

## เอกสารอ้างอิง

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ภาคผนวก ก  
การคิดเวลายามาตรฐาน



ในการศึกษา

คู่ตัวอย่างที่	$X_i$ (1/100 นาที)	$X_i^2$
1	23	529
2	25	625
3	23	529
4	22	484
5	22	484
6	20	400
7	27	729
8	27	729
9	26	676
10	24	576
11	25	625
12	25	625

$$\sum X_i = 289$$

$$\sum X_i^2 = 7011$$

$$n = \left[ \frac{40 \sqrt{12(7011) - (289)^2}}{289} \right]^2$$

$$= 11.7 \approx 12 \text{ ครั้ง}$$

ซึ่งแสดงว่าการสุ่มตัวอย่าง 12 ครั้งก็เป็นการเพียงพอตามหลักสถิติ

## 2. การประเมินประสิทธิภาพของพนักงาน

ในที่นี้จะใช้วิธีของ Westinghouse วิธีนี้จะประเมินประสิทธิภาพโดยแยกข้อสังเกตเป็น 4 ข้อคือ ประเมินทักษะ ประเมินความพยายาม ประเมินความเที่ยงตรง และ ประเมินสภาพแวดล้อม โดยมีรายละเอียดการให้คะแนนดังแสดงใน [2], หน้า 355 สำหรับงานนี้ ได้กำหนดคะแนนไว้ดังนี้คือ

ด้านทักษะ (Skill) คะแนน D = 0.00 (Av.)

ด้านความพยายาม (Effort) คะแนน C2 = +0.02 (Good)

ด้านความเที่ยงตรงในเวลา (Consistency) คะแนน C = +0.01 (Good)



ค่าสภาพแวดล้อม (Condition) คะแนน E = -0.03 (Fair)

รวมประสิทธิภาพ  $1 + 0.00 + 0.02 + 0.01 - 0.03 = 1.00$

ดังนั้นประสิทธิภาพของการทำงาน 1.00 หรือ 100 %

### 3. การคำนวณหาเวลาปกติ (Normal Time )

เวลาปกติของชิ้นงาน = เวลาจริง X ประสิทธิภาพ

$$25 \times 1.00 = 25 \text{ วินาที}$$

### 4. การหาเวลาลดหย่อน

ตามปกติจะรวมประมาณ 15 - 20 % ของเวลาทำงาน ในที่นี้โรงงานกำหนดเวลาลดหย่อนในการทำงานตลอดทั้งวัน ตั้งแต่เวลา 8.00 - 17.00 น เป็นเวลาพักกลางวัน 1 ชั่วโมง หยุดพักระหว่างช่วงครึ่งเวลาการทำงาน (ทำงาน 2 ชั่วโมง) จะพักเป็นเวลา 10 นาที และเมื่อเวลาลดหย่อนในการทำงานอีกประมาณ 10 นาที โดยเวลาลดหย่อนนี้จึงนำไปคิดคำนวณในรอบเวลาผลิตแล้ว จึงจะไม่นำมาคำนวณในการหาเวลามาตรฐาน

### 5. การหาเวลามาตรฐาน

สำหรับในที่นี้เวลามาตรฐานจะมีค่าเท่ากับ เวลาปกติของชิ้นงาน

$$\text{ดังนั้นเวลามาตรฐาน} = 25 \text{ วินาที}$$

ภาคผนวก ข  
บัญชีรายการวัสดุ

PART

BILL OF MATERIALS 1

ORDER	PART NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	04111-20208	COTTER PIN	L	1	2	2	0	0	0
2	04111-20308	COTTER PIN	L	1	1	1	2	2	0
3	08113-62000	BEARING-RH	F	1	1	0	1	1	0
4	08113-62017	B-INNER-LH	F	1	1	0	0	1	0
5	08143-63007	BEARING-LH	F	1	1	1	1	1	0
6	08143-62017	BEARING-LH	F	1	1	0	0	1	0
7	08143-63017	BEARING-RH	F	1	1	0	0	0	0
8	08310-11068	NUT	L	4	4	2	4	4	0
9	08310-11108	NUT	L	1	1	0	0	0	0
10	08310-12088	NUT	L	4	4	6	0	0	0
11	08313-11108	NUT	L	4	2	4	2	2	0
12	08314-31108	NUT	L	1	2	1	2	2	0
13	08321-21068	LOCK WASHER	L	1	2	0	2	2	0
14	08321-21088	LOCK WASHER	L	4	2	2	2	2	2
15	08321-21108	LOCK WASHER	L	1	1	0	0	0	0
16	08322-11108	WASHER-AXLE	L	1	1	2	0	0	0
17	08322-21068	WASHER	L	4	4	2	8	8	2
18	08322-21088	WASHER-FR	L	1	1	0	0	0	0
19	08322-21108	WASHER	L	1	6	0	0	0	0
20	08331-31159	CIRCLIP	L	1	1	0	1	1	0
21	09100-06078	BOLT	L	1	2	2	0	2	0
22	09140-10004	BOLT-ABSORB	L	1	2	0	0	0	0
23	09105-08001	BOLT	L	4	4	4	0	0	0
24	09111-08016	BOLT	F	1	1	0	0	0	0
25	09134-03101	SCREW	L	1	1	1	1	1	1
26	09140-08008	NUT	L	1	2	2	0	0	2
27	09140-16005	NUT	L	1	1	0	1	1	0
28	09160-05001	WASHER	L	4	2	2	2	2	2
29	09160-12012	WASHER-LOW	L	1	2	0	0	0	0
30	09160-14003	WASHER	L	1	2	0	0	0	0
31	09160-16005	WASHER	L	1	1	0	1	1	0
32	09169-08011	LOCK WASHER	L	4	2	0	2	2	0
33	09108-10091	SPACER	L	1	1	0	0	0	0
34	09180-12005	SPACER-RR	L	1	1	0	1	1	0
35	09180-12084	SPACER-BEAR	L	1	1	0	0	0	0
36	09180-17004	SPACER	L	1	1	0	1	1	0

## BILL OF MATERIALS 2

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	09250-22002	CAP-RSA	L	1	2	0	1	1	0
2	09262-17008	BEARING	F	1	1	0	0	0	0
3	09280-14003	D-RING	L	4	2	2	0	2	0
4	09284-15001	OIL SEAL	L	1	1	0	1	1	0
5	09285-25001	OIL SEAL	L	1	1	0	1	1	0
6	09285-43001	OIL SEAL	L	1	1	0	1	1	0
7	09319-10043	BUSH-RSA	L	1	1	0	0	0	0
8	09320-22001	CUSHION	L	1	1	0	0	0	0
9	09443-07001	SPRING	L	4	4	4	4	4	4
10	09448-30009	SPRING	L	1	1	0	0	0	0
11	54410-35400	HUB-FR-WHEEL	L	4	1	0	0	0	0
12	54210-35400	PANEL-FR-HUB	L	1	1	0	0	0	0
13	54410-01010	SHOE-BRAKE	L	1	4	0	0	0	0
14	54441-29303	SHAFT-BR-CAM	L	1	1	0	0	0	0
15	54441-35400	SHAFT-BR-CAM	L	1	1	0	0	0	0
16	54451-35400	LEVER-BR-CAM	L	1	1	0	0	0	0
17	54492-35400	PLATE-BR-LIN	L	1	2	0	0	0	0
18	54611-03601	GEAR(NT-23)	L	1	1	0	0	0	0
19	54621-39202	GEAR(NT-9)	L	1	1	0	0	0	0
20	54632-01001	OUTER-BUSHER	L	1	1	1	1	1	1
21	54661-03000	DRIVER	L	1	1	1	1	1	1
22	54711-35400	AXLE-FR	L	1	1	0	0	0	0
23	54740-26100	SPACER-AXLE	L	1	1	0	0	0	0
24	55100-09400	TIRE-FR	L	1	1	0	0	0	0
25	55200-01011	TUBE INNER	L	1	1	0	0	0	0
26	55200-03600	TUBE INNER	L	1	1	0	0	0	0
27	55261-01010	PROTECTOR	L	1	2	0	0	0	0
28	55311-01021	WHEEL RIM	L	1	1	0	0	0	0
29	55311-03021	WHEEL RIM	L	1	1	0	0	0	0
30	55320-01011	SPOKE SET	L	1	1	0	0	0	0
31	61111-35400	RSA-INNER-R	L	4	1	0	0	0	0
32	61112-35400	RSA-OUTER-R	L	4	1	0	0	0	0
33	61113-35400	RSA-REINF	L	4	1	0	0	0	0
34	61114-35010	BOSS-RSA-PIVOT	L	4	1	0	0	0	0
35	61114-35400	BOSS-RSA-PIVOT	L	4	1	0	0	0	0
36	61115-35400	WASHER	L	4	1	0	0	0	0

## BILL OF MATERIALS 3

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	61121-35400	RSA-INNER-L	L	4	1	0	0	0	0
2	61122-35401	RSA-OUTER-L	L	4	1	0	0	0	0
3	61123-35400	RSA-REINF-L	L	4	1	0	0	0	0
4	61131-01001	PIPE-RSA-JOINT	L	4	1	0	0	0	0
5	61141-35400	CHAIN CASE-IN	L	5	1	0	0	0	0
6	61142-35400	CHAIN CASE FR	L	5	1	0	0	0	0
7	61143-35401	INNER-RR	L	4	1	0	0	0	0
8	61144-35400	CHAIN CASE-RR	L	5	1	0	0	0	0
9	61151-03000	PILLION-FOOT	L	4	1	0	0	0	0
10	61161-35310	SUPPORT	L	4	1	0	0	0	0
11	61171-35000	BOLT	F	4	1	0	0	0	0
12	61211-09400	SHAFT RSA	L	1	1	0	0	0	0
13	61411-35400	ADJUSTER-RH	L	1	1	0	0	0	0
14	61421-35400	ADJUSTER-LH	L	1	1	0	0	0	0
15	62100-35400	ABSORBER-RR	F	1	2	0	0	0	0
16	62211-35700	SPRING	L	1	2	0	0	0	0
17	64110-35300	DRUM-RR-HUB	L	4	1	0	0	0	0
18	64210-46002	PANEL-RR-HUB	L	4	1	0	0	0	0
19	64311-35000	TORQE LINK	L	1	1	0	0	0	0
20	64451-43020	LEVER-BR-CAM	L	1	1	0	0	0	0
21	64511-35420	SPROCKET(NT-33)	L	1	1	0	0	0	0
22	64611-01001	SPROCKET MOUNT	L	1	1	0	0	0	0
23	64651-01001	ABSORBER-HUB	L	1	1	0	0	0	0
24	64711-01603	AXLE-RR	L	1	1	0	1	1	0
25	64761-01000	SPROCKET DRUM	L	1	1	0	1	1	0
26	65100-35011	TIRE	L	1	1	0	0	0	0
27	65320-46730	SPOKE SET	L	1	1	0	0	0	0
28	04111-30308	COTTER PIN	L	1	0	1	0	0	1
29	08113-62040	BEARING	F	1	0	1	0	0	0
30	08143-62027	BEARING-LH	F	1	0	1	0	0	0
31	08144-63027	BEARING-RH	F	1	0	1	0	0	0
32	08319-21128	NUT	L	1	0	1	0	0	0
33	08322-11128	WASHER	L	4	0	5	1	1	2
34	08322-11148	WASHER	L	4	0	3	0	0	0
35	08331-11189	CIRCLIP	L	1	0	1	0	0	1
36	09104-08006	BOLT	L	1	0	2	0	0	0



BILL OF MATERIALS 4

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	09111-08012	BOLT	L	1	0	1	1	1	0
2	09111-08013	BOLT	L	1	0	1	0	0	1
3	09141-14001	NUT	L	1	0	1	0	0	0
4	09160-10001	WASHER	L	4	0	4	0	0	1
5	09160-10033	WASHER	L	4	0	4	0	0	0
6	09160-12001	WASHER	L	1	0	1	0	0	0
7	09160-14001	WASHER	L	1	0	2	0	0	0
8	09160-18002	WASHER	L	1	0	2	0	0	1
9	09169-08012	WASHER	L	1	0	2	0	0	0
10	09180-10053	SPACER-RH	L	1	0	1	0	0	0
11	09180-12032	SPACER	L	1	0	1	0	0	0
12	09180-15002	SPACER-RH	L	1	0	1	0	0	0
13	09180-15011	SPACER-HUB-BR	L	1	0	1	0	0	0
14	09180-15042	SPACER-LH	L	1	0	1	0	0	0
15	09284-18001	OIL SEAL	L	1	0	1	0	0	0
16	09285-28001	OIL SEAL	L	1	0	1	0	0	0
17	09285-48001	OIL SEAL	L	1	0	1	0	0	0
18	09319-12018	BUSHING	L	1	0	2	0	0	0
19	54110-39100	HUB-FR	L	4	0	1	0	0	0
20	54210-39100	PANEL-FR-HUB	L	4	0	1	0	0	0
21	54410-07002	SHOE BRAKE	L	1	0	4	0	0	0
22	54441-29302	CAM BRAKE	L	1	0	2	0	0	0
23	54451-46110	LEVER BRAKE	L	1	0	1	0	1	0
24	54611-07600	GEAR(NT-26)	L	1	0	1	0	0	0
25	54621-27100	PINION(NT-10)	L	1	0	1	0	0	0
26	54661-07000	DRIVER	L	1	0	1	0	0	1
27	54711-26100	AXLE-FR	L	1	0	1	0	0	0
28	54892-39100	COVER	L	1	0	1	0	0	0
29	55100-14012	TIRE	L	1	0	1	1	0	0
30	55200-11601	TUBE-INNER	L	1	0	1	0	0	0
31	55200-14010	TUBE-INNER	L	1	0	1	2	2	0
32	55261-14010	PROTECTOR	L	1	0	2	2	2	0
33	55300-12825	SPOKE SET	L	1	0	1	0	0	0
34	55311-12120	WHEEL RIM	L	1	0	2	2	2	0
35	61000-39310	SWING-ARM-RR	L	4	0	1	0	0	0
36	61211-39000	SHAFT	L	1	0	1	0	0	0

## BILL OF MATERIALS 5

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	61273-39600	BUFFER	L	1	0	1	0	0	0
2	61410-36002	ADJUST-CHAIN	L	1	0	2	0	0	0
3	62100-39320	SHOCK-ABSORB	F	1	0	2	0	0	0
4	64110-07003	HUB-WHEEL	L	4	0	1	0	0	0
5	64210-39110	PANEL-RR-HUB	L	4	0	1	0	0	0
6	64310-39000	TORQE LINK	L	1	0	1	0	0	0
7	64451-48000	LEVER-BR-CAM	L	1	0	1	0	0	0
8	64511-20730	SPROCKET (NT-43)	L	1	0	1	0	0	0
9	64611-07000	SPROCKET MOUNT	L	1	0	1	0	0	0
10	64651-07001	ABSORB-HUB	L	1	0	1	0	0	0
11	64711-48000	AXLE-RR	L	1	0	1	0	0	0
12	64733-39100	RETAIN-MOUNT	L	1	0	1	0	0	0
13	65100-36011	TIRE	L	1	0	1	0	0	0
14	65300-20208	SPOKE SET	L	1	0	1	0	0	0
15	08113-62030	BEAR-SPROCK	F	1	0	0	1	0	0
16	08143-62010	BEARING-LH	F	1	0	0	1	0	0
17	08143-63010	BEARING-RH	F	1	0	0	1	0	0
18	08143-63017	BEARING-RH	F	1	0	0	0	1	0
19	08310-12108	WASHER	L	1	0	0	1	1	0
20	08322-21108	WASHER	L	1	0	0	6	6	0
21	09100-06005	BOLT	L	1	0	0	3	3	0
22	09100-06007	BOLT	L	1	0	0	1	0	0
23	09100-06050	BOLT	L	1	0	0	2	0	2
24	09100-06051	BOLT	L	1	0	0	0	1	0
25	09100-10046	BOLT	L	1	0	0	2	2	0
26	09140-08008	NUT	L	1	0	0	2	2	0
27	09140-10012	NUT	L	1	0	0	1	1	0
28	09160-12011	WASHER	L	1	0	0	2	0	2
29	09160-14001	WASHER	L	1	0	0	2	0	0
30	09180-10003	SPACER	L	1	0	0	1	1	0
31	09180-10005	SPACER-HUB	L	1	0	0	1	0	0
32	09180-12033	SAPCER	L	1	0	0	1	0	0
33	09250-22002	CAP-JOINT	L	1	0	2	2	0	0
34	09250-30001	CAP CHAIN	L	1	0	0	1	1	0
35	09262-17008	BEAR-SPROCK	F	1	0	0	0	1	0
36	09280-12001	DUST SEAL	L	1	0	0	2	0	2

## BILL OF MATERIALS 6

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	09319-10009	BUSHING	L	1	0	0	2	2	0
2	09385-10001	CLIP	L	1	0	0	2	2	0
3	54110-01004	DRUM-FR-HUB	L	1	0	0	1	0	0
4	54110-46001	DRUM-FR-HUB	L	4	0	0	0	1	0
5	54210-03006	PANEL-FR-HUB	L	1	0	0	1	0	0
6	54210-46102	PANEL-FR-HUB	L	4	0	0	1	0	0
7	54410-01005	SHOE BRAKE	L	1	0	0	4	4	0
8	54441-01002	CAM BRAKE	L	1	0	0	2	0	0
9	54441-29301	SHAFT-BR-CAM	L	1	0	0	2	0	0
10	54451-03002	LEVER CAM	L	1	0	0	1	0	0
11	54611-23201	GEAR	L	1	0	0	1	0	0
12	54621-23200	PINION	L	1	0	0	1	1	0
13	54711-03601	AXLE-FR	L	1	0	0	1	1	0
14	54730-01000	SAPCER	L	1	0	0	1	0	0
15	54892-01000	COVER	L	1	0	0	1	1	0
16	55300-21807	SPOKE SET	L	1	0	0	1	1	0
17	61100-22820	SWING-ARM-RR	L	4	0	0	1	1	0
18	61211-20001	SHAFT	L	4	0	0	1	1	0
19	61211-25001	SHAFT	L	4	0	0	1	1	0
20	61300-12850	CHAIN CASE	L	5	0	0	1	1	0
21	61411-01002	ADJUST-RH	L	1	0	0	1	1	0
22	61421-01002	ADJUST-LH	L	1	0	0	1	1	0
23	62100-23210	SHOCK-ABSORB	F	1	0	0	2	2	0
24	62431-23200	SPACER	L	1	0	0	2	2	0
25	64110-01000	DRUM-RR-HUB	L	1	0	0	1	0	0
26	64110-35001	DRUM-RR-HUB	L	1	0	0	0	1	0
27	64210-01004	PANEL-RR-HUB	L	4	0	0	1	0	0
28	64210-46002	PANEL-RR-HUB	L	1	0	0	0	1	0
29	64310-21200	TORQE LINK	L	1	0	0	0	1	0
30	64310-27200	TORQE LINK	L	1	0	0	1	0	0
31	64451-20000	LEVER CAM	L	1	0	0	1	0	0
32	64451-46100	LEVER-CAM	L	1	0	0	0	1	0
33	64511-12760	SPROCKET-RR	L	1	0	0	1	1	0
34	64611-01001	DRUM-SPROCK	L	1	0	0	1	1	0
35	64651-01000	CUSHION	L	1	0	0	1	1	0
36	64730-01000	SPACER	L	1	0	0	1	0	0



## BILL OF MATERIALS 7

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	65100-12110	TIRE	L	1	0	0	1	1	0
2	65300-12828	SPOKE SET	L	1	0	0	1	1	0
3	01112-06128	BOLT	L	1	0	0	0	0	3
4	08113-62010	BALL-BR-RH	F	1	0	0	0	0	1
5	08123-63020	BALL-BR-LH	F	1	0	0	0	0	1
6	08143-62010	BALL-BR-LH	F	1	0	0	0	0	1
7	08143-62020	BALL-BR-RH	F	1	0	0	0	0	1
8	08311-11068	NUT	L	1	0	0	0	0	2
9	08312-11088	NUT	L	1	0	0	0	0	2
10	08313-11107	NUT	L	4	0	0	0	0	4
11	08314-31128	NUT	L	1	0	0	0	0	1
12	08331-11558	CIRCLIP	L	1	0	0	0	0	1
13	08351-31008	NIPPLE	L	1	0	0	0	0	1
14	09100-06065	BOLT-ADJUST	L	1	0	0	0	0	2
15	09105-08006	BOLT	L	4	0	0	0	0	6
16	09111-08015	BOLT	L	1	0	0	0	0	1
17	09140-08010	NUT	L	4	0	0	0	0	6
18	09140-18001	NUT-CHAIN	L	1	0	0	0	0	1
19	09159-12101	NUT	L	1	0	0	0	0	1
20	09160-06027	WASHER	L	1	0	0	0	0	3
21	09160-12005	WASHER	L	1	0	0	0	0	2
22	09169-08013	WASHER	L	1	0	0	0	0	3
23	09180-07005	SPACER	L	1	0	0	0	0	3
24	09180-12040	SPACER-RH	L	1	0	0	0	0	1
25	09180-12041	SPACER-BEAR	L	1	0	0	0	0	1
26	09180-15010	SPACER-RH	L	1	0	0	0	0	1
27	09280-24001	DUST SEAL	L	1	0	0	0	0	2
28	09284-18002	OIL SEAL-BR	L	1	0	0	0	0	1
29	09307-10001	BUSH	L	1	0	0	0	0	2
30	09320-08007	CUSHION	L	1	0	0	0	0	3
31	09384-06001	CLIP	L	1	0	0	0	0	2
32	09448-27003	SPRING	L	1	0	0	0	0	1
33	54110-28001	HUB-FR-WHEEL	L	4	0	0	0	0	1
34	54210-28001	PANEL-FR-BRK	L	1	0	0	0	0	1
35	54410-01004	SHOE BRAKE	L	1	0	0	0	0	2
36	54410-07001	SHOE BRAKE	L	1	0	0	0	0	2

