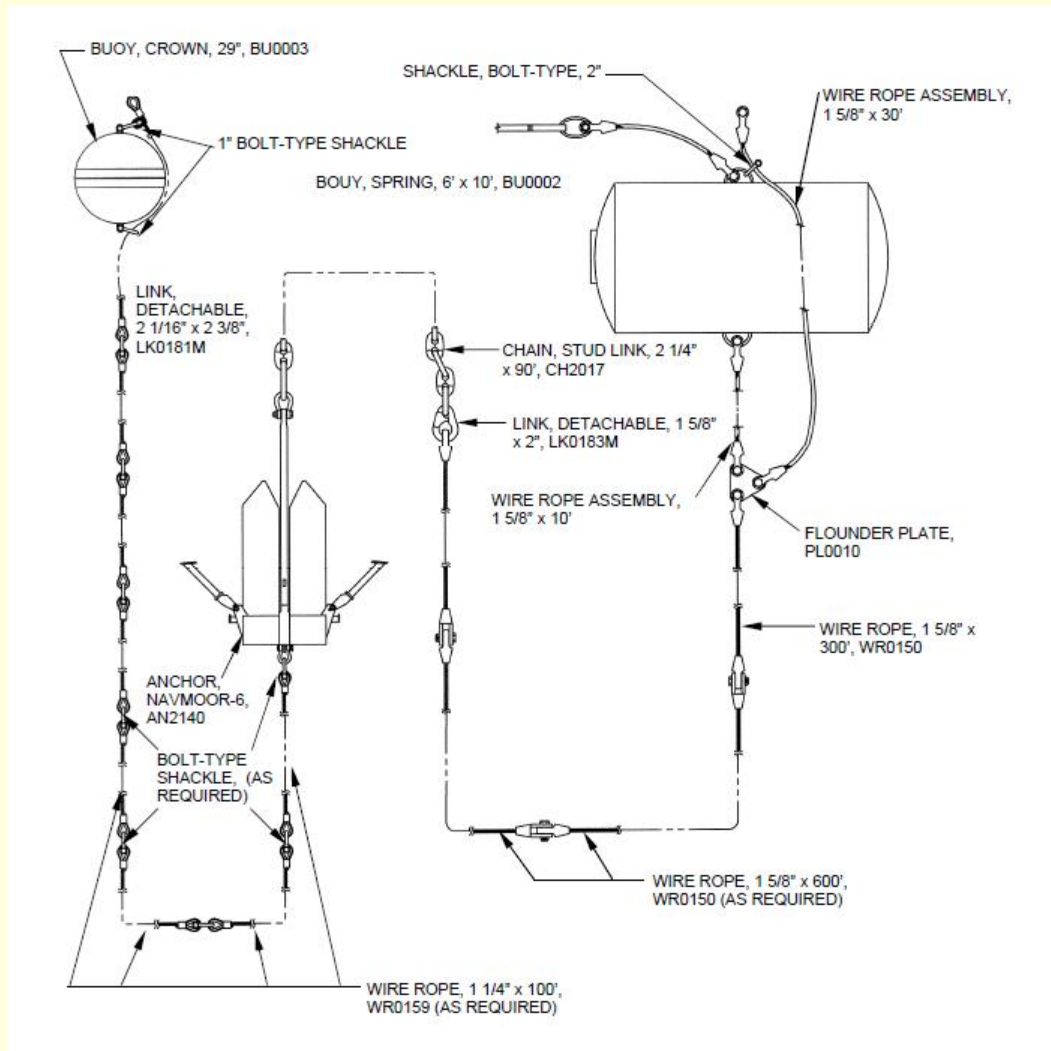


# S0300-BV-CAT-010

## FOUR-POINT MOORING SYSTEM

System - DS0200



**Overview of Four-Point Mooring System DS0200  
(One leg shown)**

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## FOUR-POINT MOORING SYSTEM

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SYSTEM ON IO BUT CURRENTLY NO COMPLETE SYSTEMS AVAILABLE LLS 040114

The Four-Point Mooring System DS0200 consists of components and hardware necessary to assemble four identical mooring legs. Each leg consists of an anchor, anchor chain, wire ropes, mooring buoy, crown buoy, and rigging hardware. In addition, the system contains two optional anchor billboards to secure the anchors during transit and to deploy them at the salvage site. The mooring system is designed to moor a T-ATF 166 Class, or equivalent ship, in up to 600 feet of water. The Beach Gear System S05100 is used in conjunction with the Four-Point Mooring System.

Note: The Anchor Billboards are optional and may be requested by the user.

