

3 TECHNICAL SPECIFICATIONS

| | | |
|--------|--------------------------------|----|
| 3.1 | Technical Specifications | 2 |
| 3.1.1 | Main components | 2 |
| 3.1.2 | Chassis..... | 2 |
| 3.1.3 | Booms | 3 |
| 3.1.4 | Feed beams | 3 |
| 3.1.5 | Rock Drill | 4 |
| 3.1.6 | Coverage area | 4 |
| 3.1.7 | Charging Basket | 4 |
| 3.1.8 | Hydraulic Power Pack | 4 |
| 3.1.9 | Water system | 5 |
| 3.1.10 | Compressed Air System | 5 |
| 3.1.11 | Lubrication System..... | 5 |
| 3.1.12 | Electrical system | 6 |
| 3.1.13 | Lighting system | 6 |
| 3.1.14 | Operator Cabin..... | 6 |
| 3.1.15 | Drilling control | 7 |
| 3.2 | Main Dimensions..... | 8 |
| 3.2.1 | Driving Conditions..... | 8 |
| 3.2.2 | Turning Radius | 9 |
| 3.2.3 | Coverage Area, ZETA Booms..... | 10 |
| 3.2.4 | Boom Reach, side view | 11 |
| 3.2.5 | Booms Reach, top view..... | 12 |

3.1 Technical Specifications

Type: AMV 3 ZBC-CC

Drawing Nr:

3.1.1 Main components

| | | |
|--------------|---|---------------------------|
| Carries | : | AMV 2849/2015 |
| Boom | : | 2 x AMV Zeta-X/1x Zeta |
| Ladekorg | : | AMV 6 |
| Feeder Beam | : | 3 x AMV 20 foot feed beam |
| Power supply | : | 3 x 95 KW, 1000 V, 50 Hz |
| Rock Drill | : | 3 x Montabert HC 110 |

3.1.2 Chassis

| | | |
|-------------------|---|---|
| Type | : | AMV 2849/2015 |
| Engine | : | Deutz TCD 6.1 L6, Tier 4F, 140 kW (water cooled) |
| Diesel Tank | : | Approx. 160 liters |
| Electrical system | : | 24 V |
| Transmission | : | Clark 3 gives forward/reverse, type R32369-630 |
| Drive Line | : | Permanent four-wheel drive |
| Braking system | : | Hydraulic brakes on all wheels, parking brake and emergency Brake |
| Tires | : | Front and back, 14.00 "x 24", 28-tier. Twin wheels on front axle |
| Steering system | : | Angle +/- 26°. Commuting +/- 8° |
| Front axle | : | DANA 37R116 |
| Rear Axle | : | DANA 213 |
| Max. Drive speed | : | 15 km/h. |
| Outriggers | : | Hydraulic, 4 PCs on front side with lateral telescope |
| Fire Extinguisher | : | DAFO FORREX system, equipped with trigger mechanisms Handheld Extinguisher |
| Dimensions | : | Wheelbase : 4900 mm Width : 2920 mm Height : 3450 mm (transport) Total Length with Feeders : Approx. 16 000 mm ¹ Gross weight : Approx. 50 000 kg ² Turning radius : See Drawing No. 32888-7 |

¹ Length depends on the type of feeder beam used

² Total weight depends on selected peripheral equipment

3.1.3 Booms

3.1.3.1 Zeta X (Right and left)

| | | |
|---------------------------------------|---|--|
| Boom weight | : | 4.800 kg |
| Boom lift | : | + 60°/-30° |
| Boom Swing | : | + 50°/-40° |
| Boom Extension | : | 2.800 mm |
| Feed extension | : | 2.400 mm (18 Ft Feed beam), 2600 mm (20ft) |
| Feed rotation | : | 360° |
| Rotation radius | : | 1115 mm |
| (Rotation Centre - Drillsteel Center) | | |
| Feed Adjuster Tilt | : | + 115°/-115° |
| Feed adjuster Swing | : | + 15° /-55° |

Electronic angle sensors are mounted in all joints.