## BILL OF MATERIALS 8

ORDER	PRAT NO.	PART NAME	SOURCE	SECTION	PRODUCT				
					1	2	3	4	5
1	54441-28001	CAM-FR=BRK	L	1	0	0	0	0	2
2	54451-03602	LEVER-BRK-CAM	L	1	0	0	0	0	1
3	54611-28000	GEAR	L	1	0	0	0	0	1
4	54621-28000	PINION	L	1	0	0	0	0	1
5	54711-28000	AXLE-FR	L	1	0	0	0	0	1
6	54892-28000	COVER-DUST	L	1	0	0	0	0	1
7	55100-25600	TIRE	L	1	0	0	0	0	1
8	55200-28030	TUBE-INNER	L	1	0	0	0	0	1
9	55261-28030	PROTECTOR	L	1	0	0	0	0	1
10	55300-28806	SPOKE SET	L	1	0	0	0	0	1
11	55311-17021	RIM-FR-WHEEL	L	1	0	0	0	0	1
12	61100-28840	SWING-ARM-RR	L	4	0	0	0	0	1
13	61211-28600	SHAFT	L	4	0	0	0	0	1
14	61251-28000	SPACER	L	4	0	0	0	0	1
15	61262-09200	COVER	L	4	0	0	0	0	2
16	61273-28000	BUFFER	L	4	0	0	0	0	1
17	61280-28000	SPACER	L	4	0	0	0	0	1
18	61310-28000	CHAIN CASE	L	5	0	0	0	0	1
19	61410-28001	ADJUST-RH	L	1	0	0	0	0	1
20	61420-28001	ADJUST-LH	L	1	0	0	0	0	1
21	62100-28600	SHOCK ABSORB	F	1	0	0	0	0	2
22	64110-28001	HUB-RR-WHEEL	L	4	0	0	0	0	1
23	64210-28002	PANEL	L	1	0	0	0	0	1
24	64311-28000	TORGE LINK	L	1	0	0	0	0	1
25	64451-28000	LEVER	L	1	0	0	0	0	1
26	64511-28000	SPROCKET-RR	L	1	0	0	0	0	1
27	64610-28001	SPROCK MOUNT	L	1	0	0	0	0	1
28	64650-28000	SHOCK ABSORB	F	1	0	0	0	0	6
29	64711-28001	AXLE-RR	L	1	0	0	0	0	1
30	64730-28000	SPACER-BEAR	L	1	0	0	0	0	1
31	64750-28000	SPACER-LH	L	1	0	0	0	0	1
32	64791-28001	SPACER-CHA-LH	L	1	0	0	0	0	1
33	65100-28031	TIRE-RR	L	1	0	0	0	0	1
34	65200-28030	TUBE	L	1	0	0	0	0	1
35	65261-28030	PROTECTOR	L	1	0	0	0	0	1
36	65300-28807	SPOKE SET	L	1	0	0	0	0	1

ภาคผนวก ก

จำนวนที่มิอยู่ในเมื่อและจำนวนที่จะได้รับตามกำหนด



















ภาคผนวก ง  
ปริมาณการใช้ชิ้น

## GROSS REQUIREMENT 1

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
04111-20208	COTTER PIN	3120	3240	2880	3240	2880	2880	3000	3000	2640	2880	2880	3240
04111-20308	COTTER PIN	1560	1620	1680	1860	1440	1440	1740	1740	1320	1440	1440	1860
08113-62000	BEARING-RH	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
08113-62017	B-INNER-LH	1080	1260	1080	1380	1080	1440	1260	1380	1080	1440	1080	1260
08143-63007	BEARING-LH	1560	1620	1560	1740	1440	1440	1620	1620	1320	1440	1440	1740
08143-62017	BEARING-LH	1080	1260	1080	1380	1080	1440	1260	1380	1080	1440	1080	1260
08143-63017	BEARING-RH	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
08310-11068	NUT	5280	5760	5520	6240	5040	5760	6000	6000	4800	5760	5040	6240
08310-11108	NUT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
08310-12088	NUT	7200	7200	6480	7200	6480	5760	6480	6480	5760	5760	6480	7200
08313-11108	NUT	4080	3960	3840	4200	3600	2880	3720	3720	3120	2880	3600	4200
08314-31108	NUT	2640	2880	2760	3120	2520	2880	3000	3000	2400	2880	2520	3120
08321-21068	LOCK WASHER	2160	2520	2400	2760	2160	2880	2760	2760	2160	2880	2160	2760
08321-21088	LOCK WASHER	3120	3240	3120	3480	3120	2880	3240	3240	2880	2880	2880	3480
08321-21108	LOCK WASHER	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
08322-11108	WASHER-AXLE	2040	1980	1800	1980	1800	1440	1740	1740	1560	1440	1800	1980
08322-21068	WASHER	5280	5760	6000	6720	5280	5760	6480	6480	5040	5760	5040	6720
08322-21088	WASHER-FR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
08322-21108	WASHER	6480	7560	6480	7560	6480	8640	7560	7560	6480	8640	6480	7560
08331-31159	CIRCLIP	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09100-06078	BOLT	3120	3240	2880	3480	2880	2880	3000	3240	2640	2880	2880	3240
09140-10004	BOLT-ABSORB	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
09105-08001	BOLT	6240	6480	5760	6480	5760	5760	6000	6000	5280	5760	5760	6480
09111-08016	BOLT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09134-03101	SCREW	1560	1620	1560	1740	1560	1440	1620	1620	1440	1440	1440	1740
09140-08008	NUT	3120	3240	2880	3240	3120	2880	3000	3000	2880	2880	2880	3240
09140-16005	NUT	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09160-05001	WASHER	3120	3240	3120	3480	3120	2880	3240	3240	2880	2880	2880	3480
09160-12012	WASHER-LOW	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
09160-14003	WASHER	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
09160-16005	WASHER	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09169-08011	LOCK WASHER	2160	2520	2400	2760	2160	2880	2760	2760	2160	2880	2160	2760
09108-10091	SPACER	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09180-12005	SPACER-RR	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09180-12084	SPACER-BEAR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09180-17004	SPACER	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380

## GROSS REQUIREMENT 2

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09250-22002	CAP-RSA	2160	2520	2280	2640	2160	2880	2640	2640	2160	2880	2160	2640
09262-17008	BEARING	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09280-14003	O-RING	3120	3240	2880	3480	2880	2880	3000	3240	2640	2880	2880	3240
09284-15001	OIL SEAL	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09285-25001	OIL SEAL	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09285-43001	OIL SEAL	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
09319-10043	BUSH-RSA	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09320-22001	CUSHION	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
09443-07001	SPRING	6240	6480	6240	6960	6240	5760	6480	6480	5760	5760	5760	6960
09448-30009	SPRING	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54410-35400	HUB-FR-WHEEL	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54210-35400	PANEL-FR-HUB	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54410-01010	SHOE-BRAKE	4320	5040	4320	5040	4320	5760	5040	5040	4320	5760	4320	5040
54441-29303	SHAFT-BR-CAM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54441-35400	SHAFT-BR-CAM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54451-35400	LEVER-BR-CAM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54492-35400	PLATE-BR-LIN	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
54611-03601	GEAR(NT-23)	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54621-39202	GEAR(NT-9)	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54632-01001	OUTER-BUSHER	1560	1620	1560	1740	1560	1440	1620	1620	1440	1440	1440	1740
54661-03000	DRIVER	1560	1620	1560	1740	1560	1440	1620	1620	1440	1440	1440	1740
54711-35400	AXLE-FR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
54740-26100	SPACER-AXLE	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55100-09400	TIRE-FR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55200-01011	TUBE INNER	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55200-03600	TUBE INNER	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55261-01010	PROTECTOR	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
55311-01021	WHEEL RIM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55311-03021	WHEEL RIM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
55320-01011	SPOKE SET	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61111-35400	RSA-INNER-R	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61112-35400	RSA-OUTER-R	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61113-35400	RSA-REINF	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61114-35010	BOSS-RSA-PIVOT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61114-35400	BOSS-RSA-PIVOT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61115-35400	WASHER	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260

## GROSS REQUIREMENT 3

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61121-35400	RSA-INNER-L	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61122-35401	RSA-OUTER-L	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61123-35400	RSA-REINF-L	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61131-01001	PIPE-RSA-JOINT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61141-35400	CHAIN CASE-IN	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61142-35400	CHAIN CASE FR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61143-35401	INNER-RR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61144-35400	CHAIN CASE-RR	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61151-03000	PILLION-FOOT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61161-35310	SUPPORT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61171-35000	BOLT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61211-09400	SHAFT RSA	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61411-35400	ADJUSTER-RH	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
61421-35400	ADJUSTER-LH	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
62100-35400	ABSORBER-RR	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
62211-35700	SPRING	2160	2520	2160	2520	2160	2880	2520	2520	2160	2880	2160	2520
64110-35300	DRUM-RR-HUB	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64210-46002	PANEL-RR-HUB	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64311-35000	TORGE LINK	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64451-43020	LEVER-BR-CAM	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64511-35420	SPROCKET(NT-33)	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64611-01001	SPROCKET MOUNT	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64651-01001	ABSORBER-HUB	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
64711-01603	AXLE-RR	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
64761-01000	SPROCKET DRUM	1080	1260	1200	1380	1080	1440	1380	1380	1080	1440	1080	1380
65100-35011	TIRE	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
65320-46730	SPOKE SET	1080	1260	1080	1260	1080	1440	1260	1260	1080	1440	1080	1260
04111-30308	COTTER PIN	480	360	360	360	480	0	240	240	360	0	360	360
08113-62040	BEARING	480	360	360	360	360	0	240	240	240	0	360	360
08143-62027	BEARING-LH	480	360	360	360	360	0	240	240	240	0	360	360
08144-63027	BEARING-RH	480	360	360	360	360	0	240	240	240	0	360	360
08319-21128	NUT	480	360	360	360	360	0	240	240	240	0	360	360
08322-11128	WASHER	2400	1800	1920	1920	2040	0	1320	1320	1440	0	1800	1920
08322-11148	WASHER	1440	1080	1080	1080	1080	0	720	720	720	0	1080	1080
08331-11189	CIRCLIP	480	360	360	360	480	0	240	240	360	0	360	360
09104-08006	BOLT	960	720	720	720	720	0	480	480	480	0	720	720

## GROSS REQUIREMENT 4

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09111-08012	BOLT	480	360	480	480	360	0	360	360	240	0	360	480
09111-08013	BOLT	480	360	360	360	480	0	240	240	360	0	360	360
09141-14001	NUT	480	360	360	360	360	0	240	240	240	0	360	360
09160-10001	WASHER	1920	1440	1440	1440	1560	0	960	960	1080	0	1440	1440
09160-10033	WASHER	1920	1440	1440	1440	1440	0	960	960	960	0	1440	1440
09160-12001	WASHER	480	360	360	360	360	0	240	240	240	0	360	360
09160-14001	WASHER	960	720	720	720	720	0	480	480	480	0	720	720
09160-18002	WASHER	960	720	720	720	840	0	480	480	600	0	720	720
09169-08012	WASHER	960	720	720	720	720	0	480	480	480	0	720	720
09180-10053	SPACER-RH	480	360	360	360	360	0	240	240	240	0	360	360
09180-12032	SPACER	480	360	360	360	360	0	240	240	240	0	360	360
09180-15002	SPACER-RH	480	360	360	360	360	0	240	240	240	0	360	360
09180-15011	SPACER-HUB-BR	480	360	360	360	360	0	240	240	240	0	360	360
09180-15042	SPACER-LH	480	360	360	360	360	0	240	240	240	0	360	360
09284-18001	OIL SEAL	480	360	360	360	360	0	240	240	240	0	360	360
09285-28001	OIL SEAL	480	360	360	360	360	0	240	240	240	0	360	360
09285-48001	OIL SEAL	480	360	360	360	360	0	240	240	240	0	360	360
09319-12018	BUSHING	960	720	720	720	720	0	480	480	480	0	720	720
54110-39100	HUB-FR	480	360	360	360	360	0	240	240	240	0	360	360
54210-39100	PANEL-FR-HUB	480	360	360	360	360	0	240	240	240	0	360	360
54410-07002	SHOE BRAKE	1920	1440	1440	1440	1440	0	960	960	960	0	1440	1440
54441-29302	CAM BRAKE	960	720	720	720	720	0	480	480	480	0	720	720
54451-46110	LEVER BRAKE	480	360	360	480	360	0	240	360	240	0	360	360
54611-07600	GEAR(NT-26)	480	360	360	360	360	0	240	240	240	0	360	360
54621-27100	PINION(NT-10)	480	360	360	360	360	0	240	240	240	0	360	360
54661-07000	DRIVER	480	360	360	360	480	0	240	240	360	0	360	360
54711-26100	AXLE-FR	480	360	360	360	360	0	240	240	240	0	360	360
54892-39100	COVER	480	360	360	360	360	0	240	240	240	0	360	360
55100-14012	TIRE	480	360	480	360	360	0	360	240	240	0	360	480
55200-11601	TUBE-INNER	480	360	360	360	360	0	240	240	240	0	360	360
55200-14010	TUBE-INNER	480	360	600	600	360	0	480	480	240	0	360	600
55261-14010	PROTECTOR	960	720	960	960	720	0	720	720	480	0	720	960
55300-12825	SPOKE SET	480	360	360	360	360	0	240	240	240	0	360	360
55311-12120	WHEEL RIM	960	720	960	960	720	0	720	720	480	0	720	960
61000-39310	SWING-ARM-RR	480	360	360	360	360	0	240	240	240	0	360	360
61211-39000	SHAFT	480	360	360	360	360	0	240	240	240	0	360	360



## GROSS REQUIREMENT 5

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61273-39600	BUFFER	480	360	360	360	360	0	240	240	240	0	360	360
61410-36002	ADJUST-CHAIN	960	720	720	720	720	0	480	480	480	0	720	720
62100-39320	SHOCK-ABSORB	960	720	720	720	720	0	480	480	480	0	720	720
64110-07003	HUB-WHEEL	480	360	360	360	360	0	240	240	240	0	360	360
64210-39110	PANEL-RR-HUB	480	360	360	360	360	0	240	240	240	0	360	360
64310-39000	TORQUE LINK	480	360	360	360	360	0	240	240	240	0	360	360
64451-48000	LEVER-BR-CAM	480	360	360	360	360	0	240	240	240	0	360	360
64511-20730	SPROCKET (NT-43)	480	360	360	360	360	0	240	240	240	0	360	360
64611-07000	SPROCKET MOUNT	480	360	360	360	360	0	240	240	240	0	360	360
64651-07001	ABSORB-HUB	480	360	360	360	360	0	240	240	240	0	360	360
64711-48000	AXLE-RR	480	360	360	360	360	0	240	240	240	0	360	360
64733-39100	RETAIN-MOUNT	480	360	360	360	360	0	240	240	240	0	360	360
65100-36011	TIRE	480	360	360	360	360	0	240	240	240	0	360	360
65300-20208	SPOKE SET	480	360	360	360	360	0	240	240	240	0	360	360
08113-62030	BEAR-SPROCK	0	0	120	0	0	0	120	0	0	0	0	120
08143-62010	BEARING-LH	0	0	120	0	0	0	120	0	0	0	0	120
08143-63010	BEARING-RH	0	0	120	0	0	0	120	0	0	0	0	120
08143-63017	BEARING-RH	0	0	0	120	0	0	0	120	0	0	0	0
08310-12108	WASHER	0	0	120	120	0	0	120	120	0	0	0	120
08322-21108	WASHER	0	0	720	720	0	0	720	720	0	0	0	720
09100-06005	BOLT	0	0	360	360	0	0	360	360	0	0	0	360
09100-06007	BOLT	0	0	120	0	0	0	120	0	0	0	0	120
09100-06050	BOLT	0	0	240	0	240	0	240	0	240	0	0	240
09100-06051	BOLT	0	0	0	120	0	0	0	120	0	0	0	0
09100-10046	BOLT	0	0	240	240	0	0	240	240	0	0	0	240
09140-08008	NUT	0	0	240	240	0	0	240	240	0	0	0	240
09140-10012	NUT	0	0	120	120	0	0	120	120	0	0	0	120
09160-12011	WASHER	0	0	240	0	240	0	240	0	240	0	0	240
09160-14001	WASHER	0	0	240	0	0	0	240	0	0	0	0	240
09180-10003	SPACER	0	0	120	120	0	0	120	120	0	0	0	120
09180-10005	SPACER-HUB	0	0	120	0	0	0	120	0	0	0	0	120
09180-12033	SAPCER	0	0	120	0	0	0	120	0	0	0	0	120
09250-22002	CAP-JOINT	960	720	960	720	720	0	720	480	480	0	720	960
09250-30001	CAP CHAIN	0	0	120	120	0	0	120	120	0	0	0	120
09262-17008	BEAR-SPROCK	0	0	0	120	0	0	0	120	0	0	0	0
09280-12001	DUST SEAL	0	0	240	0	240	0	240	0	240	0	0	240

## GROSS REQUIREMENT 6

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09319-10009	BUSHING	0	0	240	240	0	0	240	240	0	0	0	240
09385-10001	CLIP	0	0	240	240	0	0	240	240	0	0	0	240
54110-01004	DRUM-FR-HUB	0	0	120	0	0	0	120	0	0	0	0	120
54110-46001	DRUM-FR-HUB	0	0	0	120	0	0	0	120	0	0	0	0
54210-03006	PANEL-FR-HUB	0	0	120	0	0	0	120	0	0	0	0	120
54210-46102	PANEL-FR-HUB	0	0	120	0	0	0	120	0	0	0	0	120
54410-01005	SHOE BRAKE	0	0	480	480	0	0	480	480	0	0	0	480
54441-01002	CAM BRAKE	0	0	240	0	0	0	240	0	0	0	0	240
54441-29301	SHAFT-BR-CAM	0	0	240	0	0	0	240	0	0	0	0	240
54451-03002	LEVER CAM	0	0	120	0	0	0	120	0	0	0	0	120
54611-23201	GEAR	0	0	120	0	0	0	120	0	0	0	0	120
54621-23200	PINION	0	0	120	120	0	0	120	120	0	0	0	120
54711-03601	AXLE-FR	0	0	120	120	0	0	120	120	0	0	0	120
54730-01000	SAPCER	0	0	120	0	0	0	120	0	0	0	0	120
54892-01000	COVER	0	0	120	120	0	0	120	120	0	0	0	120
55300-21807	SPOKE SET	0	0	120	120	0	0	120	120	0	0	0	120
61100-22820	SWING-ARM-RR	0	0	120	120	0	0	120	120	0	0	0	120
61211-20001	SHAFT	0	0	120	120	0	0	120	120	0	0	0	120
61211-25001	SHAFT	0	0	120	120	0	0	120	120	0	0	0	120
61300-12850	CHAIN CASE	0	0	120	120	0	0	120	120	0	0	0	120
61411-01002	ADJUST-RH	0	0	120	120	0	0	120	120	0	0	0	120
61421-01002	ADJUST-LH	0	0	120	120	0	0	120	120	0	0	0	120
62100-23210	SHOCK-ABSORB	0	0	240	240	0	0	240	240	0	0	0	240
62431-23200	SPACER	0	0	240	240	0	0	240	240	0	0	0	240
64110-01000	DRUM-RR-HUB	0	0	120	0	0	0	120	0	0	0	0	120
64110-35001	DRUM-RR-HUB	0	0	0	120	0	0	0	120	0	0	0	0
64210-01004	PANEL-RR-HUB	0	0	120	0	0	0	120	0	0	0	0	120
64210-46002	PANEL-RR-HUB	0	0	0	120	0	0	0	120	0	0	0	0
64310-21200	TORQE LINK	0	0	0	120	0	0	0	120	0	0	0	0
64310-27200	TORQE LINK	0	0	120	0	0	0	120	0	0	0	0	120
64451-20000	LEVER CAM	0	0	120	0	0	0	120	0	0	0	0	120
64451-46100	LEVER-CAM	0	0	0	120	0	0	0	120	0	0	0	0
64511-12760	SPROCKET-RR	0	0	120	120	0	0	120	120	0	0	0	120
64611-01001	DRUM-SPROCK	0	0	120	120	0	0	120	120	0	0	0	120
64651-01000	CUSHION	0	0	120	120	0	0	120	120	0	0	0	120
64730-01000	SPACER	0	0	120	0	0	0	120	0	0	0	0	120

