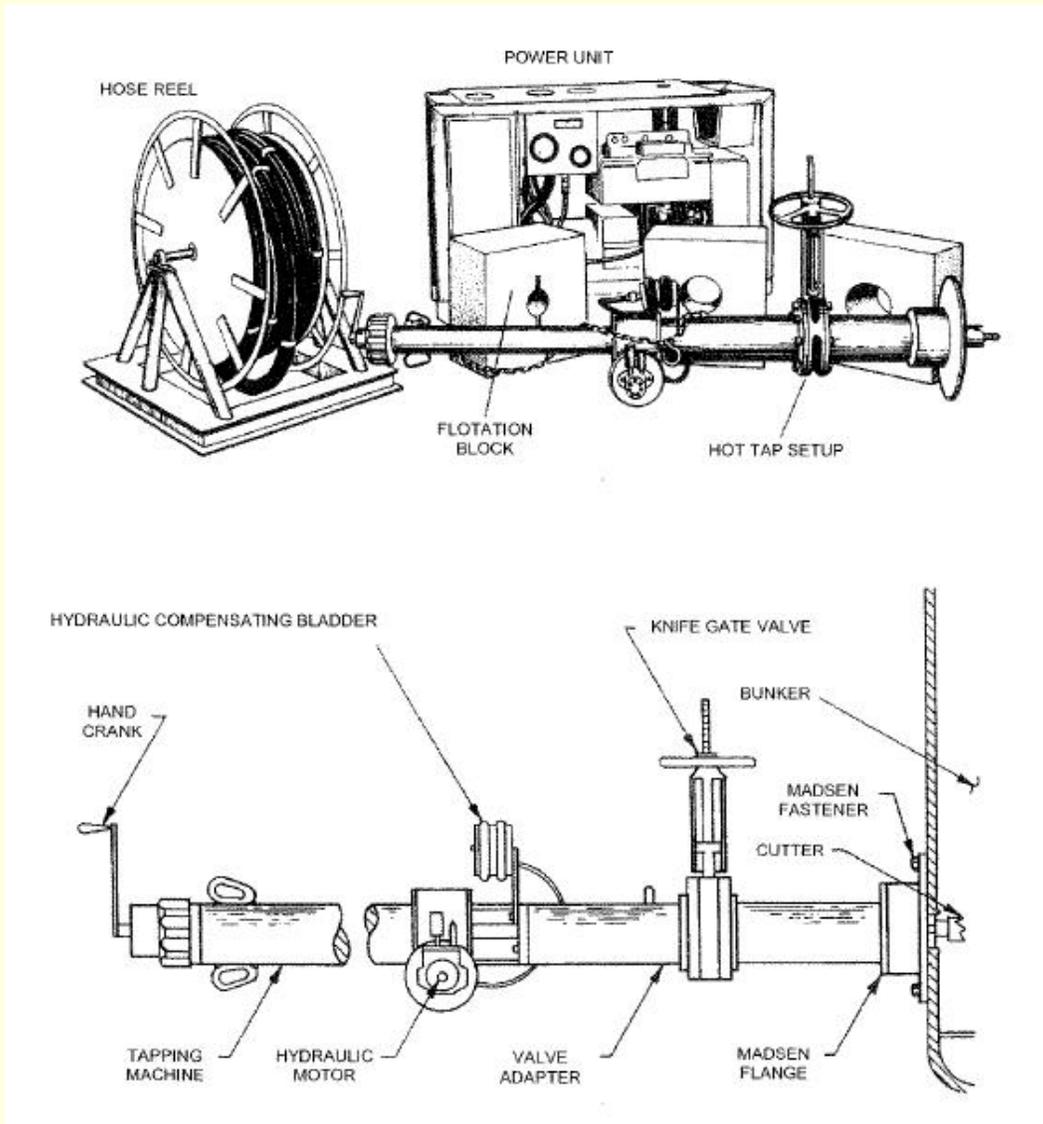


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HOT TAP SYSTEM

System - P10100



Hot Tap System Overview P10100

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HOT TAP SYSTEM

System - P10100

The Hot Tap System P10100 consists of two hot tap machines, two Mod 2 hydraulic power units, two hydraulic hose reel assemblies, two stud guns, a hydraulic grinder, a hydraulic impact wrench, two machinery containment pools, and one container van used for storage and shipping. The Hot Tap System is used underwater by divers to allow oil to be removed from sunken or distressed ships by installing a flange and valve on the side of the ship's hull or tank through which oil can be discharged. This can be accomplished without spilling the oil or admitting water into the space/tank. When the equipment is in an operating configuration, the storage/shipping container serves as a maintenance shop and personnel shelter.

