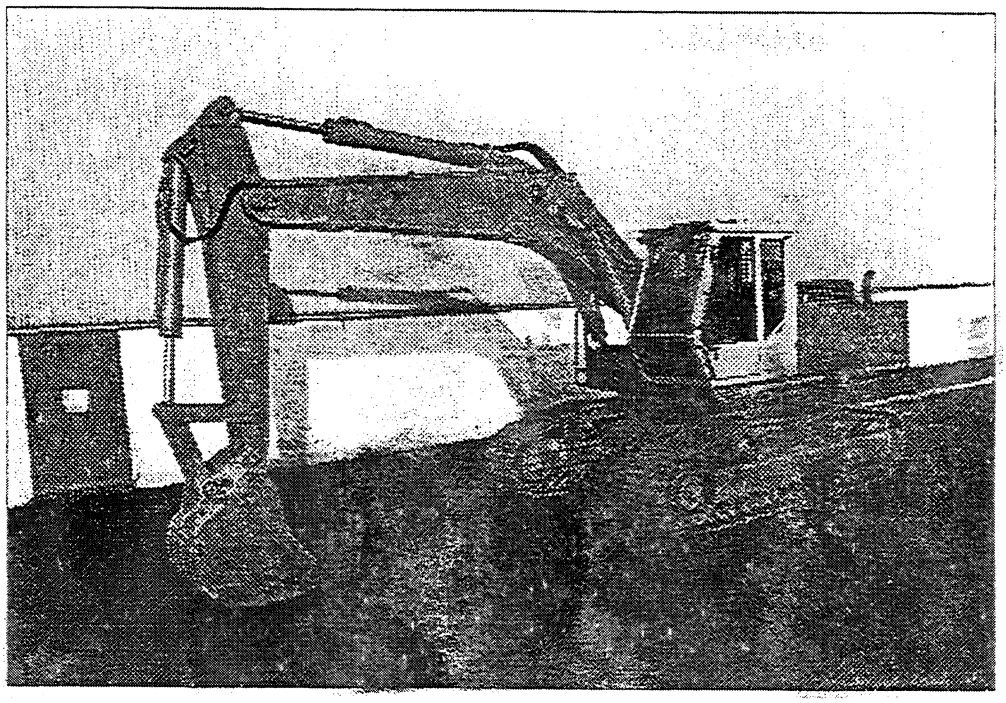
FIATALLIS®

# FX 300 LC

## CRAWLER EXCAVATOR



## SERVICING MANUAL



99825021

Reprinted

# FOREWORD 10



Studio 11 Imola 00591

## WARNING!

⚠ **Study this handbook before starting the machine**
You must understand and follow the instructions in this handbook.
Abide by all relevant laws and regulations. If you are unsure about anything, ask your BENATI MACCHINE dealer or employer.
**Do not guess,** you or others could be killed or seriously injured.

## IMPORTANT NOTE

All information included in this manual is to be considered valid at the time of prining.
Due to the fact that the Manufacturing Company constantly improves its product, certain information may not result up to date.
For any discrepancy, consult Sales and Service Department.

# 11 FOREWARD

This manual has been prepared as an aid to improve the quality of repairs by giving the serviceman an accurate understanding of the product and by showing him the correct way to perform repairs and make judgements.
Make sure you understand the contents of this manual and use it to full effect at every opportunity.

This manual mainly contains the necessary technical information for operations performed in a service workshop.
For ease of understanding, the manual is divided into sections for each main group of components; these sections are further divided into paragraphs.

Each paragraph contains the following information as applicable:

Description and Operation

This explains the structure and function of each component.
It serves not only to give an understanding of the structure, but also serves as reference material for troubleshooting.

Testing and Adjusting

This explains checks to be made before and after performing repairs, as well as adjustments to be made at completion of the checks and repairs. Troubleshooting information is also included if applicable.

Removal and Installation - Disassembly and Reassembly

This explains the order to be followed when removing, installing, disassembling or assembling each component, as well as precautions to be taken for these operations.

# 12 TABLE OF SECTIONS AND UNITS

## 13 HOW TO USE THIS MANUAL

This manual was written primarily for service centres and contains complete instructions on troubleshooting, removal and inspection of parts, repair or overhaul, and installation of the group included in the machine discussed in this manual.

The following instnuctions should be carefully read and observed by personnel who perform maintenance on the machine.

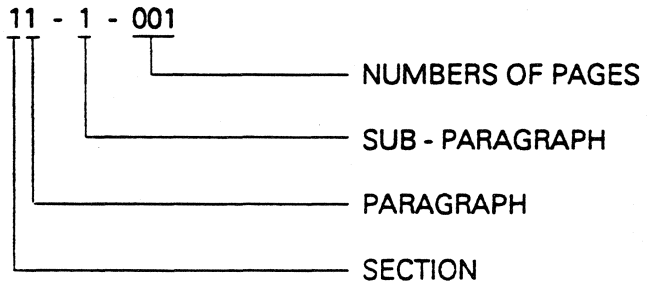
When replacing groups or component parts, always use original spare parts; this assures functional interchangeability and proper operation of the various parts.

Information regarding routine maintenance operations or maintenance covered by the Operation and Maintenance manual have been omitted; refer to the above-mentioned manual as necessary.
The manual is divided as follows:

SECTIONS: are identified by the number of the relevant group (e.g., 10 FOREWORD).

PARAGRAPHS: are identified by the number of the relevant section followed by the paragraph number (e.g., 10 + 1 = 11 Introduction).

When paragraphs are very wide, further paragraphs are added to them (e.g., 11.1).




This numbering method allows identification of sections and paragraphs with in the manual and facilitates location of references.

Unless otherwise specified, the group installation procedure is obtained by reversing the sequence of operations given for removal.

# FEATURES 20



Studio II Imola 03591

# 21 TECHNICAL DATA

## BASIC MACHINE PARTS

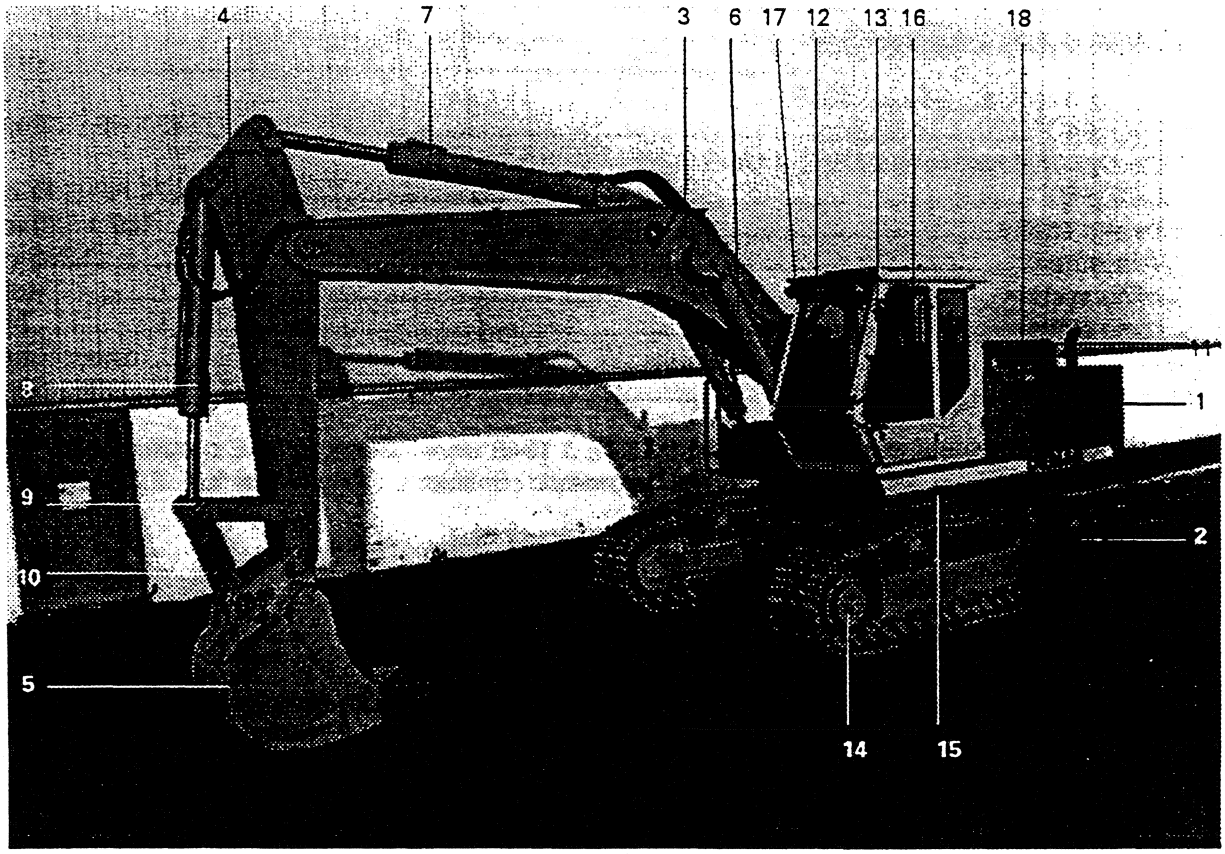
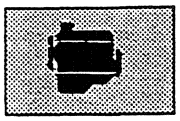