## System Components for DS0200

Alternates

ESSM No	Nomenclature	Type	Qty	NS	Cont
AN0080	ANCHOR BILLBOARD, 4-PT MOORING SYSTEM	BL OPTL	2		
AN2140	ANCHOR, NAVMOOR-6	BL	4		
BU0002	BUOY, SPRING, 6' DIA X 10' LG, STEEL	BL	4		
BU0003	BUOY, CROWN, 29" DIAMETER	BL	4		
CH2017	CHAIN, STUD LINK, 2 1/4" X 90'	BL	4		
LK0181M	LINK, DTCH, PEAR-SHAPED, 2 1/16"-2 3/8", W/HAIRPIN	BL	4		
LK0183M	LINK, DTCH, PEAR-SHAPED, 1 5/8"-2", W/HAIRPIN	BL	4		
PL0010	PLATE, FLOUNDER, 4-PT MOORING SYS	BL	4		
WR0150	WIRE ROPE, 1 5/8" X 300'	BL	4		
WR0151	WIRE ROPE, 1 5/8" X 600'	BL	4		
WR0159	WIRE ROPE, 1 1/4" X 100'	BL	8		

Baseline verified on 4/1/2014, \* Not shown in catalog.

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## ESSM - AN0080 ANCHOR BILLBOARD, 4-PT MOORING SYSTEM



4-Point Mooring System Anchor Billboard AN0080

The 4-Point Mooring System Anchor Billboard AN0080 is an elevated two-piece (base and incline) structure designed to deploy an anchor from the deck of a vessel without requiring an anchor windlass. The billboard is installed at the rail of the host ship to hold the anchor securely during transit, and to release the anchor in a controlled, safe manner at the salvage site.

AH

### Specifications

Type	Description	Qty
Manufacturer	Commercial	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Incline			
Length	13 ft, 4 in	13 ft, 4 in	
Width	6 ft, 3 in	6 ft, 3 in	
Height	11 ft, 6 in	11 ft, 6 in	
Cube	185 cu ft	959 cu ft	
Footprint	53 sq ft	84 sq ft	

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## Physical Characteristics

Type .....	Descriptions .....		
Weight	4934 lb	4934 lb	
Base			
Length	6 ft, 4 in	6 ft, 4 in	
Width	8 ft, 4 in	8 ft, 4 in	
Height	3 ft, 6 in	3 ft, 6 in	
Cube	185 cu ft	185 cu ft	
Footprint	53 sq ft	53 sq ft	
Weight	2206 lbs	2206 lb	

## References

Ref No	Reference
1	U.S. Navy Ship Salvage Manual, Volume 1, Theory of Strandings and the Use of Beach Gear, NAVSHIPS 0994-LP-000-3010

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## ESSM - AN2140 ANCHOR, NAVMOOR-6



NAVMOOR-6 Anchor AN2140

The NAVMOOR-6 Anchor AN2140 is a high efficiency anchor used with the Four-Point Mooring System and the Beach Gear System. The NAVMOOR-6 is designed for high stress applications normally seen in salvage operations.

AH

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
Type	NAVMOOR-6 (U.S. Navy Design)	
Weight (nominal)	6000 lb	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	13 ft, 5 in	13 ft, 5 in	
Width	6 ft, 6 in	17 ft, 10 in	
Height	4 ft, 0 in	4 ft, 0 in	
Cube	349 cu ft	958 cu ft	

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## Physical Characteristics

Type .....	Descriptions .....		
Footprint	88 sq ft	240 sq ft	
Weight	8190 lb	8190 lb	

## References

Ref No	Reference
1	NAVMOOR-6 Salvage Anchor, 7,200 lbs. (Wt), General Assembly, Customer Metal Fabrication, Inc., Dwg. D-1269

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## ESSM - BU0002 BUOY, SPRING, 6' DIA X 10' LG, STEEL



6-Foot Diameter Spring Buoy BU0002.

The 6-Foot Diameter Spring Buoy BU0002 is a large can-type buoy capable of sustaining the line load of the beach gear pulling wire ropes. The spring buoy is used to stabilize the loads on the beach gear and mooring system wire ropes during anchoring and salvage operations.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
NAVSEA Drawing	6648787	
Material	Steel	
Buoyancy	14,725 lb	
Weight	3820 lb	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	10 ft, 0 in	10 ft, 0 in	
Diameter	6 ft, 0 in	6 ft, 0 in	
Cube	360 cu ft	360 cu ft	
Weight	3820 lb	3820 lbs	

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## References

Ref No	Reference
1	Spring Buoy, Ship Salvage, NAVSEA Dwg. 6648787



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## ESSM - BU0003 BUOY, CROWN, 29" DIAMETER



29 Diameter Crown Buoy BU0003

The Crown Buoy BU0003 is a 29-inch diameter, steel, spherical buoy used to mark the location of the anchor and its retrieving wire rope.

