

# Land Rigs



The core  
of drilling  
innovation



## Land Rigs Series

Drillmec's deep roots in the manufacturing of drilling rigs start back in 1929 and since then continuously improved rig design by raising the pull-up capacity, enhancing safety, optimizing performance and minimizing environmental impact.

Drillmec starting from Massarenti & Branham-design produces a full range of land rig packages to satisfy almost any need with successful achievements all over the world.

Drillmec understands that drilling contractors objectives and conditions are constantly in flux and require different solutions to achieve results.

Drillmec rigs are available in a wide range of specifications in order to fit custom configurations and capabilities; together with the conventional land rigs illustrated in this catalog, Drillmec produces the *Advanced HH Series*, the new frontier of hydraulic drilling rigs for unconventional drilling.

### DM SERIES

(Raising Lines)

Swing Lift masts and substructures with hook load capacity from 340 to 907 metric tons (750,000 - 2,000,000 lbs)

### HSL SERIES

(Hydraulic Raising)

Swing Lift masts and substructures with hook load capacity from 340 to 680 metric tons (750,000 - 1,500,000 lbs)



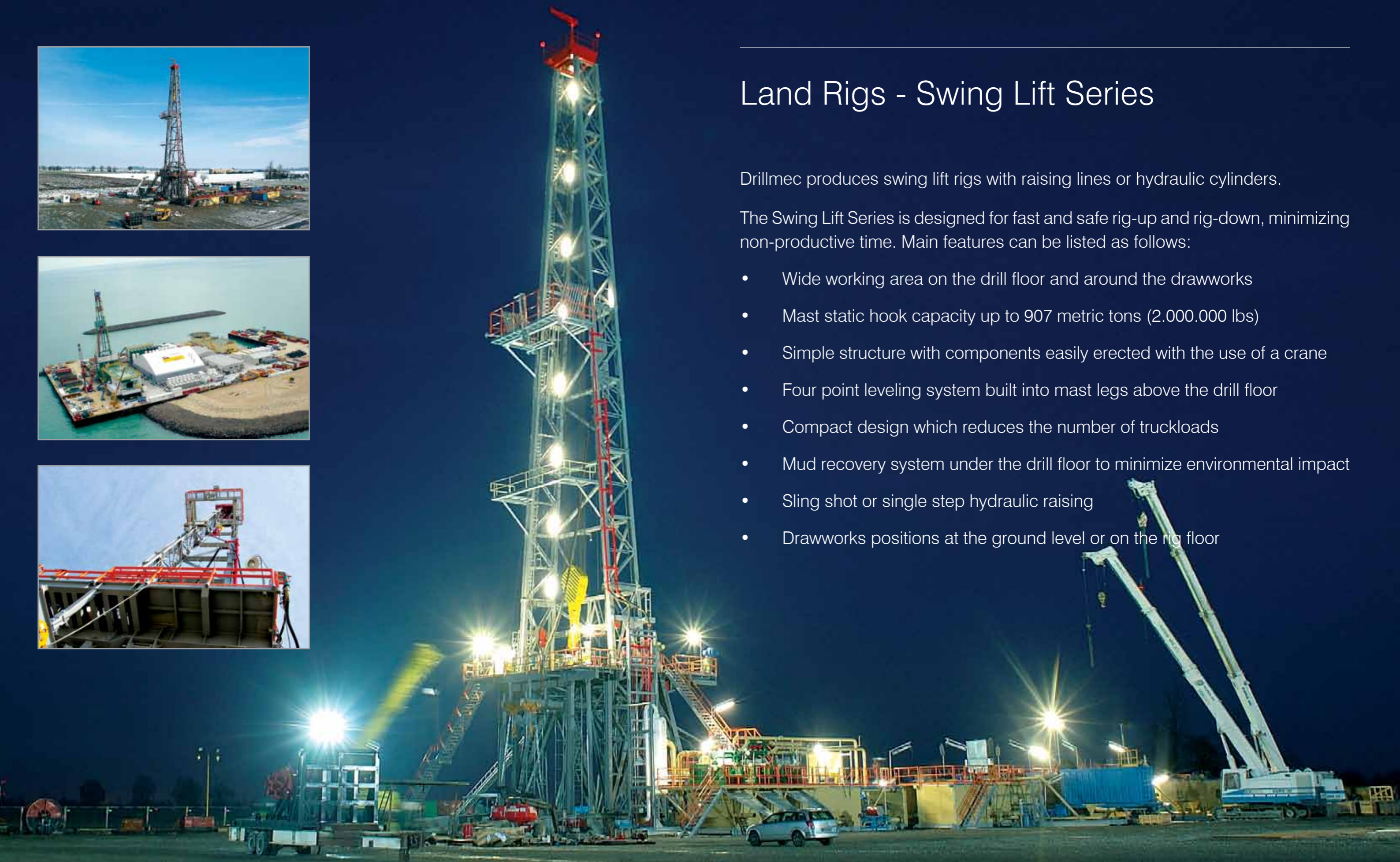


## Land Rigs - Swing Lift Series

Drillmec produces swing lift rigs with raising lines or hydraulic cylinders.

The Swing Lift Series is designed for fast and safe rig-up and rig-down, minimizing non-productive time. Main features can be listed as follows:

- Wide working area on the drill floor and around the drawworks
- Mast static hook capacity up to 907 metric tons (2.000.000 lbs)
- Simple structure with components easily erected with the use of a crane
- Four point leveling system built into mast legs above the drill floor
- Compact design which reduces the number of truckloads
- Mud recovery system under the drill floor to minimize environmental impact
- Sling shot or single step hydraulic raising
- Drawworks positions at the ground level or on the rig floor



