<b>Optional Accessories</b>									
	18" (457.2mm) Plastic Liner	190077-02	*	*	†	†	†	†	†	†
	24" (609.6mm) Plastic Liner	190077-03	*	*	†	†	†	†	†	†
	Spring Retainer (light duty steel)	005420	*	*	†	†	†	†	†	†
	Adaptor Ring (for light duty steel)	006746	*	*	†	†	†	†	†	†
	Basket Retainer (heavy duty)	190033	*	*	002418	*	*	002419	*	*
	Basket Retainer (plastic)	190165	*	*	190165-05	*	*	190177	*	*
	Flap Valve	002421	*	*	002422	*	*	002423	*	*

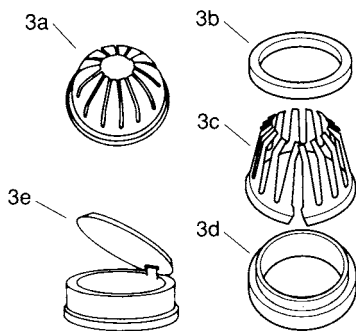
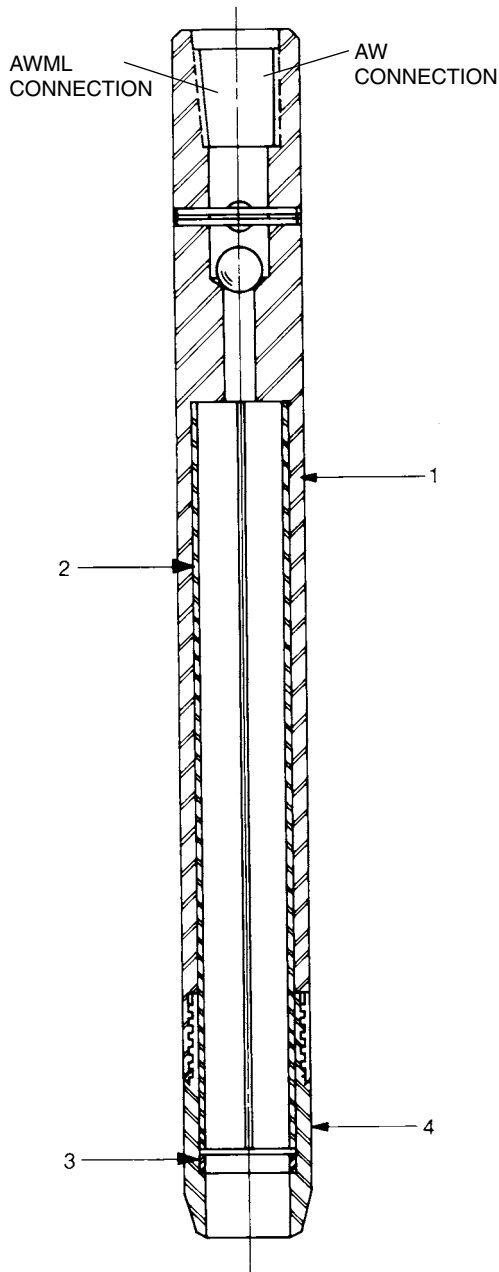
## 8 THREADS PER INCH SPLIT BARREL SAMPLER - COMPONENT PARTS

REF. NO.	DESCRIPTION	2" OD (50.8MM)			2.5" OD (63.5MM)			3.0" OD (76.2MM)		
		PART NO.	WEIGHT lbs	WEIGHT kg	PART NO.	WEIGHT lbs	WEIGHT kg	PART NO.	WEIGHT lbs	WEIGHT kg
1	Head Assy, w/ AW Box Connection	67021-02	2.3	1.0	006340	4.0	1.8	67021-25	†	†
1	Head Assy, w/ AWML Box Connection	67021-01	2.3	1.0	67021-24	†	†	67021-26	†	†
1	Head Assy, w/ NW Box Connection	N/A	—	—	N/A	—	—	006341	—	—
1	Head Assy, w/ NWML Box Connection	N/A	—	—	N/A	—	—	67021-03	—	—
2	Waste Barrel	006069	†	†	006070	†	†	006071	†	†
3	18" (457.2mm) Split Barrel	67022-02	6.6	3.0	006078	8.3	3.8	67021-05	11.0	5.0
3	24" (609.6mm) Split Barrel	67022-03	8.8	4.0	006082	11.0	5.0	001113	13.0	5.9
4	Spacer	190006-01	*	*	190006-02	*	*	190006-03	*	*
5	Shoe, Terzaghi (blunt)	190071-01	1.0	.5	007102	1.6	.7	007112	2.0	.9
5	Shoe, ASTM (sharp)	190071-02	1.0	.5	002414	1.6	.7	002415	2.0	.9
	<b>Optional Accessories</b>									
	18" (457.2mm) Plastic Liner	190077-02	*	*	†	†	†	†	†	†
	24" (609.6mm) Plastic Liner	190077-03	*	*	†	†	†	†	†	†
	Spring Retainer (light duty steel)	005420	*	*	†	†	†	†	†	†
	Adaptor Ring (for light duty steel)	006746	*	*	†	†	†	†	†	†
	Basket Retainer (heavy duty)	190033	*	*	002418	*	*	002419	*	*
	Basket Retainer (plastic)	190176	*	*	190165-05	*	*	190177	*	*
	Flap Valve	002421	*	*	002422	*	*	002423	*	*

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Key: \* Designates weights less than 1 lb (.5kg)

† Consult Factory



Sample Retainers

## ADO STANDARD PENETRATION SAMPLER

Used for the same purpose as the Split Barrel Sampler. Recovers samples for visual inspection in the field and for general classification testing in the laboratory. Specifically designed by Mobile to provide the maximum strength possible under ASTM-1566. The tool consists of two 2'0" (610mm) long split steel halves enclosed within a solid outer tube which is welded to the head section. The sample and split liners are removed by unscrewing the shoe, a process which does not require disconnection of the sampler from the drill rod. Can be furnished with Terzaghi or ASTM type shoe. For use in non-cohesive soils, basket retainers and flap valve are available as separate items. Furnished with spacer, order sample retainer separately. **Sizes are identified by sampler O.D.** Includes ball and roll pin.

