(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 September 1999 (10.09.1999)

PCT

(10) International Publication Number
WO 1999/045450 A3

(51) International Patent Classification:
G06F 19/00 (2006.01) *G06G 7/66* (2006.01)

(21) International Application Number:
PCT/US1999/004674

(22) International Filing Date: 4 March 1999 (04.03.1999)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/034,766 4 March 1998 (04.03.1998) US

(71) Applicant *(for all designated States except US)*: **ROCKFORD POWERTRAIN, INC.** [US/US]; 1200 Windsor Road, P.O. Box 2908, Rockford, IL 61132 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **CZUBA, Daniel** [—/US]; 25 Glendale Road, Oak Brook, IL 60521 (US). **CARTER, David** [—/US]; 1519 Oak Lane, Rockford, IL 61107 (US).

(74) Agents: **MAKEEVER, Jeffery, J.** et al.; Leydig, Voit & Mayer, Ltd., Two Prudential Plaza, Suite 4900, 180 North Stetson, Chicago, IL 60601-6780 (US).

(81) Designated States *(national)*: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
13 March 2008

WO 1999/045450 A3

(54) Title: REMOTELY ACCESSIBLE MANUFACTURING AND INVENTORY CONTROL SYSTEM

(57) Abstract: A computerized manufacturing process and inventory auditing and querying system (114) for manufacturing operations utilizing a manufacturing process control program (100) which processes customer orders (102), generates external purchase orders (104) and internal work orders (106), manages inventory, and generates anticipated ship dates (110) for customer orders (102), and which adjusts anticipated ship dates (110) in consideration of work-in-process information entered during manufacturing, and comprises a user interface (112) which receives data queries. This user interface (112) generates audit requests in response. The system includes audit request processing modules responsive to audit requests to calculate confidence factors, a full lead time available-to-promise date, and total manufactured parts available-to-assemble from inventory. The confidence factor represents a probability of completing a customer order by the anticipated ship date. The system allows remote access (122) and is continuously updated during the manufacturing process. Information regarding calculation of factors is available.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/04674

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 19/00; G06G 7/66
US CL : 364/468.01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Extra Sheet.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 5,787,000 A (LILLY et al.) 28 July 1998, entire document.	1-3, 7-21
Y, P		4-6
Y,P	US 5,826,236 A (NARIMATSU et al.) 20 October 1998, entire document.	4 - 6

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 03 JUNE 1999	Date of mailing of the international search report 16 JUN 1999
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer For PETER W. EISSMANN Telephone No. (703) 305-0893

Form PCT/ISA/210 (second sheet)(July 1992) ★

B. FIELDS SEARCHED
Minimum documentation searched
Classification System: U.S.

364/468.01, 468.05, 468.06, 468.07, 468.08, 468.13, 468.14;
705/8

B. FIELDS SEARCHED
Electronic data bases consulted (Name of data base and where practicable terms used):

APS
search terms: manufacturing process, database, computer, probability, manufacturing, purchase orders, inventory