

# STANDARD E.O.T. CRANES



**LOOK UP**



sarralle  
india

LOOK UP

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# **INTRODUCTION**

## **“LOOK UP”**

JASO INDUSTRIAL AND SARRALLE INDIA, HAVE AGREED TO FORM A NEW SPECIAL PURPOSE JOINT VENTURE COMPANY, JASO SARRALLE CRANES INDIA, WITH THE OBJECTIVE OF PROMOTING THE BUSINESS OF E.O.T. CRANE PRODUCTS OF JASO INDUSTRIAL IN INDIA, THROUGH THE MANUFACTURE, MARKETING AND DISTRIBUTION OF ITS PRODUCTS AND SERVICES.

SARRALLE INDIA IS A COMPANY HEADQUARTERED IN KOLKATA, INDIA, ENGAGED IN THE MANUFACTURE OF STEEL PLANT EQUIPMENT, SUCH AS ELECTRIC ARC FURNACES, LADLE FURNACES, CONTINUOUS CASTING MACHINES, FURNE EXHAUST/DEDUSTING SYSTEMS, ETC.

JASO INDUSTRIAL IS A COMPANY HEADQUARTERED IN ITSASONDO, SPAIN, ENGAGED IN THE MANUFACTURE OF A WIDE RANGE OF LIFTING AND TRANSPORT SYSTEMS. ITS MAIN PRODUCTS ARE HOISTS, STANDARD CRANES AND SPECIAL CRANES.

AS A COMPANY, JASO SARRALLE CRANE INDIA SPECIALISES IN THE PRODUCTION AND MAINTENANCE OF LIFTING AND TRANSPORT SYSTEMS, AND IS CHARACTERISED BY ITS FIRM COMMITMENT TO TECHNOLOGY AND DEDICATION TO QUALITY IN ALL OF ITS ASPECTS.

WITH MORE THAN 45 YEARS WORKING IN THE SECTOR UNDER OUR BELT AND TENS OF THOUSANDS OF FACILITIES IN OPERATION AT THE CURRENT TIME, WE ARE MARKET LEADERS NOT ONLY IN SPAIN, BUT INTERNATIONALLY. OUR EXTENSIVE EXPERIENCE, DYNAMISM AND ABILITY TO INNOVATE ALLOW US TO PROVIDE SOLUTIONS THAT MEET THE NEEDS OF EVEN THE MOST DEMANDING CUSTOMER, OPERATING IN SECTORS AS DIVERSE AS IRON AND STEEL, PAPER, NAVAL CONSTRUCTION, THE AUTOMOBILE INDUSTRY, ELECTRIC POWER STATION...

OUR PROACTIVE MENTALITY MEANS THAT, DAY AFTER DAY, WE CONTINUE TO GROW IN ORDER TO ACHIEVE THE HIGHEST LEVELS OF EXCELLENCE. IF YOU SHARE OUR GOAL OF ADVANCING, LOOK UP, THAT'S WHERE YOU'LL FIND US.



THE PRODUCTION OF E.O.T. CRANES IS THE MOST REPRESENTATIVE ACTIVITY FROM JASO SARRALLE CRANES INDIA'S MANUFACTURING PROGRAMME, AND HAS RECEIVED WIDE-SPREAD INTERNATIONAL RECOGNITION.

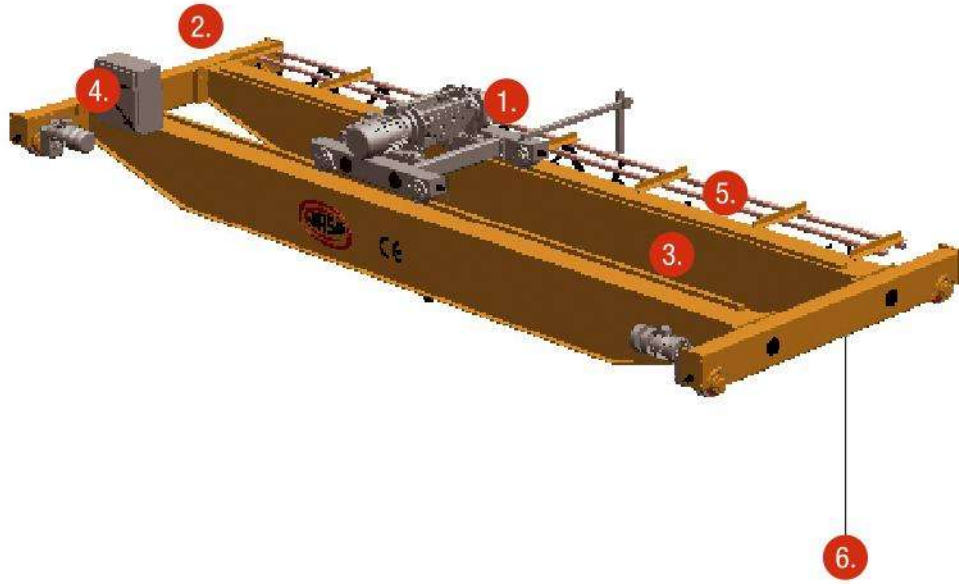
OUR EXTENSIVE EXPERIENCE, TECHNOLOGY AND ABILITY TO INNOVATE HAVE ENABLED US TO TAKE A LEADING ROLE AND THUS PROVIDE SOLUTIONS THAT FIT THE REQUIREMENTS OF EACH INDIVIDUAL CASE, WHILE ALWAYS ENSURING THE HIGHEST QUALITY AND MEETING THE MOST DEMANDING INTERNATIONAL REGULATIONS.

**E.O.T. CRANE COMPONENTS:**

- 1.- HOIST ON TROLLEY
- 2.- END CARRIAGES
- 3.- GIRDERS
- 4.- CONTROL PANEL
- 5.- TROLLEY POWER SUPPLY
- 6.- PUSH BUTTON STATION

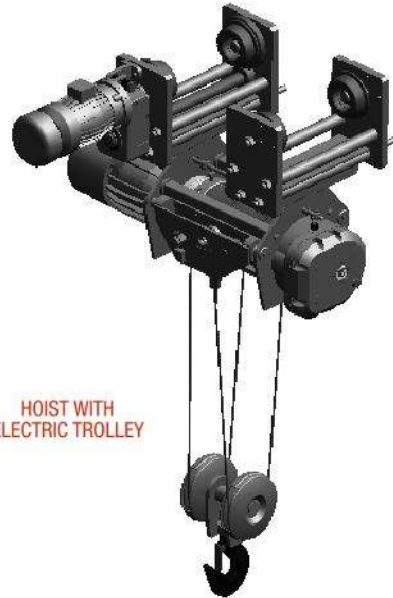
OUR STANDARD E.O.T. CRANE IS RELIABLE, SAFE AND PROVIDES VERY HIGH PERFORMANCE LEVELS. WE CAN GUARANTEE THESE HIGH STANDARDS BY INCORPORATING STRICT QUALITY CONTROLS INTO EACH PHASE OF PRODUCTION. WE HAVE ALSO INTRODUCED A QUALITY MANAGEMENT SYSTEM, CERTIFIED IN ACCORDANCE WITH ISO 9001:2000 REQUIREMENTS.



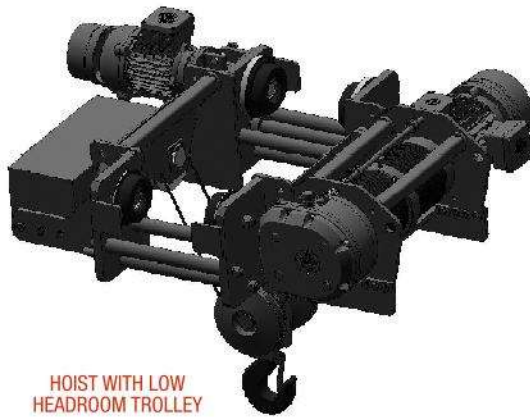




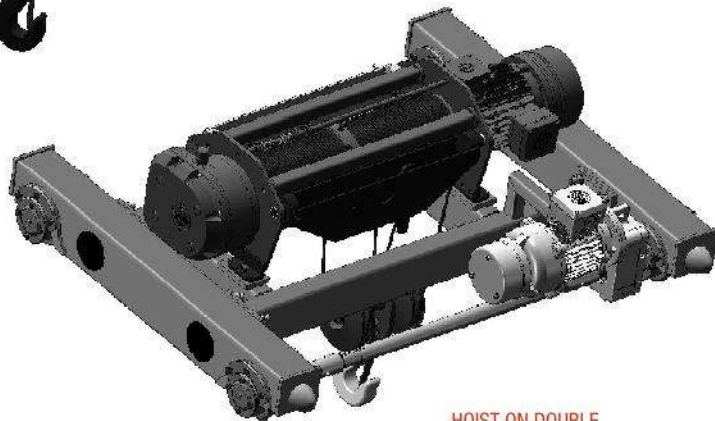
HOIST WITH LEGS



HOIST WITH  
ELECTRIC TROLLEY



HOIST WITH LOW  
HEADROOM TROLLEY



HOIST ON DOUBLE  
GIRDER TROLLEY

**LIFTING ENGINE:**

ROTOR BRAKE ENGINE IN A SHORT CIRCUIT AND DOUBLE WINDING, ESPECIALLY DESIGNED FOR USE IN LIFTING MECHANISMS. IP54 PROTECTION. MOTORS WITH OTHER LEVELS OF PROTECTION CAN BE SUPPLIED TO ORDER.

**BRAKE:**

ELECTROMAGNETIC BRAKES INSTANTLY ACTIVATED THROUGH HIGHLY SECURE, FRONT DISC LININGS WHEN THE POWER IS CUT; EASILY ADJUSTABLE BRAKE AND COMPLETELY ASBESTOS-FREE.

**HOIST GEAR BOX:**

CONSISTING OF HELICAL GEARS ASSEMBLED ON BEARINGS, ROTATING IN AN OIL-BATH WITHIN AN AIR-TIGHT, ROBUST CASING. CROWN WHEELS AND PINIONS MANUFACTURED WITH CASEHARDENED STEEL. TEETH ARE LATER FITTED SO THAT IT OPERATES SILENTLY OVER A LONG SERVICE LIFE.

**DRUM:**

FULLY MACHINED ROLLED STEEL, GROOVED AS PER CURRENT FEM REGULATIONS. SUPPORTED AT BOTH ENDS ON LARGE, CONVENTIONAL BEARINGS.

**ROPE GUIDE:**

MADE OF WEAR AND TEAR RESISTANT NODULAR CAST IRON. FEATURES TWO PIECES MAKING ASSEMBLY EASIER. A SPRING LOCATED ON THE GUIDE KEEPS THE ROPE TIGHT DURING LOAD LIFTING AND LOWER OPERATIONS.

**OVERLOAD GUARD:**

IN COMPLIANCE WITH MACHINE SAFETY STANDARDS, AN OVERLOAD GUARD HAS BEEN FITTED WITH A MECHANICALLY-DRIVEN MICROSWITCH.

**PULLEYS AND HOOK:**

THE HOOK IS MADE OF FORGED ALLOY-STEEL, SUSPENDED FROM A FORGED STEEL CROSSHEAD, TURNING ON AN AXIAL BEARING. IN COMPLIANCE WITH CURRENT SAFETY REGULATIONS, SAFETY LATCHES ARE FITTED TO PREVENT THE SLING FROM COMING FREE OF THE HOOK. PULLEYS ARE MADE OF ROLLED STEEL WITH DEEP GROVES FOR THE ROPE AND ROTATE ON BEARINGS. THE PULLEYS ARE PROTECTED BY REMOVABLE STEEL COVERS.

**LIMIT SWITCH:**

DRIVEN BY THE ROPE GUIDE, THE LIMIT SWITCH RESTRICTS THE HOOK'S MOVEMENT WHEN IT REACHES AN END POSITION. A SECOND SAFETY CONTACT IS FITTED TO THE TOP POSITION AND OPERATES ON THE MAIN CONTACTOR.

**ELECTRICAL EQUIPMENT:**

THE ENTIRE CONTROL GEAR IS LOCATED IN A COMPACT AND WELL FITTING CABINET. THE HOIST IS CONTROLLED THROUGH A SUSPENDED PUSH-BUTTON STATION THAT ACTIVATES THE DULY-SIZED CONTACTORS. A RADIO REMOTE CONTROL OPTION IS ALSO AVAILABLE.





**SELECTION METHOD:** THE CORRECT HOIST MODEL IS DETERMINED BY FEM REGULATIONS IN RELATION TO THE TYPE OF LOAD IT WILL BEAR, AVERAGE RUNNING, LOAD LIFTING CAPACITY AND CABLE LAYOUT.

