



OWNER'S MANUAL

IDRIVE

Beam Tractor Drive Operators Manual



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▲IMPORTANT NOTE: Please read the below items before any operation of the unit is performed.

1.0 Safety

Because of heavy loads being moved or supported the operator and those around the area must be attentive to and aware of any risks involved with the operation of this unit. All Safety Rules must be followed, and the operator must pay attention to and abide by the warnings below and safety rules found throughout this manual.

2.0 Warnings

Before operation, the operator must have a clear and unobstructed view of the whole area.

Do not attach the electrical supply wires to this unit before the completion of installation!

Before operation, inspect the work area to make sure it is safe and clear of obstructions.

While operating the IDrive Trolley the operator must be careful to prevent a situation where the reverse force of changing direction causes the load to swing causing an overload of the trolley or loss of the load.

3.0 Product Introduction

Thank you for purchasing a Starke SBT30VS Tractor Drive Trolley. It is our intention that this product manual will address any concerns you may have about the operation or installation of your new trolley. This IDrive unit comes standard as a 460V 3ph unit. Please be aware that 230V 3 phase units are available also.

▲ IMPORTANT NOTE: Make sure that the power supply you intend to hook up to this new hoist matches the voltage of the trolley you have.

All models include VFD controls with adjustable parameters for specific required low and high speeds.

This Starke IDrive Trolley comes standard as a 2-speed trolley.

This Starke IDrive Trolley comes with a standard clevis type connection to your tow bar.

Flange width adder kits are available for the Starke SBT30VS IDrive Trolleys. Please consult your dealer if your beam flange is larger than the ability of your trolley. Maximum flange widths for all units = 16"

4.0 Adjusting Starke IDrive Width for the Beam Flange Width

- 4.1 Allow a 4mm gap between auxiliary side guide wheels and the beam flange so that tractor can roll freely on the beam but not be too tight or too loose. Do this before attempting to install the tractor on the I-Beam. (Do not allow more than 4mm gap between auxiliary side guide wheels and the beam flange)
- 4.2 To set the spacing between the auxiliary side guide wheels 4mm larger than the beam flange width, begin by installing some of the adjusting spacers on the pressure wheel assembly support shafts. (Release pressure from the pressure wheel adjusting spring prior to adjustment if needed) Next, install the pressure wheel assembly between the side plates of the IDrive as closely as possible to centerline of I-beam. Add additional inner spacers to make the 4mm gap. (Beam flange width + 4mm = distance between side guide wheels. Adjust with spacers accordingly until as close to 4mm gap as possible is attained. Finally, install as many of the remaining spacers on the pressure wheel carriage shafts as possible and tighten shaft hardware.



4.2.1 Flange Width Shims

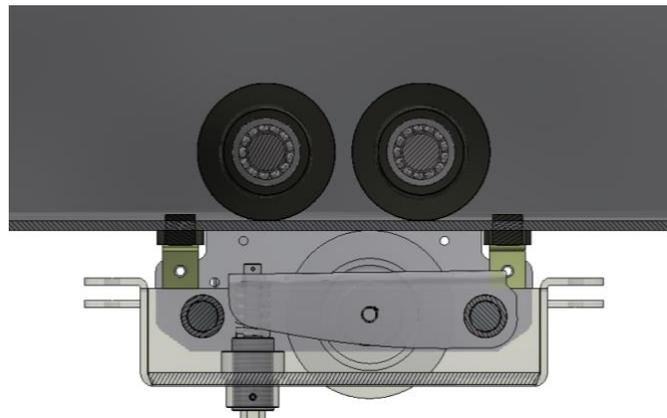
5.0 Installing the Starke IDrive Tractor on the Beam

- 5.1 If possible, the assembled tractor drive can be installed on the end of the beam without disassembly. If this is not possible proceed to the items below.
- 5.2 Remove the electric motor side of the IDrive from the pressure wheel support shafts making note of where the shim spacers are located.
- 5.3 With help, assemble the 2 halves of the IDrive Trolley onto your I beam and replace shims in the proper positions to establish the 4mm gap required.
- 5.4 Check that the green pressure wheel assembly is located on the centerline of your I beam.
- 5.5 It is important that you set the pressure spring on the pressure wheel to gain the traction needed to pull your assembly with the tow bar.

