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河北泽邦塑胶科技有限公司

HEBEI ZEBUNG RUBBER TECHNOLOGY CO.,LTD



ENTERPRISE INTRODUCTION

Hebei Zebung Plastic Technology Co., LTD. It was founded in 2003 with a registered capital of 56.9 million yuan. IS A HIGH-TECH R & D and Production Enterprise engaged in the field of large-caliber marine oil pipeline, industrial and civil fluid hose, dredging hose, food hose, etc. . Zebung technology in the field of rubber pipeline ploughed 19 years, through continuous scientific and technological innovation and technological breakthroughs, many products have been in the global leading level. In the field of high-end offshore oil pipeline, Zebung is the only domestic independent R & D Offshore Oil Pipeline Project Enterprises. In particular, the self-developed offshore floating tubing and underwater tubing, Zebung is the first domestic research and development through the French BV Classification Society on the GMPHOM 2009 standard certified products. Zebung has established a research and Development Laboratory in cooperation with the Institute of Marine Engineering of China University of Petroleum. From the most advanced scientific and technological fields, Zebung has mastered the key technologies in every aspect from rubber raw materials to production and application. Zebung technology, as a member of China Rubber Industry Association Hose Branch and National Rubber Commission hose branch, has won a number of national R & D Patents in recent years, and has been widely praised by the industry and customers. Won "National Quality Service Customer Satisfaction Enterprise", "national quality trusted products", "annual oil hose overseas market independent brand leader" and many honors awarded by provinces and cities. Several products through BV, CE, ISO9001:2008 quality assurance system. Zebung's products are exported to more than 50 countries and regions, including the United States, Australia, Argentina, Singapore, Malaysia, the Netherlands, the United Kingdom, the Middle East and Africa, received widespread praise from overseas customers. In recent years, Zebung also continuously develop the domestic market, products have been widely used in domestic key projects. Zebung R & D and production covers chemical pipe, food pipe, air pipe, suction and discharge pipe, dock pipe, sand blasting pipe, cement pipe and other fluid pipe products; to meet the needs of customers at home and abroad, in addition, a new 50-meter dock tubing production line has been added to meet the diversified needs of customers. There are more than 120 sets of existing production equipment and 14 modern production lines, the annual output value is 150 million yuan, a figure that is constantly being updated. Zebung adhering to the "benefit of the four seas, prosperity," the purpose of the enterprise, we firmly believe that only master the strength of independent R & D core competitiveness of products, to create high-quality products, is the source of power for Enterprise Development and growth. Zebung is committed to the rubber pipeline field, to build China's right to speak and core competitiveness.

河北泽邦塑胶科技有限公司，成立于2003年，注册资金5960万元，是从事大口径海洋输油管路及工业和民用流体胶管、疏浚管、食品管等在内的橡胶管路领域的高科技研发生产型企业。泽邦科技在橡胶管路领域深耕17年，通过不断的科技创新和技术攻关，很多产品已处于全球领先水平。在高端海洋油管领域，泽邦是国内唯一一家自主研发海洋输油管项目的企业。特别是自主研发的海洋漂浮油管及海洋水下油管，泽邦更是国内首家经过自主研发通过法国BV船级社关于OCIMF GMPHOM 2009标准认证的产品。

泽邦与中国石油大学海洋工程研究院合作建立研发实验室，从最前沿的科技领域不断研发，从橡胶原材料到生产应用的各个环节，泽邦均掌握了核心关键技术。泽邦科技作为中国橡胶工业协会胶管分会成员单位，全国橡胶委软管技术委员会会员单位，近几年荣获多项国家级研发专利，受到业内及客户的广泛赞誉。获得“全国质量服务消费者满意企业”、“全国质量信得过产品”、“年度输油软管海外市场自主品牌领导者”和省市颁发的多项荣誉。

多项产品通过BV、CE、ISO9001:2008质量保证体系。泽邦科技的产品远销美国、澳大利亚、阿根廷、新加坡、马来西亚、荷兰、英国、中东、非洲等50多个国家和地区，应用于各国的重点工程和项目领域，受到海外客户的广泛赞誉。近几年，泽邦也不断开发国内市场，产品已经广泛应用于国内重点项目。

泽邦研发和生产涵盖化学管，食品管，空气水管，吸排油管，码头油管、喷砂管，水泥管等多种流体管产品；为满足国内外广大客户的需求，引进意大利进口VP全自动工业流体管生产线，另外新增大口径50米码头油管生产线，以满足不同客户的多样化需求，现有生产设备120余台套，14条现代化生产线，年产值1.5亿元，这一数字还在不断刷新中。

泽邦秉承“惠泽四海，兴邦立事”的企业宗旨，我们坚信只有掌握自主研发核心竞争力产品的实力，打造质量过硬的产品，才是企业发展壮大的源动力。泽邦致力于在橡胶管路领域，打造属于中国的话语权和核心竞争力。

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主管线水下输油软管
Mainline, submarine hose

一端增强水下输油软管
Submarine hose with one end reinforcement

码头 / 海洋输油管
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PRODUCTION AND CASE
 生产与案例



