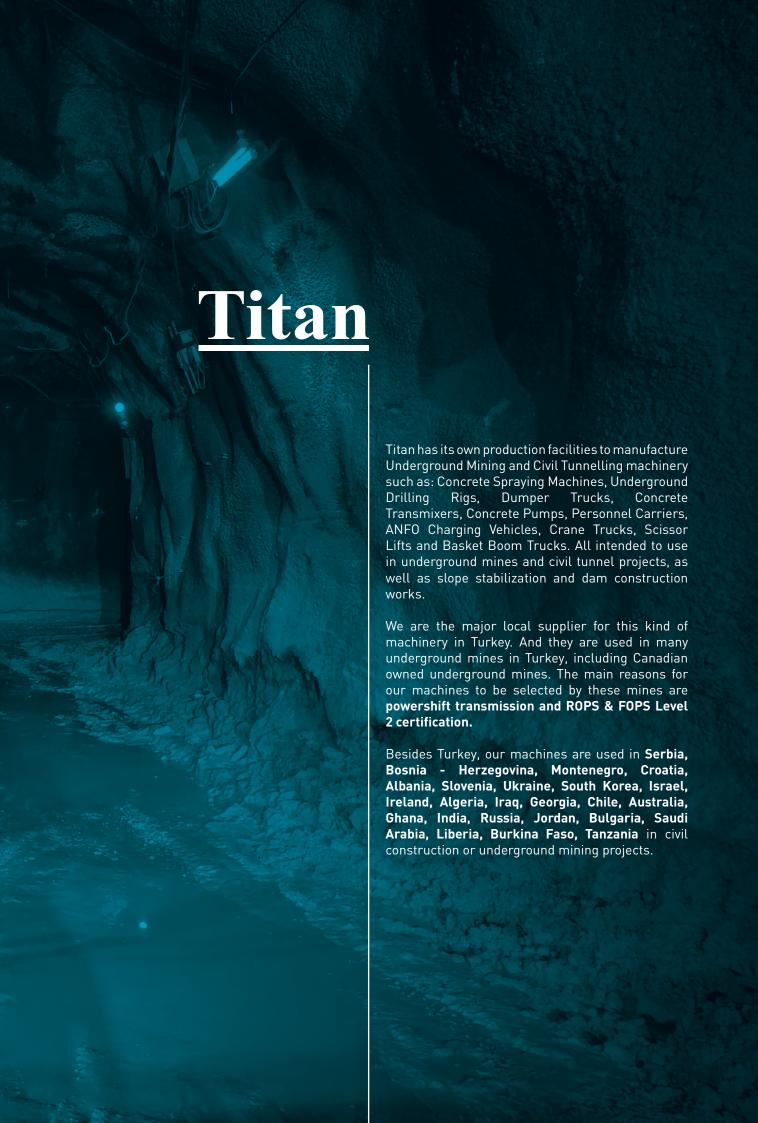
# Titan UNDERGROUND MINING UTILITY VEHICLES





## **Titan**

**BIS20** 

**CONCRETE SPRAYING MACHINE** 







**BYM6.0** 

**CONCRETE TRANSMIXER** 







BTM6

**CONCRETE AGITATOR** 



**ANFO CHARGER TRUCK** 





**BEC100** 



**BKPT7** 

MATERIAL TRANSPORTER



#### **TITAN UNDERGROUND MINING UTILITY VEHICLES**









BVK05



**BHA3** 

CASSETTE SYSTEM UTILITY VEHICLE



**BIA100** 





BPT24
PERSONNEL CARRIER



## HG16 CONVEYOR BELT MAINTENANCE TRUCK









Titan concrete pump with casted body and hydraulic vibrator



Control panel for manipulator and stabilizers



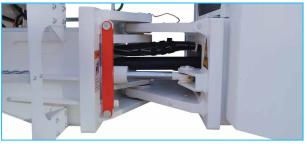
Rear view camera and LCD screen in operator cabin



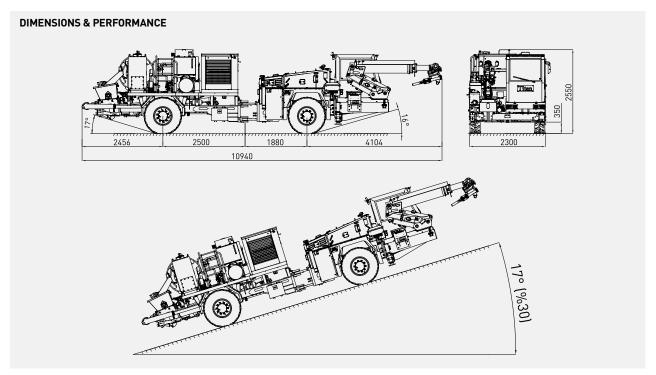
Spraying head with 350° rotation, +/-135° tilt and 8° oscillation

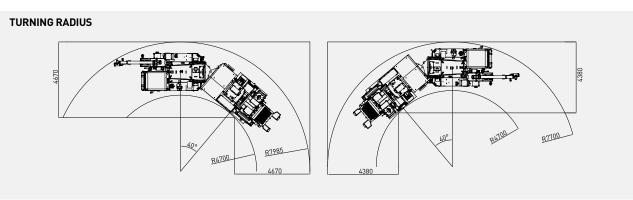


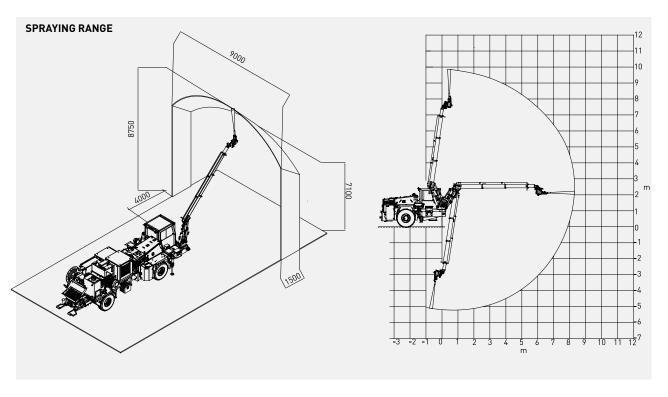
ROPS & FOPS level 2 certified closed 1-person cabin



High strength articulated chassis









DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	140 l
With Catalytic Conve	rter and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Aut	comatic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
	Hydraulically powered two-circuit oil
	ersed multidisc brakes in both axles
Safety/Parking Brak	
	hydraulic released SAHR
	Fail safe
CHACCIC	
CHASSIS	Autionlated high strongth stool
Type: Stabilizers:	Articulated, high strength steel
Stabilizers:	2 pcs, extendible
HVDDAIII IC CVCTEM	
HYDRAULIC SYSTEM	Fixed and variable displacement
Pump Type: Max. Pressure:	Fixed and variable displacement 210 bar
Flow Rate:	290 l/min at 1450 rpm
Undroulie Oil Teni-	125 l/min at 2300 rpm (Diesel)
Hydraulic Oil Tank: Return Oil Filter:	325 l
	20 μm
Uil level,	filtration and temperature indicators

ELECTRIC SYSTEM		
Battery:	24 V – 2 x 105 Ah	
Protection:	IP65	
Lights: 4 x 1500 Lumen Led	I in front of the operator cabin	
<u>*</u>	d behind of the operator cabin	
	x 1500 Lumen Led at bumper	
	2 x 1500 Lumen Led on boom	
1	x 1500 Lumen Led on hopper	
	Turn signals and taillights	
Box Type:	Stainless steel	
Beacon Lamp:	Amber color	
·		
TITAN CLOSED OPERATOR CA	ABIN	
• Closed 1-person cabin		
ROPS & FOPS level 2 cert	tified	
(EN ISO 3471:2008 / EN IS	50 3449:2008)	
<ul> <li>Mechanical suspension w</li> </ul>	vith manual tilt, weight, height	
adjustable, "T" shaped se	at with 3-point seat belt	
(Forward tilting system)		
<ul> <li>Cabin heater</li> </ul>		
Rear view camera and LCD screen in operator cabin		
<ul> <li>Levers and indicators for all driving controls</li> </ul>		
<ul> <li>In-Cabin radio output and</li> </ul>	l location (12V)	
<ul> <li>Cabin lighting</li> </ul>		
<ul> <li>Heated wing mirrors</li> </ul>		
<ul> <li>Document box</li> </ul>		
<ul> <li>Transparent protection pl</li> </ul>	ate on the windshield	
DIMENSIONS O MEIGHT		
DIMENSIONS & WEIGHT	1/5001 (4	
Weight:	16500 kg (Approximately)	
Length: Width:	10940 mm 2300 mm	
Width:	2550 mm	
Inner Turning Radius:	4700 mm	
Outer Turning Radius:	7985 mm	
outer rurning Radius.	7703 111111	
MISCALLANEOUS		
Warning plates and decal	.s	
Tool box		
2x4 kg portable fire exting	guisher (1 in operator cabin)	
2 pcs Wheel chocks		
Front towbar		
Back-up alarm and light		
Battery isolator switch		
·		
MANIPULATOR		
Max. Spray Reach at Vertica	<b>al:</b> 9.8 m	

Max. Spray Reach at Horizontal:

8.3 m

SPRAYING HEAD	
Rotation:	350
Tilt:	+/- 135
Oscillation:	8

#### **CONCRETE PUMP**

Make / Model: Titan hydraulically driven double piston pumpMax. Capacity:34 m³/h (Theoretical)Concrete Cylinder:180 x 1000 mmMax. Concrete Pressure:50 barMax. Hydraulic Pressure:210 barHopper Volume:250 lConcrete Line Diameter:5" - 4" - 3 1/4"

Hydraulic vibrator on hopper grate Hydraulically controlled shutter at bottom (hopper flush)

#### **POWER PACK**

- 1470 rpm Electric motor
- 55kW 400V 50Hz IP55
- Diesel engine PTO driven hydraulic system for cleaning against power cut

#### **CABLE REEL**

Drive:HydraulicPower:400 V 50 HzCable Length:50 mCable Cross Section:3 x 70 mm² + 1 x 35 mm²3 x 70 mm² + 3 x 16 mm² (Option)

**CABLE REMOTE CONTROL** 

Type: Cable Cable Length: 15 m

Stainless collector box

Specifications:

- All nozzle and manipulator movements
- Nozzle oscillation
- Air line on/off
- Dosing on/off
- Dosing flow rate adjustment
- Concrete pumping/reverse
- Emergency stop
- Horn

CUMPRESSUR	
Make:	Ekomak
Type:	Electric screw compressor
Power:	55 kW
Max. Air Flow:	10.2 m³/min
Max. Working Pressure:	6 bar

#### DOSING SYSTEM

**Cooling Fan Motor:** 

Type: Frequency convertor controlled electric driven piston pump
Power: 1.5 kW
Max. Flow Rate: 600 l/h
Max. Working Pressure: 8 bar
Additive Tank: 500 l (Stainless)
Stainless steel additive line

1.1 kW

#### HIGH PRESSURE WASHING SYSTEM

Pump Drive:	Hydraulic
Pressure:	135 bar
Flow Rate:	16 l/min
Hose Length:	10 m
Water Tank:	75 l

#### OTHER

Centralized greasing system

#### OPTIONS

- Automatic centralized lubrication system
- Electrical outlet in the cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Wireless remote control
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- PLC Concrete and dosage control system
- PLC Concrete and dosage monitoring system
- Placing rubber on the cabin roof to protect against corrosion from rebound deposition (Standards B33)
- High pressure wall washing kit (water scaler)
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Form oil system
- Spare wheel





Spraying head with 350° rotation, +/-135° tilt and 8° oscillation



4 m³ bunker volume



Rear view camera and LCD screen in operator cabin



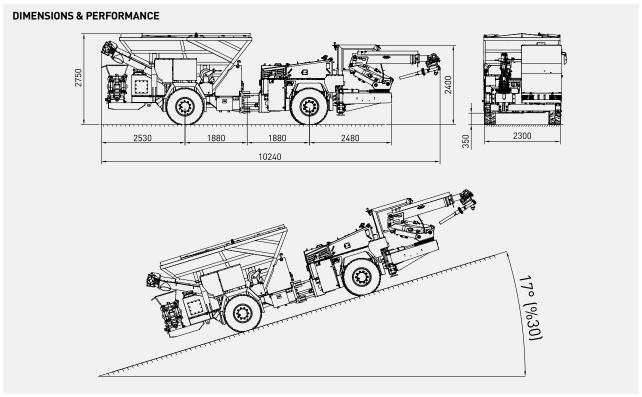
6-9 m³/h dry mix concrete pump

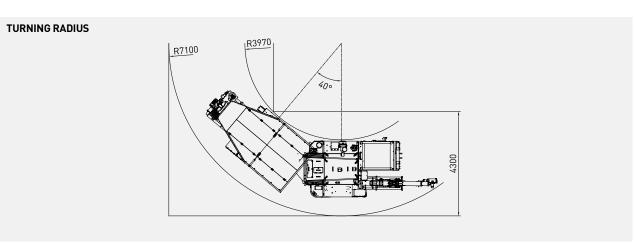


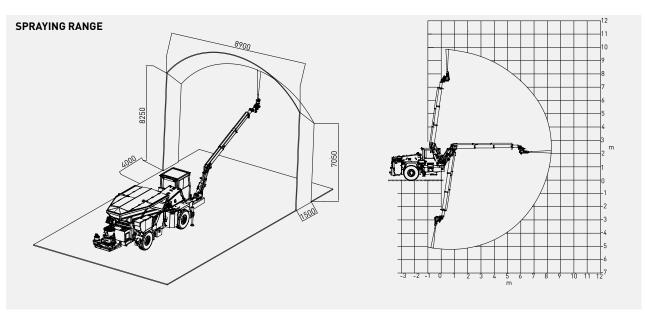
135 bar high pressure washing system



High strength articulated chassis









DIESEL ENGINE		
Make / Model:	Deutz TCD 2013 L4 2V	
Max. Power:	129 kW at 2300 rpm	
Max. Torque:	670 Nm at 1600 rpm	
Engine Emission:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	140 l	
With Catalytic Converte	r and Silencer	
TRANSMISSION		
Make / Model:	Dana Spicer T24000	
	Powershift	
Auton	natic 3-speed forward and reverse	
	Four-wheel drive	
AXLES & TYRES		
Make / Model:	Dana Spicer 113	
Type:	Planetary	
Front:	+/- 8° Oscillating	
Rear:	Rigid	
Tyres:	12.00 – 20	
PERFORMANCE		
Max. Gradient:	30%	
Max. Speed:	24.5 km/h	
Max. Tractive Effort:	122 kN	
STEERING		
	Articulation, +/- 40°	
	Orbitrol Type	
BRAKING SYSTEM		
Service Brake: Hy	draulically powered two-circuit oil	
immer	sed multidisc brakes in both axles	
Safety/Parking Brake:	Spring applied	
	hydraulic released SAHR	
	Fail safe	
CHASSIS		
Type:	Articulated, high strength steel	
Stabilizers:	2 pcs, extendible	
HYDRAULIC SYSTEM		
Pump Type:	Fixed and variable displacement	
Max. Pressure:	210 bar	
Flow Rate:	165 l/min at 1200 rpm	
Hydraulic Oil Tank:	150 l	
Return Oil Filter:	20 μm	
Oil level, filt	ration and temperature indicators	

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 4 x 1500 Lumen Led in	
	ehind of the operator cabin
	Led lights on rear bumper
	500 Lumen Led at bumper 1500 Lumen Led on boom
IXI	500 Lumen Led on bunker
Dave Trans	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR CABI	N
Closed 1-person cabin	
ROPS & FOPS level 2 certifies	· <del>-</del>
(EN ISO 3471:2008 / EN ISO 3	· · · · · · ·
<ul> <li>Mechanical suspension with</li> </ul>	
adjustable, "T" shaped seat	with 3-point seat belt
(Forward Tilting System)	
Cabin heater	
Rear view camera and LCD s	creen in operator cabin
<ul> <li>Levers and indicators for all</li> </ul>	driving controls
<ul> <li>In-Cabin radio output and local</li> </ul>	cation (12V)
<ul> <li>Cabin lighting</li> </ul>	
<ul> <li>Heated wing mirrors</li> </ul>	
<ul> <li>Document box</li> </ul>	
<ul> <li>Transparent protection plate</li> </ul>	on the windshield
DIMENSIONS & WEIGHT	
Weight:	16000 kg (Approximately)
Length:	10240 mm
Width:	2300 mm
Height:	2750 mm
Inner Turning Radius:	3970 mm
Outer Turning Radius:	7100 mm
MISCALLANEOUS	
<ul> <li>Warning plates and decals</li> </ul>	
Tool box	
• 2x4 kg portable fire extinguis	sher (1 in operator cabin)
• 2 pcs Wheel chocks	
Front towbar	
Back-up alarm and light	
Battery isolator switch	
,	

ELECTRIC SYSTEM		Outer Turning Radius	7100 mm
Battery:	24 V – 2 x 105 Ah	<b>3</b>	
Protection:	IP65	MISCALLANEOUS	
	d in front of the operator cabin	Warning plates and	decals
·	d behind of the operator cabin	Tool box	
	nen Led lights on rear bumper		extinguisher (1 in operator cabin)
	x 1500 Lumen Led at bumper	• 2 pcs Wheel chocks	· · · · · · · · · · · · · · · · · · ·
_	2 x 1500 Lumen Led on boom	Front towbar	
1	x 1500 Lumen Led on bunker	Back-up alarm and	light
·	Turn signals and taillights	Battery isolator swit	3
Box Type:	Stainless steel	- Buttery Isotator Swit	COL
Beacon Lamp:	Amber color		
beacon Lamp:	Alliber cotor		
TITAN CLOSED OPERATOR C	ABIN		
Closed 1-person cabin		MANIPULATOR	
ROPS & FOPS level 2 cer	tified	Max. Spray Reach at V	<b>Vertical:</b> 9.8 m
(EN ISO 3471:2008 / EN I	SO 3449:2008)	Max. Spray Reach at H	<b>forizontal:</b> 8.3 m
<ul> <li>Mechanical suspension v</li> </ul>	vith manual tilt, weight, height		
adjustable, "T" shaped se		SPRAYING HEAD	
(Forward Tilting System)		Rotation:	350°
Cabin heater		Tilt:	+/- 135°
Rear view camera and LC	CD screen in operator cabin	Oscillation:	8°
<ul> <li>Levers and indicators for</li> </ul>	all driving controls		
In-Cabin radio output and	d location (12V)	DRY CONCRETE PUMP	
Cabin lighting		Capacity:	6-9 m <sup>3</sup> / h at 1450 rpm
Heated wing mirrors		Max. Concrete Pressu	re: 8-10 bar
<ul> <li>Document box</li> </ul>			
Transparent protection p	late on the windshield	BUNKER	
		Bunker Volume:	4 m³
DIMENSIONS & WEIGHT		Covers:	Hydraulic cylinder double covers
Weight:	16000 kg (Approximately)		
Length:	10240 mm	SPIRAL	
Width:	2300 mm	Max. Speed:	7.5 - 15 rpm
Height:	2750 mm	Drive:	Hydraulic reducer
Inner Turning Radius:	3970 mm		
		CABLE REMOTE CONTR	0L
		Specifications:	
		All nozzle and mani	pulator movements
		Nozzle oscillation	
		Air line on/off	
		<ul> <li>Dosing on/off</li> </ul>	
		Dosing flow rate adj	ustment
		<ul> <li>Pumping on/off and</li> </ul>	flow rate adjustment







5.6 m³ concrete yield 220 l stainless steel admixture tank (optional)



0-18 rpm adjustable rotating speed



Rear view camera and LCD screen in operator cabin



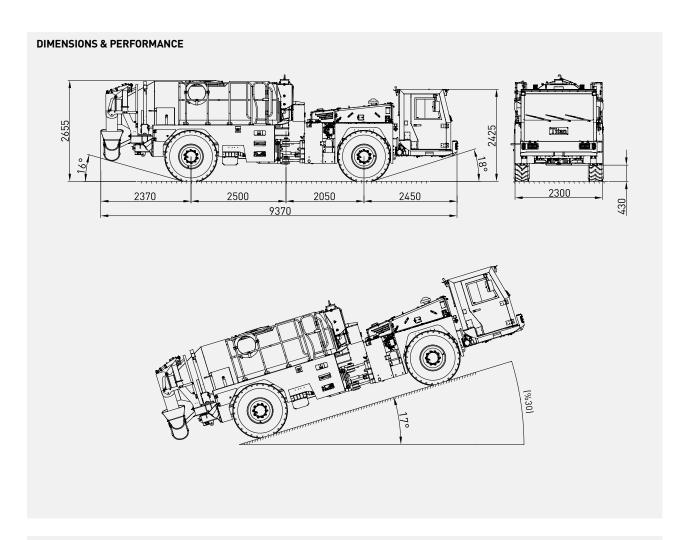
Hydraulically controlled shutter and chute

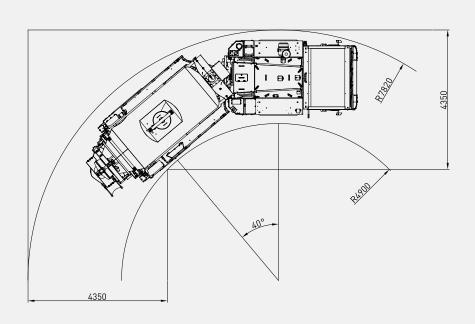


ROPS & FOPS level 2 certified closed 2-person cabin



High strength articulated chassis







DIESEL ENGINE	
Make / Model:	Deutz TCD 2012 L6
Max. Power:	155 kW at 2300 rpm
Max. Torque:	810 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Converte	r and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T32000
	Powershift
Autom	natic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	14.00 – 24
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	18.5 km/h
Max. Tractive Effort:	165 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake: Hyd	draulically powered two-circuit oil
immers	sed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
Electromagnetic Retard	<b>der:</b> 4 stage
CHASSIS	
Type:	Articulated, high strength steel
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	170 l/min at 2300 rpm
Hydraulic Oil Tank:	150 l
Return Oil Filter:	25 μm
Oil level, filti	ration and temperature indicators

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	
	d behind the operator cabin
	1500 Lumen Led at bumper
	n Led on the hopper saddle
Z X 1000 Ediner	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
beacon Lamp.	Amber cotor
TITAN CLOSED OPERATOR CAB	IN
Closed 2-person cabin	IIX
ROPS & FOPS level 2 certific	od.
(EN ISO 3471:2008 / EN ISO	
Mechanical suspension with	· · · · · · · ·
adjustable, "T" shaped seat	
Cahin heater	with 3-point seat bett
Rear view camera and LCD:	cerean in anarator cahin
Levers and indicators for all	·
	, and the second
In-Cabin radio output and lo	ication (12v)
Cabin lighting	
<ul> <li>Heated wing mirrors</li> <li>Document box under the se.</li> </ul>	-1
	al
Equipment box	
DIMENSIONS & WEIGHT	
Weight:	1/E00 kg (Approximatoly)
Max. Weight:	14500 kg (Approximately) 28000 kg (Approximately)
Length:	9370 mm
Width:	2300 mm
	2300 mm 2655 mm
Height: Inner Turning Radius:	4900 mm
•	
Outer Turning Radius:	7820 mm
MISCALLANEOUS	
<ul><li>Warning plates and decals</li><li>Tool box</li></ul>	
	ahau
2x4 kg portable fire extingui	sner
2 pcs Wheel chocks	
Front and rear towbar  Pack up alarm and light	
Back-up alarm and light	
Battery isolator switch	

CONCRETE DRUM		
Drum Volume:	7.1 m <sup>3</sup>	
Max. Concrete Yield:	5.6 m <sup>3</sup>	
Drive:	Hydraulic	
Reducer with Break:	Hydraulic	
Drum Tilt Angle:	10°	
Adjustable Rotating Speed:	0-18 rpm	
Control Panel:	Operator side (Left rear)	
Drum safety lock for filling		
<ul> <li>Manual filling hatch</li> </ul>		
Hyraulically controlled shutte	er and chute	
<ul> <li>Hopper breaking system</li> </ul>		
<ul> <li>Hopper chassis lock system</li> </ul>		
• Concrete drain cover		
HIGH PRESSURE WASHER		
Pump Drive:	Hydraulic	
Pressure:	135 bar	
Flow:	16 l/min	
Hose Length	13 m	
Water Tank:	75 l	

OTHER
Centralized greasing system
OPTIONS
Automatic centralized lubrication system
• Electrical outlet in the cabin 220 Volt - 150 Watt
<ul> <li>Air-conditioner (Heating and Cooling) in the cabin</li> </ul>
<ul> <li>Manual activated fire extinguishing system</li> </ul>
<ul> <li>Automatic and manual activated fire extinguishing</li> </ul>
system (Linear wired)
Form oil system
Stainless steel admixture tank (220 l)
24 V emergency steering
Diesel particulate filter - DPF
EU Stage 5 diesel engine
Additional side view camera
Spare wheel







4.5 m³ concrete yield



0-18 rpm adjustable rotating speed.