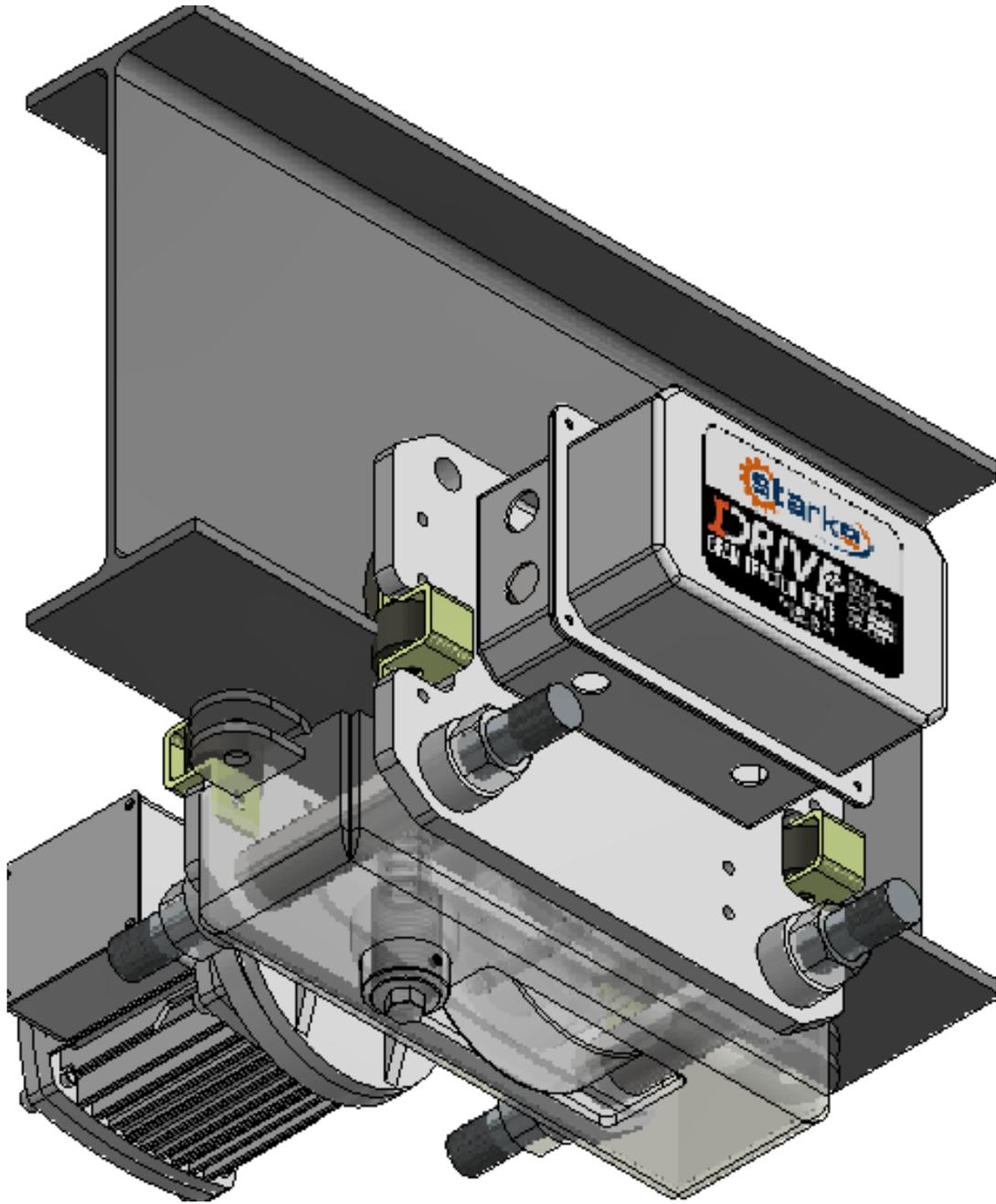
6.0 Adjusting the Starke IDrive Tractor Pressure Wheel Spring