主管线 Mainline



浮筒 - 软管 - 油轮 Mooring buoy - Hose - Tanker



围栏管 Tanker rail hose



主管线 Mainline



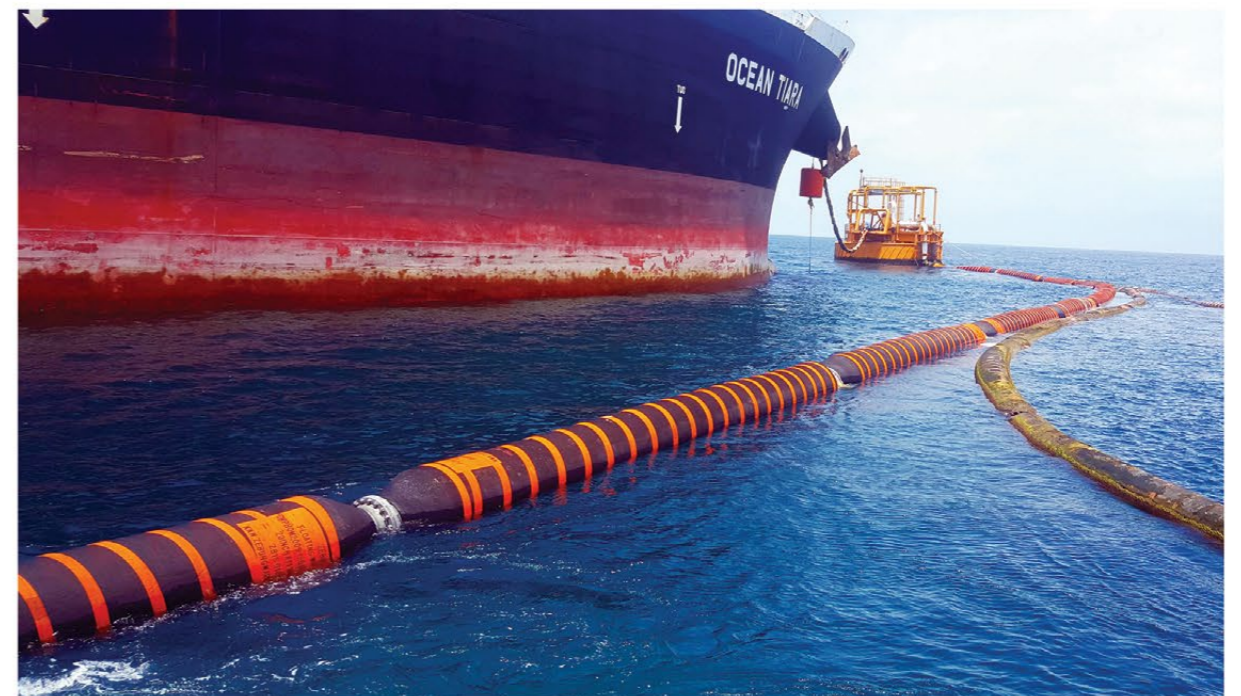
首管 First offbuoy hose



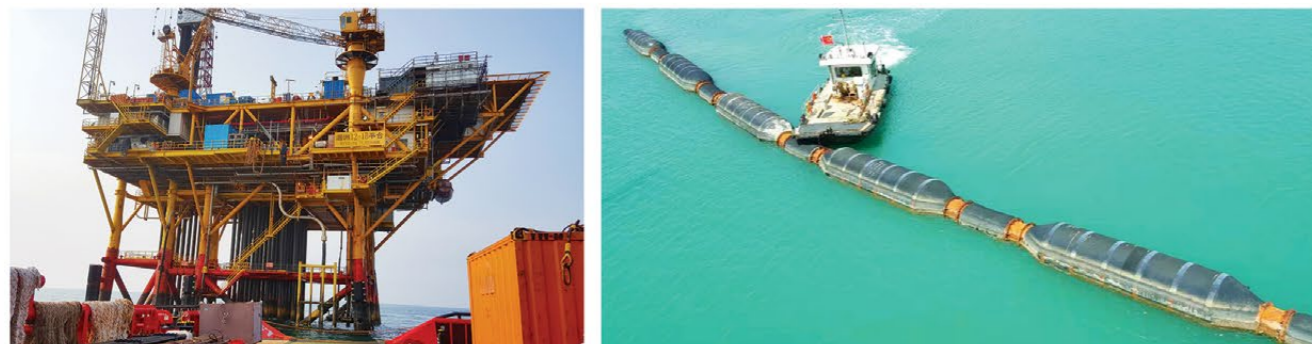
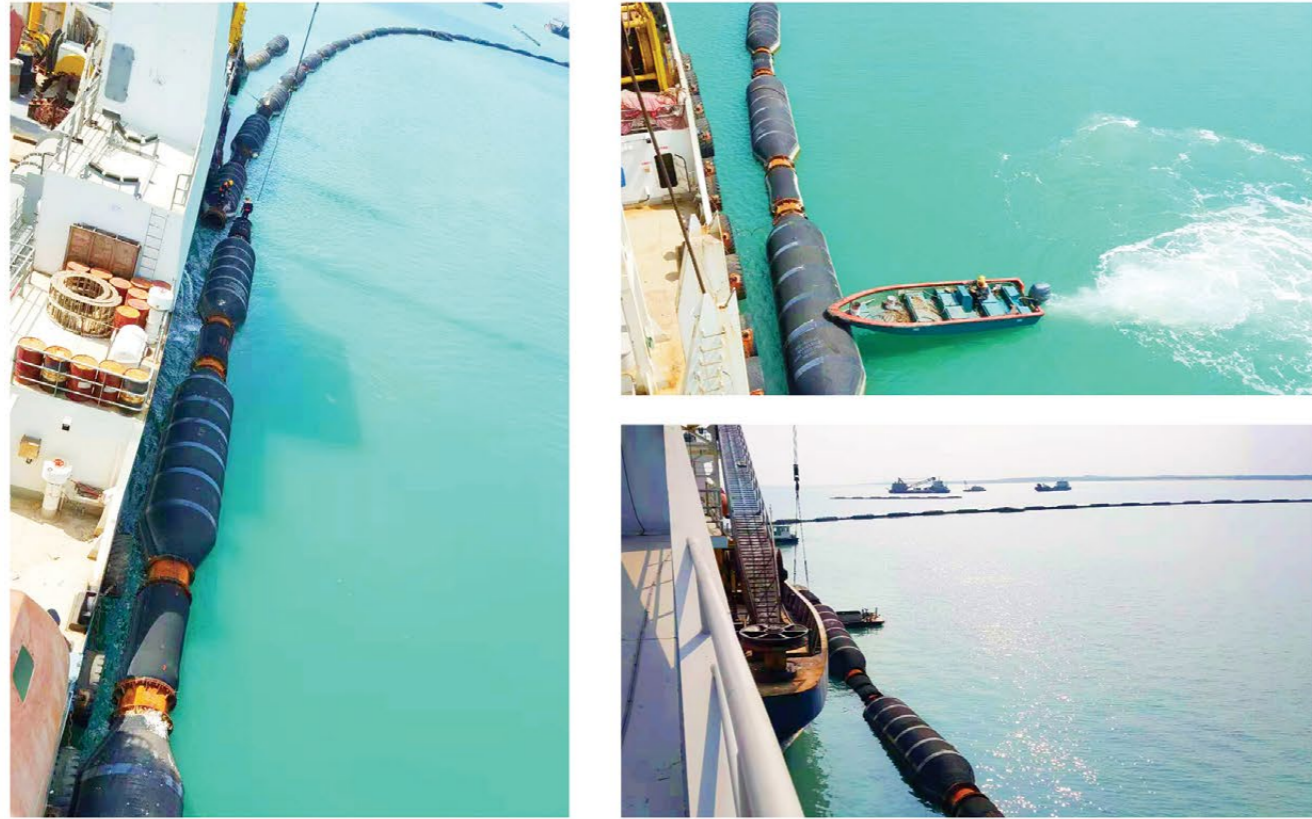
主管线 Mainline



