

Title (en)
Method for optically sorting bulk material

Title (de)
Verfahren zum optischen Sortieren von Schüttgut

Title (fr)
Procédé de tri optique de matériau en vrac

Publication
EP 0661108 B1 19991103 (DE)

Application
EP 94250285 A 19941125

Priority
DE 4345106 A 19931228

Abstract (en)
[origin: EP0661108A2] The invention relates to a method for optically sorting bulk material in a colour sorting machine, the material being conveyed by way of a conveyor belt and moving past an observation head having a light source and a product signal receiver arranged in the vicinity of the light source, the reflected light from the image points of the material to be tested being decomposed by means of various coloured filters of adjacent detection elements of a row of the receiver into a plurality of spectral regions and the material to be tested being sorted on the basis of the colour values (measured value of the intensity in the respective colour). According to the invention, to improve the detection rate, it is provided that in the case of material to be tested which is mixed with reject parts, in each case the colour values of the product are investigated in a plurality of selected subregions, in that in each subregion a classifier determines associated areas of image points having colour values falling into the respective subregion and carries out a classification according to predetermined criteria from the geometry and the size of these detection areas. <IMAGE>

IPC 1-7
B07C 5/342

IPC 8 full level
B07C 5/342 (2006.01)

CPC (source: EP US)
B07C 5/3422 (2013.01 - EP US); **B07C 5/366** (2013.01 - EP US); **Y10S 209/939** (2013.01 - EP)

Cited by
DE19511534A1; DE19511534C2; US6064478A; DE102012001868A1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
US 5586663 A 19961224; AT E186242 T1 19991115; BR 9405268 A 19950919; CA 2136779 A1 19950629; CA 2136779 C 20040406; DE 4345106 A1 19950629; DE 4345106 C2 19951123; DE 59408885 D1 19991209; EP 0661108 A2 19950705; EP 0661108 A3 19970212; EP 0661108 B1 19991103; HK 1013038 A1 19990813; JP 3517292 B2 20040412; JP H08206611 A 19960813

DOCDB simple family (application)
US 36548994 A 19941228; AT 94250285 T 19941125; BR 9405268 A 19941227; CA 2136779 A 19941128; DE 4345106 A 19931228; DE 59408885 T 19941125; EP 94250285 A 19941125; HK 98114163 A 19981221; JP 33871294 A 19941228