Fig. 1

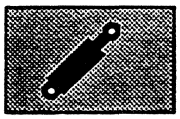
1) Rotating upper structure
2) Undercarriage
3) One-piece boom
4) Dipperstick
5) Bucket
6) Hydraulic cylinder, boom lift
7) Hydraulic cylinder, dipperstick
8) Hydraulic cylinder, bucket
9) Linkage
10) Linkage tie rod
11) Power plant (engine and hydraulic pump)
12) Control valves
13) Swing reduction gear and hydraulic motor
14) Travel reduction gear and hydraulic motor
15) Slewing ring
16) Cab and operator compartment
17) Fuel tank
18) Hydraulic oil reservoir



## ENGINE

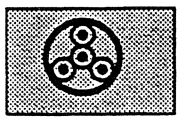
Make ..... CUMMINS
Model ..... 6 BTA 5.9
Cylindres, number ..... 6
Cycle ..... 4
Injection ..... direct
Gross horsepower SAE J 1349
a 2500 giri/1' ..... 177 HP (132 kW)
* Net flywheel horsepower SAE J 1349
a 2200 giri/1' ..... 174 HP (130 kW)
Bore and stroke ..... 102 x 120 mm
Displacement ..... 5880 cm³
Cooling system ..... water
Electric starter ..... 24 V
Aspiration ..... turbocharged
Fuel consumption (max. output) ..... 152 g/HPh

* Net flywheel horsepower as spscified by SAE J 1349 under standard SAE conditions 25°/77°F amblent temperature, l00 KP (29.61 in Hg) barometric conditions, using dlesel fuel 2 D (ASTM).



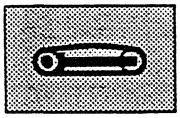
## HYDRAULIC SYSTEM

Two axial piston variable flow, constant horsepower, pump with summated horsepower control.
Maximum delivery ..... 2 x 208 litres/min (2 x 55 gal/min)
Relief valve settings
Digging implement circuits ..... 300 bar
Travel system ..... 300 bar
Swing system ..... 300 bar
The pilot control circuit is fed by a gear pump with a preloaded accumulator for movements with engine off
Operating pressure ..... 30 bar
Delivery ..... 41 litres/min
Hydraulic cylinders, bore and stroke
Boom (2) ..... 130 x 1100 mm.
Dipperstick (1) ..... 160 x 1380 mm.
Bucket (1) ..... 130 x 1100 mm.



## DRIVE

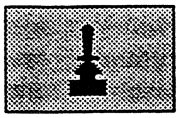
Full hydrostatic type, each track driven by an independent hydraulic motor through planetary final drives, splash lubricated and oil/water tight floating ring seals.
Standard and long undercarriage ..... 23100 Kg.
Maximum travel speed at rated engine rpm (forward and reverse) ..... 2,80 Km/h
Automatic oil bath multidisc brakes to enable the excavator to work on steep gradients up to max. gradeability; they are automatically applied and act also as parking brake.



## UNDERCARRIAGE

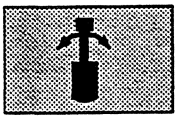
Track-type tractor, industrial undercarriage. Box section type track frames. Lifetime lubricated rollers and idlers.Triple grouser industrial trackshoes.
Track links Nr. each par.....48
Rollers - Nr. each part .....10+2

| TRACKSHOE width mm | SPECIFIC GROUND PRESSURE N/cm² |
|---|---|
| 550 | 6,5 |
| 650 | 5,5 |
| 750 | 4,8 |
| 850 | 4,3 |
| 900 | 4,0 |



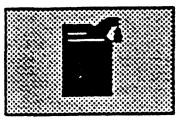
## CONTROLS

Hydraulic power assisted: two joystick hand levers provide control to implement operations and upperstructure slewing. Two pedals control fonward/reverse travel, steering and counterrotation of tracks.



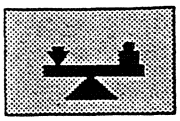
## SWING MECHANISM- 360°

Swing system operates through a reduction transmission with hardened and carburized gears splash lubricated, powered by a self-braking hydraulic motor.
Swing bearing with case hardened internal gear, grease lubricated.
Swing speed .....9,5 r.p.m.
Swing torque .....7940 kgM
Oil bath multidisk brakes automatically apply when control lever is in neutral position.



## SERVICE REFILL CAPACITIES

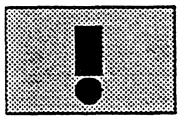
Fuel tank .....438 litres
Cooling system .....40 litres
Lubrication:
Engine oil .....16 litres
Final drives (each) .....3 litres
Swing drive .....5 litres
Hydraulic system .....320 litres
Hydraulic reservoir .....212 litres



## OPERATION WEIGHT (APPROXIMATE)

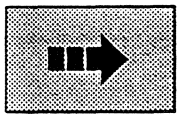
Includes trackshoes, full tank, operator, two piece boom 2,1 m dipperstick and 1200 mm bucket.

| TRACKSHOE width mm (in) | WEIGHT t. |
|---|---|
| 550 | 29,0 |
| 650 | 29,4 |
| 750 | 29,8 |
| 850 | 30,2 |
| 900 | 30,4 |



## STANDARD EQUIPMENT

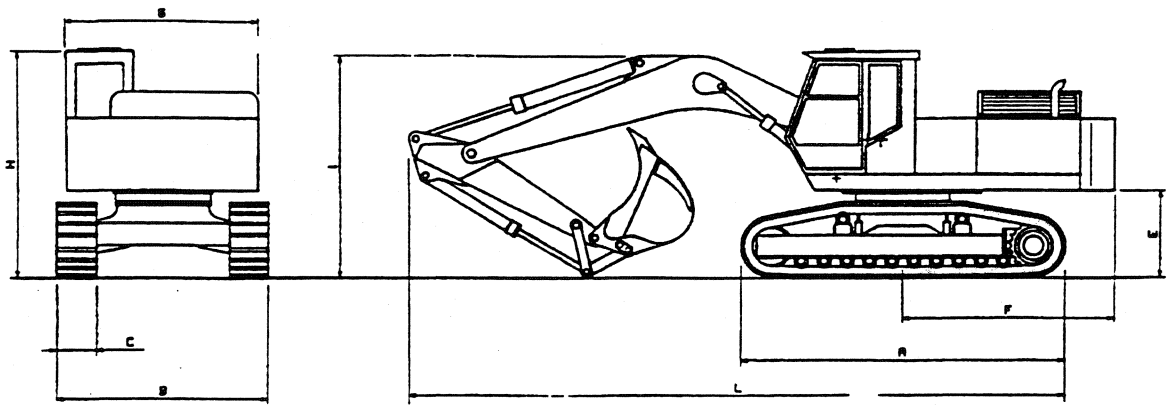
Alternator 38 A., exhaust muffler, standard counterweight, drytype air cleaner with cyclon pre-cleaner, electric horn, cab with adjustable seat, cab heating, diesel engine instruments, service warning lights, hourmeter, windshield wiper and safety glasses in all windows, work lights. Life-time lubricated rollers and idlers, hydraulic track adjusters, 550 mm triple-grouser track shoes, front track guiding guard, tow eye, thermostart unit, tool box, travel motors protection, automatic multidisc emergency brakes, oil bath lubricated. Top cab window, fan. Refuelling pump. Sound suppression kit.