EITHER AN APPROXIMATE VALUE IS CHOSEN TO CALCULATE DAILY RUNNING AVERAGES, OR IT CAN BE CALCULATED AS FOLLOWS:

$$\text{Daily running time} = \frac{2 \times \text{average lifting height} \times \text{cycles hour} \times \text{working time per day}}{60 \times \text{lifting speed}}$$

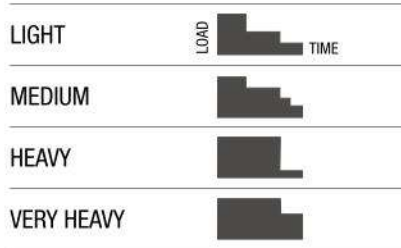
**Example**

Lifting load.....10.000 kgs.  
 Type of load.....Ligero  
 Lifting speed.....5 m.p.m.  
 Number of falls.....4/1  
 Average lifting height.....6 m.  
 Working cycles per hour.....25  
 Servicing time per day.....8 horas

$$\text{Daily running time} = \frac{2 \times 6 \times 25 \times 8}{60 \times 5} = 8 \text{ hours}$$

As for a light load and running average of 8 hours the table shall indicate a hoist belonging to M5 according to FEM. It is also noticed therein that so as lift a 10,000kg load in above mentioned group and having 4/1 falls the corresponding hoist should be the type CX-100.

TYPE OF SERVICE



AVERAGE DAILY OPERATING TIME IN HOURS

2:4	4:8	8:16
1:2	2:4	4:8
0,5:1	1:2	2:4
0,25:0,5	0,5:1	1:2

FEM 1987/ ISO				
C.M.A.A				
Loading Capacity				
			50.000	80.000 63.000
10.000	20.000	40.000		
8.000	16.000	32.000		
6.300	12.500	25.000		
5.000	10.000	20.000		
4.000	8.000	16.000		
3.200	6.300	12.500		
2.500	5.000	10.000		
2.000	4.000	8.000		
1.600	3.200	6.300		
1.250	2.500	5.000		
1.000	2.000	4.000		
800	1.600	3.200		
630	1.250	2.500		
500	1.000	2.000		
1/1	2/1	4/1	6/1	8/1
Cable falls				

M4	M5	M6
"B" / "C"	"D"	"E"
EX-800	EX-630 EX-500	
EX-400	EX-320	EX-250
DX-200	DX-160	
CX-125	CX-100	DX-125
BX-63	BX-50	CX-80
AX-32	AX-25	BX-40
		AX-20

STANDARDS EQUIVALENCE

FEM 1970 / DIN 15020	1Am	2m	3m	4m	5m
FEM 1987 / ISO	M4	M5	M6	M7*	M8
UNE 58112 - 1:1991	M4	M5	M6	M7*	M8
C.M.A.A.=	"B/C"	"D"	"E"	"F"	-



CAPACITY (Kg)	TYPE	GROUP FEM	SEEPD (m/min.)	LIFTING HEIGHT (m)					NUMBER Of Falls	MOTOR (50Hz) Power (kw)
				H06	H10	H14	H18	H22		
1.000	AX10H*21	M6	8 / 2,6	12	20				2 / 1	1,6 / 0,5
	AXM10H*21	M5	10 / 3,3	12	20				2 / 1	2 / 0,7
	AXR10H*21	M6	12 / 4	12	20				2 / 1	2,4 / 0,8
1.250	AX16H*21	M5	8 / 2,6	12	20				2 / 1	2 / 0,7
	AXM12H*21	M4	10 / 3,3	12	20				2 / 1	2,6 / 0,9
	AXR12H*21	M5	12 / 4	12	20				2 / 1	3 / 1
1.600	AXH16*21	M4	8 / 2,6	12	20				2 / 1	2,6 / 0,9
	AXR16H*21	M4	12 / 4	12	20				2 / 1	4 / 1,3
	AXM16H*41	M6	5 / 1,6	6	10				4 / 1	1,6 / 0,5
2.000	AX20H*41	M6	4 / 1,3	6	10				4 / 1	1,6 / 0,5
	AXM20H*41	M5	5 / 1,6	6	10				4 / 1	2 / 0,7
	AXR20H*41	M6	6 / 2	6	10				4 / 1	2,4 / 0,8
	BX20H*21	M6	8 / 2,6	12	20	28			2 / 1	3 / 1
	BXM20H*21	M5	10 / 3,3	12	20	28			2 / 1	3,8 / 1,3
	BXR20H*21	M6	12 / 4	12	20	28			2 / 1	4,5 / 1,5
2.500	AX25H*41	M5	4 / 1,3	6	10				4 / 1	2 / 0,7
	AXM25H*41	M4	5 / 1,6	6	10				4 / 1	2,6 / 0,9
	AXR25H*41	M5	6 / 2	6	10				4 / 1	3 / 1
	BX25H*21	M5	8 / 2,6	12	20	28			2 / 1	3,8 / 1,3
	BXM25H*21	M4	10 / 3,3	12	20	28			2 / 1	5 / 1,7
	BXR25H*21	M5	12 / 4	12	20	28			2 / 1	5,7 / 1,9
3.200	AX32H*41	M4	4 / 1,3	6	10				4 / 1	2,6 / 0,9
	AXR32H*41	M4	6 / 2	6	10				4 / 1	4 / 1,3
	BX32H*21	M4	8 / 2,6	12	20	28			2 / 1	5 / 1,7
	BXR32H*21	M4	12 / 4	12	20	28			2 / 1	7,5 / 2,5
4.000	BXM32H*41	M6	5 / 1,6	6	10	14			4 / 1	3 / 1
	BX40H*41	M6	4 / 1,3	6	10	14			4 / 1	3 / 1
	BXM40H*41	M5	5 / 1,6	6	10	14			4 / 1	3,8 / 1,3
	BXR40H*41	M6	6 / 2	6	10	14			4 / 1	4,5 / 1,5
	CX40H*21	M6	8 / 2,6	12	20	28	36		2 / 1	6 / 2
	CXM40H*21	M5	10 / 3,3	12	20	28	36		2 / 1	7,5 / 2,5
5.000	CXR40H*21	M6	12 / 4	12	20	28	36		2 / 1	9 / 3
	BX50H*41	M5	4 / 1,3	6	10	14			4 / 1	3,8 / 1,3
	BXM50H*41	M4	5 / 1,6	6	10	14			4 / 1	5 / 1,7
	BXR50H*41	M5	6 / 2	6	10	14			4 / 1	5,7 / 1,9
	CX50H*21	M5	8 / 2,6	12	20	28	36		2 / 1	7,5 / 2,5
	CXM50H*21	M4	10 / 3,3	12	20	28	36		2 / 1	10 / 3,3
6.300	CXR50H*21	M5	12 / 4	12	20	28	36		2 / 1	11,3 / 3,8
	BX63H*41	M4	4 / 1,3	6	10	14			4 / 1	5 / 1,7
	BXR63H*41	M4	6 / 2	6	10	14			4 / 1	7,5 / 2,5
	CX63H*21	M4	8 / 2,6	12	20	28	36		2 / 1	10 / 3,3
	CXR63H*21	M4	12 / 4	12	20	28	36		2 / 1	15 / 5
	CXM63H*41	M6	5 / 1,6	6	10	14	18		4 / 1	6 / 2
8.000	DX63H*21	M6	8 / 2,6	12	20	28	36		2 / 1	9 / 3
	DXM63H*21	M5	10 / 3,3	12	20	28	36		2 / 1	11,3 / 3,8
	DXR63H*21	M6	12 / 4	12	20	28	36		2 / 1	13,5 / 4,5
	CX80H*41	M6	4 / 1,3	6	10	14	18		4 / 1	6 / 2
	CXM80H*41	M5	5 / 1,6	6	10	14	18		4 / 1	7,5 / 2,5
	CXR80H*41	M6	6 / 2	6	10	14	18		4 / 1	9 / 3
10.000	DX80H*21	M5	8 / 2,6	12	20	28	36		2 / 1	11,3 / 3,8
	DXM80H*21	M4	10 / 3,3	12	20	28	36		2 / 1	15 / 5
	DXR80H*21	M5	12 / 4	12	20	28	36		2 / 1	17 / 5,7
	CX100H*41	M5	4 / 1,3	6	10	14	18		4 / 1	7,5 / 2,5
	CXM100H*41	M4	5 / 1,6	6	10	14	18		4 / 1	10 / 3,3
	CXR100H*41	M5	6 / 2	6	10	14	18		4 / 1	11,3 / 3,8
12.500	DX100H*21	M4	8 / 2,6	12	20	28	36		2 / 1	15 / 5
	DXR100H*21	M4	12 / 4	12	20	28	36		2 / 1	22,5 / 7,5
	CX125H*41	M4	4 / 1,3	6	10	14	18		4 / 1	10 / 3,3
	CXR125H*41	M4	6 / 2	6	10	14	18		4 / 1	15 / 5
	DX125H*41	M6	4 / 1,3	6	10	14	18		4 / 1	9 / 3
	DXM125H*41	M5	5 / 1,6	6	10	14	18		4 / 1	11,3 / 3,8
16.000	DXR125H*41	M6	6 / 2	6	10	14	18		4 / 1	13,5 / 4,5
	DX160H*41	M5	4 / 1,3	6	10	14	18		4 / 1	11,3 / 3,8
	DXM160H*41	M4	5 / 1,6	6	10	14	18		4 / 1	15 / 5
	DXR160H*41	M5	6 / 2	6	10	14	18		4 / 1	17 / 5,7
	EX160H*21	M5	6 / 2	12	20	28	36	44	2 / 1	17 / 5,7
	EXR160H*21	M5	8 / 2,6	12	20	28	36	44	2 / 1	23,5 / 7,8
20.000	DX200H*41	M4	4 / 1,3	6	10	14	18		4 / 1	15 / 5
	DXR200H*41	M4	6 / 2	6	10	14	18		4 / 1	22,5 / 7,5
	EX200H*21	M4	6 / 2	12	20	28	36	44	2 / 1	22,5 / 7,5
	EXR200H*21	M4	8 / 2,6	12	20	28	36	44	2 / 1	31 / 10,3
	EXM200H*41	M6	5 / 1,6	10	14	18	22		4 / 1	18,6 / 6,2
	25.000	EX250H*41	M6	3 / 1	10	14	18	22		4 / 1
EXR250H*41		M6	4 / 1,3	10	14	18	22		4 / 1	18,6 / 6,2
EMX250H*41		M5	5 / 1,6	10	14	18	22		4 / 1	23,5 / 7,8
32.000	EX320H*41	M4	3 / 1	10	14	18	22		4 / 1	17 / 5,7
	EXR320H*41	M5	4 / 1,3	10	14	18	22		4 / 1	23,5 / 7,8
	EXM320H*61	M5	5 / 1,6	10	14	18	22		4 / 1	31 / 10,3
40.000	EX400H*41	M4	3 / 1	10	14	18	22		4 / 1	22,5 / 7,5
	EXR400H*41	M4	4 / 1,3	10	14	18	22		4 / 1	31 / 10,3
	EXM400H*61	M5	3,1 / 1,1	6,7	9,3	12	14,7		6 / 1	23,5 / 7,8
50.000	EX500H*61	M5	2 / 0,6	6,7	9,3	12	14,7		6 / 1	17 / 5,7
	EXR500H*61	M5	2,6 / 0,8	6,7	9,3	12	14,7		6 / 1	23,5 / 7,8
	EXM500H*61	M4	3,3 / 1,1	6,7	9,3	12	14,7		6 / 1	31 / 10,3
63.000	EX630H*81	M5	1,5 / 0,5	7	9	11	11		8 / 1	17 / 5,7
	EXR630H*81	M5	2 / 0,6	7	9	11	11		8 / 1	23,5 / 7,8
80.000	EX800H*81	M4	1,5 / 0,5	7	9	11	11		8 / 1	22,5 / 7,5
	EXR800H*81	M4	2 / 0,6	7	9	11	11		8 / 1	31 / 10,3

\* M7 group hoists at request.



### **SINGLE GIRDER TROLLEY**

#### **TRAVELLING GEARS:**

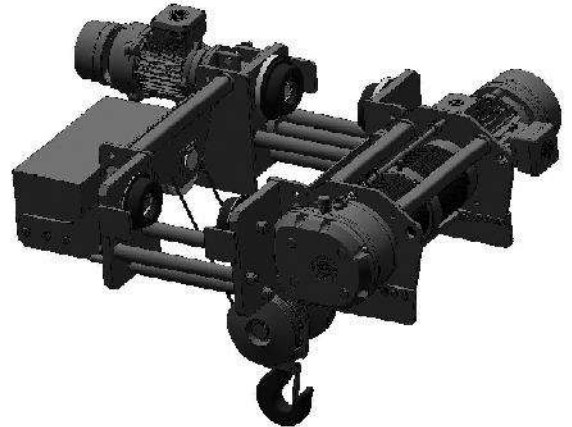
TRAVELLING GEARS: CONSISTING OF A SQUIRREL-CAGE FLANGE MOTOR WITH A BUILT-IN ELECTROMAGNETIC BRAKE.