- 6.1 Once installed on the I beam you will need to set the pressure on the green pressure wheel assembly.
- 6.2 Attach tow bar to your product you are towing and with very light pressure on the pressure wheel against the bottom of the beam try to pull the load. If the IDrive trolley slips increase pressure in $\frac{1}{2}$ turn increments on the pressure wheel adjusting nut that is located on the bottom of the pressure wheel assembly. Once the tractor wheels do not slip, adjust the pressure wheel adjusting nut $\frac{1}{2}$ turn for the final setting.

▲IMPORTANT NOTE: Adjusting the pressure wheel spring too tight will cause premature wear of the green poly material on the pressure wheel. Follow instructions above for correct setting. See page 12 for pressure wheel assembly.



6.2.1 Diagram of Tractor Pressure Wheel Spring

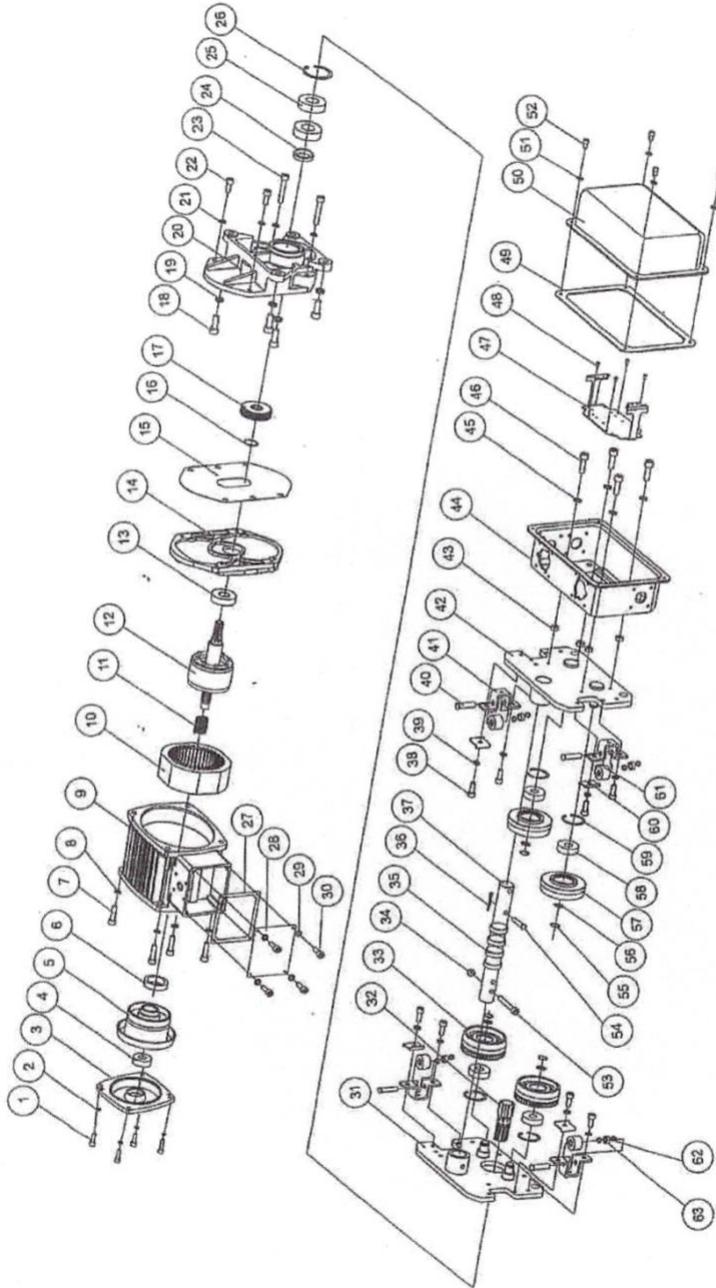


6.2.2 3D Model of Starke I-Drive on a Beam

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7.0 Part Lists & Diagrams

7.1 Electric Trolley Assembly Drawing



*See page 12 for the pressure wheel assembly

7.2 Electric Trolley Part List

Drawing No.	Part Description
1	Socket Head Cap Screw
2	Lock Washer M6
3	Motor End Cover
4	Ball Bearing 6202
5	Brake Assembly
6	Rubber Circlip
7	Socket Head Cap Screw
8	Lock Washer
9	Motor Shell
10	Stator