Rear view camera and LCD screen in operator cabin



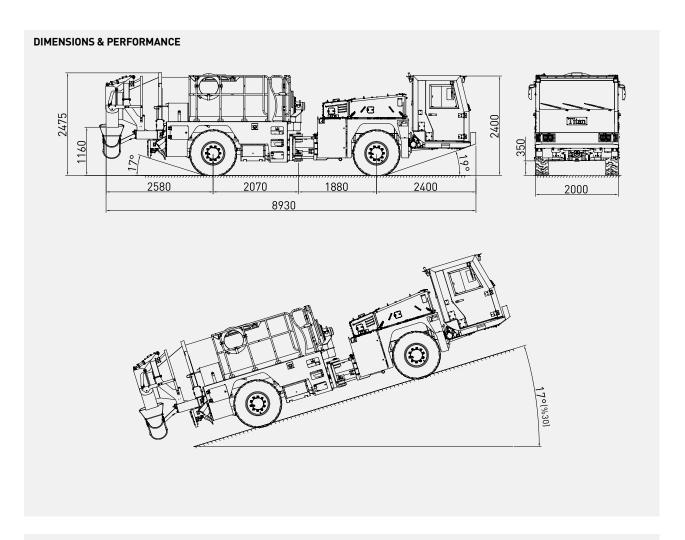
Hydraulically controlled shutter and chute

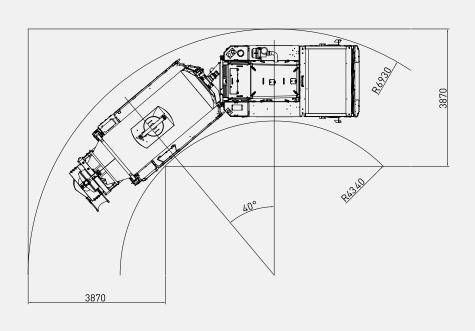


ROPS & FOPS level 2 certified closed 2-person cabin



High strength articulated chassis







DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
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Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Conve	rter and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Au	tomatic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Туре:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort	: 122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake:	Hydraulically powered two-circuit oil
imm	nersed multidisc brakes in both axles
Safety/Parking Brak	ke: Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Туре:	Articulated, high strength steel
HYDRAULIC SYSTEM	
III DICACLIO SI SI LIII	Fixed and variable displacement
Pump Type:	i mod diid variabto dioptacomont
	210 bar
Pump Type:	
Pump Type: Max. Pressure:	210 bar
Pump Type: Max. Pressure: Flow Rate:	210 bar 180 l/min at 2300 rpm

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	
	behind the operator cabin
	500 Lumen Led at bumper
	Led on the hopper saddle
2 x 1000 Earlier	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
Beacon Lamp.	Alliber cotor
TITAN CLOSED OPERATOR CAB	IN
Closed 2-person cabin	•••
ROPS & FOPS level 2 certifie	2d
(EN ISO 3471:2008 / EN ISO	
Mechanical suspension with	
adjustable, "T" shaped seat	
Rear view camera and LCD s	·
Levers and indicators for all	
In-Cabin radio output and lo	<u> </u>
Cabin lighting	cation (12v)
Heated wing mirrors	
Document box under the sea	nt
Equipment box	11
• Equipment box	
DIMENSIONS & WEIGHT	
Weight:	12800 kg (Approximately)
Max. Weight:	23600 kg (Approximately)
Length:	8930 mm
Width:	2000 mm
Height:	2475 mm
Inner Turning Radius:	4340 mm
Outer Turning Radius:	6930 mm
Outer fulling Radius:	0730 11111
MISCALLANEOUS	
Warning plates and decals	
Tool box	
<ul> <li>2x4 kg portable fire extinguis</li> </ul>	chor
<ul> <li>2x4 kg portable fire extinguis</li> <li>2 pcs Wheel chocks</li> </ul>	ыеі
Front and rear towhar	
Back-up alarm and light     Battery isolator switch	
Battery isolator switch	

NCRETE DRUM		OTHER
Drum Volume:	5.6 m <sup>3</sup>	Centralized gr
Max. Concrete Yield:	4.5 m <sup>3</sup>	
Drive:	Hydraulic	OPTIONS
educer with Break:	Hydraulic	Automatic cer
rum Tilt Angle:	13°	Electrical out
djustable Rotating Speed:	0-18 rpm	Air-conditions
ontrol Panel:	Operator side (Left rear)	<ul> <li>Manual activa</li> </ul>
Drum safety lock for filling		Automatic and
Manual filling hatch		system (Linea
Hydraulically controlled shut	ter and chute	Form oil system
Hopper breaking system		Electromagne
Hopper chassis lock system		• 24 V emergen
Concrete drain cover		Diesel particu
		EU Stage 5 die
H PRESSURE WASHER		<ul> <li>Additional sid</li> </ul>
ump Drive:	Hydraulic	Spare wheel
essure:	135 bar	
low:	16 l/min	
ose Length	13 m	
ter Tank:	75 l	

OTHER
Centralized greasing system
gg
OPTIONS
Automatic centralized lubrication system
Electrical outlet in the cabin 220 Volt - 150 Watt
Air-conditioner (Heating and Cooling) in the cabin
Manual activated fire extinguishing system
<ul> <li>Automatic and manual activated fire extinguishing</li> </ul>
system (Linear wired)
Form oil system
Electromagnetic retarder
24 V emergency steering
Diesel particulate filter - DPF
EU Stage 5 diesel engine
Additional side view camera
Spare wheel







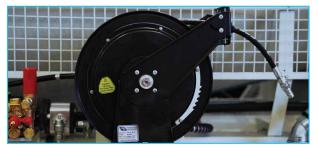
6 m³ concrete yield



Control panel for drum rotation



Rear view camera and LCD screen in operator cabin



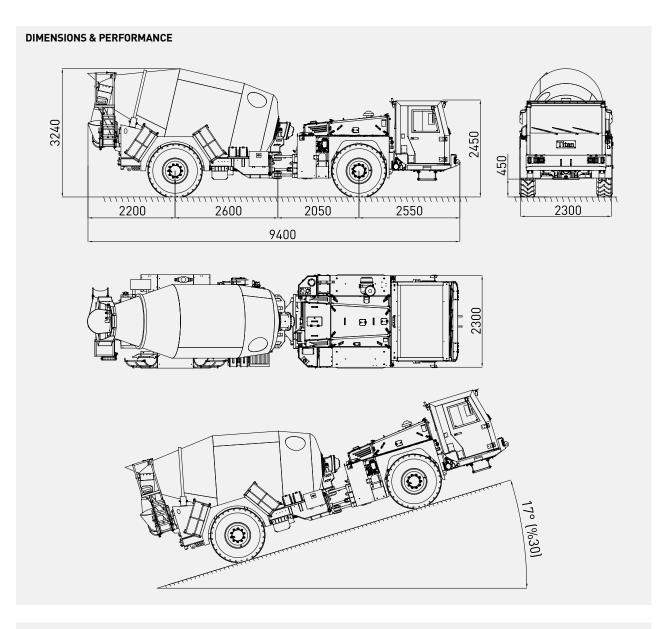
135 bar high pressure washing system

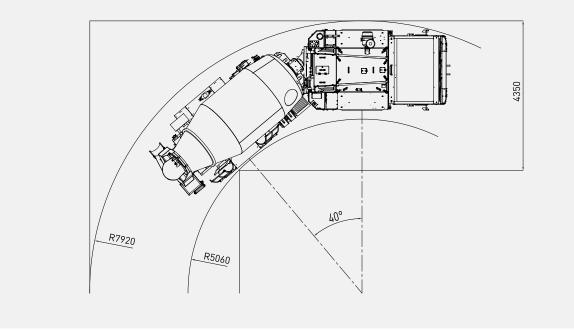


ROPS & FOPS level 2 certified closed 2-person cabin



High strength articulated chassis







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With Catalytic Converter	and Silencer
,	
TRANSMISSION	
Make / Model:	Dana Spicer T32000
	Powershift
Autom	atic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	14 00 – 24
Tyres.	14.00 24
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	18.5 km/h
Max. Tractive Effort:	16.5 kN
Max. If active Ellort:	I CO KIN
STEERING	
STEERING	Articulation, +/- 40°
	Orbitrol Type
	Orbitiot Type
BRAKING SYSTEM	
	draulically powered two circuit oil
	draulically powered two-circuit oil sed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
Floring and the Determination	Fail safe
Electromagnetic Retard	<b>ler:</b> 4 stage
01146616	
CHASSIS	
Туре:	Articulated, high strength steel
IIVANALU IA AVIII	
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	170 l/min at 2300 rpm
Hydraulic Oil Tank:	150 เ
Return Oil Filter:	25 μm
Oil level, filtr	ration and temperature indicators

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	front of the operator cabin
2 x 1500 Lumen Led	d behind the operator cabin
2 x 1500 Lume	n Led at back of the vehicle
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR CAB	IN
<ul> <li>Closed 2-person cabin</li> </ul>	
ROPS & FOPS level 2 certification	ed
(EN ISO 3471:2008 / EN ISO	3449:2008)
<ul> <li>Mechanical suspension with</li> </ul>	n manual tilt, weight, height
adjustable, "T" shaped seat	with 3-point seat belt
Cabin heater	
Rear view camera and LCD	screen in operator cabin
<ul> <li>Levers and indicators for all</li> </ul>	•
In-Cabin radio output and lo	ocation (12V)
Cabin lighting	
Heated wing mirrors	
Document box under the se	at
Equipment box	
DIMENSIONS A WEIGHT	
DIMENSIONS & WEIGHT	100001 (A : )
Weight:	13800 kg (Approximately)
Max. Weight: Length:	28800 kg (Approximately) 9400 mm
Width:	2300 mm
Height:	3240 mm
Inner Turning Radius:	5060 mm
Outer Turning Radius:	7920 mm
outer running reduces	7723 111111
MISCALLANEOUS	
Warning plates and decals	
Tool box	
• 2x4 kg portable fire extingui	sher
• 2 pcs Wheel chocks	
Front and rear towbar	
Back-up alarm and light	
Battery isolator switch	

COMODETE DOUG		OTHER
CONCRETE DRUM		OTHER
Drum Volume:	8.8 m <sup>3</sup>	Centralized greasing system
Max. Concrete Yield:	6 m <sup>3</sup>	
Drive:	Hydraulic	OPTIONS
Adjustable Rotating Speed:	0-18 rpm	Automatic centralized lubrication system
Water Pump		Electrical outlet in the cabin 220 Volt - 150 Watt
Pump Drive:	Hydraulic	Air-conditioner (Heating and Cooling) in the cabin
Flow:	400 l/min	Manual activated fire extinguishing system
Water Tank:	1200 l	Automatic and manual activated fire extinguishing
• 2 Lids for cleaning		system (Linear wired)
Hydraulically controlled ecological co	over and gutter	24 V emergency steering
<ul> <li>Hopper breaking system</li> </ul>		Diesel particulate filter - DPF
Concrete drain cover		Form oil system
		EU Stage 5 diesel engine
HIGH PRESSURE WASHER		Additional side view camera
Pump Drive:	Hydraulic	Spare wheel
Pressure:	135 bar	
Flow:	16 l/min	
Hose Length:	13 m	

# BAC2X350 ANFO CHARGER TRUCK





ANFO tank options 2 x 250 / 350 / 500 l



Hydraulically driven ANFO hose reel



Rear view camera and LCD screen in operator cabin



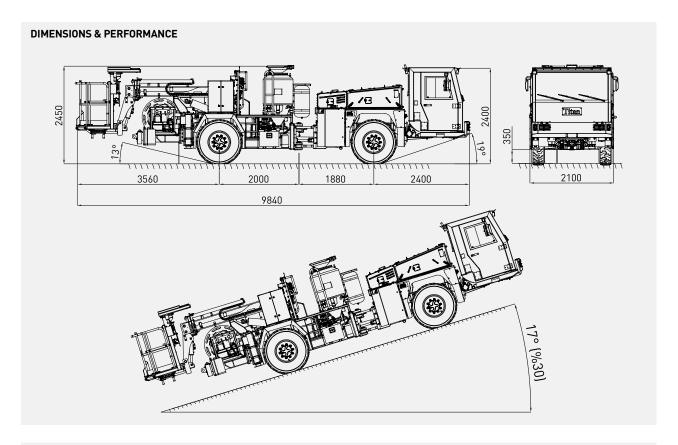
 $1590 \times 790$  mm, 500 kg lifting capacity basket

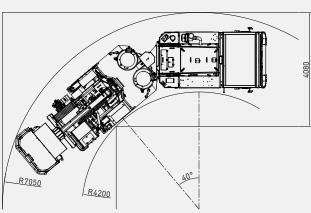


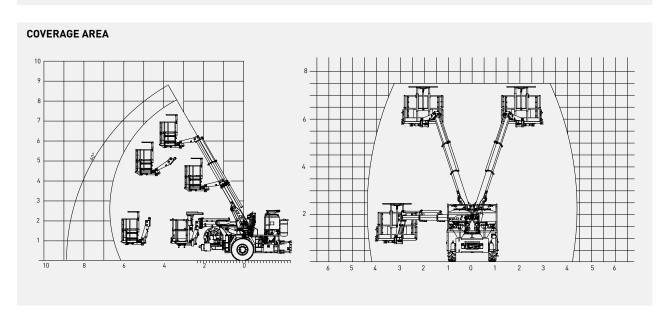
ROPS & FOPS level 2 certified closed 2-person cabin



High strength articulated chassis









DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 l
With Catalytic Convert	er and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Auto	matic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Туре:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
	ydraulically powered two-circuit oil
	rsed multidisc brakes in both axles
Safety/Parking Brake	, , , , ,
	hydraulic released SAHR
	Fail safe
CHASSIS	
Туре:	Articulated, high strength steel
Stabilizers:	2 pcs, extendible
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	190 l/min at 2300 rpm
Hydraulic Oil Tank:	150 เ
Return Oil Filter:	25 μm
Oil level, fil	tration and temperature indicators

ELECTRIC SYSTEM		
Battery:	24 V – 2 x 105 Ah	
Protection:	IP65	
Lights: 6 x 1500 Lumen Led in	front of the operator cabin	
2 x 1500 Lumen Led b	ehind of the operator cabin	
2 x ·	1500 Lumen Led at bumper	
2:	x 1500 Lumen Led on boom	
	Turn signals and taillights	
Box Type:	Stainless steel	
Beacon Lamp:	Red color	
TITAN CLOSED OPERATOR CAB	IIN	
• Closed 2-person cabin		
• ROPS & FOPS level 2 certifi	ed	
(EN ISO 3471:2008 / EN ISO	3449:2008)	
Mechanical suspension with	n manual tilt, weight, height	
adjustable, "T" shaped seat	with 3-point seat belt	
Cabin heater		
Rear view camera and LCD	screen in operator cabin	
<ul> <li>Levers and indicators for al</li> </ul>	l driving controls	
In-Cabin radio output and lo	ocation (12V)	
Cabin lighting		
Heated wing mirrors		
Document box under the seat		
Equipment box		
DIMENSIONS & WEIGHT		
Weight:	14060 kg (Approximately)	
Length:	9840 mm	
Width:	2100 mm	
Height:	2450 mm	
Inner Turning Radius:	4200 mm	
Outer Turning Radius:	7050 mm	
MISCALLANEOUS		
<ul> <li>Warning plates and decals</li> </ul>		
Tool box		
<ul> <li>2x4 kg portable fire extingular</li> </ul>	isher (1 in operator cabin)	
• 2 pcs Wheel chocks		
<ul> <li>Front and rear towbar</li> </ul>		
<ul> <li>Back-up alarm and light</li> </ul>		
<ul> <li>Battery isolator switch</li> </ul>		

BOOM & BASKET		
<b>Basket Dimensions</b>	:	1590 x 790 mm
Max. Lifting Capaci	ty:	500 kg
Max. Lifting Height (Basket Base): 5.8 m		5.8 m
Basket Swing:		+/- 35°
Max. Boom Angle:		60°
Boom Swing:		+/- 35°
Basket Tilt:		+/- 5°
Parallelism:		Automatic
	Electro-hydraulic	driven control unit

Control system with tank selection, in-hole cleaning and tank on/off feature on the basket

#### ANFO CHARGING UNIT

ANFO Tank Capacity: 2 x 350 l

ANFO Tank: Stainless steel, with cap and screen

ANFO Hose Diameter: Antistatic Ø26/33 mm

ANFO Hose Total Length: 25 m

Hydraulic driven ANFO charging hose reel

#### **COMPRESSOR**

3.5 m³/min – 7 bar – 23 kW hydraulic driven screw compressor

#### **SAFETY**

- Conforms to EN280 mobile elevating work platforms standard
- Manual emergency boom movement control
- Stabilisers must be used to allow basket movements
- 3 pcs emergency stop button; one on the basket
- 2 pcs mechanical inclinometer for rolling and pitching angle indication
- 2 pcs electronic inclinometer sensor for rolling and pitching angles
- +/- 4° rolling angle limitation
- +/- 5° pitching angle limitation
- Sensor system that disables collecting support legs until the basket is completely lowered.
- Weight moment control system for basket
- Rubber chocks on basket for bump protection
- Hydraulically driven safety canopy over the basket

#### **OTHER**

- Centralized greasing system
- Water separator + grease trap in ANFO air lines
- Closed dynamite carrying compartment on the machine
- Lid with screen preventing lumped ANFO loading

#### OPTIONS

- Automatic centralized lubrication system
- Electrical outlet in the cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- 2 x 250 or 2 x 500 l ANFO tank
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel

# **BEC100**





1590 x 790 mm, 500 kg lifting capacity basket



External emulsion unit to be supplied by the customer



Basket with automatic parallelism conforms to EN280 standard  $\,$ 



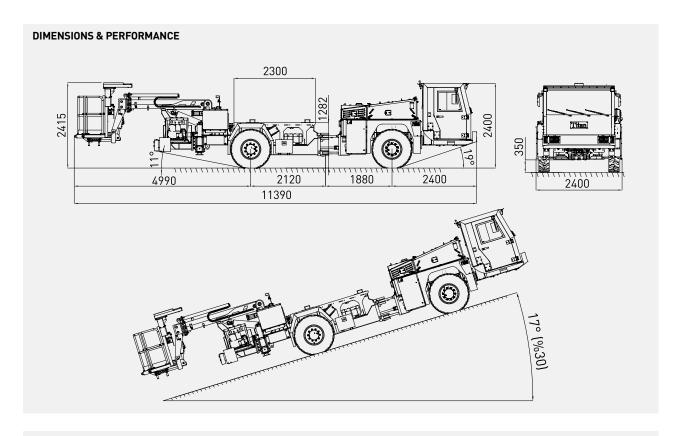
ROPS & FOPS level 2 certified closed 2-person cabin



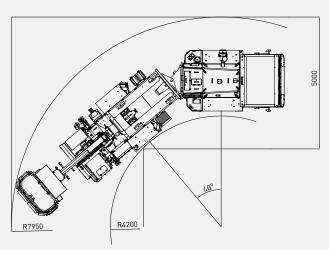
Rear view camera and LCD screen in operator cabin

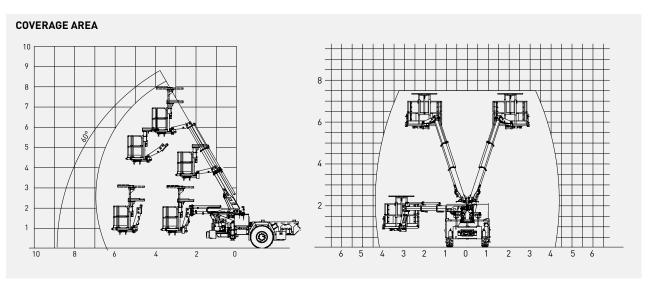


High strength articulated chassis









### **BEC100**

DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 l
With Catalytic Convert	er and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Auto	matic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	D 0 : 440
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
DEDECENALIZE	
PERFORMANCE	0004
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
SIEERING	Antiquiation ./ /00
	Articulation, +/- 40° Orbitrol Type
	отыпостуре
BRAKING SYSTEM	
2	ydraulically powered two-circuit oil
	rsed multidisc brakes in both axles
Safety/Parking Brake	
	hydraulic released SAHR
	Fail safe
	- Tak Sale
CHASSIS	
Type:	Articulated, high strength steel
Stabilizers:	2 pcs, fixed
	2 pcs, 11xcu
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	320 l/min at 2300 rpm
Hydraulic Oil Tank:	300 L
Return Oil Filter:	25 µm
ACCUST ON THEEL	·
Oil lovel fi	ltration and temperature indicators

ELECTRIC SYSTEM			
Battery:	24 V – 2 x 105 Ah		
Protection:	IP65		
Lights: 6 x 1500 Lumen Led in			
	behind the operator cabin		
	500 Lumen Led at bumper		
	1500 Lumen Led on boom		
2 ^	Turn signals and taillights		
Box Type:	Stainless steel		
••	Amber color		
Beacon Lamp:	Amber Cotor		
TITAN CLOSED OPERATOR CABI	NI		
	IN .		
<ul> <li>Closed 2-person cabin</li> <li>ROPS &amp; FOPS level 2 certifie</li> </ul>			
(EN ISO 3471:2008 / EN ISO 3			
Mechanical suspension with			
adjustable, "T" shaped seat	with 3-point seat belt		
Cabin heater			
Rear view camera and LCD s	·		
<ul> <li>Levers and indicators for all</li> </ul>	<ul> <li>Levers and indicators for all driving controls</li> </ul>		
<ul> <li>In-Cabin radio output and local</li> </ul>	cation (12V)		
Cabin lighting			
<ul> <li>Heated wing mirrors</li> </ul>			
<ul> <li>Document box under the sea</li> </ul>	at		
<ul> <li>Equipment box</li> </ul>			
DIMENSIONS & WEIGHT			
Weight:	14000 kg (Approximately)		
Length:	11390 mm		
Width:	2400 mm		
Height:	2415 mm*		
Inner Turning Radius:	4200 mm		
Outer Turning Radius:	7950 mm		
*Height may change depending on the en	nulsion unit dimensions		
MISCALLANEOUS			
<ul> <li>Warning plates and decals</li> </ul>			
• Tool box			
<ul> <li>2x4 kg portable fire extinguis</li> </ul>	her (1 in operator cabin)		
• 2 pcs Wheel chocks			
<ul> <li>Front and rear towbar</li> </ul>			
<ul> <li>Back-up alarm and light</li> </ul>			
<ul> <li>Battery isolator switch</li> </ul>			

