

# MOBILE | HEAVY DUTY



NH30  
NH75



Lind Jensens Maskinfabrik A/S  
Kroghusvej 7, Højmark  
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Home page: [www.ljm.dk](http://www.ljm.dk)



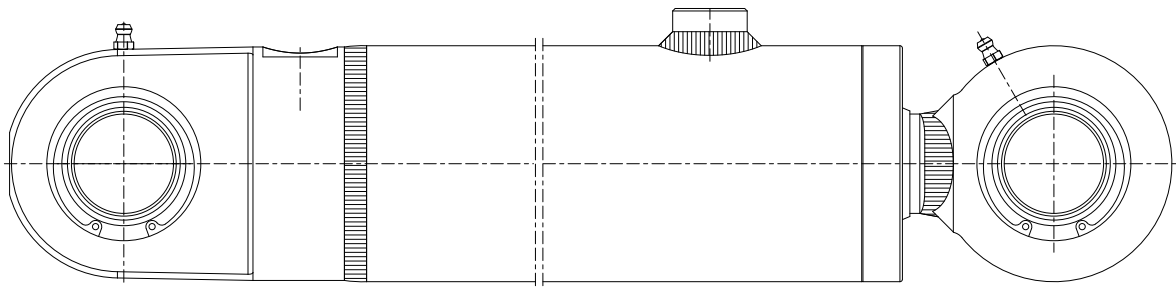


# Oversigtsblad / Übersicht / Design features

for NH 75 cylinder

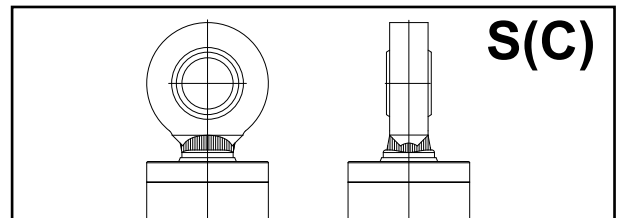
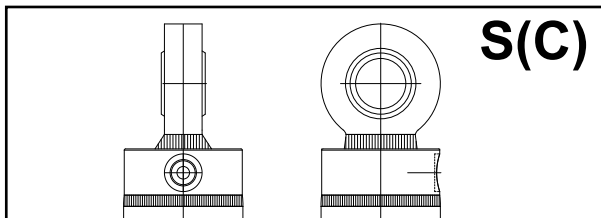
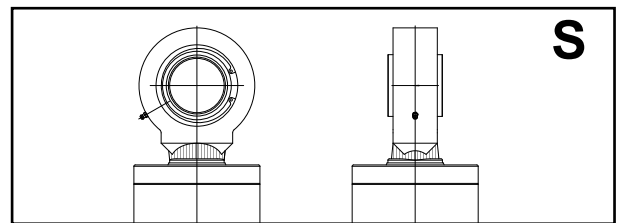
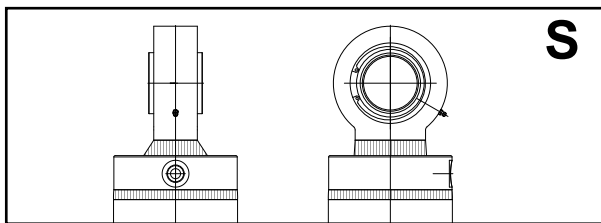
für NH 75 Zylinder