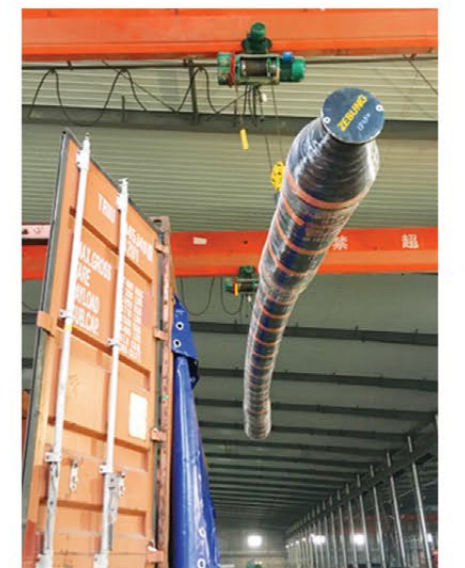
舷管 / 尾管 Tanker rail hose/Tail hose



主管线 Mainline



疏浚管现场案例 Field case of dredge hose

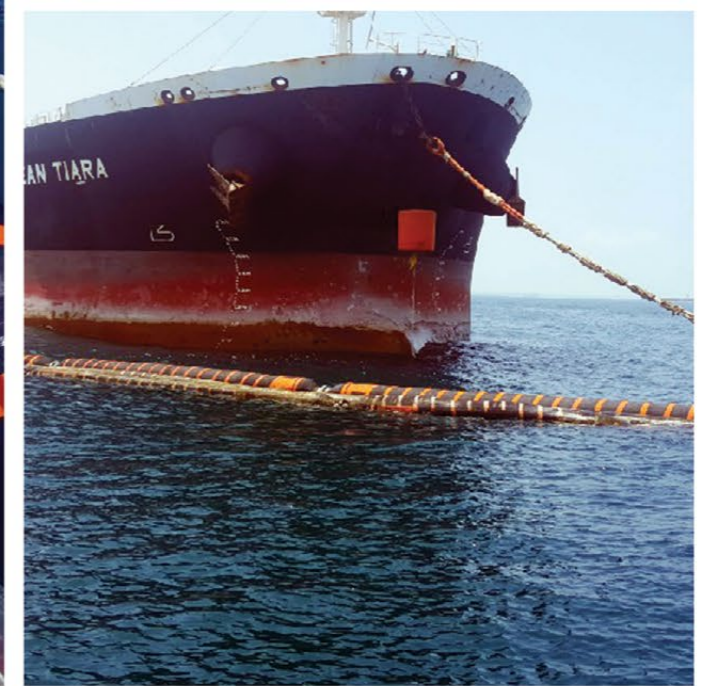




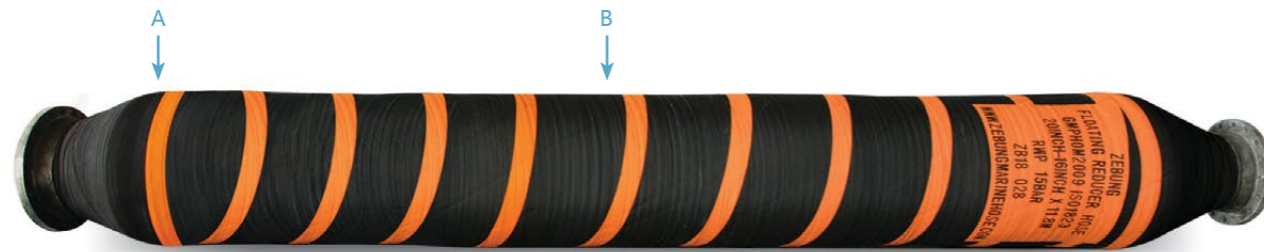
PRODUCTION AND CASE 生产与案例



海洋输油管系列 MARINE OIL HOSE



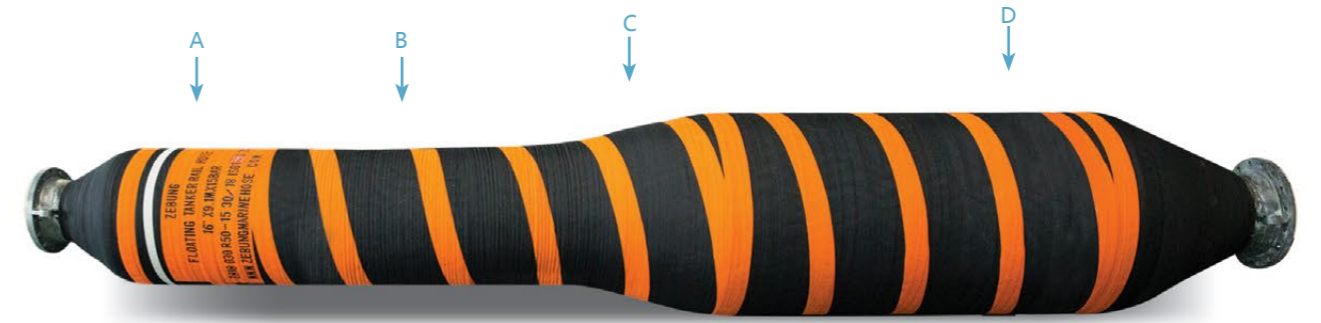
主管线漂浮输油软管 MAINLINE FLOATING HOSE (FOR OFFSHORE MOORINGS)



- ※ 单骨架漂浮输油管线的主管线软管
- ※ 最低剩余浮力 20%
- ※ 按标准提供导电连续
- ※ Single carcass mainline floating hose
- ※ Buoyancy: 20% and above
- ※ Electrical continuity: Electrical continuous or discontinuous as required



一端增强半漂浮输油软管 HALF FLOATING HOSE WITH ONE END REINFORCEMENT



- ※ A 单骨架输油软管可与单点系泊系统管道或其它原油输送设施，例如与 CALM 邻接的浮体位置软管连接
- ※ 最低剩余浮力 5%
- ※ 按要求提供导电配置
- ※ Half floating hose with one end reinforcement for CALM using
- ※ Buoyancy : 5% and above
- ※ Electrical continuity: Electrical continuous or discontinuous as required



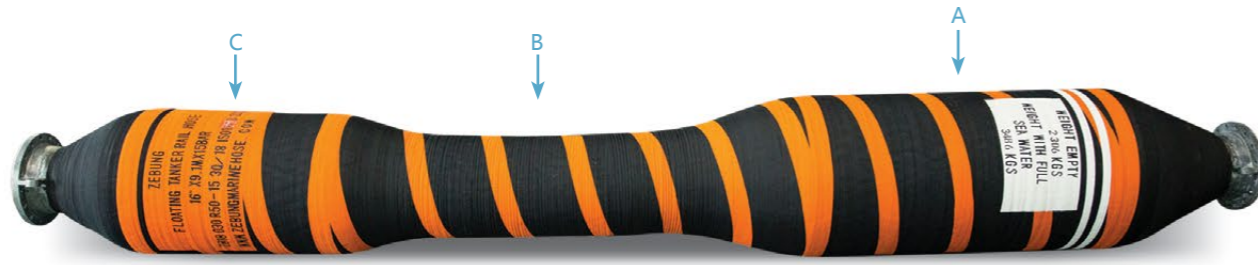
标准 15BAR-19BAR 额定压力一端增强半漂浮输油软管技术数据

公称内径 mm	在空气中的重量 kg			外径 mm		最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	
150 (6")	425	475	525	400	320	0.9 (3')
200 (8")	558	623	688	420	370	1.2 (4')
250 (10")	809	910	1011	490	430	1.5 (5')
300 (12")	985	1103	1221	590	520	1.8 (6')
400 (16")	1446	1676	1906	740	670	2.4 (8')
500 (20")	2000	2262	2524	850	770	3.0 (10')
600 (24")	2669	3042	3415	1010	910	3.6 (12')

标准 15BAR-19BAR 额定压力一端增强半漂浮输油软管技术数据

公称内径 mm	在空气中的重量 kg			外径 mm				最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	C	D	
150 (6")	428	478	528	340	220	340	410	0.9 (3')
200 (8")	556	623	690	400	270	400	480	1.2 (4')
250 (10")	840	941	1042	460	330	480	560	1.5 (5')
300 (12")	1021	1143	1265	520	390	570	650	1.8 (6')
400 (16")	1894	2164	2434	600	530	760	850	2.4 (8')
500 (20")	2450	2740	3030	760	630	880	960	3.0 (10')
600 (24")	3615	4000	4385	850	740	1050	1130	3.6 (12')

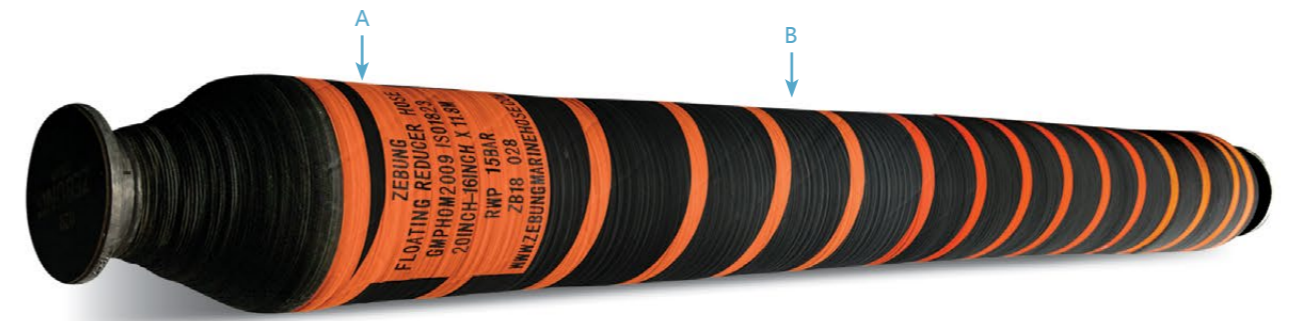
哑铃式油轮围栏用漂浮输油软管 TANKER RAIL FLOATING HOSE



- ※ 连接单骨架漂浮输油管线的普通中等油轮卸油用围栏输油软管
- ※ 最低剩余浮力 20% (包括端部附件的重量)
- ※ 按标准要求实施不导电配置
- ※ 专业设计具有更高柔软度和较低的弯曲半径
- ※ Floating tanker rail hose for tanker rail position using
- ※ Buoyancy: 20% and above
- ※ Electrical continuity: Electrical continuous or discontinuous as required
- ※ Special design for more flexible and MBR