BOOM & BASKET	
Basket Dimensions:	1590 x 790 mm
Max. Lifting Capacity:	500 kg
Max. Lifting Height (Bask	<b>ket Base):</b> 5.8 m
Basket Swing:	+/- 35°
Max. Boom Angle:	60°
Boom Swing:	+/- 35°
Basket Tilt:	+/- 5°
Parallelism:	Automatic
Electro-hydraulic driven control unit	

#### **EMULSION CHARGING UNIT**

External emulsion unit to be supplied by the customer

#### **COMPRESSOR**

 $3.5 \text{ m}^3\text{/min} - 7 \text{ bar} - 23 \text{ kW hydraulic driven screw compressor}$ 

#### **SAFETY**

- Conforms to EN280 mobile elevating work platforms standard
- Manual emergency boom movement control
- Stabilisers must be used to allow basket movements
- 3 pcs emergency stop button; one on the basket
- Sensor system that disables collecting support legs until the basket is completely lowered
- 2 pcs mechanical inclinometer at chassis
- 2 pcs electronic inclinometer sensor for rolling and pitching angles
- +/- 4° rolling angle limitation
- +/- 5° pitching angle limitation
- Weight moment control system for basket
- Rubber chocks on basket for bump protection
- Hydraulically driven safety canopy over the basket

#### OTHER

- Centralized greasing system
- Antistatic storage boxes for caps and primary explosives (2 x 20 l)

#### **OPTIONS**

- Automatic centralized lubrication system
- Electrical outlet in the cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- 24 V emergency steering
- Diesel Particulate Filter DPF
- · Hose pusher
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel







ROPS & FOPS level 2 certified closed 4-person personnel cabin



Manual opening / closing awning mechanism on the case



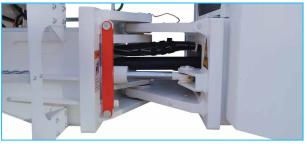
7000 kg carrying capacity pick-up box



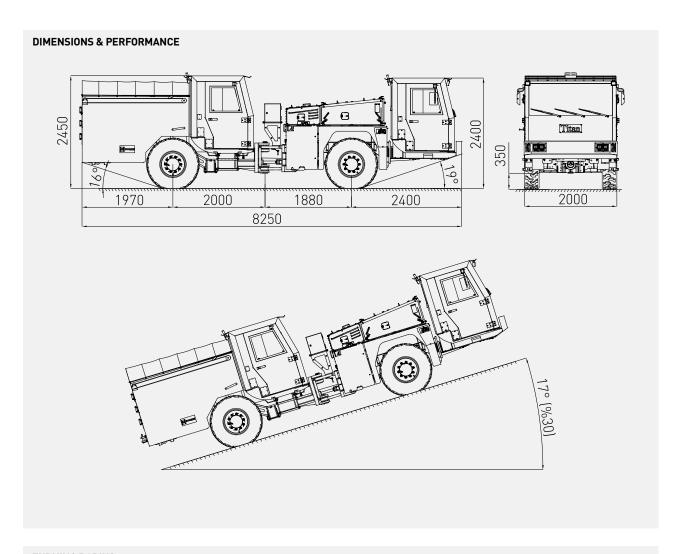
ROPS & FOPS level 2 certified closed 2-person cabin

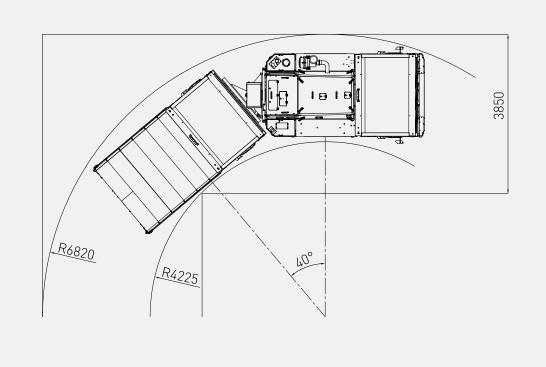


Rear view camera and LCD screen in operator cabin



High strength articulated chassis







DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Converter	and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Autom	atic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Туре:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake: Hyd	raulically powered two-circuit oil
immers	ed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Type:	Articulated, high strength steel
HYDRAULIC SYSTEM	
Pump Type:	Variable displacement
Max. Pressure:	210 bar
Flow Rate:	125 l/min at 2300 rpm
Hydraulic Oil Tank:	150 เ
Return Oil Filter:	25 μm
Oil level, filtr	ation and temperature indicators

ELECTRIC SYSTEM		
Battery:	24 V – 2 x 105 Ah	
Protection:	IP65	
<b>Lights:</b> 6 x 1500 Lumen Led in front of the operator cabin		
2 x 1500 Lumen Led behind the operator cabin		
2 x 1500 Lumen Led behind		
	umen Led at bumper	
	signals and taillights	
Box Type:	Stainless steel	
Beacon Lamp:	Amber color	
	7261 66161	
TITAN CLOSED OPERATOR CABIN		
Closed 2-person cabin		
ROPS & FOPS level 2 certified		
(EN ISO 3471:2008 / EN ISO 3449:2	2008)	
Mechanical suspension with manual	•	
adjustable, "T" shaped seat with 3-point seat belt		
Cabin heater	point oddt bott	
Rear view camera and LCD screen	in operator cabin	
Levers and indicators for all driving	·	
In-Cabin radio output and location (12V)		
Cabin lighting		
Heated wing mirrors		
Document box under the seat		
Equipment box		
To Provide the		
DIMENSIONS & WEIGHT		
Weight:	11450 – 12000 kg*	
Length:	8250 mm	
Width:	2000 mm	
Height:	2450 mm	
Inner Turning Radius:	4225 mm	
Outer Turning Radius:	6820 mm	
*Depends on option		
MISCALLANEOUS		
<ul> <li>Warning plates and decals</li> </ul>		
• Tool box		
• 3 portable fire extinguisher		
(1 in operator cabin (4 kg), 2 in per	sonnel cabin (2 kg))	
• 2 pcs Wheel chocks		
<ul> <li>Front and rear towbar</li> </ul>		
<ul> <li>Back-up alarm and light</li> </ul>		
<ul> <li>Battery isolator switch</li> </ul>		

#### **TITAN CLOSED PERSONNEL CABIN**

- Closed 4-person cabin
- ROPS & FOPS level 2 certified
   (EN ISO 3471:2008 / EN ISO 3449:2008)
- Height adjustable ergonomic seat with seat belt
- Cabin heater
- Cabin doors on both sides (right-left)
- Hand rails and horn on the ceiling of the cabin
- Cabin floor covered with non-slip material
- Intercom between operator cabin and personnel cabin

#### **PICK-UP BOX**

 Dimensions:
 2320 x 2000 x 980 mm

 Max. Carrying Capacity:
 7000 kg

 Type:
 Open top for transportation of explosives

 Inner Surface:
 Waterproof wooden lining

 Doors:
 Two doors at rear (for loading & unloading)

Can be fixed when opened

- Plywood upholstered case internal surfaces
- Rear doors can be fixed at 90° and 270°
- Manual opening / closing awning mechanism on the case

#### **DETONATOR BOX**

**Dimensions:** 800 x 500 x 500 mm **Material:** Steel box

- Placed over articulation
- Anti-static inner surface
- Lockable covers

#### OTHER

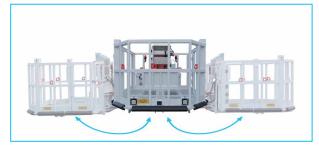
• Centralized greasing system

#### **OPTIONS**

- Automatic centralized lubrication system
- Electrical outlet in the cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel







+/- 35° basket swing



Max. lifting height 5.9 m



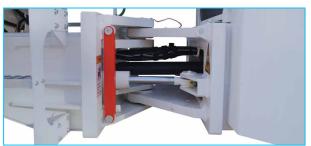
Basket with automatic parallelism conforms to EN280 standard  $\,$ 



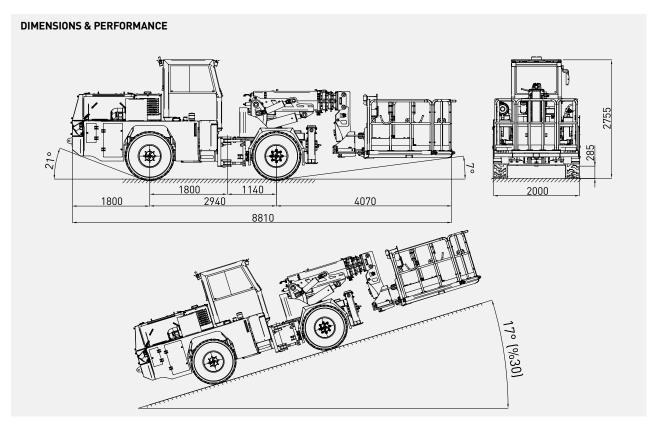
ROPS & FOPS level 2 certified closed 1-person cabin

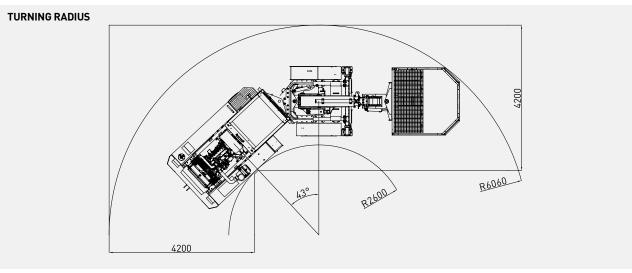


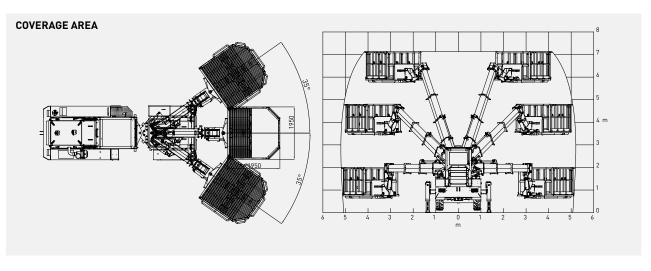
Rear view camera and LCD screen in operator cabin



High strength articulated chassis









DIEGEL ENGINE	
DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Converter	and Silencer
TRANSMISSION	
Drive Train:	Hydrostatic
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 112
Туре:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
STEERING	
	Articulation, +/- 43°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake: Hyd	raulically powered two-circuit oil
immers	ed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Туре:	Articulated, high strength steel
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	380 bar
Flow Rate:	510 l/min at 2300 rpm
Hydraulic Oil Tank:	150 l
Return Oil Filter:	25 μm
Oil level, filtr	ation and temperature indicators

ELECTRIC SYSTEM	
Battery:	24 V - 2 x 105 Ah
Protection:	IP65
Lights: 2 x 3000 Lumen Led	d in front of the operator cabin
2 x 1500 Lumen l	Led behind the operator cabin
2 x 150	00 Lumen Led on rear bumper
2 x 3000	0 Lumen Led on front bumper
	2 x 1500 Lumen Led on boom
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color for driving
	or for working with explosives
TITAN CLOSED OPERATOR C	ABIN
Closed 1-person cabin	
ROPS & FOPS level 2 cer	tified
(EN ISO 3471:2008 / EN IS	SO 3449:2008)
Mechanical suspension v	vith manual tilt, weight, height
adjustable, "T" shaped se	
Rear view camera and LC	
Levers and indicators for	
In-Cabin radio output and	
Cabin lighting	
Heated wing mirrors	
Document box under the	seat
Equipment box	
, ,	
DIMENSIONS & WEIGHT	
Weight:	11500 kg (Approximately)
Length:	8810 mm
Width:	2000 mm
Height:	2755 mm
Inner Turning Radius:	2600 mm
Outer Turning Radius:	6060 mm
outer running naurusi	3000 111111
ACCESSORIES	
Warning signs and label	
<ul> <li>2x4 kg portable fire extino</li> </ul>	quisher
2 Wheel chocks	J
Rear towbar	
Rear light and alarm	
Battery Isolator switch	
Datisi j i i i i i i i i i i i i i i i i i	

BOOM & BASKET	
Basket Dimensions:	1950 x 1950 mm
Max. Lifting Capacity:	500 kg
Max. Lifting Height (Basket Base):	5.9 m
Basket Swing:	+/- 35°
Max. Boom Angle:	60°
Boom Swing:	+/- 35°
Basket Tilt:	+/-5°

- Electro-hydraulic driven control unit
- ullet 2 x Ø30 hooks on the sides of the basket
- 1000 x 400 x 300 mm metal tool box
- Door with Sensor
- Grate floor

Parallelism:

- Ground contact feature while the machine is parked
- Cabin-Basket communication system

#### SAFETY

- Conforms to EN280 mobile elevating work platforms standard
- Manual emergency boom movement control
- Stabilisers must be used to allow basket movements
- 3 pcs emergency stop button; one on the basket
- +/- 4° rolling angle limitation
- +/- 5° pitching angle limitation
- Sensor system that disables collecting support legs until the basket is completely lowered.
- Weight moment control system for basket
- Hydraulic support legs opening right and left
- 2 pcs mechanical inclinometer at chassis
- 2 pcs electronic inclinometer sensor for rolling and pitching angles
- Rubber chocks on basket for bump protection

#### OTHER

- Centralized greasing system
- Hydraulic suspension system on the boom

#### OPTIONS

Automatic

- Automatic centralized lubrication system
- Electric socket in cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel

## BMP2X3 SCISSOR LIFT





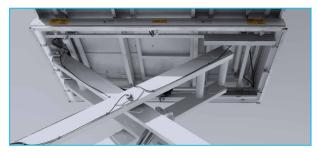
3200 x 2000 mm lifting platform



Platform and legs controllable from 2 panels



Rear view camera and LCD screen in operator cabin



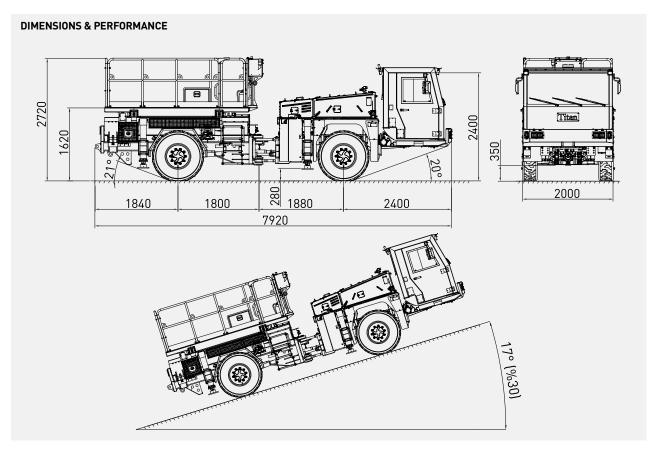
3000 kg lifting capacity

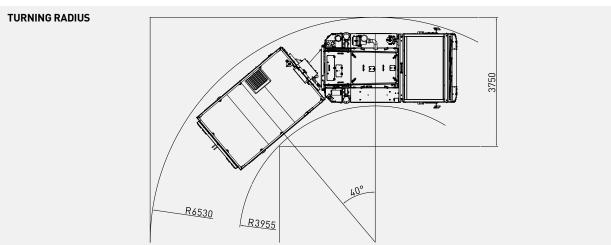


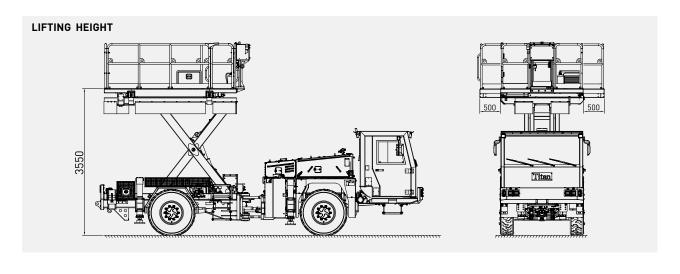
ROPS & FOPS level 2 certified closed 2-person cabin



High strength articulated chassis









DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	115 l
With Catalytic Converte	er and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Autor	matic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake: Hy	ydraulically powered two-circuit oil
immer	rsed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Туре:	Articulated, high strength steel
Front Stabilisers:	2 pcs, fixed
Rear Stabilisers:	2 pcs, fixed
HYDRAULIC SYSTEM	
HYDRAULIC SYSTEM Pump Type:	Fixed and variable displacement
	Fixed and variable displacement 210 bar
Pump Type:	
Pump Type: Max. Pressure:	210 bar
Pump Type: Max. Pressure: Flow Rate:	210 bar 110 l/min at 2300 rpm

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	front of the operator cabin
2 x 1500 Lumen Led b	ehind of the operator cabin
2 x 1	1500 Lumen Led at bumper
	umen Led light on platform
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR CAB	IN
Closed 2-person cabin	
ROPS & FOPS level 2 certification	ed
(EN ISO 3471:2008 / EN ISO	3449:2008)
Mechanical suspension with	n manual tilt, weight, height
adjustable, "T" shaped seat	with 3-point seat belt
Cabin heater	
Rear view camera and LCD :	screen in operator cabin
Levers and indicators for all	driving controls
In-Cabin radio output and lo	ocation (12V)
Cabin lighting	
Heated wing mirrors	
Document box under the sea	at
Equipment box	
DIMENSIONS & WEIGHT	
Weight:	12400 kg (Approximately)
Length:	7920 mm
Width:	2000 mm
Height:	2720 mm
Inner Turning Radius:	3955 mm
Outer Turning Radius:	6530 mm
MISCALLANEOUS	
<ul> <li>Warning plates and decals</li> </ul>	
<ul> <li>2x4 kg portable fire extingui</li> </ul>	sher (1 in operator cabin)
<ul> <li>2 pcs Wheel chocks</li> </ul>	
<ul> <li>Front and rear towbar</li> </ul>	
<ul> <li>Back-up alarm and light</li> </ul>	
<ul> <li>Battery isolator switch</li> </ul>	

## LIFTING PLATFORM Platform Dimensions: 3200 x 2000 mm Max. Lifting Capacity: 3000 kg Max. Lifting Height: 3.55 m • Platform and legs controllable from 2 panels • Tool box on platform • Standard compliant kickplate around the platform • Manual emergency lowering system when platform is open

- Conforms to EN280 mobile elevating work platforms standard
- Emergency platform lowering system
- Scissor cannot be moved without support legs touching the ground.
- Platform climbing steps
- 4 pcs emergency stop button (inside the cabin, on electric box, right rear, on the platform)
- 2 pcs mechanical inclinometer at chassis
- +/- 4° rolling angle limitation
- Sensor system that disables collecting support legs until the platform is completely lowered.
- Door is open warning system

#### OTHER

• Centralized greasing system

#### **OPTIONS**

- Automatic centralized lubrication system
- Electric socket in cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- +/- 500 mm side shift function
- Platform size and lifting capacity on demand
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel







Crane with 1200 kg capacity at 5 meters



8000 kg capacity pick-up box



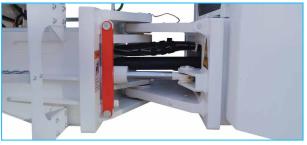
Robust boom



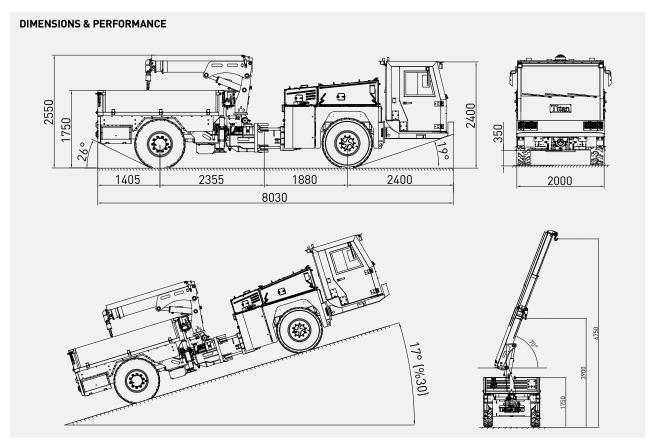
ROPS & FOPS level 2 certified closed 2-person cabin

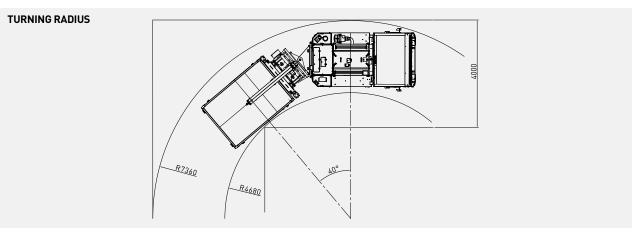


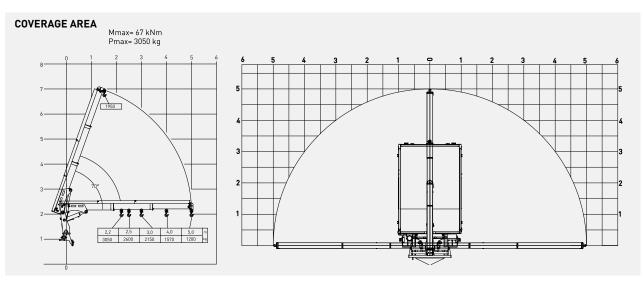
Rear view camera and LCD screen in operator cabin



High strength articulated chassis









DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Conve	rter and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Aut	omatic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake:	Hydraulically powered two-circuit oil
imm	ersed multidisc brakes in both axles
Safety/Parking Brak	Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Type:	Articulated, high strength steel
Stabilisers:	2 pcs, extendible
HYDRAULIC SYSTEM	
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	110 l/min at 2300 rpm
Hydraulic Oil Tank:	150 เ
Return Oil Filter:	25 μm
Oil level,	filtration and temperature indicators

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	n front of the operator cabin
2 x 1500 Lumen Le	d behind the operator cabin
2 x	1500 Lumen Led at bumper
2	x 1500 Lumen Led at boom
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR CAE	BIN
Closed 2-person cabin	
ROPS & FOPS level 2 certifity	ied
(EN ISO 3471:2008 / EN ISO	3449:2008)
Mechanical suspension wit	h manual tilt, weight, height
adjustable, "T" shaped seat	with 3-point seat belt
Rear view camera and LCD	•
<ul> <li>Levers and indicators for al</li> </ul>	·
In-Cabin radio output and legal	ocation (12V)
Cabin lighting	
Heated wing mirrors	
Document box under the see	eat
Equipment box	
DIMENSIONS & WEIGHT	
Weight:	11500 kg (Approximately)
Length:	8030 mm
Width:	2000 mm
Height:	2550 mm
Inner Turning Radius:	4680 mm
Outer Turning Radius:	7360 mm
MISCALLANEOUS	
Warning plates and decals	
Tool box	
• 2x4 kg portable fire extingu	isher
2 pcs Wheel chocks	
Front and rear towbar	
Back-up alarm and light	
Battery isolator switch	