THE MOTOR DRIVES A CONTINUOUS OIL-BATH HELICAL GEAR REDUCER, ROTATING ON BEARINGS. THE OUTPUT SHAFT ACTIVATES BY PINION-DRIVING TWO DRIVING WHEELS.

THE CROWN WHEELS AND PINIONS ARE MANUFACTURED WITH CASEHARDENED STEEL, CREATING SMALL, HIGH-PERFORMANCE GEARBOXES.

BOTH THIS DRIVING CARRIAGE AND THE IDLE CARRIAGE ARE MADE UP OF TWO WHEELS ROTATING ON BEARINGS, WHICH SIT ON CORRECTLY MACHINED PIN-JOINTS.

THE HOIST IS SUSPENDED FROM BOTH CARRIAGES.



### **DOUBLE GIRDER TROLLEY**

#### **TRAVELLING GEARS:**

CONSISTING OF A SQUIRREL-CAGE FLANGE MOTOR WITH A BUILT-IN ELECTROMAGNETIC BRAKE.

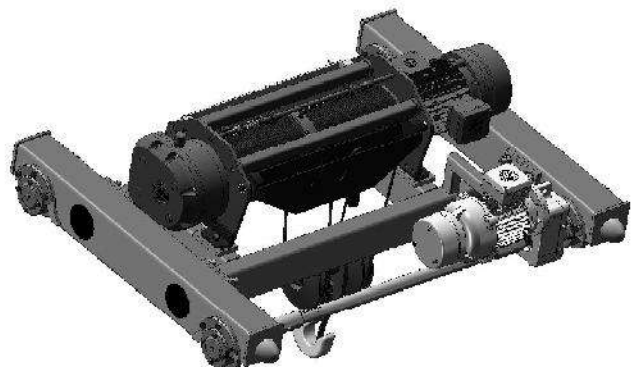
THE MOTOR DRIVES A CONTINUOUS OIL-BATH HELICAL GEAR REDUCER, ROTATING ON BEARINGS. THE OUTPUT SHAFTS ARE ACTIVATED BY DIRECT-DRIVING TWO DRIVING WHEELS.

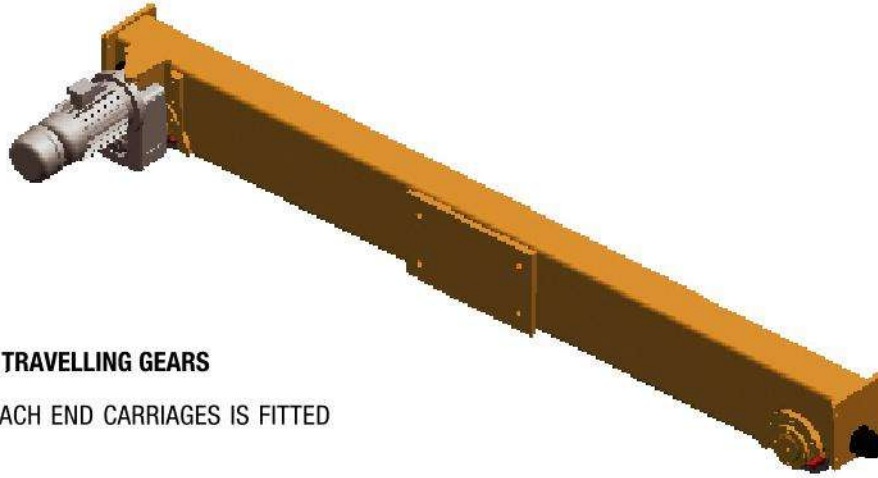
THE CROWN WHEELS AND PINIONS ARE MANUFACTURED WITH CASEHARDENED STEEL, CREATING SMALL, HIGH-PERFORMANCE GEARBOXES.

#### **FRAME:**

CONSISTING OF TWO BOX-SHAPED END CARRIAGES WHICH ARE MACHINED AFTER ASSEMBLY IN ORDER TO ENSURE THAT THE WHEELS ARE PERFECTLY ALIGNED.

THE END CARRIAGES ARE JOINED TO EACH OTHER BY THE GIRDERS SUPPORTING THE MACHINED SEATS, WHICH ARE USED TO SUPPORT THE HOIST.





## END CARRIAGES AND TRAVELLING GEARS

TRAVELLING GEARS EACH END CARRIAGES IS FITTED WITH:

- THE MOTOR REDUCER WITH A CONTINUOUS HELICAL GEAR IN AN OIL-BATH ROTATING ON BEARINGS.

THE CROWN WHEELS AND PINIONS ARE MANUFACTURED WITH CASEHARDENED STEEL, CREATING SMALL, HIGH-PERFORMANCE GEARBOXES.

- TWO WHEELS THAT ROTATE ON BEARINGS, ONE OF WHICH IS ACTIVATED BY DIRECT-DRIVING FROM THE GEARBOX OUTPUT SHAFT.

### STRUCTURE

- BUILT AS A STRUCTURAL SECTION OR AS A BOX-SHAPED CARRIAGE AND MACHINED AFTER ASSEMBLY IN ORDER TO ENSURE THAT THE WHEELS ARE PERFECTLY ALIGNED.

TWO RUBBER STOP BLOCKS ARE FITTED TO THE ENDS.

### AVERAGE WORKING LOADS PER WHEEL ACC. TO FEM 1987, GROUP M-4

WHEEL Ø mm.	TRAVELLING SPEED M/MIN.	TRACK RAIL WIDTH IN mm.			
		40	50	60	80
160	20	4520	5650		
	40	4055	5065		
	63	3590	4485		
200	20	5825	7280	8735	
	40	5300	6625	7950	
	63	4775	5970	7165	
250	20	7500	9375	11250	
	40	6845	8555	10265	
	63	6335	7915	9500	
315	20	9725	12155	14585	
	40	8900	11120	13345	
	63	8345	10435	12520	
400	20		15870	19045	
	40		14560	17470	
	63		13685	16425	
500	20		20200	24240	
	40		18745	22495	
	63		17655	21185	
630	20			31095	41460
	40			29170	38890
	63			27520	36690



END CARRIAGE FOR DOUBLE GIRDER E.O.T. CRANE



END CARRIAGE FOR SINGLE GIRDER E.O.T. CRANE

DOUBLE GIRDER

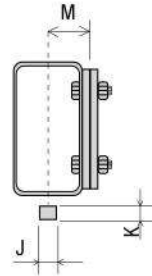
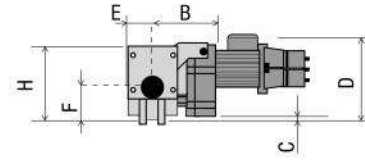
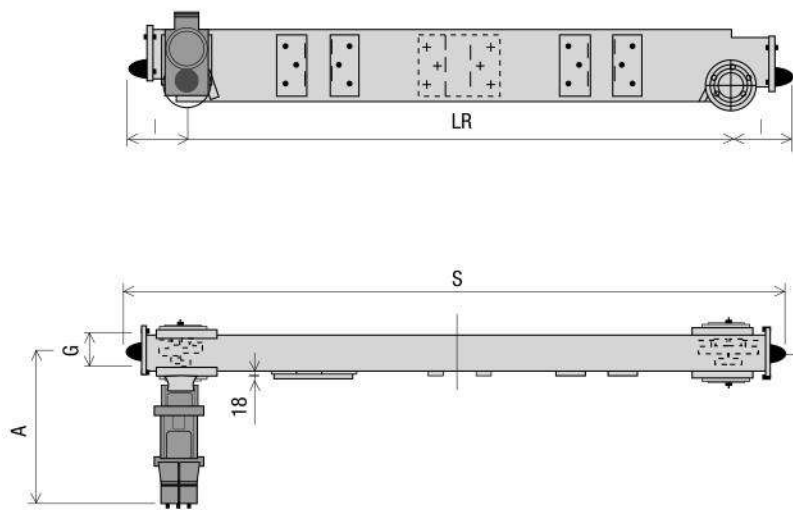
Capacity		Span ( m )													Capacity	
kgs.		4	6	8	10	12	14	16	18	20	22	24	26	28	30	kgs.
1600																1600
2000																2000
2500			2										5		6	2500
3200										4						3200
4000															12	4000
5000							3									5000
6300																6300
8000										10				11	18	8000
10000														17		10000
12500										16					24	12500
16000														23		16000
20000										22				25		20000
25000														26		25000
32000														28	30	32000
40000																40000
50000															33	50000
63000																63000
80000																80000

N°	Reference N°
1	160170
2	160200
3	160250
4	160325
5	160400
6	160450
7	200170
8	200200
9	200250
10	200325
11	200400
12	200450
13	250170
14	250200
15	250250
16	250325
17	250400
18	250450
19	315170
20	315200
21	315250
22	315325
23	315400
24	315450
25	400325
26	400400
27	400450
28	500400
29	500450
30	500500
31	630400
32	630500
33	630550
34	630600

SINGLE GIRDER

Capacity		Span ( m )													Capacity	
kgs.		4	6	8	10	12	14	16	18	20	22	24	26	28	30	kgs.
1000															6	1000
1600														5		1600
2000															12	2000
2500																2500
3200										4						3200
4000				1												4000
5000															18	5000
6300																6300
8000										10				17	24	8000
10000																10000
12500										8	9			23	27	12500
16000											15	16				16000
20000															29	20000

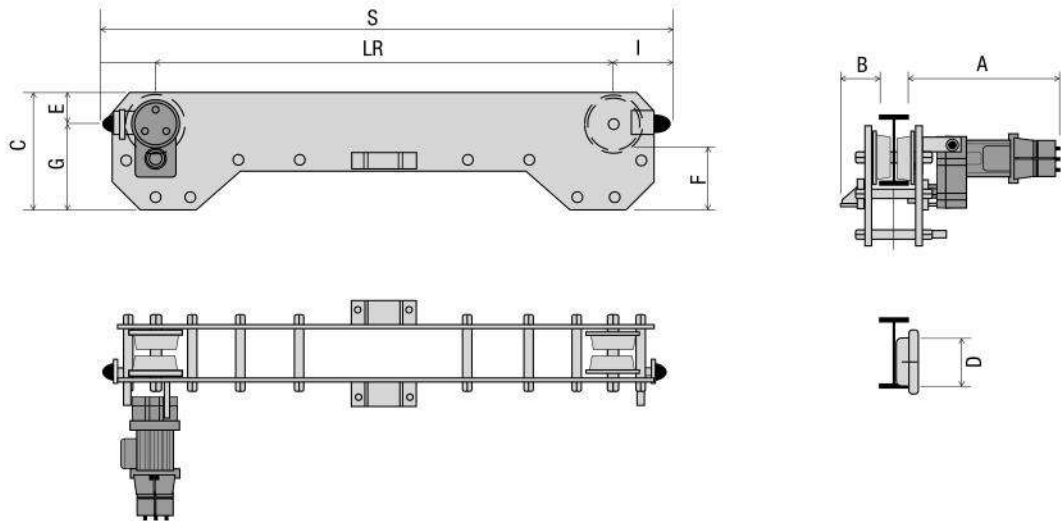




Hexag. screw M20, 10.9 DIN 6914  
Hexag. nut M20, 10, DIN 6914  
Washer 21, C45, DIN 6916  
Tightening torque 573 Nm.