Sampler O.D.	Liner I.D.
2" (51mm)	1-3/8" (35mm)
3-1/8" (79mm)	2-1/2" (64mm)

### SAMPLER ASSEMBLY: TERZAGHI (BLUNT) SHOE

Description	Lb/Kg	Part No.
2" (51mm) x 2'0" (610mm), AW Box	15 (6.8)	005416
2" (51mm) x 2'0" (610mm), AWML Box	15 (6.8)	67000-01
3-1/8" (79mm) x 2'0" (610mm), NW Box	30 (13.6)	006356
3-1/8" (79mm) x 2'0" (610mm), NWML Box	30 (13.6)	67001-01

### SAMPLER ASSEMBLY: ASTM (SHARP) SHOE

Description	Lb/Kg	Part No.
2" (51mm) x 2'0" (610mm), AW Box	15 (6.8)	67000-03
2" (51mm) x 2'0" (610mm), AWML Box	15 (6.8)	67000-02
3-1/8" (79mm) x 2'0" (610mm), NW Box	30 (13.6)	67001-03
3-1/8" (79mm) x 2'0" (610mm), NWML Box	30 (13.6)	67001-02

### COMPONENT PARTS: 2" (51MM) O.D.

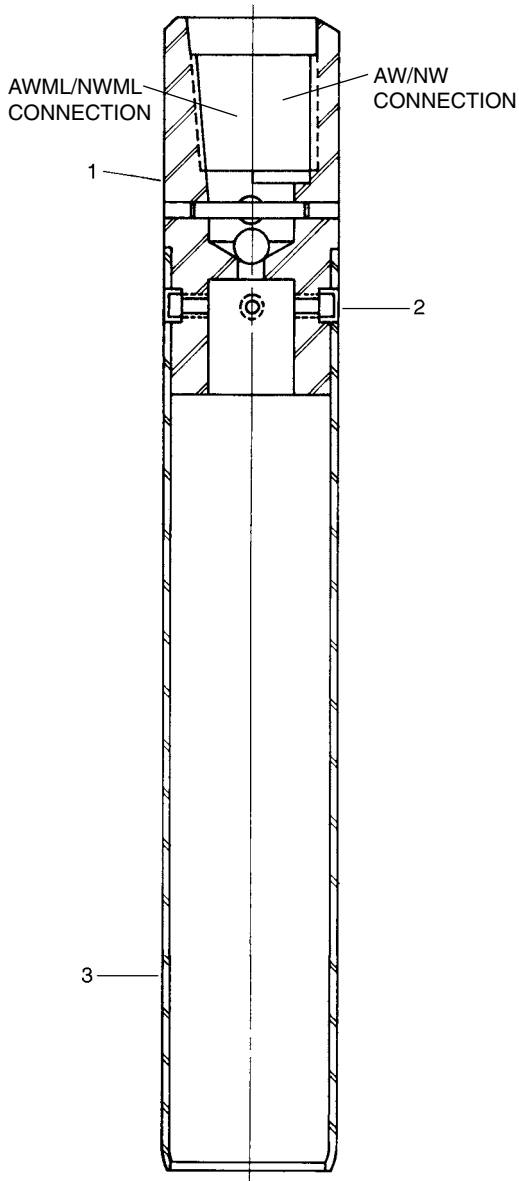
Ref	Description	Lb/Kg	Part No.
1	Tube, Solid: AW Rod Box	15 (6.8)	005422
1	Tube, Solid: AWML Rod Box	15 (6.8)	150217
2	Liner, Split: Steel, (Set of 2)	4 (1.8)	005421
3	Spacer: (For Use w/o Retainer or Flap Valve).. *		005421
3a	Retainer, Basket: Heavy Duty, Steel..... *		003843
3b	Collar, Retainer (For Use w/005420)..... *		006067
3c	Retainer, Spring: Lt. Duty, Steel (006067 & 006068 Req'd)..... *		005420
3d	Ring, Retainer (For Use w/005420)..... *		006068
3e	Valve, Flap Heavy Duty, Steel..... *		003890
4	Shoe, Blunt.....	1 (.5)	005419
4	Shoe, Sharp.....	1 (.5)	003940

### COMPONENT PARTS: 3-1/8" (79MM) O.D.

Ref	Description	Lb/Kg	Part No.
1	Tube, Solid: NW Rod Box	20 (9.1)	006358
1	Tube, Solid: NWML Rod Box	20 (9.1)	150342
2	Liner, Split: Steel, (Set)	4 (1.8)	006361
3	Spacer: (For Use w/o Retainer or Flap Valve).. *		006369
3a	Retainer, Basket: Heavy Duty, Steel..... *		006367
3e	Valve, Flap Heavy Duty, Steel..... *		006368
4	Shoe, Blunt.....	2 (.9)	005419
4	Shoe, Sharp.....	2 (.9)	006359

Key: \* Designates weights less than 1 lb (.5kg)