for NH 75 cylinder



\* Grundtyper/  
Zylinderbefestigung/  
Basic types

Stempelstangsophæng/  
Kolbenstangenbefestigung/  
Piston rod mounting



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Hydraulik

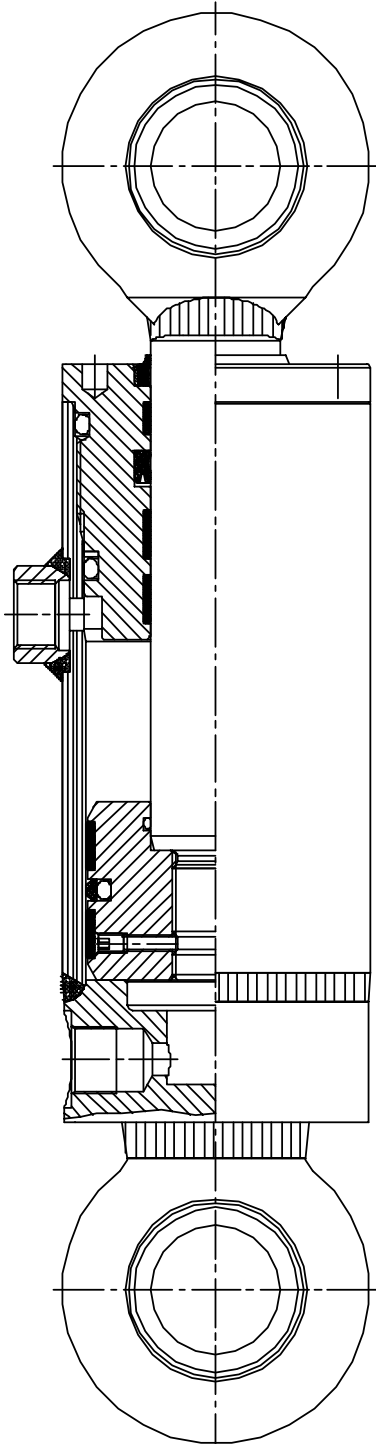
Document 1000062164 – Version 02 – 201401





# Technical specification

## NH75



### General:

NH75 is a double acting hydraulic cylinder.  
Approved by Det Norske Veritas (DNV).  
Application: Marine – Offshore and Mobile.  
Bore from  $\varnothing$  50 to  $\varnothing$  320 mm.

### Construction:

(See sketch).

### Cylinder tube:

Steel S355J2G3C (SIS 2172).  
Inside surface: Ra max 0,3  $\mu$ m.  
Internal tolerance H9.

### Piston rod:

Steel 20MnV6 (SIS 2142).  
Stainless steel X4CrNiMo16-5-1 (SIS 2387).  
Hard chrome plated.

### Seals:

(Recognized manufactures).

### Mountings:

(See design features).

S: Spherical eye in steel.  
S(C): Spherical eye in composite.  
S(K): Spherical bearing with bronze inner ring

### Connections:

Cylindrical BSP thread, according to  
DIN 3852: Part 2. November.1991.

### Operating pressure:

Design pressure 250 Bar.

### Piston velocity:

Max. piston velocity: 0,3 m/ sec  
For higher speed, please ask LJM.

### Operating temperature:

Temperature range: - 20°C to + 80°C.  
For higher/lower temperatures, please ask LJM.

### Pressure medium:

Hydraulic oil on mineral oil base.  
If another medium is to be used, please state when ordering.

### Test:

The cylinders are pressure tested at 350 Bar and tested for proper function, before leaving the factory.

### Order code:

See specification form 13.



