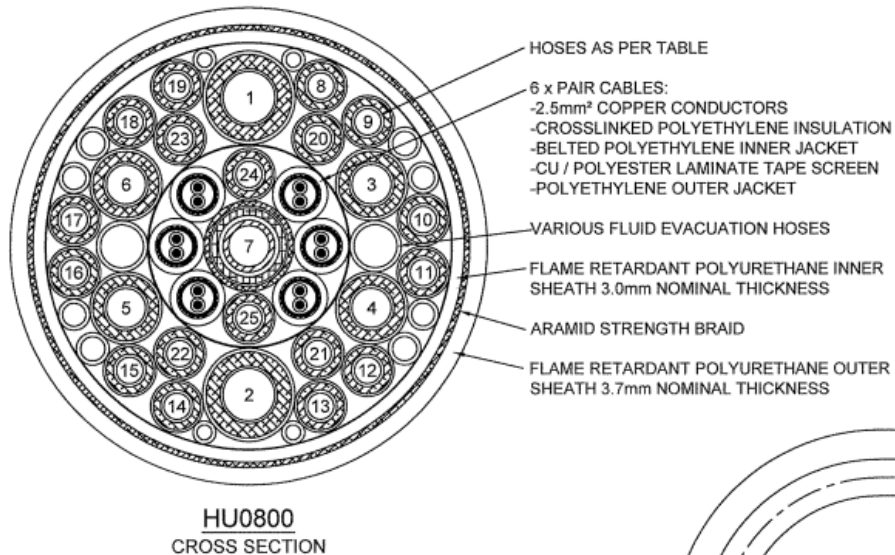
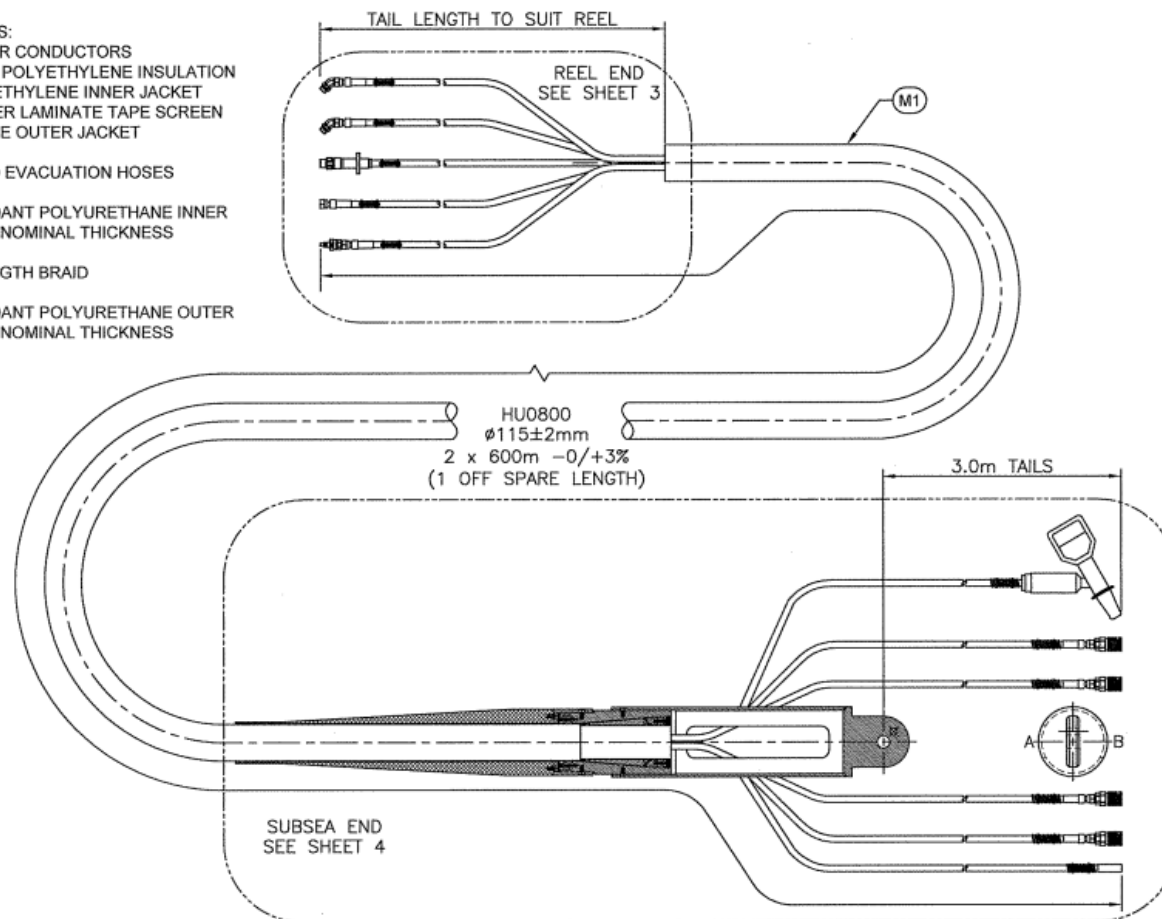


