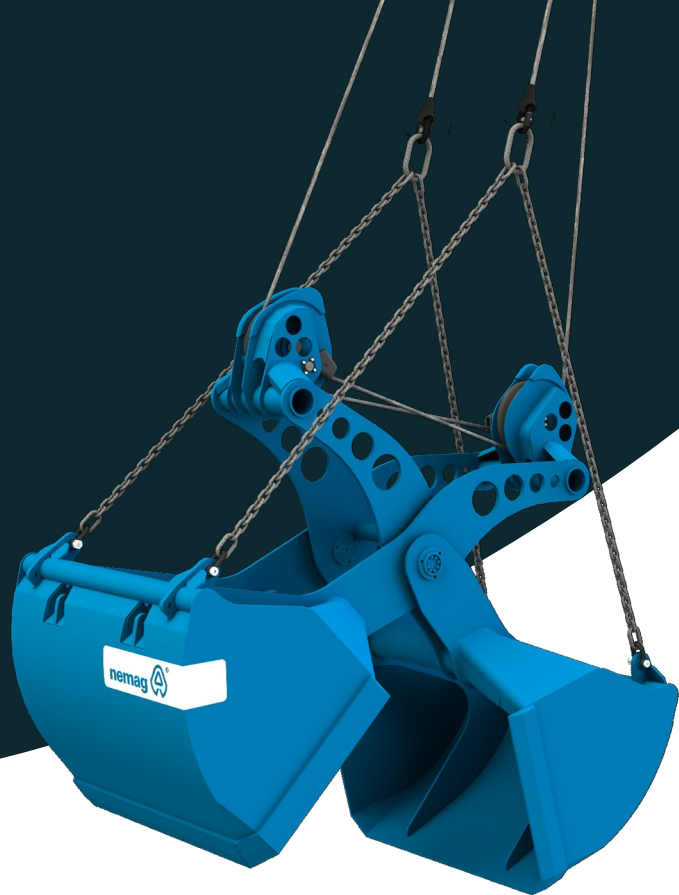


NEMAG

Presentation



NEMAG HANDLES YOUR BULK



INTRODUCTION NEMAG

Nemag handles your bulk

NEMAG

Introduction

- Specialized in 4 rope grabs for high occupancy degree installations
- Standardized and tailor made bulk handling solutions
- Experience since 1924
- Export to 60+ countries world wide
- Focus on research & development
- 6300 m² production facility



OUR SOLUTIONS

Nemag handles your bulk

THE DIFFERENT GRAB TYPES

clamshell grab



scissors grab



nemaX[®]



cactus grab



THE CLAMSHELL GRAB

Characteristics

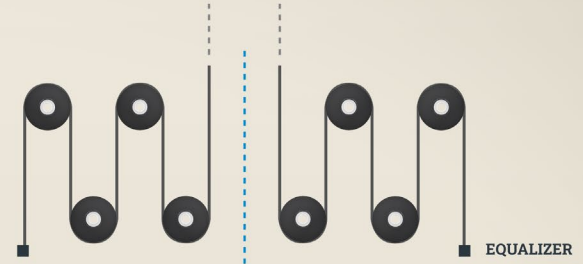
- Suitable for a wide range of cargoes, including coal, ore, minerals, grains and fertilizer
- Favourable payload / dead weight ratio
- Long lifespan of grab's close ropes
- Environmentally friendly execution