3.1.3.2 ZETA (center)

| | | |
|---------------------------------------|---|--|
| Boom weight | : | 4.600 kg |
| Boom lift | : | +60°/-30° |
| Boom Swing | : | +45°/-45° |
| Boom Extension | : | 2.400 mm |
| Feed extension | : | 2.400 mm (18 Ft feed beam), 2600 mm (20ft) |
| Feed rotation | : | 360° |
| Rotation radius | : | 1115 mm |
| (Rotation Centre - Drillsteel Center) | | |
| Feed Adjuster Tilt | : | +115°/-115° |
| Feed adjuster Swing | : | +15° /-55° |

Electronic angle sensors are mounted in all joints.

3.1.4 Feed beams

| | | |
|--------------|---|---|
| Profile type | : | TB 16 |
| Variant | : | 20 Ft |
| Weight | : | ~ 1000 kg without hoses, oil and Drillsteel |
| Mater Power | : | ~ 12.5 KN |
| RAS system | : | Carousel Type RAS system, 8x 10ft |

3.1.4.1 TB 16 length variants and drill depth

| Type | Total length | Hole depth, approx. |
|-------|--------------|---------------------|
| 14 Ft | 6067 mm | 3956 mm |
| 18 Ft | 7452 mm | 5175 mm |
| 20 Ft | 8152 mm | 5790 mm |

NOTE:

Attainable gaps are dependent on various factors:

- The length of living steel from different suppliers may vary
- Tightening of feeder wire
- Adjustment of the resident machine on the feeder beam

3.1.5 Rock Drill

| | | |
|----------------------------|---|---------------------|
| Type | : | Montabert HC 110 MT |
| Max. effect | : | 35 kW |
| Perkusjonsfrekvens | : | 65-70 Hz |
| Perkusjonstrykk | : | 180-200 Bar |
| Max. rotation speed | : | 50-300 RPM. |
| Flush water consumption | : | 133 L/min. |
| Max. Torque | : | 670 Nm |
| Weight (with mech. stroke) | : | Approx. 210 kg |

3.1.6 Coverage area

| | | |
|------------------|---|--|
| Max height | : | Ca. 11 m |
| Max width | : | Ca. 17.9 m |
| Theoretical area | : | ca. 209 m ² , with the beams parallel |

See also § 3.2.3

3.1.7 Charging Basket

| | | |
|------------------|---|---|
| Type | : | AMV 6 |
| Turn | : | +45° / -45° |
| Range | : | Front side basket, max 13.5 m from console |
| Height | : | Door, maximum 13 m above ground level |
| Telescope | : | 2x 2800 mm |
| Dimensions Bin | : | L x B, 2000 x 1000 mm |
| Rotation Basket | : | +45° / -45° |
| Number of people | : | Max 2 |
| SWL | : | 330 kg with protection roof |
| Protection Roof | : | 120 kg, hydraulic down foldable |
| Control | : | Master-Slave cylinder to keep the Basket horizontal |

3.1.8 Hydraulic Power Pack

| | | |
|----------------------|---|--|
| Hydraulic Oil Volume | : | Approx. 1200 liters, minimum level of 800 liters Electronic oil level and temperature monitoring. |
| Pumps | : | 3x 140 + 140 cm ³ Tandem variable Aksialstempelpumper Electric powered, 1500 RPM Volume and pressure controlled 1x 60 cm ³ Variable Aksialstempelpumpe, PTO Diesel, Max 2300 RPM |
| Electric motors | : | 3 x 95 kW Short-term power consumption of up to 105 KW per engine is Accepted during normal operation |
| Diesel engine | : | 1x140 kW. Used for operating the PTO pump |

| | | | | |
|---------|---|----------------------|---|----------------|
| Filters | : | High-pressure filter | : | 10 mμ Absolute |
| | | Return oil Filter | : | 10 mμ Absolute |
| | | Leak oil filter | : | 10 mμ Absolute |
| | | Fine filter | : | 5 mμ Absolute |
| | | air filter | : | 2 mμ Absolute |

Monitoring of hydraulic filters with electrical indicators

3.1.8.1 Oil cooling

Refrigeration through an oil/water cooler in the main return cord and low-pressure side of the water system.