## DIMENSIONS

TYPE	Wheel ø mm.	A mm.	B mm.	C mm.	D mm.	E mm.	F mm.	G mm.	H mm.	I mm.	LR mm.	S mm.	J mm.	K mm.	M mm.
160170	160	617	250	14	335	105	135	190	290	230	1700	2160	40	30	78
160200	160	617/654	250	14/4	335/382	105	135	190	290	230	2000	2460	40	30	78
160250	160	617/654	250	14/4	335/382	105	135	190	290	230	2500	2960	40	30	78
160325	160	617/654	250	14/4	335/382	105	135	190	290	230	3250	3710	40	30	78
160400	160	654	250	4	382	105	135	190	290	230	4000	4460	40	30	78
160450	160	654	250	4	382	105	135	190	290	230	4500	4960	40	30	78
200170	200	679	275	24	402	127	155	225	325	260	1700	2220	40	30	93
200200	200	679	275	24	402	127	155	225	325	260	2000	2520	40	30	93
200250	200	679	275	24	402	127	155	225	325	260	2500	3020	40	30	93
200325	200	679	275	24	402	127	155	225	325	260	3250	3770	40	30	93
200400	200	679	275	24	402	127	155	225	325	260	4000	4520	40	30	93
200450	200	679	275	24	402	127	155	225	325	260	4500	5020	40	30	93
250170	250	679	275	49	426	140	180	243	380	285	1700	2270	40	30	103
250200	250	679	275	49	426	140	180	243	380	285	2000	2570	40	30	103
250250	250	679	275	49	426	140	180	243	380	285	2500	3070	40	30	103
250325	250	679	275	49	426	140	180	243	380	285	3250	3820	40	30	103
250400	250	679	275	49	426	140	180	243	380	285	4000	4570	40	30	103
250450	250	679	275	49	426	140	180	243	380	285	4500	5070	40	30	103
315170	315	770	340	60	491	164	227,5	295	437,5	330	1700	2360	40	30	125,5
315200	315	770	340	60	491	164	227,5	295	437,5	330	2000	2660	40	30	125,5
315250	315	770	340	60	491	164	227,5	295	437,5	330	2500	3160	40	30	125,5
315325	315	770	340	60	491	164	227,5	295	437,5	330	3250	3910	40	30	125,5
315400	315	770	340	60	491	164	227,5	295	437,5	330	4000	4660	40	30	125,5
315450	315	770	340	60	491	164	227,5	295	437,5	330	4500	5160	40	30	125,5
400325	400	782	352	104	534	176	285	325	515	375	3250	4000	50	30	138
400400	400	782	352	104	534	176	285	325	515	375	4000	4750	50	30	138
400450	400	782	352	104	534	176	285	325	515	375	4500	5250	50	30	138
500400	500	942	407	118	677	195	375	359	645	440	4000	4880	50	30	155
500450	500	942	407	118	677	195	375	359	645	440	4500	5380	50	30	155
500500	500	942	407	118	677	195	375	359	645	440	5000	5880	50	30	155
630400	630	1017	482	183	742	210	530	430	685	470	4000	4940	60	40	225
630500	630	1017	482	183	742	210	530	430	685	470	5000	5940	60	40	225
630550	630	1017	482	183	742	210	530	430	685	470	5500	6440	60/80	40	225
630600	630	1017	482	183	742	210	530	430	685	470	6000	6940	60	40	225



### SINGLE GIRDER UNDERHUNG CRANES

Capacity kgs.	Span ( m )						
	4	6	8	10	12	14	16
1000							2
1600			1				2
2000							4
2500							4
3200			3				6
4000					5		6
5000							8
6300					7		

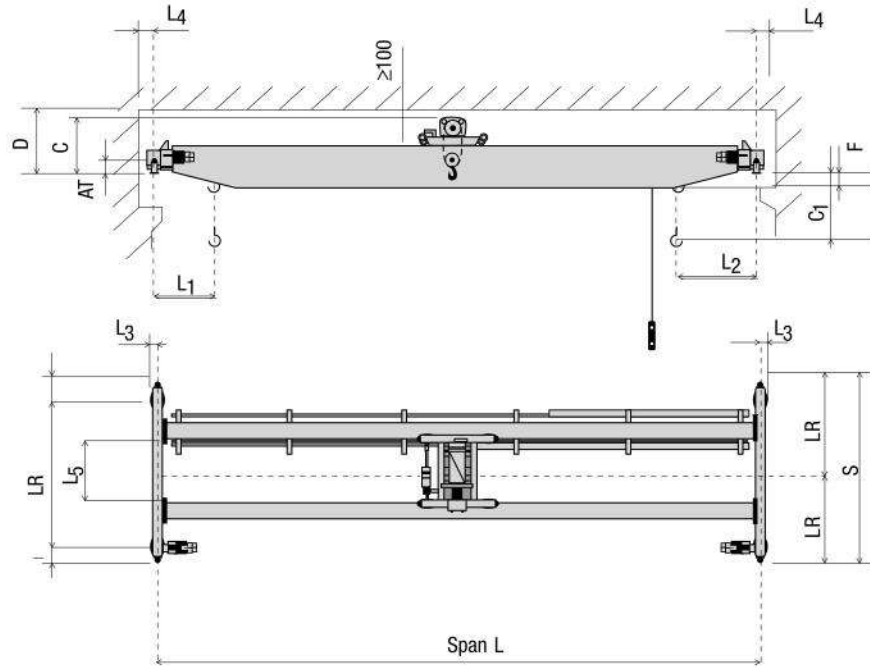
N°	Reference N°
1	A 17016
2	A 25016
3	B 17016
4	B 25016
5	B 17020
6	B 25020
7	C 17020
8	C 25020

### DIMENSIONS

TYPE	Wheel	D ø mm.	A mm.	B mm.	C mm.	G mm.	E mm.	F mm.	I mm.	LR mm.	S mm.
A 17016	NA	130	500	150	350	265	85	200	215	1700	2130
A 25016	NA	130	500	150	350	265	85	200	215	2500	2930
B 17016	NB	165	510	155	400	295	105	212,5	215	1700	2130
B 25016	NB	165	510	155	400	295	105	212,5	215	2500	2930
B17020	NB	165	580	155	425	300	125	220	240	1700	2180
B 25020	NB	165	580	155	425	300	125	220	240	2500	2980
C 17020	NC	200	590	160	475	340	135	240	240	1700	2180
C 25020	NC	200	590	160	475	340	135	240	240	2500	2980







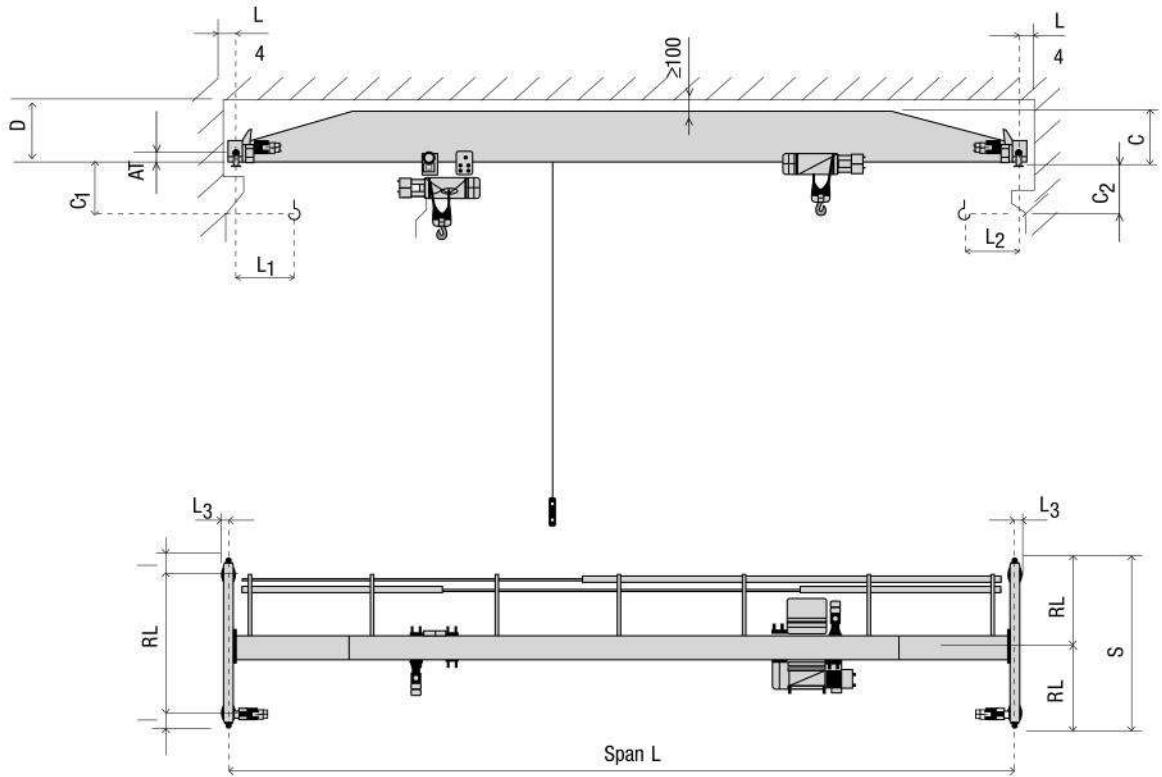
**REACTIONS PER WHEEL (Kgs)**

Capacity kgs	Span (m)													
	6	8	10	12	14	16	18	20	22	24	26	28	30	
1000	Max.	930	1040	1210	1310	1420	1550	1705	1840	2130	2445	2745	3075	3520
	Min.	405	470	605	690	785	900	1030	1160	1445	1745	2040	2365	2795
1250	Max.	1040	1155	1325	1430	1540	1675	1825	1960	2250	2565	2865	3195	3640
	Min.	420	480	615	695	790	900	1035	1165	1450	1750	2045	2370	2800
1600	Max.	1200	1320	1490	1595	1710	1840	1995	2130	2420	2740	3040	3370	3810
	Min.	435	490	625	705	795	910	1040	1170	1455	1750	2045	2370	2805
2000	Max.	1375	1540	1675	1785	1900	2035	2190	2350	2650	2960	3280	3610	4050
	Min.	460	550	640	720	815	930	1055	1210	1495	1785	2095	2425	2870
2500	Max.	1590	1800	1920	2035	2150	2275	2465	2660	2930	3245	3560	3900	4360
	Min.	480	605	665	740	840	940	1100	1285	1545	1840	2140	2475	2915
3200	Max.	1895	2120	2240	2375	2490	2655	2880	3105	3335	3670	3990	4400	4860
	Min.	525	635	695	790	860	1005	1195	1405	1625	1935	2240	2645	3090
4000	Max.	2320	2545	2700	2825	3000	3160	3435	3630	3870	4155	4475	4925	5350
	Min.	590	685	745	830	950	1085	1320	1490	1720	1985	2305	2740	3350
5000	Max.	2830	3010	3165	3330	3515	3750	3980	4210	4420	4705	5105	5515	6050
	Min.	735	735	790	885	1020	1220	1395	1610	1815	2070	2455	2860	3375
6300	Max.	3420	3610	3775	4115	4210	4415	4680	4900	5210	5560	5910	6295	6735
	Min.	835	810	845	825	1130	1305	1525	1705	1975	2310	2655	3020	3445
8000	Max.	4350	4540	4750	4955	5215	5465	5715	5945	6235	6570	6975	7430	7995
	Min.	1010	925	965	1065	1255	1540	1740	1930	2170	2470	2845	3275	3825
10000	Max.	4990	5315	5625	5915	6200	6485	6755	7080	7405	7740	8035	8435	9160
	Min.	1270	1165	1225	1350	1495	1685	1885	2150	2385	2710	2975	3345	4035
12500	Max.	6075	6485	6830	7160	7485	7760	8085	8285	8720	9160	9515	9995	10620
	Min.	1515	1380	1405	1515	1700	1865	2100	2440	2600	2990	3305	3760	4035
16000	Max.	7660	8180	8605	8975	9375	9720	10070	10400	10750	11215	11710	12120	12780
	Min.	1930	1720	1710	1815	1990	2180	2410	2650	2930	3295	3725	4095	4670
20000	Max.	9430	10040	10540	10950	11325	11690	12165	12565	12980	13430	13945	14385	14885
	Min.	2345	2085	2045	2095	2220	2400	2725	3005	3315	3665	4110	4495	4945
25000	Max.	11625	12605	13250	13765	14250	14765	15225	15685	16170	16770	17255	17960	18475
	Min.	3385	2980	2815	2770	2875	3095	3220	3595	3930	4400	4785	5250	5960
32000	Max.	14650	15755	16550	17240	17830	18415	19205	19730	20300	20895	21650	22280	22995
	Min.	4275	3650	3410	3405	3505	3720	4220	4510	4900	5335	5885	6400	7020
40000	Max.	17825	19190	20345	21140	21935	22625	23325	23880	24675	25660	26490	27420	28200
	Min.	5595	4695	4445	4305	4350	4540	4855	5095	5635	6400	6985	7755	8420
50000	Max.	21625	23445	24720	25945	26890	27775	28570	29350	30160	30930	31975	32785	33830
	Min.	7365	6060	5460	5435	5490	5710	5980	6350	6820	7300	7995	8690	9465
63000	Max.	27080	29265	30780	31975	33100	34065	34985	35880	36925	37920	39380	40785	42245
	Min.	9000	7400	6645	6315	6355	6515	6800	7180	7820	8455	9520	10660	11890
80000	Max.	32370	35570	37675	39275	40760	42035	43250	44380	46305	47505	48720	49970	51280
	Min.	12850	10400	9110	8450	8325	8380	8660	9035	10350	11030	11820	12690	13680

CRANE WEIGHT = 2X (Rmax. + Rmin.) - Crane capacity.

