



WELDING TRACTOR

SR 716



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WELDING TRACTOR

The Maats SR716 welding tractor is designed from the ground up with economy in mind. A highly efficient and robust machine for both manual and (semi) automatic welding equipment. The well-balanced attachments, heavy-duty components, low maintenance and precision hydraulics ensure high performance, maximum economy and easy operation.

PERFORMANCE

The SR716 can withstand harsh working conditions whilst continuing to operate with maximum efficiency. The extra-long undercarriage, wide track shoes and extremely low center of gravity offer utmost stability, low ground pressure and great torque. This means the machine can be used optimally and safe operation is guaranteed in all terrain conditions. The hydraulic driven generator guarantees a most stable welding power, providing a constant high-level weld quality.

With exhaust emission values that comply with the most stringent legislation and provide even greater fuel economy than that of previous models, the SR716 welding tractor sets new standards by minimizing the environmental impact.

RELIABILITY

The high efficiency of the hydrostatic drive extends over almost the entire speed range. The engine's power is transmitted with minimum loss, and fuel consumption is further reduced.

The hydrostatic travel drive does not need components such as a torque converter, manual gearbox, differential steering or steering clutches. The high-quality hydraulic pumps and motors operate reliably and virtually without wear.

ECONOMY

The machine's diesel engine efficiently powers the hydraulic-driven welding generator, HIAB crane and air compressor. This fully integrated hydraulic-driven concept protects and limits wear of components. The well thought-out design and high quality materials and components ensure long component service lives, low service costs and low fuel consumption.

SAFETY

Operating safety is ensured through the exceptional stability and precision controls of the machine. The machine is equipped with numerous standard features that ensure optimum safety (e.g. ROPS/FOPS, hydrostatic brakes, intuitive joystick control, back-up alarm) and all attachments on the machine comply with the latest health & safety standards.

COMFORT

Thanks to effective sound insulation and modern, low-noise diesel engines, the SR716 features extremely low noise levels that lie well below the legal limits. The pressurised cab keeps the operator's environment free of dust from the surroundings.



TIME-TESTED AND PROVEN TECHNOLOGY, AS WELL AS HIGH COMPONENT MATERIAL AND MANUFACTURING QUALITY ENSURES MAXIMUM RELIABILITY EVEN UNDER THE HARSHTEST CONDITIONS.





HIGHLIGHTS

ROBUST MACHINE

EXTRA LONG UNDERCARRIAGE

STABILITY AND LOW GROUND PRESSURE

STABLE WELDING POWER

RELIABILITY UNDER HARSH CONDITIONS

WELL THOUGH-OUT DESIGN

LOW SERVICE COSTS



BASIC MACHINE

SR 716



ENGINE

Diesel engine	Liebherr D942 A7 emission regulations according to 97/68/EC, 2004/26/EC, Stage IV, EPA/CARB Tier 4f
Rating (ISO 9249)	107 kW / 146 HP
Rating (SAE J1995)	107 kW / 144 HP
Rated speed	2.100 rpm
Displacement	4,6 L / 275 in ³
Design	4 cylinder in-line engine water cooled, turbocharged air to air intercooler
Injection system	Direct fuel injection, common rail, electronic control
Engine lubrication	Pressurized lube system, engine lubrication guaranteed for inclinations up to 35 degrees
Operating voltage	24V
Alternator	140A
Starter	5.5 kW / 7 HP
Batteries	2 x 100 Ah / 12 V
Air cleaner	Dry-type air cleaner with pre-cleaner, main and safety elements, control light in the cabin
Cooling system	Combi radiator, comprising radiators for water, hydraulic fluid and charge air, Hydrostatic fan drive



TRAVEL DRIVE, CONTROL

Transmission system	Infinitely variable hydrostatic travel drive, independent drive for each track
Travel speed	Continuously variable Setting of travel speed ranges on the travel joystick (memory function) Speed range 1 Speed range 2 Speed range 3 0 - 4.0 km/h 2.5 mph 0 - 6.0 km/h 3.7 mph 0 10.0 km/h 6.2 mph
Control	Single joystick for all travel and steering functions
Electronic control	The electronic system automatically adjusts travel speed and drawbar pull to match changing load conditions
Steering	Hydrostatic
Service brake	Hydrostatic (self locking), wear free
Parking brake	Multiple-disc brake, wear free, automatically applied with neutral joystick position
Cooling system	Hydraulic oil cooler integrated in combi radiator, hydrostatic fan drive
Filter system	Micro cartridge filter in replenishing circuit
Final drive	Combination spur gear with planetary gear



OPERATOR'S CAB

Cab	Resiliently mounted cab with positive pressure ventilation. Integrated ROPS Rollover Protective Structure (ISO 3471) and FOPS Falling Objects Protective Structure (ISO 3449)
Operator's seat (cab)	Fully adjustable air-suspended comfort seat;
Monitoring	Touch screen: display of current machine information, automatic monitoring of operating conditions, individual setting of machine parameters



