TERRIFIC TENNIS BALLS

JOURNAL ENTRIES

Entry	Transaction	Debit	Credit
OPERATIONS			
1.	Accounts receivable	165,600	
	Sales		165,600
	A/R: 33,120 units × 50% × $10 = $165,600		
2.	Accounts receivable	21,528	
	Sales tax payable		21,528
	Sales tax payable: $165,600 × 13% = $21,528		
MANUFACTURING INVENTORY			
3.	WIP (FOH)	7,650	
	Depreciation expense	1,350	
	Accumulated depreciation, building		9,000
	Production area: 2,500 sq. ft. − 200 sq. ft. − 175 sq. ft. = 2,125 sq. ft.		
	WIP allocation rate: 2,125 sq. ft. ÷ 2,500 sq. ft. = 85%		
	Total depreciation: ($200,000 − $20,000) ÷ 20 years = $9,000		
	WIP (FOH): $9,000 × 85% = $7,650		
	No transaction for payment of property taxes ($6,000).		
4.	WIP (FOH)	5,100	
	Property tax expense		5,100
	WIP (FOH): $6,000 × 85% = $5,100		
OPERATIONS			
5.	Rent expense	3,000	
	Prepaid rent		3,000
	No transaction for purchase of delivery van ($15,000).		
6.	Depreciation expense	3,000	
	Accumulated depreciation, delivery van		3,000
	Depreciation expense: [($15,000 − 0) ÷ 5 years] × 12 ÷ 12 = $3,000		

Entry	Transaction	Debit	Credit
MANUFACTURING INVENTORY			
7.	WIP (FOH)	10,000	
	Accumulated depreciation, production equipment		10,000
	Depreciation expense: ($50,000 − $0) ÷ 5 years = $10,000		
OPERATIONS			
8.	Depreciation expense	2,000	
	Accumulated depreciation, office equipment		2,000
	Depreciation expense: $10,000 ÷ 5 years = $2,000		
MANUFACTURING INVENTORY			
9.	WIP (DL)	12,000	
	WIP (FOH)	18,000	
	Salaries expense		30,000
	Serena Nadal:		
	WIP (DL): ($5,000 × 12 months) × 20% = $12,000		
	WIP (FOH): ($5,000 × 12 months) × (100% − 20% − 50%) = $18,000		
	No transaction for administrative assistant salary ($1,800 or $21,600).		
10.	WIP (FOH)	36,000	
	Salaries expense		36,000
11.	Production wages payable	900	
	Production wages expense		900
12.	WIP (DL)	67,200	
	Production wages expense		67,200
	Production workers:		
	Cash paid: $68,100 − $900 = $67,200 *(T/B in Production wages expense)*		
13.	WIP (DL)	1,610	
	Production wages payable		1,610
	Production workers:		
	Wages payable: $17.50/hour × 92 hours = $1,610		
Alt. 9.–13.	WIP (DL)	80,810	
	WIP (FOH)	54,000	
	Production wages payable		710
	Salaries expense		66,000
	Production wages expense		68,100
LIABILITIES			
14.	Interest expense	11,313	
	Long-term portion, bank loan		11,313
	Interest expense: $41,313 − $30,000 (current portion) = $11,313		

Entry	Transaction	Debit	Credit
Alt.	Interest expense	11,313	
14.	Current portion, bank loan	30,000	
	Long-term portion, bank loan		41,313
	Long-term portion, bank loan	30,000	
	Current portion, bank loan		30,000

OPERATIONS

15.	Prepaid insurance	900	
	Insurance expense		900
	Prepaid insurance: $2,700 × 6 ÷ 18 months = $900		

MANUFACTURING INVENTORY

16.	WIP (FOH)	1,080	
	Insurance expense		1,080
	WIP (FOH): ($2,700 − $900) × 60% = $1,080		

Alt.	Prepaid insurance	900	
15.	WIP (FOH)	1,080	
& 16.	Insurance expense		1,980

17.	Accounts payable	603	
	Utilities expense		603
18.	Utilities expense	723	
	Accounts payable		723

Alt.17	Utilities expense	120	
& 18.	Accounts payable		120

19.	WIP (FOH)	3,842	
	Utilities expense		3,842

T/B in utilities expense: $4,400 − $603 + $723 = $4,520
WIP (FOH): $4,520 × 85% = $3,842

No transaction for lawsuit (or contingent liability/provision) ($10,000).