System Components for P10100

Alternates

ESSM No	Nomenclature	Type	Qty	NS	Cont
VA0736C	VAN, HOT TAP	BL	1		Y
CP3010	CONTAINMENT POOL, MCHRY, 10' X 6' X 12"	Contents	2		
GU0120	GUN, STUD, HOT TAP SYSTEMS	Contents	2		
HS0137	HOSE REEL ASSEMBLY, HYDRAULIC, W/3/4" SYNIFLEX HOSE	Contents	2		
MC0110	MACHINE, HOT TAP	Contents	2		
PW0108	POWER UNIT, HYD, MOD 2, DIESEL, 15 GPM @ 2000 PSI	Contents	2		
TL1000	GRINDER, HYDRAULIC	Contents	1		
TL1010	WRENCH, IMPACT, HYDRAULIC	Contents	1		

Baseline verified on 8/7/2018, * Not shown in catalog.

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ESSM - VA0736C VAN, HOT TAP



Hot Tap Van VA0736C

The Hot Tap Van VA0736C is used as a storage/shipping container for the components of the Hot Tap System, which include two Hydraulic Power Units PW0108, two Hot Tap Machines MC0110, two Stud Guns GU0120, various hydraulic hose assemblies, and the necessary equipment to maintain and operate the Hot Tap System. When the equipment is in an operating configuration, the shipping container serves as a maintenance shop and personnel shelter. The van has a heat pump for climate control, a workbench, and the necessary tools for maintaining the equipment.

Specifications

Type	Description	Qty
Manufacturer	Commercial	
Model	VA0736C	

Physical Characteristics

Type	Descriptions		
	Shipping		
Length	20 ft, 0 in		
Width	8 ft, 0 in		
Height	8 ft, 0 in		
Cube	1280 cu ft		
Footprint	160 sq ft		
Weight	19858 lbs		

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References

Ref No	Reference
1	None

**ESSM - CP3010
CONTAINMENT POOL, MCHRY, 10' X 6' X 12"**



CP3010 Folded



Machinery Containment Pool CP3010

The Machinery Containment Pool CP3010 is a 10' x 6' x 12" urethane berm. It is used to provide a means of catching and containing any oil, fuel, or contaminants, leaking or spilled from the operating equipment it contains.

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Specifications

Type	Description	Qty
Manufacturer	Basic Concepts	
Model	1003-00449-201A	

Physical Characteristics

Type	Descriptions		
	Shipping	Operating	
Length	3 ft, 3 in	10 ft, 0 in	
Width	2 ft, 5 in	6 ft, 0 in	
Height	0 ft, 9 in	1 ft, 0 in	
Cube	6 cu ft	60 cu ft	
Footprint	8 sq ft	60 sq ft	
Weight	70 lbs	70 lbs	

References

Ref No	Reference
1	None

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ESSM - GU0120 GUN, STUD, HOT TAP SYSTEMS



Stud Gun GU0120

The Hot Tap System Stud Gun GU0120 is a direct-acting, high-velocity, underwater marine, powderactuated tool that can be used by divers in water depths to 300 feet. The gun utilizes energy from a special expendable barrel to drive a fastener into steel or concrete. Fasteners are loaded into the expendable barrels prior to entering the water. Once the diver is in the water, the barrel is inserted in the gun and fired. The fastener is driven at a high velocity down the barrel by the expanding gases of the fired load into the work surface. The used barrel is removed and a new barrel is inserted for the next fastening. The stud gun is designed to allow up to four fastenings a minute.

