Advanced BI Subjects

Manufacturers' Stock & BI Claims: Analysing the Overlap

If a reduction in turnover results from damage to manufactured stock there is a potential for duplication between the BI and stock claims, both of which reimburse manufacturing overheads. If the stock could be insured at a value that included profit would this avoid the need to make a BI claim?

This article explains how the overlap arises, provides a case study and comments on practical resolution of claims.

Back to Basics

BI claims reimburse lost sales less the expenses that were saved, enabling the insured to pay all expenses that were not saved and have the same profit margin left as it would have achieved but for the damage. I make a small proviso that this principle is true if all expenses that were not saved are actually insured by the policy.

An alternative expression of the same thing is that BI policies reimburse the continuing expenses and net profit element of lost sales. I will illustrate the difference.

Table 1 is a simplified Statement of Financial Performance for a manufacturer.

Turnover		$1,164,700
Less Cost of Goods Sold		
Raw Materials Usage	414,000	
Direct Wages	232,000	
Outwork	37,500	
Fuel Oil	55,200	
Total Cost of Goods Sold		738,700
Gross Profit		426,000
Factory Overheads		
Indirect Wages	58,000	
Repairs & Maintenance	36,700	
Depreciation	19,800	
		114,500
Sales and Administration Expenses		
Advertising	19,200	
Bank Fees & Interest	9,600	
Freight	27,600	
Motor Vehicles	26,600	
Packaging	41,400	
Salaries	82,300	
Telephone	6,100	
		212,800
Net Profit		$98,700

Insured Gross Profit and the Rate of Gross Profit can be calculated in two ways, either by starting at the top of the Statement with Turnover and subtracting the uninsured (i.e. variable) expenses or by starting at the bottom with Net Profit and adding the insured (i.e. semi-variable & fixed) expenses.

Table 2:

Turnover	$1,164,700	Net Profit	$98,700
Less Uninsured Expenses		Plus Insured Expenses	
Raw Materials Usage	414,000	Telephone	6,100
Outwork	37,500	Salaries	82,300
Fuel Oil	55,200	Motor Vehicles	26,600
Freight	27,600	Bank Fees & Interest	9,600
Packaging	41,400	Advertising	19,200
	575,700	Depreciation	19,800
		Repairs & Maintenance	36,700
Insured Gross Profit	$589,000	Indirect Wages	58,000
(Turnover less Uninsured Expenses)		Direct Wages	232,000
			490,300
Rate of Gross Profit	50.6%		
		Insured Gross Profit	$589,000
		(Net Profit plus Insured Expenses)	
		Rate of Gross Profit	50.6%

If this insured company has a fire in its finished goods store and loses $200,000 of turnover the BI claim will reimburse:

Table 3:

Reduction in Turnover	x	Rate of Gross Profit		
$200,000	x	50.60%	=	$101,200

If we look at the "Net Profit plus Insured Expenses" view of insured Gross Profit it is apparent that this calculation reimburses the Net Profit plus overheads portion of the lost sales, which amount to 50.6 cents in the dollar. Every dollar of sales in normal operations contributes 50.6 cents to paying the overheads and making a Net Profit and so for every dollar of lost sales the BI claim pays 50.6 cents for the overheads and Net Profit.

The Duplication of Cover

Let us assume that the stock damage amounted to $200,000 at sales value. What would the stock claim be if stock had been insured for indemnity value?

From the Statement of Financial Performance we can identify the average manufacturing costs as a percentage of the sales value of stock, as follows:

Table 4:

Turnover	$1,164,700
Cost of Goods Sold	
Raw Materials Usage	414,000
Direct Wages	232,000
Outwork	37,500
Fuel Oil	55,200
Total Cost of Goods Sold	738,700
Factory Overheads	
Indirect Wages	58,000
Repairs and Maintenance	36,700
Depreciation	19,800
	114,500
Total Manufacturing Costs	853,200
Ratio to Turnover	73.3%

Although there is some difference of opinion about the indemnity value of manufactured stock the likely basis of valuation would be the direct manufacturing costs including direct factory overheads, which is 73.3% of the sales value. The stock claim would pay:

Table 5:

Sales Value of Damaged Stock		Manufacturing Costs		
$200,000	x	73.30%	=	$146,600

If the BI claim pays $101,200 (Table 3) and the stock claim pays $146,600 the insured receives $247,800 in total from its insurance claims for the destruction of stock that it would have sold for only $200,000. And it did not incur the costs of Freight and Packaging because it did not actually make the sales. The reason for this apparent overpayment is that Direct Wages, Indirect Wages, Repairs & Maintenance and

Depreciation are all included as direct manufacturing costs in the indemnity value of the stock but are also reimbursed as insured expenses in the BI claim.