Specifications		
Type	Description	Qty
Manufacturer	Commercial	
Material	Steel	
Diameter	29"	
Buoyancy (net)	325 lb	

Physical Characteristics			
Type .....	Descriptions .....		
	Shipping	Operating	
Diameter	29 in	29 in	
Cube	1 cu ft	1 cu ft	
Weight	150 lb	150 lb	

References	
Ref No	Reference
1	None

**ESSM - CH2017  
CHAIN, STUD LINK, 2 1/4" X 90'**



2 1/4-Inch x 90-Foot Stud Link Chain CH2017



2 1/4-Inch x 90-Foot Stud Link Chain CH 2017 and Shipping Container

The 2 1/4-Inch x 90-Foot Stud Link Chain CH2017 is a standard shot (90 feet) of anchor chain. It may be used for mooring, towing, and other applications that require a strong yet flexible attachment between two points.

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## Specifications

Type	Description	Qty
Manufacturer	Commercial	
Model	Grade 2	
Link size	2-1/4"	
Proof strength	284,000 lb	
Breaking strength	396,000 lb	

## Physical Characteristics

Type .....	Descriptions .....		
	Shipping		
Length	5 ft, 2 in		
Width	3 ft, 0 in		
Height	3 ft, 6 in		
Cube	55 cu ft		
Footprint	16 sq ft		
Weight	4460 lb		

## References

Ref No	Reference
1	Baldt Catalog #30 for Anchors and Chain

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## ESSM - LK0181M LINK, DTCH, PEAR-SHAPED, 2 1/16"-2 3/8", W/HAIRPIN



2 1/16" - 2 3/8" Pear-Shaped Detachable Link w/Hairpin LK0181M

The Pear-Shaped Detachable Link w/Hairpin LK0181M is used to connect 2 1/4-inch chain to an anchor. The detachable link has been modified to accept a positive locking device (hairpin) to secure the internal taper pin in place.

Specifications		
Type	Description	Qty
Manufacturer	Baldt Corporation	
Part number	82021-06010	
Size	2-1/16" x 2-3/8"	
Proof strength	447,000 lb	
Breaking strength	675,000 lb	

Physical Characteristics			
Type .....	Descriptions .....		
	Shipping	Operating	
Length	1 ft, 6 in	1 ft, 6 in	
Width	1 ft, 1 in	1 ft, 1 in	
Height	0 ft, 4 in	0 ft, 4 in	
Cube	1 cu ft	1 cu ft	
Footprint	2 sq ft	2 sq ft	

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## Physical Characteristics

Type .....	Descriptions .....		
Weight	107 lb	107 lbs	

## References

Ref No	Reference
1	Baldt Catalog #30 for Anchors and Chain
2	NAVSEA Drawing 702267, Hairpin Modification For Pear Shaped Detachable Link
3	NAVSEA Drawing 8594813, Hairpin Modification For Pear Shared Detachable Link Lk0181M, LK0183M

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## ESSM - LK0183M LINK, DTCH, PEAR-SHAPED, 1 5/8"-2", W/HAIRPIN



1 5/8" x 2" Pear-Shaped Detachable Link w/Hairpin LK0183M

The Pear-Shaped Detachable Link w/Hairpin LK0183M is used to connect anchor chain to a closed socket on 1 5/8-inch wire rope. The detachable link has been modified to accept a positive locking device (hairpin) to secure the internal taper pin in place.

### Specifications

Type	Description	Qty
Manufacturer	Baldt Corporation	
Part number	82021-05010	
Size	1 5/8" x 2"	
Proof strength	322,000 lb	
Breaking strength	488,000 lb	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	1 ft, 3 in	1 ft, 3 in	
Width	0 ft, 11 in	0 ft, 11 in	
Height	0 ft, 3 in	0 ft, 3 in	

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## Physical Characteristics

Type .....	Descriptions .....		
Cube	1 cu ft	1 cu ft	
Footprint	2 sq ft	2 sq ft	
Weight	60 lb	60 lbs	

## References

Ref No	Reference
1	Baldt Catalog #30 for Anchors and Chain
2	NAVSEA Drawing 702267, Hairpin Modification For Pear Shaped Detachable Link
3	NAVSEA Drawing 8594813, Hairpin Modification For Pear Shared Detachable Link Lk0181M, LK0183M



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## ESSM - PL0010 PLATE, FLOUNDER, 4-PT MOORING SYS