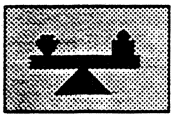
## OPTIONAL EQUIPMENT

One and two-piece booms. Long and extra-long dipperstick. Backhoe buckets. Bucket teeth. Front loading stick. Front loading shovels and multipurpose. Track shoe options. Air conditioner. Pressurizer. Radio set. FOPS. Ditching boom. Clamshell attachment. Intermediate arm articulation. Hydraulic hammer.

## TRANSPORT DIMENSIONS - MONOBLOC BOOM

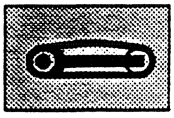



| Stick | A | B | C | D | E | F | G | H | I | L |
|---|---|---|---|---|---|---|---|---|---|---|
| **2,1** | 4605 | 3000-3350 | 550-900 | 500 | 1200 | 3010 | 2700 | 3150 | 3100 | 10210 |
| **2,6** | 4605 | 3000-3350 | 550-900 | 500 | 1200 | 3010 | 2700 | 3150 | 3250 | 10260 |
| **3,1** | 4605 | 3000-3350 | 550-900 | 500 | 1200 | 3010 | 2700 | 3150 | 3400 | 10310 |



### Weights

| Track Width | | **550 mm** | **650 mm** | **750 mm** | **850 mm** | **900 mm** |
|---|---|---|---|---|---|---|
| Weight of Undercarriage | Superstr. Attachim. cpl | 29,0 t | 29,4 t | 29,8 t | 30,2 t | 30,4 t |
| Weight of 1 Crawler Assembli | | 1875 Kg | 2075 Kg | 2275 Kg | 2475 Kg | 2575 Kg |

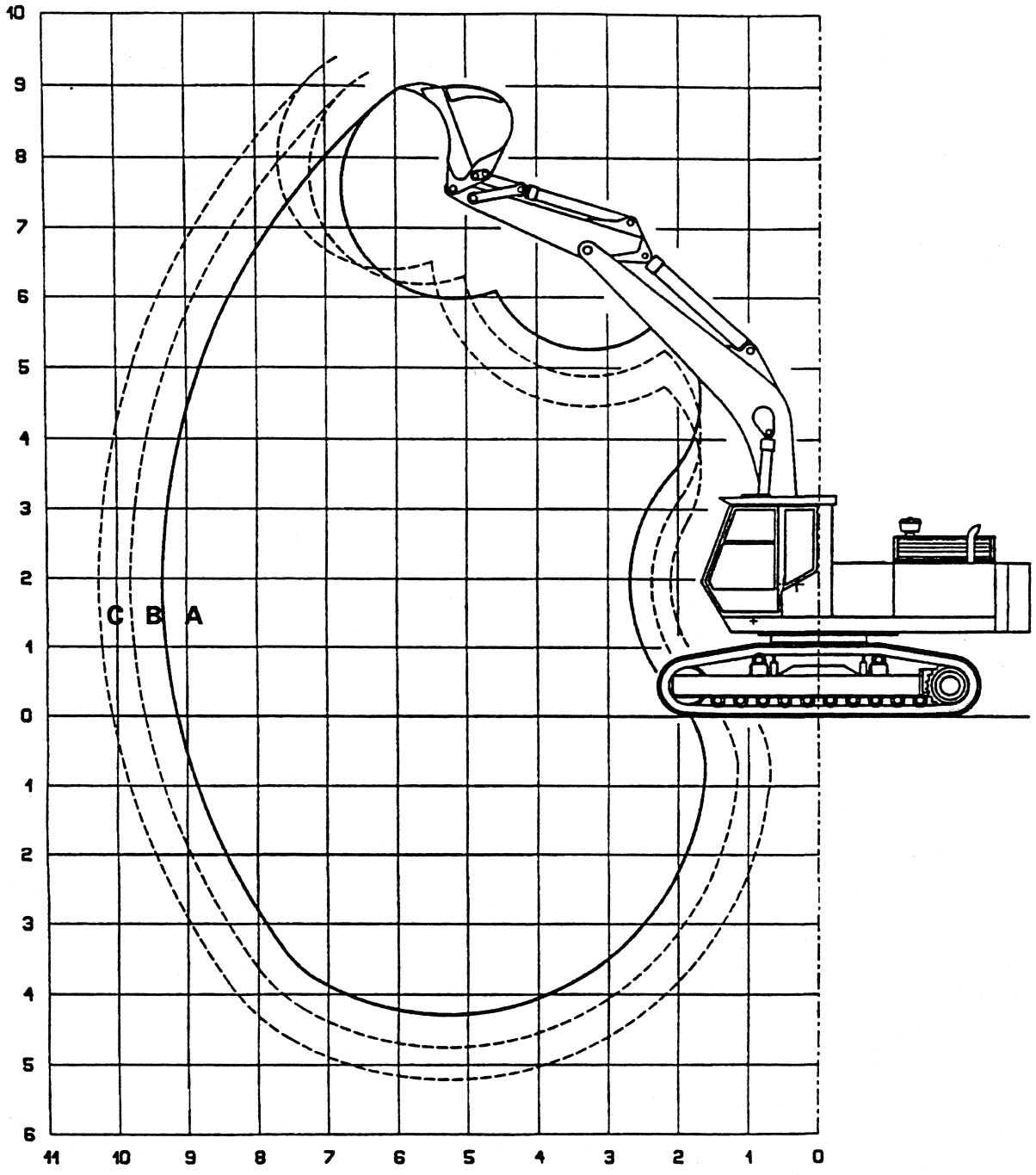


### Ground Pressure

| Track Width | | **550 mm** | **650 mm** | **750 mm** | **850 mm** | **900 mm** |
|---|---|---|---|---|---|---|
| Undercarriage | Superstr. Attachim. cpl | 6,5 N/cm² | 5,5 N/cm² | 4,8 N/cm² | 4,3 N/cm² | 4,0 N/cm² |

## WORKING RANGES -MONOBLOC BOOM

**Position 1**




The boom-foot brackets offer two mounting positions for the boom. Position 2 adds up to 25% to the force of the boom-elevation cylinders. This position is recommended for jobs where the maximum digging depth is not required, but high lifting capacities.

**Forces pos. 1**

| Stick | 2,1 m (A) | 2,6 m (B) | 3,1 m (C) |
|---|---|---|---|
| Max.Radius (m.) | 9,1 | 9,5 | 10 |
| Max. Depth (m.) | 4,27 | 4,77 | 5,27 |
| Dumping Height (m.) | 6,0 | 6,05 | 6,1 |
| Break-Out Force (kN) | 145,2 | 126,5 | 112,2 |
| Tear- Out Force (kN) | 159,6 | 159,6 | 159,6 |