DO NOT SCALE THIRD ANGLE PROJECTION IF IN DOUBT - ASK



UMBILICAL DATA

OUTSIDE DIAMETER	115±2mm
OUTSIDE SHEATH MATERIAL	FRPU
OUTER SHEATH COLOUR	YELLOW
SHEATH REINFORCEMENT MATERIAL	ARAMID FIBRE BRAID
STATIC MINIMUM BEND RADIUS	1,150mm
DYNAMIC MINIMUM BEND RADIUS	1,380mm
WEIGHT IN AIR-FILLED	10,570kg/km
WEIGHT IN SEA WATER-FLOODED/FILLED	1,610kg/km
MINIMUM BREAKLOAD	100kN
UMBILICAL MAX SAFE WORKING LOAD	20kN
OPERATING TEMPERATURE	-20°C TO 40°C



NOTE:
DEPTH MARKING STARTS AT 0m AT
THE END OF THE SUBSEA LINE

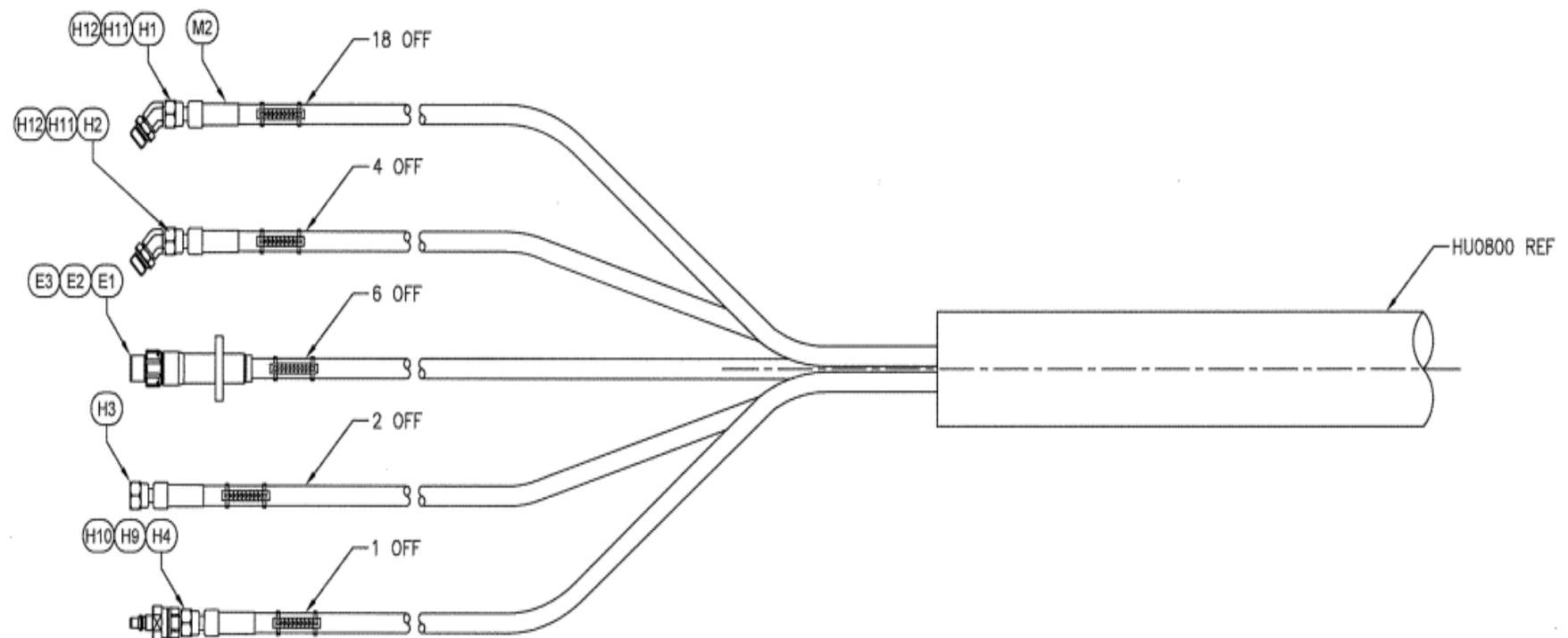
SHEET 1 OF 5

TABLE 1 – HYDRAULIC LINES

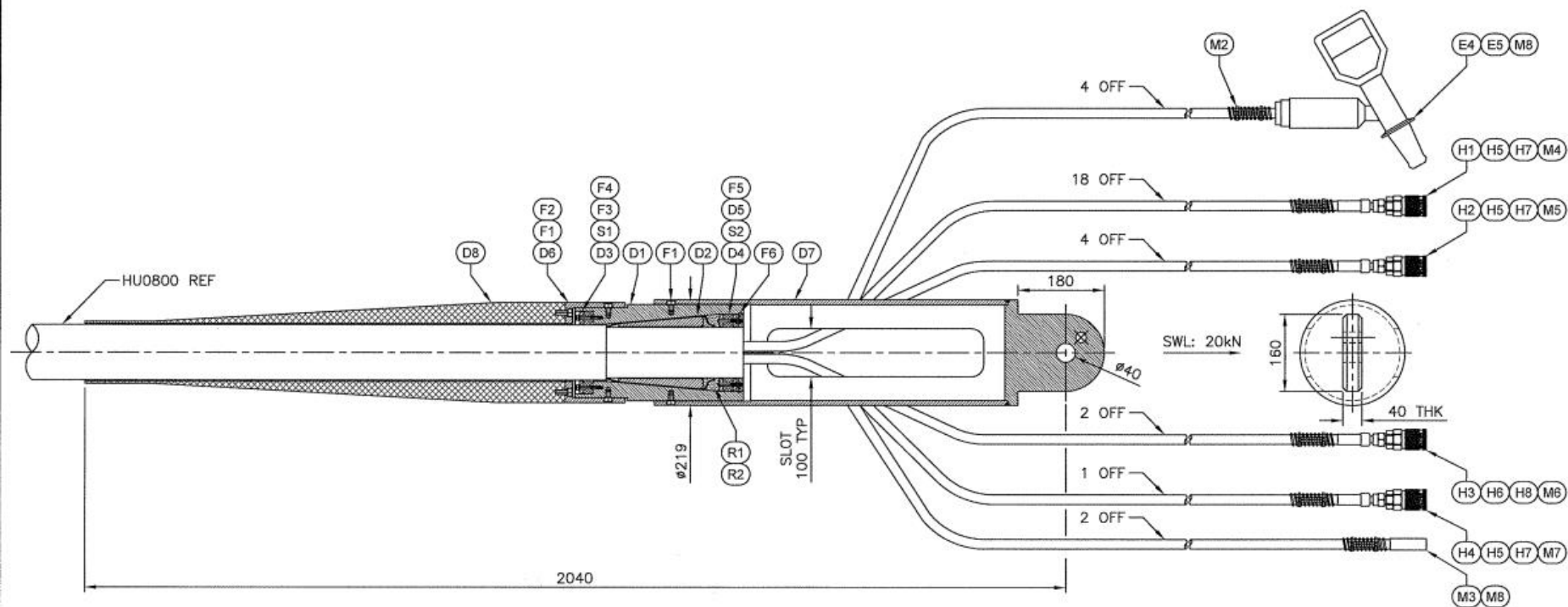
LINE NO.	HOSE TYPE	HOSE WP, BAR/PSI	FUNCTION	OIL TYPE	MQC POSITION – REELER
L1	1/2"NB (UA6908LKN)	690/10,000	WOCM RETURN	OCEANIC	N/A (GROMELLE COUPLER)
L2	1/2"NB (UA6908LKN)	690/10,000	COMMON RETURN	OCEANIC	N/A (GROMELLE COUPLER)
L3	3/8"NB (UA6906LKN/1)	690/10,000	LP SUPPLY 1 WOCM	OCEANIC	23
L4	3/8"NB (UA6906LKN/1)	690/10,000	LP SUPPLY 2 WOCM	OCEANIC	14
L5	3/8"NB (UA6906LKN/1)	690/10,000	CONTINUES SUPPLY ACC. 1	OCEANIC	17
L6	3/8"NB (UA6906LKN/1)	690/10,000	CONTINUES SUPPLY ACC. 2	OCEANIC	11
