



# **PIPELAYERS**

RL 24 · RL 44 · RL 54 · RL 64 LITRONIC®



# INDEX

### **PIPELAYERS SERIES 4**

Pipel	ayers	Page 3
	Performance	Page 4
	Reliability	Page 6
	Safety	Page 8
	Economy	Page 10
	Technical specifications	
	Base machine RL 24	Page 12
	Dimensions and weights RL 24	Page 13
	Base machine RL 44-54-64	Page 14
	Dimensions and weights RL 44-54-64	Page 15
	Transport dimensions and weights RL 44-54-64	Page 17
	Lift capacity and ground pressure	
	RL 24 Litronic®	Page 18
	RL 44 Litronic®	Page 19
	RL 54 Litronic®	Page 20
	RL 64 Litronic®	Page 21
	Equipment RL 24	Page 22
	Equipment DL // E/ G/	Dago 27



### **PIPELAYERS**

	ENGINE OUTPUT	MAX. LIFT CAPACIT
RL 24	90 KW / 122 HP	23.900 KG 52,690 LB
RL 44	175 KW / 238 HP	45.900 KG 101,192 LB
RL 54	210 KW / 286 HP	70.000 KG 154,323 LB
RL 64	275 KW / 374 HP	90.800 KG 200,179 LB

### **ABOUT US**

For nearly 40 years, Maats has been one of the leading suppliers of pipeline construction equipment and services to the pipeline industry and has a large fleet of equipment available for rental and for sale. Maats supply a wide variety of specialised construction machinery such as pipelayers, welding tractors, bending machines and related equipment for new pipeline construction as well as for pipeline maintenance and repairs.

Maats is global representative for the sale of new Liebherr pipelayers. Maats and Liebherr developed a range of pipelayers with lifting capacities up to 98 metric tons.

# **PERFORMANCE**

Maats and Liebherr pipelayers are designed to provide maximum performance and handle the most difficult jobs. High lifting forces, outstanding maneuverability and heavyduty components in the travel and working hydraulics ensure peak performance when laying pipelines.

### POWERFUL AND INFINITELY ADJUSTABLE TRAVEL DRIVE

In combination with the innovative hydrostatic travel drive, the powerful Liebherr diesel engine provides optimum power in every situation. Whether transporting pipe on soft soil, lowering the pipeline when travelling uphill, or when pulling heavy pipe bending machines - the hydrostatic travel drive reliably provides the required power.

## STEPLESS AND PRECISE CONTROL OF THE TRAVEL SPEED

The stepless travel drive enables traveling without sudden movements and is very accurate without shifting gears. This reduces vibrations during pipe transport and provides essentially millimetre-accurate joining during pre-assembly.

#### **POWER FOR TRAVELLING ON SLOPES**

The hydrostatic travel drive allows the operator to maneuver the machine easily and with maximum precision, even on steep slopes. The parking brake also acts as a safety brake and is automatically activated. Thus preventing the machine moving out of control, even when operating on slopes.

#### **HIGH STABILITY**

The compact arrangement of the drive components results in an extremely low centre of gravity for the machine. Through use of the extra-long undercarriage, Liebherr pipelayers offer maximum stability, especially on inclines.

#### **HIGH LIFTING CAPACITIES**

Resulting from the favorable weight distribution, centre of gravity, the extended position of the counterweight and the extra-long undercarriage, maximum lifting capacities are available over the entire working range.

MAATS AND LIEBHERR PIPELAYERS WILL IMPRESS YOU WITH THEIR OUTSTANDING PERFORMANCE CAPABILITIES.





POWERFUL AND STEPLESS TRAVEL DRIVE

HIGH STABILITY

HIGH LIFTING CAPACITIES

LATEST TECHNOLOGY

**EXCELLENT MANOEUVRABILITY** 

EXTRA LONG UNDERCARRIAGE

LONG BOOM









# RELIABILITY

### **MAATS & LIEBHERR QUALITY**

Maats and Liebherr pipelayers have been developed to meet requirements at construction sites around the world and designed throughout for a long service life. Whether at low temperatures in Siberia or in hot desert regions, the rugged and time-tested construction of Liebherr pipelayers provides maximum reliability and availability.

### **INTELLIGENT HYDRAULICS**

Very precise control of the boom and winch. The pipe is placed with millimetre accuracy - this is a major benefit when connecting pipes during pre-assembly as well as when repairing the pipeline. The boom positioning cylinder stabilises heavy loads in every position.

### **LOW GROUND PRESSURE**

All Maats and Liebherr pipelayers are equipped with very wide track shoes and an extra long undercarriage, which results in a very low ground pressure.

### STATE-OF-THE-ART COOLING SYSTEM

The cooling air is drawn in from clean regions, reducing contamination from dust particles. A reversible fan for cleaning the radiator automatically in environments with a high dust level in the air is available as an option.

### **HYDROSTATIC FAN DRIVE**

The hydrostatically powered fan regulates the cooling capacity to meet requirements. This allows the engine to reach the optimal operating temperature faster.

### **LOW - TEMPERATURE OPERATION (OPTION)**

Liebherr and Maats pipelayers can be fitted with a variety of features to permit operation at low temperatures, such as preheating of the engine, battery preheating, auxiliary cab heater, electrically heated fuel water separator or insulated windows.

#### **RUGGED AND WELL-THOUGHT- OUT DESIGN**

The main frame is constructed using a proven box design. This results in a torsionally rigid frame that perfectly absorbs all applied forces. Components subjected to high loads are manufactured from cast steel.

The wear-resistant, braided PVC-fibre cable sleeving with a Teflon core provides maximum protection against mechanical damage. Damage and moisture uptake is also prevented.

TIME-TESTED
AND PROVEN
TECHNOLOGY AS
WELL AS HIGH MATERIAL
AND MANUFACTURING
QUALITY ENSURE
MAXIMUM RELIABILITY
EVEN UNDER THE
HARSHEST CONDITIONS.





TORSION RESISTANT MAIN FRAME

KEY TECHNOLOGIES FROM LIEBHERR

ENDURANCE TESTED COMPONENTS

STATE OF THE ART COOLING SYSTEM

LOW TEMPERATURE OPERATION

MILLIMETER ACCURATE CONTROL OF BOOM

WORK UNDER HARSH WEATHER CONDITIONS

POWERFUL WORKING CYLINDERS









## SAFETY

Safety is always a priority at Maats and Liebherr. Accordingly, all pipelayers have a well thought out safety concept. Important details such as the ROPS cab, the boom-positioning cylinder, the automatic parking brake, optional load moment limiting and the extremely precise hydraulics make Maats and Liebherr pipelayers among the safest in the industry.