Capacity Tns.	L Span m.	ELECTRIC HOIST					L1	L2	L3	L4	L5	AT	C1*	C	D	F	I	LR	RL	S
		TYPE	h.speed. m/min	l. height m.																
1	<14.5	AX10H0621	8/2,6							900					86		2000	1230	2460	
	>14.5-16.5														136		2500	1480	2960	
	>16.5-22.5	AXM10H0621	10/3,3	12	825	825	105	200		1300	135	22	788	888	286	230	3250	1855	3710	
	>22.5-28.5									1600					536		4000	2230	4460	
1,25	>28.5-30	AXR10H0621	12,4							2000					636		4500	2480	4960	
	<14.5	AX12H0621	8/2,6							900					86		2000	1230	2460	
	>14.5-16.5														136		2500	1480	2960	
	>16.5-22.5	AXM12H0621	10/3,3	12	825	825	105	200		1300	135	22	788	888	286	230	3250	1855	3710	
1,6	>22.5-28.5									1600					536		4000	2230	4460	
	>28.5-30	AXR12H0621	12,4							2000					636		4500	2480	4960	
	<14.5	AX16H0621	8/2,6							900					86		2000	1230	2460	
	>14.5-16.5														136		2500	1480	2960	
2	>16.5-22.5	AXM16H0621	10/3,3	12	825	825	105	200		1300	135	22	788	888	286	230	3250	1855	3710	
	>22.5-28.5									1600					536		4000	2230	4460	
	>28.5-30	AXR16H0621	12,4							2000					636		4500	2480	4960	
	<14.5	AX20H0641	4/1,3							900					136		2000	1230	2460	
2,5	>14.5-16.5														186		2500	1480	2960	
	>16.5-22.5	AXM20H0641	5/1,6	6	825	825	105	200		1300	135	-23	788	888	336	230	3250	1855	3710	
	>22.5-28.5									1600					586		4000	2230	4460	
	>28.5-30	AXR20H0641	6/2							2000					636		4500	2480	4960	
3,2	<14.5	AX25H0641	4/1,3							900					186		2000	1230	2460	
	>14.5-16.5														236		2500	1480	2960	
	>16.5-22.5	AXM25H0641	5/1,6	6	825	825	105	200		1300	135	-23	788	888	336	230	3250	1855	3710	
	>22.5-28.5									1600					586		4000	2230	4460	
4	>28.5-30	AXR25H0641	6/2							2000					686		4500	2480	4960	
	<14.5	AX32H0641	4/1,3							900					186		2000	1230	2460	
	>14.5-16.5														236		2500	1480	2960	
	>16.5-22.5	AXM32H0641	6/2	6	825	825	105	200		1300	135	-18	788	888	386	230	3250	1855	3710	
5	>22.5-28.5									1600					636		4000	2230	4460	
	>28.5-30									2000					701	260	4500	2510	5020	
	<12.5	BX40H0641	4/1,3							1100					186		2000	1230	2460	
	>12.5-16.5														286		2500	1480	2960	
6,3	>16.5-22.5	BXM40H0641	5/1,6	6	910	910	105	200		1600	135	10	865	965	436	230	3250	1855	3710	
	>22.5-28.5														586		4000	2230	4460	
	>26.5-28.5														651		4000	2260	4520	
	>28.5-30	BXR40H0641	6/2		925	925	127			2000	155	-25	900	1000	751	260	4500	2510	5020	
8	<10.5	BX50H0641	4/1,3							1100					136		2000	1230	2460	
	>10.5-16.55														336		2500	1480	2960	
	>16.5-22.5	BXM50H0641	5/1,6	6	910	910	105	200		1600	135	10	865	965	486	230	3250	1855	3710	
	>22.5-24.5														536		4000	2230	4460	
10	>24.5-28.5														701		4000	2260	4520	
	>28.5-30	BXR50H0641	6/2		925	925	127			2000	155	-25	900	1000	801	260	4500	2510	5020	
	<10.5														186		2000	1230	2460	
	>10.5-16.55	BX63H0641	4/1,3		910	910	105	200		1600	135	10	865	965	386	230	2500	1480	2960	
12,5	>16.5-20.5														486		3250	1855	3710	
	>20.5-22.5														501		3250	1855	3710	
	>22.5-28.5	BXR63H0641	6/2		925	925	127				155	-25	900	100	751	260	4000	2260	4520	
	>28.5-30														751		4000	2260	4520	
16	<10.5														801		4500	2510	5020	
	>10.5-12.5														186		2000	1230	2460	
	>12.5-18.5	BX63H0641	4/1,3		910	910	105	200		1600	135	10	865	965	386	230	2500	1480	2960	
	>18.5-22.5														486		3250	1855	3710	
20	>22.5-28.5														501		3250	1855	3710	
	>28.5-30	BXR63H0641	6/2		925	925	127				180	-25	900	100	751	260	4000	2260	4520	
	<10.5														751		4000	2260	4520	
	>10.5-12.5														801		4500	2510	5020	
25	>12.5-18.5														186		2000	1230	2460	
	>18.5-22.5														386		2500	1480	2960	
	>22.5-28.5	BXR63H0641	6/2		925	925	127				155	-25	900	100	751	260	3250	1855	3710	
	>28.5-30														751		4000	2260	4520	
32	<8.5														801		4500	2510	5020	
	>8.5-12.5														186		2000	1230	2460	
	>12.5-18.5	BX63H0641	4/1,3		910	910	105	200		1600	135	10	865	965	386	230	2500	1480	2960	
	>18.5-22.5														486		3250	1855	3710	
40	>22.5-28.5														501		3250	1855	3710	
	>28.5-30	BXR63H0641	6/2		925	925	127				180	-10	1080	1180	736	285	4500	2535	5070	
	<10.5														801		4500	2510	5020	
	>10.5-12.5														186		2000	1230	2460	
50	>12.5-18.5														386		2500	1480	2960	
	>18.5-22.5														486		3250	1855	3710	
	>22.5-28.5	BXR63H0641	6/2		925	925	127				155	-25	900	100	751	260	4000	2260	4520	
	>28.5-30														751		4000	2260	4520	
63	<8.5														801		4500	2510	5020	
	>8.5-12.5														186		2000	1230	2460	
	>12.5-18.5	BX63H0641	4/1,3		910	910	105	200		1600	135	10	865	965	386	230	2500	1480	2960	
	>18.5-22.5														486		3250	1855	3710	
80	>22.5-28.5														501		3250	1855	3710	
	>28.5-30	BXR63H0641	6/2		925	925	127				180	-10	1080	1180	736	285	4500	2535	5070	
	<10.5														801		4500	2510	5020	
	>10.5-12.5														186		2000	1230	2460	
100																				





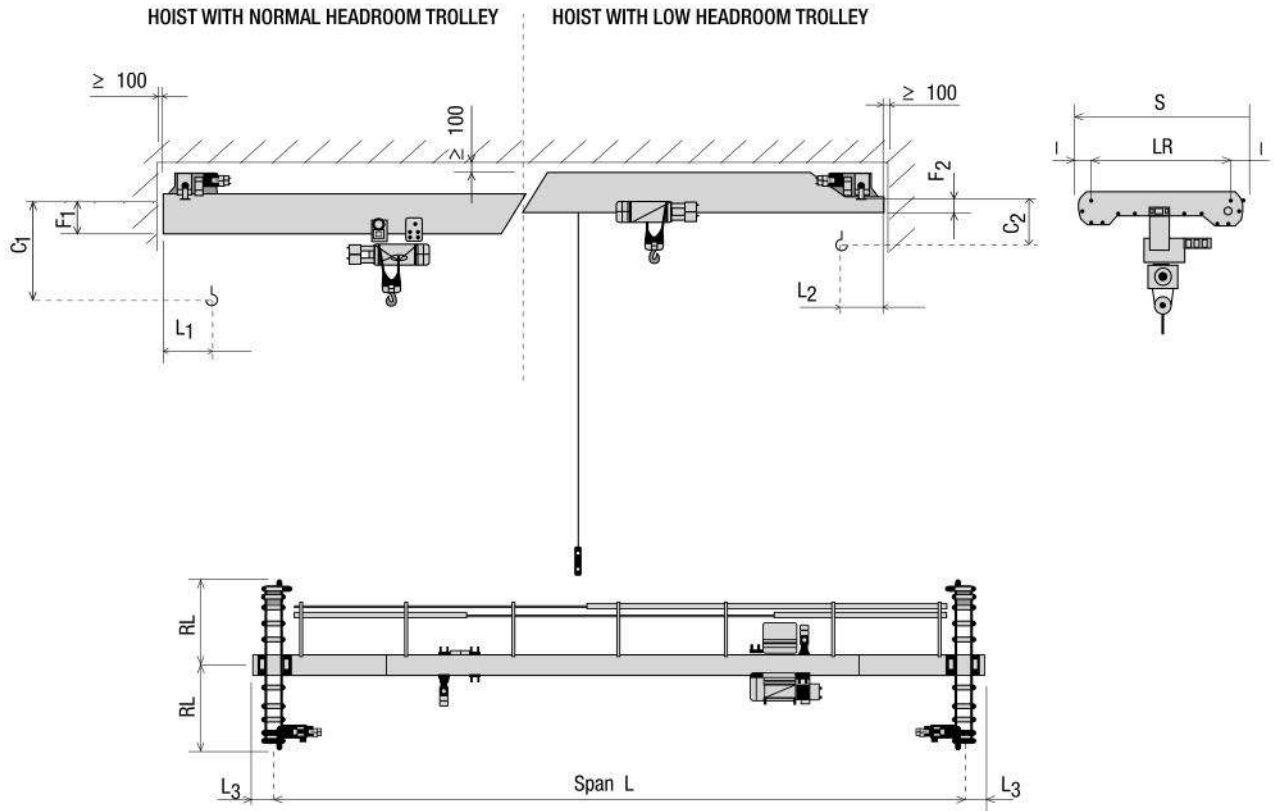
**REACTIONS PER WHEEL (Kgs)**

Capacity kgs	Span (m)														
	4	6	8	10	12	14	16	18	20	22	24	26	28	30	
1000	Max.	710	785	870	920	990	1045	1115	1215	1275	1395	1495	1720	1920	2155
	Min.	315	300	350	380	415	460	525	620	670	785	880	1100	1300	1525
1250	Max.	835	920	1010	1060	1120	1185	1275	1375	1465	1565	1710	1885	2135	2400
	Min.	315	315	355	380	430	475	550	650	730	830	975	1145	1390	1655
1600	Max.	950	1070	1165	1220	1290	1355	1460	1570	1690	1775	1970	2095	2395	2695
	Min.	375	370	400	410	460	510	605	700	810	890	1080	1195	1490	1790
2000	Max.	1120	1250	1370	1415	1490	1570	1685	1785	1885	2080	2200	2360	2600	2935
	Min.	415	400	445	435	490	545	645	735	820	1000	1115	1270	1495	1830
2500	Max.	1330	1490	1620	1660	1745	1820	1955	2060	2180	2370	2500	2715	3000	3275
	Min.	475	450	485	470	515	570	680	770	885	1055	1170	1385	1655	1930
3200	Max.	1615	1810	1965	2010	2100	2190	2310	2420	2550	2735	2930	3200	3450	3740
	Min.	540	510	545	515	580	625	720	815	935	1095	1285	1545	1790	2065
4000	Max.	1960	2140	2315	2435	2550	2665	2825	2950	3130	3355	3545	3760	4035	4390
	Min.	685	550	585	590	655	715	840	935	1095	1290	1460	1675	1935	2285
5000	Max.	2360	2625	2775	2905	3030	3190	3315	3480	3650	3855	4125	4395	4725	5060
	Min.	795	680	630	645	695	805	885	1015	1170	1340	1595	1850	2165	2490
6300	Max.	2880	3170	3350	3510	3670	3825	4005	4210	4385	4525	4815	5060	5395	5755
	Min.	945	765	700	715	775	860	995	1165	1305	1425	1685	1905	2220	2570
8000	Max.	3520	3970	4245	4455	4665	4860	5065	5330	5515	5750	6095	6440	6640	7005
	Min.	1410	1070	955	940	1005	1070	1190	1400	1535	1720	2030	2345	2515	2855
10000	Max.	4260	4795	5130	5390	5640	5870	6080	6360	6555	6875	7105	7415	7720	8130
	Min.	1670	1255	1110	1085	1150	1230	1340	1545	1690	1940	2120	2395	2675	3055
12500	Max.	5220	5885	6280	6570	6840	7070	7370	7620	7880	8100	8600	8950	9130	9650
	Min.	2030	1530	1340	1280	1310	1370	1540	1700	1875	2025	2475	2780	2925	3405
16000	Max.	6260	7460	8115	8620	8975	9355	9715	10005	10330	10700	11105	11465	11715	12330
	Min.	3515	2575	2170	2025	1960	2045	2165	2280	2470	2715	3020	3305	3490	4040
20000	Max.	7805	9330	10155	10735	11215	11625	11995	12500	12885	13190	13895	14215	14655	15195
	Min.	4355	3205	2680	2465	2400	2430	2515	2785	2995	3155	3730	3960	4305	4765

CRANE WEIGHT = 2X (Rmax. + Rmin.) - Crane capacity.