Entry	Transaction	Debit	Credit
INVENTORY BALANCES			
20.	WIP (RM)	60,077	
	Raw materials, rubber		60,077
	CORMAFU (T/B in RM, rubber): $76,183		
	E/B RM, rubber: $16,106		
	CORMU: $76,183 − $16,106 = $60,077		
21.	WIP (RM)	9,159	
	Raw materials, felt		9,159
	CORMAFU (T/B in RM, felt): $11,515		
	E/B RM, felt: $2,356		
	CORMU: $11,515 − $2,356 = $9,159		
22.	WIP (RM)	12,273	
	Raw materials, cans		12,273
	CORMAFU (T/B in RM, cans): $15,146		
	E/B RM, cans: $2,873		
	CORMU: $15,146 − $2,873 = $12,273		
23.	WIP (FOH)	851	
	Production supplies		851
24.	Finished goods	244,476	
	WIP (COFGM)		244,476
	COWIP: $3,201 (O/B) + $80,810 (DL) + $81,509 (RM) + 82,523 (FOH) = $248,043		
	pRM: $1,329		
	pDL: (77 hours × $17.50/hour) + (9 hours × ($5000/month x 12 months ÷ 2400 hours)) = $1,573		
	pFOH:		
	Proxy: Machine hours		
	Partial machine hours: 29 hours		
	Total machine hours: 3,571 hours + 29 hours = 3,600 hours		
	Total FOH: $7,650 + $5,100 + $10,000 + $54,000 + $1,080 + $3,842 + $851 = $82,523		
	pFOH = (29 hours ÷ 3,600 hours) × $82,523 = $665		
	E/B WIP: $1,329 + $1,573 + $665 = $3,567		
	COFGM: $248,043 − $3,567 = $244,476		
25.	Cost of goods sold expense	224,425	
	Finished goods		224,425
	UAFS: 1,350 units (O/B) + 36,000 units (units manufactured) = 37,350 units		
	COGAFS: $8,612 + $244,476 = $253,088		
	E/B Finished goods: ($253,088 ÷ 37,350 units) × 4,230 units = $28,663		
	COGS: $253,088 − $28,663 = $224,425		

Note: A/R = accounts receivable; WIP = work in process; FOH = factory overhead; DL = direct labour; T/B = trial balance; p = partial; RM = raw materials; CORMAFU = cost of raw materials available for use; E/B = ending balance; COFGM = cost of finished goods manufacturing; UAFS = units available for sale; O/B = ending balance; COGAFS = cost of goods available for sale; COGS = cost of goods sold.
Source: Created by the author.

TERRIFIC TENNIS BALLS FAQ

Question 1:

Why is the finished goods storage area of the building not counted towards WIP in the allocation of depreciation?

Answer 1:

Finished goods storage is not considered a part of the production process and therefore is not counted in the allocation towards WIP.

Question 2:

Why is it necessary to debit Interest expense and credit the long-term portion of the bank loan by $11,313?

Answer 2:

A $300,000, ten-year bank loan paid in equal monthly installments means the current portion of the loan is equal to $30,000. The bookkeeper recorded all payments to the bank as a reduction in the bank loan when in fact the excess amount of $11,313 over the current portion of the bank loan represents the interest expense related to the loan.

Question 3:

Why is it necessary to debit Accounts payable and credit Utilities expense by $603, then debit Utilities expense and credit Accounts payable by $723?

Answer 3:

$603 represents a utilities bill that was incurred in the previous fiscal year but paid in the current fiscal year, so it should be corrected from an expense recorded by the bookkeeper to a reduction of the accounts payable account. $723 represents an expense that was incurred this year but has yet to be paid, and therefore requires a corresponding debit to the Utilities expense, and credit to accounts payable. The trial balance of the utilities account can then be used to calculate WIP allocation.

Question 4:

How is partial factory overhead calculated?

Answer 4:

The case states that machine hours were considered to be the most evenly distributed. Thus, machine hours is used as the proxy for calculating partial factory overhead. 29 machine hours were used to produce the partially completed goods, out of a total of 3,600 hours (29 hours + 3,571 hours spent on completed cans). This rate multiplied by the total factory overhead cost equals the partial factory overhead.