### CAB WITH INTEGRATED ROPS PROTECTION

Maats and Liebherr pipelayer cabs come with integrated roll-over protection as a standard feature. This provides convenient and good visibility in the working area.

#### HYDRAULIC CYLINDER FOR BOOM POSITIONING

Instead of a second winch, Liebherr install a boom cylinder on all pipelayer models. This cylinder is maintenance-free and also prevents unintentional folding of the boom in critical situations.

#### LOGICAL JOYSTICK CONTROL

All primary machine movements can be initiated intuitively and without reaching for another operating lever. This always allows the operator to focus his attention on the load being moved . Safety on the construction site is increased considerably as a result.

#### PRECISION WHEN TRAVELLING ON SLOPES

Maats and Liebherr pipelayers always move with no loss of traction. This prevents the machine's rolling away unintentionally, especially when travelling on slopes. When the machine is no longer moving, an automatically activated parking brake provides additional safety. Thanks to the hydrostatic system, the operator can control braking simply by eliminating any joystick deflection.

#### **HOSE-BREAK PROTECTION**

All cylinders on Maats and Liebherr pipelayers features hosebreak protection that prevents lowering of the boom in the event of hose breakage.

### **FREE-FALL FUNCTION**

If the operator must lower the load quickly, in case of emergency, it is possible to switch the winch to free-fall.

### **LOAD MONITORING SYSTEM**

Maats and Liebherr pipelayers can be fitted with a Load Monitoring System.

SAFETY IS PRIORITY AT LIEBHERR AND MAATS, WHICH IS WHY ALL PIPELAYERS ARE BASED ON A WELL-THOUGHT-OUT SAFETY CONCEPT THAT SETS STANDARDS IN PIPELINE CONSTRUCTION.





SAVE ACCESS TO THE CAB

NON-SLIP STEPS

PIPE PROTECTION ON THE BOOM (OPTION)

NUMEROUS HANDHOLDS ON THE MACHINE

AUTOMATIC LIFT KICK OUT

**OVERLOAD WARNING DEVICE** 

WELL THOUGHT OUT LIGHTING CONCEPT









# **ECONOMY**

Clear economic benefits - the Liebherr advantage: Like all other Liebherr and Maats equipment, these pipelayers are characterised by their service friendliness. This reduces both downtime and maintenance costs. The Liebherr diesel engines combine high performance and economy - the combination of an efficient drive system and load sensing hydraulics guarantees minimum fuel consumption.

### **LOW SERVICE COSTS**

Maximum accessibility to all maintenance points. All service points on the diesel engine are centralised, easily accessible on one side of the machine. Separate compartments for the batteries, the electronics and the diagnostic tools offer the best protection, while providing easy and quick access.

### **UNMATCHED OIL CHANGE INTERVALS**

Liebherr oils and lubricants are specially formulated for the harsh operating conditions of pipelayers. Thanks to the special properties of these oils, achievable oil change intervals can be as much as four times longer than those for conventional oils. This lowers the amount of services required, reduces the amount of oil used and protects the environments.

### LOW FUEL CONSUMPTION

The Liebherr diesel engine runs at a constant low speed - in an economical range - regardless of the travel speed. The result is exceptionally low fuel consumption.

#### **ECONOMICAL HYDRAULICS**

The load sensing on demand controls supply only the exact amount of oil needed. This protects the components and saves fuel.

#### **INNOVATIVE COOLING SYSTEM**

The hydrostatically powered fan regulates the cooling capacity to meet requirements, regardless of the diesel engine rpm. This ensures optimal cooling capacity and saves fuel.

### **COMPONENTS AND SPARE PARTS LOGISTICS**

The main components of Liebherr and Maats pipelayers are identical to those used in the crawler tractors, greatly simplifying maintenance and repair as well as spare parts supply.

### **TILTING OPERATOR CAB**

The standard tilting operator cab provides fast and easy access to all important components of the travel drive and hydraulics.

SPECIAL ATTENTION
WAS DEVOTED TO
ENSURING LONG
COMPONENT SERVICE
LIVES, LOW SERVICE
COSTS AND LOW FUEL
CONSUMPTION.





LONG COMPONENT SERVICE LIFE

LOW SERVICE COSTS

WIDE OPENING ENGINE COMPARTMENT

DOORS PROVIDE EASY ACCESS

PROTECTED COMPONENTS

EXCEPTIONALLY LOW FUEL CONSUMPTION

TILTING OPERATOR CAB PROVIDES FAST AND EASY ACCESS









# **BASE MACHINE**

DI 24



### **ENGINE**

#### **RL 24**

<b>▼</b>	
Diesel engine	John Deere PowerTech 6068H, emission regulations according to 2004/26/EG stage IIIA and EPA/CARB Tier 3
Rating (ISO9249)	90 kW / 122 HP
Rating (SAE J1349)	90 kW / 121 HP
Rated speed	2.100 rpm
Displacement	6,8 l / 414 cu. ln.
Design	6-cylinder-in-line engine, water cooled, turbocharged, air-to-air intercooler
Injection system	Common Rail system with direct injection, electronic engine management
Engine lubrication	Pressurized lube system, engine lubrication guaranteed for inclinations up to 45 degrees
Operating voltage	24 V
Alternator	80 A
Starter	7,5 kW
Batteries	2 x 117 Ah / 12V
Air cleaner	Dual stage dry type with safety element, pre-cleaner, service gauge in the cab
Cooling system	Combi radiator, comprising radiators for water, hydraulic fluid and charge air



### **REFILL CAPACITIES**

RL 24



### **UNDERCARRIAGE**

**RL 24** 

Design	Track frame, rigid
Mount	Via separate pivot shafts and a fixed equalizer bar
Chains	Lubricated, single grouser shoes; track chain tensioning via steel spring and grease tensioner
Links, each side	49
Track rollers/carrier rollers	9/2
Sprocket segments	5
Track shoes standard	762 mm / 30"
Track shoes option	610 mm / 24" and 710 mm / 28"