## GROSS REQUIREMENT 7

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
65100-12110	TIRE	0	0	120	120	0	0	120	120	0	0	0	120
65300-12828	SPOKE SET	0	0	120	120	0	0	120	120	0	0	0	120
01112-06128	BOLT	0	0	0	0	360	0	0	0	360	0	0	0
08113-62010	BALL-BR-RH	0	0	0	0	120	0	0	0	120	0	0	0
08123-63020	BALL-BR-LH	0	0	0	0	120	0	0	0	120	0	0	0
08143-62010	BALL-BR-LH	0	0	0	0	120	0	0	0	120	0	0	0
08143-62020	BALL-BR-RH	0	0	0	0	120	0	0	0	120	0	0	0
08311-11068	NUT	0	0	0	0	240	0	0	0	240	0	0	0
08312-11088	NUT	0	0	0	0	240	0	0	0	240	0	0	0
08313-11107	NUT	0	0	0	0	480	0	0	0	480	0	0	0
08314-31128	NUT	0	0	0	0	120	0	0	0	120	0	0	0
08331-11558	CIRCLIP	0	0	0	0	120	0	0	0	120	0	0	0
08351-31008	NIPPLE	0	0	0	0	120	0	0	0	120	0	0	0
09100-06065	BOLT-ADJUST	0	0	0	0	240	0	0	0	240	0	0	0
09105-08006	BOLT	0	0	0	0	720	0	0	0	720	0	0	0
09111-08015	BOLT	0	0	0	0	120	0	0	0	120	0	0	0
09140-08010	NUT	0	0	0	0	720	0	0	0	720	0	0	0
09140-18001	NUT-CHAIN	0	0	0	0	120	0	0	0	120	0	0	0
09159-12101	NUT	0	0	0	0	120	0	0	0	120	0	0	0
09160-06027	WASHER	0	0	0	0	360	0	0	0	360	0	0	0
09160-12005	WASHER	0	0	0	0	240	0	0	0	240	0	0	0
09169-08013	WASHER	0	0	0	0	360	0	0	0	360	0	0	0
09180-07005	SPACER	0	0	0	0	360	0	0	0	360	0	0	0
09180-12040	SPACER-RH	0	0	0	0	120	0	0	0	120	0	0	0
09180-12041	SPACER-BEAR	0	0	0	0	120	0	0	0	120	0	0	0
09180-15010	SPACER-RH	0	0	0	0	120	0	0	0	120	0	0	0
09280-24001	DUST SEAL	0	0	0	0	240	0	0	0	240	0	0	0
09284-18002	OIL SEAL-BR	0	0	0	0	120	0	0	0	120	0	0	0
09307-10001	BUSH	0	0	0	0	240	0	0	0	240	0	0	0
09320-08007	CUSHION	0	0	0	0	360	0	0	0	360	0	0	0
09384-06001	CLIP	0	0	0	0	240	0	0	0	240	0	0	0
09448-27003	SPRING	0	0	0	0	120	0	0	0	120	0	0	0
54110-28001	HUB-FR-WHEEL	0	0	0	0	120	0	0	0	120	0	0	0
54210-28001	PANEL-FR-BRK	0	0	0	0	120	0	0	0	120	0	0	0
54410-01004	SHOE BRAKE	0	0	0	0	240	0	0	0	240	0	0	0
54410-07001	SHOE BRAKE	0	0	0	0	240	0	0	0	240	0	0	0

## GROSS REQUIREMENT 8

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
54441-28001	CAM-FR=BRK	0	0	0	0	240	0	0	0	240	0	0	0
54451-03602	LEVER-BRK-CAM	0	0	0	0	120	0	0	0	120	0	0	0
54611-28000	GEAR	0	0	0	0	120	0	0	0	120	0	0	0
54621-28000	PINION	0	0	0	0	120	0	0	0	120	0	0	0
54711-28000	AXLE-FR	0	0	0	0	120	0	0	0	120	0	0	0
54892-28000	COVER-DUST	0	0	0	0	120	0	0	0	120	0	0	0
55100-25600	TIRE	0	0	0	0	120	0	0	0	120	0	0	0
55200-28030	TUBE-INNER	0	0	0	0	120	0	0	0	120	0	0	0
55261-28030	PROTECTOR	0	0	0	0	120	0	0	0	120	0	0	0
55300-28806	SPOKE SET	0	0	0	0	120	0	0	0	120	0	0	0
55311-17021	RIM-FR-WHEEL	0	0	0	0	120	0	0	0	120	0	0	0
61100-28840	SWING-ARM-RR	0	0	0	0	120	0	0	0	120	0	0	0
61211-28600	SHAFT	0	0	0	0	120	0	0	0	120	0	0	0
61251-28000	SPACER	0	0	0	0	120	0	0	0	120	0	0	0
61262-09200	COVER	0	0	0	0	240	0	0	0	240	0	0	0
61273-28000	BUFFER	0	0	0	0	120	0	0	0	120	0	0	0
61280-28000	SPACER	0	0	0	0	120	0	0	0	120	0	0	0
61310-28000	CHAIN CASE	0	0	0	0	120	0	0	0	120	0	0	0
61410-28001	ADJUST-RH	0	0	0	0	120	0	0	0	120	0	0	0
61420-28001	ADJUST-LH	0	0	0	0	120	0	0	0	120	0	0	0
62100-28600	SHOCK ABSORB	0	0	0	0	240	0	0	0	240	0	0	0
64110-28001	HUB-RR-WHEEL	0	0	0	0	120	0	0	0	120	0	0	0
64210-28002	PANEL	0	0	0	0	120	0	0	0	120	0	0	0
64311-28000	TORGE LINK *	0	0	0	0	120	0	0	0	120	0	0	0
64451-28000	LEVER	0	0	0	0	120	0	0	0	120	0	0	0
64511-28000	SPROCKET-RR	0	0	0	0	120	0	0	0	120	0	0	0
64610-28001	SPROCK MOUNT	0	0	0	0	120	0	0	0	120	0	0	0
64650-28000	SHOCK ABSORB	0	0	0	0	720	0	0	0	720	0	0	0
64711-28001	AXLE-RR	0	0	0	0	120	0	0	0	120	0	0	0
64730-28000	SPACER-BEAR	0	0	0	0	120	0	0	0	120	0	0	0
64750-28000	SPACER-LH	0	0	0	0	120	0	0	0	120	0	0	0
64791-28001	SPACER-CHA-LH	0	0	0	0	120	0	0	0	120	0	0	0
65100-28031	TIRE-RR	0	0	0	0	120	0	0	0	120	0	0	0
65200-28030	TUBE	0	0	0	0	120	0	0	0	120	0	0	0
65261-28030	PROTECTOR	0	0	0	0	120	0	0	0	120	0	0	0
65300-28807	SPOKE SET	0	0	0	0	120	0	0	0	120	0	0	0

ภาคผนวก จ  
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## NET REQUIREMENT 1

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
04111-20208	COTTER PIN	0	0	0	0	0	0	0	0	880	2880	2880	3240
04111-20308	COTTER PIN	0	0	0	0	0	0	0	0	0	0	1280	1860
08113-62000	BEARING-RH	0	0	0	0	0	0	0	0	0	720	1080	1380
08113-62017	B-INNER-LH	0	0	0	0	0	0	0	0	0	480	1080	1260
08143-63007	BEARING-LH	0	0	0	0	0	0	0	0	0	1360	1440	1740
08143-62017	BEARING-LH	0	0	0	0	0	0	0	0	0	480	1080	1260
08143-63017	BEARING-RH	0	0	0	0	0	0	0	0	0	240	1080	1260
08310-11068	NUT	0	0	0	0	0	0	0	0	400	5760	5040	6240
08310-11108	NUT	0	0	0	0	0	0	0	0	0	240	1080	1260
08310-12088	NUT	0	0	0	0	0	0	0	0	0	4800	6480	7200
08313-11108	NUT	0	0	0	0	0	0	0	0	3120	2880	3600	4200
08314-31108	NUT	0	0	0	0	0	0	0	0	1200	2880	2520	3120
08321-21068	LOCK WASHER	0	0	0	0	0	0	0	0	560	2880	2160	2760
08321-21088	LOCK WASHER	0	0	0	0	0	0	0	0	320	2880	2880	3480
08321-21108	LOCK WASHER	0	0	0	0	0	0	0	0	800	1440	1080	1260
08322-11108	WASHER-AXLE	0	0	0	0	0	0	0	0	1080	1440	1800	1980
08322-21068	WASHER	0	0	0	0	0	0	0	0	2800	5760	5040	6720
08322-21088	WASHER-FR	0	0	0	0	0	0	0	0	0	240	1080	1260
08322-21108	WASHER	0	0	0	0	0	0	0	0	4800	8640	6480	7560
08331-31159	CIRCLIP	0	0	0	0	0	0	0	0	0	720	1080	1380
09100-06078	BOLT	0	0	0	0	0	0	0	0	0	2240	2880	3240
09140-10004	BOLT-ABSORB	0	0	0	0	0	0	0	0	1600	2880	2160	2520
09105-08001	BOLT	0	0	0	0	0	0	0	0	3760	5760	5760	6480
09111-08016	BOLT	0	0	0	0	0	0	0	0	0	240	1080	1260
09134-03101	SCREW	0	0	0	0	0	0	0	0	160	1440	1440	1740
09140-08008	NUT	0	0	0	0	0	0	0	0	1360	2880	2880	3240
09140-16005	NUT	0	0	0	0	0	0	0	0	0	720	1080	1380
09160-05001	WASHER	0	0	0	0	0	0	0	0	2320	2880	2880	3480
09160-12012	WASHER-LOW	0	0	0	0	0	0	0	0	1600	2880	2160	2520
09160-14003	WASHER	0	0	0	0	0	0	0	0	1600	2880	2160	2520
09160-16005	WASHER	0	0	0	0	0	0	0	0	0	720	1080	1380
09169-08011	LOCK WASHER	0	0	0	0	0	0	0	0	0	1440	2160	2760
09108-10091	SPACER	0	0	0	0	0	0	0	0	800	1440	1080	1260
09180-12005	SPACER-RR	0	0	0	0	0	0	0	0	0	720	1080	1380
09180-12084	SPACER-BEAR	0	0	0	0	0	0	0	0	800	1440	1080	1260
09180-17004	SPACER	0	0	0	0	0	0	0	0	0	720	1080	1380

## NET REQUIREMENT 2

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09250-22002	CAP-RSA	0	0	0	0	0	0	0	0	2080	2880	2160	2640
09262-17008	BEARING	0	0	0	0	0	0	0	0	0	240	1080	1260
09280-14003	O-RING	0	0	0	0	0	0	0	0	1360	2880	2880	3240
09284-15001	OIL SEAL	0	0	0	0	0	0	0	0	0	720	1080	1380
09285-25001	OIL SEAL	0	0	0	0	0	0	0	0	0	720	1080	1380
09285-43001	OIL SEAL	0	0	0	0	0	0	0	0	0	720	1080	1380
09319-10043	BUSH-RSA	0	0	0	0	0	0	0	0	800	1440	1080	1260
09320-22001	CUSHION	0	0	0	0	0	0	0	0	800	1440	1080	1260
09443-07001	SPRING	0	0	0	0	0	0	0	0	4640	5760	5760	6960
09448-30009	SPRING	0	0	0	0	0	0	0	0	800	1440	1080	1260
54410-35400	HUB-FR-WHEEL	0	0	0	0	0	0	0	0	800	1440	1080	1260
54210-35400	PANEL-FR-HUB	0	0	0	0	0	0	0	0	800	1440	1080	1260
54410-01010	SHOE-BRAKE	0	0	0	0	0	0	0	0	3200	5760	4320	5040
54441-29303	SHAFT-BR-CAM	0	0	0	0	0	0	0	0	800	1440	1080	1260
54441-35400	SHAFT-BR-CAM	0	0	0	0	0	0	0	0	800	1440	1080	1260
54451-35400	LEVER-BR-CAM	0	0	0	0	0	0	0	0	800	1440	1080	1260
54492-35400	PLATE-BR-LIN	0	0	0	0	0	0	0	0	1600	2880	2160	2520
54611-03601	GEAR(NT-23)	0	0	0	0	0	0	0	0	800	1440	1080	1260
54621-39202	GEAR(NT-9)	0	0	0	0	0	0	0	0	800	1440	1080	1260
54632-01001	OUTER-BUSHER	0	0	0	0	0	0	0	0	160	1440	1440	1740
54661-03000	DRIVER	0	0	0	0	0	0	0	0	160	1440	1440	1740
54711-35400	AXLE-FR	0	0	0	0	0	0	0	0	800	1440	1080	1260
54740-26100	SPACER-AXLE	0	0	0	0	0	0	0	0	800	1440	1080	1260
55100-09400	TIRE-FR	0	0	0	0	0	0	0	0	0	540	1080	1260
55200-01011	TUBE INNER	0	0	0	0	0	0	0	0	0	540	1080	1260
55200-03600	TUBE INNER	0	0	0	0	0	0	0	0	0	540	1080	1260
55261-01010	PROTECTOR	0	0	0	0	0	0	0	0	0	1080	2160	2520
55311-01021	WHEEL RIM	0	0	0	0	0	0	0	0	800	1440	1080	1260
55311-03021	WHEEL RIM	0	0	0	0	0	0	0	0	800	1440	1080	1260
55320-01011	SPOKE SET	0	0	0	0	0	0	0	0	800	1440	1080	1260
61111-35400	RSA-INNER-R	0	0	0	0	0	0	0	0	800	1440	1080	1260
61112-35400	RSA-OUTER-R	0	0	0	0	0	0	0	0	800	1440	1080	1260
61113-35400	RSA-REINF	0	0	0	0	0	0	0	0	800	1440	1080	1260
61114-35010	BOSS-RSA-PIVOT	0	0	0	0	0	0	0	0	800	1440	1080	1260
61114-35400	BOSS-RSA-PIVOT	0	0	0	0	0	0	0	0	800	1440	1080	1260
61115-35400	WASHER	0	0	0	0	0	0	0	0	800	1440	1080	1260

## NET REQUIREMENT 3

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61121-35400	RSA-INNER-L	0	0	0	0	0	0	0	0	0	240	1080	1260
61122-35401	RSA-OUTER-L	0	0	0	0	0	0	0	0	0	240	1080	1260
61123-35400	RSA-REINF-L	0	0	0	0	0	0	0	0	0	240	1080	1260
61131-01001	PIPE-RSA-JOINT	0	0	0	0	0	0	0	0	0	240	1080	1260
61141-35400	CHAIN CASE-IN	0	0	0	0	0	0	0	0	0	240	1080	1260
61142-35400	CHAIN CASE FR	0	0	0	0	0	0	0	0	0	240	1080	1260
61143-35401	INNER-RR	0	0	0	0	0	0	0	0	0	240	1080	1260
61144-35400	CHAIN CASE-RR	0	0	0	0	0	0	0	0	0	240	1080	1260
61151-03000	PILLION-FOOT	0	0	0	0	0	0	0	0	0	240	1080	1260
61161-35310	SUPPORT	0	0	0	0	0	0	0	0	0	240	1080	1260
61171-35000	BOLT	0	0	0	0	0	0	0	0	0	240	1080	1260
61211-09400	SHAFT RSA	0	0	0	0	0	0	0	0	0	240	1080	1260
61411-35400	ADJUSTER-RH	0	0	0	0	0	0	0	0	0	240	1080	1260
61421-35400	ADJUSTER-LH	0	0	0	0	0	0	0	0	0	240	1080	1260
62100-35400	ABSORBER-RR	0	0	0	0	0	0	0	0	0	480	2160	2520
62211-35700	SPRING	0	0	0	0	0	0	0	0	0	480	2160	2520
64110-35300	DRUM-RR-HUB	0	0	0	0	0	0	0	0	0	240	1080	1260
64210-46002	PANEL-RR-HUB	0	0	0	0	0	0	0	0	0	240	1080	1260
64311-35000	TORQUE LINK	0	0	0	0	0	0	0	0	0	240	1080	1260
64451-43020	LEVER-BR-CAM	0	0	0	0	0	0	0	0	0	240	1080	1260
64511-35420	SPROCKET (NT-33)	0	0	0	0	0	0	0	0	0	240	1080	1260
64611-01001	SPROCKET MOUNT	0	0	0	0	0	0	0	0	0	240	1080	1260
64651-01001	ABSORBER-HUB	0	0	0	0	0	0	0	0	0	240	1080	1260
64711-01603	AXLE-RR	0	0	0	0	0	0	0	0	0	0	0	1180
64761-01000	SPROCKET DRUM	0	0	0	0	0	0	0	0	0	0	0	1180
65100-35011	TIRE	0	0	0	0	0	0	0	0	0	540	1080	1260
65320-46730	SPOKE SET	0	0	0	0	0	0	0	0	0	240	1080	1260
04111-30308	COTTER PIN	0	0	0	0	0	0	0	0	0	0	240	360
08113-62040	BEARING	0	0	0	0	0	0	0	0	0	0	0	360
08143-62027	BEARING-LH	0	0	0	0	0	0	0	0	0	0	0	360
08144-63027	BEARING-RH	0	0	0	0	0	0	0	0	0	0	0	360
08319-21128	NUT	0	0	0	0	0	0	0	0	0	0	0	360
08322-11128	WASHER	0	0	0	0	0	0	0	0	160	0	1800	1920
08322-11148	WASHER	0	0	0	0	0	0	0	0	0	0	1000	1080
08331-11189	CIRCLIP	0	0	0	0	0	0	0	0	0	0	240	360
09104-08006	BOLT	0	0	0	0	0	0	0	0	280	0	720	720



## NET REQUIREMENT 4

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09111-08012	BOLT	0	0	0	0	0	0	0	0	120	0	360	480
09111-08013	BOLT	0	0	0	0	0	0	0	0	0	0	240	360
09141-14001	NUT	0	0	0	0	0	0	0	0	240	0	360	360
09160-10001	WASHER	0	0	0	0	0	0	0	0	0	0	240	1440
09160-10033	WASHER	0	0	0	0	0	0	0	0	960	0	1440	1440
09160-12001	WASHER	0	0	0	0	0	0	0	0	240	0	360	360
09160-14001	WASHER	0	0	0	0	0	0	0	0	480	0	720	720
09160-18002	WASHER	0	0	0	0	0	0	0	0	320	0	720	720
09169-08012	WASHER	0	0	0	0	0	0	0	0	480	0	720	720
09180-10053	SPACER-RH	0	0	0	0	0	0	0	0	240	0	360	360
09180-12032	SPACER	0	0	0	0	0	0	0	0	240	0	360	360
09180-15002	SPACER-RH	0	0	0	0	0	0	0	0	240	0	360	360
09180-15011	SPACER-HUB-BR	0	0	0	0	0	0	0	0	240	0	360	360
09180-15042	SPACER-LH	0	0	0	0	0	0	0	0	240	0	360	360
09284-18001	OIL SEAL	0	0	0	0	0	0	0	0	240	0	360	360
09285-28001	OIL SEAL	0	0	0	0	0	0	0	0	240	0	360	360
09285-48001	OIL SEAL	0	0	0	0	0	0	0	0	240	0	360	360
09319-12018	BUSHING	0	0	0	0	0	0	0	0	480	0	720	720
54110-39100	HUB-FR	0	0	0	0	0	0	0	0	240	0	360	360
54210-39100	PANEL-FR-HUB	0	0	0	0	0	0	0	0	240	0	360	360
54410-07002	SHOE BRAKE	0	0	0	0	0	0	0	0	960	0	1440	1440
54441-29302	CAM BRAKE	0	0	0	0	0	0	0	0	480	0	720	720
54451-46110	LEVER BRAKE	0	0	0	0	0	0	0	0	0	0	240	360
54611-07600	GEAR(NT-26)	0	0	0	0	0	0	0	0	240	0	360	360
54621-27100	PINION(NT-10)	0	0	0	0	0	0	0	0	240	0	360	360
54661-07000	DRIVER	0	0	0	0	0	0	0	0	0	0	0	200
54711-26100	AXLE-FR	0	0	0	0	0	0	0	0	240	0	360	360
54892-39100	COVER	0	0	0	0	0	0	0	0	240	0	360	360
55100-14012	TIRE	0	0	0	0	0	0	0	0	0	0	240	480
55200-11601	TUBE-INNER	0	0	0	0	0	0	0	0	0	0	360	360
55200-14010	TUBE-INNER	0	0	0	0	0	0	0	0	0	0	360	600
55261-14010	PROTECTOR	0	0	0	0	0	0	0	0	240	0	720	960
55300-12825	SPOKE SET	0	0	0	0	0	0	0	0	240	0	360	360
55311-12120	WHEEL RIM	0	0	0	0	0	0	0	0	240	0	720	960
61000-39310	SWING-ARM-RR	0	0	0	0	0	0	0	0	240	0	360	360
61211-39000	SHAFT	0	0	0	0	0	0	0	0	240	0	360	360

