Solutions for MARINE & OFFSHORE

C Bonfiglioli





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Engineering Solutions







WWW.BONFIGLIOLI.COM

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MARINE & OFFSHORE

A COMPLETE RANGE OF DRIVES FOR MARINE AND OFFSHORE APPLICATIONS

Bonfiglioli offers a wide range of solutions for lifting, pulling and slewing machinery, including shipyard cranes, offshore cranes and platforms, deck machinery, azimuth thrusters and pipelayers.

Thanks to our technical experience and ability to develop flexible and tailor-made solutions, Bonfiglioli is the ideal partner for all marine and offshore applications.

The design of several groups of products and jacking gears has been approved by major Classification companies, such as ABS, DNV GL, LR, CCS, RS, etc. These products can be delivered with 3.2 certification and full traceability of the load bearing components.

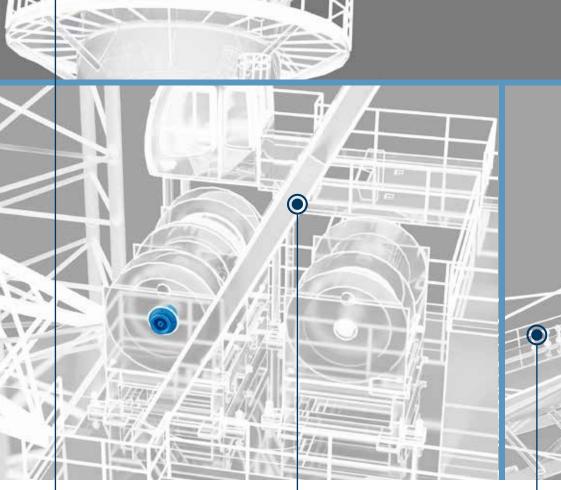
In addition, we can provide ATEX-certified and special drives developed for low-temperature applications. Bonfiglioli has also developed a specific range of gearboxes for jacking machinery with rack-and-pinion design, intended for jack-up drilling rigs, service lift boats, accommodation and windmill installation vessels.

Bonfiglioli and O&K product series offer one of the widest ranges of final drives in the world - up to 3.000.000 Nm - to their customers.









OFFSHORE CRANES

- FW Series
- FWX Series
- 800 Series
- 700C Series
- S Series
- 700T Series

DECK MACHINERY

FW Series
 S Series

GA

- FWX Series · 700T Series
- 800 Series
 300 Series

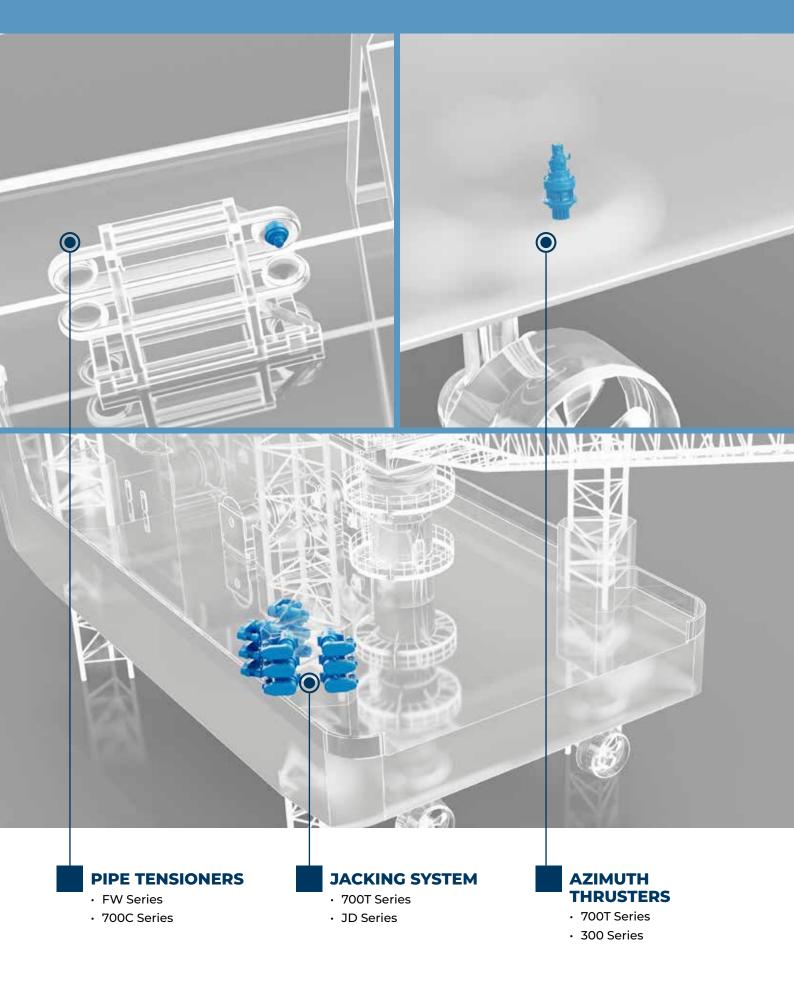
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• 700C Series • HDO Series