† Consult Factory



## "SHELBY" TUBE SAMPLER

This sampler is the simplest and probably most widely used of the "insitu" quality samplers. It consists of a head section which contains a check valve and drill rod box connector and a thin wall sample tube. The tube is loosely attached to the head by means of four socket head capscrews which are turned "in", or clockwise, to remove the tube. During the sampling operation, the tube moves slightly upward to bear against a shoulder which is machined into the head section thus assuring absolutely uniform force application to the tube. "Shelby" samplers are furnished complete with ball valve for positive vacuum control. Sampler should be forced down under steady pressure. Standard tube length is 2'6" (762 mm). Heads are available with both standard and **MOBILOK™** (AWML & NWML) thread designs. **Sizes are identified by sampler O.D.**

### SAMPLER ASSEMBLY

Description	Lb/Kg	Part No.
2" (51mm) x 2'6" (762mm), AW Box.....	9 (4.1)	67010-07
2" (51mm) x 3'0" (914mm), AW Box.....	10 (4.5)	67010-08
2" (51mm) x 2'6" (762mm), AWML Box.....	9 (4.1)	67010-01
2" (51mm) x 3'0" (914mm), AWML Box.....	10 (4.5)	67010-02
3" (76mm) x 2'6" (762mm), AW Box .....	11 (5)	67013-07
3" (76mm) x 3'0" (914mm), AW Box.....	13 (5.9)	67013-08
3" (76mm) x 2'6" (762mm), AWML Box .....	11 (5)	67013-01
3" (76mm) x 3'0" (914mm), AWML Box.....	13 (5.9)	67013-02
3" (76mm) x 2'6" (762mm), NW Box .....	17 (7.7)	67013-19
3" (76mm) x 3'0" (914mm), NW Box .....	18 (8.2)	67013-20
3" (76mm) x 2'6" (762mm), NWML Box.....	17 (7.7)	67013-13
3" (76mm) x 3'0" (914mm), NWML Box .....	18 (8.2)	67013-14

### COMPONENT PARTS: 2" (51MM) O.D.

Ref	Description	Lb/Kg	Part No.
1	Head, AW Box (with Ball & Roll Pin).....	6 (2.7)	67026-06
1	Head: AWML Box (with Ball & Roll Pin).....	6 (2.7)	67026-05
2	Screw (4 required).....	*	006404
3	Tube: 2'6" (762mm), Steel .....	3 (1.4)	190044-01
3	Tube: 3'0" (914mm), Steel.....	4 (1.8)	190044-02
4	Cap, Plastic .....	*	006425

### COMPONENT PARTS: 3" (76MM) O.D.

Ref	Description	Lb/Kg	Part No.
1	Head, AW Box (with Ball & Roll Pin) (Requires 4 screws).....	9 (4.1)	67026-02
1	Head, AWML Box (with Ball & Roll Pin) (Requires 4 screws).....	9 (4.1)	67026-01
1	Head, NW Box (with Ball & Roll Pin) (Requires 4 screws).....	12 (5.4)	67026-04
1	Head, NWML Box (with Ball & Roll Pin) (Requires 4 screws).....	12 (5.4)	67026-03
2	Screw (4 required).....	*	006405
3	Tube, 2'6" (762mm), Steel+ .....	5 (2.3)	190047-01
3	Tube, 3'0" (914mm), Steel+ .....	6 (2.7)	190047-02
4	Cap, Plastic 3" (76mm) .....	*	005227

+ Galvanized tubes available.



For over 20 years, Mobile's OVERSHOT WIRELINE CONTINUOUS SAMPLING SYSTEM has been recognized as the leading method for obtaining continuous samples while drilling in cohesive soils - fast, effective, hollow stem auger drilling and sample retrieval with the Overshot Retriever Assembly.

Whether it is used for identifying subsurface geological stratifications, environmental sampling, water well monitoring or retrieving high quality samples of unsaturated sand and gravel, this innovative system operates much more efficiently and faster than basic samplers where the rods must be tripped in and out for sample barrel retrieval.

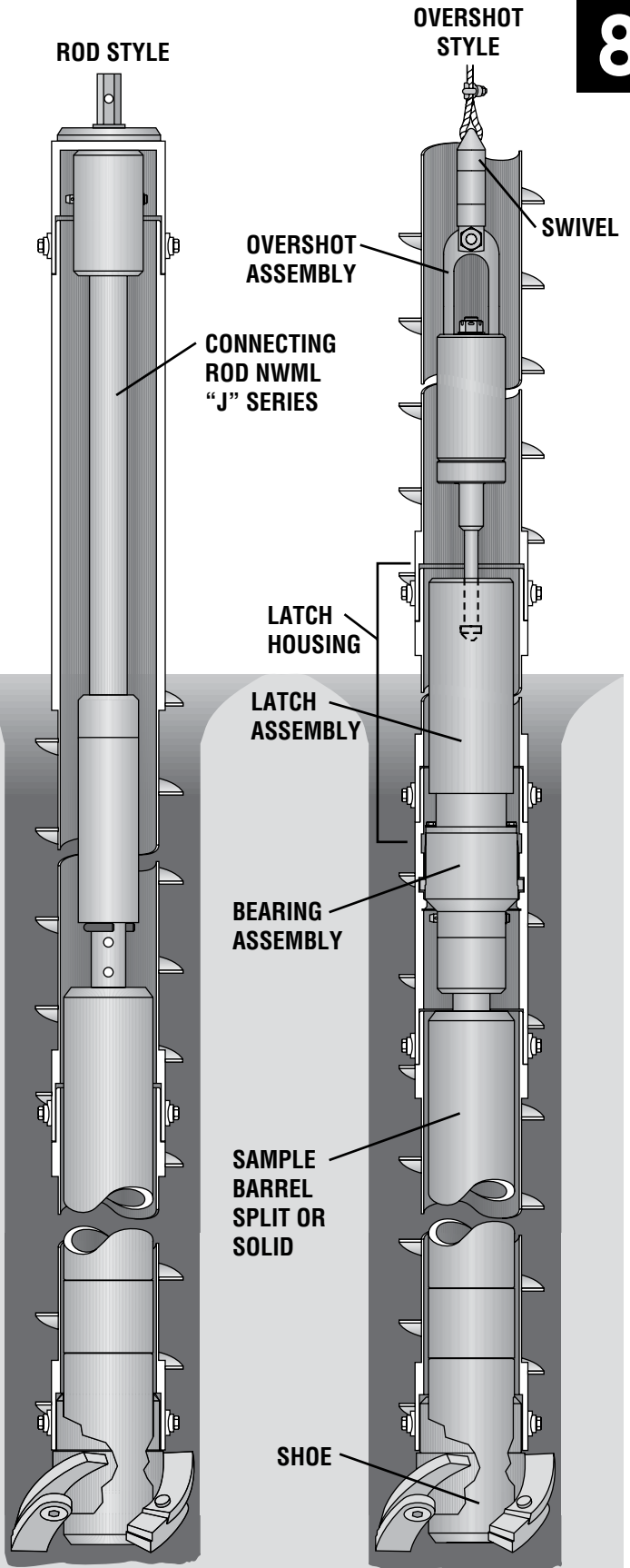
The Overshot Wireline Sampling System is available in four sizes:

- 3-1/4" (83mm)
- 4-1/4" (108mm)
- 3-3/8" (86mm)
- 6-5/8" (168mm)

The 4-1/4" and 6-5/8" systems use identical retriever assemblies and can be purchased with or without this component.

A split barrel sampler can be used with the Overshot Wireline System. If no samples are required, the pilot bit extension assembly can be installed on the latching assembly replacing the bearing assembly and sampler, allowing for quick removal of the center pilot bit assembly while straight auger drilling.

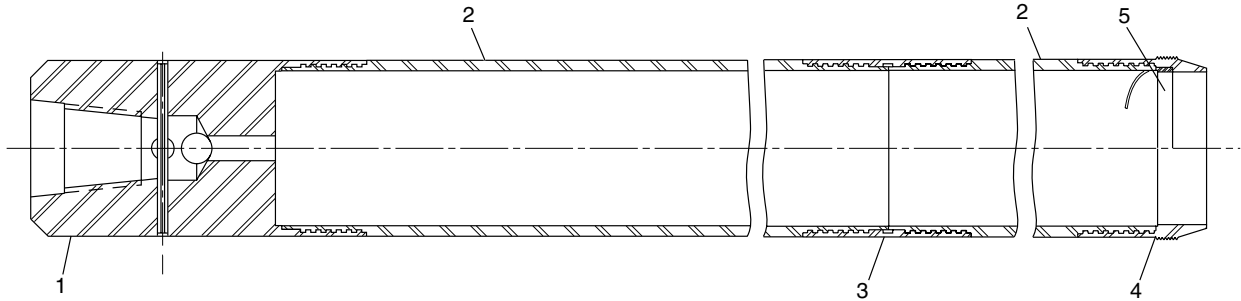
In applications such as deep, underwater drilling, it may be necessary to substitute the Overshot Wireline System for the Drill Rod System. The hollow stem augers are drilled in the normal way with the sample barrel being held in place by drill rods attached to a bearing in the drive cap. Samples are then retrieved by tripping the drill rods out of the hole.



# CONTINUOUS SAMPLING SYSTEMS

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### SPLIT BARREL SAMPLER ASSEMBLIES CONTINUOUS SAMPLER SPLIT BARREL ASSEMBLIES



Continuous sample barrels are split into two 30" (762mm) sections joined by a center coupling for added strength. The complete assembly includes a head assembly, two 30" (762mm) barrel sections, a coupler, and a penetrating shoe. The shoe is hardened by a special heat treating process for longer life. Shoes are also provided to allow for sample retainers or for the use of clear plastic liners that help protect field crews operating in hazardous environments.

SAMPLER O.D.	SAMPLER I.D.	SAMPLER LENGTH	ROD CONNECTION	ASSEMBLY PART NO.
3" (76.2mm)	2-1/2" (63.5mm)	30" (762mm)	NW	67034-16
3" (76.2mm)	2-1/2" (63.5mm)	60" (1.5m)	NW	67034-15
4" (102mm)	3-1/2" (89mm)	30" (762mm)	NWML	67040-01
4" (102mm)	3-1/2" (89mm)	60" (1.5m)	NWML	67040-02
6-1/4" (159mm)	5-3/4" (146mm)	30" (762mm)	NWML	67041-01
6-1/4" (159mm)	5-3/4" (146mm)	60" (1.5m)	NWML	67041-02