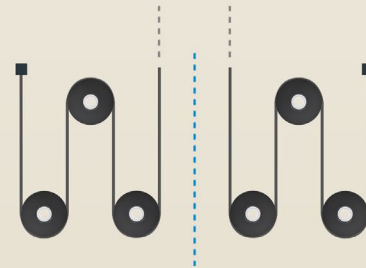


Possible configurations

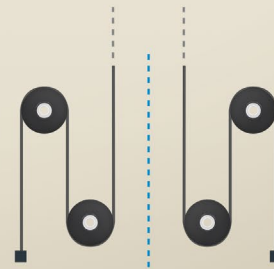
2x5



2x4

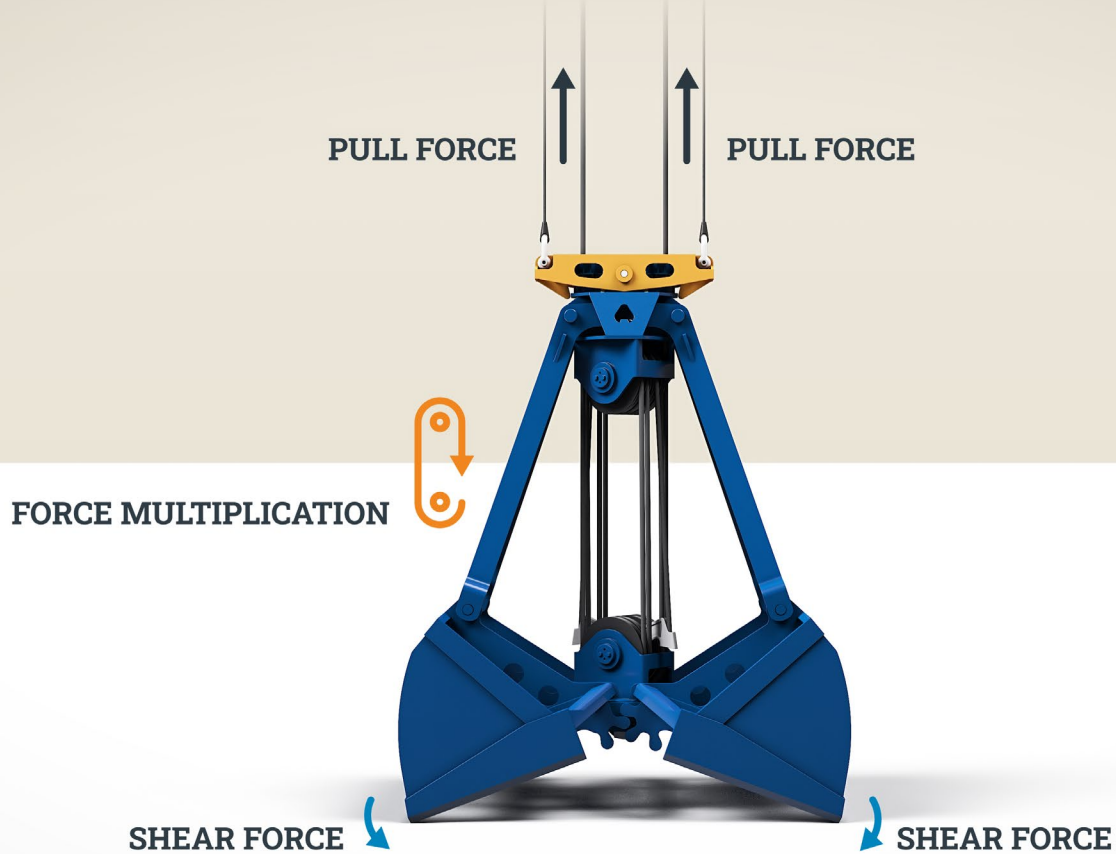


2x3



Strands	Bulk density	Materials
2 x 3	< 0,8 t/m ³	Grains and other free flowing lightweight materials
2 x 4	0,8 – 1,8 t/m ³	Various bulk materials like: Sand, fertilizers, limestone, etc
2 x 5	> 1,8 t/m ³	Materials such as Iron ore, minerals, concentrates etc.

COMPARING CLOSING MECHANISMS





THE SCISSORS GRAB

Characteristics

- Mainly suitable for coal, iron ore and bauxite
- Excels through a very high productivity combined with very low maintenance
- High average productivity by extended free digging phase
- Superb stability by low position centre of gravity, no time loss due to toppling over of the grab
- Extremely good cleaning-up performance, big savings on trimming equipment and staff
- Used at high berth occupancy degrees



THE CACTUS GRAB

Characteristics

- Designed for handling coarse materials, like heavy metal scraps, shredded scraps, pig iron, stones, household waste
- Favourable volume in relation to its own weight
- Extremely robust design