## NET REQUIREMENT 5

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61273-39600	BUFFER	0	0	0	0	0	0	0	0	240	0	360	360
61410-36002	ADJUST-CHAIN	0	0	0	0	0	0	0	0	80	0	720	720
62100-39320	SHOCK-ABSORB	0	0	0	0	0	0	0	0	80	0	720	720
64110-07003	HUB-WHEEL	0	0	0	0	0	0	0	0	240	0	360	360
64210-39110	PANEL-RR-HUB	0	0	0	0	0	0	0	0	240	0	360	360
64310-39000	TORQUE LINK	0	0	0	0	0	0	0	0	240	0	360	360
64451-48000	LEVER-BR-CAM	0	0	0	0	0	0	0	0	240	0	360	360
64511-20730	SPROCKET (NT-43)	0	0	0	0	0	0	0	0	240	0	360	360
64611-07000	SPROCKET MOUNT	0	0	0	0	0	0	0	0	240	0	360	360
64651-07001	ABSORB-HUB	0	0	0	0	0	0	0	0	240	0	360	360
64711-48000	AXLE-RR	0	0	0	0	0	0	0	0	240	0	360	360
64733-39100	RETAIN-MOUNT	0	0	0	0	0	0	0	0	240	0	360	360
65100-36011	TIRE	0	0	0	0	0	0	0	0	240	0	360	360
65300-20208	SPOKE SET	0	0	0	0	0	0	0	0	240	0	360	360
08113-62030	BEAR-SPROCK	0	0	0	0	0	0	0	0	0	0	0	120
08143-62010	BEARING-LH	0	0	0	0	0	0	0	0	0	0	0	120
08143-63010	BEARING-RH	0	0	0	0	0	0	0	0	0	0	0	120
08143-63017	BEARING-RH	0	0	0	0	0	0	0	0	0	0	0	0
08310-12108	WASHER	0	0	0	0	0	0	0	0	0	0	0	120
08322-21108	WASHER	0	0	0	0	0	0	0	0	0	0	0	600
09100-06005	BOLT	0	0	0	0	0	0	0	0	0	0	0	200
09100-06007	BOLT	0	0	0	0	0	0	0	0	0	0	0	120
09100-06050	BOLT	0	0	0	0	0	0	0	0	80	0	0	240
09100-06051	BOLT	0	0	0	0	0	0	0	0	0	0	0	0
09100-10046	BOLT	0	0	0	0	0	0	0	0	0	0	0	80
09140-08008	NUT	0	0	0	0	0	0	0	0	0	0	0	80
09140-10012	NUT	0	0	0	0	0	0	0	0	0	0	0	120
09160-12011	WASHER	0	0	0	0	0	0	0	0	80	0	0	240
09160-14001	WASHER	0	0	0	0	0	0	0	0	0	0	0	240
09180-10003	SPACER	0	0	0	0	0	0	0	0	0	0	0	120
09180-10005	SPACER-HUB	0	0	0	0	0	0	0	0	0	0	0	120
09180-12033	SPACER	0	0	0	0	0	0	0	0	0	0	0	120
09250-22002	CAP-JOINT	0	0	0	0	0	0	0	0	160	0	720	960
09250-30001	CAP CHAIN	0	0	0	0	0	0	0	0	0	0	0	120
09262-17008	BEAR-SPROCK	0	0	0	0	0	0	0	0	0	0	0	0
09280-12001	DUST SEAL	0	0	0	0	0	0	0	0	80	0	0	240



## NET REQUIREMENT 7

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
65100-12110	TIRE	0	0	0	0	0	0	0	0	0	0	0	120
65300-12828	SPOKE SET	0	0	0	0	0	0	0	0	0	0	0	120
01112-06128	BOLT	0	0	0	0	0	0	0	0	360	0	0	0
08113-62010	BALL-BR-RH	0	0	0	0	0	0	0	0	120	0	0	0
08123-63020	BALL-BR-LH	0	0	0	0	0	0	0	0	120	0	0	0
08143-62010	BALL-BR-LH	0	0	0	0	0	0	0	0	120	0	0	0
08143-62020	BALL-BR-RH	0	0	0	0	0	0	0	0	120	0	0	0
08311-11068	NUT	0	0	0	0	0	0	0	0	240	0	0	0
08312-11088	NUT	0	0	0	0	0	0	0	0	240	0	0	0
08313-11107	NUT	0	0	0	0	0	0	0	0	480	0	0	0
08314-31128	NUT	0	0	0	0	0	0	0	0	120	0	0	0
08331-11558	CIRCLIP	0	0	0	0	0	0	0	0	120	0	0	0
08351-31008	NIPPLE	0	0	0	0	0	0	0	0	120	0	0	0
09100-06065	BOLT-ADJUST	0	0	0	0	0	0	0	0	240	0	0	0
09105-08006	BOLT	0	0	0	0	0	0	0	0	720	0	0	0
09111-08015	BOLT	0	0	0	0	0	0	0	0	120	0	0	0
09140-08010	NUT	0	0	0	0	0	0	0	0	720	0	0	0
09140-18001	NUT-CHAIN	0	0	0	0	0	0	0	0	120	0	0	0
09159-12101	NUT	0	0	0	0	0	0	0	0	120	0	0	0
09160-06027	WASHER	0	0	0	0	0	0	0	0	360	0	0	0
09160-12005	WASHER	0	0	0	0	0	0	0	0	240	0	0	0
09169-08013	WASHER	0	0	0	0	0	0	0	0	360	0	0	0
09180-07005	SPACER	0	0	0	0	0	0	0	0	360	0	0	0
09180-12040	SPACER-RH	0	0	0	0	0	0	0	0	120	0	0	0
09180-12041	SPACER-BEAR	0	0	0	0	0	0	0	0	120	0	0	0
09180-15010	SPACER-RH	0	0	0	0	0	0	0	0	120	0	0	0
09280-24001	DUST SEAL	0	0	0	0	0	0	0	0	240	0	0	0
09284-18002	OIL SEAL-BR	0	0	0	0	0	0	0	0	120	0	0	0
09307-10001	BUSH	0	0	0	0	0	0	0	0	240	0	0	0
09320-08007	CUSHION	0	0	0	0	0	0	0	0	360	0	0	0
09384-06001	CLIP	0	0	0	0	0	0	0	0	240	0	0	0
09448-27003	SPRING	0	0	0	0	0	0	0	0	120	0	0	0
54110-28001	HUB-FR-WHEEL	0	0	0	0	0	0	0	0	120	0	0	0
54210-28001	PANEL-FR-BRK	0	0	0	0	0	0	0	0	120	0	0	0
54410-01004	SHOE BRAKE	0	0	0	0	0	0	0	0	240	0	0	0
54410-07001	SHOE BRAKE	0	0	0	0	0	0	0	0	240	0	0	0

## NET REQUIREMENT 8

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
54441-28001	CAM-FR=BRK	0	0	0	0	0	0	0	0	240	0	0	0
54451-03602	LEVER-BRK-CAM	0	0	0	0	0	0	0	0	120	0	0	0
54611-28000	GEAR	0	0	0	0	0	0	0	0	120	0	0	0
54621-28000	PINION	0	0	0	0	0	0	0	0	120	0	0	0
54711-28000	AXLE-FR	0	0	0	0	0	0	0	0	120	0	0	0
54892-28000	COVER-DUST	0	0	0	0	0	0	0	0	120	0	0	0
55100-25600	TIRE	0	0	0	0	0	0	0	0	120	0	0	0
55200-28030	TUBE-INNER	0	0	0	0	0	0	0	0	120	0	0	0
55261-28030	PROTECTOR	0	0	0	0	0	0	0	0	120	0	0	0
55300-28806	SPOKE SET	0	0	0	0	0	0	0	0	120	0	0	0
55311-17021	RIM-FR-WHEEL	0	0	0	0	0	0	0	0	120	0	0	0
61100-28840	SWING-ARM-RR	0	0	0	0	0	0	0	0	120	0	0	0
61211-28600	SHAFT	0	0	0	0	0	0	0	0	120	0	0	0
61251-28000	SPACER	0	0	0	0	0	0	0	0	120	0	0	0
61262-09200	COVER	0	0	0	0	0	0	0	0	240	0	0	0
61273-28000	BUFFER	0	0	0	0	0	0	0	0	120	0	0	0
61280-28000	SPACER	0	0	0	0	0	0	0	0	120	0	0	0
61310-28000	CHAIN CASE	0	0	0	0	0	0	0	0	120	0	0	0
61410-28001	ADJUST-RH	0	0	0	0	0	0	0	0	120	0	0	0
61420-28001	ADJUST-LH	0	0	0	0	0	0	0	0	120	0	0	0
62100-28600	SHOCK ABSORB	0	0	0	0	0	0	0	0	240	0	0	0
64110-28001	HUB-RR-WHEEL	0	0	0	0	0	0	0	0	120	0	0	0
64210-28002	PANEL	0	0	0	0	0	0	0	0	120	0	0	0
64311-28000	TORQUE LINK	0	0	0	0	0	0	0	0	120	0	0	0
64451-28000	LEVER	0	0	0	0	0	0	0	0	120	0	0	0
64511-28000	SPROCKET-RR	0	0	0	0	0	0	0	0	120	0	0	0
64610-28001	SPROCKET MOUNT	0	0	0	0	0	0	0	0	120	0	0	0
64650-28000	SHOCK ABSORB	0	0	0	0	0	0	0	0	720	0	0	0
64711-28001	AXLE-RR	0	0	0	0	0	0	0	0	120	0	0	0
64730-28000	SPACER-BEAR	0	0	0	0	0	0	0	0	120	0	0	0
64750-28000	SPACER-LH	0	0	0	0	0	0	0	0	120	0	0	0
64791-28001	SPACER-CHA-LH	0	0	0	0	0	0	0	0	120	0	0	0
65100-28031	TIRE-RR	0	0	0	0	0	0	0	0	120	0	0	0
65200-28030	TUBE	0	0	0	0	0	0	0	0	120	0	0	0
65261-28030	PROTECTOR	0	0	0	0	0	0	0	0	120	0	0	0
65300-28807	SPOKE SET	0	0	0	0	0	0	0	0	120	0	0	0

## ภาคผนวก ฉ

การออกไปสั่งซื้อให้เจ้าหน้าที่ไปตามแผนในช่วงเวลาของการวางแผน  
การออกไปสั่งซื้อให้เจ้าหน้าที่ไปตามแผนก่อนช่วงเวลาของการวางแผน

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 1

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
04111-20208	COTTER PIN	0	0	0	0	880	2880	2880	3240	0	0	0	0
04111-20308	COTTER PIN	0	0	0	0	0	0	1280	1860	0	0	0	0
08113-62000	BEARING-RH	0	0	0	720	1080	1380	0	0	0	0	0	0
08113-62017	B-INNER-LH	0	0	0	480	1080	1260	0	0	0	0	0	0
08143-63007	BEARING-LH	0	0	0	1360	1440	1740	0	0	0	0	0	0
08143-62017	BEARING-LH	0	0	0	480	1080	1260	0	0	0	0	0	0
08143-63017	BEARING-RH	0	0	0	240	1080	1260	0	0	0	0	0	0
08310-11068	NUT	0	0	0	0	400	5760	5040	6240	0	0	0	0
08310-11108	NUT	0	0	0	0	0	240	1080	1260	0	0	0	0
08310-12088	NUT	0	0	0	0	0	4800	6480	7200	0	0	0	0
08313-11108	NUT	0	0	0	0	3120	2880	3600	4200	0	0	0	0
08314-31108	NUT	0	0	0	0	1200	2880	2520	3120	0	0	0	0
08321-21068	LOCK WASHER	0	0	0	0	560	2880	2160	2760	0	0	0	0
08321-21088	LOCK WASHER	0	0	0	0	320	2880	2880	3480	0	0	0	0
08321-21108	LOCK WASHER	0	0	0	0	800	1440	1080	1260	0	0	0	0
08322-11108	WASHER-AXLE	0	0	0	0	1080	1440	1800	1980	0	0	0	0
08322-21068	WASHER	0	0	0	0	2800	5760	5040	6720	0	0	0	0
08322-21088	WASHER-FR	0	0	0	0	0	240	1080	1260	0	0	0	0
08322-21108	WASHER	0	0	0	0	4800	8640	6480	7560	0	0	0	0
08331-31159	CIRCLIP	0	0	0	0	0	720	1080	1380	0	0	0	0
09100-06078	BOLT	0	0	0	0	0	2240	2880	3240	0	0	0	0
09140-10004	BOLT-ABSORB	0	0	0	0	1600	2880	2160	2520	0	0	0	0
09105-08001	BOLT	0	0	0	0	3760	5760	5760	6480	0	0	0	0
09111-08016	BOLT	0	0	0	240	1080	1260	0	0	0	0	0	0
09134-03101	SCREW	0	0	0	0	160	1440	1440	1740	0	0	0	0
09140-08008	NUT	0	0	0	0	1360	2880	2880	3240	0	0	0	0
09140-16005	NUT	0	0	0	0	0	720	1080	1380	0	0	0	0
09160-05001	WASHER	0	0	0	0	2320	2880	2880	3480	0	0	0	0
09160-12012	WASHER-LOW	0	0	0	0	1600	2880	2160	2520	0	0	0	0
09160-14003	WASHER	0	0	0	0	1600	2880	2160	2520	0	0	0	0
09160-16005	WASHER	0	0	0	0	0	720	1080	1380	0	0	0	0
09169-08011	LOCK WASHER	0	0	0	0	0	1440	2160	2760	0	0	0	0
09108-10091	SPACER	0	0	0	0	800	1440	1080	1260	0	0	0	0
09180-12005	SPACER-RR	0	0	0	0	0	720	1080	1380	0	0	0	0
09180-12084	SPACER-BEAR	0	0	0	0	800	1440	1080	1260	0	0	0	0
09180-17004	SPACER	0	0	0	0	0	720	1080	1380	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 2

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09250-22002	CAP-RSA	0	0	0	0	2080	2880	2160	2640	0	0	0	0
09262-17008	BEARING	0	0	0	240	1080	1260	0	0	0	0	0	0
09280-14003	O-RING	0	0	0	0	1360	2880	2880	3240	0	0	0	0
09284-15001	OIL SEAL	0	0	0	0	0	720	1080	1380	0	0	0	0
09285-25001	OIL SEAL	0	0	0	0	0	720	1080	1380	0	0	0	0
09285-43001	OIL SEAL	0	0	0	0	0	720	1080	1380	0	0	0	0
09319-10043	BUSH-RSA	0	0	0	0	800	1440	1080	1260	0	0	0	0
09320-22001	CUSHION	0	0	0	0	800	1440	1080	1260	0	0	0	0
09443-07001	SPRING	0	0	0	0	4640	5760	5760	6960	0	0	0	0
09448-30009	SPRING	0	0	0	0	800	1440	1080	1260	0	0	0	0
54410-35400	HUB-FR-WHEEL	0	0	0	0	800	1440	1080	1260	0	0	0	0
54210-35400	PANEL-FR-HUB	0	0	0	0	800	1440	1080	1260	0	0	0	0
54410-01010	SHOE-BRAKE	0	0	0	0	3200	5760	4320	5040	0	0	0	0
54441-29303	SHAFT-BR-CAM	0	0	0	0	800	1440	1080	1260	0	0	0	0
54441-35400	SHAFT-BR-CAM	0	0	0	0	800	1440	1080	1260	0	0	0	0
54451-35400	LEVER-BR-CAM	0	0	0	0	800	1440	1080	1260	0	0	0	0
54492-35400	PLATE-BR-LIN	0	0	0	0	1600	2880	2160	2520	0	0	0	0
54611-03601	GEAR (NT-23)	0	0	0	0	800	1440	1080	1260	0	0	0	0
54621-39202	GEAR (NT-9)	0	0	0	0	800	1440	1080	1260	0	0	0	0
54632-01001	OUTER-BUSHER	0	0	0	0	160	1440	1440	1740	0	0	0	0
54661-03000	DRIVER	0	0	0	0	160	1440	1440	1740	0	0	0	0
54711-35400	AXLE-FR	0	0	0	0	800	1440	1080	1260	0	0	0	0
54740-26100	SPACER-AXLE	0	0	0	0	800	1440	1080	1260	0	0	0	0
55100-09400	TIRE-FR	0	0	0	0	0	540	1080	1260	0	0	0	0
55200-01011	TUBE INNER	0	0	0	0	0	540	1080	1260	0	0	0	0
55200-03600	TUBE INNER	0	0	0	0	0	540	1080	1260	0	0	0	0
55261-01010	PROTECTOR	0	0	0	0	0	1080	2160	2520	0	0	0	0
55311-01021	WHEEL RIM	0	0	0	0	800	1440	1080	1260	0	0	0	0
55311-03021	WHEEL RIM	0	0	0	0	800	1440	1080	1260	0	0	0	0
55320-01011	SPOKE SET	0	0	0	0	800	1440	1080	1260	0	0	0	0
61111-35400	RSA-INNER-R	0	0	0	0	800	1440	1080	1260	0	0	0	0
61112-35400	RSA-OUTER-R	0	0	0	0	800	1440	1080	1260	0	0	0	0
61113-35400	RSA-REINF	0	0	0	0	800	1440	1080	1260	0	0	0	0
61114-35010	BOSS-RSA-PIVOT	0	0	0	0	800	1440	1080	1260	0	0	0	0
61114-35400	BOSS-RSA-PIVOT	0	0	0	0	800	1440	1080	1260	0	0	0	0
61115-35400	WASHER	0	0	0	0	800	1440	1080	1260	0	0	0	0



PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 3

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61121-35400	RSA-INNER-L	0	0	0	0	0	240	1080	1260	0	0	0	0
61122-35401	RSA-OUTER-L	0	0	0	0	0	240	1080	1260	0	0	0	0
61123-35400	RSA-REINF-L	0	0	0	0	0	240	1080	1260	0	0	0	0
61131-01001	PIPE-RSA-JOINT	0	0	0	0	0	240	1080	1260	0	0	0	0
61141-35400	CHAIN CASE-IN	0	0	0	0	240	1080	1260	0	0	0	0	0
61142-35400	CHAIN CASE FR	0	0	0	0	240	1080	1260	0	0	0	0	0
61143-35401	INNER-RR	0	0	0	0	0	240	1080	1260	0	0	0	0
61144-35400	CHAIN CASE-RR	0	0	0	0	240	1080	1260	0	0	0	0	0
61151-03000	PILLION-FOOT	0	0	0	0	0	240	1080	1260	0	0	0	0
61161-35310	SUPPORT	0	0	0	0	0	240	1080	1260	0	0	0	0
61171-35000	BOLT	0	0	240	1080	1260	0	0	0	0	0	0	0
61211-09400	SHAFT RSA	0	0	0	0	0	240	1080	1260	0	0	0	0
61411-35400	ADJUSTER-RH	0	0	0	0	0	240	1080	1260	0	0	0	0
61421-35400	ADJUSTER-LH	0	0	0	0	0	240	1080	1260	0	0	0	0
62100-35400	ABSORBER-RR	0	0	0	480	2160	2520	0	0	0	0	0	0
62211-35700	SPRING	0	0	0	0	0	480	2160	2520	0	0	0	0
64110-35300	DRUM-RR-HUB	0	0	0	0	0	240	1080	1260	0	0	0	0
64210-46002	PANEL-RR-HUB	0	0	0	0	0	240	1080	1260	0	0	0	0
64311-35000	TORQE LINK	0	0	0	0	0	240	1080	1260	0	0	0	0
64451-43020	LEVER-BR-CAM	0	0	0	0	0	240	1080	1260	0	0	0	0
64511-35420	SPROCKET (NT-33)	0	0	0	0	0	240	1080	1260	0	0	0	0
64611-01001	SPROCKET MOUNT	0	0	0	0	0	240	1080	1260	0	0	0	0
64651-01001	ABSORBER-HUB	0	0	0	0	0	240	1080	1260	0	0	0	0
64711-01603	AXLE-RR	0	0	0	0	0	0	0	1180	0	0	0	0
64761-01000	SPROCKET DRUM	0	0	0	0	0	0	0	1180	0	0	0	0
65100-35011	TIRE	0	0	0	0	0	540	1080	1260	0	0	0	0
65320-46730	SPOKE SET	0	0	0	0	0	240	1080	1260	0	0	0	0
04111-30308	COTTER PIN	0	0	0	0	0	0	240	360	0	0	0	0
08113-62040	BEARING	0	0	0	0	0	360	0	0	0	0	0	0
08143-62027	BEARING-LH	0	0	0	0	0	360	0	0	0	0	0	0
08144-63027	BEARING-RH	0	0	0	0	0	360	0	0	0	0	0	0
08319-21128	NUT	0	0	0	0	0	0	0	360	0	0	0	0
08322-11128	WASHER	0	0	0	0	160	0	1800	1920	0	0	0	0
08322-11148	WASHER	0	0	0	0	0	0	1000	1080	0	0	0	0
08331-11189	CIRCLIP	0	0	0	0	0	0	240	360	0	0	0	0
09104-08006	BOLT	0	0	0	0	280	0	720	720	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 4