UNDERCARRIAGE

LGP

Mount	Via separate pivot shafts and a fixed equalizer bar
Chains	Lubricated, single grouser shoes; track chain tensioning via steel spring and grease tensioner
Track links	39
Track rollers / carrier rollers	7/1
Sprocket segments	5
Track shoes standard	762 mm / 30"
Track shoes option	610 mm / 24" or 711 mm / 28"



IMPLEMENT HYDRAULICS

	Crane	Compressor	Generator
Hydraulic system	„Open center“	„Open center“	„Closed center“
Pump type	piston	piston	piston
Pump flow max.	25 l/min 6.6 gal/min	65 l/min 17.2 gal/min	275 l/min 72.6 gal/min
Pressure limitation	320 bar 4641.2 PSI	200 bar 2900.8 PSI	300 bar 4351.1 PSI
Control valve	4 segments	1 segment	N.A.
Filter system	pressure and return 10µ	pressure and return 10µ	low pressure 10µ



REFILL CAPACITIES

Fuel tank	320 l	84,5 US gal
Cooling system	24 l	6,3 US gal
Engine oil with filters	19 l	5 US gal
Diesel exhaust fluid (DEF) tank	50 l	13,2 US gal
Hydraulic oil tank	101 l	26,7 US gal
Final drives, each	7,5 l	2 US gal

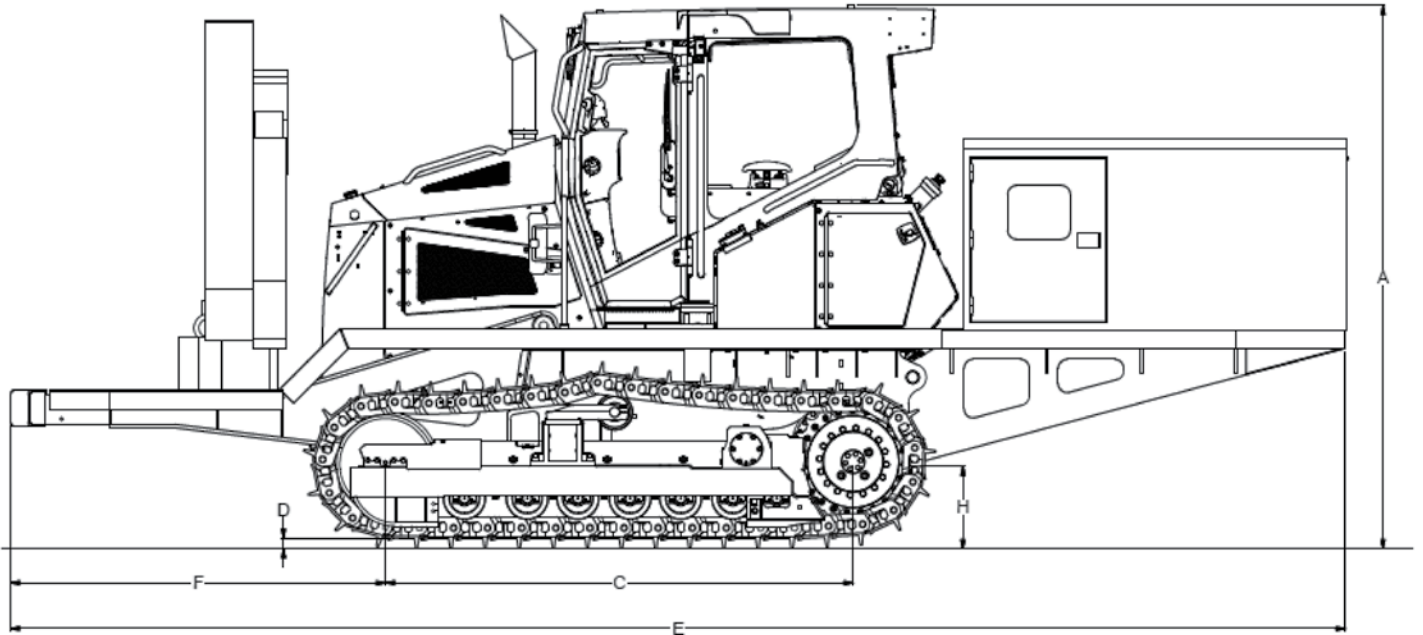


SOUND LEVELS

Operator sound exposure (ISO 6396)	$L_{PA} = 67$ dB(A) (in the cab)
Exterior sound pressure (2000/14/EC)	$L_{WA} = 100$ dB(A) (to the environment)

DIMENSIONS AND WEIGHTS

SR 716



DIMENSIONS

A	Height over cab	3.012 mm	118.58 in
C	Length of track on ground	2.605 mm	102.56 in
D	Grouser height	55,5 mm	2.19 in
E	Overall length	7.450 mm	293.31 in
F	Length of platform from idler centre	2.090 mm	82.28 in
H	Ground clearance	443 mm	17.44 in
	Track gauge	1.980 mm	77.95 in
	Width over tracks / overall width		
	610 mm track shoes	2.590 / 2.750 mm	101.97 / 108.27 in
	711 mm track shoes	2.692 / 2.750 mm	105.98 / 108.27 in
	762 mm track shoes	2.743 / 2.750 mm	107.99 / 108.27 in

WEIGHTS

Operating weight	18,700 kg *	41,226 lb *
	21,200 kg **	46,738 lb **
Ground pressure	0.47 kg/cm ² *	6.63 PSI *
	0.53 kg/cm ² **	7.25 PSI **

* Minimum configuration including platforms, crane, generator, equipment housing, 762 mm track shoes.