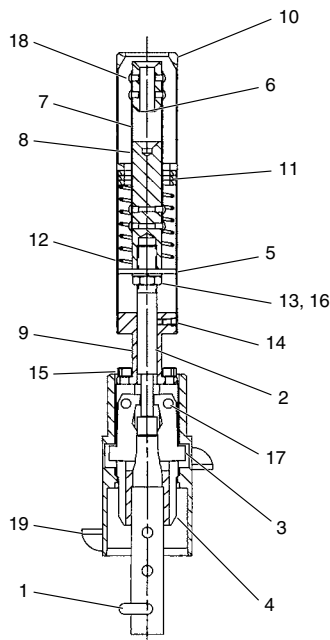
REF. NO.	DESCRIPTION	SAMPLERS								
		3" OD (76.2MM)			4" OD (102MM)			6-1/4" OD (159MM)		
		PART NO.	WEIGHT		PART NO.	WEIGHT		PART NO.	WEIGHT	
lbs	kg		lbs	kg		lbs	kg			
1	Head Assy, w/ NW	67021-08	6	2.7	N/A	—	—	N/A	—	—
1	Head Assy, w/ NWML	N/A	—	—	67021-11	18	8.2	67021-05	24	10.9
2	30" (762mm) Split Barrel	67022-11	18	8.2	67022-12	23	10.4	67022-13	36	16.3
3	Coupler for 60" (1.5m) Lg. Barrel	190140	*	*	190179	2	.9	190180	3	1.4
4	Sampler Shoe	190071-08	2	.9	190071-25	2	.9	190071-18	4	1.8
5	Spacer (in place of basket trap)	190006-05	*	*	190006-06	*	*	190006-05	*	*
	<b>Optional Accessories</b>									
	Plastic Liner 30" (762mm) Lg.	190138-01	*	*	190138-03	2	.9	190138-02	3	1.4
	Basket Trap (Steel)	002419	*	*	190165-02	*	*	N/A	—	—
	Basket Trap (Plastic)	190177	*	*	190165-03	*	*			
	Flap Valve	002423	*	*	N/A	—	—	N/A	—	—
	Shoe (For Use with Plastic Liners)	190071-21	2	.9	190071-29	2	.9	190071-32	4	1.8



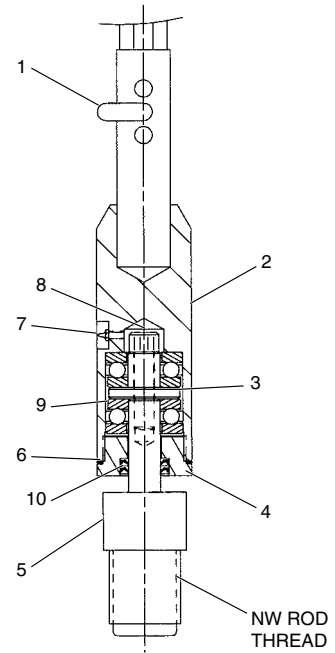
## 3-1/4" (83MM) TRI-LOK AND 3-3/8" (86MM) THREADED OVERSHOT WIRELINE SYSTEM

Used for continuous vertical profiling of the formation being drilling with our 3-1/4", 3-3/8" and 4" hollow stem auger sections. Short subs are added to vary the sample barrel lead setting to allow good recovery of samples throughout a broad range of formation types. The center plug can be locked in place to allow augering without adding center rods. The system can be easily converted to run **MOBILOK™** drill rod in lieu of a wireline if the formation requires.

**Note:** 4" Threaded System available. Consult Factory.



**Latch Assembly**



**Bearing Assembly**

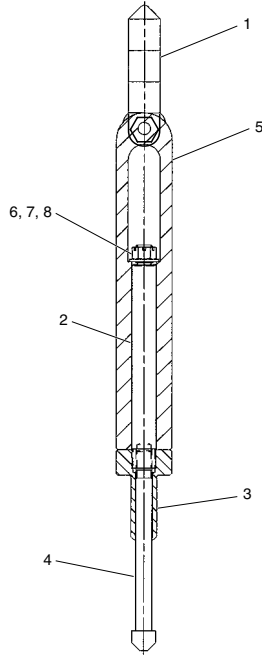
REF	DESCRIPTION	3-1/4" (83MM) SYSTEM				3-3/8" (86MM) SYSTEM			
		REQ.	PART NO	WEIGHT		REQ.	PART NO	WEIGHT	
				lb	kg			lb	kg
	<b>COMPLETE SYSTEM</b> (Includes latch, bearing and pilot bit assemblies, overshot retriever and accessories.)	1	67029-07	207	93.9	1	67029-08	216	98.0
	<b>Latch Assembly</b>	1	67020-09	51	23.1	1	67020-09	53	24.0
1	U-Pin (1500 series)	1	001306	1	0.5	1	001306	1	0.5
2	Latch Plunger	1	190008	2	0.9	1	190008	2	0.9
3	Latch	2	190009-02	1	0.5	2	190009-02	1	0.5
4	Latch Body	1	190011	14	6.4	1	190011	14	6.4
5	Washer	2	190053	1	0.5	2	190053	1	0.5
6	Latch Blank (set)	1	190057	1	0.5	1	190057	1	0.5
7	Spring	4	190058	1	0.5	4	190058	1	0.5
8	Overshot Bar	1	190059	4	1.8	1	190059	4	1.8
9	Guide	1	190060	4	1.8	1	190060	4	1.8
10	Spring Housing	1	190061	3	1.4	1	190061	3	1.4
11	Spacer	3	210032-28	1	0.5	3	210032-28	1	0.5
12	Compression Spring	1	212160-03	1	0.5	1	212160-03	1	0.5
13	Lockwasher	1	3126-0016	*	*	1	3126-0016	*	*
14	Hex Socket Head Capscrew	8	3130-0012	*	*	8	3130-0012	*	*
15	Hex Socket Head Capscrew	4	3130-0071	*	*	4	3130-0071	*	*
16	Hex Jam Nut	1	3204-0016	*	*	1	3204-0016	*	*
17	Dowel Pin	2	3229-0057	1	0.5	2	3229-0057	1	0.5
18	Button Head Capscrew	16	3559-0002	1	0.5	16	3559-0002	1	0.5
19	Latch Housing	1	190023	15	6.8	1	190010	17	7.7
	<b>Bearing Assembly</b>	1	67020-11	23	10.4	1	67020-11	23	10.4
1	U-Pin (1500 series)	1	001306	*	*	1	001306	*	*
2	Bearing Housing	1	190013	12	5.4	1	190013	12	5.4
3	Bearing Spacer	1	190015	1	0.5	1	190015	1	0.5
4	Housing Seal	1	190016	2	0.9	1	190016	2	0.9
5	Sampler Hanger	1	190080	6	2.7	1	190080	6	2.7
6	Shim	3	210091-12	*	*	3	210091-12	*	*
7	Grease Fitting	1	3129-0001	*	*	1	3129-0001	*	*
8	Hex Socket Head Capscrew	1	3137-0099	*	*	1	3137-0099	*	*
9	Ball Bearing	2	3535-0002	2	0.9	2	3535-0002	2	0.9
10	Oil Seal (Single Lip)	2	3560-0011	*	*	2	3560-0011	*	*