LIFEBOAT DAVIT CRANES

- FW Series
- 800 Series
- 700C Series

APPLICATIONS OVERVIEW







WINCH DRIVES

FW Series

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- FWX Series
- 800 Series
- 700C Series

SLEW DRIVES

- 700T Series
- S Series

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STEERING DRIVES

- 700T Series
- 300 Series

PRODUCTS OVERVIEW



JACK-UP DRIVES

- 700T Series
- \cdot JD Series

TRACK TENSIONER DRIVES

- FW Series
- 700C Series

MULTIPURPOSE PLANETARY DRIVES

• 300 Series

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• HDP/HDO Series



WINCH DRIVES

1

The Bonfiglioli and O&K lines of winch drives expertly meet requirements for lifting applications. These Series (FW, FWX, 800 and 700C) cover the whole marine and off-shore sectors for this type of application.

WINCH DRIVES





FW & FWX Series

Winch drives

- High "performance / dimension" ratio
- Robust design
- Class approved drives on request
- Special design suitable on request

FEATURES

EFITS

BEN

- Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request

• High torque range

- ATEX versions on request
- Linear and Angular input

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FW220

Max Torque (Nm) up to							
FW30	15.000	FW260	150	.000			
FW40	20.000	FW360	200	0.00	0		
FW55	25.000	FWX440	26	50.00	00		
FW80	39.000	FWX560	3	10.0	000		
FW100	52.000	FWX650		450	0.000	1	
FW130	73.000	FWX700			660	.000	
FW180	112.000	FWX1300				950.000	

Considering FEM M5-L2-T5 @ output speed 15 rpm

133.000

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli

FWX3000



700C Series Winch drives

- Compact design
- Designed for high volume series applications
- Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request

Ma	ax T	orqu	e (Nm) up	to
705C2H	4.8	300			
706C3B	9.	500			
707C3B	1	9.00	0		
709C3B		23.00	00		
710C3B		29.0	00		
711C3B		32.0	00		
713C3B		45	.00	00	
715C3B		5	5.0	000	
716C3B			76	6.000	
717C3H				95.000	
718C3H				105.00	0
720C3H				174.000	
722C3H					249.000

Considering FEM M5-L2-T5 @ output speed 15 rpm

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli



800 Series Winch drives

- Modular design allows high flexibility and fast delivery using the standard components of the 300 Series
- Class approved drives on request
- Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request
- $\boldsymbol{\cdot}$ ATEX versions on request
- Linear and Angular input

Max Torque (Nm) up to

810WL3	30.000
813WL3	45.000
815WL3	58.000
818WL3	120.000
824WL3	285.000

Considering FEM M5-L2-T5 @ output speed 15 rpm

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli

Solutions for MARINE & OFFSHORE

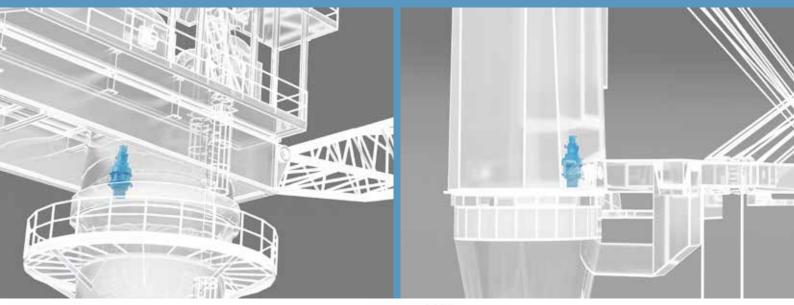
SLEW DRIVES

2

The Bonfiglioli and O&K lines of slew drives consist in a wide torque range with reduced dimensions and weight. Suitable for the most demanding offshore jobs, these drives are available with splined shaft or integrated pinions. Their design optimizes torque performance and radial load capacity to give excellently mesh pinion and ring gear. For accurate adjustment, the Bonfiglioli series is also available with eccentric mounting between the pinion axis and the casing axis.