Capacity Tns.	L Span m.	ELECTRIC HOIST										D	I	LR	RL	S	
		TYPE	h. speed m/min	l. height m.	L1	L2	L3	L4	AT	C	C1						C2
1	<10,5	AX10H0621	8/2,6	12	850	670	105	200	135	885	510	230	358	458	1700	1080	2160
	>10,5 - 14,5												458	558	2000	1230	2460
	>14,5 - 16,5												458	558	2500	1480	2960
	>16,5 - 22,5												658	758	3250	1855	3710
	>22,5 - 28,5												858	958	4000	2230	4460
<10,5	AX12H0621	8/2,6	12	850	670	105	200	135	885	510	230	358	458	1700	1080	2160	
>10,5 - 14,5												458	558	2000	1230	2460	
>14,5 - 16,5												458	558	2500	1480	2960	
>16,5 - 22,5												658	758	3250	1855	3710	
>22,5 - 28,5												858	958	4000	2230	4460	
<10,5	AX16H0621	8/2,6	12	850	670	105	200	135	885	510	230	410	510	1700	1080	2160	
>10,5 - 14,5												510	610	2000	1230	2460	
>14,5 - 16,5												560	660	2500	1480	2960	
>16,5 - 22,5												660	760	3250	1855	3710	
>22,5 - 28,5												960	1060	4000	2230	4460	
<10,5	AX20H0641	4/1,3	6	850	670	105	200	135	840	465	230	410	510	1700	1080	2160	
>10,5 - 14,5												560	660	2000	1230	2460	
>14,5 - 16,5												610	710	2500	1480	2960	
>16,5 - 22,5												760	860	3250	1855	3710	
>22,5 - 28,5												960	1060	4000	2230	4460	
<10,5	AX25H0641	4/1,3	6	850	670	105	200	135	840	465	230	463	563	1700	1080	2160	
>10,5 - 14,5												563	663	2000	1230	2460	
>14,5 - 16,5												613	713	2500	1480	2960	
>16,5 - 22,5												763	863	3250	1855	3710	
>22,5 - 28,5												913	1013	4000	2230	4460	
<10,5	AX32H0641	4/1,3	6	850	670	105	200	135	840	465	230	1108	1208	4500	2510	5020	
>10,5 - 14,5												513	613	1700	1080	2160	
>14,5 - 16,5												613	713	2000	1230	2460	
>16,5 - 22,5												663	763	2500	1480	2960	
>22,5 - 24,5												813	913	3250	1855	3710	
<10,5	BX40H0641	4/1,3	6	870	785	105	200	135	1010	545	230	518	618	1700	1080	2160	
>10,5 - 14,5												618	718	2000	1230	2460	
>14,5 - 16,5												718	818	2500	1480	2960	
>16,5 - 22,5												868	968	3250	1855	3710	
>22,5 - 28,5												1068	1168	4000	2260	4520	
<10,5	BX50H0641	4/1,3	6	870	785	105	200	135	1010	545	230	568	668	1700	1080	2160	
>10,5 - 14,5												718	818	2000	1230	2460	
>14,5 - 16,5												718	818	2500	1480	2960	
>16,5 - 22,5												918	1018	3250	1855	3710	
>22,5 - 26,5												1068	1168	4000	2260	4520	
<10,5	BX63H0641	4/1,3	6	870	785	105	200	135	1010	545	230	568	668	1700	1080	2160	
>10,5 - 14,5												718	818	2000	1230	2460	
>14,5 - 16,5												718	818	2500	1480	2960	
>16,5 - 22,5												968	1068	3250	1885	3770	
>22,5 - 28,5												1168	1268	4000	2285	4570	
<10,5	CX80H0641	4/1,3	6	1010	805	105	250	135	1335	765	230	618	718	1700	1080	2160	
>10,5 - 14,5												718	818	2000	1230	2460	
>14,5 - 16,5												818	918	2500	1480	2960	
>16,5 - 22,5												968	1068	3250	1885	3770	
>22,5 - 24,5												1168	1268	4000	2285	4570	
<10,5	CX100H0641	4/1,3	6	1055	805	105	200	155	1335	765	230	668	768	1700	1080	2160	
>10,5 - 14,5												868	968	2000	1260	2520	
>14,5 - 16,5												918	1018	2500	1510	3020	
>16,5 - 22,5												1118	1218	3250	1910	3820	
>22,5 - 28,5												1268	1368	4000	2330	4660	
<10,5	CX125H0641	4/1,3	6	1055	805	105	200	155	1350	765	260	668	768	1700	1110	2220	
>10,5 - 14,5												868	968	2000	1260	2520	
>14,5 - 16,5												918	1018	2500	1535	3070	
>16,5 - 22,5												1118	1218	3250	1910	3820	
>22,5 - 28,5												1268	1368	4000	2330	4660	
<10,5	DX160H0641	4/1,3	6	1290	850	140	200	180	1689	865	285	723	823	1700	1135	2270	
>10,5 - 14,5												823	923	2000	1285	2570	
>14,5 - 16,5												973	1073	2500	1580	3160	
>16,5 - 22,5												1173	1273	3250	1955	3910	
>22,5 - 28,5												1373	1473	4000	2375	4750	
<4,5	DX200H0641	4/1,3	6	1290	850	140	250	228	1684	860	330	778	878	1700	1180	2360	
>10,5 - 14,5												878	978	2000	1330	2660	
>14,5 - 16,5												978	1078	2500	1580	3160	
>16,5 - 22,5												1178	1278	3250	1955	3910	
>22,5 - 28,5												1378	1478	4000	2375	4750	
<4,5	DXR200H0641	6/2	6	1290	850	140	250	228	1654	830	375	778	878	1700	1180	2360	
>10,5 - 14,5												878	978	2000	1330	2660	
>14,5 - 16,5												978	1078	2500	1580	3160	
>16,5 - 22,5												1178	1278	3250	1955	3910	
>22,5 - 28,5												1378	1478	4000	2375	4750	



**REACTIONS PER WHEEL (Kgs)**

Capacity kgs.	Span (m)							
	4	6	8	10	12	14	16	
1000	Max.	750	810	890	950	1000	1060	1120
	Min.	190	230	285	335	375	440	495
1250	Max.	810	910	1000	1060	1115	1185	1255
	Min.	260	285	330	365	410	470	530
1600	Max.	1020	1125	1200	1250	1310	1380	1460
	Min.	230	280	335	365	415	485	550
2000	Max.	1210	1325	1425	1465	1530	1675	1790
	Min.	240	290	360	380	430	570	675
2500	Max.	1450	1615	1720	1775	1850	1960	2050
	Min.	285	360	425	460	505	620	700
3200	Max.	1800	1960	2085	2120	2200	2320	2450
	Min.	345	395	635	470	530	635	765
4000	Max.	2215	2370	2530	2575	2680	2810	2960
	Min.	440	445	530	530	605	720	855
5000	Max.	2665	2850	2950	3075	3175	3415	3540
	Min.	490	500	495	570	635	850	955
6300	Max.	3260	3450	3570	3750	3900	4080	4220
	Min.	565	525	535	650	765	905	1020

CRANE WEIGHT= 2X (Rmax. + Rmin.) - Crane capacity.



Capacity Tns.	L Span m.	ELECTRIC HOIST			L1	L2	L3	C1	C2	F1	F2	I	LR	RL	S	
		TYPE	h. speed. m/min	I. height. m												
1	<4,5	AX10H0621	8/2,6	12	580	920	180	1195	820	270	270	215	1700	1065	2130	
	>4,5- 8,5	AXM10H0621	10/3,3					1235		310						
	>8,5- 12,5		1385					460								
	> 12,5-16	AXR10H0621	12/4					1475		550						2500
1,25	<4,5	AX12H0621	8/2,6	12	580	920	180	1195	820	270	270	215	1700	1065	2130	
	>4,5- 8,5	AXM12H0621	10/3,3					1235		310						
	>8,5- 12,5		1385					460								
	> 12,5-16	AXR12H0621	12/4					1475		550						2500
1,6	<4,5	AX16H0621	8/2,6	12	580	920	180	1195	820	270	270	215	1700	1065	2130	
	>4,5- 8,5	AXM16H0621	10/3,3					1255		330						
	>8,5- 12,5		1435					510								
	> 12,5-16	AXR16H0621	12/4					1535		610						2500
2	<4,5	AX20H0641	4/1,3	6	580	920	180	1195	820	270	270	215	1700	1065	2130	
	>4,5- 8,5	AXM20H0641	5/1,6					1275		350						
	>8,5- 12,5		1485					560								
	> 12,5-16	AXR20H0641	6/2					1575		650						2500
2,5	<4,5	AX25H0641	4/1,3	6	580	920	180	1215	820	290	270	215	1700	1065	2130	
	>4,5- 8,5	AXM25H0641	5/1,6					1295		370						
	>8,5- 12,5		1515					590								
	> 12,5-16	AXR25H0641	6/2					1615		690						2500
3,2	<4,5	AX32H0641	4/1,3	6	580	920	180	1215	820	290	270	215	1700	1065	2130	
	>4,5- 8,5		1315					390								
	>8,5- 12,5		1535					610								
	> 12,5-16		1635					710		2500						1465
4	<4,5	BX40H0641	4/1,3	6	655	950	210	1360	1000	310	330	215	1700	1065	2130	
	>4,5- 8,5	BXM40H0641	5/1,6					1570		520						
	>8,5- 12,5		1695					645								
	> 12,5-16	BXR40H0641	6/2					1795		745						2500
5	<4,5	BX50H0641	4/1,3	6	655	950	210	1380	1000	330	330	240	1700	1090	2180	
	>4,5- 8,5	BXM50H0641	5/1,6					1595		545						
	>8,5- 12,5		1720					670								
	> 12,5-16	BXR50H0641	6/2					1845		795						1060
6,3	<4,5	BX63H0641	4/1,3	6	655	950	210	1400	1000	350	330	240	1700	1090	2180	
	>4,5- 8,5		BXR63H0641					6/2		1770						720
	>8,5- 12,5							1900		850						
	> 12,5-16		1060					390		2500						1490





TRANSFER E.O.T. CRANE 5+5 T - 38.49 M SPAN.





STORAGE E.O.T. CRANE 2X3,2 T - 21.35 M SPAN.

OTHER PRODUCTS







CONTAINER GANTRY CRANE 40 T - 18 M SPAN.





WASTE TREATMENT E.O.T. CRANE 8 T - 15 M SPAN.

OTHER PRODUCTS



sarralle  
india



E.O.T. CRANE WITH REVOLVING CRAB 2X14 T - 24 M SPAN.







DOUBLE GIRDER CANTILEVER CRANES 2 T - 6 M SPAN / E.O.T. CRANES 5 T - 24 M SPAN.



FINISHING PRODUCT E.O.T. CRANE WITH MAGNETS AND REVOLVING CRAB 2X11 T - 18.85 M SPAN.