**Digging tools Monobloc Boom pos.1**

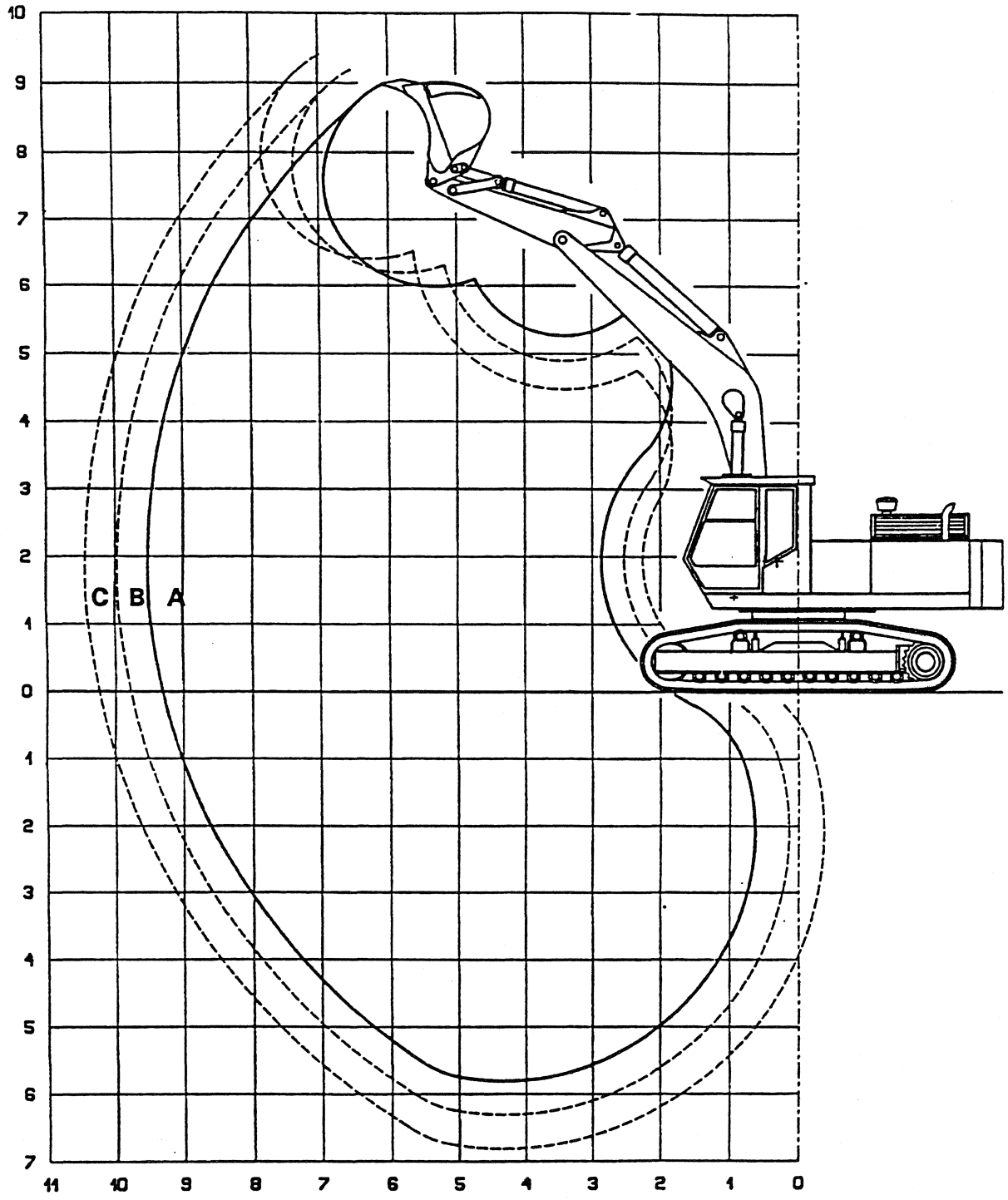
| Capacity | 0,5 | 0,8 | 1,26 | 1,39 | 1,65 | 1,95 |
|---|---|---|---|---|---|---|
| Stick m 2,1 (A) | 0 | 0 | 0 | 0 | 0[1] | 0[2] |
| Stick m 2,6 (B) | 0 | 0 | 0 | 0[1] | 0[2] | 0[2] |
| Stick m 3,1 (C) | 0 | 0 | 0[1] | 0[2] | 0[3] | - |
| Bulk Material Weights | | [1] 1,8 t/m³ | [2] 1,5 t/m³ | | [1] 1,3 t/m³ | *SAE |

## BAKET

| Bucket width | Capacity | Weight with teeth | Number of teeth | | |
|---|---|---|---|---|---|
| 700 | 0,50 | 760 | 3 | 3743848 | 3744001 |
| 1000 | 0,80 | 950 | 4 | 3743835 | 3744010 |
| 1200 | 1,26 | 1130 | 4 | 3743795 | 3744027 |
| 1350 | 1,39 | 1275 | 4 | 3743781 | 3744030 |
| 1500 | 1,65 | 1335 | 5 | 3743875 | 3744033 |
| 1600 | 1,95 | 1520 | 5 | 3743801 | 3744049 |

## WORKING RANGES - MONOBLOC BOOM

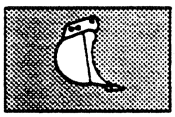
**Position 2**



**Forces pos. 2**

| Stick | 2,1 m (A) | 2,6 m (B) | 3,1 m (C) |
|---|---|---|---|
| Max.Radius (m.) | 9,3 | 9,7 | 10,1 |
| Max. Depth (m.) | 5,81 | 6,31 | 6,81 |
| Dumping Height (m.) | 6,0 | 6,05 | 6,1 |
| Break-Out Force (kN) | 145,2 | 126,5 | 112,2 |
| Tear- Out Force (kN) | 159,6 | 159,6 | 159,6 |

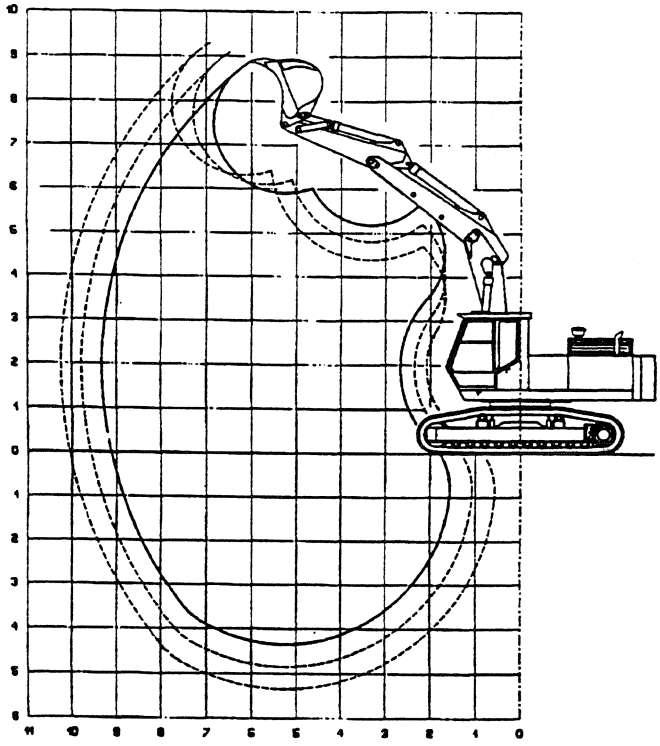
**Digging tools Monobloc Boom pos. 2**



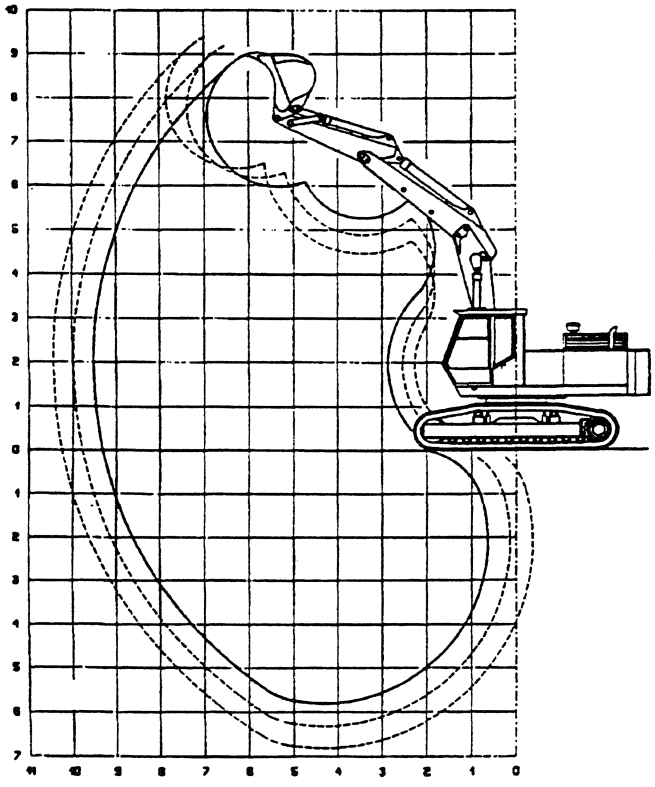
| Capacity | 0,5 | 0,8 | 1,26 | 1,39 | 1,65 | 1,95 |
|---|---|---|---|---|---|---|
| Stick m 2,1 (**A**) | 0 | 0 | 0 | 0 | 0[1] | 0[2] |
| Stick m 2,6 (**B**) | 0 | 0 | 0 | 0[1] | 0[2] | 0[2] |
| Stick m 3,1 (**C**) | 0 | 0 | 0[1] | 0[2] | 0[3] | - |

Bulk Material Weights [1] 1,8 t/m³ [2] 1,5 t/m³ [1] 1,3 t/m³ *SAE

## Working Ranges Two-Piece Boom



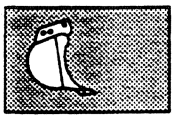
**Position 1**: Two-piece boom in lower position