SLEW DRIVES





700T Series

Slew drives

BENEFITS

FEATURES

- Wide torque range
- Class approved drives on request



S Series Slew drives

- Compact structureHigh performance
- Interchangeable solutions
- Class approved drives on request

- Output shaft: splined or integrated pinion
- Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request
- ATEX versions on request

- Integrated hydraulic brake available on request
- Special paint on request
- ATEX versions on request

RANGE	Ma	ах То	rq	ue ((Nm	1)	up	to	
Ζ	700T	1.20	00						
	701T	2.4	00						
	703T	3.5	00)					
ш	704T	4.8	300)					
TORQUE	705T	6.	50	0					
g	706T		10.	000)				
H	707T		1	5.0	0C				
2	709T			20	.000)			
	710T				30	0	00		
	711T				3	5	.000)	
	712T						45	.000)
	713T							55	.000
	714T					6	55.0	00	
	715T							80	.000

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli

Max Torque (Nm) up to

IVIC	ix forque (Nill) up to
S5	5.000
S7	7.000
S10	10.000
S13	13.000
S20	20.000
S30	30.000
S35	35.000
S40	40.000
S54	54.000
S60	60.000
S90	90.000
S130	130.000
S440	440.000

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli





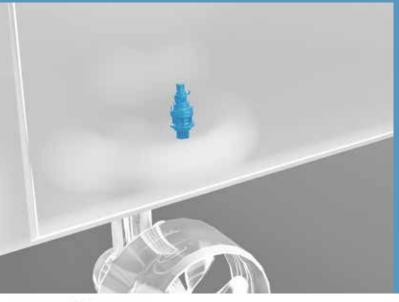
STEERING DRIVES

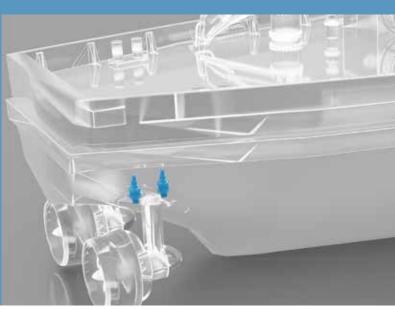
3

The Bonfiglioli line of azimuth thruster drives includes a wide range of sizes. Their design optimizes torque performance and radial load capacity to give excellently mesh pinion and ring gear.

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STEERING DRIVES







700T Series

Steering drives

• Wide torque range

BENEFITS

FEATURES

Class approved drives on request



300 Series Multipurpose planetary drives

- Wide torque range
- Class approved drives on request
- Huge number of configurations

- Splined shaft or integrated pinion
- Pinion Certification 3.2 on request
- Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request

- $\boldsymbol{\cdot}$ Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request

B	I	Ma	x To	orq	ue	(N	lm)	up	to	
RAN	706T			10	.000)				
	707T			1	5.0	00)			
	709T				20	.0	00			
QUE	710T					3	80.0	00		
2	711T						35	.000)	
202	712T							45	.000)
_	713T								55.	000
2	714T						e	55.0	00	
	715T								80	.000

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli

Max Torque (Nm) up to

Max Torque (Mill) up to							
306	8.500)					
307	12.5	00					
309	18.	18.000					
310	25	5.000					
311		40.00	0				
313		55.	000				
314			80.000				
315			100.	000			
316			134.000				
317	170.000						

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli



Solutions for MARINE & OFFSHORE

JACK-UP DRIVES

4

For many years, Bonfiglioli has been developing and supplying gearboxes for jacking machinery on offshore platforms. Units can be in-line or have a drop box for offset motor installation.

They can be electrically or hydraulically driven, with or without a negative parking brake.

Bonfiglioli can deliver integrated pinions up to more than m100 and lantern pieces with integrated torque arm for easy installation. Units class approved, and full 3.2 certification of the load-bearing parts of the gear transmission with full traceability from raw material to final machined component.

