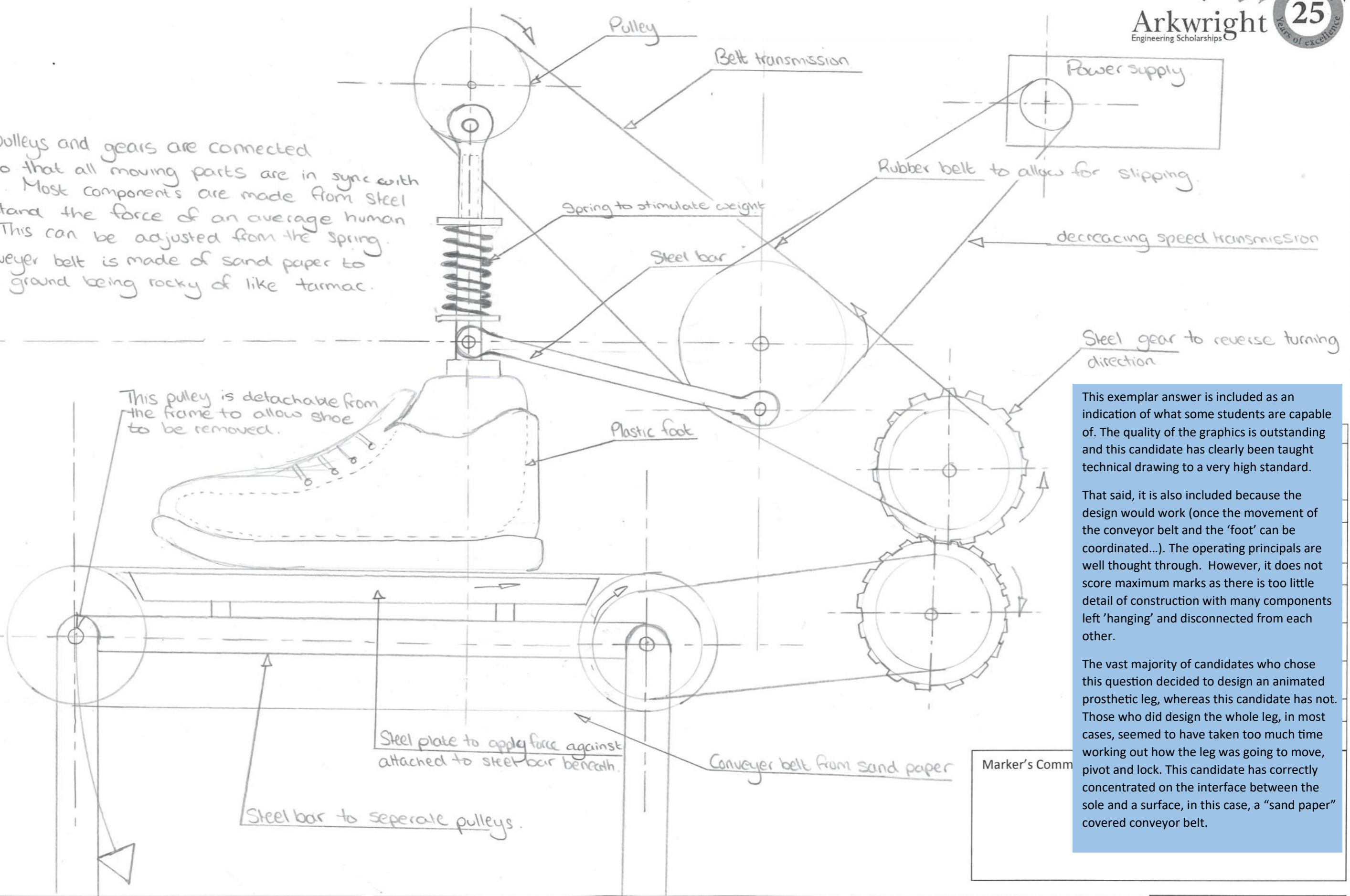


This idea of a shoe simulator will use gears to move components

All the pulleys and gears are connected directly so that all moving parts are in sync with each other. Most components are made from steel to withstand the force of an average human weight. This can be adjusted from the spring. The conveyer belt is made of sand paper to mock the ground being rocky or like tarmac.



This exemplar answer is included as an indication of what some students are capable of. The quality of the graphics is outstanding and this candidate has clearly been taught technical drawing to a very high standard.