11	Spring
12	Rotor Assembly
13	Deep Groove Ball Brg
14	Motor Bottom Plate
15	Motor Bottom Plate Gasket
16	Circlip
17	Gear
18	Socket Head Cap Screw
19	Spring Washer
20	Gearbox
21	Spring Washer
22	Socket Head Cap Screw
23	Socket Head Cap Screw
24	Seal
25	Bearing
26	Snap Ring
27	Side Plate Gasket
28	Side Plate
29	Lock Washer
30	Socket Head Cap Screw
31	Side Plate Assem.
32	Splined Gear Shaft
33	Geared Drive Wheel
34	Lock Nut
35	Adjusting Spacer
36	Cotter Pin
37	Trolley Pin
38	Socket Head Cap Screw

7.2 Electric Trolley Part List (Cont.)

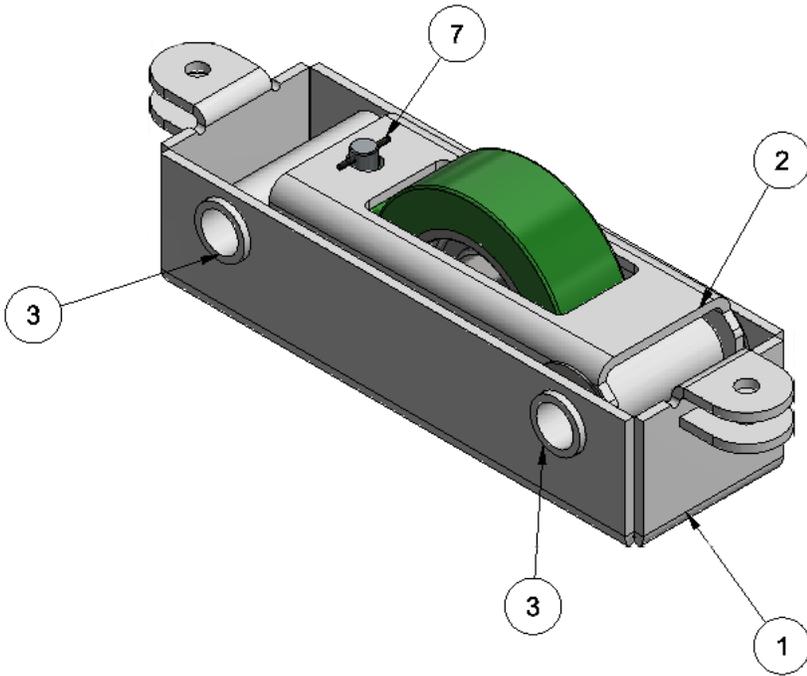
Drawing No.	Part Description
39	Lock Washer
40	Auxiliary Wheel Shaft
41	Auxiliary Wheel Bracket
42	Trolley Sub Plate Assem.
43	Gasket
44	Control Case
45	Lock Washer
46	Socket Head Cap Screw
47	Wire Connection Bracket
48	Screw
49	Control Case Gasket
50	Control Case Cover
51	Lock Washer
52	Socket Head Cap Screw
53	Socket Head Cap Screw
54	Trolley Shaft Dowel Pin
55	Circlip – Shaft
56	Trolley Wheel Washer
57	Trolley Wheel – Idler
58	Ball Bearing
59	Circlip – Bearing Retainer
60	Aux Wheel Retainer Bracket
61	Auxiliary Wheel
62	Washer – Auxiliary Wheel
63	Bearing – Auxiliary Wheel

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7.3 Pressure Wheel Assembly

I-Drive PN: 600-46050

This part only comes as an assembly. Parts not sold separately.

