

Aufgabe 9.29: Manufacturing Accounting for Asset Valuation

UNTERBARMEN Ltd. is a production firm for grass mowers. Every grass mower consists of a frame, 4 wheels, and an engine. The engine is either an electric engine or a petrol engine. The cost of acquisition (net amounts) for a wheel are 3.50 EUR/u, for a frame 65.00 EUR/u and for the electric engine 119.00 EUR and the petrol engine 142.00 EUR/u.

UNTERBARMEN Ltd. is founded on 1.01.20X0 by a share issue of 100,000 shares at 2.50 EUR each.

UNTERBARMEN buys machines for cost of acquisition (net amount) of 80,000.00 EUR. The price is paid in full. Depreciation is over 4 years without residual value along straight line method. Depreciation commences on 3.01.20X0.

UNTERBARMEN Ltd.'s labour costs amount to 220,000.00 EUR/a. Labour/rent/depreciation is equally distributed to products (as per unit). The rent for the factory building is 4,000.00 EUR/m. The rent is to be paid one month in advance. Accordingly, UNTERBARMEN Ltd. pays 13 times rent in 20X0 and in 20X1 12 times.

UNTERBARMEN Ltd. buys 20,000 wheels, 5,000.00 frames, 2,000 electric engines and 3,000 petrol engines from their supplier McGrass AG and pays the materials to an extend of 75 %. The remaining amount is paid in the next year.

During 20X0 UNTERBARMEN Ltd. produces 1,800 electric mowers and 2,500 petrol movers and sells 1,600 electric driven mowers and 2,000 petrol driven mowers. The net selling price is at 442.80 EUR/u (electric mower) and at 484.20 EUR/U (petrol mower). Consider as production related costs materials (direct costs) and labour, depreciation, and rent. There are no over or under applied overheads.

The appropriation of profits is in both years 50 : 50 as Reserves : Dividend.

In 20X1 UNTERBARMEN Ltd. buys 20,000 wheels, 5,000.00 frames, 2,000 electric engines and 3,000 petrol engines from their supplier McGrass AG and pays the materials to an extend of 75 %. The remaining amount is paid in the next year.

UNTERBARMEN produces 2,100 electric mowers and 3,100 petrol mowers and sells 2,200 electric driven mowers and 3,200 petrol driven mowers. The net selling price is at 442.80 EUR/u (electric mower) and at 484.20 EUR/U (petrol mower). Consider as production related costs materials (direct costs) and labour, depreciation, and rent. There are no over or under applied overheads.

Required: Prepare a statement of comprehensive income along the cost of sales format for 2 years (2 separate statements). Apply a perpetual inventory system. Use special inventory accounts for each kind of material and finished goods. (6 accounts)

Cash/Bank				Issued capital			
D		C		D		C	
(1)	250,000.00	(2)	96,000.00	c/d	250,000.00	(1)	250,000.00
(22)	850,176.00	(4)	220,000.00			b/d	250,000.00
(23)	1,162,080.00	(5)	52,000.00				
		(7)	63,000.00				
		(8)	292,500.00				
		(9)	214,200.00				
		(10)	383,400.00				
		c/d	941,156.00				
	<u>2,262,256.00</u>		<u>2,262,256.00</u>				
b/d	941,156.00						

P, P, E				VAT			
D		C		D		C	
(2)	80,000.00	c/d	80,000.00	(2)	16,000.00	(22)	141,696.00
b/d	80,000.00			(7)	14,000.00	(23)	193,680.00
				(8)	65,000.00		
				(9)	47,600.00		
				(10)	85,200.00		
				c/d	107,576.00		
					<u>335,376.00</u>		<u>335,376.00</u>
						b/d	107,576.00

Depreciation - 20X0				Acc depr			
D		C		D		C	
(3)	20,000.00	(19)	20,000.00	c/d	20,000.00	(3)	20,000.00
						b/d	20,000.00

Labour - 20X0				Rent			
D		C		D		C	
(4)	220,000.00	(17)	220,000.00	(5)	52,000.00	(6)	4,000.00
						(18)	48,000.00
					<u>52,000.00</u>		<u>52,000.00</u>

Prepaid expenses				A/P			
D		C		D		C	
(6)	4,000.00	c/d	4,000.00			(7)	21,000.00
b/d	4,000.00					(8)	97,500.00
						(9)	71,400.00
						(10)	127,800.00
				c/d	554,637.30	R/E	236,937.30
					<u>554,637.30</u>		<u>554,637.30</u>
						b/d	554,637.30

