

# PARTS & SERVICE NEWS

REF NO.	AT03099A
DATE	Dec. 28, 2004

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This PARTS & SERVICE NEWS supersedes the previous issue No. AT03099 dated Jun. 6, 2003 which should be discarded.

**SUBJECT:** REPAIR PROCEDURE OF FRONT FRAME LOWER HINGE ON WA1200-3

**PURPOSE:** To introduce modification procedure to repair and reinforce the front frame (lower hinge section) on WA1200-3 wheel loaders

**APPLICATION:** WA1200-3 Wheel Loaders, Serial Nos. 50001 thru 50007,  
50009 thru 50012

**FAILURE CODE:** 4781HA

## DESCRIPTION:


### 1-1. Introduction

If the WA1200-3 wheel loaders are frequently used for high digging load operations (for example: pit excavations, digging of large rocks, peeling off of walls, digging into natural ground which has not been blasted and digging into natural ground which has not been loosened, etc.), cracks may occur in the lower hinge casting of the front frame.






Therefore, reinforce the lower hinge section of the front frame by implementation of the modification being introduced in this Service News.

Also, even in case the aforementioned cracks are already occurring, it is possible to repair the cracks following the modification procedure being outlined in this Service News.


### 1-2. Revised places:

9 places 	Dec. 28, 2004	Added the reinforcement plates on both sides of the hinge.
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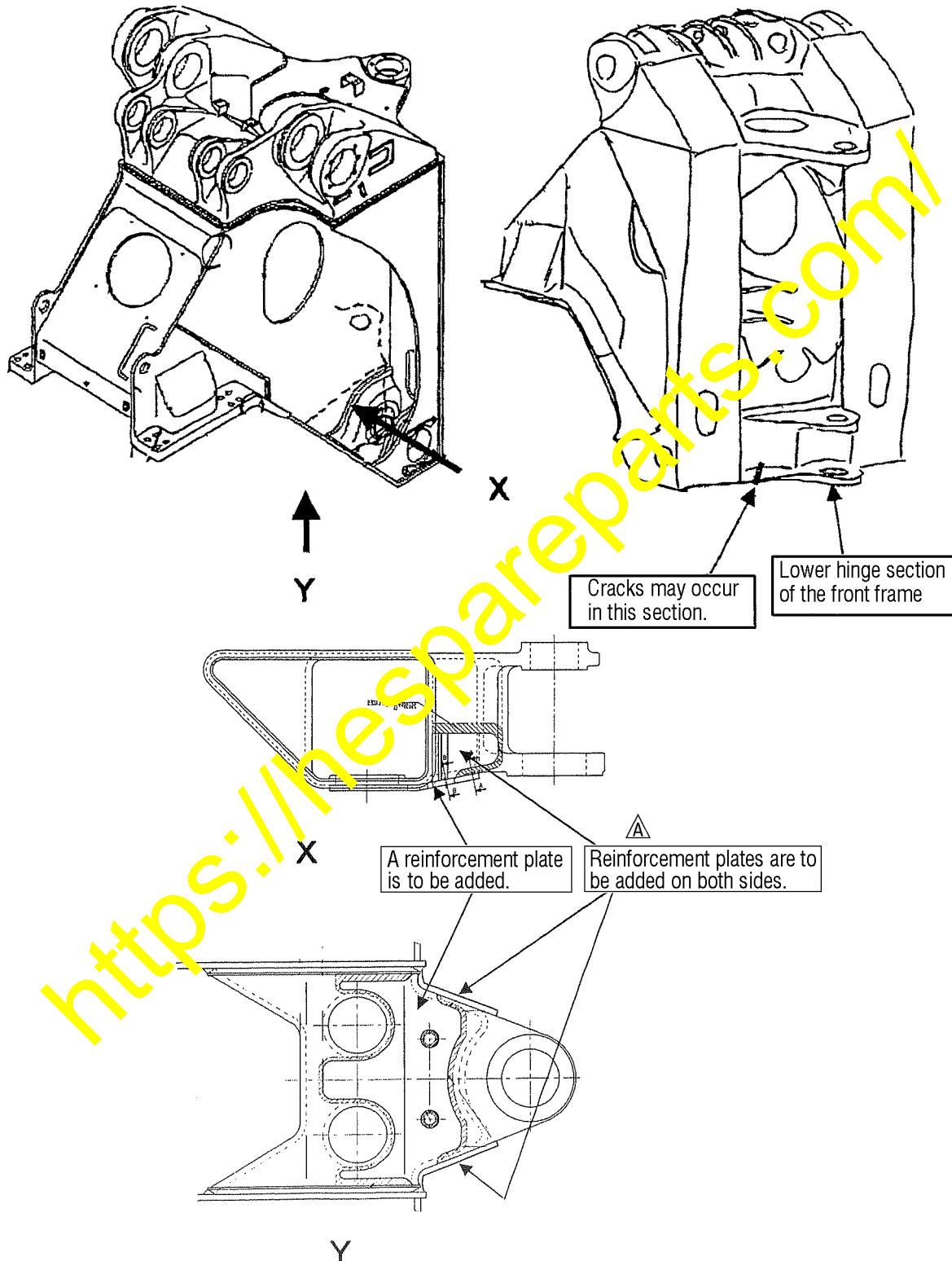
### 2. List of parts