#### • Titan Boom • Automatic centralized lubrication system • Max. Vertical Reach: 6.75 m • Electrical outlet in the cabin 220 Volt - 150 Watt • Max. Horizontal Reach: 5 m + 5 m• Air-conditioner (Heating and Cooling) in the cabin • 1.200 kg Capacity at 5 meters • Manual activated fire extinguishing system • System with Rack • Automatic and manual activated fire extinguishing • Weight control system system (Linear wired) • Electromagnetic retarder **PICK-UP BOX** • Cable or wireless remote control • Right, left and back covers can be opened and closed • 24 V emergency steering • Dimensions: 2000 x 2850 x 500 mm • Diesel particulate filter - DPF • Capacity: 8000 kg • EU Stage 5 diesel engine • Additional side view camera OTHER • Spare wheel • Centralized greasing system

**OPTIONS** 

**MANIPULATOR / CRANE** 





4000 l Water Tank Cassette



 $1750 \times 3500$  mm, 3000 kg Loading Platform Cassette



Electronic tracking of hooklift position and angle



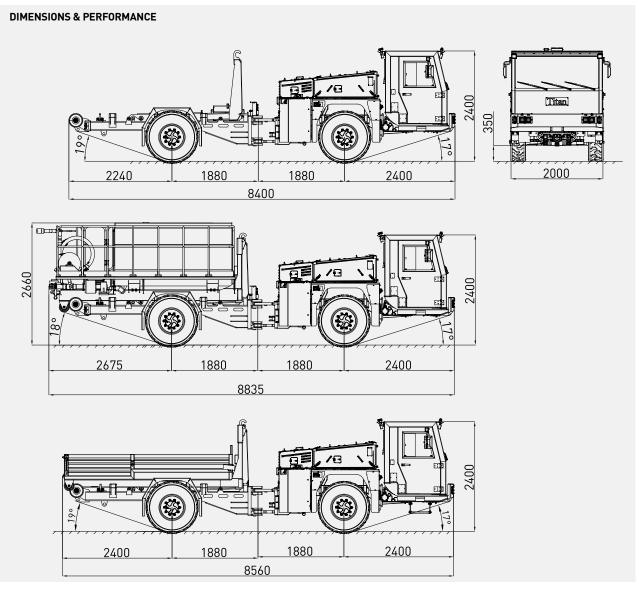
ROPS & FOPS level 2 certified closed 2-person cabin

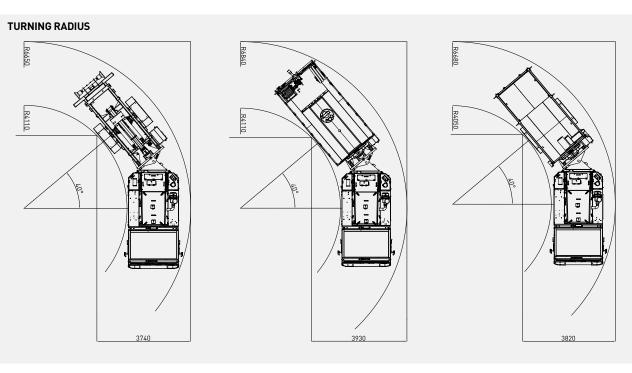


Rear view camera and LCD screen in operator cabin



High strength articulated chassis







DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 L
With Catalytic Converte	r and Silencer
,	
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Autom	natic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Type:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
•	draulically powered two-circuit oil
	sed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
ALL LOGIC	
CHASSIS	
Туре:	Articulated, high strength steel
HVDDAIII IO CVCTEM	
HYDRAULIC SYSTEM	Final and mainly P. J.
Pump Type:	Fixed and variable displacement
Max. Pressure:	210 bar
Flow Rate:	125 l/min at 2300 rpm
Hydraulic Oil Tank:	150 l
Return Oil Filter:	25 μm
Uil level, filt	ration and temperature indicators

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
<b>Lights:</b> 6 x 1500 Lumen Led in	· ·
	d behind the operator cabin
2 x	1500 Lumen Led at bumper
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber and Blue color
TITAN CLOSED OPERATOR CAE	BIN
Closed 2-person cabin	
ROPS & FOPS level 2 certifications of the second seco	
(EN ISO 3471:2008 / EN ISO	
Mechanical suspension with	
adjustable, "T" shaped seat	with 3-point seat belt
Cabin heater	
Rear view camera and LCD	·
Levers and indicators for al	3
In-Cabin radio output and lo	ocation (12V)
Cabin lighting	
Heated wing mirrors	
Document box under the se	at
Equipment box	
DIMENSIONS O WEIGHT	
DIMENSIONS & WEIGHT (CASSETT	
Weight:	10200 kg (Approximately)
Length: Width:	8400 mm 2000 mm
Height:	2400 mm
Inner Turning Radius:	4110 mm
<u> </u>	6650 mm
Outer Turning Radius:	0000 111111
WATER TANK CASSETTE	
Empty Weight:	12100 kg (Approximately)
Max. Full Weight:	16100 kg (Approximately)
Length:	8835 mm
Width:	2000 mm
Height:	2660 mm
Inner Turning Radius:	4110 mm
Outer Turning Radius:	6840 mm
- a.c a	0040 111111

LOADING PLATFORM CASSETTE		
Empty Weight:	11500 kg (Approximately)	
Max. Full Weight:	14500 kg (Approximately)	
Length:	8560 mm	
Width:	2000 mm	
Height:	2400 mm	
Inner Turning Radius:	4050 mm	
Outer Turning Radius:	6680 mm	

#### **MISCALLANEOUS**

- Warning plates and decals
- Tool box
- 2x4 kg portable fire extinguisher (1 in operator cabin)
- 2 pcs Wheel chocks
- Front and rear towbar
- · Back-up alarm and light
- Battery isolator switch

#### **HOOKLIFT SYSTEM**

- Electronic tracking of hooklift position and angle
- Sensor system preventing movement before the cassette is closed
- Quick coupling with sensor for cassette hoses

#### **WATER TANK CASSETTE**

Water Tank Capacity: 4000 l
 Hose Reel: L: 30 m Ø:1"

- Wave breaker in the water tank
- Machine connection points with attachment and lock system
- Water monitor for adjusting spray angle
- Gearbox pump with 1500 l/min capacity
- Drop system
- Right and Left 1.5 m height wall washing
- Water tank filling hose
- 3 Point contact platform ladder
- Guardrail around the water tank
- Water tank level electronic monitoring system

#### LOADING PLATFORM CASSETTE

Platform Dimensions: 1750 x 3500 mm
 Loading Capacity: 3000 kg

- Machine connection points with attachment and lock system
- On-Platform shackle ports
- Removable back cover
- Removable rod rack on the platform

#### OTHER

· Centralized greasing system

#### **OPTIONS**

- Automatic centralized lubrication system
- Electrical outlet in the cabin 220 Volt 150 Watt
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and Manual activated fire extinguishing system (Linear wired)
- 24 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Additional side view camera
- Spare wheel













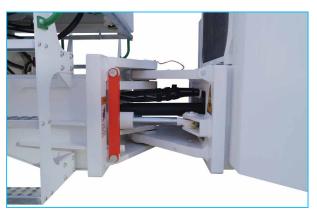
Fuel/oil transfer hoses with reels and flow meters



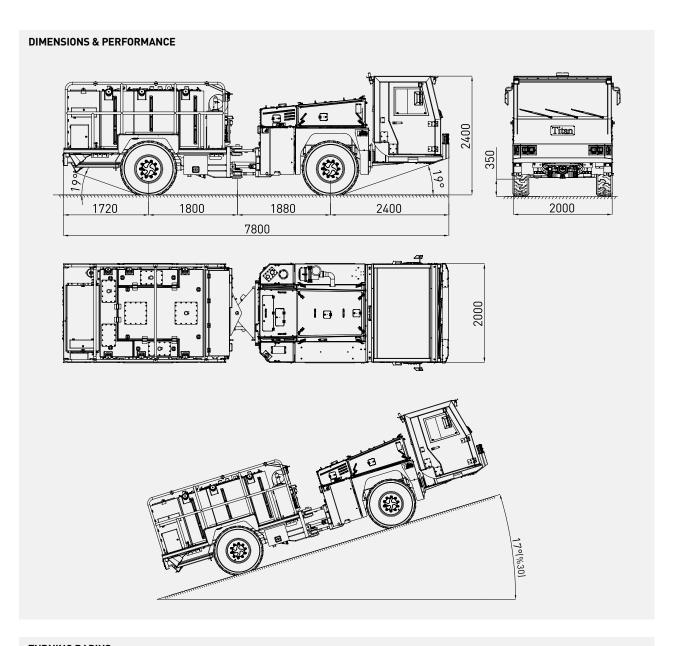
ROPS & FOPS level 2 certified closed 2-person cabin



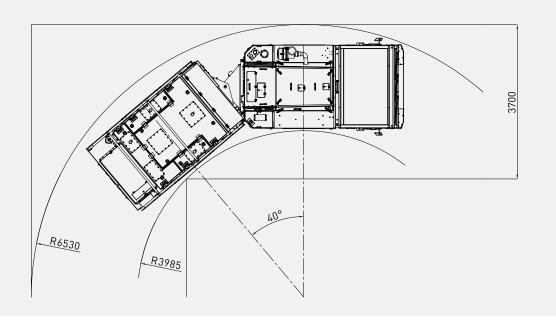
Rear view camera and LCD screen in operator cabin



High strength articulated chassis



#### TURNING RADIUS



#### **BIA100**

DIESEL ENGINE	
Make / Model:	Deutz TCD 2013 L4 2V
Max. Power:	129 kW at 2300 rpm
Max. Torque:	670 Nm at 1600 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	150 เ
With Catalytic Conver	ter and Silencer
TRANSMISSION	
Make / Model:	Dana Spicer T24000
	Powershift
Auto	omatic 3-speed forward and reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	Dana Spicer 113
Туре:	Planetary
Front:	+/- 8° Oscillating
Rear:	Rigid
Tyres:	12.00 – 20
PERFORMANCE	
Max. Gradient:	30%
Max. Speed:	24.5 km/h
Max. Tractive Effort:	122 kN
STEERING	
	Articulation, +/- 40°
	Orbitrol Type
BRAKING SYSTEM	
Service Brake:	Hydraulically powered two-circuit oil
imme	ersed multidisc brakes in both axles
Safety/Parking Brake	e: Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Type:	Articulated, high strength steel
, i .	
<b>71</b>	
HYDRAULIC SYSTEM	
	Variable displacement
HYDRAULIC SYSTEM	Variable displacement 210 bar
HYDRAULIC SYSTEM Pump Type:	
HYDRAULIC SYSTEM Pump Type: Max. Pressure:	210 bar
HYDRAULIC SYSTEM Pump Type: Max. Pressure: Flow Rate:	210 bar 125 l/min at 2300 rpm

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	
	ehind of the operator cabin
2 X I	1500 Lumen Led at bumper
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR CAB	IN
Closed 2-person cabin	
ROPS & FOPS level 2 certification	
(EN ISO 3471:2008 / EN ISO	· · · · · · · · · · · · · · · · · · ·
<ul> <li>Mechanical suspension with</li> </ul>	n manual tilt, weight, height
adjustable, "T" shaped seat	with 3-point seat belt
Cabin heater	
Rear view camera and LCD :	screen in operator cabin
<ul> <li>Levers and indicators for all</li> </ul>	l driving controls
<ul> <li>In-Cabin radio output and lo</li> </ul>	ocation (12V)
<ul> <li>Cabin lighting</li> </ul>	
<ul> <li>Heated wing mirrors</li> </ul>	
<ul> <li>Document box under the se</li> </ul>	at
<ul> <li>Equipment box</li> </ul>	
DIMENSIONS & WEIGHT	
Weight:	12000 kg (Approximately)
Max. Weight:	15000 kg (Approximately)
Length:	7800 mm
Width:	2000 mm
Height:	2400 mm
Inner Turning Radius:	3985 mm
Outer Turning Radius:	6530 mm
-	
MISCALLANEOUS	
Warning plates and decals	
Tool box	
2x4 kg portable fire extingui	sher (1 in operator cabin)
2 pcs Wheel chocks	, , , , , , , , , , , , , , , , , , , ,
Front and rear towbar	
Back-up alarm and light	
Battery isolator switch	
Battery Isolator Switch	

SERVICE MODULE	
• Fuel Tank	
- Tank Volume:	2300 l
- Transfer Pump:	Metered and Electrical (70 l/min)
- Hose Reel:	1" 10 m
Hydraulic Oil Tank	
- Tank Volume:	700 l
- Transfer Pump:	Air (22 l/min)
- Lubrication Gun:	Metered
- Hose Reel:	½" 15 m
• Engine Oil Tank	
- Tank Volume:	300 l
- Transfer Pump:	Air (22 l/min)
- Lubrication Gun:	Metered
- Hose Reel:	½" 15 m
• Transmission Oil Tank	
- Tank Volume:	200 Լ
- Transfer Pump:	Air (22 l/min)
- Lubrication Gun:	Metered
- Hose Reel:	½" 15 m
• Waste Oil Tank	
- Tank Volume:	200 Լ
- Suction Pump:	Air diaphragm pump (55 l/min)
- Hose reel:	½" 15 m
Grease Bucket	
- Grease Bucket:	50 Kg
- Grease Gun	
- Hose Reel:	1⁄4" 10 m
Tire Inflator	
- Tire Inflation Gun	
- Hose Reel:	½" 10 m
- Protective guardrail ar	ound supply equipment
- Stainless hose reel cal	oine
COMPRESSOR	
• 750 l/min – 11 bar hy	draulic driven screw compressor
OTHER	
Centralized greasing	system

OPTIONS
Automatic centralized lubrication system
• Electrical outlet in the cabin 220 Volt - 150 Watt
<ul> <li>Air-conditioner (Heating and Cooling) in the cabin</li> </ul>
<ul> <li>Manual activated fire extinguishing system</li> </ul>
<ul> <li>Automatic and manual activated fire extinguishing</li> </ul>
system (Linear wired)
• 24 V emergency steering
Diesel particulate filter - DPF
EU Stage 5 diesel engine
Additional side view camera
Spare wheel







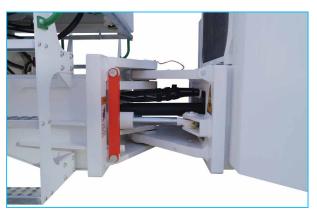
ROPS & FOPS level 2 certified, closed 24-person cabin



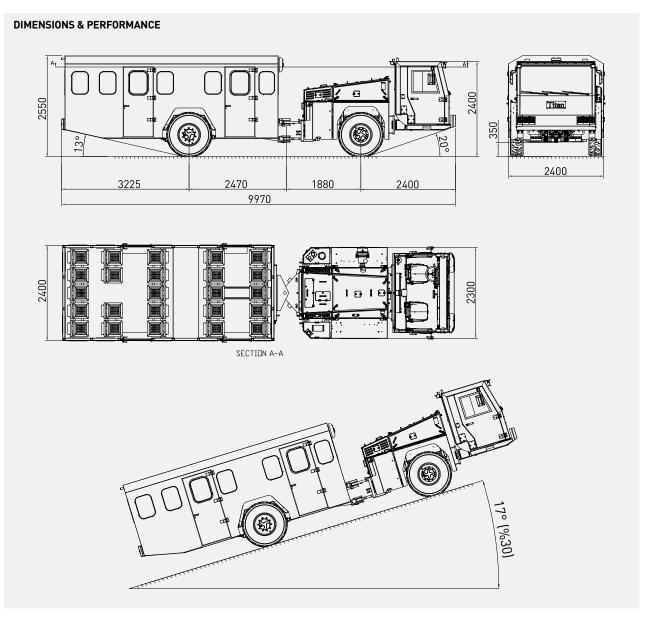
ROPS & FOPS level 2 certified closed 2-person cabin

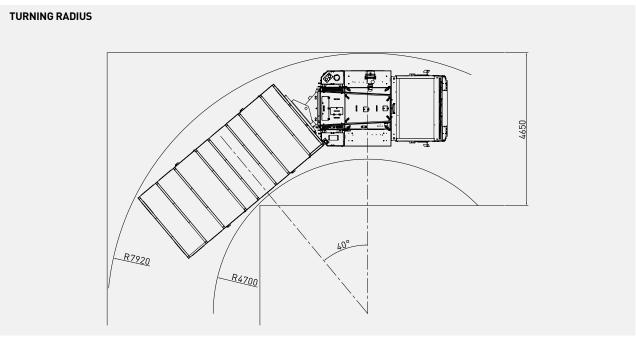


Rear view camera and LCD screen in operator cabin



High strength articulated chassis







DIESEL ENGINE				
Make / Model:	Deutz TCD 2013 L4 2V			
Max. Power:	129 kW at 2300 rpm			
Max. Torque:	670 Nm at 1600 rpm			
Engine Emission:	EU Stage 3A / US EPA Tier 3			
Diesel Tank:	140 l			
With Catalytic Converte	er and Silencer			
TRANSMISSION				
Make / Model:	Dana Spicer T24000			
	Powershift			
Autor	matic 3-speed forward and reverse			
	Four-wheel drive			
AXLES & TYRES				
Make / Model:	Dana Spicer 113			
Type:	Planetary			
Front:	+/- 8° Oscillating			
Rear:	Spring leaf + shock absorber			
Tyres:	12 00 – 20			
19163.	12.00 20			
PERFORMANCE				
Max. Gradient:	30%			
Max. Speed:	24.5 km/h			
Max. Speed: Max. Tractive Effort:	24.5 KHI/H			
Max. Iractive Effort:	122 KN			
STEERING				
SILLKINO	Articulation, +/- 40°			
	Orbitrol Type			
	Orbitiot Type			
BRAKING SYSTEM				
2	vdraulically powered two-circuit oil			
	rsed multidisc brakes in both axles			
Safety/Parking Brake:				
Salety/1 al killy blake.	hydraulic released SAHR			
	Fail safe			
	i dit sale			
CHASSIS				
	Articulated high strongth steel			
Туре:	Articulated, high strength steel			
HYDRAULIC SYSTEM				
	Fixed and variable displacement			
Pump Type: Max. Pressure:	Fixed and variable displacement			
Max. Pressure:	210 bar			
	120 l/min at 2300 rpm			
Hydraulic Oil Tank:	140 l			
Return Oil Filter:	25 μm			
Oil level, filtration and temperature indicators				

ELECTRIC SYSTEM	
Battery:	24 V – 2 x 105 Ah
Protection:	IP65
Lights: 6 x 1500 Lumen Led in	front of the operator cabin
2 x 1500 Lumen Led b	ehind of the operator cabin
	1500 Lumen Led at bumper
	Turn signals and taillights
Box Type:	Stainless steel
Beacon Lamp:	Amber color
·	
TITAN CLOSED OPERATOR CAB	IN
<ul> <li>Closed 2-person cabin</li> </ul>	
ROPS & FOPS level 2 certific	ed
(EN ISO 3471:2008 / EN ISO	3449:2008)
<ul> <li>Mechanical suspension with</li> </ul>	n manual tilt, weight, height
adjustable, "T" shaped seat	with 3-point seat belt
Cabin heater	
<ul> <li>Rear view camera and LCD:</li> </ul>	screen in operator cabin
<ul> <li>Levers and indicators for all</li> </ul>	driving controls
<ul> <li>In-Cabin radio output and lo</li> </ul>	cation (12V)
<ul> <li>Cabin lighting</li> </ul>	
<ul> <li>Heated wing mirrors</li> </ul>	
<ul> <li>Document box under the se</li> </ul>	at
<ul> <li>Equipment box</li> </ul>	
DIMENSIONS & WEIGHT	
Weight:	13650 kg (Approximately)
Length:	9970 mm
Width:	2400 mm
Height:	2550 mm
Inner Turning Radius:	4700 mm
Outer Turning Radius:	7920 mm
MISCALLANEOUS	
Warning plates and decals	
• Tool box	-b(1 :
• 2x4 kg portable fire extingui	sner (1 in operator cabin)
<ul><li>2 pcs Wheel chocks</li><li>Front towbar</li></ul>	
<ul><li>Back-up alarm and light</li><li>Battery isolator switch</li></ul>	
- Dattery Isolator Switch	

#### **TITAN CLOSED PERSONNEL CABIN** • Closed 24-person cabin • Automatic centralized lubrication system • ROPS & FOPS level 2 certified • Electrical outlet in the cabin 220 Volt - 150 Watt [EN ISO 3471:2008 / EN ISO 3449:2008] • Air-conditioner (Heating and Cooling) in the cabin • Height adjustable ergonomic seat with 2 points seat belt • Manual activated fire extinguishing system • Cabin heater • Automatic and Manual activated fire extinguishing • 4 Outward opening doors (Sliding windows on doors) system (Linear wired) • Mica glass windows • 24 V emergency steering • Ventilation in the cabin • Diesel particulate filter - DPF • Amber color beacon on cabin • EU Stage 5 diesel engine • Additional side view camera • Cabin lighting • Intercom between operator cabin and personnel cabin • Spare wheel • 2x4 kg portable fire extinguisher • Emergency exit windows on doors OTHER • Centralized greasing system

## **HG16**

**CONVEYOR BELT MAINTENANCE TRUCK** 

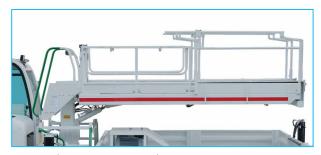




Cable or wireless remote control for all crane and cross-over platform  $% \left\{ \left( 1\right) \right\} =\left\{ \left( 1\right) \right$ 



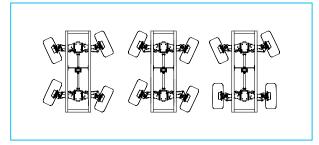
46 kNm lifting capacity, 4.9 m crane



4.5~m +/-  $9^{\circ}$  height adjustable +/-  $95^{\circ}$  pivotable telescopic platform



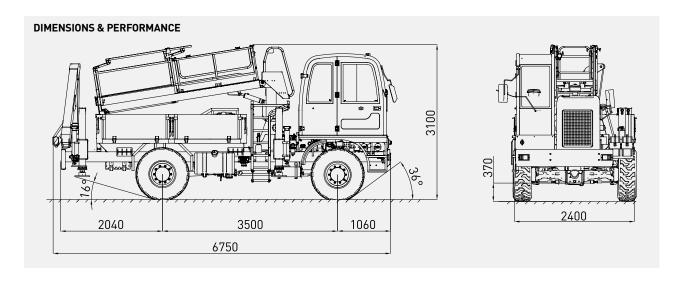
Closed cabin with 180° pivoting operator seat and ROPS & FOPS Level 2 certification



