

SYNERGY DUAL BASKET 3 DIVER LAUNCH & RECOVERY SYSTEM SY-ATLAS-3D-D023-LARS



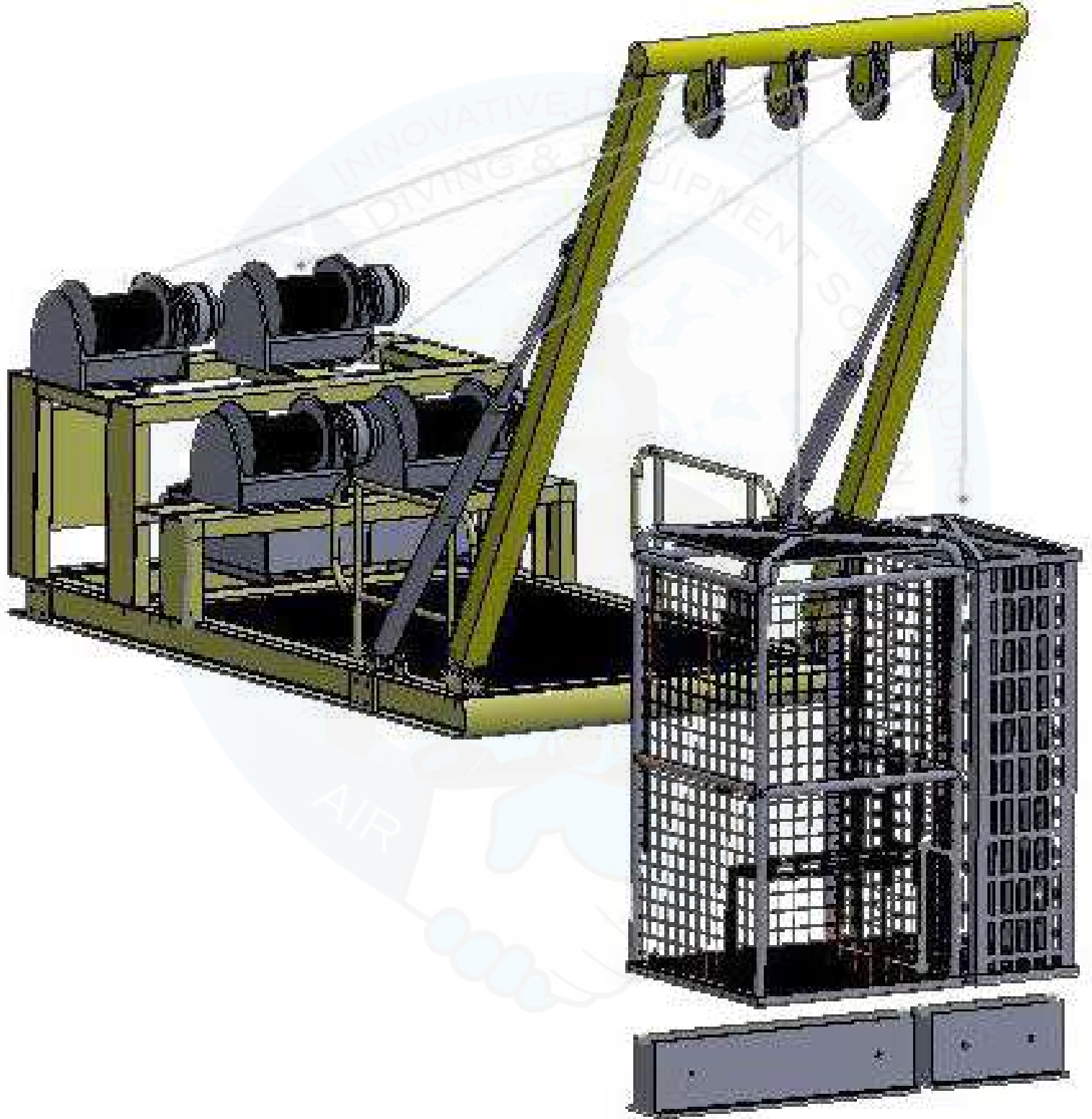
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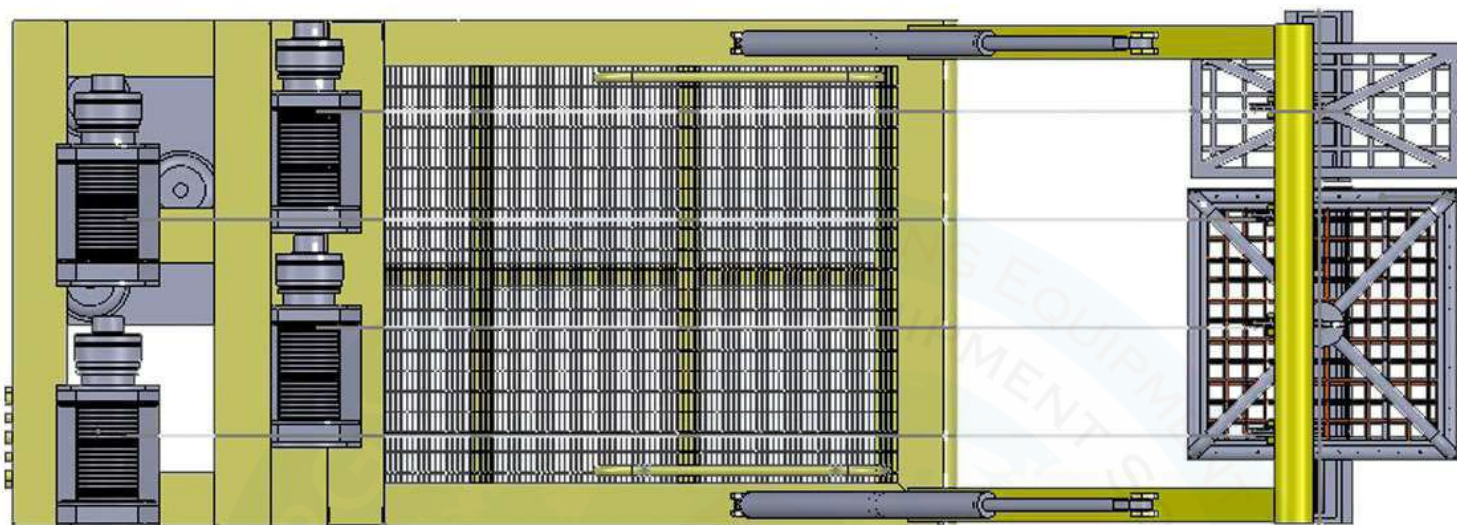
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Synergy's Dual Basket Launch and Recovery System has been specifically designed to give a compact operating footprint to minimize the deck space required on board a vessel or barge. We have given great emphasis for ease of mobilization and demobilization, so that these costs are kept to a minimum