**Position 2**: Two-piece boom in bottom position

**Forces**

| **Stick** | **2,1 m (A)** | | **2,6 m (B)** | | **3,1 m (C)** | |
|---|---|---|---|---|---|---|
| | **Pos.2** | **Pos.1** | **Pos.2** | **Pos.1** | **Pos.2** | **Pos.1** |
| Max.Radius (m.) | 9,3 | 9,1 | 9,7 | 9,5 | 10,1 | 10,0 |
| Max. Depth (m.) | 5,81 | 4,27 | 6,31 | 4,77 | 6,81 | 5.27 |
| Dumping Height (m.) | 6,0 | 6,0 | 6,05 | 6,05 | 6,1 | 6.1 |
| Break-Out Force (kN) | 145,2 | 145,2 | 126,5 | 126,5 | 112,2 | 112.2 |
| Tear- Out Force (kN) | 159,6 | 159,6 | 159,6 | 159,6 | 159,6 | 159.6 |



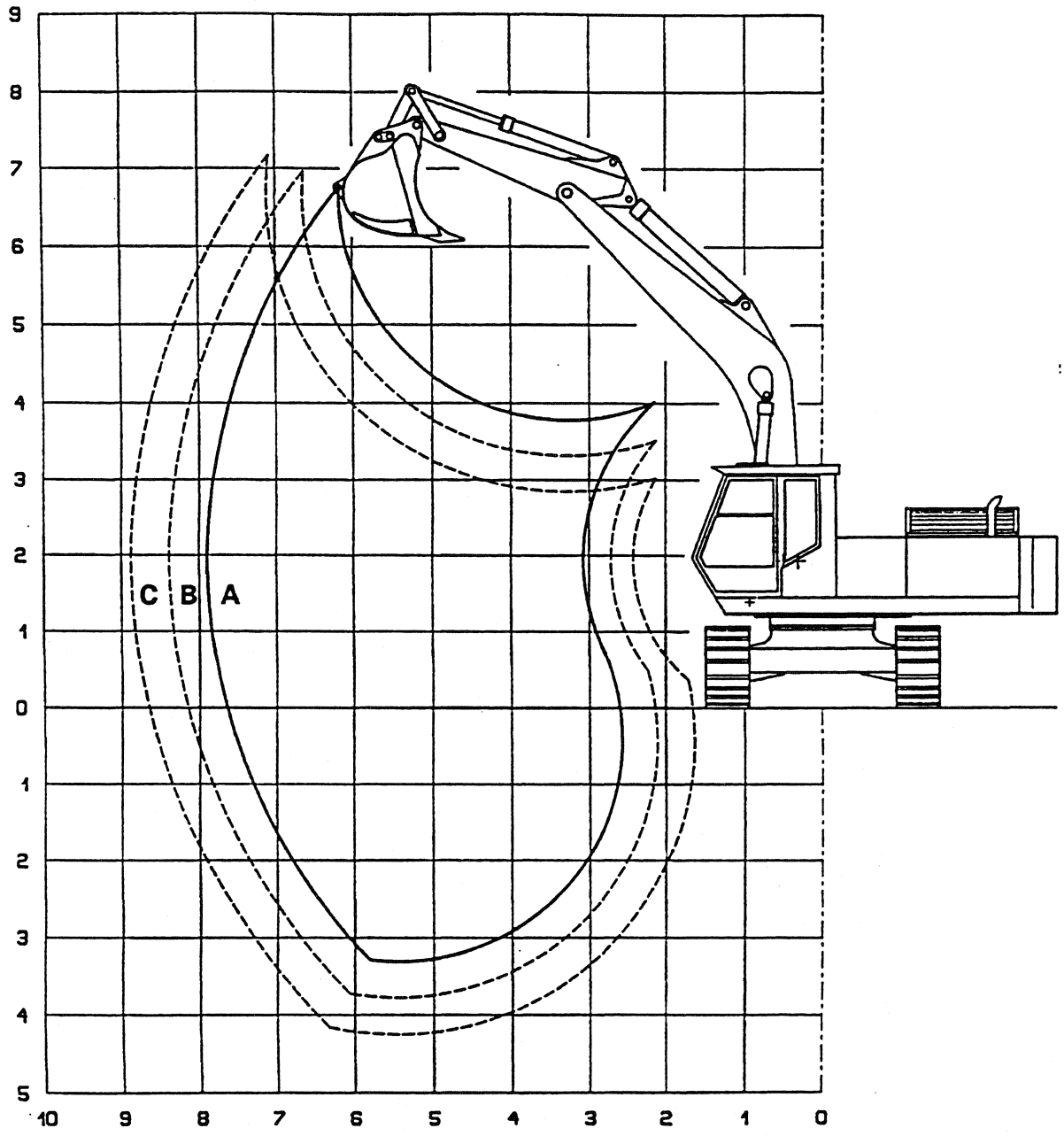
**Digging tools Monobloc Boom**

| **Capacity** | **0,5** | **0,8** | **1,26** | **1,39** | **1,65** | **1,95** |
|---|---|---|---|---|---|---|
| Stick m 2,1 (**A**) | 0 | 0 | 0 | 0 | 0[1] | 0[2] |
| Stick m 2,6 (**B**) | 0 | 0 | 0 | 0[1] | 0[2] | 0[2] |
| Stick m 3,1 (**C**) | 0 | 0 | 0[1] | 0[2] | 0[3] | - |

Bulk Material Weights [1] 1,8 t/m³ [2] 1,5 t/m³ [1] 1,3 t/m³ *SAE

## LIFTING CAPACITIES - MONOBLOC BOOM

**Position 1**



## LIFTING CAPACITIES - MONOBLOC BOOM

**Position 1**

All lifting capacities are in metric tons, over ends and sides (360°). They do not exceed 75 % of tipping load in compliance with DIN 15019, When using a load hook on the stick-where bucket, bucket-cylinder and linkage must be removed- 1,59 t may be added to the loads in the Crane-Capacity Chart.

- Boom 5580 mm
- Stick (**A**) 2100 m
- Backhoe 1.65 m³

Height / Radius (m)

| m | 8,0 | 7,5 | 7,0 | 6,5 | 6,0 | 5,5 | 5,0 | 4,5 | 4,0 | 3,5 | 3,0 | 2,5 | 2,0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,0 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6,5 | - | - | - | 3,42° | - | - | - | - | - | - | - | - | - |
| 6,0 | - | - | 3,40 | 3,44° | 3,52° | - | - | - | - | - | - | - | - |
| 5,5 | - | - | 3,43° | 3,52° | 3,64° | - | - | - | - | - | - | - | - |
| 5,0 | - | 3,42° | 3,51° | 3,64° | 3,82° | 4,04° | - | - | - | - | - | - | - |
| 4,5 | - | 3,49° | 3,62° | 3,80° | 4,02° | 4,31° | 4,68° | - | - | 7,78° | - | - | - |
| 4,0 | - | 3,52 | 3,75° | 3,98° | 4,26° | 4,62° | 5,09° | 5,70° | 6,54° | 9,03° | - | - | - |
| 3,5 | 3,02 | 3,47 | 3,90 | 4,17° | 4,52° | 4,95° | 5,52° | 6,29° | 7,37° | - | - | - | - |
| 3,0 | 2,98 | 3,41 | 3,91 | 4,38° | 4,78° | 5,29° | 5,98° | 6,88° | 8,20° | - | - | - | - |
| 2,5 | 2,94 | 3,35 | 3,83 | 4,38 | 5,03 | 5,62° | 6,39° | 7,43° | 8,94° | - | - | - | - |
| 2,0 | 2,90 | 3,29 | 3,75 | 4,28 | 4,90 | 5,65 | 6,57 | 7,72 | 9,20 | - | - | - | - |
| 1,5 | 2,86 | 3,24 | 3,67 | 4,18 | 4,78 | 5,50 | 6,39 | 7,50 | 8,95 | - | - | - | - |
| 1,0 | 2,82 | 3,19 | 3,61 | 4,10 | 4,68 | 5,38 | 6,24 | 7,34 | 8,79 | - | - | - | - |
| 0,5 | 2,79 | 3,15 | 3,55 | 4,03 | 4,60 | 5,29 | 6,14 | 7,23 | 8,70 | 9,57° | - | - | - |
| 0 | 2,77 | 3,11 | 3,51 | 3,98 | 4,54 | 5,22 | 6,06 | 7,16 | 8,68 | 10,89 | - | - | - |
| -0,5 | - | 3,09 | 3,48 | 3,94 | 4,50 | 5,17 | 6,02 | 7,13 | 8,66 | 10,93 | 10,35° | - | - |
| -1,0 | - | 3,09 | 3,47 | 3,92 | 4,47 | 5,15 | 6,00 | 7,12 | 8,68 | 10,98 | 12,90° | 10,75° | - |
| -1,5 | - | - | 3,47 | 3,92 | 4,47 | 5,15 | 6,01 | 7,14 | 8,72 | 11,06 | 12,76° | 13,24° | 12,04° |
| -2,0 | - | - | 3,50 | 3,94 | 4,49 | 5,17 | 6,04 | 7,19 | 8,79 | 10,74° | 12,28° | 14,04° | 14,32° |
| -2,5 | - | - | - | 3,98 | 4,52 | 5,21 | 6,09 | 7,25 | 8,87 | 10,23° | 11,68° | 13,41° | 15,56° |
| -3,0 | - | - | - | - | 4,59 | 5,27 | 6,16 | 7,34 | 8,47 | 9,60° | 10,93° | 12,54° | 14,64° |
| -3,5 | - | - | - | - | 4,64° | 5,36° | 6,10° | 6,90° | 7,80° | 8,82° | 10,00° | 11,43° | - |
| -4,0 | - | - | - | - | - | 4,60° | 5,37° | 6,13° | 6,94° | 7,84° | 8,85° | 10,04° | - |
| -4,5 | - | - | - | - | - | - | - | 5,06° | 5,81° | 6,58° | - | - | - |

