

Title (en)  
WAVE ROLL DIE ASSEMBLY

Title (de)  
WELLENROLLEN-MATRIZENANORDNUNG

Title (fr)  
ENSEMBLE MATRICE DE LAMINAGE ONDULÉ

Publication  
**EP 4255650 A1 20231011 (EN)**

Application  
**EP 21901368 A 20211201**

Priority  
• US 202063119939 P 20201201  
• US 2021061369 W 20211201

Abstract (en)  
[origin: WO2022119901A1] A wave rolling assembly and a process for manufacturing a component for a vehicle using the wave rolling assembly is provided. The process includes conveying a metal coil through a first leveler to present a metal sheet, and conveying the metal sheet through a looping pit. The metal sheet travels from the looping pit to the wave rolling assembly for forming a plurality of waves along the side edges of the metal sheet. The wave rolling assembly stretches the metal sheet. The wave rolling assembly can include a die assembly or a roll forming apparatus. The metal sheet is then conveyed through a second leveler to flatten the metal sheet. The metal sheet is cut into blanks and formed into the finished component in a blanking press and die assembly. Less scrap is generated due to the reduced thickness along the edges and overall increased width of the blanks.

IPC 8 full level  
**B21D 1/05** (2006.01); **B21D 1/02** (2006.01); **B21D 1/12** (2006.01)

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**B21D 1/02** (2013.01 - EP US); **B21D 13/02** (2013.01 - EP US); **B21D 13/04** (2013.01 - US); **B21D 13/045** (2013.01 - EP);  
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**WO 2022119901 A1 20220609**; CN 116490297 A 20230725; EP 4255650 A1 20231011; US 2024001422 A1 20240104

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