The lars folds down in order that it fits into a standard ISO 20 ft shipping container, thus expensive shipping costs for out of gauge size goods are avoided. This also allows for safe storage and protection.

MAIN COMPONENTS OF THE SYSTEM ARE AS BELOW

BASE SKID FRAME

TWO CLUMP WEIGHTS

PRIMARY DIVE BASKET (TWO DIVER)

SECONDARY DIVE BASKET (STANDBY DIVER)

ELECTRIC HYDRAULIC POWER PACK WITH TRIPLE MOTORS AND PUMPSMAN RIDING WINCHES

SKID BASE

The Base Skid is constructed of heavy section Universal Column with Vertical A frame section located at one end. Winch Platforms and the Hydraulic Power unit are at the other end. Hydraulic Cylinders are fixed to the base devise to operate the A Frame. These can be fully retracted to a safe shipping position without the need for removal

DIMENSIONS OF THE BASE SKID ARE 4085 CM LENGTH X 2200 WIDTH

The base frame is covered with a light weight, non slip, corrosion proof galvanised grating. The winches are integrally piped in 316 Stainless steel to the hydraulic control valve block, which in turn are connected directly to the supply and return hydraulic supplies of the winches The base skid is additionally fitted with two inward opening safety gates, which have integrated 316 stainless steel multi rollers fitted for smooth payment of umbilicals.