* Hydraulic- system pressure is the limiting factor.

## LIFTING CAPACITIES - MONOBLOC BOOM

### Position 1

All lifting capacities are in metric tons, over ends and sides (360°). They do not exceed 75 % of tipping load in compliance with DIN 15019, When using a load hook on the stick- where bucket, bucket-cylinder and linkage must be removed- 153 t may be added to the loads in the Crane-Capacity Chart.

- Boom 5580 mm
- Stick (B) 2600 m
- Backhoe 1.39 m³

Height / Radius (m)

| m | 8,5 | 8,0 | 7,5 | 7,0 | 6,5 | 6,0 | 5,5 | 5,0 | 4,5 | 4,0 | 3,5 | 3,0 | 2,5 | 2,0 | 1,5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,5 | - | - | - | - | 3,10* | - | - | - | - | - | - | - | - | - | - |
| 7,0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6,5 | - | - | - | 3,02* | - | - | - | - | - | - | - | - | - | - | - |
| 6,0 | - | - | 3,03* | 3,03* | 3,07* | - | - | - | - | - | - | - | - | - | - |
| 5,5 | - | - | 30,5* | 3,09* | 3,16* | - | - | - | - | - | - | - | - | - | - |
| 5,0 | - | 3,07* | 3,11* | 3,19* | 3,30* | - | - | - | - | - | - | - | - | - | - |
| 4,5 | - | 3,12* | 3,2* | 3,32* | 3,46* | 3,65* | - | - | - | - | - | - | - | - | - |
| 4,0 | - | 3,16 | 3,31* | 3,46* | 3,65* | 3,89* | 4,19* | | - | - | - | - | - | - | - |
| 3,5 | 2,71 | 3,11 | 3,44* | 3,63* | 3,86* | 4,16* | 4,53* | 5,00* | 5,63* | 6,48* | 7,72* | - | - | - | - |
| 3,0 | 2,67 | 3,06 | 3,49 | 3,80* | 4,08* | 4,44* | 4,88* | 5,46* | 6,23* | 7,32* | 8,93* | - | - | - | - |
| 2,5 | 2,64 | 3,00 | 3,42 | 3,91 | 4,31* | 4,72* | 5,24* | 5,91* | 6,83* | 8,12* | 10,07* | - | - | - | - |
| 2,0 | 2,60 | 2,95 | 3,35 | 3,81 | 4,36 | 4,99* | 5,57* | 6,34* | 7,37* | 8,82* | 10,98* | - | - | - | - |
| 1,5 | 2,56 | 2,90 | 3,28 | 3,73 | 4,25 | 4,86 | 5,61 | 6,52 | 7,68 | 9,20 | 10,73* | - | - | - | - |
| 1,0 | 2,52 | 2,85 | 3,22 | 3,65 | 4,15 | 4,74 | 5,46 | 6,34 | 7,47 | 8,96 | 10,47* | - | - | - | - |
| 0,5 | 2,49 | 2,81 | 3,17 | 3,58 | 4,07 | 4,64 | 5,34 | 6,20 | 7,31 | 8,79 | 10,92 | - | - | - | - |
| 0 | - | 2,77 | 3,12 | 3,52 | 4,00 | 4,56 | 5,24 | 6,09 | 7,19 | 8,68 | 10,85 | 8,47* | - | - | - |
| -0,5 | - | 2,75 | 3,09 | 3,48 | 3,94 | 4,50 | 5,17 | 6,02 | 7,12 | 8,63 | 10,83 | 10,17* | 7,96* | - | - |
| -1,0 | - | 2,74 | 3,07 | 3,45 | 3,91 | 4,45 | 5,13 | 5,97 | 7,08 | 8,61 | 10,85 | 11,99* | 9,83* | 8,59* | 8,19* |
| -1,5 | - | - | 3,06 | 3,44 | 3,89 | 4,43 | 5,10 | 5,95 | 7,07 | 8,62 | 10,89 | 13,73* | 11,73* | 10,39* | 9,78* |
| -2,0 | - | - | 3,07 | 3,44 | 3,88 | 4,43 | 5,10 | 5,96 | 7,09 | 8,65 | 10,96 | 13,28* | 13,70* | 12,23* | 11,42* |
| -2,5 | - | - | - | 3,46 | 3,90 | 4,44 | 5,12 | 5,99 | 7,13 | 8,71 | 10,90* | 12,73* | 15,11* | 14,15* | 13,14* |
| -3,0 | - | - | - | 3,51 | 3,94 | 4,48 | 5,16 | 6,04 | 7,19 | 8,80 | 10,38* | 12,07* | 14,27* | 16,20* | 14,98* |
| -3,5 | - | - | - | - | 4,01 | 4,55 | 5,23 | 6,11 | 7,28 | 8,49* | 9,73* | 11,25* | 13,25* | 16,12* | 16,95* |
| -4,0 | - | - | - | - | - | 4,61* | 5,31* | 6,05* | 6,87* | 7,81* | 8,92* | 10,27* | 12,10* | 14,51* | - |
| -4,5 | - | - | - | - | - | - | 4,56* | 5,31* | 6,08* | 6,93* | 7,90* | 9,05* | 10,50* | - | - |
| -5,0 | - | - | - | - | - | - | - | - | 5,00* | 5,77* | 6,59* | - | - | - | - |

* Hydraulic- system pressure is the limiting factor.

## LIFTING CAPACITIES - MONOBLOC BOOM

### Position 1

All lifting capacities are in metric tons, over ends and sides (360°). They do not exceed 75 % of tipping load in compliance with DIN 15019, When using a load hook on the stick- where bucket, bucket-cylinder and linkage must be removed- 1,38 t may be added to the loads in the Crane-Capacity Chart.

