

Title (en)
Double layered metal sheet for vehicles

Title (de)
Doppellagenblech für ein Kraftfahrzeug

Title (fr)
Tôle avec deux couches pour véhicules

Publication
EP 0905331 B1 20040506 (DE)

Application
EP 98116338 A 19980828

Priority
DE 19742603 A 19970926

Abstract (en)
[origin: EP0905331A2] Two metal sheets (3,4) are joined into a strong double layer structure by pressing dimples (5) into one sheet and spot welding the other sheet to the tops of the dimples. For added strength the dimples are further pressed with a ribbed structure (7) which are applied around each dimple in a radial pattern. The ribbed structure provides a wavy effect to the dimples. The steel sheets have a thickness between 0.2 and 0.6 mm. Added strength is obtained by contouring the double sheet.

IPC 1-7
E04C 2/32

IPC 8 full level
E04C 2/32 (2006.01)

CPC (source: EP)
E04C 2/32 (2013.01)

Citation (examination)

- EP 0017647 A1 19801015 - TABORSKY HANS [AT]
- US 5157893 A 19921027 - BENSON DAVID K [US], et al

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 0905331 A2 19990331; EP 0905331 A3 20000524; EP 0905331 B1 20040506; DE 19742603 A1 19990401; DE 19742603 B4 20050818; DE 59811315 D1 20040609

DOCDB simple family (application)
EP 98116338 A 19980828; DE 19742603 A 19970926; DE 59811315 T 19980828