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09111-08012	BOLT	0	0	0	0	120	0	360	480	0	0	0	0
09111-08013	BOLT	0	0	0	0	0	0	240	360	0	0	0	0
09141-14001	NUT	0	0	0	0	240	0	360	360	0	0	0	0
09160-10001	WASHER	0	0	0	0	0	0	240	1440	0	0	0	0
09160-10033	WASHER	0	0	0	0	960	0	1440	1440	0	0	0	0
09160-12001	WASHER	0	0	0	0	240	0	360	360	0	0	0	0
09160-14001	WASHER	0	0	0	0	480	0	720	720	0	0	0	0
09160-18002	WASHER	0	0	0	0	320	0	720	720	0	0	0	0
09169-08012	WASHER	0	0	0	0	480	0	720	720	0	0	0	0
09180-10053	SPACER-RH	0	0	0	0	240	0	360	360	0	0	0	0
09180-12032	SPACER	0	0	0	0	240	0	360	360	0	0	0	0
09180-15002	SPACER-RH	0	0	0	0	240	0	360	360	0	0	0	0
09180-15011	SPACER-HUB-BR	0	0	0	0	240	0	360	360	0	0	0	0
09180-15042	SPACER-LH	0	0	0	0	240	0	360	360	0	0	0	0
09284-18001	DIL SEAL	0	0	0	0	240	0	360	360	0	0	0	0
09285-28001	DIL SEAL	0	0	0	0	240	0	360	360	0	0	0	0
09285-48001	DIL SEAL	0	0	0	0	240	0	360	360	0	0	0	0
09319-12018	BUSHING	0	0	0	0	480	0	720	720	0	0	0	0
54110-39100	HUB-FR	0	0	0	0	240	0	360	360	0	0	0	0
54210-39100	PANEL-FR-HUB	0	0	0	0	240	0	360	360	0	0	0	0
54410-07002	SHOE BRAKE	0	0	0	0	960	0	1440	1440	0	0	0	0
54441-29302	CAM BRAKE	0	0	0	0	480	0	720	720	0	0	0	0
54451-46110	LEVER BRAKE	0	0	0	0	0	0	240	360	0	0	0	0
54611-07600	GEAR(NT-26)	0	0	0	0	240	0	360	360	0	0	0	0
54621-27100	PINION(NT-10)	0	0	0	0	240	0	360	360	0	0	0	0
54661-07000	DRIVER	0	0	0	0	0	0	0	200	0	0	0	0
54711-26100	AXLE-FR	0	0	0	0	240	0	360	360	0	0	0	0
54892-39100	COVER	0	0	0	0	240	0	360	360	0	0	0	0
55100-14012	TIRE	0	0	0	0	0	0	240	480	0	0	0	0
55200-11601	TUBE-INNER	0	0	0	0	0	0	360	360	0	0	0	0
55200-14010	TUBE-INNER	0	0	0	0	0	0	360	600	0	0	0	0
55261-14010	PROTECTOR	0	0	0	0	240	0	720	960	0	0	0	0
55300-12825	SPOKE SET	0	0	0	0	240	0	360	360	0	0	0	0
55311-12120	WHEEL RIM	0	0	0	0	240	0	720	960	0	0	0	0
61000-39310	SWING-ARM-RR	0	0	0	0	240	0	360	360	0	0	0	0
61211-39000	SHAFT	0	0	0	0	240	0	360	360	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 5

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61273-39600	BUFFER	0	0	0	0	240	0	360	360	0	0	0	0
61410-36002	ADJUST-CHAIN	0	0	0	0	80	0	720	720	0	0	0	0
62100-39320	SHOCK-ABSORB	0	0	80	0	720	720	0	0	0	0	0	0
64110-07003	HUB-WHEEL	0	0	0	0	240	0	360	360	0	0	0	0
64210-39110	PANEL-RR-HUB	0	0	0	0	240	0	360	360	0	0	0	0
64310-39000	TORQE LINK	0	0	0	0	240	0	360	360	0	0	0	0
64451-48000	LEVER-BR-CAM	0	0	0	0	240	0	360	360	0	0	0	0
64511-20730	SPROCKET (NT-43)	0	0	0	0	240	0	360	360	0	0	0	0
64611-07000	SPROCKET MOUNT	0	0	0	0	240	0	360	360	0	0	0	0
64651-07001	ABSORB-HUB	0	0	0	0	240	0	360	360	0	0	0	0
64711-48000	AXLE-RR	0	0	0	0	240	0	360	360	0	0	0	0
64733-39100	RETAIN-MOUNT	0	0	0	0	240	0	360	360	0	0	0	0
65100-36011	TIRE	0	0	0	0	240	0	360	360	0	0	0	0
65300-20208	SPOKE SET	0	0	0	0	240	0	360	360	0	0	0	0
08113-62030	BEAR-SPROCK	0	0	0	0	0	120	0	0	0	0	0	0
08143-62010	BEARING-LH	0	0	0	0	0	120	0	0	0	0	0	0
08143-63010	BEARING-RH	0	0	0	0	0	120	0	0	0	0	0	0
08143-63017	BEARING-RH	0	0	0	0	0	0	0	0	0	0	0	0
08310-12108	WASHER	0	0	0	0	0	0	0	120	0	0	0	0
08322-21108	WASHER	0	0	0	0	0	0	0	600	0	0	0	0
09100-06005	BOLT	0	0	0	0	0	0	0	200	0	0	0	0
09100-06007	BOLT	0	0	0	0	0	0	0	120	0	0	0	0
09100-06050	BOLT	0	0	0	0	80	0	0	240	0	0	0	0
09100-06051	BOLT	0	0	0	0	0	0	0	0	0	0	0	0
09100-10046	BOLT	0	0	0	0	0	0	0	80	0	0	0	0
09140-08008	NUT	0	0	0	0	0	0	0	80	0	0	0	0
09140-10012	NUT	0	0	0	0	0	0	0	120	0	0	0	0
09160-12011	WASHER	0	0	0	0	80	0	0	240	0	0	0	0
09160-14001	WASHER	0	0	0	0	0	0	0	240	0	0	0	0
09180-10003	SPACER	0	0	0	0	0	0	0	120	0	0	0	0
09180-10005	SPACER-HUB	0	0	0	0	0	0	0	120	0	0	0	0
09180-12033	SAPCER	0	0	0	0	0	0	0	120	0	0	0	0
09250-22002	CAP-JOINT	0	0	0	0	160	0	720	960	0	0	0	0
09250-30001	CAP CHAIN	0	0	0	0	0	0	0	120	0	0	0	0
09262-17008	BEAR-SPROCK	0	0	0	0	0	0	0	0	0	0	0	0
09280-12001	DUST SEAL	0	0	0	0	80	0	0	240	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 6

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09319-10009	BUSHING	0	0	0	0	0	0	0	80	0	0	0	0
09385-10001	CLIP	0	0	0	0	0	0	0	80	0	0	0	0
54110-01004	DRUM-FR-HUB	0	0	0	0	0	0	0	120	0	0	0	0
54110-46001	DRUM-FR-HUB	0	0	0	120	0	0	0	0	0	0	0	0
54210-03006	PANEL-FR-HUB	0	0	0	0	0	0	0	120	0	0	0	0
54210-46102	PANEL-FR-HUB	0	0	0	0	0	0	0	120	0	0	0	0
54410-01005	SHOE BRAKE	0	0	0	0	0	0	0	160	0	0	0	0
54441-01002	CAM BRAKE	0	0	0	0	0	0	0	240	0	0	0	0
54441-29301	SHAFT-BR-CAM	0	0	0	0	0	0	0	240	0	0	0	0
54451-03002	LEVER CAM	0	0	0	0	0	0	0	120	0	0	0	0
54611-23201	GEAR	0	0	0	0	0	0	0	120	0	0	0	0
54621-23200	PINION	0	0	0	0	0	0	0	120	0	0	0	0
54711-03601	AXLE-FR	0	0	0	0	0	0	0	120	0	0	0	0
54730-01000	SAPCER	0	0	0	0	0	0	0	120	0	0	0	0
54892-01000	COVER	0	0	0	0	0	0	0	120	0	0	0	0
55300-21807	SPOKE SET	0	0	0	0	0	0	0	120	0	0	0	0
61100-22820	SWING-ARM-RR	0	0	0	0	0	0	0	120	0	0	0	0
61211-20001	SHAFT	0	0	0	0	0	0	0	120	0	0	0	0
61211-25001	SHAFT	0	0	0	0	0	0	0	120	0	0	0	0
61300-12850	CHAIN CASE	0	0	0	0	0	0	120	0	0	0	0	0
61411-01002	ADJUST-RH	0	0	0	0	0	0	0	120	0	0	0	0
61421-01002	ADJUST-LH	0	0	0	0	0	0	0	120	0	0	0	0
62100-23210	SHOCK-ABSORB	0	0	0	0	0	240	0	0	0	0	0	0
62431-23200	SPACER	0	0	0	0	0	0	0	240	0	0	0	0
64110-01000	DRUM-RR-HUB	0	0	0	0	0	0	0	120	0	0	0	0
64110-35001	DRUM-RR-HUB	0	0	0	120	0	0	0	0	0	0	0	0
64210-01004	PANEL-RR-HUB	0	0	0	0	0	0	0	120	0	0	0	0
64210-46002	PANEL-RR-HUB	0	0	0	120	0	0	0	0	0	0	0	0
64310-21200	TORBE LINK	0	0	0	120	0	0	0	0	0	0	0	0
64310-27200	TORBE LINK	0	0	0	0	0	0	0	120	0	0	0	0
64451-20000	LEVER CAM	0	0	0	0	0	0	0	120	0	0	0	0
64451-46100	LEVER-CAM	0	0	0	120	0	0	0	0	0	0	0	0
64511-12760	SPROCKET-RR	0	0	0	0	0	0	0	120	0	0	0	0
64611-01001	DRUM-SPROCK	0	0	0	0	0	0	0	120	0	0	0	0
64651-01000	CUSHION	0	0	0	0	0	0	0	120	0	0	0	0
64730-01000	SPACER	0	0	0	0	0	0	0	120	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 7

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
65100-12110	TIRE	0	0	0	0	0	0	0	120	0	0	0	0
65300-12828	SPOKE SET	0	0	0	0	0	0	0	120	0	0	0	0
01112-06128	BOLT	0	0	0	0	360	0	0	0	0	0	0	0
08113-62010	BALL-BR-RH	0	0	120	0	0	0	0	0	0	0	0	0
08123-63020	BALL-BR-LH	0	0	120	0	0	0	0	0	0	0	0	0
08143-62010	BALL-BR-LH	0	0	120	0	0	0	0	0	0	0	0	0
08143-62020	BALL-BR-RH	0	0	120	0	0	0	0	0	0	0	0	0
08311-11068	NUT	0	0	0	0	240	0	0	0	0	0	0	0
08312-11088	NUT	0	0	0	0	240	0	0	0	0	0	0	0
08313-11107	NUT	0	0	0	0	480	0	0	0	0	0	0	0
08314-31128	NUT	0	0	0	0	120	0	0	0	0	0	0	0
08331-11558	CIRCLIP	0	0	0	0	120	0	0	0	0	0	0	0
08351-31008	NIPPLE	0	0	0	0	120	0	0	0	0	0	0	0
09100-06065	BOLT-ADJUST	0	0	0	0	240	0	0	0	0	0	0	0
09105-08006	BOLT	0	0	0	0	720	0	0	0	0	0	0	0
09111-08015	BOLT	0	0	0	0	120	0	0	0	0	0	0	0
09140-08010	NUT	0	0	0	0	720	0	0	0	0	0	0	0
09140-18001	NUT-CHAIN	0	0	0	0	120	0	0	0	0	0	0	0
09159-12101	NUT	0	0	0	0	120	0	0	0	0	0	0	0
09160-06027	WASHER	0	0	0	0	360	0	0	0	0	0	0	0
09160-12005	WASHER	0	0	0	0	240	0	0	0	0	0	0	0
09169-08013	WASHER	0	0	0	0	360	0	0	0	0	0	0	0
09180-07005	SPACER	0	0	0	0	360	0	0	0	0	0	0	0
09180-12040	SPACER-RH	0	0	0	0	120	0	0	0	0	0	0	0
09180-12041	SPACER-BEAR	0	0	0	0	120	0	0	0	0	0	0	0
09180-15010	SPACER-RH	0	0	0	0	120	0	0	0	0	0	0	0
09280-24001	DUST SEAL	0	0	0	0	240	0	0	0	0	0	0	0
09284-18002	OIL SEAL-BR	0	0	0	0	120	0	0	0	0	0	0	0
09307-10001	BUSH	0	0	0	0	240	0	0	0	0	0	0	0
09320-08007	CUSHION	0	0	0	0	360	0	0	0	0	0	0	0
09384-06001	CLIP	0	0	0	0	240	0	0	0	0	0	0	0
09448-27003	SPRING	0	0	0	0	120	0	0	0	0	0	0	0
54110-28001	HUB-FR-WHEEL	0	0	0	0	120	0	0	0	0	0	0	0
54210-28001	PANEL-FR-BRK	0	0	0	0	120	0	0	0	0	0	0	0
54410-01004	SHOE BRAKE	0	0	0	0	240	0	0	0	0	0	0	0
54410-07001	SHOE BRAKE	0	0	0	0	240	0	0	0	0	0	0	0

PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD 8

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
54441-28001	CAM-FR=BRK	0	0	0	0	240	0	0	0	0	0	0	0
54451-03602	LEVER-BRK-CAM	0	0	0	0	120	0	0	0	0	0	0	0
54611-28000	GEAR	0	0	0	0	120	0	0	0	0	0	0	0
54621-28000	PINION	0	0	0	0	120	0	0	0	0	0	0	0
54711-28000	AXLE-FR	0	0	0	0	120	0	0	0	0	0	0	0
54892-28000	COVER-DUST	0	0	0	0	120	0	0	0	0	0	0	0
55100-25600	TIRE	0	0	0	0	120	0	0	0	0	0	0	0
55200-28030	TUBE-INNER	0	0	0	0	120	0	0	0	0	0	0	0
55261-28030	PROTECTOR	0	0	0	0	120	0	0	0	0	0	0	0
55300-28806	SPOKE SET	0	0	0	0	120	0	0	0	0	0	0	0
55311-17021	RIM-FR-WHEEL	0	0	0	0	120	0	0	0	0	0	0	0
61100-28840	SWING-ARM-RR	0	0	0	0	120	0	0	0	0	0	0	0
61211-28600	SHAFT	0	0	0	0	120	0	0	0	0	0	0	0
61251-28000	SPACER	0	0	0	0	120	0	0	0	0	0	0	0
61262-09200	COVER	0	0	0	0	240	0	0	0	0	0	0	0
61273-28000	BUFFER	0	0	0	0	120	0	0	0	0	0	0	0
61280-28000	SPACER	0	0	0	0	120	0	0	0	0	0	0	0
61310-28000	CHAIN CASE	0	0	0	120	0	0	0	0	0	0	0	0
61410-28001	ADJUST-RH	0	0	0	0	120	0	0	0	0	0	0	0
61420-28001	ADJUST-LH	0	0	0	0	120	0	0	0	0	0	0	0
62100-28600	SHOCK ABSORB	0	0	240	0	0	0	0	0	0	0	0	0
64110-28001	HUB-RR-WHEEL	0	0	0	0	120	0	0	0	0	0	0	0
64210-28002	PANEL	0	0	0	0	120	0	0	0	0	0	0	0
64311-28000	TORQE LINK	0	0	0	0	120	0	0	0	0	0	0	0
64451-28000	LEVER	0	0	0	0	120	0	0	0	0	0	0	0
64511-28000	SPROCKET-RR	0	0	0	0	120	0	0	0	0	0	0	0
64610-28001	SPROCK MOUNT	0	0	0	0	120	0	0	0	0	0	0	0
64650-28000	SHOCK ABSORB	0	0	720	0	0	0	0	0	0	0	0	0
64711-28001	AXLE-RR	0	0	0	0	120	0	0	0	0	0	0	0
64730-28000	SPACER-BEAR	0	0	0	0	120	0	0	0	0	0	0	0
64750-28000	SPACER-LH	0	0	0	0	120	0	0	0	0	0	0	0
64791-28001	SPACER-CHA-LH	0	0	0	0	120	0	0	0	0	0	0	0
65100-28031	TIRE-RR	0	0	0	0	120	0	0	0	0	0	0	0
65200-28030	TUBE	0	0	0	0	120	0	0	0	0	0	0	0
65261-28030	PROTECTOR	0	0	0	0	120	0	0	0	0	0	0	0
65300-28807	SPOKE SET	0	0	0	0	120	0	0	0	0	0	0	0



ภาคผนวก ข  
การได้รับวัสดุมาตามแผน



PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 1

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
04111-20208	COTTER PIN	0	0	0	0	0	0	0	880	2880	2880	3240	0
04111-20308	COTTER PIN	0	0	0	0	0	0	0	0	0	1280	1860	0
08113-62000	BEARING-RH	0	0	0	0	0	0	0	0	720	1080	1380	0
08113-62017	B-INNER-LH	0	0	0	0	0	0	0	0	480	1080	1260	0
08143-63007	BEARING-LH	0	0	0	0	0	0	0	0	1360	1440	1740	0
08143-62017	BEARING-LH	0	0	0	0	0	0	0	0	480	1080	1260	0
08143-63017	BEARING-RH	0	0	0	0	0	0	0	0	240	1080	1260	0
08310-11068	NUT	0	0	0	0	0	0	400	5760	5040	6240	0	0
08310-11108	NUT	0	0	0	0	0	0	0	0	240	1080	1260	0
08310-12088	NUT	0	0	0	0	0	0	0	4800	6480	7200	0	0
08313-11108	NUT	0	0	0	0	0	0	3120	2880	3600	4200	0	0
08314-31108	NUT	0	0	0	0	0	0	0	1200	2880	2520	3120	0
08321-21068	LOCK WASHER	0	0	0	0	0	0	0	560	2880	2160	2760	0
08321-21088	LOCK WASHER	0	0	0	0	0	0	320	2880	2880	3480	0	0
08321-21108	LOCK WASHER	0	0	0	0	0	0	0	800	1440	1080	1260	0
08322-11108	WASHER-AXLE	0	0	0	0	0	0	0	1080	1440	1800	1980	0
08322-21068	WASHER	0	0	0	0	0	0	2800	5760	5040	6720	0	0
08322-21088	WASHER-FR	0	0	0	0	0	0	0	0	240	1080	1260	0
08322-21108	WASHER	0	0	0	0	0	0	0	4800	8640	6480	7560	0
08331-31159	CIRCLIP	0	0	0	0	0	0	0	0	720	1080	1380	0
09100-06078	BOLT	0	0	0	0	0	0	0	0	2240	2880	3240	0
09140-10004	BOLT-ABSDRB	0	0	0	0	0	0	0	1600	2880	2160	2520	0
09105-08001	BOLT	0	0	0	0	0	0	3760	5760	5760	6480	0	0
09111-08016	BOLT	0	0	0	0	0	0	0	0	240	1080	1260	0
09134-03101	SCREW	0	0	0	0	0	0	0	160	1440	1440	1740	0
09140-08008	NUT	0	0	0	0	0	0	0	1360	2880	2880	3240	0
09140-16005	NUT	0	0	0	0	0	0	0	0	720	1080	1380	0
09160-05001	WASHER	0	0	0	0	0	0	2320	2880	2880	3480	0	0
09160-12012	WASHER-LOW	0	0	0	0	0	0	0	1600	2880	2160	2520	0
09160-14003	WASHER	0	0	0	0	0	0	0	1600	2880	2160	2520	0
09160-16005	WASHER	0	0	0	0	0	0	0	0	720	1080	1380	0
09169-08011	LOCK WASHER	0	0	0	0	0	0	0	1440	2160	2760	0	0
09108-10091	SPACER	0	0	0	0	0	0	0	800	1440	1080	1260	0
09180-12005	SPACER-RR	0	0	0	0	0	0	0	0	720	1080	1380	0
09180-12084	SPACER-BEAR	0	0	0	0	0	0	0	800	1440	1080	1260	0
09180-17004	SPACER	0	0	0	0	0	0	0	0	720	1080	1380	0

PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 2

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09250-22002	CAP-RSA	0	0	0	0	0	0	0	2080	2880	2160	2640	0
09262-17008	BEARING	0	0	0	0	0	0	0	0	240	1080	1260	0
09280-14003	O-RING	0	0	0	0	0	0	1360	2880	2880	3240	0	0
09284-15001	OIL SEAL	0	0	0	0	0	0	0	0	720	1080	1380	0
09285-25001	OIL SEAL	0	0	0	0	0	0	0	0	720	1080	1380	0
09285-43001	OIL SEAL	0	0	0	0	0	0	0	0	720	1080	1380	0
09319-10043	BUSH-RSA	0	0	0	0	0	0	0	800	1440	1080	1260	0
09320-22001	CUSHION	0	0	0	0	0	0	0	800	1440	1080	1260	0
09443-07001	SPRING	0	0	0	0	0	0	4640	5760	5760	6960	0	0
09448-30009	SPRING	0	0	0	0	0	0	0	800	1440	1080	1260	0
54410-35400	HUB-FR-WHEEL	0	0	0	0	0	0	800	1440	1080	1260	0	0
54210-35400	PANEL-FR-HUB	0	0	0	0	0	0	0	800	1440	1080	1260	0
54410-01010	SHOE-BRAKE	0	0	0	0	0	0	0	3200	5760	4320	5040	0
54441-29303	SHAFT-BR-CAM	0	0	0	0	0	0	0	800	1440	1080	1260	0
54441-35400	SHAFT-BR-CAM	0	0	0	0	0	0	0	800	1440	1080	1260	0
54451-35400	LEVER-BR-CAM	0	0	0	0	0	0	0	800	1440	1080	1260	0
54492-35400	PLATE-BR-LIN	0	0	0	0	0	0	0	1600	2880	2160	2520	0
54611-03601	GEAR(NT-23)	0	0	0	0	0	0	0	800	1440	1080	1260	0
54621-39202	GEAR(NT-9)	0	0	0	0	0	0	0	800	1440	1080	1260	0
54632-01001	OUTER-BUSHER	0	0	0	0	0	0	0	160	1440	1440	1740	0
54661-03000	DRIVER	0	0	0	0	0	0	0	160	1440	1440	1740	0
54711-35400	AXLE-FR	0	0	0	0	0	0	0	800	1440	1080	1260	0
54740-26100	SPACER-AXLE	0	0	0	0	0	0	0	800	1440	1080	1260	0
55100-09400	TIRE-FR	0	0	0	0	0	0	0	0	540	1080	1260	0
55200-01011	TUBE INNER	0	0	0	0	0	0	0	0	540	1080	1260	0
55200-03600	TUBE INNER	0	0	0	0	0	0	0	0	540	1080	1260	0
55261-01010	PROTECTOR	0	0	0	0	0	0	0	0	1080	2160	2520	0
55311-01021	WHEEL RIM	0	0	0	0	0	0	0	800	1440	1080	1260	0
55311-03021	WHEEL RIM	0	0	0	0	0	0	0	800	1440	1080	1260	0
55320-01011	SPOKE SET	0	0	0	0	0	0	0	800	1440	1080	1260	0
61111-35400	RSA-INNER-R	0	0	0	0	0	0	800	1440	1080	1260	0	0
61112-35400	RSA-OUTER-R	0	0	0	0	0	0	800	1440	1080	1260	0	0
61113-35400	RSA-REINF	0	0	0	0	0	0	800	1440	1080	1260	0	0
61114-35010	BOSS-RSA-PIVOT	0	0	0	0	0	0	800	1440	1080	1260	0	0
61114-35400	BOSS-RSA-PIVOT	0	0	0	0	0	0	800	1440	1080	1260	0	0
61115-35400	WASHER	0	0	0	0	0	0	800	1440	1080	1260	0	0

## PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 3

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61121-35400	RSA-INNER-L	0	0	0	0	0	0	0	240	1080	1260	0	0
61122-35401	RSA-OUTER-L	0	0	0	0	0	0	0	240	1080	1260	0	0
61123-35400	RSA-REINF-L	0	0	0	0	0	0	0	240	1080	1260	0	0
61131-01001	PIPE-RSA-JOINT	0	0	0	0	0	0	0	240	1080	1260	0	0
61141-35400	CHAIN CASE-IN	0	0	0	0	0	0	0	240	1080	1260	0	0
61142-35400	CHAIN CASE FR	0	0	0	0	0	0	0	240	1080	1260	0	0
61143-35401	INNER-RR	0	0	0	0	0	0	0	240	1080	1260	0	0
61144-35400	CHAIN CASE-RR	0	0	0	0	0	0	0	240	1080	1260	0	0
61151-03000	PILLION-FOOT	0	0	0	0	0	0	0	240	1080	1260	0	0
61161-35310	SUPPORT	0	0	0	0	0	0	0	240	1080	1260	0	0
61171-35000	BOLT	0	0	0	0	0	0	0	240	1080	1260	0	0
61211-09400	SHAFT RSA	0	0	0	0	0	0	0	0	240	1080	1260	0
61411-35400	ADJUSTER-RH	0	0	0	0	0	0	0	0	240	1080	1260	0
61421-35400	ADJUSTER-LH	0	0	0	0	0	0	0	0	240	1080	1260	0
62100-35400	ABSORBER-RR	0	0	0	0	0	0	0	0	480	2160	2520	0
62211-35700	SPRING	0	0	0	0	0	0	0	0	480	2160	2520	0
64110-35300	DRUM-RR-HUB	0	0	0	0	0	0	0	240	1080	1260	0	0
64210-46002	PANEL-RR-HUB	0	0	0	0	0	0	0	240	1080	1260	0	0
64311-35000	TORGE LINK	0	0	0	0	0	0	0	0	240	1080	1260	0
64451-43020	LEVER-BR-CAM	0	0	0	0	0	0	0	0	240	1080	1260	0
64511-35420	SPROCKET (NT-33)	0	0	0	0	0	0	0	0	240	1080	1260	0
64611-01001	SPROCKET MOUNT	0	0	0	0	0	0	0	0	240	1080	1260	0
64651-01001	ABSORBER-HUB	0	0	0	0	0	0	0	0	240	1080	1260	0
64711-01603	AXLE-RR	0	0	0	0	0	0	0	0	0	0	1180	0
64761-01000	SPROCKET DRUM	0	0	0	0	0	0	0	0	0	0	1180	0
65100-35011	TIRE	0	0	0	0	0	0	0	0	540	1080	1260	0
65320-46730	SPOKE SET	0	0	0	0	0	0	0	0	240	1080	1260	0
04111-30308	COTTER PIN	0	0	0	0	0	0	0	0	0	240	360	0
08113-62040	BEARING	0	0	0	0	0	0	0	0	0	0	360	0
08143-62027	BEARING-LH	0	0	0	0	0	0	0	0	0	0	360	0
08144-63027	BEARING-RH	0	0	0	0	0	0	0	0	0	0	360	0
08319-21128	NUT	0	0	0	0	0	0	0	0	0	0	360	0
08322-11128	WASHER	0	0	0	0	0	0	160	0	1800	1920	0	0
08322-11148	WASHER	0	0	0	0	0	0	0	0	1000	1080	0	0
08331-11189	CIRCLIP	0	0	0	0	0	0	0	0	0	240	360	0
09104-08006	BOLT	0	0	0	0	0	0	0	280	0	720	720	0

PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 4

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
09111-08012	BOLT	0	0	0	0	0	0	0	120	0	360	480	0
09111-08013	BOLT	0	0	0	0	0	0	0	0	0	240	360	0
09141-14001	NUT	0	0	0	0	0	0	0	240	0	360	360	0
09160-10001	WASHER	0	0	0	0	0	0	0	0	240	1440	0	0
09160-10033	WASHER	0	0	0	0	0	0	960	0	1440	1440	0	0
09160-12001	WASHER	0	0	0	0	0	0	0	240	0	360	360	0
09160-14001	WASHER	0	0	0	0	0	0	0	480	0	720	720	0
09160-18002	WASHER	0	0	0	0	0	0	0	320	0	720	720	0
09169-08012	WASHER	0	0	0	0	0	0	0	480	0	720	720	0
09180-10053	SPACER-RH	0	0	0	0	0	0	0	240	0	360	360	0
09180-12032	SPACER	0	0	0	0	0	0	0	240	0	360	360	0
09180-15002	SPACER-RH	0	0	0	0	0	0	0	240	0	360	360	0
09180-15011	SPACER-HUB-BR	0	0	0	0	0	0	0	240	0	360	360	0
09180-15042	SPACER-LH	0	0	0	0	0	0	0	240	0	360	360	0
09284-18001	OIL SEAL	0	0	0	0	0	0	0	240	0	360	360	0
09285-28001	OIL SEAL	0	0	0	0	0	0	0	240	0	360	360	0
09285-48001	OIL SEAL	0	0	0	0	0	0	0	240	0	360	360	0
09319-12018	BUSHING	0	0	0	0	0	0	0	480	0	720	720	0
54110-39100	HUB-FR	0	0	0	0	0	0	240	0	360	360	0	0
54210-39100	PANEL-FR-HUB	0	0	0	0	0	0	240	0	360	360	0	0
54410-07002	SHOE BRAKE	0	0	0	0	0	0	0	960	0	1440	1440	0
54441-29302	CAM BRAKE	0	0	0	0	0	0	0	480	0	720	720	0
54451-46110	LEVER BRAKE	0	0	0	0	0	0	0	0	0	240	360	0
54611-07600	GEAR(NT-26)	0	0	0	0	0	0	0	240	0	360	360	0
54621-27100	PINION(NT-10)	0	0	0	0	0	0	0	240	0	360	360	0
54661-07000	DRIVER	0	0	0	0	0	0	0	0	0	0	200	0
54711-26100	AXLE-FR	0	0	0	0	0	0	0	240	0	360	360	0
54892-39100	COVER	0	0	0	0	0	0	0	240	0	360	360	0
55100-14012	TIRE	0	0	0	0	0	0	0	0	0	240	480	0
55200-11601	TUBE-INNER	0	0	0	0	0	0	0	0	0	360	360	0
55200-14010	TUBE-INNER	0	0	0	0	0	0	0	0	0	360	600	0
55261-14010	PROTECTOR	0	0	0	0	0	0	0	240	0	720	960	0
55300-12825	SPDKE SET	0	0	0	0	0	0	0	240	0	360	360	0
55311-12120	WHEEL RIM	0	0	0	0	0	0	0	240	0	720	960	0
61000-39310	SWING-ARM-RR	0	0	0	0	0	0	0	240	0	360	360	0
61211-39000	SHAFT	0	0	0	0	0	0	0	240	0	360	360	0

PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 5

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
61273-39600	BUFFER	0	0	0	0	0	0	0	240	0	360	360	0
61410-36002	ADJUST-CHAIN	0	0	0	0	0	0	0	80	0	720	720	0
62100-39320	SHOCK-ABSORB	0	0	0	0	0	0	0	80	0	720	720	0
64110-07003	HUB-WHEEL	0	0	0	0	0	0	240	0	360	360	0	0
64210-39110	PANEL-RR-HUB	0	0	0	0	0	0	240	0	360	360	0	0
64310-39000	TORQE LINK	0	0	0	0	0	0	0	240	0	360	360	0
64451-48000	LEVER-BR-CAM	0	0	0	0	0	0	0	240	0	360	360	0
64511-20730	SPROCKET(NT-43)	0	0	0	0	0	0	0	240	0	360	360	0
64611-07000	SPROCKET MOUNT	0	0	0	0	0	0	0	240	0	360	360	0
64651-07001	ABSORB-HUB	0	0	0	0	0	0	0	240	0	360	360	0
64711-48000	AXLE-RR	0	0	0	0	0	0	0	240	0	360	360	0
64733-39100	RETAIN-MOUNT	0	0	0	0	0	0	0	240	0	360	360	0
65100-36011	TIRE	0	0	0	0	0	0	0	240	0	360	360	0
65300-20208	SPOKE SET	0	0	0	0	0	0	0	240	0	360	360	0
08113-62030	BEAR-SPROCK	0	0	0	0	0	0	0	0	0	0	120	0
08143-62010	BEARING-LH	0	0	0	0	0	0	0	0	0	0	120	0
08143-63010	BEARING-RH	0	0	0	0	0	0	0	0	0	0	120	0
08143-63017	BEARING-RH	0	0	0	0	0	0	0	0	0	0	0	0
08310-12108	WASHER	0	0	0	0	0	0	0	0	0	0	120	0
08322-21108	WASHER	0	0	0	0	0	0	0	0	0	0	600	0
09100-06005	BOLT	0	0	0	0	0	0	0	0	0	0	200	0
09100-06007	BOLT	0	0	0	0	0	0	0	0	0	0	120	0
09100-06050	BOLT	0	0	0	0	0	0	0	80	0	0	240	0
09100-06051	BOLT	0	0	0	0	0	0	0	0	0	0	0	0
09100-10046	BOLT	0	0	0	0	0	0	0	0	0	0	80	0
09140-08008	NUT	0	0	0	0	0	0	0	0	0	0	80	0
09140-10012	NUT	0	0	0	0	0	0	0	0	0	0	120	0
09160-12011	WASHER	0	0	0	0	0	0	0	80	0	0	240	0
09160-14001	WASHER	0	0	0	0	0	0	0	0	0	0	240	0
09180-10003	SPACER	0	0	0	0	0	0	0	0	0	0	120	0
09180-10005	SPACER-HUB	0	0	0	0	0	0	0	0	0	0	120	0
09180-12033	SAPCER	0	0	0	0	0	0	0	0	0	0	120	0
09250-22002	CAP-JOINT	0	0	0	0	0	0	0	160	0	720	960	0
09250-30001	CAP CHAIN	0	0	0	0	0	0	0	0	0	0	120	0
09262-17008	BEAR-SPROCK	0	0	0	0	0	0	0	0	0	0	0	0
09280-12001	DUST SEAL	0	0	0	0	0	0	0	80	0	0	240	0



PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 7

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
65100-12110	TIRE	0	0	0	0	0	0	0	0	0	0	120	0
65300-12828	SPOKE SET	0	0	0	0	0	0	0	0	0	0	120	0
01112-06128	BOLT	0	0	0	0	0	0	0	360	0	0	0	0
08113-62010	BALL-BR-RH	0	0	0	0	0	0	0	120	0	0	0	0
08123-63020	BALL-BR-LH	0	0	0	0	0	0	0	120	0	0	0	0
08143-62010	BALL-BR-LH	0	0	0	0	0	0	0	120	0	0	0	0
08143-62020	BALL-BR-RH	0	0	0	0	0	0	0	120	0	0	0	0
08311-11068	NUT	0	0	0	0	0	0	0	240	0	0	0	0
08312-11088	NUT	0	0	0	0	0	0	0	240	0	0	0	0
08313-11107	NUT	0	0	0	0	0	0	480	0	0	0	0	0
08314-31128	NUT	0	0	0	0	0	0	0	120	0	0	0	0
08331-11558	CIRCLIP	0	0	0	0	0	0	0	120	0	0	0	0
08351-31008	NIPPLE	0	0	0	0	0	0	0	120	0	0	0	0
09100-06065	BOLT-ADJUST	0	0	0	0	0	0	0	240	0	0	0	0
09105-08006	BOLT	0	0	0	0	0	0	720	0	0	0	0	0
09111-08015	BOLT	0	0	0	0	0	0	0	120	0	0	0	0
09140-08010	NUT	0	0	0	0	0	0	720	0	0	0	0	0
09140-18001	NUT-CHAIN	0	0	0	0	0	0	0	120	0	0	0	0
09159-12101	NUT	0	0	0	0	0	0	0	120	0	0	0	0
09160-06027	WASHER	0	0	0	0	0	0	0	360	0	0	0	0
09160-12005	WASHER	0	0	0	0	0	0	0	240	0	0	0	0
09169-08013	WASHER	0	0	0	0	0	0	0	360	0	0	0	0
09180-07005	SPACER	0	0	0	0	0	0	0	360	0	0	0	0
09180-12040	SPACER-RH	0	0	0	0	0	0	0	120	0	0	0	0
09180-12041	SPACER-BEAR	0	0	0	0	0	0	0	120	0	0	0	0
09180-15010	SPACER-RH	0	0	0	0	0	0	0	120	0	0	0	0
09280-24001	DUST SEAL	0	0	0	0	0	0	0	240	0	0	0	0
09284-18002	OIL SEAL-BR	0	0	0	0	0	0	0	120	0	0	0	0
09307-10001	BUSH	0	0	0	0	0	0	0	240	0	0	0	0
09320-08007	CUSHION	0	0	0	0	0	0	0	360	0	0	0	0
09384-06001	CLIP	0	0	0	0	0	0	0	240	0	0	0	0
09448-27003	SPRING	0	0	0	0	0	0	0	120	0	0	0	0
54110-28001	HUB-FR-WHEEL	0	0	0	0	0	0	120	0	0	0	0	0
54210-28001	PANEL-FR-BRK	0	0	0	0	0	0	0	120	0	0	0	0
54410-01004	SHOE BRAKE	0	0	0	0	0	0	0	240	0	0	0	0
54410-07001	SHOE BRAKE	0	0	0	0	0	0	0	240	0	0	0	0

PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD 8

PART NO.	PART NAME	PERIOD											
		1	2	3	4	5	6	7	8	9	10	11	12
54441-28001	CAM-FR=BRK	0	0	0	0	0	0	0	240	0	0	0	0
54451-03602	LEVER-BRK-CAM	0	0	0	0	0	0	0	120	0	0	0	0
54611-28000	GEAR	0	0	0	0	0	0	0	120	0	0	0	0
54621-28000	PINION	0	0	0	0	0	0	0	120	0	0	0	0
54711-28000	AXLE-FR	0	0	0	0	0	0	0	120	0	0	0	0
54892-28000	COVER-DUST	0	0	0	0	0	0	0	120	0	0	0	0
55100-25600	TIRE	0	0	0	0	0	0	0	120	0	0	0	0
55200-28030	TUBE-INNER	0	0	0	0	0	0	0	120	0	0	0	0
55261-28030	PROTECTOR	0	0	0	0	0	0	0	120	0	0	0	0
55300-28806	SPOKE SET	0	0	0	0	0	0	0	120	0	0	0	0
55311-17021	RIM-FR-WHEEL	0	0	0	0	0	0	0	120	0	0	0	0
61100-28840	SWING-ARM-RR	0	0	0	0	0	0	120	0	0	0	0	0
61211-28600	SHAFT	0	0	0	0	0	0	120	0	0	0	0	0
61251-28000	SPACER	0	0	0	0	0	0	120	0	0	0	0	0
61262-09200	COVER	0	0	0	0	0	0	240	0	0	0	0	0
61273-28000	BUFFER	0	0	0	0	0	0	120	0	0	0	0	0
61280-28000	SPACER	0	0	0	0	0	0	120	0	0	0	0	0
61310-28000	CHAIN CASE	0	0	0	0	0	0	120	0	0	0	0	0
61410-28001	ADJUST-RH	0	0	0	0	0	0	0	120	0	0	0	0
61420-28001	ADJUST-LH	0	0	0	0	0	0	0	120	0	0	0	0
62100-28600	SHOCK ABSORB	0	0	0	0	0	0	0	240	0	0	0	0
64110-28001	HUB-RR-WHEEL	0	0	0	0	0	0	120	0	0	0	0	0
64210-28002	PANEL	0	0	0	0	0	0	0	120	0	0	0	0
64311-28000	TORGE LINK	0	0	0	0	0	0	0	120	0	0	0	0
64451-28000	LEVER	0	0	0	0	0	0	0	120	0	0	0	0
64511-28000	SPROCKET-RR	0	0	0	0	0	0	0	120	0	0	0	0
64610-28001	SPROCK MOUNT	0	0	0	0	0	0	0	120	0	0	0	0
64650-28000	SHOCK ABSORB	0	0	0	0	0	0	0	720	0	0	0	0
64711-28001	AXLE-RR	0	0	0	0	0	0	0	120	0	0	0	0
64730-28000	SPACER-BEAR	0	0	0	0	0	0	0	120	0	0	0	0
64750-28000	SPACER-LH	0	0	0	0	0	0	0	120	0	0	0	0
64791-28001	SPACER-CHA-LH	0	0	0	0	0	0	0	120	0	0	0	0
65100-28031	TIRE-RR	0	0	0	0	0	0	0	120	0	0	0	0
65200-28030	TUBE	0	0	0	0	0	0	0	120	0	0	0	0
65261-28030	PROTECTOR	0	0	0	0	0	0	0	120	0	0	0	0
65300-28807	SPOKE SET	0	0	0	0	0	0	0	120	0	0	0	0