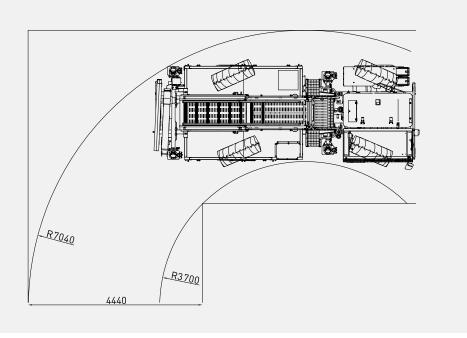
3 steering modes; Four-Weel Steering, Front-Wheel Steering and Crab Steering

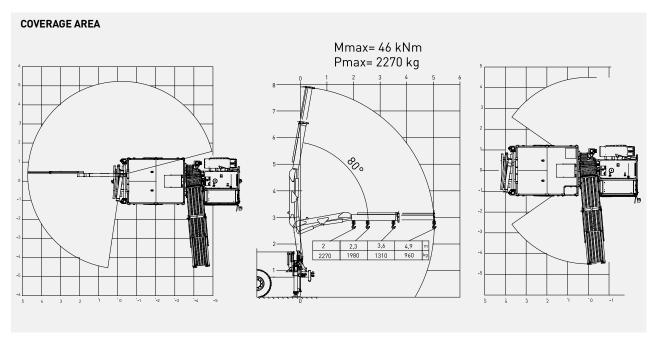


Rear view camera and LCD screen in operator cabin



#### **TURNING RADIUS**





#### **HG16**

DIESEL ENGINE				
Make / Model:	JCB Dieselmax 444 TCA-85			
Max. Power:	85 kW at 2200 rpm			
Max. Torque:	440 Nm at 1300 rpm			
Engine Emission:	EU Stage 3A / US EPA Tier 3			
Diesel Tank:	120 l			
With Catalytic Conve	rter and Silencer			
TRANSMISSION				
Make / Model:	JCB PS760			
	Powershift			
Au	tomatic and Manual 4-speed forward			
	Manual 3-speed reverse			
	Four-wheel drive			
AXLES & TYRES				
Make / Model:	JCB SD70			
Туре:	Planetary			
Front:	+/- 8° Oscillating and steerable			
Rear:	Rigid and steerable			
Tyres:	16.00 / 70-20			
PERFORMANCE				
Max. Gradient:	40%			
Max. Speed:	24.5 km/h			
STEERING				
	Four-wheel steering			
	Crab steering			
	Front-wheel steering			
BRAKING SYSTEM				
	Hydraulically powered two-circuit oil			
	nersed multidisc brakes in both axles			
Safety/Parking Brak	, , ,			
	hydraulic released SAHR			
	Fail safe			
OULACCIC				
CHASSIS	B: :11:1			
Туре:	Rigid, high strength steel			
HVDDAIII IO CVCTEM				
HYDRAULIC SYSTEM	F: 1 F 1			
Pump Type: Max. Pressure:	Fixed displacement			
	200 bar			
Flow Rate:	60 l/min at 2200 rpm			
Hydraulic Oil Tank:	120 l			
Return Oil Filter:	25 μm filtration and temperature indicators			

ELECTRIC SYSTEM	
Battery:	12 V - 150 Ah
Protection:	IP65
Lights:	2 x 1500 Lumen Led at front bumper
	2 x 1500 Lumen Led on operator cabin
	2 x 1500 Lumen Led at rear
	Turn signals and taillights
Beacon Lamp:	Amber color
TITAN CLOSED OP	ERATOR CABIN
Closed 1-person	on cabin
	S level 2 certified
,	2008 / EN ISO 3449:2008)
	spension with manual tilt, weight, height
-	0° pivotable ergonomic seat with seat belt
Cabin heater	icators for all drive control
	output and location (12V)
Cabin lighting	output and tocation (12v)
Heated wing m	irrors
ricated wing ii	
DIMENSIONS & WE	EIGHT
Weight:	9350 kg (Approximately)
Length:	6750 mm
Width:	2400 mm
Height:	3100 mm
Inner Turning Ra	dius: 3700 mm
Outer Turning Ra	adius: 7040 mm
ACCESSORIES	
Warning signs	
	e fire extinguisher
<ul><li>2 pcs Wheel ch</li><li>Front and rear</li></ul>	
Rear light and	
Battery Isolato	
Battery Isotato	. Switch
COMPRESSOR	
• 750 l/min – 11	bar screw compressor
CRANE	
<ul> <li>46 kNm Crane</li> </ul>	(4.9 m / 960 kg)
CROSS-OVER PLAT	
•	e telescopic platform
• 4.5 m long	Ca. b.l.
• +/- 9° height ac	justable

### OTHER • Centralized greasing system • EN19296 certified OPTIONS • Automatic lubrication (Greasing) system • Air-conditioner (Heating and Cooling) in the cabin • Manual activated fire extinguishing system • Automatic and manual activated fire extinguishing system (Linear wired) • Caliper brake system • 2nd seat in the cabin • 24 V emergency steering • EU Stage 5 diesel engine • Rear view camera and LCD monitor in operator cabin • Additional side view camera • Wireless remote control for crane and platform movement • Spare wheel

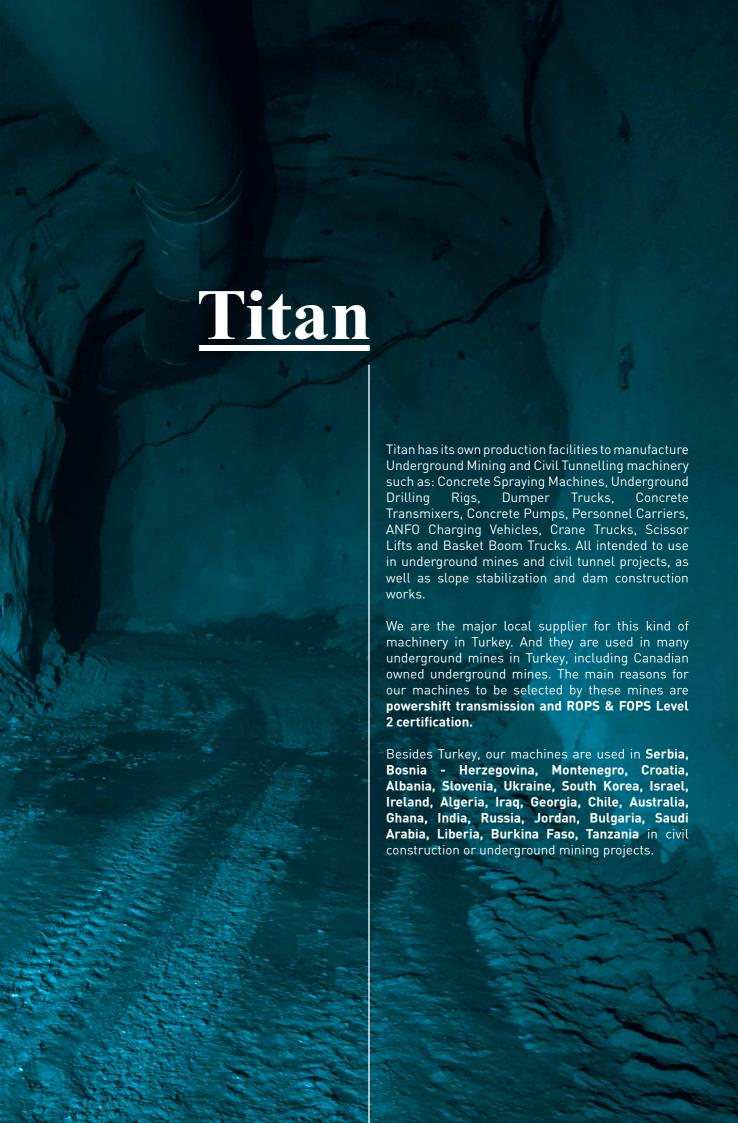
#### **NOTES**





# CONSTRUCTION UTILITY VEHICLES





## **Titan**

**IS26**CONCRETE SPRAYING MACHINE



**IS21**CONCRETE SPRAYING MACHINE



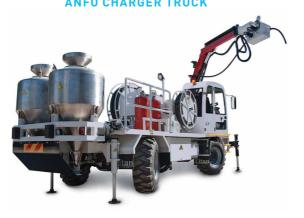
TM05
CONCRETE TRANSMIXER



YTM05



**AC500** 



EC2X350



# **TITAN CONSTRUCTION UTILITY VEHICLES**







VK10
CRANE TRUCK















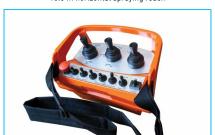
Robust manipulator with 13.5 m vertical and 10.8 m horizontal spraying reach



 $350^{\circ}$  rotation +/-135° tilt and 8° oscillation spraying head



Peristaltic hose pump driven by 1.5 kW electric motor



Cable or wireless remote control for all nozzle, manipulator, dosing and concrete pump functions



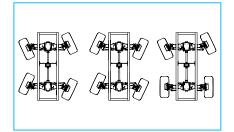
Titan concrete pump with casted body hopper and hydraulic vibrator



135 bar – 16 l/min high pressure washer



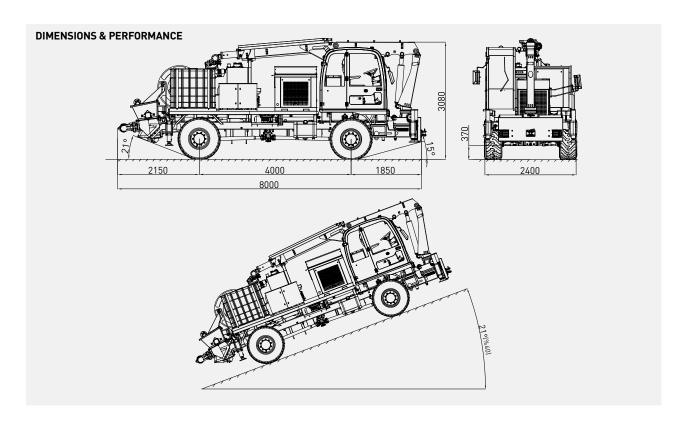
Control panel push buttons and indicating lights for concrete and dosing functions (PLC system is optional)



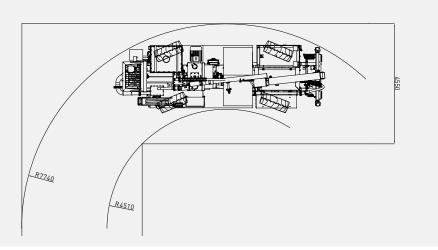
3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering

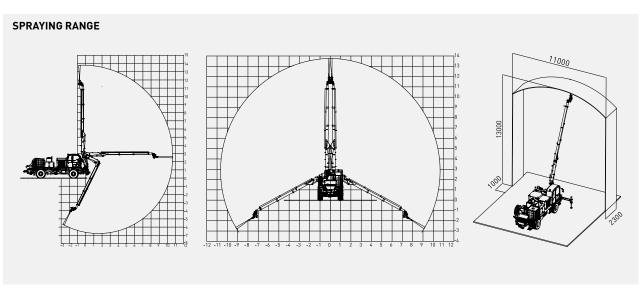


ROPS and FOPS level 2 certified closed operator cabin with  $180^{\rm o}{\rm pivoting}$  operator's seat



#### **TURNING RADIUS**





DIEGEL ENGINE			
DIESEL ENGINE	100 01 1 1/1/201 05		
Make / Model:	JCB Dieselmax 444 TCA-85		
Max. Power:	85 kW at 2200 rpm		
Max. Torque:	440 Nm at 1300 rpm		
Engine Emission:	EU Stage 3A / US EPA Tier 3		
Diesel Tank:	80 L		
With Catalytic Converte	r and Silencer		
TRANSMISSION	100 007/0		
Make / Model:	JCB PS760		
	Powershift		
Auton	natic and Manual 4-speed forward		
	Manual 3-speed reverse		
	Four-wheel drive		
AVI <b>EG</b> 6 <b>E</b> VE = 6			
AXLES & TYRES			
Make / Model:	JCB SD70		
Туре:	Planetary		
Front Axle:	+/- 8° Oscillating and steerable		
Rear Axle:	Rigid and steerable		
Tyres:	16.00 / 70-20		
PERFORMANCE			
Max. Gradient:	40%		
Max. Speed:	24.5 km/h		
STEERING			
	Four-wheel steering		
	Crab steering		
	Front-wheel steering		
BRAKING SYSTEM			
	draulically powered two-circuit oil		
	sed multidisc brakes in both axles		
Safety/Parking Brake:	Spring applied		
	hydraulic released SAHR		
	Fail safe		
CHACCIC			
CHASSIS	Dialah binb sansa di sa		
Type: Front Stabilisers:	Rigid, high strength steel		
	2 pos, externansts		
Rear Stabilisers:	2 pcs, fixed		
HYDRAULIC SYSTEM			
	Fixed and vaniable disclasses		
Pump Type:	Fixed and variable displacement		
Max. Pressure:	210 bar		
Flow Rate:	290 l/min at 1450 rpm		
Hydraulic Oil Tank:	325 l		
Return Oil Filter:	20 µm		

ELECTRIC SYSTEM	
Battery:	12 V - 150 Ah
Protection:	IP65
Lights:	2 x 1500 Lumen Led at front bumper
	1 x 1500 Lumen Led on operator cabin
	1 x 1500 Lumen Led at rear
	4 x 1500 Lumen Led on boom
	1 x 1500 Lumen Led on hopper
	Turn signals and taillights
Beacon Lamp:	Amber color
TITAN CLOSED OPE	RATOR CABIN
<ul> <li>Closed 1-persor</li> </ul>	ı cabin
ROPS and FOPS	S level 2 certified
• • • • • •	08 / EN ISO 3449:2008)
	pension with manual tilt, weight, height
-	pivotable ergonomic seat with seat belt
Cabin heater	
	eators for all driving controls
	utput and location (12V)
Cabin lighting	
Heated wing min     Transparent pro	
• Iransparent pro	tection plate on the windshield
DIMENSIONS & WEI	GHT
Weight:	12600 kg (Approximately)
Length:	8000 mm
Width:	2400 mm
Height:	3080 mm
Inner Turning Rad	ius: 4510 mm
Outer Turning Rad	lius: 7740 mm
MISCALLANEOUS	
Warning plates a	and decals
• Tool box	
• 2x4 kg portable	<u> </u>
<ul><li>2 pcs Wheel cho</li><li>Front towbar</li></ul>	CKS
	and light
<ul><li>Back-up alarm a</li><li>Battery Isolator</li></ul>	· ·
• Battery Isotator	SWILCII
MANIPULATOR	
Max. Spray Reach	at Vertical: 13.5 m
Max. Spray Reach	at Horizontal: 10.8 m
SPRAYING HEAD	
Rotation:	350°
Tilt:	+/- 135°
Oscillation:	8°

#### **CONCRETE PUMP**

Make / Model: Titan hydraulically driven double piston pumpMax. Capacity:34 m³/h [Theoretical]Concrete Cylinder:180 x 1000 mmMax. Concrete Pressure:50 barMax. Hydraulic Pressure:210 barHopper Volume:250 lConcrete Line Diameter:5" - 4" - 3 1/4"

Hydraulic vibrator on hopper grate
Hydraulically controlled shutter at bottom (hopper flush)

#### **POWER PACK**

- 1470 rpm Electric motor
- 55kW 400V 50Hz IP55
- Diesel engine PTO driven hydraulic system for cleaning against power cut

#### **CABLE REEL**

Drive:	Hydraulic
Power:	400 V 50 Hz
Cable Length:	50 m
Cable Cross Section:	3 x 70 mm <sup>2</sup> + 35 mm <sup>2</sup>

#### **CABLE REMOTE CONTROL**

Type: Cable Cable Length: 15 m

#### Specifications:

- All nozzle and manipulator movements
- Nozzle oscillation
- Air line on/off
- Dosing on/off
- Dosing flow rate adjustment
- Concrete pumping/reverse
- Emergency stop
- Horn

#### COMPRESSOR

Ekomak
Electric screw compressor
55 kW
10.2 m³/min
6 bar
1.1 kW

#### **DOSING SYSTEM**

Type: Frequency convertor controlled electric driven piston pump
Power: 1.5 kW
Max. Flow Rate: 600 l/h
Max. Working Pressure: 8 bar
Additive Tank: 1000 l

#### HIGH PRESSURE WASHING SYSTEM

Pump Drive:	Hydraulic
Pressure:	135 bar
Flow Rate:	16 l/min
Hose Length:	10 m
Water Tank:	300 I

#### OTHER

• Centralized greasing system

- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Wireless remote control
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- Stainless steel electrical box
- Stainless steel additive tank
- Stainless steel additive line
- Stainless collector box
- PLC Concrete and dosage control system
- PLC Concrete and dosage monitoring system
- Placing rubber on the cabin roof to protect against corrosion from rebound deposition (Standarts B33)
- High pressure wall washing kit (water scaler)
- Form oil system
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel

# **IS21**

#### **CONCRETE SPRAYING MACHINE**





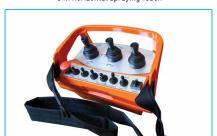
Robust manipulator with 10 m vertical and 8 m horizontal spraying reach



 $350^{\circ}$  rotation +/-135° tilt and 8° oscillation spraying head



Peristaltic hose pump driven by 1.5 kW electric motor



Cable or wireless remote control for all nozzle, manipulator, dosing and concrete pump functions



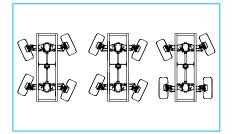
Titan concrete pump with casted body hopper and hydraulic vibrator



135 bar – 16 l/min high pressure washer



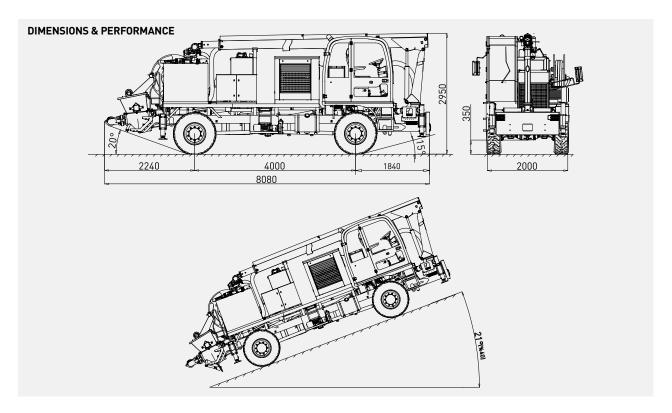
Control panel push buttons and indicating lights for concrete and dosing functions (PLC system is optional)

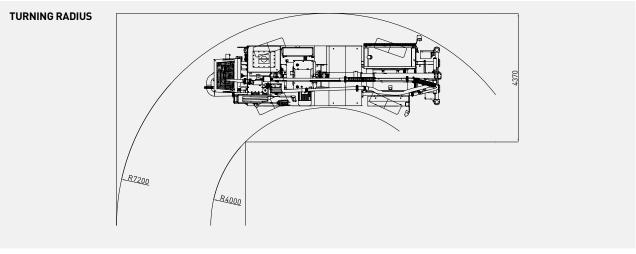


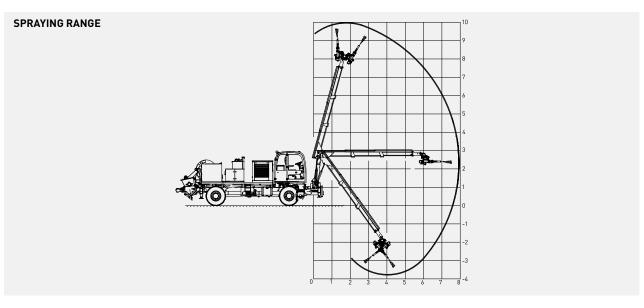
3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with  $180^{\rm o}{\rm pivoting}$  operator's seat









DIESEL ENGINE		
Make / Model:	ICD Discolatory /// TCA 95	
	JCB Dieselmax 444 TCA-85	
Max. Power:	85 kW at 2200 rpm	
Max. Torque:	440 Nm at 1300 rpm	
Engine Emission:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	80 L	
With Catalytic Converte	r and Silencer	
TRANSMISSION		
TRANSMISSION Make / Model:	JCB PS760	
make / model:	Powershift	
A i	1 01101011111	
Auton	natic and Manual 4-speed forward	
	Manual 3-speed reverse	
	Four-wheel drive	
AXLES & TYRES		
Make / Model:	IOD CDEE	
	JCB SD55	
Type:	Planetary	
Front Axle: Rear Axle:	+/- 8° Oscillating and steerable	
	Rigid and steerable	
Tyres:	12.5-20 / 10-20	
DEDECRMANCE		
PERFORMANCE	4004	
Max. Gradient:	40%	
Max. Speed:	24.5 km/h	
CTEEDING		
STEERING	Farm wheel stands a	
	Four-wheel steering	
	Crab steering Front-wheel steering	
	Front-wheet steering	
BRAKING SYSTEM		
	draulically powered two-circuit oil	
	sed multidisc brakes in both axles	
Safety/Parking Brake:	Spring applied	
Salety/Falking blake.	hydraulic released SAHR	
	Fail safe	
	rait sale	
CHASSIS		
Туре:	Rigid, high strength steel	
Front Stabilisers:	2 pcs, extendible	
Rear Stabilisers:	2 pcs, fixed	
near Stabilisers:	2 pcs, lived	
HYDRAULIC SYSTEM		
Pump Type:	Fixed and variable displacement	
Max. Pressure:	210 bar	
Flow Rate:	290 l/min at 1450 rpm	
Hydraulic Oil Tank:	325 l	
Return Oil Filter:		
Retuin Oit Fitter:	20 μm	