Key: \* Designates weights less than 1 lb (.5kg)

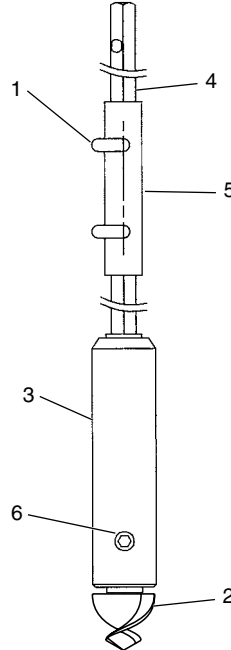
† Consult Factory

# CONTINUOUS SAMPLING SYSTEMS

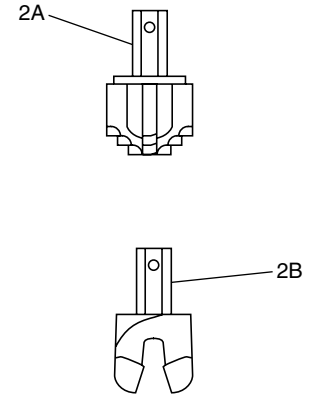
8



**Overshot Retriever Assembly**



**Pilot Bit Assembly**



**Pilot Bits**

REF	DESCRIPTION	3-1/4" (83MM) SYSTEM			3-3/8" (86MM) SYSTEM		
		PART NO	WEIGHT		PART NO	WEIGHT	
			lb	kg		lb	kg
	<b>Overshot Retriever Assembly</b>	67020-10	39	17.7	67020-11	39	17.7
1	Ball Bearing Swivel	006305	7	3.2	006305	7	3.2
2	Lift Rod	190054	5	2.3	190054	5	2.3
3	Latch Key	190055	4	1.8	190055	4	1.8
4	Spear	190056	3	1.4	190056	3	1.4
5	Latch Weight	190063	27	12.2	190063	27	12.2
6	Cotter Pin	3194-0038	*	*	3194-0038	*	*
7	Flatwasher	3198-0012	*	*	3198-0012	*	*
8	Hex Slotted Nut	3208-0012	*	*	3208-0012	*	*
	<b>Pilot Bit Assembly</b>	67020-12	39	17.7	67020-12	39	17.7
1	U-Pin (1500 series)	001306	*	*	001306	*	*
2	Pilot Bit 2-3/8" (60mm) x 1-1/8" (29mm) Hex Shank	005503	2	0.9	005503	2	0.9
3	Pilot Bit Plug	190019	33	15	190019	33	15
4	Hex Bar Extension 1-1/8" (29mm) x 3 ft (.9m)	190015	1	.5	190015	1	0.5
5	Hex Sleeve	190116	3	1.4	190116	3	1.4
6	Hex Socket Head Capscrew	3130-0080	*	*	3130-0080	*	*
	<b>Accessories</b>						
	Hex Bar 1 ft 3 in (381mm) long	190095	2	0.9	190095	2	0.9
	3 ft (.91m) Auger	150288-02	47	21.3	150363-02	58	26.3
	Brass Cutterhead Bushing	210021-08	2	0.9	210031-04	2	0.9
	Optional Equipment						
2a	Pilot Bit - Step Type 3" (76.2mm) x 1-1/8" (29mm) Hex Shank	150574-01	2	0.9	150574-01	2	0.9
2b	Pilot Bit - 2 Prong 3" (76.2mm) x 1-1/8" (29mm) Hex Shank	200024	2	0.9	200024	2	0.9

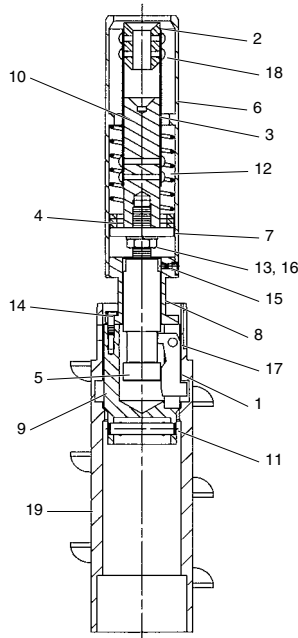
8-4

Key: \* Designates weights less than 1 lb (.5kg)

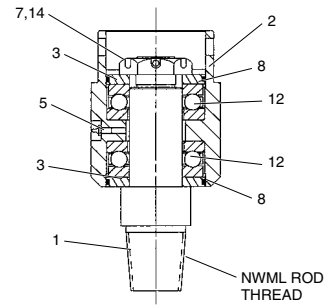
† Consult Factory

## 4-1/4" (108MM) TRI-LOK & 6-5/8" (168MM) TRI-LOK OVERSHOT WIRELINE SYSTEM

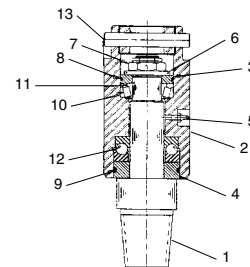
Used for continuous vertical profiling of the formation being drilling with our 4-1/4" (108 mm) and 6-5/8" (168 mm) hollow stem auger sections. Short subs are added to vary the sample barrel lead setting to allow good recovery of samples throughout a broad range of formation types. The center plug can be locked in place to allow augering without adding center rods. The system can be easily converted to run **MOBILOK™** drill rod in lieu of a wireline if the formation requires.