Part No.	Part Name	Purpose of part	Q'ty	Remarks
 42C-46-11H80	Plate	} Addition	1	} Additional reinforcement plate
 42C-46-11K10	Plate		1	
 42C-46-11K20	Plate		1	
 42C-46-11K30	Bar		1	
 42C-46-11K40	Bar		1	

### 3. Details of the modification

If the machine is used for severe operations (high digging load operations), cracks may occur in the lower hinge section of the front frame. Reinforcement plates are to be added to the lower section of the front frame and on both sides. 

- Front frame



Reference: Changes to be made to the factory production new machines:

- ① The thickness of the lower portion of the lower hinge casting is being increased from t 32 to t 50.
- ② The casting material is being changed from SC450W to SC540W.

4. Modification procedure

(1) Carry out color checking at the lower hinge section of the front frame to make sure cracks are not occurring. (Refer to page 2 regarding the check point of the lower hinge in the lower section of the front frame.)

(If cracks are occurring, remove the cracked section by gouging and repair the section by welding. After finishing the repair work by welding, carry out color checking to make sure cracks are not remaining any more. [Casting material for the lower hinge: SC450W])

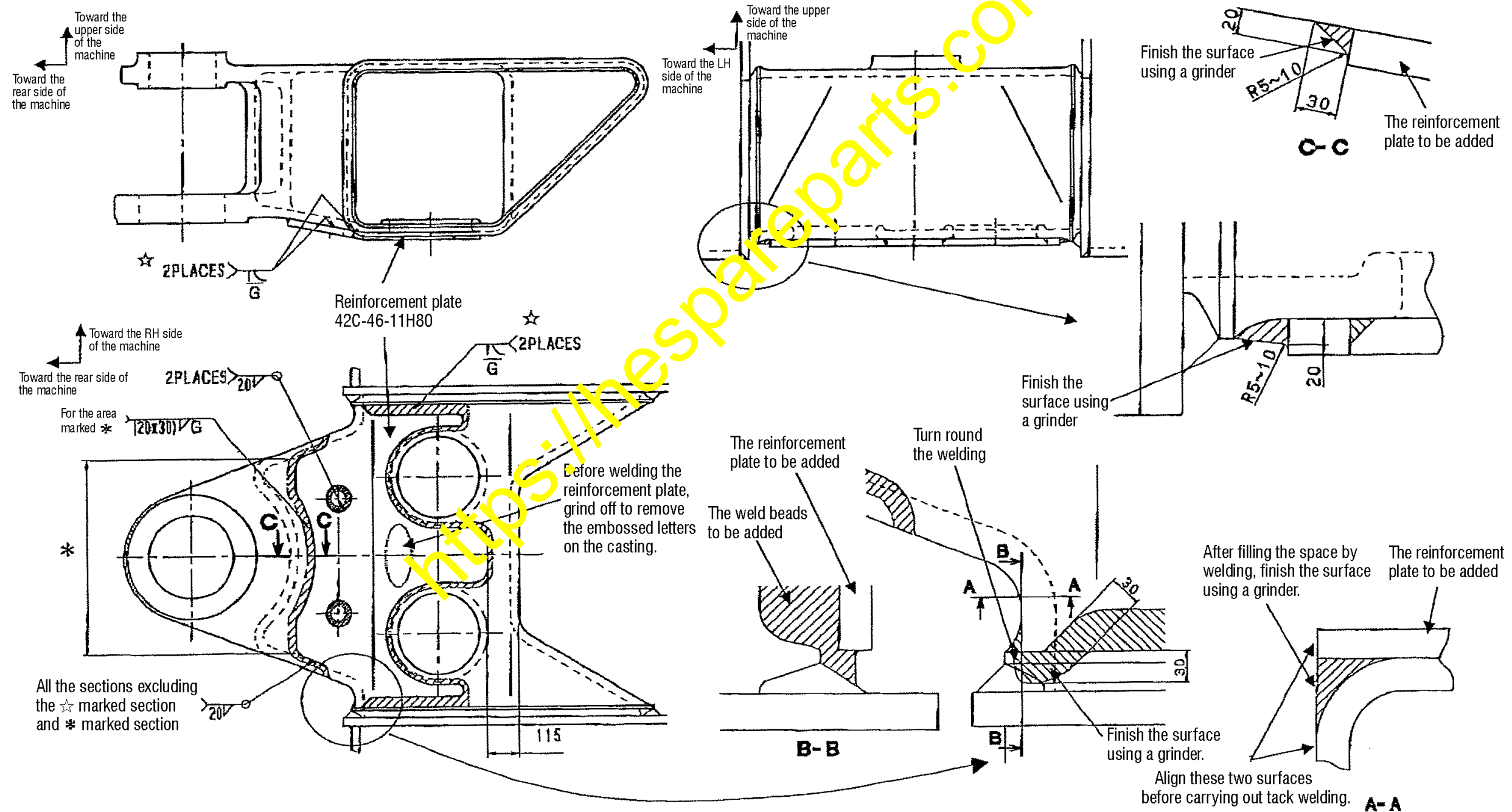
(2) Weld the reinforcement plate (42C-46-11H80) as per the instructions given in the drawing below.


① Welding rod to be used: 50 kg grade low hydrogen welding rods or CO<sub>2</sub> semi-automatic welding wires.

② It is not necessary to apply pre-heating and after-heating. (However, if the outside air temperature is 0°C or lower, apply pre-heating to 30°C to 50°C.)

③ Refer to the Cross-sectional view A-A shown in the drawing below regarding the positioning procedure for the additional reinforcement plate.

**IMPORTANT:** Push up by use of a jack, etc. so that the gap between the reinforcement plate and the lower hinge casting may become within 3 mm before making tack welding.