THE A FRAME

The A frame is moved by hydraulic cylinders to the inboard or outboard positions by operation of the proportional hydraulic control valves. The A frame is fitted with two central sheaves, where the lift wire is positioned for lifting and lowering of the dive baskets. Additionally, two sheaves for the clump weight wires and two bucket lugs for connection of the clump weight wire end termination are provided. The head of the A frame also incorporates a limit switch operated with a solenoid valve, in case in darkness or rough seas, if the operator overwines the baskets, once the basket touches the switch, power will be automatically cut off.

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CLUMP WEIGHT

There are two pre fabricated clump weights which allows the clump weight wire to be double weaved through the sheaves located at each end of the clump weight. This allows free travel of the clump weight in the event of an emergency recovery of the two diver baskets. The clump weights are of different sizes which relate to the primary or secondary basket size.

TRIPLE ELECTRIC HYDRAULIC POWER UNIT (HPU)

This is a Triple Electric Hydraulic Power pack mounted on a removable skid secured within the winch platform structure. The Triple Hydraulic power pack is equipped with three separate hydraulic reservoirs with return line filters, sight glasses and fill points. The skid is fitted with three electric motors, all with variable displacement, axial piston pumps complete with constant pressure control. The third electrically driven hydraulic power pack acts as an independent secondary supply in the event of failure of the two primary units, the hydraulic circuitry is fitted with non return valves and over pressurization safety valves which operate as and when required during the operation of the divers lars system. The unit is fitted with a single one lever change over valve, which is switched very simply from the primary to the secondary hydraulic system circuits, without the need to disconnect or operate multiple changeover valves.

TWIN BASKET, STAINLESS STEEL (PRIMARY AND SECONDARY)

PRIMARY DIVE BASKET (SUITABLE FOR TWO DIVERS)

This is a 1250mm x 900mm Diving Cage, completely made with SS 316 Stainless steel, with overhead protective frame suitable for two divers. It incorporates 2 x 50 ltr high pressure emergency air cylinders, clump weight wire guides and diver access points from both sides. Hand Hold points are located within the cage and the base of the basket is complete SS 316 grade material. Stainless steel 316 SS mesh cladding is used to enclose the top and sides of the basket. Stainless steel chairs, carabiners, nuts and bolts are used as standard for the assembly of this basket. The main structure of the basket is made up of a heavy duty tubular section. The main lift wire connection point incorporates two additional emergency lift points.

SECONDARY DIVE BASKET (SUITABLE FOR ONE DIVER)

This is a 1250mm x 670mm Diving Cage, completely made with SS 316 Stainless steel, with overhead protective frame suitable for two divers. It incorporates 1 x 50 ltr high pressure emergency air cylinder, clump weight wire guides and diver access points from both sides. Hand Hold points are located within the cage and the base of the basket is complete SS 316 grade material. Stainless steel 316 SS mesh cladding is used to enclose the top and sides of the basket. Stainless steel chairs, carabiners, nuts and bolts are used as standard for the assembly of this basket. The main structure of the basket is made up of a heavy duty tubular section. The main lift wire connection point incorporates two additional emergency lift points.

MANRIDING WINCHES

All four hydraulic man riding winches are high performance planetary type winches. The winches are powered by high efficiency gear motors designed specifically for marine applications. The motor torque is transmitted and multiplied by the gear train within the winch drums. All rotating components are supported by high anti fraction bearings and run in oil to minimise friction.

The load control system is maintained by a patented brake valve. The brake valve is also backed up by an internal multi disc hydraulic release safety brake. Additionally an overrun clutch permits a free rotation through the brake in the hoisting direction for immediate lock up when the hoisting operation is completed