3.1.9 Water system

| | | |
|-----------------------|---|--|
| Water Pump | : | Multi-stage Centrifugal pump |
| Engine | : | 18.5 kW, 400V, 1500 RPM |
| Capacity | : | Approx. 350 l/min. |
| Pump pressure | : | Suction pressure +13 bar at max capacity |
| Intake water Pressure | : | 5-10 Bar |

Pressure monitoring and pressure limiting valve on inlet side

Water filter

Water Flow Indicator

Control valves, compressed air service.

3.1.9.1 Water Reel

| | | |
|-----------|---|---------------------------------------|
| Hose Roll | : | Hydraulically powered. |
| Snake | : | 120 m, 2 "hose, textile reinforcement |

Hydraulic directional valve, Free running valve and load holding valve.

3.1.10 Compressed Air System

| | | |
|----------|---|---------------------------------|
| Type | : | Compressor of Skruetypen |
| Capacity | : | 2.4 m ³ /min @ 7 bar |
| Engine | : | 15 kW, 400V |
| Lufttank | : | 2x40 liters |

3.1.10.1 Shank Lubrication System

Oil tank with level-monitoring

Benefits block with return and refill connection

3.1.11 Lubrication System

3.1.11.1 Central Lubrication System

Central lubrication system covering the main connection points of the boom.

3.1.11.2 Manual Lubrication Points

All lubrication points on the machine that are not attached to the central system should be lubricated manually. As far as possible, these points are gathered in lubrication blocks.

3.1.12 Electrical system

| | | |
|-------------------|---|----------------------|
| Installed power | : | 335 kW |
| Electrical system | : | 3 x 1000 V, 50 Hz |
| Converter | : | 1000V-400V, 47.5 kVA |

Electronic oil level control
Electronic Oil Temperature control
Battery charger
Online protection against over and under voltage
Digital Volt and Ampere meter

3.1.12.1 Cable Reel

| | | |
|--------------|---|--------------------------------|
| Cable Scroll | : | Hydraulically powered |
| Cable | : | 120 m, 4 x 120 mm ² |

Hydraulic directional valve, Free running valve and load holding valve.

3.1.13 Lighting system

The machine is fully equipped with LED lights

| | | | |
|--------------|---|---|----|
| Flood lights | : | LED on Cabin | 6x |
| Work light | : | On the front bumper | 2x |
| | | On the console | 4x |
| Headlights | : | On the front bumper | 2x |
| | | On Rear Bumper | 2x |
| Extra Lights | : | Rear of the Cabin | 2x |
| | | Roof light Cabin | 2x |
| | | Inside the cupboards Under the chassis | |

3.1.14 Operator Cabin

2 operating positions

- Chair
- Standing on right

Noise insulation, sound pressure level 75 dBA

HVAC-system

- Air conditioning with temperature control
- Heating
- Fresh air vent at variable speed provided with particle filter

Variable Speed window wiper with window washer

Release mechanism for DAFO Forrex-System (fire extinguishing in engine room)

The operator cabin can be raised to switch between drilling situation and driving situation.

3.1.15 Drilling control

CC system : BEVER V6

Electronic feeder and drill control and Fastboringsautomatikk.