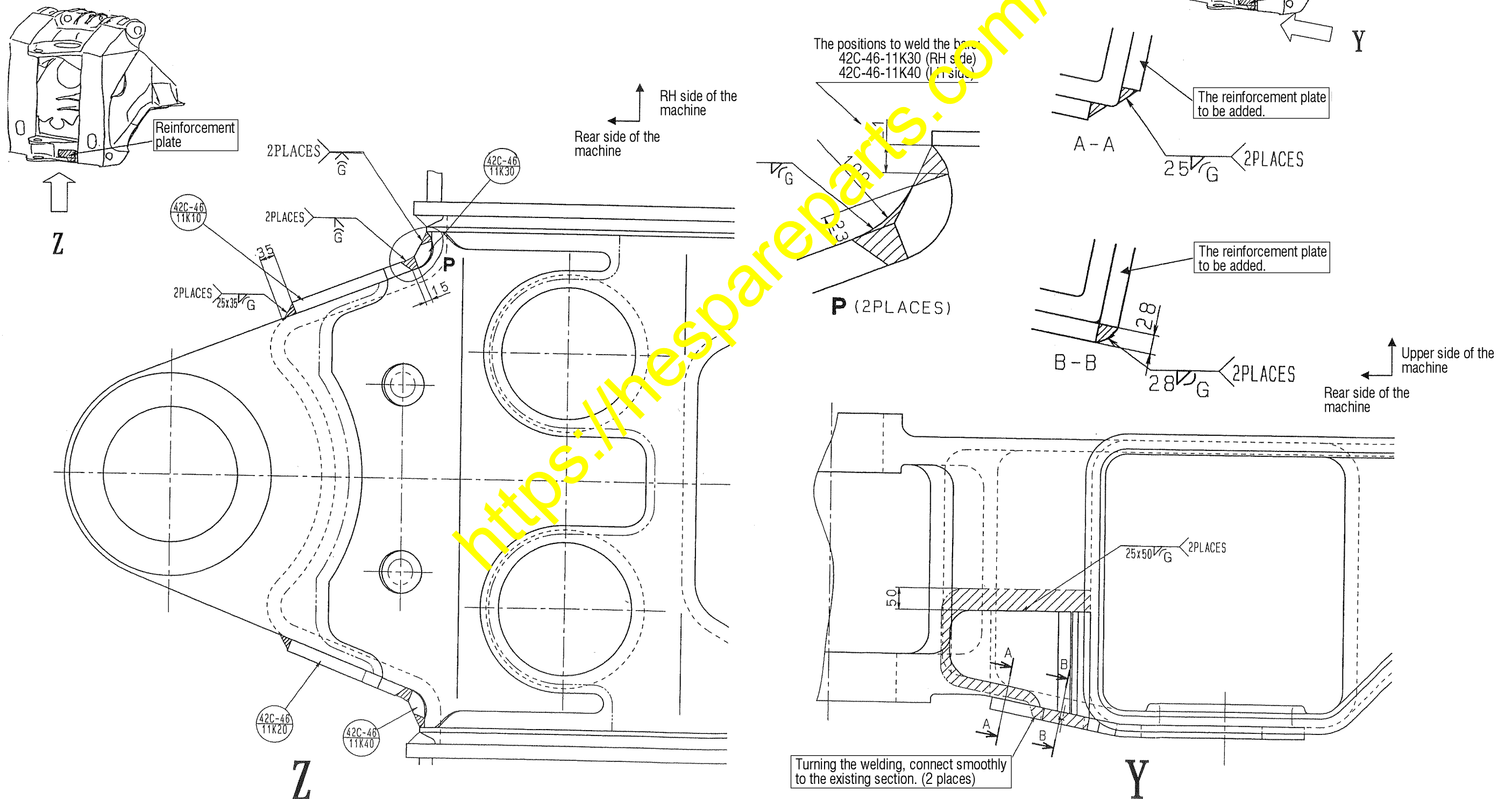


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(3) Weld the reinforcement plates (42C-46-11K10 & 42C-46-11K20) and bars (42C-46-11K30 & 42C-46-11K40) to both sides of the lower hinge as per the drawing below.

- ① Tack weld the bars: 42C-46-11K30 (RH side) and 42C-46-11K40 (LH side) to the positions per the drawing below.
- ② Tack weld the reinforcement plates: 42C-46-11K10 (RH side) and 42C-46-11K20 (LH side) to the positions per the drawing below.
- ③ Weld the reinforcement plates (42C-46-11K10 & 42C-46-11K20) and bars: 42C-46-11K30 and 42C-46-11K40 as per the instructions in the drawing below.
- ④ It is not necessary to apply pre-heating and after-heating. (However, in case the outside air temperature is below 0°C, apply pre-heating at 30 – 50°C.)