### TRAVEL DRIVE, CONTROL

### **RL 24**

Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track
Travel speed	- Infinitely variable from 0 to 8,9 km/h / 5.5 mph - Setting of travel speed ranges on the travel joystick Reverse speed can be set at 80, 100, 115 or 130% of forward speed (max. 8,9 km/h / 5.5 mph)
Drawbar pull	161 kN at 1,0 km/h - 0.6 mph
Electronic control	Electronic engine speed control automatically adjusts travel speed and drawbar pull to match changing load conditions
Steering	Hydrostatic
Service brake	Hydrostatic (dynamic braking), wear free
Automatic park brake	Wet multiple disc brake, wear free, automatically applied
Cooling system	Transmission oil cooler integrated in combi radiator
Filter system	Micro cartridge filter
Final drive	Triple reduction final drives, spur gears
Control	Single joystick for all travel and steering function; Decelerator pedal
Adjustments	Operator can individually adjust travel drive parameters via the monitor, e.g. joystick response, decelerator pedal response, etc.
Decelerator pedal	Decelerator pedal allows reduction of ground speed with or without reduction of engine rpm



### **HYDRAULIC SYSTEM**

**RL 24** 

System	Load sensing proportional pump flow control
Pump type	Swash plate, variable displacement piston pump
Pump flow max.	155 I/min / 34.1 gpm
Pressure limitation	320 bar / 4640 PSI
Control valve	3 Segments, expandable to 5
Filter system	Return filter with magnetic rod in the hydraulic tank



### **HYDRAULIC WINCH**

**RL 24** 

Hoist winch	Variable flow hydraulic pump
Safety brake	Spring-loaded disc brake holds the load safely
	in any position
Drum diameter	248 mm / 10"
Drum length	349 mm / 13.75"
Flange diameter	416 mm / 16.38"
Cable diameter	16 mm / 0.63"
Cable length	55 m / 60.15 yd
Hook block	2 sheaves / 3 strand
Hook speed (up, down)	0-33 m/min 0-108 ft/min



### **OPERATOR'S CAB**

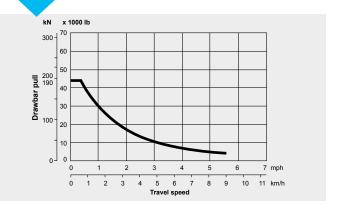
### **RL 24**

Cab	Resiliently mounted cab with positive pressure ventilation, integrated ROPS Rollover Protective Structure (ISO 3471).
Canopy (option)	Resiliently mounted canopy. Integrated ROPS Rollover Protective Structure (ISO 3471)
Operator's seat (cab)	Fully adjustable air-suspended comfort seat; adjusts automatically to operator's weight
Operator's seat (canopy)	Fully adjustable mechanical suspension comfort seat
Monitoring	Combined analogue / LC display. Automatic monitoring, display and warning of deviating operating parameters



### **DRAWBAR PULL**

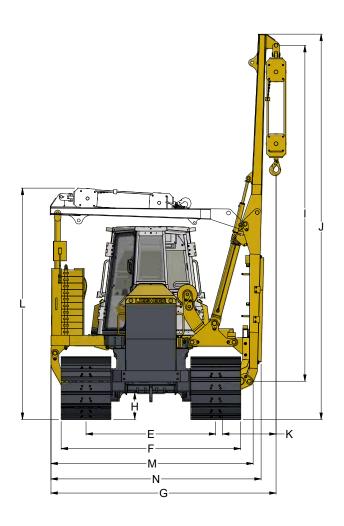
**RL 24** 

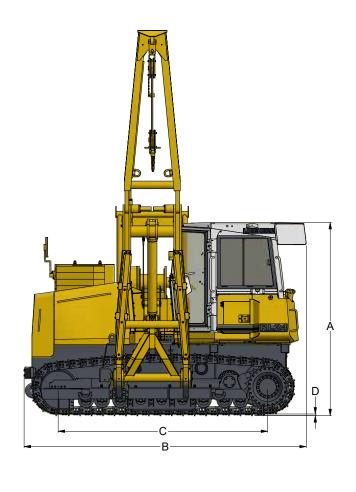


### **DIMENSIONS AND WEIGHTS**

**RL 24** 









### **DIMENSIONS**

**RL 24** 

Α	Height over cab	3.050 mm / 10.01 ft
В	Overall length	4.326 mm / 14.19 ft
С	Distance idler/sprocket center	3.215 mm / 10.55 ft
D	Height of grousers	56 mm / 0.18 ft
Е	Track gauge	1.988 mm / 6.52 ft
F	Total width over undercarriage	2.751 mm / 9.03 ft
G	Width (counterweight to hook)	2.450 mm / 8.04 ft
Н	Ground clearance	413 mm / 1.35 ft
1	Boom length	5.150 mm / 16.90 ft
	Optional boom length 7m boom	7.000 mm / 22.97 ft
J	Total height	5.907 mm / 19.38 ft
	Total height 7m boom	7.760 mm / 25.46 ft
K	Distance (chain to hook)	821 mm / 2.69 ft
L	Transport height (foldable boom)	3.552 mm / 11.65 ft
M	Width (transport without boom)	3.100 mm / 10.17 ft
Ν	Width (transport with boom)	3.214 mm / 10.54 ft



### **WEIGHTS**

**RL 24** 

Operating weight
Ground pressure
(with standard plates)

21.860 kg / 48,193 lb 0,44 kg/cm2 / 6.26 PSI



### **BASE MACHINE**

RL 44 - RL 54 - RL 64



### **ENGINE**

RL 44 RL 54 RL 64

Liebherr diesel engine	D 936 L A6	D 936 L A6	D 946 L A6	
	Emission regulat	tions according to	97/68/EC,	
	2004/26/EC Sta	2004/26/EC Stage IIIA and EPA/CARB Tier 3		
Rating (ISO 9249)	175 kW/238 HP	175 kW/238 HP	275 kW/374 HP	
Rating (SAE J1349)	175 kW/235 HP	175 kW/232 HP	275 kW/368 HP	
Rated speed	1,800 ¹/min	1,800 ¹/min	1,800 ¹/min	
Displacement	10.5 I / 641 in <sup>3</sup>	10.5 I / 641 in <sup>3</sup>	12 I / 733 in <sup>3</sup>	
Design	6 cylinder in-line	6 cylinder in-line-engine (wet-sleeve)		
	water-cooled, tu	water-cooled, turbocharged, intercooled		
Injection system	Direct fuel inject	Direct fuel injection, pump-line-nozzle system,		
	electronic control			
Lubrication	Force-feed lubri	Force-feed lubrication, engine lubrication in an		
	inclined position	inclined position up to 45°		
Operating voltage	24 V	24 V	24 V	
Alternator 80 A	80 A	80 A	80 A	
Starter	7.8 kW / 11HP	7.8 kW / 11HP	7.8 kW / 11HP	
Batteries	2 x 170 Ah/12 V	2 x 180 Ah/12 V	2 x 225 Ah/12 V	
Air cleaner	Dry-type air clea	Dry-type air cleaner with safety element,		
	aspirated pre-cle	eaner, service gau	ge in cab	
Cooling system	Combi radiator,	Combi radiator, comprising a radiator for water and		
	charge air, hydro	static fan drive		



