View A

View B

Det. S
M 1:1

E - E
M 1:5

Det. R
M 1:5

Det. P
M 1:5

Det. Q
M 1:2

Det. Z
M 1:2

Det. X
M 1:2

B - B

Det. V
M 1:2

Det. W
M 1:2

A - A

Det. U

Det. T
M 1:2

Det. U
M 1:2

SECTION D-D

C - C

Det. N
M 1:2

Det. O
M 1:2

SURVEY
M 1:50

all welds without test symbols = D

MAIN TYPES OF WELD JOINTS

Type of weld	Weld quality	Weld preparation	Symbol of symbols	Test to determine acceptable weld: Test methods	Symbols
Butt weld to the thickness of the connected elements	special quality	Gauge root of weld-back before welding run execution, without end craters; prewelding flush with the plate; grind parallel to the direction of the external forces		Non-destructive test of the seam over its full length, for example X-rays	P100
	standard quality	Gauge root of weld-back before welding run execution, without end craters		As for the special quality but solely: weld tensile stress with 50 mm circumference VOB B150	P100
				Non-destructive testing on a spot check basis over at least 10 % of the seam length, for example X-rays	P
Double bevel butt weld in the angle formed by two single welds with or groove in one of the connected elements at the root	special quality	Gauge root of weld-back; complete penetration weld necessary; weld edges; grind if necessary		Non-destructive test of the plate under tensile stress perpendicularly to its surface to detect inclusions (for example using ultrasonic testing)	B
	standard quality	Width of unwelded portion at root of joint no less than 3 mm or less than 0.2 times the thickness of the welded portion. The lowest is determined.			
Fillet weld in the angle formed by the assembled components	special quality	Notchless weld edges; grind if necessary			
	standard quality				

General Welding Detail

GENERAL REQUIREMENTS ON WELDS QUALITY

Welds quality category except extra detailed acc. to DIN 8563, Part 3 :
- all butt weld joints according to BS category
- all fillet weld joints according to BS category

All butt welds are complete penetration welds

All filled welds except extra detailed are as 4 and the certificates according to the shop test and inspection requirements must be prepared

GENERAL REQUIREMENTS ON MATERIAL QUALITY

Plates with thickness greater than 20 mm must be checked to Non-destructive testing under the tensile strength perpendicularly to the surface to detect inclusions.
Requirements for steel fabrication, welding and tolerances see data on separate document No. 59-PLATE

GENERAL REQUIREMENTS ON PARTICULAR WELDED DETAIL

(1) All visible signs of drag lines should be removed from the flame cut edge by grinding or machining

(2) The controlling flame cutting programme should ensure that the resulting surface hardness is not sufficient to cause cracking

(3) If the permanent backing strip is used in making longitudinal butt welded joints it should be continuous or made by welding. These welds and their attaching the backing strip should also comply with the reference class requirements

(4) Such welds should be carefully ground out or buried out in a subsequent run. Their use in the fabrication process should be strictly restricted

(5) Stop welds made entirely in the downhand position

Center of gravity

x	+3114
y	+7941
z	0

welded during workshop assembly
to be adapted with vibrating feeder

DIMENSIONAL TOLERANCES unless otherwise specified

nominal dimensions	up to 3	over 3 to 6	over 6 to 30	over 30 to 120	over 120 to 315	over 315 to 1000	over 1000 to 2000	over 2000 to 4000	over 4000 to 10000	over 10000 to 16000
Tolerances for machined surfaces	fine	±0.05	±0.1	±0.15	±0.2	±0.3	±0.5	±0.8	±1.2	±2
	medium	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4
	coarse	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±4	±5
Tolerances for unmachined surfaces		±0.5	±0.5	±0.8	±1.25	±2	±3	±4	±5	±6

REFERENCES

used in :		
used in :		
used in :	415.31325.000	Hopper tower part
used in :	415.31320.000	GA HOPPER & CHUTES
	DRAWING No.	DESCRIPTION

REV.	BY	DATE	DESCRIPTION	CHK.	APP.
B	RIP	03.06.2020	inclination of chute outlet item 3, 8, 45 ... 51		
A	RIP	01.06.2020	changing of support for buffer item 24, 25, 26, 38, 42		

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RELEASED FOR MANUFACTURING

Date	05.06.2020
Signed	W. Zoertsch
	Released for detail design
Date	
Signed	

WESTARMO Materials Handling GmbH

	Date	Name	Scale 1:10 (1:2, 1:5, 1:20)
Designed	16.05.	RIP	Material S 235 JR
Drawn	16.05.	RIP	
Checked	16.05.	RIP	Mass kg
Appd.	05.06.	Zoertsch	

CAD 011 Model/Layer

Title: PORT OF KIPER WASU 32/40-18+10

HOPPER & CHUTES

hopper outlet

Sheet 1 of 1 | Size: D

415.31324.009 | D | 0

Büro für Industrieplanung GmbH Brandenburg

LogoCAD D:\KIPER\WASU\32\PLOT\LOGO\LOGO32400A.CTB\HAUS 05.06.2020