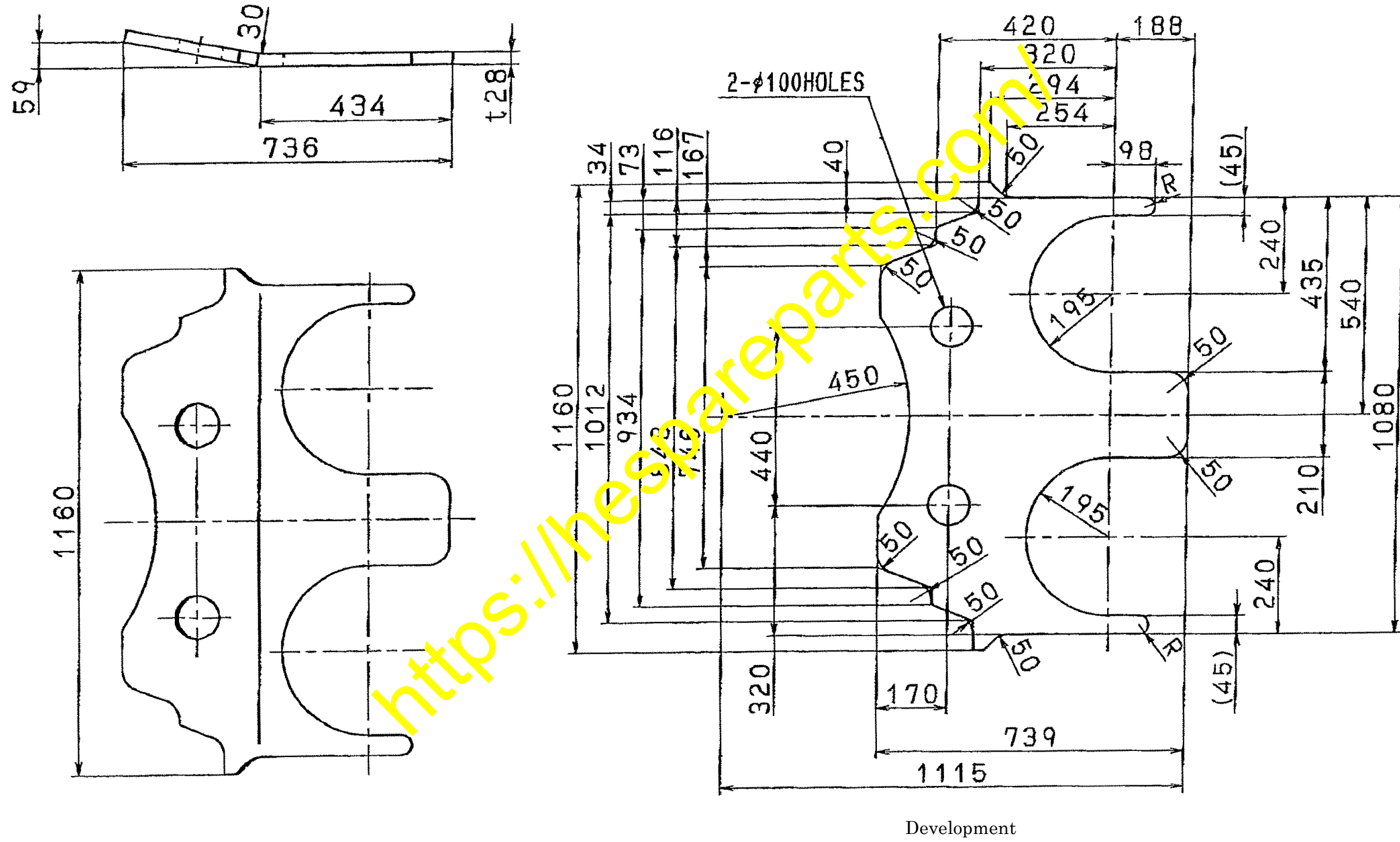
**Important :** After finishing the welding work, carry out the grinder finishing carefully as per the intrusions in the drawing