- Boom 5580 mm
- Stick scavo (C) 3100 m
- Backhoe 1.26 m³

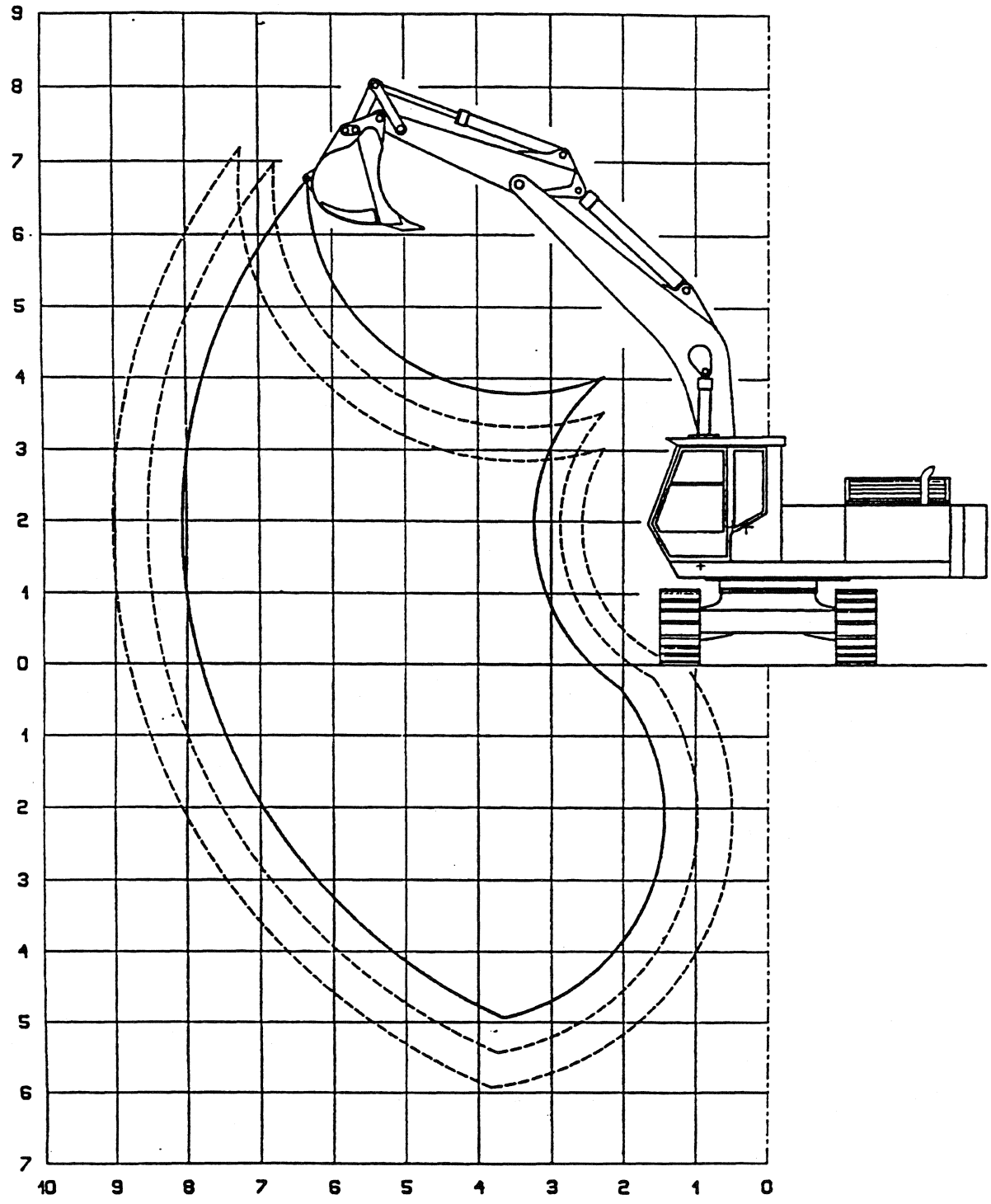
Height / Radius (m)

| m | 9,0 | 8,5 | 8,0 | 7,5 | 7,0 | 6,5 | 6,0 | 5,5 | 5,0 | 4,5 | 4,0 | 3,5 | 3,0 | 2,5 | 2,0 | 1,5 | 1,0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,5 | - | - | - | - | 2,84* | - | - | - | - | - | - | - | - | - | - | - | - |
| 7,0 | - | - | - | 2,84* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6,5 | - | - | - | 2,79* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 6,0 | - | - | 2,83* | 2,80* | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5,5 | - | - | 2,84* | 2,85* | 2,88* | - | - | - | - | - | - | - | - | - | - | - | - |
| 5,0 | - | 2,87* | 2,89* | 2,93* | 2,99* | - | - | - | - | - | - | - | - | - | - | - | - |
| 4,5 | - | 2,91* | 2,96* | 3,03* | 3,12* | 3,23* | - | - | - | - | - | - | - | - | - | - | - |
| 4,0 | - | 2,93 | 3,05* | 3,15* | 3,28* | 3,43* | 3,62* | | - | - | - | - | - | - | - | - | - |
| 3,5 | 2,53 | 2,89 | 3,16* | 3,29* | 3,45* | 3,65* | 3,89* | 4,19* | - | | | - | - | - | - | - | - |
| 3,0 | 2,50 | 2,84 | 3,23* | 3,43* | 3,63* | 3,88* | 4,18* | 4,55* | 5,03* | 5,66* | 6,52* | 7,75* | - | - | - | - | - |
| 2,5 | 2,46 | 2,79 | 3,17 | 3,59* | 3,82* | 4,11* | 4,47* | 4,92* | 5,50* | 6,28* | 7,35* | 8,93* | - | - | - | - | - |
| 2,0 | 2,43 | 2,74 | 3,10 | 3,51 | 3,98 | 4,35* | 4,76* | 5,28* | 5,98* | 6,87* | 8,13* | 9,98* | - | - | - | - | - |
| 1,5 | 2,39 | 2,69 | 3,04 | 3,43 | 3,88 | 4,41 | 5,04* | 5,62* | 6,38* | 7,40* | 8,80* | 10,83* | - | - | - | - | - |
| 1,0 | 2,36 | 2,65 | 2,98 | 3,35 | 3,79 | 4,30 | 4,91 | 5,64 | 6,55 | 7,71 | 9,24 | 11,39 | - | - | - | - | - |
| 0,5 | 2,33 | 2,61 | 2,92 | 3,29 | 3,71 | 4,20 | 4,78 | 5,49 | 6,37 | 7,49 | 8,99 | 11,13 | 8,13* | - | - | - | - |
| 0 | - | 2,57 | 2,88 | 3,23 | 3,63 | 4,11 | 4,68 | 5,37 | 6,23 | 7,33 | 8,82 | 10,98 | 9,03* | 6,52* | - | - | - |
| -0,5 | - | 2,54 | 2,84 | 3,18 | 3,57 | 4,04 | 4,60 | 5,27 | 6,12 | 7,22 | 8,70 | 10,87 | 10,17* | 7,87* | 6,47* | - | - |
| -1,0 | - | 2,53 | 2,81 | 3,14 | 3,53 | 3,99 | 4,53 | 5,20 | 6,04 | 7,14 | 8,64 | 10,82 | 11,50* | 9,29* | 7,91* | 7,20* | 7,11* |
| -1,5 | - | 2,52 | 2,80 | 3,12 | 3,50 | 3,95 | 4,49 | 5,16 | 6,00 | 7,10 | 8,61 | 10,82 | 13,00* | 10,78* | 9,36* | 8,57* | 8,29* |
| -2,0 | - | - | 2,80 | 3,11 | 3,48 | 3,93 | 4,47 | 5,13 | 5,97 | 7,08 | 8,61 | 10,85 | 14,03* | 12,37* | 10,87* | 9,96* | 9,53* |
| -2,5 | - | - | 2,82 | 3,12 | 3,49 | 3,93 | 4,46 | 5,13 | 5,96 | 7,10 | 8,64 | 10,91 | 13,59* | 14,08* | 12,46* | 11,42* | 10,84* |
| -3,0 | - | - | - | 3,15 | 3,51 | 3,94 | 4,48 | 5,15 | 6,01 | 7,14 | 8,70 | 11,00 | 13,03* | 15,74* | 14,15* | 12,97* | 12,23* |
| -3,5 | - | - | - | - | 3,55 | 3,98 | 4,52 | 5,19 | 6,06 | 7,20 | 8,79 | 10,53* | 12,35* | 14,84* | 15,99* | 14,61* | 13,70* |
| -4,0 | - | - | - | - | - | 4,05 | 4,59 | 5,26 | 6,14 | 7,29 | 8,57* | 9,87* | 11,52* | 13,76* | 17,11* | 16,40* | - |
| -4,5 | - | - | - | - | - | - | 4,68 | 5,36* | 6,09* | 6,92* | 7,88* | 9,05* | 10,50* | 12,45* | 15,36* | - | - |
| -5,0 | - | - | - | - | - | - | - | 4,62* | 5,35* | 6,13* | 6,99* | 8,01* | 9,25* | 10,87* | - | - | - |
| -5,5 | - | - | - | - | - | - | - | - | 4,27* | 5,04* | 5,82* | 6,67* | 7,67* | - | - | - | - |

* Hydraulic- system pressure is the limiting factor.