ภาคผนวก ข

แสดงโปรแกรมคอมพิวเตอร์โดยละเอียด

โปรแกรมที่ 1

การจักษุแพทย์ในสายการผลิตด้วยวิธีของ Hoffman

## โปรแกรมที่ 1 การจัดสมดุลย์ในสายการผลิตด้วยวิธีของ Hoffman

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1 'BIT ON:WIDTH LPRINT 100 :LPRINT CHR$(27);"3":CHR$(20):CHR$(15):LPRINT CHR$(15)
2 REM ***** SAVE : "LB" *****
3 REM HOFFMAN ALGORITHM FOR ASSEMBLY LINE BALANCING
4 REM THIS PROGRAM IS DESIGNED TO READ
5 REM A# - NAME OF THE ASSEMBLY LINE
6 REM JOBS(K1),JOBS(K2) - JOBS(K1) IS THE ELEMENT WHICH MUST
7 REM -PRECEDE ELEMENT IN JOBS(K2)
8 REM ETIME - LIST OF CONSECUTIVE ELEMENTAL TIMES
9 REM CTIME,INVERT , CTIME = CYCLE TIME , INVERT - IF INVERT
10 REM - IS NOT ZERO THEN DO BACKWARD BALANCE
11 REM IF CYCLE TIME IS ZERO ,THE PROGRAM WILL GOTO STOP
12 REM *****
13 DIM MATRIX(50,50),KODE(15,50),JOBS(500),STIME(15),NELEM(14),NCLEM(14),ETIME(50),A$(20)
14 MO = 0
15 LO = 15
16 NO = 0
17 READ A#
18 LPRINT "ASSEMBLY LINE BALANCE FOR "A#
19 FOR N = 1 TO 50
20 FOR M = 1 TO 50
21 MATRIX(M,N) = 0
22 NEXT M
23 NEXT N
24 FOR K = 1 TO 21
25 K1=2*K-1:K2=2*K
26 REM PRECEDENCE RESTRICTIONS LISTED AS
27 REM JOBS(K1) IS ELEMENT WHICH MUST PRECEDE ELEMENT IN JOBS(K2)
28 READ JOBS(K1),JOBS(K2)
29 IF JOBS(K2) = 0 THEN 32 ELSE 30
30 MO = MO + 2
31 NEXT K
32 TETIME = 0
33 REM READ LIST OF CONSECUTIVE ELEMENTAL TIMES
34 FOR K = 1 TO 17
35 READ ETIME(K)
36 IF ETIME(K) = 0 THEN 40 ELSE 37
37 NO = NO + 1
38 REM FORM PRECEDENCE MATRIX
39 NEXT K
40 FOR I = 1 TO MO STEP 2
41 IF JOBS(I) = 0 THEN 45 ELSE 42
42 N = JOBS(I+1)
43 L = JOBS(I)
44 MATRIX(L,N) = 1
45 NEXT I
46 FOR N = 1 TO NO
47 TETIME = TETIME + ETIME(N)

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48 NEXT N
49 MD = MD/2
50 LPRINT "TOTAL ELEMENT TIME":SFC(3);TETIME:SPC(3);"NUMBER OF ELEMENTS IS":NO:SPC(3);"NUMBER OF PRE
DEPENDENCE RESTRICTIONS IS":NO:LPRINT
51 MSUM = 0
52 IREST = 1
53 TBLACK = 0
54 REM READ IN CYCLE TIME AND IF INVERT IS NOT ZERO
55 REM THEN DO BACKWARD BALANCE
56 READ OTIME,INVERT
57 IF OTIME = 0 THEN 172 ELSE 58
58 FOR N = 1 TO LO
59 FOR M = 1 TO MD
60 KODE(N,M) = 0
61 NEXT M
62 NEXT N
63 LOX1 = LO - 1
64 FOR N = 1 TO LOX1
65 STIME(N) = 0
66 NELEM(N) = 0
67 NOLEM(N) = 0
68 NEXT N
69 IF INVERT = 0 THEN 93 ELSE 72
70 REM PREPARE FOR BACKWARD BALANCE OR
71 REM RESTORE MATRIX INITIAL STATE
72 NI = (NO-1)/2
73 NZ = 2
74 NO = NO - 1
75 NO1 = NO + 1
76 FOR J = 1 TO NI
77 FOR I = NZ TO NO
78 MS = MATRIX(I,J)
79 MATRIX(I,J) = MATRIX(NO1-J,NO1-I)
80 MATRIX(NO1-J,NO1-I) = MS
81 NEXT J
82 NO = NO - 1
83 NZ = NZ + 1
84 NEXT I
85 FOR I = 1 TO NI
86 ETS = ETIME(I)
87 ETIME(I) = ETIME(NO1-I)
88 ETIME(NO1-I) = ETS
89 NEXT I
90 IF IREST = 1 THEN 93
91 IF IREST = 2 THEN 51
92 REM FORM FIRST CODE NUMBER IN -KODE(1)
93 FOR L = 1 TO NO

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94 FOR N = 1 TO ND
95 MSUM = MSUM + MATRIX(N,L)
96 NEXT N
97 KODE(1,L) = MSUM
98 MSUM = 0
99 NEXT L
100 REM LABEL MATRIX DIAGONAL
101 NDP = 1
102 FOR N = 1 TO ND
103 MATRIX(N,N) = 16000
104 NEXT N
105 LPRINT CHR$(27);"E";TAB(20);"ASSEMBLY LINE BALANCE"
106 LPRINT TAB(22);"CYCLE TIME";CTIME:LPRINT CHR$(27);"F"
107 LPRINT "-----"
-----
108 LPRINT TAB(2);"STATION";TAB(45);"SELECTED";TAB(95);"SLACK"
109 LPRINT TAB(2);"NUMBER";TAB(45);"ELEMENT";TAB(95);"TIME"
110 LPRINT "-----"
-----
111 STIME(1) = CTIME
112 STIME(LD) = CTIME
113 I = 1
114 N = 1
115 REM SEARCH FOR ZERO IN CODE NUMBER (STEP 1)
116 REM AND SET UP INDEX TO SELECT ELEMENT (STEP 2)
117 FOR J = N TO ND
118 IF KODE(I,J) = 0 THEN 121 ELSE 130
119 REM SUBTRACT ELEMENT TIME FROM REMAINING TIME (STEP 3)
120 REM AND BRANCH (STEP 4)
121 IF STIME(I)-ETIME(J) < 0 THEN 130 ELSE 123
122 REM FORM NEW CODE NUMBER (STEP 5)
123 FOR K = 1 TO ND
124 KODE(I+1,K) = KODE(I,K)-MATRIX(J,K)
125 NEXT K
126 NELEN(I) = J
127 STIME(I+1) = STIME(I)-ETIME(J)
128 I = I + 1
129 REM REPEAT PREVIOUS STEPS (STEP 6)
130 NEXT J
131 IF(I-1) < 0 THEN 171
132 IF(I-1) = 0 THEN 154
133 IF(I-1) > 0 THEN 136
134 REM COMPARE THIS COMBINATION WITH THE BEST PREVIOUS
135 REM ONE (STEP 7) AND BRANCH (STEP 8)
136 IF STIME(LD)-STIME(I) < 0 THEN 148
137 IF STIME(LD)-STIME(I) = 0 THEN 149
138 IF STIME(LD)-STIME(I) > 0 THEN 140

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139 REM NEW IS BETTER THAN OLD (STEP 9A)
140 FOR J = 1 TO NO
141 KODE(LO,J) = KODE(I,J)
142 NEXT J
143 STIME(LO) = STIME(I)
144 LOX1 = LO - 1
145 FOR K = 1 TO LOX1
146 NCLEM(K) = NELEM(K)
147 NEXT K
148 NELEM(I) = 0
149 I = I-1
150 N = NELEM(I) + 1
151 REM REPEAT PROCEDURE (STEP 9)
152 GOTO 117
153 REM LAST COMBINATION HAS BEEN EXAMINED (STEP 9)
154 IF STIME(LO)-CTIME < 0 THEN 158
155 IF STIME(LO)-CTIME = 0 THEN 174
156 IF STIME(LO)-CTIME > 0 THEN 172
157 REM REPLACE FIRST CODE NUMBER (STEP 10)
158 FOR J = 1 TO NO
159 KODE(1,J) = KODE(LO,J)
160 NEXT J
161 IF INVERT = 0 THEN 167 ELSE 162
162 FOR K = 1 TO 14
163 IF NCLEM = 0 THEN 165 ELSE 164
164 NCLEM(K) = NO1 - NCLEM(K)
165 NEXT K
166 REM PRINT THIS STATION RESULTS
167 LPRINT USING"#### " ;NOP;:FOR K = 1 TO 14:LPRINT USING"#####";NCLEM(K);:NEXT K ; LPRINT USING"
  .##";STIME(LO)
168 NOP = NOP + 1
169 TSLACK = TSLACK + STIME(LO)
170 GOTO 111
171 LPRINT " ERROR . I IS MINUS. STIME";STIME
172 END
173 REM PRINT TERMINAL STATEMENT
174 EFF = (1!-(TSLACK/TETIME))*100
175 LPRINT "-----"
176 LPRINT TAB(2);"TOTAL SLACK TIME =" ;TSLACK;TAB(71);"EFFICIENCY =" ;EFF;"PER CENT"
177 LPRINT "-----"
178 FOR N = 1 TO NO
179 MATRIX(N,N) = 0
180 NEXT N
181 IF INVERT = 0 THEN 51 ELSE 182
182 IREST = 2

```

183 GOTO 72  
184 DATA REAR SWINGING ARM LINE  
185 DATA 1.3,1.4,2.3,2.4,3.5,4.5,5.6,6.7,7.8,8.9,9.10,9.11,10.11,11.12,11.13,11.14,12.15,13.15,14.15  
.15,16.16,0  
186 DATA 0.40,0.47,0.19,0.19,0.54,0.33,0.50,0.29,0.40,0.48,0.15,0.28,0.53,0.74,0.73,0.10,0.00  
187 DATA 1.25,0.  
188 DATA 0.0  
189 DATA  
190 END

โปรแกรมที่ 2  
การบันทึกข้อมูลผู้รายการวัสดุ



```

1 LPRINT CHR$(15); : LPRINT CHR$(27);"1";CHR$(10); : LPRINT CHR$(27);"0";CHR$(110);
2 REM ***** SAVE BILL *****
5 DIM PART$(50),TMLF$(50),SECT(50),UNIT(50,10)
10 HOME
20 HTAB 37:VTAB 1 : PRINT "PROGRAM"
30 HTAB 39:VTAB 3 : PRINT "FDR"
40 HTAB 32:VTAB 5 : PRINT "BILL OF MATERIALS"
50 HTAB 10:VTAB 10 : INPUT"NUMBER OF INVENTORY PARTS TO BE CONTROLLED ";NP
55 HTAB 10:VTAB 12 : INPUT"NUMBER OF PRODUCTS TO BE CONTROLLED ";AM
60 HOME
70 LI$="-----"
90 HTAB 30:VTAB 2 : PRINT " BILL OF MATERIALS"
100 HTAB 1:VTAB 4 : PRINT LI$
110 HTAB 1:VTAB 5 : PRINT "
120 HTAB 1:VTAB 6 : PRINT " ORDER PART NO.      PART NAME      SOURCE      SECTION      -----
-----"
130 HTAB 1:VTAB 7 : PRINT "
5 "
140 HTAB 1:VTAB 8 : PRINT LI$
145 O=0
150 FOR I=1 TO NP
160 O=O+1
165 IF O=15 OR O=30 OR O=45 THEN GOSUB 1000
166 K=0
167 HTAB 2:VTAB O+8 : PRINT I
170 HTAB 8:VTAB O+8 : INPUT " ",PART$(I)
175 HTAB 38:VTAB O+8 : INPUT " ",TMLF$(I)
176 HTAB 48:VTAB O+8 : INPUT " ",SECT(I)
180 FOR J=1 TO AM
190 K=K+5
200 HTAB 51+K:VTAB O+8 : INPUT " ",UNIT(I,J)
205 NEXT J
210 NEXT I
220 PRINT LI$
230 REM *****CORRECT DATA*****
240 INPUT "DO YOU WANT TO CORRECT MISTAKE (Y/N)? ",Y$
250 IF Y$="N" THEN 1320
260 PRINT : INPUT "ORDER OF DATA TO BE CORRECTED ? ",P
270 PRINT "TYPE OF DATA TO BE CORRECTED ?"
275 PRINT "NAME OF PARTS.....KEY PART$"
280 PRINT "SOURCE OF PARTS.....KEY TMLF$"
285 PRINT "SECTION.....KEY SECT"
286 PRINT "UNIT 1.....KEY UNIT1"
287 PRINT "UNIT 2.....KEY UNIT2"
288 PRINT "UNIT 3.....KEY UNIT3"
289 PRINT "UNIT 4.....KEY UNIT4"
290 PRINT "UNIT 5.....KEY UNIT5"
310 INPUT " ",T$
320 IF T$="PARTS$" THEN 350
321 IF T$="TMLF$" THEN 351
322 IF T$="SECT" THEN 352
323 IF T$="UNIT1" THEN 353
324 IF T$="UNIT2" THEN 354
325 IF T$="UNIT3" THEN 355

```

```

330 IF T$="UNIT4" THEN 360
340 IF T$="UNIT5" THEN 370
350 INPUT "CORRECTED VALUE ".C$:PART$(P)=C$ : GOTO 380
351 INPUT "CORRECTED VALUE ",C$:TMLF$(P)=C$ : GOTO 380
352 INPUT "CORRECTED VALUE ".C :SECT(P) =C : GOTO 380
353 INPUT "CORRECTED VALUE ".C :UNIT(P,1)=C : GOTO 380
354 INPUT "CORRECTED VALUE ".C :UNIT(P,2)=C : GOTO 380
355 INPUT "CORRECTED VALUE ".C :UNIT(P,3)=C : GOTO 380
360 INPUT "CORRECTED VALUE ".C :UNIT(P,4)=C : GOTO 380
370 INPUT "CORRECTED VALUE ".C :UNIT(P,5)=C : GOTO 380
380 INPUT "ANOTHER CORRECTION (Y/N) ?",Y$
390 IF Y$="Y" THEN 260
400 GOTO 1320
1000 HOME
1005 O=0
1010 PRINT LI$
1020 HTAB 1:VTAB 3 : PRINT "
1030 HTAB 1:VTAB 4: PRINT " ORDER PART NO. PART NAME SOURCE SECTION PRODUCT"
-----"
1040 HTAB 1:VTAB 5 : PRINT "
5 "
1050 HTAB 1:VTAB 6 : PRINT LI$
1070 RETURN
1320 REM *****CREATING SEQUENTIAL FILE*****
1330 HOME:INPUT "FILE NAME ",CD$
1340 OPEN "O",#2,CD$
1350 PRINT #2,NP
1355 PRINT #2,AM
1360 FOR I=1 TO NP
1370 PRINT #2,PART$(I)
1380 PRINT #2,TMLF$(I)
1390 PRINT #2,SECT(I)
1400 FOR J=1 TO AM
1410 PRINT #2,UNIT(I,J)
1420 NEXT J
1430 NEXT I
1440 CLOSE #2
1450 HOME
1460 PRINT "FILING IS COMPLETED"
1470 HTAB 10:VTAB 12 : INPUT"DO YOU WANT TO START ANOTHER FILE (Y/N) ?",Y$
1480 IF Y$="Y" THEN 10
10000 END

```

โปรแกรมที่ 3  
การพิมพ์ข้อมูลผู้รายการวัสดุ



โปรแกรมที่ 4

การบันทึกขัญจำนวนที่อยู๋ในเฝื่อนและจำนวนที่จะได้รับตามกำหนด

```

1 LPRINT CHR$(15); : LPRINT CHR$(27);"1";CHR$(10); : LPRINT CHR$(27);"0";CHR$(110);
2 REM ***** SAVE CURRENT *****
5 DIM ONHAND(50),ONORD(50,12)
10 HOME
20 HTAB 37 :VTAB 1 : PRINT "PROGRAM"
30 HTAB 39 :VTAB 3 : PRINT "FOR"
40 HTAB 23 :VTAB 5 : PRINT "CURRENT ONHAND & SCHEDULE RECEIPTS"
50 HTAB 10 :VTAB 10: INPUT "NUMBER OF INVENTORY PARTS TO BE CONTROLLED ";NP
55 HTAB 10 :VTAB 12: INPUT "NUMBER OF PERIOD IN THE PLANNING HORIZON ";NT
60 HOME
70 LI$="-----"
80 PRINT LI$
90 HTAB 1 :VTAB 3 : PRINT "                                SCHEDULE RECEIPTS"
100 HTAB 1 :VTAB 4 : PRINT "ORDER ONHAND -----"
-----"
110 HTAB 1 :VTAB 5 : PRINT "                                PERIOD "
120 HTAB 1 :VTAB 6 : PRINT "                                1   2   3   4   5   6   7   8   9  10
11  12"
130 PRINT LI$
140 O=0
150 FOR I=1 TO NP
160 O=O+1
165 IF O=15 OR O=30 OR O=45 THEN GOSUB 1000
166 K=0
170 HTAB 2 :VTAB O+7 : PRINT I
175 HTAB 6+K :VTAB O+7 : INPUT " ",ONHAND(I)
180 FOR J=1 TO NT
190 K=K+6
200 HTAB 7+K:VTAB O+7 : INPUT " ".ONORD(I,J)
205 NEXT J
210 NEXT I
220 PRINT LI$
230 REM *****CORRECT DATA*****
240 INPUT "DO YOU WANT TO CORRECT MISTAKE (Y/N)? ",Y$
250 IF Y$="N" THEN 1320
260 PRINT :INPUT "ORDER OF DATA TO BE CORRECTED ? ",P
270 PRINT "TYPE OF DATA TO BE CORRECTED ?"
280 PRINT "ONHAND.....KEY ONHAND"
281 PRINT "ONORD1.....KEY ONORD1"
282 PRINT "ONORD2.....KEY ONORD2"
283 PRINT "ONORD3.....KEY ONORD3"
284 PRINT "ONORD4.....KEY ONORD4"
285 PRINT "ONORD5.....KEY ONORD5"
290 PRINT "ONORD6.....KEY ONORD6"
291 PRINT "ONORD7.....KEY ONORD7"
292 PRINT "ONORD8.....KEY ONORD8"
293 PRINT "ONORD9.....KEY ONORD9"
294 PRINT "ONORD10.....KEY ONORD10"
295 PRINT "ONORD11.....KEY ONORD11"
296 PRINT "ONORD12.....KEY ONORD12"
310 INPUT " ",T$
320 IF T$="ONHAND" THEN 350
321 IF T$="ONORD1" THEN 351
322 IF T$="ONORD2" THEN 352

```

