

# Welding Tractor

# SR 704

Engine output: 71 kW/95 HP  
Operating weight: 12,000 – 14,500 kg  
26,456 – 31,967 lb



# LIEBHERR

# Basic machine



## Engine

Diesel engine	John Deere PowerTech 4045H, Emission regulations according to 2004/26/EG stage IIIA and EPA/CARB Tier 3
Rating (ISO 9249)	71 kW / 95 HP
Rating (SAE J1349)	71 kW / 94 HP
Rated speed	2,100 rpm
Displacement	4.5 l / 278 cu. In.
Design	4-cylinder in-line engine, water cooled, turbo-charged, air-to-air intercooler
Injection system	Common Rail system with direct injection, electronic engine management
Engine lubrication	Pressurised lube system, engine lubrication guaranteed for inclinations up to 45 degrees
Operating voltage	12 V
Alternator	65 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



## Travel drive, control

Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track
Travel speed	– Infinitely variable from 0 to 8 km/h / 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. 8.0 km/h / 5.0 mph)
Electronic control	Electronic engine speed control and automatic adjustment of 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 functions; 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's



## Refill capacities

Fuel tank	178 l
Cooling system	16 l
Engine oil with filters	14 l
Transmission oil tank	43 l
Hydraulic	32,2 l
Final drives, each	6,6 l



## Operator's cab / canopy

Cab	Resiliently mounted cab with positive pressure ventilation. Integrated ROPS Rollover Protective Structure (ISO 3471) and FOPS Falling Objects Protective Structure (ISO 3449)
Canopy	Resiliently mounted canopy. Integrated ROPS Rollover Protective Structure (ISO 3471)
Operator's seat (cab)	Fully adjustable air-suspended comfort seat; automatically adjusts 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



## Undercarriage LGP

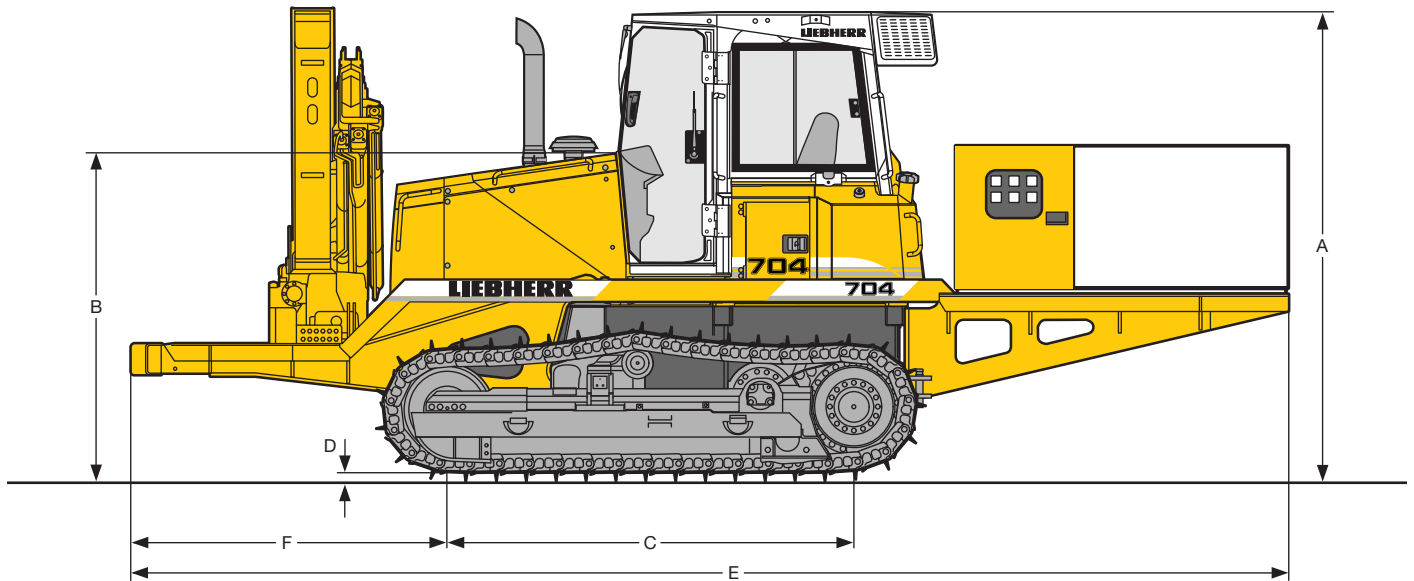
Mount	Via separate pivot shafts and an fixed equaliser bar
Chains	Lubricated, single grouser shoes; track chain tensioning via steel spring and grease tensioner
Track links	40
Track rollers / carrier rollers	6/1
Sprocket segments	5
Track shoes standard	610 mm



## Implement Hydraulics

	Crane	Compressor
Hydraulic system	„Open center“	„Open center“
Pump type	Gear pump	Gear pump
Pump flow max.	30 l/min	55 l/min
Pressure limitation	315 bar	230 bar
Control valve	4 segments	1 segment
Filter system	Return oil filter	Return oil filter
	10µ	10µ