5. Reference: The shape of the reinforcement plate 42C-46-11H80

Material: SM490

Weight: 96.3 kg

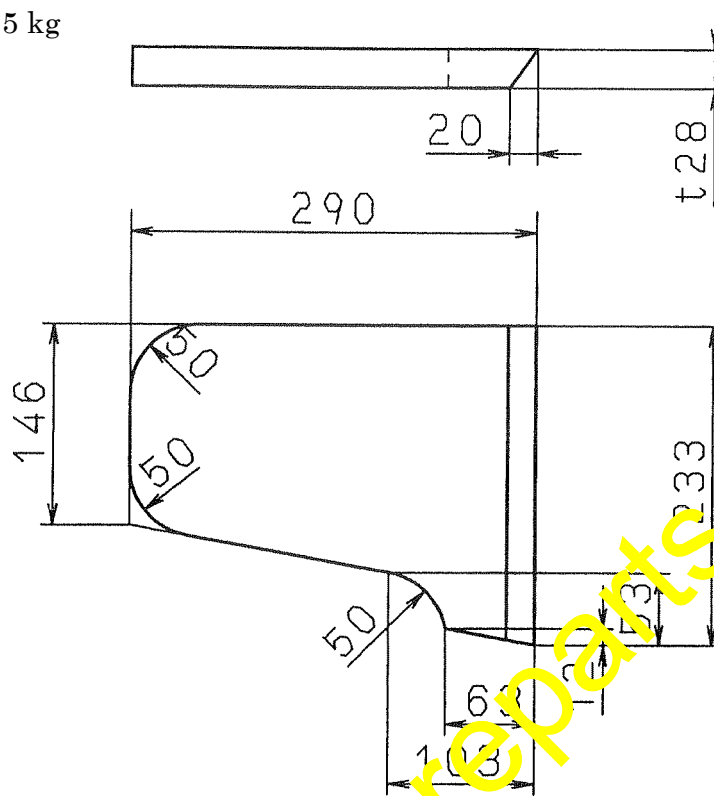


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The shape of the reinforcement plate 42C-46-11K10

Material: SM490

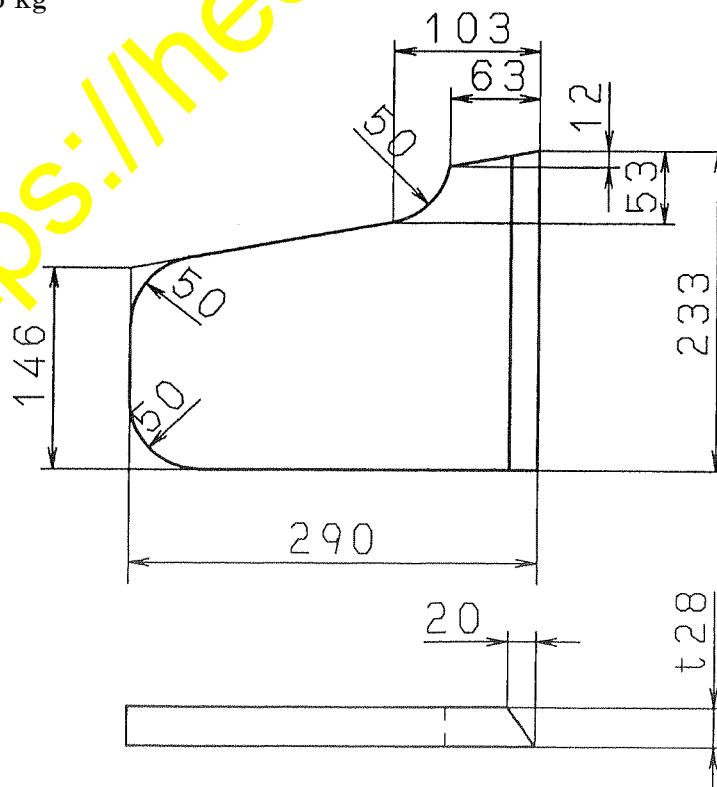
Weight: 11.5 kg



The shape of the reinforcement plate 42C-46-11K20

Material: SM490

Weight: 11.5 kg

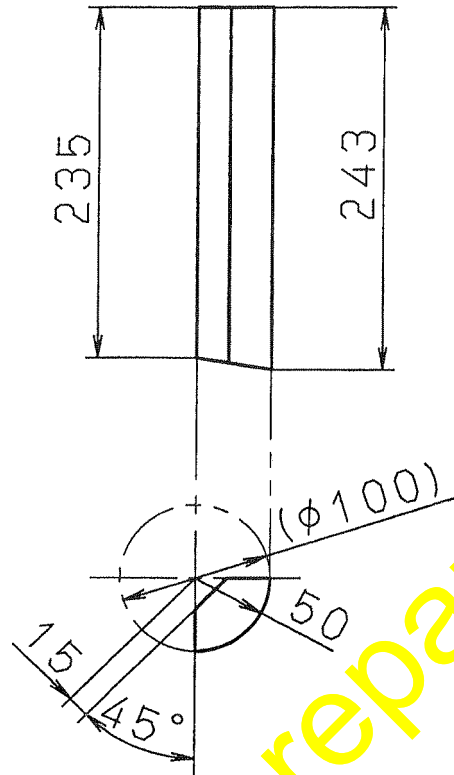


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The shape of the reinforcement plate 42C-46-11K30

Material: SGD400-D

Weight: 3.3 kg



The shape of the reinforcement plate 42C-46-11K40

Material: SGD400-D

Weight: 3.3 kg