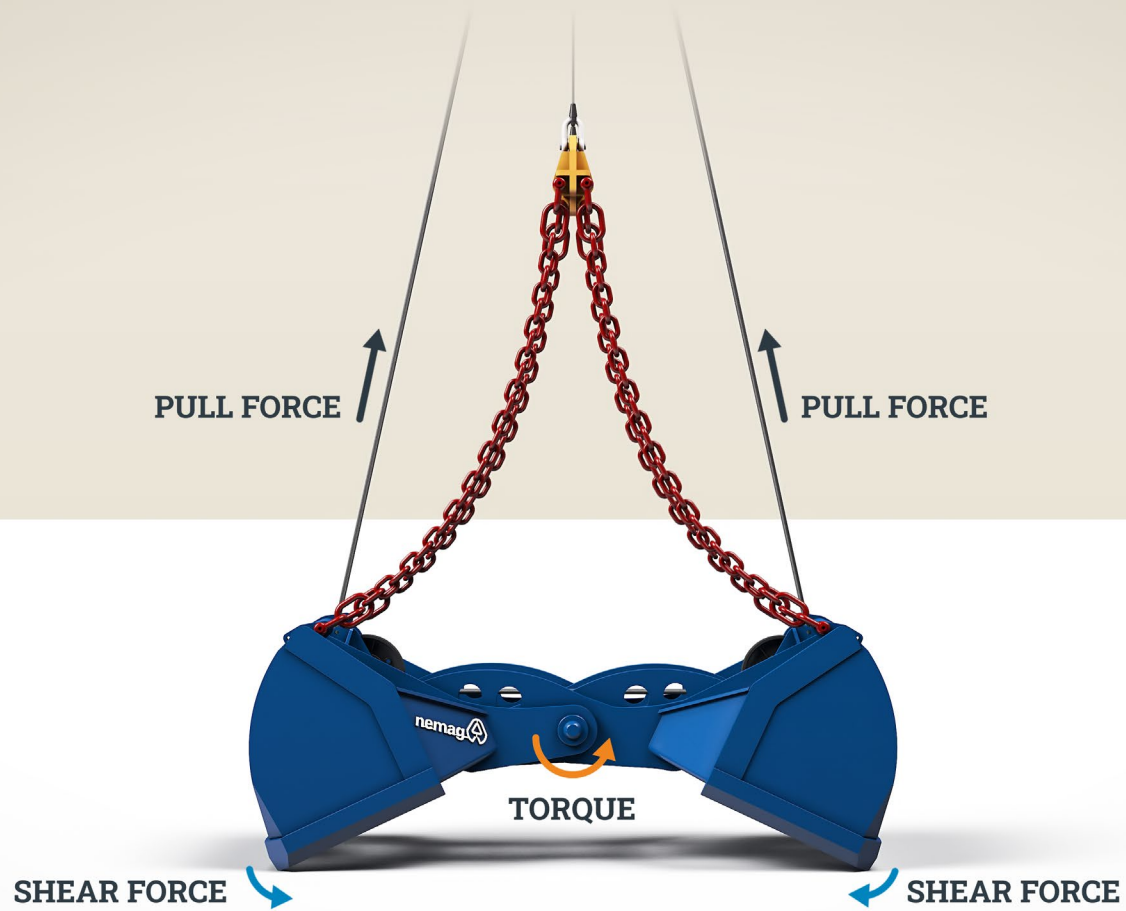
NEMAX

Characteristics

- Suitable materials of 1.3 t/m³ and upwards
- Low deadweight
- High average productivity by extended free digging phase
- Superb stability by low position centre of gravity, no time loss due to toppling over of the grab
- Extremely good cleaning-up performance, big savings on trimming equipment and staff









THE OPTIMAL GRAB

Higher productivity



30% larger footprint



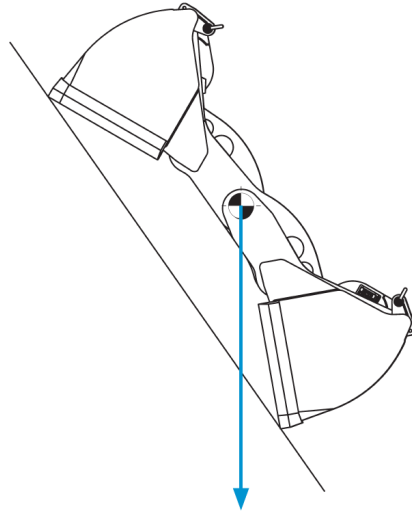
20% faster opening and closing



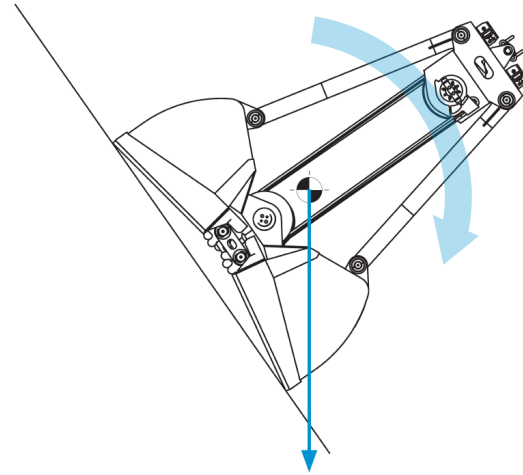
15% lighter grab

THE OPTIMAL GRAB

High productivity at steep slopes due to stability and low centre of gravity



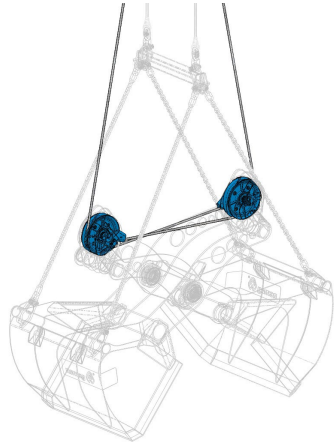
the nemaX[®]