```

323 IF T$="ONORD3" THEN 353
324 IF T$="ONORD4" THEN 354
325 IF T$="ONORD5" THEN 355
330 IF T$="ONORD6" THEN 360
331 IF T$="ONORD7" THEN 361
332 IF T$="ONORD8" THEN 362
333 IF T$="ONORD9" THEN 363
334 IF T$="ONORD10" THEN 364
335 IF T$="ONORD11" THEN 365
336 IF T$="ONORD12" THEN 366
350 INPUT "CORRECTED VALUE ",C:ONHAND(P)=C : GOTO 380
351 INPUT "CORRECTED VALUE ",C:ONORD(P,1)=C : GOTO 380
352 INPUT "CORRECTED VALUE ",C:ONORD(P,2)=C : GOTO 380
353 INPUT "CORRECTED VALUE ",C:ONORD(P,3)=C : GOTO 380
354 INPUT "CORRECTED VALUE ",C:ONORD(P,4)=C : GOTO 380
355 INPUT "CORRECTED VALUE ",C:ONORD(P,5)=C : GOTO 380
360 INPUT "CORRECTED VALUE ",C:ONORD(P,6)=C : GOTO 380
361 INPUT "CORRECTED VALUE ",C:ONORD(P,7)=C : GOTO 380
362 INPUT "CORRECTED VALUE ",C:ONORD(P,8)=C : GOTO 380
363 INPUT "CORRECTED VALUE ",C:ONORD(P,9)=C : GOTO 380
364 INPUT "CORRECTED VALUE ",C:ONORD(P,10)=C : GOTO 380
365 INPUT "CORRECTED VALUE ",C:ONORD(P,11)=C : GOTO 380
366 INPUT "CORRECTED VALUE ",C:ONORD(P,12)=C : GOTO 380
380 INPUT "ANOTHER CORRECTION (Y/N) ?",Y$
390 IF Y$="Y" THEN 260
400 GOTO 1320
1000 HOME
1005 D=0
1010 PRINT LI$
1020 HTAB 1:VTAB 2 : PRINT "
1025 HTAB 1:VTAB 3 : PRINT "ORDER ONHAND -----"
-----"
1030 HTAB 1:VTAB 4 : PRINT "
1040 HTAB 1:VTAB 5 : PRINT "          1   2   3   4   5   6   7   8   9  10
11  12"
1060 PRINT LI$
1070 RETURN
1320 REM *****CREATING SEQUENTIAL FILE*****
1330 HOME : INPUT "FILE NAME ",C$
1340 OPEN "O",#1,C$
1350 PRINT #1,NP
1355 PRINT #1,NT
1360 FOR I=1 TO NP
1370 PRINT #1,ONHAND(I)
1375 FOR J=1 TO NT
1380 PRINT #1,ONORD(I,J)
1390 NEXT J
1400 NEXT I
1410 CLOSE #1
1420 HOME
1425 PRINT "FILING IS COMPLETED"
1430 HTAB 10 :VTAB 12 : INPUT"DO YOU WANT TO START ANOTHER FILES (Y/N) ?",Y$
1450 IF Y$="Y" THEN 10
10000 END

```

## โปรแกรมที่ 5

การพิมพ์ชญาจำนวนที่มีอยู่ในเมื่อและจำนวนที่จะได้รับตามกำหนด



```

1 LPRINT CHR$(15); : LPRINT CHR$(27);"1"CHR$(10);
2 REM ***** SAVE REON *****
10 REM **PROGRAM TO RETRIEVE CURRENT ONHAND AND SCHEDULE RECEIPTS DATA **
20 HOME
30 DIM PART$(50),ONHAND(50),ONORD(50,12)
40 HTAB 15 :VTAB 3 : PRINT "*****"
50 HTAB 15 :VTAB 4 : PRINT "    RETRIEVE ONHAND & SCHEDULE RECEIPT DATA    "
60 HTAB 15 :VTAB 5 : PRINT "*****"
70 HTAB 2:VTAB 10 : INPUT "ENTER FILE NAME(ONHAND)  ",F$
80 FF$=F$
90 OPEN "I",#1,FF$
100 INPUT #1,NP
105 INPUT #1,NT
110 FOR I=1 TO NP
120 INPUT #1,ONHAND(I)
130 FOR J=1 TO NT
140 INPUT #1,ONORD(I,J)
150 NEXT J
160 NEXT I
165 CLOSE #1
180 REM ****SUBROUTINE PRINT OUT DATA****
190 E$="-----"
194 HTAB 2:VTAB 15 : INPUT "ORDER OF FILE NAME";OD$
200 LPRINT CHR$(27);"W";CHR$(1);
205 LPRINT TAB(9) "CURRENT ONHAND & SCHEDULE RECEIPTS"; : LPRINT TAB(45);OD$;
206 LPRINT CHR$(27);"W";CHR$(0)
207 LPRINT
210 LPRINT E$
220 LPRINT "ORDER";SPC(10)"ONHAND";SPC(31)"SCHEDULE RECEIPTS"
230 LPRINT TAB(58)"PERIOD"
240 LPRINT TAB(21)
250 FOR I=1 TO NT
260 LPRINT USING"  ##";I;
265 NEXT I
270 LPRINT E$
280 FOR I=1 TO NP
281 LPRINT TAB(2);I;
285 OT$ = STR$(ONHAND(I))
290 LPRINT TAB(15);
300 LPRINT SPC(6-LEN(OT$))OT$;
310 FOR J=1 TO NT
315 ORT$ = STR$(ONORD(I,J))
320 LPRINT SPC(6-LEN(ORT$))ORT$;
330 NEXT J
340 NEXT I
350 LPRINT E$
360 CLOSE : END

```

โปรแกรมที่ 6  
การวางแผนการใช้วัสดุ

```

1 LPRINT CHR$(15); ; LPRINT CHR$(27);"1";CHR$(10);
2 LPRINT CHR$(27);"B";CHR$(110);
10 HOME
20 REM =====
30 REM ===== MATERIAL REQUIREMENT PLANNING =====
40 REM =====
50 REM
60 DIM ENG$(5),QUANT(5,12),GROSS(36,12),ONORD(36,12),UNIT(36,5),ONHAND(36)
70 DIM PART$(36),NETREQ(36,12),TMLF$(36),SECT(36),LTS(5),POC(36,24),POR(36,24)
80 H = 10 : L = 4
84 NS=5 : LTS(1)=1 : LTS(2)=3 : LTS(3)=2 : LTS(4)=1 : LTS(5)=1
85 AM=5 : NP=36 : NT=12 : LTF=36 : SLTF=7 : LTL=17 : SLTL=7
86 GOTO 210
90 HTAB 20:VTAB 2:PRINT "***** MATERIAL REQUIREMENT PLANNING *****"
100 HTAB H:VTAB L:INPUT "          NUMBER OF PRODUCTS TO BE CONTROLLED ";AM
110 HTAB H:VTAB L+1:INPUT " NUMBER OF INVENTORY PARTS TO BE CONTROLLED ";NP
120 HTAB H:VTAB L+2:INPUT " NUMBER OF PERIOD IN THE PLANNING HORIZON ";NT
130 HTAB H:VTAB L+4:INPUT "          LEAD TIME FOR FOREIGN PARTS (days) ";LTF
140 HTAB H:VTAB L+5:INPUT " SAFETY LEAD TIME FOR FOREIGN PARTS (days) ";SLTF
150 HTAB H:VTAB L+7: INPUT "          LEAD TIME FOR LOCAL PARTS (days) ";LTL
160 HTAB H:VTAB L+8:INPUT " SAFETY LEAD TIME FOR LOCAL PARTS (days) ";SLTL
170 HTAB H:VTAB L+10:INPUT " NUMBER OF SECTIONS TO BE INCREASED LEAD TIME ";NS
180 FOR I=1 TO NS
190 HTAB H:VTAB L+11+I:PRINT "          INCREASED LEAD TIME FOR SECTION ";I;:INPUT LTS(I)
200 NEXT I
210 REM ----- READ DATA -----
220 FOR I=1 TO AM : READ ENG$(I) : NEXT I
230 FOR I=1 TO AM : FOR J=1 TO NT : READ QUANT(I,J) : NEXT J : NEXT I
234 HOME
235 HTAB 2:VTAB 5 : INPUT "ENTER FILE NAME (BILL) " ,B$
240 BB$=B$
245 OPEN "1",#2,BB$
250 INPUT #2,NP
255 INPUT #2,AM
260 FOR I=1 TO NP
265 INPUT #2,PART$(I)
266 INPUT #2,TMLF$(I)
267 INPUT #2,SECT(I)
268 FOR J=1 TO AM
269 INPUT #2,UNIT(I,J)
270 NEXT J : NEXT I
271 CLOSE #2
272 HTAB 2:VTAB 10 : INPUT "ENTER FILE NAME(ONHAND) " ,F$
273 FF$=F$
274 OPEN "1",#1,FF$
275 INPUT #1,NP
276 INPUT #1,NT
277 FOR I=1 TO NP
278 INPUT #1,ONHAND(I)
279 FOR J=1 TO NT
280 INPUT #1,ONORD(I,J)
281 NEXT J : NEXT I
282 CLOSE #1

```

```

283 HTAB 2:VTAB 15 : INPUT"ORDER OF FILE NAME";OD$
285 HOME
286 HTAB 2:VTAB 5 : INPUT "DO YOU WANT TO PRINT PRODUCTION SCHEDULE (Y/N)? ",Y$
287 IF Y$="N" THEN 560
290 LPRINT CHR$(27);"W";CHR$(1) : LPRINT TAB(12)"MASTER PRODUCTION SCHEDULE"
295 LPRINT CHR$(27);"W";CHR$(0)
296 LPRINT
300 A$="-----"
    "-"
305 D$="-----"
310 LPRINT A$
320 LPRINT TAB(51)"QUANTITY"
330 LPRINT "PRODUCT"; : LPRINT D$
340 LPRINT TAB(52)"PERIOD"
350 LPRINT TAB(15) " ";
355 FOR I=1 TO NT : LPRINT USING"  ##";I; : NEXT I
360 LPRINT A$
370 FOR I=1 TO AM
390 LPRINT ENG$(I); : LPRINT TAB(16);
400 FOR J=1 TO NT
410 GT$ = STR$(QUANT(I,J))
420 LPRINT SPC(6-LEN(GT$))GT$;
430 NEXT J : LPRINT : NEXT I
440 LPRINT A$
560 REM ----- DETERMINATION OF GROSS REQUIREMENT -----
570 FOR I=1 TO NP
580 FOR J=1 TO NT
590 SUM = 0
600 FOR K=1 TO AM
610 AMOUNT = QUANT(K,J)*UNIT(I,K)
620 SUM = SUM+AMOUNT
630 NEXT K : GROSS(I,J) = SUM : NEXT J : NEXT I
632 B$="-----"
    -----"
636 HTAB 2:VTAB 7 : INPUT "DO YOU WANT TO PRINT GROSS REQUIREMENT (Y/N)? ",Y$
637 IF Y$="N" THEN 860
640 LPRINT CHR$(27);"W";CHR$(1); : LPRINT TAB(20)"GROSS REQUIREMENT";
641 LPRINT TAB(39);OD$;
642 LPRINT CHR$(27);"W";CHR$(0)
645 LPRINT
650 LPRINT B$
660 LPRINT TAB(64)"PERIOD"
670 LPRINT "PART NO.    PART NAME -----"
    -----"
675 LPRINT TAB(29);
680 FOR I=1 TO NT : LPRINT USING"  ##";I; : NEXT I
690 LPRINT B$
700 FOR I=1 TO NP : LPRINT PART$(I); : LPRINT TAB(28)" ";
710 FOR J=1 TO NT
720 GT$ = STR$(GROSS(I,J))
730 LPRINT SPC(6-LEN(GT$))GT$;
740 NEXT J : LPRINT : NEXT I
750 LPRINT B$

```

```

860 REM ----- COMPUTATION OF NET REQUIREMENT -----
870 FOR I=1 TO NP
880 OH = ONHAND(I)
890 FOR J=1 TO NT
900 IF J >= 2 THEN 960
910 AVAIL = OH+ONORD(I,J)
920 NØ = GROSS(I,J)-AVAIL
930 IF NØ < 0 THEN 990
940 NETREQ(I,J) = NØ
950 GOTO 1000
960 IF NØ > 0 THEN OH = 0
970 IF NØ <= 0 THEN OH = -NØ
980 GOTO 910
990 NETREQ(I,J) = 0
1000 NEXT J
1010 NEXT I
1015 HTAB 2:VTAB 9 : INPUT "DO YOU WANT TO PRINT NET REQUIREMENT (Y/N)? ".Y$
1016 IF Y$="N" THEN 1120
1020 LPRINT CHR$(27);"W";CHR$(1);
1025 LPRINT TAB(22)"NET REQUIREMENT"; : LPRINT TAB(40);OD$;
1030 LPRINT CHR$(27);"W";CHR$(0)
1032 LPRINT
1035 LPRINT B$
1040 LPRINT TAB(64)"PERIOD"
1050 LPRINT"PART NO.    PART NAME -----
-----"
1060 LPRINT TAB(29);
1070 FOR I=1 TO NT : LPRINT USING"  ##";I; : NEXT I
1075 LPRINT B$
1080 FOR I=1 TO NP : LPRINT PART$(I); : LPRINT TAB(28)" ";
1090 FOR J=1 TO NT : NT$ = STR$(NETREQ(I,J)) : LPRINT SPC(6-LEN(NT$))NT$;
1110 NEXT J : LPRINT : NEXT I
1115 LPRINT B$
1120 REM ----- PLANNED ORDER RELEASE CALCULATION -----
1130 REM ----- AND -----
1140 REM ----- PLANNED ORDER RECEIPT CALCULATION -----
1150 FOR I=1 TO NP
1160 FOR J=1 TO 2*NT
1170 POR(I,J) = 0
1180 POC(I,J) = 0
1190 NEXT J : NEXT I
1200 FOR I=1 TO NP
1210 FOR J=1 TO NT
1220 IF NETREQ(I,J) <= 0 THEN 1400
1230 IF TMLF$(I) = "L" THEN 1325
1240 IF TMLF$(I) <> "F" THEN PRINT " *** code type of resource part ";I;" ERROR ":END
1245 MLT=0
1250 FOR K=1 TO NS
1255 MLT=MLT+LTS(K)
1260 IF SECT(I) <> K THEN 1310
1270 T = INT(J-((LTF+SLTF+MLT)/7)+.5)
1280 T1 = INT(J-((SLTF+MLT)/7)+.5)
1290 POR(I,12+T) = NETREQ(I,J)

```



```

1300 POC(I,12+T1) = NETREG(I,J)
1310 NEXT K
1320 GOTO 1400
1325 MLT=0
1330 FOR K=1 TO NS
1335 MLT=MLT+LTS(K)
1340 IF SECT(I) <> K THEN 1390
1350 T = INT(J-((LTL+SLTL+MLT)/7)+.5)
1360 T1 = INT(J-((SLTL+MLT)/7)+.5)
1370 POR(I,12+T) = NETREG(I,J)
1380 POC(I,12+T1) = NETREG(I,J)
1390 NEXT K
1400 NEXT J : NEXT I
1410 REM ----- REORDER POINT RELEASE BEFORE THIS PLANNING PERIOD -----
1415 LPRINT CHR$(27);"W";CHR$(1);
1420 LPRINT TAB(1)"PLANNED ORDER RELEASE BEFORE PLANNING PERIOD";
1421 LPRINT TAB(50);OD$;
1425 LPRINT CHR$(27);"W";CHR$(0)
1426 LPRINT
1430 LPRINT B$
1440 LPRINT TAB(64)"PERIOD"
1450 LPRINT"PART NO.    PART NAME -----"
-----"
1455 LPRINT TAB(29);
1460 FOR I=1 TO NT : LPRINT USING"   ##";I; : NEXT I
1470 LPRINT B$
1480 FOR I=1 TO NP : LPRINT PART$(I); : LPRINT TAB(28)" ";
1490 FOR J=1 TO NT : PR$ = STR$(POR(I,J)) : LPRINT SPC(6-LEN(PR$))PR$;
1500 NEXT J : LPRINT : NEXT I
1510 LPRINT B$
1511 HTAB 2:VTAB 11: INPUT "DO YOU WANT TO PRINT ORDER RELEASE (Y/N)? ",Y$
1512 IF Y$="N" THEN 1615
1515 LPRINT CHR$(27);"W";CHR$(1)
1520 LPRINT TAB(1)"PLANNED ORDER RELEASE FOR THIS PLANNING PERIOD";
1521 LPRINT TAB(50);OD$;
1525 LPRINT CHR$(27);"W";CHR$(0)
1526 LPRINT
1530 LPRINT B$
1540 LPRINT TAB(64)"PERIOD"
1550 LPRINT"PART NO.    PART NAME -----"
-----"
1555 LPRINT TAB(29);
1560 FOR I=1 TO NT : LPRINT USING"   ##";I; : NEXT I
1570 LPRINT B$
1580 FOR I=1 TO NP : LPRINT PART$(I); : LPRINT TAB(28)" ";
1590 FOR J=NT+1 TO 2*NT : PR$=STR$(POR(I,J)) : LPRINT SPC(6-LEN(PR$))PR$;
1600 NEXT J : LPRINT : NEXT I
1610 LPRINT B$
1620 HOME : VTAB 5 : HTAB 15 : PRINT " PLANNED ORDER RECIEPT BEFORE THIS PLANNED PERIOD "
1630 VTAB 7:PRINT "-----"
1640 VTAB 8:PRINT "                                PERIOD"
1650 VTAB 9:PRINT "PART NO.  PART NAME -----"
-----"

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```

1660 VTAB 10:PRINT "
1670 VTAB 11:PRINT "=====
1680 FOR I=1 TO NP : PT$ = LEFT$(PART$(I),18) : PRINT PT$;TAB(20);
1690 FOR J=1 TO NT : PC$ = STR$(POC(I,J)) : PRINT SPC(5-LEN(PC$))PC$;
1700 NEXT J : NEXT I
1710 PRINT "===== : INPUT
" Wait ";A
1711 HTAB 2:VTAB 13 : INPUT "DO YOU WANT TO PRINT ORDER RECEIPTS (Y/N)? ",Y$
1712 IF Y$="N" THEN 1820
1715 LPRINT CHR$(27);"W";CHR$(1);
1720 LPRINT TAB(1)"PLANNED ORDER RECEIPTS FOR THIS PLANNING PERIOD";
1721 LPRINT TAB(50);OD$;
1725 LPRINT CHR$(27);"W";CHR$(0)
1726 LPRINT
1730 LPRINT B$
1740 LPRINT TAB(64)"PERIOD"
1750 LPRINT"PART NO. PART NAME -----
-----"
1755 LPRINT TAB(29);
1760 FOR I=1 TO NT : LPRINT USING" ##";I ; : NEXT I
1770 LPRINT B$
1780 FOR I=1 TO NP : LPRINT PART$(I); : LPRINT TAB(28)" ";
1790 FOR J=NT+1 TO 2*NT : PC$ = STR$(POC(I,J)) : LPRINT SPC(6-LEN(PC$))PC$;
1800 NEXT J : LPRINT : NEXT I
1810 LPRINT B$
1820 CLEAR : HOME : VTAB 10 : HTAB 15 : INPUT " Do you want to RECALCULATION (Y/N) ";CHECK$
1830 IF CHECK$ <> "Y" THEN 1850
1840 GOTO 10
1850 HOME:VTAB 8:HTAB 21 : PRINT " PROGRAM COMPLETE"
1860 VTAB 10:HTAB 15: PRINT " ::::::::::: COMPUTER ! THANK A LOT ::::::::::: "
1870 VTAB 12:HTAB 15: PRINT " GOOD BYE "
1880 REM -----
1890 REM ----- DATA FORMAT -----
1900 REM -----
1910 REM
1920 REM ===== NAME OF PRODUCTS =====
1930 DATA Y80 ,RX100,DX100,DT100,DT120
1940 REM
1950 REM ===== MASTER PRODUCTION SCHEDULE (QUANTITY) =====
1960 DATA 1080,1260,1080,1260,1080,1440,1260,1260,1080,1440,1080,1260,480,360,360,360,0,240,240,
240,0,360,360,0,0,120,0,0,0,120,
0,0,0,0,120,0,0,0,120,0,0,0,120,0,0,0,0,0,0,0,0,120,0,0,0,120,0,0,0
2100 REM -----
2110 REM ----- END OF DATA -----
2120 REM -----

```

## ประวัติผู้เขียน

นายวิศิษฎ์ โล่เจริญรัตน์ เกิดวันที่ 9 สิงหาคม พ.ศ. 2496 ที่อำเภอศรีนครินทร์ จังหวัดสุรินทร์ ใ้รับการศึกษาคณะวิศวกรรมศาสตร์ สถาบันเทคโนโลยีพระจอมเกล้า วิทยาเขตขอนแก่น เมื่อปี พ.ศ. 2515 และสำเร็จการศึกษาวิศวกรรมศาสตรบัณฑิต สาขา วิศวกรรมอุตสาหกรรม ในปี พ.ศ. 2520

พ.ศ. 2520 เข้ารับราชการในตำแหน่งอาจารย์ 1 ระดับ 3 ประจำแผนกวิชาช่างโลหะ คณะวิชาช่างกล วิทยาลัยเทคโนโลยีและอาชีวศึกษา วิทยาเขตเทคนิคภาคตะวันออกเฉียงเหนือ นครราชสีมา

พ.ศ. 2524 - ปัจจุบัน ปฏิบัติราชการในตำแหน่งอาจารย์ 1 ระดับ 4 ประจำแผนกวิชาช่างโลหะ คณะวิชาเทคนิคการผลิต วิทยาลัยเทคโนโลยีและอาชีวศึกษา วิทยาเขตเทคนิคภาคตะวันออกเฉียงเหนือ นครราชสีมา

