

# S0300-BV-CAT-010

## SECONDARY TOWING BRIDLE SYSTEM

System - TS0605

The Secondary Towing Bridle Assembly System TS0605 consists of a flounder plate, plate shackles, bolt-type shackles, wire ropes, and wire rope clamps. These materials may be used to back up the Primary Towing Bridle Assembly System TS0600, or to provide a secondary tow point for increased control of the towed vessel. The system is designed for maximum flexibility, and thus contains materials that may not be required for any one specific towing application. This system may also be used in conjunction with the Emergency Towing Anchor System TS0620.

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## ESSM - PL0950 PLATE, FLOUNDER, TOWING, W/ RETRIEVAL PADEYE



Towing Flounder Plate PL0950

The Towing Flounder Plate PL0950 is a plate steel connecting device. The flounder plate is used in towing situations to connect a single towing cable or chains from the towing vessel to two towing cables or chains connected to the towed vessel. This allows for greater stability and directional control of the tow. The flounder plate is used in salvage systems TS0600 and TS0605.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
NAVSEA Dwg	7022632	
Capacity	50 tons	
Proof strength	100 tons	
Breaking strength	150 tons	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	1 ft, 8 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	

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## Physical Characteristics

Type .....	Descriptions .....		
Footprint	3 sq ft	3 sq ft	
Weight	168 lb	168 lbs	

## References

Ref No	Reference
1	U.S. Navy Ship Salvage Manual, Volume 1, Theory of Strandings and the Use of Beach Gear, NAVSHIPS 0994-000-3010
2	NAVSEA Dwg. 7022632

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## ESSM - SS0171 SHACKLE, SMALL PLATE, 2 1/4"/2 1/4" BOLTS



Small Plate Shackle SS0171

The Small Plate Shackle SS0171 is a two-piece assembly constructed of plate steel. It is used to connect elements of chain or wire rope to other objects. The shackle bolts are secured using a 3/8-16 x 4 machine bolt with two nuts jammed together to prevent the nut from rotating on the bolt. This is done in place of securing the nut to the bolt with a cotter pin.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
NAVSEA Dwg.	6648721	
Capacity	50 tons	
Proof strength	100 tons	
Breaking strength	150 tons	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping	Operating	
Length	1 ft, 8 in	1 ft, 8 in	
Width	0 ft, 7 in	0 ft, 7 in	
Height	0 ft, 11 in	0 ft, 11 in	
Cube	1 cu ft	1 cu ft	

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## Physical Characteristics

Type .....	Descriptions .....		
Footprint	1 sq ft	1 sq ft	
Weight	110 lb	110 lbs	

## References

Ref No	Reference
1	NAVSEA Dwg. 6648721

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## ESSM - TB0025 ANCILLARY SET, SECONDARY TOW BRIDLE ASSY SYSTEM



Secondary Towing Bridle Assembly System Ancillary Set TB0025

The Secondary Towing Bridle Assembly System Ancillary Set TB0025 contains the hardware necessary to assemble the system. The container is equipped with forklift slots and lifting eyes to facilitate handling.

### Specifications

Type	Description	Qty
Manufacturer	ESSM Facility	
Model	TB0025	
The set contains the following major items:		
Wire Mesh Basket, 62" x 36" x 41":		1
Plate, Flounder, Towing, w/ Retrieving Pad Eye	PL0950	1
Shackle, Small Plate, 2 1/4"/2 1/4" Bolts	SS0171	3
Shackle, Bolt-Type, 2 1/2", 55-Ton, Gr A, Tow.		4
Shackle, Bolt-Type, 2 1/2", 85-Ton, Gr B, Tow.		3
Shackle, Bolt-Type, 1 1/4", Tow.		1

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## Specifications

Type	Description	Qty
Wire Rope, 7/8" x 100' (Retrieving Wire)	WR0021	1
Wire Rope, 1/2" x 800'	WR0190	1
Box, plywood, 17" x 11" x 9":		1
Clamp, wire rope, 7/8"		24
Inventory, laminated		1

