

# BMS E4000 'V' Plough

## Installation Instructions

**Note:** All dimensions shown in millimetres

### INTRODUCTION

The BMS ELIMINATOR 'V' Plough is mounted on the reverse of the belt, at the rear of the head pulley, its purpose being to remove approximately 90% of the residue waste material.

The blades are fastened between corrosion resistant securing plates providing for a longer service life. Virtually maintenance free and easy to install, it is available in widths of up to 2 metres.

### TORSION MOUNT

The revolutionary BMS Torsion Mount is an economical unit that provides constant cleaning pressure. The system with its compact design requires minimal maintenance giving the very best in performance!



**SHUT DOWN AND LOCKOUT CONVEYOR BEFORE PERFORMING ANY MAINTENANCE**

#### Tools and resources required:

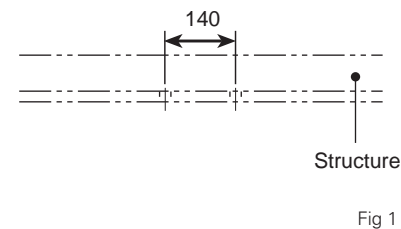
- Tape Measure
- Adjustable Spanner
- Straight Edge
- Welding Equipment
- Cutting Torch

### Installation

The BMS 'V' Plough should be installed as per BMS recommendation shown on BMS drawing submitted for the De Beers contract.

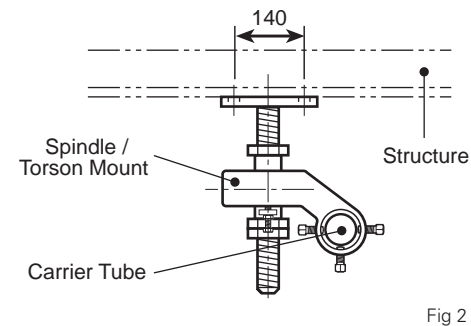
#### step 1.

Preparatory work should be undertaken, this work includes setting out the spindle position and burning or drilling holes to secure to structure, (fig.1) holes centres 140mm.



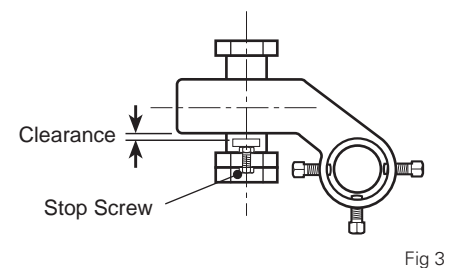
#### step 2.

Attach one spindle to the structure complete with Torsion Mount, (fig 2) and secure.



#### step 3.

Place second Torsion Mount onto the other side of the 'V' Plough carrier tube and secure spindle to structure.



#### step 4.

Loosen stop screws on Torsion Mount arm to leave clearance (fig 3) and allow arm to move freely.