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WIRE ROPE, NON ROTATING, GALVANIZED STEEL WIRE ROPE

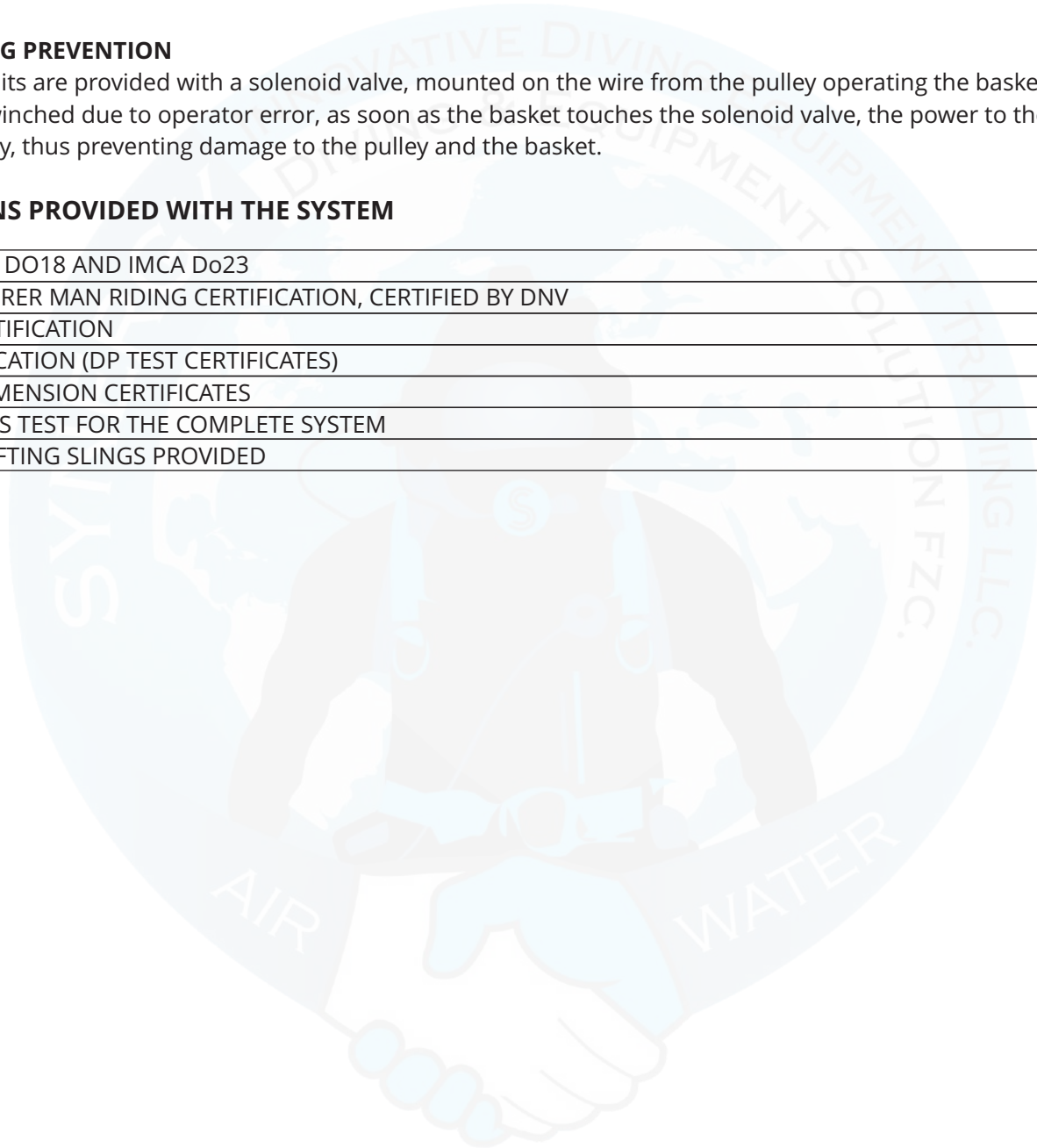
Main primary basket man riding winch supplied with wire rope	100 mtrs
Main basket man riding guide winch supplied with wire rope	100 mtrs
Secondary basket man riding winch supplied with wire rope	200 mtrs
Secondary basket main riding guide winch supplied with wire rope	200 mtrs

OVERWINCHING PREVENTION

Synergy Lars units are provided with a solenoid valve, mounted on the wire from the pulley operating the basket. If the basket is over winched due to operator error, as soon as the basket touches the solenoid valve, the power to the lars is cut off automatically, thus preventing damage to the pulley and the basket.