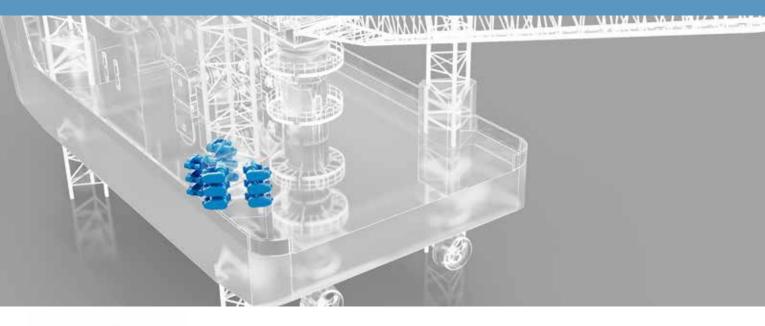
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Post Value (D)



JACK-UP DRIVES





700T & JD Series

Jack-up drives

- Wide range of jacking torques
- Special design suitable on request

BENEFITS

FEATURES

- Fitting for hydraulic and electric motors
- Splined shaft or integrated pinions up to more than m100
- Integrated torque arm
- Special paint on request

6	Max	k Ja	Icl	king T	or	que (Ni	m)
	718 T5		1	63.000)		
	718 T5 FZ		1	225.00)()		
	719 T5			305.0)0()	
Ц	721 T5				6	50.000	
2	JD 1300					810.00	00
2	JD 2000			1	.26	50.000	
H	JD 3000					1.7	770

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli



TRACK TENSIONER DRIVES

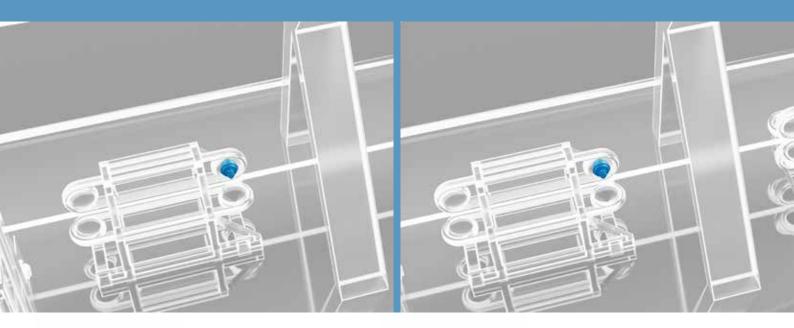
5

The compact design allows the 700C and FW Series to be easily integrated in the track tensioner for pipe laying systems. Bonfiglioli IS support this market in this special application since several years.

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TRACK TENSIONER DRIVES





700C Series

Track tensioner drives

Compact design

BENEFITS



FW Series Track tensioner drives

• High "performance / dimension" ratio

FEATURES Special paint on request

· Linear and Angular input

Special paint on request

• Linear and Angular input

B	Ma	ax T
Z	710C3B	
	711C3B	
	713C3B	
	715C3B	
2	716C3B	
Y	717C3H	
Ľ	718C3H	
2	720C3H	

Max Torque (Nm) up to						
710C3B		29.000				
711C3B		32.000				
713C3B		45.000				
715C3B		57.000				
716C3B		76.000				
717C3H		95.000				
718C3H		105.000				
720C3H		174.000				
722C3H		249.000				

Considering FEM M5-L2-T5 @ output speed 15 rpm

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli

Max Torque (Nm) up to

max i oi que (i mi) up to							
FW30		15.0	000				
FW40		20.000					
FW55		25.000					
FW80	39.000						
FW100			52	2.000			
FW130				73.00	00		
FW180					11	2.	000
FW220						1	33.000
FW260				150.0	000		
FW360						20	000.00

Considering FEM M5-L2-T5 @ output speed 15 rpm

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli





MULTIPURPOSE PLANETARY DRIVES

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The 300 series is compact and powerful. Their planetary drive train makes them the ideal choice for all heavy duty applications. The product configuration is highly versatile, due to several options for mounting, gear layout, output shaft and motor interface. All the features are available for each of the 20 finely spaced frame sizes.