### Swing Lift - Raising Lines (DM Series)

Model	Hook Load		Lines	Setback Capacity		Drawworks Input Power		Mast Height		Mast Base		Substructure Height	
	mt	lbs		mt	lbs	kW	hp	m	ft	m	ft	m	ft
<b>DM 750</b>	340	750,000	12	204	450,000	1,120	1,500	46	152	9	30	9	30
<b>DM 1000</b>	454	1,000,000	12	360	800,000	1,490	2,000	48	156	11	35	11	35
<b>DM 1300</b>	590	1,300,000	14	360	800,000	1,490	2,000	48	156	11	35	11	35
<b>DM 1500</b>	680	1,500,000	14	454	1,000,000	2,240	3,000	48	156	11	35	12	40
<b>DM 2000</b>	907	2,000,000	16	454	1,000,000	2,240	3,000	49	160	12	40	14	45

### Swing Lift - Hydraulic Raising (HSL Series)

Model	Hook Load		Lines	Setback Capacity		Drawworks Input Power		Mast Height		Mast Base		Substructure Height	
	mt	lbs		mt	lbs	kW	hp	m	ft	m	ft	m	ft
<b>HSL 750</b>	340	750,000	12	204	450,000	1,120	1,500	46	152	9	30	9	30
<b>HSL 1000</b>	454	1,000,000	12	360	800,000	1,490	2,000	48	156	11	35	11	35
<b>HSL 1300</b>	590	1,300,000	14	360	800,000	1,490	2,000	48	156	11	35	11	35
<b>HSL 1500</b>	680	1,500,000	14	454	1,000,000	2,240	3,000	48	156	11	35	12	40



## Cluster/Pad Drilling System

Drillmec manufactures rigs for the Russian market and arctic temperature environment. The range widens from 1500 to 3000 hp.

In these countries the standard system for cluster drilling is named echelon. It can be single type or double type. In the first option one single rail accommodates the drilling package. In case of double system, generation and mud system are separate. One deck or double deck options are available to best match customer needs. The three main components of this kind of rig to be identified are rails, modules and pulling system. Drillmec designs all of them to reduce the weight and to save time. Indeed all the modules are equipped with hydraulic system for fast rig up. Vertical displacement can adjust the mast verticality. Hydraulic pulling jacks are used to “pull” the echelon system from well to well. Usually the motion is performed on wheels. Drillmec introduces new type of rig with rollers. Steel plates or concrete can be prepared under the rails to avoid the leveling of the mast.