### TRAVEL DRIVE, CONTROL

RL 44 RL 54 RL 64

Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each frame		
Travel speed*	Continuously va	riable	
Speed range 1 (reverse)	0 - 4.0 km/h/	2.5 mph (4.8 km/h	/ 2.9 mph)
Speed range 2 (reverse)	0 - 6.5 km/h / 4.0 mph (7.8 km/h / 4.8 mph)		
Speed range 3 (reverse)	0 - 10.5 km/h / 6.5 mph (10.5 km/h / 6.5 mph)  * Pre-adjusted, all speed ranges can be customized on the travel joystick (memory function)		
Drawbar pull	300 kN at 1.7 km/h / 1.1 mph	387 kN at 1.6 km/h / 1.0 mph	510 kN at 1.5 km/h / 0.9 mph
Electronic control	Electronic engine speed sensing control (load sensing feature) automatically adjusts travel speed and drawbar pull to match changing load conditions		
Steering	Hydrostatic		
Service brake	Wear-free, hydrostatic (dynamic braking)		
Automatic park brake			
Cooling system	Hydraulic oil Separate hydraulic oil cooler Cooler integrated in combi radiator Hydraulic oil cooler hydrostatically driven and thermostatically controlled		
Filter system	Micro cartridge filters in replenishing pressure circuit		
Final drive	Heavy-duty combination spur gear with planetary final drives, double sealed with electronic seal-integrity indicator		
Control	Single-lever for all travel and steering motions, as well as for counter rotation		



### **OPERATOR'S CAB**

RL 44 RL 54 RL 64

Cab	Resiliently mounted cab with positive pressure ventilation, can be tilted with hand pump 40° to the rear. With ROPS Rollover Protective Structure (ISO 3471).
Operator's seat	Comfort seat, adjustable to operator's weight
Monitoring	Combined analogue / LC display, automatic monitoring, display of abnormal operating conditions



### **UNDERCARRIAGE**

RL 44 RL 54 RL 64

Design	Track frame, rigid					
Mount	Elastic compone	Elastic components at a separate pivot				
Chains	Lubricated, single-bar grouser shoes, track chain tension via grease tensioner and hydraulic cylinders.					
Links, each side	43	45	45			
Track rollers/carrier rollers	8/2 each side	9/2 each side	9/2 each side			
Sprocket segments	5 each side	5 each side	5 each side			
Track shoes	914 mm / 36"	914 mm / 36"	914 mm / 36"			



### **HYDRAULIC SYSTEM**

RL 44 RL 54 RL 64

System	Load Sensing proportional pump flow control
Pump type	Swash plate, variable displacement piston pump
Pump flow max.	283 I/min / 62.3 gpm
Pressure limitation	280 bar / 4,060 PSI
Control valve	3 segments, expandable to 4
Filter system	Return filter with magnetic rod in the hydraulic tank
Control	Single joystick for hoist winch and adjustable boom cylinder, free fall device of hook in case of danger. Further single joystick for counterweight.



### **HYDRAULIC WINCH**

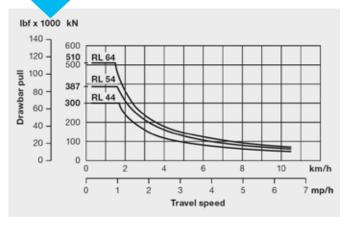
RL 44 RL 54 RL 64

Hoist winch	Variable flow hyd	draulic pump	
Safety brake	Spring-loaded d position	isk brake holds the	e load safely in any
Drum diameter	254 mm/10"	254 mm/10"	254 mm/10"
Drum length	279 mm/10.98"	274 mm/10.78"	279 mm/10.98"
Flange diameter	610 mm/24"	610 mm/24"	610 mm/24"
Cable diameter	20 mm/0.8"	20 mm/0.8"	20 mm/0.8"
Cable length	65 m/71.08 yd	80 m/87.49 yd	100 m/109.36 yd
Hook block	2 sheaves	3 sheaves	4 sheaves
Hook speed (up,down)	0-30.2 m/min, 0-99 ft/min	0-20.0 m/min, 0-66 ft/min	0-16.0 m/min, 0-52 ft/min
Security	Free fall device		



### **DRAWBAR PULL**

RL 44 - RL 54 - RL 64



Usable drawbar pull will depend on traction and weight of pipe layer.

### **BASE MACHINE**

RL 44 - RL 54 - RL 64



**RL 54** 

**RL 64** 



### **NOISE EMISSION**

RL 44 RL 54 RL 64

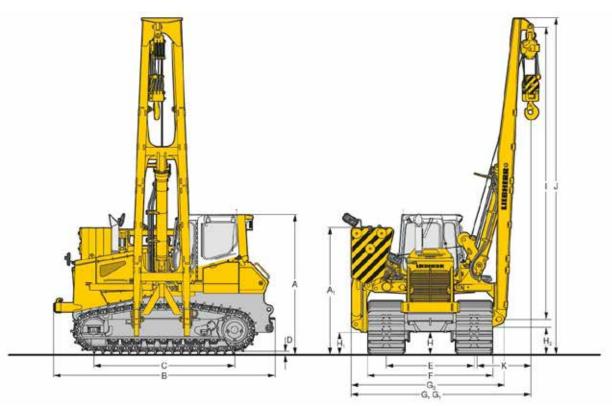


### **REFILL CAPACITIES**

Fuel tank	400 I/88 gall	535 I/117.7 gall	650 I/143 gall
Cooling system	55 I/12.1 gall	62 I/13.6 gall	74 I/16.3 gall
Engine oil with oil filters	43 I/9.5 gall	43 I/9.5 gall	43 I/9.5 gall
Splitter box	3.1 I/0.7 gall	6.5 I/1.4 gall	6.3 I/1.4 gall
Hydraulic tank	126 I/27.7 gall	169 I/37.2 gall	215 I/47.3 gall
Final drive, left right	21 l /4.6 gall 14 l/3.1 gall	19.5 l /4.3 gall 19.5 l/4.3 gall	26 I /5.7 gall 26 I/5.7 gall