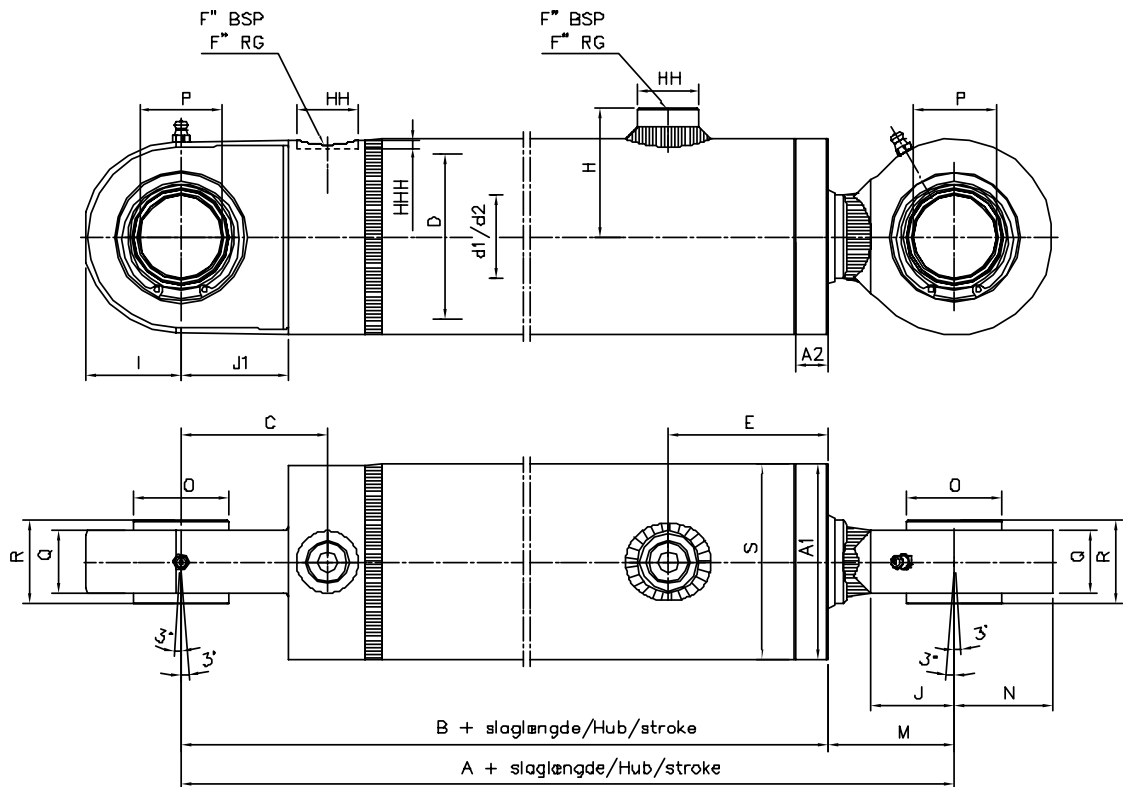
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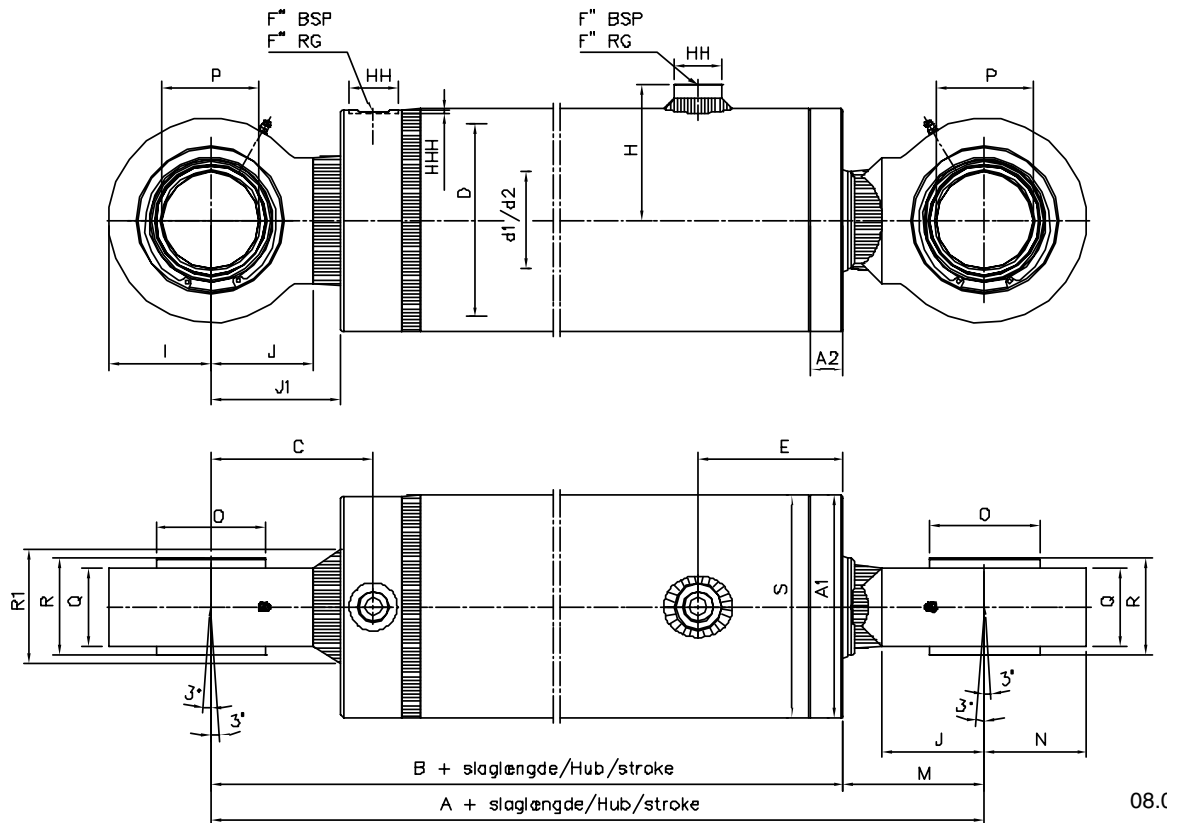