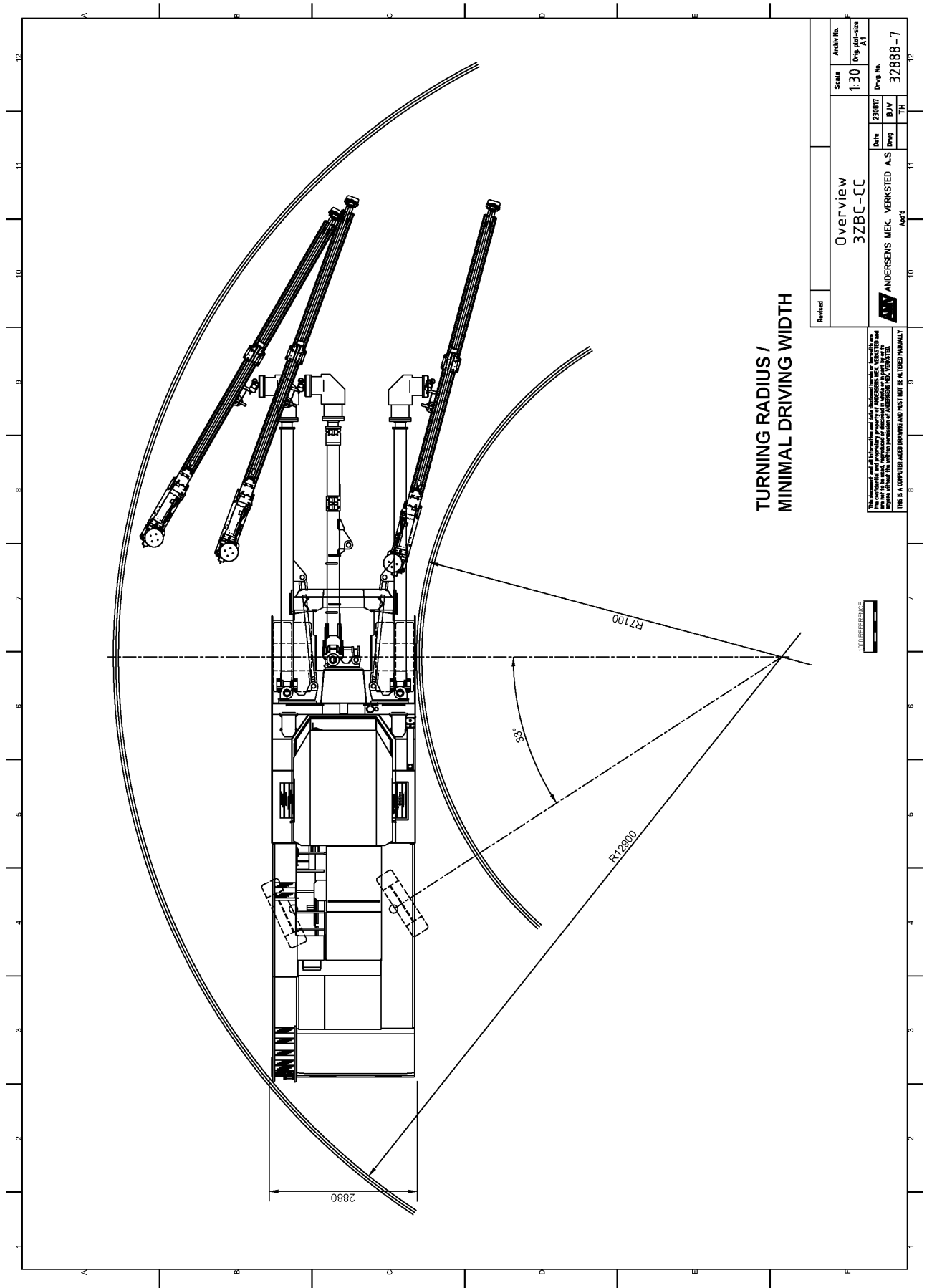
The drilling machines are operated with a switch for each drilling machine option with the joystick.

The boom is operated by 2 joysticks.