### **DIMENSIONS AND WEIGHTS**

RL 44 - RL 54 - RL 64



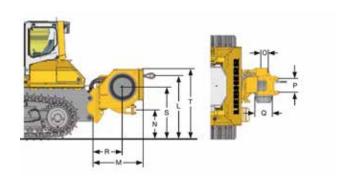
DIMENSIONS

RL 44 RL 54

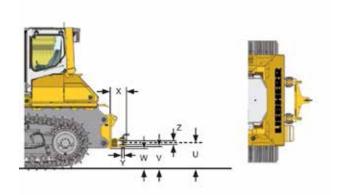
		Boom	6,000 mm	7,320 mm	7,300 mm	8,500 mm	8,500 mm	Optional 10,500 mm
Α	Height over cab	mm/ft-in	3,226	/ 10'7"	3,464	/ 11'4"	3,555	/ 11'8"
A1	Height over counterweight	mm/ft-in	2,876	/ 9'5"	3,068	/ 10'1"	3,543	/ 11'7"
В	Overall length	mm/ft-in	5,146	/ 16'11"	5,446	/ 17'10"	5,795	/ 19'0"
С	Distance idler/sprocket center	mm/ft-in	3,315	/ 10'11"	3,504	/ 11'6"	3,610 /	/ 11'10"
D	Height of grousers	mm/in	71.5 /	2.81"	71 /	2.8"	84 /	3.31"
Е	Track gauge	mm/ft-in	2,075	/ 6'10"	2,180	/ 7'2"	2,420	/ 7'11"
F	Total width over undercarriage	mm/ft-in	2,887	/ 9'6"	3,094	/ 10'2"	3,334	/ 10'11"
G	Width (counterweight retracted)	mm/ft-in	4,104	/ 13'6"	3,785	/ 12'5"	5,651	/ 18'6"
G1	Width (counterweight extended)	mm/ft-in	5,745	/ 18'10"	5,544	/ 18'2"	7,291 /	23'11"
G2	Width (console to boom)	mm/ft-in	3,565	/ 11'8"	3,785	/ 12'5"	4,245	/ 14'0"
Н	Ground clearance	mm/ft-in	461 ,	/ 1'6"	501 /	/ 1'8"	552 /	1'10"
H1	Ground clearance of console	mm/ft-in	573 ,	/ 1'11"	548 /	1'10"	565 /	1'10"
H2	Ground clearance of boom	mm/ft-in	674	/ 2'3"	747 /	<sup>7</sup> 2'5"	682 /	/ 2'3"
1	Boom length	mm/ft-in	6,000 / 19'8"	7,320 / 24'	7,300 / 23'11"	8,500 / 27'11"	8,500 / 27'11"	10,500 / 34'5"
J	Total height	mm/ft-in	6,999 / 1'6"	7,319 / 24'	8,281 / 27'2"	9,481 / 31'1"	9,515 / 31,3"	11,515 / 37'9"
K	Distance (outer edge of chain link to hook)	mm/ft-in	1,178	/ 3′10″	1,200	/ 3'11"	1,380	/ 4'6"
Оре	erating weight	kg/lb	35,100/77,382	35,360/77,955	45,900/101,192	46,133/101,706	58,800/129,632	59,349/130,842
Cou	interweight without frame	kg/lb	5,030 /	/ 11,089	9,534 /	21,019	12,000 /	26,455
Cou	ınterweight	kg/lb	7,222 /	15,922	12,730 /	28,065	15,985 /	/ 35,241
We	ight of boom	kg/lb	1,701 / 3,750	1,961 / 4,323	2,264 / 4,991	2,497 / 5,505	3,305 / 7,286	3,854 / 8,497

**RL 64** 

# DIMENSIONS AND WEIGHTS RL 44 - RL 54 - RL 64



REAR	WINCH	RL 44	RL 54	RL 64
L Height, cable exit	mm/ft-in	1,571 / 5'2"	1,565 / 5'2"	1,608 / 5'3"
M Overall length	mm/ft-in	1,203 / 3'11"	1,200 / 3'11"	1,180 / 3'10"
N Height drawbar	mm/ft-in	763 / 2'6"	757 / 2'6"	800 / 2'7"
O Drum diameter	mm/ft-in	318 / 1'1"	318 / 1'1"	318 / 1'1"
P Coiling width	mm/ft-in	337 / 1′1″	337 / 1′1″	337 / 1'1"
Q Flange diameter	mm/ft-in	610 / 2'0"	610 / 2'0"	610 / 2'0"
R Distance to center of drun	n mm/ft-in	696 / 2'3"	639 / 2'1"	673 / 2'2"
S Height of drum center	mm/ft-in	1,314 / 4'4"	1,308 / 4'3"	1,351 / 4'5"
T Total height	mm/ft-in	1,763 / 5'9"	1,757 / 5'9"	1,800 / 5'11"
Max. line pull	kN/lb		667 / 129,669	
Max. line speed	m/min / yd/min		0 - 30 / 32.81	
Cable diameter	mm/ft-in		28 / 1.1"	
Cable length	mm/in		60 / 65.62	
Weight	kg/lb	2,565 / 5,655	2,600 / 5,732	2,650 / 5,842

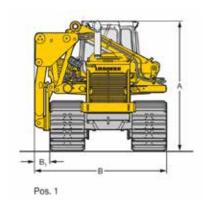


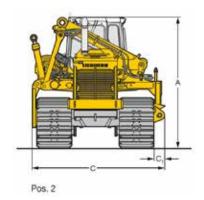
	DRAWBAR,	RIGID	RL 44	RL 54	RL 64
U	Height of drawbar	mm/ft-in	542 / 1'9"	576 / 1'11"	620 / 2'0"
V	Ground clearance below drawbar	mm/ft-in	454 / 1'6"	474 / 1'7"	517 / 1'8"
W	Ground clearance below	mm/ft-in	429 / 1'5"	424 / 1'5"	467 / 1'6"
	drawbar suspension	mm/ft-in			
Χ	Overall length	mm/ft-in	413 / 1'4"	435 / 1'5"	455 / 1'6"
Υ	Pin diameter	mm/in	50 / 1,97"	60 / 2.36"	60 / 2,36"
Z	Size of opening	mm/in	95 / 3,74"	105 / 4.13"	105 / 4,13"
We	ight	kg/lb	212 / 467	460 / 1'6"	577 / 1,272