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MULTIPURPOSE PLANETARY DRIVES





300 Series

Multipurpose planetary drives

- Modular design allows high flexibility and fast delivery
- Huge number of configurations
- Class approved drives on request

FEATURES

BENEFITS

- $\boldsymbol{\cdot}$ Fitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request
- ATEX versions on request
- Linear and Angular input

ш								
Ū	Max Torque (Nm) up to							
Z	300	1.000	313	55.000				
RA	301	1.750	314	80.000				
	303	2.500	315	100.000				
Щ	304	3.600	316	134.000				
TORQU	305	5.000	317	170.000				
	306	8.500	318	250.000				
	307	12.500	319	350.000				
	309	18.000	321	500.000				
	310	25.000	323	800.000				
	311	40.000	325	1.100.000				

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli





HELICAL DRIVES (PARALLEL OR ORTHOGONAL SHAFTS)

7

High torque, robustness, reliability and long-operating life are the main features of the HDx Series main features. The output shaft can be chosen both in the parallel (HDP) or right angle (HDO) configuration to always ensure the optimization of mounting space. The HDx Series can also be fully customized thanks to an extremely broad portfolio of options and accessories. It thus meets most requirements of a large number of applications.



HELICAL DRIVES





HDP/HDO Series

Helical drives (parallel or bevel shaft)

- Highly transmissible power
- Robustness
- Mounting flexibility
- Compact design
- Class approved drives on request

FEATURES

BENEFITS

- Wide range of options and accessoriesFitting for hydraulic and electric motors
- Integrated hydraulic brake available on request
- Special paint on request
- ATEX versions on request

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RANGE	Ma	ax 1	or	que	e (N	lm)	upt	to
Ζ	HD_71	8.990						
	HD_ 81	14.740						
	HD_ 91	21.610						
П	HD_ 95	23.200						
2	HD_100		2	8.2	10			
ORO	HD_110		3	1.7	90			
H	HD_120		41.2			0		
2	HD_ 125	49			9.2	40		
	HD_130	69.570						
	HD_140	87			87.	.060		
	HD_150						117	7.800
	HD_160	147.070						
	HD_170	190.190				0.190		
	HD_180							209.9

Max Torques values depend on ratio and linear or angular configuration, for the specific selections contact Bonfiglioli



OUR PROJECTION INTO THE FUTURE

MORE THAN 250 EMPLOYEES AROUND THE WORLD ARE INVOLVED IN THE GROUP'S R&D ACTIVITIES.

DESIGN SIMULATION

Bonfiglioli has the most advanced **virtual simulation techniques** that allow to speed up the validation process, thus reducing time to market and providing customers with optimized and efficient solutions.

TEST LABORATORIES

In our R&D department we **research**, **develop**, **validate and certify** all the products and solutions which are engineered and manufactured in our plants across the world.



CO-ENGINEERING

At Bonfiglioli we **work close to our customers to satisfy all their needs** and requirements with a true tailormade solution.





OUR CONSTANT AMBITION

QUALITY, HEALTH, SAFETY, ENVIRONMENT & ENERGY

QUALITY: WE CARE ABOUT OUR CUSTOMERS

Our team is wholly dedicated to continuous improvement in the quality, safety, environmental and energy spheres throughout the entire value chain, from the smallest supplier to the end client. Bonfiglioli is committed to achieving the highest quality standards, and our products are intended to generate value for our customers while respecting both people and the environment. We design, manufacture and supply effective products and services that set a benchmark for quality in the industry.

Bonfiglioli management systems are certified ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 and ISO 50001:2018, while our products are covered by 7 international certifications. Responsibility, excellence and continuous improvement are the basic elements that make us the favored partner of our clients and suppliers.

HEALTH & SAFETY: SUSTAINABILITY STARTS WITH SAFETY

Prevention of accidents and incidents is a key element of our company's sustainability strategy and an integral part of each one of our business processes. The successful management of risks is essential for protecting our employees and assets, thereby strengthening their contributions.

ENVIRONMENT & ENERGY: RESPECT THE PRESENT TO BUILD THE FUTURE

At Bonfiglioli, we believe that respect for the present and the adoption of environmental protection and energy efficiency policies are essential if we are to enjoy a better future.



OUR GLOBAL PRESENCE

Thanks to an international network of closely interconnected commercial and production sites, we can guarantee the same high standards of Bonfiglioli quality anywhere at any given time. We know that our direct presence in local markets is the key to long-lasting success, so our family includes 20 production sites, 26 commercial sites and more than 550 distributors around the world.

Our organization is always close by, offering complete and efficient solutions and supporting our customers with dedicated services, co-engineering and after-sales assistance.

20 PRODUCTION SITES









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SALES



GO Bonfiglioli

We have a relentless commitment to excellence, innovation & sustainability. Our team creates, distributes and services world-class power transmission & drive solutions to keep the world in motion.

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