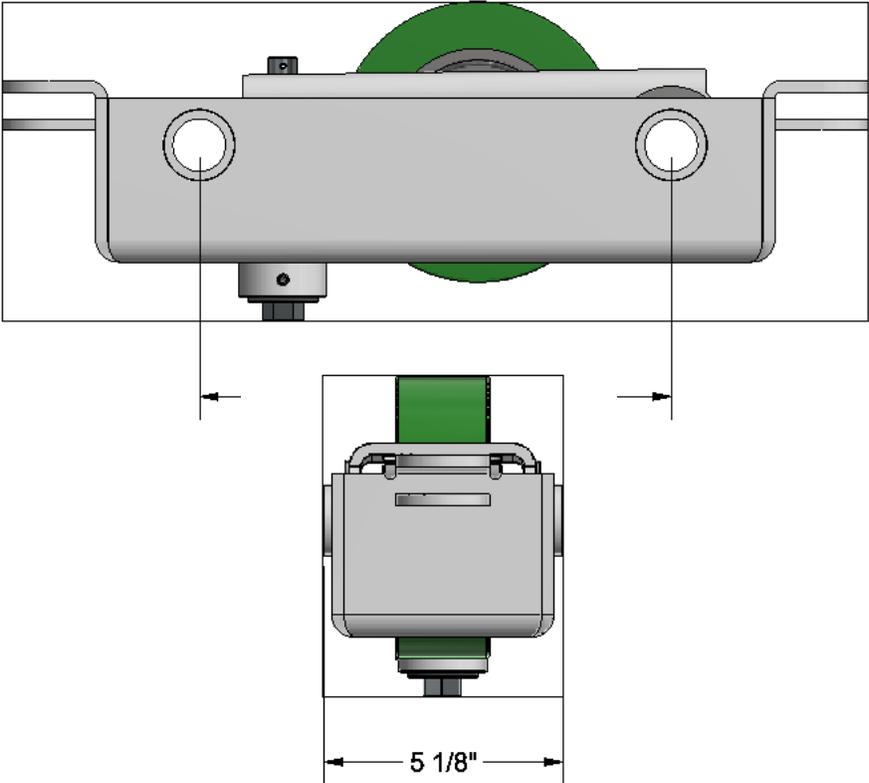
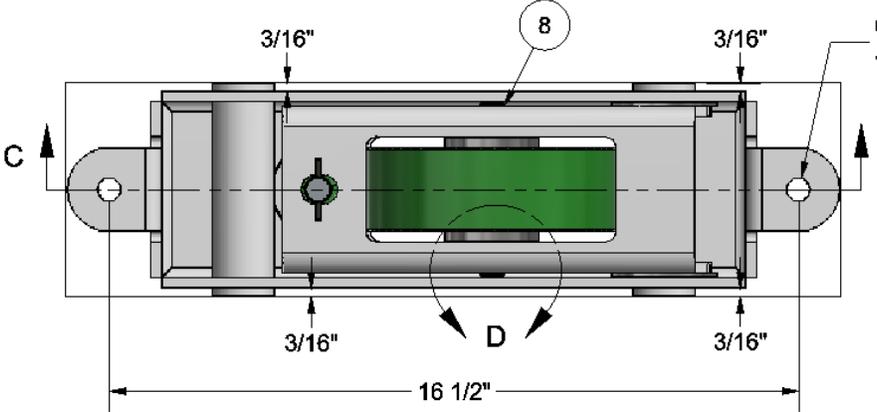