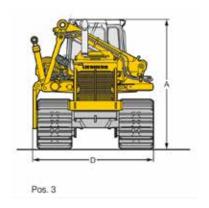
### **TRANSPORT DIMENSIONS AND WEIGHTS**

RL 44 - RL 54 - RL 64







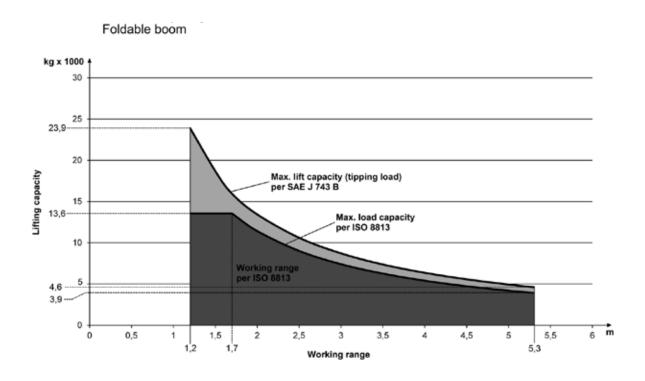


### TRANSPORT DIMENSIONS, DISPLAYED POSITION

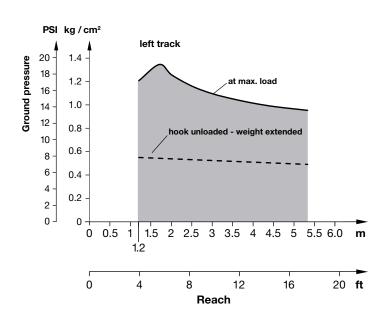
		RL 44	RL 54	RL 64
A Total height	mm/ft-in	3,467/11'4"	3,464 / 11'4"	3,639/11'11"
B Overall width	mm/ft-in	3,283/10'9"	3,500 / 11'6"	3,935/12'11"
B <sub>1</sub> Width (from console to left track)	mm/ft-in	395 / 1'4"	406 / 1,4"	481 / 1'7"
Weight (Pos. 1)	kg/lb	27,898/61,504	33,656 / 74,199	42,590/93,895
C Overall width	mm/ft-in	3,189/10'6"	3,497 / 11'6"	3,824/12'7"
C <sub>1</sub> Width (from console to right track)	mm/in	192 / 7.56"	285 / 11.22"	327 / 12.87"
Weight (Pos. 2)	kg/lb	26,555/58,544	31,690 / 69,864	40,102//88,410
D Overall width	mm/ft-in	2,997/9'10"	3,212 / 10'6"	3,497 / 11"6"
Weight (Pos. 3)	kg/lb	26,084/57,505	31,023 / 68,394	39,219 / 86,463

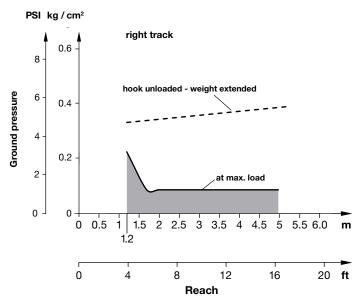


### LIFTING CAPACITY RL 24 (ISO 8813)

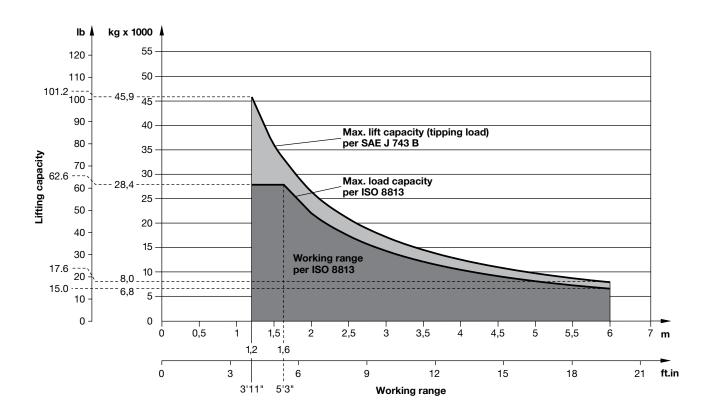


## GROUND PRESSURE RL 24 (ISO 8813)

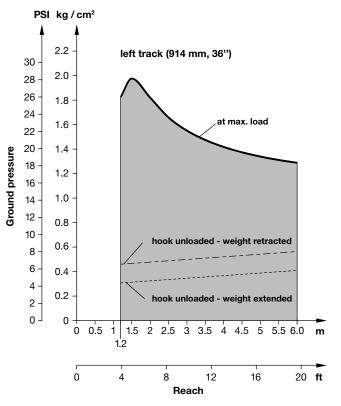


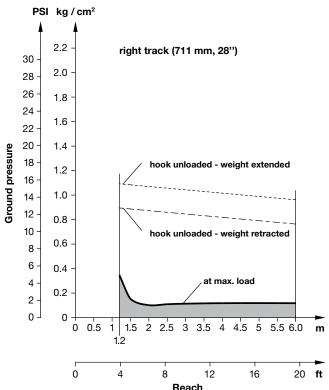






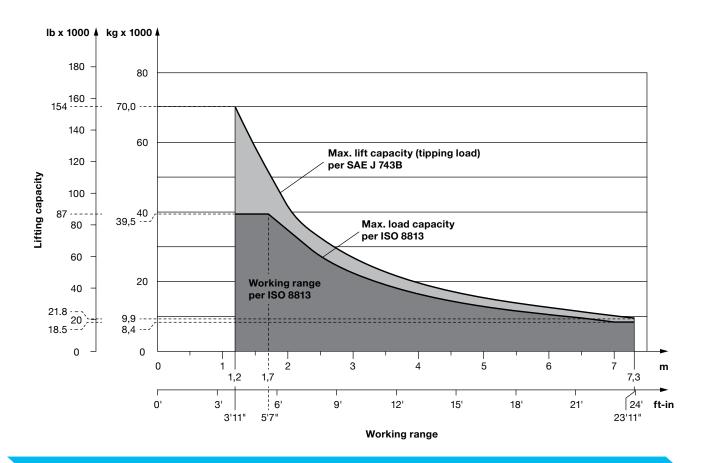
# GROUND PRESSURE RL 44 (ISO 8813)