L7	3/8"NB (2440N-06V91)	690/10,000	CHEMICAL INJECTION CIS	(METHANOL)	N/A (WALTHER COUPLER)
L8	1/4"NB (UA6904LKN)	690/10,000	LP SUPPLY HXT	OCEANIC	8
L9	1/4"NB (UA6904LKN)	690/10,000	HP SUPPLY HXT	OCEANIC	20
L10	1/4"NB (UA6904LKN)	690/10,000	LP SUPPLY HXT	TRANSAQUA	3
L11	1/4"NB (UA6904LKN)	690/10,000	HP SUPPLY HXT	TRANSAQUA	4
L12	1/4"NB (UA6904LKN)	690/10,000	HXT ADAPTOR UNLOCK	OCEANIC	10
L13	1/4"NB (UA6904LKN)	690/10,000	HXT ADAPTOR LOCK	OCEANIC	12
L14	1/4"NB (UA6904LKN)	690/10,000	HXT WOV OPEN	OCEANIC	21
L15	1/4"NB (UA6904LKN)	690/10,000	HXT WOV OPEN	TRANSAQUA	7
L16	1/4"NB (UA6904LKN)	690/10,000	EDP/LRP CON. SEAL TEST	OCEANIC	22
L17	1/4"NB (UA6904LKN)	690/10,000	HANG OFF RAM CLOSE	OCEANIC	9
L18	1/4"NB (UA6904LKN)	690/10,000	HANG OFF RAM OPEN	OCEANIC	15
L19	1/4"NB (UA6904LKN)	690/10,000	UOCIV OPEN	OCEANIC	5
L20	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)
L21	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)
L22	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)
L23	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)
L24	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)
L25	1/4"NB (UA6904LKN)	690/10,000	SPARE	OCEANIC	N/A (SPARE)