7.4 Pressure Wheel Assembly Part List

Drawing No.	Part Description
1	Main Frame
2	Wheel Frame
3	Bushing
7	Spring Tensioner Pin

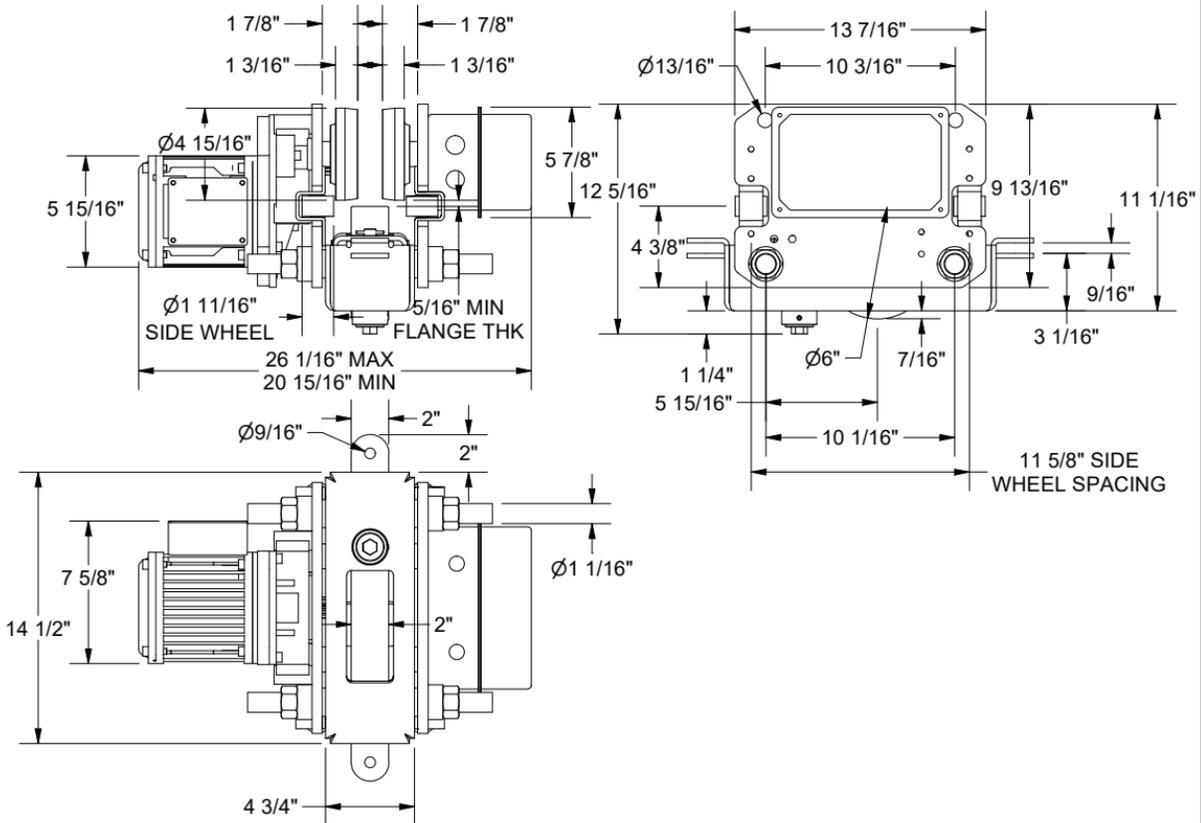
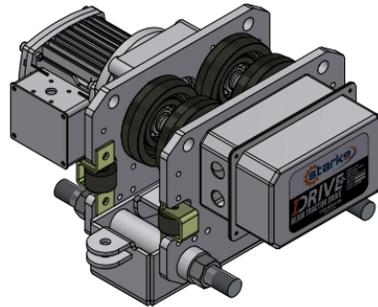
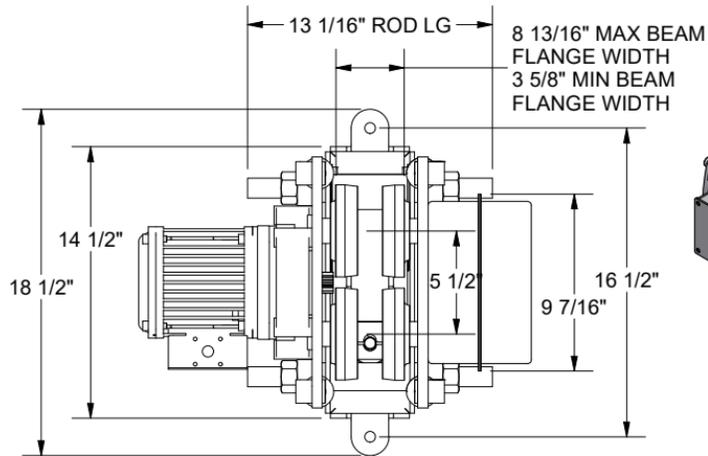
8.0 Product Drawings & Dimensions