Specifications

Type	Description	Qty
Manufacturer	I.T.W. Ramset	
Model	200 HD	
Caliber	.38	
Max. depth to use gun	300 ft	
Velocity of fasteners	492 feet per second	

Physical Characteristics

Type	Descriptions		
	Shipping		
Length	1 ft, 7 in		
Width	0 ft, 9 in		

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Physical Characteristics

Type	Descriptions		
Height	0 ft, 11 in		
Cube	1 cu ft		
Footprint	2 sq ft		
Weight	30 lbs		

References

Ref No	Reference
1	Ramset 200 HD Tool Operator's Instructions and Training Manual, TM-21, 5/88

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ESSM - HS0137 HOSE REEL ASSEMBLY, HYDRAULIC, W/3/4" SYNIFLEX HOSE



Hose Reel HS0137

The Hydraulic Hose Reel Assembly HS0137 consists of a 3/4-inch diameter braided lined Syniflex hose, which is reeled onto a mechanical hose reel in two, 100-foot continuous sections. The hose is equipped with quick disconnect fittings compatible with the Hydraulic Power Unit PW0108. A separate set of 15-foot hose assemblies are used to couple the hoses and the power source to each other.

Specifications		
Type	Description	Qty
Hose Reel		
Manufacturer	ESSM Facility	
Model	HS0137	
Hydraulic Hose		
Manufacturer	Furon Syniflex	
Model	3R80-12	
Inner diameter	3/4 in	
Max. outer diameter	1 in	
Min. bend radius	7 in	
Working pressure	2250 psi	
Min. burst pressure	9000 psi	

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Specifications

Type	Description	Qty
Weight per 100 feet	26 lb	
Hose couplings	390 H-12	

Physical Characteristics

Type	Descriptions		
	Shipping		
Length	3 ft, 10 in		
Width	2 ft, 9 in		
Height	3 ft, 11 in		
Cube	41 cu ft		
Footprint	11 sq ft		
Weight	630 lb		

References

Ref No	Reference
1	Synflex Hydraulic Hose, Specialty Hose, Tubing, and Accessories; Furon Synflex Reel, 3/4" Hose, Hydraulic NAVSEA Dwg. 5366582

**ESSM - MC0110
MACHINE, HOT TAP**



Hot Tap Machine MC0110

The Hot Tap Machine MC0110 is capable of cutting 5 1/2-inch diameter hole in up to 1-inch thick mild steel plate. The machine is lightweight (with the bulk of its weight concentrated toward the cutter head) and has an adjustable automatic feed rate. These features promote relative ease of handling and operation by divers. The hardware in the kit can restrict the cutting capability to 1-inch plate and 6-inch nominal diameters. The drive motor for the hot tap machine is a hydraulic motor.

Specifications		
Type	Description	Qty
Manufacturer	T.D. Williams, Inc.	
Model	T-203	
Max. operating pressure	1500 psi	
Working pressure	600 - 800 psi	
Flow rate	15 gpm	
Max. boring bar travel	36"	
Rate of travel	Adjustable: 0 to 1/8" per revolution	
Nominal cutter size	5 1/2"	
Pilot size	3/4" diameter	

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Physical Characteristics

Type	Descriptions		
	Operating		
Length	5 ft, 3 in		
Width	2 ft, 2 in		
Height	1 ft, 6 in		
Cube	15 cu ft		
Footprint	12 sq ft		
Weight	258 lbs		

References

Ref No	Reference
1	T.D. Williams, Inc. Maintenance and Operation Manual, Salvage Hot Tap Kit, NAVCOSSYSCUT, Panama City, FL, May 1978

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HOT TAP SYSTEM

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ESSM - PW0108 POWER UNIT, HYD, MOD 2, DIESEL, 15 GPM @ 2000 PSI



Mod 2 Hydraulic Power Unit PW0108

The Mod 2 Hydraulic Power Unit PW0108 is a portable, diesel driven unit that provides hydraulic fluid up to 15 gpm @ 2000 psi. An adjustable pressure relief valve controls the output pressure delivered to the supply circuit. The HPU is mounted on a steel frame equipped with forklift slots and lifting points for handling during shipment and operation. Hydraulic connections are made via Aeroquip 5600, -12 series male and female quick disconnect fittings for the hydraulic supply and return, with a 3/8-inch case drain fitting. The unit is shipped with the exhaust muffler attached to the side of the HPU housing, and the muffler is installed prior to operation of the unit.