** Maximum configuration including platforms, crane, generator, air compressor, 2 x air receiver, 6 x welding sources, cable harness, equipment housing, 762 mm track shoes, 6+2 gasbottles.



EQUIPMENT

SR 716



BASE MACHINE

Air filter, dry-type, dual stage, pre-filter	•
Auto Idle	+
Automatic engine shut-off	+
Battery compartment, lockable	•
Cooling fan, hinged (with tool)	•
Cooling fan, hydraulically driven	•
Cooling fan, reversible	+
Diesel Exhaust Fluid (DEF) tank, lockable	•
Engine compartment doors, lockable	•
Fuel, pre-filter	•
Fuel, water separator	•
LIDAT Data transmission system	•
Lugs for crane lifting	•
Radiator guard, hinged (with tool)	•
Radiator guard, wide-meshed	•
Refueling pump, electric	+
Special paint scheme	+
Tool kit, extended	+
Towing hitch, rear	•
Cold environment arrangement	+
Diesel particulate filter	+
Liebherr diesel engine emission stage IV / Tier 4	•
Liebherr hydraulic oil, biologically degradable	+



TRAVEL DRIVE

Emergency stop	•
Final drives, planetary gear	•
inch brake pedal	+
Parking brake, automatic	•
Seat contact switch	•
Travel control, 3 speed ranges	•
Travel drive joystick, detented	+
Travel drive joystick, proportional	•
Travel drive, hydrostatic	•
Load limit control, electronic	•



ELECTRICAL SYSTEM

2 additional working lights on the cab, rear	+
2 cold start batteries	•
2 working lights on the cab, rear	•
4 working lights on the cab, front	•
All working lights in LED version	+
Back-up alarm	+
Back-up alarm, acoustic and visual	+
Back-up alarm, switchable	+
Battery main switch	•
Battery main switch, lockable	+
Beacon	+
Horn	•
Immobiliser, electronic	+
On-board voltage 24 V	•



OPERATOR'S CAB

Air conditioning	•
Radio	+
Armrests 3D adjustable	•
Dome light	•
Operator's seat, air suspended, comfort	•
Operator's seat, premium, air suspension	+
Pressurised cab	•
Rear view mirror, inside	•
ROPS/FOPS	•
Safety glass, tinted	•
Sliding window left	+
Sliding window, right	+
Socket 12 V	•
Storage nets	•
Warm water heating	•
Windshield washer system	•
Windshield wipers front, rear and doors with intermittent function	•
Touch screen: color display of all current machine information, individual setting	•
Coat hook	•
Fire extinguisher	+
Footrest on right side of the front console	+
Rear view camera	+



ATTACHMENTS

Lockable toolbox on left fender	•
140 kVA Generator	•
Cold kit - 40°C	+
Enclosure for compressor, and welding equipment	+
Fixation on left fender to hold additional cables	+
2x Lincoln DC400 welding sources on fenders	+
4x Lincoln DC400 welding sources including cable and remote control	+
Gas cylinder rack (for 6 cylinders)	+
GOST certificate	+
HIAB Crane XS111BS3 DUO-special (93 kNm; 3 extensions; 10,1 meter)	•
Quincy 370 compressor (1,300 l/min at 15 bar)	+
Quincy 390 compressor (1,800 l/min at 15 bar)	+



UNDERCARRIAGE

LGP undercarriage	•
Lubricated, single grouser shoes	•
Pivot shafts, separate	•
Sprocket segments, bolted, 5 each	•
Track guide, front and rear	•
Tracks oil lubricated	•
Track guide center	+
Rubber inlay pads for crossing streets	+



• = standard
+ = option

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

EQUIPMENT

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GENERATOR (STANDARD)

Design	Hydraulically powered electric generator (IP45) in protection skid
Model	Stamford UCI 274E
Rating	140 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, connection for 6 x CEE 400V
Controls	On/off switch inside the cabin. Generator frequency electronically regulated

COMPRESSOR (OPTIONAL)

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 at 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 410° slewing angle. Complete with service lead supports and hook for lifting of welding tent	
Model	HIAB XS 111 BS3 Duo	
Capacity	93 kNm (8.9 tm)	
Max. reach	10,1 m	
Controls	Two joysticks for all crane movements in cabin	
Load parameters	Crane reach	Load capacity
	2.3 m	4,200 kg
	3.9 m	2,480 kg
	7.5 m	1,220 kg
	9.5 m	940 kg

WELDING EQUIPMENT (OPTIONAL)

Design	4x electrically powered welding sources; mounted in anti-vibration frame
Model	4x Lincoln DC400 (K130920)
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





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.

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PERFORMANCE
& RELIABILITY
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