NOTE

Rig cannot drill without operational BEVER System

3.2.2 Turning Radius

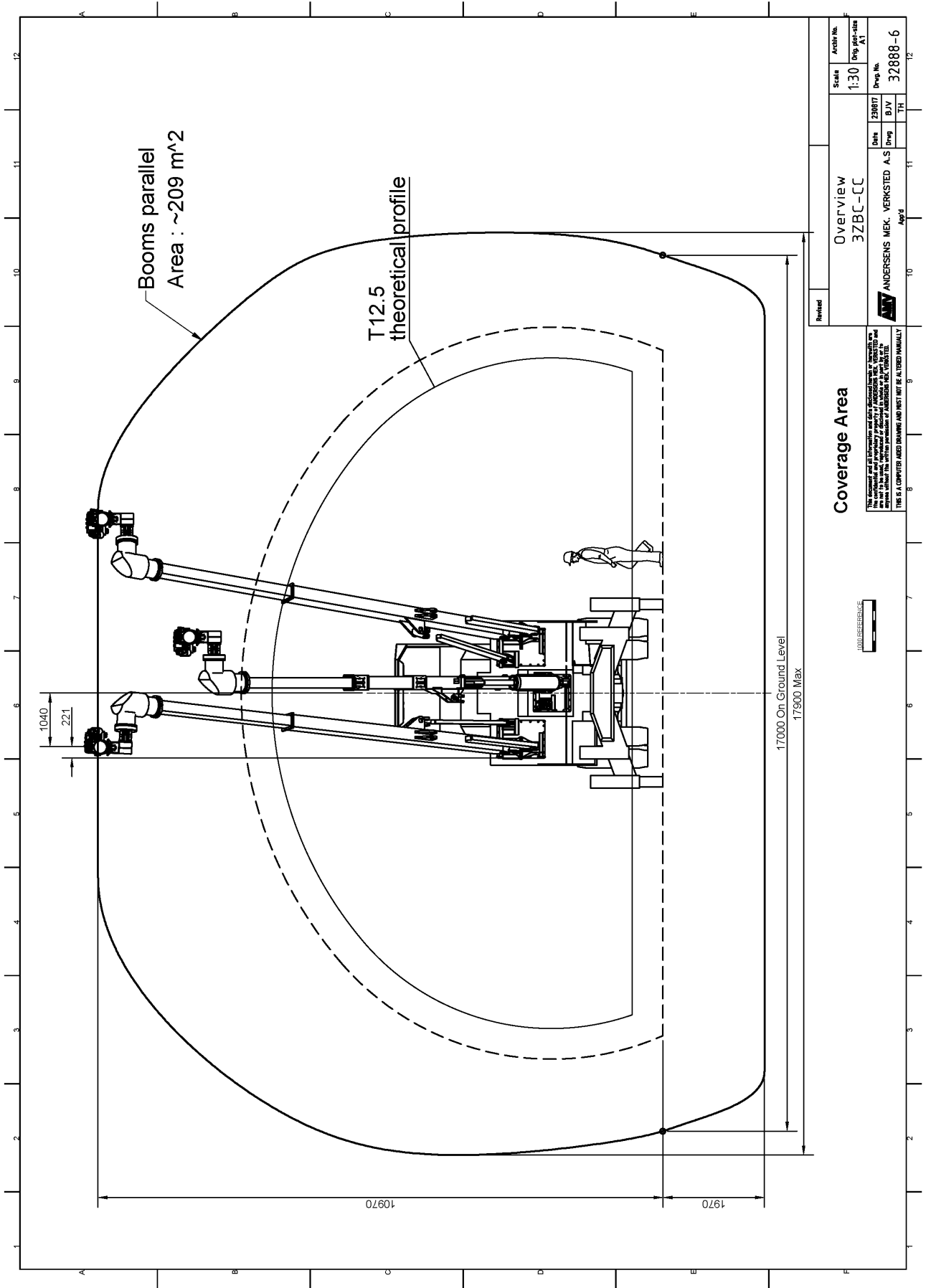


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|---------|------------------------------|---------------------|-----------------------|
| Revised | Overview 3ZBC-CC | Scale 1:30 | Archiv No. 3ZBC-CC |
| | ANDERSENS MEK. VERKSTED A.S. | Proj. No. 230817 | Proj. No. 32888-7 |
| | Anders | Proj. B.V. | TH |

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3.2.3 Coverage Area, ZETA Booms