8.1 Trolley Wheel Dimensions



8.2 Trolley Dimensions

TOTAL WT.# 143



PAGE
1 OF 1

DRAWING:
I-DRIVE BEAM TRACTOR DRIVE
SBT30VS

TOLERANCES (U.N.O.):
DIMENSIONS: ±1/8"
ANGLES: ± 0.2°
MACHINING: ± 0.01"



9.0 Flange Width Adder

SKU	Cap	Flange Range
SMT30FW12	3 Ton	8" – 12"
SMT30FW16	3 Ton	12" – 16"

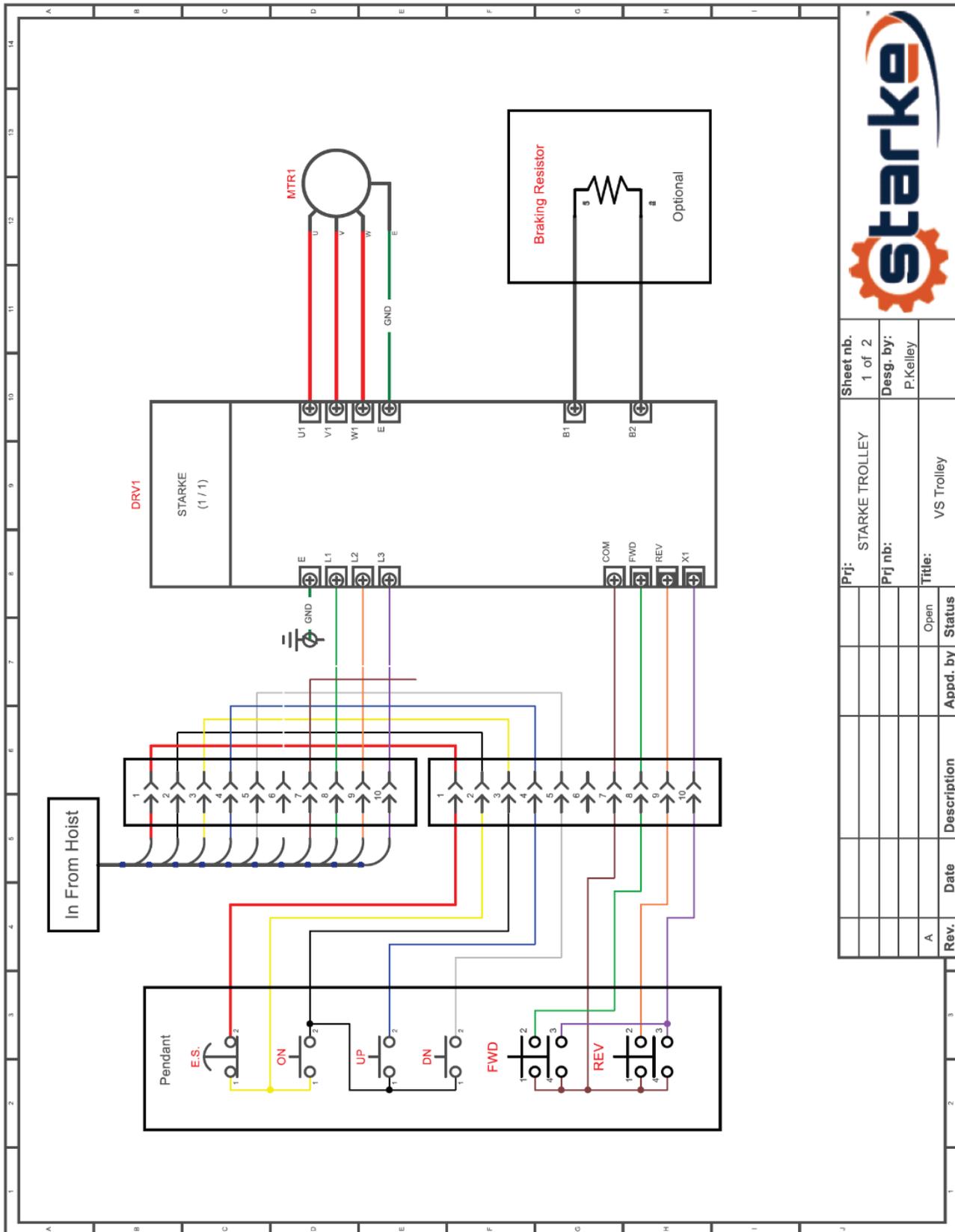
10.0 VFD Information

For more detailed information on VFD visit this link below:

https://files.danfoss.com/download/Drives/doc_MG02B622.pdf

Any alterations to VFD programming may adversely affect unit operational performance and potential safety issues. Before attempting any alterations, please contact your Starke representative.

11.0 Wiring Diagram



Rev.	Date	Description	Appd. by	Status
A				Open

Prj:	STARKE TROLLEY	Sheet nb.	1 of 2
Prj nb:		Desg. by:	P.Kelley
Title:	VS Trolley		



Starke Products Warranty

1 Year (12 Month) Parts & Labor Warranty

Unless otherwise specified, Starke guarantees that our products are free from material defects in design and workmanship under normal use, proper maintenance, and service.

This warranty is strictly limited to 12 months for single shift operation or 2,000 hours after installation, or 14 months after shipment, whichever is shorter. Within ten days after defect is found, warrantee must deliver a written notice to Starke providing defect information. All requested warranty information must be received promptly by Starke in no more than 5 business days.