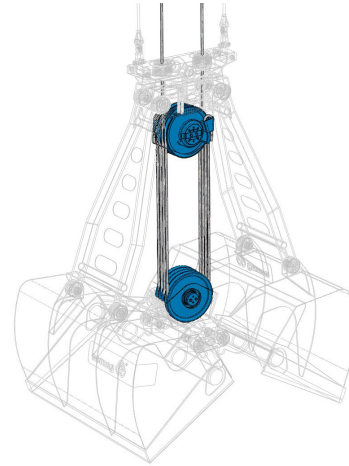
omparable clamshell grab

THE OPTIMAL GRAB

Low maintenance by fewer moving parts



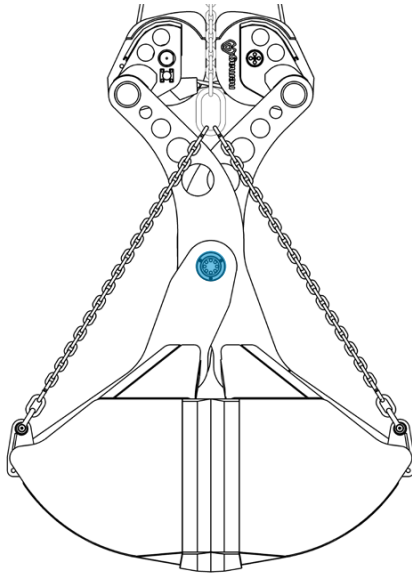
the nemaX[®] - 2 sheaves



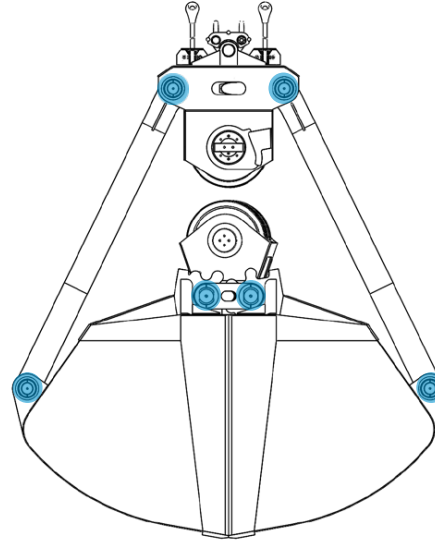
comparable clamshell grab
6 – 8 sheaves

THE OPTIMAL GRAB

Low maintenance by only 1 pivot point



the nemaX[®] - 1 main pivot point

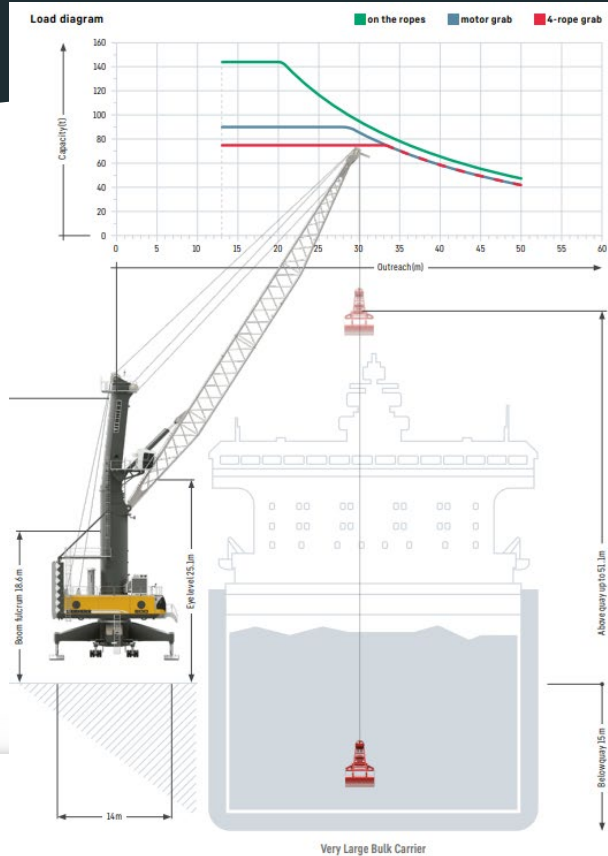


comparable clamshell grab – 6 main pivot points

CRANE – GRAB COMBINATION

Selecting the right grab

SEARCHING THE RIGHT GRAB



Maximum crane capacity 144t

Outreach (m)	Grab operation		
	on the ropes	4-rope grab	motor grab
12-18	144.0	75.0	90.0
19	144.0	75.0	90.0
20	144.0	75.0	90.0
22	133.0	75.0	90.0
24	121.1	75.0	90.0
25	115.9	75.0	90.0
26	111.6	75.0	90.0
28	101.1	75.0	90.0
29	98.8	75.0	89.0
30	94.8	75.0	85.3
31	91.0	75.0	81.9
32	87.3	75.0	78.6
33	83.9	75.0	75.5