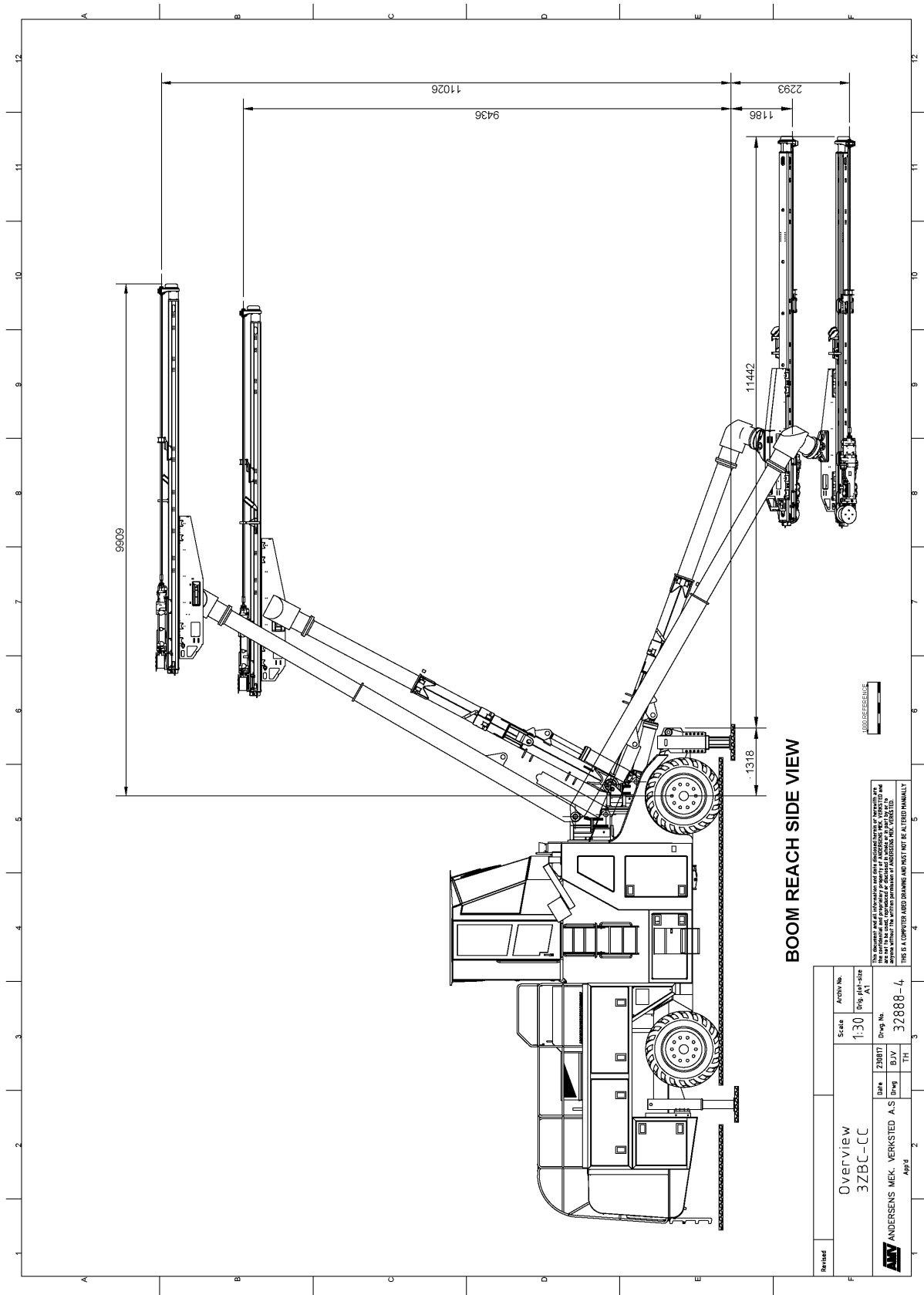
Coverage Area

Note: Coverage of all instruments and data processing is dependent on the configuration of the instruments and the configuration of the data processing system. Coverage is not guaranteed for all instruments and data processing systems. Coverage is not guaranteed for all instruments and data processing systems. Coverage is not guaranteed for all instruments and data processing systems. THIS IS A COMPUTER AIDED DRAWING AND MUST NOT BE ALTERED MANUALLY.