ELECTRIC SYSTEM	
Battery:	12 V - 150 Ah
Protection:	IP65
Lights:	2 x 1500 Lumen Led at front bumper
	1 x 1500 Lumen Led on operator cabin
	1 x 1500 Lumen Led at rear
	4 x 1500 Lumen Led on boom
	1 x 1500 Lumen Led on hopper
	Turn signals and taillights
Beacon Lamp:	Amber color
TITAN CLOSED OPER	RATOR CABIN
<ul> <li>Closed 1-person</li> </ul>	
ROPS and FOPS	
(=::::=::::::::::::::::::::::::::::::::	08 / EN ISO 3449:2008)
	ension with manual tilt, weight, height
-	pivotable ergonomic seat with seat belt
Cabin heater	-k-u-f-u-ll-duisi-u-s-ku-l-
	ators for all driving controls utput and location (12V)
Cabin lighting	itput and tocation (12v)
Heated wing mir	rors
	tection plate on the windshield
manoparoni pro-	ostion plate on the minacineta
DIMENSIONS & WEI	ЭНТ
DIMENSIONS & WEIGHT:	GHT 11000 kg (Approximately)
Weight:	11000 kg (Approximately) 8080 mm 2000 mm
Weight: Length: Width: Height:	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm
Weight: Length: Width: Height: Inner Turning Rad	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm
Weight: Length: Width: Height:	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm
Weight: Length: Width: Height: Inner Turning Rad	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm
Weight: Length: Width: Height: Inner Turning Rad Outer Turning Rad	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad MISCALLANEOUS • Warning plates a	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Rad Outer Turning Rad MISCALLANEOUS  • Warning plates a • Tool box	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Rad Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Rad Outer Turning Rad MISCALLANEOUS  • Warning plates a • Tool box	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable for	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm itus: 7200 mm and decals irre extinguisher cks
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f • 2 pcs Wheel cho • Front towbar	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f • 2 pcs Wheel cho • Front towbar  • Back-up alarm a	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f • 2 pcs Wheel cho • Front towbar  • Back-up alarm a	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f • 2 pcs Wheel cho • Front towbar  • Back-up alarm a • Battery Isolator  MANIPULATOR Max. Spray Reach	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm 4000 mm ius: 4000 mm interpretation 7200 mm and decals irre extinguisher cks and light switch 10 m
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable a • 2 pcs Wheel cho • Front towbar  • Back-up alarm a • Battery Isolator	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm 4000 mm ius: 4000 mm interpretation 7200 mm and decals irre extinguisher cks and light switch 10 m
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Rad  MISCALLANEOUS  • Warning plates a • Tool box  • 2x4 kg portable f • 2 pcs Wheel cho • Front towbar  • Back-up alarm a • Battery Isolator  MANIPULATOR Max. Spray Reach Max. Spray Reach	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm 4000 mm ius: 4000 mm interpretation 7200 mm and decals irre extinguisher cks and light switch 10 m
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Radi Outer Turning Radi  **MISCALLANEOUS**  **Warning plates at a tool box**  **2 yes Wheel cho**  **Front towbar**  **Back-up alarm at a tool back-up at a tool bac	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm  and decals irre extinguisher cks and light switch  at Vertical: 10 m at Horizontal: 8 m
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Radi Outer Turning Radi  MISCALLANEOUS  Warning plates a Tool box 2x4 kg portable fo pront towbar Back-up alarm a Battery Isolator  MANIPULATOR Max. Spray Reach Max. Spray Reach Max. Spray Reach	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm 4000 mm ius: 4000 mm ind decals irre extinguisher cks and light switch  at Vertical: 10 m at Horizontal: 8 m
Weight: Length: Width: Height: Inner Turning Radi Outer Turning Radi Outer Turning Radi  **MISCALLANEOUS**  **Warning plates at a tool box**  **2 yes Wheel cho**  **Front towbar**  **Back-up alarm at a tool back-up at a tool bac	11000 kg (Approximately) 8080 mm 2000 mm 2950 mm ius: 4000 mm ius: 7200 mm  and decals irre extinguisher cks and light switch  at Vertical: 10 m at Horizontal: 8 m

#### **CONCRETE PUMP**

Make / Model: Titan hydraulically driven double piston pumpMax. Capacity:34 m³/h (Theoretical)Concrete Cylinder:180 x 1000 mmMax. Concrete Pressure:50 barMax. Hydraulic Pressure:210 barHopper Volume:250 lConcrete Line Diameter:5" - 4" - 3 1/4"

Hydraulic vibrator on hopper grate
Hydraulically controlled shutter at bottom (hopper flush)

#### **POWER PACK**

- 1470 rpm Electric motor
- 55kW 400V 50Hz IP55
- Diesel engine PTO driven hydraulic system for cleaning against power cut

#### **CABLE REEL**

Drive:	Hydraulic
Power:	400 V 50 Hz
Cable Length:	50 m
Cable Cross Section:	3 x 70 mm <sup>2</sup> + 35 mm <sup>2</sup>

#### **CABLE REMOTE CONTROL**

Type: Cable Cable Length: 15 m

#### Specifications:

- All nozzle and manipulator movements
- Nozzle oscillation
- Air line on/off
- Dosing on/off
- Dosing flow rate adjustment
- Concrete pumping/reverse
- Emergency stop
- Horn

#### COMPRESSOR

Ekomak
Electric screw compressor
55 kW
10.2 m³/min
6 bar
1.1 kW

#### **DOSING SYSTEM**

Type: Frequency convertor controlled electric driven piston pump
Power:
1.5 kW
Max. Flow Rate:
600 l/h
Max. Working Pressure:
8 bar
Additive Tank:
1000 l

#### HIGH PRESSURE WASHING SYSTEM

Pump Drive:	Hydraulic
Pressure:	135 bar
Flowrate in Flow Rate:	16 l/min
Hose Length:	10 m
Water Tank:	300 1

#### **OTHER**

• Centralized greasing system

- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Wireless remote control
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- Stainless steel electrical box
- Stainless steel additive tank
- Stainless steel additive line
- Stainless collector box
- PLC Concrete and dosage control system
- PLC Concrete and dosage monitoring system
- Placing rubber on the cabin roof to protect against corrosion from rebound deposition (Standarts B33)
- High pressure wall washing kit (water scaler)
- Form oil system
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel



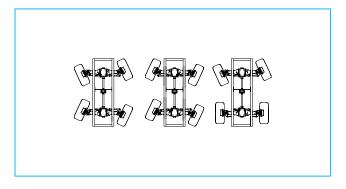




Tough drum with 5  $\mathrm{m^3}$  concrete yield



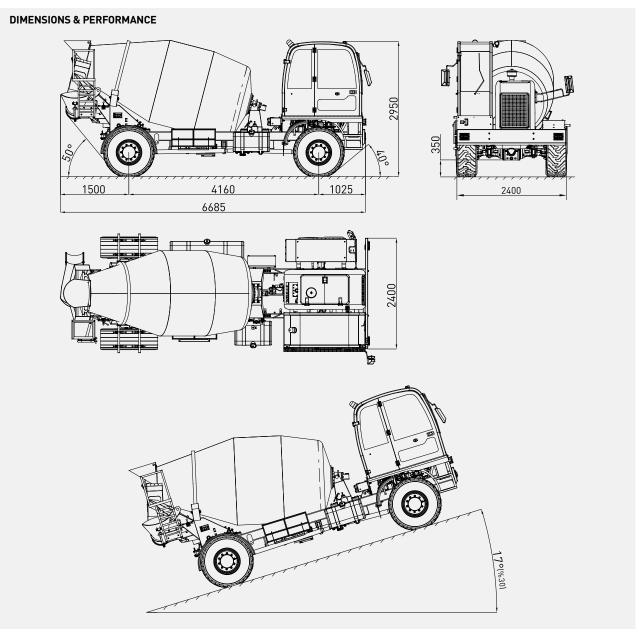
Rear view camera and LCD screen in operator cabin

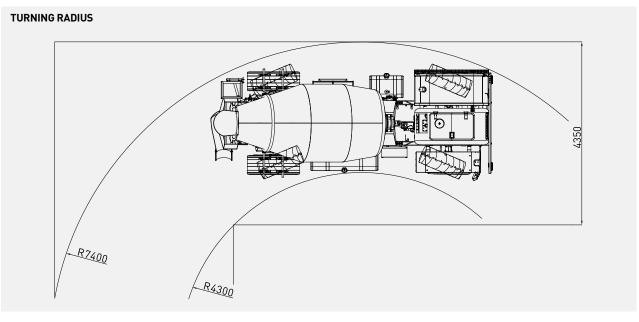


 ${\tt 3}$  steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat







DIESEL ENGINE		
Make / Model:	JCB Dieselmax 444 TCA-85	
Max. Power:		
Max. Torque:	85 kW at 2200 rpm	
•	440 Nm at 1300 rpm	
Engine Emission:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	160 l	
With Catalytic Conve	rter and Silencer	
TRANSMISSION		
Make / Model:	JCB PS760	
riuke / rioueti	Powershift	
Aur	tomatic and Manual 4-speed forward	
Au	Manual 3-speed reverse	
	Four-wheel drive	
	Four-wheet drive	
AXLES & TYRES		
Make / Model:	JCB SD70	
Type:	Planetary	
Front Axle:	+/- 8° Oscillating and steerable	
Rear Axle:	Rigid and steerable	
Tyres:	16.00 / 70-20	
Tyres:	16.00 / 70-20	
PERFORMANCE		
Max. Gradient:	30%	
Max. Speed:	24.5 km/h	
Max. Speeu.	24.3 KIII/II	
STEERING		
JIEERING	Four-wheel steering	
	Crab steering	
	Front-wheel steering	
	Tronc wheet steering	
BRAKING SYSTEM		
Service Brake:	Hydraulically powered two-circuit oil	
imm	nersed multidisc brakes in both axles	
Safety/Parking Bral	<b>ke:</b> Spring applied	
	hydraulic released SAHR	
	Fail safe	
CHASSIS		
Type:	Rigid, high strength steel	
	3 , 3 , 3	
HYDRAULIC SYSTEM		
Pump Type: Variab	le displacement piston and gear pump	
Max. Pressure:	210 bar	
Flow Rate:	160 l/min at 2200 rpm	
Hydraulic Oil Tank:	105 l	
Return Oil Filter:	25 μm	
	filtration and temperature indicators	
Oit tevet,	2 and temperature maleutors	

ELECTRIC SYSTEM	1	
Battery:		12 V - 150 Ah
Protection:		IP65
Lights:	2 x 1500 Lumen Led at	front bumper
<b></b>	1 x 1500 Lumen Led on o	
	1 x 1500 Lumen Led a	•
		s and taillights
Beacon Lamp:		Amber color
TITAN CLOSED OP	ERATOR CABIN	
• Closed 1-pers	on cabin	
ROPS and FOI	PS level 2 certified	
(EN ISO 3471:2	2008 / EN ISO 3449:2008)	
<ul> <li>Mechanical su</li> </ul>	spension with manual tilt,	weight, height
adjustable, 18	o° pivotable ergonomic sea	at with seat belt
Cabin heater		
<ul> <li>Levers and inc</li> </ul>	licators for all driving cont	rols
• In-cabin radio	output and location (12V)	
<ul> <li>Cabin lighting</li> </ul>		
<ul> <li>Heated wing m</li> </ul>	nirrors	
DIMENSIONS & WI	EIGHT	
Weight:	7100 kg ( <i>A</i>	Approximately)
Length:		6685 mm
Width:		2400 mm
Height:		2950 mm
Inner Turning Ra		4300 mm
Outer Turning Ra	adius:	7400 mm
MISCALLANEOUS		
Warning plate:     To the second	s and decals	
Tool box		
	e fire extinguisher	
• 2 pcs Wheel ch		
Front and rear      Pack up along		
Back-up alarm     Battany Isolata	-	
<ul><li>Battery Isolato</li><li>2 additional gr</li></ul>		
2 additional gr	oove	
CONCRETE DRUM		
Drum Volume:		7.2 m³
	apacity (at 9 cm slump):	5 m <sup>3</sup>
Drive:		Hydraulic
Adjustable Rotat	ing Speed:	0-18 rpm
1 Lid for cleaning		
	, itrolled ecological cover ar	nd gutter
Hopper breaking		
Concrete drain o		

IGH PRESSURE WASHING SYSTEM		OPTIONS
Pump Drive:	Hydraulic	Automatic centralized lubrication system
Pressure:	135 bar	Air-conditioner (Heating and Cooling) in the cabin
Flow Rate:	16 l/min	<ul> <li>Manual activated fire extinguishing system</li> </ul>
Hose Length	13 m	Automatic and manual activated fire extinguishing
Water Tank:	300 l	system (Linear wired)
		Caliper brake system
THER		• 2 <sup>nd</sup> seat in the cabin
Centralized greasing system		12 V emergency steering
		Diesel particulate filter - DPF
		EU Stage 5 diesel engine
		Rear view camera and LCD monitor in operator cabin
		Additional side view camera
		Form oil system
		Spare wheel







Horizontal drum with 5 m³ concrete yield



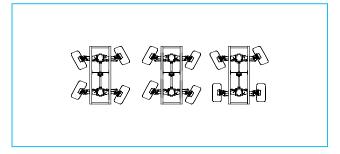
Hydraulic drum tilting up to 8°



Locked type battery isolator switch



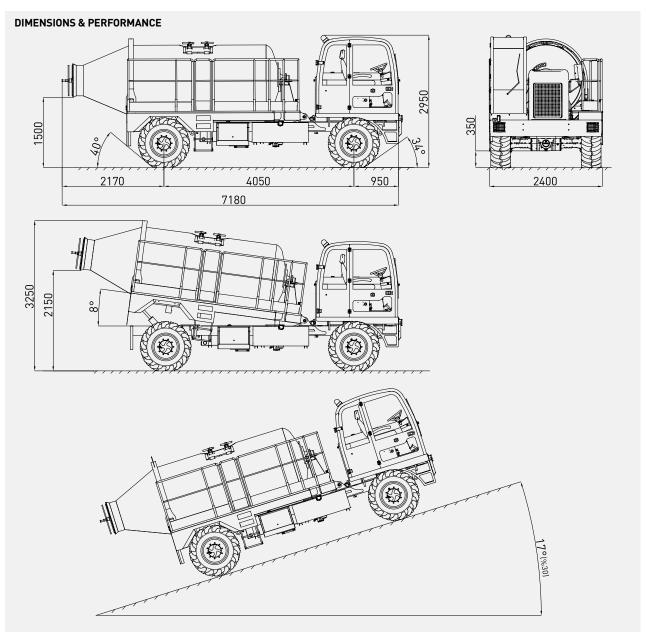
Rear view camera and LCD screen in operator cabin

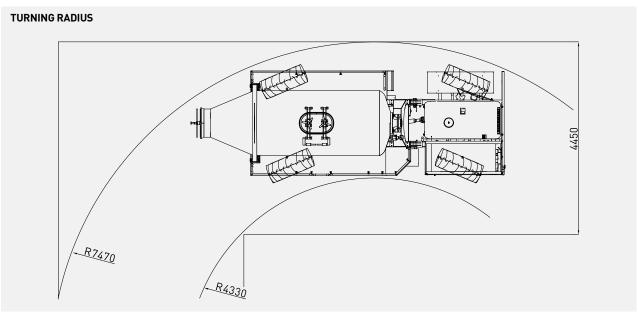


 ${\bf 3}$  steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat







DIESEL ENGINE	
	ICD Discolar and /// TCA OF
Make / Model:	JCB Dieselmax 444 TCA-85
Max. Power:	85 kW at 2200 rpm
Max. Torque:	440 Nm at 1300 rpm
Engine Emission	g .
Diesel Tank:	140 L
With Catalytic Co	nverter and Silencer
TRANSMISSION	
TRANSMISSION	IOD DCT/O
Make / Model:	JCB PS760
	Powershift
	Automatic and Manual 4-speed forward
	Manual 3-speed reverse
	Four-wheel drive
AVI EC O TVDEC	
AXLES & TYRES	D C : 000
Make / Model:	Dana Spicer 223
Type:	Planetary
Front Axle:	+/- 8° Oscillating and steerable
Rear Axle:	Rigid and steerable
Tyres:	18-19.5
DEDECENALIZE	
PERFORMANCE	2004
Max. Gradient:	30%
Max. Speed:	24.5 km/h
STEERING	
STEERING	Four-wheel steering
	Crab steering
	Front-wheel steering
	Front-wheet steering
BRAKING SYSTEM	
Service Brake:	Hydraulically powered two-circuit oil
	mmersed multidisc brakes in both axles
Safety/Parking B	
	hydraulic released SAHR
	Fail safe
	, an suite
CHASSIS	
Туре:	Rigid, high strength steel
HYDRAULIC SYSTE	:M
Pump Type: Va	riable displacement piston and gear pump
Max. Pressure:	210 bar
Flow Rate:	160 l/min at 2200 rpm
Hydraulic Oil Tan	k: 105 l
Return Oil Filter:	25 μm
Oille	vel, filtration and temperature indicators

ELECTRIC SYSTEM	ı	
Battery:	•	12 V - 150 Ah
Protection:		IP65
Lights:	2 x 1500 Lumen I	_ed at front bumper
		d on operator cabin
		Led at rear bumper
		ignals and taillights
Beacon Lamp:		Amber color
•		
TITAN CLOSED OP	ERATOR CABIN	
Closed 1-perso	on cabin	
<ul> <li>ROPS and FOP</li> </ul>	S level 2 certified	
(EN ISO 3471:2	008 / EN ISO 3449:20	008)
Mechanical su	spension with manua	al tilt, weight, height
adjustable, 180	)° pivotable ergonom	ic seat with seat belt
<ul> <li>Cabin heater</li> </ul>		
<ul> <li>Levers and ind</li> </ul>	icators for all driving	controls
• In-cabin radio	output and location (	12V)
<ul> <li>Cabin lighting</li> </ul>		
<ul> <li>Heated wing m</li> </ul>	nirrors	
DIMENSIONS & WE		
Weight:	8600	kg (Approximately)
Max. Weight:		20600 kg
Length:		7180 mm
Width:		2400 mm
Height:	.d:a	2950 mm 4330 mm
Inner Turning Ra Outer Turning Ra		7470 mm
Outer rurning Ke	iuius.	7470 111111
MISCALLANEOUS		
Warning plates	and decals	
Tool box		
	e fire extinguisher	
• 2 pcs Wheel ch	•	
Front and rear	towbar	
Back-up alarm	and light	
Battery Isolato	r switch	
CONCRETE DRUM		
Drum Volume:		6.25 m <sup>3</sup>
Max. Concrete Ca	apacity (at 9 cm slum	<b>1p):</b> 5 m³
Drive:		Hydraulic
Drum Tilt Angle:		8°
Adjustable Rotat	ing Speed:	0-18 rpm
Manual filling ha		
Hopper breaking	•	
Concrete drain co	over	

HIGH PRESSURE WASHING SYSTEM		OPTIONS
Pump Drive:	Hydraulic	Automatic centralized lubrication system
Pressure:	135 bar	Air-conditioner (Heating and Cooling) in the cabin
Flow Rate:	16 l/min	Manual activated fire extinguishing system
Hose Length	13 m	Automatic and manual activated fire extinguishing
Water Tank:	300 l	system (Linear wired)
		Caliper brake system
OTHER		• 2 <sup>nd</sup> seat in the cabin
Centralized greasing system		12 V emergency steering
g. sasing system		Diesel particulate filter - DPF
		EU Stage 5 diesel engine
		Rear view camera and LCD monitor in operator cabin
		Additional side view camera
		Spare wheel
		- Spare wheet





2 pcs remote controlled, hydraulically driven ANFO charging hose feeder



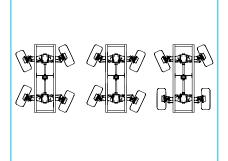
2 x 500 l stainless steel ANFO tanks



Hydraulically driven ANFO charging hose reel



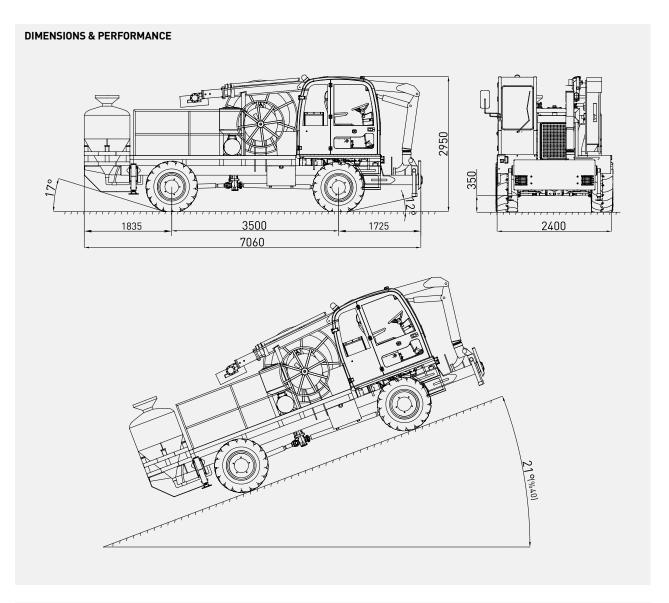
Cable remote control

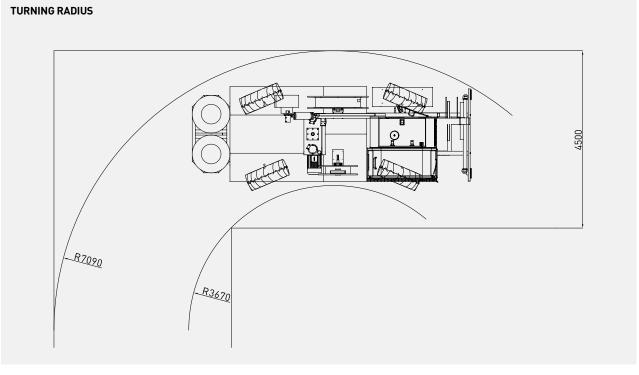


3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat







DIESEL ENGINE	
Make / Model:	JCB Dieselmax 444 TCA-85
Max. Power:	85 kW at 2200 rpm
Max. Torque:	440 Nm at 1300 rpm
Engine Emission:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	140 l
With Catalytic Converte	er and Silencer
TRANSMISSION	
Make / Model:	JCB PS760
Make / Model:	Powershift
A.,,	
Autor	matic and Manual 4-speed forward
	Manual 3-speed reverse Four-wheel drive
	Four-wheet drive
AXLES & TYRES	
Make / Model:	JCB SD70
Type:	Planetary
Front Axle:	+/- 8° Oscillating and steerable
Rear Axle:	Rigid and steerable
Tyres:	16.00 / 70-20
Tyres.	10.00 / 70-20
PERFORMANCE	
Max. Gradient:	40%
Max. Speed:	24.5 km/h
нах. эреец.	24.3 KIII/II
STEERING	
	Four-wheel steering
	Crab steering
	Front-wheel steering
BRAKING SYSTEM	
Service Brake: Hy	draulically powered two-circuit oil
immer	rsed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
	hydraulic released SAHR
	Fail safe
CHASSIS	
Type:	Rigid, high strength steel
Front Stabilisers:	2 pcs, extendible
Rear Stabilisers:	2 pcs, fixed
HYDRAULIC SYSTEM	
Pump Type: Variable d	isplacement piston and gear pump
Max. Pressure:	210 bar
Flow Rate:	150 l/min at 2200 rpm
Hydraulic Oil Tank:	200 Լ
Return Oil Filter:	25 μm

ELECTRIC SYSTEM	
Battery:	12 V - 150 Ah
Protection:	IP65
Lights: 2 x 15	500 Lumen Led at front bumper
2 x 150	0 Lumen Led on operator cabin
	1 x 1500 Lumen Led at rear
	1 x 1500 Lumen Led on boom
	Turn signals and taillights
Beacon Lamp:	Amber color
TITAN CLOSED OPERATOR	CABIN
• Closed 1-person cabin	
<ul> <li>ROPS and FOPS level 2</li> </ul>	certified
(EN ISO 3471:2008 / EN	ISO 3449:2008)
<ul> <li>Mechanical suspension</li> </ul>	with manual tilt, weight, height
adjustable, 180° pivotab	ole ergonomic seat with seat belt
Cabin heater	
Levers and indicators for	-
In-cabin radio output ar	nd location (12V)
Cabin lighting	
<ul> <li>Heated wing mirrors</li> </ul>	
DIMENSIONS O WEIGHT	
DIMENSIONS & WEIGHT	0000 ( (
Weight:	8800 kg (Approximately)
Length: Width:	7060 mm 2400 mm
Height:	2400 mm
Inner Turning Radius:	3670 mm
Outer Turning Radius:	7090 mm
outer running Ruunus.	7676 11111
MISCALLANEOUS	
Warning plates and dec	als
2x4 kg portable fire exti	
• 2 pcs Wheel chocks	
Front and rear towbar	
Back-up alarm and ligh	t
Battery Isolator switch	
ANFO TANK	
ANFO Tank Capacity:	2 x 500 l
Charging Capacity:	60 – 120 kg/min
Charging Outlet:	1 1/4"
Air Requirement:	4 – 6 m³/min at 6 – 7 bar
ANFO Tank Type:	Stainless steel
ANFO Hose:	Antistatic, 30/38 mm diameter
ANFO Hose Total Length:	50 m
Flow Control Valves:	Manual ball valve