TABLE 2 – ELECTRICAL LINES

LINE NO.	CABLE TYPE	CONDUCTORS	RATING	FUNCTION	COLOUR CODE
E1	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH
E2	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH
E3	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH
E4	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH
E5	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH
E6	CAF3002A	2x2.5mm ²	0.6/1.0 kV	POWER/COMMS	RED/BLUE, RED SHEATH



REELER END



SUBSEA END

ITEM	QTY	PART. NO	DESCRIPTION	MATERIAL	ITEM	QTY	PART. NO	DESCRIPTION	MATERIAL
D1	1	L-OST-11319-0010	ARMOUR BODY	316 ST. STL.	H1	36	JF06SS2U04HP103	JIC -6 FEMALE FITTING FOR 1/4" NB 10K HYDRAULIC HOSE	316 ST. STL.
D2	1	L-OST-11319-0020	SPIKE	316 ST. STL.	H2	8	390V06546D	JIC -6 FEMALE FITTING FOR 3/8" NB 10K HYDRAULIC HOSE	316 ST. STL.
D3	1	L-OST-11319-0030	REAR COMPRESSION PLATE	316 ST. STL.	H3	4	JF08SS2U08A69/1	JIC -8 FEMALE FITTING FOR 1/2" NB 10K HYDRAULIC HOSE	316 ST. STL.
D4	1	L-OST-11319-0050	FRONT COMPRESSION PLATE ASSEMBLY	316L ST. STL.	H4	2	106LX-6-06C	JIC -6 FEMALE FITTING FOR 3/8" NB 10K METHANOL HOSE	316 ST. STL.
D5	1	L-OST-11319-0060	FRONT COMPRESSION PLATE	316 ST. STL.	H5	23	HP006-0-LH014-01-1	WALTHER HP006 SELF SEALING COUPLING	316 ST. STL.
D6	1	L-OST-11319-0080	BEND STIFFENER ADAPTOR COLLAR	316 ST. STL.	H6	2	HP010-0-LH019-01-1	WALTHER HP010 SELF SEALING COUPLING	316 ST. STL.
D7	1	L-OST-11319-0090	SLEEVE ASSEMBLY	316L ST. STL.	H7	23	HP006-6-73-KU	WALTHER HP006 DUST PLUG	PVC
D8	1	JR11319-BSR	STATIC BEND STIFFENER	PU / 316 ST. STL.	H8	2	HP010-6-73-KU	WALTHER HP010 DUST PLUG	PVC
D9					H9	1	HP006-2-LH014-01-1	WALTHER HP006 SELF SEALING ADAPTOR	316 ST. STL.
D10					H10	1	HP006-5-73-KU	WALTHER HP006 DUST CAP	PVC
D11					H11	22	0634S0106743	9/16-18 UNF MALE TO JIC-6 MALE 45 DEG ADAPTOR	316 ST. STL.
D12					H12	22	200-906-4470	O-RING AS 568 A/BS1806 11.89 IDx1.98 CROSS SECTION	NITRILE RUBBER
D13					M1	600m	HU0800	TTRD CONTROL UMBILICAL	VARIOUS
D14					M2	62	-	CRITCHLEY MARKER TAG	PVC
D15					M3	2	L-0XX-A020-0010	POLYETHYLENE CAP FOR SPARE CABLES	POLYETHYLENE
D16					M4	18	SGOC135/3500/F166SS	SPRING GUARD FOR 1/4" NB 10K HYDRAULIC HOSE	316 ST. STL.
D17					M5	4	SGOC184/3500/F204SS	SPRING GUARD FOR 3/8" NB 10K HYDRAULIC HOSE	316 ST. STL.
D18					M6	2	SGOC238/3500/F280SS	SPRING GUARD FOR 1/2" NB 10K HYDRAULIC HOSE	316 ST. STL.
D19					M7	1	SGOC205/3500/F280SS	SPRING GUARD FOR 3/8" NB 10K METHANOL HOSE	316 ST. STL.
D20					M8	6	SGOC144/3500/SS	SPRING GUARD FOR ELECTRICAL CABLES	316 ST. STL.