缩径漂浮输油软管 REDUCING FLOATING HOSE



- ※ 单骨架缩径漂浮式输油软管；可以将较大口径主管线软管与较小口径的软管连接
- ※ 最低剩余浮力 20%
- ※ 按标准配置导电性连接
- ※ Floating reducer hose connecting the bigger and smaller ID hose
- ※ Buoyancy : 20% and above
- ※ Electrical continuity: Electrical continuous or discontinuous as required



标准 15BAR-19BAR 额定压力一端增强半漂浮输油软管技术数据

公称内径 mm	在空气中的重量 kg			外径 mm			最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	C	
150 (6")	524	576	628	500	290	440	0.6 (2.0')
200 (8")	726	817	908	560	350	530	0.8 (2.7')
250 (10")	931	1037	1143	690	420	630	1.0 (3.3')
300 (12")	1091	1225	1359	810	490	640	1.2 (4.0')
400 (16")	1650	1839	2028	1000	580	840	1.6 (5.3')
500 (20")	2200	2550	2800	1100	720	1000	2.0 (6.7')

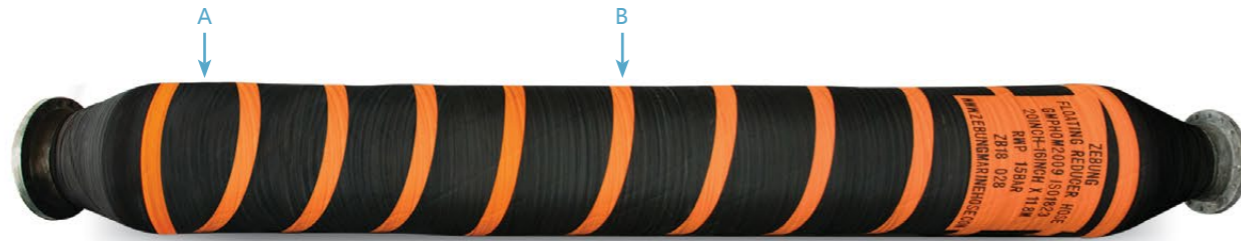
可以提供缩径软管与其它软管匹配包括

公称内径 mm	200/150 (8/6")	250/200 (10/8")	300/250 (12/10")
		400/300 (16/12")	500/400 (20/16")

缩径可以在软管管体（可以在缩径钢管芯上）完成，或者在端部管接头较大的内径端上，也可以综合这样的缩径工艺完成缩径，这时重量和尺寸会有变化。

备注：其他技术数据可根据要求定做。 NOTE: Other parameters are by your requirements.

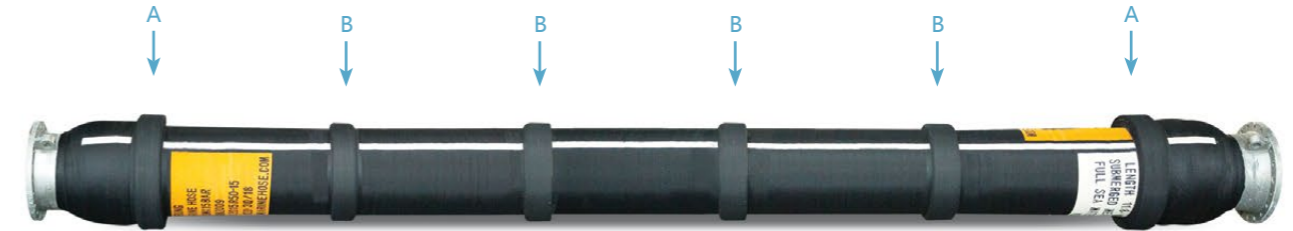
尾端漂浮输油软管 TAIL FLOATING HOSE



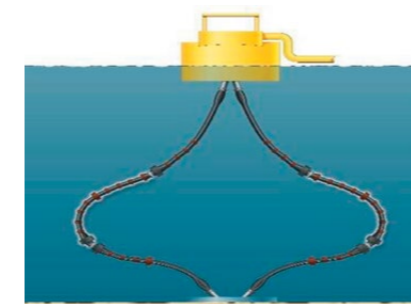
- ※ 专业设计可改善和提高单骨架层漂浮输油软管在油轮管线尾端的输油作业
- ※ 最低剩余浮力 20%
- ※ 按标准提供不导电的配置
- ※ Floating tail hose, Connecting with tanker rail hose
- ※ Buoyancy : 20% and above
- ※ Electrical continuity: Electrical continuous or discontinuous as required



主管线带浮体环的水下输油软管 MAINLINE SUBMARINE HOSE WITH COLLARS



- ※ 以浮体支撑单骨架水下输油软管管线
- ※ 完整的橡胶浮体环，以配置外浮体
- ※ 按标准以不导电方式配置
- ※ Mainline submarine hose with collars, Single carcass hose mainline submarine hose for use as the main submarine hose in the string to connect between sea bed manifold and buoy connection used on monobuoy systems
- ※ Rated working pressure: 15-19 bar
- ※ Minimum bending radius: 4D (up to 2D without any permanent deformation)
- ※ Electrical continuity: Discontinuous or as requested



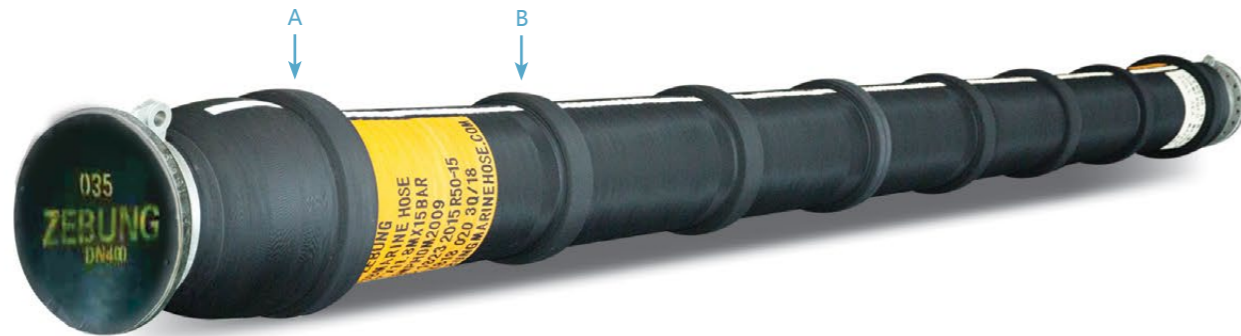
标准 15BAR-19BAR 额定压力的尾端漂浮输油软管

公称内径 mm	在空气中的重量 kg			外径 mm		最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	
150 (6")	419	468	517	395	315	0.9 (3')
200 (8")	550	614	678	415	365	1.2 (4')
250 (10")	797	896	996	485	425	1.5 (5')
300 (12")	970	1087	1203	585	515	1.8 (6')
400 (16")	1424	1651	1877	730	630	2.4 (8')
500 (20")	1970	2228	2486	840	760	3.0 (10')

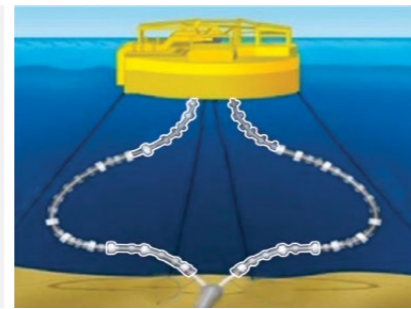
标准 15BAR-19BAR 额定压力的主管线带浮体环输油软管的标准数据

公称内径 mm	在空气中的重量 kg			外径 mm		最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	
150 (6")	372/144	415/161	458/178	368	254	0.6 (2.0')
200 (8")	505/217	561/242	617/267	471	311	0.8 (2.8')
250 (10")	681/282	762/311	843/340	471	368	1.0 (3.3')
300 (12")	942/346	1052/381	1162/416	581	471	1.2 (4.0')
400 (16")	1389/592	1559/659	1729/726	697	581	1.6 (5.3')
500 (20")	1840/837	2072/928	2304/1019	799	697	2.0 (6.6')
600 (24")	2704/1254	3030/1399	3356/1544	946	799	2.4 (8.0')