Remote control actuator valve

Hose cleaning valve

#### **EXPOLSIVE STORAGE BOX**

2 pcs Antistatic storage box for caps and primary explosives

#### **HOSE FEEDER**

- 2 pcs Hydraulically driven ANFO hose feeder. One on board, one on manipulator
- Hydraulically driven winder and unwinder
- Hydraulically proportional hose feed speed
- Remote controlled hose speed between 5 20 m/min

#### ANFO CHARGING HOSE REEL

- Proportional, hydraulically driven
- 60 m ANFO charging hose reel

#### **ELECTRIC CABLE**

 Drive:
 Hydraulic

 Power:
 400 V - 50 Hz

 Cable:
 3 x 25 mm² + 15 mm²

#### **MANIPULATOR**

Max. Reach Vertical:9.6 mMax. Reach Horizontal:6.8 m

#### **CABLE REMOTE CONTROL**

#### Specifications:

- All manipulator movements
- Hose feed
- Hose winder
- Proportional hose feeding speed
- ANFO charge on/off
- Hose length indicator
- Emergency stop
- Horn

#### OTHER

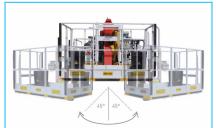
• Centralized greasing system

- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel

# EC2X350

**ANFO CHARGER TRUCK** 





Basket swing +/- 45°



2 x 350 l capacity ANFO tank



ANFO hose reel



Robust boom



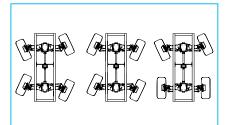
3.5 m³/min – 7 bar – 23 kW hydraulic driven screw compressor



Boom, basket and stabilizers manual controls



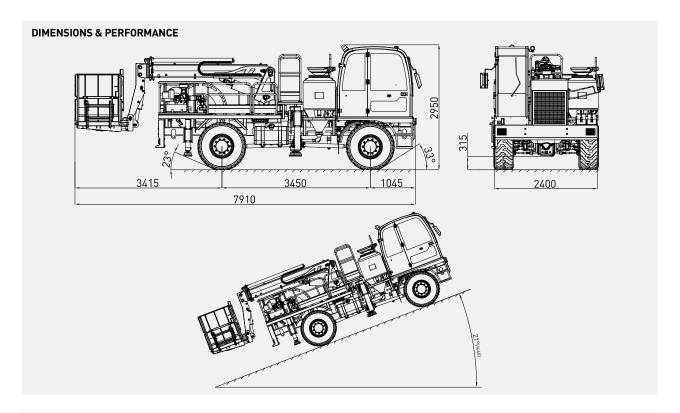
Rear view camera and LCD screen in operator cabin



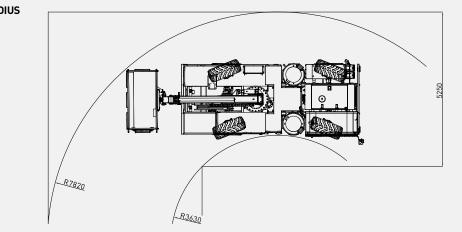
3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering



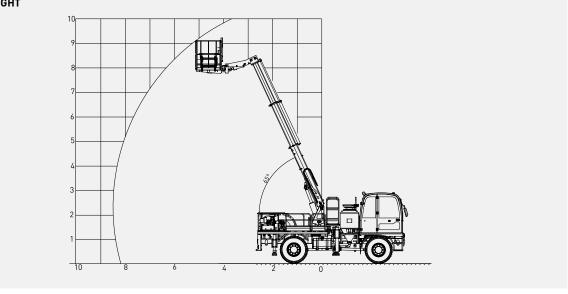
ROPS and FOPS level 2 certified closed operator cabin with  $180^{\rm o}{\rm pivoting}$  operator's seat



#### TURNING RADIUS



### LIFTING HEIGHT





DIESEL ENGINE		
Make / Model:	JCB Dieselmax 444 TCA-85	
Max. Power:	85 kW at 2200 rpm	
Max. Torque:	440 Nm at 1300 rpm	
Engine Emission:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	140 l	
With Catalytic Convert	ter and Silencer	
TRANSMISSION		
Make / Model:	JCB PS760	
7.11.10 / 7.101011	Powershift	
Auto	omatic and Manual 4-speed forward	
	Manual 3-speed reverse	
	Four-wheel drive	
AXLES & TYRES		
Make / Model:	JCB SD70	
Туре:	Planetary	
Front Axle:	+/- 8° Oscillating and steerable	
Rear Axle:	Rigid and steerable	
Tyres:	16.00 / 70-20	
PERFORMANCE		
Max. Gradient:	40%	
Max. Speed:	24.5 km/h	
STEERING		
	Four-wheel steering	
	Crab steering	
	Front-wheel steering	
DDAVING CYCTEM		
BRAKING SYSTEM  Service Brake:	hydraulically powared two circuit oil	
	Hydraulically powered two-circuit oil ersed multidisc brakes in both axles	
Safety/Parking Brake		
Jaiety/Farking brake	hydraulic released SAHR	
	Fail safe	
	- I dit sale	
CHASSIS		
Туре:	Rigid, high strength steel	
Front Stabilisers:	2 pcs, extendible	
Rear Stabilisers:	2 pcs, fixed	
HYDRAULIC SYSTEM		
Pump Type: Variable	displacement piston and gear pump	
Max. Pressure:	210 bar	
Flow Rate:	200 l/min at 2200 rpm	
Flow Rate: Hydraulic Oil Tank:	200 l/min at 2200 rpm 105 l	
	,	

ELECTRIC SYSTE	EM	
Battery:		12 V - 150 Ah
Protection:		IP65
Lights:	2 x 1500 Lumen L	ed at front bumper
	2 x 1500 Lumen Led	d on operator cabin
	2 x 1500 Lumen L	∟ed at rear bumper
	1 x 1500 Lu	umen Led on boom
	Turn siç	gnals and taillights
Beacon Lamp:		Amber color
	PERATOR CABIN	
Closed 1-per		
	OPS level 2 certified	>
,	1:2008 / EN ISO 3449:200	•
	suspension with manual	• •
	80° pivotable ergonomi	c seat with seat belt
Cabin heater		
	ndicators for all driving	
	io output and location (1	ZVJ
Cabin lightin	3	
Heated wing	mirrors	
DIMENSIONS & V	WEIGHT	
Weight:		kg (Approximately)
Length:	11000	7910 mm
Width:		2400 mm
Height:		2950 mm
Inner Turning	Radius:	3630 mm
Outer Turning		7820 mm
MISCALLANEOU	S	
Warning plat	tes and decals	
• 2x4 kg porta	ble fire extinguisher	
• 2 pcs Wheel	chocks	
<ul> <li>Front and re</li> </ul>	ar towbar	
Back-up alai	rm and light	
<ul> <li>Battery Isola</li> </ul>	ator switch	

BOOM & BASKET	
Basket Dimension:	2000 x 1000 mm
Max. Lifting Capacity:	800 kg
Max. Lifting Height (Basket Base):	7.96 m
Basket Swing:	+/- 45°
Max. Boom Angle:	65°
Basket Tilt:	+/- 5°
Boom Rotation:	+/- 90°
Parallelism:	Automatic

Electro-hydraulic driven control unit Control system with tank selection, in-hole cleaning and tank on/off feature on the basket

#### ANFO CHARGING UNIT

ANFO Tank: Stainless steel, with cap and screen
ANFO Hose: Antistatic, Ø18/26mm
ANFO Hose Total Length: 25 m

Manual hose feeding. There is no hose feeder or pusher on the machine. Hose feeding and rewinding is done manually

#### **COMPRESSOR**

 3.5 m³/min – 7 bar – 23 kW hydraulic driven screw compressor

#### **SAFETY**

- Conforms to EN280 mobile elevating work platforms standard
- Manual emergency boom movement control
- Front stabilisers must be used to allow basket movements
- 2 pcs emergency stop butons; one on basket one on the machine
- 2 pcs mechanical inclinometer for rolling and pitching angle indication
- 2 pcs electronic inclinometer sensor for rolling and pitching angles
- +/- 4° rolling angle limitation
- +/- 5° pitching angle limitation
- Weight moment control system for basket
- Platform access ladder
- Rubber chocks on basket for bump protection

#### OTHER

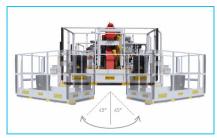
- Centralized greasing system
- Lid with screen preventing lumped ANFO loading
- Antistatic storage box for caps and primary explosives

- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel
- Cable remote control

# **SP1500**

**BASKET BOOM TRUCK** 





Basket swing +/-45°



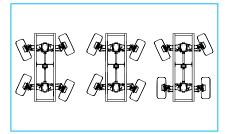
Basket with automatic parallelism conforms to EN280



Robust boom



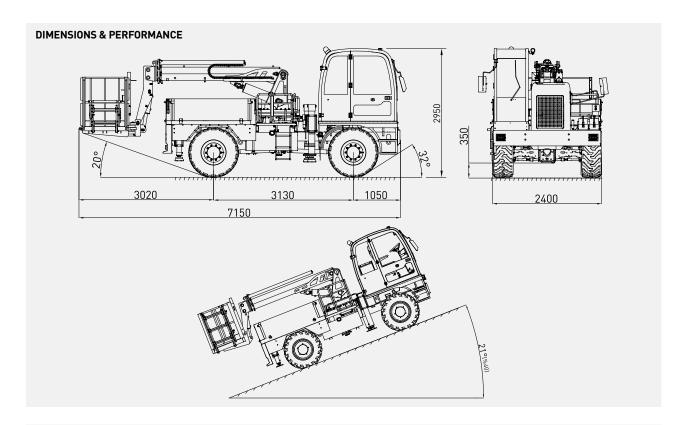
Boom, basket and stabilizer manual controls, pressure indicator



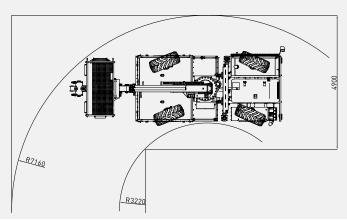
3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering

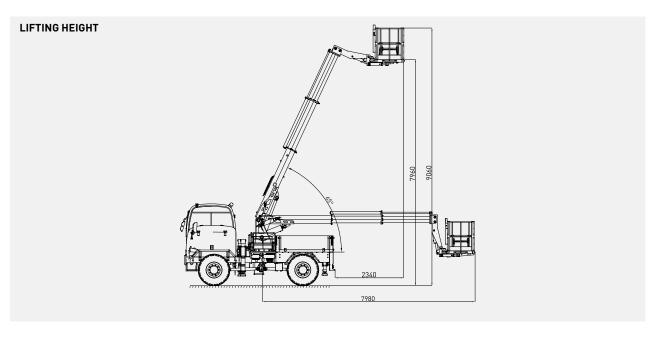


ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat



#### **TURNING RADIUS**





# **SP1500**

# **TECHNICIAL SPECIFICATIONS**

DIESEL ENGINE		ELECTRIC SYSTEM
Make / Model:	JCB Dieselmax 444 TCA-85	Battery:
Max. Power:	85 kW at 2200 rpm	Protection:
Max. Torque:	440 Nm at 1300 rpm	Lights:
Engine Emissions:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	140 l	
With Catalytic Converte	r and Silencer	
TRANSMISSION		Beacon Lamp:
Make / Model:	JCB PS760	
	Powershift	TITAN CLOSED OPE
Autor	natic and Manual 4-speed forward	Closed 1-person
	Manual 3-speed reverse	ROPS and level
	Four-wheel drive	(EN ISO 3471:20
		<ul> <li>Mechanical sus</li> </ul>
AXLES & TYRES		adjustable, 180°
Make / Model:	JCB SD70	Cabin heater
Type:	Planetary	Levers and indicate
Front Axle:	+/- 8° Oscillating and steerable	In-cabin radio o
Rear Axle:	Rigid and steerable	Cabin lighting
Tyres:	16.00 / 70-20	<ul> <li>Heated wing mi</li> </ul>
DEDECRIMANCE		DIMENSIONS O WE
PERFORMANCE	/00/	DIMENSIONS & WEI
Max. Gradient:	40%	Weight:
Max. Speed:	24.5 km/h	Length:
CTEEDING		Width:
STEERING		Height:
	Four-wheel steering	Inner Turning Rac
	Crab steering	Outer Turning Rad
	Front-wheel steering	MICOALLANTONIC
DD 4 KING GYGTEN		MISCALLANEOUS
BRAKING SYSTEM		Warning plates
•	draulically powered two-circuit oil	• Tool box
	sed multidisc brakes in both axles	• 2x4 kg portable
Safety/Parking Brake:		• 2 pcs Wheel cho
	hydraulic released SAHR	Front and rear t
	Fail safe	Back-up alarm
OHACCIC		Battery Isolator
CHASSIS	B: : 1 1 : 1	DOOM O DAGWET
Type:	Rigid, high strength steel	BOOM & BASKET
Front Stabilisers:	2 pcs, extendible	Basket Dimension
Rear Stabilisers:	2 pcs, fixed	Max. Lifting Capa
		Max. Lifting Heigh
HYDRAULIC SYSTEM		Basket Swing:
Pump Type:	Gear pump	Max. Boom Angle
Max. Pressure:	210 bar	Basket Tilt:
Flow Rate:	75 l/min at 2200 rpm	Parallelism:
Hydraulic Oil Tank:	105 เ	
Return Oil Filter:	25 µm	

# SAFETY Conforms to EN280 mobile elevating work platforms standard Manual emergency boom movement control Front stabilisers must be used to allow basket movements 2 pcs emergency stop butons; one on basket one on the machine 2 pcs mechanical inclinometer for rolling and pitching angle indication 2 pcs electronic inclinometer sensor for rolling and pitching angles +/- 4° rolling angle limitation +/- 5° pitching angle limitation Weight moment control system for basket Platform access ladder

• Rubber chocks on basket for bump protection

#### **OPTIONS**

- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel
- Cable remote control

#### **OTHER**

• Centralized greasing system

# MP2X3 SCISSOR LIFT





3200 x 2000 mm platform dimensions, 1500 kg lifting capacity with 3.56 m



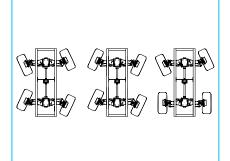
Platform and legs controllable from 2 panels



Cable or wireless remote control for all lift and platform functions (optional)



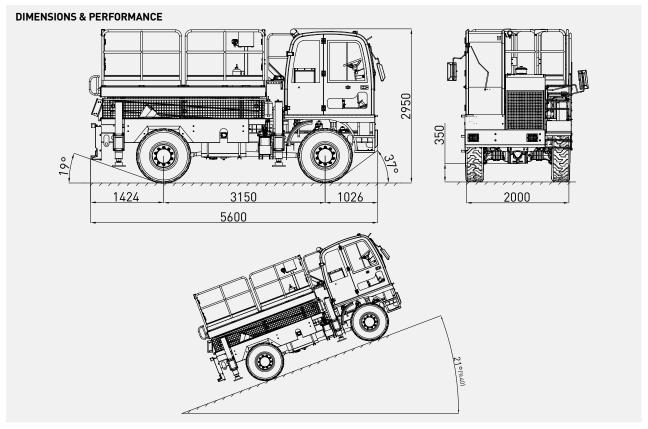
Rear view camera and LCD screen in operator cabin

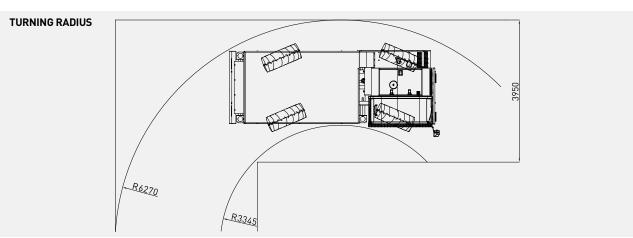


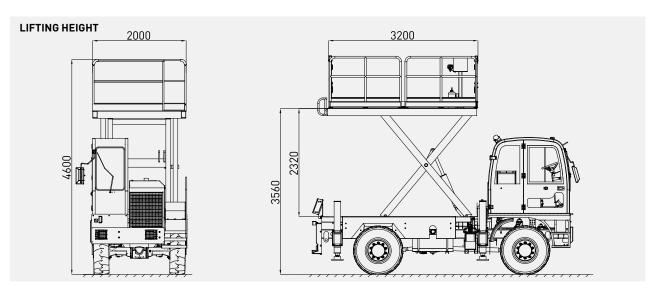
3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat









DIESEL ENGINE	
Make / Model:	JCB Dieselmax 444 TCA-85
Max. Power:	85 kW at 2200 rpm
Max. Torque:	440 Nm at 1300 rpm
Engine Emissions:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	140 l
With Catalytic Converte	er and Silencer
TRANSMISSION	
Make / Model:	JCB PS760
	Powershift
Autor	matic and Manual 4-speed forward
	Manual 3-speed reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	JCB SD55
Type:	Planetary
Front Axle:	+/- 8° Oscillating and steerable
Rear Axle:	Rigid and steerable
Tyres:	12.5-20 / 10-20
DEDECRIMANCE	
PERFORMANCE	4004
Max. Gradient:	40% 24.5 km/h
Max. Speed:	24.5 km/n
STEERING	
SIEERING	Four-wheel steering
	Crab steering
	Front-wheel steering
	1 Tont-wheet steering
BRAKING SYSTEM	
	vdraulically powered two-circuit oil
,	rsed multidisc brakes in both axles
Safety/Parking Brake:	
,	hydraulic released SAHR
	Fail safe
CHASSIS	
CHASSIS Type:	Rigid, high strength steel
	Rigid, high strength steel 2 pcs, fixed
Туре:	
Type: Front Stabilisers:	2 pcs, fixed
Type: Front Stabilisers:	2 pcs, fixed
Type: Front Stabilisers: Rear Stabilisers:	2 pcs, fixed
Type: Front Stabilisers: Rear Stabilisers: HYDRAULIC SYSTEM	2 pcs, fixed 2 pcs, fixed
Type: Front Stabilisers: Rear Stabilisers: HYDRAULIC SYSTEM Pump Type:	2 pcs, fixed 2 pcs, fixed Gear pump
Type: Front Stabilisers: Rear Stabilisers:  HYDRAULIC SYSTEM Pump Type: Max. Pressure:	2 pcs, fixed 2 pcs, fixed Gear pump 210 bar
Type: Front Stabilisers: Rear Stabilisers:  HYDRAULIC SYSTEM Pump Type: Max. Pressure: Flow Rate:	2 pcs, fixed 2 pcs, fixed Gear pump 210 bar 55 l/min at 2200 rpm

ELECTRIC SYSTEM	
Battery:	12 V - 150 Ah
Protection:	IP65
Lights:	2 x 1500 Lumen Led at front bumper
	1 x 1500 Lumen Led on operator cabin
	2 x 1500 Lumen Led at rear bumper
	Turn signals and taillights
Beacon Lamp:	Amber color
TITAN CLOSED OPE	RATOR CABIN
Closed 1-perso	n cabin
ROPS and FOP	S level 2 certified
(EN ISO 3471:2	008 / EN ISO 3449:2008)
Mechanical sus	spension with manual tilt, weight, height
adjustable, 180	° pivotable ergonomic seat with seat belt
<ul> <li>Cabin heater</li> </ul>	
<ul> <li>Levers and ind</li> </ul>	cators for all driving controls
In-cabin radio (	output and location (12V)
<ul> <li>Cabin lighting</li> </ul>	
<ul> <li>Heated wing m</li> </ul>	irrors
DIMENSIONS & WE	IGHT
Weight:	7500 kg (Approximately)
Length:	5600 mm
Width:	2000 mm
Height:	2950 mm
Inner Turning Ra	<b>dius:</b> 3345 mm
Outer Turning Ra	<b>dius:</b> 6270 mm
MISCALLANEOUS	
<ul> <li>Warning plates</li> </ul>	and decals
<ul> <li>2x4 kg portable</li> </ul>	fire extinguisher
<ul> <li>2 pcs Wheel ch</li> </ul>	ocks
<ul> <li>Front and rear</li> </ul>	towbar
<ul> <li>Back-up alarm</li> </ul>	and light
<ul> <li>Battery Isolato</li> </ul>	rswitch
LIFTING PLATFORI	1
Lifting Platform	<b>Dimension:</b> 3200 x 2000 mm
Max. Lifting Capa	<b>city:</b> 1500 kg
Max. Lifting Heig	<b>ht:</b> 3.56 m
	egs controllable from 2 panels
Tool box on pla	
	liant kickplate around the platform
Manual emerge	ncy lowering system when platform is open

#### **SAFETY**

- Conforms to EN280 mobile elevating work platforms standard
- Emergency platform lowering system
- Scissors cannot be moved without support legs touching the ground.
- Platform climbing steps
- 2 stop buttons placed on the machine (on the panel, on the platform)
- 2 pcs mechanical inclinometer at chassis
- +/- 4° rolling angle limitation
- Sensor system that disables collecting support legs until the platform is completely lowered.
- Door open warning system

#### **OTHER**

• Centralized greasing system

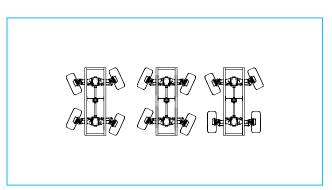
- Automatic centralized lubrication system
- Air-conditioner (Heating and Cooling) in the cabin
- Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- +/- 500 mm side shift function
- Platform size and lifting capacity on demand
- Caliper brake system
- 2<sup>nd</sup> seat in the cabin
- 12 V emergency steering
- Diesel particulate filter DPF
- EU Stage 5 diesel engine
- Rear view camera and LCD monitor in operator cabin
- Additional side view camera
- Spare wheel
- Cable or wireless remote control







820 kg lifting capacity at 7.1 m  $\,$ 



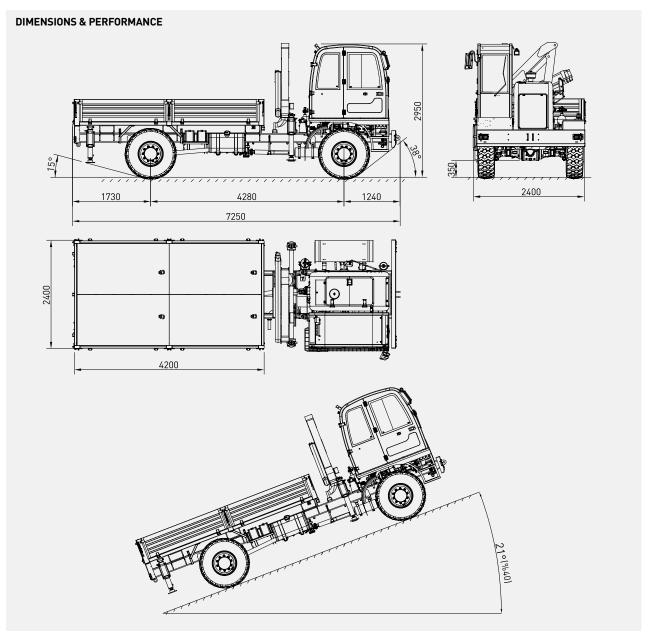
 ${\tt 3}$  steering modes; Four-wheel steering, Front-wheel steering and Crab steering