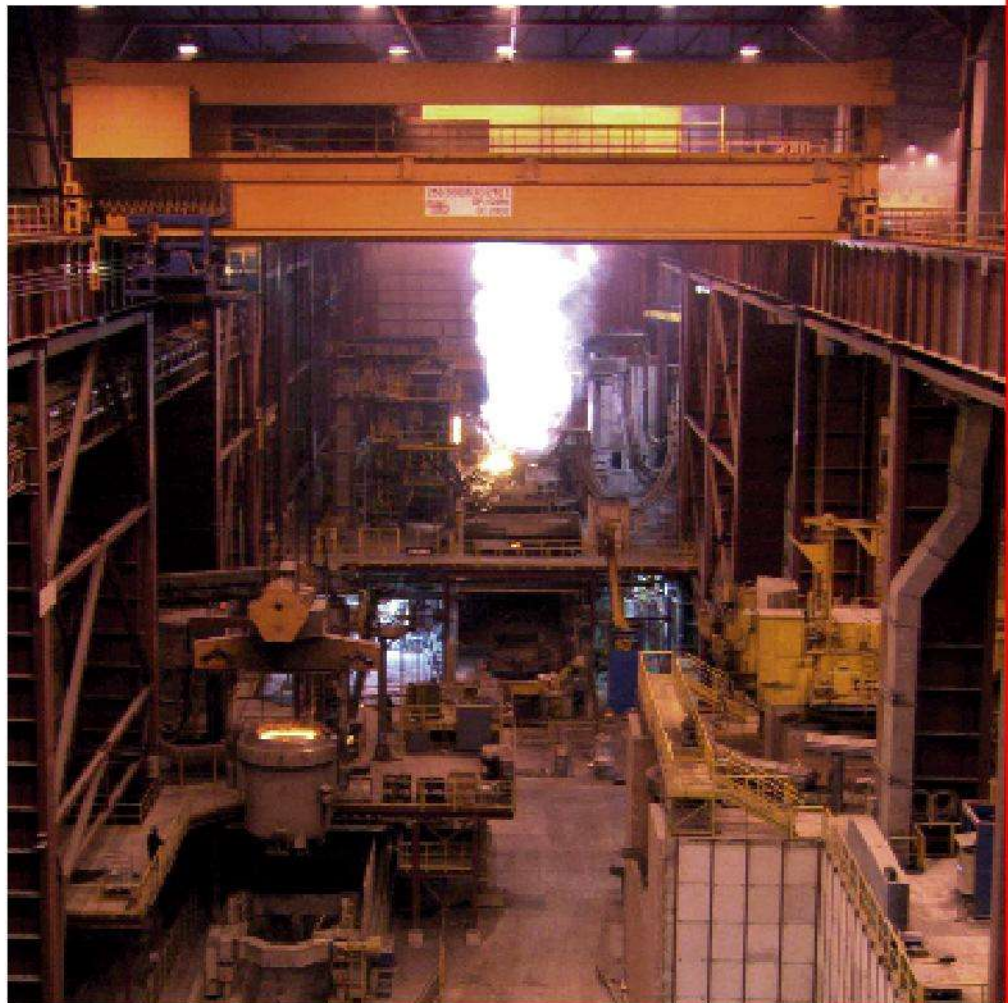


LADLE E.O.T. CRANE 220/63/10 T - 25 M SPAN.



SCRAP YARD E.O.T. CRANE 35 T - 40 M SPAN.



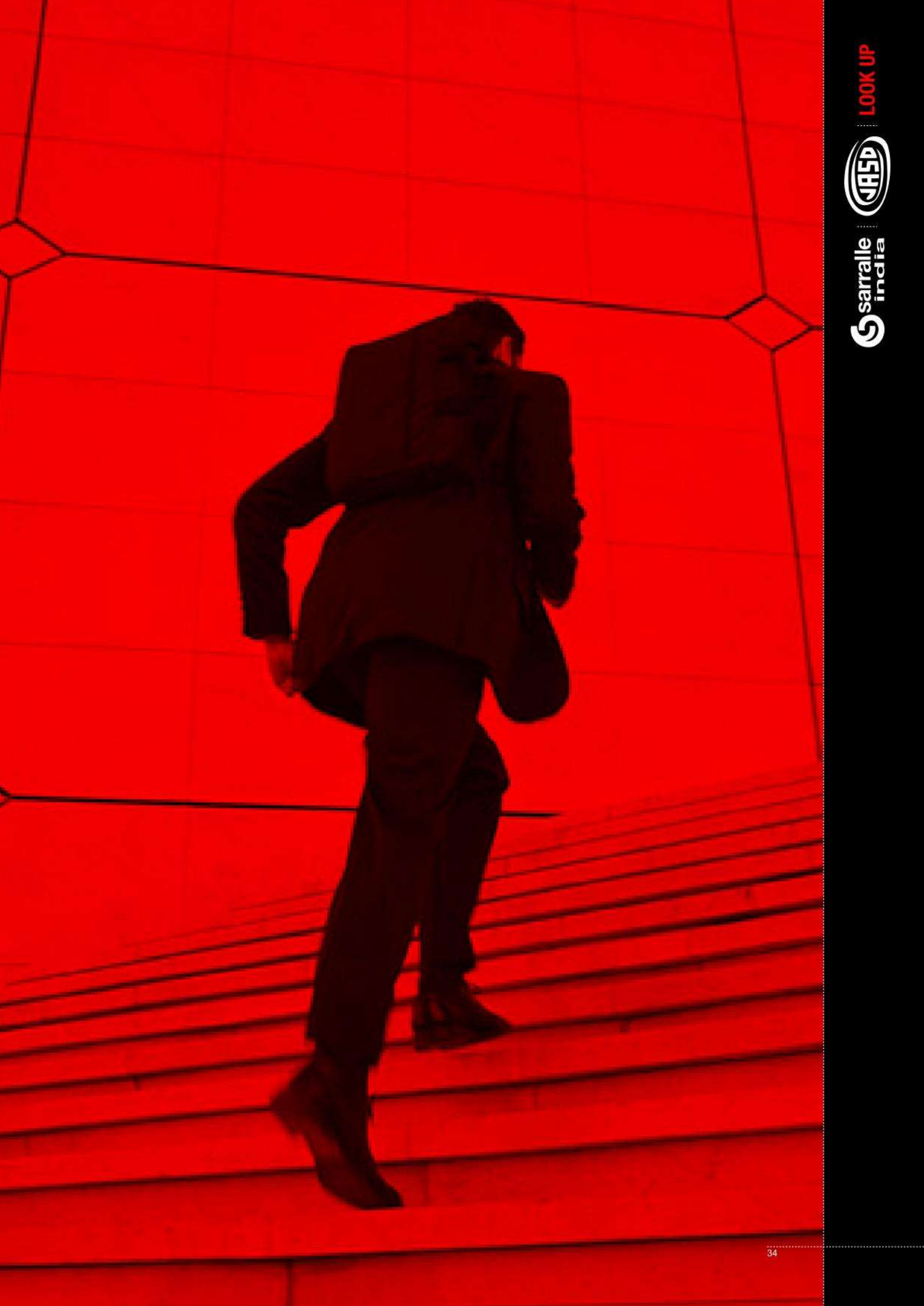


LADLE E.O.T. CRANE 250(300)/63/32/ 16 T - 27 M SPAN.



IN JASO SARRALLE CRANES INDIA WE TAKE ON A REAL COMMITMENT WITH EACH EQUIPMENT PUT INTO OPERATION FOR EACH ONE OF OUR CUSTOMERS ALL OVER THE WORLD.

COORDINATED FROM OUR HEAD OFFICE, THE JASO SARRALLE CRANES INDIA TECHNICAL ASSISTANCE SERVICE GOES WHEREVER IT IS REQUIRED.



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OUR COMMERCIAL NETWORK AND PARTNERS AS WELL AS OUR DIFFERENT MANUFACTURING PLANTS, LOCATED IN SPAIN, MEXICO, ARGENTINA AND INDIA, ALLOW US TO BE VERY CLOSE TO OUR CUSTOMERS ALL OVER THE WORLD.

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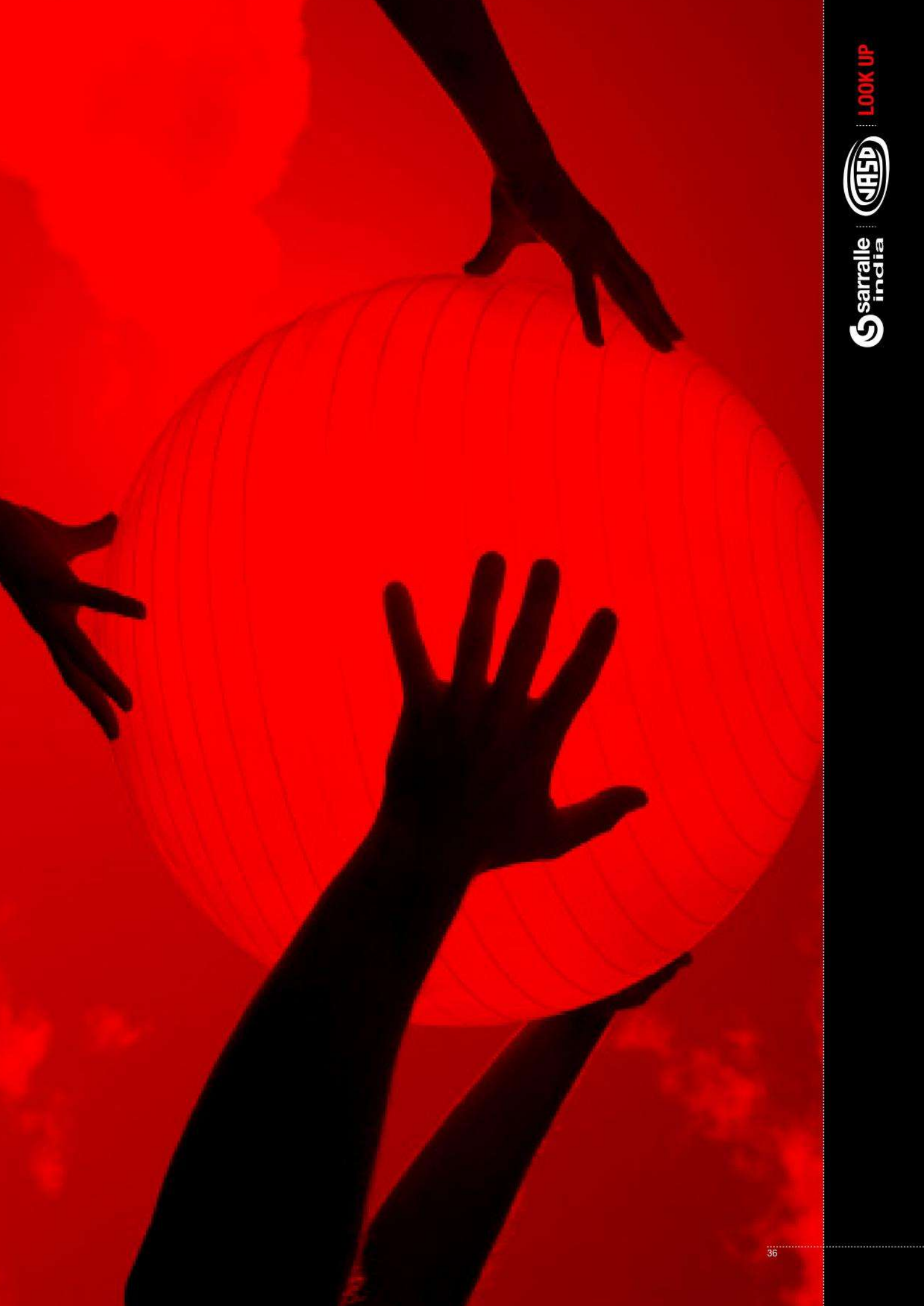
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india

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### SCRAP CRANES REFERENCE LIST SINCE 1999

COMPANY	COUNTRY	CAPACITY (T)	SPAN (M)	YEAR
SIDENOR	SPAIN	25	35,75	1999
SIDENOR	SPAIN	25	35,75	1999
SIDENOR	SPAIN	25	35,75	1999
CORRUGADOS GETAFE	SPAIN	30/6.3	35,75	1999
NORTH AMERICAN STEEL	USA	40/4	40	2000
NORTH AMERICAN STEEL	USA	40/4	40	2000
S.N. LONGOS	PORTUGAL	20+20/10	25	2001
S.N. LONGOS	PORTUGAL	20+20	25	2001
ACERALIA LARGOS ZARAGOZA	SPAIN	22/5	28.80	2001
ACERALIA PERFILES BERGARA	SPAIN	30/10	28.20	2003
CORRUGADOS AZPEITIA	SPAIN	40/15/15	40	2004
DEACERO	MEXICO	20	35	2005
DEACERO	MEXICO	20	35	2005
DEACERO	MEXICO	20	35	2005
DEACERO	MEXICO	20	35	2005
DEACERO	MEXICO	20	35	2005
DEACERO	MEXICO	20	35	2005
ARCELOR ZUMARRAGA	SPAIN	30/15	30.57	2005
BASCOTECNIA STEELS	ALGERIA	25	28.50	2006
BASCOTECNIA STEELS	ALGERIA	25	28.50	2006
SIDERURGICA BALBOA	SPAIN	35	40	2006
SIDERURGICA BALBOA	SPAIN	35	40	2006
SIDERURGICA BALBOA	SPAIN	35	40	2006
SIDERURGICA BALBOA	SPAIN	35	40	2006
SIDERURGICA DEL TULTITLAN	MEXICO	20	24	2007
SIDERURGICA DEL TULTITLAN	MEXICO	20	24	2007