## Physical Characteristics

Type .....	Descriptions .....		
	Shipping		
Length	5 ft, 2 in		
Width	3 ft, 0 in		
Height	3 ft, 5 in		
Cube	53 cu ft		
Footprint	16 sq ft		
Weight	2194 lb		

## References

Ref No	Reference
1	None

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## ESSM - WR0021 WIRE ROPE, 7/8" x 100' (RETRIEVING WIRE)



7/8-Inch Wire Rope (Retrieving Wire) WR0021

The 7/8-Inch Wire Rope (Retrieving Wire) WR0021 is a 100' wire rope with a hard eye on one end and secured with wire rope clamps on the other. The retrieving wire is attached to the lifting eye of the flounder plate to facilitate recovery of the towing assembly at the end of the towing operation or in the event of a component failure during the tow.

Specifications		
Type	Description	Qty
Manufacturer	Commercial	
Length	100'	
Diameter	7/8"	
Construction	6 x 37 wire rope	
Core type	Fiber core	
Material	Improved plow steel	
End fittings	Hard eye one end and bitter end	
Wire coating	Galvanized	

Physical Characteristics			
Type .....	Descriptions .....		
	Shipping		
Diameter	2 ft, 6 in		



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## Physical Characteristics

Type .....	Descriptions .....		
Height	2 ft, 4 in		
Weight	292 lb		

## References

Ref No	Reference
1	None

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## ESSM - WR0060 WIRE ROPE, 2" x 200', W/CLOSED SOCKET EACH END



2-Inch Wire Rope WR0060

The 2-Inch Wire Rope WR0060 is used in situations that require a high strength, flexible connection for towing, mooring, and other applications. Each length of wire rope has a closed socket on each end. The wire rope is stored on a steel reel.

Specifications		
Type	Description	Qty
Manufacturer	Commercial	
Length	200'	
Diameter	2"	
Construction	6x19 or 7x37 wire rope	
Core type	Independent wire rope core or fiber core	
Material	Improved plow steel	
End fittings	Closed socket on each end	
Wire coating	Galvanized	

Physical Characteristics			
Type .....	Descriptions .....		
	Shipping		
Diameter	4 ft, 0 in		
Height	3 ft, 10 in		

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## Physical Characteristics

Type .....	Descriptions .....		
Weight	2388 lb		

## References

Ref No	Reference
1	None

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## ESSM - WR0064 WIRE ROPE, 2 1/4" X 90', W/HARD EYE EACH END



2 1/4-Inch Wire Rope WR0064

The 2 1/4-Inch Wire Rope WR0064 is used in situations that require a high strength, flexible connection for towing, mooring, and other applications. Each length of wire rope has a spliced hard eye on each end. The wire rope is stored on a steel reel.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
Length	90'	
Diameter	2 1/4"	
Construction	6x19 wire rope	
Core type	Independent wire rope core or fiber core	
Material	Improved plow steel	
End fittings	Spliced with hard eyes each end	
Wire coating	Galvanized	

### Physical Characteristics

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

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## Physical Characteristics

Type .....	Descriptions .....		
Weight	1850 lb		

## References

Ref No	Reference
1	None

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## ESSM - WR0190 WIRE ROPE, 1/2" X 800'



1/2-Inch x 800-Foot Wire Rope WR0190

The 1/2-Inch x 800-Foot Wire Rope WR0190 is used as a general purpose wire rope during deployment of the Towing System. The wire rope and wooden reel is stored in the Ancillary Set TB0025.

### Specifications

Type	Description	Qty
Manufacturer	Commercial	
Length	800'	
Diameter	1/2"	
Construction	6x37 wire rope	
Core type	Fiber core	
Material	Improved plow steel	
End fittings	Bitter ends	
Wire coating	Galvanized	

### Physical Characteristics

Type .....	Descriptions .....		
	Shipping		
Diameter	2 ft, 6 in		

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## Physical Characteristics

Type .....	Descriptions .....		
Height	2 ft, 4 in		
Weight	275 lb		

## References

Ref No	Reference
1	None