Inv (Wheels)				Inv (Frames)			
D		C		D		C	
(7)	70,000.00	(11)	25,200.00	(8)	325,000.00	(13)	117,000.00
		(12)	35,000.00			(14)	162,500.00
		c/d	9,800.00			c/d	45,500.00
	<u>70,000.00</u>		<u>70,000.00</u>		<u>325,000.00</u>		<u>325,000.00</u>
b/d	9,800.00			b/d	45,500.00		

Exhibit 1: Accounts

D		Inv (Electrical engine)	C
(9)	238,000.00	(15)	214,200.00
		c/d	23,800.00
	<u>238,000.00</u>		<u>238,000.00</u>
b/d	23,800.00		

D		Inv (Petrol engine)	C
(10)	426,000.00	(16)	355,000.00
		c/d	71,000.00
	<u>426,000.00</u>		<u>426,000.00</u>
b/d	71,000.00		

D		WIP (Electric mower)	C
(11)	25,200.00	FG	476,958.14
(13)	117,000.00		
(15)	214,200.00		
(20)	120,558.14		
	<u>476,958.14</u>		<u>476,958.14</u>

D		WIP (Petrol mower)	C
(12)	35,000.00	FG	719,941.86
(14)	162,500.00		
(16)	355,000.00		
(21)	167,441.86		
	<u>719,941.86</u>		<u>719,941.86</u>

D		Manufacturing OHs	C
(17)	220,000.00	(20)	120,558.14
(18)	48,000.00	(21)	167,441.86
(19)	20,000.00		
	<u>288,000.00</u>		<u>288,000.00</u>

D		COS	C
FG	423,962.79	P&L	999,916.28
FG	575,953.49		
	<u>999,916.28</u>		<u>999,916.28</u>

D		Finished goods (Electric mowers)	C
WIP	476,958.14	COS	423,962.79
		c/d	52,995.35
	<u>476,958.14</u>		<u>476,958.14</u>
b/d	52,995.35		

D		Finished goods (Petrol mowers)	C
FG	719,941.86	COS	575,953.49
		c/d	143,988.37
	<u>719,941.86</u>		<u>719,941.86</u>
b/d	143,988.37		

D		P&L	C
COS	999,916.28	Rev	708,480.00
EBTc/d	676,963.72	Rev	968,400.00
	<u>1,676,880.00</u>		<u>1,676,880.00</u>
IT	203,089.12	b/d	676,963.72
R/E	473,874.60		
	<u>676,963.72</u>		<u>676,963.72</u>

D		Revenue	C
P&L	708,480.00	(22)	708,480.00
P&L	968,400.00	(23)	968,400.00
	<u>1,676,880.00</u>		<u>1,676,880.00</u>

D		R/E	C
Res	236,937.30	P&L	473,874.60
A/P	236,937.30		
	<u>473,874.60</u>		<u>473,874.60</u>

D		ITL	C
c/d	203,089.12	P&L	203,089.12
		b/d	203,089.12

D		Reserves	C
c/d	236,937.30	R/E	236,937.30
		b/d	236,937.30

Exhibit 1: Accounts (continued)

**Unterbarmen Ltd.'s
STATEMENT of FINANCIAL POSITION**

A	as at 31.12.20X0		C, L
<i>Non-current assets</i>	[EUR]	<i>Owners' capital</i>	[EUR]
P, P, E	60,000.00	Share capital	250,000.00
Intangibles		Reserves	236,937.30
Financial assets		R/E	0.00
<i>Current assets</i>		<i>Liabilities</i>	
Inventory	347,083.72	Interest bear liab	0.00
A/R	0.00	A/P	662,213.30
Prepaid expenses	4,000.00	Provisions	
Cash/Bank	941,156.00	Tax liabilities	203,089.12
	1,352,239.72		1,352,239.72

Exhibit 2: Statement of financial position

**Unterbarmen Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X0**

	[EUR]
Revenue	1,676,880.00
Other income	
	1,676,880.00
COS	999,916.28
Earnings before int and taxes (EBIT)	676,963.72
Interest	0.00
Earnings before taxes (EBT)	676,963.72
Income tax expenses	203,089.12
Deferred taxes	
Earnings after taxes (EAT)	473,874.60
to reserves (§ 150 AktG)	0.00
to other earnings reserves	-236,937.30
to shareholders	-236,937.30
carried forward to next period	0.00