4-Point Mooring System Flounder Plate PL0010

The 4-Point Mooring System Flounder Plate PL0010 is a plate-steel connecting device. The flounder plate is used in the mooring system to connect the spring buoy to the anchoring cable, thus allowing for retrieval and disconnecting the spring buoy at the end of operations.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
NAVSEA Dwg	6648809	
Capacity	50 tons	
Proof strength	100 tons	
Breaking strength	150 tons	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	1 ft, 7 in	1 ft, 8 in	
Width	1 ft, 7 in	1 ft, 7 in	
Height	0 ft, 2 in	0 ft, 2 in	
Cube	1 cu ft	1 cu ft	
Footprint	3 sq ft	3 sq ft	



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## Physical Characteristics

Type .....	Descriptions .....		
Weight	120 lb	120 lb	

## References

Ref No	Reference
1	Ground Leg System, NAVSEA Dwg. 6648809

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FOUR-POINT MOORING SYSTEM

System - DS0200

## ESSM - WR0150 WIRE ROPE, 1 5/8" X 300'



1 5/8" x 300' Wire Rope WR0150

The 1 5/8-Inch Wire Rope WR0150 is used in situations that require a high strength, flexible connection for towing, mooring and other applications. Each length of wire rope has a spelter socket on each end; one closed, the other open. The wire rope is stored on a steel reel.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
Length	300'	
Diameter	1 5/8"	
Construction	6x19 or 7x37 wire rope	
Core type	Independent wire rope core or fiber core	
Material	Improved plow steel	
End fittings	Open socket one end, closed socket one end	
Wire coating	Galvanized wire	
Breaking strength	230,000 lb	
Safe working load	115,000 lb	

### Physical Characteristics

Type .....	Descriptions .....
	Shipping

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## Physical Characteristics

Type .....	Descriptions .....		
Diameter	4 ft, 0 in		
Height	3 ft, 9 in		
Cube	60 cu ft		
Footprint	16 sq ft		
Weight	2328 lb		

## References

Ref No	Reference
1	None

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FOUR-POINT MOORING SYSTEM

System - DS0200

## ESSM - WR0151 WIRE ROPE, 1 5/8" X 600'



1 5/8" x 600' Wire Rope WR0151

The 1 5/8-Inch Wire Rope WR0151 is used in situations that require a high strength, flexible connection for towing, mooring and other applications. Each length of wire rope has a spelter socket on each end; one closed, the other open. The wire rope is stored on a steel reel.

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Specifications		
Type	Description	Qty
Manufacturer	Commercial	
Length	600'	
Diameter	1 5/8"	
Construction	6x19 or 7x37 wire rope	
Core type	Independent wire rope core or fiber core	
Material	Improved plow steel	
End fittings	Open socket one end, closed socket one end	
Wire coating	Galvanized wire	
Breaking strength	230,000 lb	
Safe working load	115,000 lb	

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FOUR-POINT MOORING SYSTEM

System - DS0200

## Physical Characteristics

Type .....	Descriptions .....		
	Shipping		
Diameter	4 ft, 0 in		
Height	3 ft, 9 in		
Cube	1 cu ft		
Footprint	16 sq ft		
Weight	3370 lb		

## References

Ref No	Reference
1	None

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FOUR-POINT MOORING SYSTEM

System - DS0200

## ESSM - WR0159 WIRE ROPE, 1 1/4" X 100' (FOUR ROPES PER REEL)



1 1/4" x 100' Wire Rope WR0159

The 1 1/4-Inch Wire Rope WR0159 is used in situations that require a high strength, flexible connection for towing, mooring, attachment of crown buoys, as a retrieval wire, and in other applications. Each wire rope reel contains four 100-foot lengths of 1 1/4-inch wire rope.

### Specifications

Type	Description	Qty
SPECIFICATIONS	Commercial	
Length	100', 4 ropes per reel	
Diameter	1 1/4"	
Construction	6x19 or 7x37 wire rope	
Core type	Independent wire rope core or fiber core	
Material	Improved plow steel	
End fittings	Hard eyes, each end	
Wire coating	Galvanized wire	
Breaking strength	138,800 lb	
Safe working load	69,400 lb	

### Physical Characteristics

Type .....	Descriptions .....
	Shipping

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FOUR-POINT MOORING SYSTEM

System - DS0200

## Physical Characteristics

Type .....	Descriptions .....		
Diameter	4 ft, 0 in		
Height	3 ft, 8 in		
Cube	59 cu ft		
Footprint	16 sq ft		
Weight	2135 lb		

## References

Ref No	Reference
1	None