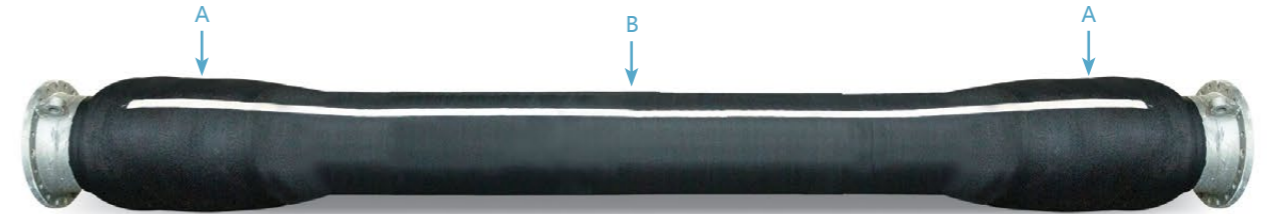
一端增强带浮体环水下输油软管 SUBMARINE HOSE WITH ONE END REINFORCMENT



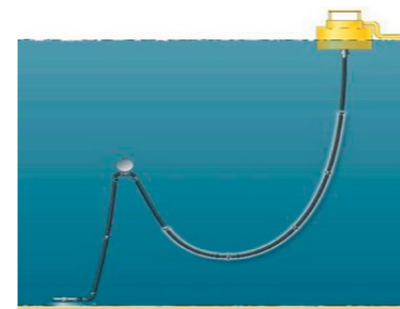
- ※ 单骨架输油管线与单点系泊系统硬管道连接或与其它油输送设施连接。例如：与 CALM 水下连接，与海底 PLEM 系统等连接
- ※ 完整的橡胶浮体环，以配置外浮体
- ※ 按标准以不导电方式配置
- ※ Single Carcass Hose One Reinforced End Submarine Hose for use to connect sea bed manifold or buoy connection
- ※ Rated working pressure: 15-19 bar
- ※ Minimum bending radius: 4D (up to 2D without any permanent deformation)
- ※ Electrical continuity: Discontinuous or as requested



主管线水下输油软管 MAINLINE,SUBMARINE HOSE



- ※ 单骨架水下输油管线按标准要求，要求不导电连接
- ※ 按标准以不导电方式配置
- ※ Single carcass hose mainline submarine hose for use as the main submarine hose in the string to connect between sea bed manifold and buoy connection used on monobuoy systems
- ※ Rated Working Pressure: 15-19 bar
- ※ Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- ※ Electrical continuity: Discontinuous or as requested



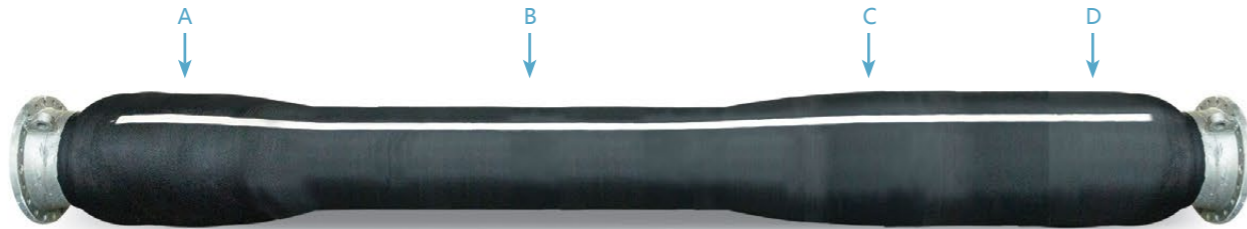
标准 15BAR-19BAR 额定压力的带浮体环输油管线的标准数据

公称内径 mm	在空气中的重量 kg			外径 mm		最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	
150 (6")	382/144	419/161	456/178	368	254	0.6 (2.0')
200 (8")	485/218	541/243	596/268	471	311	0.8 (2.8')
250 (10")	575/286	756/315	837/344	471	368	1.0 (3.3')
300 (12")	893/327	1003/372	1013/417	581	471	1.2 (4.0')
400 (16")	1808/659	2028/726	2248/793	697	581	1.6 (5.3')
500 (20")	2412/928	2694/1019	2976/1110	799	697	2.0 (6.6')
600 (24")	3369/1367	3775/1572	4181/1659	946	799	2.4 (8.0')

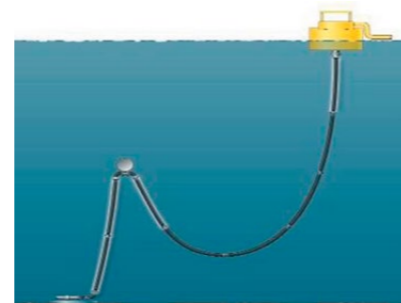
标准 15BAR-19BAR 额定压力的水下主管线输油管线的标准数据

公称内径 mm	在空气中的重量 kg			外径 mm		最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	
150 (6")	342/137	380/152	418/167	305	210	0.6 (2.0')
250 (10")	639/272	712/299	785/326	415	320	1.0 (3.3')
300 (12")	810/305	902/334	994/363	485	375	1.2 (4.0')
400 (16")	1216/560	1359/619	1502/678	575	475	1.6 (5.3')
500 (20")	1600/778	1792/858	1984/938	695	580	2.0 (6.6')
600 (24")	2404/1180	2680/1309	2956/1438	810	700	2.4 (8.0')

一端增强水下输油软管 SUBMARINE HOSE WITH ONE END REINFORCMENT



- ※ 单骨架输油管线与单点系泊系统硬管线连接或与其它输送油的设施连接。例如与 CALM 水下连接；海底 PLEM 系统等连接
- ※ 按标准以不导电方式配置
- ※ Single carcass hose one reinforced end submarine hose for use to connect sea bed manifold or buoy connection
- ※ Rated Working Pressure: 15-19 bar
- ※ Minimum Bending Radius: 4D (up to 2D without any permanent deformation)
- ※ Electrical continuity: Discontinuous or as requested



标准 15BAR-19BAR 额定压力的输油软管的标准数据

公称内径 mm	在空气中的重量 kg			外径 mm				最小弯曲半径 m
	9.1m	10.7m	12.2m	A	B	C	D	
150 (6")	364/141	402/156	440/171	305	210	240	320	0.6 (2.0')
200 (8")	473/215	524/238	575/261	355	265	295	375	0.8 (2.8')
250 (10")	658/282	731/309	804/336	415	320	345	430	1.0 (3.3')
300 (12")	836/325	928/354	1020/383	485	375	410	500	1.2 (4.0')
400 (16")	1738/642	1928/701	2118/760	575	475	540	645	1.6 (5.3')
500 (20")	2312/904	2554/984	2796/1064	695	580	650	780	2.0 (6.6')
600 (24")	3244/1338	3600/1467	3956/1596	810	700	775	905	2.4 (8.0')

码头 / 海洋输油管 DOCK / CARGO / MARINE OIL HOSE

内胶层	丁腈橡胶	增强层	多层高强度聚酯帘子线加螺旋钢丝
外胶层	丁腈、氯丁橡胶	工作温度	-20°C ~ 82°C
安全系数	5:1		
用途	码头吸排油管，主要用于输送石油产品，适合于油轮、驳船和储罐。		
特点	独特的设计结构，赋予管体的柔韧性和灵活性；管体适合输送芳香烃含量 50% 以上的产品；管体耐油、耐磨耐天候。		
Tube	NBR	Reinforcement	High tensile strength fabrics with helix steel wire
Cover	NBR, CR		
Ideal working temperature	-20°C ~ 82°C	Safety factor	5:1
Application	Heavy duty suction and discharge dock hose, designed specifically for transferring petroleum products to and from tankers, barges, and storage tanks		
Feature	Unique construction design allowing for excellent flexibility. Inner lining resistant up to 50% aromatics. Outer cover resistant to oil, cuts, scuffs, and ozone.		