These duplicated costs comprise 29.8% of the sales value and the saved costs would be 5.9% of turnover:

Table 6:

Direct Wages	$232,000		
Indirect Wages	58,000	Freight	$27,600
Repairs & Maintenance	36,700	Packaging	41,400
Depreciation	19,800		$69,000
	$346,500		
Ratio to Turnover	29.8%	Ratio to Turnover	5.9%

For $200,000 of stock at sales value the insured has saved $11,800 (5.9%), received $247,800 from the insurance claims and is better off by $59,600, which is the value of the duplicated costs ($200,000 x 29.8%).

Before I address the necessary solutions I will make two comments about the illustration.

1 It assumes that the stock was destroyed before the packaging cost had been incurred. If it had been packed the indemnity value for the stock claim (manufacturing costs) would have included packaging. The savings would have been freight alone, and the insured would still have been better off by $59,600.

2 If the indemnity value of the stock did not include factory direct overheads but did include Direct Wages the duplication of insurance payments would be only the Direct Wages component, which amounts to 19.9% of turnover value or $39,838.

The Solution

The simplest solution would be for the stock claim to pay only the directly variable manufacturing costs, which are uninsured expenses for the BI claim. I know that some adjusters believe this is always the correct method.

Based on the cost ratios in Table 4 the directly variable manufacturing costs would be –

Table 7:

Raw Materials	$414,000
Outwork	37,500
Fuel Oil	55,200
	$506,700
Ratio to Turnover	43.5%

The insured lost sales of $200,000 but saved Packaging and Freight of $11,800 giving it a net loss of $188,200, for which it is indemnified as follows:

Table 8:

BI Claim	Reduction in Turnover	x	Rate of Gross Profit		
	$200,000	x	50.60%	=	$101,200
Stock Claim @ Total Direct Manufacturing Costs					
	$200,000	x	43.50%	=	$87,000
					$188,200

Although it is simple, I do not believe that this is a correct answer because it manipulates the settlement of the stock claim to cater for a potential problem with the BI claim. If there were no BI policy or if the insured were unable to show that there had been a reduction in turnover the stock claim would be based on total direct manufacturing costs; i.e. $146,600 (Table 5) rather than $87,000 as in Table 8. The indemnity value of the stock should not be dependent on whether there is or is not a BI claim to follow.

The solution that I have applied consistently over 30 years is to deduct the overheads that have been reimbursed as part of the indemnity value of the stock claim, as savings in insured expenses in the BI claim. I believe this is authorised by the Gross Profit Item of the BI policy, which specifies the adjustment for savings as:

> "*less any sum saved during the Indemnity Period in respect of insured expenses as may cease or be reduced in consequence of the Damage"*

(Sometimes insured expenses are described as *"expenses of the business payable out of Insured Gross Profit"*)

The settlement of both claims would then total $188,200, which is the correct measure of indemnity for the insured's net loss (i.e. lost sales of $200,000 less savings in Packaging & Freight of $11,800):

Table 10

Stock Claim @ Total Direct Manufacturing Costs					
	$200,000	x	73.30%	=	$146,600
BI Claim	Reduction in Turnover	x	Rate of Gross Profit		
	$200,000	x	50.60%	=	$101,200
	Less Insured Overheads in "Direct Manufacturing Expenses"				-$59,600
					$188,200

You might argue that the Direct Manufacturing Expenses that have been included in the stock claim were incurred before the damage (to manufacture the stock that was destroyed) and therefore their reimbursement to the insured is not a saving "during the Indemnity Period".

My answer is that the stock claim provides the insured with reimbursement of the costs that it will incur to re-manufacture the destroyed stock during the Indemnity Period and that this produces a net saving in those expenses.

Is this a contrived answer? Perhaps! But it is contrived to provide an indemnity and if I can possibly interpret the words of the BI policy to fairly and reasonably indemnify the insured for its loss that is the interpretation I will opt for.

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