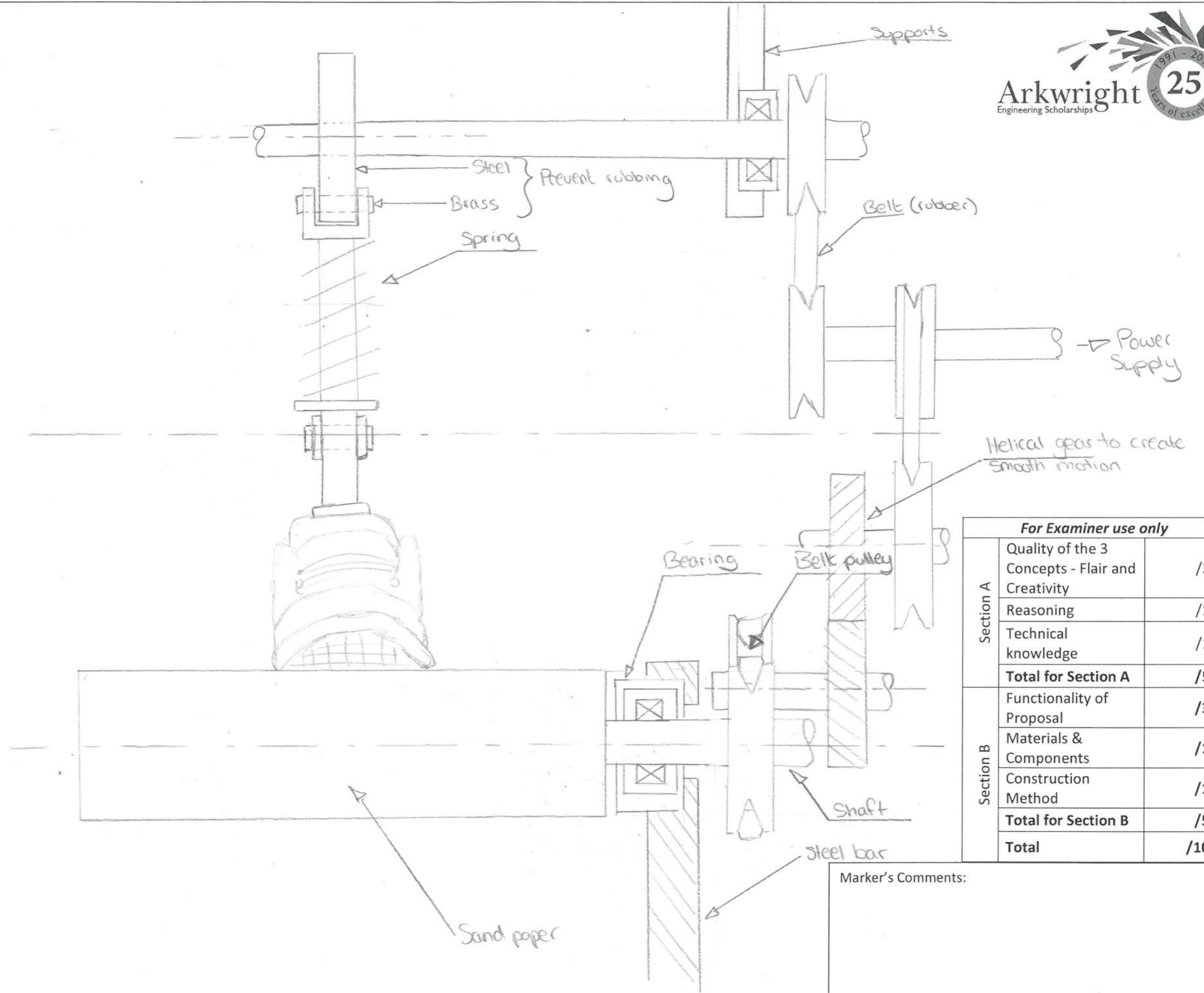
That said, it is also included because the design would work (once the movement of the conveyer belt and the 'foot' can be coordinated...). The operating principals are well thought through. However, it does not score maximum marks as there is too little detail of construction with many components left 'hanging' and disconnected from each other.

The vast majority of candidates who chose this question decided to design an animated prosthetic leg, whereas this candidate has not. Those who did design the whole leg, in most cases, seemed to have taken too much time working out how the leg was going to move, pivot and lock. This candidate has correctly concentrated on the interface between the sole and a surface, in this case, a "sand paper" covered conveyer belt.

Marker's Comm

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Section A	Quality of the 3 Concepts - Flair and Creativity	/30
	Reasoning	/10
	Technical knowledge	/10
	Total for Section A	/50
Section B	Functionality of Proposal	/30
	Materials & Components	/10
	Construction Method	/10
	Total for Section B	/50
Total		/100

Marker's Comments:

Name:

School:

Section A or B: **B**

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