规格 /Size	内径 /I.D.	压力 /W.P.	长度 /Length
inch	mm	bar	m
6	150	10~20	6~50
8	200	10~20	6~50
10	250	10~20	6~50
12	300	10~20	6~12
16	400	10~20	6~12
20	500	10~20	6~12

备注：压力 19bar&21bar, 等其他技术数据可根据要求定做。NOTE:workingpressure19bar&21bar, Other parameters are by your requirements.



ZEBUNG 泽邦
—— 惠泽四海 兴邦立事 ——
疏浚胶管系列
DREDGING HOSE



漂浮疏浚胶管 FLOATING DREDGE HOSE

内胶层	天然、顺丁、丁苯橡胶	增强层	多层高强度聚酯帘子线
外胶层	天然、氯丁橡胶	工作温度	-20℃ ~ 80℃
安全系数	3:1		
用途	漂浮疏浚胶管用于港湾和码头疏浚、输送海水、泥水、泥沙，泄洪，土建工程等。		
Tube	NR, BR, SBR	Reinforcement	High tensile strength fabrics
Cover	NR, CR	Ideal working temperature	-20 °C ~ 80°C
Safety factor	3:1		
Application	Used at port, dock for discharging sea water, silt, sand, flood, etc. Particularly suitable for work of dredging operation dock and port, building project and soon.		



规格 /Size	内径 /I.D.	压力 /W.P.	长度 /Length
inch	mm	bar	m
8	200	15~20	11.8
10	250	15~20	11.8
12	300	15~20	11.8
16	400	15~20	11.8
20	500	15~20	11.8
24	600	15~20	11.8
26	650	15~20	11.8
30	750	15~20	11.8
32	800	15~20	11.8
34	850	15~20	11.8

备注：内径 900mm~1200mm 的疏浚管可根据客户要求定做。 NOTE: ID900mm&1200mm , Other parameters are by your requirements.

疏浚胶管 DREDGE HOSE

内胶层	天然、顺丁、丁苯橡胶	增强层	多层高强度聚酯帘子线
外胶层	天然、氯丁橡胶	工作温度	-20°C ~ 80°C
安全系数	3:1		
用途	疏浚胶管用于港湾和码头疏浚、输送海水、泥水、泥沙，泄洪，土建工程等。该橡胶管的挺性好，不会因为风浪、潮汐等因素引起的弯曲形成胶管内部胶层的局部拱突、涡流和由此产生的非正常磨损。		
Tube	NR, BR, SBR	Reinforcement	High tensile strength fabrics
Cover	NR, CR	Ideal working temperature	-20°C ~ 80°C
Safety factor	3:1		
Application	Used for port, dock, discharge seawater, silt, sand, flood, etc. Particularly suited to the work Of dredging construction for dock and port, Building Project and so no. The suction hose has good stiffness, can not be abnormal abrasion, the arch and eddy of some part place of inner rubber that is formed by the bend of the storm and tide.		



内径 I.D.		工作压力 W.P.	爆破压力 B.P.	长度 /Length	参考壁厚 Pipe Wall Thickness
mm	公差 mm	bar	bar	m	mm
300	±2	4~12	36	1~3	34~37
450	±2	4~12	36	1~3	35~37
560	±3	4~12	36	2~3	40~45
600	±3	4~12	36	2~3	40~45
700	±3	8~15	45	2~3	40~45
800	±4	12~25	55	2~3	50~52
900	±4	15~25	75	2~3	55~58
1000	±5	20~25	75	3~5	75
1100	±5	25~30	80	3~5	90

备注：其他技术数据可根据要求定做。 NOTE: Other parameters are by your requirements.