### FURNACE CRANES REFERENCE LIST SINCE 1996

COMPANY	COUNTRY	CAPACITY (T)	SPAN (M)	YEAR
ACIERIE DE L'ATLANTIQUE	FRANCE	130/32/5+5	27.20	1996
CORRUGADOS GETAFE	SPAIN	100/25/10	17	1996
ACERINOX	SPAIN	130/50/8	23.90	1997
DEACERO	MEXICO	160/40/8	26.50	1997
ARCELOR PERFILES OLABERRIA	SPAIN	120/15	21.09	1999
SIDENOR (GERDAU)	SPAIN	130/32/10	24.80	1999
NORTH AMERICAN STEEL	USA	175/60/15	27.12	2001
NORTH AMERICAN STEEL	USA	175/60/15	27.12	2001
S.N. LONGOS	PORTUGAL	120/35/10/10	25	2001
S.N. LONGOS	PORTUGAL	120/20	20	2003
CELSA	SPAIN	200/32	27	2003
CELSA	SPAIN	200/32	27	2004
SOVEL	GREECE	150/40/6.3/6.3	28	2004
CORRUGADOS AZPEITIA	SPAIN	140(250)/40/10	24.50	2005
ARCELOR ZUMARRAGA	SPAIN	130/32/10	20.28	2005
DEACERO	SPAIN	160/40/8	26.50	2005
BASCOTECNIA STEELS	ALGERIA	110(180)/24/10	24	2005
ACIERIE DE L'ATLANTIQUE	FRANCE	170(300)/50/16	27.20	2005
SIDERURGICA BALBOA	SPAIN	250(300)/65/32	27	2006
SIDERURGICA BALBOA	SPAIN	250(300)/65/32	27	2007
SIDERURGICA DEL TULTITLAN	MEXICO	100/30/6.3	18	2007





## LADLE CRANES REFERENCE LIST SINCE 1990

COMPANY	COUNTRY	CAPACITY (T)	SPAN (M)	YEAR
CORRUGADOS GETAFE	SPAIN	120/25	23.35	1990
ARCELOR PERFILES MADRID	SPAIN	250/50	21.40	1990
SIDERURGICA DE GUADALAJARA	MEXICO	120/30/10	23	1990
ARCELOR AVILES	SPAIN	175	15	1992
ARCELOR ZUMARRAGA	SPAIN	200/50/10	20.28	1993
SIDERURGICA DE CALIFORNIA	MEXICO	140/30/10	23	1994
ACERINOX	SPAIN	200/70	23.90	1995
A.C.B.	SPAIN	220/63/10	27	1996
A.C.B.	SPAIN	220/63/10	27	1996
ACIERIE DE L'ATLANTIQUE	FRANCE	220/63/10	27.20	1996
CORRUGADOS AZPEITIA	SPAIN	225/63/10	24.50	1996
DEACERO	MEXICO	160/40/8	26.50	1997
S.N. LONGOS	PORTUGAL	180/40	26	1997
SIDENOR (GERDAU)	SPAIN	230/50/10	24.80	1999
SISE (RIVA)	SPAIN	160/40/10	18.91	2000
NORTH AMERICAN STAINLESS	USA	300/75/10	27.12	2001
NORTH AMERICAN STAINLESS	USA	300/75/10	27.12	2001
S.N. LONGOS	PORTUGAL	200/50/10	25	2001
CAF	SPAIN	70/25	12	2002
ARCELOR PERFILES OLABERRIA	SPAIN	250/63/10	17.49	2002
ATLANTIC COPPER	SPAIN	20/10	7.80	2003
CELSA	SPAIN	250/50	27	2003
FERROATLANTICA	SPAIN	60/20	11.20	2003
MEGASA (S.N. LONGOS)	SPAIN	150/40/10	18	2003
SIDENOR (GERDAU)	SPAIN	150/40	18.50	2003
CELSA	SPAIN	250/50	27	2004
CELSA	SPAIN	250/50	27	2004
GSB LEGAZPIA (GERDAU)	SPAIN	120/40/10	17.39	2005
ACERINOX	SPAIN	220/70/1	23.90	2006
ACERINOX	SPAIN	220/70/1	23.90	2006
DEACERO	MEXICO	180/40/8	26.50	2006
BASCOTECNIA STEELS	ALGERIA	200(240)/50/10	24	2006
SIDERURGICA BALBOA	SPAIN	250(300)/65/32	27	2006
SIDERURGICA BALBOA	SPAIN	250(300)/65/32	27	2006
SIDERURGICA DEL TULTITLAN	MEXICO	110/40	20	2007
OLARRA	SPAIN	100/30	18.70	2007
OLARRA	SPAIN	100/30	18.70	2007
AÇOS VILLARES (GERDAU)	BRASIL	120/30/5	22.40	2007
SIDENOR (GERDAU)	SPAIN	230/50/10	16.92	2007

## TUNDISH AND OTHER CRANES REFERENCE LIST SINCE 1995

COMPANY	COUNTRY	CAPACITY (T)	SPAN (M)	YEAR
A.C.B.	SPAIN	80/20	27.75	1995
A.C.B.	SPAIN	80/20	27.75	1995
A.C.B.	SPAIN	80/10	17.75	1995
ACIERIE DE L'ATLANTIQUE	FRANCE	100/25	23.86	1996
ACIERIE DE L'ATLANTIQUE	FRANCE	125/25	27.20	1997
SIDENOR (GERDAU)	SPAIN	80/25	24.80	1999
SIDENOR (GERDAU)	SPAIN	80/25/5	27.27	1999
SIDENOR (GERDAU)	SPAIN	95	13.28	1999
NORTH AMERICAN STEEL	USA	100/50/10	27	2000
NORTH AMERICAN STEEL	USA	75/25	27.12	2000
NORTH AMERICAN STEEL	USA	125/50/10	27	2000
ARCELOR ESPAÑA, S.A.	SPAIN	85/25	20.30	2002
SIDENOR (GERDAU)	SPAIN	120/30	18	2007



## BILLET AND FINISHED PRODUCT CRANES REFERENCE LIST SINCE 2004

COMPANY	COUNTRY	CAPACITY(T)	SPAN (M)	YEAR
S.N. LONGOS	PORTUGAL	2X16	28.5	2004
BASCOTECNIA STEELS	ALGERIA	2X12.5	32.50	2004
BASCOTECNIA STEELS	ALGERIA	2X12.5	32.50	2004
CORRUGADOS AZPEITIA	SPAIN	2X16	29.23	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	29.23	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	29.23	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	25.13	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	33.40	2005
DEACERO	MEXICO	2X10/5	33	2005
DEACERO	MEXICO	2X12.5	33	2005
DEACERO	MEXICO	2X12.5	33	2005
DEACERO	MEXICO	2X12.5	33	2005
DEACERO	MEXICO	2X12.5	33	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	29.23	2005
DEACERO	MEXICO	2X10	28.50	2005
BASCOTECNIA STEELS	ALGERIA	2X10	28.34	2005
BASCOTECNIA STEELS	ALGERIA	2X10	28.34	2005
BASCOTECNIA STEELS	ALGERIA	2X10	28.34	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	25.10	2005
CORRUGADOS AZPEITIA	SPAIN	2X16	33.41	2006
CORRUGADOS AZPEITIA	SPAIN	2X16	15.90	2006
NERVACERO (CELSA)	SPAIN	2X12	21.76	2006
SIDERURGICA AÑON	SPAIN	2X10	26.23	2006
GSB AZKOITIA (GERDAU)	SPAIN	2X5	19.59	2006
GSB LEGAZPIA (GERDAU)	SPAIN	2X7.5	20.02	2006
CORRUGADOS LASAO	SPAIN	2X2.5	11	2006
DEACERO	SPAIN	2X5	27	2006
MEGASA (S.N. LONGOS)	SPAIN	2X12	18	2006
S.N. LONGOS	PORTUGAL	2X7.5	28.50	2006
S.N. LONGOS	PORTUGAL	2X7.5/7	25	2006
S.N. LONGOS	PORTUGAL	2X16	28.50	2006
CELSA MANUFACTURING UK	UK	2X12.5/5	20	2006
ARCELOR ZUMARRAGA	SPAIN	2X12.5	16.62	2007
SIDERURGICA AÑON	SPAIN	2X12	24.91	2007
ARCELOR ZUMARRAGA	SPAIN	2X12.5/8	18.99	2007
PRODUCTOS TUBULARES S.A.	SPAIN	2X5	17.25	2007
BASCOTECNIA STEELS	MOROCCO	2X10	28	2007
BASCOTECNIA STEELS	MOROCCO	2X10	28	2007
BASCOTECNIA STEELS	MOROCCO	2X10	28	2007
PERFILES SELAK, S.L.	SPAIN	2X10	20	2007
ARCELOR MADRID	SPAIN	2X20	22.4	2007
TUBOS REUNIDOS S.A.	SPAIN	2X3.75	19	2007
TUBOS REUNIDOS S.A.	SPAIN	2X5	25	2007
CORRUGADOS GETAFE	SPAIN	2X16	28.99	2007
CORRUGADOS GETAFE	SPAIN	2X16	21.08	2007
TUBACEX TUBOS INOXIDABLES	SPAIN	2X2.5	29.04	2007
TUBACEX TUBOS INOXIDABLES	SPAIN	2X5	24	2007
TUBACEX TUBOS INOXIDABLES	SPAIN	2X5	24	2007
ACERIA DE ALAVA	SPAIN	2X6	20	2007



**ROLL MILL AND COIL TYPE CRANES REFERENCE LIST SINCE 2003**

COMPANY	COUNTRY	CAPACITY(T)	SPAN(M)	YEAR
ARCELORMITTAL ESPAÑA, S.A.	SPAIN	40	28.20	2003
GONVARRI INDUSTRIAL, S.A.	SPAIN	35	31.15	2003
GONVARRI INDUSTRIAL, S.A.	SPAIN	35	31.15	2003
GONVARRI SIDERURGICOS S.A.	PORTUGAL	35	24.25	2003
GESTAMP PUEBLA S.A. DE C.V.	MEXICO	35/10	34.65	2003
GONVARRI INDUSTRIAL, S.A.	SPAIN	35	31.15	2004
GONVARRI INDUSTRIAL, S.A.	SPAIN	35	31.15	2004
GONVARRI GALICIA, S.A.	SPAIN	35	31.15	2004
GONVARRI GALICIA, S.A.	SPAIN	35	31.15	2004
GONVARRI GALICIA, S.A.	SPAIN	35	31.15	2004
GONVARRI GALICIA, S.A.	SPAIN	35/16	31.15	2004
PRODUT. EMPR. METALURGICAS	SPAIN	32	21.40	2005
PRODUT. EMPR. METALURGICAS	SPAIN	32	21.40	2005
PRODUT. EMPR. METALURGICAS	SPAIN	32	21.40	2005
ARCELOR ESPAÑA, S.A.	SPAIN	40/20	30.10	2005
CORUS LAMINACION	SPAIN	35	28.81	2006
CORUS LAMINACION	SPAIN	35	28.81	2006
HYLSAMEX	MEXICO	30	19.50	2006
GONVAUTO THÜRINGEN GMBH	GERMANY	35	34.31	2006
GONVAUTO THÜRINGEN GMBH	GERMANY	35	34	2006
GONVAUTO THÜRINGEN GMBH	GERMANY	35/16	28.61	2006
LAMINADOS MONTERREY	MEXICO	30	24.17	2006
LAMINADOS MONTERREY	MEXICO	30	19.17	2006
INDUSTRIAS MONTERREY	MEXICO	40	23	2007
INDUSTRIAS MONTERREY	MEXICO	40	23	2007
INDUSTRIAS MONTERREY	MEXICO	40	23	2007
GESTAMP PUEBLA, S.A. DE C.V.	MEXICO	40/10	34.65	2007
GESTAMP PUEBLA, S.A. DE C.V.	MEXICO	40/10	34.65	2007
GONVAUTO PUEBLA, S.A. DE C.V.	MEXICO	35	28.65	2007
GONVAUTO PUEBLA, S.A. DE C.V.	MEXICO	35	28.65	2007
GONVAUTO PUEBLA, S.A. DE C.V.	MEXICO	35	28.65	2007
ARCELOR ZUMARRAGA	SPAIN	35/10	18.81	2007
ACERINOX	SPAIN	35/10	23.90	2007



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