# Dimensions and Equipment



Dimensions		SR 704-LGP	
A	Height over cab / canopy	mm	2,743
B	Height over engine hood	mm	1,950
C	Length of track on ground	mm	2,154
D	Grouser height	mm	50
E	Overall length	mm	6,360
F	Length of platform from idler centre	mm	1,850
	Ground clearance	mm	
	Track gauge	mm	1,752
	Width over tracks / overall width 610 mm track pads	mm	2,692
Operating weight	kg		12,000 <sup>1</sup> – 14,500 <sup>2</sup>
	lb		26,456 <sup>1</sup> – 31,967 <sup>2</sup>
Ground pressure	kg/cm <sup>2</sup>		0.45 <sup>1</sup> – 0.51 <sup>2</sup>
	PSI		6.40 <sup>1</sup> – 7.25 <sup>2</sup>

<sup>1</sup> Minimum configuration including platforms, crane, generator, 610 mm track pads.

<sup>2</sup> Standard configuration including platforms, crane, generator, air compressor, 2 x air receiver, 4 x welding sources, cable harness, equipment housing, 610 mm track pads.

## Generator (standard)

Design	Direct driven electric generator (IP45) in protection skid
Model	Stamford UCI 224E
Rating	85 kVA
Voltage	230/400 V – 50 Hz
Switch box	Integrated switch box with Ampere, Hertz, and Volt gauges and service hour indicator; insulation monitoring device
Plug sockets	4 x shuko 230 V 6 x CEE 400 V
Controls	On/off switch inside the cabin. Generator frequency electronically regulated

## Compressor (standard)

Design	hydraulically powered heavy duty air compressor, skid mounted
Model	Quincy QR-25 basic two-stage compressor model 370 LVD
Rating	1,300 l/min @ 15 bar
Air receiver	300 l; max. 15 bar
Controls	On/off switch in cabin

## Crane (standard)

Design	Front mounted, fully hydraulically powered crane with 400° slewing angle. Complete with service lead supports and hook for lifting of welding tent	
Model	HIAB XS077 (7 tm, 2 extensions, 7.3 meter)	
Capacity	69 kNm (7.0 tm)	
Max. reach	7,3 mtr	
Controls	Single joystick for all crane movements	
Load parameters	Crane reach	Load capacity
	2.1 m	3,200 kg
	3.5 m	1,940 kg
	5.1 m	1,320 kg
	6.9 m	960 kg

## Welding Equipment (standard)

Design	4x electrically powered welding sources; mounted in anti-vibration frame	
Model	4x Lincoln V350-PRO or 2x DC400	
Controls	Remote control on welding spot; service lead exceeds max. reach of crane by 2 meters	

Other configurations regarding Compressor and Welding Equipment are possible. For further information please send your project requirements to:

[info@maats.com](mailto:info@maats.com)



# Equipment



## Basic machine

Air filter, dry-type, dual stage	•
Battery compartment, lockable	•
Engine doors, hinged, lockable	•
Ether start aid	•
Fan guard	•
Fuel water separator	•
Lugs for crane lifting	•
Rear view mirrors, platform mounted	•
Toolkit	•
Tow switch	•
Towing hitch rear	•
Towing lug front	•
Engine air pre-cleaner	+



## Travel drive

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



## Undercarriage

LGP undercarriage	•
Master link, two-piece	•
Pivot shafts, separate	•
Sprocket segments, bolted	•
Track frame, closed	•
Tracks oil lubricated	•
Full length track guard	+
Rubber inlay pads for crossing streets	+



## Electrical system

Alternator 65 A	•
Back-up alarm	•
Batteries, heavy duty cold start, 2 units	•
Battery main switch, mechanical	•
Horn	•
On-board system 12 V	•
Starter motor	•
Working lights, front	•
Working light, rear	•
Beacon	+



## Operator's cab

Air conditioning	•
AM/FM Radio	+
Armrests 3D adjustable	•
Back rest extension	•
Dome light	•
Knee cushion pads	•
Lumbar support, adjustable	•
Operator's seat, air suspended, tiltable	•
Operator's seat, 6-way adjustable	•
Pressurised cab with air filter	•
Rear view mirror, inside cab	•
ROPS/FOPS	•
Safety glass, tinted	•
Sliding widow left	•
Sliding window, right	•
Socket 12 V	•
Storage tray	•
Warm water heating	•
Windshield washer system	•
Windshield wipers front, rear, and doors with intermittent function	•
Additional lights, roof mounted front/rear	+



## Control and warning lights

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



## Attachments

HIAB Crane 077XLS (69 kNm, 2 extensions, 7.3 meter)	•
Lockable toolbox on left fender	+
85 Kva Generator	•
Cold kit -40°C	+
Enclosure for compressor, generator, and welding equipment	+
Fixation on left fender to hold additional cables needed for automatic welding	+
4x Lincoln V350-PRO welding sources including cable and remote control	+
Gas cylinder rack (for 6 cylinders)	+
GOST certificate	+
Quincy 370 compressor (1300 l/min @ 15 bar)	+

• = Standard, + = Option

Subject to change.

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 Equipment

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