CERTIFICATIONS PROVIDED WITH THE SYSTEM

AS PER IMCA DO18 AND IMCA Do23
MANUFACTURER MAN RIDING CERTIFICATION, CERTIFIED BY DNV
LIFTING CERTIFICATION
NDT CERTIFICATION (DP TEST CERTIFICATES)
AS BUILD DIMENSION CERTIFICATES
DNV WITNESS TEST FOR THE COMPLETE SYSTEM
CERTIFIED LIFTING SLINGS PROVIDED



CERTIFICATES PROVIDED WITH EACH TWIN LARS

A frame	DNV GL load test
Winch	Man riding certificate from manufacturer and DNV
Wire rope	Manufacturer mill certificate
Lars	Bureau veritas function test certificate
Lifting Slings	Bureau Veritas
Basket	Bureau veritas load test certificate
Imca	D018 / D023
Class	Bureau Veritas pressure test witness for entire system
Fmea	As built by Synergy
Fmea stamped by class	As built by Synergy and reviewed by Class (optional)
Warranty	One year Synergy manufacturing warranty

Bell Fluidtechnics Pvt. Ltd.
Reg. No. 1228779, Registered Office: 400/1, Sector - 40, Gurgaon - 122002, Haryana - INDIA
Tel: 002 2778 4001, Fax: 002 2778 4330, E-mail: info@bellfluid.com, www.bellfluid.com

LOAD TEST CERTIFICATE

TO: Mr. SURESH KUMAR REDDY
DATE: 12.12.2019

LOAD TESTING OF "A" FRAME

Reference: Twin A-frame LARS "A" Frame bearing No. 1228779/7A-FRAME with four winches complete with the Diving Cages and DSC Diving Systems has been tested as follows (Load):

Main Section (Dr. No. 122879-001/1) tested with two winches in load as shown below:

Sl. No.	Main Section Wincher	Serial Number	Test Load	SWL
1	Star Winch	W0374800	113kg	240kg
2	Star Winch (in use)	W0374801	142kg	300kg

Support Section (Dr. No. 122879-001/2) tested with two winches in load as shown below:

Sl. No.	Support Section Wincher	Serial Number	Test Load	SWL
1	Main Winch	W0374200	474kg	450kg
2	Star Winch (in use)	W0374210	300kg	400kg

Authorised Signatures: 

Bell Fluidtechnics Pvt. Ltd.
Reg. No. 1228779, Registered Office: 400/1, Sector - 40, Gurgaon - 122002, Haryana - INDIA
Tel: 002 2778 4001, Fax: 002 2778 4330, E-mail: info@bellfluid.com, www.bellfluid.com

TEST CERTIFICATE

TEST NO: 1001/2019/001
DATE OF TEST: 24.12.2019

INSPECTOR APPROVAL: 

PRODUCT: HYDRAULIC WINCH FOR DIVING

CLIENT: M/S. SURESH KUMAR REDDY (INDIA) PRIVATE LIMITED, GURGAON, INDIA

TEST TYPE: FUNCTIONAL TEST

TEST LOAD: 1000kg HYDRAULIC WINCH FOR DIVING LARS

TEST RESULTS: **PASSED**

REMARKS: **GOOD WORKING CONDITION, ALL PARTS WORKING PROPERLY, NO DEFECTS OBSERVED.**

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Authorised Signatures: 

usha martin
Welding & Fabrication Division

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DATE OF TEST: 24.12.2019

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CLIENT: M/S. SURESH KUMAR REDDY (INDIA) PRIVATE LIMITED, GURGAON, INDIA

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OVERWINCHING PREVENTION


Manufacturer	Synergy Bell
Wire rope	Usha Martin
International	IMCA D018 / D023
Class witness lars	DNV GL (for complete unit)
Lifting	Bureau veritas
NDT	MPI/DP

ORDERING INFORMATION




SR	PART NUMBER	DESCRIPTION
1	SY-ATLAS-3DD023-TWIN LARS	SYNERGY DUAL BASKET 3 DIVER LAUNCH & RECOVERY SYSTEM



Contact us

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