### Cluster / Pad Drilling System products

SKIDDING SYSTEM

WALKER SYSTEM

RIGS ON WHEEL

# Drawworks

Drillmec gear driven drawworks (GD Series) are the primary hoisting machinery used to raise and lower the traveling blocks. They consist of the following main parts: the drum, the motors, the reduction gear, the brake, and the auxiliary brake.

With the Massarenti experience and a unique aim for continuous improvement over decades of innovation, Drillmec produces a wide range of drawworks engineered for today's tough challenges.

As with other Drillmec drilling equipment, our drawworks can be fitted to all land rigs with power ranging from 1,500 to 3,000 hp with a nominal depth range of 3,500 to 10,000 meters (11,000 ft to 32,000 ft).

## Drawworks (MAS GD Series)

Model		MAS 6000 GD	MAS 7000 GD	MAS 7500 GD	MAS 8000 GD
<b>Horse Power</b>	kW	1,120	1,490	1,860	2,240
	hp	1,500	2,000	2,500	3,000
<b>Nominal Depth</b>	m	3,500 to 5,000	4,000 to 6,000	6,000 to 8,000	8,000 to 10,000
	ft	11,480 to 16,400	13,120 to 19,680	19,680 to 26,250	26,250 to 32,810
<b>Wireline Size</b>	mm	35	38	41	44
	in	1.3/8	1.1/2	1.5/8	1.3/4
<b>Hoisting Drum Size</b>	mm	720 x 1,400	800 x 1,550	915 x 1,575	915 x 1,575
	in	28.1/2 x 55	31.1/2 x 61	36 x 62	36 x 62
<b>Width Overall</b>	mm	3,950	3,950	5,234	5,234
	in	155	155	206	206
<b>Width In Transportation</b>	mm	2,700	2,700	3,200	3,200
	in	106	106	126	126
<b>Height Overall</b>	mm	3,150	3,150	3,150	3,150
	in	124	124	124	124
<b>Length Overall</b>	mm	6,530	8,225	8,360	8,360
	in	257	324	329	329
<b>Weight</b>	kg	45,000	48,000	52,000	52,000
	lbs	99,200	105,800	114,600	114,600
<b>Hoisting Capacity - 8 Lines</b>	mt	244	-	-	-
	lbs	537,000	-	-	-
<b>Hoisting Capacity - 10 Lines</b>	mt	294	366	454	-
	lbs	648,000	807,700	1,000,000	-
<b>Hoisting Capacity - 12 Lines</b>	mt	340	431	525	590
	lbs	750,000	950,700	1,157,000	1,300,000
<b>Hoisting Capacity - 14 Lines</b>	mt	-	493	590	703
	lbs	-	1,087,000	1,300,000	1,550,000
<b>Hoisting Capacity - 16 Lines</b>	mt	-	-	-	771
	lbs	-	-	-	1,700,000



## Drill Floor Equipment

Drillmec manufactures a complete range of drilling equipment including iron roughnecks, rotary tables and control cabins. Each item is customizable according to requirements and specifications.

A rig equipped with Drillmec's Iron Roughnecks significantly increases overall performance: speed in screwing and unscrewing the pipes, efficiency reducing risk of errors and breakages and safety reducing crew injuries.

Drillmec's Rotary Tables "R Type" are designed to be interchangeable with the most popular rotary table brands and for drilling depths up to 30,000 ft and beyond.

Drillmec's Control Cabins are specifically designed for each individual drill floor. Our main type of cabin can be equipped with pneumatic, hydraulic or electronic controls (CyberChair). The cabin can integrate all rig's components supplied by any party.