THE QUALITY SYSTEM 质量体系





压扁试验机 Crush test



静水压脉冲实验观测仪器
Hydrostatic pulse experimental observation instrument

质量体系 试验设备
THE QUALITY SYSTEM
LABORATORY EQUIPMENT



动态拉伸试验 Dynamic tensile testing machine



动态弯曲试验 Dynamic bending testing machine



吉门扭转试验机 Jimen torsion testing machine



臭氧老化试验箱 Qzone aging tester



泽邦生产的水下油管爆破试验
Bursting pressure test for submarine oil hose by Zebung



弯曲刚度试验
Bending stiffness test

质量体系 试验过程及项目

THE QUALITY SYSTEM

TEST PROCESS AND ITEMS



水下油管弯曲测试
Bending stiffness test



油管称重
Weight test



24 寸水下油管拉伸试验
Tensile test of 24 inch submarine hose



动态弯曲试验
Dynamic bending test



漂浮油管扭转测试
Torsion test



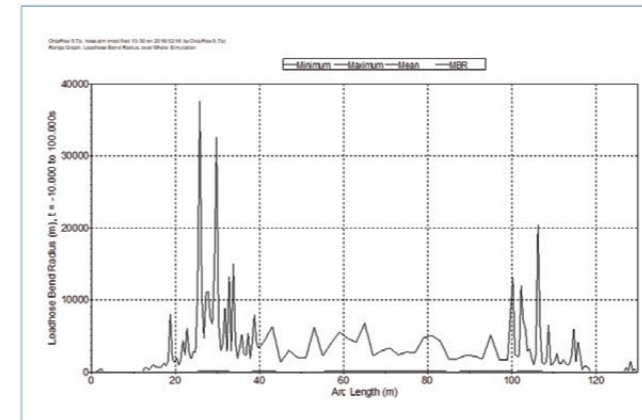
油管抽真空测试
Vacuum test



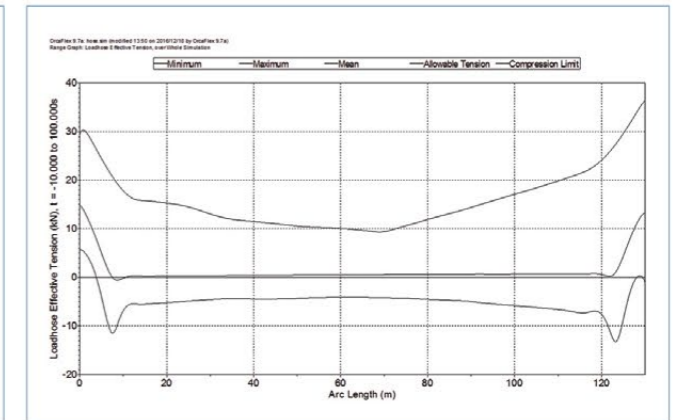
油管拉伸测试 Tensile test



油管脉冲试验 Pulse test

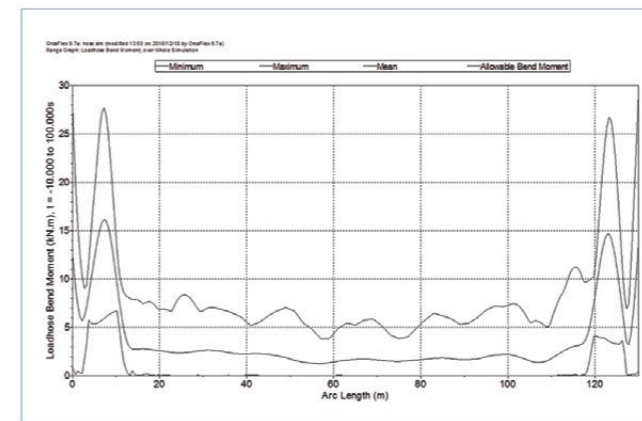


管线上的弯曲半径 Bend radius on the hose string

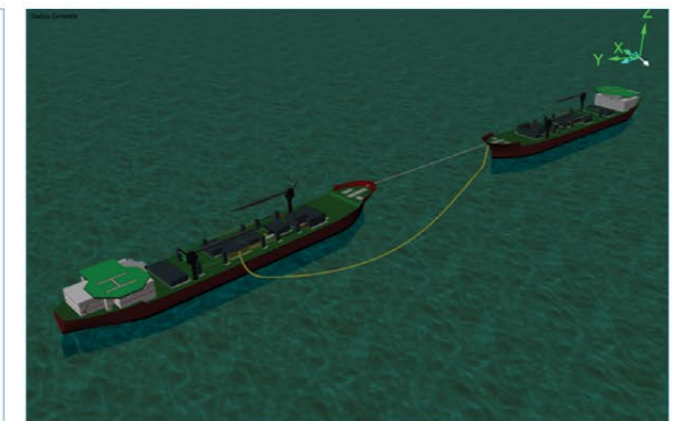


管线上的张力 Tension on the hose string

设计计算 FPSO-软管-油轮整体水动力计算
DESIGN CALCULATION
 FPSO-HOSE-TANKER GLOBAL HYDRODYNAMIC CALCULATION



管线上的弯矩 Bending moment on the hose string



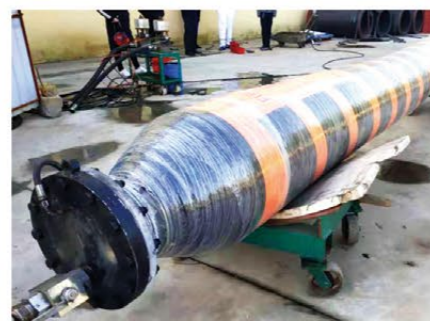
质量体系 试验过程及项目
THE QUALITY SYSTEM
TEST PROCESS AND ITEMS



油管弯曲动态测试 Bending dynamic test



油管扭转测试 Torsion test



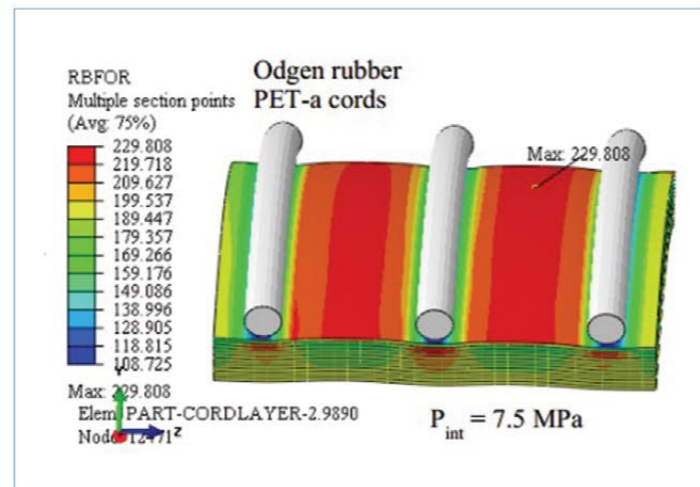
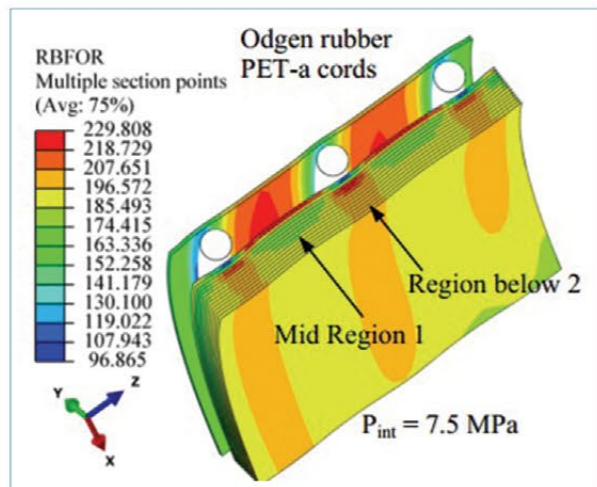
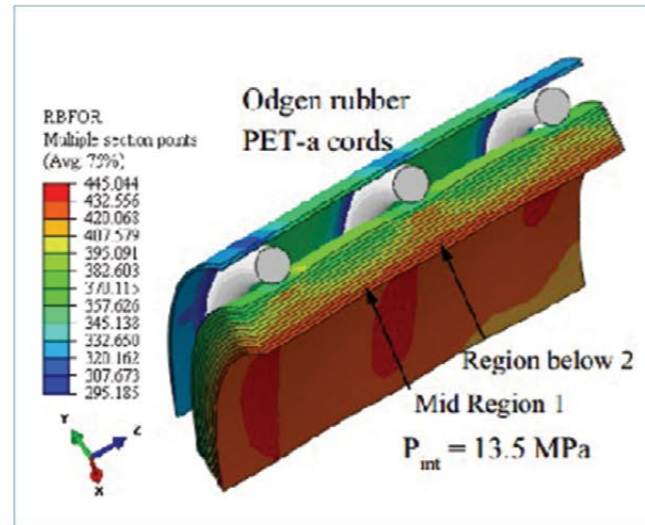
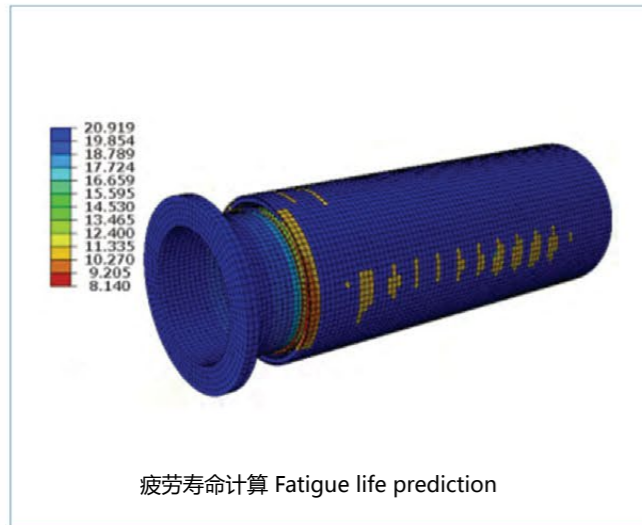
油管煤油测试 Kerosene test



泽邦公司 12 寸单胎体漂浮油管和 24 寸的水下油管已取得 BV 认证，24 寸的认证即将取得。

- 外胶层 Cover layer
- 漂浮层 Floating layer
- 第二增强层 Second reinforcement layer
- 螺旋加强筋 Spiral stiffener
- 中胶层 Filling rubber
- 第一增强层 First reinforcement layer
- 内衬层 Inner lining

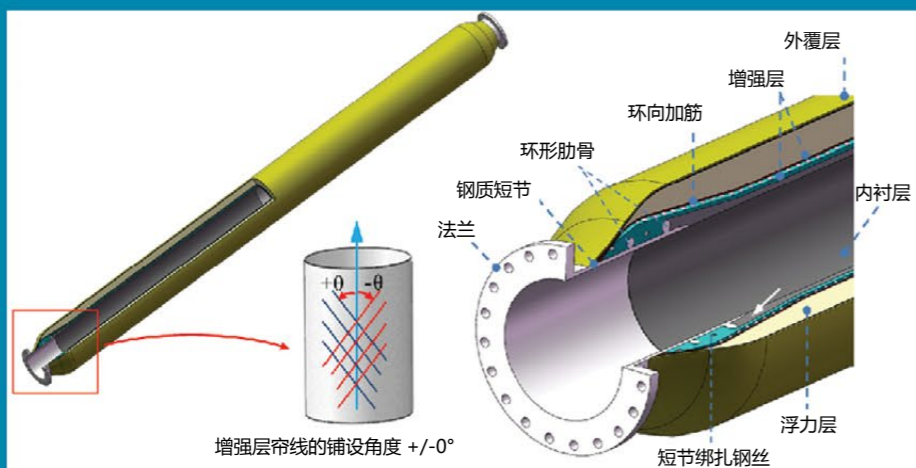
单胎体漂浮油管—截面结构
 Single carcass floating oil hose - Cross section structure



设计计算 帘子线的拉力 (N) 计算图解

DESIGN CALCULATION

FPSO-HOSE-TANKER GLOBAT HYDRODYNAMIC CALCULATION



运输以及仓储细则 Handling and Transport

使用固定在托盘吊眼上的四脚吊索，一次吊起一个托盘。堆放在坚实的平地上，最多叠加3层。
备注：可以使用叉车装卸专用托盘。否则不要使用叉车提起托盘。

Lift one pallet at a time using a four-leg chain sling secured to the pallet lifting eyes. Stack on solid, level ground, maximum 3 tiers high.