Customer is responsible for all shipping charges on returned/warrantable items. Starke will cover the repair (parts and labor) at no charge or provide a replacement item at Starke's discretion.

This warranty does not cover defects or damage caused by acts of God, unusual wear and tear, improper use, or improper maintenance by the user. No responsibility for consequential damage is expressed or implied, and the responsibility under this warranty/guaranty is limited to the repair or replacement of the defective materials. Repair or replacement of the item is fully at the discretion of Starke.

ALL OTHER REPRESENTATIONS, EXPRESS OR IMPLIED, WARRANTY, OR LIABILITY RELATING TO THE CONDITION OR USE OF THE PRODUCT ARE SPECIFICALLY DISAVOWED, AND IN NO EVENT SHALL STARKE BE LIABLE TO BUYER, OR ANY THIRD PARTY, FOR ANY DIRECT OR INDIRECT CONSEQUENTIAL OR INCIDENTAL DAMAGES

STARKE

Starkeamerica.com/contact-us/



Contact Your Starke Representative for More Information on Products to Help Maximize Your Workplace Efficiency



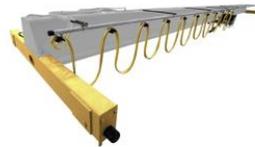
Hoists & Trolleys



Crane Components



Electrification



Crane Kits



Slings



Safety