## LIFTING CAPACITIES - MONOBLOC BOOM

**Position 2**



## LIFTING CAPACITIES - MONOBLOC BOOM

### Position 2

All lifting capacities are in metric tons, over ends and sides (360°). They do not exceed 75 % of tipping load in compliance with DIN 15019, When using a load hook on the stick- where bucket, bucket-cylinder and linkage must be removed- 1,59 t may be added to the loads in the Crane-Capacity Chart.

- Boom 5580 mm
- Stick (**A**) 2100 gm
- Backhoe 1.65 m³

Height / Radius (m)

| m | 8,0 | 7,5 | 7,0 | 6,5 | 6,0 | 5,5 | 5,0 | 4,5 | 4,0 | 3,5 | 3,0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,0 | - | - | - | - | 5,54* | - | - | - | - | - | - |
| 6,5 | - | - | - | 4,98 | 5,51* | - | - | - | - | - | - |
| 6,0 | - | - | - | 4,99 | 5,57* | - | - | - | - | - | - |
| 5,5 | - | - | 4,25 | 4,97 | 5,68* | - | - | - | - | - | - |
| 5,0 | - | - | 4,23 | 4,92 | 5,74 | 6,23* | - | - | - | - | - |
| 4,5 | - | 3,61 | 4,18 | 4,85 | 5,64 | 6,49* | 7,05* | - | - | - | - |
| 4,0 | - | 3,57 | 4,12 | 4,76 | 5,52 | 6,48 | 7,43* | 8,27* | 9,39* | 10,93* | 13,25* |
| 3,5 | - | 3,53 | 4,05 | 4,67 | 5,40 | 6,29 | 7,40 | 8,82* | 10,15* | 12,05* | - |
| 3,0 | - | 3,48 | 3,98 | 4,57 | 5,27 | 6,12 | 7,17 | 8,51 | 10,28 | 12,69 | - |
| 2,5 | 3,0 | 3,42 | 3,91 | 4,47 | 5,14 | 5,95 | 6,94 | 8,21 | 9,86 | - | - |
| 2,0 | 2,96 | 3,37 | 3,83 | 4,37 | 5,01 | 5,79 | 6,74 | 7,94 | 9,50 | - | - |
| 1,5 | 2,92 | 3,31 | 3,76 | 4,28 | 4,90 | 5,65 | 6,56 | 7,72 | 9,24 | - | - |
| 1,0 | 2,89 | 3,27 | 3,70 | 4,21 | 4,80 | 5,53 | 6,42 | 7,56 | 9,07 | 10,24* | - |
| 0,5 | - | 3,23 | 3,65 | 4,14 | 4,72 | 5,43 | 6,31 | 7,44 | 8,96 | 11,16 | - |
| 0 | - | 3,20 | 3,61 | 4,09 | 4,66 | 5,36 | 6,23 | 7,36 | 8,90 | 11,15 | 8,95* |
| -0,5 | - | 3,18 | 3,58 | 4,05 | 4,62 | 5,31 | 6,18 | 7,32 | 8,88 | 11,18 | 11,46* |
| -1 | - | - | 3,57 | 4,04 | 4,60 | 5,29 | 6,16 | 7,31 | 8,89 | 11,22 | 13,96* |
| -1,5 | - | - | 3,58 | 4,03 | 4,59 | 5,28 | 6,16 | 7,32 | 8,92 | 11,29 | 13,48* |
| -2,0 | - | - | 3,60 | 4,05 | 4,61 | 5,30 | 6,19 | 7,36 | 8,98 | 11,38 | - |
| -2,5 | - | - | - | 4,10 | 4,65 | 5,34 | 6,24 | 7,42 | 9,07 | 10,64* | - |
| -3,0 | - | - | - | - | 4,72 | 5,41 | 6,31 | 7,51 | - | - | - |

* Hydraulic- system pressure is the limiting factor.

## LIFTING CAPACITIES - MONOBLOC BOOM

### Position 2

All lifting capacities are in metric tons, over ends and sides (360°). They do not exceed 75 % of tipping load in compliance with DIN 15019, When using a load hook on the stick- where bucket, bucket-cylinder and linkage must be removed- 1,53 t may be added to the loads in the Crane-Capacity Chart.

- Boom 5580 mm
- Stick (**B**) 2600 mm
- Backhoe 1.39 m³

Height / Radius (m)

| m | 8,5 | 8,0 | 7,5 | 7,0 | 6,5 | 6,0 | 5,5 | 5,0 | 4,5 | 4,0 | 3,5 | 3,0 | 2,5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,5 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7,0 | - | - | - | - | 4,95* | - | - | - | - | - | - | - | - |
| 6,5 | - | - | - | 4,42 | 4,93* | - | - | - | - | - | - | - | - |
| 6,0 | - | - | - | 4,43 | 4,97* | - | - | - | - | - | - | - | - |
| 5,5 | - | - | 3,79 | 4,41 | 5,05* | - | - | - | - | - | - | - | - |
| 5,0 | - | - | 3,77 | 4,36 | 5,06 | 5,45* | - | - | - | - | - | - | - |
| 4,5 | - | 3,23 | 3,73 | 4,31 | 4,98 | 5,66* | - | - | - | - | - | - | - |
| 4,0 | - | 3,20 | 3,68 | 4,24 | 4,89 | 5,67 | 6,35* | 6,92* | - | - | - | - | - |
| 3,5 | - | 3,16 | 3,62 | 4,16 | 4,78 | 5,54 | 6,46 | 7,34* | 8,19* | 9,32* | 10,88* | 13,18* | - |
| 3,0 | - | 3,11 | 3,56 | 4,07 | 4,67 | 5,39 | 6,27 | 7,37 | 8,76* | 10,09* | 11,98* | - | - |
| 2,5 | 2,69 | 3,06 | 3,49 | 3,98 | 4,56 | 5,25 | 6,09 | 7,13 | 8,46 | 10,23* | 12,68 | - | - |
| 2,0 | 2,65 | 3,01 | 3,42 | 3,90 | 4,45 | 5,11 | 5,91 | 6,90 | 8,16 | 9,82 | 12,11 | - | - |
| 1,5 | 6,62 | 2,97 | 3,36 | 3,82 | 4,35 | 4,98 | 5,75 | 6,69 | 7,90 | 9,49 | 11,69 | - | - |
| 1,0 | - | 2,92 | 3,30 | 3,74 | 4,25 | 4,86 | 5,60 | 6,52 | 7,68 | 9,23 | 11,41 | - | - |
| 0,5 | - | 2,88 | 3,25 | 3,68 | 4,17 | 4,77 | 5,48 | 6,37 | 7,52 | 9,05 | 11,24 | 8,23 | - |
| 0 | - | 2,85 | 3,21 | 3,62 | 4,11 | 4,68 | 5,39 | 6,27 | 7,40 | 8,93 | 11,15 | 9,64* | - |
| -0,5 | - | 2,83 | 3,18 | 3,58 | 4,05 | 4,62 | 5,32 | 6,19 | 7,32 | 8,86 | 11,11 | 11,25* | 8,62* |
| -1 | - | 2,82 | 3,16 | 3,55 | 4,02 | 4,58 | 5,27 | 6,14 | 7,27 | 8,83 | 11,11 | 13,04* | 10,47* |
| -1,5 | - | - | 3,15 | 3,54 | 4,00 | 4,56 | 5,24 | 6,11 | 7,26 | 8,83 | 11,14 | 14,86 | 12,39* |
| -2,0 | - | - | 3,17 | 3,54 | 4,00 | 4,55 | 5,24 | 6,12 | 7,27 | 8,86 | 11,20 | 14,22* | 14,41* |
| -2,5 | - | - | - | 3,57 | 4,02 | 4,57 | 5,26 | 6,14 | 7,31 | 8,91 | 11,28 | 13,26* | - |
| -3,0 | - | - | - | - | 4,06 | 4,61 | 5,30 | 6,19 | 7,37 | 9,00 | 10,88* | - | - |
| -3,5 | - | - | - | - | 4,13 | 4,68* | 5,37 | 6,26 | 7,45 | - | - | - | - |
| | | | | | | | | | | | | | |

* Hydraulic- system pressure is the limiting factor.