Coverdrive Ltd

Case Study, Overhead Recovery

When John Thistle, the management accountant, joined Coverdrive one of his early projects was a review of the treatment of production overhead and the impact of ABC – Activity Based Costing.

Prior to John's appointment a single overhead recovery rate had been used for the charging of production overhead to the company's range of products.

In a recent meeting with Steve Ambrose, the MD, John discussed the need for separate overhead recovery rates for each producing cost centre.

John had prepared a number of schedules based on the current year's budget. These illustrate the procedure of allocation of apportionment of overhead to the expense centres and the use of this process in determining the recovery rates for each.

John had identified the following cost centres:

Schedule 1

10	Machining
20	Finishing
30	Packing
40	Maintenance
50	Stores
60	Production Control and Inspection
70	Canteen
80	Building occupancy costs

(for all costs associated with the building)

Schedule 2

130.00	Production Overheads
01	Indirect Material
02	Indirect Labour
03	Employers NI
04	Employer's Pension Contribution
05	Repairs and Maintenance (Plant)
06	Repairs and Maintenance (Buildings)
07	Depreciation Plant
08	Depreciation Buildings
09	Small Tools and Consumables
10	Insurance Plant
11	Insurance Buildings
12	Rent and Rates
13	Heat and Light
14	Power
15	Workshop Administration

Schedule 3 Budgeted Production Overhead

	£
01	25,500
02	95,000
03	97,700
04	58,620
05	40,000
06	9,375
07	210,000
08	20,000
09	5,750
10	13,125
11	10,000
12	18,275
13	10,100
14	75,500
15	3,200
	£692,145

Budget Manual Data

Cost Centre	Machining	Finishing	Packing	Mainten-ance	Stores	Production Control	Canteen
Number of employees	23	21	15	2	2	3	2
Direct wages (£)	352,800	308,700	220,500				
Indirect wages (£)				25,000	24,500	37,500	8,000
Employers NI 10% of wages							
Pension contribution 6% of wages							
Plant and equipment values (£)	900,000	600,000	200,000	300,000	90,000	-	10,000
Indirect materials (£)	7,750	5,500	8,500	2,500	100	750	400
Area occupied (sq metres)	937	750	313	250	275	50	50
Repairs to plant (£)	18,000	10,000	4,000	6,200	1,000	-	800
Direct labour hours	55,200	50,400	36,000				
Machine hours	55,200	50,400	12,000				
Maintenance hours	3,250	1,000	550				
Ratio of power consumption	60	30	9	-	-	-	1
Estimated stores requisitions	5,500	4,375	2,250	1,000	-	100	100

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Overhead Analysis Sheet

	Overhead	Total	Basis	M'c	FIN	Pack	Maint	Store	Prod Cont	Can	Build Occ
01	Indirect material	25500	Allocated	7750	5500	8500	2500	100	750	400	-
02	Indirect labour	95000	Allocated	-	-	-	25000	24500	37500	8000	-
03	Employer's NI	97700	Total wages	35280	30870	22050	2500	2450	3750	800	-
04	Pension	58620	"	21168	18522	13230	1500	1470	2250	480	-
05	Plant repairs	40000	Allocated	18000	10000	4000	6200	1000	-	800	-
06	Building repairs	9375	Build Occ								9375
07	Depreciation (Plant)	210000	10% SL	90000	60000	20000	30000	9000	-	1000	
08	Depreciation (Build)	20000	Build Occ								20000
09	Consumables	5750	DL Hrs	2242	2047	1461					
10	Insurance Plant	13125		5625	3750	1250	1875	563	-	62	
11	Insurance buildings	10000	Build Occ								10000
12	Rent/rates	18275	"								18275
13	Heat and light	10100	"								10100
14	Power	75500	Ratio Cons	45300	22650	6795	-	-	-	755	-
15	Workshop admin	3200	No of Emp	1247	1139	814					
		692145		226612	154478	78100	69575	39083	44250	12297	67750
											(67750)
Re-apportionment Build Occ			Area	24184	19357	8078	6452	7098	1290	1291	-
										13588	
Re-apportionment Canteen			No of Emp	4735	4323	3088	412	412	618	(13588)	
									46158	-	
Re-apportionment Prod Control			No of Emp	17994	16429	11735			(46158)		
								46593	-		
Re-apportionment Stores			Stores Req	19525	15531	7987	3550	(46593)			
							79989	-			
Re-apportionment maintenance			Maint hrs	54159	16664	9166	(79989)				
				£347209	£226782	£118154	-				

Production Overhead Recovery Rates per Cost Centre

Machining on the basis of machine hours

$$\frac{£347209}{55200}$$

= £6.29 per machine hour

Finishing on basis of machine hours

$$\frac{£226782}{50400} = £4.50 \text{ per machine hour}$$

Packing on the basis of labour hours

$$\frac{£118154}{36000} = £3.28 \text{ per direct labour hour}$$

The previous recovery rate had been established for the factory as a whole and would have been:

$$\frac{£692145}{141600} = £4.88 \text{ per direct labour hour}$$

The individual rates are in the range £3.28 ⟶ £6.29

Compared with £4.88 for the blanket rate.