Stewart-Haas Racing is the title-winning NASCAR Sprint Cup Series team co-owned by three-time Sprint Cup champion Tony Stewart and Gene Haas. The team fields three entries in the elite Sprint Cup Series – the No. 14 Bass Pro Shops/Mobil 1 Chevrolet for Stewart, the No. 39 Quicken Loans Chevrolet for 2013 Brickyard 400 winner Ryan Newman, and the No. 10 GoDaddy.com Chevrolet for Danica Patrick.

Stewart-Haas Racing is headquartered in Kannapolis, North Carolina. Its 140,000-square-foot state-of-the-art facility is home to its research and development, assembly and testing centers.
“We converted over to the Shopstar because of speed, dependability, and the braking system; it made our process much more efficient by switching over.”

— Greg Zippadelli, Competition Director, Stewart-Haas Racing
**BACKGROUND**

Spurred by the growing concern of driver safety, NASCAR introduced the “Car of Tomorrow” (CoT) in 2007. The CoT concept of “common templates” restricted racing teams to build their cars to conform to the same package of bodywork and chassis designs. With the debut of the GEN-6 cars in 2013, NASCAR has allowed some design latitude, but racing teams must still build their cars based on the specifications and guidelines set by NASCAR.

From CoT to GEN-6, NASCAR-regulated design templates are used to ensure that each car adheres to strict tolerances. During the concept and construction process, shops use these large aluminum templates to make sure each car is meeting the requirements. This means repetitive lowering, raising and precision positioning of the car-size template over and onto the car itself.

**THE CHALLENGE**

In the past, shop crews at Stewart-Haas Racing used a common electric wire rope winch mounted to a mobile A-frame gantry to lift and position the templates. The crew had to raise the template, roll the gantry with the template into the work area, position it over the car, and then lower the template onto the car. After checking for tolerances, the template was raised and then rolled away from the car so the crew could continue their work. The slow lifting speed of the winch made this process even more arduous.

In addition, a serious concern was the winch’s unreliable brake which increased the risk of injury to the operator and potential damage to the car and delicate template.

“We could not get away from the [winch’s] abruptness of how it lowered the template down on the car. The potential of damaging a brand new car, or brand new pieces that we’re putting on cars, were very high with the old-style system,” says Todd Frazier, Shop Foreman at Stewart-Haas Racing.

**THE SOLUTION**

Stewart-Haas Racing installed an overhead crane system in their primary garage. The system features (6) six CM Shopstar electric chain hoists with 250 lb. capacities and 20 feet of lift. The hoists are paired over 3 car assembly areas for the primary purpose of positioning NASCAR design templates onto cars under construction. Unlike the wire rope winch, the Shopstar features a dual braking system to ensure the load will hold. This improved operator confidence and safety while protecting the delicate template and valuable car.

The H4 duty cycle motor of the Shopstar and its 16 ft/minute lifting speed means that the repetitive lowering and raising can be accomplished quicker. “We use the Shopstar to lift the templates off the car. It’s something that has to happen quickly, efficiently, and quite often,” states Greg Zippadelli, Competition Director at Stewart-Haas. “When we’re templating cars, we’ll be lifting them, looking at what we need to adjust, working on it and putting it right back down. So, this makes our job a lot easier, has sped up our process significantly, and you know in racing that’s what matters.”

Stewart-Haas Racing also uses one (1) 500 lb. capacity CM ShopStar in their Research and Development Area where the next championship car will be conceived.
STEWART-HAAS RACING
INSTALLATION SUMMARY

PRIMARY GARAGE:
SIX CM SHOPSTAR ELECTRIC CHAIN HOISTS
250 LB. CAPACITIES

RESEARCH & DEVELOPMENT AREA:
ONE CM SHOPSTAR ELECTRIC CHAIN HOIST
500 LB. CAPACITY

All application photography used with permission from Stewart-Haas Racing.
With capacities up to 1,000 lbs. and its compact design, the CM ShopStar electric chain hoist is ideal for commercial and industrial applications.

- H4 Duty Cycle (300 motor starts/hour)
- Standard Protector Overload Device
- 10 Pocket Lift Wheel
- Epoxy Powder Coat Finish
- Dual Braking System - D.C. Plus Regenerative
- Rugged Cast Aluminum Alloy Frame
- 5:1 Design Factor

LIFETIME WARRANTY

USA

Phone (800) 888.0985 • Fax: (716) 689.5644 • www.cmworks.com