E1	6	EXD-25-S-CP-V-4X2.5-P-S-FLFPCA	HAWKE 4 WAY FLANGE MOUNT MALE CONNECTOR C/W CAP	316 ST. STL.	M9				
E2	6	501/421/B/M25/S	CABLE GLAND	316 ST. STL.	M10				
E3	6	FIBREWASHER/M25	M25 RED FIBRE WASHER	FIBRE	M11				
E4	4	BROV-10-A001-BQ-G10-MC04S	TRONIC 4 WAY ROV PLUG CONNECTOR	SUPER DUPLEX STL.	M12				
E5	4	BROV-10-P001-AC	TRONIC CAP FOR PLUG	ACETAL	M13				
E6					M14				
E7					M15				
E8					M16				
E9					M17				
E10					M18				
F1	24	SSCHM10012SSA4-80	M10 x 12mm SOCKET CAP HEAD SCREW	A4-80	M19				
F2	12	SSCHM10025SS	M10 x 25mm SOCKET CAP HEAD SCREW	A4-70	M20				
F3	8	BSCHM06040SS	M6 x 40mm SOCKET CAP HEAD BOLT	A4-70	R1	1	PARALOCK 500	PARALOCK RESIN	RESIN
F4	8	WSM06SS	M6 SPRING WASHER	A4-70	R2	1	SOLRES01/250	POLYURETHANE RESIN	PU 60 SHORE A
F5	8	NHEXNM06SS	M6 NYLOC NUT	A4-70	R3				
F6	1	DNH-160-S02	INTERNAL CIRCLIP 160mm NOMINAL BORE	302 ST. STL.	R4				
F7					R5				
F8					S1	1	L-OST-11319-0040	REAR COMPRESSION SEAL	PU 60 SHORE A
F9					S2	1	L-OST-11319-0070	FRONT COMPRESSION SEAL	PU 60 SHORE A



Umbilical Systems

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CERTIFICATE OF CONFORMITY

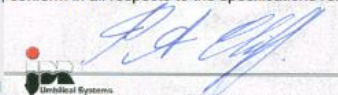
Customer : FMC KONGSBERG SUBSEA AS
POSTBOKS 1012
N-3601 KONGSBERG
NORWAY

JR No : 11319

Purchase Order No: 47106898

Details:	Serial No:	FMC P/No:
1 x 600 Mtr Spare Umbilical	995266	P6000039019
75mtrs x HU0800 Spare Jumper	995257	P6000039026
1 x 1/2" Flushing Hose	995228	P6000039018
3 x 1/4" Flushing Hoses	995225, 995226, 995227	100035494
1 x Male Test Connector	N/A	200017905
1 x Female Test Connector	N/A	200017903
1 x Tronic ROV Test Connector	635811-01	200015738

We certify that the products detailed hereon have been inspected and tested in accordance with the conditions and requirements of the contract or purchase order and, unless otherwise noted hereon, conform in all respects to the specifications relevant thereto.

Signed 
Q.C. For JDR Cable Systems Ltd

Dated 22nd October 2008



Umbilical Systems

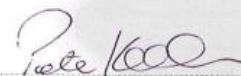
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Web: www.jdr cables.com

CE Declaration of Conformity

The company JDR Cable Systems Ltd herewith declares that the product and generic components of the JR11319 Reeler System were developed and manufactured in concordance with the current regulations of the European Union, EEC Guidelines 98/37/EC.

This declaration becomes void if the above mentioned device(s) have been altered without the consent of JDR Cable Systems Ltd.

Signed



Dated

15/09/2008

Peter Kelland

QSHE Manager

JDR Cable Systems Ltd