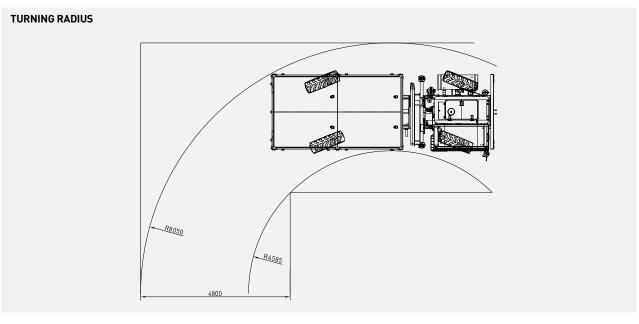


Rear view camera and LCD screen in operator cabin



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat







DIEGEL ENGINE	
DIESEL ENGINE Make / Model:	IOD Discolus ou /// TOA OF
Max. Power:	JCB Dieselmax 444 TCA-85
Max. Torque:	85 kW at 2200 rpm 440 Nm at 1300 rpm
Engine Emissions:	·
Diesel Tank:	EU Stage 3A / US EPA Tier 3
With Catalytic Converte	1
With Catalytic Converte	er and Sitericer
TRANSMISSION	
Make / Model:	JCB PS760
	Powershift
Autor	matic and Manual 4-speed forward
	Manual 3-speed reverse
	Four-wheel drive
AXLES & TYRES  Make / Model:	JCB SD70
	Planetary
Type: Front Axle:	· · · · · · · · · · · · · · · · · · ·
Rear Axle:	+/- 8° Oscillating and steerable
Tyres:	Rigid and steerable 16.00 / 70-20
Tyres:	16.00 / 70-20
PERFORMANCE	
Max. Gradient:	40%
Max. Speed:	24.5 km/h
STEERING	
	Four-wheel steering
	Crab steering
	Front-wheel steering
SRAKING SYSTEM Service Brake: Hv	
	draulically powered two-circuit oil
	rsed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied hydraulic released SAHR
	nydraulic released SAHR Fail safe
	Fait Sale
CHASSIS	
Туре:	Rigid, high strength steel
Front Stabilisers:	2 pcs, extendible
Rear Stabilisers:	2 pcs, extendible
	,,
HYDRAULIC SYSTEM	
Pump Type: Fixed di	isplacement piston and gear pump
Max. Pressure:	350 bar
Flow Rate:	65 l/min at 2200 rpm
Hydraulic Oil Tank:	105 l
Return Oil Filter:	25 μm

ELECTRIC SYSTEM		
Battery:	12 V - 150 Ah	
Protection:	IP65	
Lights:	2 x 1500 Lumen Led at front bumper	
<b>3</b>	1 x 1500 Lumen Led on operator cabin	
	2 x 1500 Lumen Led at rear bumper	
	Turn signals and taillights	
Beacon Lamp:	Amber color	
TITAN CLOSED OPE	RATOR CABIN	
Closed 1-person cabin		
ROPS and FOPS level 2 certified		
(EN ISO 3471:2008 / EN ISO 3449:2008)		
Mechanical suspension with manual tilt, weight, height		
adjustable, 180° pivotable ergonomic seat with seat belt		
Cabin heater	3	
Levers and indic	cators for all driving controls	
In-cabin radio output and location (12V)		
Cabin lighting		
Heated wing mi	rrors	
DIMENSIONS & WEI	GHT	
Weight:	6500 kg (Approximately)	
Length:	7250 mm	
Width:	2400 mm	
Height:	2950 mm	
Inner Turning Rad	lius: 4585 mm	
Outer Turning Rad	lius: 8050 mm	
MISCALLANEOUS		
Warning plates and decals		
• 2x4 kg portable fire extinguisher		
• 2 pcs Wheel chocks		
<ul> <li>Front and rear t</li> </ul>	owbar	
Back-up alarm and light		
Battery Isolator switch		
CRANE		
Max. Reach:	7.1 m	
• 820 kg capacity	at 7.1 meters	
<ul> <li>System with rac</li> </ul>	System with rack	
Weight control s	system	
PICK-UP BOX		
Dimensions:	2400 x 4200 x 500 mm	
Capacity:	10000 kg	
Right, left and b	ack covers can be opened and closed	

## OTHER • Centralized greasing system OPTIONS • Automatic centralized lubrication system • Air-conditioner (Heating and Cooling) in the cabin • Manual activated fire extinguishing system • Automatic and manual activated fire extinguishing system (Linear wired) • Caliper brake system • 2<sup>nd</sup> seat in the cabin • 12 V emergency steering • Diesel particulate filter - DPF • EU Stage 5 diesel engine • Rear view camera and LCD monitor in operator cabin • Additional side view camera • Remote control for crane movements • Alternative crane options • Spare wheel



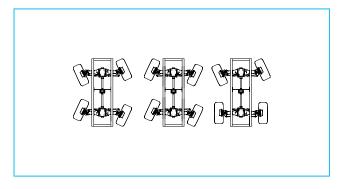




Heavy duty reinforced structure with 12.000 kg load capacity



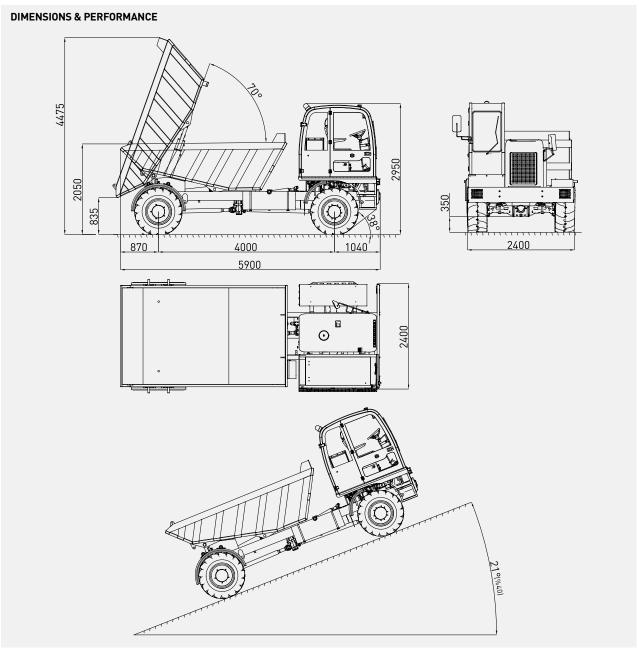
Rear view camera and LCD screen in operator cabin

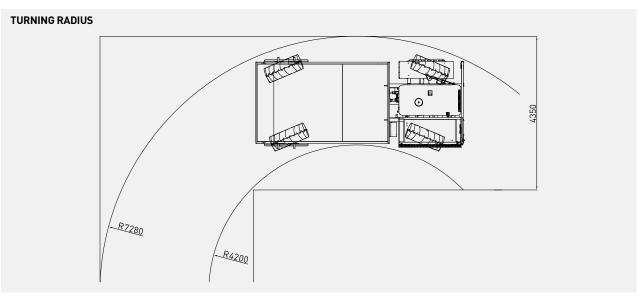


 ${\tt 3}$  steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180  $^{\circ}\textsc{pivoting}$  operator's seat







### **TECHNICIAL SPECIFICATIONS**

DIESEL ENGINE		ELECTRIC SYSTE
Make / Model:	JCB Dieselmax 444 TCA-85	Battery:
Max. Power:	85 kW at 2200 rpm	Protection:
Max. Torque:	440 Nm at 1300 rpm	Lights:
Engine Emissions:	EU Stage 3A / US EPA Tier 3	
Diesel Tank:	140 l	
With Catalytic Converte	er and Silencer	
		Beacon Lamp:
TRANSMISSION		
Make / Model:	JCB PS760	TITAN CLOSED 0
	Powershift	• Closed 1-per
Auto	matic and Manual 4-speed forward	ROPS and FO
	Manual 3-speed reverse	(EN ISO 3471
	Four-wheel drive	Mechanical s
		adjustable, 1
AXLES & TYRES		Cabin heater
Make / Model:	JCB SD70	Levers and ir
Туре:	Planetary	• In-cabin radi
Front Axle:	+/- 8° Oscillating and steerable	Cabin lighting
Rear Axle:	Rigid and steerable	Heated wing
Tyres:	16.00 / 70-20	
		DIMENSIONS & V
PERFORMANCE		Weight:
Max. Gradient:	40%	Length:
Max. Speed:	24.5 km/h	Width:
		Height:
STEERING		Inner Turning F
	Four-wheel steering	Outer Turning I
	Crab steering	
	Front-wheel steering	MISCALLANEOUS
		Warning plat
BRAKING SYSTEM		• 2x4 kg portal
	ydraulically powered two-circuit oil	• 2 pcs Wheel
	rsed multidisc brakes in both axles	Front and rea
Safety/Parking Brakes		Back-up alar
	hydraulic released SAHR	Battery Isola
	Fail safe	
Retarder:	4 level	LOADING CAPAC
		Stuck Capacity
CHASSIS		SAE Heaped Ca
Туре:	Rigid, high strength steel	Max. Load Capa
HYDRAULIC SYSTEM		DUMP BODY
Pump Type:	Gear pump	Reinforced stru
Max. Pressure:	210 bar	Hydraulic tilting
Flow Rate:	60 l/min at 2200 rpm	Dump Angle:
Hydraulic Oil Tank:	105 Լ	
Return Oil Filter:	25 μm	
Oil level, fil	tration and temperature indicators	

# OTHER • Centralized greasing system OPTIONS • Automatic centralized lubrication system • Air-conditioner (Heating and Cooling) in the cabin • Manual activated fire extinguishing system • Automatic and manual activated fire extinguishing system (Linear wired) • Caliper brake system • 2<sup>nd</sup> seat in the cabin • 12 V emergency steering • Diesel particulate filter - DPF • EU Stage 5 diesel engine • Additional side view camera • Rear view camera and LCD monitor in operator cabin • Spare wheel

# PT16 PERSONNEL CARRIER





ROPS and FOPS level 2 certified closed personnel cabin



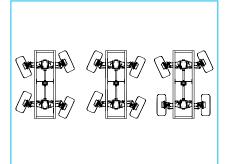
Intercom between personnel and operator cabin, Personnel door open indicator in the operator cabin



Air conditioner (Heating and Cooling) in the cabin (optional)



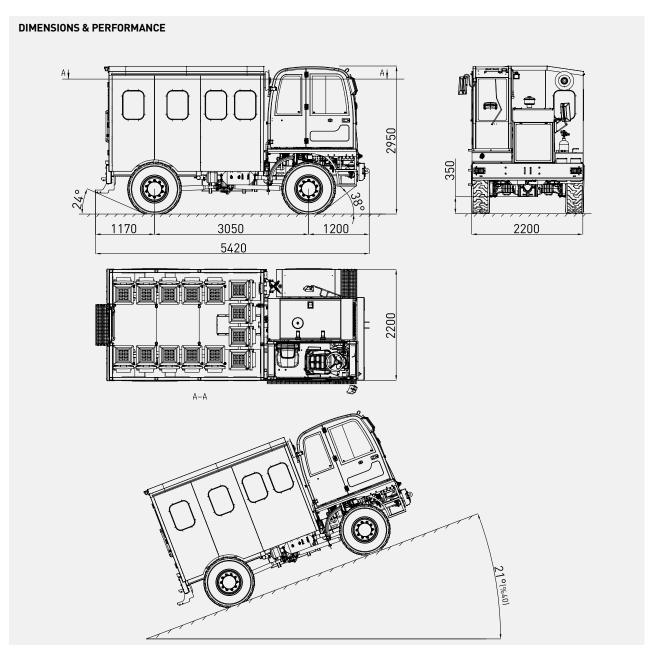
Rear view camera and LCD screen in operator cabin

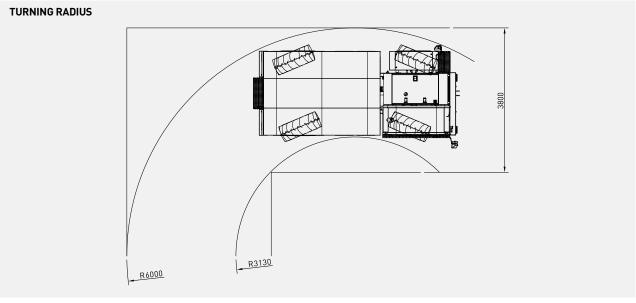


3 steering modes; Four-wheel steering, Front-wheel steering and Crab steering



ROPS and FOPS level 2 certified closed operator cabin with 180° pivoting operator's seat







#### **TECHNICIAL SPECIFICATIONS**

DIESEL ENGINE	
Make / Model:	JCB Dieselmax 444 TCA-85
Max. Power:	85 kW at 2200 rpm
Max. Torque:	440 Nm at 1300 rpm
Engine Emissions:	EU Stage 3A / US EPA Tier 3
Diesel Tank:	80 l
With Catalytic Converte	er and Silencer
TRANSMISSION	
Make / Model:	JCB PS760
	Powershift
Auton	matic and Manual 4-speed forward
	Manual 3-speed reverse
	Four-wheel drive
AXLES & TYRES	
Make / Model:	JCB SD55
Tip:	Planet
Front Axle:	+/- 8° Oscillating and steerable
Rear Axle:	Rigid and steerable
Tyres:	12.5-20 / 10-20
•	
PERFORMANCE	
Max. Gradient:	40%
Max. Speed:	24.5 km/h
•	
STEERING	
	Four-wheel steering
	Crab steering
	Front-wheel steering
	3
BRAKING SYSTEM	
Service Brake: Hy	draulically powered two-circuit oil
·	sed multidisc brakes in both axles
Safety/Parking Brake:	Spring applied
, ,	hydraulic released SAHR
	Fail safe
CHASSIS	
Type:	Rigid, high strength steel
.,	
HYDRAULIC SYSTEM	
Pump Type:	Fixed displacement
Max. Pressure:	200 bar
Flow Rate:	60 l/min at 2200 rpm
Hydraulic Oil Tank:	80 l
· ·	
Return Oil Filter	25 um
Return Oil Filter:	25 µm tration and temperature indicators

ELE	CTRIC SYSTEM	
	attery:	12 V - 150 Ah
	rotection:	IP65
	ights:	2 x 1500 Lumen Led at front bumper
		1 x 1500 Lumen Led on operator cabin
		2 x 1500 Lumen Led at rear bumper
		Turn signals and taillights
В	eacon Lamp:	Amber color
TIT	AN CLOSED OPER	ATOR CABIN
•	Closed 2-person	cabin
•	ROPS and FOPS	level 2 certified
	(EN ISO 3471:200	08 / EN ISO 3449:2008)
•	Mechanical susp	ension with manual tilt, weight, height
	adjustable, 180°	pivotable ergonomic seat with seat belt
•	Cabin heater	
•	Levers and indic	ators for all driving controls
•	In-cabin radio ou	tput and location (12V)
	Cabin lighting	
•	Heated wing mir	rors
	IENSIONS & WEI	
	/eight:	7150 kg (Approximately)
	ength:	5420 mm
_	/idth:	2200 mm
	Height: 2950 mm	
	nner Turning Radi luter Turning Rad	
U	uter rurning Rau	us: 6000 mm
MIS	CALLANEOUS	
	Warning plates a	nd decals
	2x2 kg portable f	
	2 pcs Wheel cho	-
	Front and rear to	
•	Back-up alarm a	nd light
•	Battery Isolator	switch
PEF	RSONNEL CABIN	
•	Closed 14-perso	n cabin
•	ROPS & FOPS le	vel 2 certified
	(EN ISO 3471:200	08 / EN ISO 3449:2008)
•	Cabin heater	
•	1 Outward openi	•
•	Mica glass windo	
•	Ergonomic 2 poi	
	Amber color bea	con on the cabin
•	Cabin lighting	
•	Intercom betwee	n personnel cabin and operator cabin

Personnel door open indicator in the operator's cabin

# OTHER • Centralized greasing system OPTIONS • Automatic centralized lubrication system • Air-conditioner (Heating and Cooling) in the cabin • Manual activated fire extinguishing system • Automatic and manual activated fire extinguishing system (Linear wired) • Caliper brake system • 12 V emergency steering • Diesel particulate filter - DPF • EU Stage 5 diesel engine • Rear view camera and LCD monitor in operator cabin • Additional side view camera • Spare wheel

### **NOTES**





# Titan





### **MUV5 MULTIPURPOSE UTILITY VEHICLE**

ROPS & FOPS level 2 certified operator cabin, suitable for working in underground mines, 4x4 chassis mounted with powershift transmission.





ROPS & FOPS level 2 certified closed 1+4 person cabin



7" HMI display with CAN feature





#### **DIESEL ENGINE**

Make / Model:

Max. Power:

85 kW at 2300 rpm

Max. Torque:

430 Nm at 1600 rpm

Engine Emission:

EU Stage 3A / US EPA Tier 3

Diesel Tank:

80 l

With Catalytic Converter and Silencer

#### **TRANSMISSION**

Make / Model:	Dana Spicer T12000
	Powershift
	Automatic and Manual 4-speed forward
	Manual 3-speed reverse
	Four-wheel drive

#### **AXLES & TYRES**

Make / Model:	Dana Spicer
Type:	Planetary
Front:	211 Drive Axle
Rear:	111 Rigid Axle
Tyres:	285 75 R16

#### **PERFORMANCE**

Max. Gradient:	40%
Max. Speed:	40 km/h

#### **STEERING**

+/- 45°	
Orbitrol type	
Front wheel steering	

#### **BRAKING SYSTEM**

Ser	vice Brake:	Hydraulically powered two-circuit oil
		immersed multidisc brakes in both axles
Saf	ety/Parking Brake:	Spring applied
		hydraulic released SAHR
		Fail safe

#### **CHASSIS**

Type:	Rigid, high strength steel
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	111914, 111911 511 5119111 51551

#### HYDRAULIC SYSTEM

Pump Type:	Fixed displacement
Max. Pressure:	210 bar
Flow Rate:	46 l/min at 2300 rpm
Hydraulic Oil Tank:	40 l
Return Oil Filter:	25 μm
Oil level, filtration and temperature indicators	

#### **ELECTRIC SYSTEM**

Battery:	2 x 12 V – 115 Ah
Protection:	IP65
Lights:	4 x 1500 Lumen Led
	2 x 2000 Lumen Front low beam Led
	2 x 2000 Lumen Front high beam Led
	2 x Fog Led
	Led rear lamp
Box Type:	Stainless steel
Beacon Lamp:	Red-Blue-Amber color
Direction Lights:	Red-Green color

#### TITAN CLOSED OPERATOR CABIN

- Closed 1+4 person cabin
- ROPS & FOPS level 2 certified
   (EN ISO 3471:2008 / EN ISO 3449:2008)
- Seats with 3 point seat belts, low vibration and weight adjustment
- Depth and height adjustable steering wheel
- Mounted handles in accordance with 3-point rule
- Glove box
- Resisted laminated front glass and resisted tempered rear glass
- Electrically adjustable side mirrors with resistance and turning signal lamps
- Sliding side windows complying with occupational safety standards
- 3 wipers
- Lockable doors
- Outside air temperature indicator
- Air-conditioner (Heating and Cooling) in the cabin
- Open door warning sensors for 4-doors
- In-Cabin radio output (12V)
- Cabin lighting
- Rear view camera and monitoring on the HMI screen in the operator's cabin
- Dashboard 7" HMI display
- Instrument panel behind the steering wheel

#### CONTROL SYSTEM

CAN Bus System	
Gear Selector:	APC
Engine:	ECU
Control:	Main ECU
Warning:	7" HMI display with CAN feature

#### DATA THAT CAN BE VIEWED ON THE DISPLAY

- Hydraulic oil temperature and level information
- Brake hydraulic pressure information
- Fuel level
- Engine and radiator water temperature and level warning
- Transmission oil temperature and pressure
- Air filter indicator
- Fuel water mixture warning
- Door open warning
- Vehicle speed
- Engine RPM
   Working hour
- Gear indicator
- Outside temperature
- Engine orrer codes
- Engine error codes
- Engine and transmission information logging
- Differential lock indicators and warnings
- Vehicle slope indicators and warnings
- Speed limit warning
- Right and left signal information

#### **▶ DIMENSIONS & WEIGHT**

Weight:	4750 kg (Approximately)
Length:	5390 mm
Width:	2000 mm
Height:	2130 mm
Inner Turning Radius:	2975 mm
Outer Turning Radius:	6500 mm

#### **▶ PICK-UP BOX**

Dimensions:	1820 x 1650 x 400 mm
Max. Carrying Capacity:	1000 kg
Pick up box rear door can be opened and closed	

#### **MISCELLANEOUS**

- Warning plates and decals
- Tool box
- First-aid kit
- 1x2 kg portable fire extinguisher
- 1 pc. Wheel chock
- Front and rear towbar
- Back-up alarm and light
- Battery and starter isolator switch

#### **OTHER**

• Emergency release for parking brake

#### **OPTIONS**

- · Manual activated fire extinguishing system
- Automatic and manual activated fire extinguishing system (Linear wired)
- 24 V emergency steering
- EU Stage 5 diesel engine
- Additional camera
- Spare wheel
- Welding machine
- Compressor
- High pressure washer
- Electric winch on front bumper

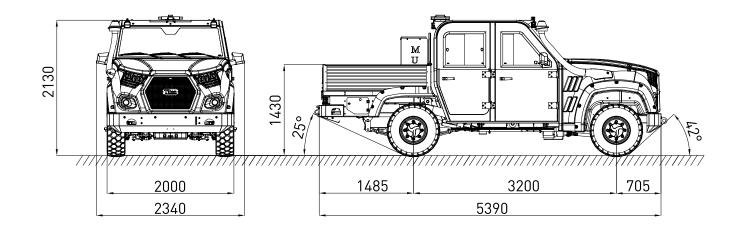
#### VARIANTS

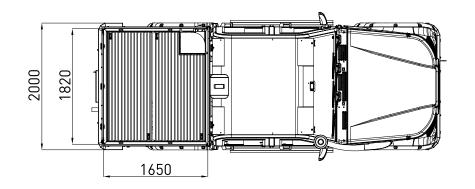
- Scissor lift
- Personnel carrier for 1+10 person
- Lubrication and maintenance vehicle
- Explosive carrier
- Crane

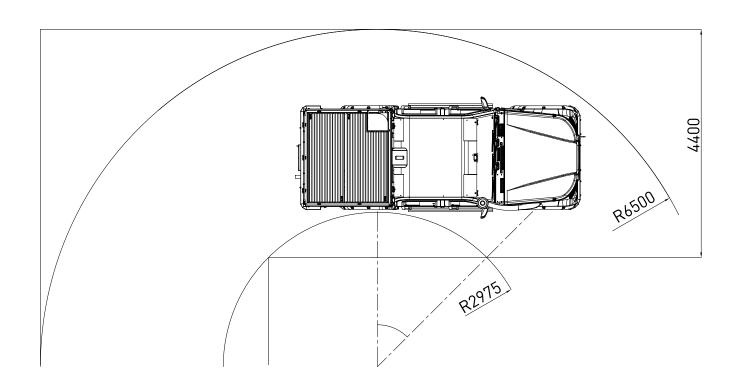




## **Multipurpose Utility Vehicle**









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