# Målskitse/Maßblatt/Dimension sketch NH75-S

Diameter/Bohrung/Bore:  $\varnothing 50 - 140$  mm



Diameter/Bohrung/Bore:  $\varnothing 160 - 320$  mm



08.0



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# Målskema/Maßtabelle/Dimension table NH75-S

D Index	50	63	80	100	125	140	160	180	200	220	250	280	300	320
A	248	255	297	357	413	448	492	530	585	620	630	710	780	845
A1	60	75	95	115	145	160	185	205	230	245	285	323,9	355,9	368
A2	8	8	12	12	15	20	25	30	35	38	40	40	45	45
B	194	201	236	268	317	346	375	406	445	466	476	528	580	620
C	62,5	65	71	99	113	199	135	147	160	175	175	203	226	259
D	50	63	80	100	125	140	160	180	200	220	250	280	300	320
d1/d2	25/32	30/40	40/50	50/65	65/80	70/90	80/100	90/110	100/125	110/140	125/160	140/180	160/200	180/220
E	59,5	60,5	77,5	80,5	97,5	112,5	120,5	132,5	142,5	147,5	156,5	167,5	177,5	179,5
F	3/8"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"
H	45	52,5	62,5	72,5	93	100,5	113	130,5	143	151	171	190,5	206,3	212,5
HH	25	30	30	30	40	40	40	50	50	50	50	50	60	60
HHH	2,1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
I	39	39	46	59	70	75	85	95	110	120	130	160	170	180
J	35,5	35,5	40,5	65	70	73	85	90	100	110	106	130	145	170
J1	45	45	52	80	87	93	108	115	128	142	142	170	185	210
M	54	54	61	89	96	102	117	124	140	154	154	182	200	225
N	40	40	47,5	60	70	75	85	95	110	120	130	160	170	180
O	30	38	46	57	68	79	91	99	113	124	138	155,9	170	170
P	25	32	40	50	60	70	80	90	100	110	125	140	160	160
Q	24	24	30	45	53	60	65	70	80	95	95	110	130	140
R	25	32	40	50	54	70	80	90	100	110	125	90	105	105
~R1							88	95	108	127	131	150	170	180
S	60	75	95	115	145	160	185	205	230	254	285	323,9	355,9	368

Alle angivne mål er i (mm). Ret til ændringer forbeholdes.

Alle angegebenen Maße sind in (mm). Wir behalten uns das Recht auf Änderungen vor.

Unless otherwise specified, all dimensions are in (mm). Right to alterations reserved.

