$S = S + e_i$

Return step3, else turn step6;

Step6 S is the final solution results, end and exit.

VI. EXAMPLE ANALYSIS

Select a replaceable unit (LRU) and maintenance (LMP) as the research object, specifically as shown in table 1.

TABLE 1. PART OF THE LRU AND LMP DATA AND RESULTS OF OPTIMIZATION

Number	ES	MTBUR	LT	QPA	Price($)	S'	S
72011412	3	3200	90	5	45400	5	3
272-42-00	1	36000	90	5	2440	3	3
349008-2	1	123876	90	1	8972	0	1
388343-1	2	9500	27	14	3310	4	0
APL2-1-0	1	17600	90	4	4054	2	3
APL0-0-0	1	17300	90	4	1128	5	4
FH285-09	2	30500	60	32	766.7	30	30
GPA2-00	2	42000	90	6	327.72	1	2
P6990-3	3	627	60	1	52.86	13	8
QA09-01	2	753200	71	1	348	0	1

According to this model, based on the marginal utility of heuristic algorithm to solve the optimization examples, under given constraints, corresponding to each spare parts inventory level optimization results as shown in table 1 in the S column shows, inventory of spare parts fund a total of 78607.35$, the actual needs of the repair wait time for 0.41 days.

VII. CONCLUSION

Optimization of spare parts inventory is an important issue facing the large companies, from engineering reality,this paper take full account of the reliability of spare parts , maintenance and protection of such data,taking advantage of the spare parts inventory level as the optimization objective, build optimization model, in the spare parts the marginal utility of the unit cost based on the analysis, using heuristic algorithm get optimization of the spare parts inventory levels get more scientific result.

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