Hendrickson Truck Suspension

Pick/Pack lifting assist Project Scope

Date: July 7th, 2015

To design and build a lifting device that will assist in the pick/pack process. The device must be capable of lifting 75 lbs. The lift device must be designed with an adequate factor of safety to handle the rating of the parts listed below. The device shall be mounted to either a free standing crane/jib and or overhead Gorbell system.

The design of the lift device must accommodate the following styles of product:
1. Hangers
2. Support members
3. Springs

The support members/hangers/springs will be brought to the area by the material handler. Using the proposed lifting device, the packer will transfer product in/onto customer required packaging. The lifting device can be electro-magnetic, pneumatic or hydraulic.

The system must be adaptable to lift the following part numbers which is attached in an excel spread sheet. Drawings are available on Hendrickson H-Net. Lifting device cycle time must be no more than 60 seconds.

**Budget**
The project shall not exceed $8,500 unless prior approval from Hendrickson management.

**Tooling**
Tooling must demonstrate a change over time of 1 minutes or less (part to part).

**Miscellaneous**
The lifting device is to be designed and built to meet OSHA requirements. The design and manufacture of this device must comply with Hendrickson’s Machine Design requirements SOP 4.2. Prior written approval from Hendrickson is required if unable to meet any part of the design manual specifications.

**Run-off at Vendor**
Run-off will be performed at the vendor using parts provided by Hendrickson. The vendor will be required to provide for material handling of parts at the vendor facility.
Run-off is comprised of; extended cycle time demonstration and changeover demonstration. The run-off tests will be performed by representatives from both Hendrickson (which will include a floor operator familiar with picking operation, Quality Engineer, Manufacturing Engineer, Maintenance) and Vendor engineering. Hendrickson has sole authority for determining machine’s ability to meet the test conditions and pass the tests.

**Changeover Demonstration**

A change over demonstration will be performed using all sets of tooling. The demonstration will be performed by a trained Hendrickson employee. Each set of tooling will be installed. The time to remove one set of tooling from the machine and install another set of tooling will be recorded by a Hendrickson Industrial Engineer for each of the sets of tools. All of these changeovers must be 1 minute in length or less measured from last part to first part.

**Acceptance**

Hendrickson will accept the machine for delivery once all run-off tests and terms are met and previously stated conditions pass. In the event of a test failure, the vendor will make the appropriate machine modifications and the test performed again until the terms are met.

**Training**

Training of Hendrickson personnel after the lifting assist becomes operational, will need be conducted for all three shifts. Training records will need to be submitted for each employee at the end of the class.

**Project Management**

Project team will supply Hendrickson Production Manager with bi-weekly project status reports that include an updated Gantt chart. This information can be supplied by e-mail to Matt Schoeff and Jeff Cartwright.

**Delivery**

Delivery date to Hendrickson by May 30th 2016

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Hendrickson Truck Suspension Systems