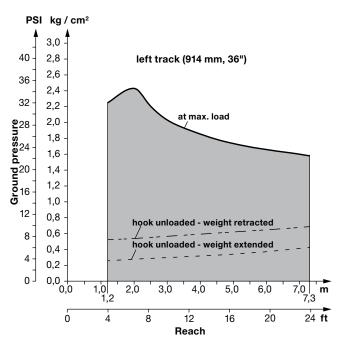


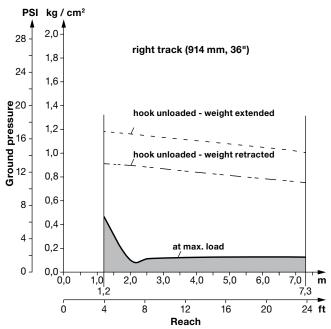
With standard boom 6,000 mm / 19'8'

### LIFTING CAPACITY RL 54 (ISO 8813)



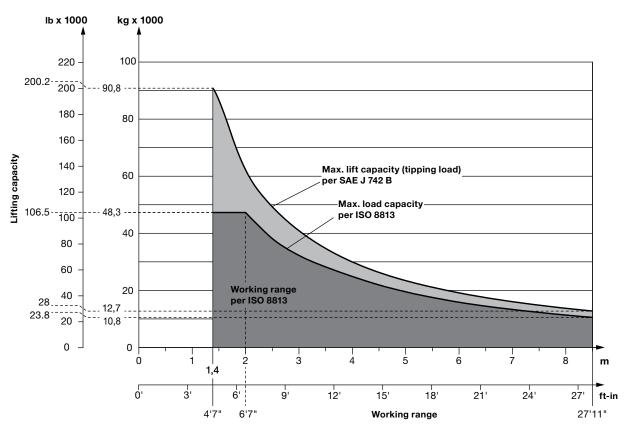
# GROUND PRESSURE RL 54 (ISO 8813)



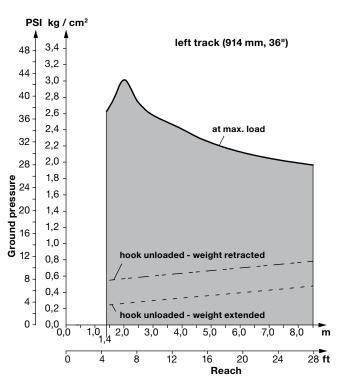


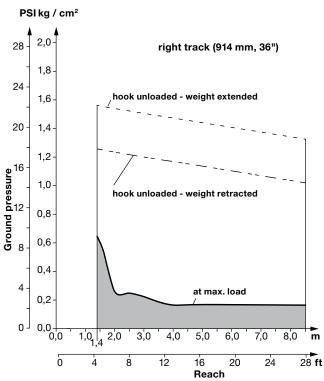
With standard boom 7,300 mm / 23'11"





## GROUND PRESSURE RL 64 (ISO 8813)





# **EQUIPMENT**RL 24



### **BASE MACHINE**

	Towing hitch rear, 145 mm	•
-	Tow switch	•
	Towing lug front	•
-	Battery compartment, lockable	
ī	Ether start aid	
-	Fan guard	
ī	Engine doors, hinged, lockable	
-	Lugs for crane lifting	
ī	Fuel / water separator	•
1	Air-filter, dry-type, dual stage	
	Toolkit	•
-	Engine air pre-cleaner	+
(	GOST/EAC features and certification	+
1	Arctic kit, for -40°C	+



### **UNDERCARRIAGE**

Track frame, closed	
Sprocket segments, bolted	•
Master link, two piece	•
Tracks oil lubricated	•
Full length track guard	•
LGP track plates (762 mm.)	•
Track plates 610 mm / 24"	+
Track plates 710 mm / 28"	+
Pivot shafts, separate	•
Rubber track pads	+



### **CONTROL AND WARNING LIGHTS**

Display travel speed range (digital)	•	
Display engine coolant temperature (analogue)	•	
Display charging voltage (digital)		
Display engine oil pressure (analogue)	•	
Display servo-pressure implement	•	
hydraulics (digital)	•	
Display fuel level (analogue)		
Hour meter (digital)		
Indicator light battery charging		
Indicator light parking brake		
Indicator light decelerator mode	٠	
Indicator light joystick neutral position		
Indicator light transmission oil temperature	•	
Indicator light implement hydraulics oil	•	
temperature	•	
Indicator light fuel / water separator	•	
Indicator light transmission oil filter	•	
Indicator light implement hydraulics oil filter	•	
Indicator light air filter restriction	•	
Indicator light seat belt		



### **TRAVEL DRIVE**

· · · · · · · · · · · · · · · · · · ·	
Parking brake, automatic	•
Function monitoring, automatic	•
Control, single joystick	•
Load limit control, electronic	•
Electronic transmission control	•
Triple-reduction final drives	•
Multiple speed settings	•
Hydrostatic travel drive	•
Inching brake pedal	•
Oil cooler	•
Safety lever	



Starter motor 7,5 kW Working lights, front Working lights, rear

On-board system 24V Alternator 80A Back-up alarm Beacon Horn Additional lights

Batteries, heavy duty, cold start, 2 units Battery main switch, mechanical

### **OPERATOR'S**

**ELECTRICAL SYSTEM** 

▼ The state of th	
Storage tray	•
Armrests 3D adjustable	۰
Pressurized cab with air filter	•
Operator's seat, 6-way adjustable	•
Operator's seat, air suspended, tiltable	•
Dome light	•
Air conditioning	•
Knee cushion pads	۰
Lumbar support, adjustable	•
AM/FM radio	•
ROPS	•
Rear view mirror, inside cab	•
Safety glass, tinted	•
Windshield washer system	۰
Windshield wipers, front, rear and doors	•
with intermittent function	
Sliding window, left	۰
Sliding window, right	•
Socket, 12V	•
Back rest extension	•
Warm water heating	•
Fire extinguisher	+