34	80.6	72.5	72.5
36	74.9	67.4	67.4
38	70.0	63.0	63.0
40	65.4	58.8	58.8
42	61.0	54.9	54.9
44	57.0	51.3	51.3
46	53.4	48.1	48.1
48	50.1	45.1	45.1
50	47.1	42.4	42.4

Weight ramshorn hook 3.8t, Weight rotator 4.0t

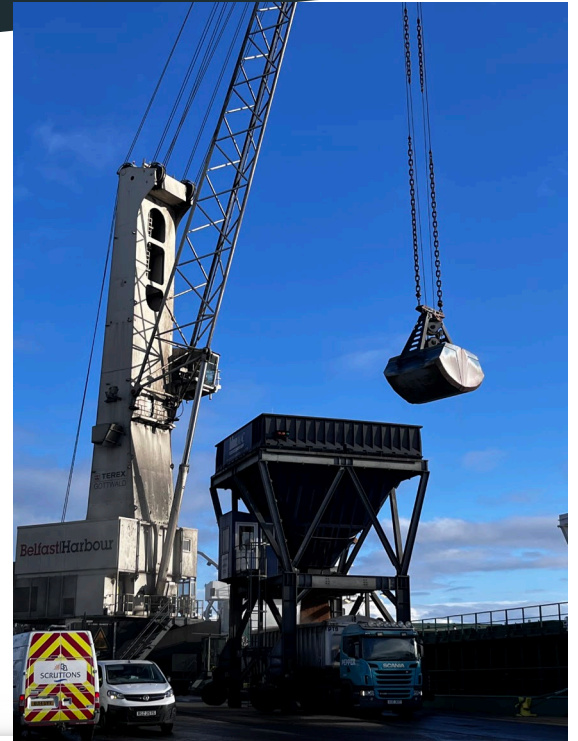
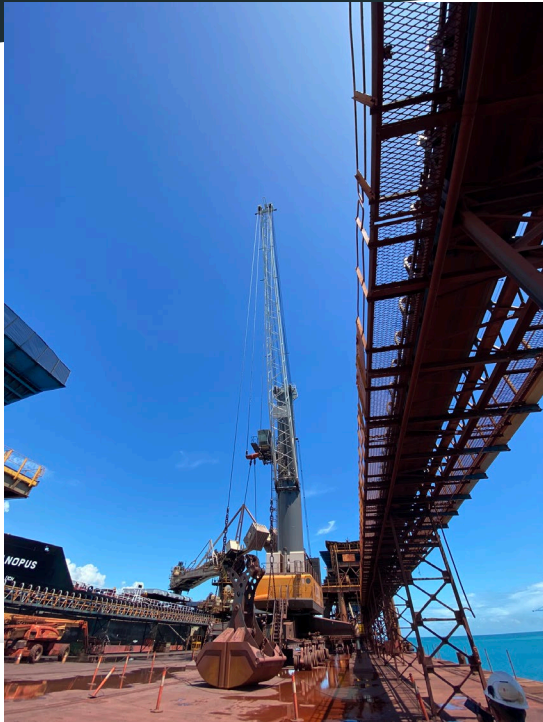
BUSINESS CASE VLI PECEM - BRASIL

results

SEARCHING THE RIGHT GRAB

Competitors clamshell grab	Nemag clamshell grab	NemaX
94 seconds per cycle	92 seconds per cycle	60 seconds per Cycle
12m3	12m3	12.9m3
Max. productivity 1.000 Ton /hour	Max. productivity 1.200 Ton /hour	Max. productivity 1.500 Ton /hour
Often Overloads during operation.	½ of the overloads of the original grab	Close to zero overloads while operating

EXISTING CONVEYER AND HOPPER SYSTEM



CONTACT DETAILS

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THANK YOU FOR YOUR ATTENTION

Nemag handles your bulk