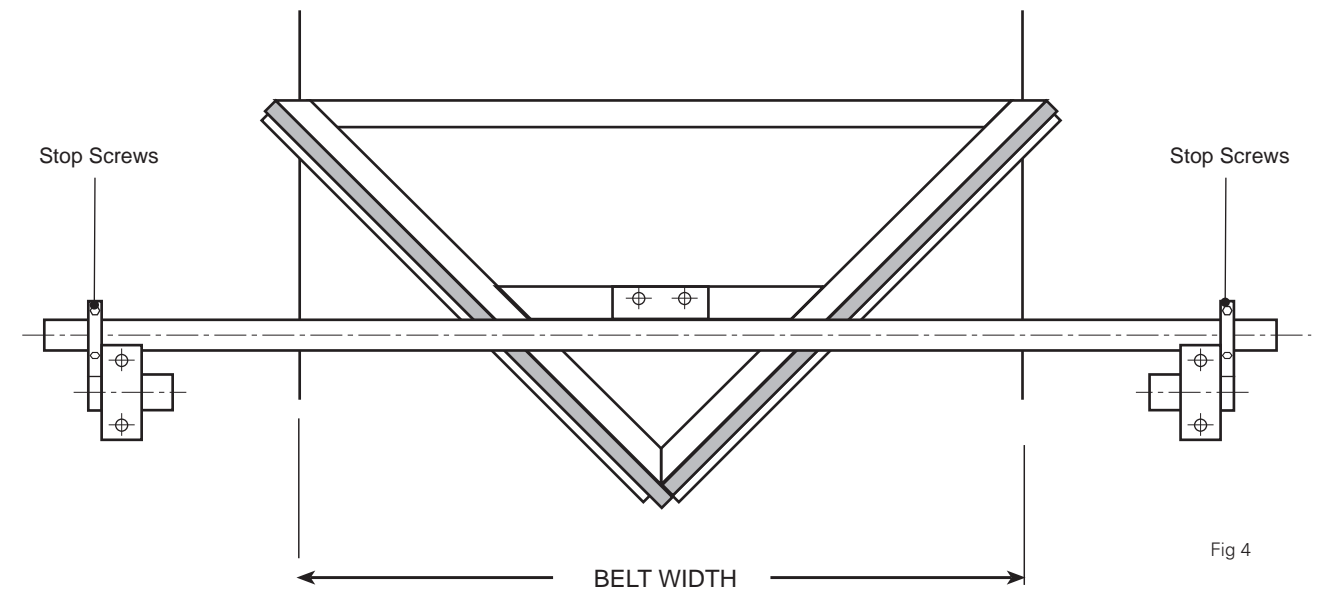


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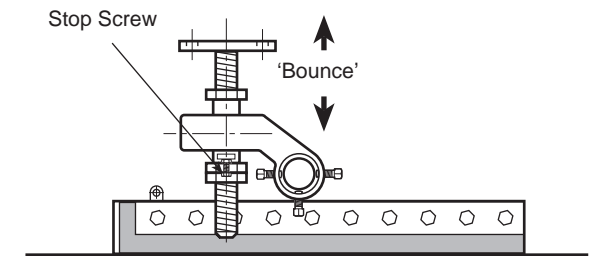
#### step 5.

Set 'V' Plough correctly to allow plough blades to overlap belt edge. Once set secure carrier shaft to by tightening the securing screws (fig 4) on the Torsion Mount arm.



#### step 6.

Exert downward pressure on the Torsion Mount arms, i.e. 'Bounce' (fig 5) on the Torsion mount arms. This energises the Torsion Mounts to ensure tension is kept at all times on the blades.



#### step 7.

Turn the stop screws on the Torsion Mount until they touch the arms of the Torsion Mounts, (fig 5). Once they are touching tighten a further 360 degrees.

#### step 8.

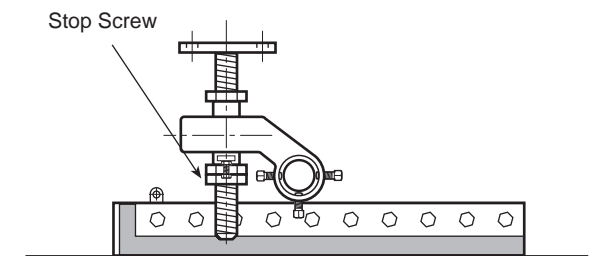
Lock check nuts on both Torsion Mounts (fig 6).

#### step 9.

Proceed to adjust 'V' Plough down onto belt until it is lightly touching the belt surface.

#### step 10.

Do make final adjustment until the belt is running.



#### NOTE:

The 'V' Plough is designed for the deflection of material off the underside of the belt surface and should not be over adjusted.

Fig 6

# General Arrangement for E4000 'V' Plough

**Note:** All dimensions shown in millimetres

## COMMISSIONING & OPERATION

The commissioning of the 'V' Plough should be carried out with the conveyor running, ideally under normal working conditions with product available.

The adjusting of the unit should be done equally on each side, without exerting excessive pressure at any one time.