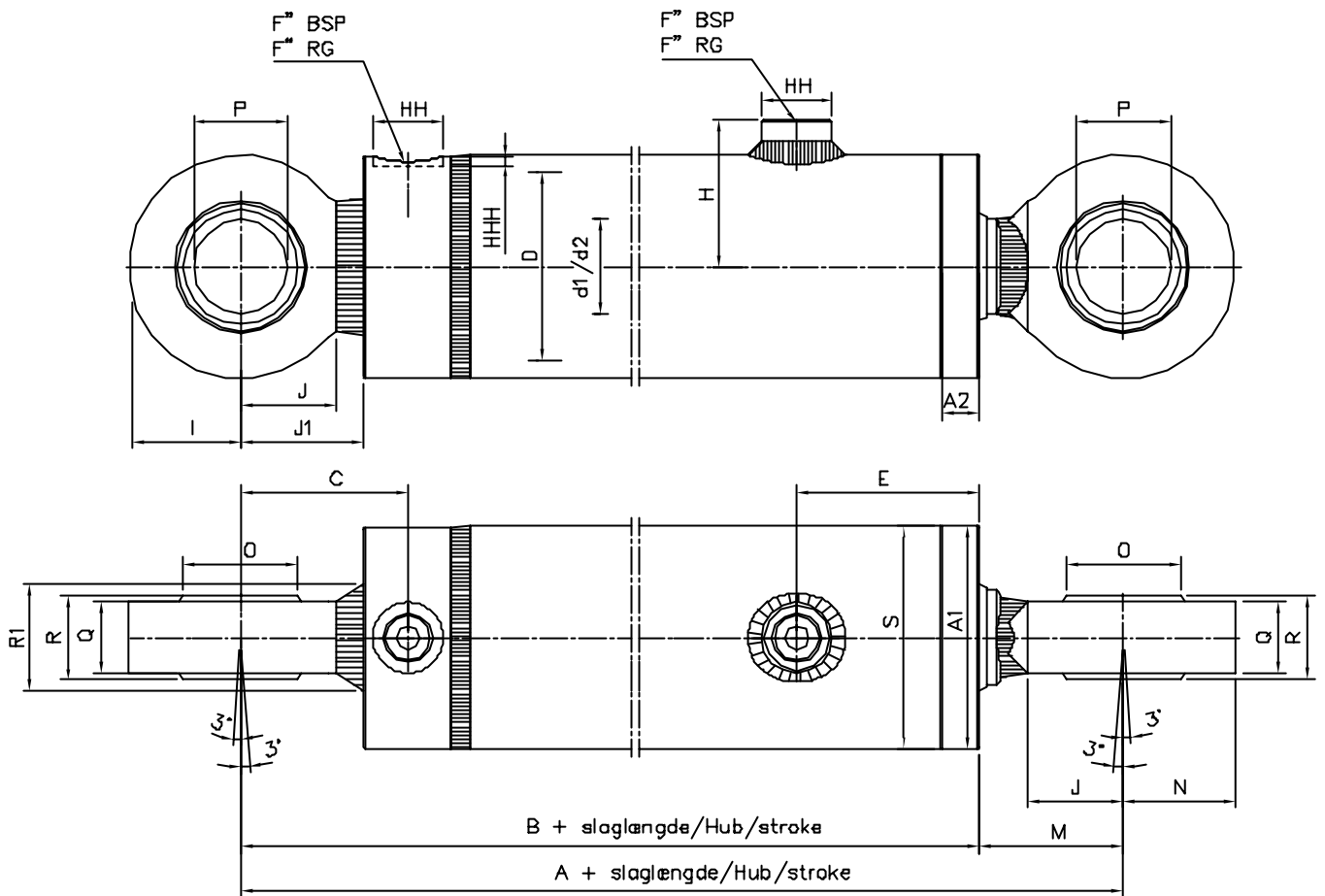


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# Målskitse/Maßblatt/Dimension sketch NH75-S(C)