**Latch Assembly**



**6-5/8" Bearing Assembly**



**4-1/4" Bearing Assembly**

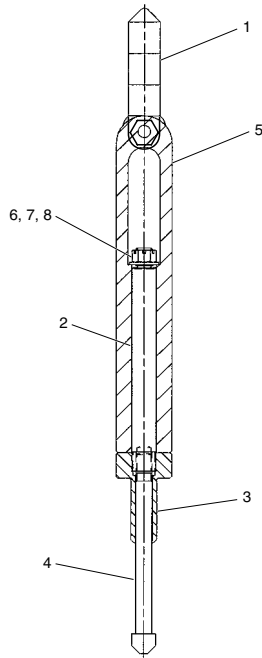
REF.	DESCRIPTION	4-1/4" (108MM) TRI-LOK				6-5/8" (168.3MM) TRI-LOK			
		REQ.	PART NO	WEIGHT		REQ.	PART NO	WEIGHT	
				lb	kg			lb	kg
	<b>COMPLETE SYSTEM</b> (Includes latch, bearing and pilot bit assemblies, overshot retriever and accessories.)		67029-09	237	107.5		67029-10	352	159.7
	<b>Latch Assembly</b>		67020-05	95	43.1		67020-08	166	75.3
1	Latch	2	190009-02	1	0.5	1	190009-02	1	0.5
2	Latch Spear	4	190118-01	1	0.5	1	190118-01	1	0.5
3	Overshot Bar	1	190125	7	3.2	1	190125	7	3.2
4	Spring	4	190128	1	0.5	4	190128	1	0.5
5	Latch Plunger	1	190152	7	3.2	1	190182	15	6.8
6	Spring Housing	1	190154	10	4.5	1	190154	10	4.5
7	Washer	1	190157	1	0.5	1	190157	1	0.5
8	Guide	1	190158	4	1.8	1	190181	17	7.7
9	Latch Body	1	190184	12	5.4	1	190110	23	10.4
10	Spacer	3	210032-61	1	0.5	3	210032-61	1	0.5
11	Detent Ball Pin	1	210033-91	1	0.5	1	210033-54	1	0.5
12	Compression Spring	1	212160-05	2	0.9	1	212160-05	1	0.5
13	Lockwasher	1	3126-0016	*	*	1	3126-0016	*	*
14	Hex Socket Head Capscrew	1	3130-0062	*	*	4	3130-0063	*	*
15	Hex Socket Head Capscrew	6	3133-0007	1	0.5	6	3133-0007	1	1
16	Hex Jam Nut	1	3204-0016	*	*	1	3204-0016	*	*
17	Dowel Pin	2	3229-0057	1	0.5	3	3068-0244	*	*
18	Button Head Capscrew	16	3559-0003	1	0.5	16	3559-0003	1	1
19	Latch Housing	1	190146	44	20.0	1	190108	86	39.0
	<b>Bearing Assembly</b>		67020-15	27	12.2		67020-04	24	10.9
1	Bearing Shaft w/ NWML thread	1	190189	7	3.2	1	190111	12	5.4
2	Bearing Carrier	1	190194-10	12	5.4	1	190114	8	3.6
3	Washer	1	190191	1	0.5	2	190121	1	1
4	Washer	1	190192	1	0.5		N/A	—	—
5	Grease Fitting	1	3129-0001	*	*	1	3129-0001	*	*
6	Flat Washer	1	3198-0016	*	*		N/A	—	—
7	Hex Nut	1	3230-0003	1	0.5	1	3230-0009	1	1
8	O-Ring	1	3538-0138	1	0.5	2	3538-0238	*	*
9	O-Ring	1	3538-0231	1	0.5		N/A	—	—
10	Cone, Taper Roller Bearing	1	3231-0040	1	0.5		N/A	—	—
11	Cup, Taper Roller Bearing	1	3232-0040	1	0.5		N/A	—	—
12	Thrust Ball Bearing	1	3535-0004	1	0.5	2	3535-0003	1	0.5
13	Detent Ball Pin	1	210033-91	1	0.5	1	210333-54	1	0.5
14	Cotter Pin					1	3194-0086	*	*

Key: \* Designates weights less than 1 lb (.5kg)