Note: A customised pallet design may be provided for fork lift handling. Such pallets will be appropriately identified. Otherwise do not lift pallets using fork lift trucks.



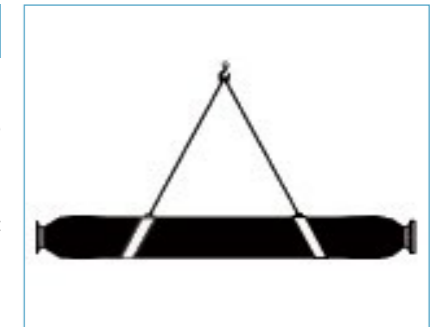
推荐的吊起方法 Recommended Method of Lift for Individual Hoses

※ 使用额定的吊车和吊具 / Use suitable rated crane and spreader bar.

※ 吊起软管时，应使用最小 100 毫米宽的柔性吊带 / Sling the hose using minimum 100mm wide textile strops appropriately rated.

※ 至少用三条或更多的柔性吊带吊起软管 / Sling from three hooks or more spaced over the hose length.
※ 吊索时要考虑到软管末端法兰的局部承重能力 / Position slings to take account of local weight concentrations from the hose

※ 如果 2 点的抬升在操作上不可避免，则选择“四分之一”的位置吊起软管，如右图所示
Use the hose “quarter points” if a 2 point lift is operationally unavoidable



AVOID 不允许使用如下操作 - 下示意图 Recommended Method of Lift for Individual Hoses

※ 不允许使用细绳或类似的吊索 / Small circumference rope or similar slings

※ 不允许使用钢丝绳吊索 / Wire strop slings

※ 不允许用单吊索吊起软管的中间点 / Lifting by a single sling at the hose mid-point

※ 由两根吊索吊起时，不允许吊起位置在法兰上 / Lifting by two slings, one at each flange

※ 不允许用叉车叉直接吊装 / Direct lifting with fork lift truck forks

※ 不使用任何可能导致局部负荷加大 / 或软管过度弯曲的操作方法 / DO NOT use any lift method that results in severe local loading and/or over-bending of the hose

※ 不建议在不平地面拖拽软管，容易对胶管的外层和法兰造成损坏 / DO NOT use any hose movement method that involves dragging the hose over unsuitable surfaces such as to damage the cover or end flanges



仓储设施 Storage Facilities

在储存过程中，软管应防止如下情况 / During storage, hoses should be protected against:

※ 阳光 / Sunlight

※ 极限温度 / Temperature extremes

※ 湿气过重 / Excessive humidity

※ 臭氧 / ozone

※ 机械损伤 / Mechanical damage

※ 化学制品腐蚀 / Chemicals

※ 虫害 / Pests

如果储存在室外，软管应该放置在一个坚实的、平整的地面上，并考虑如上情况给予舒适的存储环境 / On an area of solid, level ground, with separate protection against the environment.

项目现场软管的移动 Hose Movement around Site

※ 吊杆和移动式起重机 / Spreader bar and mobile crane

※ 定制软管拖曳小车 / Customised hose towing trolleys

※ 拖车与软管安全堆放 / Trailer with hoses safely stacked and chocked

※ 带有专用配件的叉车 / Fork lift trucks with specialised attachments

存储期间，定检项 Inspection during Storage

各式各样的机械损伤 / Sundry mechanical damage

啮齿动物的攻击 / Rodent attack

虫害 / Insect attack

一般橡胶退化 (裂纹) / General rubber degradation (cracks)

INFORMATION REQUIRED 工况信息采集

Please complete as fully as possible to facilitate best design

为了更好的匹配设计, 请尽可能全面的填写如下信息:

1. Customer (客户信息): _____
2. Port/Field (港口以及应用领域): _____
3. Location (位置): _____
4. System (应用系统): CALM SALM CMBM SBM OTHER
5. Environment Conditions 环境因素
 - 5.1 Sea depth (水深): _____
 - 5.2 Tidal Range (潮汐变化): _____
 - 5.3 Operational Conditions 使用工况
 - (a) Wave Height (波高): _____
 - (b) Wave Period (周期): _____
 - (c) Wind speed (风速): _____
6. Purpose 用途: Loading (吸排) Unloading (排)
7. Cargo 介质
 - 7.1 Kind of cargo 介质种类: Crude Oil (原油)
 - Liquid Petroleum products (液化柴汽油)
 - Natural gas (天然气)
 - 7.2 Specific Gravity (密度): _____
 - 7.3 Max Aromatic Carbon Content (最大芳香碳含量): _____
8. Operating Pressure (工作压力)
 - 8.1 Operating Pressure at Buoy (浮标端工作压力): _____
 - 8.2 Operating Pressure at Tanker (油轮端工作压力): _____
 - 8.3 Maximum Pressure (最大工作压力): _____
9. Temperature (温度)
 - Fluid (介质温度): _____
 - Ambient (气温): _____
10. Flow Rate (流速): _____
11. Hose line
 - 11.1 Number of lines (几条线)
 - 11.2 Floating Mainline (Size&number) 漂浮主管尺寸及数量: _____
 - 11.3 Floating Tail/Rail(Size&number): _____
漂浮尾管 / 围栏管尺寸及数量
 - 11.4 Submarine Line(Size&number) 水下管尺寸及数量: _____
12. Submarine hose Line Configuration 水下管组态
 - Chinese Lantern 中国灯笼式 Lazy-S 懒S型 Sleep-S 深S型 other 其他
13. Vessels 油轮
 - 13.1 Size: D.W.T. Max (最大载重吨位): _____
D.W.T. Average (平均载重吨位): _____
D.W.T. Minimum (最小载重吨位): _____
 - 13.2 Frequency of operation (Vessel /Month) 操作频率 (船 / 月): _____

QUOTATION REQUIRED 报价信息采集表

Please complete as fully as possible to allow prompt quotation

请尽可能完整地填写如下信息, 以便及时报价

- Customer (客户信息): _____
- Date of Inquiry (询价日期): _____
- Required date of quotation (报价日期): _____
- Required of delivery (交货期): _____
- Destination (应用地点): _____
- Condition 条款: EXW With TAX FOB Tianjin CIF (Port (目的港): _____)
- Currency 支付方式: US Dollar 美金 Chinese RMB 元 Others 其他

1. Hose 胶管

- 1.1 Specification 行业标准: GMPHOM2009 Customer's Spec (客户要求)
- 1.2 Rated Pressure 工作压力: 15Bar 19Bar 21Bars
- 1.3 Fluid 介质: Crude oil (原油) Liquid Petroleum products (液态柴汽油)
 - Nature gas (天然气) Others 其他 (_____)
- 1.4 Flange Standard 法兰标准: ANSI 150 ANSI 300
- 1.5 Flange Face 法兰面: Flat face (FF) 平面 Raised face (RF) 凸面
- 1.6 Third Party Inspection 第三方检测
 - Not Required (Manufacturer's test certificates for each hose to be submitted)
不需要第三方检测 (仅提供每条胶管的工厂检测证书)
 - Required: 需要第三方检测
 - All hose (同一批所有胶管) Random test (抽检)
 - At Customer's account (买家支付第三方检测费用)
 - At Manufacturer's account (工厂支付第三方检测费用)
- 1.7 Package (包装):
- 1.8 Drawing (图纸): Required with BID (随标书一起提交) Required when ordered (下订单时候需要)
- 1.9 Logo 商标: ZEBUNG (工厂品牌) Customer's Brand (客户商标)
- 1.10 Details 胶管详情

No.	Description 胶管描述	Size 尺寸	Length 长度	Quantity 数量	Remarks 备注
1					
2					
3					