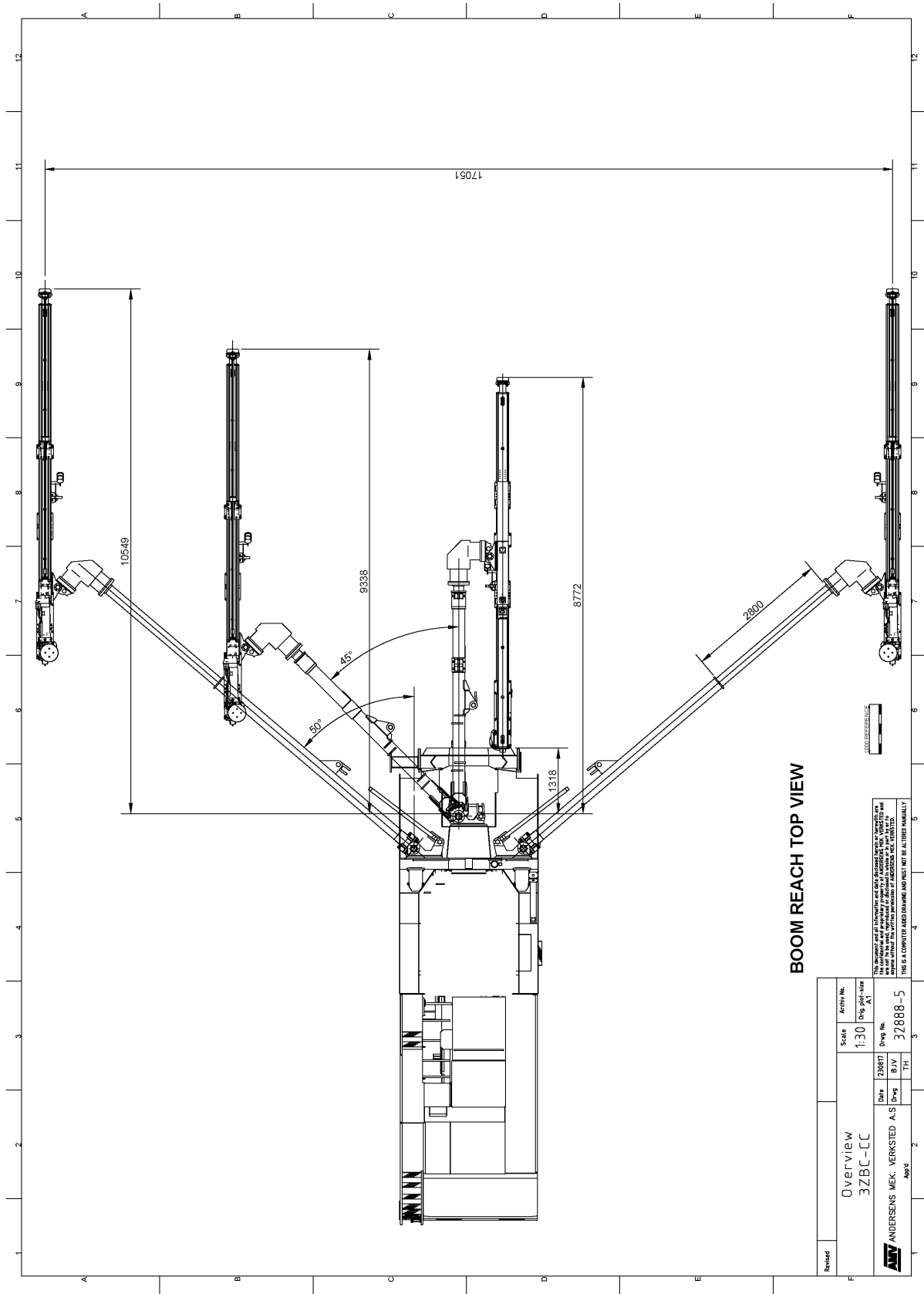


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| Revised | Overview 3ZBC-CC | Scale 1:30 | Arch. No. 32888-6 |
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| | And | Proj. B./V. | Proj. TH |

3.2.4 Boom Reach, side view



3.2.5 Booms Reach, top view



BOOM REACH TOP VIEW

| | | | |
|---------|-----------------------------|------------------|------------------------------------|
| Revised | Overview 3ZBC-CC | Scale 1:30 | Arch. No. Orig. part-size A1 |
| Apr 93 | ANDERSENS MEK. VERKSTED A/S | Date 13/08/97 | Draw. No. 32888-5 |
| | | Draw. by B JV | TH |

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