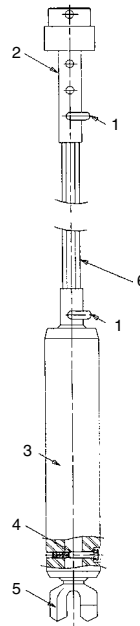
† Consult Factory

# CONTINUOUS SAMPLING SYSTEMS

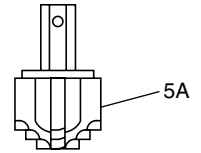
8



**Overshot Retriever Assembly**



**Pilot Bit Assembly**



**Pilot Bit**

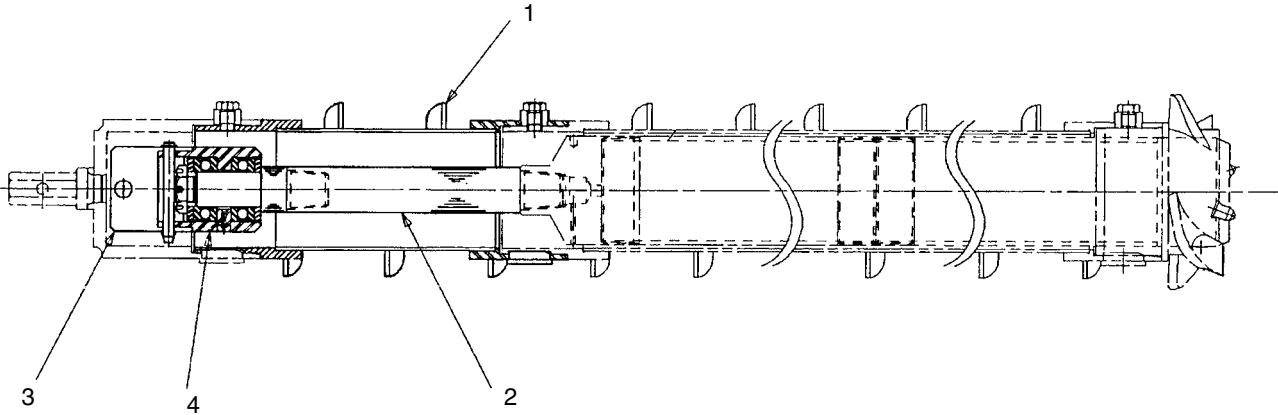
REF.	DESCRIPTION	4-1/4" (108MM) TRI-LOK				6-5/8" (168.3MM) TRI-LOK			
		REQ.	PART NO	WEIGHT		REQ.	PART NO	WEIGHT	
				lb	kg			lb	kg
	<b>Overshot Retriever Assembly</b>		67020-06	50	22.7		67020-06	45	20.4
1	Ball Bearing Swivel	1	006305	7	3.2	1	006305	7	3.2
2	Lift Rod	1	190129	6	2.7	1	190129	6	2.7
3	Spear	1	190131	3	1.4	1	190131	3	1.4
4	Latch Weight	1	190159	29	13.2	1	190159	29	13.2
5	Latch Key	1	190161	5	2.3	1	190161	5	2.3
6	Cotter Pin	1	3194-0086	*	*	1	3194-0086	*	*
7	Flatwasher	1	3198-0016	*	*	1	3198-0016	*	*
8	Hex Slotted Nut	1	3208-0016	*	*	1	3208-0016	*	*
	<b>Pilot Bit Assembly</b>		67020-13	52	23.6		67020-14	104	47.2
1	U-Pin (1500 series)	2	001306	1	0.5	1	001307	1	0.5
2	Latch Body To Hex Adapter	1	190188	9	4.1	1	190134	15	6.8
3	Pilot Bit Plug	1	190143-01	39	17.7	1	190132	80	36.3
4	Hex Socket Head Capscrew	1	3130-0118	1	0.5	1	3130-0170	1	0.5
5	Pilot Bit	1	004304	2	0.9	1	004950	7	3.2
6	Shank Extension — 1-1/8" (41mm)	1	190144-01	7	3.2				
6	Shank Extension — 1-5/8" (51mm)					1	190133-01	10	4.5
	<b>Accessories</b>								
	4 3/4" (121mm) Ig NWML Extension		180012-14	6	2.7		180012-14	6	2.7
	3" (76mm) Ig NWML Extension		180012-27	3	1.4		180012-27	3	1.4
	Brass Cutterhead Bushing		210031-12	4	1.8		210031-10	4	1.8
	<b>Optional Equipment</b>								
5A	3-Step Carbide Insert Step Pilot Bit		150574-02	4	1.8		150574-03	4	1.8
	Cutterhead Assembly To Accept Brass Bushing		61032-02	21	9.5		61032-03	33	15.0
	16" (406mm) Ig Hollow Stem Auger Extension		150329-08	15	6.8		150329-07	44	20
	30" ( 762mm) Ig NWML Drill Rod		180386-13	13	5.9		180386-13	13	5.9

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Key: \* Designates weights less than 1 lb (.5kg)

†Consult Factory

## DRILL ROD CONTINUOUS SAMPLING SYSTEMS



The rod system continuous sampling method incorporates many of the same components as the wireline system, but allows you to be more efficient in situations where you encounter heaving sands. The two systems are interchangeable and provide the operator with maximum versatility. The Mobile system does not require special hex rods. It utilizes standard "J" series or the premier **MOBILOK™** NWML line.

REF	DESCRIPTION	4-1/4" (108MM) SYSTEM			6-5/8" (168MM) SYSTEM		
		PART NO	WEIGHT		PART NO	WEIGHT	
			lb	kg		lb	kg
	<b>Overshot Retriever Assembly</b> Includes all parts listed below	67042-25	125	56.7	67042-27	175	79.4
1	Auger, HS x 2 ft (61mm) long	150329-17	46	21	150329-18	88	40
2	NWML Box to NWML Pin X 8-1/2" (216mm) long	180012-38	3	1.4			
2	NWML Box to NWML Pin x 13-11/16" (348mm) long	180012-39	5	2.3			
3	Rod to cap Adapter	217247	7	3.2	217248	15	6.8
4	Bearing Assembly	67020-15	20	9.1	67020-04	27	12.2
	Adapter, NWML Box to NWML Pin x 4-3/4" (121mm) long	180012-14	5	2.3	180012-14	5	2.3
	Adapter, NWML Box to NWML Pin x 3" (76mm) long	180012-27	3	1.4	180012-27	3	1.4
	<b>Conversion Parts - Wireline System to Rod System</b>						
	<b>Complete Assembly</b> to Convert Wireline System to Rod System	67042-28	105	47.6	67042-29	145	65.8
	Auger, HS x 2 ft (61mm) long	150329-17	46	21	150329-18	88	40
	Sub, NWML Box to NWML Pin x 8-1/2" (216mm) long	180012-38	3	1.4			
	Sub, NWML Box to NWML Pin x 13-11/16" (348mm) long	180012-39	5	2.3			
	Rod to Cap Adapter	217247	7	3.2	217248	15	6.8

Key: \* Designates weights less than 1 lb (.5kg)

† Consult Factory