Exhibit 3: Statement of comprehensive income

In 20X1:

D		Cash/Bank	C
(1)	250,000.00	(2)	96,000.00
(22)	850,176.00	(4)	220,000.00
(23)	1,162,080.00	(5)	52,000.00
		(7)	63,000.00
		(8)	292,500.00
		(9)	214,200.00
		(10)	383,400.00
		c/d	941,156.00
	<u>2,262,256.00</u>		<u>2,262,256.00</u>
b/d	941,156.00	(A)	203,089.12
(Y)	1,168,992.00	(B)	107,576.00
(Z)	1,859,328.00	(C)	317,700.00
		(D)	236,937.30
		(G)	48,000.00
		(J)	63,000.00
		(K)	292,500.00
		(L)	214,200.00
		(M)	383,400.00
		(S)	220,000.00
		c/d	1,883,073.58
	<u>3,969,476.00</u>		<u>3,969,476.00</u>
b/d	1,883,073.58		

D		Issued capital	C
c/d	250,000.00	(1)	250,000.00
		b/d	250,000.00

D		P, P, E	C
(2)	80,000.00	c/d	80,000.00
b/d	80,000.00		

D		VAT	C
(2)	16,000.00	(22)	141,696.00
(7)	14,000.00	(23)	193,680.00
(8)	65,000.00		
(9)	47,600.00		
(10)	85,200.00		
c/d	107,576.00		
	<u>335,376.00</u>		<u>335,376.00</u>
(B)	107,576.00	b/d	107,576.00
(J)	14,000.00	(Y)	194,832.00
(K)	65,000.00	(Z)	309,888.00
(L)	47,600.00		
(M)	85,200.00		
c/d	292,920.00		
	<u>612,296.00</u>		<u>612,296.00</u>
		b/d	292,920.00

D		Depreciation - 20X1	C
(F)	20,000.00	(V)	20,000.00

D		Acc depr	C
c/d	20,000.00	(3)	20,000.00
		b/d	20,000.00
c/d	40,000.00	(F)	20,000.00
	<u>40,000.00</u>		<u>40,000.00</u>
		b/d	40,000.00

D		Labour - 20X1	C
(S)	220,000.00	(T)	220,000.00

D		Rent - 20X1	C
(E)	4,000.00	(H)	4,000.00
(G)	48,000.00	(U)	48,000.00
	<u>52,000.00</u>		<u>52,000.00</u>

Exhibit 4: Accounts

D		Prepaid expenses	C
(6)	4,000.00	c/d	4,000.00
b/d	4,000.00	(E)	4,000.00
(H)	4,000.00	c/d	4,000.00
	8,000.00		8,000.00
b/d	4,000.00		

D		A/P	C
		(7)	21,000.00
		(8)	97,500.00
		(9)	71,400.00
		(10)	127,800.00
c/d	554,637.30	R/E	236,937.30
	554,637.30		554,637.30
(C)	317,700.00	b/d	554,637.30
(D)	236,937.30	(J)	21,000.00
		(K)	97,500.00
		(L)	71,400.00
		(M)	127,800.00
c/d	693,723.69	R/E	376,023.69
	1,248,360.99		1,248,360.99
		b/d	693,723.69

D		Inv (Wheels)	C
(7)	70,000.00	(11)	25,200.00
		(12)	35,000.00
		c/d	9,800.00
	70,000.00		70,000.00
b/d	9,800.00	(N)	29,400.00
(J)	70,000.00	(O)	43,400.00
		c/d	7,000.00
	79,800.00		79,800.00
b/d	7,000.00		

D		Inv (Frames)	C
(8)	325,000.00	(13)	117,000.00
		(14)	162,500.00
		c/d	45,500.00
	325,000.00		325,000.00
b/d	45,500.00	(P)	136,500.00
(K)	325,000.00	(Q)	201,500.00
		c/d	32,500.00
	370,500.00		370,500.00
b/d	32,500.00		

D		Inv (Electrical engine)	C
(9)	238,000.00	(15)	214,200.00
		c/d	23,800.00
	238,000.00		238,000.00
b/d	23,800.00	(R)	249,900.00
(L)	238,000.00	c/d	11,900.00
	261,800.00		261,800.00
b/d	11,900.00		