### Drill Floor Equipment products

IRON ROUGHNECK

POWER TONG

PIPE SPINNER

ROTARY TABLE

CONTROL CABIN

Pneumatic Control

Hydraulic Control

Electronic Control (Cyber Chair)



## Power Generation

Generator sets supply electric power to the drawworks, top drive, mud pumps and camp loads. These multiple diesel-electric generator sets run in parallel producing up to five megawatts of power needed at the drill site, including the power required for camp loads such as lighting, heating and air conditioning for crew quarters.

Drillmec Power Control Room includes all the power and electronic controls to run the drilling process.

The PCRs can be customized in dimensions and designed for a secure application in drilling and oilfield systems. Both VFD or SCR version are available.

Drillmec is used to handle and operate with different brands and standards.

### Power Generation products

#### POWER CONTROL ROOM (PCR)

#### GENERATORS



# Mud System

Drillmec designs solids control solutions to enhance drilling rates and reduce costs through the efficient removal of drilled solids, minimizing remarkably the environmental impact.

Drillmec manufactures complete customized mud solid control system to satisfy any drilling necessity, according to customer's specifications in terms of volume, flow capacity and rating.

Every mud system is designed to satisfy customer needs. The fast moving mud system is completely trailerized to save moving time.

Drillmec's manifold systems reaches up to 7,500 P.S.I.



## Mud Solid Control System products

MUD TANKS

TANKS ON TRAILER

MANIFOLD

HIGH PRESSURE SYSTEM

BRINE SYSTEM

FUEL & WATER SYSTEM

# Quality System



## Policy

Drillmec has always viewed continuous improvement of company processes and complete satisfaction of customer's needs as essential factors for standing out on the highly complex, competitive oil and gas market. Drillmec's Quality System and HSE System are essential tools for achieving its business goals.

In accordance with its general aims and strategies for growth, Management promotes:

- The central role of the customer
- Full involvement of all personnel to ensure complete awareness of the significance and importance of their work and how they can contribute to achieving quality goals, environment, health and safety protection
- Continuous improvement of the quality of products and services, especially through a strong drive toward technological innovation
- Continuous improvement of process performance
- Safeguarding of the environment and protection of workers' health and safety. Such commitment is widespread not only to our workers, but even to our subcontractors and suppliers.

*Drillmec produces a full range of Land Rigs and has been supplying packages that are successfully operating in all major oil field in the world.*

## Certifications

Drillmec SpA and Drillmec INC quality management systems are certified by API (American Petroleum Institute), DNV (DNV Business Assurance), RTN (Rostechnadzor) and CU-TR (Russian approval) and can also work under NORSOK, ABS and RMRS, if required by the client.

- |              |                    |
|--------------|--------------------|
| API 4F-0062  | CU-TR 0529642      |
| API 6A-0492  | CU-TR 0982253      |
| API 7-1-0305 | CU-TR 0529643      |
| API 7K-0045  | CU-TR 0529646      |
| API 8C-0041  | CU-TR 0529647      |
| API 16A-0112 |                    |
| API ISO-0076 | RTN: PPC 00-047448 |
| API Q1-0527  |                    |
| API 4F-0058  |                    |

ISO 9001:2008  
ISO 14001:2004  
OHSAS 18001:2007



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- |                        |                        |
|------------------------|------------------------|
| 01 Crown Block         | 13 Water Tanks         |
| 02 Mast                | 14 Mud Lab             |
| 03 Racking Platform    | 15 Shale Shakers       |
| 04 Stand Pipe          | 16 Trip Tank           |
| 05 Dog House           | 17 Mixing Unit         |
| 06 Traveling Block     | 18 Mud Tanks           |
| 07 Drill Floor         | 19 Mud Pumps           |
| 08 Stand Pipe Manifold | 20 Cable Tray          |
| 09 Ground Manifold     | 21 Power Control Room  |
| 10 Poor Boy            | 22 Diesel Generator    |
| 11 Substructure        | 23 Emergency Generator |
| 12 Drawworks           | 24 Air Unit            |

For further information...

If you would like further information about our company, products or services, please don't hesitate to get in touch with us. You can do this in a number of ways...

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