The blade should be inspected at regular intervals for blade wear and adjustment.

If the blade is worn it will require replacing. If the blade is not fully worn then proceed to adjust the plough.

## BLADE CHANGE

Once the blade has worn and requires replacing follow as below:

- 1. ENSURE THE CONVEYOR IS STOPPED AND ISOLATED.**
- 2.** Release tension on the 'V' Plough blades by adjusting upwards (fig 7) the Torsion Mount arms.
- 3.** Remove easiest accessible side Torsion Mount and spindle from the conveyor structure and release the Torsion Mount set screws on the other side.
- 4.** Remove 'V' Plough from the conveyor.
- 5.** Proceed to change the blade ensuring when attaching new blade that all fastenings are secure.
- 6.** Follow installation instructions with exception to energising Torsion Mount.

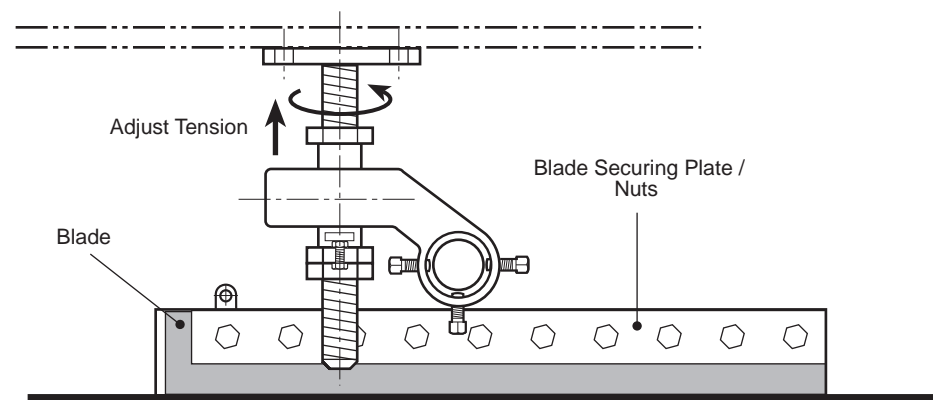


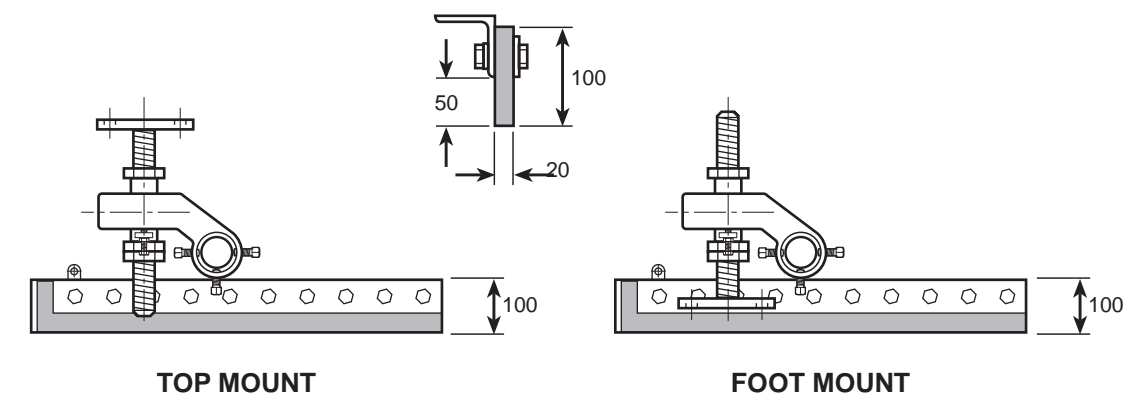
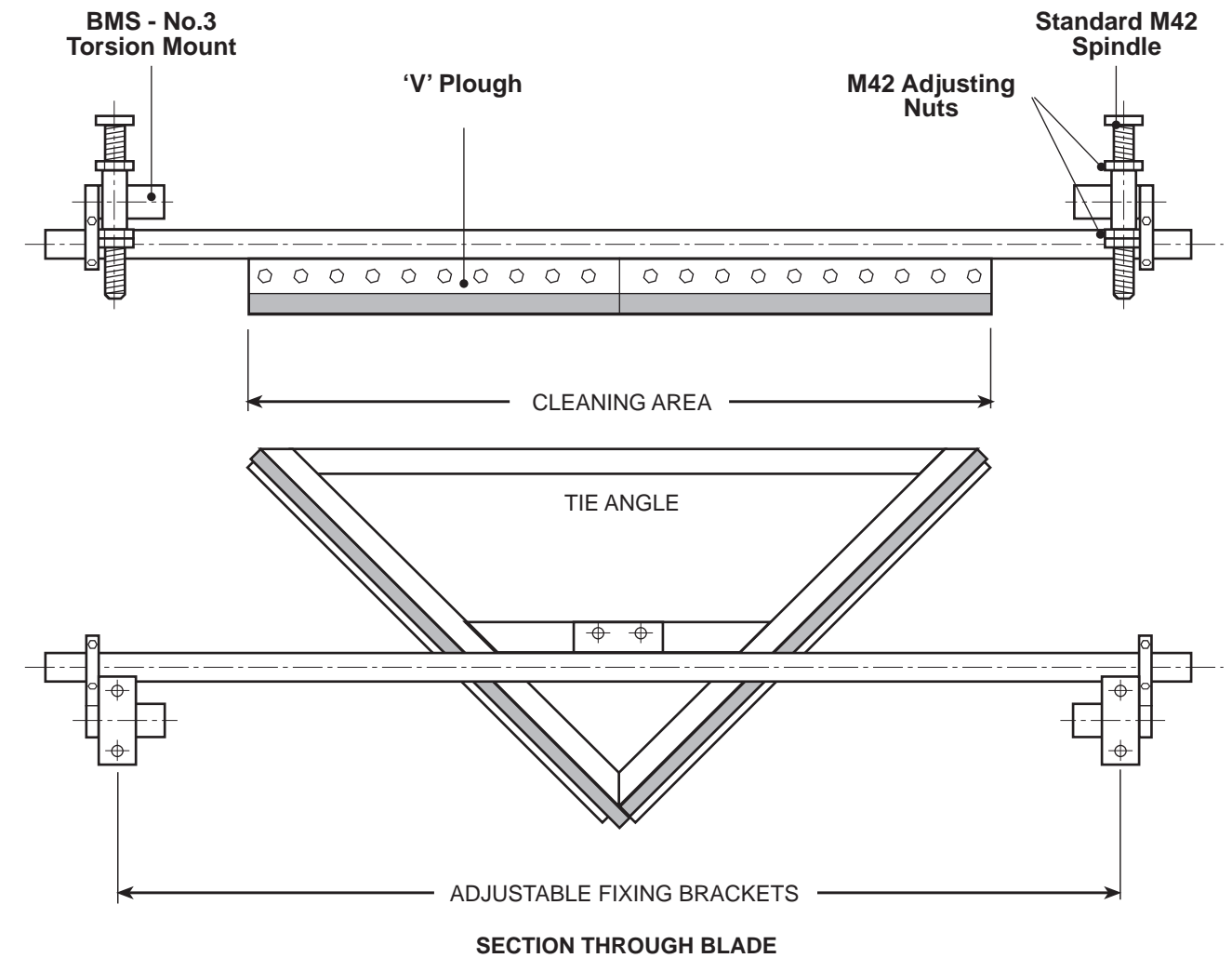
Fig 7



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## PRINCIPLE PARTS - E4000 'V' PLOUGH



■ IF THERE ARE ANY QUESTIONS OR COMMENTS PLEASE CONTACT BMS

BMS Belt Cleaners Ltd. continuously modify and improve its product range, therefore, information given in this leaflet may be subject to change without prior notice.