D		Inv (Petrol engine)	C
(10)	426,000.00	(16)	355,000.00
		c/d	71,000.00
	426,000.00		426,000.00
b/d	71,000.00	(S)	440,200.00
(M)	426,000.00	c/d	56,800.00
	497,000.00		497,000.00
b/d	56,800.00		

D		WIP (Electric mower)	C
(11)	25,200.00	FG	476,958.14
(13)	117,000.00		
(15)	214,200.00		
(20)	120,558.14		
	476,958.14		476,958.14
(N)	29,400.00	FG	532,107.69
(P)	136,500.00		
(R)	249,900.00		
(W)	116,307.69		
	532,107.69		532,107.69

D		WIP (Petrol mower)	C
(12)	35,000.00	FG	719,941.86
(14)	162,500.00		
(16)	355,000.00		
(21)	167,441.86		
	719,941.86		719,941.86
(O)	43,400.00	FG	856,792.31
(Q)	201,500.00		
(S)	440,200.00		
(X)	171,692.31		
	856,792.31		856,792.31

D		Manufacturing OHs	C
(T)	220,000.00	(W)	116,307.69
(U)	48,000.00	(X)	171,692.31
(V)	20,000.00		
	288,000.00		288,000.00

D		COS	C
FG	559,663.78	P&L	1,449,246.61
FG	889,582.83		
	1,449,246.61		1,449,246.61

Exhibit 4: Accounts (continued)

Finished goods (Electric mowers)				Finished goods (Petrol mowers)			
D			C	D			C
WIP	476,958.14	COS	423,962.79	FG	719,941.86	COS	575,953.49
		c/d	52,995.35			c/d	143,988.37
	<u>476,958.14</u>		<u>476,958.14</u>		<u>719,941.86</u>		<u>719,941.86</u>
b/d	52,995.35	COS	559,663.78	b/d	143,988.37	COS	889,582.83
WIP	532,107.69	c/d	25,439.26	WIP	856,792.31	c/d	111,197.85
	<u>585,103.04</u>		<u>585,103.04</u>		<u>1,000,780.68</u>		<u>1,000,780.68</u>
b/d	25,439.26			b/d	111,197.85		

P&L				Revenue			
D			C	D			C
COS	1,449,246.61	Rev	974,160.00	P&L	974,160.00	(Y)	974,160.00
NP	1,074,353.39	Rev	1,549,440.00	P&L	1,549,440.00	(Z)	1,549,440.00
	<u>2,523,600.00</u>		<u>2,523,600.00</u>		<u>2,523,600.00</u>		<u>2,523,600.00</u>
Tax	322,306.02	R/E	1,074,353.39				
R/E	752,047.37						
	<u>1,074,353.39</u>		<u>1,074,353.39</u>				

R/E				ITL			
D			C	D			C
Res	376,023.69	P&L	752,047.37	c/d	322,306.02	P&L	322,306.02
A/P	376,023.69					b/d	322,306.02
	<u>752,047.37</u>		<u>752,047.37</u>				

Reserves			
D			C
c/d	236,937.30	P&L	236,937.30
		b/d	236,937.30
c/d	612,960.99		376,023.69
	<u>612,960.99</u>		<u>612,960.99</u>
		b/d	612,960.99

Exhibit 4: Accounts (continued)

Unterbarmen Ltd.'s
STATEMENT of FINANCIAL POSITION
as at 31.12.20X1

A		C, L	
<i>Non-current assets</i>	[EUR]	<i>Owners' capital</i>	[EUR]
P, P, E	40,000.00	Share capital	250,000.00
Intangibles		Reserves	612,960.99
Financial assets		R/E	
<i>Current assets</i>		<i>Liabilities</i>	
Inventory	244,837.11	Interest bear liab	0.00
A/R	0.00	A/P	986,643.69
Prepaid expenses	4,000.00	Provisions	
Cash/Bank	1,883,073.58	Tax liabilities	322,306.02
	<u>2,171,910.69</u>		<u>2,171,910.70</u>

Exhibit 5: Statement of financial position

Unterbarmen Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X1

	[EUR]
Revenue	2,523,600.00
Other income	
	<u>2,523,600.00</u>
COS	<u>1,449,246.61</u>
Earnings before int and taxes (EBIT)	1,074,353.39
Interest	<u>0.00</u>
Earnings before taxes (EBT)	1,074,353.39
Income tax expenses	322,306.02
Deferred taxes	
Earnings after taxes (EAT)	<u>752,047.37</u>

Exhibit 6: Statement of comprehensive income