### **ATTACHMENTS**

Boom 5.160 mm foldable	
	•
Boom 5.100 mm fixed	+
Boom 7.000 mm fixed	+
Boom extension (JIB),	+
2.700 mm, 1.000 kg capacity	
Boom protection strips for 5.100 mm boom	+
Boom protection strips for 7.000 mm boom	+
Counterweight	•
Hook with rope	•
Enclosed operator's cab	•
Open operator's canopy	+
Drawbar rear, rigid, 530 mm	+
Rear winch, line pull 115,3kN / 11.757 kg	+
Hydraulic PTO for powering external	+
equipment (pipe facing machine etc.)	
Rear platform with generator and two	+
welding machines	
Front platform with HIAB crane XS099	+



 $<sup>\</sup>bullet$  = standard

<sup>+ =</sup> option

# EQUIPMENT RL 44 - RL 54 - RL 64





### **BASE MACHINE**

Tow switch	•
Towing hitch rear	•
Towing lug front	•
Battery compartment, lockable	•
Belly pans, heavy-duty	•
Radiator, wide-meshed	•
Radiator guard, heavy-duty	•
Radiator guard, hinged	•
Liebherr diesel engine	•
Fan, hydraulically driven	•
Fan guard	•
Engine cover, perforated	•
Engine doors, perforated	•
Engine doors, hinged, lockable	•
Fuel water separator	•
Air filter dry-type, dual step	•
Pre-cleaner with automatic dust ejector	•
Toolkit	•
Arctic kit, for -40° C	+
Refueling pump, electric	+
GOST/EAC features and certification	+
LiDAT Plus, date transmission system	+
Lugs for crane lifting	+
Special paint	+
Fuel water separator with electric heater	+



Parking brake, automatic	•
Function control, automatic	•
Control, single joystick	•
Load limit control, electronic	•
Electronic control	•
Travel control 3-speed ranges	•
Hydrostatic travel drive	•
Oil cooler	•
Final drive with planetary gear	•
Safety lever	•
Emergency stop	•
Inching brake pedal	+



### **UNDERCARRIAGE**

Sprocket segments, bolted	
Sprocket segments, boiled	•
Master link, two-piece	•
Tracks oil lubricated	•
Track frame, rigid	•
Pivot shaft, separate	•
Track guide center part	+
Track guard	+

### **ELECTRICAL SYSTEM**

· · · · · · · · · · · · · · · · · · ·	
Starter motor	•
Working lights, front, 2 units	•
Working lights, rear, 2 units	•
Working lights, side 2 units	•
Working lights, winch, 2 units	•
Batteries, cold start, 2 units	•
Battery main switch, mechanical	•
On-board system 24 V	•
Alternator 80 A	•
Back-up alarm	•
Horn	•
Beacon	+
Start Lock, Electronic	+
Additional lights, rear	+

# 

### **CONTROL AND WARNING LIGHTS**

•	
Control travel speed range (digital)	•
Control engine coolant temperature (analogue)	•
Fuel gauge (analogue)	•
Hour meter (analogue)	•
Warning lights battery charging	•
Warning lights diesel engine	•
Warning lights electronic travel control system	•
Warning lights travel drive seal, each side	•
Warning lights travel brake	•
Warning lights pump replenishing pressure	•
Warning lights oil return filter	•
Warning lights air filter	•
Warning lights heater diesel engine	•
Main warning light	•
Warning hydraulic oil temperature	+
Overload warning system	+

### **HYDRAULIC** 岗 **SYSTEM**

Hydraulic control counterweight	•
Hydraulic control winch and boom	•
Variable flow pump, load sensing	•
Oil filter with strainer in hydraulic tank	•
Free fall device	•
Hydraulic servo control	•
Control valve for 1 circuit	+
Hydraulic tank oil level control	+

### **OPERATOR'S** CAB

Storage compartment front	•
Armrest 3D adjustable	•
Pressurized cab	
Operator's seat, 6-way adjustable	۰
Dome light	
Coat hook	•
ROPS	•
Rear mirror, inside	•
Safety glass, tinted	
Windshield wiper left door and left window	•
Windshield wipers front, rear	
Dormer window	•
Sun visor front	
Socket 12 V	•
Warm water heating	
Operator's seat, air-suspended	+
Fire extinguisher in cabin	+
Air conditioning	+
FM radio	+
Radio installation kit	+
Windshield wiper dormer window	+
Extension, seat back	+



### **ATTACHMENTS**

· · · · · · · · · · · · · · · · · · ·	
Boom RL 44 6,000 mm/19'8 "	•
Boom RL 54 7,300 mm/23'11 "	•
Boom RL 64 8,500 mm/27'11 "	•
Counterweight	•
Hook with rope	•
Boom RL 44 7,320 mm/24'	+
Boom RL 54 8,500 mm/27'11 "	+
Boom RL 64 10,500 mm/34'5 "	+
Boom protection strips	+
Drawbar rear, rigid	+
Counterweight, rear	+
Winch rear	+

 $\bullet$  = standard

+ = option

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr to retain warranty.



### **MAATS PIPELINE PROFESSIONALS**

Maats manufactures, sells and rents out high quality equipment for the construction of pipelines with all common diameters from 6 up to 60 inches. With branch offices in Indonesia (PT. Maats), partnerships in Algeria (Maats Afrique) and Turkey (Maats Insaat) and a close cooperation with the global network of Liebherr companies, Maats' presence is truly global.

## THE NETHERLANDS HEAD OFFICE

Breukersweg 4

7471 ST Goor

the Netherlands

P.O.Box 165

7470 AD Goor

the Netherlands

T: +31 (0)547 260 000

F: +31 (0)547 261 000

E: info@maats.com

## INDONESIA SUBSIDIARY OFFICE

Talavera Office Suite

18th floor

JL. T.B. Simatupang

Kav. 22-26

12430 Jakarta

Indonesia

T: +62 (0)212 971 5936

E: info@maats.com

### INDONESIA SUBSIDIARY WORKSHOP

Kawasan Industri Sekupang

Makmur

Abadi E4 No. 1

JL. R.E. Martadinata

Tanjung Pinggir, Sekupang

29428 Batam

Indonesia

T: +62 (0)778 326 526

F: +62 (0)778 326 576

E: info@maats.com

STRENGTH,
PERFORMANCE
& RELIABILITY
UNDER ALL
CIRCUMSTANCES.
READY FOR
FUTURE CHALLENGES