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Hydraulik



# Målskema/Maßtabelle/Dimension table

## NH75-S(C)

D Index	50	63	80	100	125	140	160	180	200	220	250	280	300	320
A	248	255	297	357	413	448	492	530	585	620	630	710	780	845
A1	60	75	95	115	145	160	185	205	230	245	285	323,9	355,9	368
A2	8	8	12	12	15	20	25	30	35	38	40	40	45	45
B	194	201	236	268	317	346	375	406	445	466	476	528	580	620
C	62,5	65	71	99	113	199	135	147	160	175	175	203	226	259
D	50	63	80	100	125	140	160	180	200	220	250	280	300	320
d1/d2	25/32	30/40	40/50	50/65	65/80	70/90	80/100	90/110	100/125	110/140	125/160	140/180	160/200	180/220
E	59,5	60,5	77,5	80,5	97,5	112,5	120,5	132,5	142,5	147,5	156,5	167,5	177,5	179,5
F	3/8"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"
H	45	52,5	62,5	72,5	93	100,5	113	130,5	143	151	171	190,5	206,3	212,5
HH	25	30	30	30	40	40	40	50	50	50	50	50	60	60
HHH	2,1	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
I	40	40	47,5	60	70	75	85	95	110	120	130	160	170	180
J	35,5	35,5	40,5	65	70	73	85	90	100	110	106	130	145	170
J1	45	45	52	80	87	93	108	115	128	142	142	170	185	210
M	54	54	61	89	96	102	117	124	140	154	154	182	200	225
N	40	40	47,5	60	70	75	85	95	110	120	130	160	170	180
O	40,35	40,35	50,75	55,9	67,08	75,99	84,85	96,05	107,24	118,43	132,5	148,36	160,1	169,93
P	25	32	40	50	60	70	80	90	100	110	125	140	150	160
Q	24	24	30	45	53	60	65	70	80	95	95	110	130	140
R	26	26	32	50	60	65	70	80	90	100	100	125	145	105
~R1	33	33	41	60	70	80	88	95	108	127	131	150	170	180
S	60	75	95	115	145	160	185	205	230	254	285	323,9	355,9	368

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# Specification form 13

## Order code NH75

### NH 75-X-X-X-D/d x L-X-X-X-()

Type: \_\_\_\_\_

Design code \_\_\_\_\_

**Basic types:** \_\_\_\_\_

Blank: No mounting  
 S: Spherical bearing  
 S(C): Spherical bearing with composite  
 S(K) : Spherical bearing with bronze

**Function:** \_\_\_\_\_

D: Double acting  
 E<sub>1</sub>: Single acting, compressive  
 E<sub>2</sub>: Single acting, tractive

**Cylinder bore:** \_\_\_\_\_

**Piston rod diameter:** \_\_\_\_\_

**Stroke:** \_\_\_\_\_

Limited length of stroke according to DNV type approval

Digit: Length of distance bush  
 Digit: in () = Extension of piston rod

**\* Special seals:**  
 TN: Teflon  
 TV: Teflon- viton  
 PK-40: - 40° C.

**Piston rod material:**  
 R: Stainless  
 Blank: Steel  
 (all hard chrome plated)

**Piston rod mounting:**  
 S: Spherical bearing  
 S(C): Spherical bearing with composite

\* Special seals to be used under extreme conditions, i.e. where pressure, volocities, temperature and pressure media fall outside the technical specifications. Ask the adviser for guidance.





# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **P-14710**

This is to certify that the  
**Hydraulic Cylinders**

with type designation(s)  
**NH75**

Issued to  
**Lind Jensens Maskinfabrik A/S**  
**LEM, Denmark**

is found to comply with  
**Det Norske Veritas' Rules for Classification of Ships**  
**Det Norske Veritas' Offshore Standards**  
**DNV Standard for Certification 2.9, 5-778.93 Approval of hydraulic cylinders**

Application  
**Hydraulic cylinders for ordinary use, not for steering gear or where a mechanical lock inside the cylinder is required by the Rules**

<b>Max work press. push</b>	<b>250 bar</b>
<b>Max work press. pull</b>	<b>250 bar</b>
<b>Cylinder sizes</b>	<b>Cylinder tube inner diameter from 40 to 320 mm</b>

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2013-12-20**

DNV local station: **Fredericia**

Approval Engineer: **Adel Samieizafarghandi**

for **Det Norske Veritas AS**  
 Digitally Signed By: Marianne Spæren Marveng  
 Location: DNV Høvik, Norway  
 Signing Date: 2013-12-20

**Marianne Spæren Marveng**  
**Head of Section**

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