Specifications		
Type	Description	Qty
Hydraulic Power Unit Assembly		
Manufacturer	Commercial, Navy Design	
Model	NAVSEA Model 2	
Diesel Engine		
Manufacturer	Onan	
Series	DJC-MS/2450	
Rpm	2400	
Horsepower	23.8 @ 2400 rpm	
Starting	Electric, 12-volt	

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Specifications

Type	Description	Qty
Fuel	Diesel	
Fuel source	Internal tank, 20-gal	
Fuel consumption	1.5 gph @ 2000 rpm	
Hydraulic Pump		
Manufacturer	Vickers Inc.	
Model	30-H-10	
Type	Axial piston	
Flow (maximum)	15 gpm @ 2000 psi	
Hyd. reservoir	55 gal	
Hydraulic fluid	Rando 46	

Physical Characteristics

Type	Descriptions		
	Shipping	Shipping w/hot tap machine	Operating
Length	5 ft, 8 in	5 ft, 8 in	5 ft, 8 in
Width	2 ft, 0 in	2 ft, 0 in	2 ft, 0 in
Height	3 ft, 8 in	5 ft, 2 in	6 ft, 8 in
Cube	42 cu ft	59 cu ft	76 cu ft
Footprint	12 sq ft	12 sq ft	12 sq ft
Weight	1762 lbs	2035 lb	2035 lb

References

Ref No	Reference
1	Operation and Maintenance Instructions, Diesel Hydraulic Power Unit, NAVSEA Model 2, S9233-A-3-MM0-01B-0910-LP-000-4092

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HOT TAP SYSTEM

System - P10100

ESSM - TL1000 GRINDER, HYDRAULIC



Hydraulic Grinder TL1000

The Hydraulic Grinder TL1000 is a hydraulically driven rotary device that uses a wheel made of an abrasive material to clean, grind, polish, and shape metallic materials. It is designed for underwater use.

Specifications

Type	Description	Qty
Manufacturer	Stanley Hydraulic Tools	
Model	GR24	
Pressure range	1000-2000 psi	
Flow range	7-9 gpm	
Optimum flow	9 gpm	
Porting	3/8" pipe	

Physical Characteristics

Type	Descriptions		
	Shipping		
Length	0 ft, 17 in		
Width	0 ft, 9 in		
Height	0 ft, 9 in		
Cube	1 cu ft		

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Physical Characteristics

Type	Descriptions		
Weight	11 lbs		

References

Ref No	Reference
1	Stanley Model GR24 Hydraulic Grinder Parts Manual

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ESSM - TL1010 WRENCH, IMPACT, HYDRAULIC, 3/4"



Hydraulic Impact Wrench TL1010

The Hydraulic Impact Wrench TL1010 is a rotary hammer that impacts the head of a nut or bolt to either loosen or tighten it and is designed for use underwater.

Specifications		
Type	Description	Qty
Manufacture	Stanley	
Model	IW12340C	
Capacity	3/4"	
Torque	250-1200 ft lbs	
Circuit type	Open center	
Flow Range	4-12 gpm	
Working pressure	1000-2000 psi	
Full relief setting	2250 psi	
Hydraulic ports	-8 SAE O-ring	

Physical Characteristics		
Type	Descriptions	
	Shipping	
Length	1 ft, 8 in	

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System - P10100

Physical Characteristics

Type	Descriptions		
Width	0 ft, 10 in		
Height	0 ft, 9 in		
Cube	2 cu ft		
Footprint	2 sq ft		
Weight	20 lbs		

References

Ref No	Reference
1	Stanley Model IW12 Hydraulic Impact Wrench Parts Manual